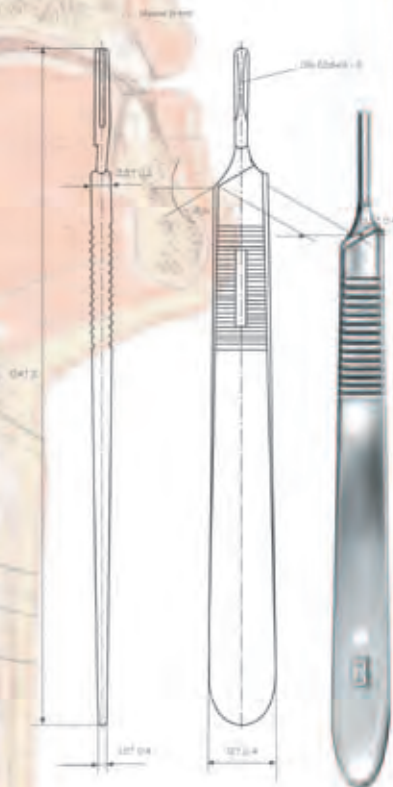
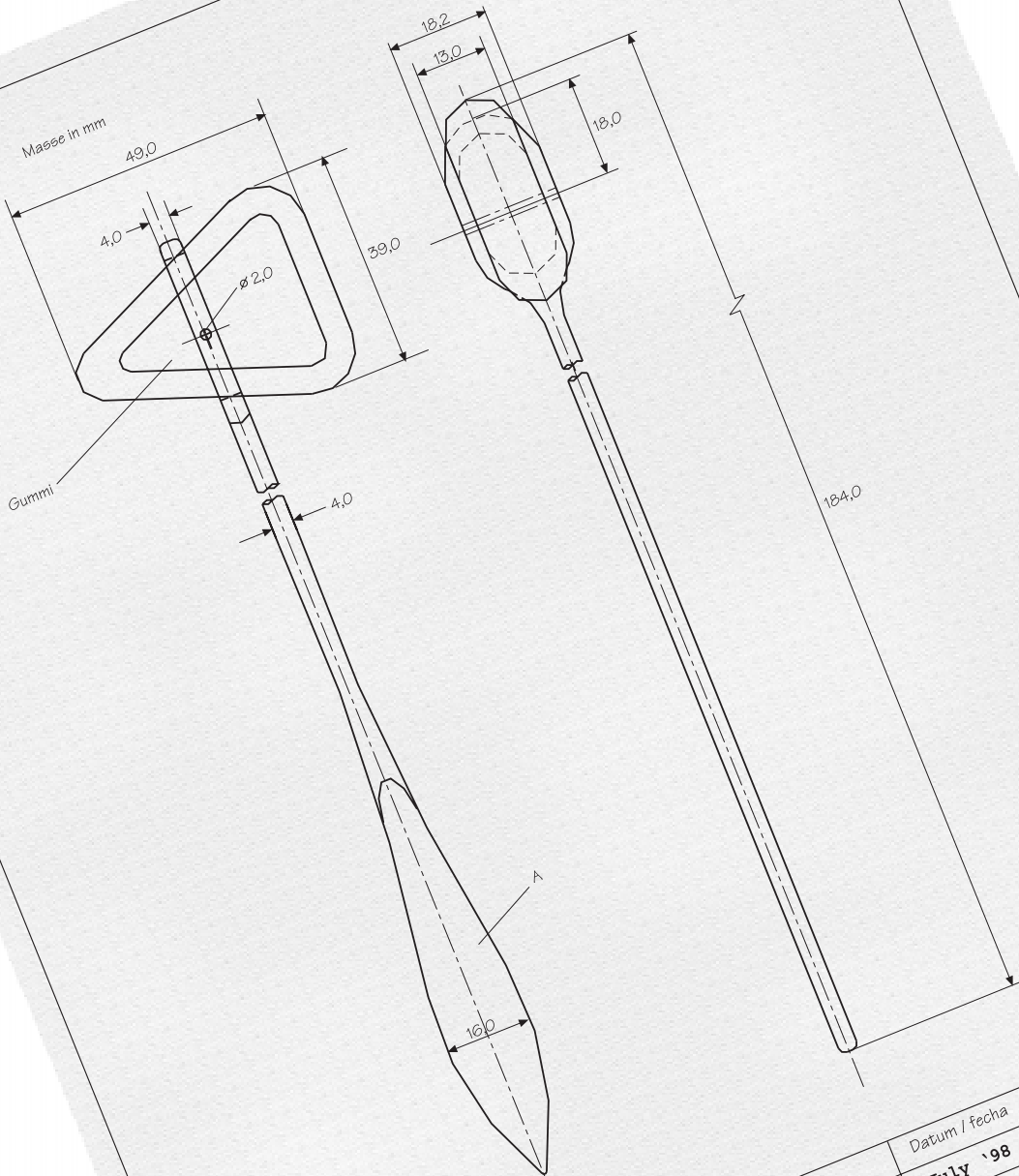
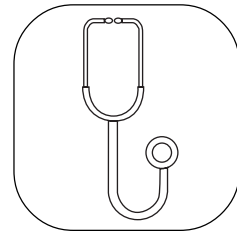




# DEWIMED®

General Catalogue  
Catálogo General  
Generalkatalog





F	GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
	Stainless Steel	gezeichnet / dibujado	July '98	cvd/jvd	1
	inoxidable	geprüft / verificado	July '98	cvd	Maaßstab / escala 1:1
		Toleranz / tolerancia	June '99	mj	Abt. / acot. mm
					Artikel / artículo
					Artikel-Nr. / No. de artículo





02.102.00  
*complete*



02.110.00  
*economic*  
02.112.00  
*complete*



02.122.00  
*complete*



02.132.00  
*complete*



**COLLIN**  
02.140.01  
*adult*  
02.140.02  
*child*



**FRANCKE**  
02.145.00



02.147.00



**VARIFOCAL**  
02.160.00  
**MAY**  
02.162.00



02.170.00  
*combination*



02.172.00  
*universal*  
02.173.00  
*economic universal*



02.174.00  
*otoscope*



**head lights**



**ZIEGLER**  
02.180.90  
*complete*

02.180.91



02.180.92



**CLAR**  
02.190.00  
*complete*  
6V



02.190.01



**CLAR**  
02.190.02  
complete  
3V



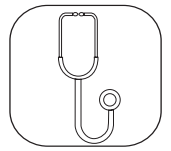
**RI-CLAR**  
02.191.00  
complete, 7v  
with AC-adapter 110 v  
headmirror 100 mm  
02.192.00  
complete, 7V  
with AC-adapter 220 v  
headmirror 100 mm



**CLAR**  
02.195.00  
complete  
6V



02.195.01  
mirror replacement only  
02.195.02  
head band replacement only



**CLAR**  
02.195.03  
complete  
3V



**RI-CLAR**  
02.196.00  
complete 7V  
with AC-adapter 110 v  
headmirror 55mm  
02.197.00  
complete, 7v  
with AC-adapter de 220 v  
headmirror 55 mm



02.199.06  
6V



**BOWLES**  
02.240.00



**FORD**  
02.242.00



**FORD BOWLES**  
02.244.00



**DUPLEX**  
02.246.00



**PINARD**  
02.260.15  
*aluminium*  
15 cm



**PINARD**  
02.262.18  
*wood*  
18 cm



**DE LEE HILLIS**  
02.280.00



cm

17	02.288.17
20	02.288.20

**TAYLOR**



**TRAUBE**  
02.290.16



**BABINSKY**  
02.292.22  
22 cm



**TROEMNER**  
02.294.24  
24 cm





**DEJERINE**  
02.302.20



**DEJERINE**  
02.304.20



**BERLINER**  
02.306.17



**BUCK**  
02.308.18



**BERTILLON**  
02.310.01  
*cephalometer*



**MOELTGEN**  
02.312.01  
*goniometer*



02.318.00



02.318.02



**WARTENBERG**  
 02.320.19  
*pinwheel*  
 19 cm

**rulers, metal**



02.340.10 - 02.340.50

10 cm / 4 "	02.340.10
15 cm / 6 "	02.340.15
20 cm / 8 "	02.340.20
25 cm / 10 "	02.340.25
30 cm / 12 "	02.340.30
40 cm / 16 "	02.340.40
50 cm / 20 "	02.340.50



15 cm



02.350.15  
 150 cm



02.352.15  
 150 cm





## ANDREAS VESALIUS

1514 -1564

A huge contribution to medical science, specially to surgery science is thanks to the first scientific anatomist Andreas Vesalius.

Andreas Vesalius was born in Brussels, Belgium in 1514. He studied medicine in Paris 1533 and obtained his doctorate 1537 in Padua.

Being still a student, Vesalius was very dedicated to the detailed dissection of bodies and made exact illustrations and descriptions about his discoveries.

His great piece of work "Humanis Corporis Fabrica", in which he publishes his first anatomic atlas, eliminates many of the errors about the human body which were common in those days.

Toda la ciencia médica, y en particular la cirugía está en deuda con el primero de los anatomistas científicos, Andreas Vesalius. Nació en Bruselas, Bélgica en 1514.

Cursó sus estudios de medicina en París en 1533.

Obtiene su doctorado en Padua en 1537.

Siendo estudiante de medicina, comenzó a hacer disecciones detalladas y precisas de anatomía humana junto con sus descripciones cuidadosas e ilustraciones realistas. Con su gran obra "Humanis Corporis Fabrica", en la cual publica su primer atlas de anatomía, emendó muchos errores que por mil años se habían pasado por alto.



"Humanis Corporis Fabrica"

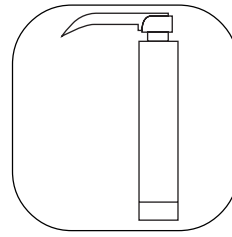
Ein großer Beitrag in der medizinischen Wissenschaft, insbesondere in der chirurgischen, ist dem ersten wissenschaftlichen Anatom Andreas Vesalius anzuerkennen.

Andreas Vesalius ist 1514 in Brüssel, Belgien geboren.

Sein medizinisches Studium hat er 1533 in Paris absolviert und erhielt 1537 in Padua seinen Dokortitel.

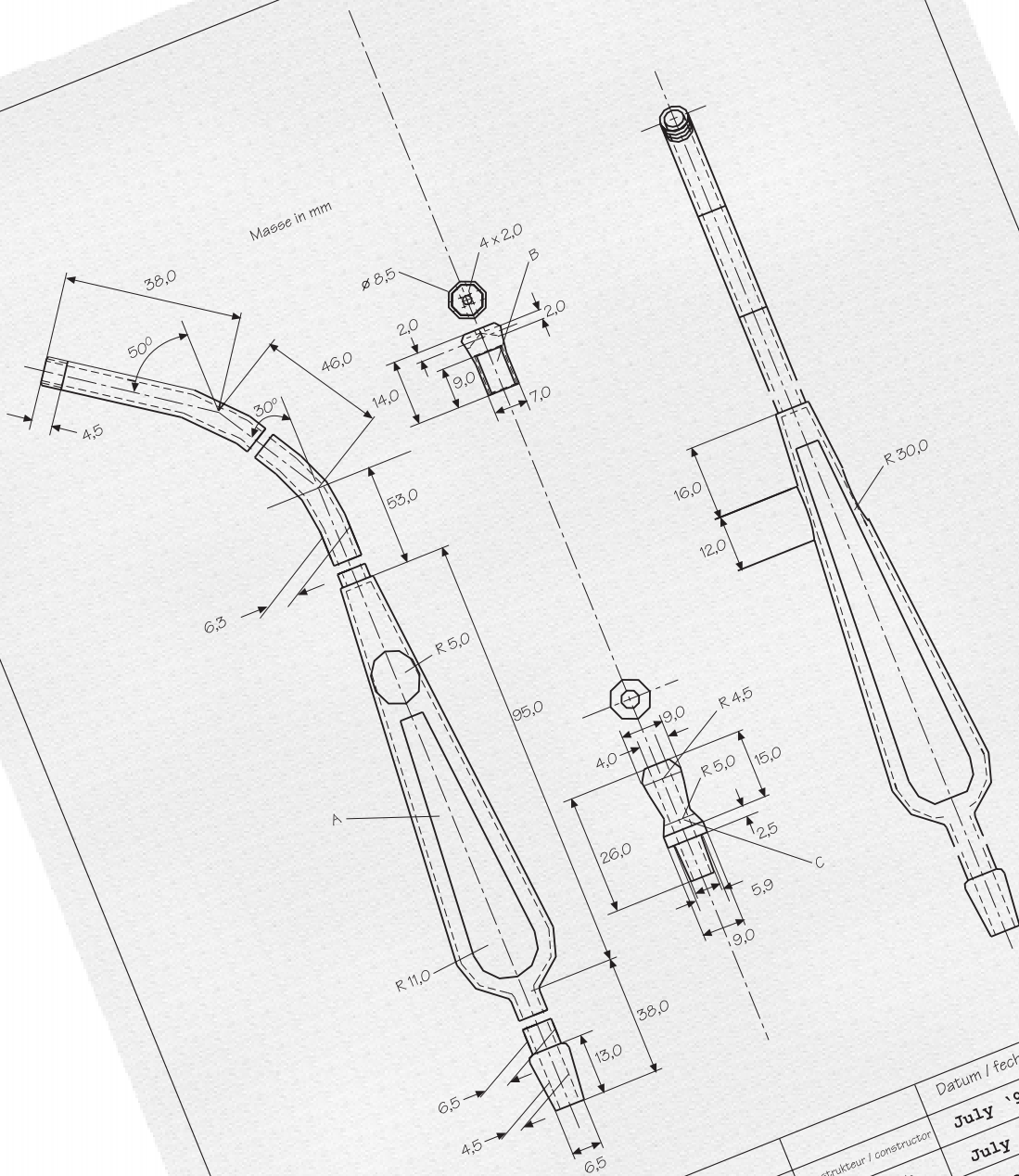
Schon als Student beschäftigte sich Vesalius mit der detaillierten Sezierung von menschlichen Körpern und den dazugehörigen genauen Abbildungen und Beschreibungen.

Sein großes Werk "Humanis Corporis Fabrica", in dem er seinen ersten anatomischen Atlas veröffentlicht, hat viele Fehler der damaligen Erkenntnisse über den menschlichen Körper (Galenische Theorien) behoben.



# 04

Anesthesia  
Anestesia  
Anaesthesia



GENERAL CATALOGUE		Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
F		gezeichnet / dibujado	July '98	cvd/jvd	1
F		geprüft / verificado	July '98	cvd	Maasstab / escala 1:1
		Toleranz / tolerancia	June '99	mj	Abt. / acot. mm
					Artikel / artículo
					Artikel-Nr. / No. de artículo

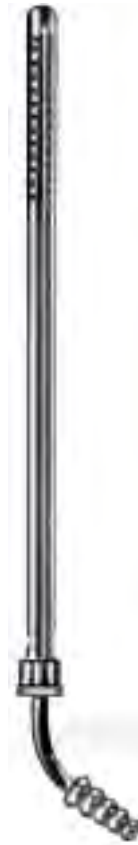




**ANTHONY**  
04.120.02  
2 mm  
04.120.03  
3 mm



**POOLE**  
04.130.10  
ø 10 mm  
30 Fr.



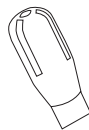
**POOLE**  
04.140.08  
ø 8 mm  
23 Fr.



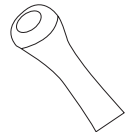
**YANKAUER**  
04.150.27  
27 cm



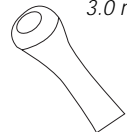
**DE BAKEY**  
04.154.27



**MAGILL**  
04.155.99  
stylet for aspiration  
tubes



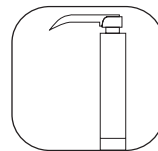
04.155.30  
3.0 mm



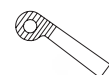
04.155.35  
3.5 mm



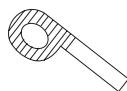
04.155.40  
4.0 mm



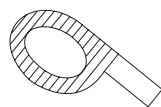
**MILLIN**  
04.157.00



04.190.17  
17 cm



04.190.20  
20 cm



04.190.25  
25 cm

**MAGILL**  
04.190.17 - 04.190.25



**McINTOSH**

set / 3	04.203.00
set / 3 c.l.	04.203.01
set / 4	04.204.00
set / 4 c.l.	04.204.01





fig. 0



fig. 1



fig. 2



fig. 3



fig. 4

### McINTOSH

	cm	normal	cold light
fig. 0	5.5	04.210.00	04.211.00
fig. 1	7.5	04.210.01	04.211.01
fig. 2	9.0	04.210.02	04.211.02
fig. 3	11.0	04.210.03	04.211.03
fig. 4	13.5	04.210.04	04.211.04



fig. 0



fig. 1



fig. 2



fig. 3

### FOREGGER

	cm	
fig. 0	7.0	04.220.01
fig. 1	9.0	04.220.02
fig. 2	11.0	04.220.03
fig. 3	13.5	04.220.04



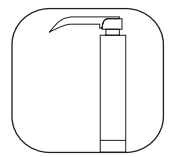
### FOREGGER

04.223.00

fig 2 - 4

04.224.00

fig 1 - 4



**GUEDEL NEGUS**  
04.224.01



**GUEDEL NEGUS**  
04.224.02



**MILLER**  
04.225.00  
*laryngoscope set*



**MILLER**  
04.226.00 - 04.226.04

	mm	
fig. 0	55	04.226.00
fig. 1	80	04.226.01
fig. 2	130	04.226.02
fig. 3	170	04.226.03
fig. 4	180	04.226.04



ø mm

28	04.234.28
37	04.234.37



**cold light**  
04.238.01



04.239.01



04.239.02



04.240.00





## ETHER

Throughout history of medicine, many substances or preparations have been found to alleviate the pain involved in surgical procedures.

Ether ( $\text{CH}_3, \text{CH}_2)_2\text{O}$ , was discovered in 1275 by the Spanish chemist Raymundus Lullius, he called it "Sweet Vitriol".

In 1540 the Swiss physician and alchemist Paracelsus discovered the hypnotic effects of "Sweet Vitriol".

W. G. Frobenius changes in 1730 the name of "Sweet Vitriol" to "Ether".

The first surgical anesthetic use of ether is credited to Dr. Crawford Williamson Long. He used ether for minor surgery.

Dr. Long did not publish his results until 1848, but this was well after Morton W.G.T.'s demonstration.

The first successful demonstration of ether anesthesia occurred at the Massachusetts General Hospital on October 16, 1846 administered by Morton.



Im Verlauf der Medizingeschichte wurden viele Substanzen und Präparate zur Linderung von Schmerzen bei Chirurgen angewendet. Die Substanz Äther ( $\text{CH}_3, \text{CH}_2)_2\text{O}$  wurde 1275 von Raymundus Lullius entdeckt. Der spanische Alchemist nennt diese Substanz "Süßes Vitriol". 1540 erforschte der schweizer Physiker und Alchemist Paracelsus die hypnotische Wirkung des "Süßen Vitriol".

W.G. Frobenius, deutscher Wissenschaftler, taufte 1730 das "Süße Vitriol" auf "Äther" um.

Der erste Anwender von Äther als Anästhesiemittel war Dr. Crawford Williamson Long. Er wandte es bei kleineren Operationen an. Long veröffentlichte seine Resultate erst im Jahre 1848, lange Zeit nach der ersten erfolgreichen Demonstration von W.T.G. Morton.

W.T.G. Morton applizierte erfolgreich Äther als Betäubungsmittel am 16. Oktober 1846 im General Hospital of Massachusetts.

A través de la historia de la medicina, se han aplicado diferentes tipos de sustancias o preparaciones para aliviar el dolor ocasionado en procedimientos quirúrgicos.

El éter ( $\text{CH}_3, \text{CH}_2)_2\text{O}$  fue descubierto en 1275 por Raymundus Lullius. Un alquimista español que denominó la sustancia descubierta "Vitriolo Dulce".

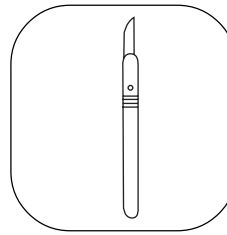
En 1540 Paracelsus, físico y alquimista suizo, descubre los efectos hipnóticos del "Vitriolo Dulce".

Es hasta en 1730, que el científico alemán W.G. Frobenius cambia el nombre de "Vitriolo Dulce" a "éter".

La primera aplicación anestésica del éter en cirugía fue hecha por Dr. Crawford Williamson Long. Usaba éter en cirugías menores. No publicó sus resultados hasta en 1848.

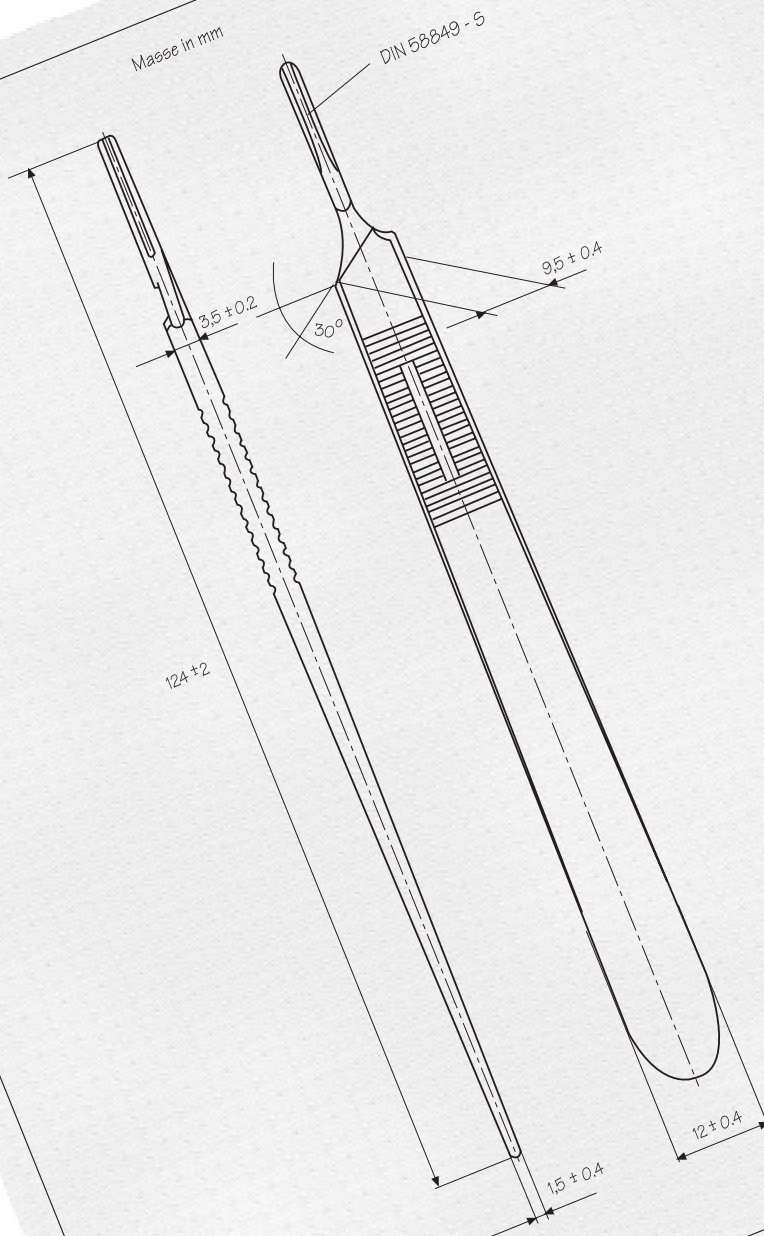
Sin embargo esto fue tiempo después de la demostración de W.T.G. Morton.

La primera demostración exitosa en la aplicación de éter como anestesia fue en el Hospital General de Massachusetts el 16 de octubre de 1846 administrado por Morton.



# 06

**General Surgery**  
**Cirugía General**  
**Allgemeine Chirurgie**



F	GENERAL CATALOGUE	Konstrukteur / constructor	July '98	Name / nombre	Plan / plano
		gezeichnet / dibujado	July '98	cvd / jvd	1
		geprüft / verificado	June '99	cvd	Maaetab / escala 1:1
		Toleranz / tolerancia		mj	Abt. / acot. mm
	Stainless Steel inoxidable				Artikel / artículo
					Artikel-Nr. / No. de





06.103.00  
fig. 3



06.103.01  
fig. 3  
graduated



06.103.02  
fig. 3 L



06.103.03  
fig. 3 R



06.104.00  
fig. 4



06.104.02  
fig. 4 L



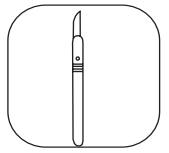
06.105.00  
fig. 5  
06.107.00  
fig. 7



06.107.01  
fig. 7 K



06.108.00  
fig. 8



in packages of 100 ea



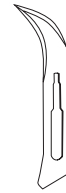
06.110.00



06.111.00



06.112.00



06.112.02



06.113.00



06.114.00



06.115.00



06.115.01



06.116.00



06.117.00



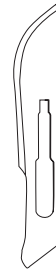
06.118.00



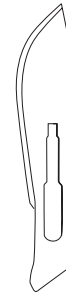
06.119.00



06.120.00



06.121.00



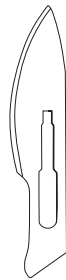
06.122.00



06.123.00



06.124.00



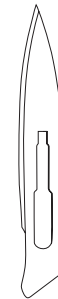
06.124.02



06.125.00



06.134.00



06.136.00



06.136.02



06.210.00 - 06.215.01  
in packages of 10 ea



06.210.00  
fig. 10



06.211.00  
fig. 11



06.212.00  
fig. 12



06.212.02  
fig. 12d



06.213.00  
fig. 13



06.215.00  
fig. 15



06.215.01  
fig. 15c



06.218.00  
fig. 18



06.219.00  
fig. 19



06.220.00  
fig. 20



06.221.00  
fig. 21



06.222.00  
fig. 22



06.223.00  
fig. 23



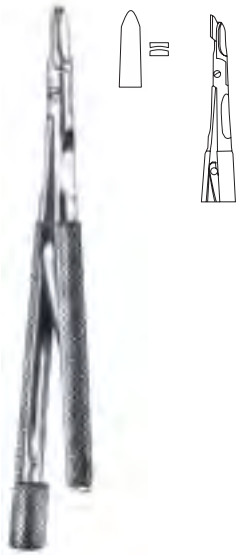
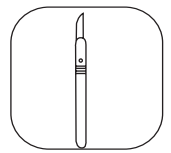
06.224.00  
fig. 24



06.225.00  
fig. 25



06.218.00 - 06.225.00  
in packages of 10 ea



**TROUTMAN CHRIS**  
 06.290.09  
 9 cm



06.291.11  
 11 cm



**CASTROVIEJO**  
 06.294.13  
 13 cm



06.295.00  
 11 cm



06.296.00  
 package of 10 ea



06.302.13

06.304.15

06.306.18

06.308.20





06.408.01 06.408.02

**PARKER**  
06.408.01 - 06.408.02



06.402.01 - 06.402.10



06.402.01



06.402.02



06.402.03



06.402.04



06.402.05



06.402.06



06.402.07



06.402.08



06.402.09



06.402.10



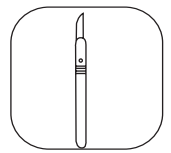
**LANGENBECK**

06.410.05  
resection knife  
length of blade = 5.5 cm  
18 cm



**LANGENBECK**

06.412.05  
resection knife  
length of blade = 5.5 cm  
18 cm



amputating knives



cm

13	06.420.13
16	06.420.16
19	06.420.19
22	06.420.22
28	06.420.28

06.420.13 - 06.420.28



cm

17	06.430.17
20	06.430.20

**LISTON**  
06.430.17 - 06.430.20



**HUMBY**  
06.480.00  
dermatome  
31 cm



**HUMBY**  
06.480.01



**SCHINK**  
06.490.00  
dermatome  
30 cm



06.490.01





06.490.02



06.494.00  
razor



06.496.10  
razor



**ARKANSAS**  
06.499.00  
oil stone  
150 x 50 mm



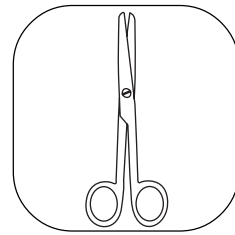
**VIRCHOW**  
06.960.25  
cartilage, brain knife



cm

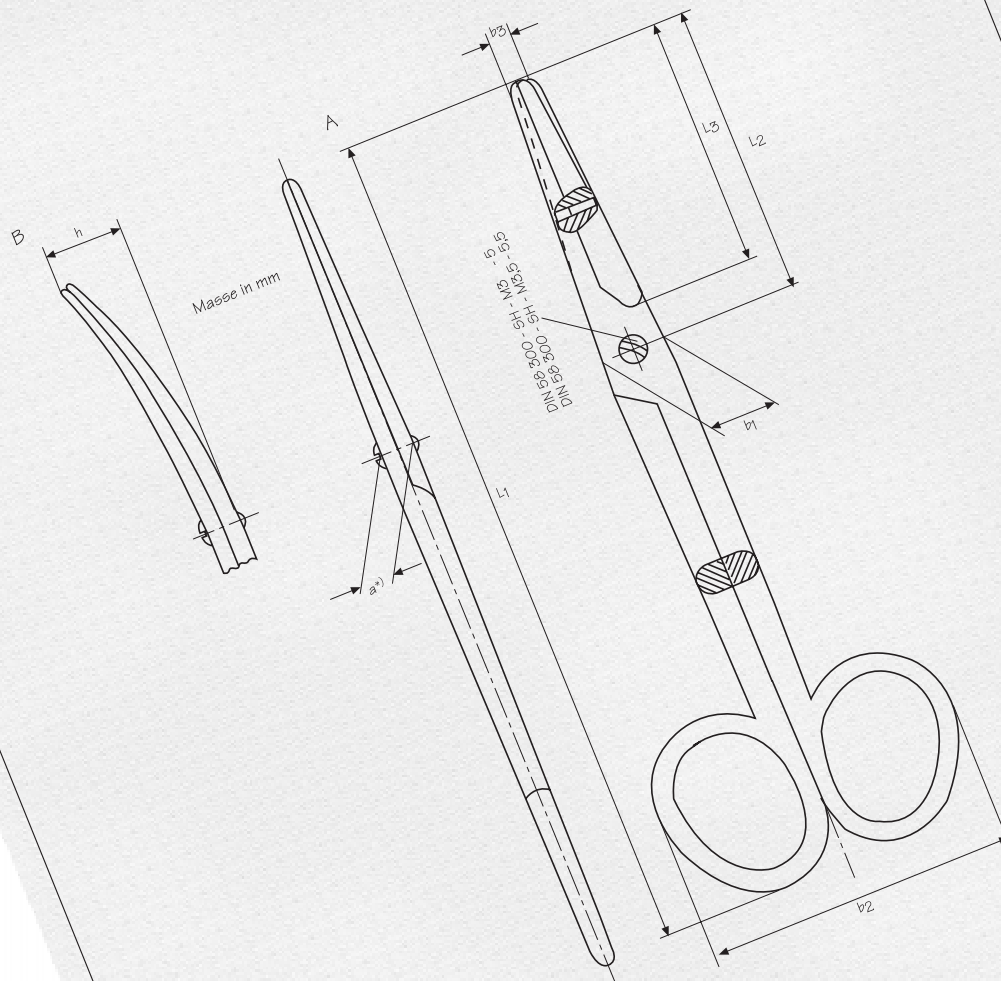
16	06.980.16
20	06.980.20
24	06.980.24

06.980.16 - 06.980.24  
cartilage, brain knife



# 07

**Scissors DewiCut**  
**Tijeras DewiCut**  
**Scheren DewiCut**



	Datum / fecha	Name / nombre	Plan / plano
	July '98	cvd/jvd	1
	July '98	cvd	Maaestab / escala 1:1
	June '99	mj	Abt. / acot. mm
			Artikel / articulo
			Artikel-Nr. / No. de articulo
GENERAL CATALOGUE	Konstrukteur / constructor		
	gezeichnet / dibujado		
	geprüft / verificado		
	Toleranz / tolerancia		
Stainless Steel inoxidable			





## DewiCut



### DewiCut

Excellent cutting efficiency

- Stainless Steel and Tungsten Carbide (TC)
- Extra hardened for lasting performance
- The DewiCut scissor guarantees a fine minimally traumatizing cut

DewiCut Tungsten Carbide (TC)

The Tungsten Carbide inserts are for smooth and controlled cutting  
longlife cutting and solid and soft function.

### DewiCut

Alta eficiencia de corte

- En acero inoxidable y carburo de tungsteno (TC)
- Endurecido para proporcionar al instrumento rendimiento permanente
- Las tijeras DewiCut garantizan un corte fino mínimamente traumatizante

DewiCut carburo de tungsteno (TC)

Los filos de carburo de tungsteno proporcionan corte altamente agudo  
filo duradero y accionamiento suave con corte exacto.

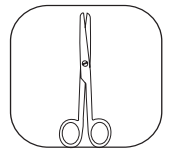
### DewiCut

Optimale Schneidefähigkeit

- Aus Edelstahl und Hartmetall (TC)
- Extra gehärtet für dauerhafte Leistung
- Die DewiCut Schere gewährleistet einen feinen minimal traumatisierenden Schnitt

DewiCut Hartmetall (TC)

Die Hartmetalleinsätze garantieren einen scharfen Operationsschnitt, verlässlichen  
Dauerschleiff und exakten aber weichen Gang.

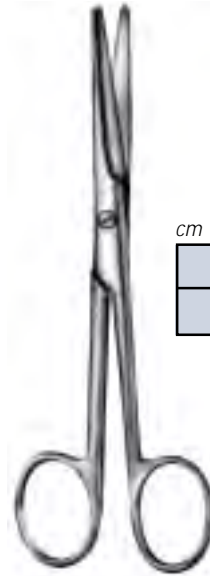


07.110.14



07.111.14

07.110.14 - 07.111.14  
14.5 cm



cm

14.5	07.160.14	07.161.14
17.0	07.160.17	07.161.17

**MAYO**  
07.160.14 - 07.161.17



07.160.23



07.161.23

**MAYO HARRINGTON**  
07.160.23 - 07.161.23  
23 cm



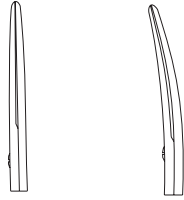
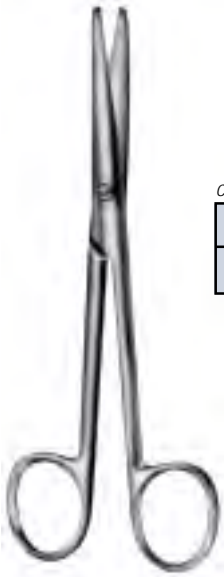
07.164.17 TC



07.165.17 TC

**MAYO**  
07.164.17 TC - 07.165.17 TC  
17 cm





cm

15	07.170.15	07.171.15
17	07.170.17	07.171.17

**MAYO STILLE**  
07.170.15 - 07.171.17



07.174.17 TC



07.175.17 TC

**MAYO STILLE**  
07.174.17 TC - 07.175.17 TC  
17 cm



07.190.16



07.191.16

**LEXER**  
07.190.16 - 07.191.16  
16 cm



**LEXER**  
07.195.16 TC  
16 cm

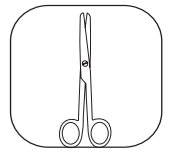


07.280.11



07.281.11

**METZENBAUM baby**  
07.280.11 - 07.281.11  
11.5 cm



cm

15	07.280.15	07.281.15
18	07.280.18	07.281.18
20		07.281.20
23	07.280.23	07.281.23

**METZENBAUM**  
07.280.15 - 07.281.23



cm

15	07.282.15	07.283.15
18		07.283.18
23		07.283.23

**METZENBAUM**  
07.282.15 - 07.283.23



cm

15	07.285.15 TC
18	07.285.18 TC
23	07.285.23 TC

**METZENBAUM**  
07.285.15 TC - 07.285.23 TC



**METZENBAUM**  
07.287.18 TC  
18 cm





07.320.15



07.321.15



### REYNOLDS

07.320.15 - 07.321.15  
15 cm



07.340.11



07.341.11

07.340.11 - 07.341.11  
10.5 cm



07.344.11 TC



07.345.11 TC

07.344.11 TC - 07.345.11 TC  
11.5 cm



07.362.11



07.363.11



### STEVENS

07.362.11 - 07.363.11  
10.5 cm

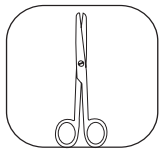


07.374.11 TC



07.375.11TC

07.374.11 TC - 07.375.11 TC  
12 cm



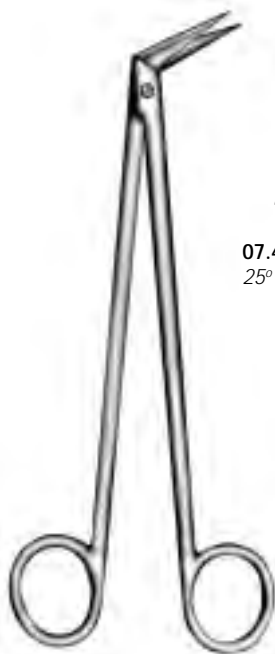
**HEYMANN**  
07.401.18  
17 cm



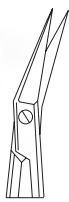
**FOMON**  
07.403.15  
13 cm



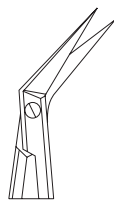
**COTTLE**  
07.405.16  
16 cm



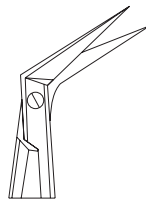
**POTTS SMITH**  
07.480.25 - 07.480.60  
19 cm



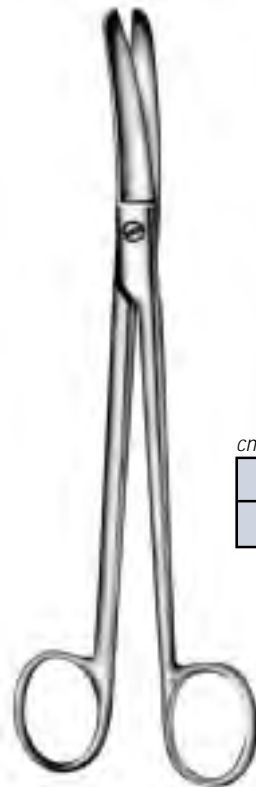
07.480.25  
25°



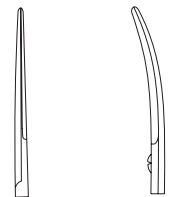
07.480.45  
45°



07.480.60  
60°



**SIMS**  
07.510.20 - 07.511.23



cm		
20	07.510.20	07.511.20
23		07.511.23

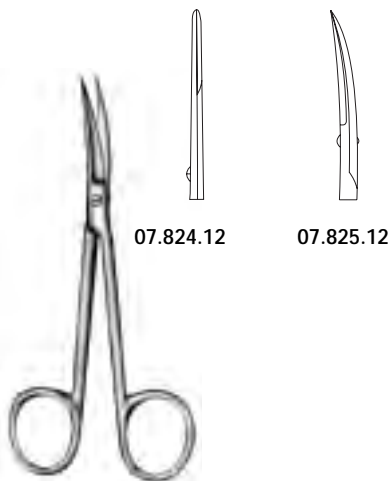




**SIEBOLD**  
07.523.24  
24.5 cm



**BRAUN STADLER**  
07.560.14  
15 cm  
07.560.22  
21 cm



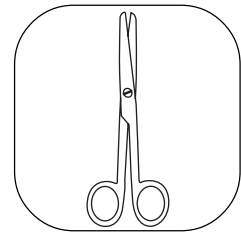
**WAGNER**  
07.824.12 - 07.825.12  
12 cm



cm

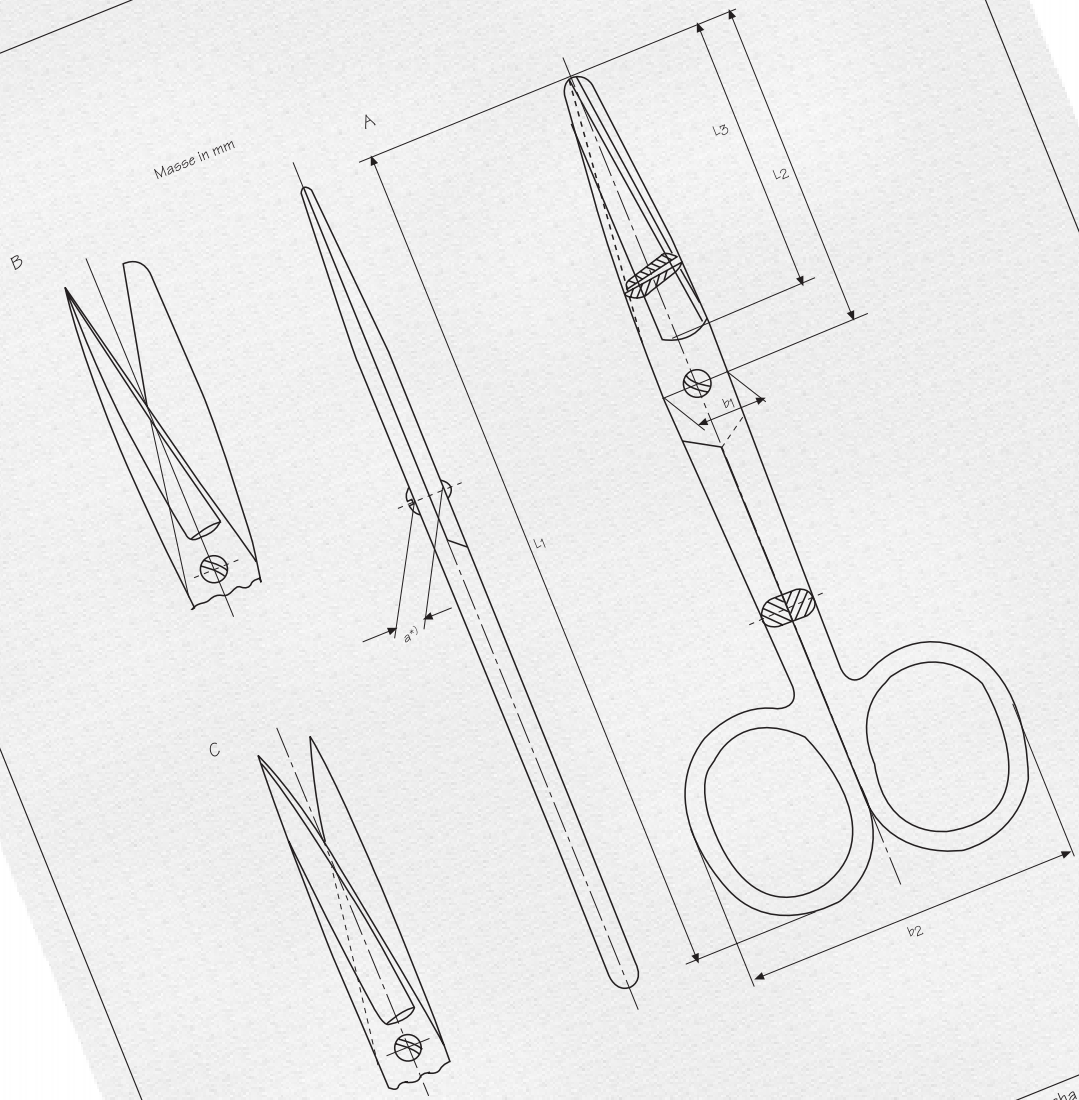
14	07.901.14
18	07.901.18
20	07.901.20

**LISTER**  
07.901.14 - 07.901.20



# 08

**Scissors**  
**Tijeras**  
**Scheren**



Masse in mm

GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
Stainless Steel	gezeichnet / dibujado	July '98	cvd/jvd	Maaetab / escala
Inoxidable	geprüft / verificado	July '98	cvd	Abt. / acot. mm
	Toleranz / tolerancia	June '99	mj	Artikel / artículo
				Artikel-Nr. / No. de artículo





**standard**

08.102.10 - **08.125.18 TC**



cm



10.5	08.102.10	
11.5	08.102.11	08.103.11
13.0	08.102.13	08.103.13
14.5	08.102.14	08.103.14
15.5	08.102.15	08.103.15
16.5	08.102.16	08.103.16
18.5	08.102.18	08.103.18
20.0	08.102.20	08.103.20
14.5 TC	<b>08.104.14 TC</b>	<b>08.105.14 TC</b>
16.5 TC	<b>08.104.16 TC</b>	<b>08.105.16 TC</b>
18.5 TC	<b>08.104.18 TC</b>	<b>08.105.18 TC</b>



cm



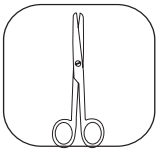
10.5	08.110.10	
11.5	08.110.11	08.111.11
13.0	08.110.13	08.111.13
14.5	08.110.14	08.111.14
15.5	08.110.15	08.111.15
16.5	08.110.16	08.111.16
18.5	08.110.18	08.111.18
20.0	08.110.20	08.111.20
14.5 TC	<b>08.114.14 TC</b>	<b>08.115.14 TC</b>
16.5 TC	<b>08.114.16 TC</b>	<b>08.115.16 TC</b>
18.5 TC	<b>08.114.18 TC</b>	<b>08.115.18 TC</b>



cm



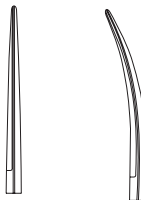
10.5	08.120.10	
11.5	08.120.11	08.121.11
13.0	08.120.13	08.121.13
14.5	08.120.14	08.121.14
15.5	08.120.15	08.121.15
16.5	08.120.16	08.121.16
14.5 TC	<b>08.124.14 TC</b>	<b>08.125.14 TC</b>
16.5 TC	<b>08.124.16 TC</b>	<b>08.125.16 TC</b>
18.5 TC	<b>08.124.18 TC</b>	<b>08.125.18 TC</b>



08.128.14  
14 cm



**DEAVER**  
08.130.14 - 08.151.14  
14 cm



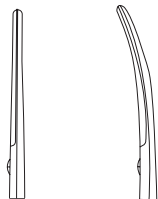
<i>blunt / blunt</i>	08.130.14	08.131.14
<i>sharp / blunt</i>	08.140.14	08.141.14
<i>sharp / sharp</i>	08.150.14	08.151.14
<i>blunt / blunt TC</i>	08.134.14 TC	08.135.14 TC
<i>sharp / blunt TC</i>	08.144.14 TC	08.145.14 TC



**MAYO**  
08.158.17  
17 cm



**MAYO**  
08.160.14 - 08.165.23 TC



cm

14.5	08.160.14	08.161.14
17.0	08.160.17	08.161.17
23.0	08.160.23	08.161.23
14.5 TC	08.164.14 TC	08.165.14 TC
17.0 TC	08.164.17 TC	08.165.17 TC
23.0 TC	08.164.23 TC	08.165.23 TC



**MAYO STILLE**  
08.166.16  
16 cm





cm

15.0	08.170.15	08.171.15
17.0	08.170.17	08.171.17
15.0 TC	08.174.15 TC	08.175.15 TC
17.0 TC	08.174.17 TC	08.175.17 TC

**MAYO STILLE**  
08.170.15 - 08.175.17 TC



08.180.17    08.181.17

**MAYO NOBLE**  
08.180.17 - 08.181.17  
17 cm



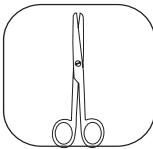
cm

16	08.190.16	08.191.16
21	08.190.21	08.191.21
16 TC	08.194.16 TC	08.195.16 TC
21 TC	08.194.21 TC	08.195.21 TC

**LEXER**  
08.190.16 - 08.195.21 TC



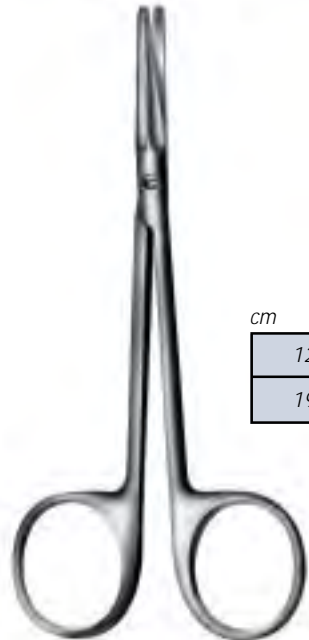
**LEXER**  
08.197.16  
16 cm



cm

10	08.202.10	08.203.10
10 TC	08.206.10 TC	08.207.10 TC

**LEXER baby**  
08.202.10 - 08.207.10 TC  
10 cm



cm

12.5	08.212.12	
19.5	08.212.19	08.213.19

**GORNEY**  
08.212.12 - 08.213.19



cm

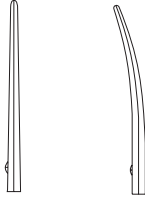
15	08.280.15	08.281.15
18	08.280.18	08.281.18
20	08.280.20	08.281.20
23	08.280.23	08.281.23
25	08.280.25	08.281.25
28	08.280.28	08.281.28
30	08.280.30	08.281.30

**METZENBAUM**  
08.280.15 - 08.281.30





**METZENBAUM**  
08.282.15 - 08.283.23

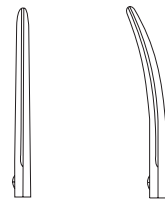


cm

15	08.282.15	08.283.15
18	08.282.18	08.283.18
20	08.282.20	08.283.20
23	08.282.23	08.283.23

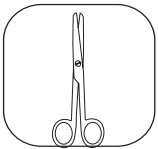


**METZENBAUM**  
08.284.15 TC - 08.285.30 TC



cm

15	08.284.15 TC	08.285.15 TC
18	08.284.18 TC	08.285.18 TC
20	08.284.20 TC	08.285.20 TC
23	08.284.23 TC	08.285.23 TC
25	08.284.25 TC	08.285.25 TC
28	08.284.28 TC	08.285.28 TC
30	08.284.30 TC	08.285.30 TC



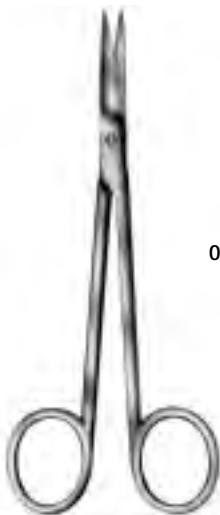
cm

15	08.286.15 TC	08.287.15 TC
18	08.286.18 TC	08.287.18 TC
20	08.286.20 TC	08.287.20 TC
23	08.286.23 TC	08.287.23 TC
25	08.286.25 TC	08.287.25 TC
28	08.286.28 TC	08.287.28 TC

**METZENBAUM**  
08.286.15 TC - 08.287.28 TC

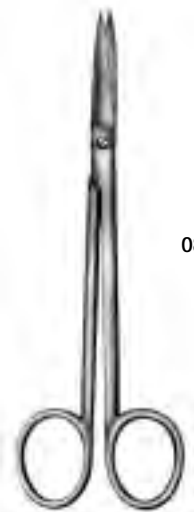


**METZENBAUM**  
08.291.18 - 08.295.18 TC  
18 cm



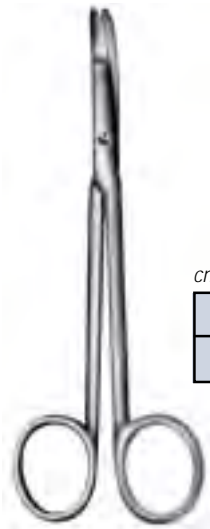
08.302.14 08.303.14

**SANVENERO**  
08.302.14 - 08.303.14  
14 cm



08.304.14 08.305.14

**JOSEPH**  
08.304.14 - 08.305.14  
14 cm  
plastic



cm

12	08.310.12	08.314.12 TC
15	08.310.15	08.314.15 TC

**KILNER**  
08.310.12 - 08.314.15 TC  
plastic

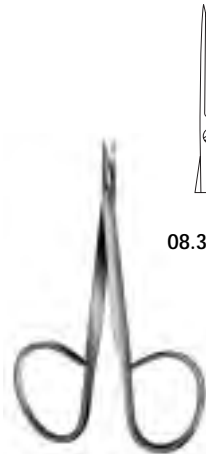
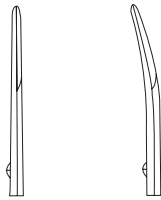


cm

15	08.320.15	08.321.15
18		08.321.18
15 TC	08.324.15 TC	08.325.15 TC

### REYNOLDS

08.320.15 - 08.325.18 TC



08.324.09

08.325.09



### iris

08.324.09 - 08.325.09

9 cm



08.326.10



08.327.10



### iris

08.326.10 - 08.327.10

10 cm



08.328.10



08.329.10



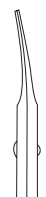
### iris

08.328.10 - 08.329.10

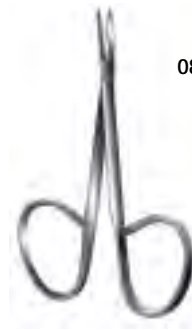
10 cm



08.331.09



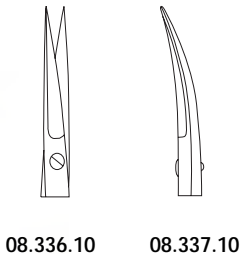
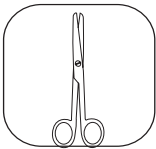
08.333.09



### iris

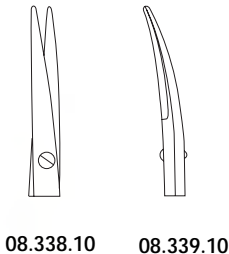
08.331.09 - 08.333.09

9 cm



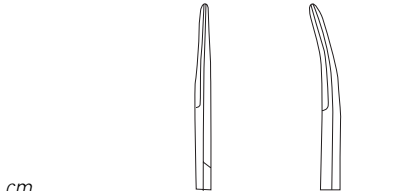
08.336.10    08.337.10

**KNAPP**  
08.336.10 - 08.337.10  
10 cm



08.338.10    08.339.10

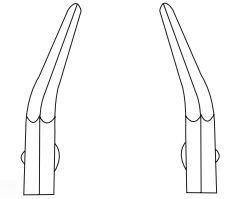
**KNAPP**  
08.338.10 - 08.339.10  
10 cm



cm

9	08.340.09	08.341.09
11	08.340.11	08.341.11
11 TC	08.344.11 TC	08.345.11 TC

**iris standard**  
08.340.09 - 08.345.11 TC



08.349.09    08.347.09  
right    left

**AEBLI**  
08.347.09 - 08.349.09  
9 cm

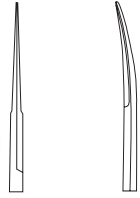




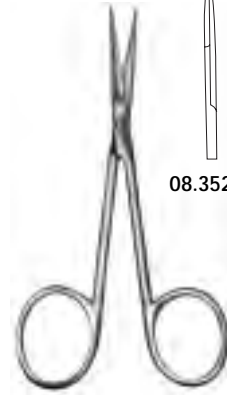
**GRAEFE**  
08.349.11  
10.5 cm



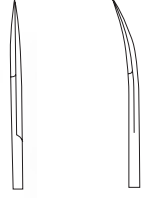
**BONNEYE**  
08.350.08 - 08.351.08  
8 cm



08.350.08 08.351.08



**FIREEYE**  
08.352.11 - 08.353.11  
11 cm



08.352.11 08.353.11



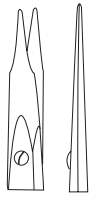
**STEVENS**  
08.360.11 - 08.363.11  
11 cm



08.360.11



08.361.11



08.362.11



08.363.11



**STEVENS**  
08.364.10 - 08.367.10  
10 cm



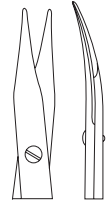
08.364.10



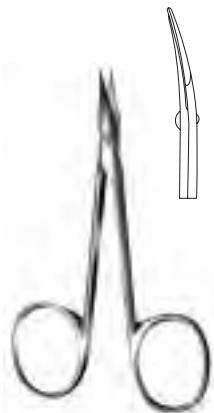
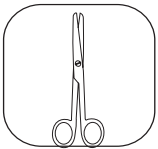
08.365.10



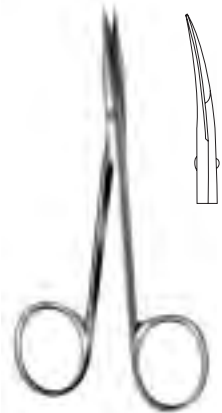
08.366.10



08.367.10



08.369.10  
10 cm



08.369.12  
12 cm



08.370.11  
08.374.11 TC

**strabismus**  
08.370.11 - 08.375.11 TC  
11 cm



08.371.11  
08.375.11 TC



08.381.11



08.383.11

08.381.11 - 08.383.11  
11 cm

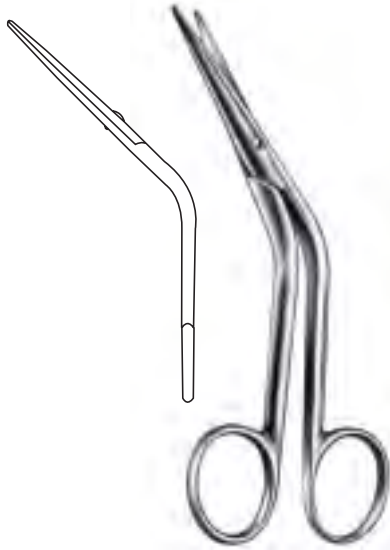


**HEYMANN**  
08.401.18  
18 cm



**FOMON**  
08.403.15  
15 cm





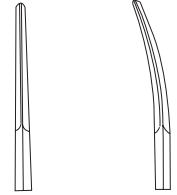
**COTTLE**  
08.405.16  
16 cm



**BEUSE**  
08.420.14 - 08.421.18

cm

14	08.420.14	08.421.14
18	08.420.18	08.421.18



**DEAN**  
08.425.17 - 08.427.17  
17 cm



08.425.17



08.427.17

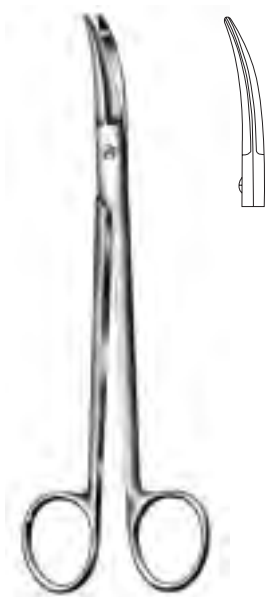
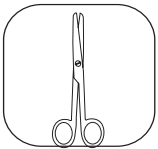


**BOETTCHER**  
08.435.18  
18 cm



**GOOD**  
08.437.19  
19 cm





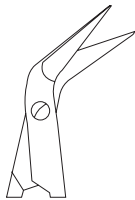
**PRINCE**  
08.439.17  
17 cm



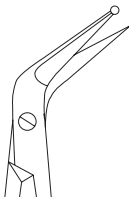
08.468.15  
15 cm



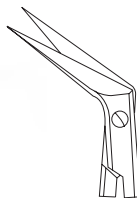
08.470.11  
11 cm



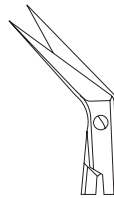
**POTTS DE MARTEL**  
08.473.21  
21 cm  
08.473.24  
24 cm



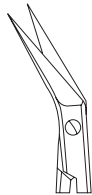
**MILLS**  
08.475.22  
22 cm



08.480.25 - 08.484.25 TC  
25°



08.480.40 - 08.484.40 TC  
40°



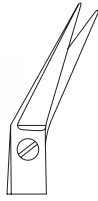
08.480.60 - 08.484.60 TC  
60°

**POTTS SMITH**  
08.480.25 - 08.484.60 TC  
19 cm

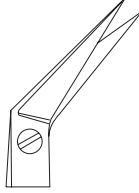




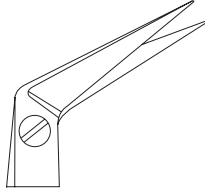
**08.486.25**  
25°



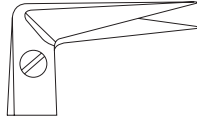
**08.486.45**  
45°



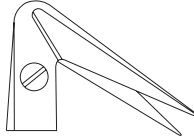
**08.486.60**  
60°



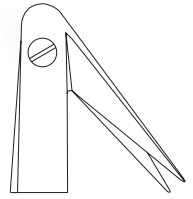
**08.486.90**  
90°



**08.487.25**  
125°



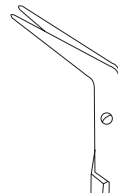
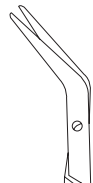
**DIETHRICH**  
08.486.25 - 08.487.25  
18 cm



**DIETHRICH**  
08.488.25  
125°  
18 cm



**DE BAKEY**  
08.490.16 - 08.492.28

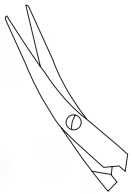
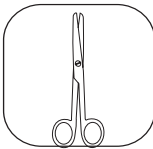


cm

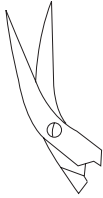
	25°	45°	60°
16	08.490.16	08.491.16	08.492.16
23	08.490.23	08.491.23	08.492.23
28	08.490.28	08.491.28	08.492.28



**DE BAKEY**  
**08.493.23 TC**  
45°  
22 cm



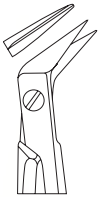
08.495.15



08.497.15

**DE BAKEY**

08.495.15 - 08.497.15  
15 cm



**DE BAKEY**

08.498.19  
19 cm

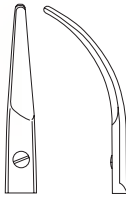


08.501.22  
22.5 cm

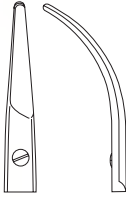


08.501.23  
23 cm

08.501.22 - 08.501.23



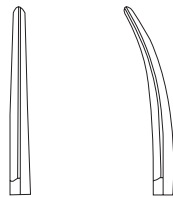
08.505.22 TC  
22.5 cm



08.505.23 TC  
23 cm

08.505.22 TC - 08.505.23 TC





cm

20	08.510.20	08.511.20
23	08.510.23	08.511.23
23	08.514.23 TC	08.515.23 TC

### SIMS

08.510.20 - 08.515.23 TC



### SIEBOLD

08.523.24  
24.5 cm



### WERTHEIM

08.525.22  
23 cm



### WERTHEIM

08.527.22 TC  
23 cm



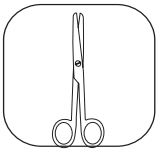
08.530.17



08.531.17

### DOYEN

08.530.17  
16 cm  
08.531.17  
18 cm



08.536.27  
25 cm



08.537.27  
27 cm

**DUBOIS**  
08.536.27 - 08.537.27



16	08.540.16	08.541.16
18	08.540.18	08.641.18

**KELLY**  
08.540.16 - 08.541.18



08.550.10  
10.5 cm



**BUSCH**  
08.551.16  
13.5 cm

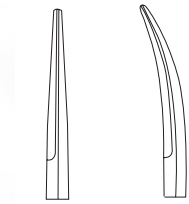
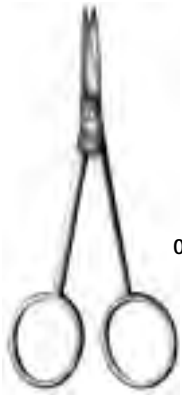


**SCHUMACHER**  
08.553.16  
15.5 cm



**BRAUN STADLER**  
08.560.14  
14.5 cm  
08.560.22  
22.5 cm



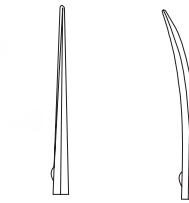
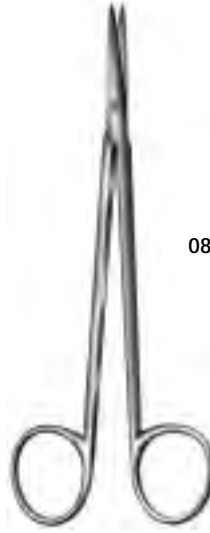


08.580.11 08.581.11

08.580.11 - 08.581.11  
11 cm



08.582.11  
11 cm

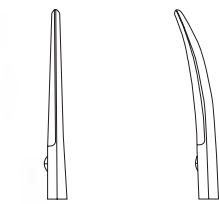


08.582.15 08.583.15

08.582.15 - 08.583.15  
15 cm



**STRULLY**  
08.601.22  
22 cm



08.610.18 08.611.18

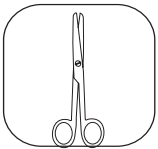
**TOENNIS ADSON**  
08.610.18 - 08.611.18  
18 cm



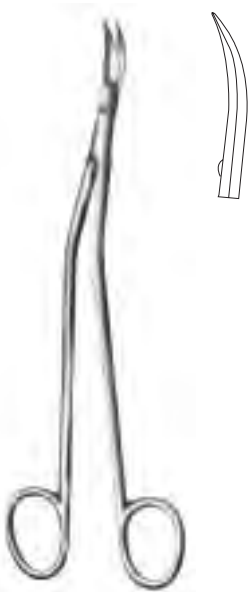
**TOENNIS ADSON**  
08.613.17  
17 cm



**McINDOE**  
08.614.19  
18.5 cm



**MARTIN**  
08.615.13  
13 cm  
08.615.20  
20 cm



**DANDY**  
08.617.17  
17 cm



**SCHMEIDEN TAYLOR**  
08.619.17  
16 cm



**WILLAUER**  
08.641.27  
27 cm

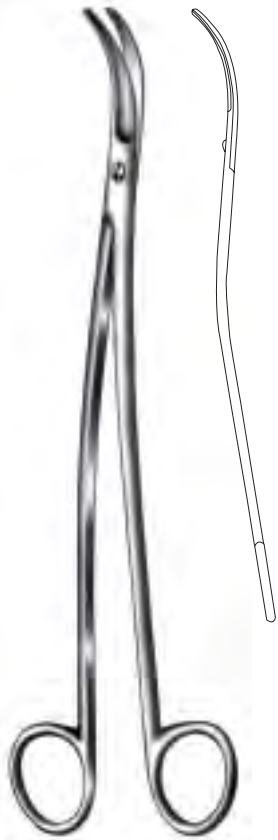


**CRAFOORD**  
08.641.30  
30 cm

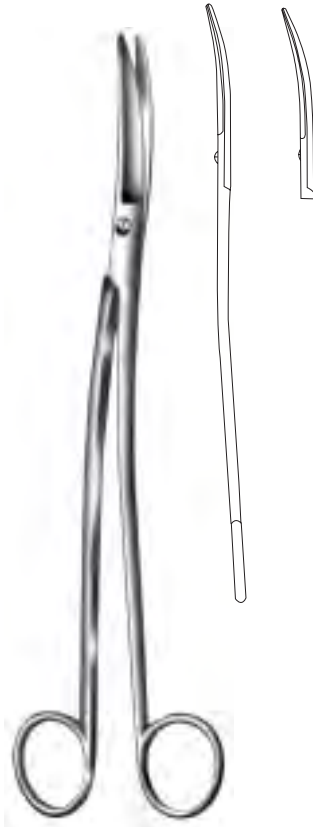


**THOREK**  
08.643.18  
19 cm  
08.643.25  
25 cm





**SATINSKY**  
08.651.24  
24 cm



**KLINKENBERGH LOTH**  
08.661.23  
23 cm



**FINOCHIETTO**  
08.663.27  
28 cm



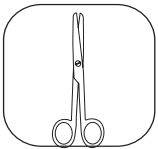
08.770.21  
21 cm



08.772.21  
21 cm



08.774.21  
21 cm



**SPENCER**  
08.802.09  
9 cm



**SPENCER**  
08.802.11  
11.5 cm



**NORTHBENT SPENCER**  
08.803.13  
12 cm



**LITTAUER**  
08.804.14  
13.5 cm



**HEATH**  
08.809.15  
15 cm

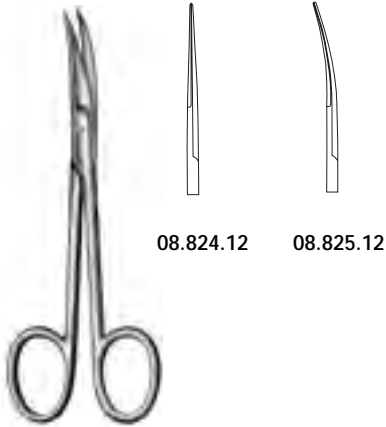


**GOLDMAN FOX**  
08.820.13 - 08.821.13 TC  
13 cm

cm

13	08.820.13	08.821.13
13 TC	08.822.13 TC	08.823.13 TC

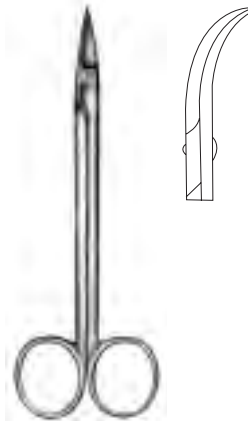




08.824.12 08.825.12

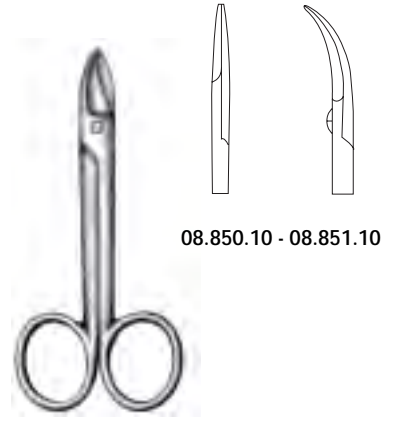
### WAGNER

08.824.12 - 08.825.12  
12 cm



### QUINBY

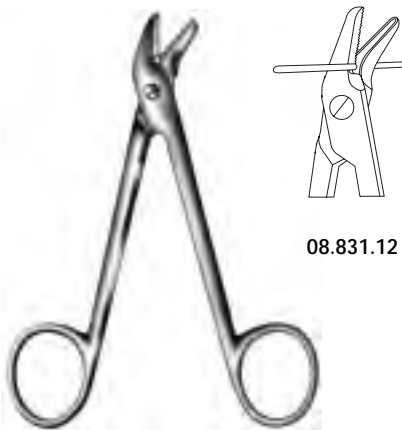
08.827.12  
13 cm



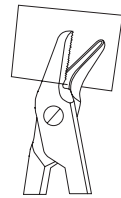
08.850.10 - 08.851.10

### BEEBEE

08.850.10 - 08.851.10  
10.5 cm



08.831.12



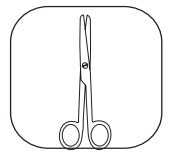
08.835.12 TC

08.831.12 - 08.835.12 TC  
12 cm



### SMITH US

08.898.20  
18 cm



cm

9	08.901.09
11	08.901.11
14	08.901.14
18	08.901.18
20	08.901.20

**LISTER**  
08.901.09 - 08.901.20



cm

14	08.905.14 TC
18	08.905.18 TC
20	08.905.20 TC

**LISTER**  
08.905.14 TC - 08.905.20 TC



**BERGMANN**  
08.911.23  
23 cm

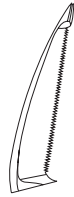


**ESMARCH**  
08.913.20  
20 cm  
08.913.22  
22 cm



**KNOWLES**  
08.930.14  
14 cm





08.921.16  
16 cm  
08.921.19  
19 cm



**LORENZ**  
08.933.23  
24 cm



08.941.20  
21 cm



08.935.23  
**08.939.23 TC**  
plain  
23.5 cm

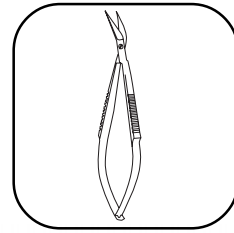


08.937.23  
serrated  
23.5 cm



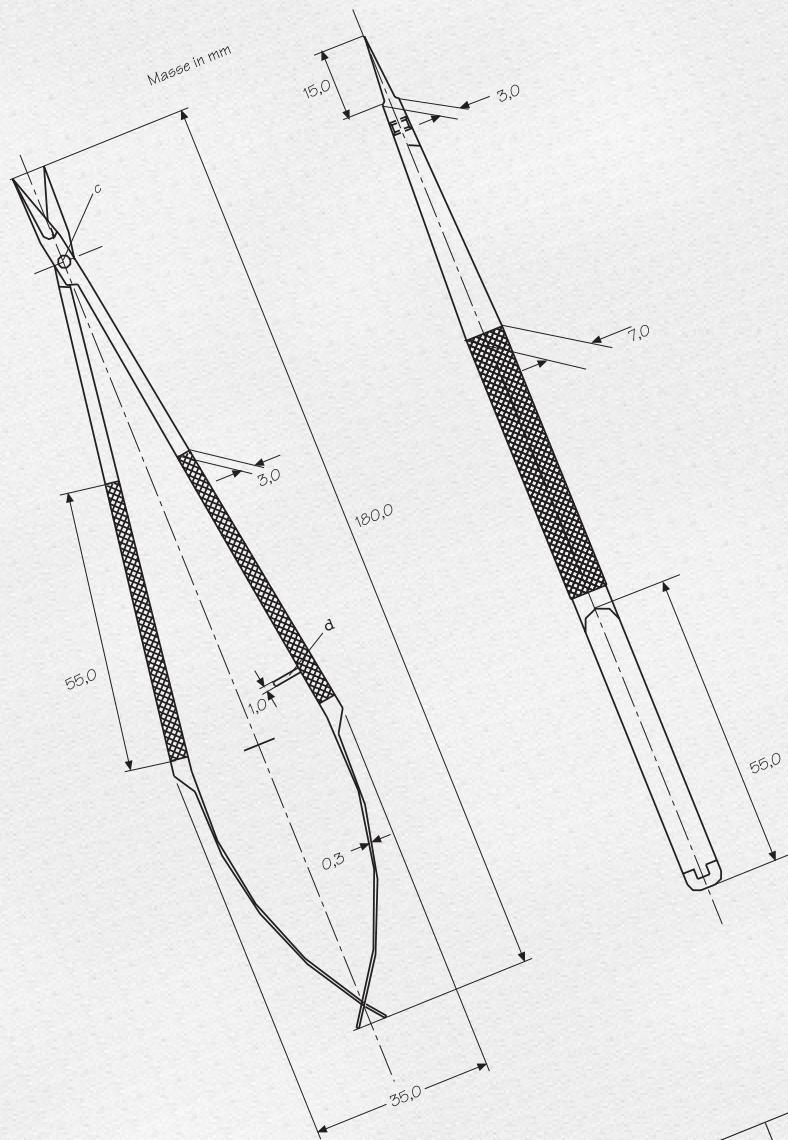
08.950.15  
14.5 cm  
08.950.18  
18 cm

**BRUNS**  
08.935.23 - **08.939.23 TC**  
23.5 cm



# 09

**Microscissors  
Microtijeras  
Mikroscheren**



F	GENERAL CATALOGUE	Konstruktør / constructor	Datum / fecha	Name / nombre	Plan / plano
	Stainless Steel	gezeichnet / dibujado	July '98	cvd/jvd	Maaetab / escala 1:1
	Acero inoxidable	geprüft / verificado	July '98	cvd	Abt. / acot. mm
		Toleranz / tolerancia	June '99	mj	Artikel / artículo
					Artikel-Nr. / No. de articulo





**McPHERSON  
WESTCOTT**  
09.102.10  
10 cm



**WESTCOTT**  
09.102.11  
11 cm



**McPHERSON  
WESTCOTT**  
09.104.10  
10 cm



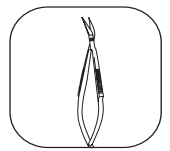
**WESTCOTT**  
09.104.11  
11 cm



**WESTCOTT**  
09.106.11  
11 cm



**WESTCOTT**  
09.107.11  
11 cm



**09.108.10**  
10 cm



**NOYES**  
09.110.12  
12 cm



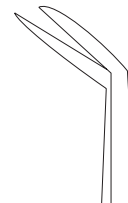
**NOYES**  
09.111.12  
12 cm



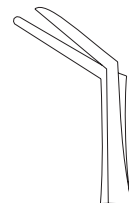
**WECKER**  
09.113.07  
11 cm / 7 mm



09.113.11



09.115.11



09.117.11

**WECKER**  
09.113.11 - 09.117.11  
11 cm



**NOYES**  
09.113.12  
12 cm



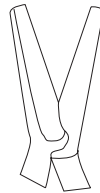
**WECKER**  
09.115.07  
11 cm  
tip 7 mm



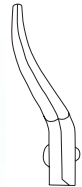
**WECKER**  
09.116.11  
11 cm  
tip 11 mm



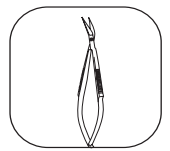
**WECKER**  
09.117.07  
11 cm  
tip 7 mm



**BARRAQUER**  
09.119.10  
10 cm



**McGUIRE**  
09.121.10  
10 cm



**CASTROVIEJO**  
 09.133.09  
 9 cm



**CASTROVIEJO**  
 09.133.10  
 10 cm



**CASTROVIEJO**  
 09.135.10  
 10 cm



**CASTROVIEJO**  
 09.137.10 - 09.139.10  
 10 cm



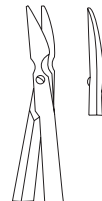
09.137.10



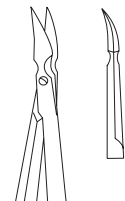
09.139.10



**VANNAS**  
 09.140.08  
 8 cm



**VANNAS**  
 09.141.08  
 8 cm

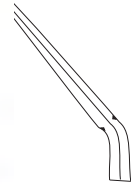
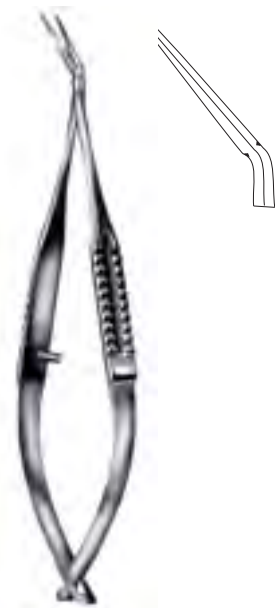




**GILLS WELSCH**  
09.142.01  
8 cm



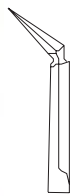
**GILLS WELSCH**  
09.142.02  
8 cm



**GILLS WELSCH**  
09.142.03  
8 cm



**GILLS WELSCH**  
09.142.04  
8 cm



09.143.08

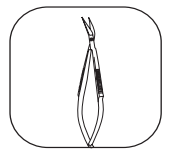


09.144.08

**VANNAS**  
09.143.08 - 09.144.08  
8 cm



**CASTROVIEJO**  
09.151.11  
11 cm



**CASTROVIEJO**  
09.153.11  
11 cm



**CASTROVIEJO**  
09.155.11  
11 cm



09.202.18 - 09.203.18

cm / mm		
14 / 8		09.203.14
18 / 8	09.202.18	09.203.18



09.220.14  
14.50 cm  
09.220.18  
18 cm



09.220.23  
23 cm



09.221.14  
14.50 cm  
09.221.18  
18 cm





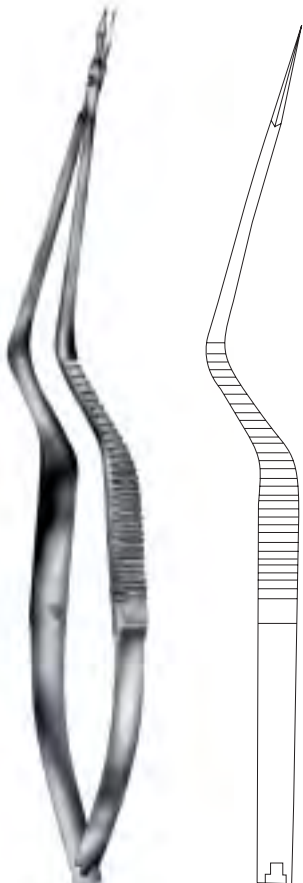
09.223.14  
14.50 cm  
09.223.18  
18 cm



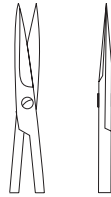
**DEWIMED**  
09.250.16  
16.5 cm



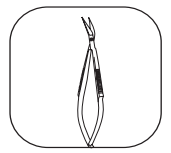
**DEWIMED**  
09.250.20  
20 cm



**DEWIMED**  
09.250.22  
22.5 cm



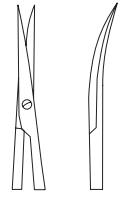
**DEWIMED**  
09.251.16  
16.5 cm



**DEWIMED**  
09.251.20  
20 cm



**DEWIMED**  
09.251.22  
22.5 cm  
09.251.24  
24.5 cm



**DEWIMED**  
09.253.20  
20 cm  
09.253.22  
22.5 cm



**DEWIMED**  
09.254.20  
20 cm



**DEWIMED**  
09.254.22  
22.5 cm



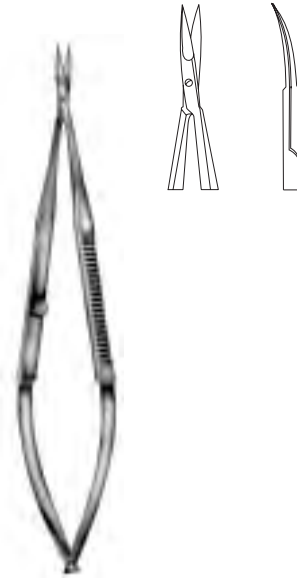
**DEWIMED**  
09.255.20  
20 cm



**DEWIMED**  
09.255.22  
22.5 cm



09.260.12  
12 cm



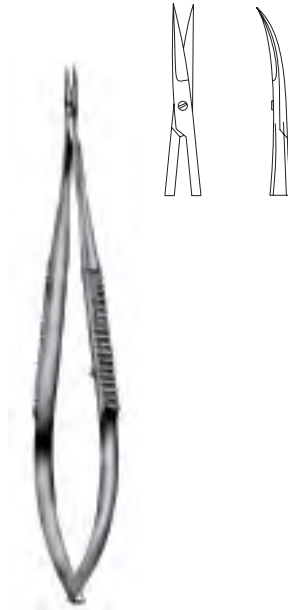
09.260.16  
16 cm



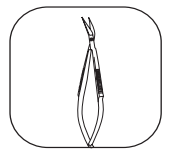
**DEWIMED**  
09.260.18  
18 cm



**DEWIMED**  
09.261.12  
12 cm



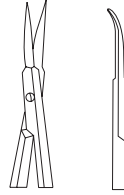
**DEWIMED**  
09.261.16  
16 cm



**JACOBSON**  
09.261.18  
18.5 cm



**09.262.12**  
12 cm



**09.262.16**  
16 cm



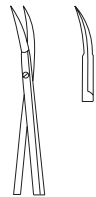
**09.263.12**  
12 cm



**09.263.16**  
16 cm



**09.266.18**

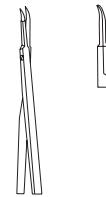


**09.267.18**

**09.266.18 - 09.267.18**  
18.5 cm



**09.268.18**



**09.269.18**

**VANNAS**  
09.268.18 - 09.269.18  
18.5 cm



## **"In-Situ" venous valve scissors**

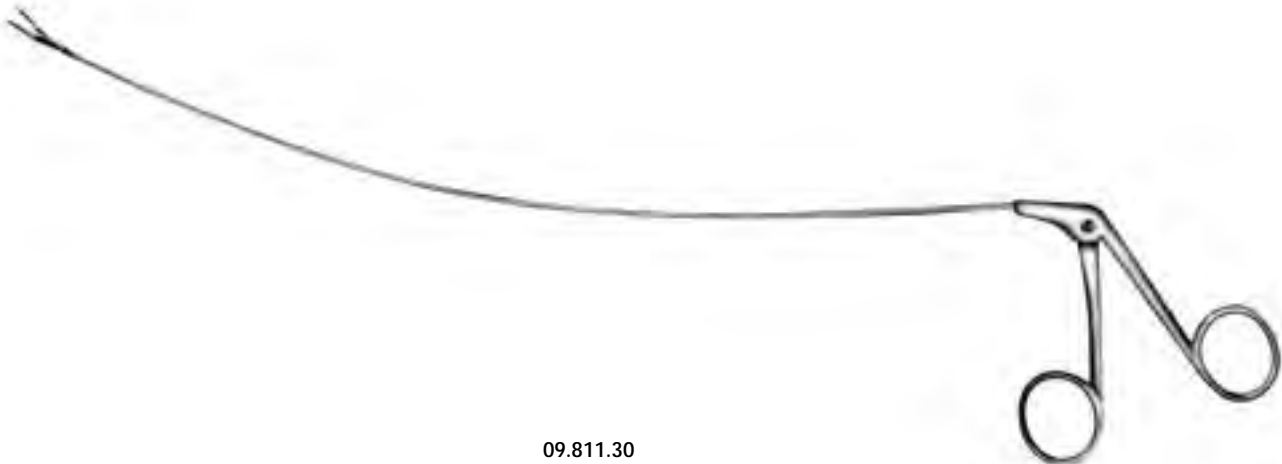
developed for the In-situ saphenous vein by-pass of arteries in the lower extremities.



**09.810.10**  
*shaft 10 cm*



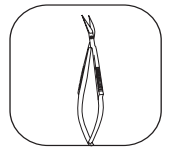
**09.810.23**  
*shaft 23 cm*



**09.811.30**  
*for the left thigh 30 cm*



**09.813.30**  
*for the right thigh 30 cm*



**neuro - micro - instruments**



cm

16.0	41.050.16	41.051.16
18.0	41.050.18	41.051.18
20.0	41.050.20	41.051.20
22.5	41.050.22	41.051.22
24.0	41.050.24	41.051.24

*insulated*

16.0	41.052.16	41.053.16
18.0	41.052.18	41.053.18
20.0	41.052.20	41.053.20
22.5	41.052.22	41.053.22
24.0	41.052.24	41.053.24

cm

16.0	41.060.16	41.061.16
18.0	41.060.18	41.061.18
20.0	41.060.20	41.061.20
22.5	41.060.22	41.061.22
24.0	41.060.24	41.061.24

*insulated*

16.0	41.062.16	41.063.16
18.0	41.062.18	41.063.18
20.0	41.062.20	41.063.20
22.5	41.062.22	41.063.22
24.0	41.062.24	41.063.24

vannas blade

**micro scissors  
41.050.16 - 41.082.24**



saw edge

cm

16.0	41.070.16	41.071.16
18.0	41.070.18	41.071.18
20.0	41.070.20	41.071.20
22.5	41.070.22	41.071.22
24.0	41.070.24	41.071.24

*insulated*

16.0	41.072.16	41.073.16
18.0	41.072.18	41.073.18
20.0	41.072.20	41.073.20
22.5	41.072.22	41.073.22
24.0	41.072.24	41.073.24



vannas blade  
angled over  
the blade

cm

16.0	41.080.16
18.0	41.080.18
20.0	41.080.20
22.5	41.080.22
24.0	41.080.24

*insulated*

16.0	41.082.16
18.0	41.082.18
20.0	41.082.20
22.5	41.082.22
24.0	41.082.24



**micro scissors**  
41.090.16 - 41.132.24

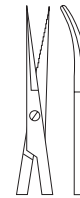


cm

16.0	41.090.16	41.091.16
18.0	41.090.18	41.091.18
20.0	41.090.20	41.091.20
22.5	41.090.22	41.091.22
24.0	41.090.24	41.091.24

*insulated*

16.0	41.092.16	41.093.16
18.0	41.092.18	41.093.18
20.0	41.092.20	41.093.20
22.5	41.092.22	41.093.22
24.0	41.092.24	41.093.24



*saw edge*

cm

16.0	41.110.16	41.111.16
18.0	41.110.18	41.111.18
20.0	41.110.20	41.111.20
22.5	41.110.22	41.111.22
24.0	41.110.24	41.111.24

*insulated*

16.0	41.112.16	41.113.16
18.0	41.112.18	41.113.18
20.0	41.112.20	41.113.20
22.5	41.112.22	41.113.22
24.0	41.112.24	41.113.24



*vanna blade  
angled over the  
blade*

cm

16.0	41.120.16
18.0	41.120.18
20.0	41.120.20
22.5	41.120.22
24.0	41.120.24

*insulated*

16.0	41.122.16
18.0	41.122.18
20.0	41.122.20
22.5	41.122.22
24.0	41.122.24

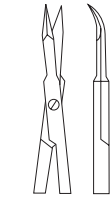


cm

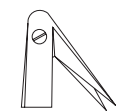
16.0	41.100.16	41.101.16
18.0	41.100.18	41.101.18
20.0	41.100.20	41.101.20
22.5	41.100.22	41.101.22
24.0	41.100.24	41.101.24

*insulated*

16.0	41.102.16	41.103.16
18.0	41.102.18	41.103.18
20.0	41.102.20	41.103.20
22.5	41.102.22	41.103.22
24.0	41.102.24	41.103.24



*vanna blade*



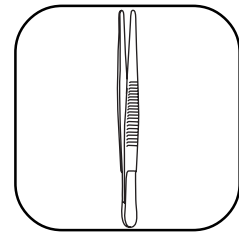
*125°  
angled blade*

cm

16.0	41.130.16
18.0	41.130.18
20.0	41.130.20
22.5	41.130.22
24.0	41.130.24

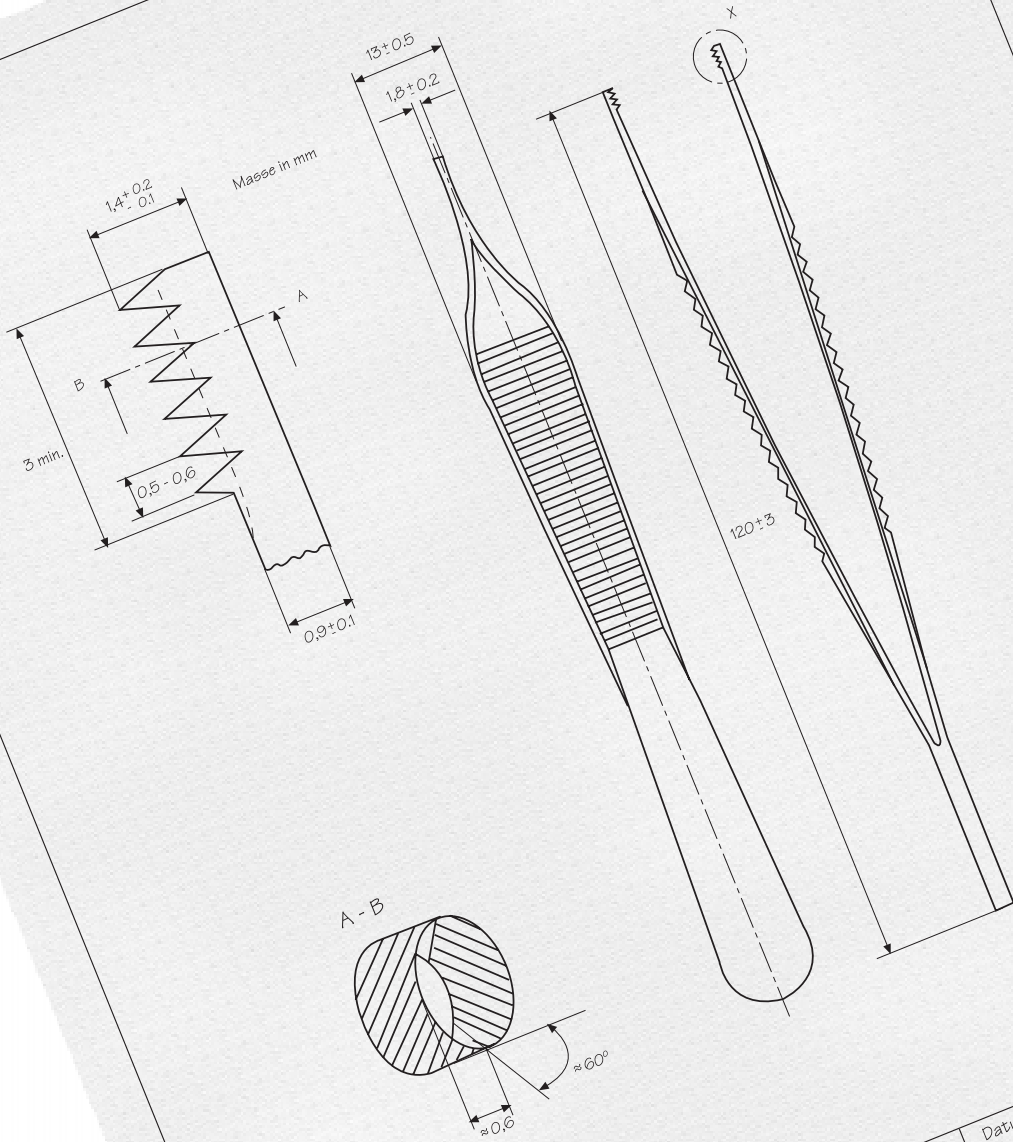
*insulated*

16.0	41.132.16
18.0	41.132.18
20.0	41.132.20
22.5	41.132.22
24.0	41.132.24



# 10

**Forceps  
Pinzas  
Pinzetas**



F							
	GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano	1	
	Stainless Steel	gezeichnet / dibujado	July '98	cvd/jvd	Maasstab / escala	1:1	
	Acero inoxidable	geprüft / verificado	July '98	cvd	Abt. / acot.	mm	
		Toleranz / tolerancia	June '99	mj	Artikel / articulo		
					Artikel-Nr. / No. de arti		





<i>cm</i>	
11.5	10.102.11
13.0	10.102.13
14.5	10.102.14
16.0	10.102.16
18.0	10.102.18
20.0	10.102.20
25.0	10.102.25
30.0	10.102.30

**standard**  
10.102.11 - 10.102.30



<i>cm</i>	
13.0	10.103.13
14.5	10.103.14
20.0	10.103.20
25.0	10.103.25

**standard**  
10.103.13 - 10.103.25



<i>cm</i>	
12	10.104.12
13	10.104.13
14	10.104.14
15	10.104.15
18	10.104.18
21	10.104.21
25	10.104.25

**USA**  
10.104.12 - 10.104.25

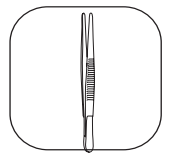


**SMILE**  
10.106.15  
15 cm



<i>cm</i>	
11.5	10.110.11
13.0	10.110.13
14.5	10.110.14
16.0	10.110.16
14.5 TC	10.114.14 TC
16.0 TC	10.114.16 TC

**standard**  
10.110.11 - 10.114.16 TC



cm

18	10.112.18
21	10.112.21
25	10.112.25
18 TC	10.116.18 TC
21 TC	10.116.21 TC
25 TC	10.116.25 TC

**POTTS SMITH**  
10.112.18 - 10.116.25 TC



cm

11.5	10.120.11
13.0	10.120.13
14.5	10.120.14
16.0	10.120.16
18.0	10.120.18
20.0	10.120.20
25.0	10.120.25
30.0	10.120.30

**standard**  
10.120.11 - 10.120.30



cm

12.0	10.122.12
13.0	10.122.13
14.5	10.122.14
15.5	10.122.15
18.5	10.122.18
21.0	10.122.21
25.0	10.122.25

**USA**  
10.122.12 - 10.122.25  
1 x 2 teeth



**SMILE**  
10.124.15  
15 cm  
1 x 2 teeth



cm

18	10.126.18
21	10.126.21
25	10.126.25

**POTTS SMITH**  
10.126.18 - 10.126.25  
1 x 2 teeth





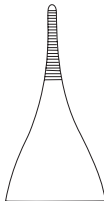
cm	1 x 2 teeth	2 x 3 teeth	4 x 5 teeth	3 x 4 teeth
13.0	10.130.13	10.140.13	10.150.13	10.160.13
14.5	10.130.14	10.140.14	10.150.14	10.160.14
16.0	10.130.16	10.140.16	10.150.16	10.160.16
18.0		10.140.18		
20.0		10.140.20	10.150.20	
25.0		10.140.25		



cm	1 x 2 teeth
12.5	10.134.12
14.5	10.134.14

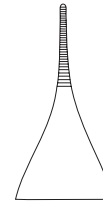
10.130.13 - 10.160.16

10.134.12 - 10.134.14



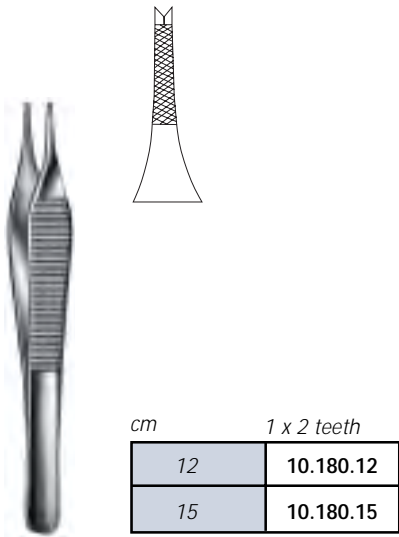
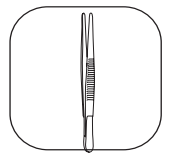
cm	
12	10.170.12
15	10.170.15
12 TC	10.174.12 TC
15 TC	10.174.15 TC

**ADSON**  
10.170.12 - 10.174.15 TC



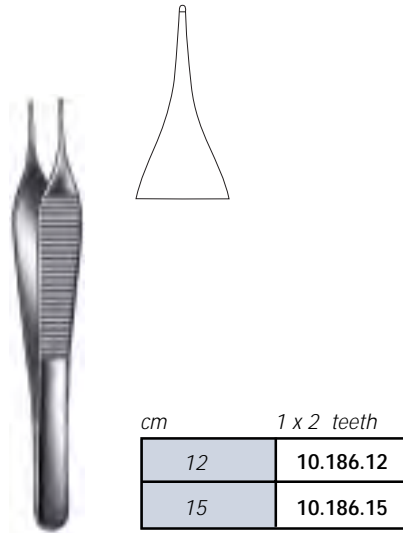
cm	
12	10.176.12
15	10.176.15

**ADSON micro**  
10.176.12 - 10.176.15



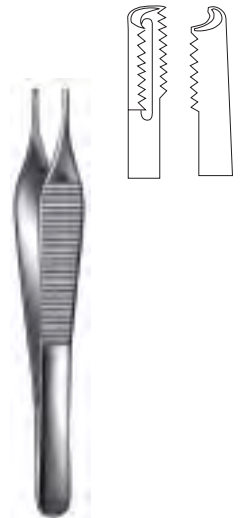
cm	1 x 2 teeth
12	10.180.12
15	10.180.15

**ADSON**  
10.180.12 - 10.180.15

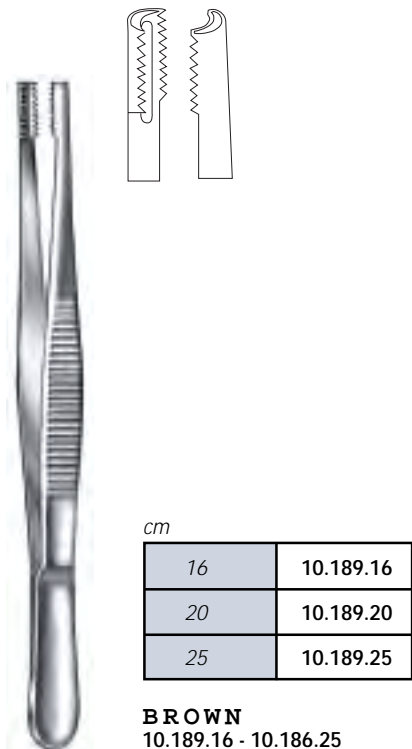


cm	1 x 2 teeth
12	10.186.12
15	10.186.15

**ADSON micro**  
10.186.12 - 10.186.15



**ADSON BROWN**  
10.188.12  
7 x 7 teeth



cm	
16	10.189.16
20	10.189.20
25	10.189.25

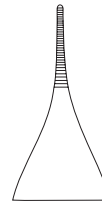
**BROWN**  
10.189.16 - 10.189.25



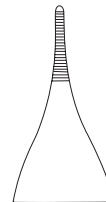
**GRAEFE**  
10.190.10  
10 cm



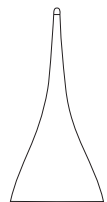
**ADSON**  
10.192.12 - 10.196.12  
12 cm  
1 x teeth



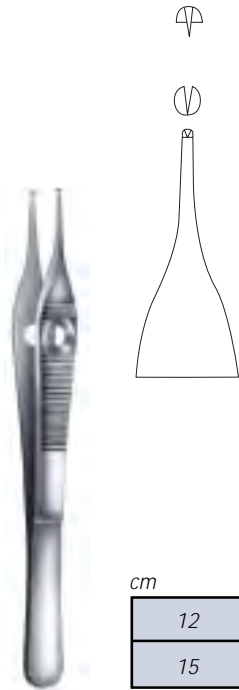
10.192.12



10.194.12



10.196.12



cm	1 x 2 teeth
12	10.198.12
15	10.198.15

**ADSON**  
10.198.12 - 10.198.15



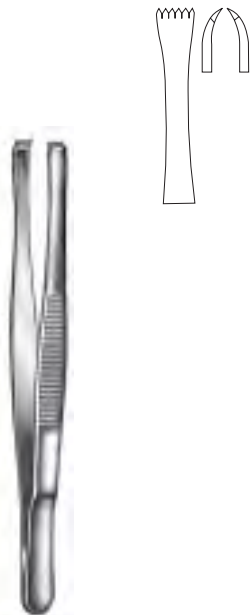
10.220.17  
10.221.17  
**10.224.17 TC**

**CUSHING**  
10.220.17 - **10.224.17 TC**  
17 cm

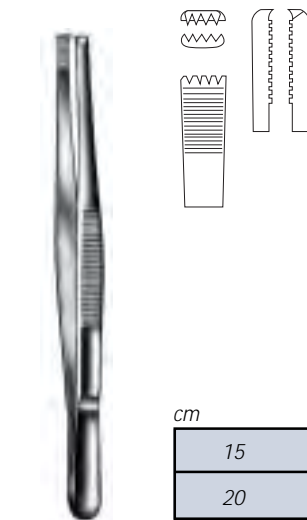


10.230.17 10.231.17

**CUSHING**  
10.230.17 - 10.231.17  
17 cm  
1 x 2 teeth



**LERCHE**  
10.232.15  
15 cm  
5 x 6 teeth



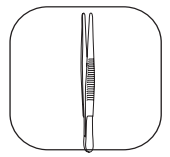
cm	4 x 5 teeth
15	10.236.15
20	10.236.20

**ADLERKREUTZ**  
10.236.15 - 10.236.20



cm	1 x 2 teeth	2 x 3 teeth
14	10.240.14	10.242.14

**LANE**  
10.240.14 - 10.242.14



**FERRIS SMITH**  
10.246.18 - 10.248.18



cm	1 x 2 teeth	2 x 3 teeth
18	10.246.18	10.248.18



**DUVAL**  
10.250.14  
14 cm



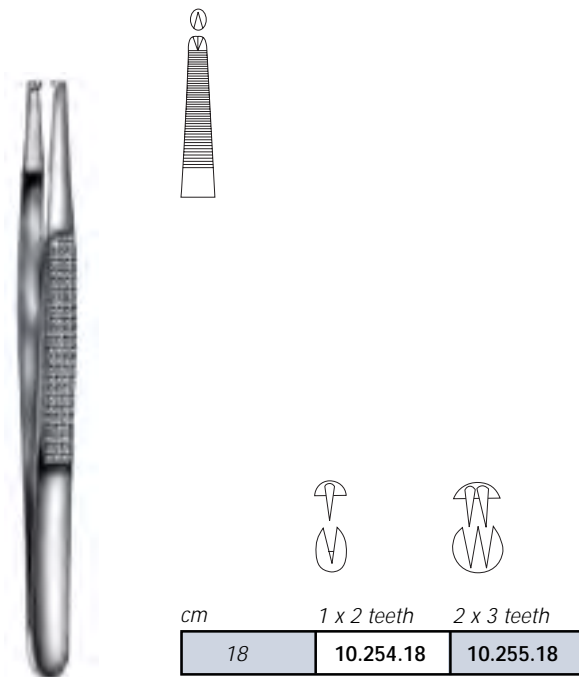
**COLLIN DUVAL**  
10.252.14  
20 cm



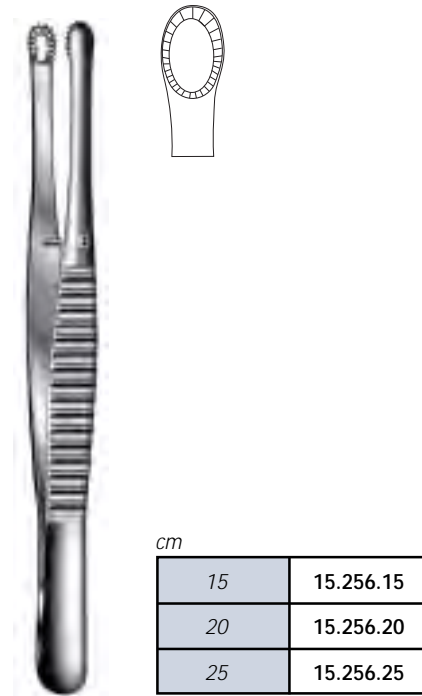
**McINDOE**  
10.254.15 TC - 10.258.15



cm	
15 TC	10.254.15 TC
15	10.258.15



**BONNEY**  
10.254.18 - 10.255.18

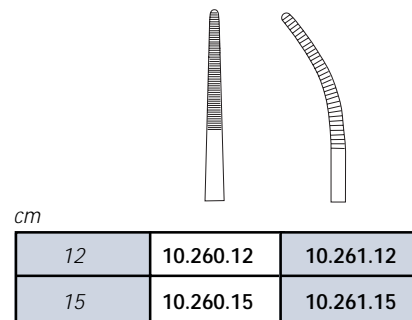


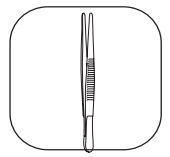
**russian forceps**  
10.256.15 - 10.256.25



**MAYO russian forceps**  
10.256.23  
23 cm

**SEMKEN**  
10.260.12 - 10.261.15





cm	
15	10.262.15
20	10.262.20

**WAUGH**  
10.262.15 - 10.262.20



cm		1 x 2 teeth
12	10.270.12	
15	10.270.15	

**SEMKEN**  
10.270.12 - 10.270.15



**GILLIES**  
10.272.15  
15 cm  
1 x 2 teeth



cm	
15	10.282.15
20	10.282.20

**WAUGH**  
10.282.15 - 10.282.20  
1 x 2 teeth



**GERALD**  
10.302.18  
18 cm



**GERALD**  
10.303.18  
18 cm



**GERALD**  
10.305.18  
18 cm



**GERALD**  
10.310.18  
18 cm  
1 x 2 teeth



**GERALD**  
10.311.18  
18 cm  
1 x 2 teeth



**GERALD**  
10.313.18  
18 cm  
1 x 2 teeth



**TAYLOR**  
10.315.17  
17 cm  
1 x 2 teeth

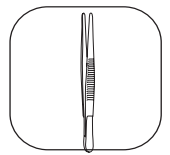


**SINGLEY TUTTLE**  
10.320.23  
23 cm

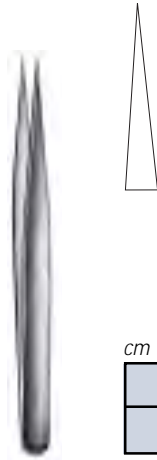


**NELSON**  
10.322.15 - 10.322.23

cm	
15	10.322.15
18	10.322.18
23	10.322.23



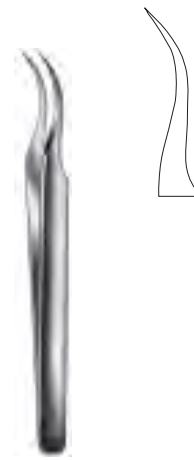
**WANGENSTEEN**  
10.324.23  
23 cm



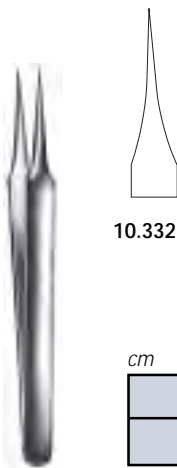
**jeweler's style**  
10.330.12 - 10.330.31

cm

12	10.330.12
13	10.330.31



**jeweler's style**  
10.331.12  
12 cm



**jeweler's style**  
10.332.04 - 10.332.05

10.332.04

10.332.05

cm

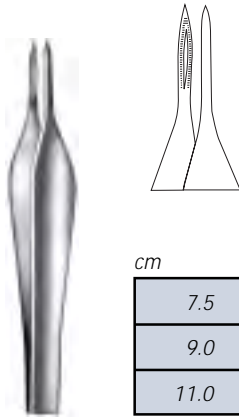
4	10.332.04
5	10.332.05



**KRONECKER**  
10.802.09 - 10.802.11

cm

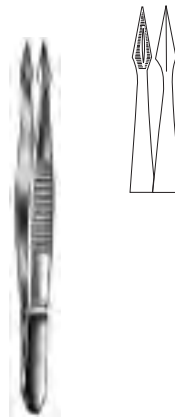
9	10.802.09
11	10.802.11



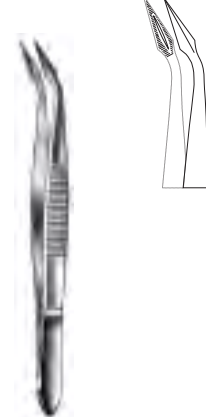
cm

7.5	10.810.07
9.0	10.810.09
11.0	10.810.11

**FEILCHENFELD**  
10.810.07 - 10.810.11



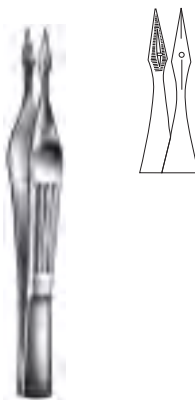
**HUNTER**  
10.812.10  
10 cm



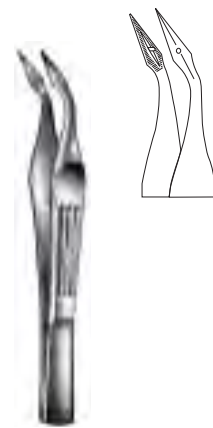
**HUNTER**  
10.813.10  
10 cm



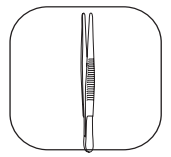
**splinter forceps  
with magnifier**  
10.815.12  
12 cm



**CARMALT**  
10.816.10  
10 cm



**CARMALT**  
10.817.10  
10 cm



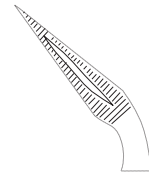
**PEET**  
10.821.11  
11 cm



**STIEGLITZ**  
10.822.13 - 10.823.13  
13 cm



10.822.13



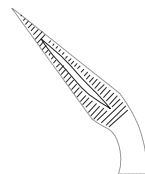
10.823.13



**ARCHER**  
10.824.14 - 10.825.14  
14 cm



10.824.14



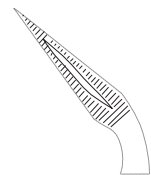
10.825.14



**VIRTUS RALK**  
10.828.15 - 10.829.15  
15 cm



10.828.15



10.829.15



**micro forceps**  
41.140.16 - 41.172.24

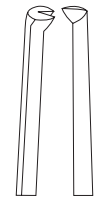


cm

16.0	41.140.16	41.141.16
18.0	41.140.18	41.141.18
20.0	41.140.20	41.141.20
22.5	41.140.22	41.141.22
24.0	41.140.24	41.141.24

insulated

16.0	41.142.16	41.143.16
18.0	41.142.18	41.143.18
20.0	41.142.20	41.143.20
22.5	41.142.22	41.143.22
24.0	41.142.24	41.143.24



4 x 2 teeth

cm

16.0	41.160.16
18.0	41.160.18
20.0	41.160.20
22.5	41.160.22
24.0	41.160.24

insulated

16.0	41.162.16
18.0	41.162.18
20.0	41.162.20
22.5	41.162.22
24.0	41.162.24



angled

cm

16.0	41.150.16
18.0	41.150.18
20.0	41.150.20
22.5	41.150.22
24.0	41.150.24

insulated

16.0	41.152.16
18.0	41.152.18
20.0	41.152.20
22.5	41.152.22
24.0	41.152.24



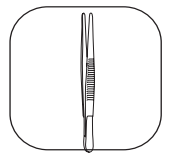
tumor grasping

cm

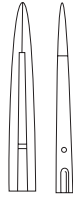
16.0	41.170.16
18.0	41.170.18
20.0	41.170.20
22.5	41.170.22
24.0	41.170.24

insulated

16.0	41.172.16
18.0	41.172.18
20.0	41.172.20
22.5	41.172.22
24.0	41.172.24



**micro forceps**  
41.180.16 - 41.212.24

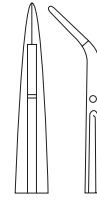
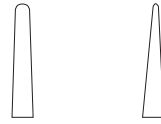


cm

16.0	41.180.16	41.181.16
18.0	41.180.18	41.181.18
20.0	41.180.20	41.181.20
22.5	41.180.22	41.181.22
24.0	41.180.24	41.181.24

*insulated*

16.0	41.182.16	41.183.16
18.0	41.182.18	41.183.18
20.0	41.182.20	41.183.20
22.5	41.182.22	41.183.22
24.0	41.182.24	41.183.24



*angled*

cm

16.0	41.190.16
18.0	41.190.18
20.0	41.190.20
22.5	41.190.22
24.0	41.190.24

*insulated*

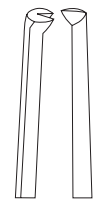
16.0	41.192.16
18.0	41.192.18
20.0	41.192.20
22.5	41.192.22
24.0	41.192.24

cm

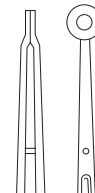
16.0	41.200.16
18.0	41.200.18
20.0	41.200.20
22.5	41.200.22
24.0	41.200.24

*insulated*

16.0	41.202.16
18.0	41.202.18
20.0	41.202.20
22.5	41.202.22
24.0	41.202.24



*1 x 2 teeth*



*tumor grasping*

cm

16.0	41.210.16
18.0	41.210.18
20.0	41.210.20
22.5	41.210.22
24.0	41.210.24

*insulated*

16.0	41.212.16
18.0	41.212.18
20.0	41.212.20
22.5	41.212.22
24.0	41.212.24



## JOHN HUNTER 1718 - 1793

Nació en Glasgow, Inglaterra en 1718. Fue un brillante profesor de anatomía y cirugía, quién será recordado por su introducción del método experimental. Por sistema usaba animales para desarrollar técnicas operatorias antes de aplicarlas en el hombre. Con él puede decirse que la cirugía en Inglaterra se puso a la altura de la francesa y de la alemana. La muerte de Hunter fue trágica. Con la intención de realizar un experimento, voluntariamente se inculó pus de un enfermo, que él creía afectado de gonorrea. En realidad se inculó sífilis local fue probablemente causa de su muerte.

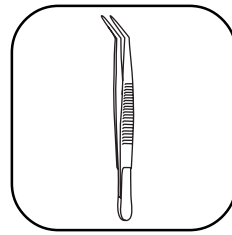


Was born in Glasgow, England in 1718. As a brilliant professor in anatomy and surgery, he introduced the experimental method: in order to develop operating techniques, he worked with animals before applying them on men. There is no doubt that with Hunter English medical science was able to be on the same

level as the French or German science. Hunter's death was tragic. With intentions of making an experiment with the gonorrhea, he injected himself pus from a patient. He wrongly thought that patient was suffering gonorrhea. But the patient had syphilis. Hunter probably died of the same disease.

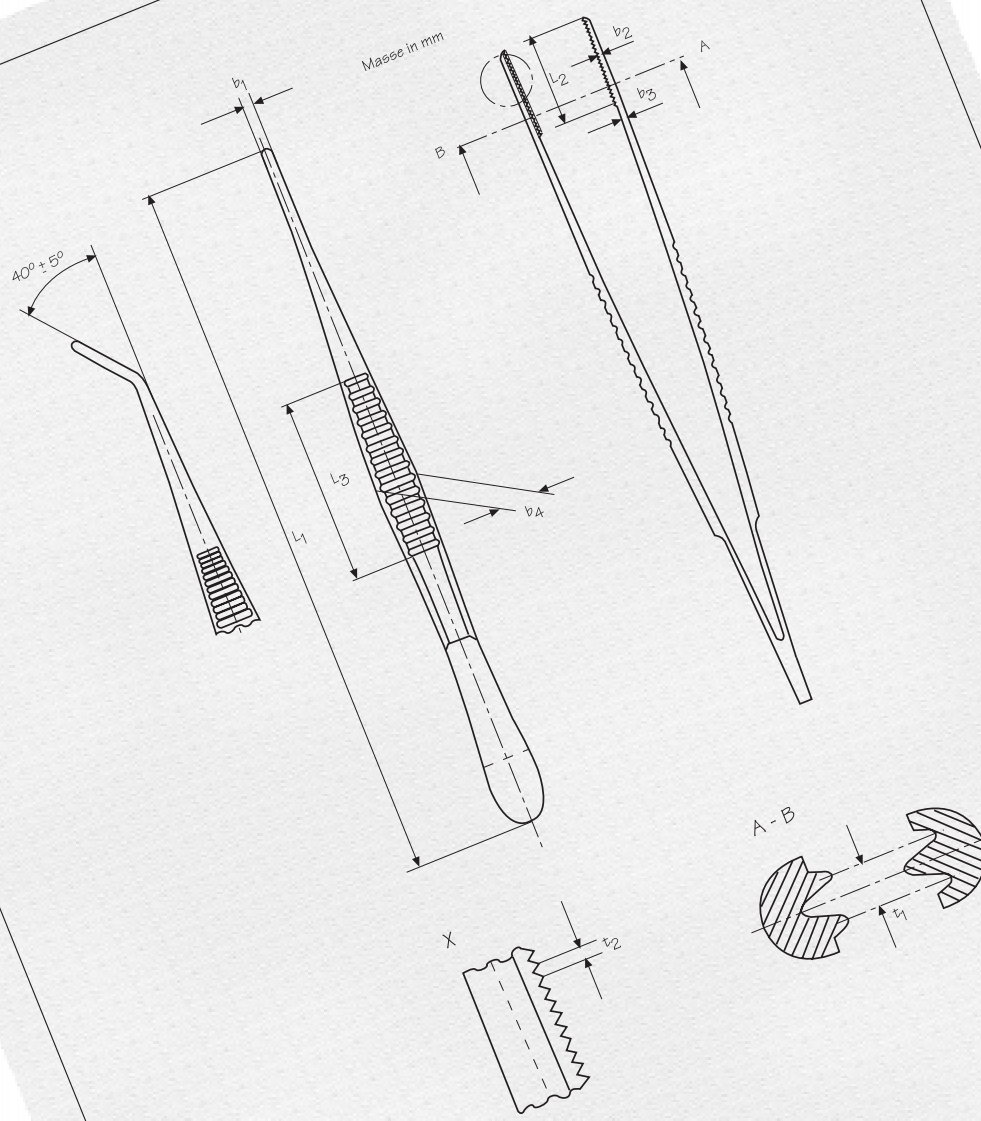
Wurde 1718 in Glasgow, England geboren.

Als brillianter Professor der Anatomie und Chirurgie führte er die experimentelle Methodik ein. Bevor er neu entwickelte Techniken an Menschen anwandte, erprobte er diese an Tieren. Durch Hunter konnte sich die englische Medizinwissenschaft der französischen oder deutschen angleichen. Hunters Tod war tragisch: Mit der Absicht, über die Gonorrhöe mehr zu erfahren, spritzte er sich selbst Eiter von einem Patienten ein. Später stellte sich heraus, daß der Patient in Wirklichkeit an Syphilis erkrankt war. Es ist anzunehmen, daß Hunter an derselben Krankheit starb.



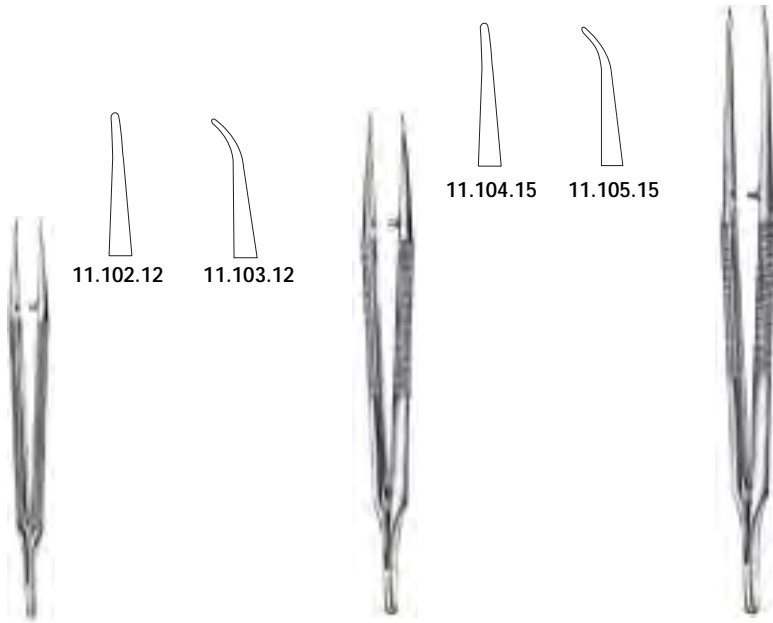
# 11

**Atraumatic Forceps**  
**Pinzas Atraumáticas**  
**Atraumatische Pinzetten**



GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
Stainless Steel	gezeichnet / dibujado	July '98	cvd / jvd	Maasstab / escala 1:1
inoxidable	geprüft / verificado	July '98	cvd	Abt. / acot. mm
	Toleranz / tolerancia	June '99	mj	Artikel / artículo
				Artikel-Nr. / No. de artí





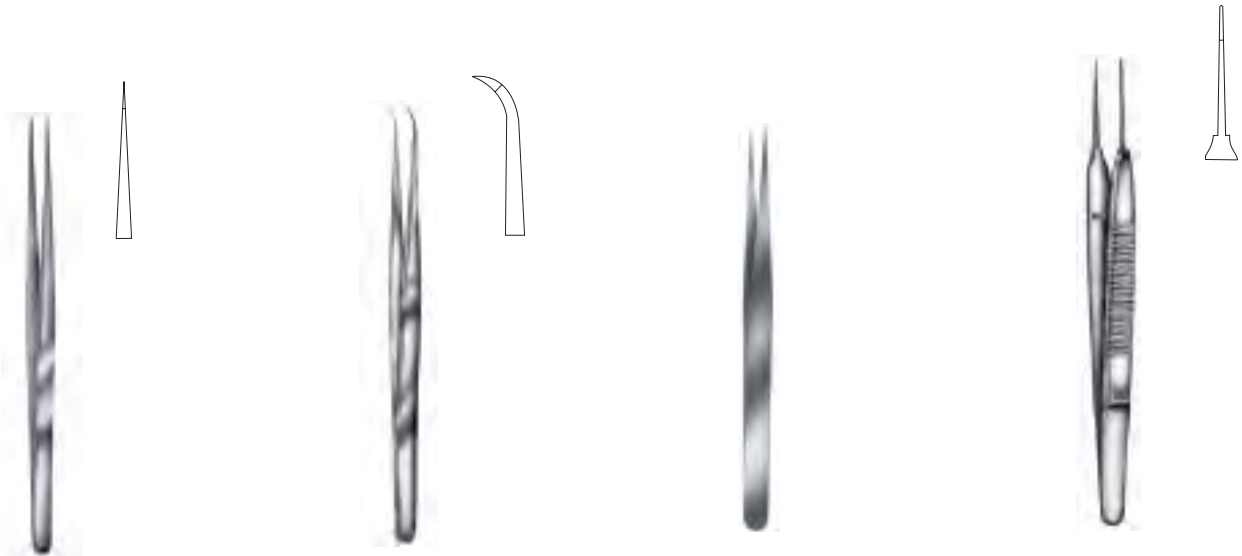
cm

18	11.108.18	11.109.18
23	11.108.23	

11.102.12 - 11.103.12  
12 cm

11.104.15 - 11.105.15  
15 cm

11.108.18 - 11.109.18

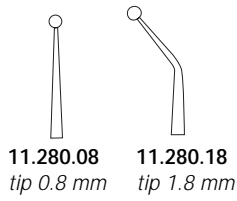
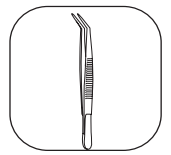


**VISE**  
11.130.13  
tip 0.3 mm

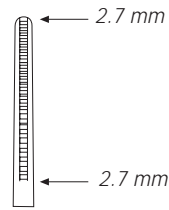
**VISE**  
11.131.13  
tip 0.3 mm

11.132.12  
tip 0.3 mm

**AUSTIN**  
11.134.14  
tip 0.8 mm



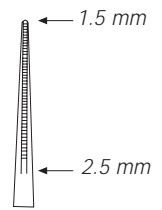
11.280.08 - 11.280.18  
 18 cm



cm

16	11.304.16
20	11.304.20
24	11.304.24
30	11.304.30

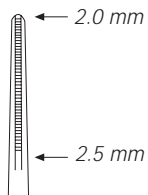
**DE BAKEY**  
 11.304.16 - 11.304.30



cm

16	11.306.16
20	11.306.20
24	11.306.24

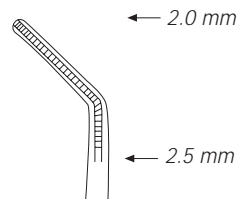
**DE BAKEY**  
 11.306.16 - 11.306.24



cm

16	11.308.16
20	11.308.20
24	11.308.24
30	11.308.30

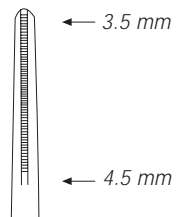
**DE BAKEY**  
 11.308.16 - 11.308.30



cm

16	11.309.16
20	11.309.20
24	11.309.24
30	11.309.30

**DE BAKEY**  
 11.309.16 - 11.309.30

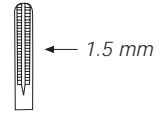
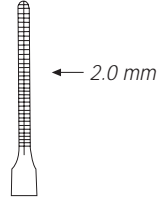
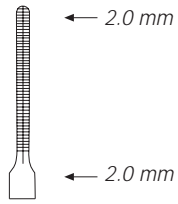


cm

16	11.310.16
20	11.310.20
24	11.310.24
30	11.310.30

**DE BAKEY**  
 11.310.16 - 11.310.30





cm

16	11.314.16
20	11.314.20

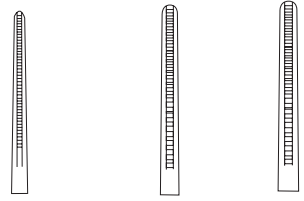
cm

16	11.316.16
20	11.316.20
24	11.316.24

**COOLEY**  
11.314.16 - 11.314.20

**COOLEY**  
11.314.24  
24 cm

**DE BAKEY DIETRICH**  
11.316.16 - 11.316.24



cm

	1.5 mm	2.4 mm	2.7 mm
15.0	11.322.16		11.332.15
19.5	11.322.20		11.332.20
24.0	11.322.24	11.324.24	11.332.24
30.0			11.332.30

cm

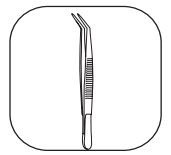
15.0	11.402.15 TC
19.5	11.402.20 TC
24.0	11.402.24 TC

11.322.16 - 11.332.30

**DE BAKEY**  
11.333.30  
30 cm

**DE BAKEY**  
11.402.15 TC - 11.402.24 TC  
2 x 4 teeth

**Atraumatic Forceps**  
**Pinzas Atraumáticas**  
**Atraumatische Pinzetten**



	1.5 mm	2.0 mm
cm		
15	11.404.15 TC	11.412.15 TC
19	11.404.19 TC	11.412.19 TC
24	11.404.24 TC	11.412.24 TC

**DE BAKEY**  
**11.404.15 TC - 11.412.24 TC**



	2.7 mm	3.5 mm	2.0 mm	2.7 mm	3.5 mm
	6 x 12 teeth	6 x 12 teeth	2 x 4 teeth	2 x 4 teeth	2 x 4 teeth
cm					
15	11.414.15 TC		11.422.15 TC	11.424.15 TC	
19	11.414.19 TC	11.416.19 TC	11.422.19 TC	11.424.19 TC	11.426.19 TC
24	11.414.24 TC	11.416.24 TC	11.422.24 TC	11.424.24 TC	11.426.24 TC

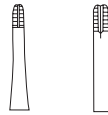
**DE BAKEY**  
**11.414.15 TC - 11.414.24 TC**



**GREGORY WHEELER**  
**11.452.15**



**GREGORY WHEELER**  
**11.456.20**  
 20 cm  
**11.456.24**  
 24 cm



**DEWIMED**  
**11.506.16 - 11.509.24**

cm		
16	11.506.16	11.509.16
18	11.506.18	11.509.18
20	11.506.20	11.509.20
22	11.506.22	11.509.22
24	11.506.24	11.509.24





**DEWIMED**  
11.510.18  
1 x 2 teeth



**DEWIMED**  
11.513.22  
tip 3 mm



**DEWIMED**  
11.513.24 - 11.517.24



**DEWIMED**  
11.515.22  
tip 5 mm

*ø mm*

3	11.513.24
5	11.515.24
7	11.517.24



**DEWIMED**  
11.521.22  
tip 3 mm



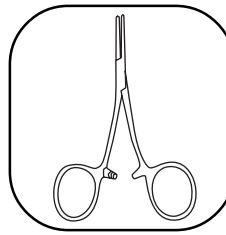
**HEIFEIZ**  
11.522.22  
tip 3 mm  
11.525.22  
tip 5 mm



**DEWIMED**  
11.523.22  
tip 5 mm

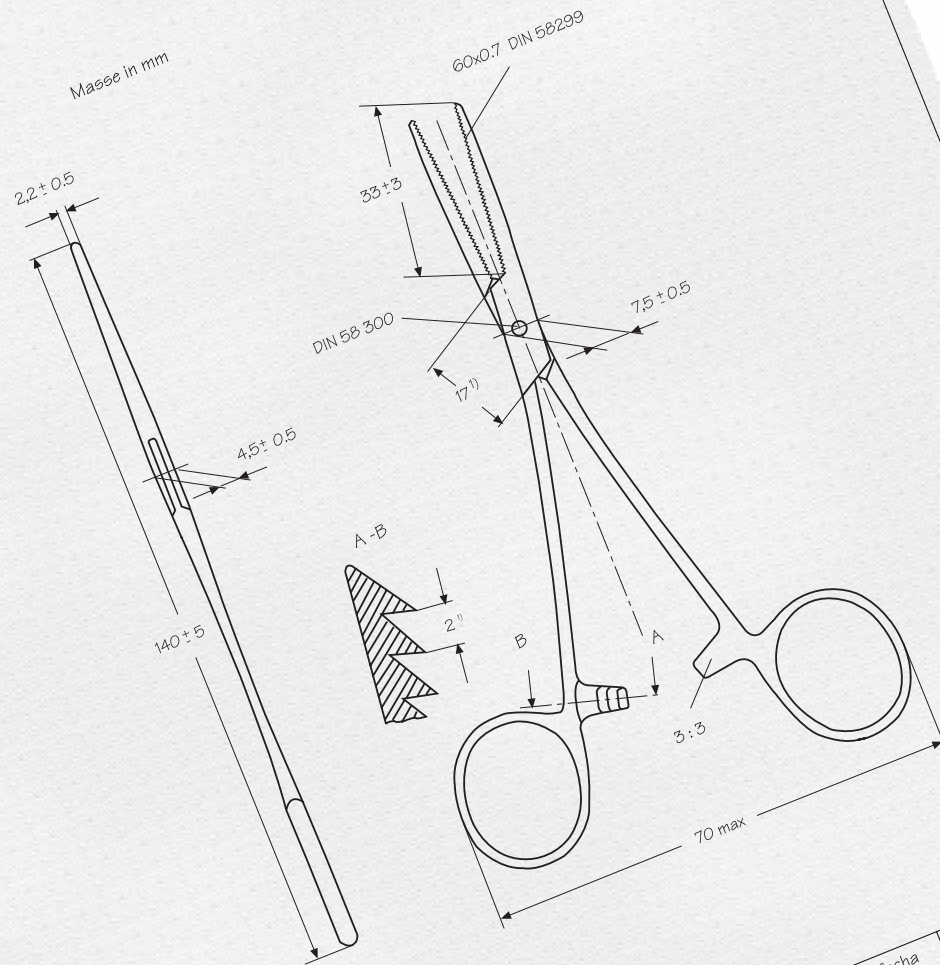


**HUNT**  
11.529.20



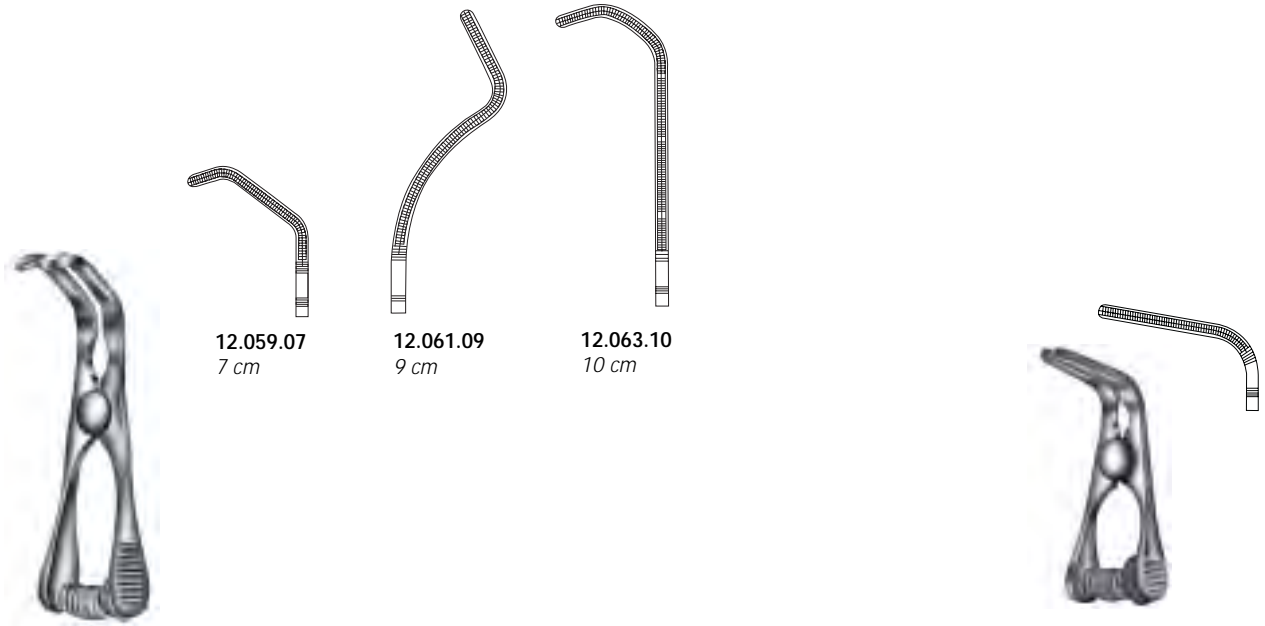
# 12

**Hemostatic Forceps**  
**Pinzas Hemostáticas**  
**Arterien- u. Schlauchklemmen**



		Datum / fecha	Name / nombre	Plan / plano 1
				Maasstab / escala 1:1
				Abt. / acot. mm
				Artikel / articulo
				Artikel-Nr. / No. de articulo
F		Konstrukteur / constructor		
E		gezeichnet / dibujado		
		geprüft / verificado		
		Toleranz / tolerancia		





**12.059.07**  
7 cm

**12.061.09**  
9 cm

**12.063.10**  
10 cm

**GLOVER**  
12.065.06  
5.5 cm

**DE BAKY SATINSKY**  
12.059.07 - 12.063.10

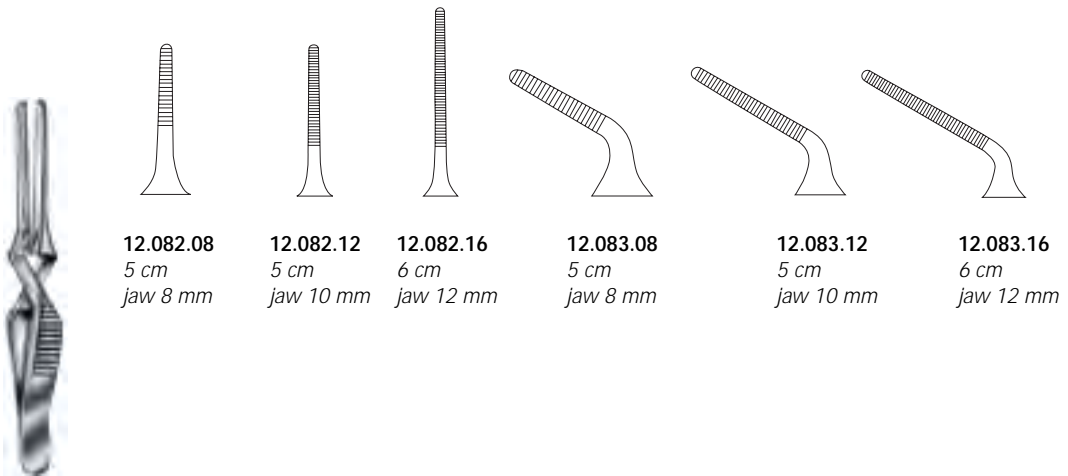


**GLOVER**  
12.070.35  
3.5 cm

**GLOVER**  
12.070.50  
5 cm

**GLOVER**  
12.071.35  
3.5 cm

**GLOVER**  
12.071.50  
5 cm



**12.082.08**  
5 cm  
jaw 8 mm

**12.082.12**  
5 cm  
jaw 10 mm

**12.082.16**  
6 cm  
jaw 12 mm

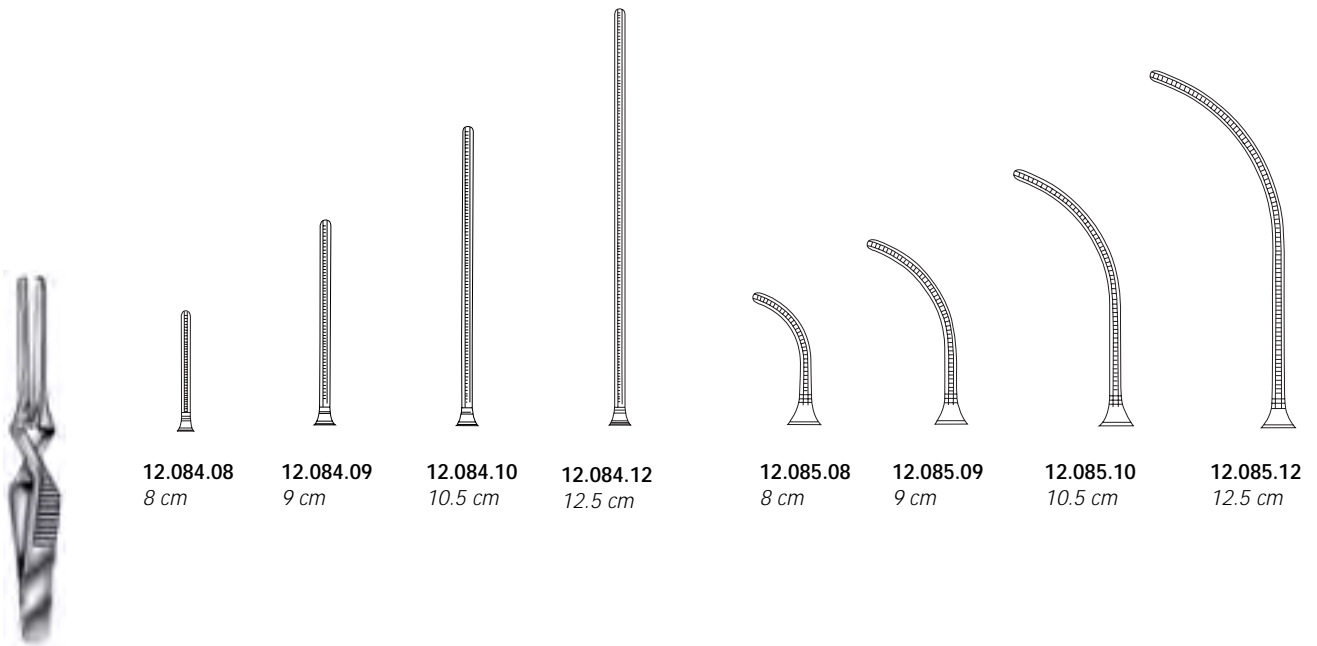
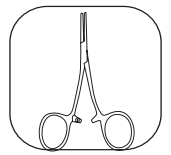
**12.083.08**  
5 cm  
jaw 8 mm

**12.083.12**  
5 cm  
jaw 10 mm

**12.083.16**  
6 cm  
jaw 12 mm

**DIETRICH**  
12.082.08 - 12.083.16

**Hemostatic Forceps  
Pinzas Hemostáticas  
Arterien- u. Schlauchklemmen**



12.084.08  
8 cm

12.084.09  
9 cm

12.084.10  
10.5 cm

12.084.12  
12.5 cm

12.085.08  
8 cm

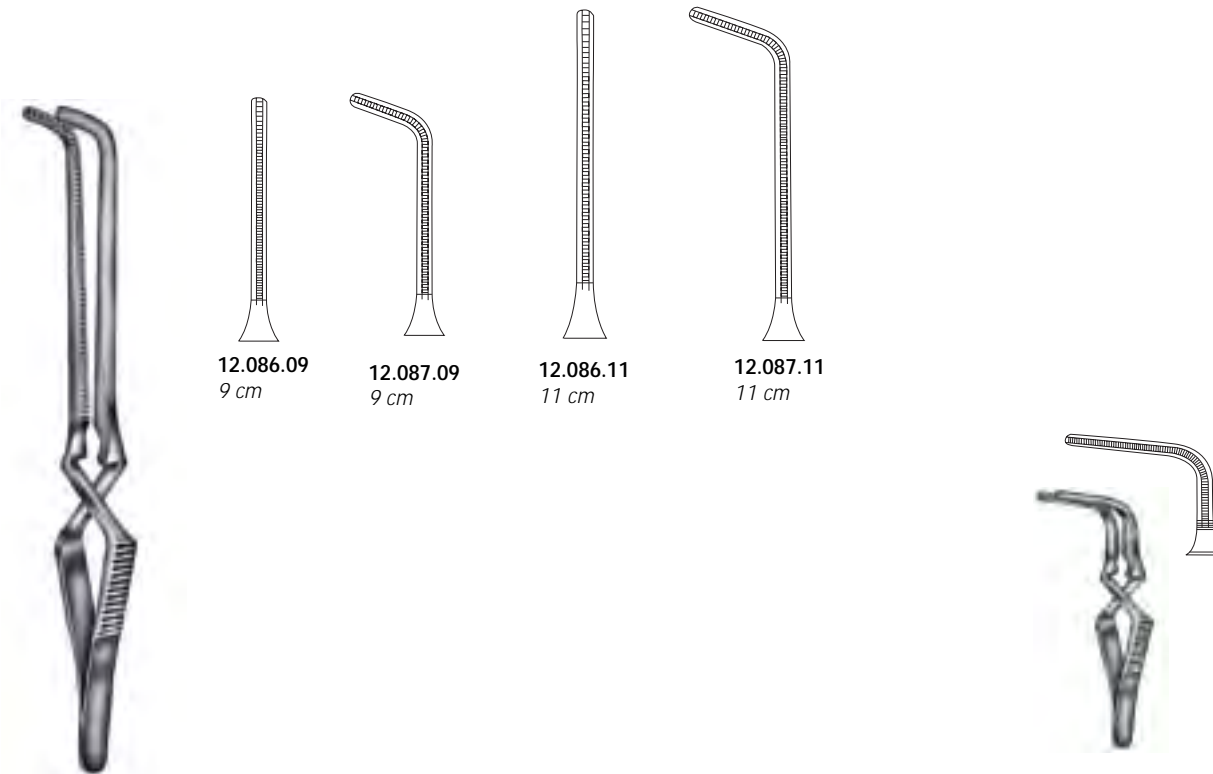
12.085.09  
9 cm

12.085.10  
10.5 cm

12.085.12  
12.5 cm

**COOLEY**

12.084.08 - 12.085.12



12.086.09  
9 cm

12.087.09  
9 cm

12.086.11  
11 cm

12.087.11  
11 cm

**GREGORY**

12.086.09 - 12.087.11

**SANTULLI**

12.089.07  
7 cm





12.091.23



**DE BAKEY**  
12.092.07 - 12.093.12



12.092.07  
7.5 cm



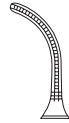
12.092.08  
8.5 cm



12.092.10  
10.5 cm



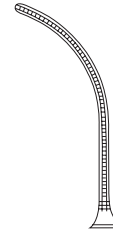
12.092.12  
12 cm



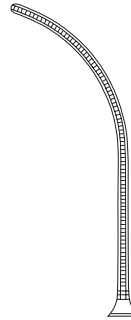
12.093.07  
7 cm



12.093.08  
8 cm



12.093.10  
10 cm



12.093.12  
11.5 cm



12.096.06  
10.5 cm



12.096.07  
7 cm



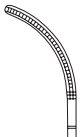
12.096.09  
9 cm



12.096.11  
11 cm



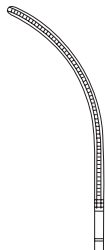
**GLOVER**  
12.096.06 - 12.097.11



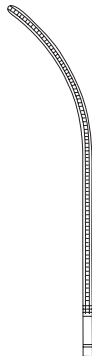
12.097.06  
5.5 cm



12.097.07  
6.5 cm



12.097.09  
8.5 cm



12.097.11  
10.5 cm

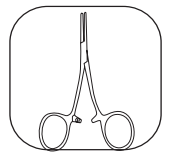


**DIEFFENBACH**  
12.102.04  
3.5 cm  
12.102.05  
5.5 cm



**DIEFFENBACH**  
12.103.04  
3.5 cm  
12.103.05  
5.5 cm

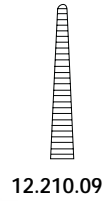
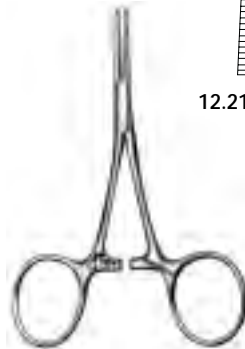
**Hemostatic Forceps**  
**Pinzas Hemostáticas**  
**Arterien- u. Schlauchklemmen**



cm

5.0	12.110.50	12.111.50
5.5	12.110.55	12.111.55
6.5	12.110.65	12.111.65
7.0	12.110.70	12.111.70
7.5	12.110.75	12.111.75
9.0	12.110.90	12.111.90

**JOHNS HOPKINS**  
 12.110.50 - 12.111.90

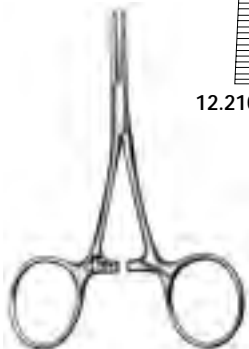


12.210.09



12.211.09

**HARTMANN baby**  
 12.210.09 - 12.211.09  
 9 cm

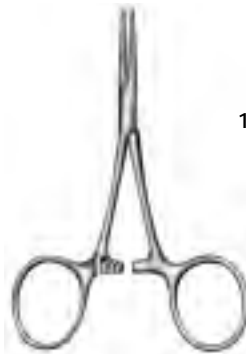


12.210.10



12.211.10

**HARTMANN**  
 12.210.10 - 12.211.10  
 10 cm

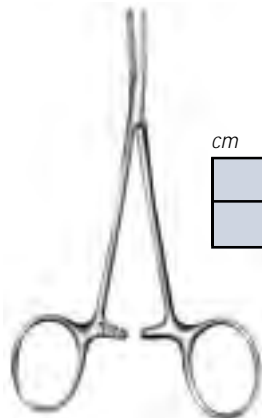


12.212.10



12.213.10

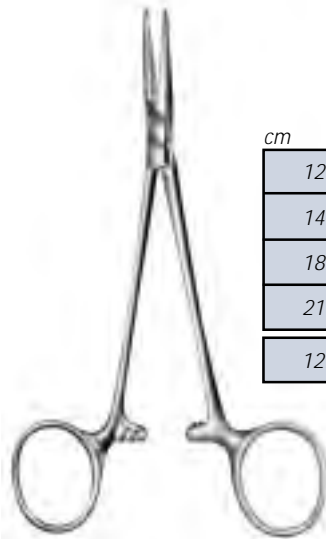
**HARTMANN**  
 12.212.10 - 12.213.10  
 10 cm  
 1 x 2 teeth



cm

10	12.222.10	12.223.10
12	12.222.12	12.223.12

**HALSTED MOSQUITO micro**  
 12.222.10 - 12.223.12

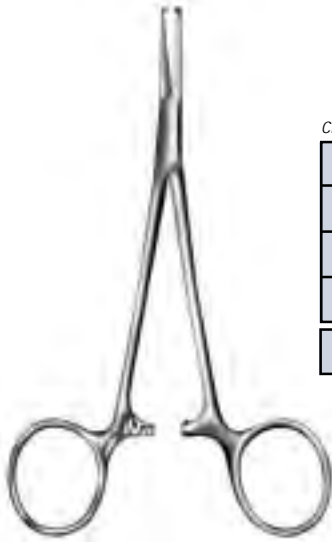


cm

12.5	12.220.12	12.221.12
14.0	12.220.14	12.221.14
18.0	12.220.18	12.221.18
21.0	12.220.21	12.221.21
12.5 T	12.224.12 T	12.225.12 T

**HALSTED MOSQUITO**  
 12.220.12 - 12.225.12 T





cm

12.5	12.230.12	12.231.12
14.0	12.230.14	12.231.14
18.0	12.230.18	12.231.18
21.0	12.230.21	12.231.21
12.5 T	12.234.12 T	12.235.12 T

### HALSTED MOSQUITO

12.230.12 - 12.235.12 T

1 x 2 teeth



12.232.12

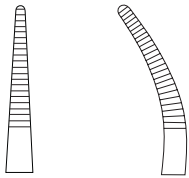
12.233.12

### HALSTED MOSQUITO micro

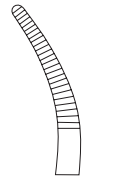
12.232.12 - 12.233.12

12.5 cm

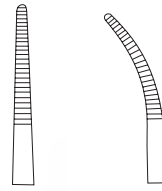
1 x 2 teeth



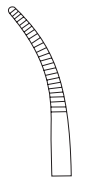
12.240.14  
12.244.14 T



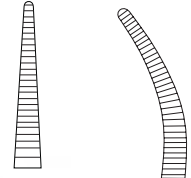
12.241.14  
12.245.14 T



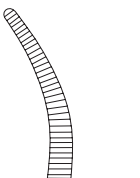
12.242.16



12.243.16



12.250.14  
12.254.14 T



12.251.14  
12.255.14 T



### KELLY

12.240.14 - 12.241.14

12.244.14 T - 12.245.14 T

14 cm



### KELLY RANKIN

12.242.16 - 12.243.16

16 cm



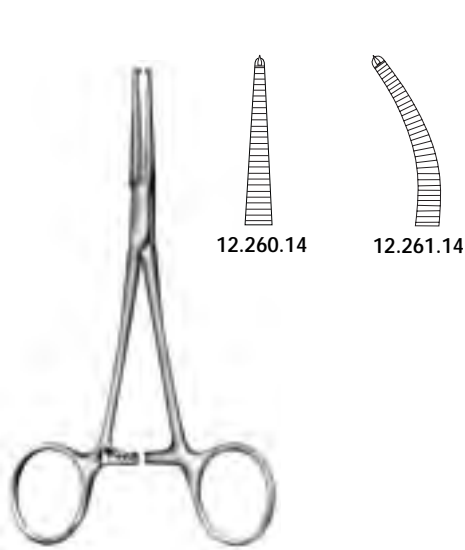
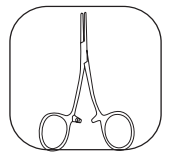
### CRILE

12.250.14 - 12.251.14

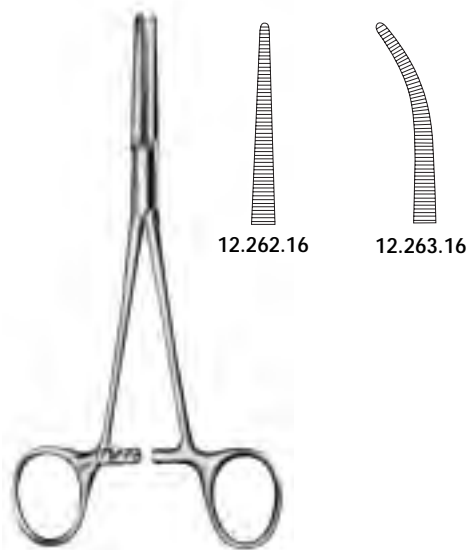
12.254.14 T - 12.255.14 T

14 cm

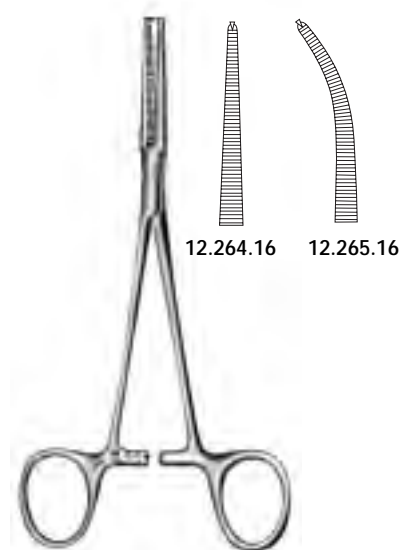
**Hemostatic Forceps**  
**Pinzas Hemostáticas**  
**Arterien- u. Schlauchklemmen**



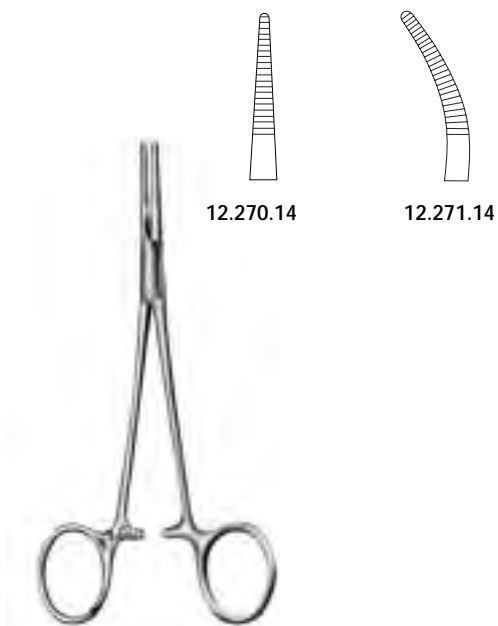
**CRILE**  
 12.260.14 - 12.261.14  
 14 cm  
 1 x 2 teeth



**CRILE RANKIN**  
 12.262.16 - 12.263.16  
 16 cm



**CRILE RANKIN**  
 12.264.16 - 12.265.16  
 16 cm  
 1 x 2 teeth



**PROVIDENCE HOSPITAL**  
 12.270.14 - 12.271.14

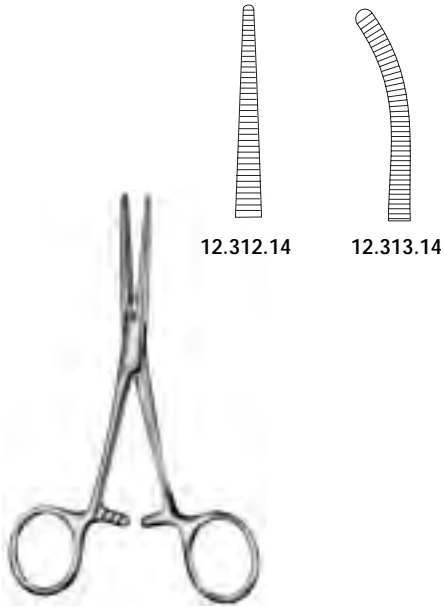


**ROCHESTER PEAN**  
 12.310.13 - 12.311.30

cm

13	12.310.13	12.311.13
14	12.310.14	12.311.14
16	12.310.16	12.311.16
18	12.310.18	12.311.18
20	12.310.20	12.311.20
22	12.310.22	12.311.22
24	12.310.24	12.311.24
26	12.310.26	12.311.26
30	12.310.30	12.311.30





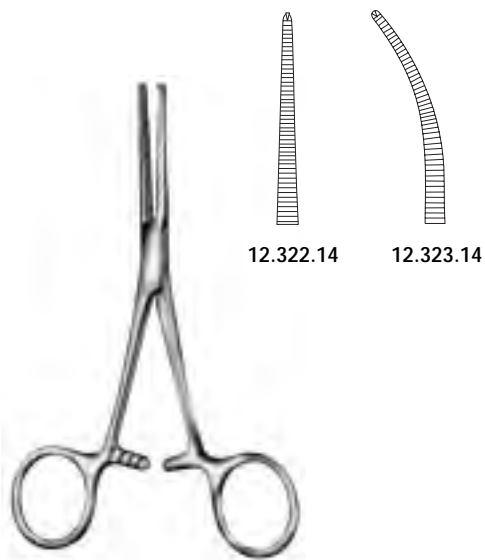
**PEAN**  
12.312.14 - 12.313.14  
14 cm



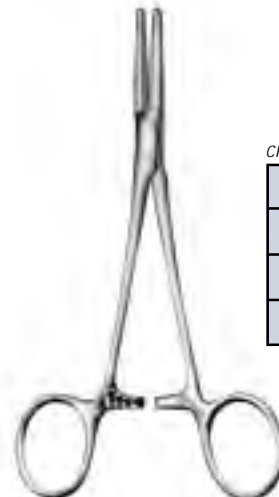
**ROCHESTER OCHSNER**  
12.320.13 - 12.321.30  
1 x 2 teeth

cm

13	12.320.13	12.321.13
14	12.320.14	12.321.14
16	12.320.16	12.321.16
18	12.320.18	12.321.18
20	12.320.20	12.321.20
22	12.320.22	12.321.22
24	12.320.24	12.321.24
26	12.320.26	12.321.26
30	12.320.30	12.321.30



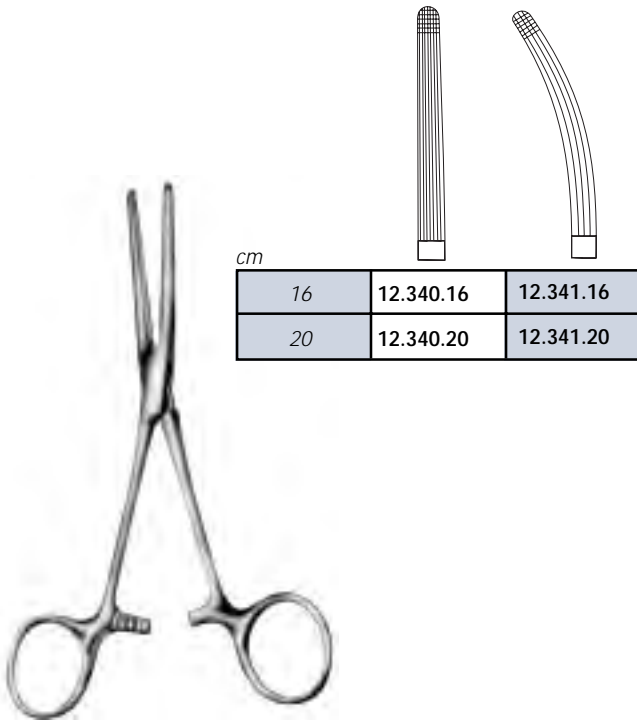
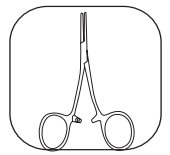
**KOCHER**  
12.322.14 - 12.323.14  
14 cm  
1 x 2 teeth



**SPENCER WELLS**  
12.330.13 - 12.331.20

cm

13	12.330.13	12.331.13
15	12.330.15	12.331.15
18	12.330.18	12.331.18
20	12.330.20	12.331.20



cm

16	12.340.16	12.341.16
20	12.340.20	12.341.20

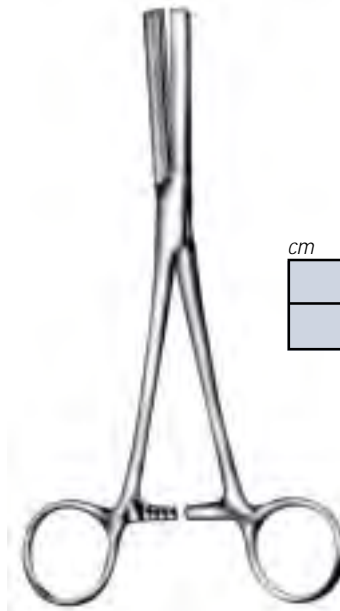
**ROCHESTER CARMALT**  
 12.340.16 - 12.341.20



**DANDY**  
 12.345.14  
 14 cm



**DANDY**  
 12.347.14  
 1 x 2 teeth



cm

16	12.350.16	12.351.16
20	12.350.20	12.351.20

**FERGUSSON**  
 12.350.16 - 12.351.20



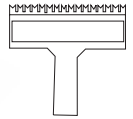


**LOVELACE**  
12.356.15  
15.5 cm

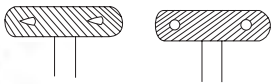


12.358.15 - 12.358.20

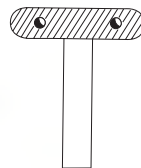
**PENNINGTON**  
12.358.15  
15.5 cm  
12.358.20  
20 cm



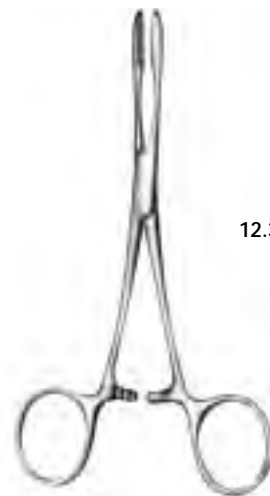
**PRATT**  
12.360.15  
15 cm



**MARTELL**  
12.364.14  
14 cm

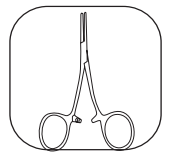


**WILLET MARTEL**  
12.366.19  
19 cm



12.368.14 - 12.368.16

**PEAN**  
12.368.14  
14 cm  
12.368.16  
16 cm



**CHAPUT**  
 12.370.13  
 13 cm



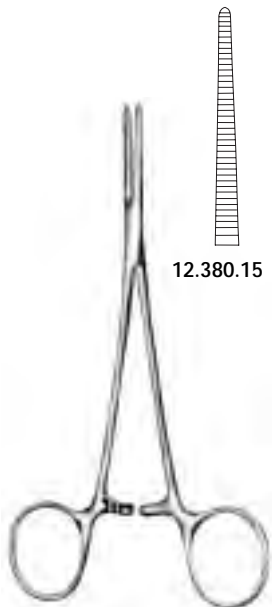
**TUFFIER**  
 12.372.13  
 13 cm



**COLLIN**  
 12.374.14  
 14 cm

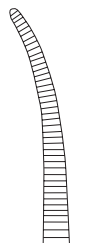


**COLLIN**  
 12.376.16  
 16 cm



12.380.15

**LERICHE**  
 12.380.15 - 12.381.15  
 15 cm

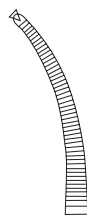


12.381.15

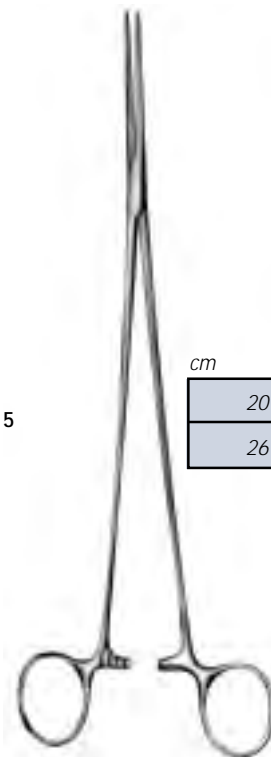


12.382.15

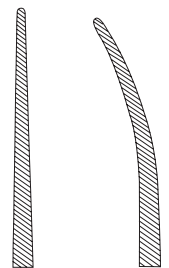
**LERICHE**  
 12.382.15 - 12.383.15  
 15 cm



12.383.15

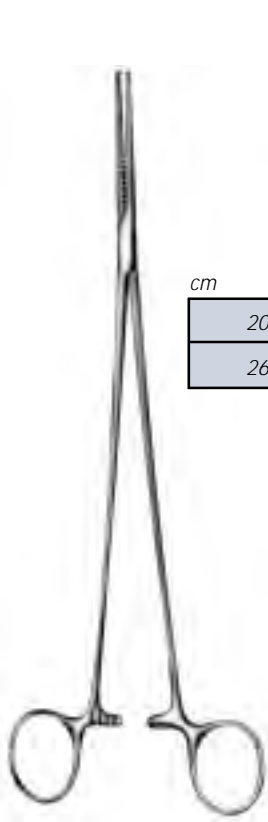


**BENGOLEA**  
 12.384.20 - 12.385.26



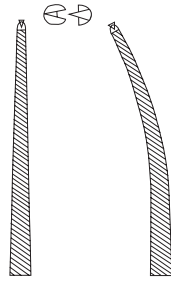
cm

20	12.384.20	12.385.20
26	12.384.26	12.385.26



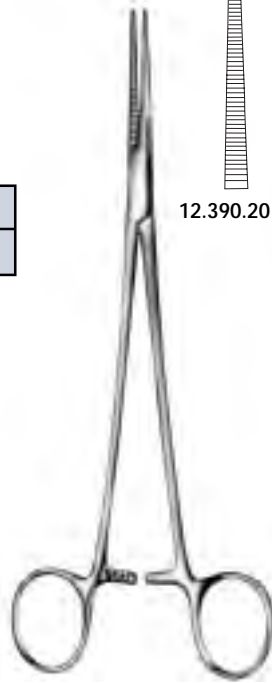
cm

20	12.386.20	12.387.20
26	12.386.26	12.387.26



### BENGOLEA

12.386.20 - 12.387.26  
1 x 2 teeth



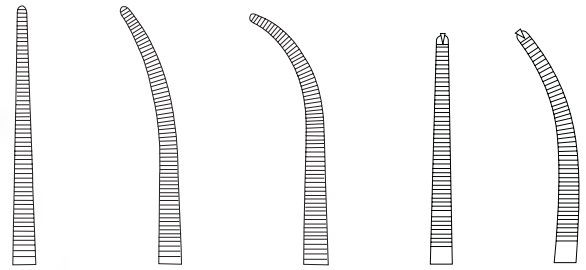
12.390.20

12.391.20

12.393.20

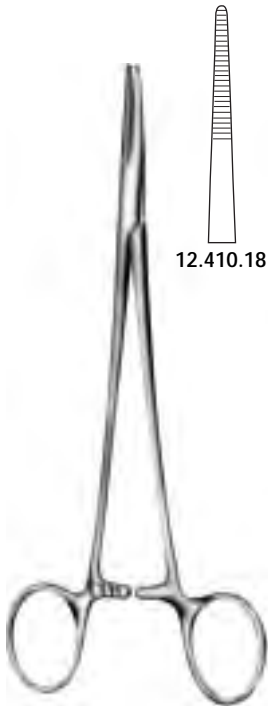
12.394.20  
1 x 2 teeth

12.395.20  
1 x 2 teeth



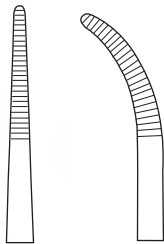
### HEISS

12.390.20 - 12.395.20  
20 cm



12.410.18

12.411.18



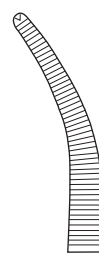
### ADSON

12.410.18 - 12.411.18  
18.5 cm



12.412.18

12.413.18



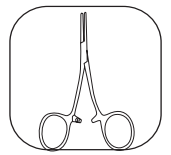
### ADSON

12.412.18 - 12.413.18  
18.5 cm  
1 x 2 teeth



### ADSON baby

12.415.18  
18 cm

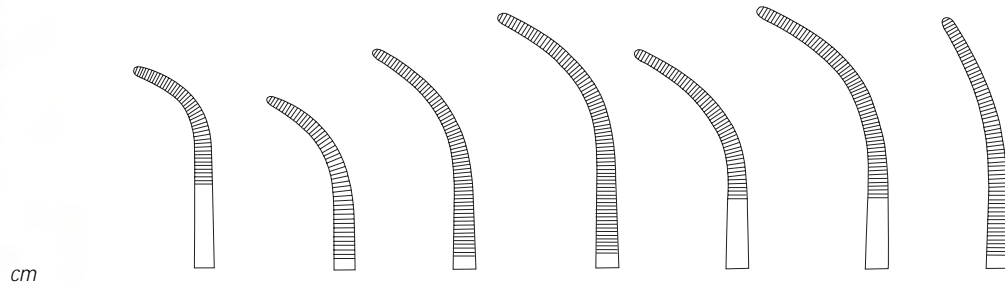
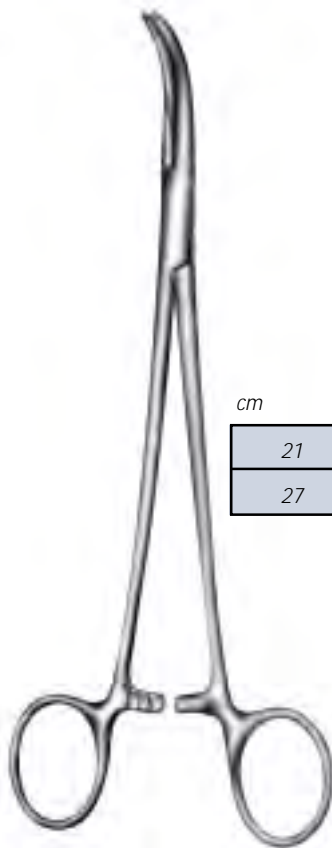


**vasectomy ring forceps**  
 12.416.14  
 14 cm / ø 35 mm



**hemostatic vasectomy forceps**  
*short, curved, plain tips*  
 12.417.14  
 14 cm

**dissecting and ligature forceps**



21	12.421.01	12.421.02	12.421.03	12.421.04	12.421.05	12.421.06	12.421.07
27	12.427.01	12.427.02	12.427.03	12.427.04	12.427.05	12.427.06	12.427.07

**OVERHOLT GEISSENDOERFER**  
 12.421.01 - 12.427.08

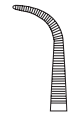




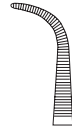
## dissecting and ligature forceps



**GEMINI**  
12.431.13 - 12.431.28



12.431.13  
13 cm



12.431.16  
16 cm



12.431.18  
18 cm



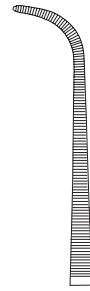
12.431.20  
20 cm



12.431.23  
23 cm



12.431.25  
25 cm



12.431.28  
28 cm

**GEMINI mini**  
12.433.18 - 12.433.28



12.433.18  
18 cm



12.433.22  
22 cm

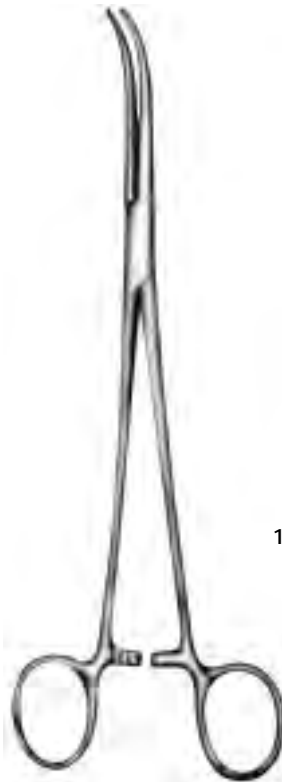


12.433.25  
25 cm



12.433.28  
28 cm

**GEMINI**  
12.431.13 - 12.431.28  
**GEMINI mini**  
12.433.18 - 12.433.25



12.441.01



12.441.02

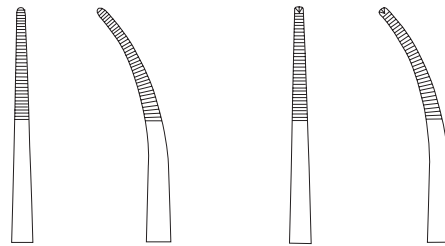
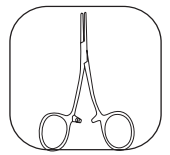


12.441.03



12.441.04

**RUMEL**  
12.441.01 - 12.441.04  
23 cm

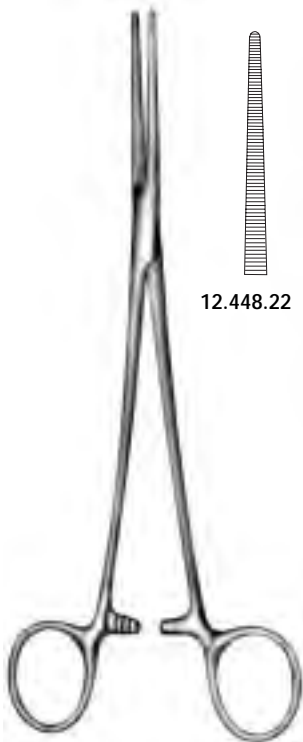


cm

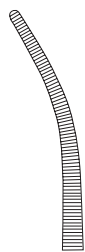
21	12.442.21	12.443.21	12.444.21	12.445.21
26	12.442.26	12.443.26	12.444.26	12.445.26

**TOENNIS**

12.442.21 - 12.445.26



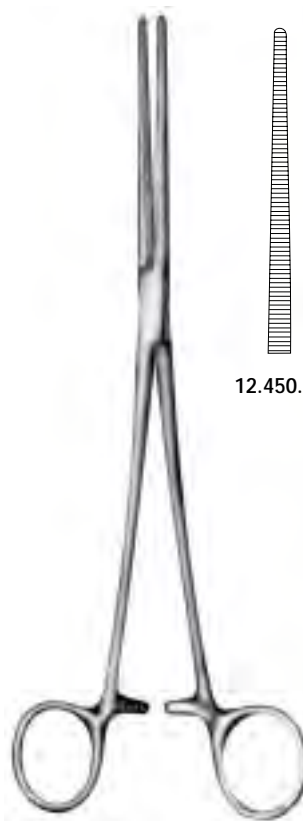
12.448.22



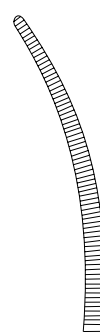
12.449.22

**ROBERTS**

12.448.22 - 12.449.22  
22 cm



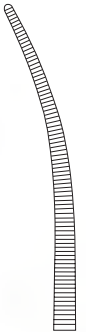
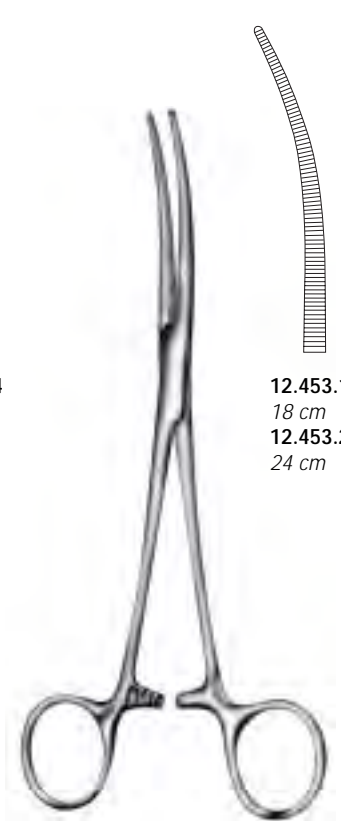
12.450.24



12.451.24

**SAROT**

12.450.24 - 12.451.24  
22 cm

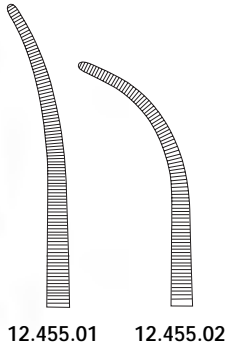


12.453.18  
18 cm  
12.453.24  
24 cm

**CRAFOORD**

12.453.18 - 12.453.24



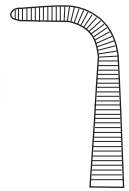


12.455.01 12.455.02

**ZENKER**  
12.455.01 - 12.455.02  
29.5 cm



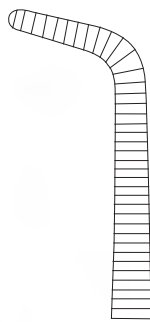
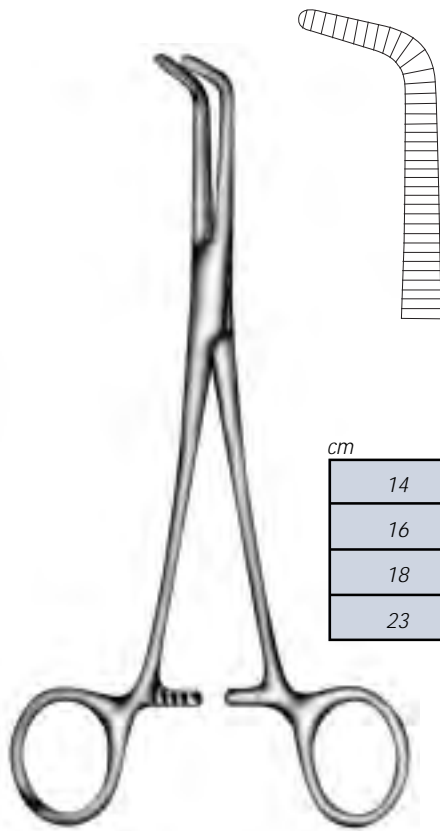
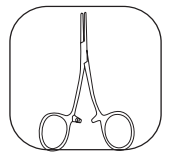
**LAWRENCE**  
12.457.28  
28 cm



**MEEKER**  
12.459.28  
28 cm

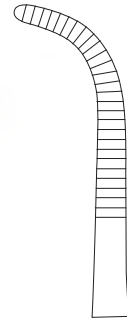


12.469.14  
14 cm



cm	
14	12.471.14
16	12.471.16
18	12.471.18
23	12.471.23

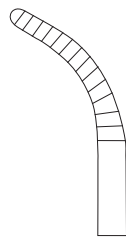
**MIXTER**  
 12.471.14 - 12.471.23



**MIXTER**  
 12.473.22  
 22 cm

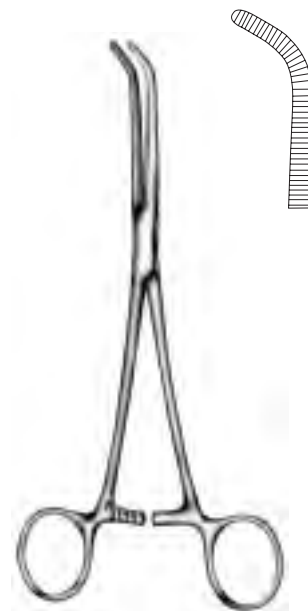


12.475.14  
 14 cm



12.475.18  
 18 cm

**MIXTER baby**  
 12.475.14 - 12.475.18

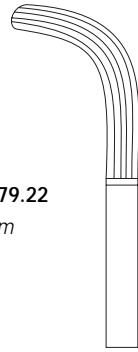


**MIXTER O'SHAUGNESSY**  
 12.477.15  
 15.5 cm  
 12.477.19  
 19.0 cm

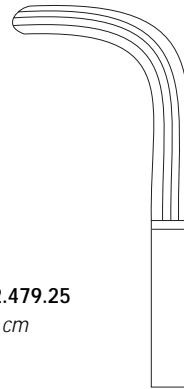




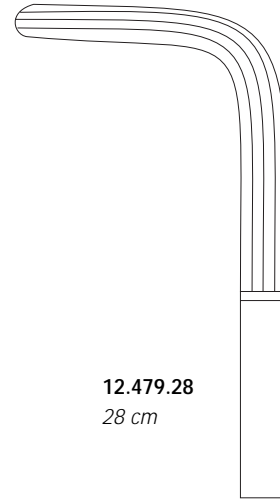
**12.479.22**  
22 cm



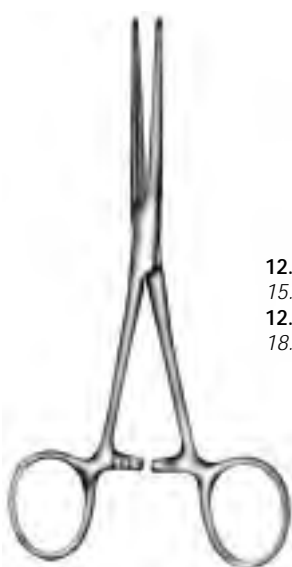
**12.479.25**  
25 cm



**12.479.28**  
28 cm



**MIXTER**  
12.479.22 - 12.479.28

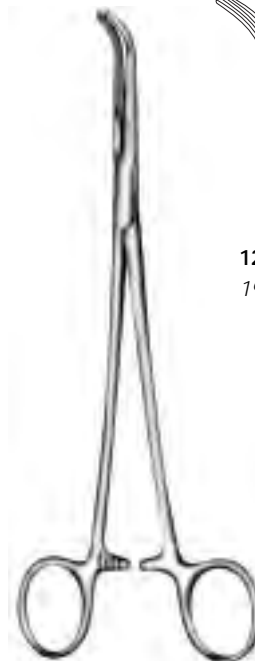


**12.480.15**  
15.0 cm  
**12.480.18**  
18.5 cm



**12.481.15**  
15.0 cm  
**12.481.18**  
18.5 cm

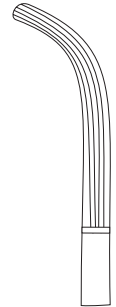
**BAINBRIDGE**  
12.480.15 - 12.481.18



**12.491.19**  
19 cm

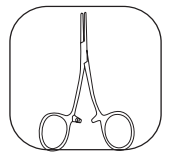


**12.493.23**  
23 cm



**LAHEY**  
12.491.19 - 12.493.23

**Hemostatic Forceps**  
**Pinzas Hemostáticas**  
**Arterien- u. Schlauchklemmen**



**LOWER**  
 12.495.18  
 18 cm



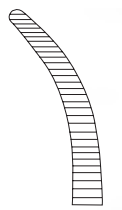
**JOHNS HOPKINS**  
 12.497.20  
 20 cm



**MOYNIHAN**  
 12.501.23  
 23 cm

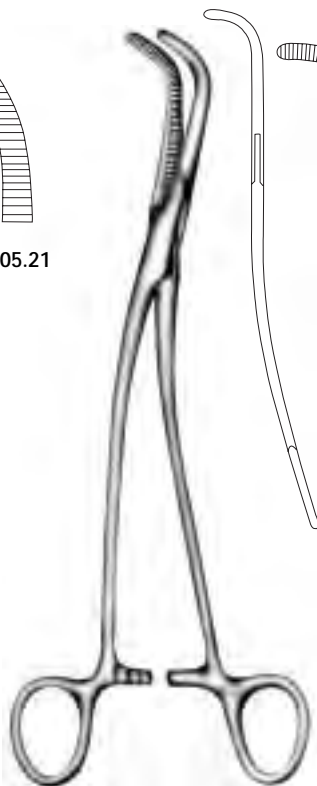


**DESJARDINS**  
 12.503.21 - 12.505.21  
 21 cm

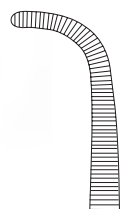


12.503.21

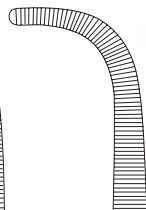
12.505.21



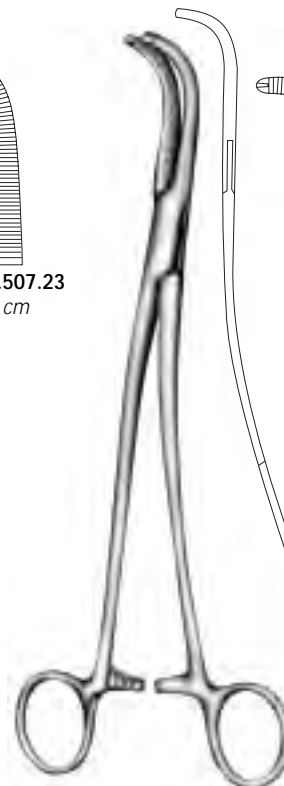
**GRAY**  
 12.507.22 - 12.507.23



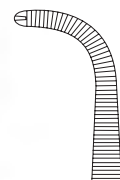
12.507.22  
 22 cm



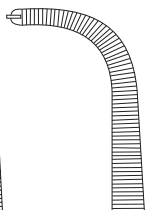
12.507.23  
 23 cm



**GRAY**  
 12.509.22 - 12.509.23



12.509.22  
 22 cm



12.509.23  
 23 cm





**STILLE**  
12.513.23  
23 cm



**MAYO GUYON**  
12.515.23  
23 cm



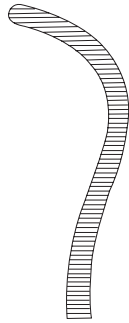
**GUYON**  
12.517.23  
23 cm



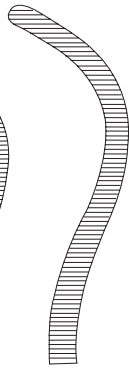
**GUYON**  
12.519.20 - 12.519.24



12.519.20  
20 cm



12.519.22  
22 cm

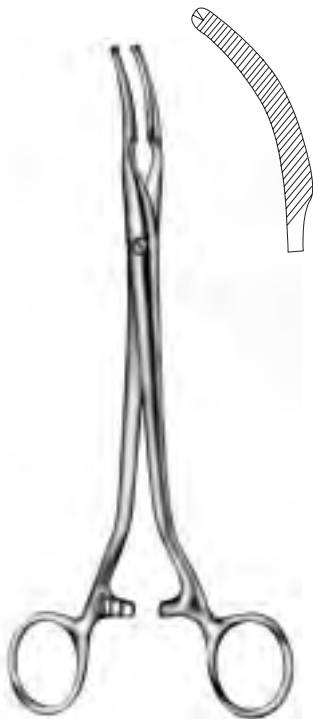
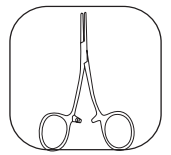


12.519.24  
24 cm



**HERRICK**  
12.523.23  
23 cm

**Hemostatic Forceps**  
**Pinzas Hemostáticas**  
**Arterien- u. Schlauchklemmen**



**MIKULICZ**  
 12.551.20  
 20 cm



12.554.21

12.555.21

**PHANEUF**  
 12.554.21 - 12.555.21  
 21 cm



12.561.20

12.563.20

**FAURE**  
 12.561.20 - 12.563.20  
 20 cm



**WERTHEIM**  
 12.571.25  
 25 cm



12.573.22  
 22 cm

12.575.23  
 23 cm

**WERTHEIM**  
 12.573.22 - 12.575.23

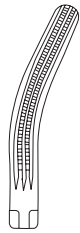
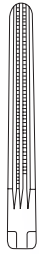


**WERTHEIM CULLEN**  
 12.579.21  
 21.5 cm

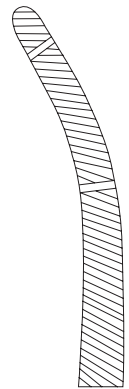
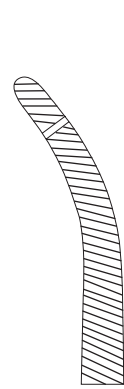




**12.580.21**  
21.5 cm  
**12.580.25**  
25.5 cm

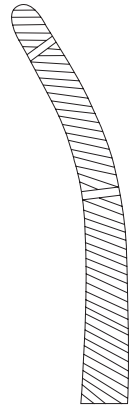
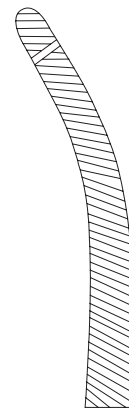


**12.581.21**  
21.5 cm  
**12.581.25**  
25.5 cm



**12.591.20**  
1 teeth

**12.593.20**  
2 teeth



**12.591.23**  
1 teeth

**12.593.23**  
2 teeth

### ROBERTS

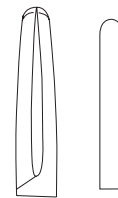
12.580.21 - 12.581.25

### HEANEY

12.591.20 - 12.593.20  
20 cm



**12.702.14**  
14.5 cm

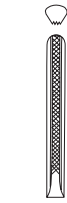
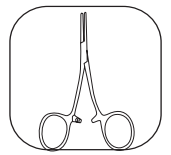


cm

16	12.704.16
18	12.704.18
20	12.704.20

12.704.16 - 12.704.20

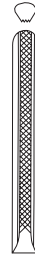
**Hemostatic Forceps**  
**Pinzas Hemostáticas**  
**Arterien- u. Schlauchklemmen**



12.710.15  
15 cm



12.710.18  
18 cm

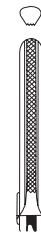


12.710.20  
20 cm

12.710.15 - 12.710.20



12.712.15  
15 cm



12.712.18  
18 cm



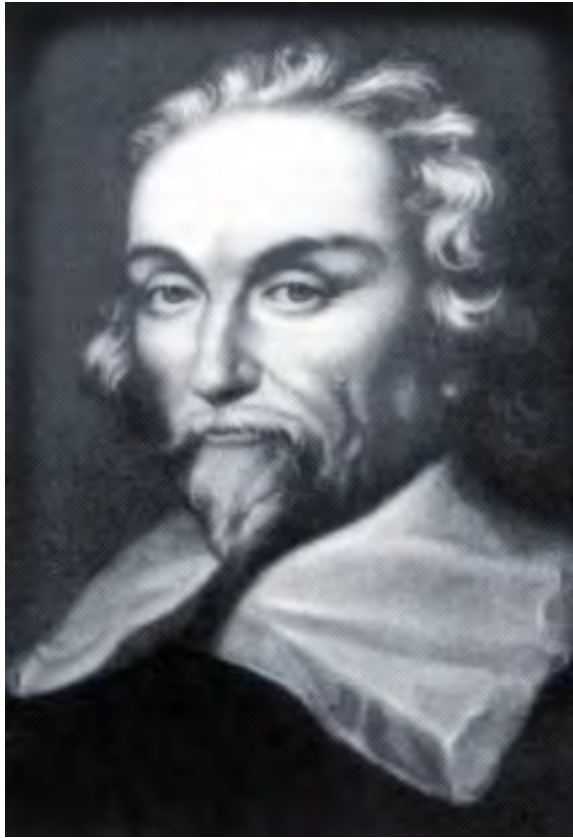
12.712.20  
20 cm

12.712.15 - 12.712.20



**GUNNAR HEY**  
12.722.18





## WILLIAM HARVEY

1578 - 1657

Was born in Folkestone, England in 1578.

After having studied anatomy in Padua, he moved to London, England.

Harvey established the principles of blood circulation. Without doubt a discovery that affected the concepts of physiology.

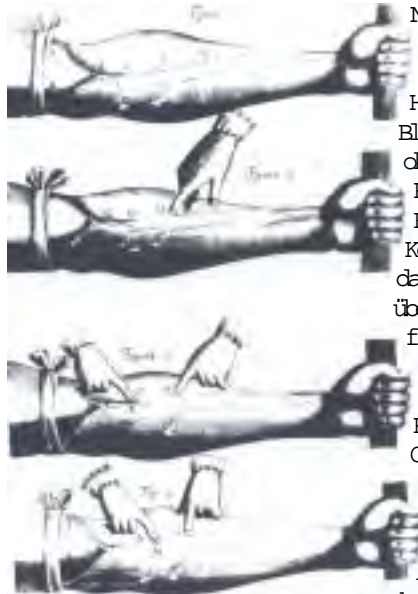
He demonstrated that when the heart contracts, the blood goes from the right ventricle through the pulmonary artery to the lungs. After that the blood passes through the left auricle and ventricle into the general blood circulation.

Even though it was not possible for Harvey to prove the existence of capillaries, he assured the existence of anastomosis between arteries and veins.

So it was possible for him to justify his circulation concept.

Nació en Folkestone, Inglaterra en 1578.

Después de haber estudiado anatomía en Padua, se sitúa en Londres, Inglaterra. Harvey estableció los principios de la circulación. Un descubrimiento que afectaría enormemente los conceptos sobre fisiología. Demostró que cuando el corazón contrae en sístole, la sangre del ventrículo derecho pasa hacia la arteria pulmonar y de allí al pulmón. Después, la sangre pasa hacia la aurícula y ventrículo izquierdo hacia la circulación general. Aunque no pudo demostrar la existencia de los capilares, Harvey teorizó que debía existir anastomosis entre arterias y venas, para hacer posible sus concepto de una circulación completa.



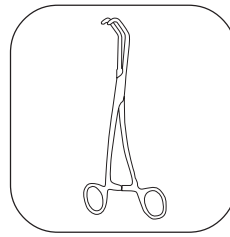
Wurde in Folkestone, England, 1578 geboren.

Nachdem er in Padua Anatomie studiert hatte, ließ er sich in London, England, nieder.

Harvey stellte die Prinzipien des Blutkreislaufs auf. Eine Entdeckung, die ohne Zweifel gängige physiologische Konzepte beeinflusst hat.

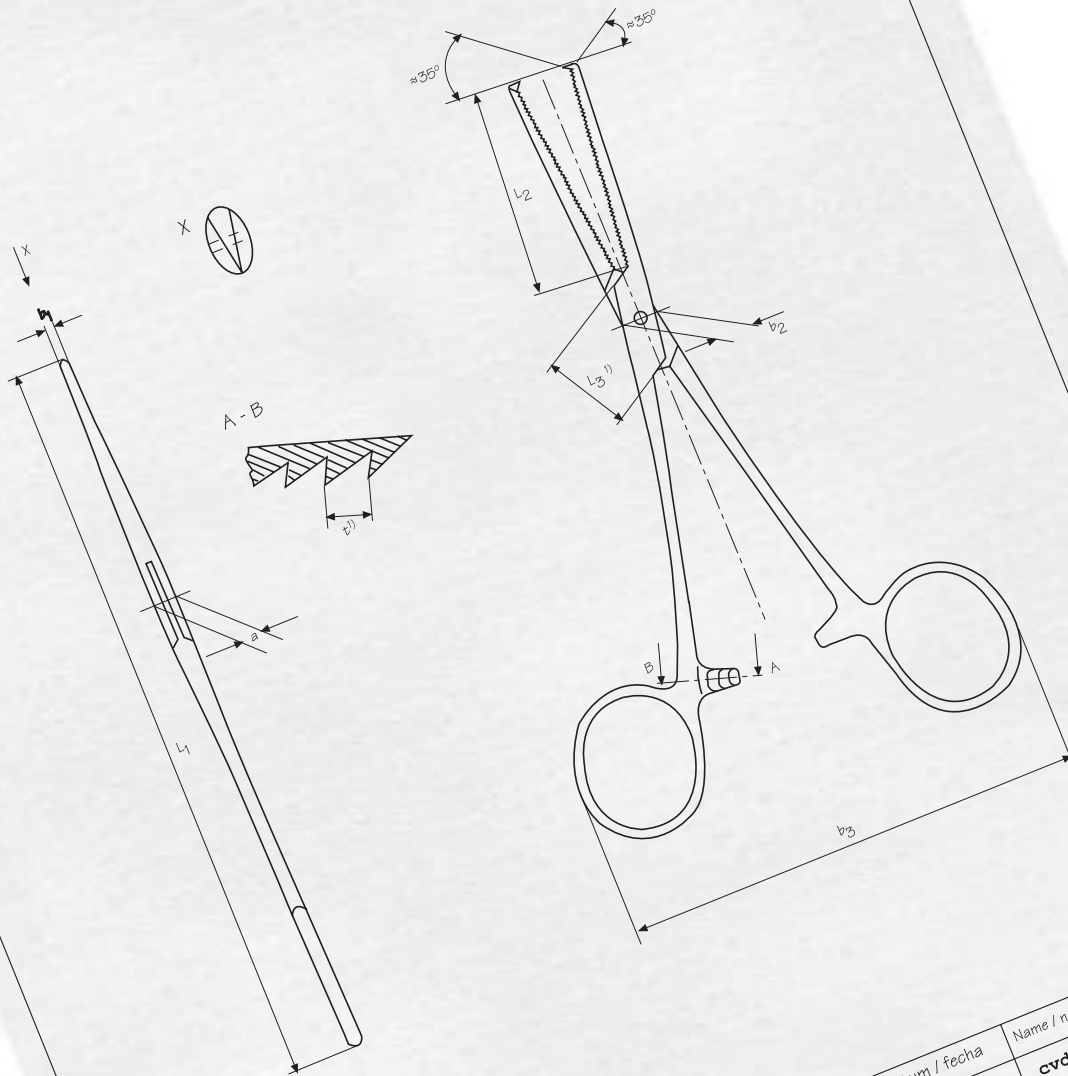
Harvey hat bewiesen, daß bei Kontraktion des Herzens (Systole) das Blut von der rechten Herzkammer über die Lungenarterie in die Lunge fließt. Von dort aus fließt das Blut über den linken Vorhof und die linke Herzkammer in den allgemeinen Kreislauf.

Obwohl es Harvey nicht möglich war, die Existenz von Kapillaren nachzuweisen, war er sich der Existenz von Anastomosen zwischen Arterien und Venen sicher. Nur so konnte er sein Kreislaufkonzept rechtfertigen.



# 13

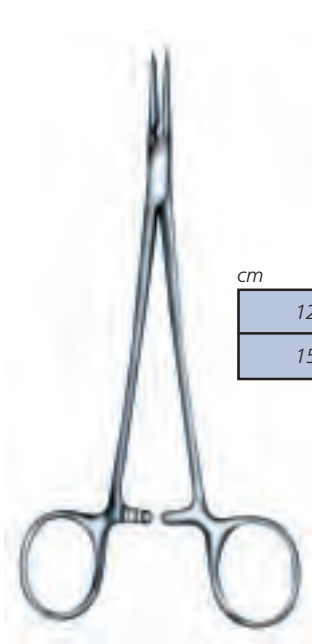
**Atraumatic Hemostatic Forceps**  
**Pinzas Hemostáticas**  
**Atraumatische Klemmen**



GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
	gezeichnet / dibujado	July '98	cvd/jvd	1
	geprüft / verificado	July '98	cvd	Maaetab / escala 1:1
	Toleranz / tolerancia	June '99	mj	Abt. / acot. mm
				Artikel / artículo
				Artikel-Nr. / No. de articulo

Stainless Steel  
 inoxidable

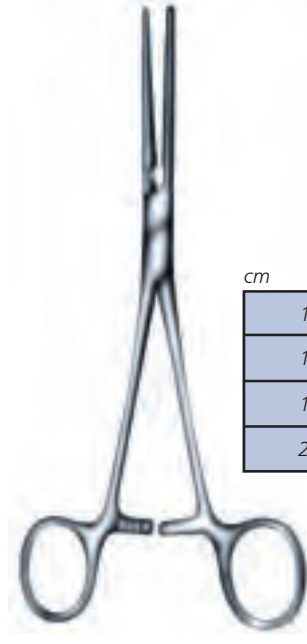




cm

12	13.080.12	13.081.12
15	13.080.15	13.081.15

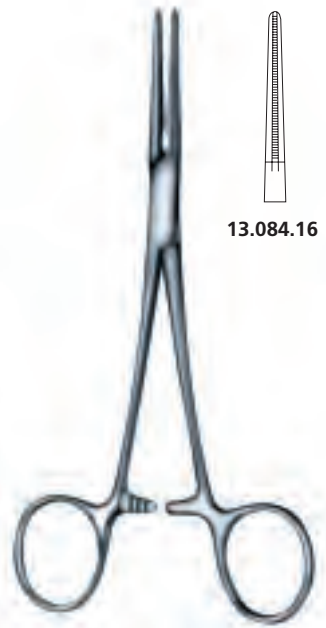
**HALSTED**  
13.080.12 - 13.081.15



cm

14	13.082.14	13.083.14
16	13.082.16	13.083.16
18	13.082.18	13.083.18
20	13.082.20	13.083.20

**PEAN**  
13.082.14 - 13.083.20



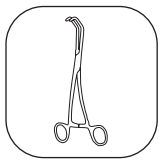
13.084.16	13.085.16
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**RANKIN**  
13.084.16 - 13.085.16  
16 cm



13.102.12	13.103.12
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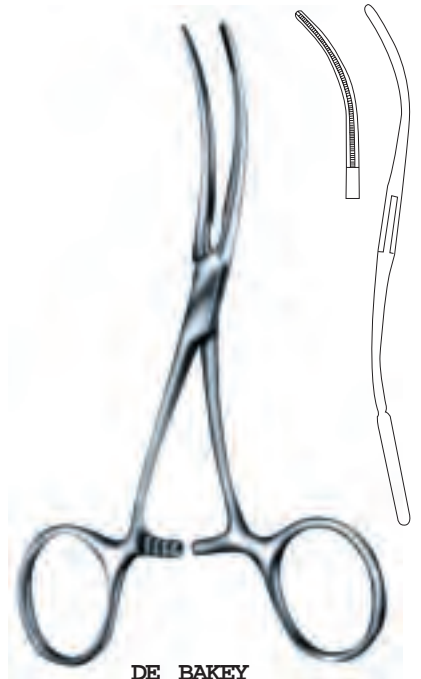
**DEBAKEY**  
13.102.12 - 13.103.12  
12 cm



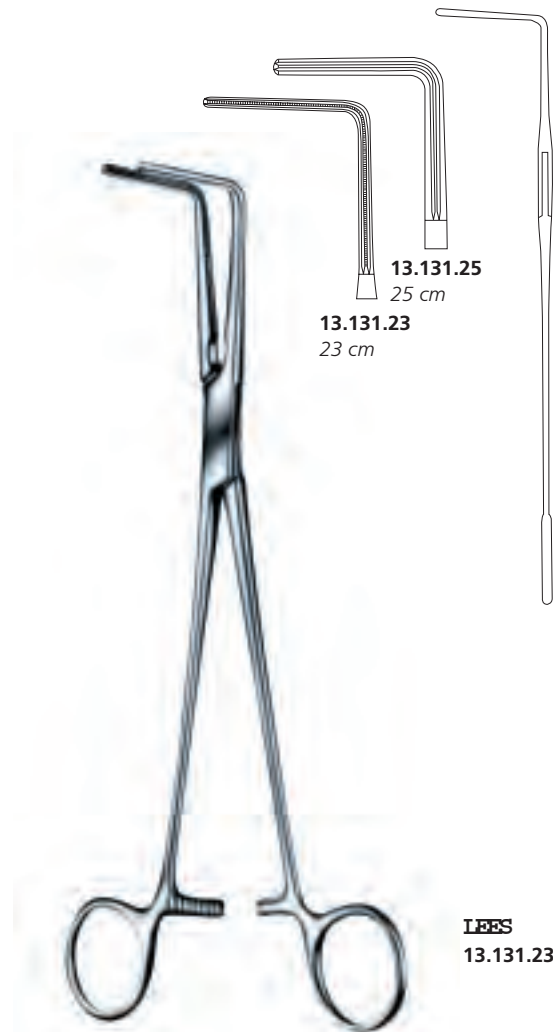
**DE BAKAY**  
**13.111.12**  
 12 cm



**DE BAKAY**  
**13.113.12**  
 12 cm

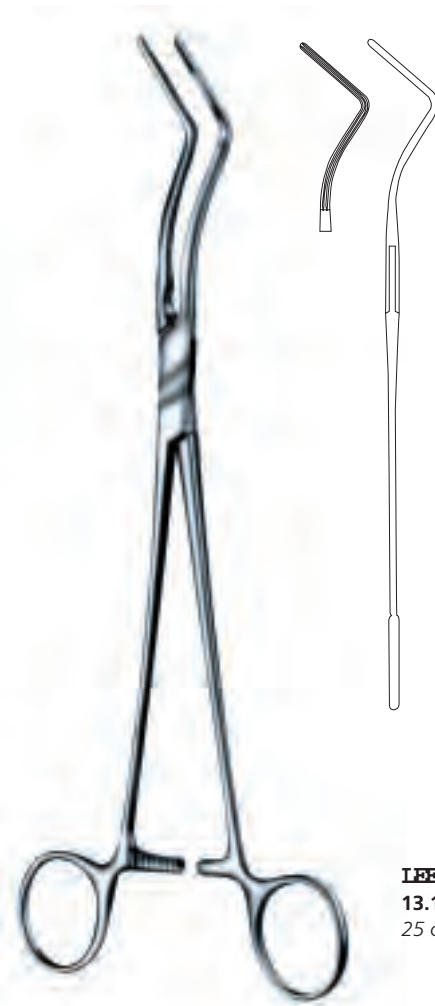


**DE BAKAY**  
**13.121.12**  
 12 cm



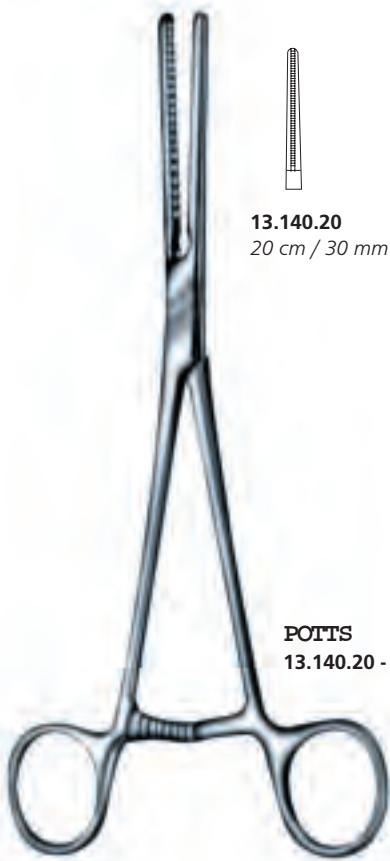
**LEES**  
**13.131.23 - 13.131.25**

**13.131.25**  
 25 cm  
**13.131.23**  
 23 cm



**LEES**  
**13.133.25**  
 25 cm





**POTTS**  
13.140.20 - 13.141.22

- 13.140.20**  
20 cm / 30 mm
- 13.140.22**  
22.5 cm / 55 mm
- 13.141.20**  
20 cm / 30 mm
- 13.141.22**  
22.5 cm / 55 mm



**GLOVER**  
13.140.26 - 13.141.26  
26 cm / 80 mm

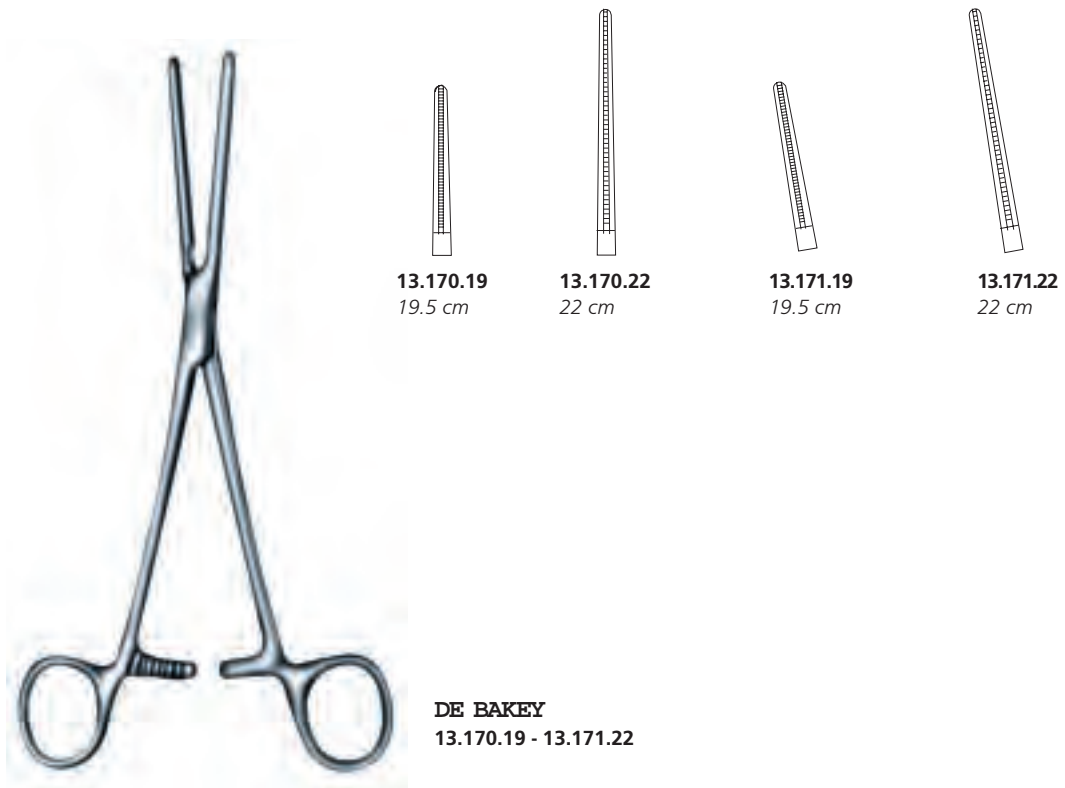
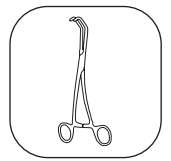
- 13.140.26**
- 13.141.26**

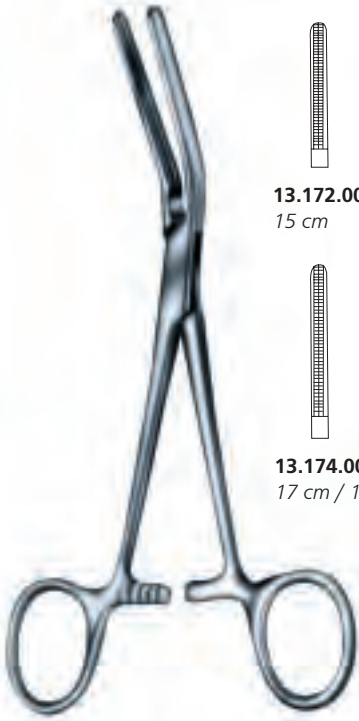


**POTTS**  
13.151.21  
21 cm / 55 mm

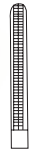


**GLOVER**  
13.151.24  
24 cm

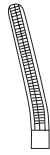




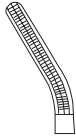
**13.172.00**  
15 cm



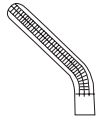
**13.172.15**  
15 cm / 15°



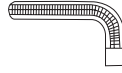
**13.172.30**  
15 cm / 30°



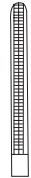
**13.172.45**  
15 cm / 45°



**13.172.90**  
14 cm / 90°



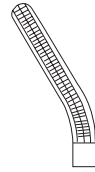
**13.174.00**  
17 cm / 15°



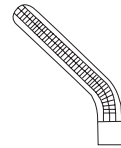
**13.174.15**  
15 cm / 15°



**13.174.30**  
15 cm / 30°



**13.174.45**  
15 cm / 45°



**13.174.90**  
15 cm / 90°



**DARDIK**  
13.172.00 - 13.174.90



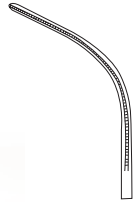
**LELAND JONES**  
13.181.19  
19 cm



**13.183.19**  
19 cm



**13.183.20**  
20 cm

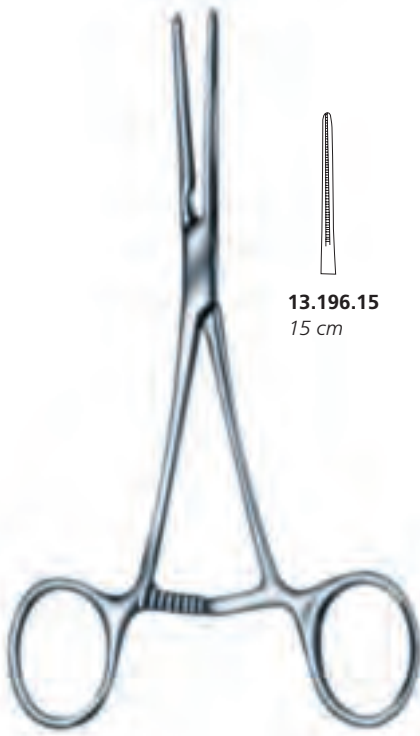
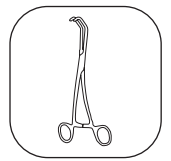


**DE BAKEY**  
13.183.19 - 13.183.20

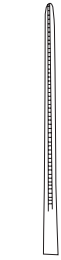


**DE BAKEY**  
13.191.16  
16 cm





**13.196.15**  
 15 cm



**13.196.18**  
 18 cm



**13.197.15**  
 15 cm

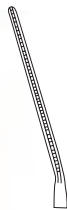
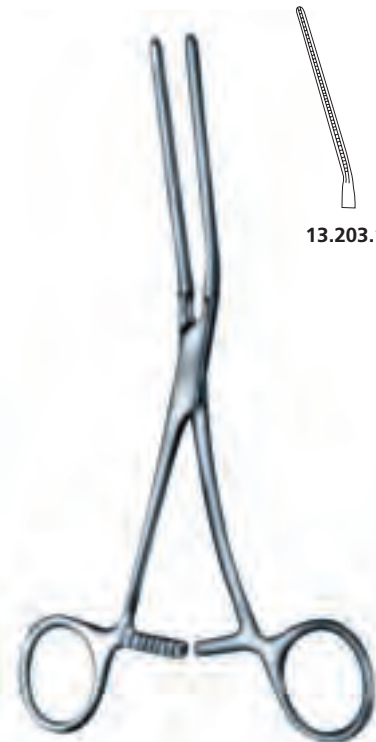


**13.197.18**  
 18 cm

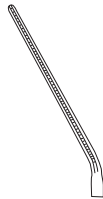
**BAINBRIDGE**  
 13.196.15 - 13.197.18



**LELAND JONES**  
 13.202.19  
 19 cm



**13.203.19**



**13.205.19**

**LELAND JONES**  
 13.203.19 - 13.205.19  
 19 cm



**LITTLE**  
 13.209.27  
 27 cm



**LAMBERT KAY**  
 13.211.20  
 20 cm





**LAMBERT KAY**  
13.213.20  
20 cm



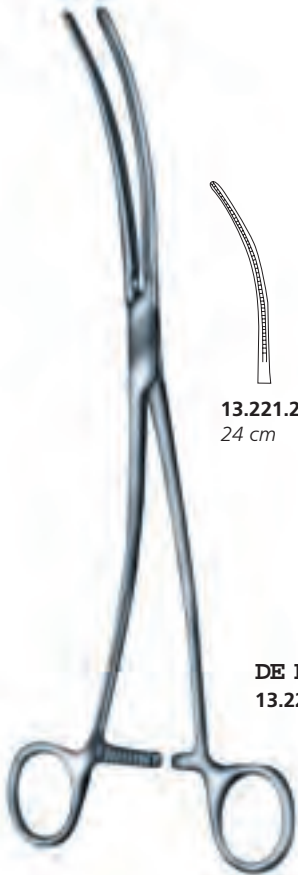
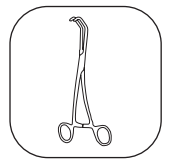
**DE BAKEY**  
13.215.20  
20 cm



**WEBER**  
13.217.26  
26 cm  
left



**WEBER**  
13.219.26  
26 cm  
right



13.221.24  
24 cm

13.221.27  
27 cm

13.221.31  
31 cm

13.221.35  
35 cm

**DE BAKLEY**  
 13.221.24 - 13.221.35



13.223.24  
24 cm

13.223.25  
25 cm

13.223.26  
26 cm

**DE BAKLEY - BAHNSEN**  
 13.223.24 - 13.223.26



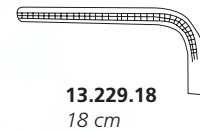
**DE BAKLEY**  
 13.225.28  
 28 cm



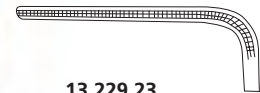
**DE BAKLEY**  
 13.227.28  
 28 cm



**DE BAKLEY**  
 13.229.18 - 13.229.23

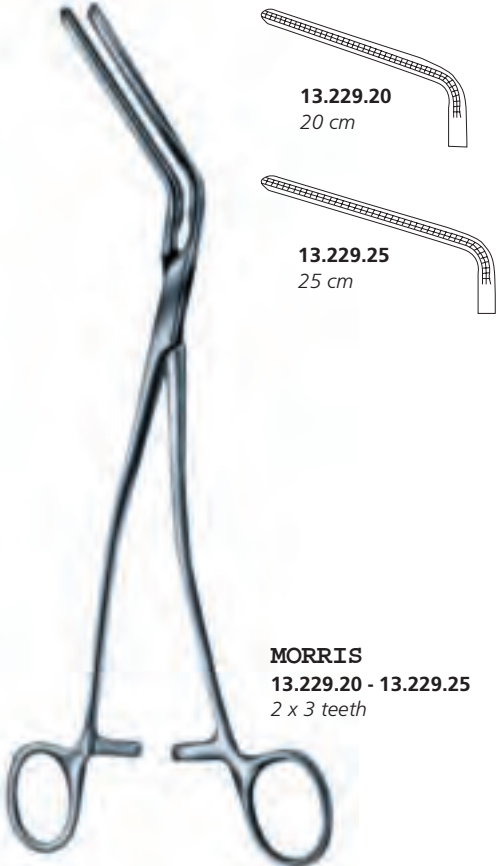


13.229.18  
18 cm



13.229.23  
23 cm

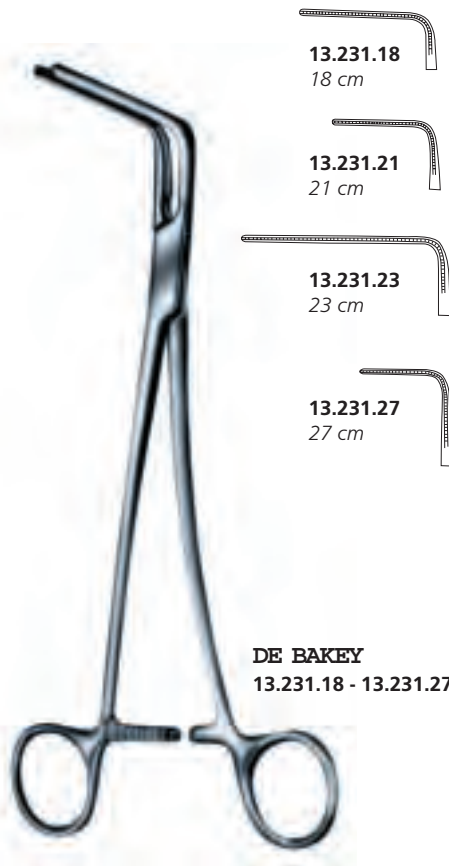




**13.229.20**  
20 cm

**13.229.25**  
25 cm

**MORRIS**  
13.229.20 - 13.229.25  
2 x 3 teeth



**13.231.18**  
18 cm

**13.231.21**  
21 cm

**13.231.23**  
23 cm

**13.231.27**  
27 cm

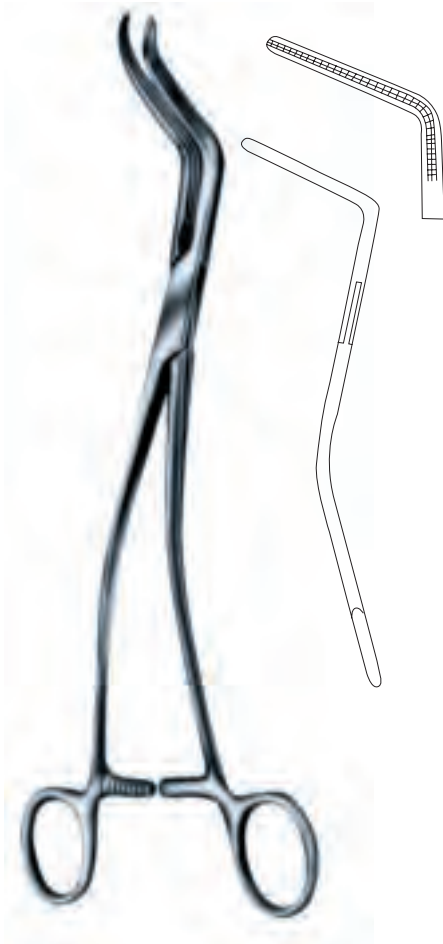
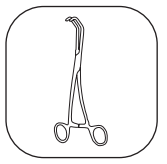
**DE BAKEY**  
13.231.18 - 13.231.27



**DE BAKEY SEMB**  
13.241.25  
25 cm



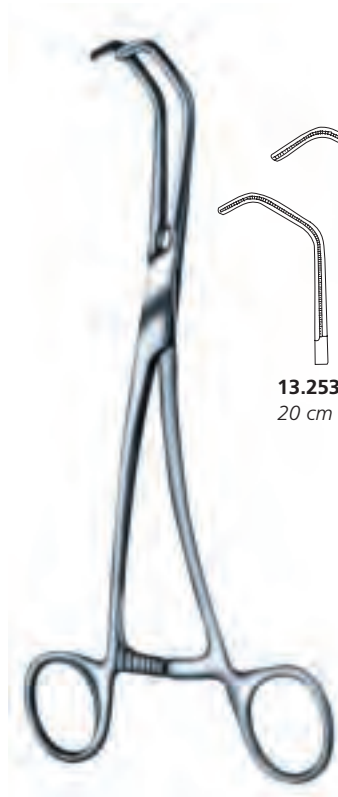
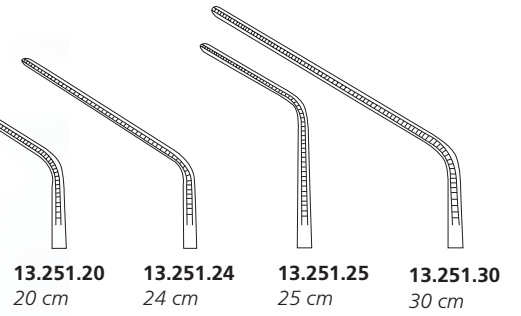
**DE BAKEY**  
13.241.26  
26 cm



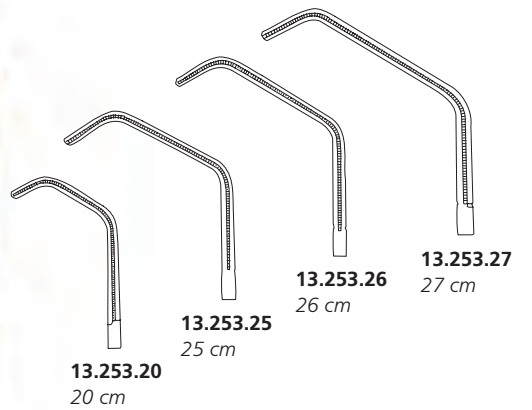
**DE BAKEY**  
**13.247.27**  
 27 cm



**DE BAKEY**  
 13.251.20 - 13.251.30

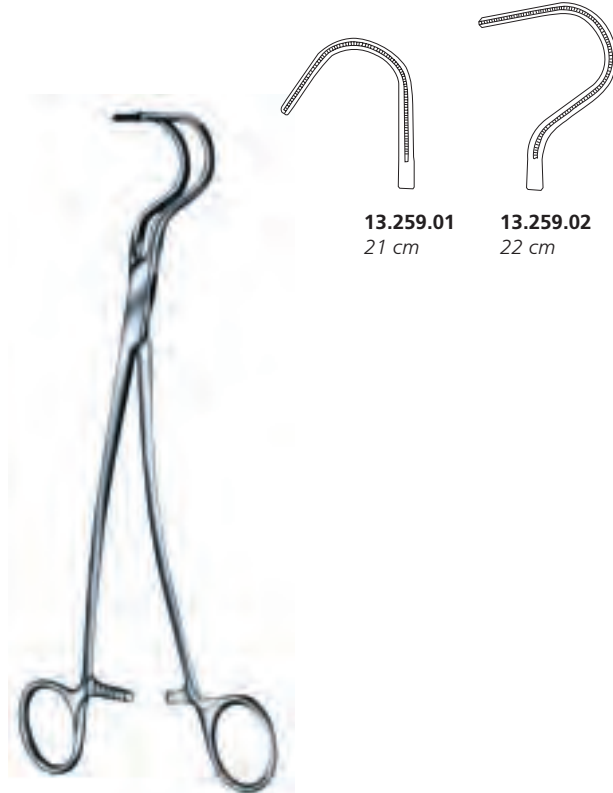


**SATINSKY**  
 13.253.20 - 13.253.27





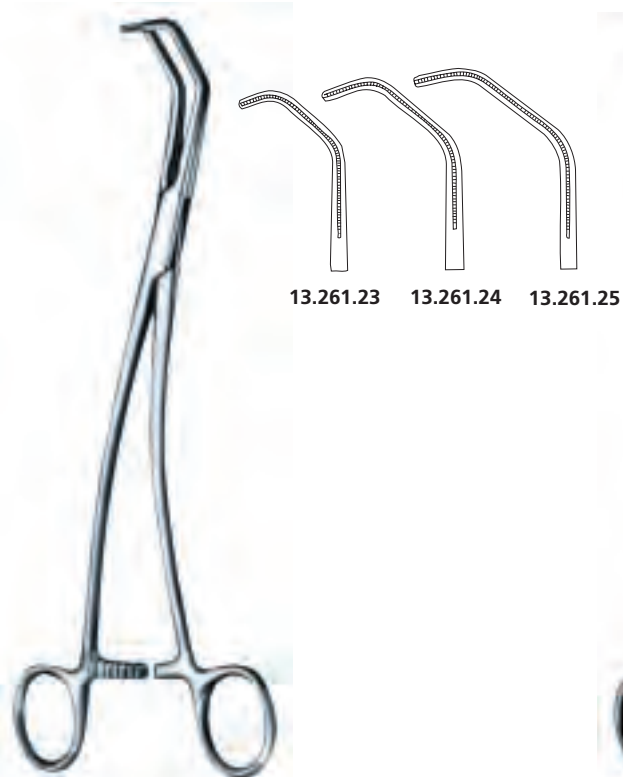
**SATINSKY DE BAKY**  
13.253.24  
24 cm



**13.259.01**  
21 cm

**13.259.02**  
22 cm

**WYLIE**  
13.259.01 - 13.259.02



**13.261.23**

**13.261.24**

**13.261.25**

**DE BAKY SATINSKY**  
13.261.23 - 13.261.25



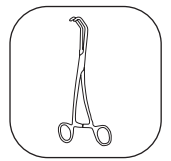
**13.263.25**

**13.265.24**

**13.267.24**

**13.269.24**

**HARKEN**  
13.263.25 - 13.269.24



**DALE**  
 13.271.18  
 18.5 cm



**13.273.17**  
 17 cm  
 small

**13.273.18**  
 18 cm  
 medium

**13.273.19**  
 19 cm  
 large



**DE BAKEY**  
 13.281.17  
 17 cm



**BECK**  
 13.283.17  
 17 cm



**13.284.20**  
 20.5 cm

**13.284.21**  
 21.5 cm

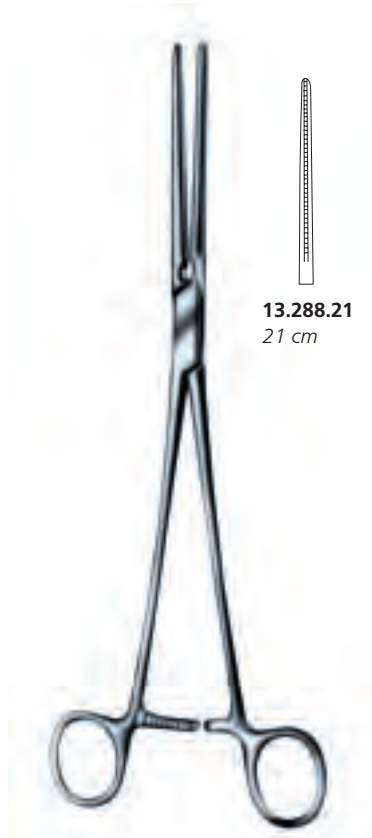


**DE BAKEY**  
 13.285.17  
 17 cm





**DE BAKEY**  
13.287.17  
17 cm



**POTTS**  
13.288.21 - 13.288.31

**13.288.21**  
21 cm

**13.288.23**  
23 cm

**13.288.27**  
27 cm

**13.288.31**  
31 cm



**POTTS**  
13.289.21 - 13.289.31



**13.289.31**  
31 cm



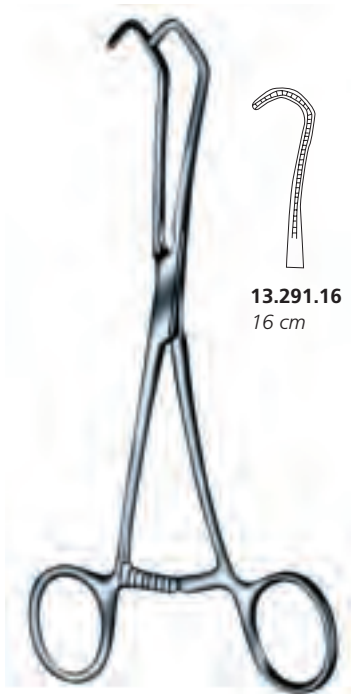
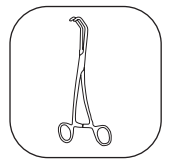
**13.289.27**  
27 cm



**13.289.23**  
23 cm



**13.289.21**  
21 cm



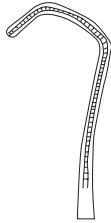
**DERRA**  
 13.291.16 - 13.291.18



**13.291.16**  
 16 cm



**13.291.17**  
 17 cm



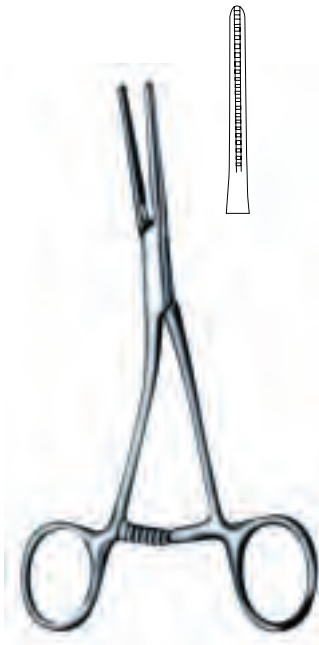
**13.291.18**  
 18 cm



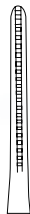
**DE BAKEY**  
 13.302.16  
 16 cm



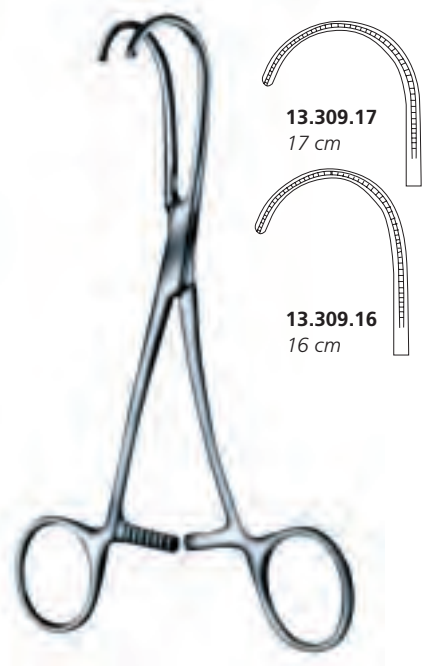
**DE BAKEY**  
 13.302.17  
 17 cm



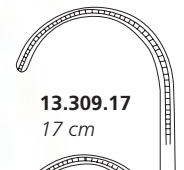
**DE BAKEY**  
 13.303.15 - 13.305.15  
 15.5 cm



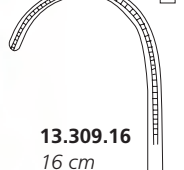
**DE BAKEY**  
 13.307.17  
 17 cm



**DE BAKEY**  
 13.309.16 - 13.309.17



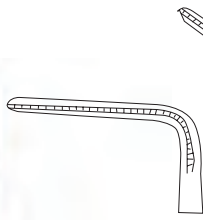
**13.309.17**  
 17 cm



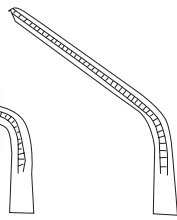
**13.309.16**  
 16 cm



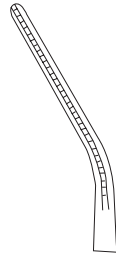
**DE BAKEY**  
13.311.14 - 13.311.16



**13.311.14**  
14 cm



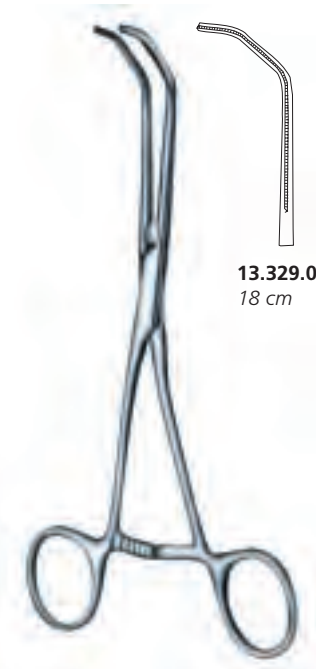
**13.311.15**  
15 cm



**13.311.16**  
16 cm



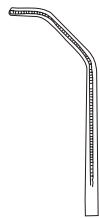
**GLOVER**  
13.321.17  
17 cm



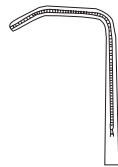
**DE BAKEY REYNOLDS**  
13.329.01 - 13.329.04



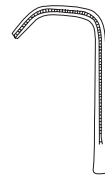
**13.329.01**  
18 cm



**13.329.02**  
18 cm



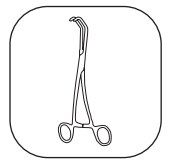
**13.329.03**  
16.5 cm



**13.329.04**  
16.5 cm



**SUBRAMANIAN**  
13.331.15  
15 cm



**SUBRAMANIAN**  
**13.333.16**  
 16 cm  
 right



**SUBRAMANIAN**  
**13.335.16**  
 16 cm  
 left



**OCHSNER**  
**13.337.23**  
 23 cm



**DIETRICH**  
**13.339.21**  
 21 cm



**DE BAKEY**  
**13.341.19 - 13.341.23**

**13.341.19**  
 19 cm



**13.341.20**  
 20 cm



**13.341.23**  
 23 cm



**JAVID**  
**13.343.18**  
 18 cm



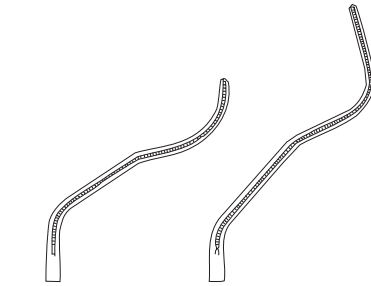
**JAVID**  
**13.343.19**  
 19 cm





**13.349.14**  
14 cm

**GREGORY**  
13.349.14 - 13.349.18



**13.349.16**  
16 cm

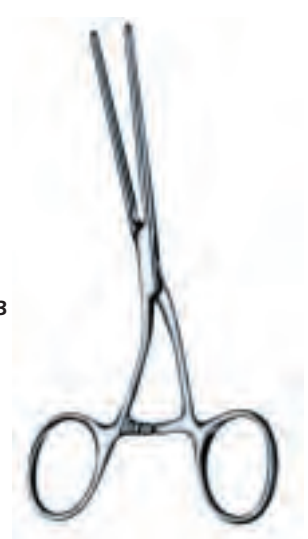
**13.349.18**  
18 cm



**13.350.13**  
13 cm

**13.351.13**  
13 cm

**COOLEY**  
13.350.13 - 13.351.13  
13 cm



**COOLEY**  
13.353.13  
13.5 cm



**COOLEY**  
13.355.13  
13 cm



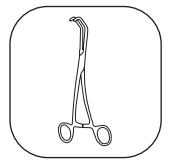
**COOLEY**  
13.357.12  
12.5 cm



**COOLEY**  
13.359.10  
10.5 cm



**COOLEY**  
13.361.12  
12 cm

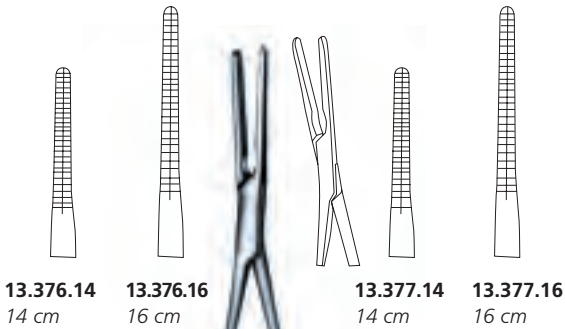


**COOLEY**  
**13.363.13**  
 13.5 cm



**COOLEY**  
**13.371.24 - 13.373.36**

cm	
24	<b>13.371.24</b>
26	<b>13.371.26</b>
28	<b>13.373.28</b>
30	<b>13.373.30</b>
32	<b>13.373.32</b>
36	<b>13.373.36</b>

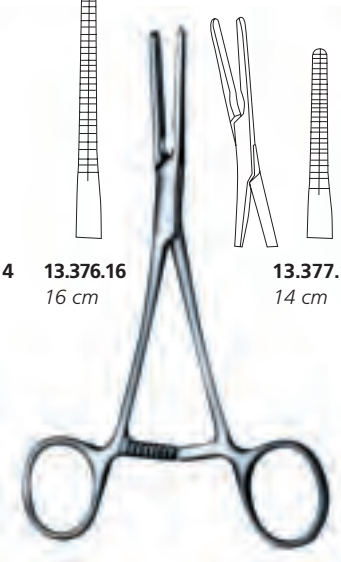


**13.376.14**  
 14 cm

**13.376.16**  
 16 cm

**13.377.14**  
 14 cm

**13.377.16**  
 16 cm



**COOLEY**  
**13.376.14 - 13.377.16**



**COOLEY**  
**13.379.14**  
 14 cm



**COOLEY**  
**13.380.14**  
 14 cm



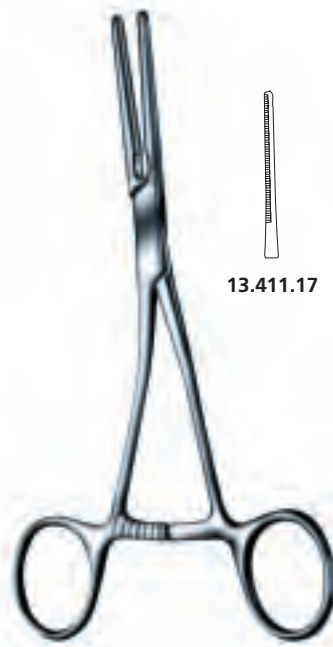
**COOLEY**  
**13.381.14**  
 14 cm



**COOLEY**  
13.405.27  
27 cm



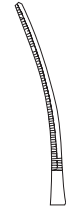
**COOLEY**  
13.410.17  
17 cm



**COOLEY**  
13.411.17 - 13.415.17  
17 cm



13.411.17



13.413.17



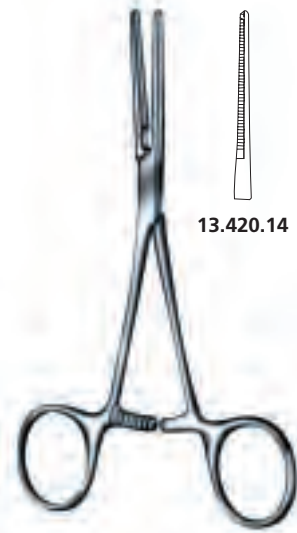
13.415.17



**COOLEY**  
13.417.21  
21 cm  
13.417.25  
25 cm



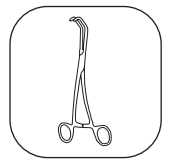
**COOLEY**  
13.419.21  
21 cm



13.420.14

13.421.14

**COOLEY**  
13.420.14 - 13.421.14  
14 cm



**COOLEY**  
 13.423.14  
 14 cm



**COOLEY**  
 13.425.14  
 14 cm



**COOLEY**  
 13.427.15 - 13.427.16

13.427.16  
 16 cm  
 13.427.15  
 15 cm



**COOLEY**  
 13.431.25 - 13.421.90

13.431.25  
 25°

13.431.45  
 45°

13.431.90  
 90°



**COOLEY**  
 13.433.14  
 14 cm



**13.441.16**  
16 cm

**13.441.17**  
17 cm

**13.441.18**  
18 cm

**COOLEY**  
13.441.16 - 13.441.18



**13.447.17**

**COOLEY**  
13.447.17 - 13.449.17  
17 cm



**13.451.16**  
16 cm

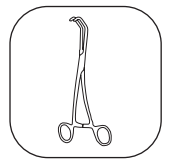
**13.453.16**  
16 cm

**13.455.17**  
17 cm

**COOLEY**  
13.451.16 - 13.451.17



**COOLEY**  
13.457.17  
17 cm



**COOLEY**  
**13.461.17**  
17 cm



**COOLEY**  
**13.465.18**  
18 cm



**COOLEY**  
**13.465.19**  
19 cm



**COOLEY**  
**13.465.26**  
26 cm



**COOLEY**  
**13.467.27**  
27 cm

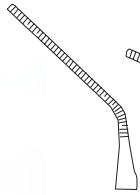


**13.481.13**  
13 cm

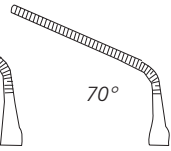




**13.483.13**  
13 cm

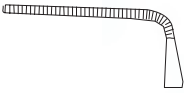


**13.485.13**  
13 cm

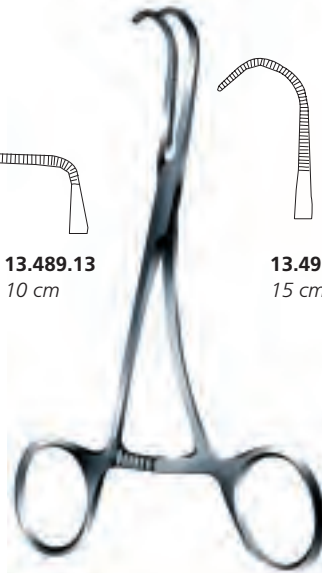


70°

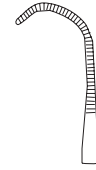
**13.487.13**  
12 cm



**13.489.13**  
10 cm



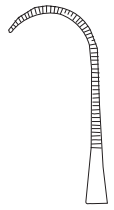
**13.491.15**  
15 cm



**13.493.15**  
15 cm



**13.495.12**  
12 cm



**13.495.15**  
15 cm

**CASTAÑEDA**

13.483.13 - 13.489.13

13.491.15 - 13.495.15



13.502.01 - 13.502.09



13.503.01 - 13.503.09



13.505.01 - 13.505.09

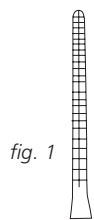


fig. 1

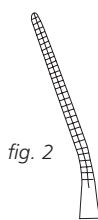


fig. 2

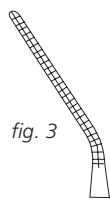


fig. 3

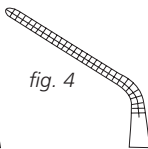


fig. 4

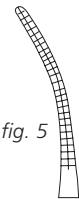


fig. 5

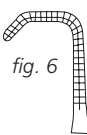


fig. 6

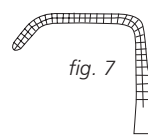


fig. 7

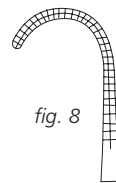


fig. 8

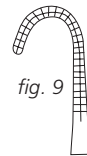
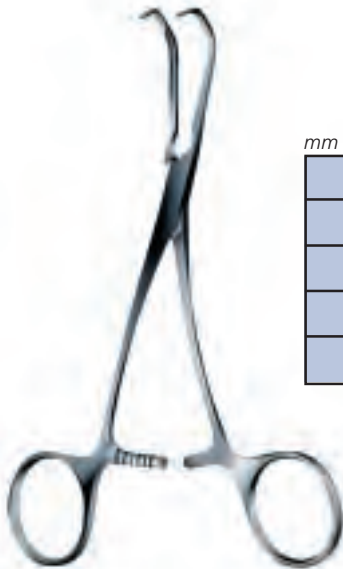
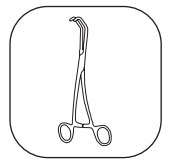


fig. 9

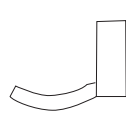
13.502.01	13.502.02	13.502.03	13.502.04	13.502.05	13.502.06	13.502.07	13.502.08	13.502.09
13.503.01	13.503.02	13.503.03	13.503.04	13.503.05	13.503.06	13.503.07	13.503.08	13.503.09
13.505.01	13.505.02	13.505.03	13.505.04	13.505.05	13.505.06	13.505.07	13.505.08	13.505.09



**CASTAÑEDA**  
 13.515.46 - 13.515.56  
 15.5 cm

mm

46	13.515.46
48	13.515.48
50	13.515.50
52	13.515.52
56	13.515.56



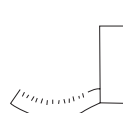
**13.609.12**  
 12 mm



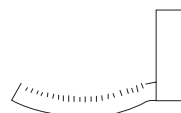
**13.609.20**  
 20 mm



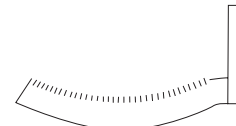
**13.609.30**  
 30 mm



**13.611.12**  
 12 mm



**13.611.20**  
 20 mm



**13.611.30**  
 30 mm

13.609.12 - 13.611.30



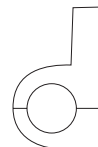
13.615.03 - 13.615.09



**13.615.03**  
 22 cm  
 ø 3 mm



**13.615.05**  
 22 cm  
 ø 5 mm



**13.615.07**  
 22 cm  
 ø 7 mm

**13.615.09**  
 22 cm  
 ø 9 mm





Adriaen Brouwer  
17th century

**Operation on the Back**

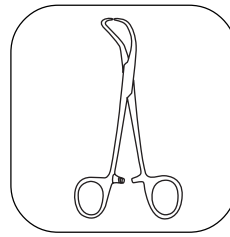
*Barber surgeons and a miscellany of self-designated healers provided care to great proportion of rural Europeans in modern times of the 17th century.*

**Operación en la Espalda**

*En Europa barberos cirujanos y otros curanderos daban atención a una gran parte de los campesinos en la época moderna del siglo XVII.*

**Operation auf dem Rücken**

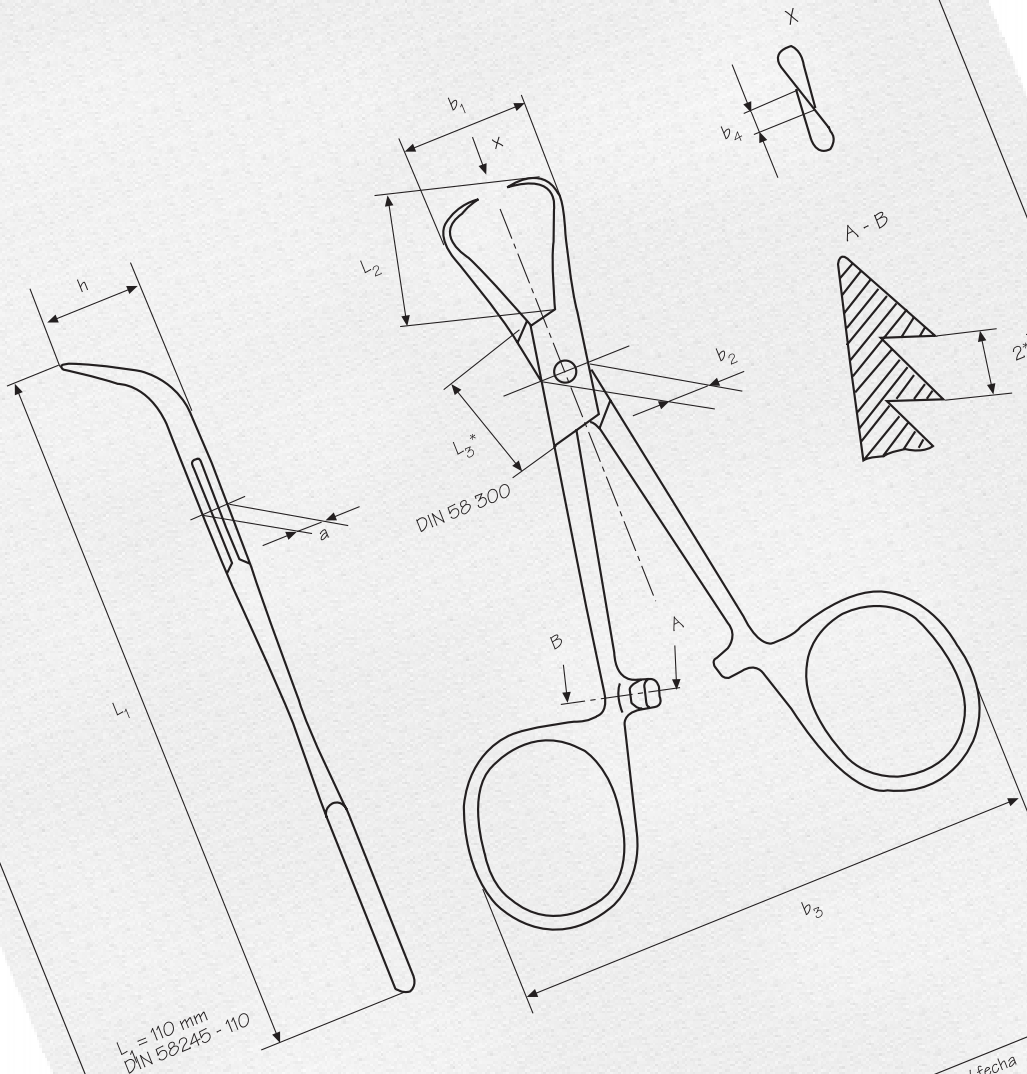
*Zu modernen Zeiten des 17. Jahrhundert wurden die Leute auf dem Lande in Europa von Barbiers und anderen Quacksalbern geheilt.*



# 14

Towel Clamps  
Pinzas de Campo  
Tuchklemmen

Masse in mm



L = 110 mm  
DIN 58245 - 110

GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
Stainless Steel	gezeichnet / dibujado	July '98	cvd/jvd	Maasstab / escala 1:1
Inoxidable	geprüft / verificado	June '99	cvd	Abt. / acot. mm
	Toleranz / tolerancia		mj	Artikel / articulo
				Artikel-Nr. / No. de articulo





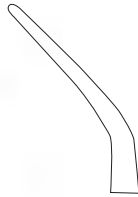
**SCHAEDL**  
14.101.09  
9 cm



**JONES**  
14.103.09  
9 cm



**JONES clip**  
14.105.09  
9 cm



cm	
9	14.111.09
11	14.111.11
13	14.111.13
15	14.111.15

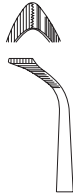
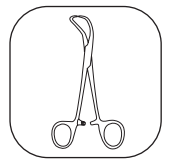
**BACKHAUS**  
14.111.09 - 14.111.15



**BACKHAUS clip**  
14.115.11  
11 cm



**ROEDER**  
14.117.13  
13 cm



cm	
9	14.121.09
11	14.121.11
13	14.121.13

**LORNA**  
14.121.09 - 14.121.13



**ball and socket**  
14.123.13  
13 cm



**BERNHARD**  
14.140.16  
16.5 cm



**MOYNIHAN**  
14.150.19  
19 cm



**DOYEN**  
14.161.14 - 14.161.18

cm	
14	14.161.14
18	14.161.18



**LANE**  
14.164.13 - 14.164.20

cm	
13	14.164.13
15	14.164.15
20	14.164.20

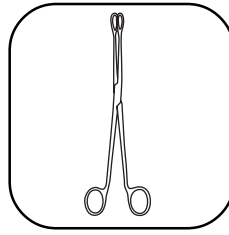


**William E. Wilson**  
1902

**Drs. Howard, Frazer and Jackson**  
*... demonstrating an operation for students, City Hospital, Mobile, Alabama*

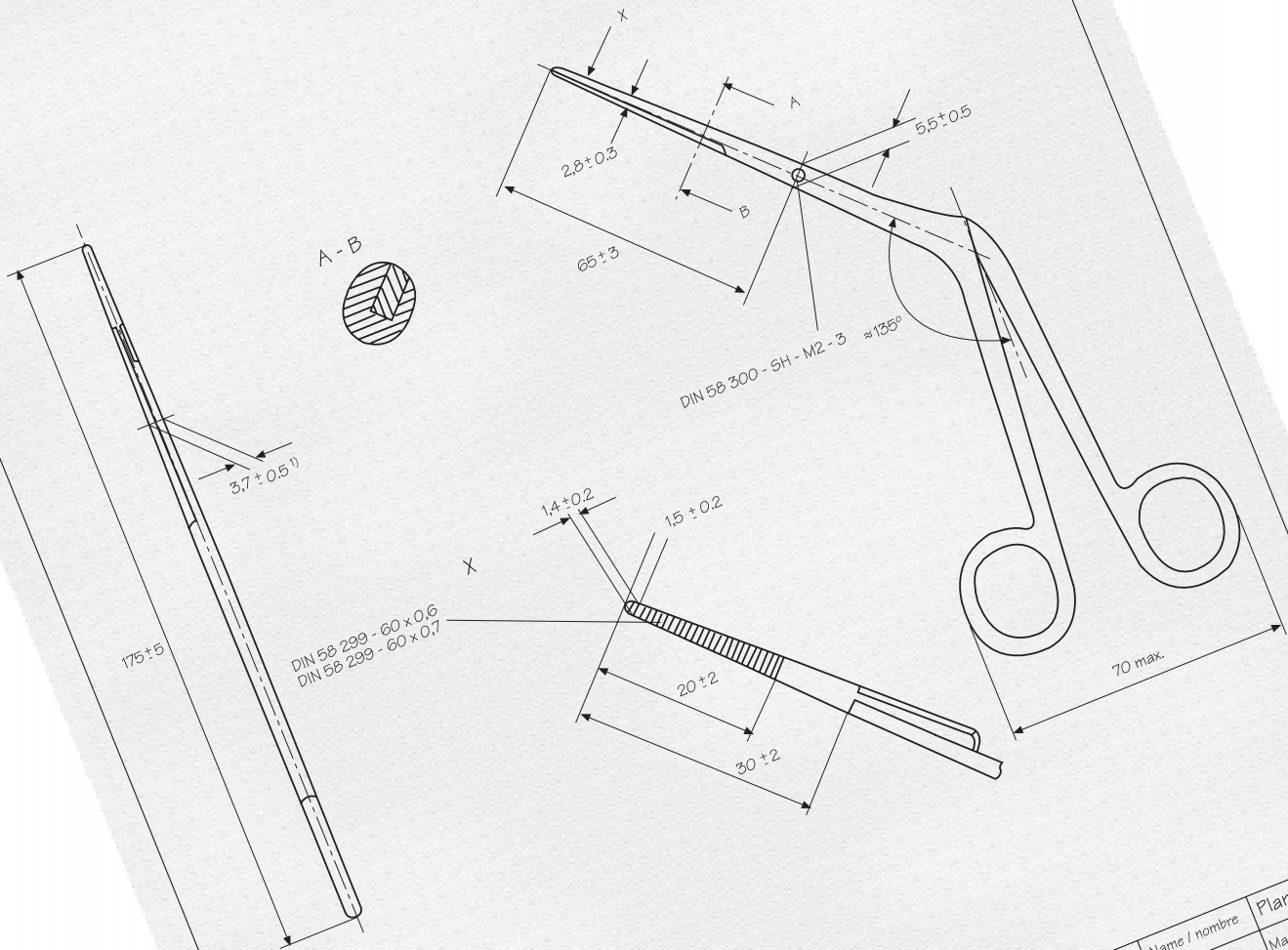
**Doctores Howard, Frazer y Jackson**  
*... haciendo una demostración de cirugía para estudiantes en el City Hospital, Mobile, Alabama*

**Doktoren Howard, Frazer und Jackson**  
*... machen eine Vorstellung einer Operation für Studenten, City Hospital, Mobile, Alabama*



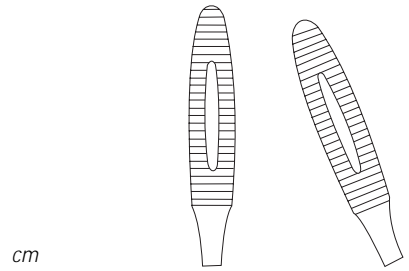
# 16

## Polypus and Dressing Forceps Pinzas para Pólipos y Esponjas Tupfer- und Komzangen



GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
	gezeichnet / dibujado	July '98	cvd/jvd	1
	geprüft / verificado	July '98		Maaßstab / escala 1:1
	Toleranz / tolerancia	June '99	mj	Abt. / acot. mm
				Artikel / artículo
				Artikel-Nr. / No. de artv.





cm

20	16.110.20	16.111.20
22	16.110.22	
25	16.110.25	16.111.25
27	16.110.27	16.111.27

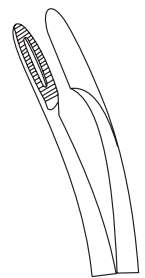
**GROSS MAIER**  
16.110.20 - 16.111.27



**MAIER**  
16.111.22  
22 cm

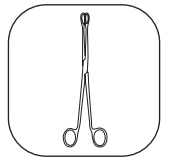


16.114.18



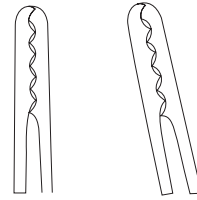
16.115.18

**GROSS**  
16.114.18 - 16.115.18  
18 cm



cm

22	16.160.22	16.161.22
25	16.160.25	16.161.25



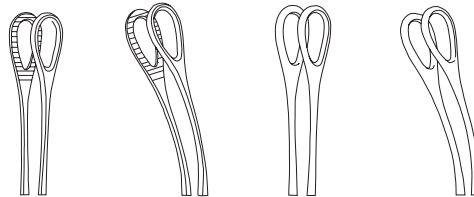
**ULRICH**

16.160.22 - 16.161.25



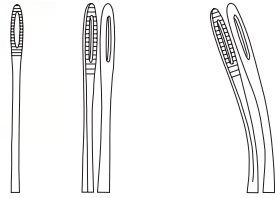
cm

18	16.170.18	16.171.18	16.172.18	16.173.18
20	16.170.20	16.171.20		
25	16.170.25	16.171.25	16.172.25	16.173.25



**FOERSTER**

16.170.18 - 16.173.25



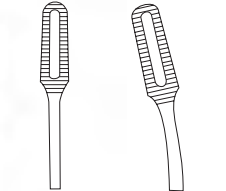
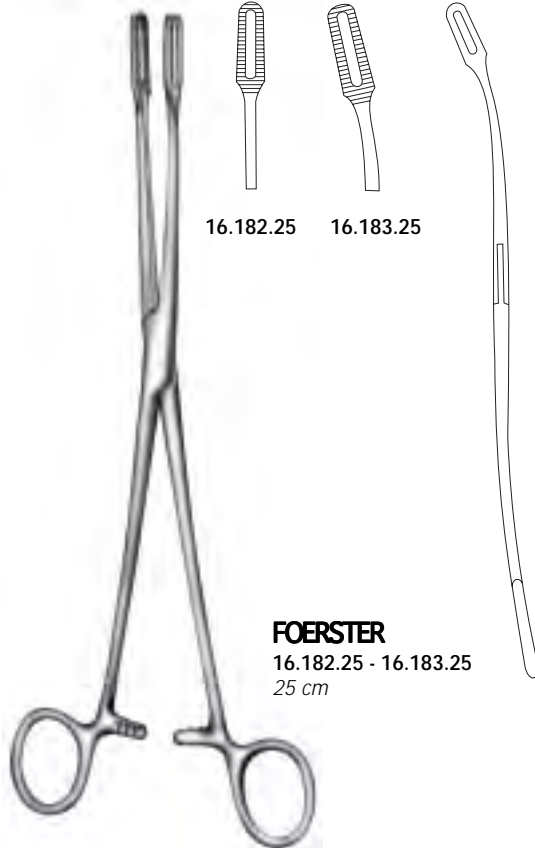
16.174.25

16.175.25

**FOERSTER**  
16.174.25 - 16.175.25  
25 cm



**RAMPLEY**  
16.180.25  
25 cm



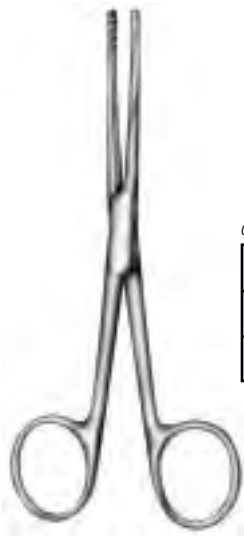
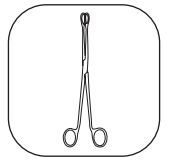
16.182.25

16.183.25

**FOERSTER**  
16.182.25 - 16.183.25  
25 cm



**BRYANT**  
16.207.13  
13 cm



cm

13	16.210.13
16	16.210.16
18	16.210.18

**LISTER**

16.210.13 - 16.210.18



**COLLIN**

16.220.25  
 25 cm



**PELKMANN**

16.226.25  
 25 cm



**PELKMANN**

16.227.25  
 25 cm



**CHERON**  
16.229.25  
25 cm



**BOZEMANN**  
16.230.26 - 16.231.26  
26 cm



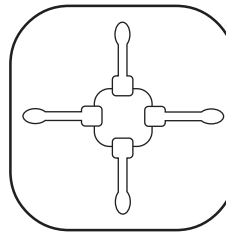
**BOZEMANN**  
16.233.26  
26 cm



16.244.17 - 16.245.17  
17 cm

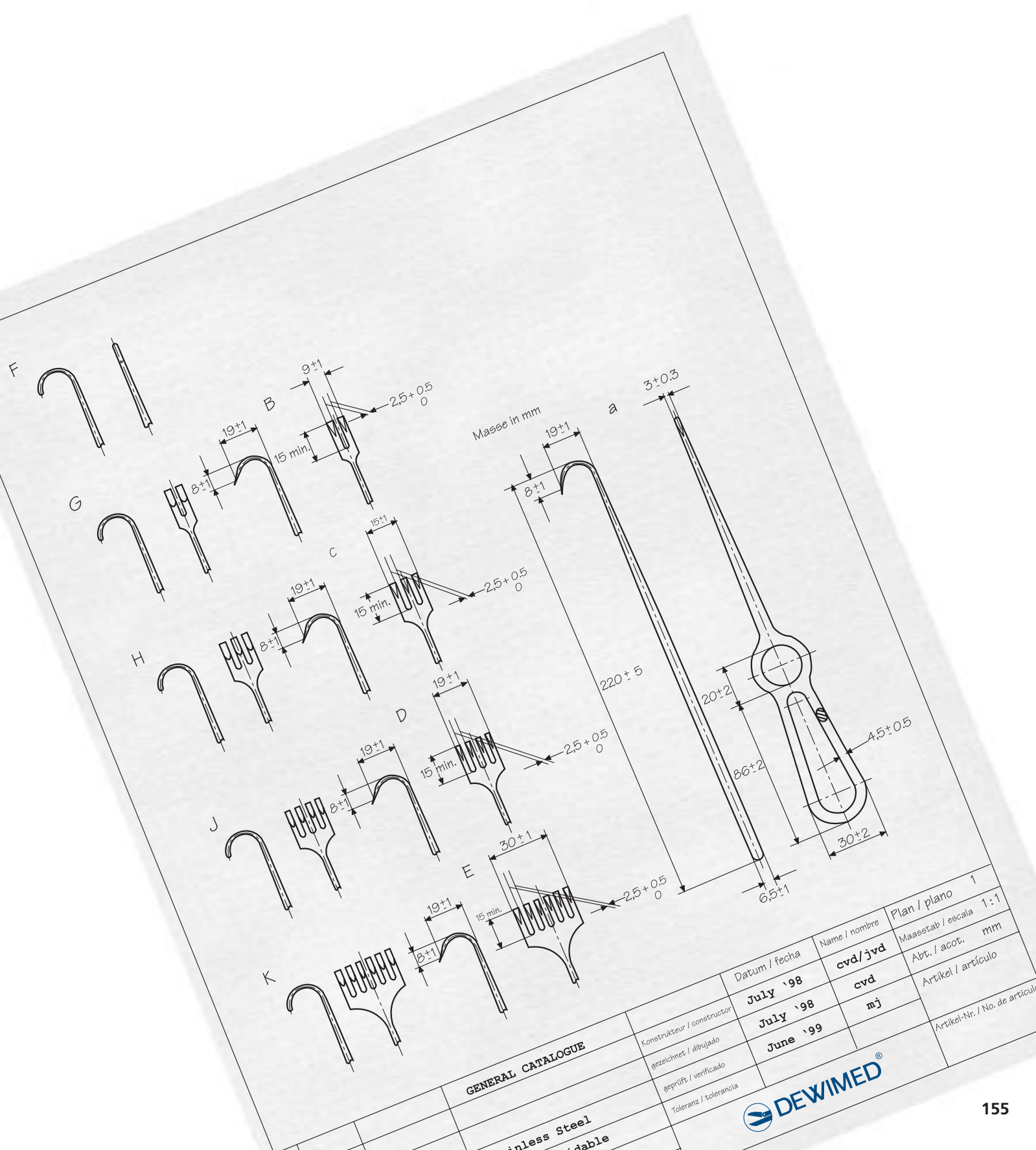


**DUPLAY**  
16.247.20  
20 cm



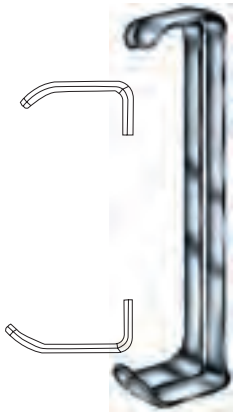
# 18

Retractors  
 Separadores  
 Wundhaken-und Sperrer



GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
	gezeichnet / dibujado	July '98	cvd/jvd	Maasstab / escala 1:1
	geprüft / verificado	July '98	cvd	Abt. / acot. mm
	Toleranz / tolerancia	June '99	mj	Artikel / artículo
				Artikel-Nr. / No. de artículo





**FARABEU**  
**18.102.12**  
12 cm



**FARABEU**  
**18.102.15**  
15 cm



**PARKER**  
**18.110.13**  
13.5 cm



**PARKER**  
**18.110.18**  
18 cm



**MAYO COLLIN**  
**18.112.15**



**18.120.00**  
set complete

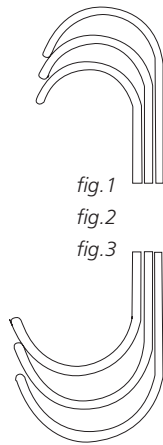


fig.1  
fig.2  
fig.3



**ROUX**  
**18.121.01**  
25 x 28 / 20 x 22 mm

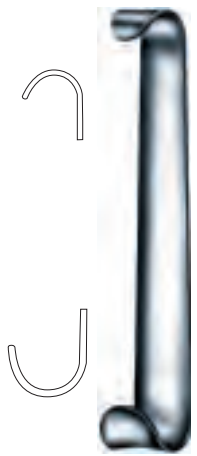
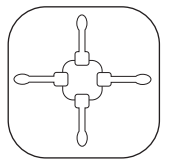


**ROUX**  
**18.121.02**  
29 x 38 / 23 x 26 mm

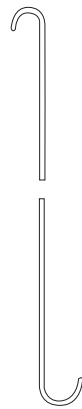


**ROUX**  
**18.121.03**  
34 x 44 / 29 x 29 mm

	<b>ROUX</b>	cm	mm	mm
fig. 1	<b>18.120.14</b>	14	24 x 20	30 x 28
fig. 2	<b>18.120.15</b>	15	29 x 26	36 x 36
fig. 3	<b>18.120.17</b>	17	35 x 29	38 x 43



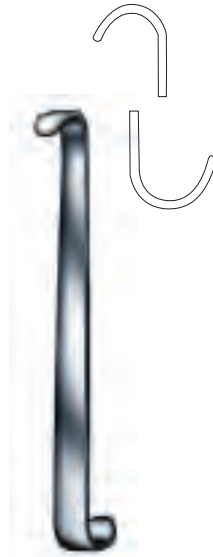
**ROUX baby**  
 18.122.13  
 13 cm



**ROUX mini**  
 18.124.15  
 15 cm



**CRILE**  
 18.127.11  
 11.5 cm



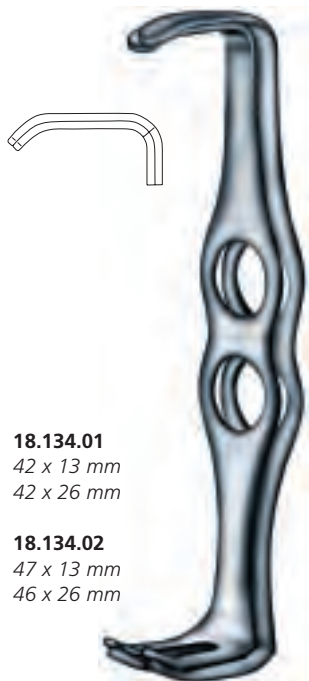
**LUER**  
 18.128.11  
 11.5 cm



**PARKER LANGENBECK (U.S. Army)**  
 18.131.21  
 21 cm

out = 25 x 24 mm  
 in = 21 x 24 mm

in = 40 x 15 mm  
 out = 45 x 15 mm



**18.134.01**  
 42 x 13 mm  
 42 x 26 mm

**18.134.02**  
 47 x 13 mm  
 46 x 26 mm

**MATHIEU**  
 18.134.20  
 set  
 20 cm



**GOELET**  
 18.135.19  
 19 cm



**CZERNY**  
 18.136.20  
 32 x 22 mm

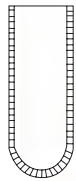


**COLLIN HARTMANN**  
 18.137.16  
 16 cm

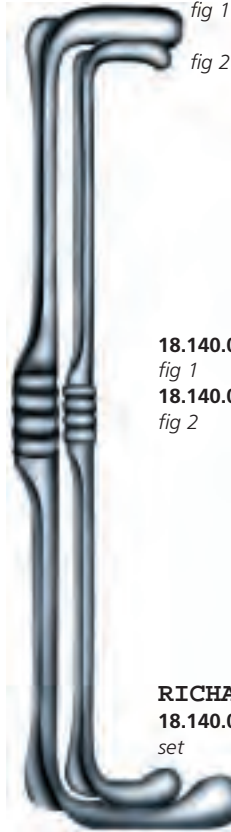

52 x 33 mm

30 x 21 mm







**COOLEY**  
**18.138.38**  
 14 x 17 mm 14 x 38 mm  
**18.138.45**  
 14 x 21 mm 14 x 45 mm


**18.150.01**  
28 x 20 mm



**18.150.02**  
26 x 28 mm



**18.150.03**  
44 x 38 mm



**18.150.04**  
52 x 22 mm

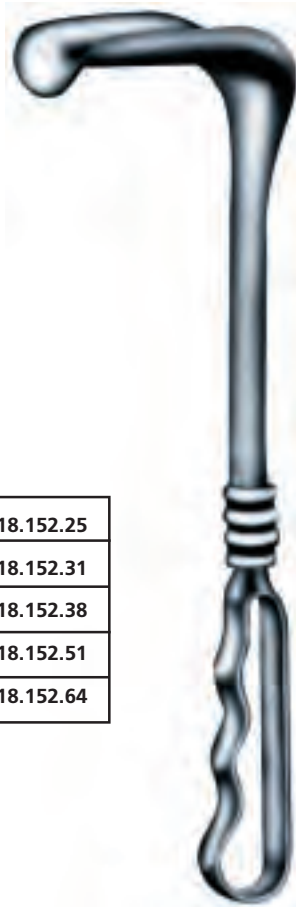
**RICHARDSON**  
**18.150.01 - 18.150.03**



mm

20 x 25	<b>18.152.25</b>
25 x 31	<b>18.152.31</b>
38 x 38	<b>18.152.38</b>
19 x 51	<b>18.152.51</b>
41 x 64	<b>18.152.64</b>

**RICHARDSON grip**  
**18.152.25 - 18.152.64**



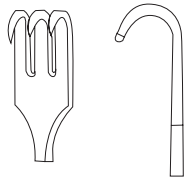
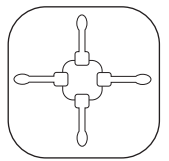
**KELLY**  
**18.156.26**  
 26 cm



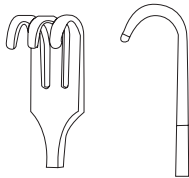
mm

38 x 51	<b>18.158.51</b>
51 x 64	<b>18.158.64</b>
64 x 76	<b>18.158.76</b>
70 x 82	<b>18.158.82</b>

**KELLY grip**  
**18.158.51 - 18.158.82**

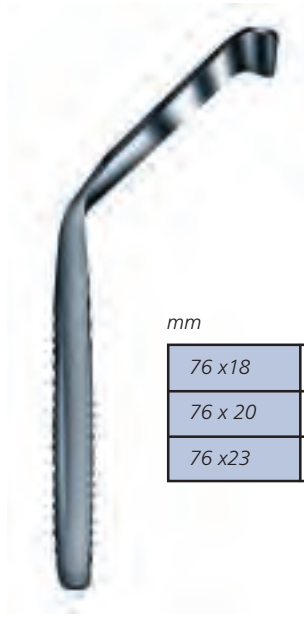


18.160.17



18.161.17

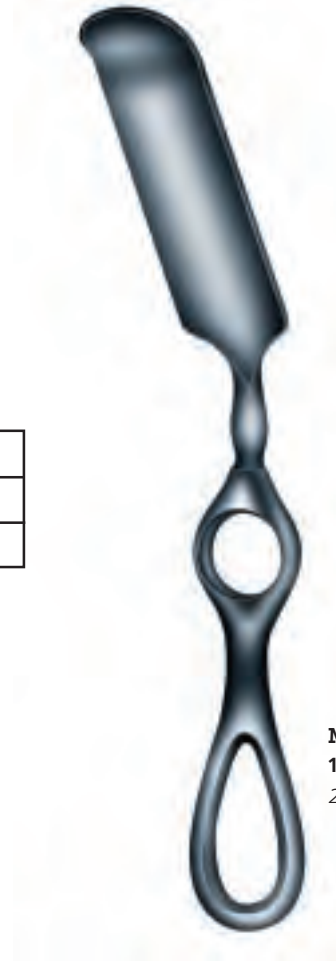
**SENN**  
 18.160.17 - 18.161.17  
 17 cm



mm

76 x 18	18.165.18
76 x 20	18.165.20
76 x 23	18.165.23

**CLOWARD**  
 18.165.18 - 18.165.23



**MIKULICZ**  
 18.167.25  
 25 cm 29 mm



mm

6 x 200	18.168.06
9 x 200	18.168.09
12 x 200	18.168.12
17 x 200	18.168.17
20 x 200	18.168.20
25 x 250	18.168.25

**RIBBON**  
 18.168.12 - 18.168.25  
 malleable



mm

19 x 330	18.170.19
25 x 330	18.170.25
32 x 330	18.170.32
40 x 330	18.170.40
50 x 330	18.170.50

**RIBBON**  
 18.170.25 - 18.170.50  
 malleable





cm/mm x mm

17/25x200	18.174.17
25/30x250	18.174.25
37/45x300	18.174.37

**HABERER**  
18.174.17 - 18.174.37  
*malleable*



**REVERDIN**  
18.175.28  
28 cm



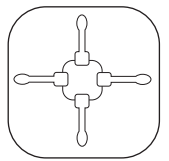
**DEAVER**  
18.180.19  
19 x 180 mm



**DEAVER**  
18.181.22  
22 x 215 mm



**DEAVER**  
18.181.25  
25 x 230 mm



**DEAVER**  
**18.183.25**  
*25 x 300 mm*



**DEAVER**  
**18.185.25**  
*25 x 330 mm*



**DEAVER**  
**18.187.25**  
*25 x 360 mm*





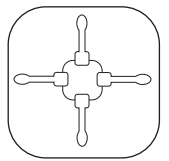
**DEAVER**  
**18.187.38**  
*38 x 300 mm*



**DEAVER**  
**18.187.50**  
*50 x 300 mm*



**DEAVER**  
**18.187.75**  
*75 x 300 mm*



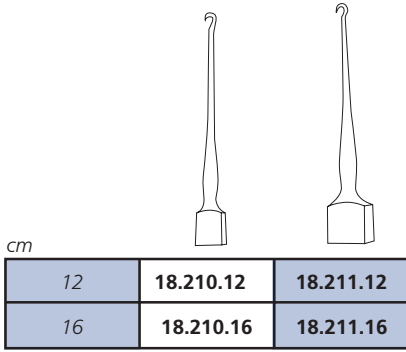
**DEAVER Grip**  
 mm

25 x 310	18.189.25
38 x 310	18.189.38
50 x 310	18.189.50
75 x 310	18.189.75

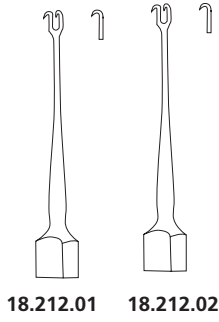


**HARRINGTON**  
 mm

25 x 230	18.191.25
40 x 320	18.191.40
62 x 320	18.191.62



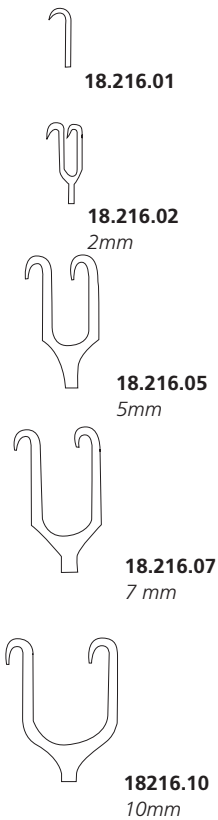
**GRAEFE (iris)**  
18.210.12 - 18.211.16



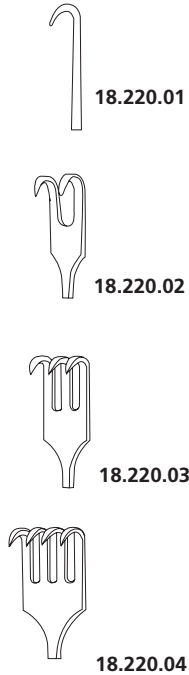
**GUTHRIE**  
18.212.01 - 18.212.02  
13 cm



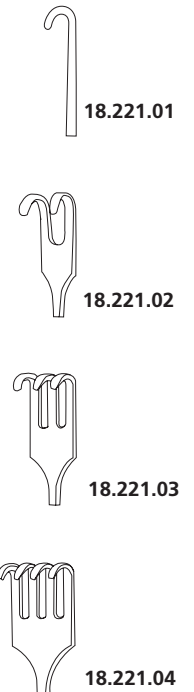
**FRAZIER**  
18.214.13 - 18.214.18  
12.5 cm



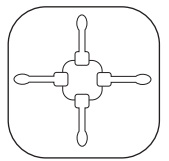
**JOSEPH**  
18.216.01 - 18.216.10  
16 cm



18.220.01 - 18.220.04  
17 cm

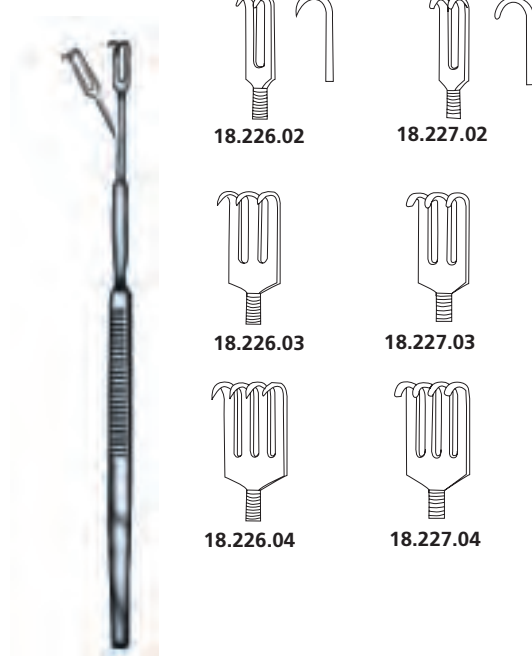


18.221.01 - 18.221.04  
16 cm



18.224.04 18.225.04

18.224.04 - 18.225.04  
 16.5 cm

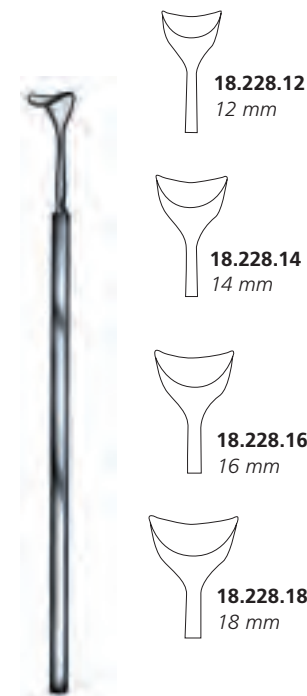


18.226.02 18.227.02  
 18.226.03 18.227.03  
 18.226.04 18.227.04

18.226.02 - 18.227.04  
 16 cm

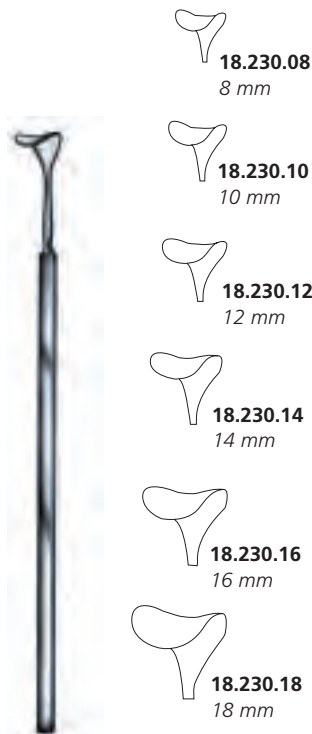


PAUL  
 18.228.03  
 11 x 8 mm



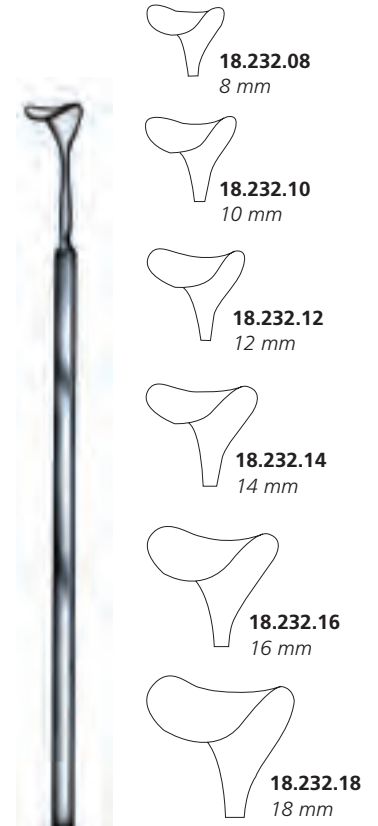
18.228.12  
 12 mm  
 18.228.14  
 14 mm  
 18.228.16  
 16 mm  
 18.228.18  
 18 mm

DESMARRES  
 18.228.12 - 18.230.18



18.230.08  
 8 mm  
 18.230.10  
 10 mm  
 18.230.12  
 12 mm  
 18.230.14  
 14 mm  
 18.230.16  
 16 mm  
 18.230.18  
 18 mm

DESMARRES  
 18.230.08 - 18.230.18  
 16 cm



18.232.08  
 8 mm  
 18.232.10  
 10 mm  
 18.232.12  
 12 mm  
 18.232.14  
 14 mm  
 18.232.16  
 16 mm  
 18.232.18  
 18 mm

CUSHING  
 18.232.08 - 18.232.18  
 20 cm





**CUSHING**  
18.234.20  
20 cm



**CUSHING**  
18.234.21  
21.5 cm



**OLDBERG**  
18.235.00 - 18.235.06  
21 cm



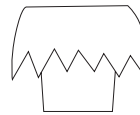
**18.235.00**  
19 mm



**18.235.03**  
13 mm  
3 teeth



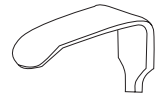
**18.235.04**  
15 mm  
4 teeth



**18.235.06**  
19 mm  
6 teeth



**18.240.10**  
10 x 6 mm



**18.240.20**  
20 x 6 mm



**SENN GREEN**  
18.240.10 - 18.240.20  
15 cm



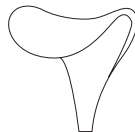
**18.242.08**  
8 mm



**18.242.14**  
14 mm



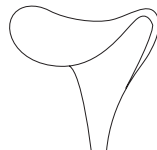
**18.242.10**  
10 mm



**18.242.16**  
16 mm



**18.242.12**  
12 mm



**18.242.18**  
18 mm

**18.242.08 - 18.242.18**  
24 mm



**18.244.01**

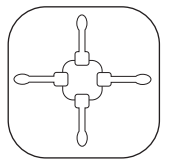


**18.244.02**

**18.244.01 - 18.244.02**  
16 cm



**hook for vasectomy**  
18.245.01  
15 cm



18.246.16  
16 x 6 mm

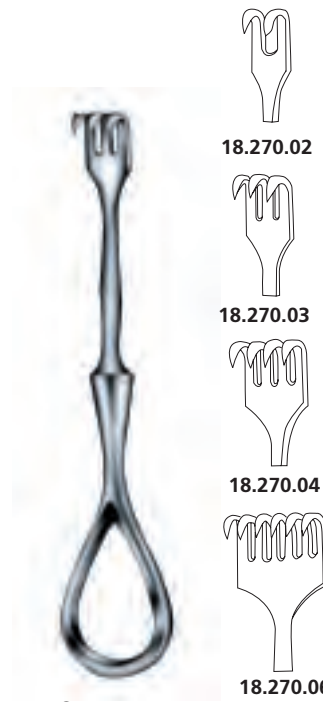
18.246.24  
24 x 6 mm

**LANGENBECK GREEN**  
18.246.16 - 18.246.24  
16 cm



18.248.10  
16 cm 10 x 13 mm

**LANGENBECK GREEN**  
18.248.10  
16 cm 10 x 13 mm



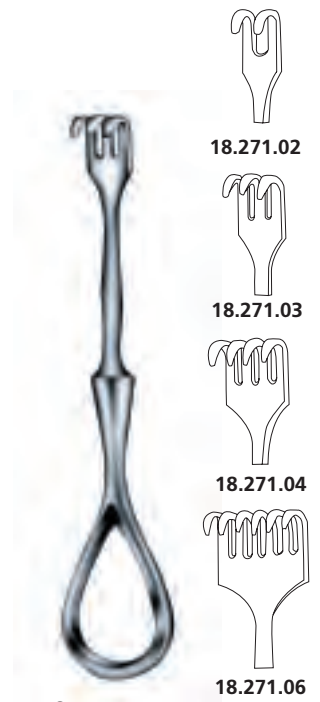
18.270.02

18.270.03

18.270.04

18.270.06

**VOLKMANN**  
18.270.02 - 18.270.06  
11.5 cm



18.271.02

18.271.03

18.271.04

18.271.06

**VOLKMANN**  
18.271.02 - 18.271.06  
11.5 cm



18.279.04

18.279.06

**VOLKMANN**  
18.279.04 - 18.279.06



sharp

18.280.01

18.280.02

18.280.03

18.280.04

**VOLKMANN**  
18.280.01 - 18.281.06  
21.5 cm

middle sharp

18.281.01

18.281.02

18.281.03

18.281.04

**VOLKMANN**  
18.281.01 - 18.281.06



sharp

18.284.02

18.284.03

18.284.04

18.284.06

**MURPHY**  
18.284.02 - 18.285.06  
19.5 cm

middle sharp

18.285.02

18.285.03

18.285.04

18.285.06





**VOLKMANN**  
18.290.01 - 18.291.06  
21.5 cm

sharp



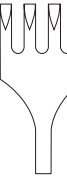
18.290.01



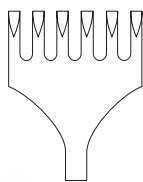
18.290.02



18.290.03



18.290.04

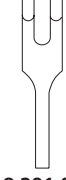


18.290.06

middle sharp



18.291.01



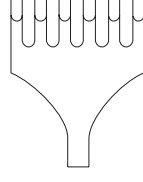
18.291.02



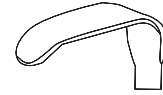
18.291.03



18.291.04



18.291.06



18.302.01  
18 x 7 mm



18.302.02  
16 x 5 mm



18.302.03  
7 x 4 mm



18.302.04  
7 x 4 mm



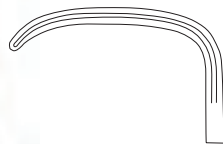
18.302.05  
10 x 3 mm



18.302.06  
10 x 4 mm



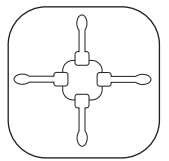
**MEYERDING**  
18.302.01 - 18.302.06  
18 cm



**LAHEY**  
18.304.19  
28 x 6 mm  
19 cm



**LITTLE**  
18.306.20  
20 cm

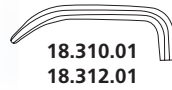


**LANGENBECK**  
 18.310.01 - 18.310.05  
 22 cm



**LANGENBECK**  
 18.312.01 - 18.312.07  
 21 cm

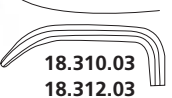
30 x 11 mm



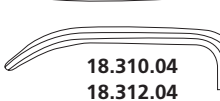
30 x 14 mm



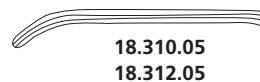
30 x 16 mm



40 x 11 mm



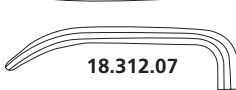
50 x 11 mm



33 x 14 mm



43 x 13 mm



**LANGENBECK**  
 18.314.07 - 18.314.20  
 21 cm



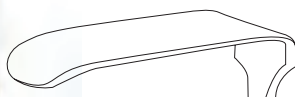
18.314.07  
 35 x 7 mm



18.314.10  
 35 x 10 mm



18.314.15  
 35 x 15 mm



18.314.20  
 60 x 20 mm



**LANGENBECK**  
 18.315.21 - 18.315.22



18.315.21  
 60 x 20 mm  
 21 cm

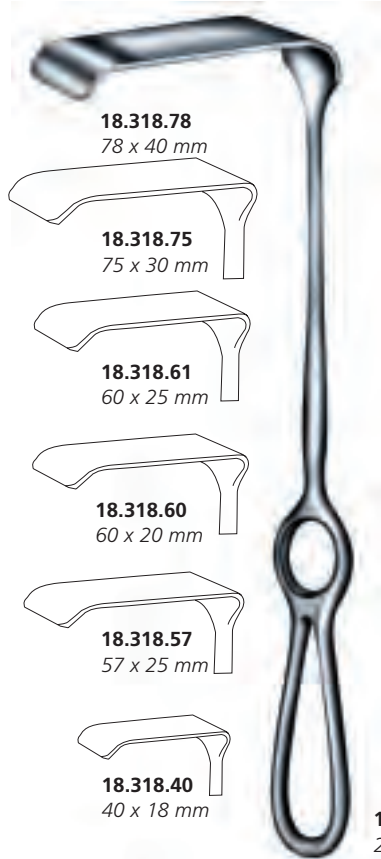


18.315.22  
 55 x 20 mm  
 22 cm





**LANGENBECK**  
18.317.21  
85 x 15 mm  
21 cm



18.318.78  
78 x 40 mm

18.318.75  
75 x 30 mm

18.318.61  
60 x 25 mm

18.318.60  
60 x 20 mm

18.318.57  
57 x 25 mm

18.318.40  
40 x 18 mm

18.318.4  
23 cm



18.330.40  
40 x 12 mm

18.330.55  
55 x 11 mm

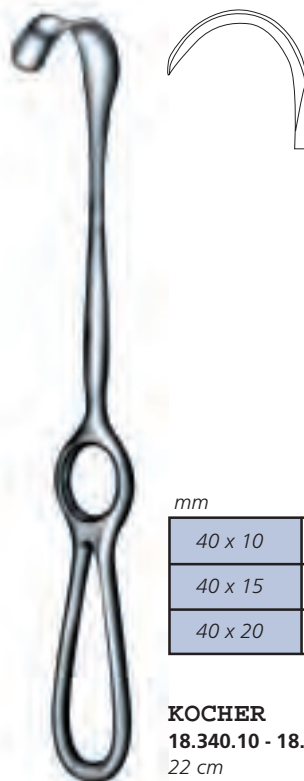
**KOCHER**  
18.330.40 - 18.330.55  
21 cm



18.332.19  
19 x 12 mm

18.332.21  
21 x 14 mm

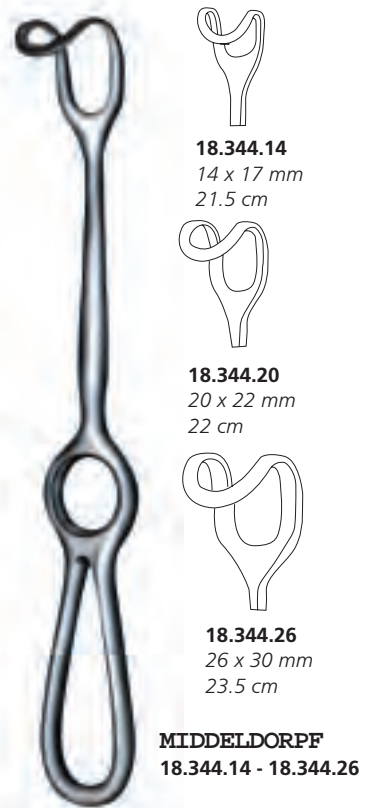
**KOCHER**  
18.332.19 - 18.332.21  
19 cm



mm

40 x 10	18.340.10
40 x 15	18.340.15
40 x 20	18.340.20

**KOCHER**  
18.340.10 - 18.340.20  
22 cm

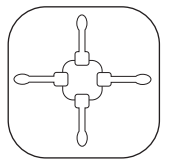


18.344.14  
14 x 17 mm  
21.5 cm

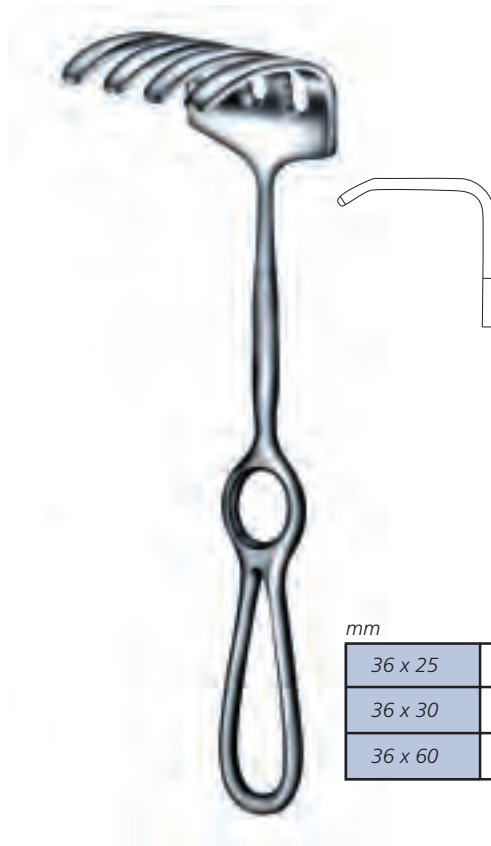
18.344.20  
20 x 22 mm  
22 cm

18.344.26  
26 x 30 mm  
23.5 cm

**MIDDELDORPF**  
18.344.14 - 18.344.26



**GREEN**  
 18.348.22  
 22 cm



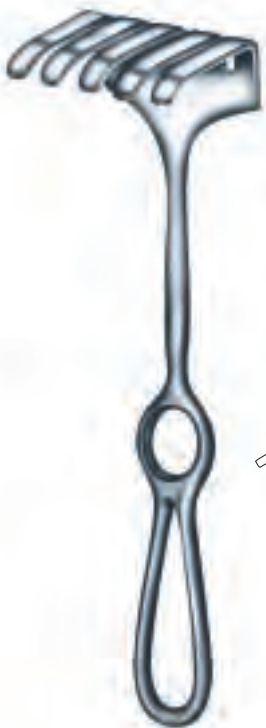
**OLLIER**  
 18.360.02 - 18.360.04  
 22.5 cm

mm

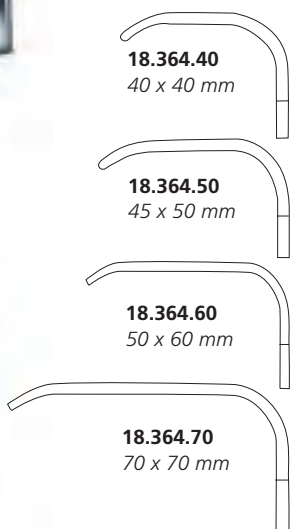
36 x 25	<b>18.360.02</b>	2 hook
36 x 30	<b>18.360.03</b>	3 hook
36 x 60	<b>18.360.04</b>	4 hook



**KOERTE**  
 18.361.04  
 36 x 55 mm  
 4 teeth

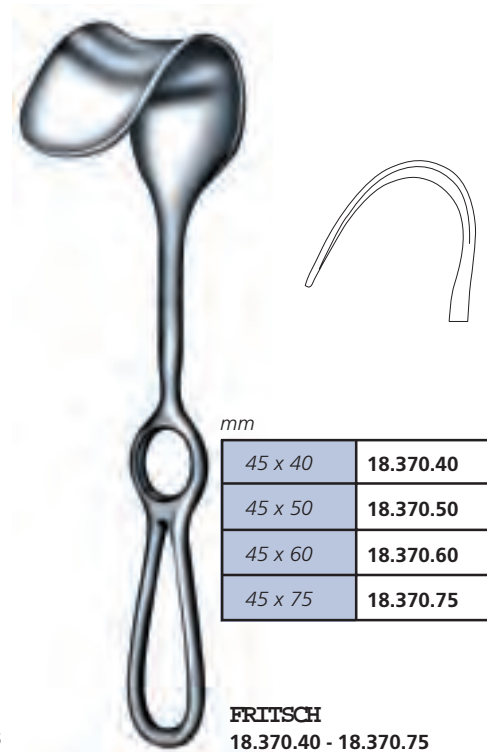


**ISRAEL**  
 18.364.40 - 18.364.70



**KOERTE**  
 18.366.08 - 18.367.08  
 23.5 cm

**18.366.08**  
 40 x 30 mm



mm

45 x 40	<b>18.370.40</b>
45 x 50	<b>18.370.50</b>
45 x 60	<b>18.370.60</b>
45 x 75	<b>18.370.75</b>

**FRITSCH**  
 18.370.40 - 18.370.75  
 24 cm





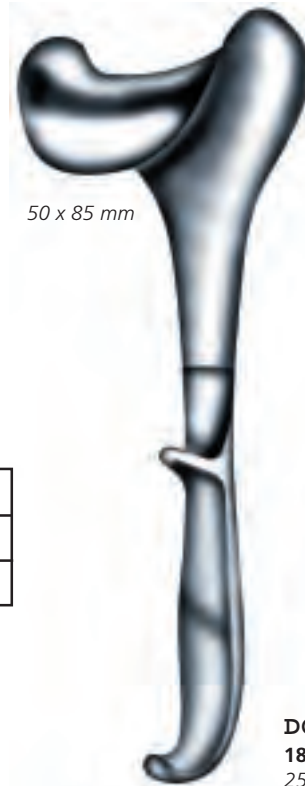
**KOCHER**  
18.372.22  
22.5 cm



mm

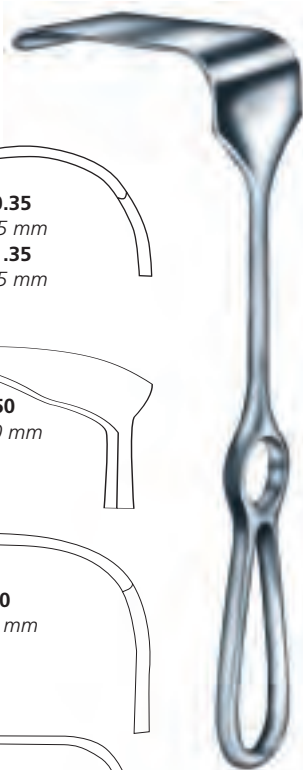
80 x 45	18.374.45
80 x 55	18.374.55
80 x 65	18.374.65

**KOCHER**  
18.374.45 - 18.374.65  
25 cm

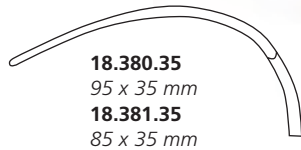


50 x 85 mm

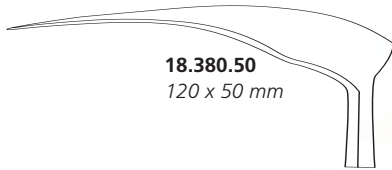
**DOYEN**  
18.378.25  
25 cm



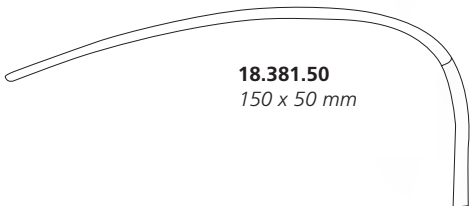
**MIKULICZ**  
18.380.35 - 18.382.55  
26 cm



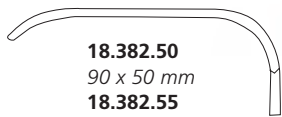
**18.380.35**  
95 x 35 mm  
**18.381.35**  
85 x 35 mm



**18.380.50**  
120 x 50 mm



**18.381.50**  
150 x 50 mm



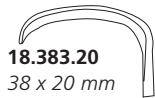
**18.382.50**  
90 x 50 mm  
**18.382.55**  
85 x 55 mm



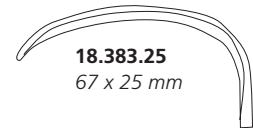
**KOCHER WAGNER**  
18.383.15 - 18.383.35  
28 cm



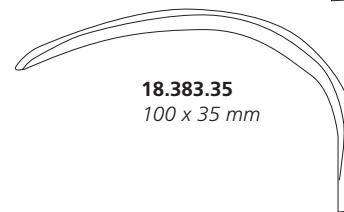
**18.383.15**  
22 x 15 mm



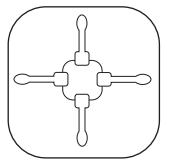
**18.383.20**  
38 x 20 mm



**18.383.25**  
67 x 25 mm



**18.383.35**  
100 x 35 mm

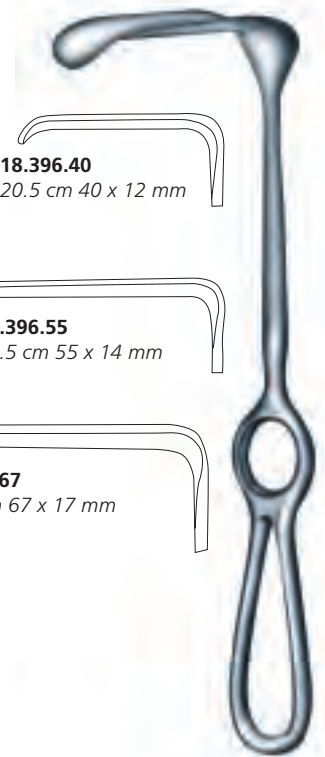


**KELLY**  
 18.385.38  
 160 x 38 mm 27 cm  
 18.385.57  
 160 x 57mm 27 cm



**MORRIS**  
 18.390.38 - 18.392.03

mm	simple
38 x 51	18.390.38
51 x 51	18.390.51
64 x 51	18.390.64
mm	double
32x51 / 38x51	18.392.01
44x51 / 51x51	18.392.02
64x51 / 38x51	18.392.03

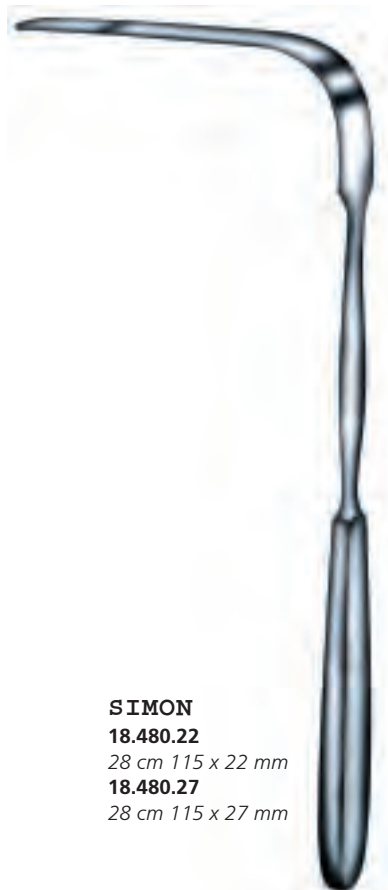


18.396.40  
 20.5 cm 40 x 12 mm

18.396.55  
 20.5 cm 55 x 14 mm

18.397.67  
 21.5 cm 67 x 17 mm

**DOCKHORN**  
 18.396.40 - 18.397.67



**SIMON**  
 18.480.22  
 28 cm 115 x 22 mm  
 18.480.27  
 28 cm 115 x 27 mm



**HEANEY**  
 18.482.45 - 18.482.82  
 27 cm

18.482.45  
 45 x 25 mm

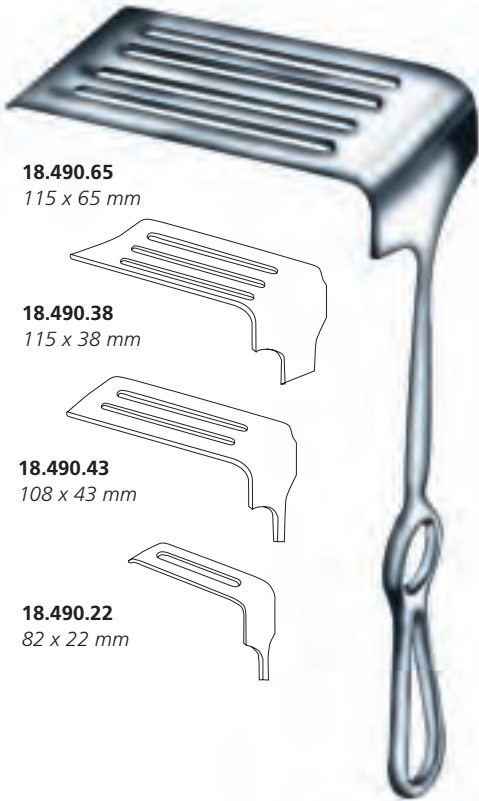
18.482.73  
 73 x 28 mm

18.482.82  
 82 x 28 mm



**HIBBS**  
 18.488.24  
 24 cm 25 x 75 mm





**18.490.65**  
115 x 65 mm

**18.490.38**  
115 x 38 mm

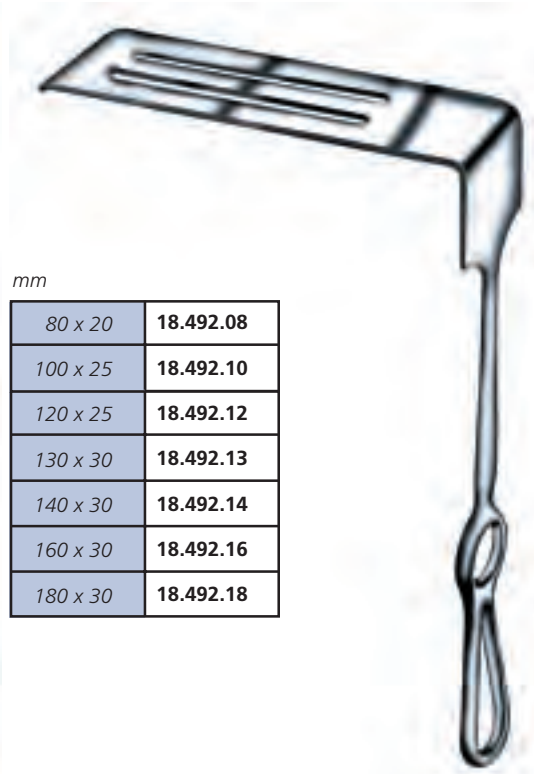
**18.490.43**  
108 x 43 mm

**18.490.22**  
82 x 22 mm

**CORYLLOS**  
18.490.22 - 18.490.65



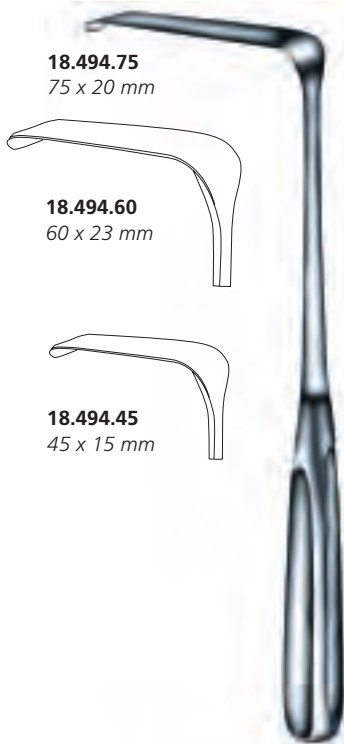
**BRUNNER**  
18.492.08 - 18.492.18  
25 cm



mm

80 x 20	<b>18.492.08</b>
100 x 25	<b>18.492.10</b>
120 x 25	<b>18.492.12</b>
130 x 30	<b>18.492.13</b>
140 x 30	<b>18.492.14</b>
160 x 30	<b>18.492.16</b>
180 x 30	<b>18.492.18</b>

**SAUERBRUCH**  
18.492.25  
25 cm



**18.494.75**  
75 x 20 mm

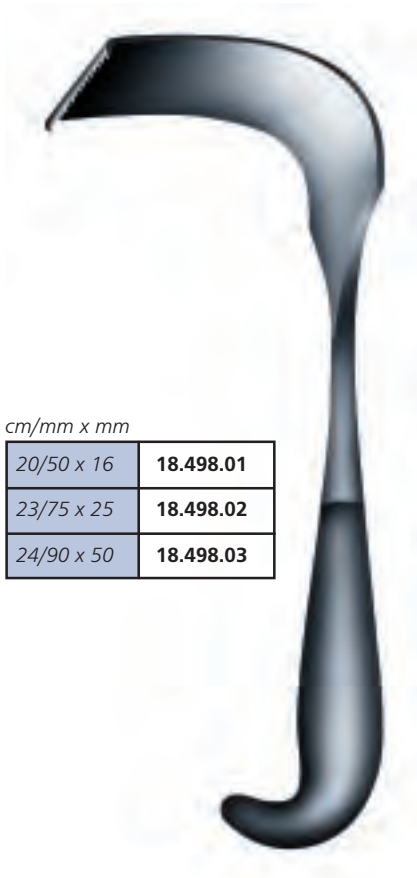
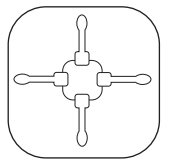
**18.494.60**  
60 x 23 mm

**18.494.45**  
45 x 15 mm

**SAUERBRUCH**  
18.494.45 - 18.494.75



**DAVIDSON (scapula)**  
18.496.50  
75 x 50 mm  
16 cm  
18.496.90  
75 x 90 mm  
16 cm



cm/mm x mm

20/50 x 16	18.498.01
23/75 x 25	18.498.02
24/90 x 50	18.498.03

**MEYERDING**  
 18.498.01 - 18.498.03



**MANNERFELDT**  
 18.504.13  
 13.5 cm



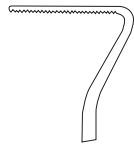
**MANNERFELDT**  
 18.506.15  
 15.5 cm



**MANNERFELDT**  
 18.508.15  
 15.5 cm



18.510.01



18.510.02

**MANNERFELDT**  
 18.510.01 - 18.510.02  
 15.5 cm



18.512.01



18.512.02



18.512.03

**MANNERFELDT**  
 18.512.01 - 18.512.03  
 15.5 cm



18.513.01



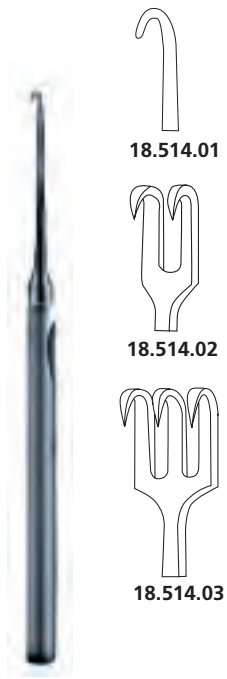
18.513.02



18.513.03

**MANNERFELDT**  
 18.513.01 - 18.513.03  
 15.5 cm



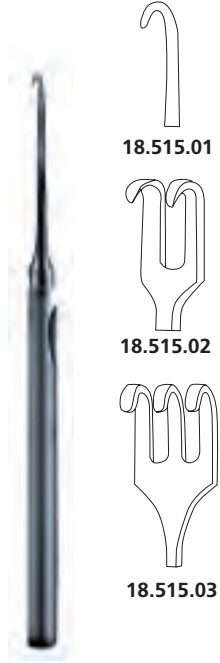


18.514.01

18.514.02

18.514.03

**MANNERFELDT**  
18.514.01 - 18.514.03  
15.5 cm



18.515.01

18.515.02

18.515.03

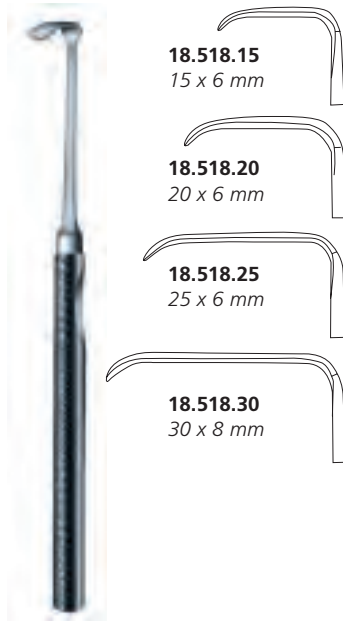
**MANNERFELDT**  
18.515.01 - 18.515.03  
15.5 cm



**MANNERFELDT**  
18.516.03  
15.5 cm



**LANGENBECK MANNERFELDT**  
18.517.15  
15.5 cm



18.518.15  
15 x 6 mm

18.518.20  
20 x 6 mm

18.518.25  
25 x 6 mm

18.518.30  
30 x 8 mm

**LANGENBECK MANNERFELDT**  
18.518.15 - 18.518.30  
15.5 cm

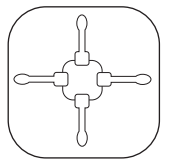


18.519.12  
12 x 12 mm

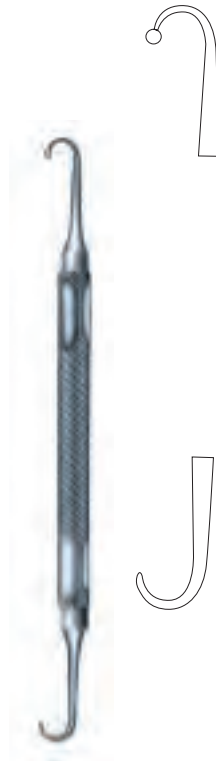
18.519.14  
12 x 14 mm

18.519.16  
14 x 16 mm

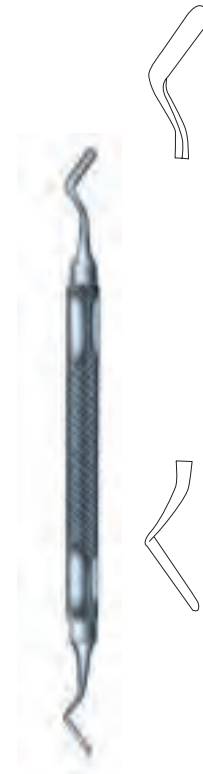
**MANNERFELDT**  
18.519.12 - 18.519.16  
15.5 cm



**MANNERFELDT**  
**18.520.15**  
 12 x 12 mm  
 15.5 cm



**MANNERFELDT**  
**18.521.16**  
 16 cm



**MANNERFELDT**  
**18.522.16**  
 16 cm



**18.602.07**  
 75 mm  
**18.602.11**  
 115 mm  
 1 teeth



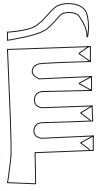
**18.603.08**  
 85 mm  
**18.603.11**  
 115 mm



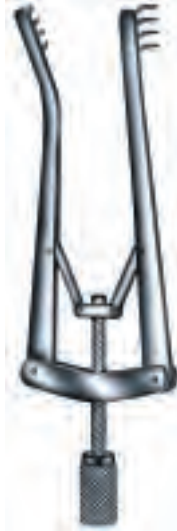
**FARR**  
**18.608.38 - 18.608.75**

mm	
38	<b>18.608.38</b>
50	<b>18.608.50</b>
57	<b>18.608.57</b>
64	<b>18.608.64</b>
75	<b>18.608.75</b>





**FINSEN**  
18.610.07 - 18.611.07  
7 cm



**ALM**  
18.620.07 - 18.621.10

cm	sharp	blunt
7	18.620.07	18.621.07
10	18.620.10	18.621.10



**KUTTNER**  
18.622.24  
24 cm



**ALLPORT**  
18.624.10



**JANSEN GIFFORD**  
18.628.10  
sharp  
18.629.10  
blunt



**JANSEN**  
18.630.10  
sharp  
18.631.10  
blunt  
10 cm



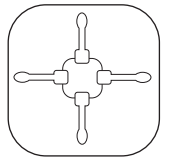
**JANSEN WAGNER**  
18.632.11



18.634.10  
sharp  
18.635.10  
blunt



**KOCHER**  
18.640.16  
sharp  
16 cm



**CROTTI**  
**18.642.18**  
 sharp  
 18 cm



**WEITLANER**  
**18.650.10**  
 sharp  
 11.5 cm  
**18.650.10**  
 blunt  
 11.5 cm



**WEITLANER WULLSTEIN**  
**18.654.13**  
 sharp  
 13 cm  
**18.655.13**  
 blunt  
 13 cm



**MILLIGAN**  
**18.656.13**  
 3 X 3 teeth  
 13 cm



**WIEGAND**  
**18.656.15**  
 3 teeth left  
**18.656.16**  
 3 teeth right

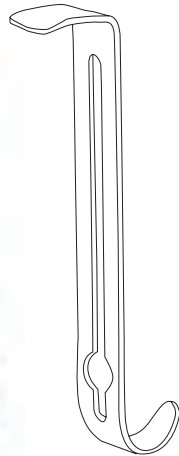


**PLESTER**  
**18.657.11**  
 2 teeth right  
 11 cm  
**18.659.11**  
 2 teeth left  
 11 cm





**HENLEY**  
**18.660.16**  
 16 cm blunt  
**18.661.16**  
 16 cm sharp



**HENLEY**  
**18.661.17 - 18.661.19**

cm	
16 x 19	<b>18.661.17</b>
16 x 25	<b>18.661.18</b>
16 x 32	<b>18.661.19</b>



**WEITLANER**  
**18.668.13**  
 13 cm sharp  
**18.669.13**  
 13 cm blunt

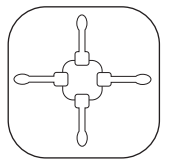


**WEITLANER**  
**18.670.14 - 18.671.25**

cm	sharp	blunt
14.0	<b>18.670.14</b>	<b>18.671.14</b>
16.5	<b>18.670.16</b>	<b>18.671.16</b>
20.0	<b>18.670.20</b>	<b>18.671.20</b>
25.0	<b>18.670.25</b>	<b>18.671.25</b>



**WEITLANER**  
**18.670.26**  
 sharp  
**18.671.26**  
 blunt  
 26 cm  
 5 x 6 teeth



**MAYO ADAMS**  
**18.672.17**  
 17 cm



**HOEN**  
**18.672.26**  
 complete  
 27 cm  
**18.672.33**  
 only  
 27 cm

mm

45 x 35	<b>18.672.29</b>	blade sharp
45 x 45	<b>18.672.30</b>	blade sharp
25 x 35	<b>18.672.32</b>	blade blunt
25 x 45	<b>18.672.33</b>	blade blunt



**CONTOUR**  
**18.673.14**  
 14 cm



**18.675.16**  
 16.5 cm



**MISKIMON**  
**18.676.22**  
 22 cm





**ANDERSON ADSON**  
**18.678.20**  
4 x 4 teeth  
19 cm



**ADSON**  
**18.680.19**  
19 cm sharp  
**18.681.19**  
19 cm blunt



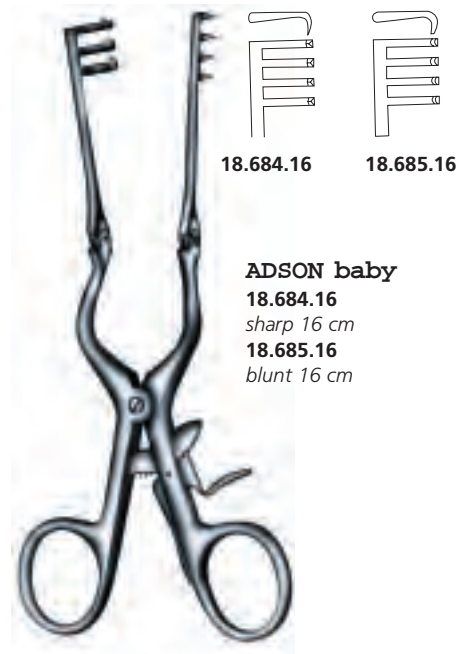
**MALIS**  
**18.681.00**



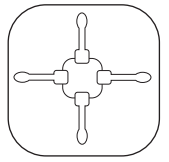
**ADSON**  
**18.682.26**  
26.5 cm sharp 3 x 4 teeth  
**18.682.27**  
26.5 cm sharp 5 x 6 teeth



**ADSON**  
**18.683.26**  
26.5 cm blunt 3 x 4 teeth  
**18.683.27**  
26.5 cm blunt 5 x 6 teeth



**18.684.16**      **18.685.16**  
**ADSON baby**  
**18.684.16**  
sharp 16 cm  
**18.685.16**  
blunt 16 cm



**18.690.00**  
*blunt*

**18.690.02**  
*blunt*

**18.690.01**  
*sharp*

**18.690.03**  
*sharp*



**ADSON**  
**18.686.32**  
 32 cm



**18.687.27**  
 26.5 cm 2 x 6 teeth 32 mm  
**18.688.27**  
 26.5 cm 6 teeth 13 mm right  
**18.689.27**  
 26.5 cm 6 teeth 13 mm left



**BECKMAN ADSON**  
**18.690.00 - 18.690.03**  
 31 cm  
 4 x 4 teeth





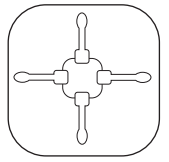
**BECKMAN**  
**18.690.31**  
*31 cm sharp*  
**18.691.31**  
*31 cm middle sharp*



**BECKMAN EATON**  
**18.692.32**  
*32 cm*



**MOLLISON**  
**18.693.15**  
*15 cm*



70 x 38 mm

57 x 38 mm



**CONE**  
 18.694.16  
 16 cm  
 18.694.20  
 20 cm



**DARLING**  
 18.696.18  
 16.5 cm left  
 18.698.18  
 16.5 cm right

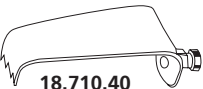
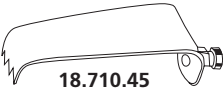
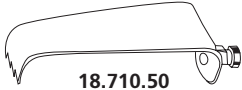
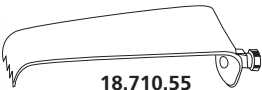
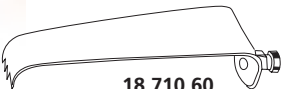


**WALTON**  
 18.707.01  
 18 cm right  
 18.707.02  
 18 cm left



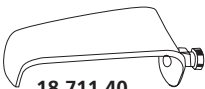
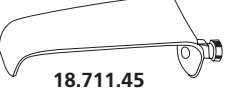
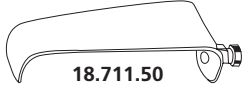
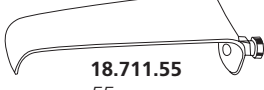

**KNIGHTON**  
 18.708.01  
 19 cm right  
 18.708.02  
 19 cm left



-  **18.710.40**  
40 mm
-  **18.710.45**  
45 mm
-  **18.710.50**  
50 mm
-  **18.710.55**  
55 mm
-  **18.710.60**  
60 mm

**CLOWARD**  
**18.710.00**  
 25 cm complete  
**18.710.01**  
 25 cm without blades



-  **18.711.40**  
40 mm
-  **18.711.45**  
45 mm
-  **18.711.50**  
50 mm
-  **18.711.55**  
55 mm
-  **18.711.60**  
60 mm

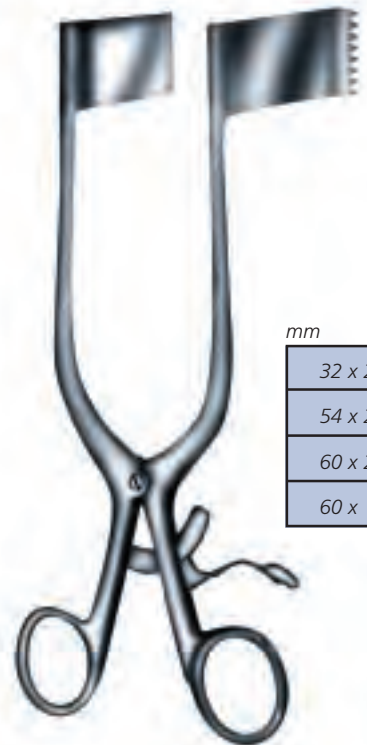
**CLOWARD**  
**18.711.00**  
 17 cm complete  
**18.711.01**  
 17 cm without blades



**MARKHAM MEYERDING**  
**18.712.18**  
 18 cm

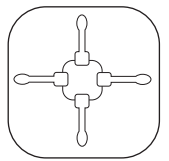


**MARKHAM MEYERDING**  
**18.713.18**  
 18 cm

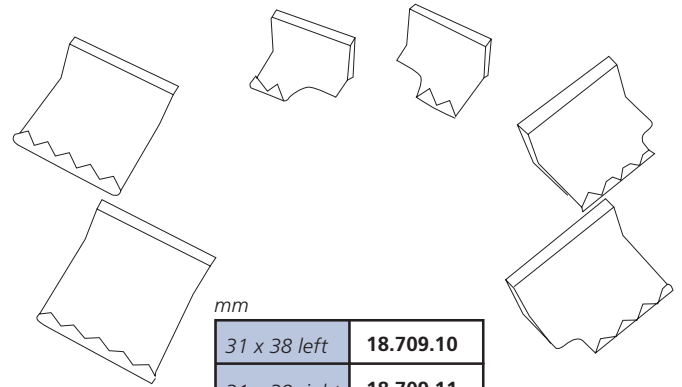


**MEYERDING**  
**18.714.32 - 18.714.61**  
 18 cm

mm	
32 x 25	<b>18.714.32</b>
54 x 25	<b>18.714.54</b>
60 x 25	<b>18.714.60</b>
60 x 19	<b>18.714.61</b>



**KARLIN**  
18.709.00  
complete  
18.709.05  
retractor frame  
18.709.20  
blad universal  
(left/right) 76 x 64 mm



mm

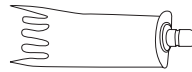
31 x 38 left	18.709.10
31 x 38 right	18.709.11
61 x 44 left	18.709.16
61 x 44 right	18.709.17



CASPAR

mm

45 x 23	18.716.45
50 x 23	18.716.50
55 x 23	18.716.55
60 x 23	18.716.60
65 x 23	18.716.65



CASPAR

mm

40 x 23	18.718.40
45 x 23	18.718.45
50 x 23	18.718.50
55 x 23	18.718.55
60 x 23	18.718.60



CASPAR

mm

40 x 23	18.719.40
45 x 23	18.719.45
50 x 23	18.719.50
55 x 23	18.719.55
60 x 23	18.719.60



**CASPAR**  
18.720.00  
complete  
18.720.15  
without blades



mm

45 x 20	18.720.45
50 x 20	18.720.50
55 x 20	18.720.55
60 x 20	18.720.60
65 x 20	18.720.65



**CASPAR**  
18.721.00  
complete  
18.721.15  
without blades





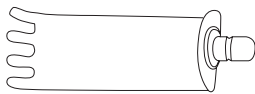
**18.722.11**  
11.5 cm



**CASPAR**  
**18.723.00**  
complete  
**18.723.12**  
only  
12 cm  
opening 12 cm



**CASPAR**  
**18.724.00**  
complete 2 x 5 blades  
**18.724.11**



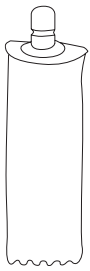
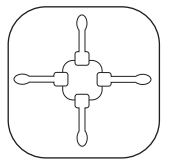
**CASPAR**

mm

40 x 20	<b>18.724.40</b>
45 x 20	<b>18.724.45</b>
50 x 20	<b>18.724.50</b>
55 x 20	<b>18.724.55</b>
60 x 20	<b>18.724.60</b>



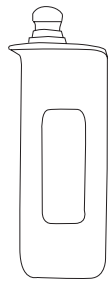
**CASPAR**  
**18.725.00**  
complete 5 blades  
**18.725.11**  
only  
11.5 cm  
opening 8.5 cm



CASPAR

mm

40 x 20	18.725.40
45 x 20	18.725.45
50 x 20	18.725.50
55 x 20	18.725.55
60 x 20	18.725.60



CASPAR

mm

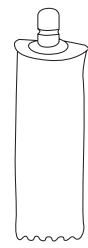
50 x 25	18.726.50
60 x 25	18.726.60



CASPAR

mm

40 x 25	18.727.40
45 x 25	18.727.45
50 x 25	18.727.50
55 x 25	18.727.55
60 x 25	18.727.60



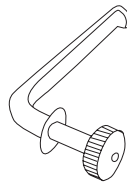
CASPAR

mm

40 x 25	18.728.40
45 x 25	18.728.45
50 x 25	18.728.50
55 x 25	18.728.55
60 x 25	18.728.60



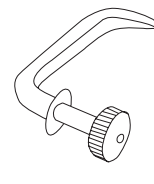
**SCOVILLE**  
18.729.00  
only frame  
opening 15 cm



SCOVILLE

mm

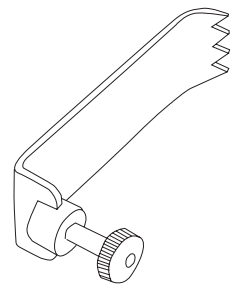
50	18.729.01
70	18.729.02



SCOVILLE

mm

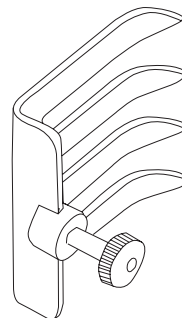
50	18.729.06
70	18.729.07



SCOVILLE

mm

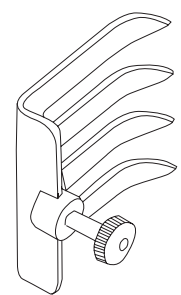
64 x 25	18.729.11
64 x 50	18.729.12
88 x 25	18.729.13



TAYLOR

mm 4 deeth

48 x 50	18.729.41
64 x 50	18.729.42
64 x 64	18.729.43
80 x 57	18.729.44



SCOVILLE

mm 4 deeth

41 x 38	18.729.46
67 x 44	18.729.47





**SCOVILLE HAVERFIELD**  
18.729.50  
only frame



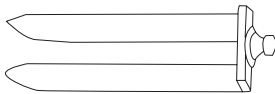
**CASPAR**  
18.730.00  
complete  
18.730.15  
only frame



**CASPAR**  
18.731.50  
50 mm



**CASPAR**  
18.731.70  
70 mm



**CASPAR**

mm

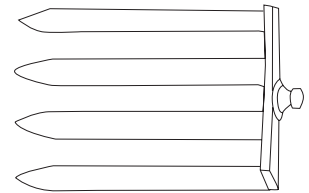
35 x 22	18.732.35
40 x 22	18.732.40
45 x 22	18.732.45
50 x 22	18.732.50
55 x 22	18.732.55
60 x 22	18.732.60
65 x 22	18.732.65
70 x 22	18.732.70



**CASPAR**

mm

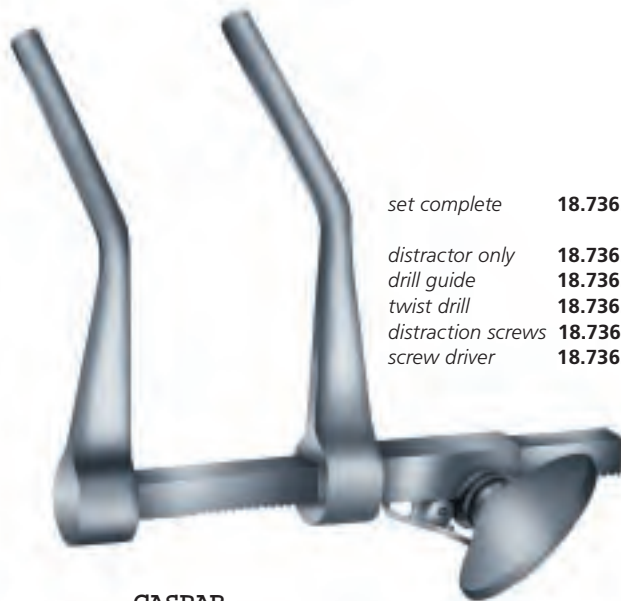
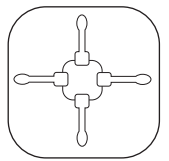
35 x 37	18.733.35
40 x 37	18.733.40
45 x 37	18.733.45
50 x 37	18.733.50
55 x 37	18.733.55
60 x 37	18.733.60
65 x 37	18.733.65
70 x 37	18.733.70



**CASPAR**

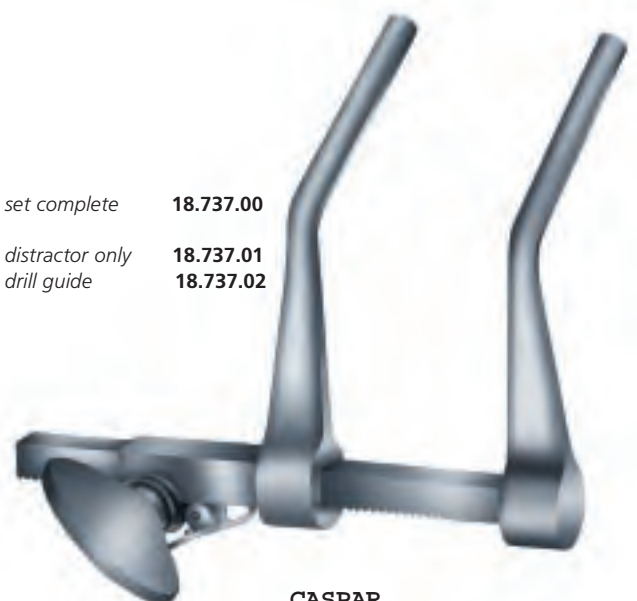
mm

35 x 52	18.734.35
40 x 52	18.734.40
45 x 52	18.734.45
50 x 52	18.734.50
55 x 52	18.734.55
60 x 52	18.734.60
65 x 52	18.734.65
70 x 52	18.734.70



*set complete* **18.736.00**  
*distractor only* **18.736.01**  
*drill guide* **18.736.02**  
*twist drill* **18.736.10**  
*distraction screws* **18.736.11**  
*screw driver* **18.736.20**

**CASPAR**  
 18.736.00 - 18.736.20









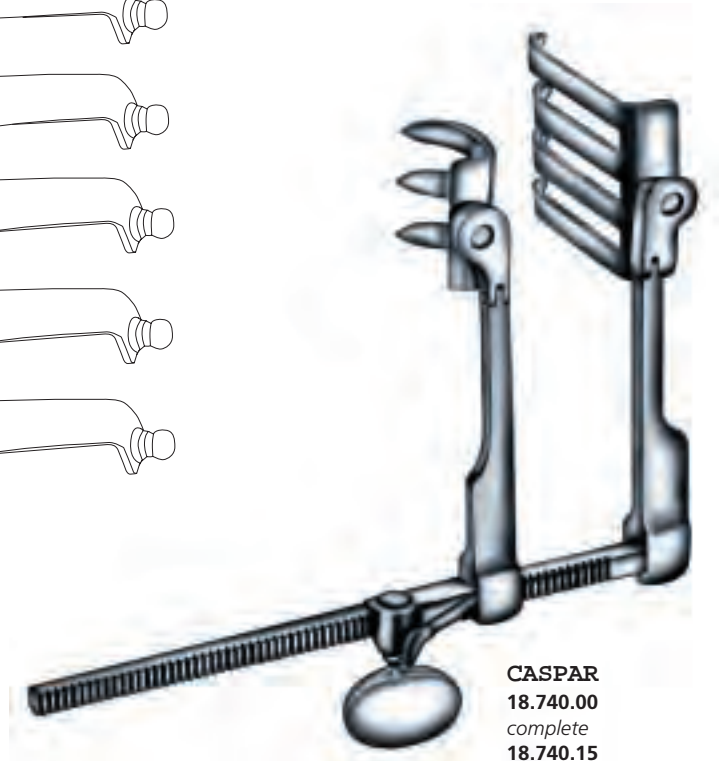
*set complete* **18.737.00**  
*distractor only* **18.737.01**  
*drill guide* **18.737.02**

**CASPAR**  
 18.737.00 - 18.737.02



**CASPAR**  
 18.738.00  
 complete  
 18.738.01  
 only

- 18.738.35**  
35 mm 
- 18.738.40**  
40 mm 
- 18.738.45**  
45 mm 
- 18.738.50**  
50 mm 
- 18.738.55**  
55 mm 
- 18.738.60**  
60 mm 

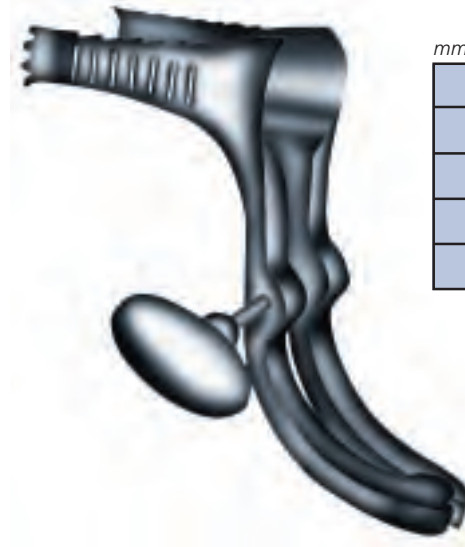
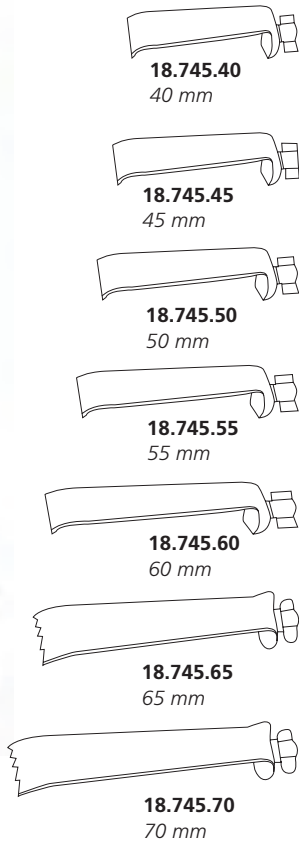


**CASPAR**  
 18.740.00  
 complete  
 18.740.15  
 only

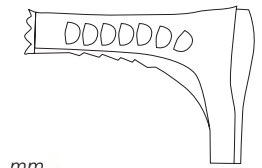




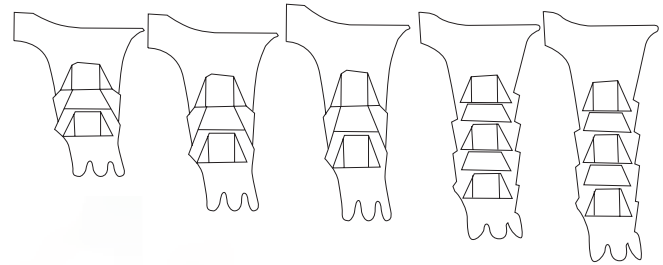
**CASPAR**  
 18.744.00  
 complete  
 18.744.17  
 only



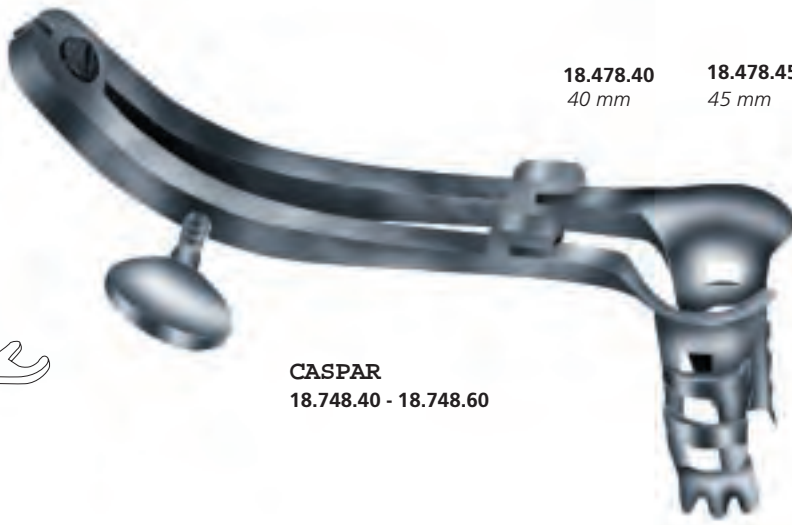
**CASPAR**  
 18.747.45 - 18.747.65



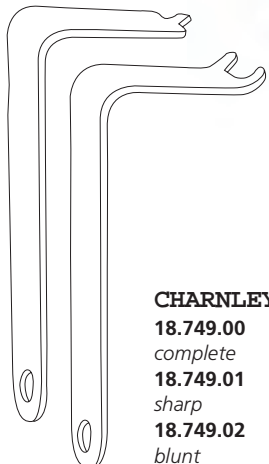
mm	
45	18.747.45
50	18.747.50
55	18.747.55
60	18.747.60
65	18.747.65



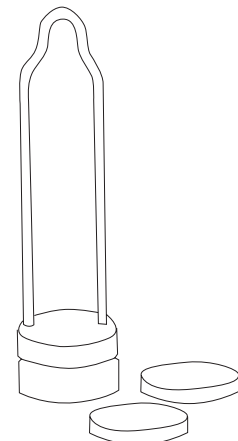
18.478.40 40 mm    18.478.45 45 mm    18.478.50 50 mm    18.478.55 55 mm    18.478.60 60 mm



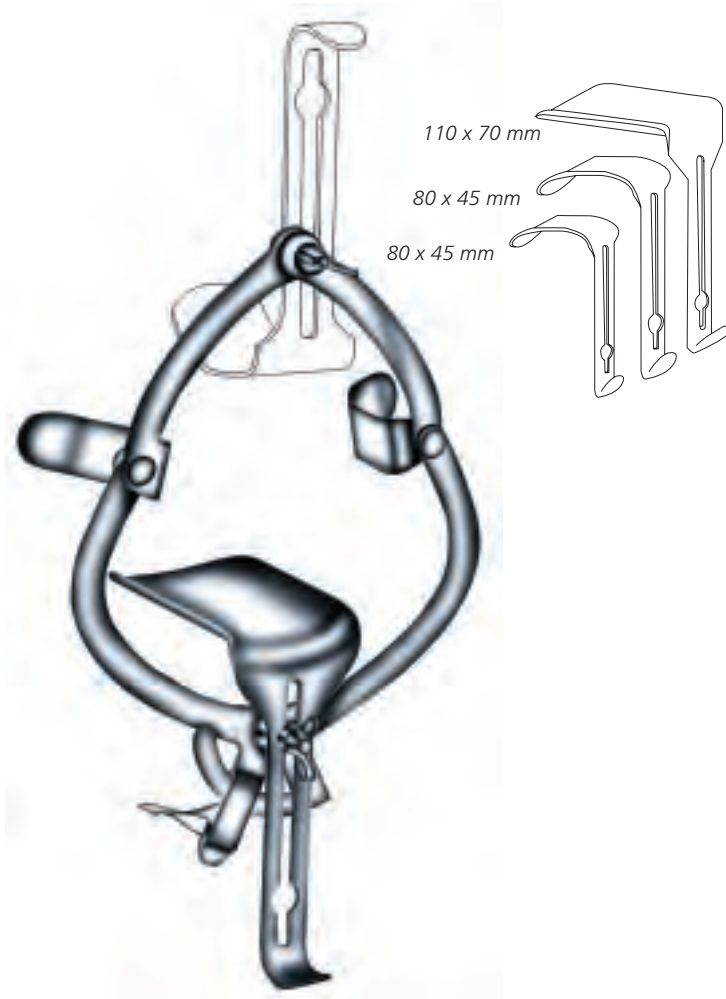
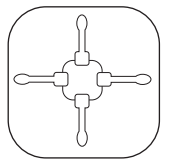
**CASPAR**  
 18.748.40 - 18.748.60



**CHARNLEY**  
 18.749.00  
 complete  
 18.749.01  
 sharp  
 18.749.02  
 blunt



18.749.15  
 18.749.70



O´SULLIVAN O´CONNOR  
 18.754.00



FRAZIER  
 18.758.85  
 85 mm 40mm / 40 mm

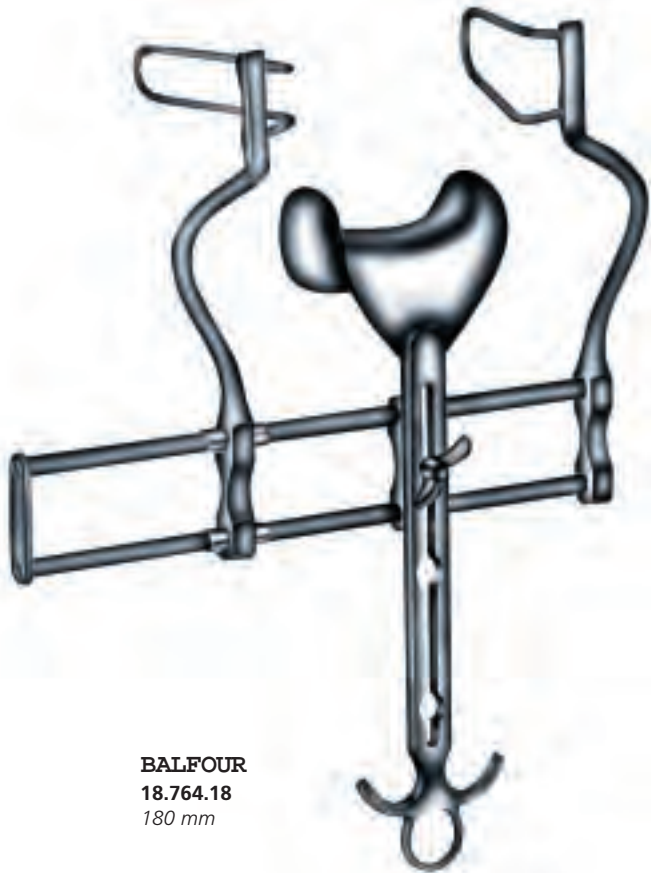


GOSSET  
 18.760.14  
 140 mm

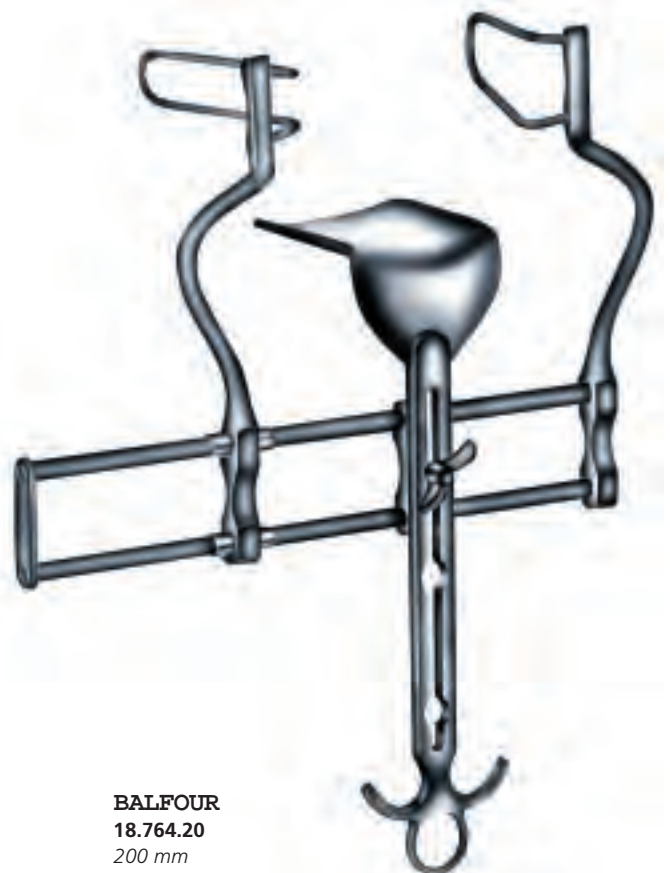


GOSSET  
 18.762.16  
 160 mm

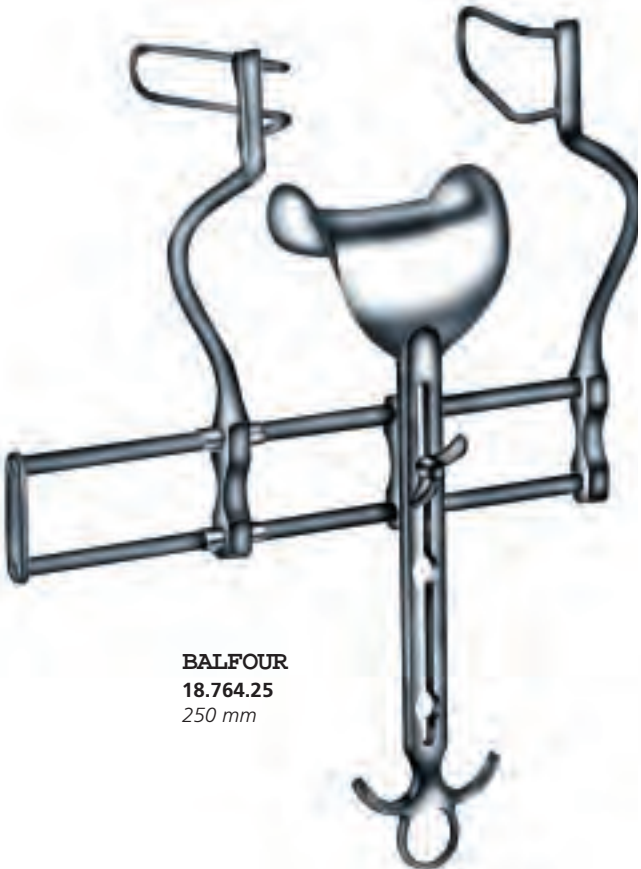




**BALFOUR**  
**18.764.18**  
180 mm



**BALFOUR**  
**18.764.20**  
200 mm



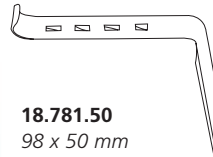
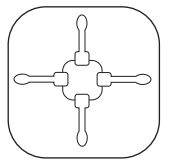
**BALFOUR**  
**18.764.25**  
250 mm



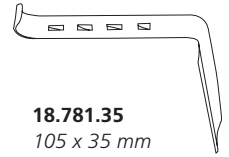
**BALFOUR**  
**18.765.45**  
45 x 80  
**18.765.70**  
70 x 85  
**18.765.80**  
80 x 90



**BALFOUR baby**  
**18.766.90**  
9 cm



**18.781.50**  
 98 x 50 mm



**18.781.35**  
 105 x 35 mm

**KIRSCHNER**  
 set complete **18.780.00**

frame 300 x 240 **18.780.01**

blades 50 x 65 **18.781.65**

80 x 90 **18.781.90**

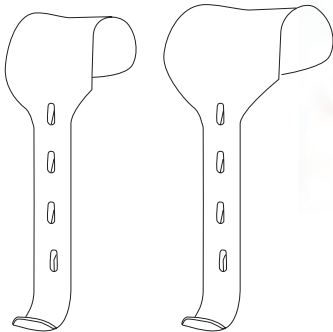


**DENNIS BROWN RAHMEN baby**  
 set complete **18.784.50**

frame 180 x 150 **18.784.62**

blades 30 x 40 **18.784.62**

40 x 40 **18.784.64**



**DENNIS BROWN RAHMEN adult**  
 set complete **18.784.52**

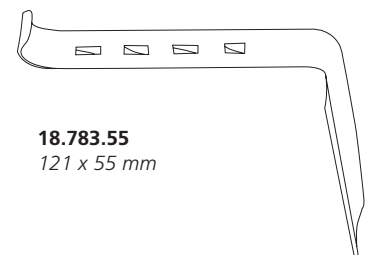
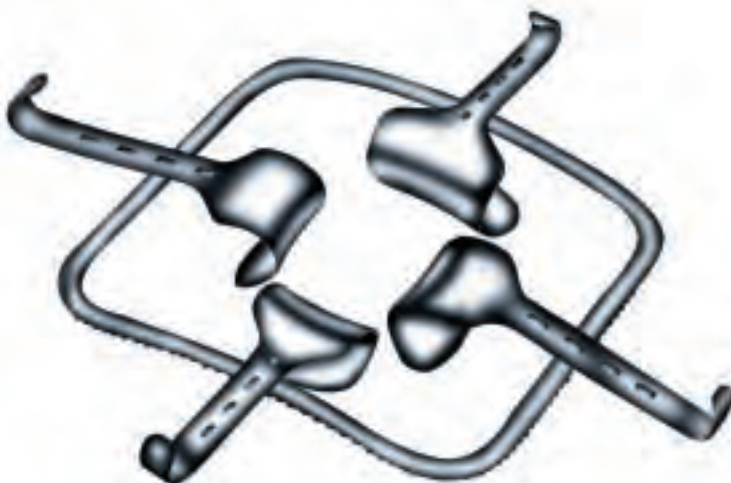
frame 255 x 180 **18.784.61**

blades 30 x 40 **18.784.62**

40 x 40 **18.784.64**

**18.781.55**  
 40 x 55 mm

**18.781.65**  
 52 x 65 mm



**18.783.55**  
 121 x 55 mm

**KIRSCHNER**  
 set complete **18.782.00**

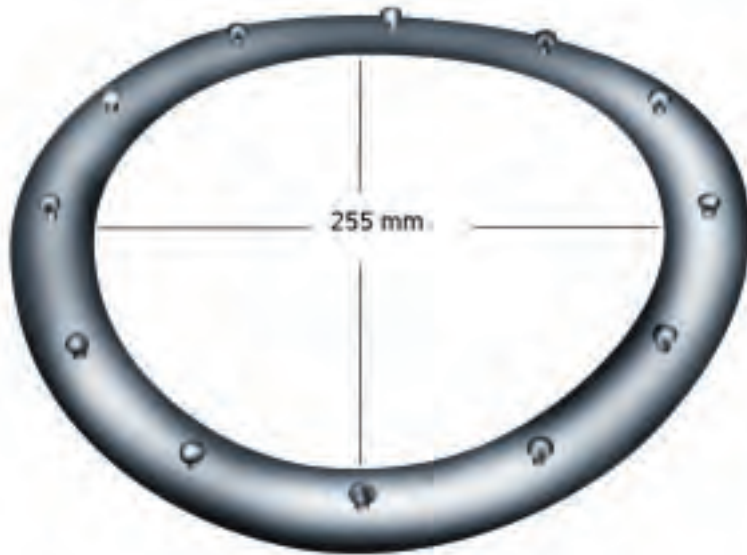
frame 240 x 240

blades 50 x 65

40 x 55



**18.784.00**  
250 x 250 mm



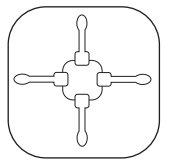
**18.798.00**  
*complete*  
**18.798.12**  
*only frame*



**18.798.45**  
65 x 45 mm

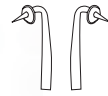


**18.798.65**  
75 x 65 mm



cm	
9	18.802.09
11	18.802.11
14	18.802.14
16	18.802.16
18	18.802.18

**GELPI**  
 18.802.09 - 18.802.18  
 opening 10 cm



**GELPI**  
 18.804.18  
 18 cm  
 opening 10 cm



**ST. MARKS**  
 18.805.21  
 21 cm  
 opening 16 cm



**RIGBY**  
 18.806.18  
 18 cm  
 opening 10 cm



**GELPI SEILEITZ**  
 18.807.16  
 14.5 cm





**RICHTER**  
18.808.16  
16 cm



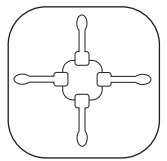
**COLLIN**  
18.810.22  
23.5 cm  
opening 13.5 cm



**COLLIN**  
18.812.60  
38 x 55 mm  
18.812.80  
50 x 75 mm



**COLLIN Loktite**  
18.816.00  
26 cm



**RICARD**  
**18.822.28**  
 28 cm  
**18.822.30**  
 30 cm



**OETTINGEN**  
**18.824.00**  
 complete  
 28 cm



**ROCHARD**  
**18.831.19**  
 fixation device

mm	ROCHARD blades
50 x 95	<b>18.835.09</b>
50 x 105	<b>18.835.10</b>
60 x 120	<b>18.836.12</b>
60 x 135	<b>18.836.13</b>
60 x 155	<b>18.836.15</b>

**ROCHARD**  
**18.830.01**  
 one side  
**18.830.02**  
 both side



**GARRET**  
**18.850.18**  
 18.4 cm





**OCHSNER**  
18.853.20  
20 cm



**MALIS**  
18.860.19  
18.5 cm retractors  
18.861.01  
fixation device  
18.861.02  
adjustable arm



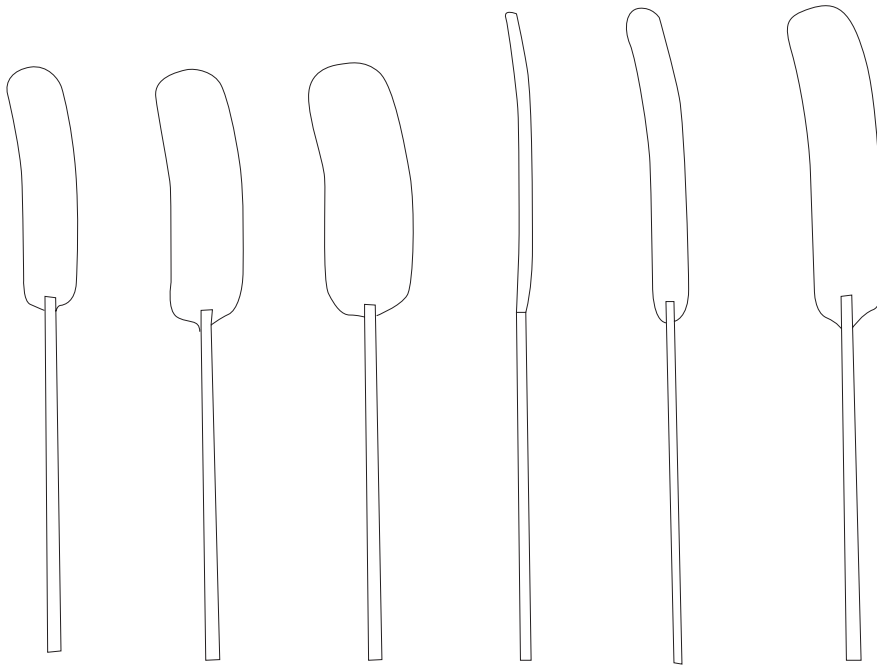
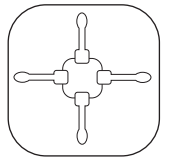
**MALIS** 18.862.09 9 cm  
**MALIS** 18.862.12 12 cm  
**MALIS** 18.862.15 15 cm



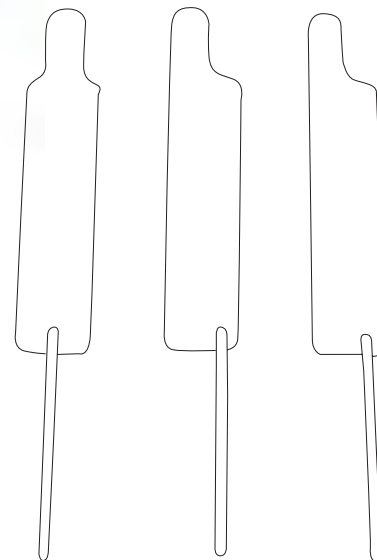
**JANNETTA**  
18.870.00  
complete  
18.870.19  
without blades



**MALIS** 18.863.09 9 x 70 mm  
**MALIS** 18.863.14 14 x 70 mm  
**MALIS** 18.863.16 16 x 70 mm  
**MALIS** 18.863.19 19 x 70 mm  
**MALIS** 18.863.25 25 x 70 mm

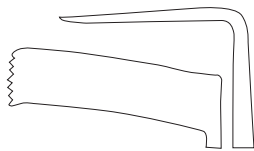


<b>JANNETTA</b> 18.873.16 16 x 70 mm	<b>JANNETTA</b> 18.873.20 20 x 70 mm	<b>JANNETTA</b> 18.873.25 25 x 70 mm	<b>JANNETTA</b> 18.875.05 5 x 90 mm	<b>JANNETTA</b> 18.875.11 11 x 90 mm	<b>JANNETTA</b> 18.875.21 21 x 90 mm
--	--	--	---	--	--

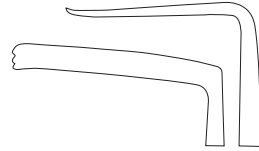


**APFELBAUM**  
 18.875.50  
 complete

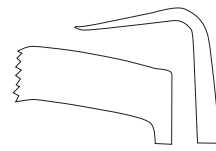




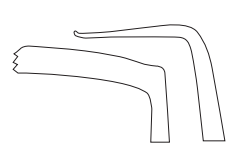
**WILLIAMS**  
**18.881.50**  
1 cm / 5 cm



**WILLIAMS**  
**18.881.70**  
1 cm / 7 cm



**WILLIAMS**  
**18.882.50**  
2 cm / 5 cm



**WILLIAMS**  
**18.882.70**  
2 cm / 7 cm

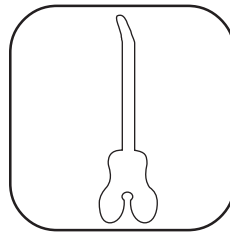
**WILLIAM**  
18.881.50 - 18.882.70



**18.902.10**  
2 x 2 hook  
10 cm

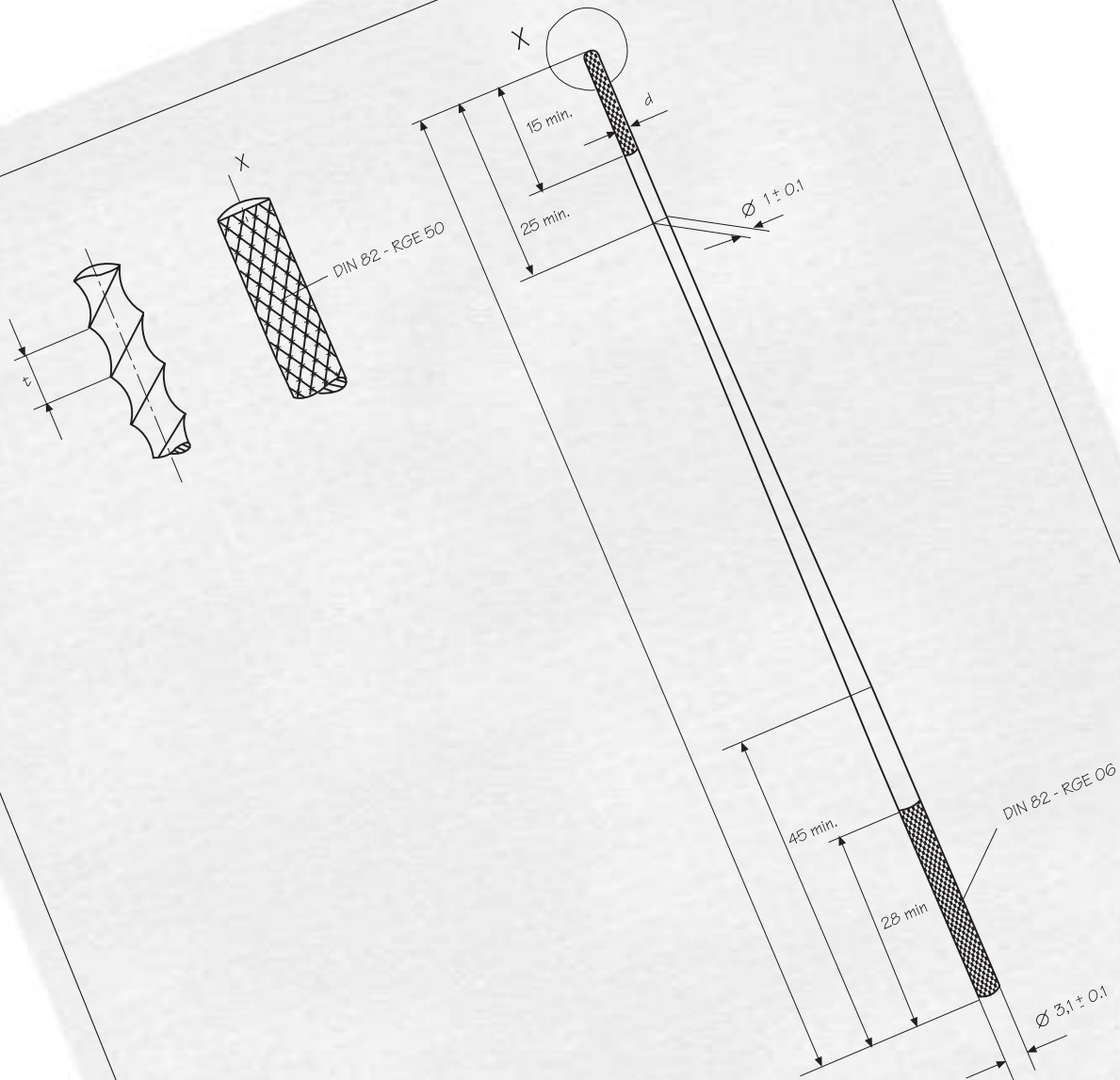


**18.903.00**  
set 3



# 20

Probes, Cotton Applicators  
 Estiles, Sonda, Porta-Algones  
 Sonden, Wattenträger



GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
	gezeichnet / dibujado	July '98	cvd/jvd	1
	geprüft / verificado	July '98	cvd	Maaßstab / escala
	Toleranz / tolerancia	June '99	mj	1:1
				Artikel / artículo
				Artikel-Nr. / No. de articulo





cm

11.5	20.102.11
13.0	20.102.13
14.5	20.102.14
16.0	20.102.16
18.0	20.102.18
20.0	20.102.20
25.0	20.102.25

**20.102.11 - 20.102.25**  
ø 2 mm



cm

11.5	20.104.11
13.0	20.104.13
14.5	20.104.14
16.0	20.104.16
18.0	20.104.18
20.0	20.104.20
25.0	20.104.25

**20.104.11 - 20.104.25**  
ø 1 mm



cm

11.5	20.105.11
13.5	20.105.13
14.5	20.105.14
16.5	20.105.16
20.0	20.105.20

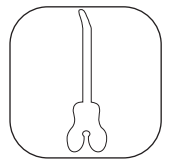
**20.105.11 - 20.150.20**  
ø 1.5 mm



cm

11.5	20.106.11
13.0	20.106.13
14.5	20.106.14
16.0	20.106.16
18.0	20.106.18
20.0	20.106.20
25.0	20.106.25
30.0	20.106.30

**20.106.11 - 20.106.30**  
ø 2 mm



cm

14.5	20.108.14
20.0	20.108.20

20.108.14 - 20.108.20



cm

13.0	20.110.13
14.5	20.110.14
16.0	20.110.16
18.0	20.110.18
20.0	20.110.20

20.110.13 - 20.110.20



**DOYEN**  
 20.111.14  
 14 cm



cm

13.0	20.112.13
14.5	20.112.14
16.0	20.112.16

20.112.13 - 20.112.16



**STACKE**  
 20.115.10  
 10 cm



**NELATON**  
 20.117.16  
 16 cm



20.120.19  
 19 cm  
 ø 3 mm



**NABATOFF**  
**20.150.00**  
 135 x 100 x 25 mm  
 complete

20.150.02

20.150.80



20.150.90



20.150.02



20.150.03  
 ø 3 mm



20.150.06  
 ø 6 mm



20.150.09  
 ø 9 mm



20.150.12  
 ø 12 mm



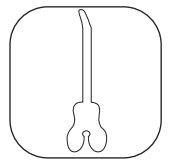
20.150.15  
 ø 15 mm



**MYERS**  
**20.154.06 - 20.154.15**  
 100 m

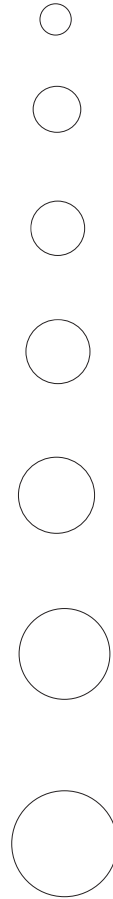
mm

6	20.154.06
9	20.154.09
12	20.154.12
15	20.154.15



mm	
4.8	20.156.48
7.2	20.156.72
9.6	20.156.96

**MAYO**  
 20.156.48 - 20.156.96  
 39 cm



mm	
4	20.160.04
6	20.160.06
7	20.160.07
8	20.160.08
10	20.160.10
12	20.160.12
14	20.160.14

20.160.04 - 20.160.14  
 55 cm



20.162.12  
 12 cm





**VARADY**  
20.167.01  
18 cm



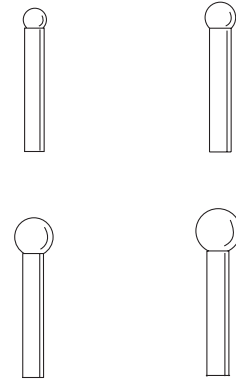
**VARADY**  
20.167.02  
18 cm



**VARADY**  
20.167.03  
18 cm



**SCHMID**  
20.170.03 - 20.170.06  
15 cm



mm

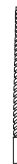
3	20.170.03
4	20.170.04
5	20.170.05
6	20.170.06



cm

13.0	20.190.13
14.5	20.190.14

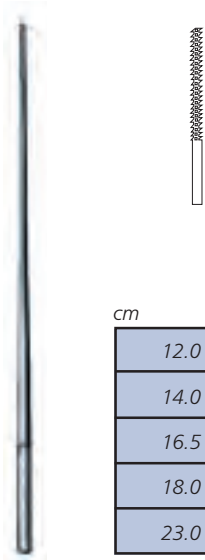
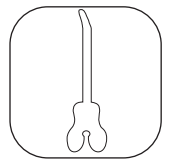
20.190.13 - 20.190.14



cm

12.0	20.270.12
14.0	20.270.14
16.5	20.270.16
18.0	20.270.18
23.0	20.270.23

**FARREL**  
20.270.12 - 20.270.23



cm

12.0	20.272.12
14.0	20.272.14
16.5	20.272.16
18.0	20.272.18
23.0	20.272.23

**FARREL**  
 20.272.12 - 20.272.23



cm

12	20.290.12	20.292.12
14	20.290.14	20.292.14
16	20.290.16	20.292.16
18	20.290.18	20.292.18

20.290.12 - 20.292.18



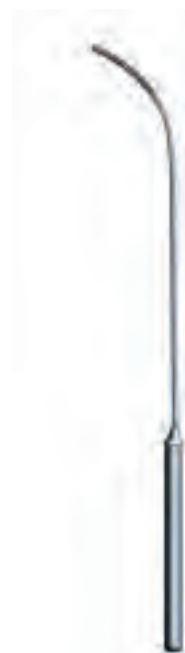
**URKERMANN**  
 20.310.15  
 15 cm



cm

12.5	20.320.12
18.0	20.320.18

**JOBSON HORNE**  
 20.320.12 - 20.320.18



**TOBOLD**  
 20.331.25  
 25 cm



20.340.45  
 45 cm





**Thomas Eakins**  
1889

#### **The Agnew Clinic**

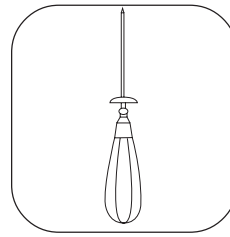
*One of the esteemed surgeons of the 19th century in America, Dr. Hayes Agnew, taught at the Medical School of the University of Pennsylvania. On his retirement in 1889, Agnew's students commissioned Thomas Eakins to depict the doctor in his surgical theater.*

#### **La Clínica de Agnew**

*El Dr. Hayes Agnew fue uno de los cirujanos más apreciados del siglo XIX en América del Norte. Dr. Agnew daba clases en la School of University of Pennsylvania. A su retiro, sus estudiantes contrataron al pintor Thomas Eakins para pintar el Cirujano en su teatro quirúrgico.*

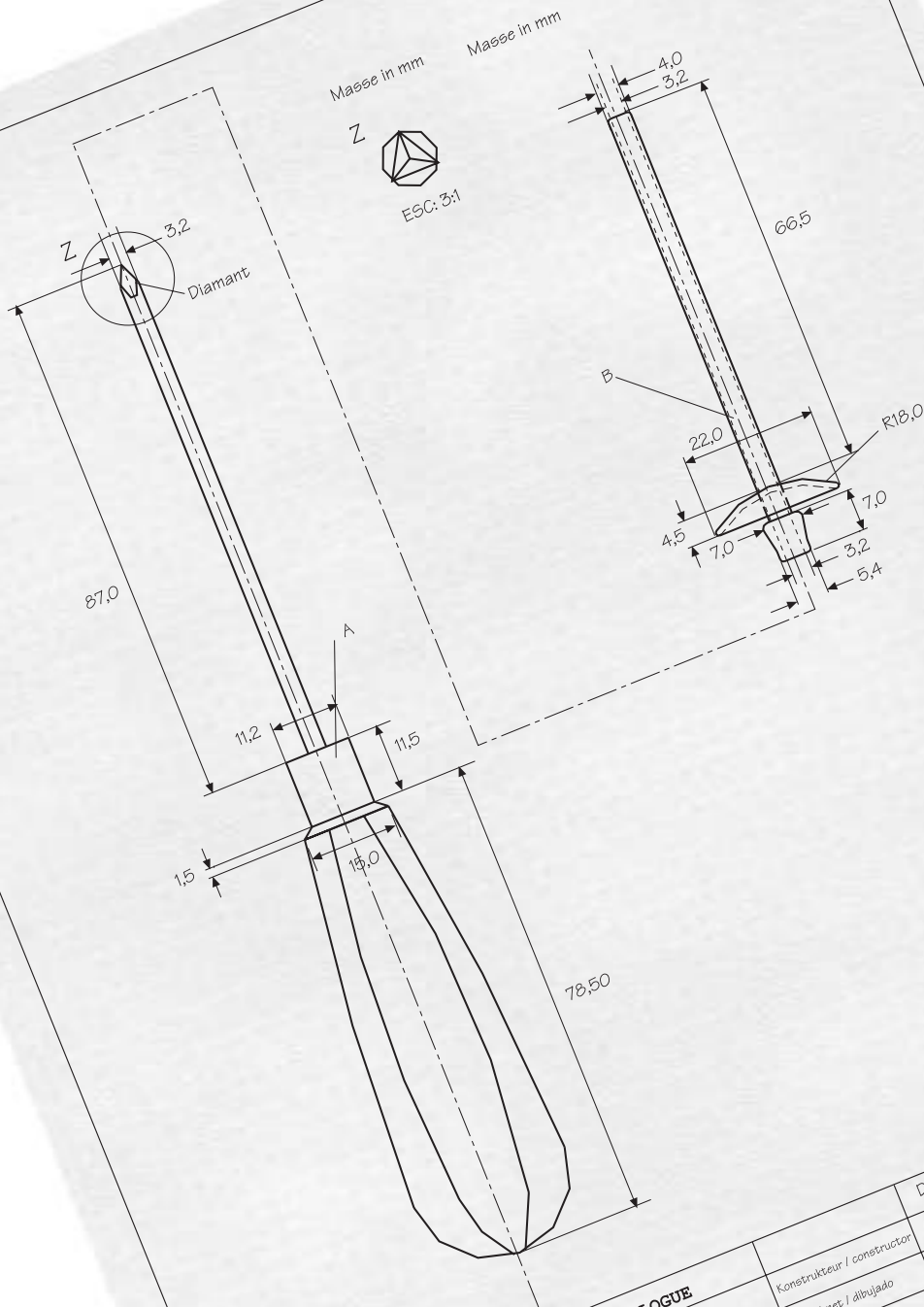
#### **Die Agnew - Klinik**

*Dr. Hayes Agnew gehörte zu den sehr geschätzten Chirurgen des 19. Jahrhunderts in Amerika. Er unterrichtete in der School of the University of Pennsylvania. Zu seiner Pensionierung beauftragten seine Studenten den Künstler Thomas Eakins, Dr. Agnew in seinem Chirurgischen Theater zu malen.*



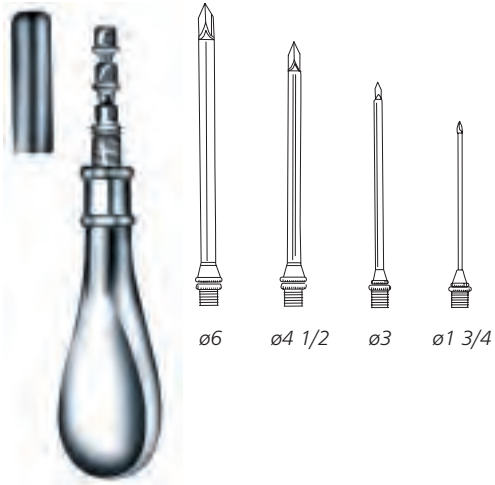
# 22

Trocars, Function Needles  
 Tócares, Agujas de Punción  
 Trokare, Funktionsnadeln



GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
Stainless Steel	gezeichnet / dibujado	July '98	cvd/jvd	1
inoxidable	geprüft / verificado	July '98	cvd	Maaßstab / escala 1:1
	Toleranz / tolerancia	June '99	mj	Abt. / acot. mm
				Artikel / artículo
				Artikel-Nr. / No. de artículo





**universal**  
22.104.00  
complete



mm

3.0	22.110.30
3.5	22.110.35
4.0	22.110.40
4.5	22.110.45
5.0	22.110.50
5.5	22.110.55
6.0	22.110.60

**standard**  
22.110.30 - 22.110.60



mm

3.0	22.120.30
3.5	22.120.35
4.0	22.120.40
4.5	22.120.45
5.0	22.120.50
5.5	22.120.55
6.0	22.120.60

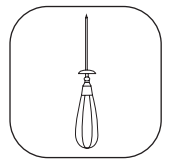
**standard**  
22.120.30 - 22.120.60



mm

3	22.123.30
4	22.123.40
5	22.123.50

**PIERCE**  
22.123.30 - 22.123.50



**DOUGLAS**  
 22.125.11  
 ø 3 mm



**FLEURANT**  
 22.127.23  
 23 cm  
 ø 5 mm



**LICHWITZ**  
 22.128.19  
 ø 1.75 mm



**COAKLEY**  
 22.140.02  
 ø 2.25 mm



**OCHSNER**  
 22.150.10 - 22.150.20

Charr / F.G.

10	22.150.10
12	22.150.12
14	22.150.14
16	22.150.16
18	22.150.18
20	22.150.20



**BUELAU**  
22.160.24



**NELSON**  
22.170.25 - 22.170.35

*Charr / F.G.*

25	22.170.25
30	22.170.30
33	22.170.33
35	22.170.35



**complete**  
22.210.00  
**needle only**  
22.210.01



*mm*

0.7 x 76	22.230.07
1.0 x 76	22.230.10
1.2 x 70	22.230.12
0.7 x 89	22.232.07
1.0 x 89	22.232.10
1.2 x 89	22.232.12
0.7 x 50	22.234.07

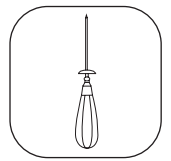
**QUINKE**  
22.230.07 - 22.234.07



*mm*

80 x 1.0	22.236.10
80 x 1.2	22.236.12

**HIER**  
22.236.10 - 22.236.12



**CLAUDE**  
 22.240.00



**VERRES**  
 22.250.20  
 2.0 X 100 mm



mm

1.0 x 35	22.302.01
1.0 x 70	22.302.02
1.2 x 70	22.302.03
1.2 x 100	22.302.04
1.4 x 70	22.302.05
1.4 x 100	22.302.06
1.6 x 70	22.302.07
1.8 x 100	22.302.08

**MENGHINI**  
 22.302.01 - 22.302.08



mm

1.4 x 168	22.310.14
1.8 x 168	22.310.18

**MENGHINI**  
 22.310.14 - 22.310.18



**MENGHINI**  
 22.312.14 - 22.312.18



cc	
5	<b>22.314.05</b>
10	<b>22.314.10</b>

**MENGHINI**  
22.314.05 - 22.314.10



mm	
2.0 x 155	<b>22.330.14</b>
2.0 x 105	<b>22.330.20</b>

**FRANKLIN SILVERMANN**  
22.330.14 - 22.330.20



**FRANKLIN SILVERMAN**  
22.350.20 - 22.354.25

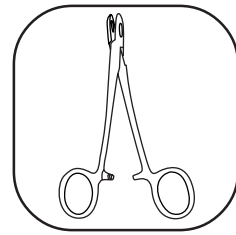


**FRANKLIN SILVERMAN**  
22.352.15 - 22.356.20

mm		
2.0 X 100	<b>22.350.20</b>	<b>22.352.15</b>
2.5 X 145	<b>22.350.30</b>	<b>22.352.20</b>
2.0 X 100	<b>22.354.20</b>	<b>22.356.15</b>
2.5 X 145	<b>22.354.25</b>	<b>22.356.20</b>

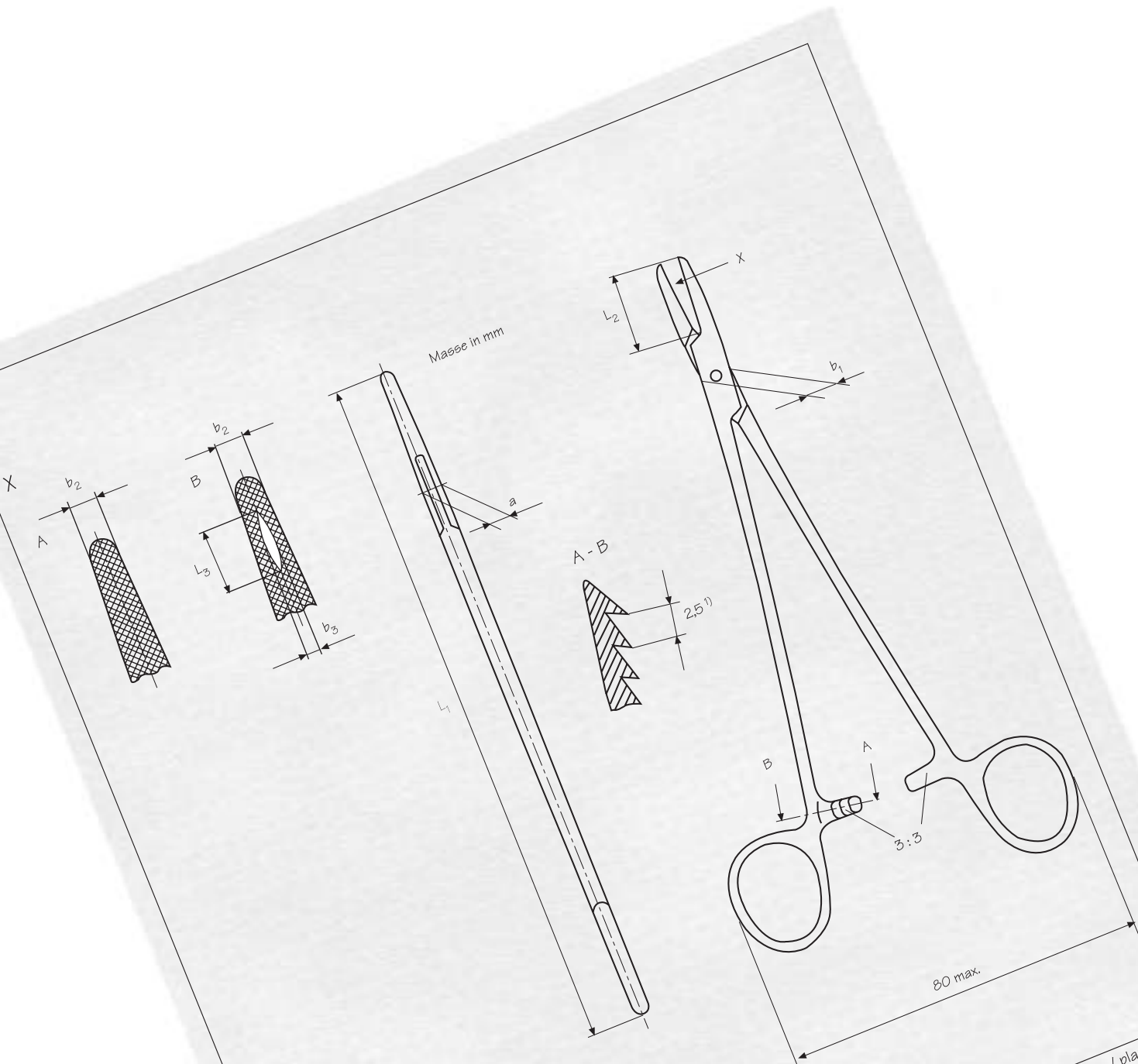


**MOCK**  
22.372.06



# 24

Needle Holders  
Porta agujas  
Nadelhalter



F		GENERAL CATALOGUE	Konstrukteur / constructor	July '98	cvd/jvd	Plan / plano	1
		Stainless Steel	gezeichnet / dibujado	July '98	cvd	Maaetab / escala	1:1
		inoxidable	geprüft / verificado	June '99	mj	Abt. / acot.	mm
			Toleranz / tolerancia			Artikel / artículo	
						Artikel-Nr. / No. de articu	





**WEBSTER**  
24.100.13  
13 cm



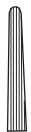
**CONVERSE**  
24.104.12 TC  
12.5 cm



**KILNER**  
24.104.13 TC  
13.5 cm



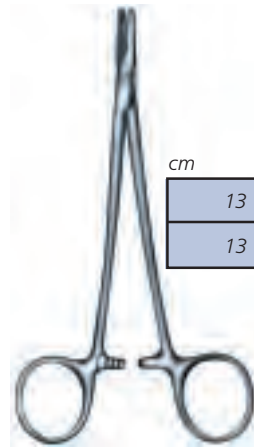
**DERF**  
24.110.12  
12 cm  
24.114.12 TC  
12 cm



**DERF**  
24.120.12  
12 cm

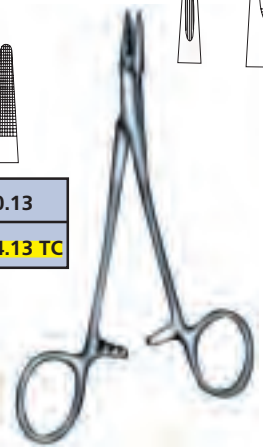


**COLLIER**  
24.122.12  
12.5 cm

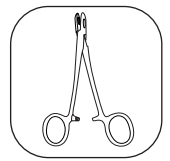


13	24.130.13	24.140.13
13 TC	24.134.13 TC	24.144.13 TC

**HALSEY**  
24.130.13 -24.144.13  
13 cm



**NEIVERT**  
24.146.13  
13 cm



**BAUMGARTNER**  
 24.150.12 - **24.154.14 TC**

mm

12.5	24.150.12	<b>24.154.12 TC</b>
14	24.150.14	<b>24.154.14 TC</b>

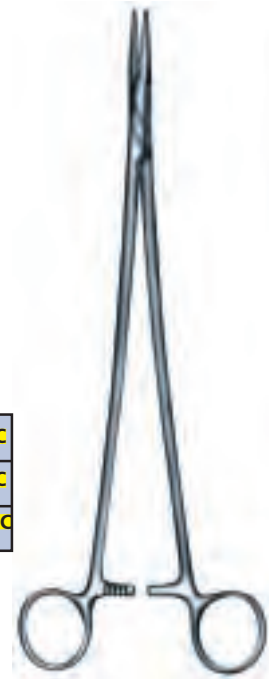
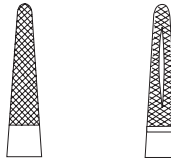


cm

15	24.160.15	<b>24.164.15 TC</b>
18	24.160.18	<b>24.164.18 TC</b>
20	24.160.20	<b>24.164.20 TC</b>

**CRILE WOOD**

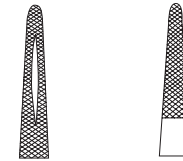
24.160.15 - **24.164.20 TC**



**MAYO HEGAR**  
 24.190.16 - 24.174.20 TC

cm

16	24.190.16	<b>24.194.16 TC</b>
18	24.190.18	<b>24.194.18 TC</b>
20	24.190.20	<b>24.194.20 TC</b>



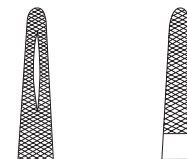
**CRILE MURRAY**  
 24.170.15 - **24.174.15 TC**  
 15 cm

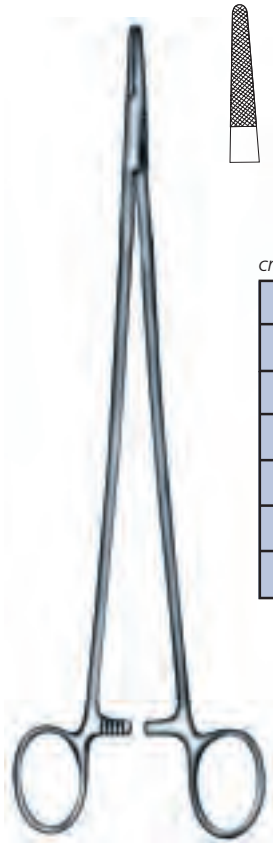


**MAYO HEGAR**  
 24.180.14 - 24.184.14 TC

cm

14	24.180.14	<b>24.184.14 TC</b>
16	24.180.16	<b>24.184.16 TC</b>
18	24.180.18	<b>24.184.18 TC</b>
20	24.180.20	<b>24.184.20 TC</b>
24	24.180.24	<b>24.184.24 TC</b>
26	24.180.26	<b>24.184.26 TC</b>
30	24.180.30	<b>24.184.30 TC</b>





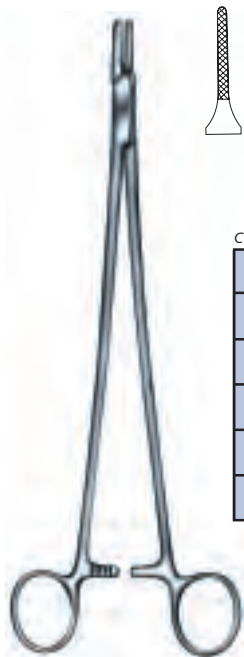
cm

15	<b>24.214.15 TC</b>
18	<b>24.214.18 TC</b>
20	<b>24.214.20 TC</b>
23	<b>24.214.23 TC</b>
26	<b>24.214.26 TC</b>
31	<b>24.214.31 TC</b>
37	<b>24.214.37 TC</b>

**DE BAKEY**  
24.214.15 TC - **24.214.37 TC**



**DE BAKEY**  
24.216.16  
16.5 cm  
24.216.21  
21 cm



cm

13	<b>24.224.13 TC</b>
15	<b>24.224.15 TC</b>
18	<b>24.224.18 TC</b>
20	<b>24.224.20 TC</b>
23	<b>24.224.23 TC</b>
26	<b>24.224.26 TC</b>

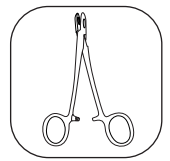
**RYDER**  
**24.224.13 TC - 24.224.26 TC**



**JAMISON**  
24.230.23 - **24.234.23 TC**  
23.5 cm



**HEANEY**  
24.241.21  
21 cm



**24.244.15 TC**

15 cm



**24.244.17 TC**

17 cm



**24.244.20 TC**

20 cm

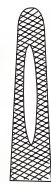
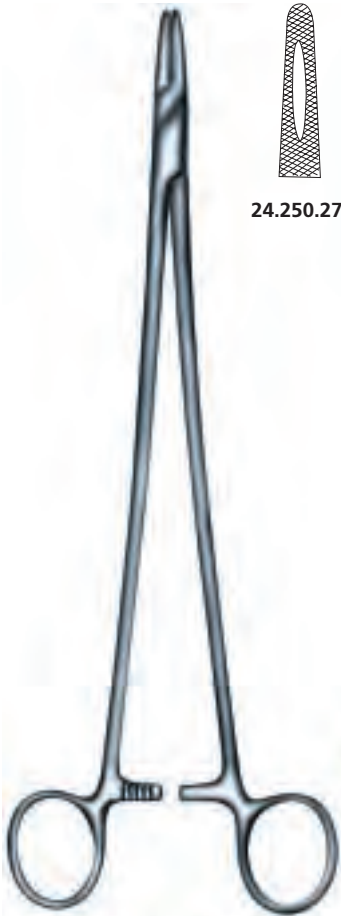
**24.244.15 TC - 24.244.20 TC**



**HEANEY**

**24.245.21 TC**

21 cm



**24.250.27**



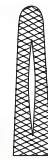
**24.254.27 TC**

27 cm

**MASSON**

**24.250.27 - 24.254.27 TC**

27 cm



**24.260.27**



**24.264.27 TC**

27 cm

**WANGENSTEEN**

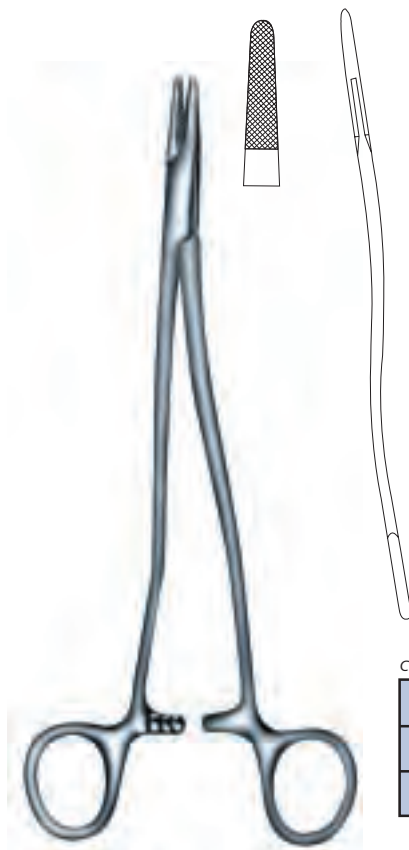
**24.260.27 - 24.264.27 TC**

27 cm





**WANGENSTEEN**  
24.270.27 - **24.274.27 TC**  
27 cm



**BOZEMANN**  
**24.285.20 TC - 24.285.26 TC**

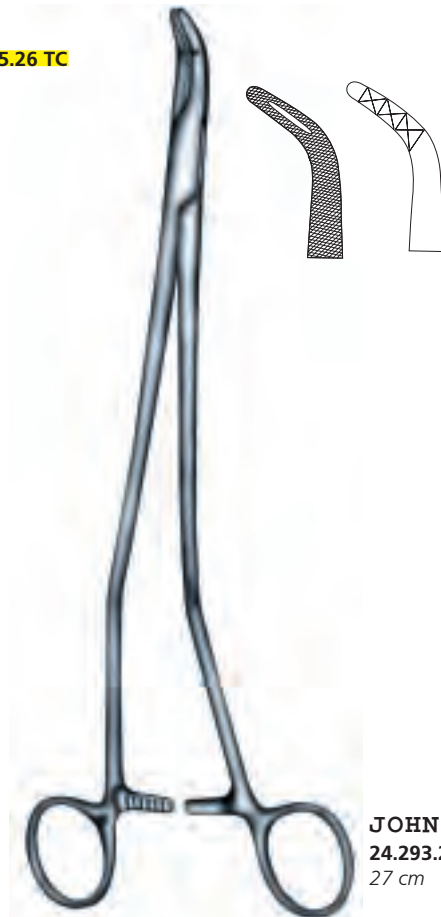
cm	
20	<b>24.285.20 TC</b>
24	<b>24.285.24 TC</b>
26	<b>24.285.26 TC</b>



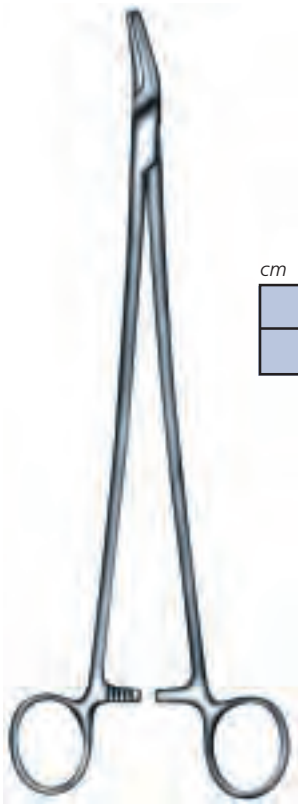
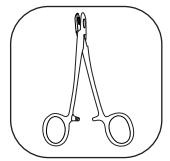
**METZENBAUM**  
24.290.18  
18 cm



**ADSON**  
24.292.18  
18 cm



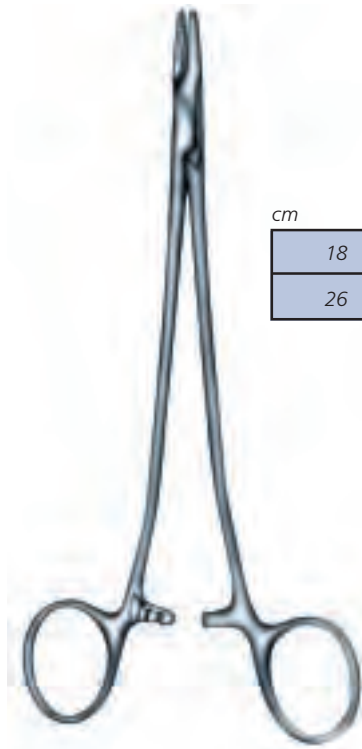
**JOHNSON**  
24.293.27  
27 cm



cm

20	24.311.20	24.315.20 TC
27	24.311.27	24.315.27 TC

**FINOCHIETTO**  
 24.311.20 - 24.315.27 TC



cm

18	24.320.18	24.324.18 TC
26	24.320.26	24.324.26 TC

**SAROT**  
 24.320.18 - 24.324.26 TC



**STRATTE**  
 24.330.23 - 24.334.23 TC  
 23 cm



**CRILE**  
 24.350.15  
 15 cm



**TOENNIS**  
 24.360.18 - 24.364.18 TC  
 18 cm





**HOESEL**  
24.367.25  
25 cm



**MATHIEU**  
24.370.14 - **24.374.24 TC**

cm

14	24.370.14	<b>24.374.14 TC</b>
17	24.370.17	<b>24.374.17 TC</b>
20	24.370.20	<b>24.374.20 TC</b>
24	24.370.24	<b>24.374.24 TC</b>



**MATHIEU**  
24.380.17 - **24.384.20 TC**

cm

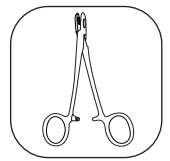
17	24.380.17	<b>24.384.17 TC</b>
20	24.380.20	<b>24.384.20 TC</b>



**MATHIEU**  
24.390.14 - **24.394.17 TC**

cm

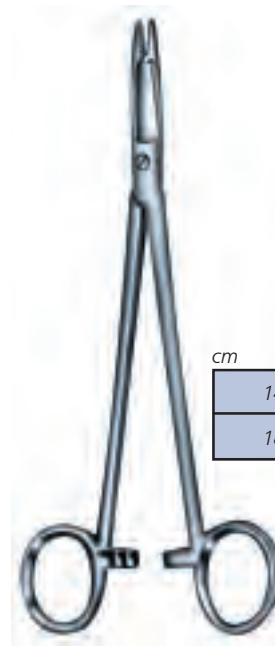
14	24.390.14	<b>24.394.14 TC</b>
17	24.390.17	<b>24.394.17 TC</b>



**AXHAUSEN**  
 24.404.18 TC  
 18.5 cm



**LICHTENBERG**  
 24.404.20 TC  
 20 cm

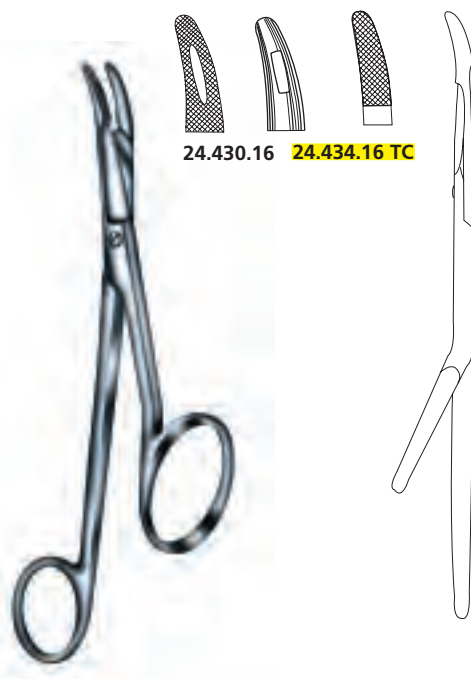


cm		
14	24.410.14	24.414.14 TC
18	24.410.18	24.414.18 TC

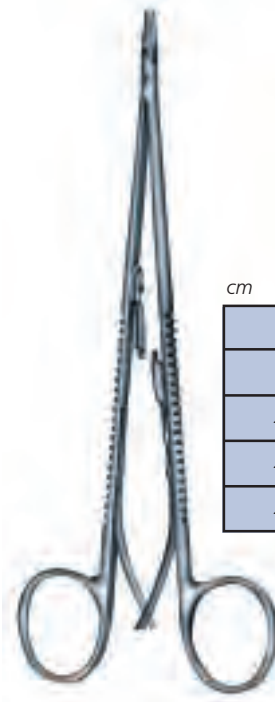
**OLSEN HEGAR**  
 24.410.14 - 24.414.18 TC



**OLSEN HEGAR**  
 24.420.17 - 24.424.17 TC  
 17 cm



**GILLIES**  
 24.430.16 - 24.434.16 TC  
 16 cm



cm		
16	24.444.16 TC	
18	24.444.18 TC	
20	24.444.20 TC	
23	24.444.23 TC	
26	24.444.26 TC	

**DIETRICH**  
 24.444.16 TC - 24.444.26 TC



**24.454.14 TC**  
14 cm



**24.454.18 TC**  
18 cm



**24.454.20 TC**  
20 cm

**EUFRATE PASQUE**  
24.454.14 TC - 24.454.20 TC



cm

20	24.460.20	<b>24.464.20 TC</b>
23	24.460.23	<b>24.464.23 TC</b>

**ZWEIFEL**  
24.460.20 - **24.464.23 TC**



cm

11	24.610.11
13	24.612.13
15	24.612.15

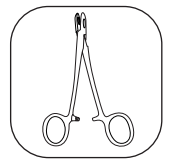
**STEVENS**  
24.610.11 - 24.612.15



**BOYNTON**  
24.614.12  
12 cm



**ARRUGA**  
24.620.16 - 24.624.16  
16 cm



**KALT ARRUGA**  
24.627.14  
14 cm



**KALT**  
24.628.14  
14 cm



24.650.10  
10 cm

24.651.10  
10 cm

24.652.12  
12 cm

**BARREQUER**  
24.650.10 - 24.652.12



micro	normal
24.653.18	24.654.15
24.656.18	24.655.15

**REILL**  
18.653.18 - 24.656.18



cm	without catch	with catch	with catch
12	24.661.12	24.662.12	24.663.12
13	24.661.13		

**BARRAQUER**  
24.661.12 - 24.663.12



**BARRAQUER**  
24.664.15  
15 cm  
24.665.13 TC  
13 cm





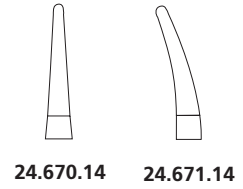
24.666.18  
18 cm

24.667.15 - 24.667.23

15	24.667.15
18	24.667.18
23	24.667.23

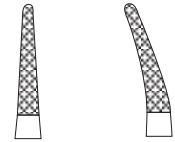


CASTROVIEJO  
24.670.14 - 24.675.21 TC



24.670.14

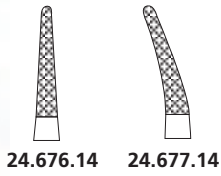
24.671.14



14	24.674.14 TC	24.675.14 TC
18	24.674.18 TC	24.675.18 TC
21	24.674.21 TC	24.675.21 TC



CASTROVIEJO  
24.676.14 - 24.677.14  
14 cm



24.676.14

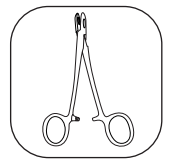
24.677.14



24.678.14 TC  
14 cm  
24.678.18 TC  
18 cm



24.680.13  
13 cm  
24.684.13 TC  
13 cm



24.686.14



24.687.14 TC

24.686.14 - 24.671.14 TC  
 14 cm



cm

16	24.690.16	24.691.16
18	24.690.18	24.691.18

24.690.16 - 24.691.18



cm

16.5	24.710.20	24.711.16
20.5	24.710.22	24.711.20
22.5		24.711.22
24.5		24.711.24

DEWIMED  
 24.710.20 - 24.711.24



24.720.18

24.722.18

JACOBSON  
 24.720.18 - 24.722.18  
 18 cm





cm

16.0	<b>41.220.16</b>
18.0	<b>41.220.18</b>
20.0	<b>41.220.20</b>
22.5	<b>41.220.22</b>
24.0	<b>41.220.24</b>

*insulated*

16.0	<b>41.222.16</b>
18.0	<b>41.222.18</b>
20.0	<b>41.222.20</b>
22.5	<b>41.222.22</b>
24.0	<b>41.222.24</b>



cm

16.0	<b>41.230.16</b>	<b>41.231.16</b>
18.0	<b>41.230.18</b>	<b>41.231.18</b>
20.0	<b>41.230.20</b>	<b>41.231.20</b>
22.5	<b>41.230.22</b>	<b>41.231.22</b>
24.0	<b>41.230.24</b>	<b>41.231.24</b>

*insulated*

16.0	<b>41.232.16</b>	<b>41.233.16</b>
18.0	<b>41.232.18</b>	<b>41.233.18</b>
20.0	<b>41.232.20</b>	<b>41.233.20</b>
22.5	<b>41.232.22</b>	<b>41.233.22</b>
24.0	<b>41.232.24</b>	<b>41.233.24</b>



**micro needle holder**  
**41.220.16 - 41.233.24**  
*without ratchet*

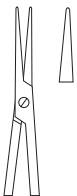


cm

16.0	<b>41.240.16</b>
18.0	<b>41.240.18</b>
20.0	<b>41.240.20</b>
22.5	<b>41.240.22</b>
24.0	<b>41.240.24</b>

*insulated*

16.0	<b>41.242.16</b>
18.0	<b>41.242.18</b>
20.0	<b>41.242.20</b>
22.5	<b>41.242.22</b>
24.0	<b>41.242.24</b>



cm

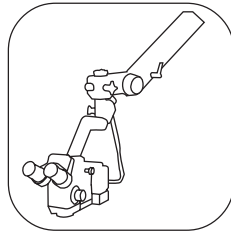
16.0	<b>41.250.16</b>	<b>41.251.16</b>
18.0	<b>41.250.18</b>	<b>41.251.18</b>
20.0	<b>41.250.20</b>	<b>41.251.20</b>
22.5	<b>41.250.22</b>	<b>41.251.22</b>
24.0	<b>41.250.24</b>	<b>41.251.24</b>

*insulated*

16.0	<b>41.252.16</b>	<b>41.253.16</b>
18.0	<b>41.252.18</b>	<b>41.253.18</b>
20.0	<b>41.252.20</b>	<b>41.253.20</b>
22.5	<b>41.252.22</b>	<b>41.253.22</b>
24.0	<b>41.252.24</b>	<b>41.253.24</b>



**micro needle holder**  
**41.240.16 - 41.253.24**  
*without ratchet*

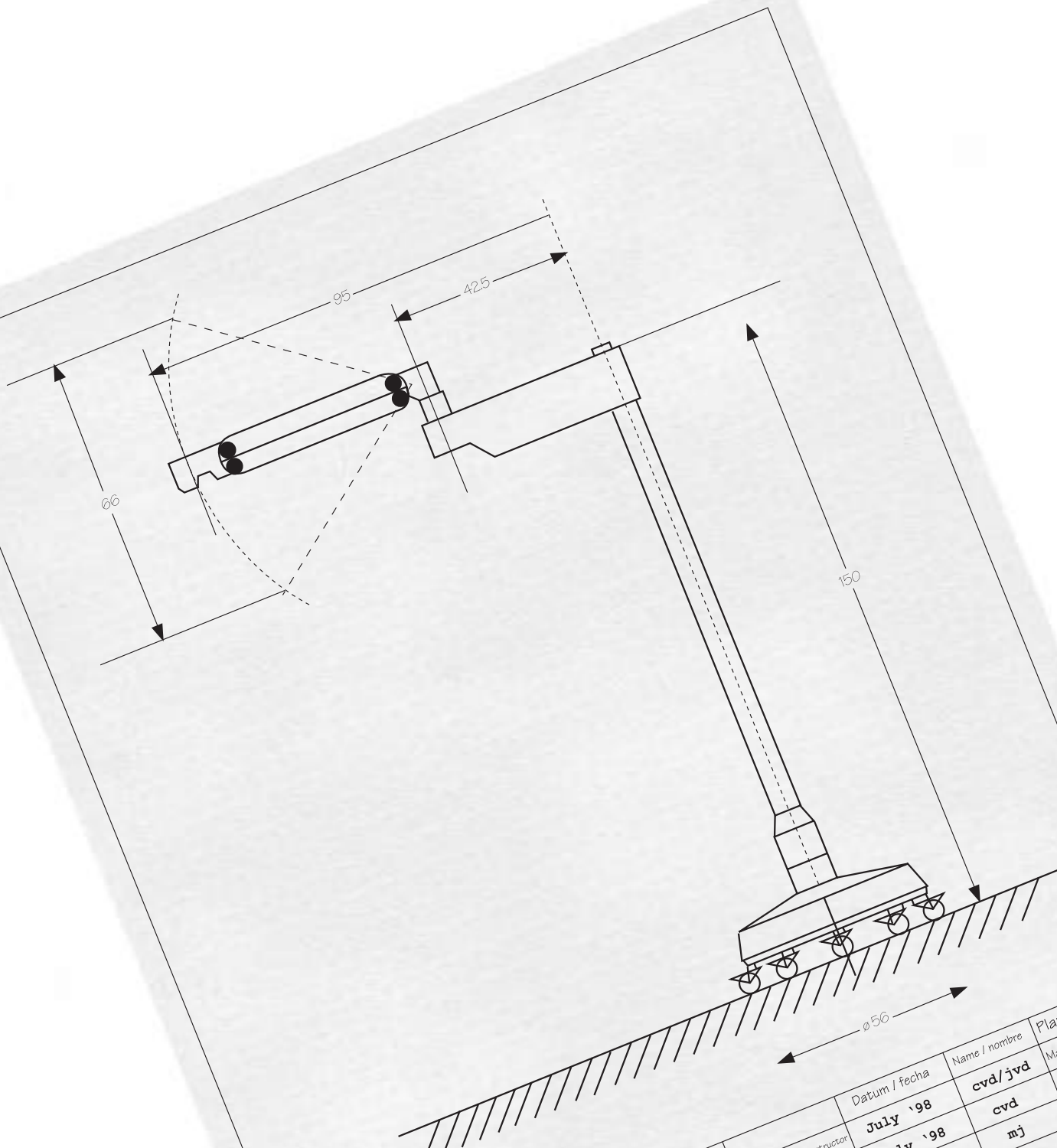


# 25

Magnifications glasses and microscopes

Lupas y Microscopios

Lupenbrillen und Mikroskope



GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
	gezeichnet / dibujado	July '98	cvd / jvd	1
	geprüft / verificado	July '98	cvd	Maaetab / escala 1:1
	Toleranz / tolerancia	June '99	mj	Abt. / acot. mm
				Artikel / artículo
				Artikel-Nr. / No. de articulo





**25.32.002 - 25.32.86**

*binocular magnification glasses  
2 and 2.5 magnification*

**The HEINE magnification glasses are characterized by their precision optics and lightness.**

**Characteristics:**

- Very light frame resistant to torsion.
- One-handed adjustment of interpupillary distance.
- Height-adjustment.
- Optics can be swivelled or removed.
- Coaxial shadow-free illumination.

**technical data**

Magnifications	2 x	2.5 x	2.5 x
Working distance	420 mm	420 mm	340 mm
Field of vision	ø95 mm	ø85 mm	ø75 mm
Weight	80 g	80 g	80 g

**Las lupas binoculares de HEINE destacan por la precisión de su óptica y de su peso ligero.**

Son de uso universal.

**Características:**

- Armazón ligero y a prueba de torsión.
- Óptica abatible hacia arriba.
- Ajuste de distancia entre pupilas con una sola mano.
- Óptica extrahible de la montura.
- Ajuste de altura de dos posiciones.
- Se suministra una iluminación adicional incorporable.
- Iluminación libre de sombras y coaxial.

**datos técnicos**

Ampliación	2 x	2.5 x	2.5 x
Distancia de trabajo	420 mm	420 mm	340 mm
Campo de visión	ø95 mm	ø85 mm	ø75 mm
Peso	80 g	80 g	80 g

**magnification 2**

frame	working distance 420 mm	working distance 340 mm
without	<b>25.32.002</b>	
large	<b>25.32.081</b>	
small	<b>25.32.071</b>	

**magnification 2.5**

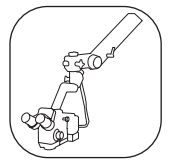
frame	working distance 420 mm	working distance 340 mm
without	<b>25.32.007</b>	<b>25.32.004</b>
large	<b>25.32.086</b>	<b>25.32.083</b>
small	<b>25.32.076</b>	<b>25.32.072</b>

**ampliación 2**

armazón	distancia de trabajo 420 mm	distancia de trabajo 340 mm
sin	<b>25.32.002</b>	
grande	<b>25.32.081</b>	
chico	<b>25.32.071</b>	

**ampliación 2.5**

armazón	distancia de trabajo 420 mm	distancia de trabajo 340 mm
sin	<b>25.32.007</b>	<b>25.32.004</b>
grande	<b>25.32.086</b>	<b>25.32.083</b>
chico	<b>25.32.076</b>	<b>25.32.072</b>



Die binokularen Vergrößerungsgläser von HEINE sind aufragend durch die Präzision ihrer Optik und durch ihr leichtes Gewicht.

**Merkmale:**

- Nach oben klappbare Optik.
- Leichtes und krümmungssicheres Brillengestell.
- Von Brillengestell abbaubare Optik.
- Einhändige Einstellung des Augenabstandes.
- Schattenfreie und koachsiale Beleuchtung.
- Zweistellige Höheneinstellung.

**technische Angaben**

Vergrößerung	2 x	2.5 x	2.5 x
Arbeitsabstand	420 mm	420 mm	340 mm
Sichtfeld	ø95 mm	ø85 mm	ø75 mm
Gewicht	80 g	80 g	80 g

**Vergrößerung 2**

Brillengestell	Arbeitsabstand 420 mm	Arbeitsabstand 340 mm
ohne	<b>25.32.002</b>	
groß	<b>25.32.081</b>	
klein	<b>25.32.071</b>	

**Vergrößerung 2.5**

Brillengestell	Arbeitsabstand 420 mm	Arbeitsabstand 340 mm
ohne	<b>25.32.007</b>	<b>25.32.004</b>
groß	<b>25.32.086</b>	<b>25.32.083</b>
klein	<b>25.32.076</b>	<b>25.32.072</b>



25.32.012 – 25.32.014  
frame with opticas mount and retaining cord  
armazón con portaópticas y cinta de sujeción  
Brillengestell mit Optikhalter und Halterungsband

	A	B	C	
large	17 mm	57 mm	140 mm	<b>25.32.012</b>
small	15 mm	55 mm	135 mm	<b>25.32.014</b>





**25.32.003 – 25.32.85**  
*binocular magnification glasses*  
3.5, 4 and 6 magnifications

**High quality optical elements guarantee high resolution images for high performance**

**Characteristics:**

- Precision prismatic optics, acromatic with multiple correction.
- Light weight frames safe against torsion
- Adjustment of interpupillary distance one-handed.
- Two positional height adjustment
- Optics can be swivelled up
- Optics can be removed from the frame
- Coaxial shadow-free illumination.

**technical data**

Magnifications	3.5 x	4 x	6 x
Working distance	420 mm	340 mm	340 mm
Field of vision	ø65 mm	ø50 mm	ø38 mm
Weight	115 g	115 g	115 g

**Las piezas ópticas de alta calidad garantizan una resolución de imagen extremadamente alta para exigencias elevadas.**

**Características:**

- Optica prismática de precisión con acrómatas de corrección múltiple.
- Armazón ligero y a prueba de torsión.
- Optica abatible hacia arriba.
- Ajuste de distancia entre pupilas con una sola mano.
- Optica extrahible de la montura.
- Ajuste de altura de dos posiciones.
- Iluminación libre de sombras y coaxial.

**datos técnicos**

Ampliación	3.5 x	4 x	6 x
Distancia de trabajo	420 mm	340 mm	340 mm
Campo de visión	ø65 mm	ø50 mm	38 mm
Peso	115 g	115 g	115 g

**magnification 3.5**

frame	working distance 420 mm
without	<b>25.32.003</b>
large	<b>25.32.082</b>
small	<b>25.32.072</b>

**magnification 4**

frame	working distance 340 mm
without	<b>25.32.005</b>
large	<b>25.32.084</b>
small	<b>25.32.074</b>

**magnification 6**

frame	working distance 340 mm
without	<b>25.32.006</b>
large	<b>25.32.085</b>
small	<b>25.32.075</b>

**ampliación 3.5**

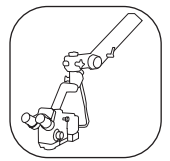
armazón	distancia de trabajo 420 mm
sin	<b>25.32.003</b>
grande	<b>25.32.082</b>
chico	<b>25.32.072</b>

**ampliación 4**

armazón	distancia de trabajo 340 mm
sin	<b>25.32.005</b>
grande	<b>25.32.084</b>
chico	<b>25.32.074</b>

**ampliación 6**

armazón	distancia de trabajo 340 mm
sin	<b>25.32.006</b>
grande	<b>25.32.085</b>
chico	<b>25.32.075</b>



**Die erstklassigen optischen Teile garantieren eine hervorragende Bildschärfe für hohe Ansprüche.**

- Prismatische Präzisionsoptik mit Achromaten für mehrfache Korrekturen.
- Leichtes und krümmungssicheres Brillengestell.
- Einhändige Einstellung des Augenabstandes.
- Zweistellige Höheneinstellung.
- Nach oben klappbare Optik.
- Von Brillengestell abbaubare Optik.
- Schattenfreie und koachsiale Beleuchtung.

**technische Angaben**

Vergößerung	3.5 x	4 x	6 x
Arbeitsabstand	420 mm	340 mm	340 mm
Sichtfeld	ø65 mm	ø50 mm	ø38 mm
Gewicht	115 g	115 g	115 g

**Vergößerung 3.5**

Brillengestell	Arbeitsabstand 420 mm
ohne	<b>25.32.003</b>
groß	<b>25.32.082</b>
klein	<b>25.32.072</b>

**Vergößerung 4**

Brillengestell	Arbeitsabstand 340 mm
ohne	<b>25.32.005</b>
groß	<b>25.32.084</b>
klein	<b>25.32.074</b>

**Vergößerung 6**

Brillengestell	Arbeitsabstand 340 mm
ohne	<b>25.32.006</b>
groß	<b>25.32.085</b>
klein	<b>25.32.075</b>



**25.32.012 - 25.32.014**

frame with opticas mount and retaining cord  
armazón con portaópticas y cinta de sujeción  
Brillengestell mit Optikhalter und Halterungsband

	A	B	C	
large	17 mm	57 mm	140 mm	<b>25.32.012</b>
small	15 mm	55 mm	135 mm	<b>25.32.014</b>





- Multicoated, scratch-resistant silica glass lenses
- Brilliant, high-resolution image with the new C optics 2.3 x 340 mm
- Lightweight all-metal frame with spiral-sprung hinged temples for maximum comfort
- Slimline optics make it easy to view without magnification if required
- The optics can be placed close to the viewer's eyes to give a large field of view

The light weight (46 g), compact and comfortable HEINE - Binocular Loupe C offers a 2.3 x magnification at a working distance of 340 mm and is an ideal tool for professionals, who want to achieve the best results.



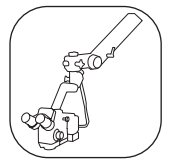
c 00.32.039  
binocular loupe C

- óptica especialmente tratada para evitar rayaduras en el cristal
- imágenes brillantes y de alta resolución gracias al nuevo diseño de la óptica C de 2.3 x 340 mm
- armazón de metal de alta calidad con estribo flexible a base de resorte para mayor comodidad
- su fina constitución permite prescindir de la magnificación, sin necesidad de quitarse el armazón
- la distancia mínima entre ojo del usuario y la óptica favorece a un amplio campo de visión

La lupa binocular C de HEINE, ligera (46 g), compacta y cómoda, con ampliación de 2.3 y una distancia de trabajo de 340 mm, permite trabajar de forma precisa y segura.

- Mehrfach vergütete hochwertige Optik, kratzfest
- Helles, brillantes Bild durch die neu entwickelte C-Optik 2.3 x 340 mm
- Hochwertige Ganzmetallfassung mit Federbügeln und Gespinst für optimalen Komfort
- Die besonders kompakte Bauweise erlaubt es, an den Okularen vorbeizusehen (guter Überblick des gesamten Arbeitsbereichs auch bei aufgesetzter Lupenbrille)
- Geringer Abstand der Optik vom Untersucherauge ergibt extrem großes Sichtfeld

Die leichte (46 g) kompakte und bequeme HEINE - Lupenbrille C mit 2.3 - facher Vergrößerung und einem Arbeitsabstand von 340 mm bietet gute Voraussetzungen für präzises und sicheres Arbeiten.



**Light weight headband**

Alternative for long lasting work with binocular magnification glasses, it can be used by people who have normal eye vision as well as eye glass users. Light and comfortable, with vertical adjustment of optics.



**25.32.016**  
light weight headband

**cinta craneal ligera**

La alternativa confortable para trabajos prolongados con lupas binoculares. Adecuada para portadores de gafas al igual que para personas emetropes. Ligera y comoda, ajuste de precision vertical de la optica.

**Leichtes Kopfband**

Die bequeme Alternative für längere Arbeiten mit binokularen Vergrößerungsgläsern. Sowohl für Brillenträger als auch für Normalsichtige geeignet. Leicht und bequem. Vertikale Präzisionseinstellung der Optik.

**universal clamp**

Adaptable to any frame. The binocular magnification optics are simply attached to it.



**25.32.025**  
universal clamp

**pinza universal**

La Pinza Universal se acopla a cada gafa. La Lupa binocular se acopla simplemente en la Pinza Universal.

**universalklemme**

Die Universalklemme kann an jede Brille angepaßt werden. Das binokulare Vergrößerungsglas wird einfach an die Universalklemme angepaßt.

**adaptable illuminator**

Attachable to any binocular magnification glasses. The XHL bulb guarantees a bright, white light, vertically adjustable. (Recommended power sources E8 and Akkubox)



**25.32.029**  
adaptable illuminator with cable and halogen bulb HEINE XHL, 6 v.

**iluminador incorporable**

Adaptable a todas las lupas binoculares. Luz clara, blanca mediante la lampara halogena HEINE XHL. La direccíon de iluminacion es abatible en sentido vertical (Fuentes de luz idoneas E8 y Accubox)

**einsetzbarer Beleuchter**

Der einsetzbare Beleuchter kann an jedes binokulare Vergrößerungsglas angepaßt werden. Helles, weißes Licht durch die Halogenlampe HEINE XHL. Die Beleuchtungsrichtung ist vertikal verstellbar. (Ideale Lichtquellen E8 und Akkubox)



**25.32.026 - 25.32.027**

attachabel protection lenses for magnification glasses.

crisales de protección incorporables para lupas binoculares.

einsetzbare Schutzgläser für binokulare Vergrößerungsgläser.

**25.88.080**  
replacement bulb, 6v halogen

magnification

2.0	<b>25.32.026</b>
2.5	<b>25.32.026</b>
3.5	<b>25.32.027</b>
4.0	<b>25.32.027</b>
6.0	<b>25.32.027</b>





**25.32.017**  
*lateral protection against splashes*  
*protección lateral contra salpicaduras*  
*lateraler Schutz gegen Spritzer*

**sterilizable lever**  
Centrally attachable to its provided holder.

**palanca esterilizable**  
La palanca se coloca simplemente de forma central sobre los pasadores de fijación.

**sterilisierbarer Hebel**  
Der Hebel wird einfach zentral auf die vorgesehene Halterung gesetzt.



**25.32.024**  
*sterilizable lever (6 units)*



**25.16.200**  
*plug - in transformer E 8 with switch and cable*

*transformador de enchufe E 8 con interruptor y cable*

*Steckdosentransformator E 8 mit Schalter und Kabel*

**25.16.200 - 25.16.201**  
*Plug-in transformer E 8*

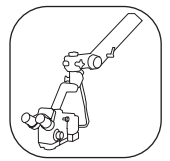
**25.16.201**  
**plug - in transformer E8**  
*6 V / 10 W*  
*Power source appropriate for the adaptable iluminator*

**transformador de enchufe E8**  
*6 V / 10 W*  
*Fuente de tensión apropiada para el iluminador incorporable.*

**Steckdosentransformator E8**  
*6 V / 10 W*  
*Spannungsquelle, geeignet für der einsetzbaren Beleuchter.*



**UBL 100 bulb**  
**25.88.080**  
*Bulb for binocular magnification glasses, 6 V halogen*



**HEINE accubox 6 V/10 W**

Appropriate for all HEINE 6V Instruments.  
The Accubox is a pocket-sized portable power source for instruments.  
Fully charged, it will operate the instrument up to one hour, depending on the intensity of the illumination.

- Dimensions:** 120 x 70 x 35mm  
**Weight:** 360g  
**Characteristics:**
- portable and small.
  - adjustable intensity.
  - LED Indicator for charge.

accubox with rechargeable battery and charging transformer	<b>25.99.622</b>
accubox and rechargeable battery, transformer not included	<b>25.99.621</b>
S5Z rechargeable battery	<b>25.99.623</b>
charging transformer	<b>25.99.308</b>



**HEINE accubox 6 V/10 W**

Apropiado para todos los instrumentos HEINE de 6V. Es una fuente de tensión portátil para los instrumentos. Una carga de batería recargable ofrece un tiempo de exploración de aprox. 1 hora, en función de la intensidad de la iluminación.

- Dimensiones:** 120 x 70 x 35 mm  
**Peso:** 360g  
**Características:**
- muy pequeño y manejable.
  - regulador continuo de luminosidad.
  - indicación del proceso de carga y del consumo de corriente.

accubox con batería recargable y transformador de carga	<b>25.99.622</b>
accubox sólo con batería recargable, sin transformador	<b>25.99.621</b>
batería recargable de recambio S5Z	<b>25.99.623</b>
transformador de carga suelto	<b>25.99.308</b>

**HEINE Akkubox 6V / 10 W**

Geeignet für alle 6V HEINE Instrumente. Die Akkubox bewährt sich als tragbare Spannungsquelle für Instrumente, die für den Benutzer bewegbar sein müssen.  
Die ladbare Batterie kann, nachdem sie neu geladen wurden, 1 Stunde lang für die benötigte Beleuchtung benutzt werden.

- Größe:** 120 x 70 x 35mm  
**Gewicht:** 360g  
**Eigenschaften:**
- klein und handlich
  - beständiger Beleuchtungsregler
  - Ladungsanzeiger und Anzeiger der verbrauchten Spannung über LED.

Akkubox mit ladbarer Batterie und Ladungstransformator	<b>25.99.622</b>
Akkubox nur mit ladbarer Batterie, ohne Transformator	<b>25.99.621</b>
Ladbare Ersatzbatterie S5Z	<b>25.99.623</b>
Ladungstransformator, einzeln	<b>25.99.308</b>





## SOM 22

### Characteristics

- Space saving thanks to its wall mounted pedestal.
- The rotating arm and the counterbalanced swivel arm allow for easy positioning of the microscopehead.
- Option between direct coaxial halogen light or transmitted through fiberoptics, in both cases 12V/100W, equipped with an emergency bulb.
- Option between magnification changers with one, three or five steps; a manual zoom (8:1) is also available.
- The illumination is turned on automatically when the microscopehead is placed into working position.
- A wide range of accessories, documentation systems for video and 35 mm photography and coobservation-systems are available.

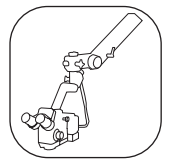
### Características

- Ahorro de espacio gracias a su fijación a la pared.
- El brazo giratorio y el brazo basculante autocompensado permiten un fácil posicionamiento.
- Opción de iluminación homogénea. Coaxial, regulable sin escalas, halógena de 12V/100W integrada en el cabezal o transmitida por fibra óptica, con foco de emergencia.
- Opción de cabezales estereoscópicos de un aumento, 3 aumentos, 5 aumentos y 8 aumentos en zoom manuales (8:1).
- Encendido automático cuando el brazo basculante es posicionado a la altura de trabajo.
- Amplia gama de accesorios, sistemas de documentación por video o fotografía de 35 mm y equipos para coobservadores y asistentes.



### Merkmale

- Besonders raumsparend durch Wandmotage.
- Der Dreharm und der ausgeglichene Schwebearm erlauben eine problemlose Positionierung.
- Auswahl zwischen direkter coaxialer Halogenbeleuchtung und Kaltlichtbeleuchtung, in beiden Fällen 12V/100W, mit einer Notlampe ausgestattet.
- Auswahl zwischen einfacher, dreifacher oder fünffacher Vergrößerungseinheit oder auch mit manuellem Zoom (8:1)
- Die Beleuchtung schaltet sich automatisch an, wenn der Mikroskopkopf in die Arbeitshöhe positioniert wird.
- Breite Zubehörauswahl, Dokumentationsausstattungen mittels Video oder 35 mm Fotografie und Mitbeobachtereinrichtungen.



**technical specifications**

manufactured by Karl Kaps

**SOM 22**

**pedestal?** wallmounted  
**arms:** rotating arm 425 mm  
swivel arm 850 mm  
height +/- 500 mm

**magnification  
changers:** simple, triple five fold and  
manual zoom (8:1)

**binocular  
tubes:** see accessory list

**eye pieces:** see accessory list

**objectives:** see accessory list

**illumination:** 12V / 100W halogen

**power  
consumption:** 120 VA

**power  
supply:** 110 / 220V, 50-60 Hz

**weight:** 28 kg

green filter integrated

**datos técnicos**

marca Karl Kaps

**SOM 22**

**estativo:** fijado a la pared  
**brazos:** brazo giratorio 425mm  
basculante 850 mm  
altura: +/- 500 mm

**cambiador  
de aumentos:** sencillo, triple, quintuple o  
zoom manual (8:1)

**tubos  
binoculares:** ver listado de accesorios

**oculares:** ver listado de accesorios

**objetivos:** ver listado de accesorios

**iluminación:** 12V / 100W halógena

**consumo  
máximo:** 120 VA

**conexión  
a la red:** 110 / 220V, 50-60 Hz

**peso:** 28 kg

filtro verde integrado

**technische Angaben**

Hersteller: Karl Kaps

**SOM 22**

**Stativ:** Wandmontage  
**Arme:** Dreharm 425 mm  
Schwenkarm 850 mm  
Höhe +/- 500 mm

**Vergrößerungs-  
einheiten:** 1-fach, 3-fach, 5-fach  
und manueller Zoom (8:1)

**binokulare  
Tuben:** siehe Zubehörliste

**Okulare:** siehe Zubehörliste

**Objetive:** siehe Zubehörliste

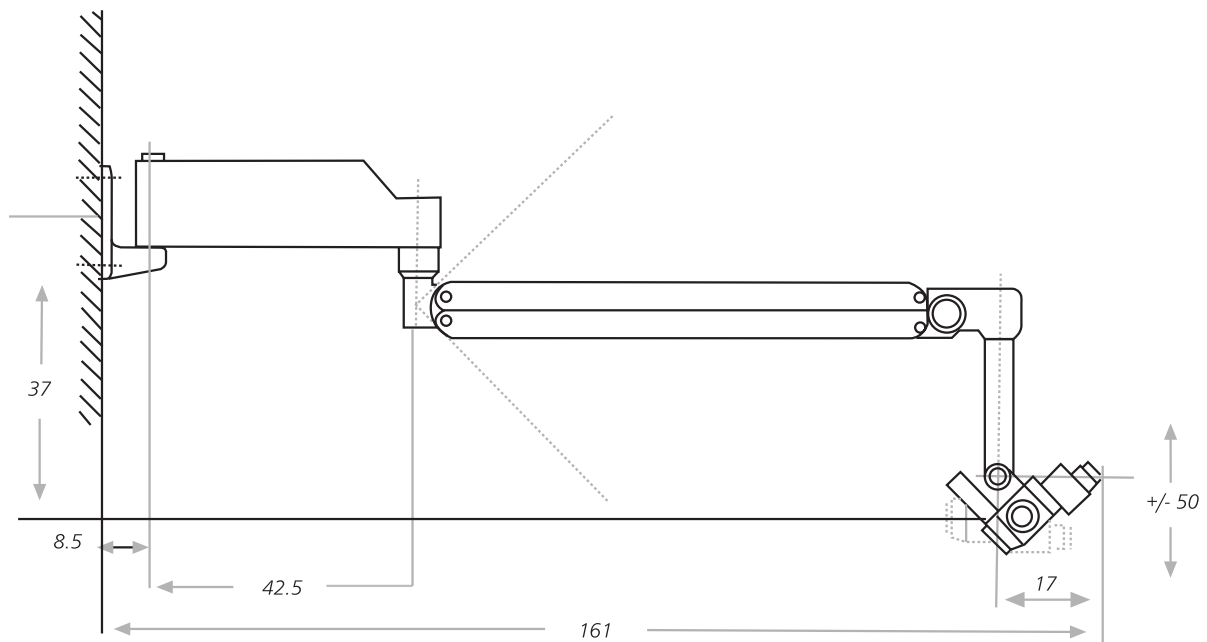
**Beleuchtung:** 12V / 100W, Halogen

**Strom-  
verbrauch:** 120 VA

**Anschluß:** 110 / 220V, 50-60 Hz

**Gewicht:** 28 kg

Grünfilter eingebaut





SOM 32



## Merkmale

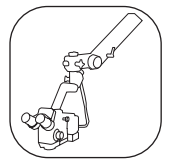
- Besonders raumsparend durch Deckenmotage.
- Der Dreharm und der ausgeglichene Schwebearm erlauben eine problemlose Positionierung.
- Auswahl zwischen direkter, koaxialer Halogenbeleuchtung und Kaltlichtbeleuchtung, in beiden Fällen 12V/100W, mit einer Notlampe ausgestattet.
- Auswahl zwischen einfacher, dreifacher oder fünffacher Vergrößerungseinheit oder auch mit manuellem Zoom (8:1).
- Die Beleuchtung schaltet sich automatisch an, wenn der Mikroskopkopf in die Arbeitshöhe positioniert wird.
- Breite Zubehöerauswahl, Dokumentationsausstattungen mittels Video oder 35 mm Fotografie und Mitbeobachtereinrichtungen.

## Characteristics

- Space saving thanks to its ceiling mounted pedestal.
- the rotating arm and the counterbalanced swivel arm allow for easy positioning of the microscopehead.
- Option between direct coaxial halogen light or transmitted through fiberoptics, in both cases 12V/100W, equipped with an emergency bulb.
- Option between magnification changers with one, three or five steps; a manual zoom (8:1) is also available.
- The illumination is turned on automatically when the microscopehead is placed in to working position.
- A wide range of accessories, documentation systems for video and 35 mm photography and coobservation - systems are available.

## Características

- Ahorro de espacio gracias a su fijación al techo.
- El brazo giratorio y el brazo basculante autocompensado permiten un fácil posicionamiento.
- Opción de iluminación homogénea, coaxial, regulable sin escalas, halógena de 12V/100W integrada en el cabezal o transmitida por fibra óptica, con foco de emergencia.
- Opción de cabezal estereoscópicos de un aumento. 3 aumentos, 5 aumentos y 8 aumentos en zoom manuales (8:1).
- Encendido automático cuando el brazo basculante es posicionado a la altura de trabajo.
- Amplia gama de accesorios, sistema de documentación por video o fotografía de 35 mm y equipos para coobservadores y asistentes.



**technical specifications**

manufactured by Karl Kaps

**SOM 32**

**pedestal:** ceilingmounted  
**arms:** rotating arm 425 mm  
swivel arm 850 mm  
height +/- 500 mm

**magnification  
changers:** simple, triple, five fold and  
manual zoom (8:1)

**binocular  
tubes:** see accessory list

**eye pieces:** see accessory list

**objectives:** see accessory list

**illumination:** 12V / 100W halogen

**power  
consumption:** 120 VA

**power supply:** 110 / 220V, 50-60 Hz

**weight:** 35 kg

green filter integrated

**datos técnicos**

marca: Karl Kaps

**SOM 32**

**estativo:** fijado al techo  
**brazos:** brazo giratorio 425mm  
basculante 850mm  
altura: +/- 500 mm

**cambiador  
de aumentos:** sencillo, triple, quintuple o  
zoom manual (8:1)

**tubos  
binoculares:** ver listado de accesorios

**oculares:** ver listado de accesorios

**objetivos:** ver listado de accesorios

**iluminación:** 12V / 100W halógena

**consumo  
máximo:** 120 VA

**conexión  
a la red:** 110 / 220V, 50-60 Hz

**peso:** 35 kg

filtro verde integrado

**technische Angaben**

Hersteller: Karl Kaps

**SOM 32**

**Stativ:** Deckenmontage  
**Arme:** Dreharm 425mm  
Schwenkarm 850 mm  
Höhe +/- 500 mm

**Vergrößerungs-  
einheiten:** 1-fach, 3-fach, 5-fach und  
manueller Zoom (8:1)

**binokulare  
Tuben:** siehe Zubehörliste

**Okulare:** siehe Zubehörliste

**Objektive:** siehe Zubehörliste

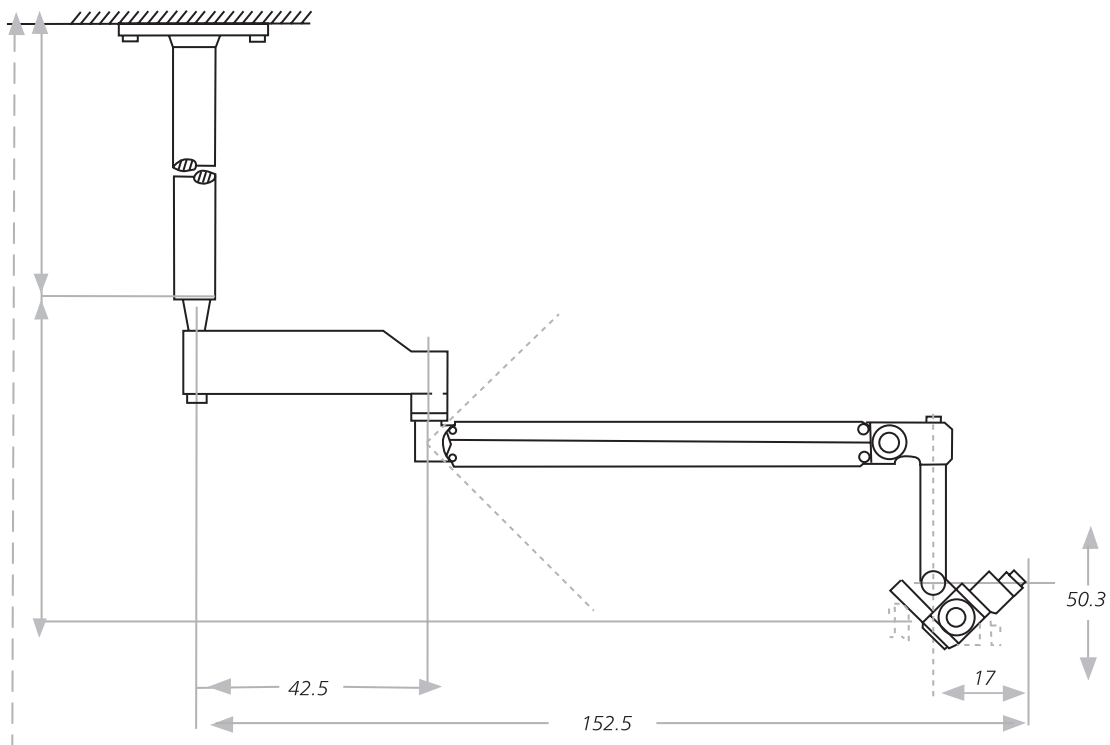
**Beleuchtung:** 12V / 100W, Halogen

**Strom-  
verbrauch:** 120 VA

**Anschluß:** 110 / 220V, 50-60 Hz

**Gewicht:** 35 kg

Grünfilter eingebaut





## SOM 62

### Characteristics

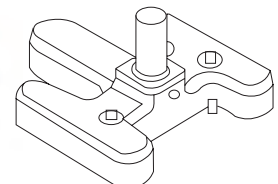
- Option between four basic models:
  - \* **SOM 62** with direct, coaxial, halogen illumination.
  - \* **SOM 62** with coaxial, halogen illumination transmitted through fiber-optics.
  - \* **SOM 62 MOT** with direct, coaxial halogen illumination and motorized fine adjustment. Microscopehead with manual magnification changer or with motorized zoom.
  - \* **SOM 62 MOT** with coaxial, halogen illumination transmitted through fiberoptics and with motorized fine adjustment. Microscopehead with manual magnification changer or with motorized zoom.
- The rotating arm and the counterbalanced swivel arm allow for easy positioning of the microscopehead.
- A wide range of accessories, documentation system for video and 35 mm fatography and coobervation system.
- Option between round pedestal (ø 560 mm) or "H-shaped" for maximum stability.

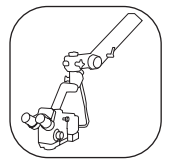
### Merkmale

- Auswahl zwischen vier Grundmodellen:
  - \* **SOM 62** mit direkter, koaxialer Halogenbeleuchtung.
  - \* **SOM 62** mit Kaltlichtbeleuchtung.
  - \* **SOM 62 MOT** mit direkter, koaxialer Beleuchtung und motorischer Feinfokussierung. Mikroskopkopf mit manueller Vergrößerungseinheit oder motorischem Zoom.
  - \* **SOM 62 MOT** mit Kaltlichtbeleuchtung und motorischer Feinfokussierung. Mikroskopkopf mit manueller Vergrößerungseinheit oder motorischem Zoom.
- Der Dreharm und der ausgeglichene Schwebearm erlauben eine problemlose Positionierung.
- Breite Zubehörauswahl, Dokumentationsausstattungen mittels Video oder 35 mm Fotografie und Mitbeobachtereinrichtungen.
- Auswahl zwischen rundem Rollstativ (ø 560 mm) oder H-Fuß für maximale Stabilität.

### Características

- Opción de cuatro modelos básicos:
  - \* **SOM 62** con iluminación integrada al cabezal manual.
  - \* **SOM 62** de iluminación transmitida por fibras ópticas manual.
  - \* **SOM 62 MOT** con iluminación integrada al cabezal y enfoque fino motorizado accionado por pedal. Cabezal con cambiador de aumentos manual o zoom motorizado.
  - \* **SOM 62 MOT** con iluminación transmitido por fibras ópticas (luz fría), con enfoque fino motorizado. Cabezal con cambiador de aumentos manual o zoom motorizado.
- El brazo giratorio y el brazo basculante autocompensado permiten un fácil posicionamiento.
- Amplia gama de accesorios, sistema de documentación por video o fotografía de 35 mm y equipos para coobservadores y asistentes.
- Opcion de bases rodables con frenos, redonda (ø 560 mm) o en forma de "H" para maxima estabilidad.





**technical specifications**

manufactured by Karl Kaps

**SOM 62**

**pedestal:** round pedestal (ø 560mm) or "H-shaped" with brakes.

**arms:** rotating 425 mm  
swivel arm 650 mm  
height +/- 300 mm

**magnification**

**changers:** simple, triple, five fold, manual zoom (8:1) and motorized zoom (8:1) fine adjustment manual or motorized

**binocular**

**tubes:** see accessory list

**eye pieces:** see accessory list

**objectives:** see accessory list

**illumination:** 12V / 100W halogen

**power**

**consumption:** 140 VA

**power supply:** 110 / 220V, 50-60 Hz

**weight:** 100 kg

green filter integrated

**datos técnicos**

marca: Karl Kaps

**SOM 62**

**estativo:** base rodable (ø 560 mm) con frenos o en H con frenos

**brazos:** giratorio 425 mm  
basculante 650 mm  
altura +/- 300 mm

**cambiador**

**de aumentos:** un aumento, 3 aumentos, 5 aumentos, zoom manual (8.1) y zoom motorizado (8:1) enfoque fino manual o motorizado

**tubos**

**binoculares:** ver listado de accesorios

**oculares:** ver listado de accesorios

**objetivos:** ver listado de accesorios

**iluminación:** 12V / 100W halógena

**consumo**

**máximo:** 140 VA

**conexión**

**a la red:** 110 / 220V, 50-60 Hz

**peso:** 100 kg

filtro verde integrado

**technische Angaben**

Hersteller: Karl Kaps

**SOM 62**

**Stativ:** rollbares Rundstativ (ø 560mm) oder H-Fuß mit Bremsen

**Arme:** Dreharm 425 mm  
Schwenkarm 650 mm  
Höhe +/- 300 mm

**Vergrößerungs-**

**einheiten:** einfach 3-fach, 5 -fach Zoom manueller Zoom (8:1) und motorisch Zoom (8:1) Feinfokussierung: manuell und motorisch

**binokulare**

**Tuben:** siehe Zubehörliste

**Okulare:** siehe Zubehörliste

**Objetive:** siehe Zubehörliste

**Beleuchtung:** 12V / 100W, Halogen

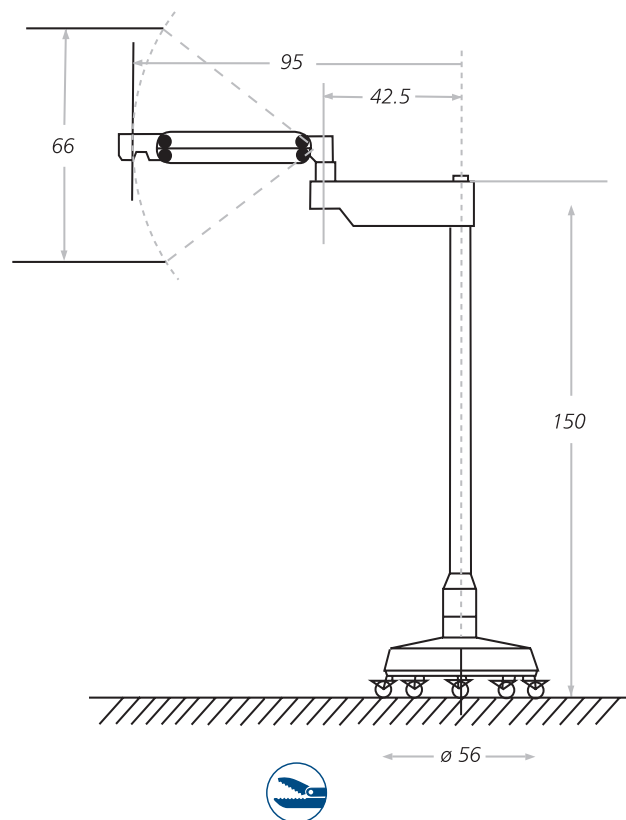
**Strom-**

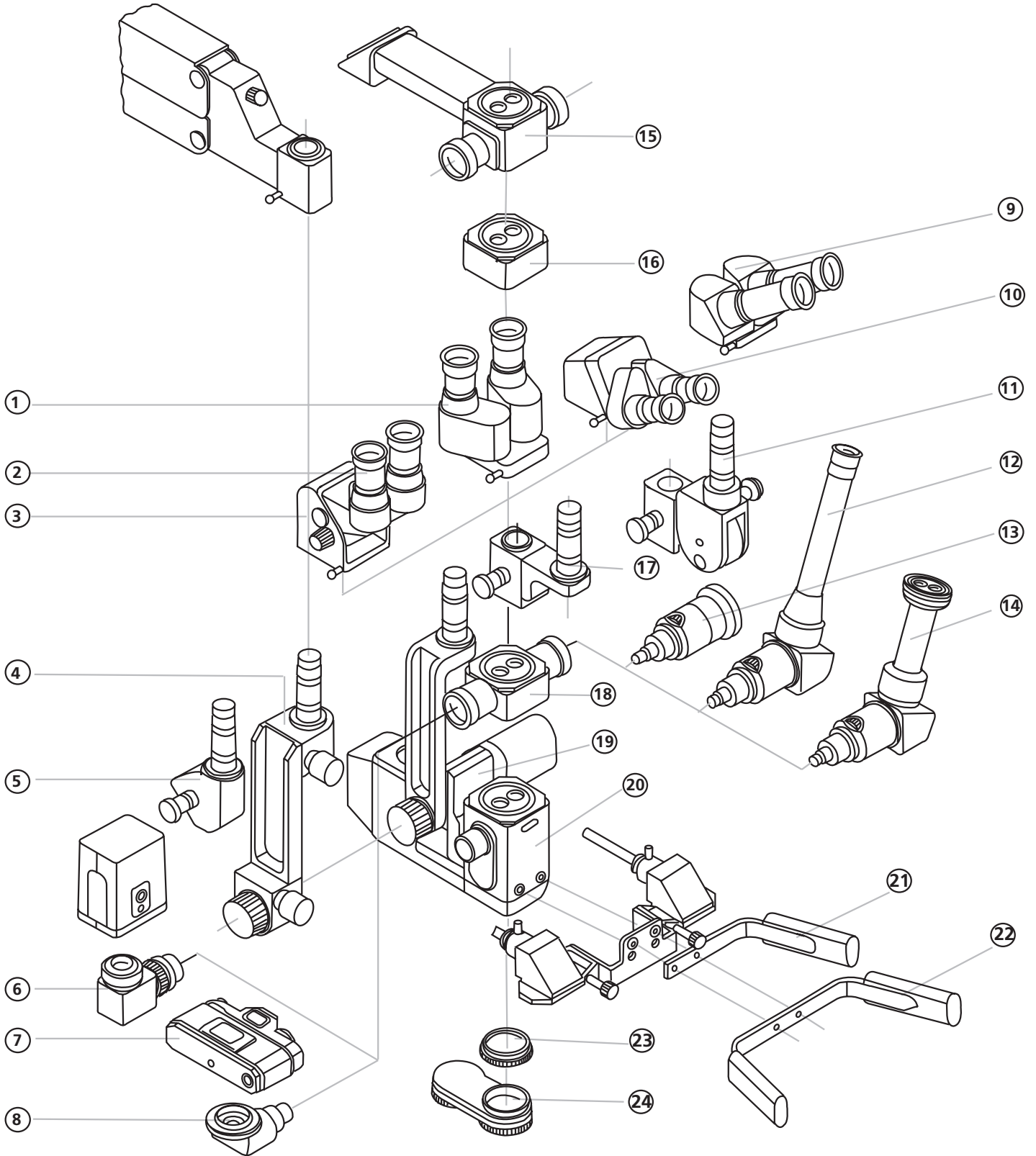
**verbrauch:** 140 VA

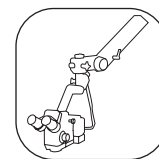
**Anschluß:** 110 / 220V, 50-60 Hz

**Gewicht:** 100 kg

Grünfilter eingebaut







#### ARRANGEMENT OF ACCESSORIES

1. Binocular tube, straight f=159 mm	<b>101.355-000</b>	14. Binocular secondary observation	<b>101.360-000</b>
Binocular tube, straight f=125 mm	<b>101.945-000</b>	15. Assistant work unit 180°	<b>162.670-100</b>
2. Eyepieces (see accessory list)		16. Adaptader h=38mm	<b>101.295-000</b>
3. Binocular tube f=159mm, 0-60°	<b>101.950-000</b>	17. Centering coupling	<b>102.180-000</b>
4. Microscope carrier with 2 gears	<b>112.370-000</b>	18. Beam splitter bilateral	<b>101.310-000</b>
Microscope carrier	<b>102.130-000</b>	Beam splitter seminsable	<b>101.315-000</b>
5. 45°coupling	<b>102.187-000</b>	Beam splitter seminsable for video	<b>101.315-001</b>
6. Video tube f=80 mm with diaphragm	<b>101.850-000</b>	19. Fine adjustment	
7. Camera RICOH KR-10M	<b>101.328-000</b>	20. Magnification changer (see accessory list)	
8. Photo tube for RICOH KR-10M	<b>101.320-000</b>	21. Microscope guide one-sided	<b>102.186-000</b>
9. Inclined binocular tube, f= 159 mm, 45°	<b>101.110-000</b>	22. Microscope guide bilateral	<b>102.188-000</b>
Inclined binocular tube, f=125 mm, 45°	<b>101.930-000</b>	23. Objectives(see accessory list)	
10. Inclined binocular tube f=159 mm, 60°	<b>101.955-000</b>	24. Objective rapid changer for 3x	<b>102.181-000</b>
11. 0-90°coupling	<b>102.170-000</b>	Objective rapid changer for 5x, zoom	<b>102.191-000</b>
12. Monocular secondary observation	<b>101.330-000</b>		
13. Binocular assistant tube	<b>101.970-000</b>		

#### ESQUEMA DE ACCESORIOS

1. Tubo binocular recto f=159 mm	<b>101.355-000</b>	14. Tubo para coobservador binocular	<b>101.360-000</b>
Tubo binocular recto f=125 mm	<b>101.945-000</b>	15. Equipo para asistente a 180°	<b>162.670-100</b>
2. Oculares (ver lista de accesorios)		Equipo asistente a 180° c/ salidas laterales	<b>112.670-100</b>
3. Tubo binocular f=159 mm, 0-60°	<b>101.950-000</b>	16. Adaptador h=38 mm	<b>101.295-000</b>
4. Soporte para cabezal con 2 ejes mecánico	<b>112.370-000</b>	17. Acoplamiento de centrado	<b>102.180-000</b>
Soporte para cabezal fijo	<b>102.130-000</b>	18. Divisor de rayos bilateral	<b>101.310-000</b>
5. Acoplamiento de 45°	<b>102.187-000</b>	Divisor de rayos unilateral	<b>101.315-000</b>
6. Tubo para video f=80 mm con diafragma	<b>101.850-000</b>	Divisor de rayos unilateral para video	<b>101.315-001</b>
7. Cámara fotográfica RICOH KR-10M	<b>101.328-000</b>	19. Enfoque fino	
8. Fototubo para cámara RICOH KR-10M	<b>101.320-000</b>	20. Cambiador de aumentos (ver lista de accesorios)	
9. Tubo binocular oblicuo f=159 mm, 45°	<b>101.110-000</b>	21. Mango unilateral	<b>102.186-000</b>
Tubo binocular oblicuo f=125 mm, 45°	<b>101.930-000</b>	22. Mango bilateral	<b>102.188-000</b>
10. Tubo binocular oblicuo f=159 mm, 60°	<b>101.955-000</b>	23. Objetivos (ver lista de accesorios)	
11. Acoplamiento 0-90°	<b>102.170-000</b>	24. Cambiador rápido de objetivos 3x	<b>102.181-000</b>
12. Tubo para coobservador monocular	<b>101.330-000</b>	Cambiador rápido de objetivos p/5x, zoom	<b>102.191-000</b>
13. Tubo para asistente binocular	<b>101.970-000</b>		

#### ZUBEHÖRZUSAMMENSTELLUNG

1. Gerader Binokulartubus f=159 mm	<b>101.355-000</b>	14. Mitbeobachtertabus, binokular	<b>101.360-000</b>
Gerader Binokulartubus f=125 mm	<b>101.945-000</b>	15. Mitbeobachtereinrichtung 180°	<b>162.670-100</b>
2. Okulare (siehe Zubehörliste)		Mitbeobachtereinrichtung 180° mit	
3. Binokulartubus f=159 mm, 0 60°	<b>101 950-000</b>	Strahlenteiler, beidseitig	<b>112.670-100</b>
4. Mikroskophalter mit 2 Achsen	<b>112.370-000</b>	16. Adapter h=38mm	<b>101.295-000</b>
Fester Mikroskophalter	<b>102 130-000</b>	17. Zentrierkupplung	<b>102.180-000</b>
5. Schrägkupplung 45°	<b>102.187-000</b>	18. Strahlenteiler, beidseitig	<b>101.310-000</b>
6. TV-Tubus f=80 mm mit Ringblende	<b>101.850-000</b>	Strahlenteiler, einseitig	<b>101.315-000</b>
7. Kamera RICOH KR-10M	<b>101.328-000</b>	Strahlenteiler, einseitig für Video	<b>101.315-001</b>
8. Fototubus für RICOH KR-10M	<b>101.320-000</b>	19. Feinfokussierung	
9. Binokularer Schrägtubus f=159 mm, 45°	<b>101.110-000</b>	20. Vergrößerungswechsler (siehe Zubehörliste)	
Binokularer Schrägtabus f=125 mm,45°	<b>101.930-000</b>	21. Mikroskopenker einseitig	<b>102.186-000</b>
10. Binokularer Schrägtubus f=159 mm, 60°	<b>101.955-000</b>	22. Mikroskopenker beidseitig	<b>102.188-000</b>
11. 0-90°Kupplung	<b>102.170-000</b>	23. Objektive (siehe Zubehörliste)	
12. Mitbeobachtertubus, monokular	<b>101.330-000</b>	24. Objektivschnellwechsler für 3x	<b>102.181 -000</b>
13. Assistentztubus, binokular	<b>101.970-000</b>	Objektivschnellwechsler für 5x, Zoom	<b>102.191-000</b>





## ACCESSORIES

Widefield eyepieces adjustable, with reticule

- 101.430-000** WF 10x VS
- 101.440-000** WF 12,5x VS
- 101.450-000** WF 16x VS
- 101.460-000** WF 20x VS

Widefield eyepieces adjustable

- 101.530-000** WF 10x V
- 101.540-000** WF 12,5x V
- 101.550-000** WF 16x V
- 101.560-000** WF 20x V

Objectives (equal to working distance)

- 101.610-000** f= 100 mm
- 101.620-000** f= 150 mm
- 101.680-000** f= 175 mm
- 101.630-000** f= 200 mm
- 101.640-000** f= 250 mm
- 101.650-000** f= 275 mm
- 101.660-000** f= 300 mm
- 101.670-000** f= 400 mm
- 101.310-000** Beamsplitter, bilateral
- 101.315-000** Beamsplitter, seminsable
- 101.315-001** Beamsplitter, seminsable for video
- 101.320-000** Phototube for RICOH KR-10M
- 101.328-000** Camera RICOH KR-10M
- 101.970-000** Assistant tube
- 101.360-000** Secondary observation binocular
- 101.330-000** Secondary observation monocular
- 101.110-000** Binocularer inclined tube f=159mm, 45°
- 101.930-000** Binocularer inclined tube f=125mm, 45°
- 101.950-000** Adjustable binocularer tube f=159mm, 0-60°
- 101.955-000** Binocularer inclined tube f=159mm, 60°
- 101.731-000** 2 sterilizable rubber caps (illumination)
- 101.732-000** 2 sterilizable rubber caps (magnification)
- 101.733-000** 2 sterilizable rubber caps (fine adjustment)
- 101.132-000** Fine adjustment, manual
- 101.160-100** Magnification changer 3-fold, halogen
- 101.120-100** Magnification changer 5-fold, halogen
- 162.150-100** Zoom manual, halogen
- 101.260-100** Magnification changer 3-fold, fiber optics
- 101.220-100** Magnification changer 5-fold, fiber optics
- 162.140-100** Zoom manual, fiber optics
- 102.182-000** Microscope guide bilateral, adjustable
- 102.188-000** Microscope guide bilateral
- 102.184-000** Microscope guide one side, adjustable
- 102.186-000** Microscope guide one side
- 162.860-000** T-shaped handle
- 102.181-000** Objective rapid changer (3x)
- 102.191-000** Objective rapid changer (5x, Zoom)
- 102.187-000** 45° inclined coupling
- 102.170-000** Coupling 0-90°
- 101.850-000** Video tubs f=80mm with diaphragm
- 162.670-100** Assistant-work unit 180°
- 112.670-100** Assistant-work unit 180° with beam splitter
- 101.295-000** Adapter h = 38 mm
- 112.370-000** Microscope carrier with 2 gears
- 102.130-000** Microscope carrier
- 102.175-000** 180° rotating binocular tube mount
- 162.105-000** Round pedestal with brakes (SOM 62)
- 162.106-000** H-shaped pedestal with brakes (SOM 62)

## ACCESORIOS

Oculares con ajuste de dioptrías y retícula, campo amplio

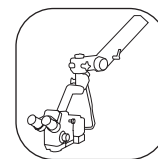
- 101.430-000** WF 10x VS
- 101.440-000** WF 12,5x VS
- 101.450-000** WF 16x VS
- 101.460-000** WF 20x VS

Oculares con ajuste de dioptrías, campo amplio

- 101.530-000** WF 10x V
- 101.540-000** WF 12,5x V
- 101.550-000** WF 16x V
- 101.560-000** WF 20x V

Objetivos (igual a la distancia de trabajo)

- 101.610-000** f= 100 mm
- 101.620-000** f= 150 mm
- 101.680-000** f= 175 mm
- 101.630-000** f= 200 mm
- 101.640-000** f= 250 mm
- 101.650-000** f= 275 mm
- 101.660-000** f= 300 mm
- 101.670-000** f= 400 mm
- 101.310-000** Divisor de rayos bilateral
- 101.315-000** Divisor de rayos unilateral
- 101.315-001** Divisor de rayos unilateral para video
- 101.320-000** Fototubo para cámara RICOH KR-10M
- 101.328-000** Cámara fotográfica RICOH KR-10M
- 101.970-000** Tubo para asistente binocular
- 101.360-000** Tubo para coobservador binocular
- 101.330-000** Tubo para coobservador monocular
- 101.110-000** Tubo binocular oblicuo f=159mm, 45°
- 101.930-000** Tubo binocular oblicuo f=125mm, 45°
- 101.950-000** Tubo binocular f=159mm, 0-60°
- 101.955-000** Tubo binocular oblicuo f=159mm, 60°
- 101.731-000** 2 caperuzas esterilizables p/ iluminación
- 101.732-000** 2 caperuzas esterilizables p/ aumentos
- 101.733-000** 2 caperuzas esterilizables p/ enfoque fino
- 101.132-000** Enfoque fino manual
- 101.160-100** Cambiador de 3 aumentos, luz halógena
- 101.120-100** Cambiador de 5 aumentos, luz halógena
- 162.150-100** Zoom manual, luz halógena
- 101.260-100** Cambiador de 3 aumentos, luz fría
- 101.220-100** Cambiador de 5 aumentos, luz fría
- 162.140-100** Zoom manual, luz fría
- 102.182-000** Mango bilateral ajustable
- 102.188-000** Mango bilateral
- 102.184-000** Mango unilateral ajustable
- 102.186-000** Mango unilateral
- 162.860-000** Mango en «T»
- 102.181-000** Cambiador rápido de objetivos 3x
- 102.191-000** Cambiador rápido de objetivos p/ 5x, zoom
- 102.187-000** Acoplamiento de 45°
- 102.170-000** Acoplamiento 0-90°
- 101.850-000** Tubo para video f=80mm con diafragma
- 162.670-100** Equipo para asistente a 180°
- 112.670-100** Equipo asistente a 180° c/ salidas laterales
- 101.295-000** Adaptador h=38mm
- 112.370-000** Soporte para cabezal con 2 ejes mecánicos
- 102.130-000** Soporte para cabezal fijo
- 102.175-000** Platina rotatable 180° para tubo binocular
- 162.105-000** Base rodable redonda con frenos (SOM 62)
- 162.106-000** Base rodeble con frenos en forma de "H" (SOM 62)



ZUBEHÖR

Weitfeld-Okulare verstellbar mit Strichplatte

- 101.430-000** WF 10x VS
- 101.440-000** WF 12,5x VS
- 101.450-000** WF 16x VS
- 101.460-000** WF 20x VS

Weitfeld-Okulare verstellbar

- 101.530-000** WF 10x V
- 101.540-000** WF 12,5x V
- 101.550-000** WF 16x V
- 101.560-000** WF 20x V

Objektive (ca. Arbeitsabstand)

- 101.610-000** f= 100 mm
- 101.620-000** f= 150 mm
- 101.680-000** f= 175 mm
- 101.630-000** f= 200 mm
- 101.640-000** f= 250 mm
- 101.650-000** f= 275 mm
- 101.660-000** f= 300 mm
- 101.670-000** f= 400 mm
- 101.310-000** Strahlenteiler beidseitig
- 101.315-000** Strahlenteiler halbseitig
- 101.315-001** Strahlenteiler halbseitig für Video
- 101.320-000** Fototubus RICOH KR-10M
- 101.328-000** Kamera RICOH KR-10M
- 101.970-000** Assistenztubus
- 101.360-000** Mitbeobachtertubus binokular
- 101.330-000** Mitbeobachtertubus monokular
- 101.110-000** Binokularer Schrägtubus f=159mm, 45°
- 101.930-000** Binokularer Schrägtubus f=125mm, 45°
- 101.950-000** Binokularer Schwenktubus f=159mm, 0-60°
- 101.955-000** Binokularer Schrägtubus f=159mm, 60°
- 101.731-000** 2 Sterilisationskappen (Beleuchtung)
- 101.732-000** 2 Sterilisationskappen (Vergrößerung)
- 101.733-000** 2 Sterilisationskappen (Feinfokussierung)
- 101.132-000** Feinfokussierung manuell
- 101.160-100** Vergrößerungseinheit 3-fach, Halogenlicht
- 101.120-100** Vergrößerungseinheit 5-fach, Halogenlicht
- 162.150-100** Zoom manuell, Halogenlicht
- 101.260-100** Vergrößerungseinheit 3-fach, Kaltlicht
- 101.220-100** Vergrößerungseinheit 5-fach, Kaltlicht
- 162.140-100** Zoom manuell, Kaltlicht
- 102.182-000** Mikroskopenker bilateral, verstellbar
- 102.188-000** Mikroskopenker bilateral
- 102.184-000** Mikroskopenker einseitig, verstellbar
- 102.186-000** Mikroskopenker einseitig
- 162.860-000** T-Handgriff
- 102.181-000** Objektivschnellwechsler (3x)
- 102.191-000** Objektivschnellwechsler (5x, Zoom)
- 102.187-000** 45° Schrägkupplung
- 102.170-000** Kupplung 0-90°
- 101.850-000** TV-Tubus f=80 mm mit Blende
- 162.670-100** Mitbeobachtereinrichtung 180°
- 112.670-100** Mitbeobachtereinrichtung 180° mit Strahlenteiler beidseitig
- 101.295-000** Adapter h=38 mm
- 112.370-000** Verstellbarer Mikroskophalter
- 102.130-000** Fester Mikroskophalter
- 102.175-000** Drehscheibe 180° für Binotubus
- 162.105-000** Rundstativ mit Bremsen (SOM 62)
- 162.106-000** H-Stativ mit Bremsen (SOM 62)



## ABBES' FORMULA

Early in the 19th century the progress in resolution of microscopes became a concern. Microscope makers used to compare resolution of objectives every time they made a new style. The problem was that even with chromatic and spherical aberration, there is one more factor involved with making a microscope as good as possible: the angular aperture. It was Ernst Abbe, who published 1877 the formula for getting maximum amount of resolution from a microscope.

$$d = \frac{\lambda}{2n \sin \theta}$$

$d$  = minimum resolving distance

$\lambda$  = wave length of light

$2n \sin \theta$  = numerical aperture

A principios del siglo XIX la preocupación por el progreso en la resolución de microscopios era grande.

Los fabricantes de microscopios comparaban resolución de objetivos cada vez que querían producir uno nuevo.

El problema era, que los productores no sabían que aparte del efecto cromático y la aberración esférica, había otro factor importante que definía la resolución, para así hacer un microscopio lo mejor posible: la apertura numérica.

Fue Ernest Abbe, quien en 1877 publica la fórmula que define la máxima resolución de un microscopio.

$$d = \frac{\lambda}{2n \sin \theta}$$

$d$  = mínima distancia de resolución

$\lambda$  = longitud de onda de la luz numérica

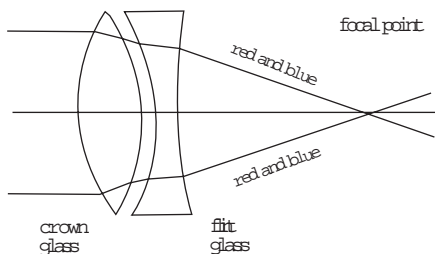
$2n \sin \theta$  = apertura



Ernst Abbe (1840 - 1905)

Anfang des 19. Jahrhunderts war der Drang nach Erkenntnissen über die Auflösung bei Mikroskopen sehr groß. Um neue Objektive herzustellen, verglichen Mikroskophersteller diese mit anderen Objektiven.

Jedoch wußten damals die Hersteller nicht, daß neben der sphärischen Aberration ein anderer Faktor auch eine Rolle spielte, um ein Mikroskop so gut wie möglich zu machen. Es war Ernst Abbe, der 1877 die Formel veröffentlichte, die die maximale Auflösung eines Mikroskopes angibt.

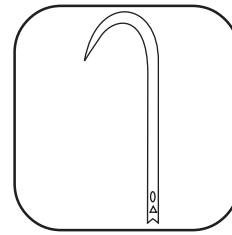


$$d = \frac{\lambda}{2n \sin \theta}$$

$d$  = minimale Auflösungsgröße

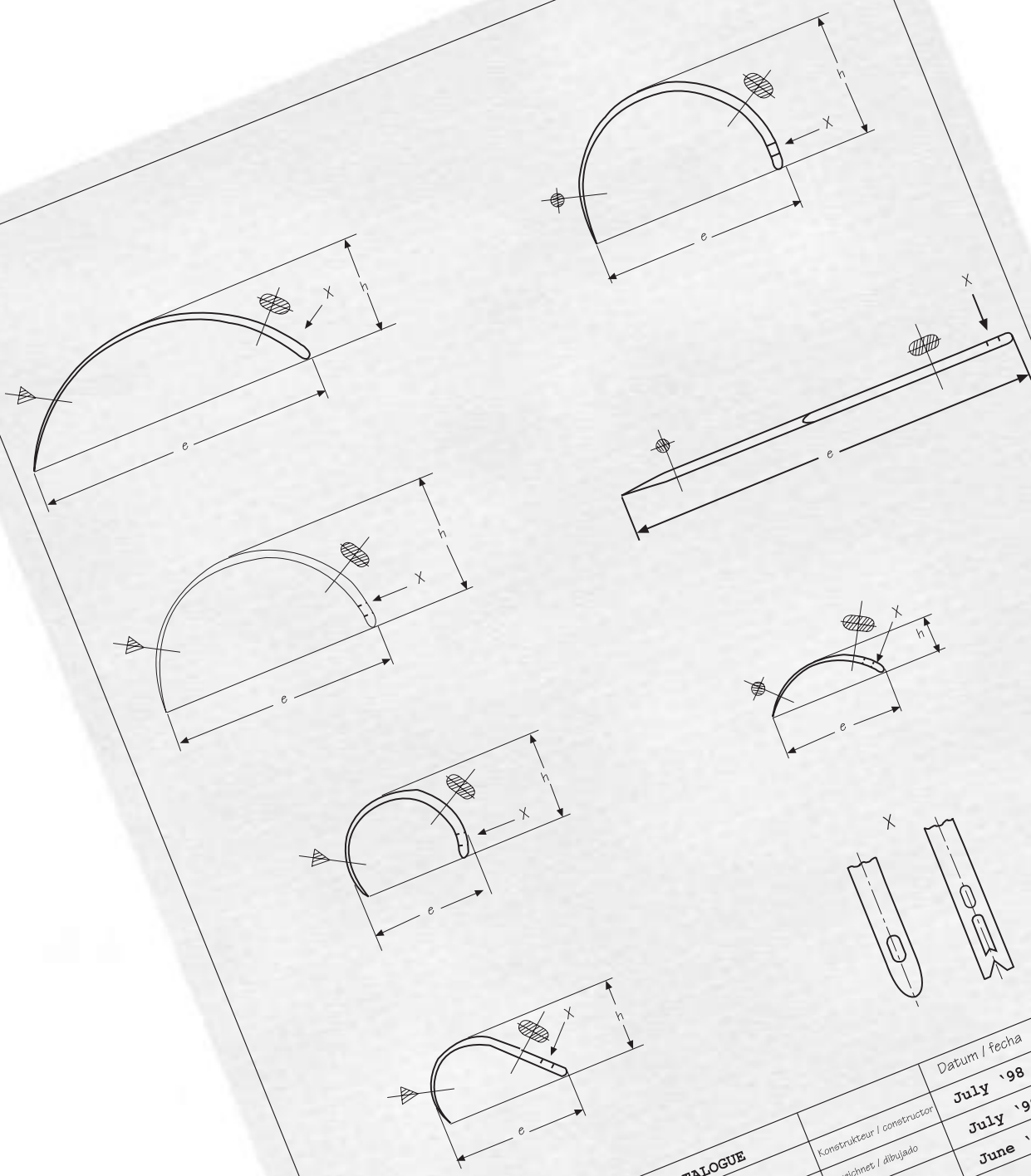
$\lambda$  = Lichtwellenlänge

$2n \sin \theta$  = numerische Apertur



# 26

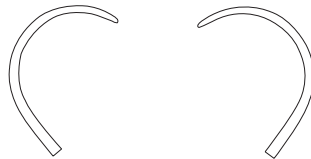
Suture  
Sutura  
Naht



Masse in mm

GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
Stainless Steel	gezeichnet / dibujado	July '98	cvd/jvd	1
Acero inoxidable	geprüft / verificado	July '98	cvd	Maaßstab / escala 1:1
	Toleranz / tolerancia	June '99	mj	Abt. / acot. mm
				Artikel / artículo
				Artikel-Nr. / No. de artículo

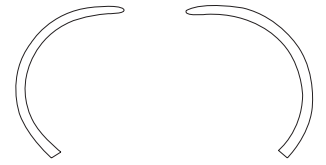




cm

21	26.110.21	26.111.21
24	26.110.24	26.111.24
27	26.110.27	26.111.27

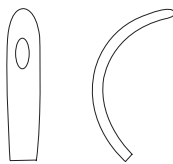
**DESCHAMPS**  
26.110.21 - 26.111.27



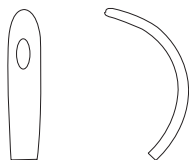
cm

21	26.120.21	26.121.21
24	26.120.24	26.121.24
27	26.120.27	26.121.27

**DESCHAMPS**  
26.120.21 - 26.121.27



**26.130.13**  
right

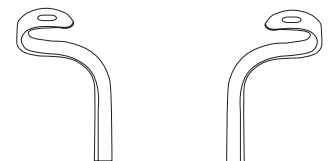


**26.131.13**  
left

cm

13.0	26.130.13	26.131.13
------	-----------	-----------

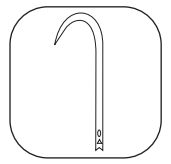
**KRONECKER**  
26.130.13 - 26.131.13



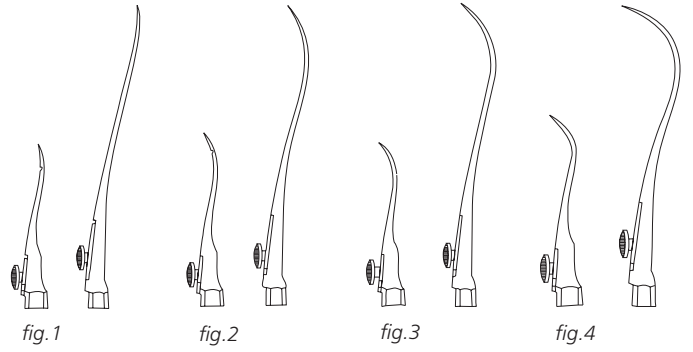
cm

24.5	26.133.24	26.135.24
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**NELSON**  
26.133.24 - 26.135.24



**COOPER**  
26.139.19  
19 cm



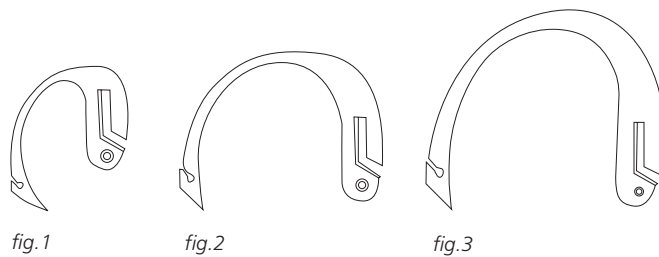
cm	fig.1	fig.2	fig.3	fig.4
15.0	26.201.15	26.202.15	26.203.15	26.204.15
19.0	26.201.19	26.202.19	26.203.19	26.204.19
21.0	26.201.21	26.202.21	26.203.21	26.204.21
23.0	26.201.23	26.202.23	26.203.23	26.204.23

**REVERDIN**  
26.201.15 - 26.204.23

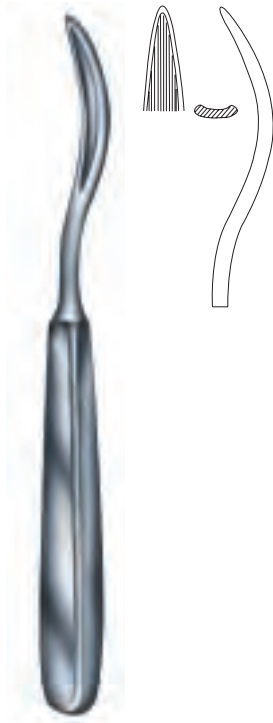


26.240.00

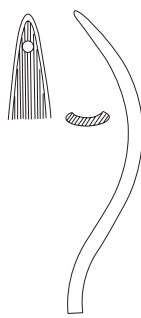
fig.	
1	26.240.01
2	26.240.02
3	26.240.03



**YOUNG**  
26.240.00 - 26.240.03



**SCHMIEDEN**  
26.271.19  
19 cm



**SCHMIEDEN PAYR**  
26.273.19  
19 cm



**BRUNNER**  
26.275.30  
30 cm



**KIRSCHNER**  
26.277.25  
25 cm



**KOENIG**  
26.285.20  
20 cm



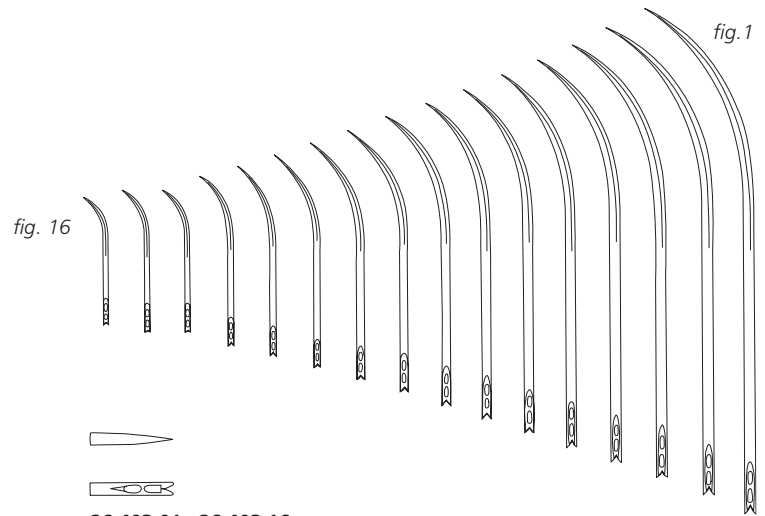
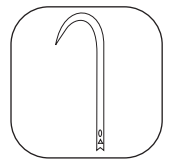
**PAYR**  
26.288.22 - 26.289.22  
22 cm



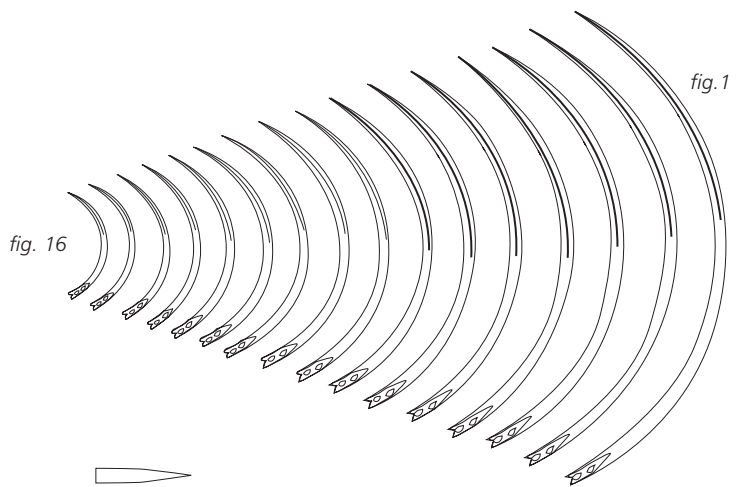
cm

18	26.291.18
27	26.291.27

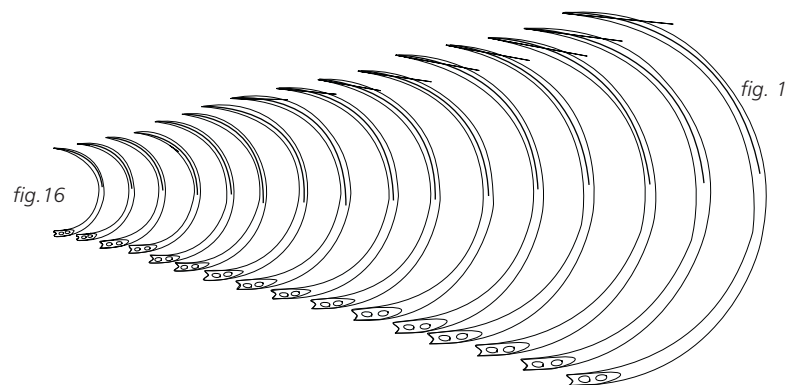
**BRUNNER**  
26.291.18 - 26.291.27



**26.403.01 - 26.403.16**  
"A" triangle



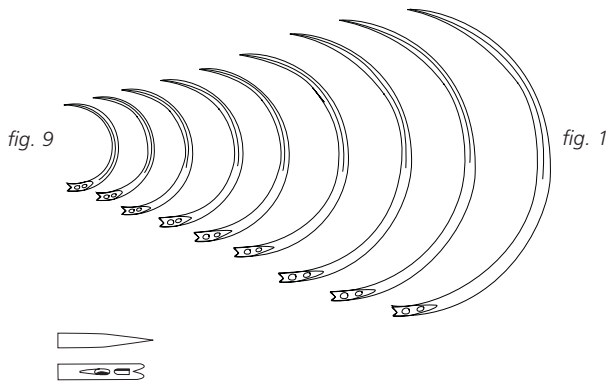
**26.413.01 - 26.413.16**  
"B" triangle



**26.423.01 - 26.423.16**  
"G" triangle

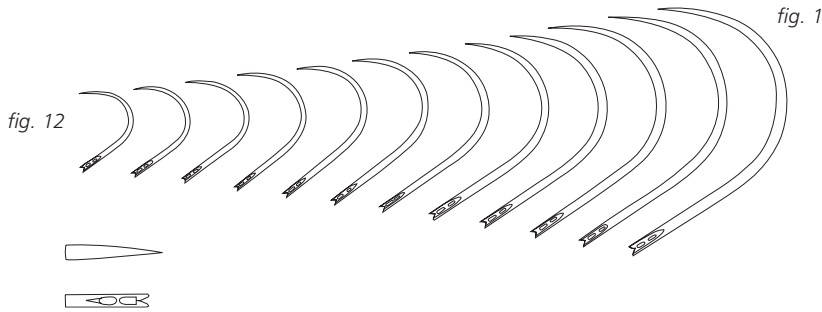
fig.	"A"	"B"	"G"
1	26.403.01	26.413.01	26.423.01
2	26.403.02	26.413.02	26.423.02
3	26.403.03	26.413.03	26.423.03
4	26.403.04	26.413.04	26.423.04
5	26.403.05	26.413.05	26.423.05
6	26.403.06	26.413.06	26.423.06
7	26.403.07	26.413.07	26.423.07
8	26.403.08	26.413.08	26.423.08
9	26.403.09	26.413.09	26.423.09
10	26.403.10	26.413.10	26.423.10
11	26.403.11	26.413.11	26.423.11
12	26.403.12	26.413.12	26.423.12
13	26.403.13	26.413.13	26.423.13
14	26.403.14	26.413.14	26.423.14
15	26.403.15	26.413.15	26.423.15
16	26.403.16	26.413.16	26.423.16





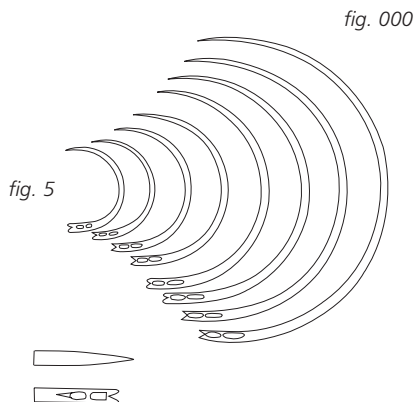
**26.433.01 - 26.433.09**  
"Ga" triangle

fig.	"Ga"
1	26.433.01
2	26.433.02
3	26.433.03
4	26.433.04
5	26.433.05
6	26.433.06
7	26.433.07
8	26.433.08
9	26.433.09



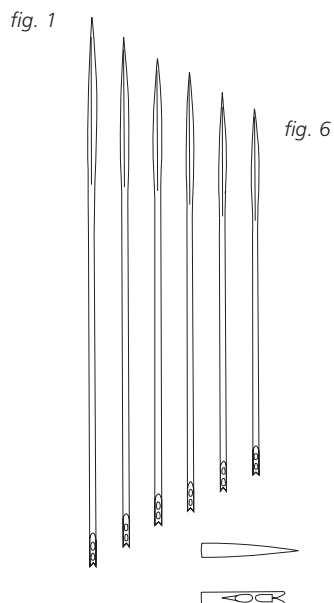
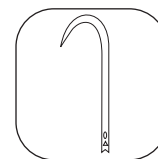
**KOENIG**  
**26.441.01 - 26.441.12**  
hook triangle

fig.	hook
1	26.441.01
2	26.441.02
3	26.441.03
4	26.441.04
5	26.441.05
6	26.441.06
7	26.441.07
8	26.441.08
9	26.441.09
10	26.441.10
11	26.441.11
12	26.441.12

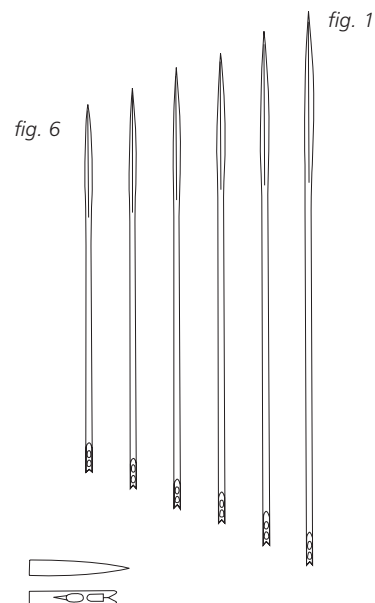


**26.443.01 - 26.443.30**  
"E" round

fig.	"E"
1	26.443.01
2	26.443.02
3	26.443.03
4	26.443.04
5	26.443.05
0	26.443.10
00	26.443.20
000	26.443.30

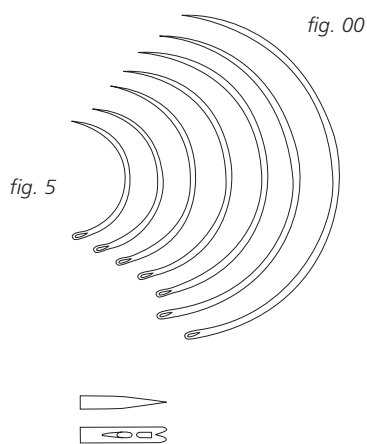


triangle	fig.	round
26.450.01	1	26.452.01
26.450.02	2	26.452.02
26.450.03	3	26.452.03
26.450.04	4	26.452.04
26.450.05	5	26.452.05
26.450.06	6	26.452.06

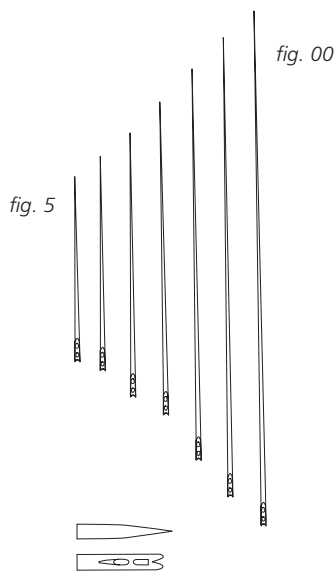


**KEITH**  
26.450.01 - 26.450.06  
triangle suture

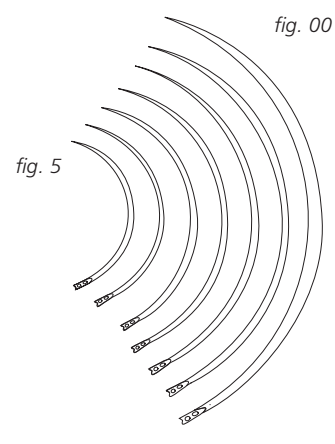
**KEITH**  
26.452.01 - 26.452.06  
round suture



26.465.10 - 26.467.05  
"Pb" intestine, round



26.475.10 - 26.477.05  
"Pc" intestine, round



26.485.10 - 26.487.05  
"Pd" intestine, round

fig.	"Pb"	"Pc"	"Pd"
0	26.465.10	26.475.10	26.485.10
00	26.465.20	26.475.20	26.485.20
1	26.467.01	26.477.01	26.487.01
2	26.467.02	26.477.02	26.487.02
3	26.467.03	26.477.03	26.487.03
4	26.467.04	26.477.04	26.487.04
5	26.467.05	26.477.05	26.487.05





**MICHEL**  
26.610.12  
12 cm



**WACHENFELDT**  
26.612.12  
12 cm



**WACHENFELDT**  
26.614.12  
12 cm



**HEGENBARTH**  
26.616.12  
12 cm



**CHILDE**  
26.620.18  
18 cm



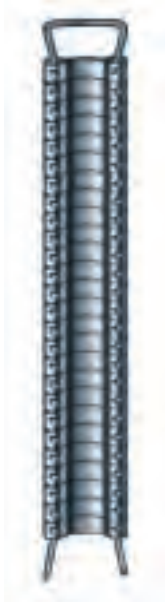
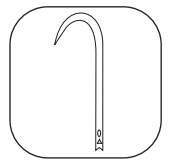
**MICHEL**  
26.630.12 - 26.631.13  
12 cm



**COLLIN**  
26.640.13  
13 cm



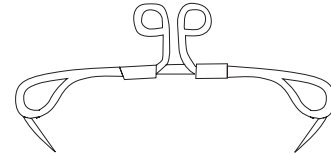
**RICHTER HEATH**  
26.642.14  
14 cm



mm

7.5 x 1.75	26.660.07
11 x 2	26.660.11
12 x 3	26.660.12
14 x 3	26.660.14
16 x 3	26.660.16
18 x 3	26.660.18
20 x 3	26.660.20
22 x 3	26.660.22

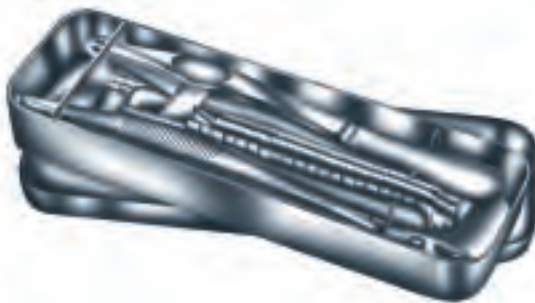
**MICHEL**  
26.660.07 - 26.660.22



mm

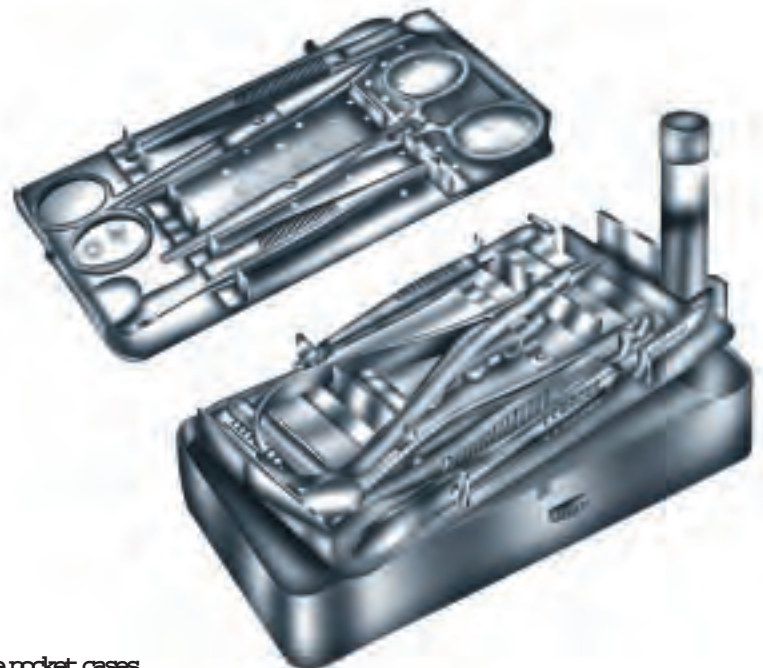
12 x 3	26.662.12
14 x 3	26.662.14
16 x 3	26.662.16
18 x 3	26.662.18
20 x 3	26.662.20

**WACHENFELDT**  
26.662.12 - 26.662.20



26.670.00

suture pocket cases  
estuches de bolsillo  
taschennahtbestek



26.680.00





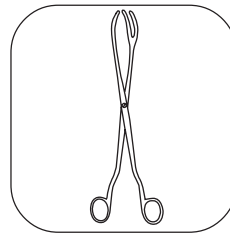
**AMBROISE PARÉ**  
1510 - 1590

As a barber surgeon, he is considered as the founder of the modern surgery. Even though he had no academy formation, his experience in treating wounded soldiers allowed him to be highly recognized as a surgeon. Paré's greatest contributions were the painless treatment of fire weapon injuries, vascular ligation for amputations and the herniotomy.

De profesión cirujano barbero, considerado como el fundador de la cirugía moderna. A pesar no haber tenido formación universitaria, sus experiencias en la práctica curando soldados heridos, le permitieron ser altamente reconocido como cirujano. Paré destacó por sus invenciones en el tratamiento gentil de los heridos por armas de fuego, la ligadura vascular en amputaciones y la herniotomía.

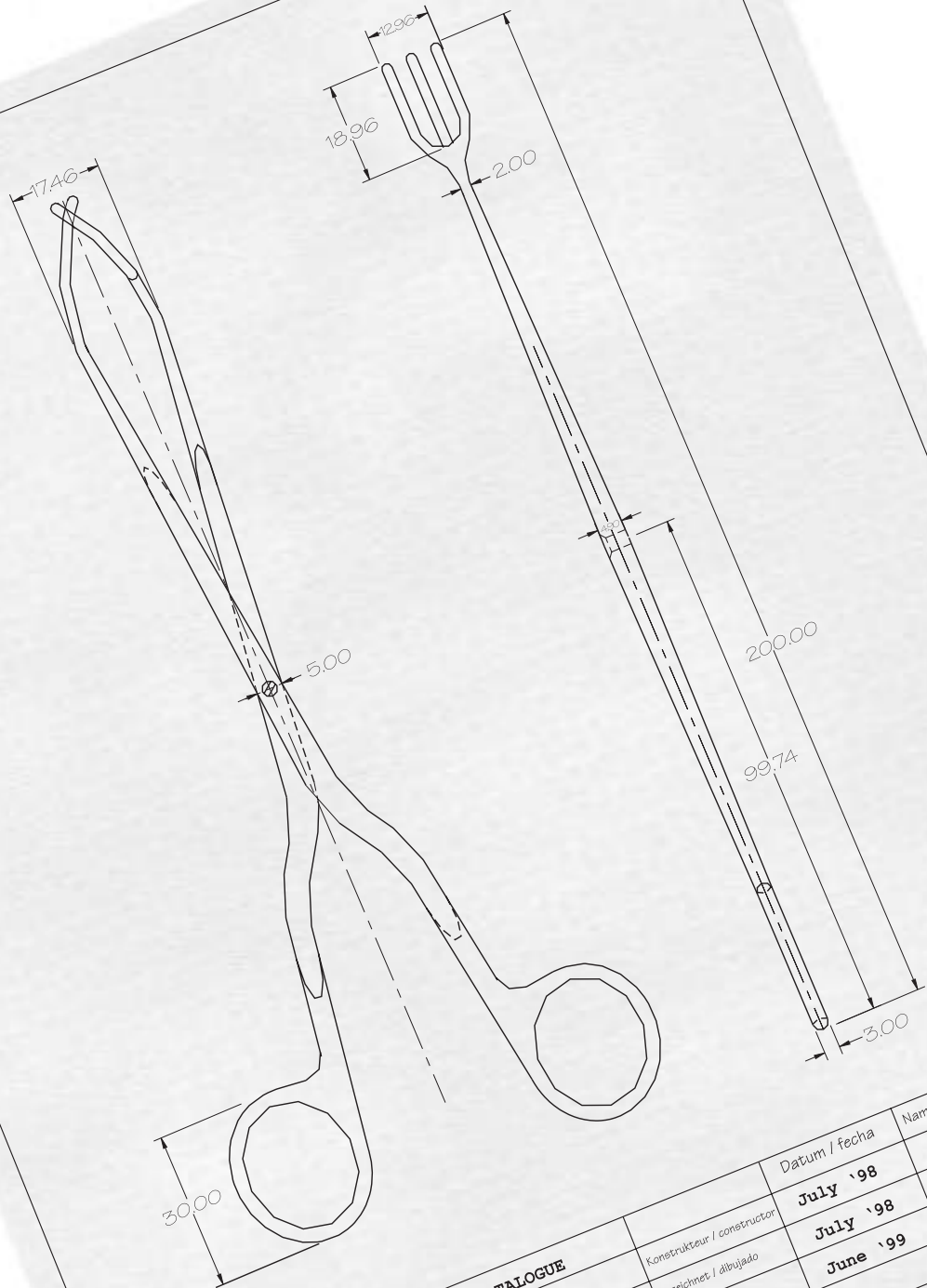


Trotz seines Berufes als Barbier wird Paré als Mitbegründer der modernen Chirurgie betrachtet. Obwohl Paré keine akademische Ausbildung genossen hat, wurde er aufgrund seiner Erfahrung bei der Behandlung von verletzten Soldaten als Chirurg hoch anerkannt. Paré's größte Beiträge waren die schmerzlose Behandlung von Feuerwaffenwunden, die Gefäßligatur bei Amputationen und die Herniotomie.



# 28

**Sterilizing Aids**  
**Auxilios para Esterilización**  
**Sterilisierhilfen**



GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
	gezeichnet / dibujado	July '98	cvd/jvd	Maasstab / escala 1:1
	geprüft / verificado	July '98	cvd	Abt. / acot. mm
	Toleranz / tolerancia	June '99	nj	Artikel / artículo
				Artikel-Nr. / No. de artículo





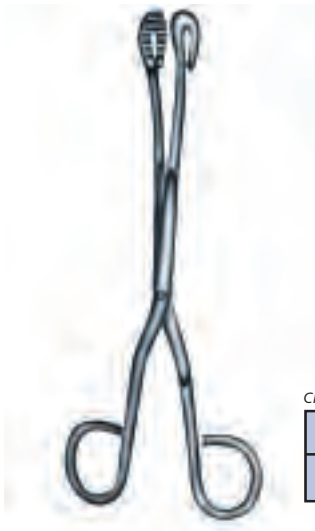
**DAVIS**  
28.102.16 - 28.102.24

*cm*

16	28.102.16
20	28.102.20
24	28.102.24



**CHEATE**  
28.110.27  
27 cm



**universal**  
28.120.20 - 28.120.28

*cm*

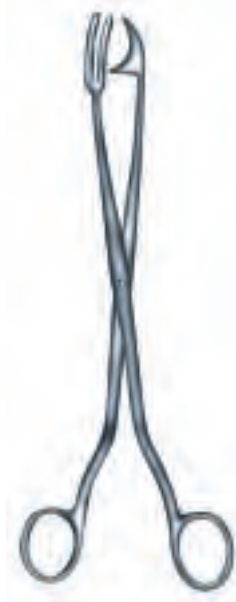
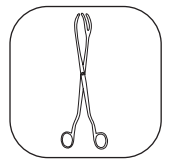
20	28.120.20
28	28.120.28



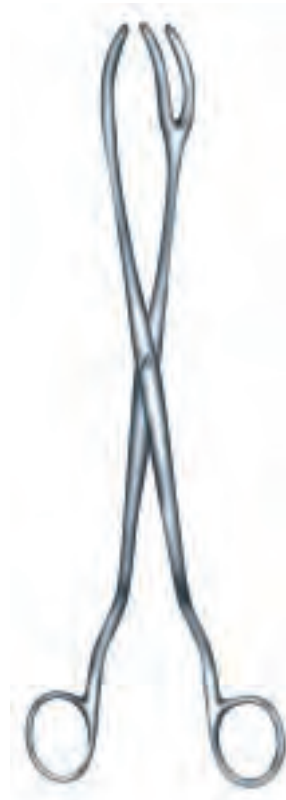
**universal**  
28.121.20 - 28.121.28

*cm*

20	28.121.20
28	28.121.28



**ROGGE**  
 28.130.23  
 23 cm



28.140.20 - 28.140.30

cm	
20	28.140.20
30	28.140.30



**BUNT**  
 28.150.12  
 12 cm



**MAYO**  
 28.152.14  
 14 cm

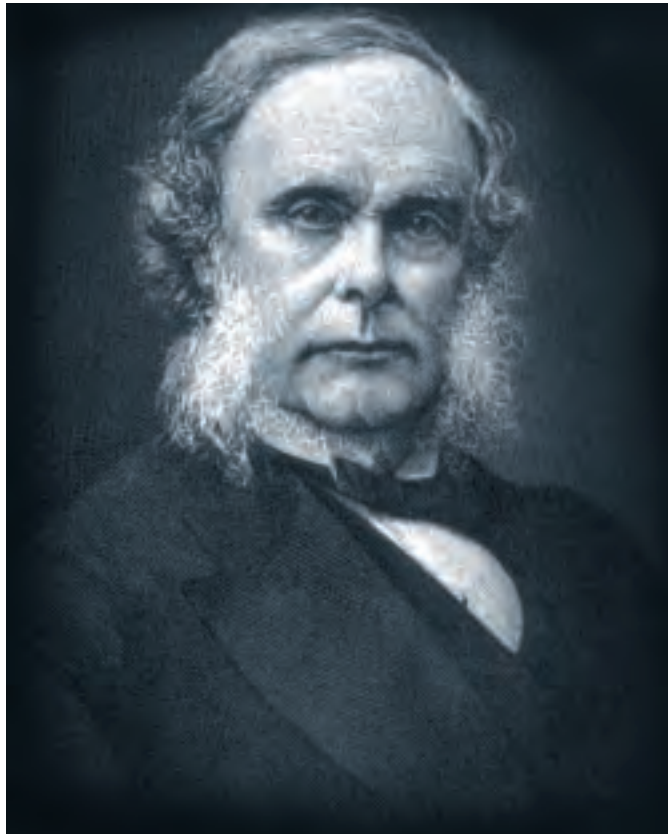


**JOSEPH L. LISTER**  
1827 - 1912

Nació en Upton, Inglaterra en 1827.  
Se graduó en Medicina en Londres.

En 1860 fue nombrado Profesor de Cirugía en Glasgow. Ahí concibió la idea de la asepsia. Los principios se fundaban en la destrucción de todos los microorganismos vivos, principalmente bacterias, que podrían estar en contacto con los tejidos del paciente durante procedimientos operatorios.

Es Lister, quien marca el mayor crédito por la posibilidad de realizar un gran número de operaciones. Esto gracias a la aplicación de una solución de ácido fénico durante el aseo cuidadoso del paciente y esterilización de compresas e instrumentos antes de operar.



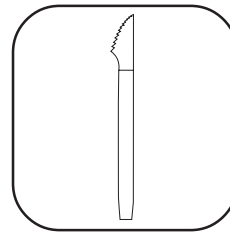
Was born in Upton, England in 1827.

He graduated in Medicine in London. Lister became Professor of Surgery in 1860 in Glasgow. There he started to conceive the idea of the asepsis. He based his ideas on the principle of killing microorganisms, principally bacteria which could contact with the patient's tissue during operative procedure.

It was possible for Lister to realize a large number of operations successfully. Before he started to operate, he cleaned his patients and sterilized the wrapping drapes and instruments with solutions of carbolic acid.

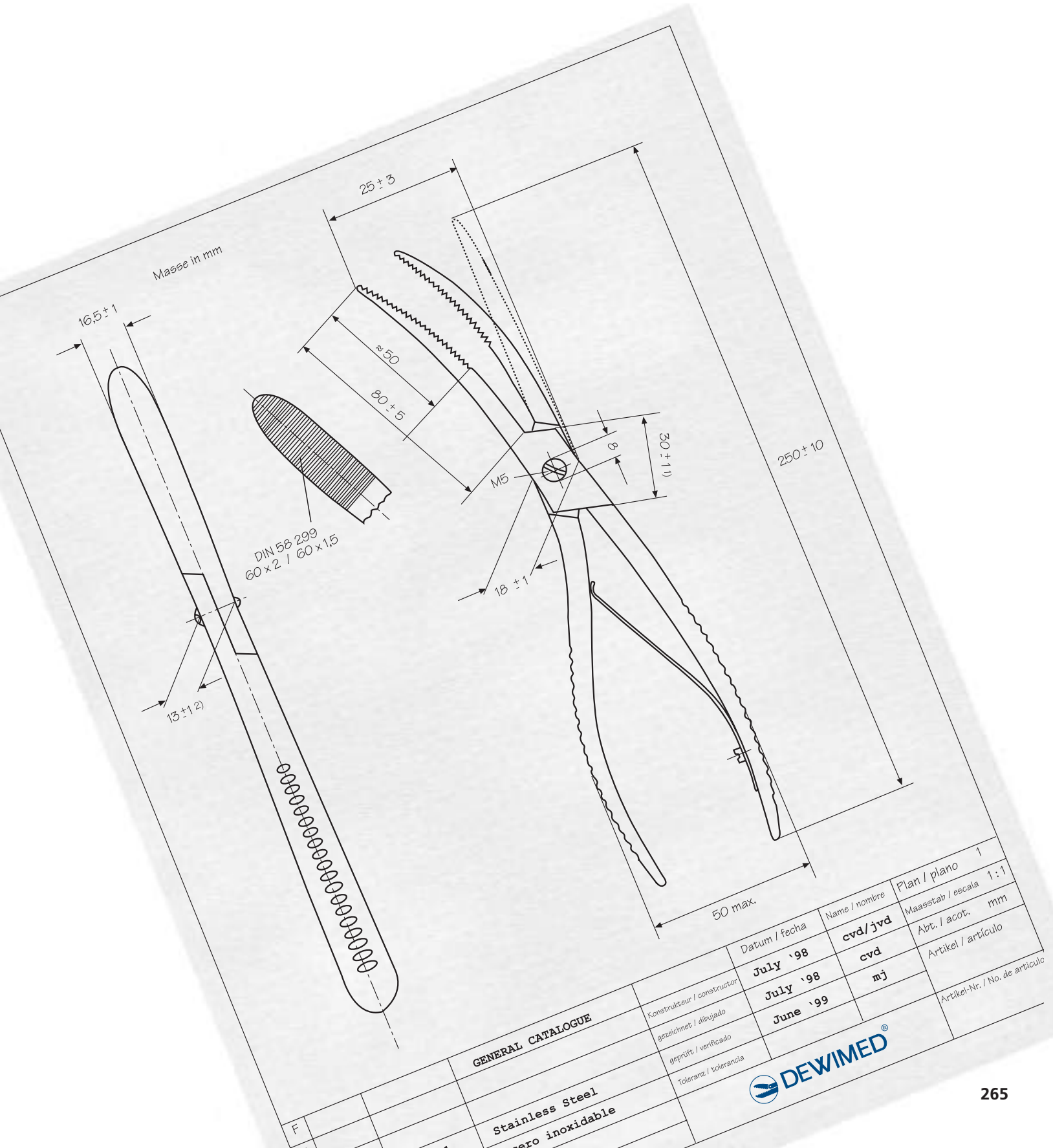
Wurde in Upton, England, 1827 geboren. Sein medizinisches Studium absolvierte er in London. 1860 wurde er zum Professor der Chirurgie in

Glasgow ernannt, wo er auch schon mit dem Gedanken der Asepsis spielte. Die Grundsätze bezogen sich auf die Vernichtung von Mikroorganismen, hauptsächlich Bakterien, die bei Operationen mit den Geweben des Patienten in Kontakt treten können. Lister hat es somit ermöglicht, eine Vielzahl von Operationen infektionsfrei zu realisieren. Bevor er operierte, reinigte er seine Patienten und sterilisierte Tücher und Instrumente mit einer Lösung aus Karbolsäure.



# 30

Plaster-of-Paris  
Vendajes Enyesados  
Gipsverbände



GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
	gezeichnet / dibujado	July '98	cvd/jvd	Maasstab / escala 1:1
	geprüft / verificado	July '98	cvd	Abt. / acot. mm
	Toleranz / tolerancia	June '99	mj	Artikel / artículo
				Artikel-Nr. / No. de artículo





**SMILE**  
30.101.24  
24 cm



**SMILE**  
30.103.23 - 30.103.37

cm

23	30.103.23
26	30.103.26
37	30.103.37



**SEUTIN**  
30.104.23  
23 cm



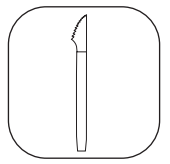
**WIGMORE**  
30.120.19  
19 cm



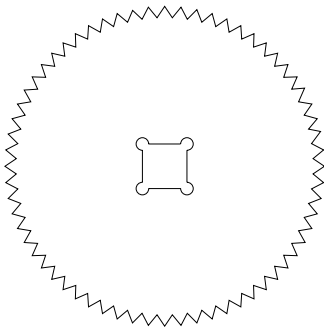
**ENGEL**  
30.130.14



**BERGMANN**  
30.134.18



**30.210.21**  
110V  
**30.210.22**  
220 V



Ø mm

50	normal	30.210.50
65	normal	30.210.65
50	hard	30.211.50
65	hard	30.211.65

**30.210.50 - 30.211.65**



**30.212.02**





**HENNIG**  
30.350.28  
28 cm



**BEESON**  
30.360.30  
30 cm



**HAGLUND STILLE**  
30.362.28  
28 cm



**30.366.23**  
23 cm



**HOPKINS**  
30.370.20  
20 cm



**ESMARCH**  
30.380.18  
18 cm



**REINER**  
30.390.18  
18 cm



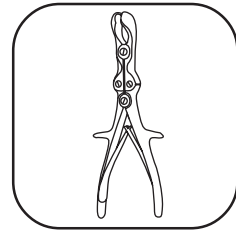
**WOLFF**  
30.395.18  
18 cm  
30.397.24  
24 cm



30.395.18

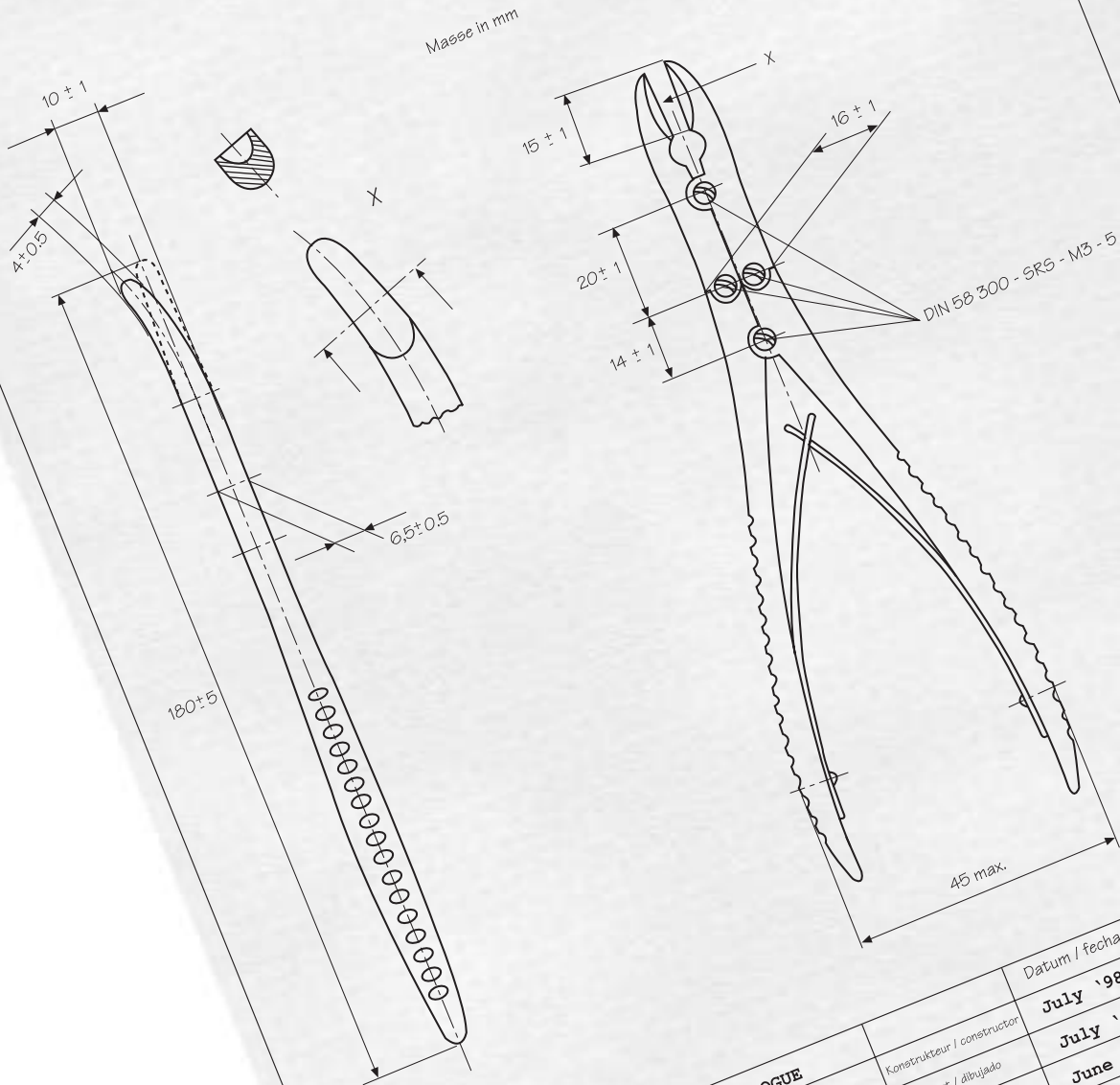


30.397.24



# 32

Bone Surgery  
Cirugía Ósea  
Knochenchirurgie



GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
	gezeichnet / dibujado	July '98	cvd/jvd	Maasstab / escala 1:1
	geprüft / verificado	July '98	cvd	Abt. / acot. mm
	Toleranz / tolerancia	June '99	mj	Artikel / articulo
				Artikel-Nr. / No. de articulo

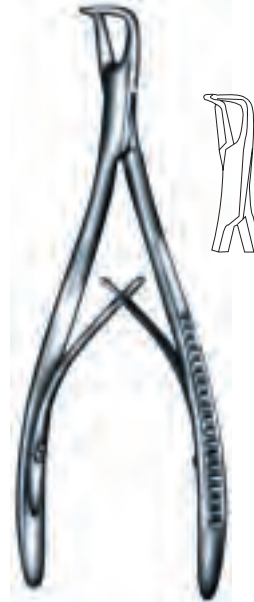




**FRIEDMAN mini**  
32.101.12  
12 cm



**FRIEDMAN**  
32.101.14  
14 cm



**FRIEDMAN**  
32.102.14  
14 cm



**FRIEDMAN**  
32.102.15  
15 cm



**CLEVELAND**  
32.103.14 - 32.105.17

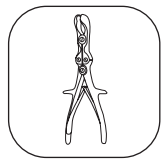
14	32.103.14
17	32.105.17



**MEAD**  
32.107.16  
16 cm



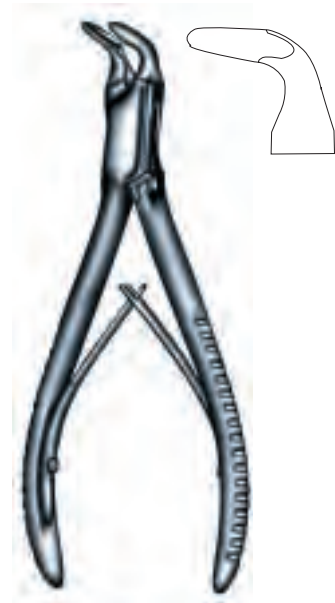
**MEAD**  
32.109.16  
16 cm



**BLUMENTHAL**  
 32.115.15  
 15 cm



**BLUMENTHAL**  
 32.117.15  
 15 cm



**BLUMENTHAL**  
 32.119.15  
 15 cm



**LUER**  
 32.131.15  
 15 cm



**LUER**  
 32.133.15  
 15 cm



**LUER**  
 32.136.17 - 32.137.17  
 17 cm



**ADSON**  
 32.142.20 - 32.143.20  
 20 cm



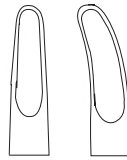
**OLIVECRONA**  
 32.147.20  
 20 cm





cm

16.0	32.150.16	32.151.16
18.5	32.154.18	32.155.18



**LEMPERT**  
32.150.16 - 32.155.18



**HAKANSSON**  
32.157.17  
17 cm



**BEYER**  
32.159.18  
18 cm



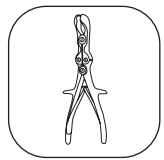
mm

2	32.161.02
3	32.161.03

**BEYER**  
32.161.02 - 32.161.03  
17 cm



**BACON**  
32.165.20  
20 cm



cm

19.0	32.167.19
20.5	32.169.20

**JANSEN**  
 32.167.19 - 32.169.20



**BEYER**  
 32.201.18  
 18 cm



**ZAUFAL JANSEN**  
 32.205.18  
 18 cm



**MAYFIELD**  
 32.207.17  
 17 cm



**BOEHLER**  
 32.210.15 - 32.213.15  
 15 cm

mm

2	32.210.15	32.211.15
3	32.212.15	32.213.15



**RUSKIN**  
 32.216.18  
 18 cm





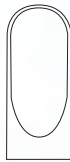
**RUSKIN**  
32.217.18  
18 cm



**RUSKIN**  
32.219.23  
23 cm



**RUSKIN**  
32.221.18  
18 cm



cm

22	32.230.22
26	32.230.26

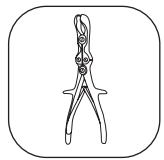
**STILLE LUER**  
32.230.22 - 32.230.26



cm

22	32.231.22
26	32.231.26

**STILLE LUER**  
32.231.22 - 32.231.26



**STILLE LUER**  
 32.232.23  
 23 cm



cm

23	32.233.23
27	32.233.27

**STILLE LUER**  
 32.233.23 - 32.233.27

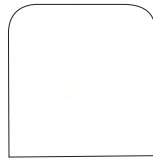


**STILLE LUER**  
 32.235.23  
 23 cm

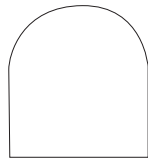


**STILLE RUSKIN**  
 32.237.23  
 23 cm





20 mm  
32.241.30



30 mm  
32.243.30

**SAUERBRUCH**  
32.241.30 - 32.243.30  
30 cm



mm	
8	32.245.23
5	32.247.23

**LEKSELL STILLE**  
32.245.23 - 32.247.23  
23 cm



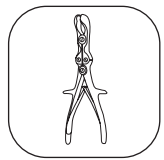
32.249.05



32.249.08

mm	
5	32.249.05
8	32.249.08

**LEKSELL**  
32.249.05 - 32.249.08  
23 cm

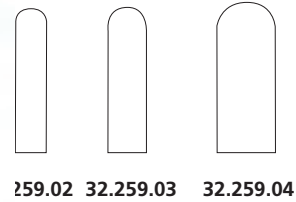


right	32.251.26
left	32.253.26

**SCAGLIETTI**  
 32.251.26 - 32.253.26  
 26 cm



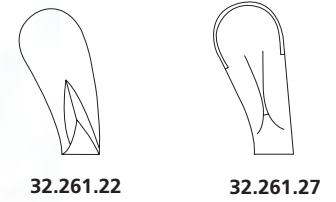
**FRYKHOLM**  
 32.255.24  
 24 cm



mm

2	32.259.02
3	32.259.03
4	32.259.23

**ECHLIN**  
 32.259.02 - 32.259.23  
 23 cm

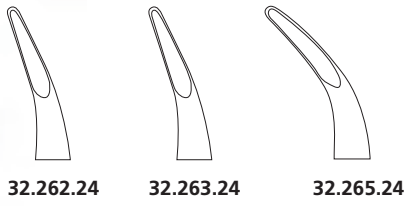


cm

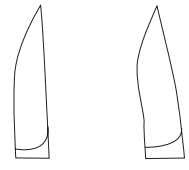
22.5	32.261.22
27.0	32.261.27

**SEMB**  
 32.261.22 - 32.261.27





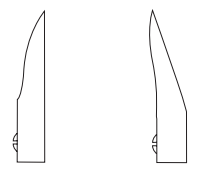
**SMITH PETERSEN**  
32.262.24 - 32.265.24  
24 cm  
3 mm



cm

14	32.274.14	32.275.14
17	32.274.17	32.275.17
19	32.274.19	32.275.19
22	32.274.22	32.275.22

**LISTON**  
32.274.14 - 32.275.22



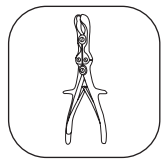
cm

15	32.280.15	32.281.15
----	-----------	-----------

**BOEHLER**  
32.280.15 - 32.281.15



**COTLE KAZANJIAN**  
32.282.19  
19 cm



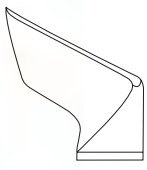
32.289.18

**RUSKIN LISTON**  
 32.286.18 - 32.289.18  
 18.5 cm

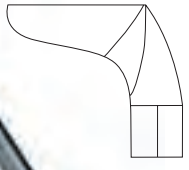


32.291.27

**STILLE LISTON**  
 32.290.27 - 32.291.27  
 27 cm



**STILLE HORSLEY**  
 32.293.27  
 27 cm

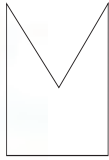


**SEMB**  
 32.295.24  
 24 cm



**FERGUSSON**  
 32.360.21  
 21 cm





**LANGENBECK**  
32.362.21  
21 cm

**SEMB**  
32.364.20  
20 cm

**SEMB**  
32.365.19  
19 cm

**FARABEUF**  
32.366.23 - 32.366.26

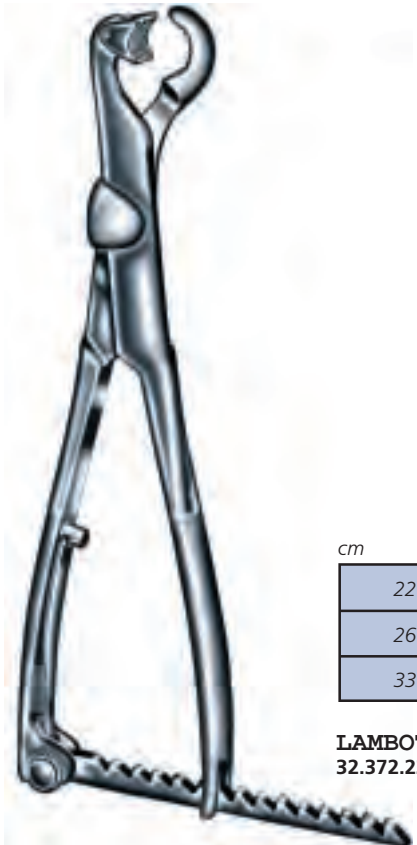
cm	
23	32.366.23
26	32.366.26



**FARABEUF LAMBOTTE**  
32.368.26  
26 cm

**LAMBOTTE**  
32.370.22 - 32.370.30

cm	
22	32.370.22
27	32.370.27
30	32.370.30



cm

22	32.372.22
26	32.372.26
33	32.372.33

**LAMBOTTE**  
 32.372.22 - 32.372.33



cm

19	32.373.19
23	32.373.23
26	32.373.26

**LAMBOTTE**  
 32.373.19 - 32.373.26



cm

15	32.378.15
17	32.378.17
21	32.378.21

**KERN**  
 32.378.15 - 32.378.21

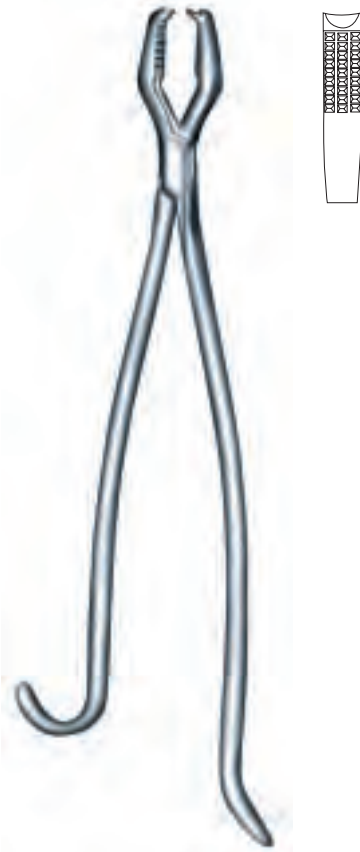


cm

15	32.380.15
17	32.380.17
21	32.380.21

**KERN**  
 32.380.15 - 32.380.21

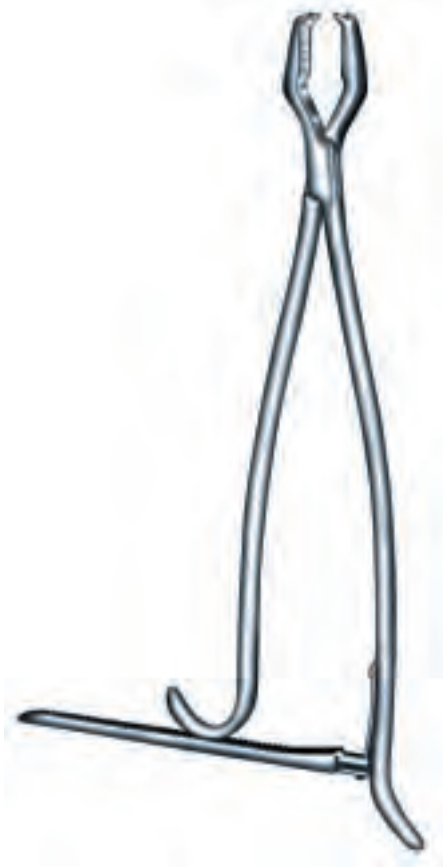




cm

33	32.382.33
45	32.382.45

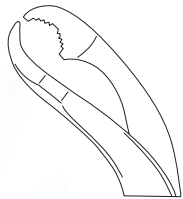
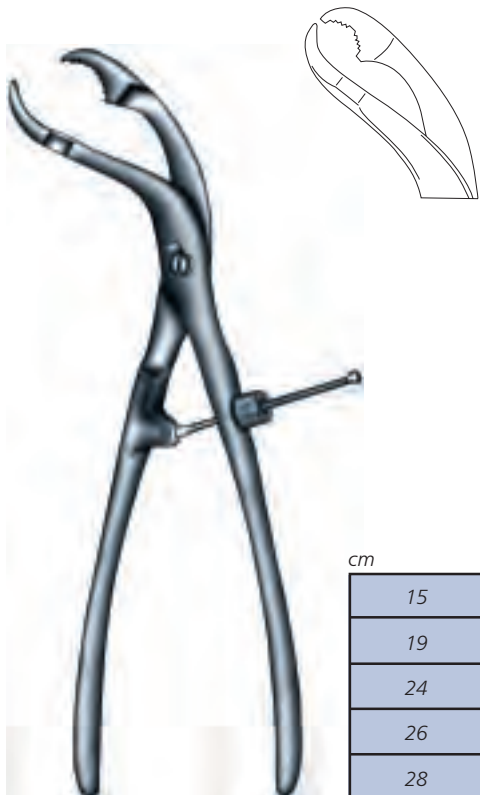
**LANE**  
32.382.33 - 32.382.45



cm

33	32.384.33
45	32.384.45

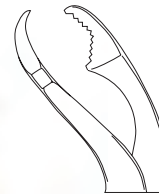
**LANE**  
32.384.33 - 32.384.45



cm

15	32.391.15
19	32.391.19
24	32.391.24
26	32.391.26
28	32.391.28

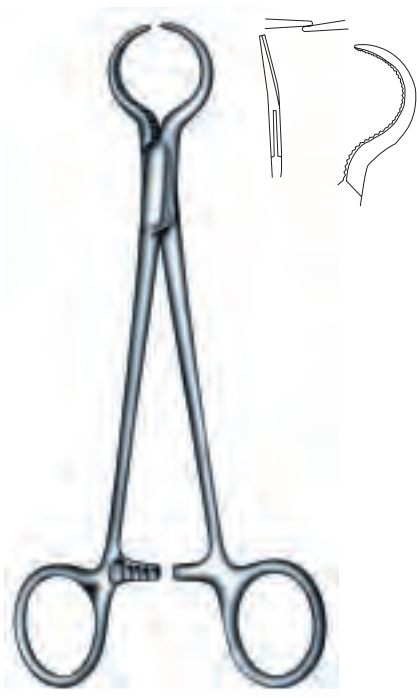
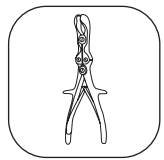
**VERBRUGGE**  
32.391.15 - 32.391.28



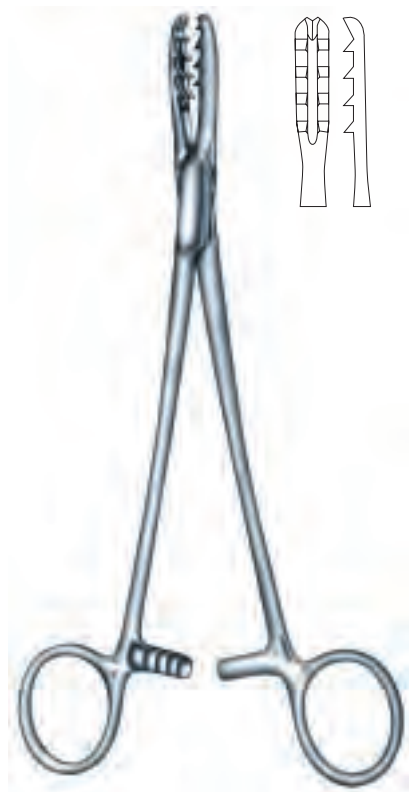
cm

17.5	32.395.17
25.0	32.395.25
26.0	32.395.26
27.0	32.395.27

**VERBRUGGE**  
32.395.17 - 32.395.27



**LEWIN**  
 32.402.17  
 17.5 cm



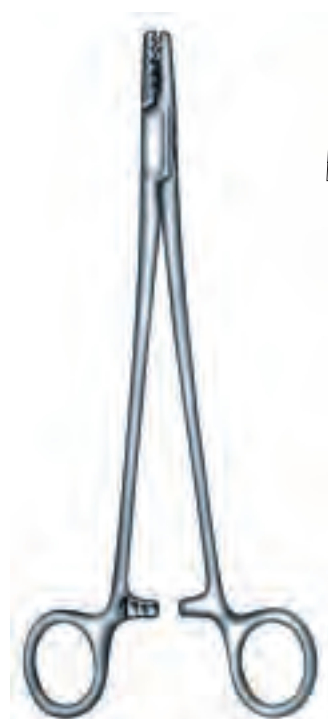
**BIRCHER GANSKE**  
 32.404.20 - 32.405.20  
 20 cm



**DINGMANN**  
 32.407.19  
 19 cm



**32.409.13**  
 13.5 cm



**MARTIN**  
 32.410.16 - 32.410.19

cm	
16	32.410.16
19	32.410.19





**32.420.20**  
20 cm



**32.421.20**  
20 cm



**VAN BUREN**  
**32.423.23**  
23 cm



cm

13.0	32.441.13
18.5	32.441.18
20.0	32.441.20

**LOWMAN**  
32.441.13 - 32.441.20



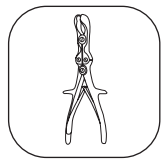
**32.432.18**  
18.5 cm



**32.436.21**  
21 cm



**GERSTER**  
**32.444.15**



**PARHAM**  
 32.446.24  
 24 cm



cm	
18	32.448.18
30	32.448.30

**PARHAM**  
 32.448.18 - 32.448.30



32.450.01  
 adult  
 32.450.02  
 child



32.462.07



32.462.02



32.462.08



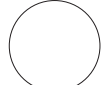
32.462.03



32.462.10



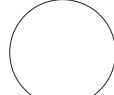
32.462.04



32.462.12



32.462.05



32.462.14



32.462.06

$\varnothing$ mm		cm
2	32.462.02	17.0
3	32.462.03	17.0
4	32.462.04	17.0
5	32.462.05	17.5
6	32.642.06	17.5
7	32.642.07	18.0
8	32.642.08	18.0
10	32.642.10	18.0
12	32.462.12	20.0
14	32.462.14	20.0



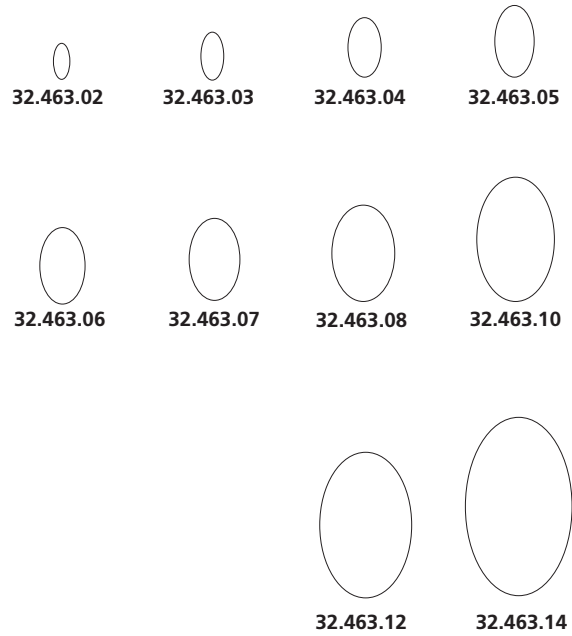
32.462.02 - 32.462.14





cm

	ø mm	cm
2	32.463.02	18.0
3	32.463.03	18.0
4	32.463.04	18.5
5	32.463.05	18.5
6	32.463.06	18.5
7	32.463.07	19.0
8	32.463.08	20.0
10	32.463.10	21.0
12	32.463.12	21.0
14	32.463.14	22.0



**SWEDEN**  
32.463.02 - 32.463.14

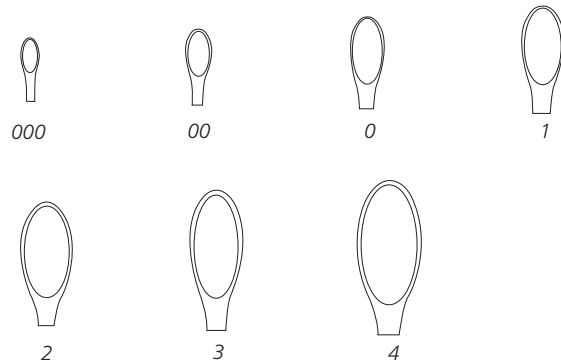


fig.

000	32.467.97
00	32.467.98
0	32.468.00
1	32.468.01
2	32.468.02
3	32.468.03
4	32.468.04

**SCHEDE**  
32.467.97 - 32.468.04  
17 cm

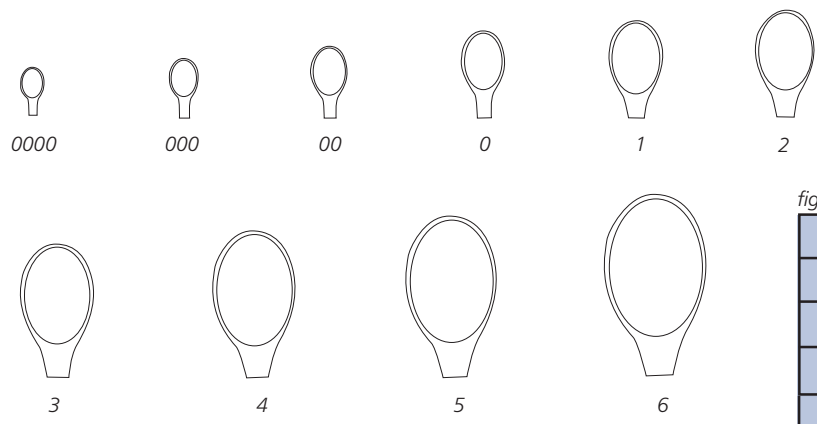
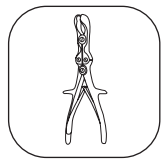


fig.

0000	32.469.96
000	32.469.97
00	32.469.98
0	32.470.00
1	32.470.01
2	32.470.02
3	32.470.03
4	32.470.04
5	32.470.05
6	32.470.06



**VOLKMANN**  
 32.469.96 - 32.470.06  
 17 cm

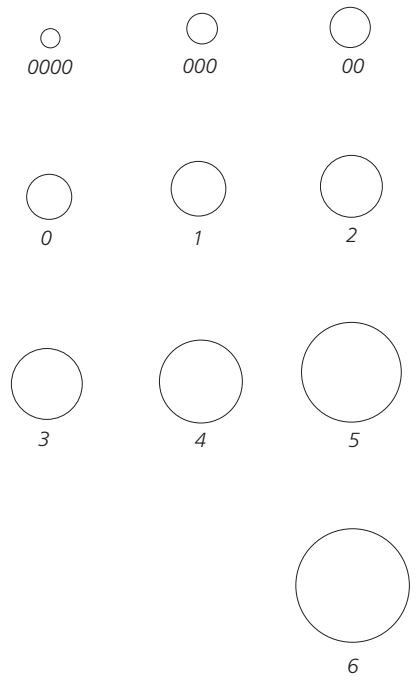


fig.

0000	32.471.96
000	32.471.97
00	32.471.98
0	32.472.00
1	32.472.01
2	32.472.02
3	32.472.03
4	32.472.04
5	32.472.05
6	32.472.06



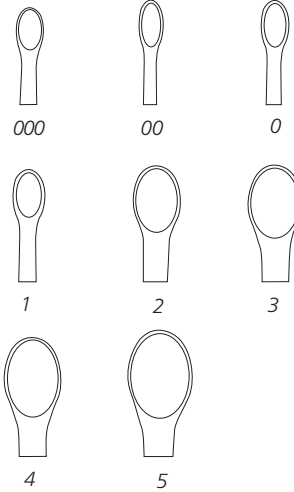
**BRUNS**  
 32.471.96 - 32.472.06  
 17 cm





fig.

000	32.474.97
00	32.474.98
0	32.475.00
1	32.475.01
2	32.475.02
3	32.475.03
4	32.475.04
5	32.475.05



**SPRAIT**  
32.474.97 - 32.475.05  
18 cm

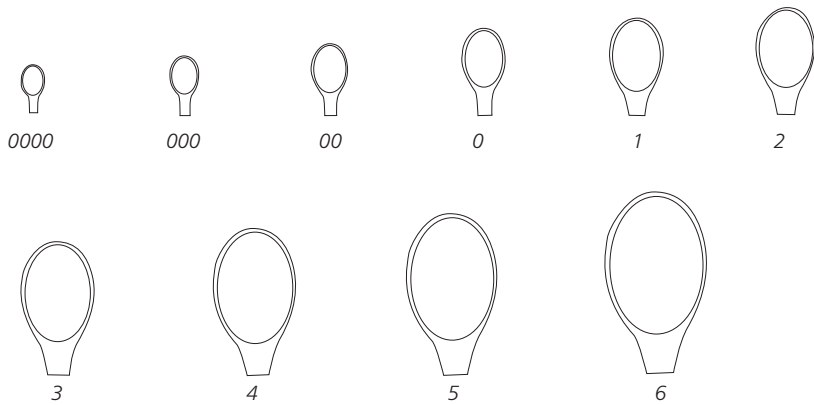


fig.

32.476.96	0000	32.478.96
32.476.97	000	32.478.97
32.476.98	00	32.478.98
32.477.00	0	32.479.00
32.477.01	1	32.479.01
32.477.02	2	32.479.02
32.477.03	3	32.479.03
32.477.04	4	32.479.04
32.477.05	5	32.479.05
32.477.06	6	32.479.06

**BRUNS**  
32.476.96 - 32.477.06  
23 cm



**BRUNS**  
32.478.96 - 32.479.06  
23 cm

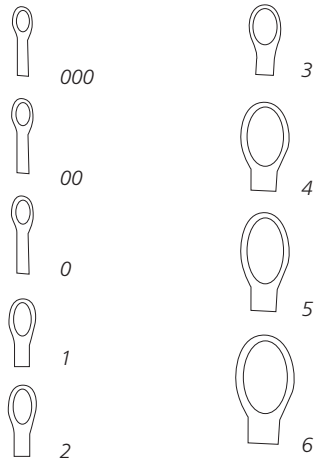
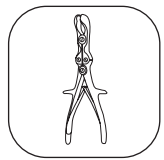


fig.

000	32.480.97
00	32.480.98
0	32.481.00
1	32.481.01
2	32.481.02
3	32.481.03
4	32.481.04
5	32.481.05
6	32.481.06



**BRUNS**  
 32.480.97 - 32.481.06  
 23 cm

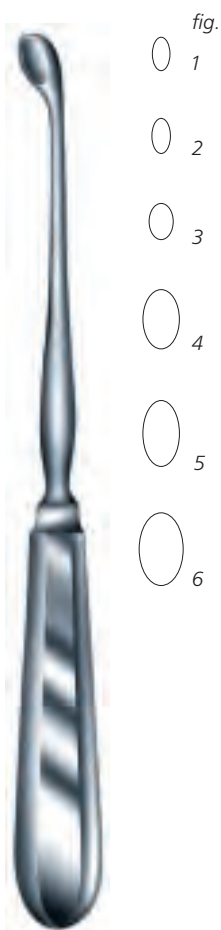


fig.

1	32.485.01
2	32.485.02
3	32.485.03
4	32.485.04
5	32.485.05
6	32.485.06

**SIMON**  
 32.485.01 - 32.485.06  
 24 cm

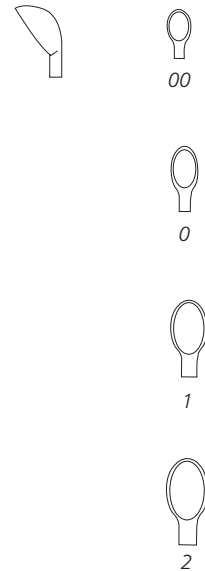


fig.

00	32.486.99
0	32.487.00
1	32.487.01
2	32.487.02

**DAUBENSPECK**  
 32.486.99 - 32.487.02  
 17.5 cm





fig.

0	32.490.10
00	32.490.20
000	32.490.30
0000	32.490.40
00000	32.490.50

**LEMPERT**  
32.490.10 - 32.490.50  
17.5 cm



fig.

1	32.491.01
2	32.491.02
3	32.491.03

**HALLE**  
32.491.01 - 32.491.03  
21 cm



cm

13	32.492.13
16	32.492.16
20	32.492.20

**VOLKMANN**  
32.492.13 - 32.492.20



cm

13	34.494.13
16	32.494.14
20	32.494.17

**VOLKMANN**  
32.494.13 - 32.494.17

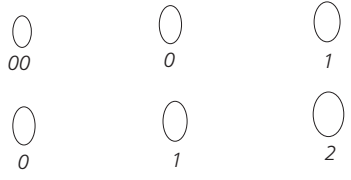
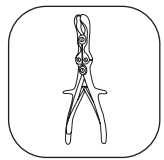


fig.

32.496.00	00/0	32.498.00
32.496.01	0/1	32.498.01
32.496.12	1/2	32.498.12

**WILLIGER**  
 32.496.00 - 32.496.12  
 13.5 cm



**MARTINI**  
 32.498.00 - 32.498.12  
 13.5 cm

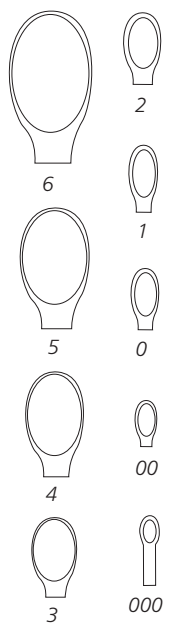
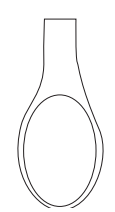
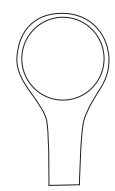


fig.

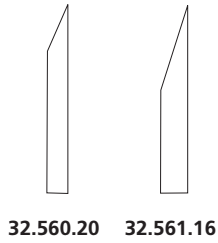
000	32.501.00
00	32.502.00
0	32.503.00
1	32.503.01
2	32.503.02
3	32.503.03
4	32.503.04
5	32.503.05
6	32.503.06

**COBB**  
 32.501.00 - 32.503.06  
 28 cm



32.502.21  
 21 cm





32.560.20 32.561.16

cm	mm	
24	20	32.560.20
26	16	32.561.16

32.560.20 - 32.561.16



mm		
10	32.563.10	32.565.10
15	32.563.15	32.565.15

**LEXER**  
32.563.10 - 32.565.15  
28 cm



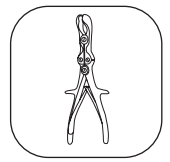
mm	
7	32.570.05
10	32.570.09

**LEXER**  
32.570.05 - 32.570.09  
28.5 cm



mm	curved forth	curved back	straight
9	32.571.09	32.573.09	32.575.09
15	32.571.15	32.573.15	32.575.15
30	32.571.30	32.573.30	32.575.30

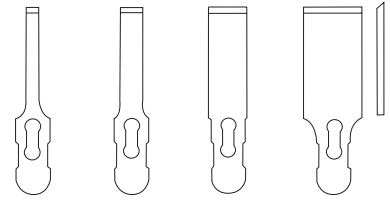
**WARNER**  
32.571.09 - 32.575.30



mm

2	32.582.02
3	32.582.03
4	32.582.04
5	32.582.05
6	32.582.06
8	32.582.08
10	32.582.10

**MAZO**  
 32.582.02 - 32.582.10  
 15.5 cm



mm

5	32.580.05
10	32.580.10
16	32.580.16
25	32.580.25
25 x 78	32.580.78
25 r= 5	32.581.50
25 r= 6	32.581.60
25 r= 7	32.581.70

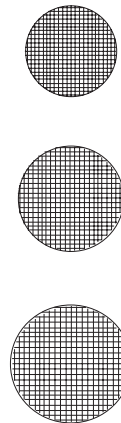
handpiece only  
 32.580.00  
 18 cm  
 blades  
 32.580.05 - 32.581.70



ø / mm

3	32.584.03
5	32.584.05
8	32.584.08

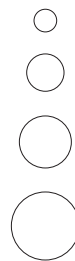
**CASPAR**  
 32.584.03 - 32.584.08  
 20 cm



ø / mm

12	32.586.12
14	32.586.14
16	32.586.16

32.586.12 - 32.586.16



ø / mm

3	32.588.03
5	32.588.05
7	32.588.07
9	32.588.09

32.588.03 - 32.588.09  
 16 cm





mm

8	32.602.08
10	32.602.10
12	32.602.12
14	32.602.14
16	32.602.16

**32.602.08 - 32.602.16**  
13.5 cm



mm

8	32.604.08
10	32.604.10
12	32.604.12
14	32.604.14
16	32.604.16

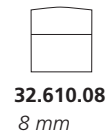
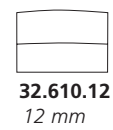
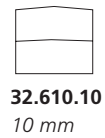
**32.604.08 - 32.604.16**  
13.5 cm



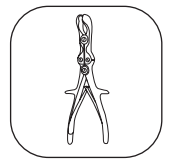
mm

8	32.605.08
10	32.605.10
12	32.605.12
14	32.605.14
16	32.605.16

**32.605.08 - 32.605.16**  
13.5 cm



**ALEXANDER**  
**32.610.04 - 32.610.14**  
17 cm



mm

4	32.611.04
6	32.611.06
8	32.611.08
10	32.611.10
12	32.611.12
14	32.611.14

**ALEXANDER**  
 32.611.04 - 32.611.14  
 17 cm



mm

13.5 cm

17 cm

mm	13.5 cm	17 cm
2	32.620.02	32.622.02
3	32.620.03	32.622.03
4	32.620.04	32.622.04
5	32.620.05	32.622.05
6	32.620.06	32.622.06
7	32.620.07	32.622.07
8	32.620.08	32.622.08
10	32.620.10	
12	32.620.12	

**PARTSCH**  
 32.620.02 - 32.622.08



mm

13.5 cm

17 cm

mm	13.5 cm	17 cm
2	32.623.02	32.625.02
3	32.623.03	32.625.03
4	32.623.04	32.625.04
5	32.623.05	32.625.05
6	32.623.06	32.625.06
7	32.623.07	32.625.07
8	32.623.08	32.625.08

**PARTSCH**  
 32.623.02 - 32.625.08



mm

10	32.630.10
12	32.630.12
15	32.630.15
20	32.630.20
25	32.630.25

**STILLE**  
 32.630.10 - 32.630.25  
 20 cm





mm

8	32.632.08
10	32.632.10
15	32.632.15
20	32.632.20
25	32.632.25

**STILE**  
32.632.08 - 32.632.25  
20 cm



mm

10	32.633.10
15	32.633.15
20	32.633.20
25	32.633.25

**STILE**  
32.633.10 - 32.633.25  
20 cm



cm

0.6	32.634.06
0.9	32.634.09
1.3	32.634.13
1.6	32.634.16
1.9	32.634.19
2.5	32.634.25
3.2	32.634.32

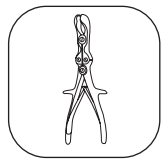
**SMITH PETERSON**  
32.634.06 - 32.634.32  
20 cm



mm

6	32.635.06
9	32.635.09
13	32.635.13
16	32.635.16
19	32.635.19
25	32.635.25
32	32.635.32

**SMITH PETERSEN**  
32.635.06 - 32.635.32  
20 cm



mm

6	32.637.06
9	32.637.09
13	32.637.13
16	32.637.16
19	32.637.19
25	32.637.25
32	32.637.32

**SMITH PETERSEN**  
 32.637.06 - 32.637.32  
 20 cm



mm

6	32.639.06
9	32.639.09
13	32.639.13
16	32.639.16
19	32.639.19
25	32.639.25
32	32.639.32

**SMITH PETERSEN**  
 32.639.06 - 32.639.32  
 20 cm



mm

6.5	32.650.06
15.0	32.650.15
20.0	32.650.20
25.0	32.650.25
30.0	32.650.30
38.0	32.650.38
44.0	32.650.44

**LAMBOTTE**  
 32.650.06 - 32.650.44  
 24 cm



mm

6.5	32.651.06
15.0	32.651.15
20.0	32.651.20
25.0	32.651.25
30.0	32.651.30
38.0	32.651.38
44.0	32.651.44

**LAMBOTTE**  
 32.651.06 - 32.651.44  
 23 cm





mm

3	32.654.03
4	32.654.04
6	32.654.06
8	32.654.08
10	32.654.10
12	32.654.12
15	32.654.15

**LAMBOTTE mini**  
32.654.03 - 32.654.15  
12.5 cm



mm

7	32.660.07
10	32.660.10
15	32.660.15
20	32.660.20
25	32.660.25
30	32.660.30

**LEXER**  
32.660.07 - 32.660.30  
22 cm



mm

7	32.661.07
10	32.661.10
15	32.661.15
20	32.661.20
25	32.661.25
30	32.661.30

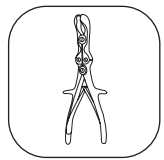
**LEXER**  
32.661.07 - 32.661.30  
22 cm



mm

4	32.664.04
6	32.664.06
8	32.664.08
10	32.664.10
12	32.664.12

**LEXER mini**  
32.664.04 - 32.664.12  
18 cm



*mm*

4	32.665.04
6	32.665.06
8	32.665.08
10	32.665.10
12	32.665.12

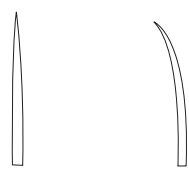
**LEXER mini**  
 32.665.04 - 32.665.12  
 18 cm



*mm*

3	32.668.03
5	32.668.05
6	32.668.06
8	32.668.08
9	32.668.09

**HOKE**  
 32.668.03 - 32.668.09  
 17 cm



*mm*

6	32.670.06	32.671.06
3	32.670.13	32.671.13
9	32.670.19	32.671.19
25	32.670.25	32.671.25
32	32.670.32	32.671.32

**HIBBS**  
 32.670.06 - 32.671.32  
 24 cm

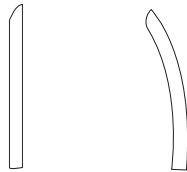


*mm*

6	32.672.06
3	32.672.13
19	32.672.19
25	32.672.25
32	32.672.32

**HIBBS**  
 32.672.06 - 32.672.32  
 24 cm





mm

6	32.673.06	32.675.06
13	32.673.13	32.675.13
19	32.673.19	32.675.19
25	32.673.25	32.675.25
32	32.673.32	32.675.32

**HIBBS**  
32.673.06 - 32.675.32  
24 cm



**LEBSCHKE**  
32.678.24  
24.5 cm



**32.679.22**  
22 cm



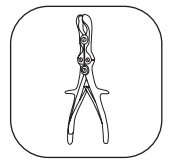
**VIRCHOW**  
32.680.12  
12 cm



**BRUNETTI**  
32.681.28  
28 cm



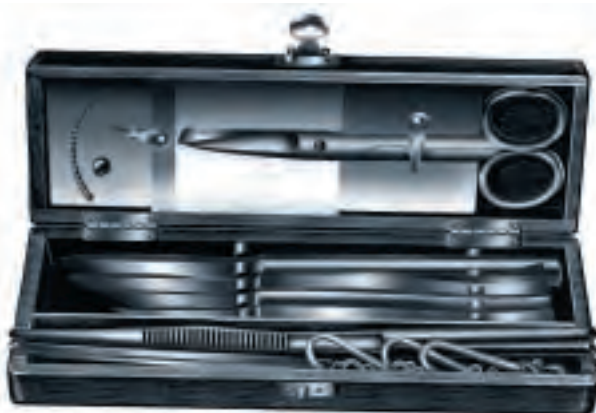
**BRUNETTI**  
32.683.28  
28 cm



**POST MORTEN set**  
32.684.00



**plastic**  
32.685.01  
*large*  
32.685.02  
*small*



**wood**  
32.685.03  
*large*  
32.685.04  
*small*



**GERZOG**  
**32.686.25**  
18 cm / 250 g



**KIRK**  
**32.688.75**  
19 cm / 750 g



**32.690.45 - 32.690.90**  
26.5 cm

g	
450	<b>32.690.45</b>
900	<b>32.690.90</b>



**32.691.14**  
2 interchangeable faces  
160 g  
**32.691.99**  
pair of spare



**32.693.35 - 32.693.70**  
26 cm

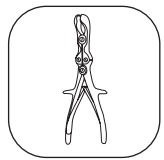
ø / mm	
35	<b>32.693.35</b>
45	<b>32.693.50</b>
50	<b>32.693.70</b>



**COLLIN**  
**32.692.22**  
20 cm 220 g



**WILLIGER**  
**32.694.34**  
24 cm 340 g



cm

3.0	32.695.30
4.5	32.695.45

**BERGMANN**  
 32.695.30 - 32.695.45  
 300 g



**LUCAE**  
 32.696.26  
 19 cm 260 g



**MEAD**  
 32.696.32  
 17 cm

**32.697.02**  
 pair of spare disks



g

250	32.698.25
400	32.698.40

**32.698.25 - 32.698.40**  
 26 cm



**QUISLING**  
 32.698.75  
 17 cm



**32.699.00**  
 23.5 cm





**32.700.01**  
140 g / 20 mm / 16 cm

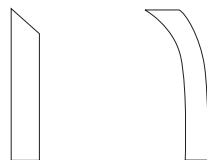
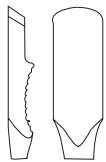


**32.700.02**  
100g / 20 mm / 16 cm



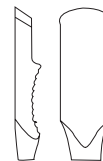
**PARTSCH**  
**32.701.01 - 32.701.02**  
18 cm / ø 22 mm

g	
200	<b>32.701.01</b>
160	<b>32.701.02</b>



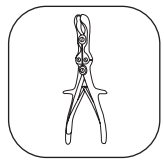
cm		
15	<b>32.702.15</b>	<b>32.703.15</b>

**FARABEUF**  
**32.702.15 - 32.703.15**  
15 cm



cm		
15	<b>32.702.16</b>	<b>32.703.16</b>

**FARABEUF LAMBOTTE**  
**32.702.16 - 32.703.16**  
15 cm



mm

5	32.705.05
10	32.705.10
15	32.705.15
20	32.705.20
25	32.705.25

**LAMBOTTE**  
 32.705.05 - 32.705.25  
 21 cm



mm

10	32.707.10
13	32.707.13
19	32.707.19
25	32.707.25
30	32.707.30

**COBB**  
 32.707.10 - 32.707.30  
 25 cm



**SEDILLOT**  
 32.709.21  
 21 cm



mm

6	32.710.06
9	32.710.09

**MATHIEU**  
 32.710.06 - 32.710.09  
 14 cm



**LANGENBECK**  
 32.711.18  
 18 cm





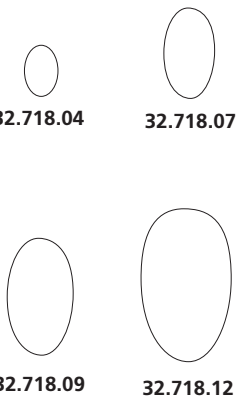
**WILLIGER**  
32.713.16  
16 cm



cm

16	32.715.16
20	32.715.20

**ALEXANDER**  
32.715.16 - 32.715.20



mm

4	32.718.04
7	32.718.07
9	32.718.09
12	32.718.12

**WIBERG**  
32.718.04 - 32.718.12



32.721.17

32.723.17



32.725.17



32.727.17

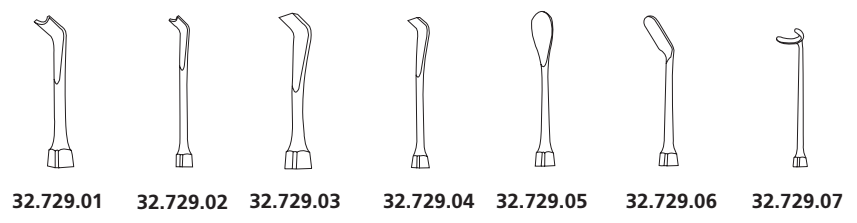
adult	32.721.17
adult	32.723.17
children	32.725.17
children	32.727.17

**DOYEN**  
32.721.17 - 32.727.17  
17 cm



cm

17.5	32.729.01
21.0	32.729.02
17.5	32.729.03
21.0	32.729.04
20.5	32.729.05
20.5	32.729.06
22.5	32.729.07



**SEMB**  
 32.729.01 - 32.729.07



**MATSON ALEXANDER**  
 32.731.22  
 22 cm



**MATSON**  
 32.733.22  
 22 cm



**OVERHOLT**  
 32.735.29  
 29.5 cm



**OVERHOLT**  
 32.737.29  
 29.5 cm





**OVERHOLT**  
32.739.28  
28.5 cm



**LANDOLT**  
32.740.47  
tip 4.7 mm  
17.5 cm



**CASPAR**  
32.741.62  
tip 6.2 mm  
18 cm



**32.743.03**  
tip 3 mm  
**32.743.06**  
tip 6 mm  
17 cm



**SEBILAU**  
32.748.17  
17 cm



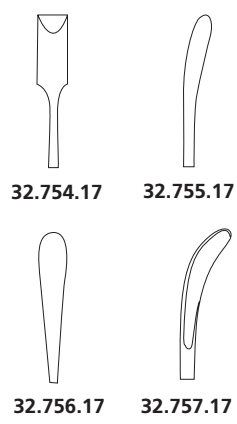
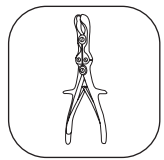
**QUERVAIN**  
32.750.20  
20 cm 0.6 mm



**LANGENBECK**  
32.751.20  
20 cm

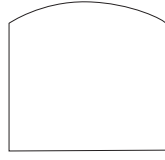


**LANGENBECK**  
32.753.20  
20 cm



32.754.17 32.755.17  
 32.756.17 32.757.17

**ADSON**  
 32.754.17 - 32.757.17  
 17 cm



mm	
6	32.759.06
12	32.759.12
19	32.759.09
25	32.759.25

**KEY**  
 32.759.06 - 32.759.25  
 19 cm



cm	
15	32.760.15
19	32.761.19

**CUSHING**  
 32.760.15 - 32.761.19



**CUSHING**  
 32.762.19  
 19 cm / 5 mm



**CUSHING**  
 32.763.18  
 18 cm / 16 mm



**CUSHING**  
 32.764.18  
 18 cm / 16 mm



**WARSON CHEYNE**  
 32.765.17  
 17.5 cm





**McDONALD**  
32.767.19  
19 cm



**MURPHY LANE**  
32.769.30  
30 cm



**BENNETT**  
32.771.71  
65 x 260 mm



**BENNETT**  
32.771.73  
45 x 260 mm



**32.774.14**  
14 cm



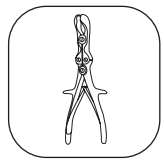
**32.775.14**  
14 cm



**32.777.13**  
13 cm



**32.778.06**  
18.5 cm



**32.779.06**  
 18.5 cm  
 6 mm



**32.781.06**  
 18.5cm 6mm



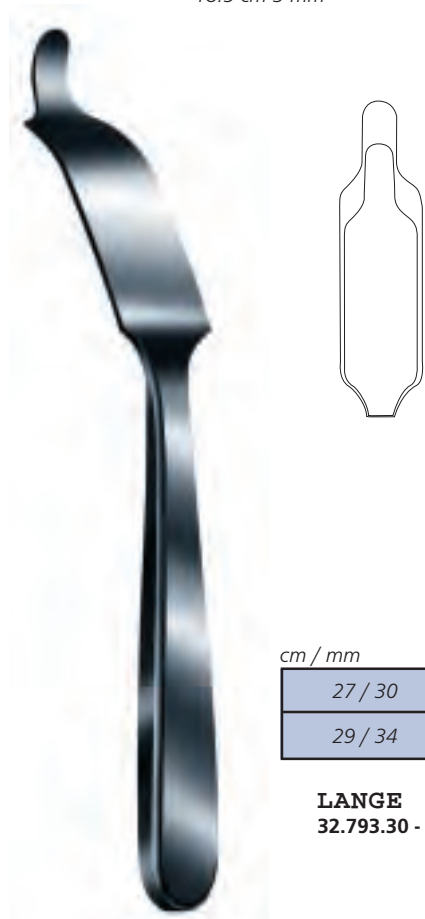
**32.783.03**  
 18.5 cm 3 mm



**LANGE baby**  
**32.791.17**  
 17 cm



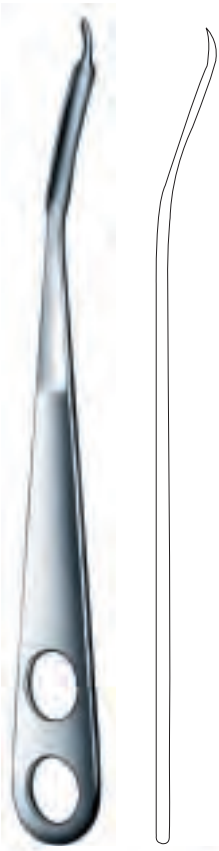
**LANGE**  
**32.792.22**  
 22 cm / 22 mm



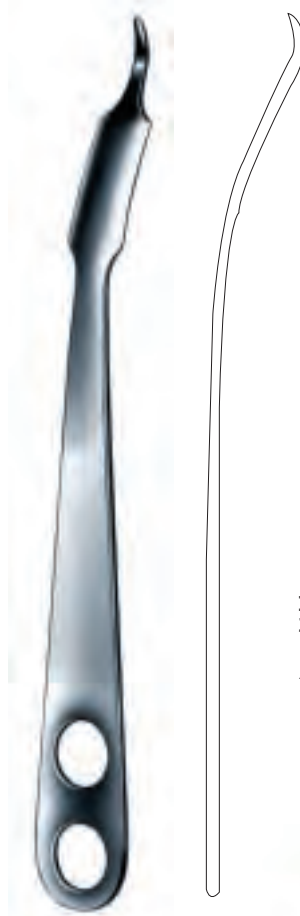
cm / mm	
27 / 30	<b>32.793.30</b>
29 / 34	<b>32.793.34</b>

**LANGE HOHMANN**  
 32.793.30 - 32.793.34





**HOHMANN**  
**32.801.08**  
Tip 8 mm  
22 cm



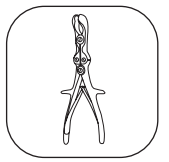
**HOHMANN**  
**32.801.18**  
Tip 18 mm  
24 cm



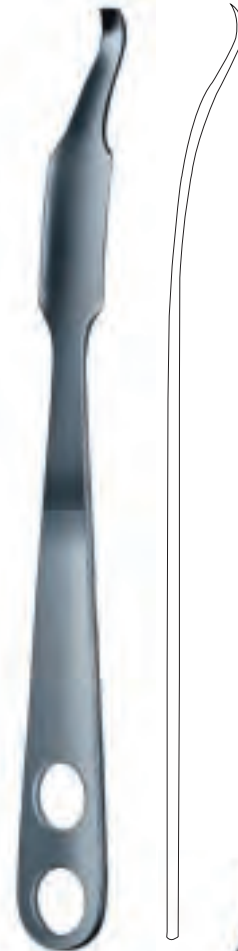
**HOHMANN**  
**32.801.43**  
Tip 4.3 cm  
24 cm



**HOHMANN**  
**32.801.70**  
Tip 7 cm  
25 cm



**HOHMANN**  
**32.803.43**  
tip 4.3 cm



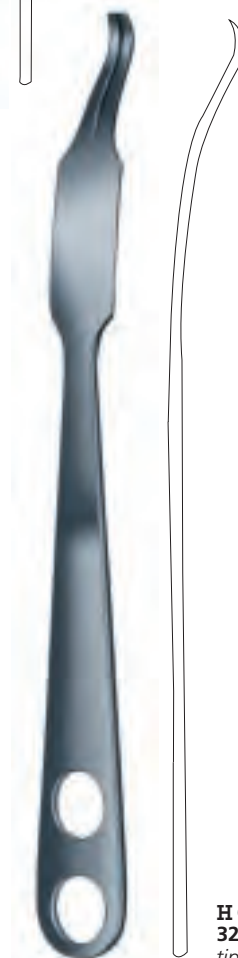
**HOHMANN**  
**32.805.22**  
tip 2.2 cm  
26 cm



**HOHMANN**  
**32.805.33**  
tip 3.3 cm  
29 cm

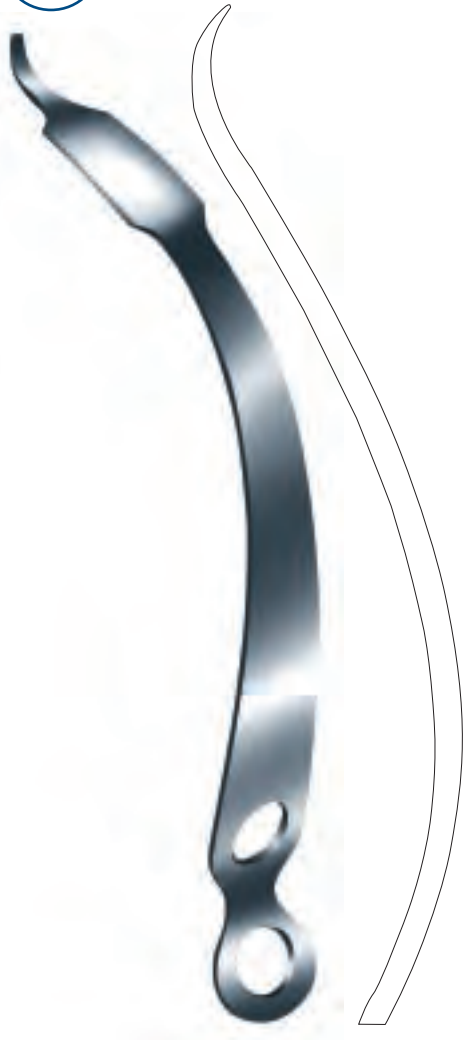


**HOHMANN**  
**32.807.24**  
tip 2.4cm  
27 cm



**HOHMANN**  
**32.809.22**  
tip 2.2 cm





**HOHMANN ALDINGER**  
32.810.24  
24 cm



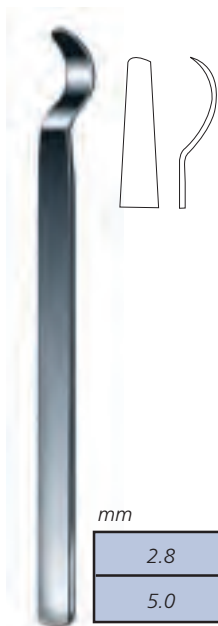
mm

6	32.811.06
8	32.811.08

**HOHMANN mini**  
32.811.06 - 32.811.08  
16 cm



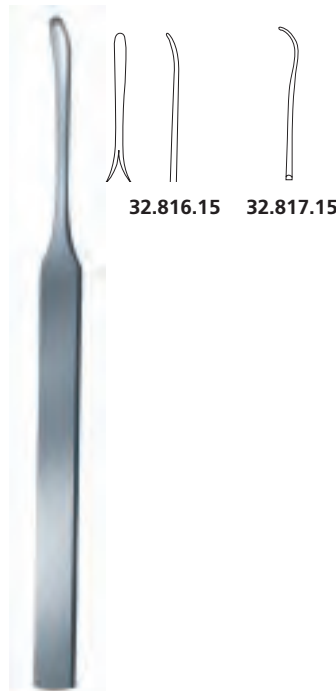
**BUCK GRAMCKO**  
32.813.15  
tip 2 mm  
15 cm



mm

2.8	32.815.05
5.0	32.815.06

32.815.05 - 32.815.06  
14 cm



32.816.15 32.817.15

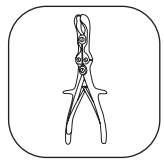
**KOENIG**  
32.816.15 - 32.817.15  
15.5 cm



**BLOUNT**  
32.823.26  
26 cm



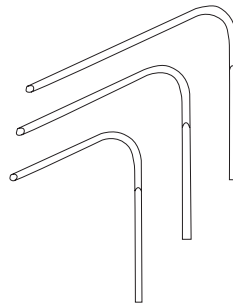
**BLOUNT**  
32.825.26  
26 cm



**BLOUNT**  
 32.827.17  
 17.5 cm

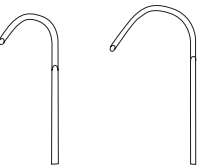


**SMILLIE**  
 32.828.32 - 32.828.60  
 14 cm



mm

19 x 32	32.828.32
19 x 45	32.828.45
19 x 60	32.828.60



cm

1.3 x 1.5	32.829.15
1.3 x 2.5	32.829.25
1.3 x 5.5	32.829.55

**SMILLIE**  
 32.829.15 - 32.828.55  
 14 cm



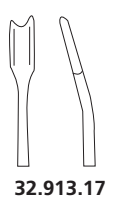
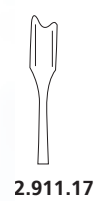
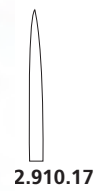
**TAYLOR**  
 32.831.16 - 32.833.16  
 16.5 cm

mm

75 x 30	32.831.16
100 x 30	32.833.16

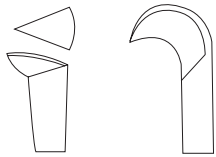


**LANE**  
 32.835.27  
 21 cm



**SMILLIE**  
 32.910.17 - 32.913.17  
 17 cm

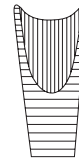




cm

19	32.915.19	32.917.19
----	-----------	-----------

**BIRCHER**  
32.915.19 - 32.917.19



**DOWNING**  
32.919.25  
25 cm



32.921.22



32.923.22

Fig. 0

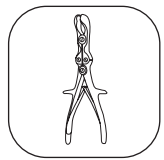
**NEFF**  
32.921.22 - 32.923.22  
22 cm



**CANADA**  
32.925.20  
20 cm

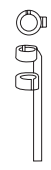


**CANADA**  
32.927.20  
20 cm



- 32.950.01
- 32.950.02
- 32.950.03
- 32.950.04
- 32.950.05

**BUNNELL**  
 32.950.01 - 32.950.05  
 15 cm



**FISCHER**  
 32.952.31  
 31 cm



**32.971.24**  
 24.5 cm



**32.972.22**  
 22 cm



**PETTI**  
 32.973.27  
 27 cm



**PETTI**  
 32.975.30  
 30 cm

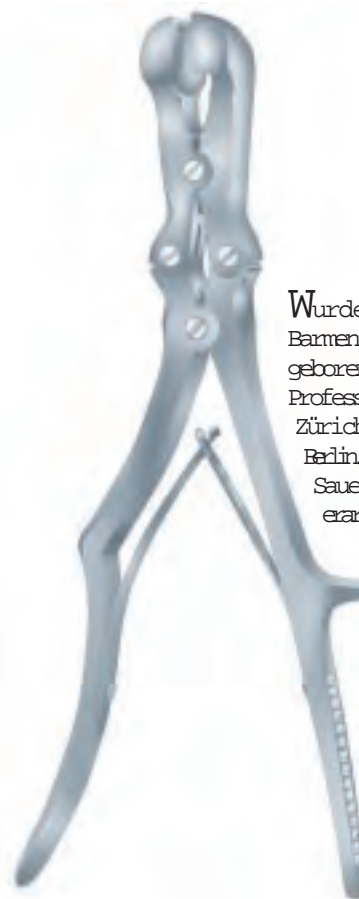




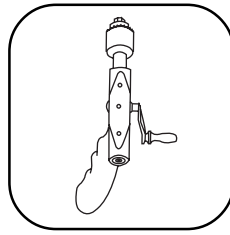
**FERDINAND SAUERBRUCH**  
1875 -1954

Was born in Barmen, Wuppertal, Germany in 1875. He was professor in Marburg, Zürich, Munich and Berlin. Sauerbruch developed basic methods for the thorax organ surgery. He also made movable prothesis possible, through the muscles of the stump.

Nació en 1875 en Barmen, Wuppertal, Alemania. Fue profesor en Marburg, Zürich, Munich y Berlín. Sauerbruch desarrolló métodos básicos para la intervención a órganos del tórax y creó la posibilidad de mover prótesis a través del movimiento de los músculos del muñón.

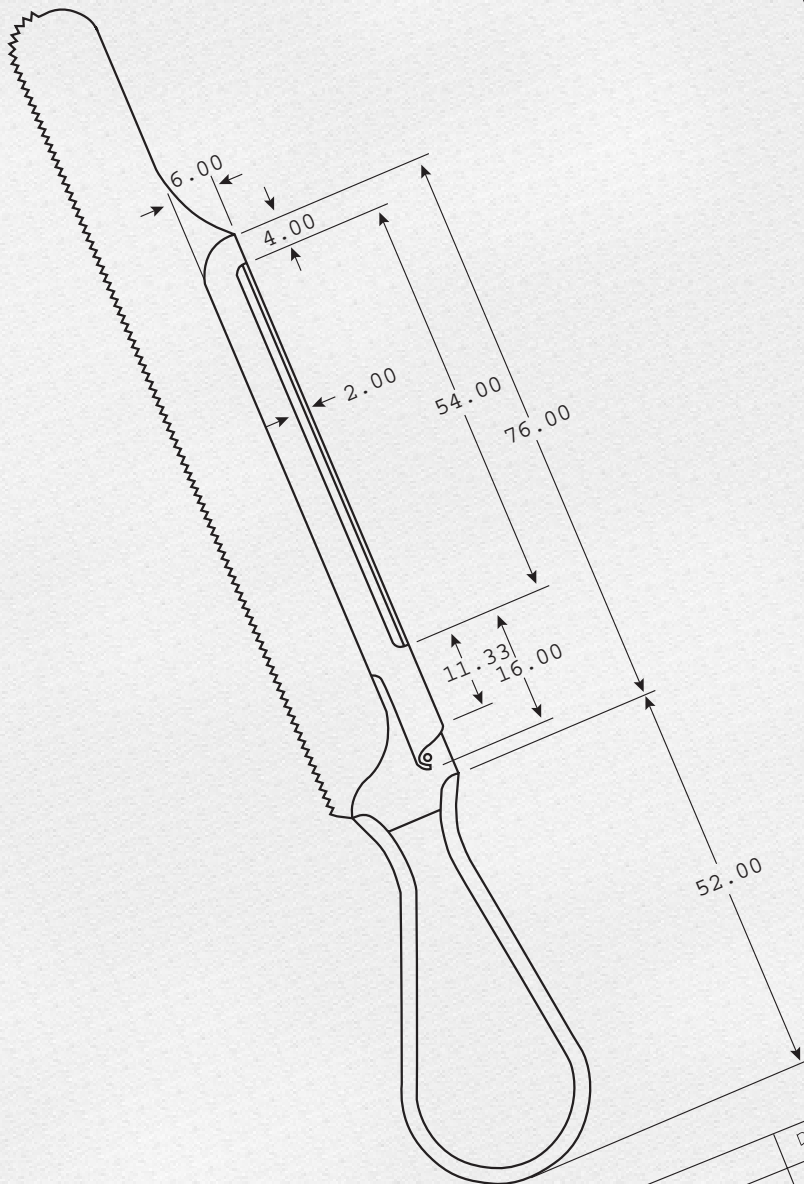


Wurde 1875 in Barmen, Wuppertal, geboren. Er war Professor in Marburg, Zürich, München und Berlin. Sauerbruch erarbeitete grundlegende Methoden für Eingriffe an den Brustorganen und schuf die Möglichkeit, Prothesen durch Muskeln des Gliedstumpfes zu bewegen.



# 33

**Bone Surgery**  
**Cirugía Osea**  
**Knochenchirurgie**



GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
	gezeichnet / dibujado	July '98	cvd/jvd	Maaetab / escala 1:1
	geprüft / verificado	July '98	cvd	Abt. / acot. mm
	Toleranz / tolerancia	June '99	mj	Artikel / articulo
				Artikel-Nr. / No. de articulo





33.101.01  
*complete*



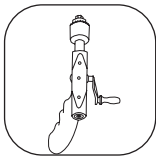
**ESMARCH**  
33.102.00  
*1 m*



**ESMARCH**  
33.103.00  
*5 m / 6cm*  
33.104.00  
*5 m / 8cm*



**PERCY**  
33.110.00



**CHARRIERE**  
 33.112.00



33.112.03 -33.112.07  
 only

mm	
3	33.112.03
5	33.112.05
7	33.112.07



**CHARRIERE**  
 33.116.30  
 30 cm



**SATTERLEE**  
 33.118.31  
 31 cm  
 33.118.99  
 only



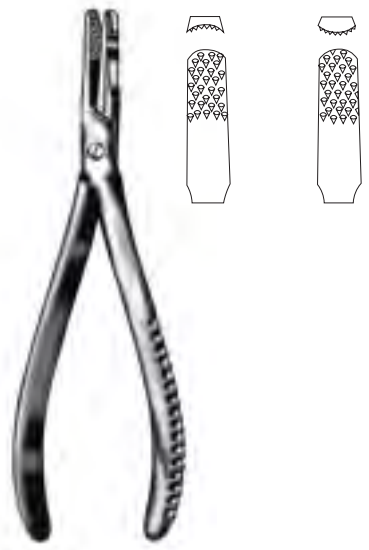
**LANGENBECK**  
 33.120.23  
 23 cm



33.160.00  
 complete



33.160.01  
 3 pieces

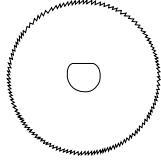


**RADOLF**  
 33.162.13  
 13.5 cm





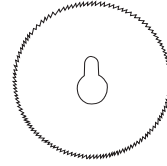
33.173.00  
17 cm



33.173.01  
only



33.175.00  
complete  
33.175.99  
only



33.175.01



**STILLE**  
33.210.20  
hand piece only  
20 cm



33.212.25  
2.5 mm



33.212.30  
3.0 mm



33.212.35  
3.5 mm



33.212.40  
4.0 mm



33.214.05  
5.0 mm



33.214.08  
8.0 mm



33.214.10  
10 mm



33.214.12  
12 mm



33.214.16  
16 mm



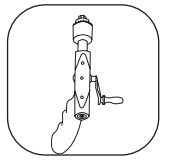
33.216.10  
1.0 mm



33.216.15  
1.5 mm



33.216.20  
2.0 mm



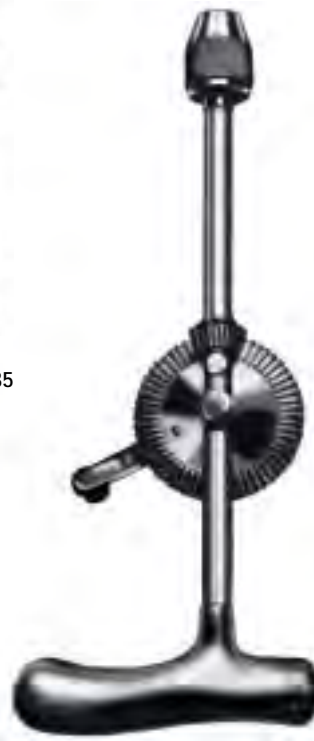
**STILLE SHERMAN**  
 33.220.24  
 24 cm



33.222.25  
 2.5 cm

33.222.30  
 3.0 cm

33.222.35  
 3.5 cm



**MOORE**  
 33.230.28  
 28 cm



33.232.00  
 3 pieces



**HUDSON**  
 33.240.27  
 complete  
 33.240.99  
 only



33.242.09  
 9 mm



33.242.14  
 14 mm



33.242.16  
 16 mm



33.242.22  
 22 mm



**CUSHING**  
 33.244.14



33.246.00



**McKENZIE**  
 33.248.00





**KIRSCHNER**  
33.250.00  
*complete*



33.252.00



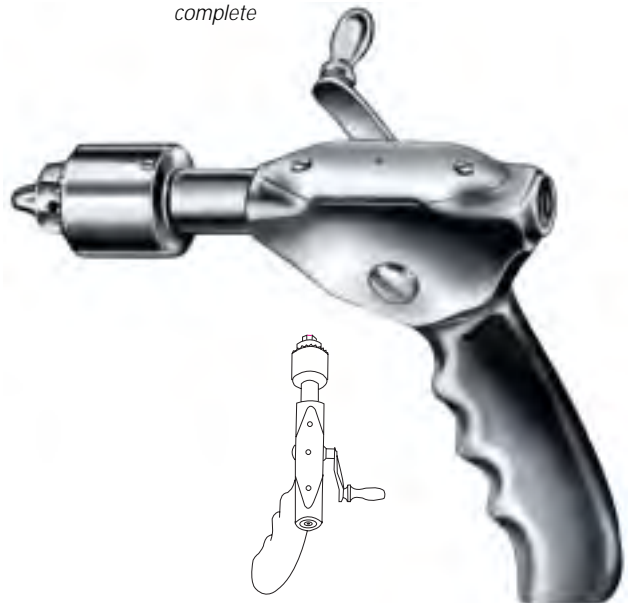
33.260.00  
*complete*



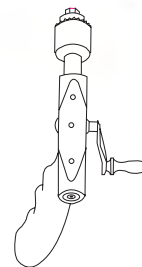
33.262.00

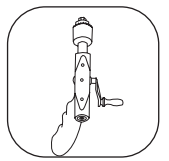


**BUNNELL**  
33.270.00  
16 cm



**RALK**  
33.280.00





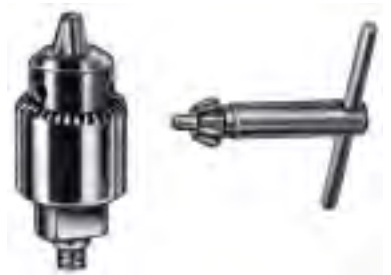
33.290.00



33.292.00



33.296.00



33.312.00  
6.3 mm



*electrical*

33.310.00  
220 V  
33.310.01  
110 V



33.320.30

charger unit	80-240V
input wattage	20VA
charging voltage	20V, 0.55 A
charging time	max. 1.5 h



33.320.51





electrical

33.320.10 - 33.320.11



electrical

33.330.10

technical data 33.320.10 33.320.11

voltage	12 V	12 V
capacity of battery pack	0.5 Ah	0.25 Ah
output power	Mo 25 W / Chuck-end 80 W	Mo 25 W / Chuck-end 80 W
motor torque	2.0 Nm	2.0 Nm
speed	1-1200 1 / min	1-1200 1 / min
weight	1250 g	1050 g

technical data

voltage	12 V
capacity of battery pack	0.5 Ah
output power	Mo 25 W / Chuck-end 80 W
motor torque	2.0 Nm
speed	1-1200 1 / min
weight	1250 g



**JACOBS**  
33.320.55  
up to 6.35 mm  
33.320.60  
up to 4.00 mm



33.320.65  
stille shaft



33.320.70  
AO - shaft

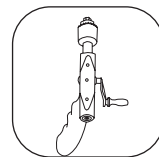


33.320.75  
square - end shaft



33.320.80  
osteo - shaft

33.320.97  
battery for handy-grip drill for  
33.320.11  
33.320.98  
battery for drill for 33.320.10 and  
reamer for 33.330.10  
33.320.99  
storage and transport case



33.322.00

blades for oscillating saws  
 73 / 50 mm

mm

10	33.322.10
15	33.322.15
20	33.322.20
25	33.322.25
30	33.322.30



blades for oscillating saws  
 73 / 50 mm

mm

140	33.322.40
50	33.322.50
25	33.323.25
30	33.323.30



33.324.00



33.325.33 - 33.325.60

mm

33	33.325.33
47	33.325.47
60	33.325.60



**HUDSON**  
 33.330.45  
 with cone



**TRINKLE**  
 33.330.50  
 quick - action chuck



**JACOBS**  
 33.330.55



**HUDSON**  
 33.330.85  
 quick - action chuck,  
 cylindrical



33.330.90  
 hexagonal



33.340.00  
 220 V  
 33.340.01  
 110 V





33.341.01  
only



33.341.03  
only



33.341.50  
50 mm



33.341.98



33.350.20 - 33.350.70

mm	
2.0	33.350.20
2.5	33.350.25
3.0	33.350.30
3.2	33.350.32
3.5	33.350.35
4.0	33.350.40
5.0	33.350.50
6.0	33.350.60
7.0	33.350.70



33.352.10 - 33.352.50

mm	
1.0	33.352.10
1.2	33.352.12
1.5	33.352.15
1.8	33.352.18
2.0	33.352.20
2.2	33.352.22
2.8	33.352.25
2.8	33.352.28
3.0	33.352.30
3.2	33.352.32
3.5	33.352.35
4.0	33.352.40
5.0	33.352.50

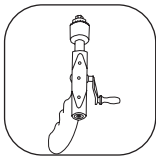


33.354.10 - 33.354.60

mm	
1.0	33.354.10
1.5	33.354.15
2.0	33.354.20
2.5	33.354.25
2.8	33.354.28
3.0	33.354.30
3.2	33.354.32
3.5	33.354.35
4.0	33.354.40
4.5	33.354.54
5.0	33.354.50
6.0	33.354.60



33.341.99



**33.356.11**  
60 / 35 mm  
ø 1.1 mm



**33.356.15**  
85 / 60 mm  
ø 1.5 mm



**33.356.20 - 33.356.27**  
100 / 75 mm

ø mm	
2.0	33.356.20
2.7	33.356.27



**33.356.25 - 33.357.15**  
110 / 85 mm

ø mm	
2.5	33.356.25
3.5	33.356.35
1.5	33.357.15



**33.356.32 - 33.356.45**  
145 / 120 mm

ø mm	
3.2	33.356.32
4.5	33.356.45



**33.357.20 - 33.357.27**  
125 / 100 mm

ø mm	
2.0	33.357.20
2.7	33.357.27



**33.356.60 - 36.357.45**  
195 / 190 mm

ø mm	
3.2	33.357.32
3.5	33.357.35
4.5	33.357.45
6.0	33.356.60





**DOYEN**  
33.362.04 - 33.362.16

*∅ mm*

4	33.362.04
6	33.362.06
8	33.362.08
10	33.362.10
12	33.362.12
14	33.362.14
16	33.362.16



**DOYEN**  
33.364.04 - 33.364.16

*∅ mm*

4	33.364.04
6	33.364.06
8	33.364.08
10	33.364.10
12	33.364.12
14	33.364.14
16	33.364.16



**DOYEN**  
33.366.12  
*∅ 12 mm*



33.368.08  
*∅ 8 mm*  
33.368.10  
*∅ 10 mm*



**DOYEN**  
33.370.12  
*∅ 12 mm*  
33.370.15  
*∅ 15 mm*



**ALBEE**  
33.372.08 - 33.372.12

*∅ mm*

8	33.372.08
10	33.372.10
12	33.372.12



**ALBEE**  
33.374.07  
*∅ 7 mm*



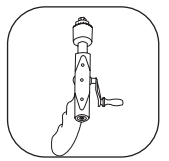
**BORCHARDT**  
33.376.13  
*∅ 13 mm*



33.377.25  
*∅ 25 mm*



**TOTI**  
33.378.08  
*∅ 8 mm*



33.380.20 - 33.380.50

*ø mm*

20	33.380.20
25	33.380.25
30	33.380.30
35	33.380.35
40	33.380.40
45	33.380.45
50	33.380.50



33.382.20 - 33.382.60

*ø mm*

20	33.382.20
25	33.382.25
30	33.382.30
35	33.382.35
40	33.382.40
45	33.382.45
50	33.382.50



33.384.20 - 33.384.60

*ø mm*

20	33.384.20
25	33.384.25
30	33.384.30
35	33.384.35
40	33.384.40
45	33.384.45
50	33.384.50



33.386.17 - 33.386.47

*ø mm*

17	33.386.17
22	33.386.22
27	33.386.27
32	33.386.32
37	33.386.37
42	33.386.42
47	33.386.47



33.388.00  
set



33.387.00  
complete



33.390.00  
complete





**33.392.14**  
14 cm



**PERTHES**  
**33.394.21**  
21 cm



**PERTHES**  
**33.395.21**  
21 cm



**33.396.05**  
ø 3.9 / 5 mm  
**33.396.08**  
ø 6.4 / 8 mm



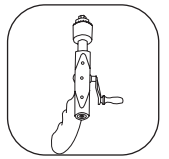
**33.400.55 - 33.401.80**  
*flexible medular cannula*

mm	
5.5	33.400.55
6.0	33.400.60
6.5	33.400.65
7.0	33.400.70
7.5	33.400.75
8.0	33.400.80
8.5	33.400.85
9.0	33.400.90
9.5	33.400.95
10.0	33.401.00
10.5	33.401.05
11.0	33.401.10
11.5	33.401.15
12.0	33.401.20
12.5	33.401.25
13.0	33.401.30
13.5	33.401.35
14.0	33.401.40
14.5	33.401.45
15.0	33.401.50
15.5	33.401.55
16.0	33.401.60
16.5	33.401.65
17.0	33.401.70
17.5	33.401.75
18.0	33.401.80



**33.402.06 - 33.402.20**  
*flexible medular cannula*

mm	
6	33.402.06
7	33.402.07
8	33.402.08
9	33.402.09
10	33.402.10
11	33.402.11
12	33.402.12
13	33.402.13
14	33.402.14
15	33.402.15
16	33.402.16
17	33.402.17
18	33.402.18
19	33.402.19
20	33.402.20



<i>ø mm</i>	60 mm	120 mm	140 mm	160 mm	310 mm
1.0	33.406.10	33.412.10	33.414.10	33.416.10	33.431.10
1.2	33.406.12	33.412.12	33.414.12	33.416.12	33.431.12
1.4	33.406.14	33.412.14	33.414.14	33.416.14	33.431.14
1.5	33.406.15	33.412.15	33.414.15	33.416.15	33.431.15
1.6	33.406.16	33.412.16	33.414.16	33.416.16	33.431.16
1.8	33.406.18	33.412.18	33.414.18	33.416.18	33.431.18
2.0	33.406.20	33.412.20	33.414.20	33.416.20	33.431.20
2.2	33.406.22	33.412.22	33.414.22	33.416.22	33.431.22
2.5	33.406.25			33.416.25	33.431.25

**KIRSCHNER**  
33.406.10 - 33.431.25  
trocar tip



<i>ø mm</i>	310 mm
1.0	33.432.10
1.2	33.432.12
1.5	33.432.15
1.6	33.432.16
1.8	33.432.18
2.0	33.432.20
2.2	33.432.22
2.5	33.432.25

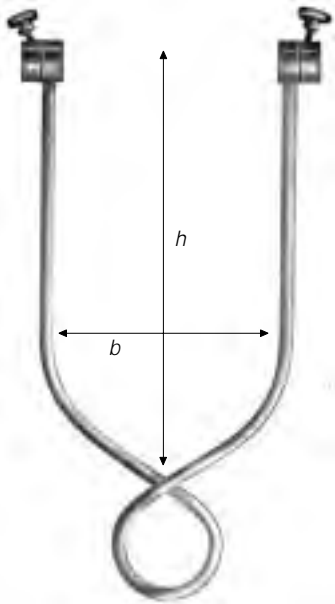
**KIRSCHNER**  
33.432.10 - 33.432.25  
lancet tip



<i>mm</i>	
130	33.490.13
140	33.490.14
150	33.490.15
160	33.490.16
180	33.490.18
200	33.490.20
210	33.490.21
230	33.490.23
250	33.490.25

**STEINMANN**  
33.490.13 - 33.490.25  
pin



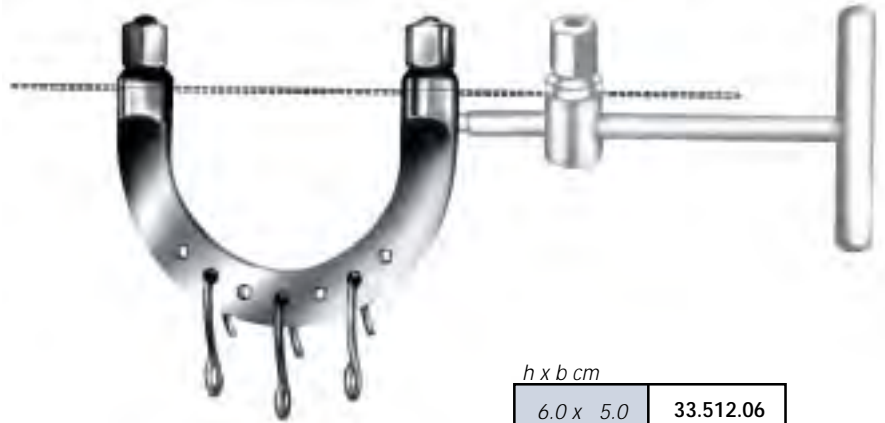


**BOEHLER**

33.502.16 - 33.502.21

*h x b cm*

16 x 9	33.502.16
21 x 11	33.502.21

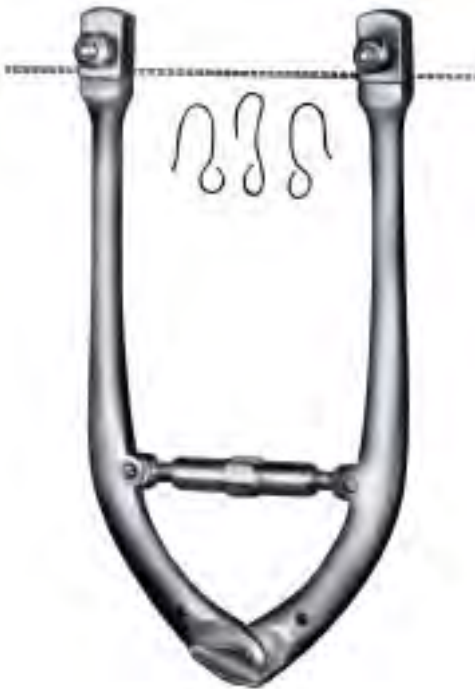


**KIRSCHNER**

33.512.06 - 33.512.20

*h x b cm*

6.0 x 5.0	33.512.06
9.5 x 7.0	33.512.09
10.5 x 10.5	33.512.10
9.5 x 11.0	33.512.11
12.0 x 12.0	33.512.12
13.5 x 13.0	33.512.13
15.5 x 15.5	33.512.15
20.0 x 15.5	33.512.20



33.514.18 - 33.514.27

*h x b cm*

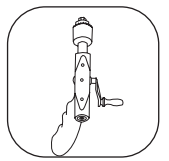
18 x 10	33.514.18
27 x 16	33.514.27



33.515.01



33.515.02



**KIRSCHNER U.S.**  
 33.518.01 - 33.518.03

size

small	33.518.01
large	33.518.02
extra large	33.518.03



33.519.01  
 small  
 33.519.02  
 large



33.522.01 - 33.522.03

size

small	33.522.01
medium	33.522.02
large	33.522.03



33.528.01  
 16 cm



33.529.45  
 L = 45 mm  
 33.529.70  
 L = 70 mm  
 23 cm



33.530.02 - 33.530.15

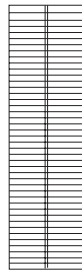
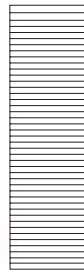
ø mm

0.2	33.530.02
0.3	33.530.03
0.4	33.530.04
0.5	33.530.05
0.6	33.530.06
0.7	33.530.07
0.8	33.530.08
0.9	33.530.09
1.0	33.530.10
1.1	33.530.11
1.2	33.530.12
1.5	33.530.15



**LOUTE**  
 33.531.21  
 21 cm

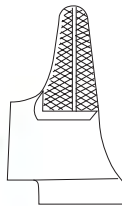




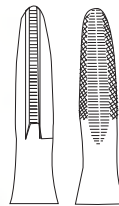
33.532.17  
17 cm



**grip**  
33.533.18  
18 cm



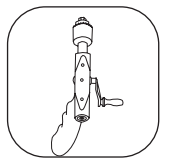
33.534.15  
15 cm



33.535.13  
13 cm  
33.535.18  
18 cm



33.536.14  
14 cm



**33.536.19**  
19 cm



**33.537.01**  
18 cm



**33.537.02 - 33.537.04**

cm	
18.0	33.537.02
18.0	33.537.03
14.5	33.537.04



**33.538.01**  
17 cm  
serrated jaws



**33.538.02**  
17 cm  
longitudinal and  
transversal grooves



**33.538.18**  
18 cm





33.539.18  
18 cm



33.540.16  
16 cm



33.541.22  
22 cm



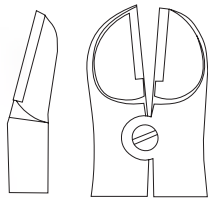
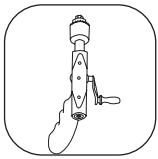
33.542.15  
15 cm



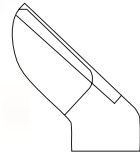
33.544.14  
14.5 cm



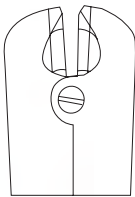
33.545.16 TC  
16 cm



**33.545.18 TC**  
18 cm



**33.545.22 TC**  
22 cm



**33.546.18**  
18 cm



**REILL**  
**33.547.17**  
17.5 cm



**33.548.23 TC**  
23.5 cm





**33.552.17 TC**  
17 cm



**NIRO**  
**33.554.15 TC**  
15 cm



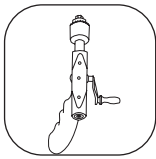
**33.555.24**  
24 cm



**JEWET**  
**33.558.00**  
20 cm



**33.556.47**  
47 cm



33.560.24 - 33.560.64

Ø mm

2.4	33.560.24
3.2	33.560.32
4.8	33.560.48
6.4	33.560.64



33.562.24 - 33.562.64

Ø mm

2.4	33.562.24
3.2	33.562.32
4.8	33.562.48
6.4	33.562.64



33.568.14  
 14 cm



**KUENTSCHER**

33.571.26 - 33.572.26  
 26 cm

mm

8	33.571.26
10	33.572.26



**KUENTSCHER**

33.573.35  
 35 cm



33.569.14  
 14 cm





<i>ø mm</i>	<i>35 cm</i>	<i>46 cm</i>	<i>60 cm</i>
2.5	33.581.35	33.581.46	
3.0	33.582.35	33.582.46	33.582.60
3.5	33.583.35	33.583.46	33.583.60
4.0	33.584.35	33.584.46	33.584.60
4.5	33.585.35	33.585.46	33.585.60



33.586.21  
21 cm



**KUENSTCHER**  
33.587.13 - 33.587.21

*mm*

12.7	33.587.13
17.0	33.587.17
21.0	33.587.21



**KUENSTCHER**  
33.588.21  
21 cm



**KUENSTCHER**  
33.590.00  
63 cm



33.590.01



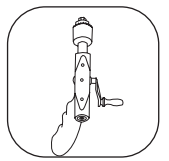
33.590.02



33.590.03



33.590.04



33.596.29 - 33.596.49

cm

29	33.596.29
37	33.596.37
42	33.596.42
49	33.596.49



33.598.30  
 30 cm



**LLOYD**  
 33.602.20  
 20 cm



**WILIAMS**  
 33.624.24  
 24 cm



33.608.80  
 ø 8 mm



33.628.15 - 33.628.35

mm

1.5	33.628.15
2.5	33.628.25
3.5	33.628.35



**LANE**  
 33.620.25  
 25 cm

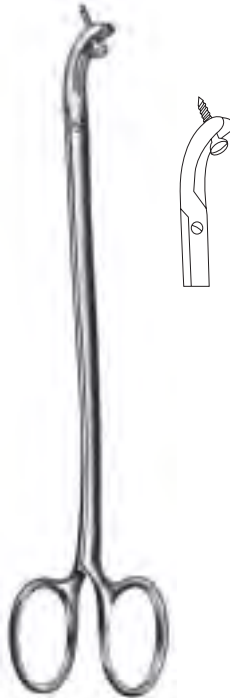




33.630.25  
ø 2.5 mm



**LANE**  
33.632.25  
25 cm



**LANE**  
33.635.18  
18 cm



**LANE**  
33.637.23  
23 cm



**LANE**  
33.639.22  
22 cm



**LANE**  
33.640.18  
18 cm



33.642.00  
12 cm



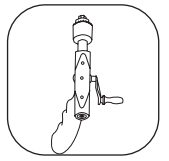
33.643.01  
14.5 cm



33.643.02  
14.5 cm



33.645.00  
24 cm



**JEWETT**  
33.647.01  
20 cm



**JEWETT**  
33.647.02  
20 cm



33.650.14  
14 cm



33.653.25  
22 cm



33.658.23  
29 cm





33.670.00



33.674.09 - 33.676.08

holes	mm	
5	90	33.674.09
7	120	33.674.12
9	150	33.674.15
12	200	33.674.20
5	60	33.676.06
7	85	33.676.08



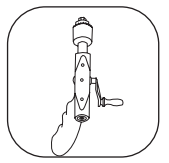
33.802.45  
ø 4.5 mm  
33.802.70  
ø 7.0 mm



33.810.05  
ø 5 mm



33.812.45  
ø 4.5 mm  
33.812.70  
ø 7.0 mm



33.816.25 - 33.816.50

ø mm

2.5	33.816.25
3.5	33.816.35
5.0	33.816.50



33.820.00



33.820.11  
ø 1 mm



33.822.20  
ø 2.0 mm



33.824.32  
ø 3.2 mm



33.826.45  
ø 4.5 mm



33.827.00  
14 cm



33.828.00  
22 cm  
33.828.01  
extra large



33.829.01  
22 cm



33.830.15 - 33.834.45

mm

1.5		33.830.15
2.0		33.830.20
2.7		33.830.27
3.5	cortical	33.830.35
4.5	short	33.830.45
2.0	extra large	33.832.20
2.7	extra large	33.832.27
4.5	large	33.832.45
4.5	extra large	33.834.45





**33.839.09**  
8 cm



**33.840.35**  
ø 3.5 mm  
**33.840.65**  
ø 6.5 mm



**33.842.20 - 33.842.35**

mm

2.0	<b>33.842.20</b>
2.7	<b>33.842.27</b>
3.5	<b>33.842.35</b>



**33.864.00**



**33.866.00**  
8.5 cm



**33.868.00**  
10.5 cm



**33.870.15**  
ø 1.1 / 1.5 mm



**33.872.20**  
ø 2 / 2 mm



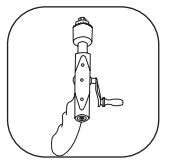
**33.874.27 - 33.875.35**

mm/mm

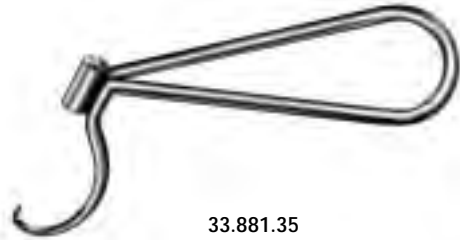
2.7 / 2.0	<b>33.874.27</b>
3.5 / 2.0	<b>33.874.35</b>
4.5 / 3.2	<b>33.874.45</b>
3.5 / 2.7	<b>33.875.35</b>



**33.880.35**  
ø 3.5 mm



**33.880.45**  
 ø 3.5 mm



**33.881.35**  
 ø 3.5 mm



**33.881.45**  
 15 cm



**33.885.35**  
 3.5 mm  
**33.885.65**  
 6.5 mm



**33.887.35**  
 ø 3.0 / 3.5 mm



**33.889.45**  
 ø 4.5 mm



**33.900.01**  
 only  
**33.900.02**  
 with 2 connectors



**33.900.03 - 33.900.05**  
 mm

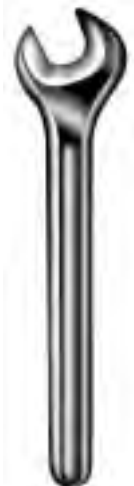
300	33.900.03
400	33.900.04
500	33.900.05



**33.900.11**



**33.900.21**



**33.900.99**





Johann Wechtlin  
1517

**Amputation of a Leg (Serratura)**

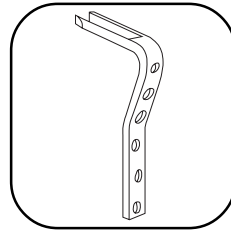
*In this image the standing figure wears a moistened animal bladder over his arm stump and wears the Greek letter tau to indicate that he suffered from St. Anthony's fire.*

**Amputación de una pierna (Serratura)**

*En esta imagen la figura que está de pie trae una vejiga de un animal humedecida como vendaje sobre su muñón.  
Con la letra griega tau manifiesta el sufrimiento que tuvo a causa del fuego de San Antonio.*

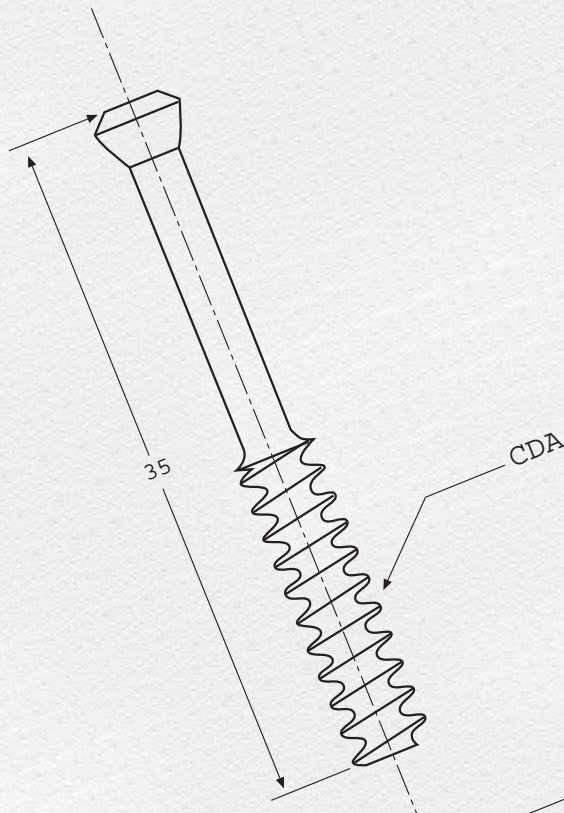
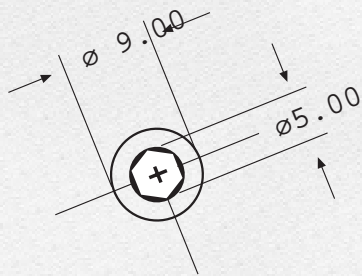
**Beinamputation (Serratura)**

*Die stehende Figur trägt auf dem Armstumpf eine angefeuchtete Blase von einem Tier, die als Verband dienen soll.  
Mit dem griechischen Buchstaben tau wird darauf hingewiesen, dass der Träger an der St. Anthony's Krankheit, einem Wundbrand leidet.*



# 36

Osteosynthesis  
Osteosíntesis  
Osteosynthese



			Datum / fecha	Name / nombre	Plan / plano
			July '98	cvd/jvd	1
			July '98	cvd	Maaetab / escala 1:1
			June '99	mj	Abt. / acot. mm
					Artikel / artículo
					Artikel-Nr. / No. de articulo
F		GENERAL CATALOGUE	Konstrukteur / constructor		
		Stainless Steel	gezeichnet / dibujado		
		acero inoxidable	geprüft / verificado		
			Toleranz / tolerancia		





**36.002.00 - 36.006.43**  
intramedullary, pins, round,  
with hook

set complete  
ø mm                      pieces

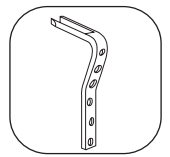
2.4	13	36.002.00
3.2	13	36.003.00
4.8	9	36.004.00
6.4	9	36.006.00

mm	ø 2.4 mm
25	36.002.25
30	36.002.30
40	36.002.40
45	36.002.45
50	36.002.50
60	36.002.60
65	36.002.65
70	36.002.70
75	36.002.75
85	36.002.85
90	36.002.90
95	36.002.95
100	36.002.99

mm	ø 3.2 mm
100	36.003.10
120	36.003.12
130	36.003.13
140	36.003.14
150	36.003.15
160	36.003.16
180	36.003.18
190	36.003.19
200	36.003.20
210	36.003.21
230	36.003.23
240	36.003.24
250	36.003.25

mm	ø 4.8 mm
200	36.004.20
220	36.004.22
240	36.004.24
260	36.004.26
280	36.004.28
300	36.004.30
320	36.004.32
340	36.004.34
360	36.004.36

mm	ø 6.4 mm
280	36.006.28
290	36.006.29
320	36.006.32
340	36.006.34
360	36.006.36
370	36.006.37
390	36.006.39
410	36.006.41
430	36.006.43



**KUENTSCHER**

36.016.14 - 37.026.48

*intramedullary nails, femur*

mm	ø 6 mm	ø 7 mm	ø 8 mm	ø 9 mm	ø 10 mm	ø 11 mm	ø 12 mm	ø 13 mm	ø 14 mm	ø 15 mm	ø 16 mm
140	36.016.14	36.017.14									
160	36.016.16	36.017.16									
180	36.016.18	36.017.18									
200	36.016.20	36.017.20									
220	36.016.22	36.017.22									
240	36.016.24	36.017.24	36.018.24								
260	36.016.26	36.017.26	36.018.26								
280	36.016.28	36.017.28	36.018.28								
300	36.016.30	36.017.30	36.018.30	36.019.30	36.020.30	36.021.30					
320	36.016.32	36.017.32	36.018.32	36.019.32	36.020.32	36.021.32					
340	36.016.34	36.017.34	36.018.34	36.019.34	36.020.34	36.021.34	36.022.34	36.023.34	36.024.34		
350					36.020.35		36.022.35	36.023.35			
360	36.016.36	36.017.36	36.018.36	36.019.36	36.020.36	36.021.36	36.022.36	36.023.36	36.024.36	36.025.36	36.026.36
370					36.020.37	36.021.37	36.022.37	36.023.37			
380		36.017.38	36.018.38	36.019.38	36.020.38	36.021.38	36.022.38	36.023.38	36.024.38	36.025.38	36.026.38
390					36.020.39	36.021.39	36.022.39	36.023.39	36.024.39		
400		36.017.40	36.018.40	36.019.40	36.020.40	36.021.40	36.022.40	36.023.40	36.024.40	36.025.40	36.026.40
410					36.020.41	36.021.41	36.022.41	36.023.41			
420		36.017.42	36.018.42	36.019.42	36.020.42	36.021.42	36.022.42	36.023.42	36.024.42	36.025.42	36.026.42
430						36.021.43		36.023.43			
440		36.017.44	36.018.44	36.019.44	36.020.44	36.021.44	36.022.44	36.023.44	36.024.44	36.025.44	36.026.44
460		36.017.46	36.018.46	36.019.46	36.020.46	36.021.46	36.022.46	36.023.46	36.024.46	36.025.46	36.026.46
480		36.017.48	36.018.48	36.019.48	36.020.48	36.021.48	36.022.48	36.023.48	36.024.48	36.025.48	36.026.48
500		36.017.50	36.018.50	36.019.50	36.020.50	36.021.50	36.022.50	36.023.50	36.024.50		
520				36.019.52	36.020.52	36.021.52	36.022.52	36.023.52	36.024.52		

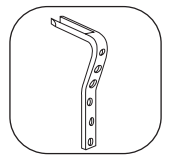


## KUENTSCHER

36.036.18 - 36.044.40

*intramedullary nails for Tibia and Humerus*

mm	ø 6 mm	ø 7 mm	ø 8 mm	ø 9 mm	ø 10 mm	ø 11 mm	ø 12 mm	ø 13 mm	ø 14 mm
180	36.036.18	36.037.18	36.038.18	36.039.18	36.040.18	36.041.18			
190		36.037.19	36.038.19	36.039.19	36.040.19	36.041.19			
200	36.036.20	36.037.20	36.038.20	36.039.20	36.040.20	36.041.20			
210		36.037.21	36.038.21	36.039.21	36.040.21	36.041.21			
220	36.036.22	36.037.22	36.038.22	36.039.22	36.040.22	36.041.22			
230		36.037.23	36.038.23	36.039.23	36.040.23	36.041.23			
240	36.036.24	36.037.24	36.038.24	36.039.24	36.040.24	36.041.24	36.042.24		
250		36.037.25	36.038.25	36.039.25	36.040.25	36.041.25	36.042.25		
260	36.036.26	36.037.26	36.038.26	36.039.26	36.040.26	36.041.26	36.042.26		
270		36.037.27	36.038.27	36.039.27	36.040.27	36.041.27	36.042.27	36.043.27	
280	36.036.28	36.037.28	36.038.28	36.039.28	36.040.28	36.041.28	36.042.28	36.043.28	36.044.28
290		36.037.29	36.038.29	36.039.29	36.040.29	36.041.29	36.042.29	36.043.29	36.044.29
300	36.036.30	36.037.30	36.038.30	36.039.30	36.040.30	36.041.30	36.042.30	36.043.30	36.044.30
310		36.037.31	36.038.31	36.039.31	36.040.31	36.041.31	36.042.31	36.043.31	36.044.31
320		36.037.32	36.038.32	36.039.32	36.040.32	36.041.32	36.042.32	36.043.32	36.044.32
330		36.037.33	36.038.33	36.039.33	36.040.33	36.041.33	36.042.33	36.043.33	36.044.33
340		36.037.34	36.038.34	36.039.34	36.040.34	36.041.34	36.042.34	36.043.34	36.044.34
350		36.037.35	36.038.35	36.039.35	36.040.35	36.041.35	36.042.35	36.043.35	36.044.35
360		36.037.36	36.038.36	36.039.36	36.040.36	36.041.36	36.042.36	36.043.36	36.044.36
370		36.037.37	36.038.37	36.039.37	36.040.37	36.041.37	36.042.37	36.043.37	36.044.37
380		36.037.38	36.038.38	36.039.38	36.040.38	36.041.38	36.042.38	36.043.38	36.044.38
390			36.038.39	36.039.39	36.040.39	36.041.39	36.042.39	36.043.39	36.044.39
400			36.038.40	36.039.40	36.040.40	36.041.40	36.042.40	36.043.40	36.044.40



36.049.01



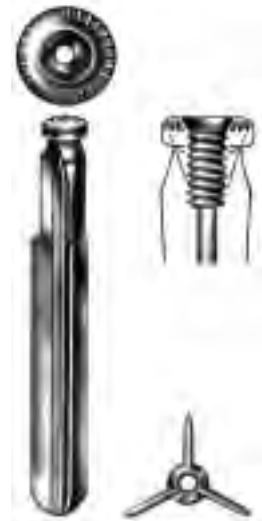
36.049.02



**SMITH PETERSEN**  
36.050.60 - 36.05170

mm

60	36.050.60
65	36.050.65
70	36.050.70
75	36.050.75
80	36.050.80
85	36.050.85
90	36.050.90
95	36.050.95
100	36.051.00
105	36.051.05
110	36.051.10
115	36.051.15
120	36.051.20
125	36.051.25
130	36.051.30
135	36.051.35
140	36.051.40
145	36.051.45
150	36.051.50
160	36.051.60
170	36.051.70



**BOEHLER**  
36.060.80 - 36.061.50

mm

80	36.060.80
85	36.060.85
90	36.060.90
95	36.060.95
100	36.061.00
105	36.061.05
110	36.061.10
115	36.061.15
120	36.061.20
130	36.061.30
140	36.061.40
150	36.061.50



holes

3	36.062.03
5	36.062.05
7	36.062.07
12	36.062.12

**McLAUGHLIN**  
36.062.03 - 36.062.12

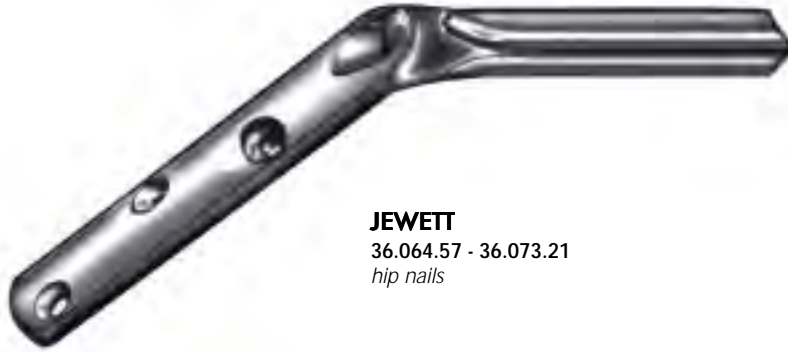


holes

3	36.063.03
4	36.063.04
5	36.063.05
6	36.063.06
7	36.063.07

**SMITH PETERSEN**  
36.063.03 - 36.063.07





**JEWETT**  
36.064.57 - 36.073.21  
hip nails

90 mm large  
3 holes  
mm

57	36.064.57
63	36.064.63
70	36.064.70
76	36.064.76
82	36.064.82
89	36.064.89
95	36.064.95
102	36.065.02
108	36.065.08
114	36.065.14
121	36.065.21

130 mm large  
5 holes  
mm

57	36.066.57
63	36.066.63
70	36.066.70
76	36.066.76
82	36.066.82
89	36.066.89
95	36.066.95
102	36.067.02
108	36.067.08
114	36.067.14
121	36.067.21

165 mm large  
7 holes  
mm

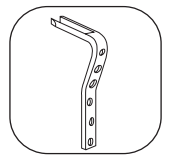
57	36.068.57
63	36.068.63
70	36.068.70
76	36.068.76
82	36.068.82
89	36.068.89
95	36.068.95
102	36.069.02
108	36.069.08
114	36.069.14
121	36.069.21

220 mm large  
10 holes  
mm

57	36.070.57
63	36.070.63
70	36.070.70
76	36.070.76
82	36.070.82
89	36.070.89
95	36.070.95
102	36.071.02
108	36.071.08
114	36.071.14
121	36.071.21

260 mm large  
12 holes  
mm

57	36.072.57
63	36.072.63
70	36.072.70
76	36.072.76
82	36.072.82
89	36.072.89
95	36.072.95
102	36.073.02
108	36.073.08
114	36.073.14
121	36.073.21



36.080.04 - 36.087.12  
 dynamic hip screws and plates

135°  
holes

	<i>rounds holes</i>	<i>sliding holes</i>
2	36.080.02	36.084.02
4	36.080.04	36.084.04
5	36.080.05	36.084.05
6	36.080.06	36.084.06
8	36.080.08	36.084.08
10	36.080.10	36.084.10
12	36.080.12	36.084.12
14	36.080.14	36.084.14
16	36.080.16	36.084.16

140°  
holes

	<i>rounds holes</i>	<i>sliding holes</i>
4	36.081.04	36.085.04
5	36.081.05	36.085.05
6	36.081.06	36.085.06

145°  
holes

	<i>rounds holes</i>	<i>sliding holes</i>
4	36.082.04	36.086.04
5	36.082.05	36.086.05
6	36.082.06	36.086.06

150°  
holes

	<i>rounds holes</i>	<i>sliding holes</i>
2	36.083.02	36.087.02
4	36.083.04	36.087.04
5	36.083.05	36.087.05
6	36.083.06	36.087.06
8	36.083.08	36.087.08
10	36.083.10	36.087.10
12	36.083.12	36.087.12





36.088.50 - 36.089.45

mm

50	36.088.50
55	36.088.55
60	36.088.60
65	36.088.65
70	36.088.70
75	36.088.75
80	36.088.80
85	36.088.85
90	36.088.90
95	36.088.95
100	36.089.00
105	36.089.05
110	36.089.10
115	36.089.15
120	36.089.20
125	36.089.25
130	36.089.30
135	36.089.35
140	36.089.40
145	36.089.45



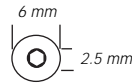
36.090.36  
36 mm



**PALMER**  
36.094.15 - 36.094.70

mm      1.5 mm

15	36.094.15
20	36.094.20
25	36.094.25
30	36.094.30
35	36.094.35
40	36.094.40
45	36.094.45
50	36.094.50
55	36.094.55
60	36.094.60
65	36.094.65
70	36.094.70



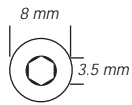
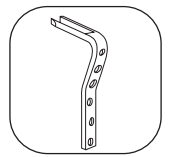
1.3 mm



cannulated screw

mm      Navicular  
ø / 4.0 mm

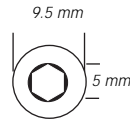
10	36.107.10
12	36.107.12
14	36.107.14
16	36.107.16
18	36.107.18
20	36.107.20
22	36.107.22
24	36.107.24
26	36.107.26
28	36.107.28
30	36.107.30



cannulated screw

Malleolar  
ø 4.5 mm

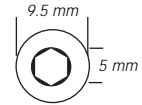
mm	
25	36.115.25
30	36.115.30
35	36.115.35
40	36.115.40
45	36.115.45
50	36.115.50
55	36.115.55



cannulated screw

thread=16  
ø 7 mm

mm	
25	36.116.25
30	36.116.30
35	36.116.35
40	36.116.40
45	36.116.45
50	36.116.50
55	36.116.55
60	36.116.60
65	36.116.65
70	36.116.70
75	36.116.75
80	36.116.80
85	36.116.85
90	36.116.90
95	36.116.95
100	36.117.00
105	36.117.05
110	36.117.10
115	36.117.15
120	36.117.20



cannulated screw

thread=32  
ø 7 mm

mm	
35	36.118.35
40	36.118.40
45	36.118.45
50	36.118.50
55	36.118.55
60	36.118.60
65	36.118.65
70	36.118.70
75	36.118.75
80	36.118.80
85	36.118.85
90	36.118.90
95	36.118.95
100	36.119.00
105	36.119.05
110	36.119.10
115	36.119.15
120	36.119.20



washer for cannulated  
mm

8	36.120.08
7	36.120.13
7	36.120.16
7	36.120.19





3 mm



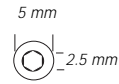
*Corticalis mini*



4 mm



*Corticalis mini*  
DIN 58812  
ISO 5835/1

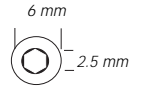


5 mm

2.5 mm



*Corticalis small*  
DIN 58812  
ISO 5835/1



6 mm

2.5 mm



*Corticalis small*  
DIN 58812  
ISO 5835/1

mm	1.5 mm
6	36.200.06
7	36.200.07
8	36.200.08
9	36.200.09
10	36.200.10
11	36.200.11
12	36.200.12
14	36.200.14
16	36.200.16

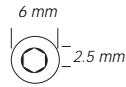
mm	2.0 mm
6	36.201.06
8	36.201.08
10	36.201.10
12	36.201.12
14	36.201.14
16	36.201.16
18	36.201.18
20	36.201.20

mm	2.7 mm
6	36.202.06
8	36.202.08
10	36.202.10
12	36.202.12
14	36.202.14
16	36.202.16
18	36.202.18
20	36.202.20
22	36.202.22
24	36.202.24
26	36.202.26
28	36.202.28
32	36.202.32

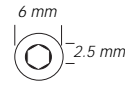
mm	3.5 mm
10	36.204.10
12	36.204.12
14	36.204.14
16	36.204.16
18	36.204.18
20	36.204.20
22	36.204.22
24	36.204.24
26	36.204.26
28	36.204.28
30	36.204.30
32	36.204.32
36	36.204.36
40	36.204.40
45	36.204.45
50	36.204.50



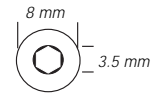
**36.209.97**  
washer  
7 mm



Cancellous small  
DIN 58815  
ISO 5835/1



Cancellous small  
DIN 58815  
ISO 5835/1



Corticalis

mm	3.5 mm
10	36.206.10
12	36.206.12
14	36.206.14
16	36.206.16
18	36.206.18
20	36.206.20
22	36.206.22
24	36.206.24
26	36.206.26
28	36.206.28
30	36.206.30
32	36.206.32
36	36.206.36
40	36.206.40
45	36.206.45
50	36.206.50
55	36.206.55
60	36.206.60

mm / mm	4.0 mm
10 / 5	36.207.10
12 / 5	36.207.12
14 / 5	36.207.14
16 / 6	36.207.16
18 / 7	36.207.18
20 / 8	36.207.20
22 / 9	36.207.22
24 / 10	36.207.24
26 / 12	36.207.26
28 / 14	36.207.28
30 / 14	36.207.30
35 / 14	36.207.35
40 / 14	36.207.40
45 / 15	36.207.45
50 / 15	36.207.50

mm	4.5 mm
14	36.214.14
16	36.214.16
18	36.214.18
20	36.214.20
22	36.214.22
24	36.214.24
26	36.214.26
28	36.214.28
30	36.214.30
32	36.214.32
34	36.214.34
36	36.214.36
38	36.214.38
40	36.214.40
42	36.214.42
44	36.214.44
46	36.214.46
48	36.214.48
50	36.214.50
52	36.214.52
56	36.214.56
60	36.214.60
64	36.214.64
70	36.214.70





large screw  
DIN 58815  
ISO 5835/1



large screw  
DIN 58815  
ISO 5835/1



mm / mm	4.5 mm
25 / 12	36.215.25
30 / 15	36.215.30
35 / 18	36.215.35
40 / 20	36.215.40
45 / 22	36.215.45
50 / 24	36.215.50
55 / 26	36.215.55
60 / 28	36.215.60
65 / 30	36.215.65
70 / 32	36.215.70

mm	thread=16 6.5 mm
30	36.216.30
35	36.216.35
40	36.216.40
45	36.216.45
50	36.216.50
55	36.216.55
60	36.216.60
65	36.216.65
70	36.216.70
75	36.216.75
80	36.216.80
85	36.216.85
90	36.216.90
95	36.216.95
100	36.216.00
105	36.216.05
110	36.216.10

mm	thread=32 6.5 mm
45	36.217.45
50	36.217.50
55	36.217.55
60	36.217.60
65	36.217.65
70	36.217.70
75	36.217.75
80	36.217.80
85	36.217.85
90	36.217.90
95	36.217.95
100	36.217.00
105	36.217.05
110	36.217.10

mm	complete thread 6.5 mm
25	36.218.25
30	36.218.30
35	36.218.35
40	36.218.40
45	36.218.45
50	36.218.50
55	36.218.55
60	36.218.60
65	36.218.65
70	36.218.70
75	36.218.75
80	36.218.80
85	36.218.85
90	36.218.90
95	36.218.95
100	36.218.00
105	36.218.05
110	36.218.10

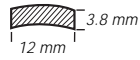
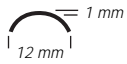


36.219.96  
nut  
4.5/11 mm



washer for cannulated  
mm

7	36.219.98
11	36.219.97
13	36.219.99



**36.222.02 - 36.022.12**  
*1/2 tubular plates  
round holes*

mm	holes	
39	2	36.222.02
55	3	36.222.03
71	4	36.222.04
87	5	36.222.05
103	6	36.222.06
119	7	36.222.07
135	8	36.222.08
151	9	36.222.09
167	10	36.222.10
183	11	36.222.11
199	12	36.222.12



**36.223.02 - 36.223.16**  
*narrow plates  
round holes*



**36.224.02 - 36.224.16**  
*narrow plates  
gliding holes*

mm	holes	rounds holes	gliding holes
39	2	36.223.02	36.224.02
55	3	36.223.03	36.224.03
71	4	36.223.04	36.224.04
87	5	36.223.05	36.224.05
103	6	36.223.06	36.224.06
119	7	36.223.07	36.224.07
135	8	36.223.08	36.224.08
151	9	36.223.09	36.224.09
167	10	36.223.10	36.224.10
183	11	36.223.11	36.224.11
199	12	36.223.12	36.224.12
215	13	36.223.13	36.224.13
231	14	36.223.14	36.224.14
247	15	36.223.15	36.224.15
263	16	36.223.16	36.224.16





**36.225.06 - 36.225.18**  
broad plates  
round holes



**36.226.05 - 36.225.18**  
broad plates  
gliding holes



**36.231.20 - 36.237.96**  
condylar plates 95°



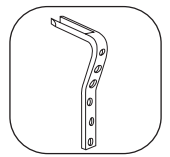
92 mm/mm	round holes	gliding holes
50	36.231.20	36.237.20
60	36.231.22	36.237.22
70	36.231.24	36.237.24
80	36.231.26	36.237.26

124 mm/mm	round holes	gliding holes
50	36.231.50	36.237.50
60	36.231.52	36.237.52
70	36.231.54	36.237.54
80	36.231.56	36.237.56

156 mm/mm	round holes	gliding holes
50	36.231.70	36.237.70
60	36.231.72	36.237.72
70	36.231.74	36.237.74
80	36.231.76	36.237.76

204 mm/mm	round holes	gliding holes
50	36.231.90	36.237.90
60	36.231.92	36.237.92
70	36.231.94	36.237.94
80	36.231.96	36.237.96

mm	holes	rounds holes	gliding holes
87			36.226.05
103	6	36.225.06	36.226.06
119	7	36.225.07	36.226.07
135	8	36.225.08	36.226.08
151	9	36.225.09	36.226.09
167	10	36.225.10	36.226.10
199	12	36.225.12	36.226.12
231	14	36.225.14	36.226.14
263	16	36.225.16	36.226.16
295	18	36.225.18	36.226.18



**36.233.36 - 36.238.98**  
 angular plates 130°

60 mm/mm round holes gliding holes

60 mm/mm	round holes	gliding holes
50	36.233.36	36.238.36
60	36.233.38	36.228.38
70	36.233.44	36.238.44
75	36.233.45	36.238.45
80	36.233.46	36.238.46
85	36.233.47	36.238.47
90	36.233.48	36.238.48
95	36.233.49	36.238.49
100	36.233.40	36.238.40
105	36.233.41	36.238.41
110	36.233.42	36.238.42

104 mm/mm round holes gliding holes

104 mm/mm	round holes	gliding holes
50	36.233.60	36.238.60
60	36.233.62	36.238.62
70	36.233.64	36.238.64
80	36.233.66	36.238.66
90	36.233.68	36.238.68

152mm/mm round holes gliding holes

152mm/mm	round holes	gliding holes
70	36.233.94	36.238.94
80	36.233.96	36.238.96
90	36.233.98	36.238.98

200 mm/mm round holes gliding holes

200 mm/mm	round holes	gliding holes
70	36.233.24	36.238.24
80	36.233.26	36.238.26
90	36.233.28	36.238.28



**36.239.70 - 39.240.10**  
 plates with round holes 130°

1 hole

mm	holes
70	36.239.70
75	36.239.75
80	36.239.80
85	36.239.85
90	36.239.90
95	36.239.95
100	36.240.00
105	36.240.05
110	36.240.10



**36.241.02 - 36.241.08**  
 1/3 tubular plates

mm holes

mm	holes	mm
25	2	36.241.02
37	3	36.241.03
49	4	36.241.04
61	5	36.241.05
73	6	36.241.06
85	7	36.241.07
97	8	36.241.08



**36.242.13 - 36.242.18**  
 1/4 tubular plates

mm holes

mm	holes	mm
23	3	36.242.13
31	4	36.242.14
39	5	36.242.15
47	6	36.242.16
55	7	36.242.17
63	8	36.242.18





36.242.31



36.242.32



36.242.33



36.242.34



36.242.41



36.243.13 - 36.243.16  
straight mini plates



36.243.31



36.243.32



36.243.33



36.243.34



36.243.41

mm	holes	
17	3	36.243.13
23	4	36.243.14
29	5	36.243.15
35	6	36.243.16



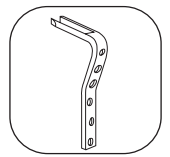
36.244.02 - 36.244.22  
small fragment plates

mm	holes	
20	2	36.244.02
36	4	36.244.04
44	5	36.244.05
52	6	36.244.06
60	7	36.244.07
68	8	36.244.08
76	9	36.244.09
84	10	36.244.10
100	12	36.244.12
26	2	36.244.22



36.248.02 - 36.248.12  
small fragment plates

mm	holes	
25	2	36.248.02
37	3	36.248.03
49	4	36.248.04
61	5	36.248.05
73	6	36.248.06
85	7	36.248.07
97	8	36.248.08
121	10	36.248.10
145	12	36.248.12



36.251.00



36.251.10



36.252.01



36.252.02



36.252.03



36.252.04



36.252.05



36.252.06



36.252.65



36.252.07



36.252.08



36.252.10



36.252.11



36.252.12



**SHERMAN**

36.256.10 - 36.256.99  
ø 4 mm

mm

10	36.256.10
13	36.256.13
16	36.256.16
19	36.256.19
22	36.256.22
25	36.256.25
29	36.256.29
31	36.256.32
35	36.256.35
38	36.256.38
41	36.256.41
45	36.256.45
50	36.256.50
57	36.256.57
63	36.256.63
75	36.256.75
89	36.256.89
99	36.256.99

**SHERMAN**

36.251.00 - 36.252.65  
bone plates and bone screws





**36.340.39 - 36.340.78**  
T plates

mm	holes	
39	3 x 3	<b>36.340.39</b>
47	3 x 5	<b>36.340.47</b>
56	4 x 4	<b>36.340.56</b>
78	4 x 6	<b>36.340.78</b>



T plates

mm	holes	
39	3 x 3	<b>36.341.39</b>
47	3 x 5	<b>36.341.47</b>



**36.345.45**



**36.363.65 - 36.365.85**

angular plates 110°

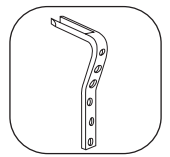
mm	round holes	compression
65	<b>36.363.65</b>	<b>36.373.65</b>
75	<b>36.363.75</b>	<b>36.373.75</b>
85	<b>36.363.85</b>	<b>36.373.85</b>

angular plates 120°

mm	round holes	compression
65	<b>36.365.65</b>	<b>36.375.65</b>
75	<b>36.365.75</b>	<b>36.375.75</b>
85	<b>36.365.85</b>	<b>36.375.85</b>

angular plates 130°

mm	round holes	compression
65	<b>36.367.65</b>	<b>36.377.65</b>
70	<b>36.367.70</b>	<b>36.377.70</b>
75	<b>36.367.75</b>	<b>36.377.75</b>
80	<b>36.367.80</b>	<b>36.377.80</b>
85	<b>36.367.85</b>	<b>36.377.85</b>
90	<b>36.367.90</b>	<b>36.377.90</b>
95	<b>36.367.96</b>	<b>36.377.96</b>
100	<b>36.368.00</b>	<b>36.378.00</b>
105	<b>36.368.05</b>	<b>36.378.05</b>
110	<b>36.368.70</b>	<b>36.378.70</b>



**36.408.40 - 36.419.60**  
*plates 90°*

<i>mm / mm</i>	<i>rounds holes</i>	<i>gliding holes</i>
10 / 40	<b>36.408.40</b>	<b>36.418.40</b>
15 / 50	<b>36.408.50</b>	<b>36.418.50</b>
15 / 60	<b>36.408.60</b>	<b>36.418.60</b>
15 / 60	<b>36.409.60</b>	<b>36.419.60</b>



**36.410.60 - 36.420.60**  
*plates 100°*

<i>mm / mm</i>	<i>holes</i>	
10 / 60	<i>round</i>	<b>36.410.60</b>
10 / 60	<i>gliding</i>	<b>36.420.60</b>



**36.434.35 - 36.434.45**  
*plates 90° children*

<i>mm / mm</i>	<i>gliding holes</i>	
8 / 35		<b>36.434.35</b>
8 / 45		<b>36.434.45</b>



**36.436.25 - 36.438.22**  
*plates 90° baby*

<i>mm / mm</i>	<i>gliding holes</i>	
7 / 25		<b>36.436.25</b>
7 / 32		<b>36.436.32</b>
12 / 25		<b>36.438.25</b>
12 / 32		<b>36.438.32</b>



**36.440.40 - 36.441.50**  
*plates 90° adult*

<i>mm / mm</i>	<i>gliding holes</i>	
10 / 40		<b>36.440.40</b>
10 / 50		<b>36.440.50</b>
15 / 40		<b>36.441.40</b>
14 / 50		<b>36.441.50</b>



**36.445.08 - 36.445.11**  
*cobra plates*

<i>mm</i>	<i>holes</i>	
170	8	<b>36.445.08</b>
186	9	<b>36.445.09</b>
202	10	<b>36.445.10</b>
218	11	<b>36.445.11</b>





36.445.08 - 36.445.11

condylar plate s.o.s. right

mm	holes	
160	7	36.447.07
192	9	36.447.09

condylar plates s.o.s. left

mm	holes	
160	7	36.449.07
192	9	36.449.09



36.510.05 - 36.512.06  
spoon plates

mm	holes	
100	5	36.510.05
120	6	36.512.06



36.516.03 - 36.516.08  
T plates

mm	holes	
68	3	36.516.03
84	4	36.516.04
110	5	36.516.05
116	6	36.516.06
148	8	36.516.08



36.520.03 - 36.520.04  
coverleaf plates

mm	holes	
88	3	36.520.03
104	4	36.520.04



36.526.04 - 36.526.05  
T buttres plates

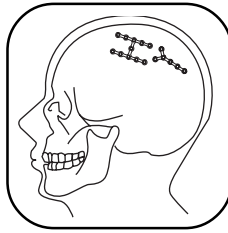
mm	holes	
80	4	36.526.04
96	6	36.526.05
112	6	36.526.06



36.529.01  
L buttress plates  
87 mm  
4 holes



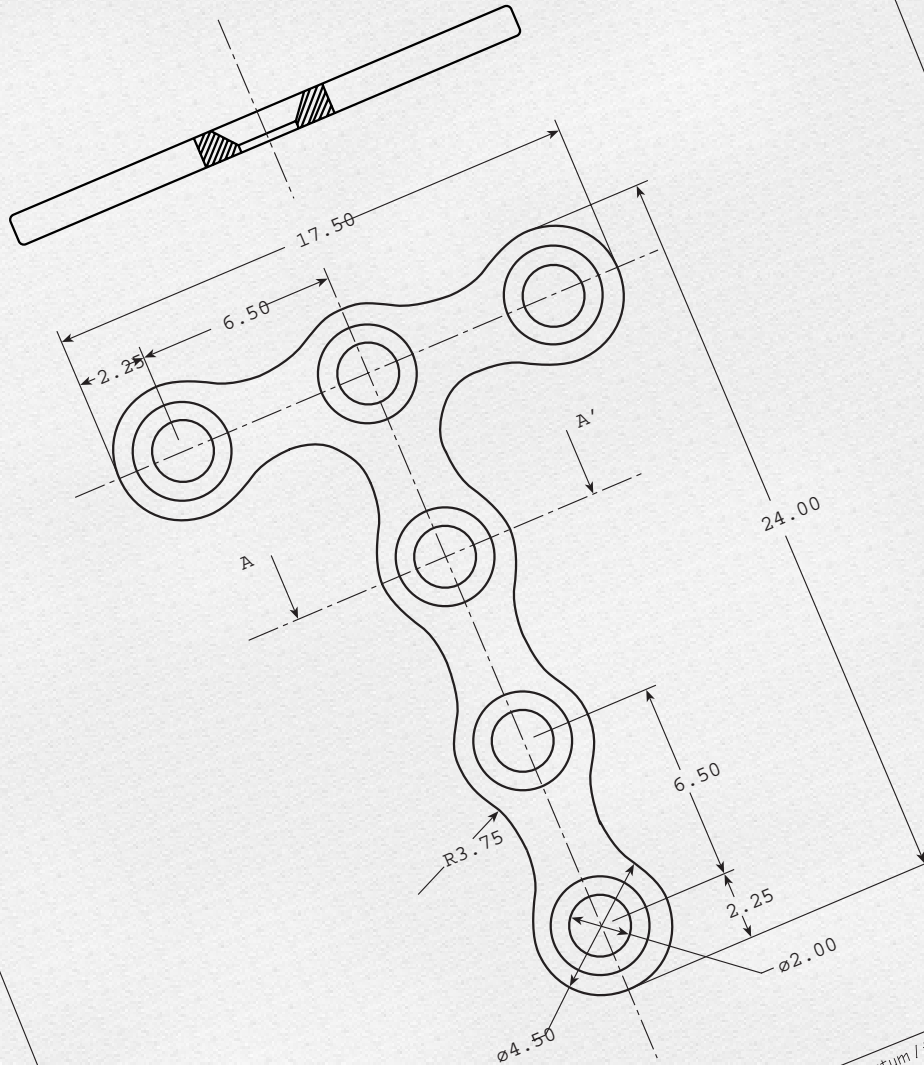
36.529.02  
L buttress plates  
87 mm  
4 holes



# 37

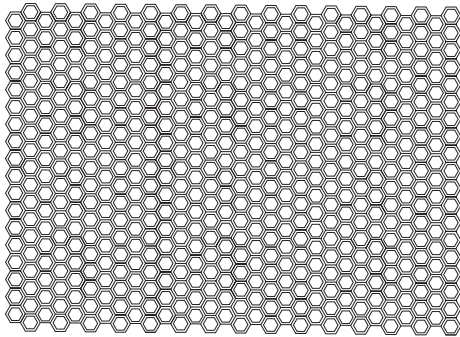
**Oral-Maxillofacial Surgery (Implants)**  
**Cirugía Oral-Maxilofacial (Implantes)**  
**Mund-, Kiefer- und Gesichtschirurgie (Implantate)**

Corte A-A'



GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
	gezeichnet / dibujado	July '98	cvd/jvd	1
	geprüft / verificado	July '98	cvd	Maasstab / escala 1:1
	Toleranz / tolerancia	June '99	mj	Abt. / acot. mm
				Artikel / artículo
				Artikel-Nr. / No. de artículo





**mesh**  
37.001.10 - 37.001.50

*thickness mm*

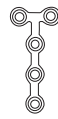
0.1	50 x 30	37.001.10
0.1	100 x 60	37.001.12
0.1	100 x 30	37.001.14
0.1	50 x 60	37.001.16
0.1	120 x 120	37.001.18
0.2	50 x 30	37.001.20
0.2	100 x 60	37.001.22
0.2	100 x 30	37.001.24
0.2	50 x 60	37.001.26
0.2	120 x 120	37.001.50

## System micro 1.0 mm

all implants are made of Titanium



<i>holes</i>	<i>left</i>	<i>right</i>
5	37.100.15	37.111.15
8	37.114.18	37.115.18



<i>holes</i>	
5	37.120.05
7	37.122.07



37.127.06



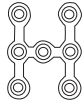
<i>holes</i>	
6	37.130.06
7	37.130.07



<i>holes</i>	
4	37.100.04
6	37.100.06
8	37.100.08
12	37.100.12
16	37.100.16
24	37.100.24

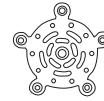


37.135.08



holes

7	37.138.07
9	37.138.09
12	37.138.12
14	37.138.14



holes mm

5	12	37.150.12
5	15	37.150.15
5	18	37.150.18
5	20	37.150.20



ø / mm

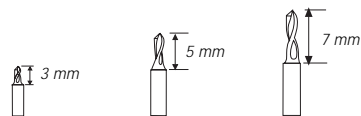
1 x 3	37.090.03
1 x 4	37.090.04
1 x 5	37.090.05
1 x 6	37.090.06
1 x 7	37.090.07



emergency

ø / mm

1.2 x 3	37.091.03
1.2 x 5	37.091.05



mm

zyl	0.7 x 50	37.010.03	37.010.05	37.010.07
stry	0.7 x 50	37.010.13	37.010.15	37.010.17



## System micro 1.2 mm

all implants are made of Titanium



holes

4	37.300.04
6	37.300.06
8	37.300.08
12	37.300.12
16	37.300.16
24	37.300.24



holes

left

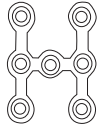
right

5	37.300.15	37.311.15
8	37.314.18	37.315.18



holes

5	37.320.05
7	37.322.07



holes

14	37.322.14
7	37.322.27
9	37.322.29



37.327.06







holes

6	37.330.06
7	37.330.07



37.335.08

$\varnothing$ / mm		
1.2 x 2	37.210.02	37.210.22
1.2 x 3	37.210.03	37.210.23
1.2 x 4	37.210.04	37.210.24
1.2 x 5	37.210.05	37.210.25
1.2 x 6	37.210.06	37.210.26
1.2 x 7	37.210.07	37.210.27
1.2 x 8	37.210.08	37.210.28
1.2 x 9	37.210.09	37.210.29
1.2 x 10	37.210.10	37.210.30
1.2 x 11	37.210.11	37.210.31
1.2 x 12	37.210.12	37.210.32

$\varnothing$ / mm		
1.4 x 3	37.211.03	37.211.33
1.4 x 5	37.211.05	37.211.35
1.4 x 7	37.211.07	37.211.37
1.4 x 9	37.211.09	37.211.39
1.4 x 11	37.211.11	37.211.31



## System medium 1.5 mm

all implants are made of Titanium



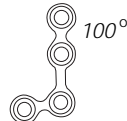
holes	
2	37.500.02
4	37.500.04
6	37.500.06
8	37.500.08
16	37.500.16
30	37.500.30



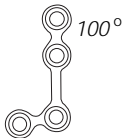
holes	short	medium	large
4	37.510.04	37.511.04	37.512.04
6	37.510.06	37.511.06	37.512.06



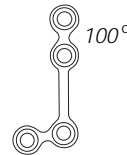
holes	left	right
4	37.500.14	37.502.14
5	37.500.15	37.505.15



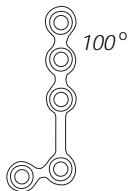
holes	left	right
4	37.501.14	37.503.14
6	37.510.16	37.511.16



holes	left	right
4	37.505.14	37.507.14
6	37.512.16	37.513.16



size	holes	left	right
short	4	37.509.14	37.511.14
large	4	37.513.14	37.515.14



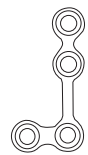
holes	left	right
5	37.510.15	37.511.15
6	37.514.16	37.515.16



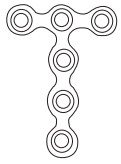
**37.506.14**  
left  
**37.508.14**  
right



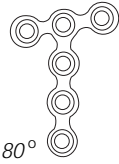
**37.510.14**  
left  
**37.512.14**  
right



**37.514.14**  
left  
**37.516.14**  
right



37.520.06



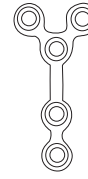
37.521.06



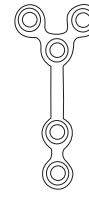
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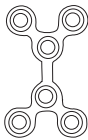
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37.525.06



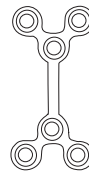
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37.530.06



37.531.06



37.532.06



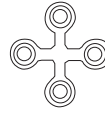
37.532.07



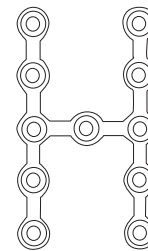
holes

medium

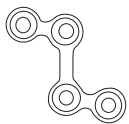
holes	medium	medium
4	37.535.04	37.535.05
6	37.535.06	37.535.07
8	37.535.08	
10	37.535.10	



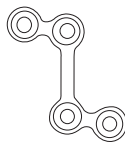
37.538.04



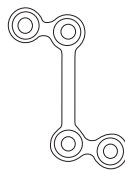
37.538.12



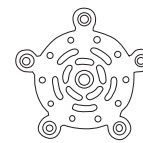
37.541.04  
right  
37.540.04  
left



37.543.04  
right  
37.542.04  
left



37.545.04  
right  
37.544.04  
left

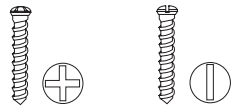


holes

ø / mm

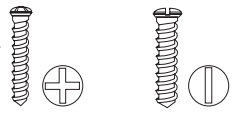
5	12	37.550.05
5	18	37.550.15





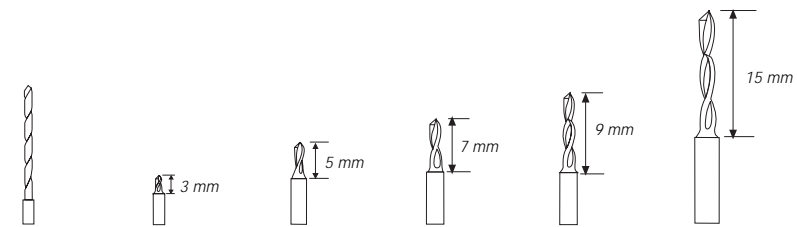
$\varnothing / \text{mm}$

1.5 x 3.5	37.410.03	37.410.23
1.5 x 4	37.410.04	37.410.24
1.5 x 5	37.410.05	37.410.25
1.5 x 6	37.410.06	37.410.26
1.5 x 7	37.410.07	37.410.27
1.5 x 8	37.410.08	37.410.28
1.5 x 9	37.410.09	37.410.29
1.5 x 11	37.410.11	37.410.31
1.5 x 13	37.410.13	37.410.33
1.5 x 15	37.410.15	37.410.35

*emergency*


$\varnothing / \text{mm}$

1.8 x 3.5	37.410.03	37.411.23
1.8 x 5	37.410.05	37.411.25
1.8 x 7	37.410.07	37.411.27



$\text{mm}$

<i>zyl</i>	1.1 x 50	37.015.01	37.015.03	37.015.05	37.015.07	37.015.09	37.015.25
<i>stry</i>	1.1 x 50	37.015.11	37.015.13	37.015.15	37.015.17	37.015.19	37.015.27



## System mini 2.0 mm

all implants are made of Titanium



holes

2	37.900.02
4	37.900.04
6	37.900.06
8	37.900.08
16	37.900.16
40	37.900.40



37.910.04



holes

4	37.911.04
6	37.911.06



37.900.14  
left  
37.911.14  
right



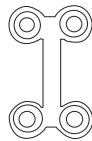
37.912.14  
left  
37.913.14  
right



37.914.14  
left  
37.915.14  
right

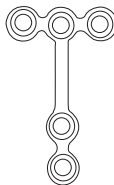


holes	left	right
4	37.916.14	37.916.15
5	37.915.15	37.917.14



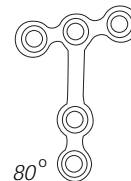
holes

4	37.919.04
6	37.919.06

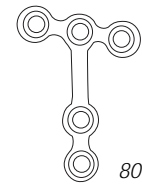


holes

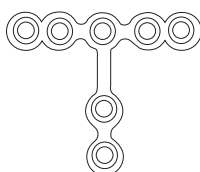
5	37.920.05
6	37.920.06
7	37.920.07



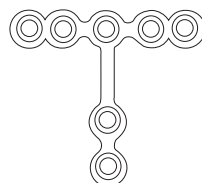
37.921.05



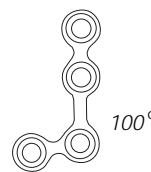
37.922.05



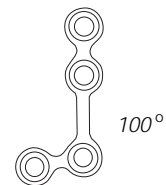
37.921.07



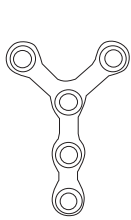
37.922.07



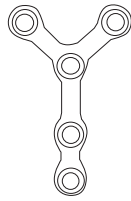
37.920.14  
left  
37.921.14  
right



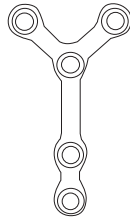
37.924.14  
left  
37.925.14  
right



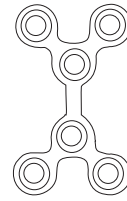
37.924.05



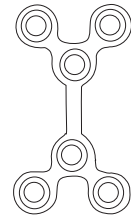
37.925.05



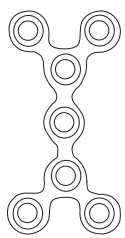
37.927.05



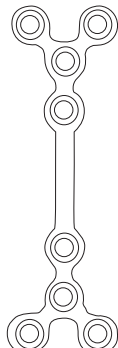
37.930.06



37.931.06



37.930.07

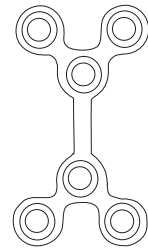


37.931.07

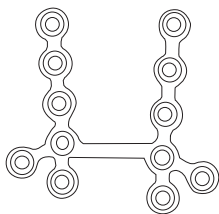


holes

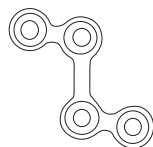
6	37.935.06
8	37.935.08
10	37.935.10



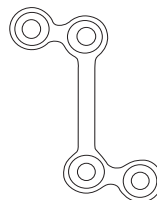
37.938.10



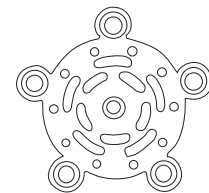
37.938.12



37.941.04  
right  
37.940.04  
left



37.945.04  
right  
37.944.04  
left



holes

size

5	small	37.950.05
5	large	37.950.15



$\varnothing / \text{mm}$

2.0 x 4	37.810.04	37.810.24
2.0 x 5	37.810.05	37.810.25
2.0 x 7	37.810.07	37.810.27
2.0 x 9	37.810.09	37.810.29
2.0 x 11	37.810.11	37.810.31
2.0 x 13	37.810.13	37.810.33
2.0 x 15	37.810.15	37.810.35
2.0 x 17	37.810.17	37.810.37
2.0 x 19	37.810.19	37.810.39

emergency

$\varnothing / \text{mm}$

2.3 x 4	37.811.04	37.811.24
2.3 x 7	37.811.07	37.811.27
2.3 x 9	37.811.09	37.811.29

$\text{mm}$

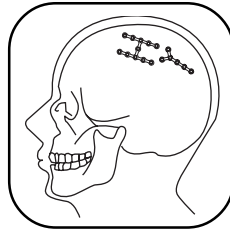
<i>zyl</i>	1.5 x 50	37.020.01	37.020.05	37.020.07	37.020.09	37.020.21
<i>stry</i>	1.5 x 50	37.020.11	37.020.15	37.020.17	37.020.19	37.020.31

$\text{mm}$

<i>zyl</i>	1.5 x 70	37.020.70
<i>stry</i>	1.5 x 70	37.020.71

$\text{mm}$

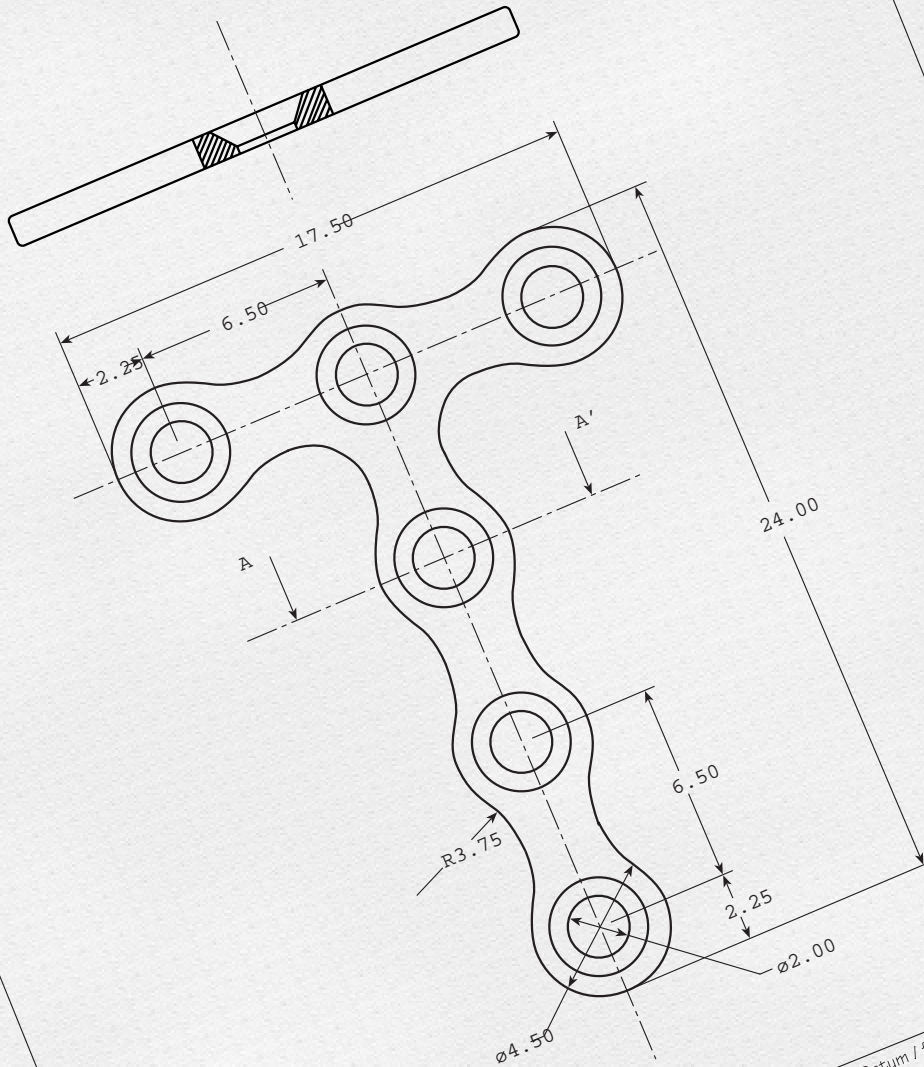
<i>zyl</i>	1.5 x 105	37.020.75
<i>stry</i>	1.5 x 105	37.020.76



# 38

## Oral Maxillofacial Surgery Cirugía Oral-Maxilofacial Mund-, Kiefer-und Gesichtschirurgie

Corte A-A'



GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
Stainless Steel	gezeichnet / dibujado	July '98	cvd/jvd	1
oxidable	geprüft / verificado	July '98	cvd	Maaßstab / escala 1:1
	Toleranz / tolerancia	June '99	mj	Abt. / acot. mm
				Artikel / artículo
				Artikel-Nr. / No. de artículo





## System micro 1.0 mm



**38.010.70**  
*implant rack, teflon, autoclavable*

**38.010.73**  
*modular microsystem*



**38.010.80**  
*instrument rack  
(for container 30 x 18 x 10 cm)*

**38.010.84**  
*sterilizing tray  
(without contents)*



**38.010.20 - 38.010.35**  
*17 cm*  
**38.010.35**  
*handle only*  
**38.010.20**  
*screwdriver with  
screw holding  
device*



**38.010.21**  
*17 cm*  
*fixation screwdriver*



**38.010.22**  
*screwdriver device, only*



**38.010.40**  
13.5 cm  
*modelling pliers*



**38.010.41**  
13.5 cm  
*modelling pliers*



**38.010.45**  
12.5 cm  
*bending pliers*



**38.010.50**  
18 cm  
*plate cutter*



**38.010.55**  
18 cm  
*plate holding forceps*



**38.010.56**  
18 cm  
*plate holding forceps*



**38.010.58**  
14 cm  
*bending pliers*





## System micro 1.2 mm



**38.012.72**  
*implant rack, teflon,  
for screws and plates*



**38.012.82**  
*instrument rack  
(for container 30 x 30 x 10 cm)*



**38.012.20**  
*17 cm  
screwdriver with  
screwholding  
device*



**38.012.21**  
*17 cm  
fixation screwdriver*



**38.012.22**  
*screwdriver device, only*



**38.012.40**  
13.5 cm  
modelling pliers



**38.012.41**  
13.5 cm  
modelling pliers



**38.012.45**  
12.5 cm  
bending pliers



**38.012.50**  
18 cm  
plate cutter



**38.012.55**  
18 cm  
plate holding forceps



**38.012.56**  
18 cm  
plate holding forceps



**38.012.58**  
14 cm  
bending pliers





## System medium 1.5 mm



**38.015.70**  
*implant rack, teflon, autoclavable*

**38.015.72**  
*implant rack, teflon, for screws and plates*

**38.015.73**  
*microsystem*



**38.015.80**  
*instrument rack  
(for container 30 x 18 x 10 cm)*



**38.015.82**  
*instrument rack  
(for container 30 x 30 x 10 cm)*

**38.015.84**  
*sterilizing tray  
(without contents)*



**38.015.20**  
*17 cm  
screwdriver with  
screwholding  
device*



**38.015.21**  
*17 cm  
fixation screwdriver*



**38.015.22**  
*screwdriver device, only*



**38.015.40**  
13.5 cm  
modelling pliers



**38.015.41**  
13.5 cm  
modelling pliers



**38.015.45**  
12.5 cm  
bending pliers



**38.015.50**  
18 cm  
plate cutter



**38.015.55**  
18 cm  
plate holding forceps



**38.015.56**  
18 cm  
plate holding forceps



**38.015.58**  
14 cm  
bending pliers





**38.015.60**  
18 cm



**38.015.63**  
check holder, complete



**38.015.25**  
18 cm  
screwdriver with  
screwholding device



**38.015.26**  
18 cm  
screwdriver



## System mini 2.0 mm



**38.020.70**  
*implant rack, teflon, autoclavable*

**38.020.72**  
*implant rack, teflon,  
for screws and plates*

**38.020.73**  
*microsystem*



**38.020.82**  
*instrument rack  
(for container 30 x 30 x 10 cm)*



**38.020.80**  
*instrument rack  
(for container 30 x 18 x 10 cm)*





**38.020.40**  
13.5 cm  
*modelling pliers*



**38.020.41**  
13.5 cm  
*modeling pliers*



**38.020.45**  
12.5 cm  
*bending pliers*



**38.020.50**  
18 cm  
*plate cutter*



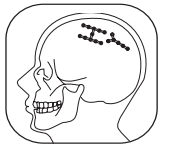
**38.020.55**  
18 cm  
*plate holding forceps*



**38.020.56**  
18 cm  
*plate holding forceps*



**38.020.58**  
14 cm  
*bending pliers*



**38.020.60**  
18 cm  
depth gauge



**38.020.63**  
check holder, complete



**38.020.25 - 30.020.27**  
18 cm  
**38.020.27**  
screwdriver  
**38.020.25**  
screwdriver with  
screw holding capability



**38.020.26**  
18 cm  
screwdriver



**38.020.62**  
trocar



**38.020.62**  
drill guide





**Theodor Rombouts**  
17th century

**Itinerant Toothpullers**

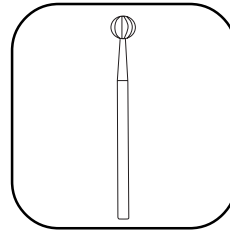
*Medical themes were a favorite subject of Flemish realistic painters of the 17th century.*

**Viajante turbadientes**

*Los temas médicos eran favoritos para pintores flamencos del siglo XVII.*

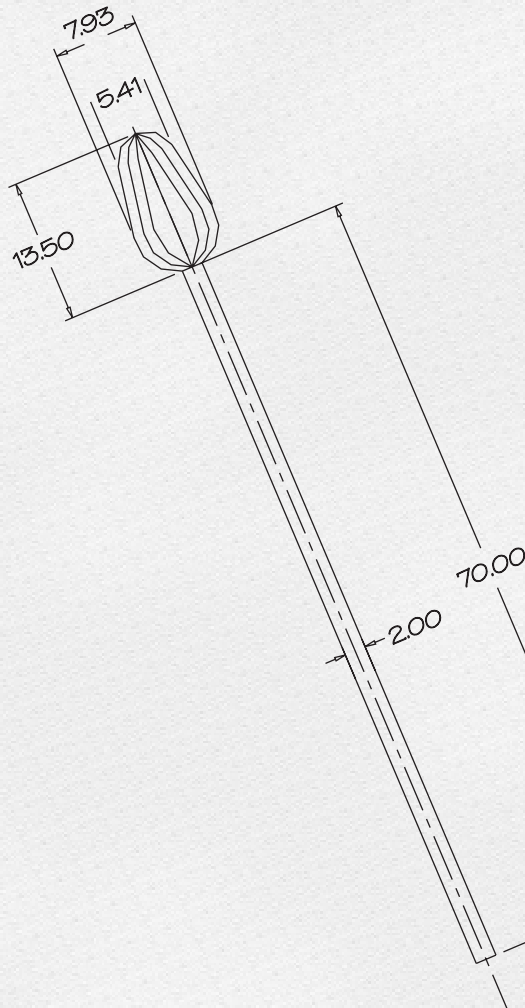
**Reisender Zahnzieher**

*Die Medizin war ein sehr beliebtes Thema für flämische Maler des 17. Jahrhunderts.*



# 39

Fraziers, Burrs  
Brocas, Fresas  
Bohrer, Fräser



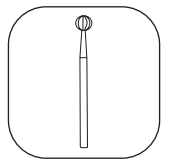
GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
	gezeichnet / dibujado	July '98	cvd/jvd	1
	geprüft / verificado	July '98	cvd	Maaßstab / escala
	Toleranz / tolerancia	June '99	nj	1:1
				Artikel / artículo
				Artikel-Nr. / No. de art

Stainless Steel  
Acero inoxidable





**39.110.00**  
*complete 220 V*  
**39.110.01**  
*complete 110 V*



**39.112.00**  
*complete 220 V*  
**39.112.01**  
*complete 110 V*





**39.120.09**  
9.7 cm  
tip 15 mm



**39.120.14**  
12.7 cm  
tip 45 mm



**39.121.13**  
7 cm + 5 cm  
tip 15 mm  
**39.123.13**  
10 cm + 5 cm  
tip 45 mm



**ALLPORT**  
39.150.31 - 39.150.50  
7 cm

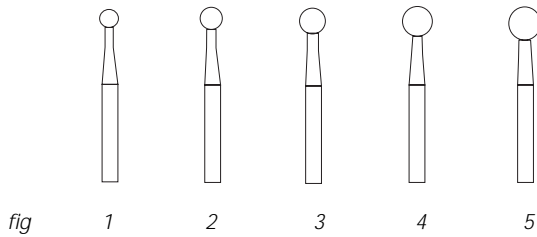


fig	ø mm	
1	3.1	39.150.31
2	3.5	39.150.35
3	4.0	39.150.40
4	4.5	39.150.45
5	5.0	39.150.50



**LINDEMANN**  
39.154.18 - 39.154.28  
7 cm

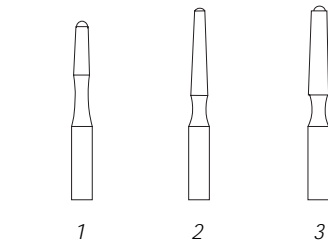
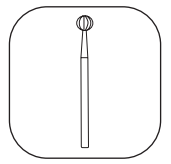
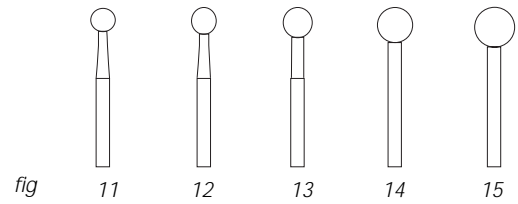
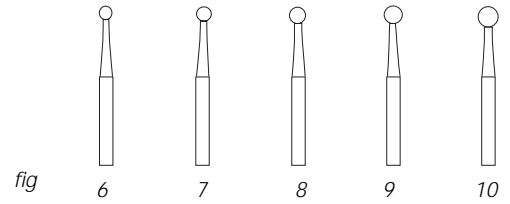
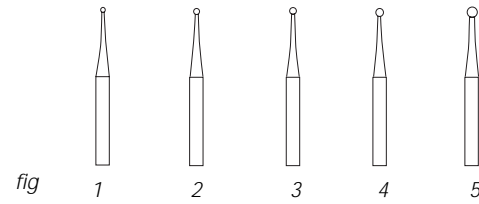


fig	ø mm	
1	1.8	39.154.18
2	2.1	39.154.21
3	2.3	39.154.23



39.160.06 - 39.160.70  
7 cm

fig	ø mm	
1	0.6	39.160.06
2	0.7	39.160.07
3	0.8	39.160.08
4	1.0	39.160.10
5	1.4	39.160.14
6	1.8	39.160.18
7	2.3	39.160.23
8	2.7	39.160.27
9	3.1	39.160.31
10	3.5	39.160.35
11	4.0	39.160.40
12	4.5	39.160.45
13	5.0	39.160.50
14	6.0	39.160.60
15	7.0	39.160.70



39.170.06 - 39.170.70  
7 cm

fig	ø mm	
1	0.6	39.170.06
2	0.7	39.170.07
3	0.8	39.170.08
4	1.0	39.170.10
5	1.4	39.170.14
6	1.8	39.170.18
7	2.3	39.170.23
8	2.7	39.170.27
9	3.1	39.170.31
10	3.5	39.170.35
11	4.0	39.170.40
12	4.5	39.170.45
13	5.0	39.170.50
14	6.0	39.170.60
15	7.0	39.170.70

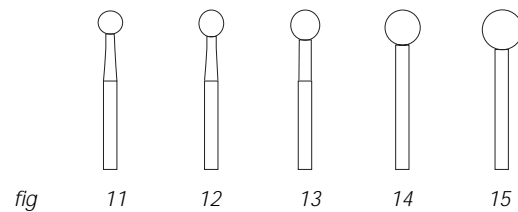
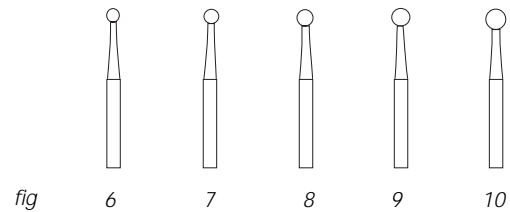
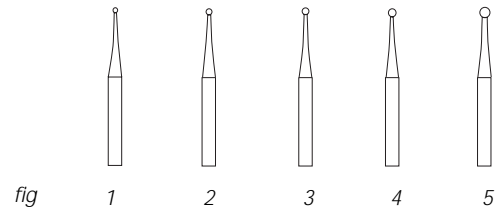




fig	ø mm	
1	0.6	39.180.06
2	0.7	39.180.07
3	0.8	39.180.08
4	1.0	39.180.10
5	1.5	39.180.15
6	1.8	39.180.18
7	2.0	39.180.20
8	2.3	39.180.23
9	2.7	39.180.27
10	3.1	39.180.31
11	3.5	39.180.35
12	4.0	39.180.40
13	4.5	39.180.45
14	5.0	39.180.50
15	6.0	39.180.60
16	7.0	39.180.70

**39.180.06 - 39.180.70**  
7 cm

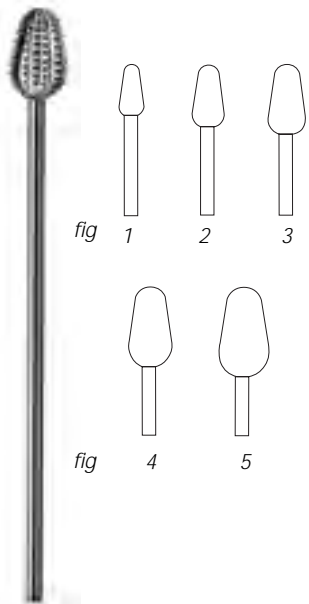
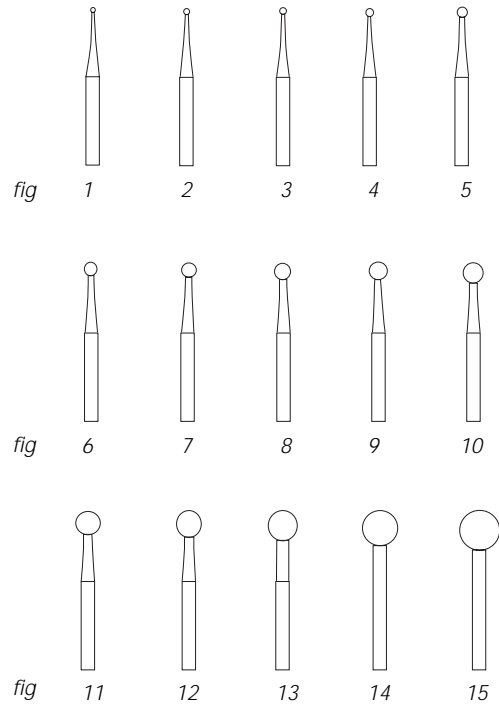


fig 1 2 3

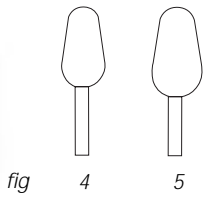


fig 4 5

**39.190.40 - 39.190.70**  
7 cm

fig	ø mm	
1	4	39.190.40
2	5	39.190.50
3	6	39.190.60
4	7	39.190.70
5	8	39.190.80

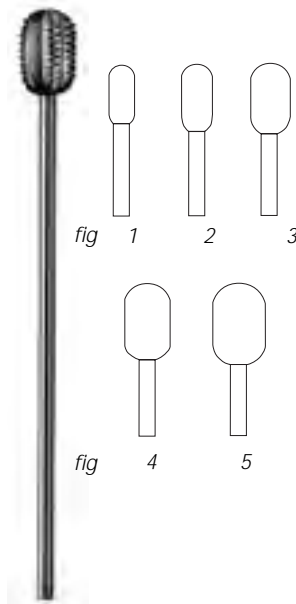


fig 1 2 3

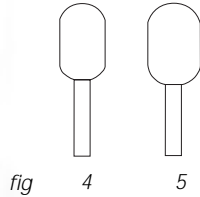


fig 4 5

**39.192.40 - 39.192.80**  
7 cm

fig	ø mm	
1	4	39.192.40
2	5	39.192.50
3	6	39.192.60
4	7	39.192.70
5	8	39.192.80

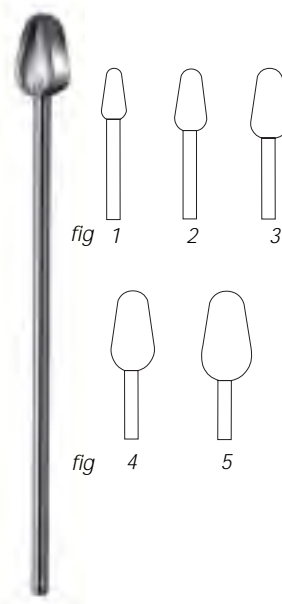


fig 1 2 3

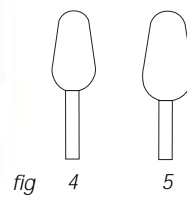


fig 4 5

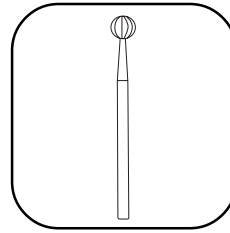
**39.194.40 - 39.190.80**  
7 cm

fig	ø mm	
1	4	39.194.40
2	5	39.194.50
3	6	39.194.60
4	7	39.194.70
5	8	39.194.80



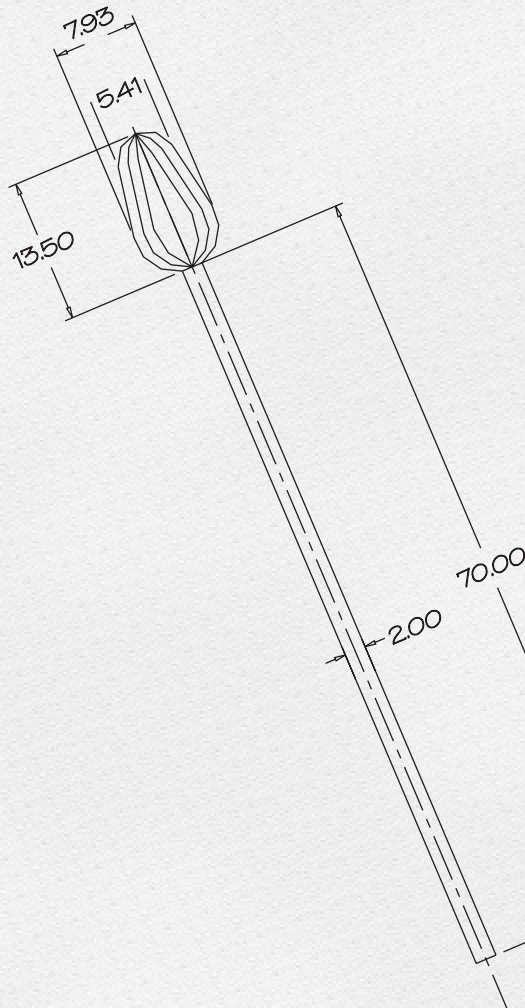
**39.196.08 - 39.196.15**  
7 cm

ø mm	
0.8	39.196.08
1.0	39.196.10
1.5	39.196.15



# 39

Fraziers, Burrs  
Brocas, fresas  
Bohrer, Fräser



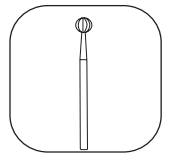
GENERAL CATALOGUE	Konstrukteur / constructor gezeichnet / dibujado	Datum / fecha	Name / nombre	Plan / plano
		July '98	cvd/jvd	1
		July '98	cvd	Maaetab / escala
		June '99	nj	1:1
				Art. / acot. mm
				Artikel / artículo
				Artikel-Nr. / No. de art

Stainless Steel  
acero inoxidable





**39.110.00**  
*complete 220 V*  
**39.110.01**  
*complete 110 V*



**39.112.00**  
*complete 220 V*  
**39.112.01**  
*complete 110 V*





**39.120.09**  
9.7 cm  
tip 15 mm



**39.120.14**  
12.7 cm  
tip 45 mm



**39.121.13**  
7 cm + 5 cm  
tip 15 mm  
**39.123.13**  
10 cm + 5 cm  
tip 45 mm



**ALLPORT**  
39.150.31 - 39.150.50  
7 cm

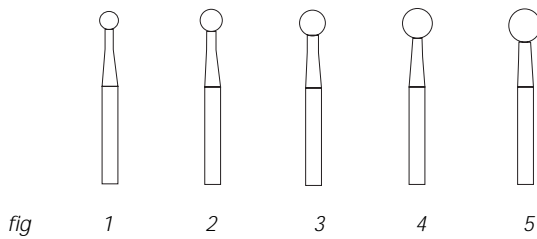


fig	ø mm	
1	3.1	39.150.31
2	3.5	39.150.35
3	4.0	39.150.40
4	4.5	39.150.45
5	5.0	39.150.50



**LINDEMANN**  
39.154.18 - 39.154.28  
7 cm

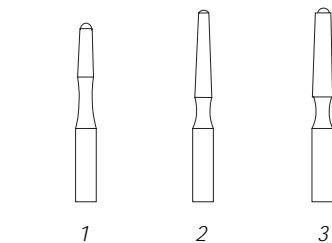
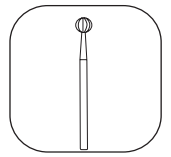
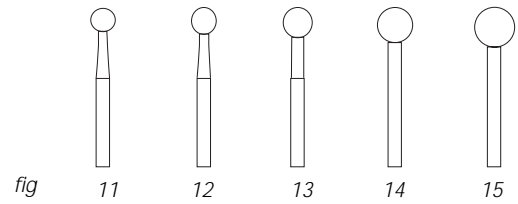
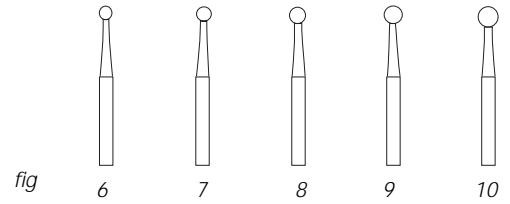
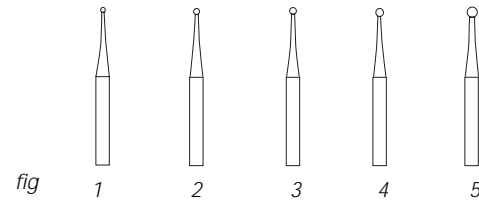


fig	ø mm	
1	1.8	39.154.18
2	2.1	39.154.21
3	2.3	39.154.23



39.160.06 - 39.160.70  
7 cm

fig	ø mm	
1	0.6	39.160.06
2	0.7	39.160.07
3	0.8	39.160.08
4	1.0	39.160.10
5	1.4	39.160.14
6	1.8	39.160.18
7	2.3	39.160.23
8	2.7	39.160.27
9	3.1	39.160.31
10	3.5	39.160.35
11	4.0	39.160.40
12	4.5	39.160.45
13	5.0	39.160.50
14	6.0	39.160.60
15	7.0	39.160.70



39.170.06 - 39.170.70  
7 cm

fig	ø mm	
1	0.6	39.170.06
2	0.7	39.170.07
3	0.8	39.170.08
4	1.0	39.170.10
5	1.4	39.170.14
6	1.8	39.170.18
7	2.3	39.170.23
8	2.7	39.170.27
9	3.1	39.170.31
10	3.5	39.170.35
11	4.0	39.170.40
12	4.5	39.170.45
13	5.0	39.170.50
14	6.0	39.170.60
15	7.0	39.170.70

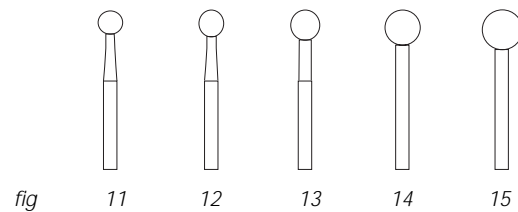
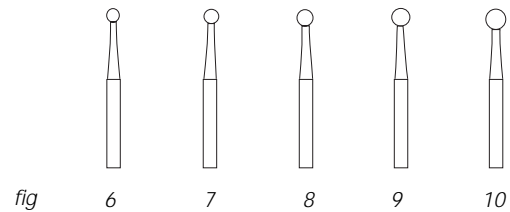
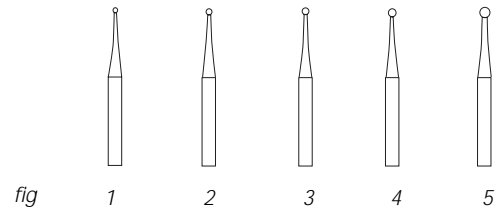




fig	ø mm	
1	0.6	39.180.06
2	0.7	39.180.07
3	0.8	39.180.08
4	1.0	39.180.10
5	1.5	39.180.15
6	1.8	39.180.18
7	2.0	39.180.20
8	2.3	39.180.23
9	2.7	39.180.27
10	3.1	39.180.31
11	3.5	39.180.35
12	4.0	39.180.40
13	4.5	39.180.45
14	5.0	39.180.50
15	6.0	39.180.60
16	7.0	39.180.70

39.180.06 - 39.180.70  
7 cm

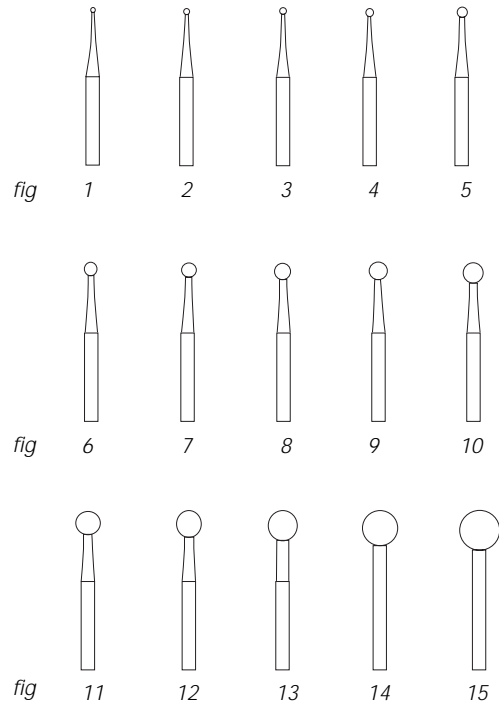


fig 11 12 13 14 15

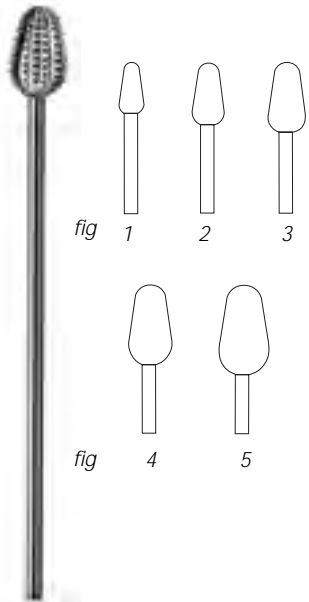


fig 1 2 3

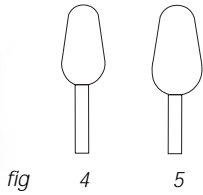


fig 4 5

39.190.40 - 39.190.70  
7 cm

fig	ø mm	
1	4	39.190.40
2	5	39.190.50
3	6	39.190.60
4	7	39.190.70
5	8	39.190.80

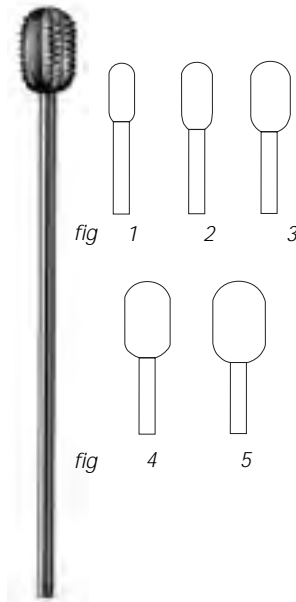


fig 1 2 3

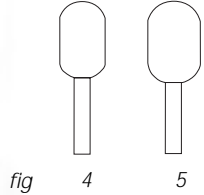


fig 4 5

39.192.40 - 39.192.80  
7 cm

fig	ø mm	
1	4	39.192.40
2	5	39.192.50
3	6	39.192.60
4	7	39.192.70
5	8	39.192.80

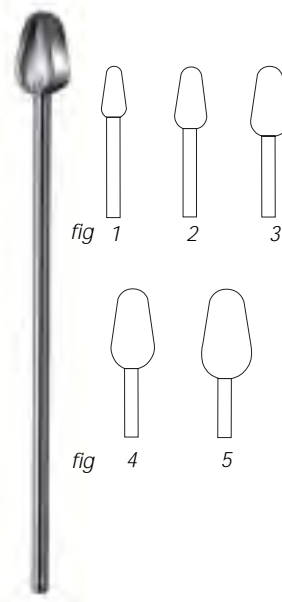


fig 1 2 3

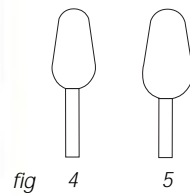


fig 4 5

39.194.40 - 39.190.80  
7 cm

fig	ø mm	
1	4	39.194.40
2	5	39.194.50
3	6	39.194.60
4	7	39.194.70
5	8	39.194.80



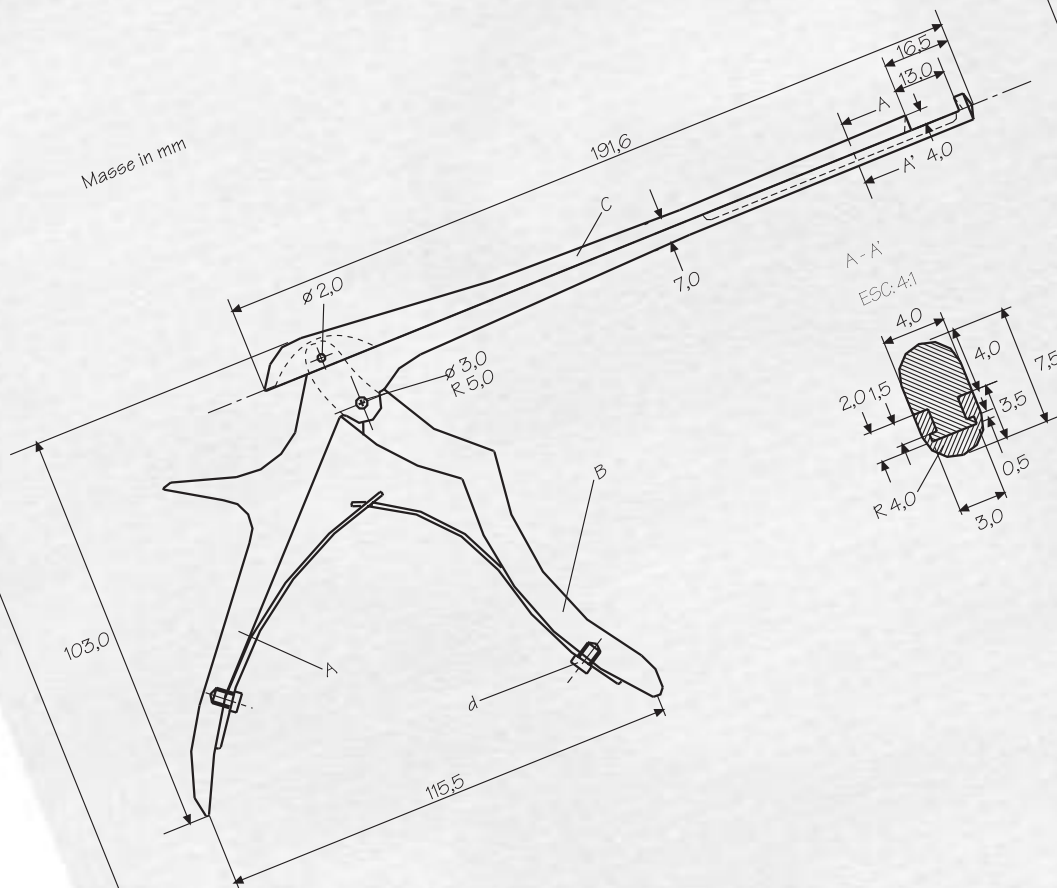
39.196.08 - 39.196.15  
7 cm

ø mm		
0.8		39.196.08
1.0		39.196.10
1.5		39.196.15



# 40

Neurosurgery  
Neurocirugía  
Neurochirurgie



GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
	gezeichnet / dibujado	July '98	cvd/jvd	1
	geprüft / verificado	July '98	cvd	Maaßstab / escala 1:1
	Toleranz / tolerancia	June '99	mj	Abt. / acot. mm
				Artikel / artículo
				Artikel-Nr. / No. de artículo





<i>cm</i>	
15	40.011.15
19	40.011.19

**McKENZIE**  
40.011.15 - 40.011.19



<i>cm</i>	
15	40.013.15
19	40.013.19

**McKENZIE**  
40.013.15 - 40.013.19



<i>cm</i>	
23	40.015.23
26	40.015.26

**SMITHWICK**  
40.015.23 - 40.015.26



<i>cm</i>	
23	40.017.23
26	40.017.26

**SWEET**  
40.017.23 - 40.017.26



OLIVECRONA TOENNIS  
40.019.14  
14 cm



40.021.00  
100 pieces



40.020.00



McKENZIE  
40.020.02



**CRUTCHFIELD**  
40.025.01



**CRUTCHFIELD**  
40.025.02



**40.025.10**  
cervical traction tongs  
**40.025.15**  
spare pin only



**40.029.00**  
50 pieces



**CRUTCHFIELD**  
40.026.35 - 40.026.50

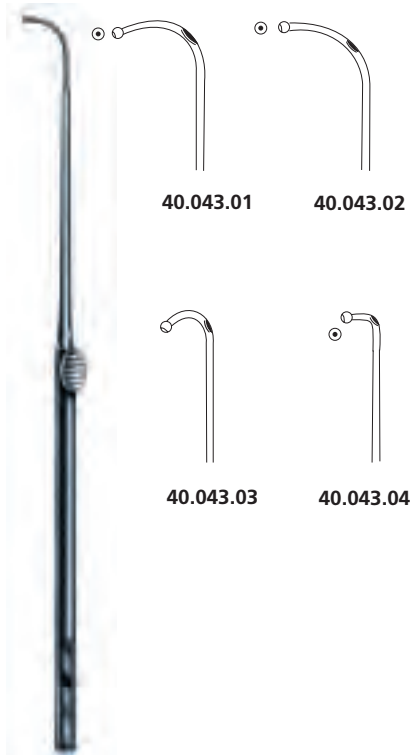
mm	
3.5	40.026.35
5	40.026.50



**RANEY**  
40.027.00



**RANEY**  
40.028.00  
16 cm

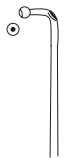


40.043.01

40.043.02

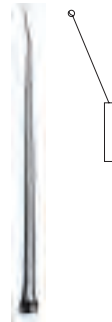


40.043.03



40.043.04

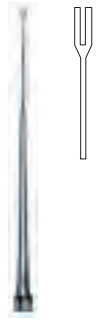
**DEWIMED**  
40.043.01 - 40.043.04  
19 cm



**JACOBSON**  
40.040.01  
19 cm



**JACOBSON**  
40.040.02  
19 cm



**DEWIMED**  
40.042.19  
19 cm



40.051.20



40.052.20



40.053.20

**DANDY**  
40.051.20 - 40.053.20  
20 cm



**CRILE**  
40.055.20  
20 cm / 7mm  
blunt



**CUSHING**  
40.056.19 - 40.058.19  
19 cm



40.056.19



40.058.19

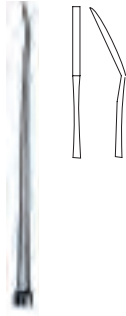
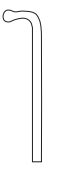




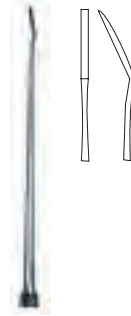
40.056.28

40.058.28

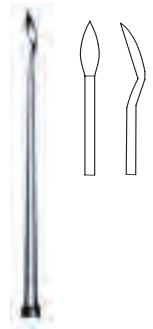
**CUSHING**  
40.056.28 - 40.058.28  
28 cm



**DEWIMED**  
40.060.01  
19 cm



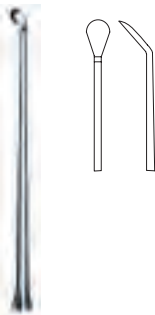
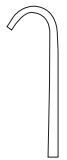
**DEWIMED**  
40.060.02  
19 cm



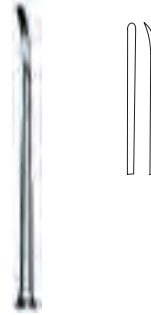
**DEWIMED**  
40.060.03  
19 cm



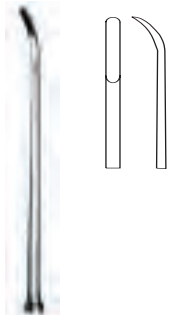
**GRAHAM**  
40.061.16  
16.5 cm  
blunt



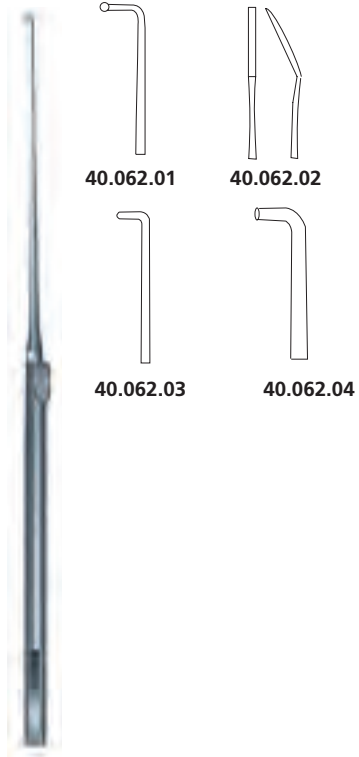
**DEWIMED**  
40.060.04  
19 cm



**DEWIMED**  
40.060.05  
19 cm



**DEWIMED**  
40.060.06  
19 cm



40.062.01

40.062.02

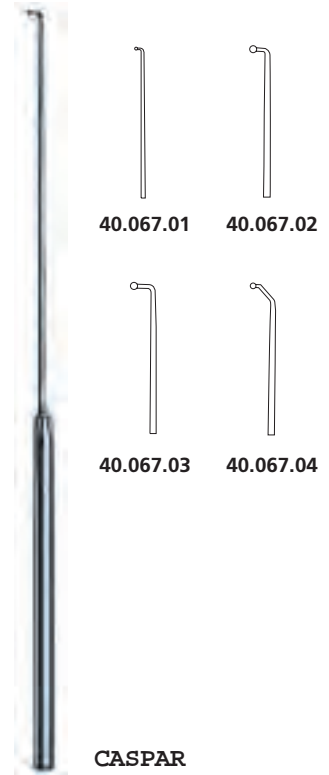
40.062.03

40.062.04

**KRAYENBUEHL**  
40.062.01 - 40.062.04  
18.5 cm



**SACHS**  
40.064.18  
18.5 cm



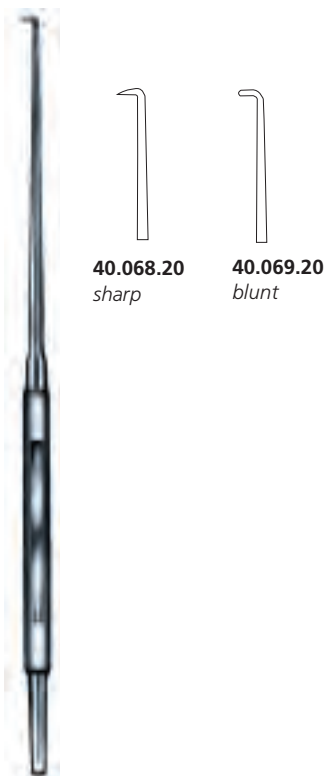
40.067.01

40.067.02

40.067.03

40.067.04

**CASPAR**  
40.067.01 - 40.067.04  
24.5 cm



40.068.20  
*sharp*

40.069.20  
*blunt*

**ADSON**  
40.068.20 - 40.069.20  
20 cm

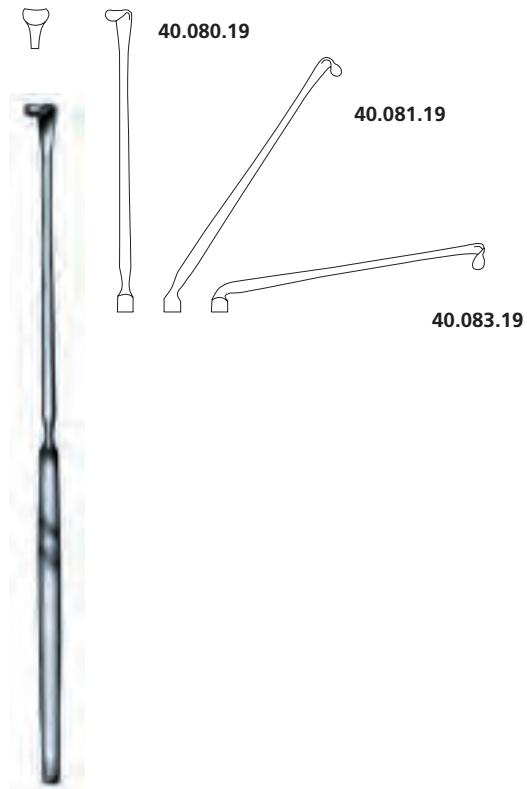


**SWITHWICK**  
40.070.29



**LOVE**  
40.071.21  
21 cm





**LOVE**  
40.080.19 - 40.083.19  
19 cm



**SCOVILLE**  
40.084.23  
23 cm / 8 mm



**SCOVILLE**  
40.085.20  
20 cm / 7 mm



**HOLSHER**  
40.087.24  
24 cm



**DE MARTEL**  
40.090.33  
33 cm



**LEBSCHE**  
40.092.25  
25 cm



**OLIVECRONA**  
 40.092.30 - 40.092.70

cm

30	40.092.30
40	40.092.40
50	40.092.50
60	40.092.60
70	40.092.70



**GIGLI**  
 40.094.00



**DE VILBISS**  
 40.096.21  
 21 cm



**DAHLGREN**  
 40.097.20  
 20 cm



**CONE**  
**40.098.20**  
 20 cm  
**40.098.23**  
 23 cm



**ADSON**  
**40.099.15**  
 15 cm



**GALT**  
**40.100.13 - 40.100.25**  
 complete

ø mm

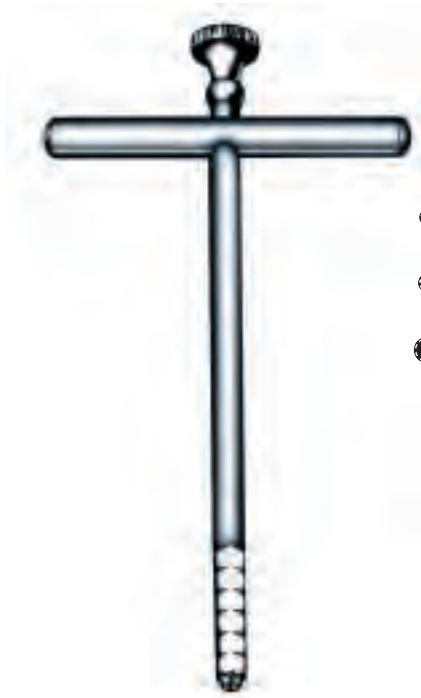
12.5	<b>40.100.13</b>
16.0	<b>40.100.16</b>
19.0	<b>40.100.19</b>
22.0	<b>40.100.22</b>
25.0	<b>40.100.25</b>



ø mm

12.5	<b>40.101.13</b>
16.0	<b>40.101.16</b>
19.0	<b>40.101.19</b>
22.0	<b>40.101.22</b>
25.0	<b>40.101.25</b>

**GALT**  
**40.101.13 - 40.101.25**  
 adjustable centering  
 point extra



- 40.102.05  
ø 5.0 mm
- 40.102.06  
ø 5.5 mm
- 40.102.08  
ø 8.0 mm

**MICHELE**  
40.102.05 - 40.102.08  
40.102.99  
marker



**TOENNIS**  
40.141.25  
25 cm



**SACHS**  
40.143.21  
21 cm



**SACHS**  
40.145.21  
21 cm



**MILLIGAN**  
40.147.21  
21 cm



**40.149.22**  
21 cm





**DAVIS**  
40.151.24  
24.5 cm



**HORSLEY**  
40.155.20  
20 cm



**PENFIELD**  
40.161.01  
18 cm



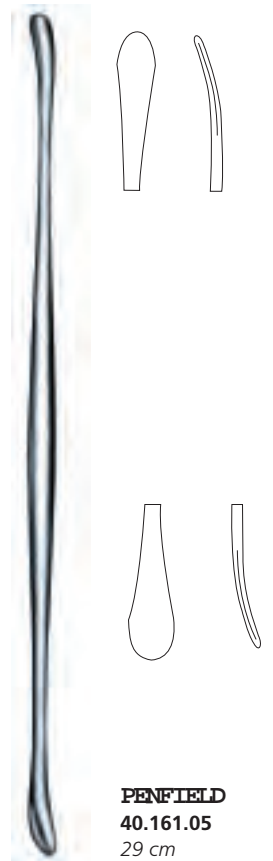
**PENFIELD**  
40.161.02 - 40.161.03  
20 cm



40.161.03



**PENFIELD**  
40.161.04  
21.5 cm



**PENFIELD**  
40.161.05  
29 cm



cm

18	40.162.18
24	40.162.24

**OLIVECRONA**  
 40.162.18 - 40.162.24



cm

19.5	40.164.19
24.5	40.164.24

**OLIVECRONA**  
 40.164.19 - 40.164.24



cm

13	40.168.13
19	40.168.19

**TOENNIS**  
 40.168.13 - 40.168.19



**HALLE**  
 40.170.20  
 20 cm



**CASPAR**  
 40.171.01  
 4.5 mm



**CASPAR**  
 40.171.02  
 4.5 mm



**CASPAR**  
 40.171.03  
 2 mm





**CASPAR**  
40.173.01  
1 mm



**CASPAR**  
40.173.02  
1 mm



**CASPAR**  
40.173.03  
1 mm



**40.188.11**  
11 cm



**40.190.10**  
1.0 mm



**40.190.18**  
1.8 mm



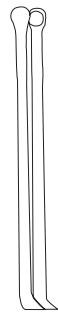
**40.191.01**



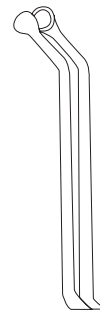
**FISCH**  
40.191.02  
18.5 cm



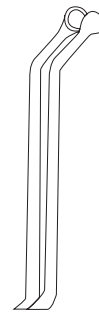
**ADSON**  
40.210.23 - 40.213.23  
23 cm



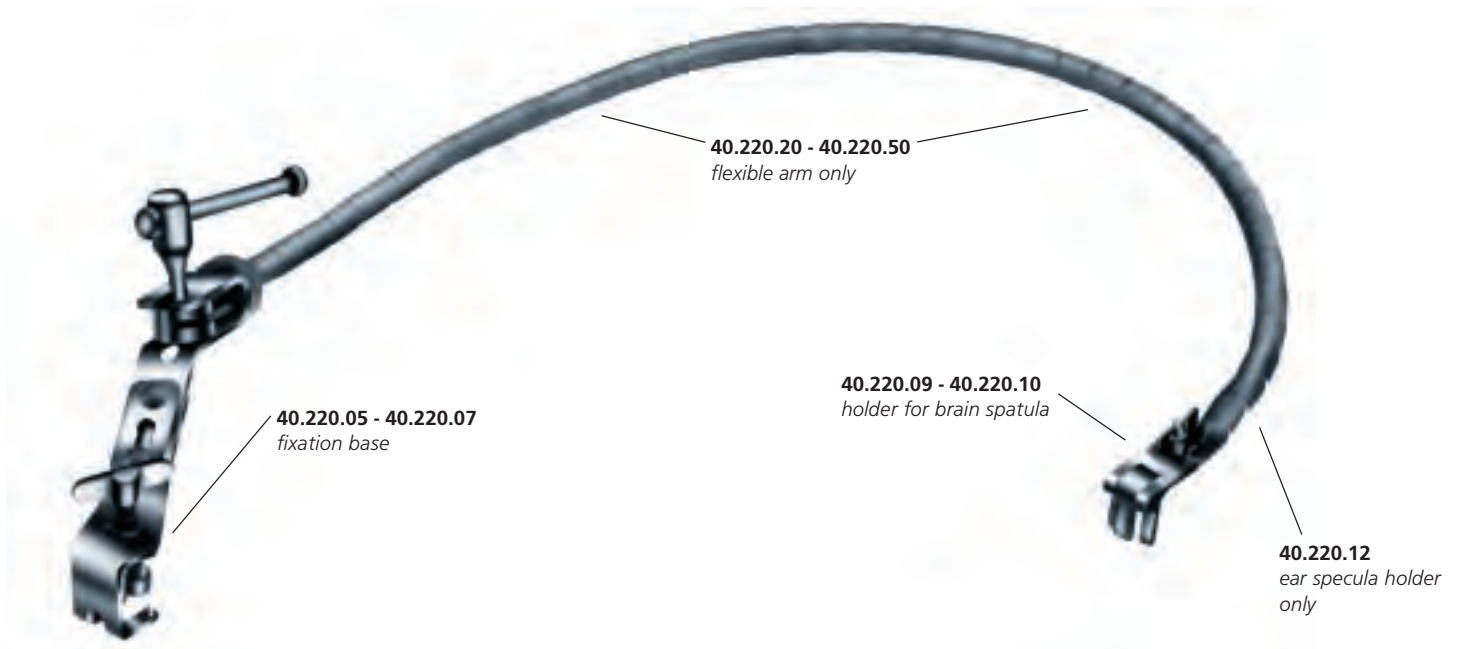
**40.210.23**



**40.211.23**



**40.213.23**



**LEYLA**  
40.220.05  
fixation base for 1 arm at skull



**LEYLA**  
40.220.07  
fixation base for 1 arms at rigid arm



**LEYLA**  
40.220.06  
fixation base for 2 arms at skull

**flexible arm only**

cm

20	40.220.20
30	40.220.30
40	40.220.40
50	40.220.50



**LEYLA**  
40.220.10  
holder for brain spatula with round stem



**LEYLA**  
40.220.12  
ear specula holder only



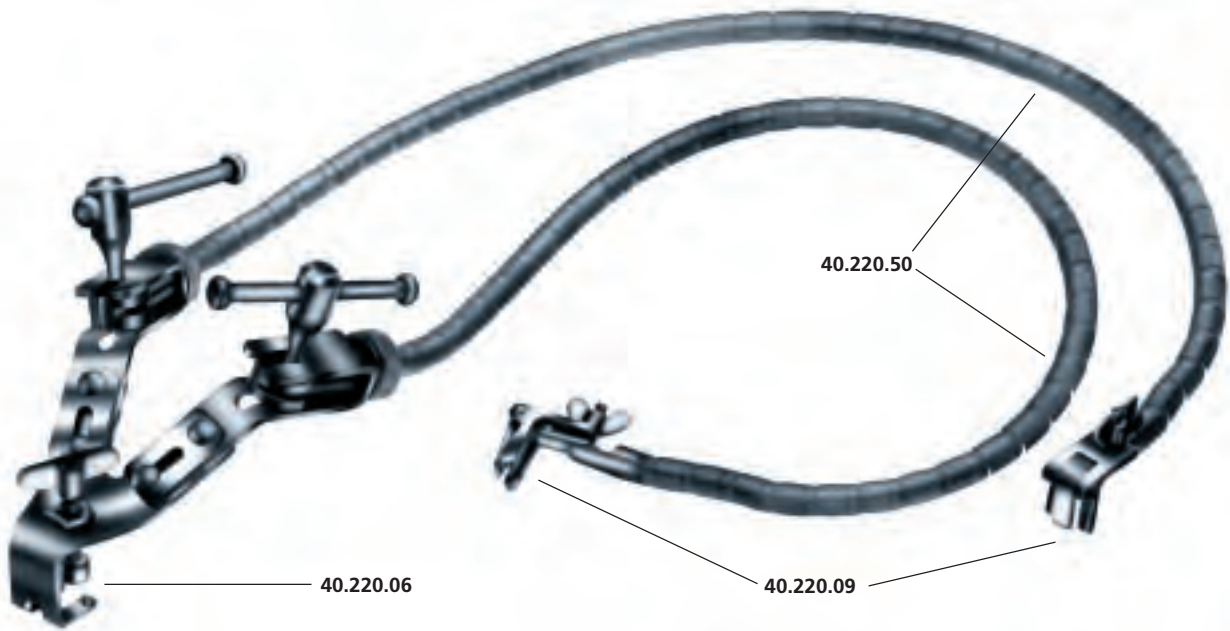
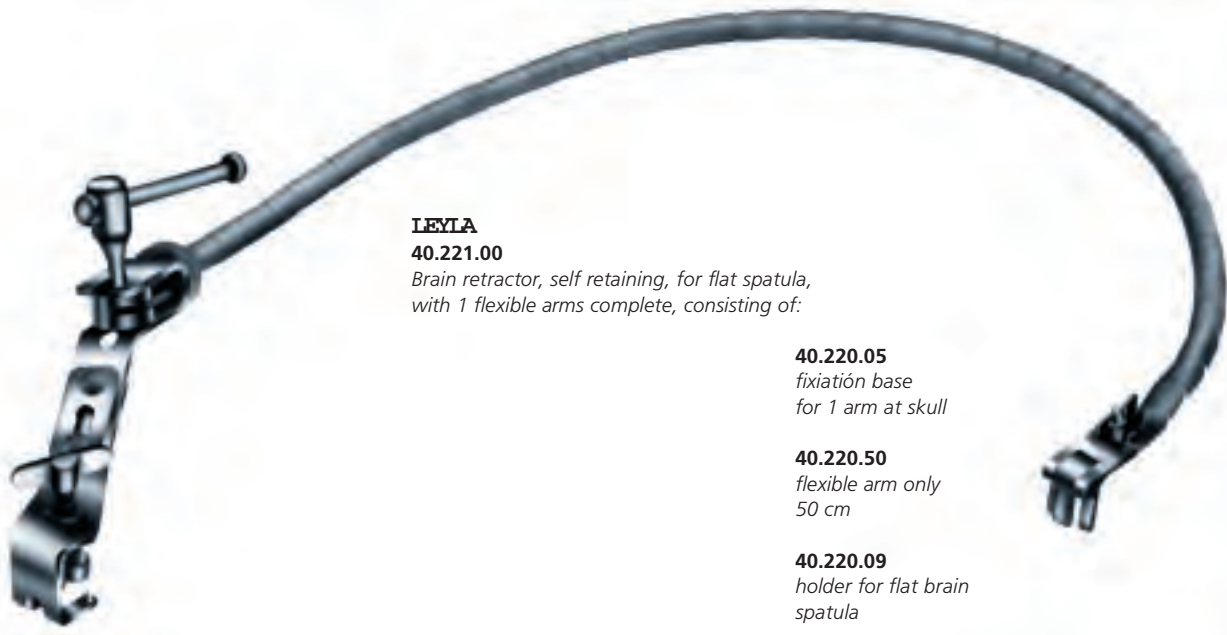
**LEYLA**  
**40.221.00**

*Brain retractor, self retaining, for flat spatula,  
with 1 flexible arms complete, consisting of:*

**40.220.05**  
*fixiación base  
for 1 arm at skull*

**40.220.50**  
*flexible arm only  
50 cm*

**40.220.09**  
*holder for flat brain  
spatula*



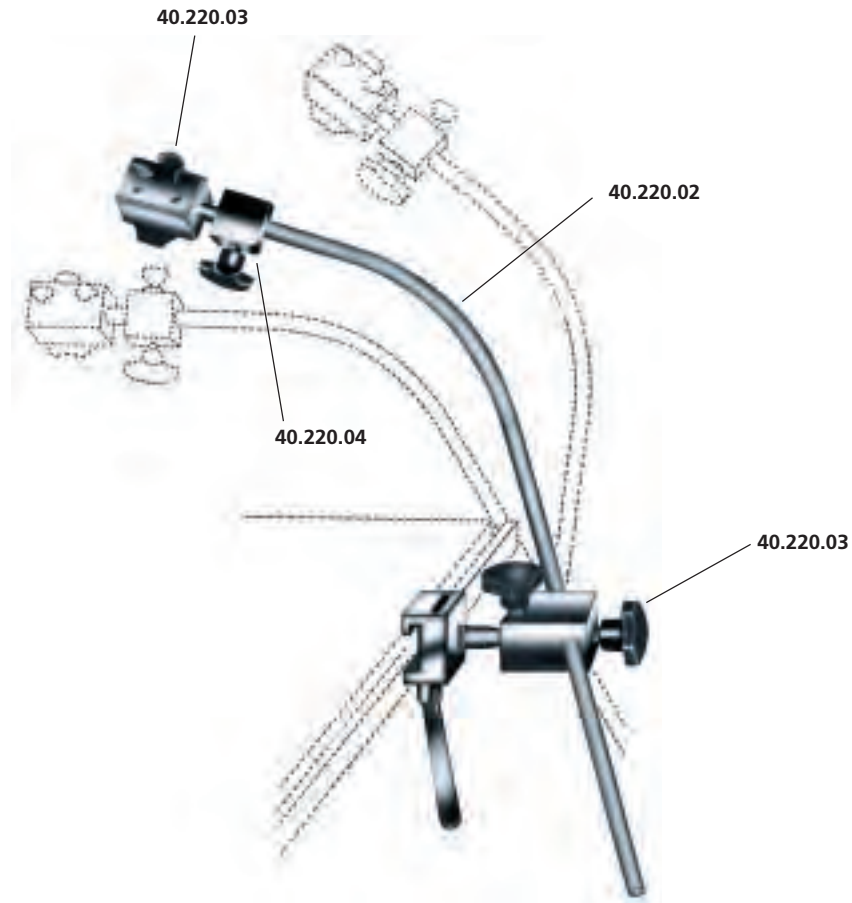
**LEYLA**  
**40.222.00**

*Brain retractor, self retaining, flexible for flat spatula,  
with 2 flexible arms complete, consisting of:*

**40.220.50**  
*flexible arm only  
2pieces 50 cm*

**40.220.06**  
*fixiation base for 2 arms at skull*

**40.220.09**  
*holder for flat brain spatula  
2 pieces*



**LEYLA**

**40.221.01**

set for fixation to operating table sideralis  
consisting of:

**LEYLA**

**40.222.02**

set content:

- 40.220.01**  
ball and socket joint, articulated
- 40.220.02**  
holding rod for fixation
- 40.220.03**  
coupling head for flexible arms max
- 40.220.04**  
coupling head rotatable
- 40.220.07**  
fixation base for 1 arm at rigid arm (2)
- 40.220.08**  
flexible arm only (2)
- 40.220.09**  
holder for flat brain spatula (2)

**40.220.01**

ball and socket joint,  
articulated

**40.220.02**

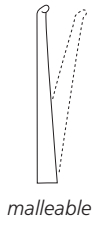
holding rod for  
fixation

**40.220.03**

coupling head  
rotatable

**40.220.04**

coupling head  
rotatable



malleable

**40.230.03 - 40.40.231.06**  
cerebral spatulas  
stainless steel, coated



**40.230.03**  
3 teeth 3 mm  
15 cm  
**40.232.03**  
3 teeth 3 mm  
18 cm



**40.230.06**  
4 teeth 6 mm  
15 cm  
**40.232.06**  
4 teeth 6 mm  
18 cm



**40.231.02**  
round 2 mm  
15 cm  
**40.233.02**  
round 2 mm  
18 cm



**40.231.04**  
round 4 mm  
15 cm  
**40.233.04**  
round 4 mm  
18 cm



**40.231.06**  
round 6 mm  
15 cm  
**40.233.06**  
round 6 mm  
18 cm



**40.234.02 - 40.236.06**

cm	mm	
15	2	<b>40.234.02</b>
15	4	<b>40.234.04</b>
15	6	<b>40.234.06</b>
18	2	<b>40.236.02</b>
18	4	<b>40.236.04</b>
18	6	<b>40.236.06</b>



**40.238.10 - 40.238.20**  
14 cm

mm	
10	<b>40.238.10</b>
15	<b>40.238.15</b>
20	<b>40.238.20</b>



**40.240.10 - 40.240.30**  
21 cm

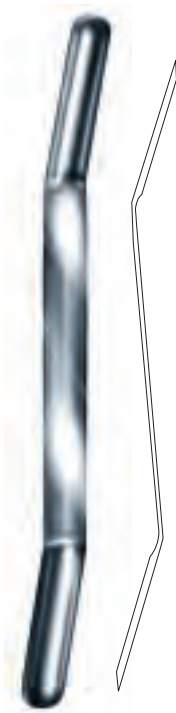
mm	
10	<b>40.240.10</b>
15	<b>40.240.15</b>
20	<b>40.240.20</b>
30	<b>40.240.30</b>



**CUSHING**  
40.250.07 - 40.250.18  
18 cm

mm

7 / 9	40.250.07
11 / 13	40.250.11
15 / 18	40.250.15
18 / 22	40.250.18



**OLIVECRONA**  
40.253.07 - 40.253.18  
18 cm

mm

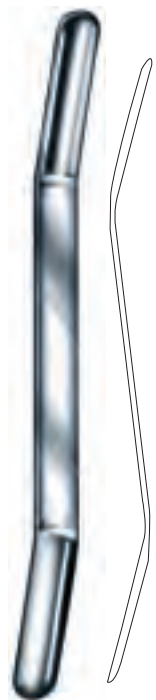
7 / 9	40.253.07
11 / 13	40.253.11
15 / 18	40.253.15
18 / 22	40.253.18



**SCOVILLE**  
40.254.10 - 40.254.16  
malleable  
20 cm

mm

10 / 13	40.254.10
16 / 19	40.254.16



**OLIVECRONA**  
40.255.07 - 40.255.18  
18 cm

mm

7 / 9	40.255.07
11 / 13	40.255.11
15 / 18	40.255.15
18 / 22	40.255.18



40.256.07 - 40.256.22

mm

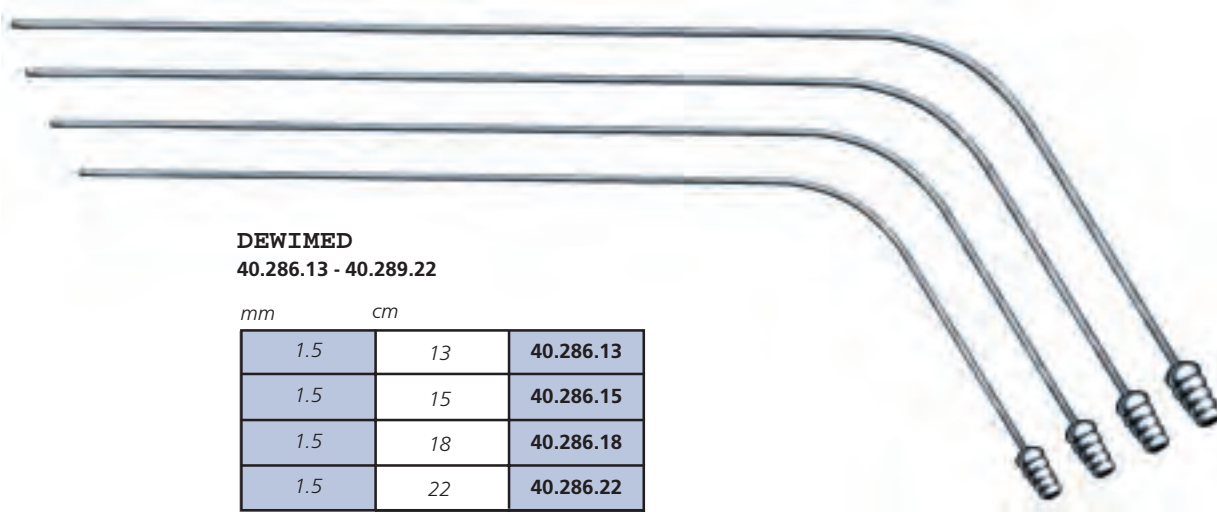
7+8	40.256.07
10+11	40.256.10
13+14	40.256.13
16+17	40.256.16
19+20	40.256.19
22+25	40.256.22



**HEIFETZ**  
40.260.08 - 40.260.17

mm

8	40.260.08
11	40.260.11
14	40.260.14
17	40.260.17



**DEWIMED**  
40.286.13 - 40.289.22

mm	cm	
1.5	13	40.286.13
1.5	15	40.286.15
1.5	18	40.286.18
1.5	22	40.286.22
2.0	13	40.287.13
2.0	15	40.287.15
2.0	18	40.287.18
2.0	22	40.287.22
2.5	13	40.288.13
2.5	15	40.288.15
2.5	18	40.288.18
2.5	22	40.288.22
3.5	13	40.289.13
3.5	15	40.289.15
3.5	18	40.289.18
3.5	22	40.289.22



**ADSON**  
40.290.14  
Ø 4 mm  
14 cm  
40.290.21  
Ø 4 mm  
21 mm



**FERGUSSON**  
40.291.04  
Ø 4 mm  
18 cm



**FRAZIER**  
40.293.06 - 40.297.12

	charr	cm	
30°	6	12	40.293.06
	8	12	40.293.08
	10	12	40.293.10
30°	12	12	40.293.12
	6	19	40.295.06
	7	19	40.295.07
30°	8	19	40.295.08
	9	19	40.295.09
	10	19	40.295.10
30°	11	19	40.295.11
	12	19	40.295.12
	15	19	40.295.15
75°	6	19	40.297.06
	7	19	40.297.07
	8	19	40.297.08
75°	9	19	40.297.09
	10	19	40.297.10
	11	19	40.297.11
75°	12	19	40.297.12



**FRAZIER**  
40.298.08 - 40.298.12

mm

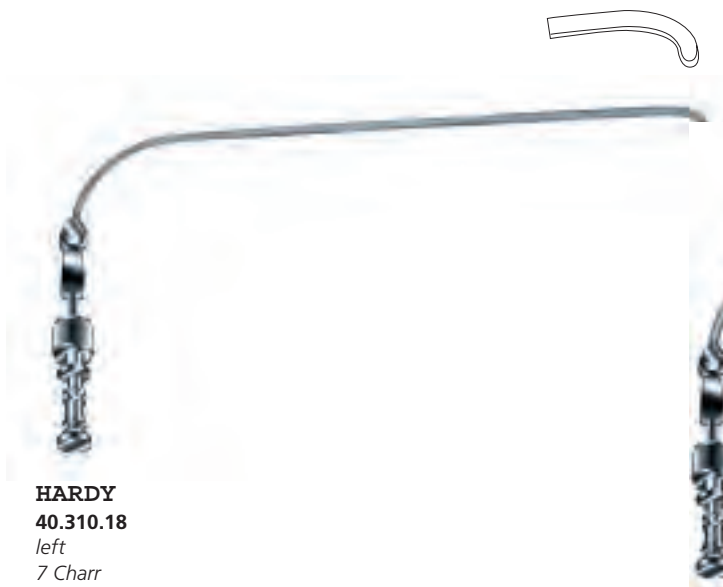
2.0	40.298.08
2.5	40.298.10
3.0	40.298.12



**CONE**  
40.302.12 - 40.302.20  
2 perforation ,9 cm

G

12	40.302.12
13	40.302.13
14	40.302.14
15	40.302.15
16	40.302.16
17	40.302.17
18	40.302.18
20	40.302.20



**HARDY**  
40.310.18  
left  
7 Charr



**HARDY**  
40.311.18  
long  
7 Charr



**DECKER**  
**40.350.05**  
 straight  
 5 mm / 14 cm  
**40.351.05**  
 curved  
 5 mm / 14 cm



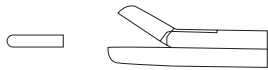
**CLOWARD**  
**40.401.16**  
 vertebral  
**40.402.13**  
 cervical



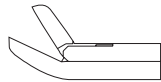
**INGE**  
**40.405.17**  
 17 cm  
**40.405.27**  
 27 cm



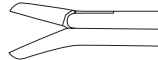
**DECKER**  
**40.413.02**  
 15 cm curved left  
 2 x 6 mm  
**40.414.02**  
 15 cm straight  
 2 x 6 mm



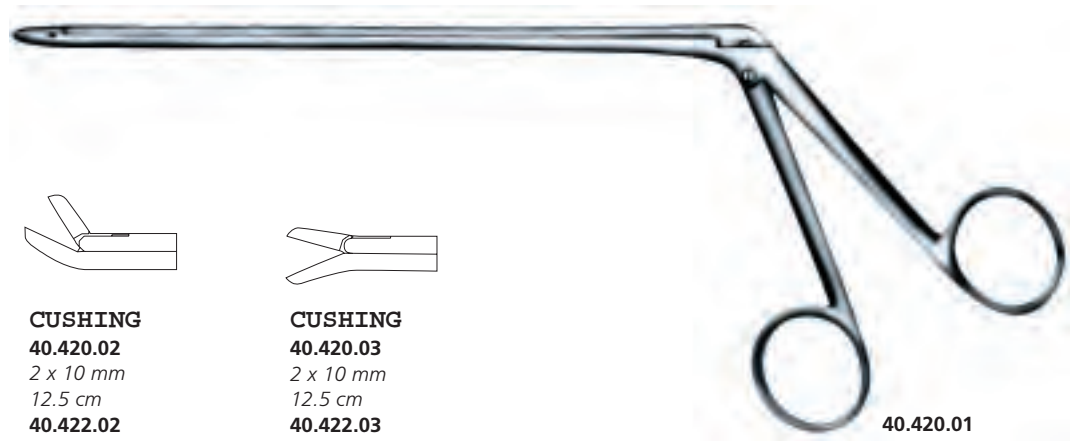
**CUSHING**  
**40.420.01**  
2 x 10 mm  
12.5 cm  
**40.422.01**  
2 x 10 mm  
18 cm



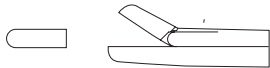
**CUSHING**  
**40.420.02**  
2 x 10 mm  
12.5 cm  
**40.422.02**  
2 x 10 mm  
18 cm



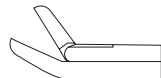
**CUSHING**  
**40.420.03**  
2 x 10 mm  
12.5 cm  
**40.422.03**  
2 x 10 mm  
18 cm



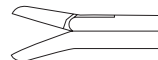
40.420.01



**LOVE GRUENW**  
**40.430.01**  
3 x 10 mm  
12.5 cm  
**40.432.01**  
3 x 10 mm  
18 cm



**LOVE GRUENW**  
**40.430.02**  
3 x 10 mm  
12.5 cm  
**40.432.02**  
3 x 10 mm  
18 cm



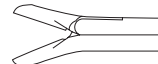
**LOVE GRUENW**  
**40.430.03**  
3 x 10 mm  
12.5 cm  
**40.432.03**  
3 x 10 mm  
18 cm



**SPURLING**  
**40.440.01**  
4 x 10 mm  
12.5 cm  
**40.442.01**  
4 x 10 mm  
18 cm



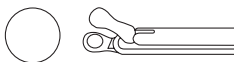
**SPURLING**  
**40.440.02**  
4 x 10 mm  
12.5 cm  
**40.442.02**  
4 x 10 mm  
18 cm



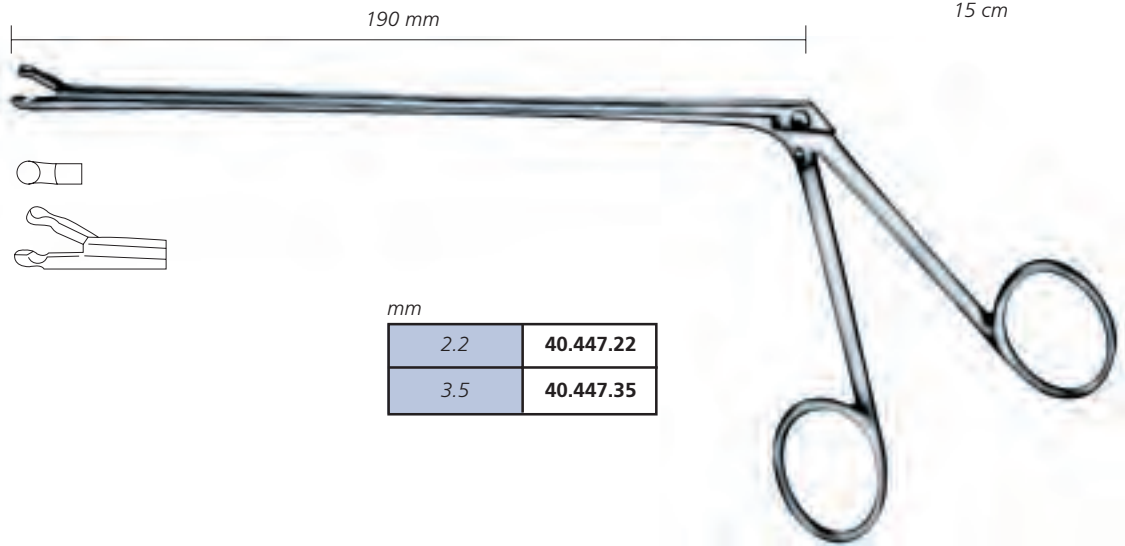
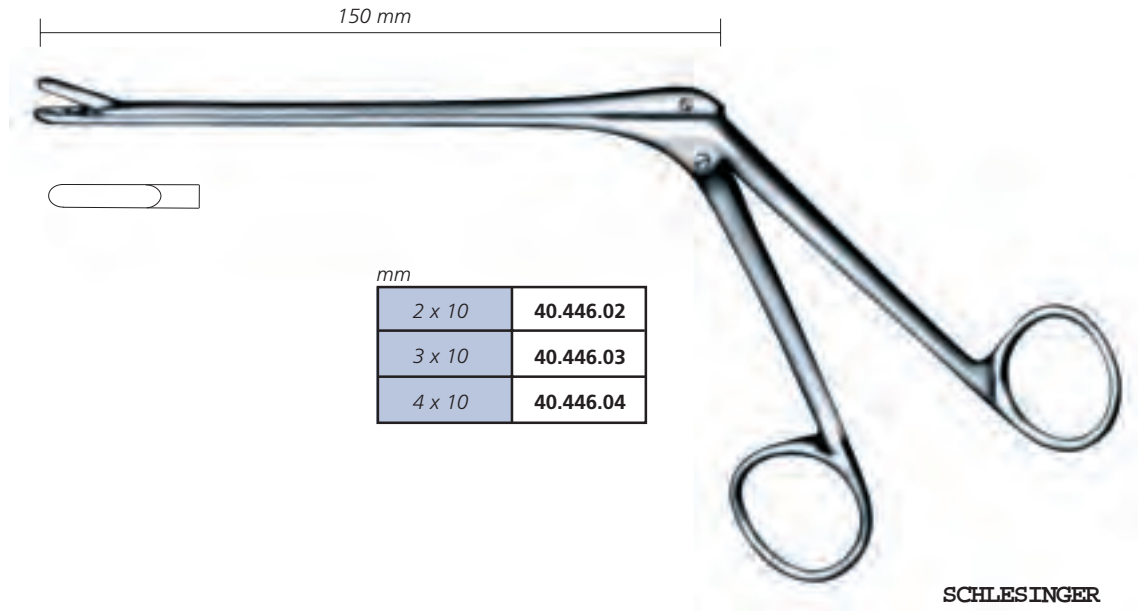
**SPURLING**  
**40.440.03**  
4 x 10 mm  
12.5 cm  
**40.442.03**  
4 x 10 mm  
18 cm

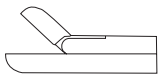
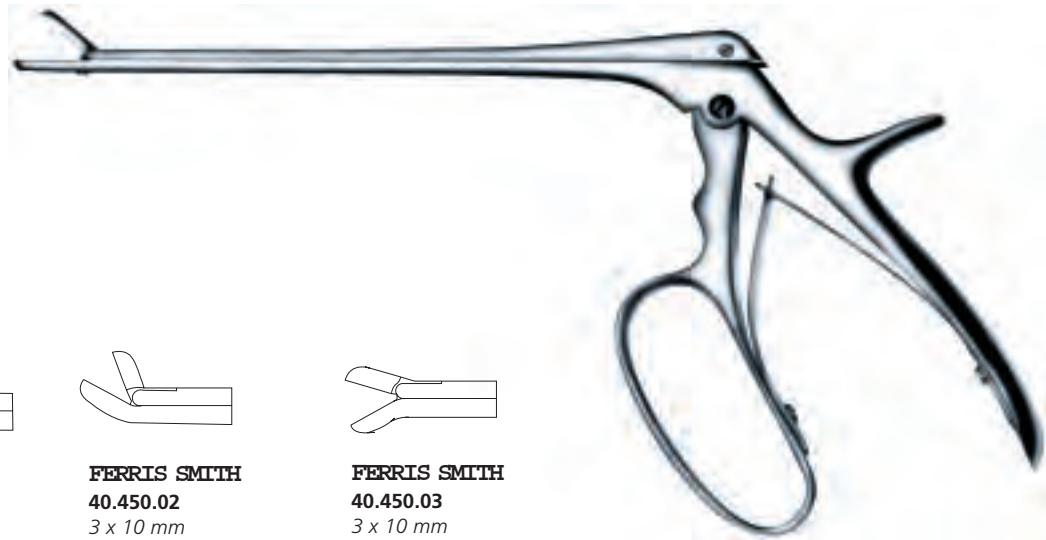


**PEAPOD**  
**40.415.02**  
2 x 6 mm  
14 cm curved up



**OLDBERG**  
**40.445.25**

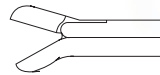




**FERRIS SMITH**  
**40.450.01**  
3 x 10 mm  
16 cm  
**40.452.01**  
3 x 10 mm  
18 cm



**FERRIS SMITH**  
**40.450.02**  
3 x 10 mm  
16 cm  
**40.452.02**  
3 x 10 mm  
18 cm

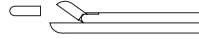


**FERRIS SMITH**  
**40.450.03**  
3 x 10 mm  
16 cm  
**40.452.03**  
3 x 10 mm  
18 cm

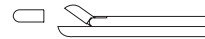
**FERRIS SMITH**  
**40.450.01 - 40.455.07**



**FERRIS SMITH CUSHING**  
**40.454.02**  
2 x 10 mm  
18 cm



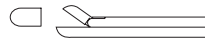
**FERRIS SMITH CUSHING**  
**40.454.03**  
3 x 10 mm  
18 cm



**FERRIS SMITH CUSHING**  
**40.454.04**  
4 x 10 mm  
18 cm



**FERRIS SMITH CUSHING**  
**40.454.05**  
5 x 10 mm  
18 cm



**FERRIS SMITH CUSHING**  
**40.454.06**  
6 x 10 mm  
18 cm



**FERRIS SMITH CUSHING**  
**40.454.07**  
7 x 10 mm  
18 cm



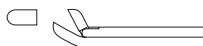
**FERRIS SMITH CUSHING**  
**40.455.02**  
2 x 10 mm  
18 cm



**FERRIS SMITH CUSHING**  
**40.455.03**  
3 x 10 mm  
18 cm



**FERRIS SMITH CUSHING**  
**40.455.04**  
4 x 10 mm  
18 cm



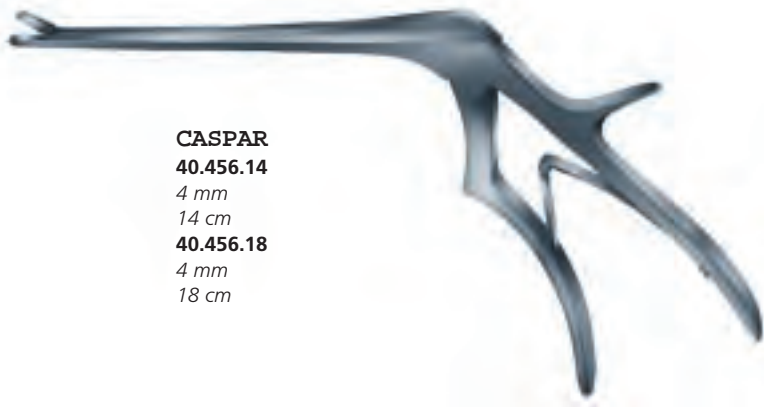
**FERRIS SMITH CUSHING**  
**40.455.05**  
5 x 10 mm  
18 cm



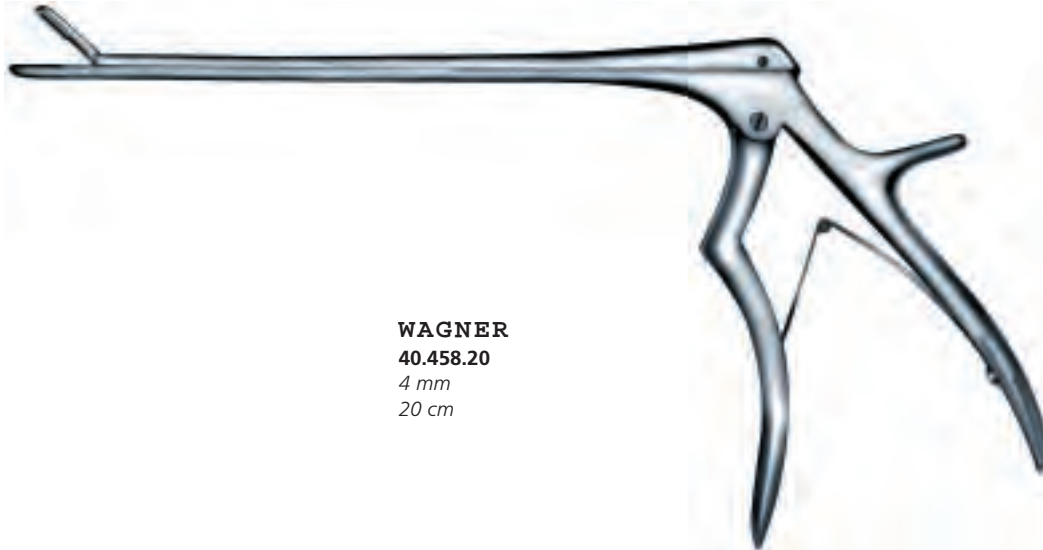
**FERRIS SMITH CUSHING**  
**40.455.06**  
6 x 10 mm  
18 cm



**FERRIS SMITH CUSHING**  
**40.455.07**  
7 x 10 mm  
18 cm



**CASPAR**  
**40.456.14**  
 4 mm  
 14 cm  
**40.456.18**  
 4 mm  
 18 cm



**WAGNER**  
**40.458.20**  
 4 mm  
 20 cm



**CASPAR**  
**40.460.20 - 40.460.60**  
 14 cm



**CASPAR**  
**40.460.20**  
 12 x 2 mm



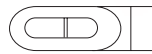
**CASPAR**  
**40.460.30**  
 12 x 3 mm



**CASPAR**  
**40.460.40**  
 14 x 4 mm



**CASPAR**  
**40.460.50**  
 14 x 5 mm



**CASPAR**  
**40.460.60**  
 16 x 6 mm



**CASPAR**  
**40.461.25**  
12 x 2.5 mm



**CASPAR**  
**40.461.40**  
14 x 4 mm



**CASPAR**  
**40.461.50**  
14 x 5 mm

**CASPAR**  
**40.461.20 - 40.461.50**  
14 cm



**CASPAR**  
**40.463.20**  
12 x 2 mm



**CASPAR**  
**40.463.25**  
12 x 2.5 mm



**CASPAR**  
**40.463.40**  
14 x 4 mm

**CASPAR**  
**40.463.20 - 40.463.40**  
14 cm



**CASPAR**  
**40.464.20**  
12 x 2 mm



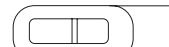
**CASPAR**  
**40.464.30**  
12 x 3 mm



**CASPAR**  
**40.464.40**  
14 x 4 mm



**CASPAR**  
**40.464.50**  
14 x 5 mm



**CASPAR**  
**40.464.60**  
16 x 6 mm

**CASPAR**  
**40.464.20 - 40.464.60**  
16 cm





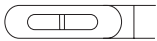
**CASPAR**  
**40.465.20**  
12 x 2 mm



**CASPAR**  
**40.465.25**  
12 x 2.5 mm



**CASPAR**  
**40.465.20 - 40.465.50**  
16 cm



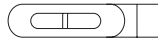
**CASPAR**  
**40.465.40**  
14 x 4 mm



**CASPAR**  
**40.465.50**  
14 x 5 mm



**CASPAR**  
**40.467.20**  
12 x 2 mm



**CASPAR**  
**40.467.25**  
12 x 2.5 mm



**CASPAR**  
**40.467.40**  
14 x 4 mm

**CASPAR**  
**40.467.20 - 40.467.40**  
16 cm



**CASPAR**  
**40.468.20 - 40.468.60**  
18.5 cm



**CASPAR**  
**40.468.20**  
12 x 2 mm



**CASPAR**  
**40.468.30**  
12 x 3 mm



**CASPAR**  
**40.468.40**  
12 x 4 mm



**CASPAR**  
**40.468.50**  
12 x 5 mm



**CASPAR**  
**40.468.60**  
12 x 6 mm



**CASPAR**  
**40.469.30**  
12 x 3 mm

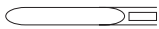
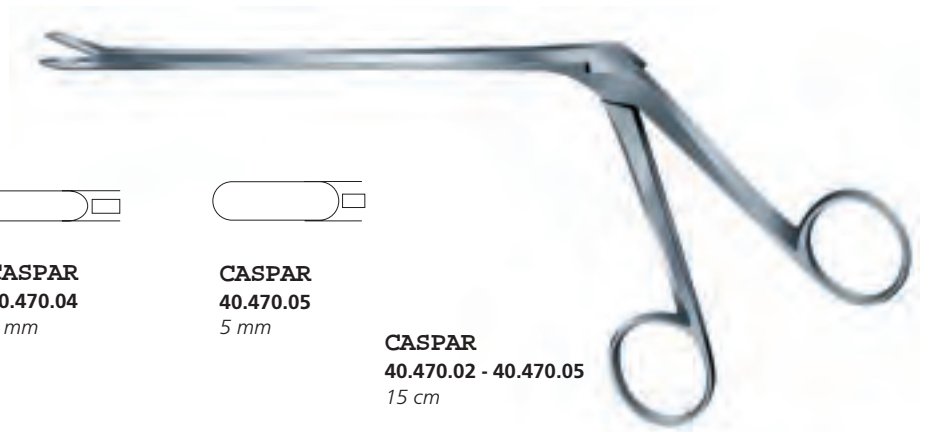


**CASPAR**  
**40.469.40**  
12 x 4 mm



**CASPAR**  
**40.469.50**  
12 x 5 mm

**CASPAR**  
**40.469.30 - 40.469.50**  
18.5 cm



**CASPAR**  
**40.470.02**  
2 mm



**CASPAR**  
**40.470.03**  
3 mm

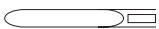


**CASPAR**  
**40.470.04**  
4 mm

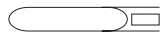


**CASPAR**  
**40.470.05**  
5 mm

**CASPAR**  
**40.470.02 - 40.470.05**  
15 cm



**CASPAR**  
**40.471.02**  
2 mm



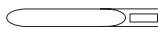
**CASPAR**  
**40.471.03**  
3 mm



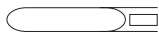
**CASPAR**  
**40.471.04**  
4 mm

**CASPAR**  
**40.471.02 - 40.471.04**  
15 cm





**CASPAR**  
**40.473.02**  
2 mm



**CASPAR**  
**40.473.03**  
3 mm



**CASPAR**  
**40.473.04**  
4 mm



**CASPAR**  
**40.473.02 - 40.473.04**  
15 cm



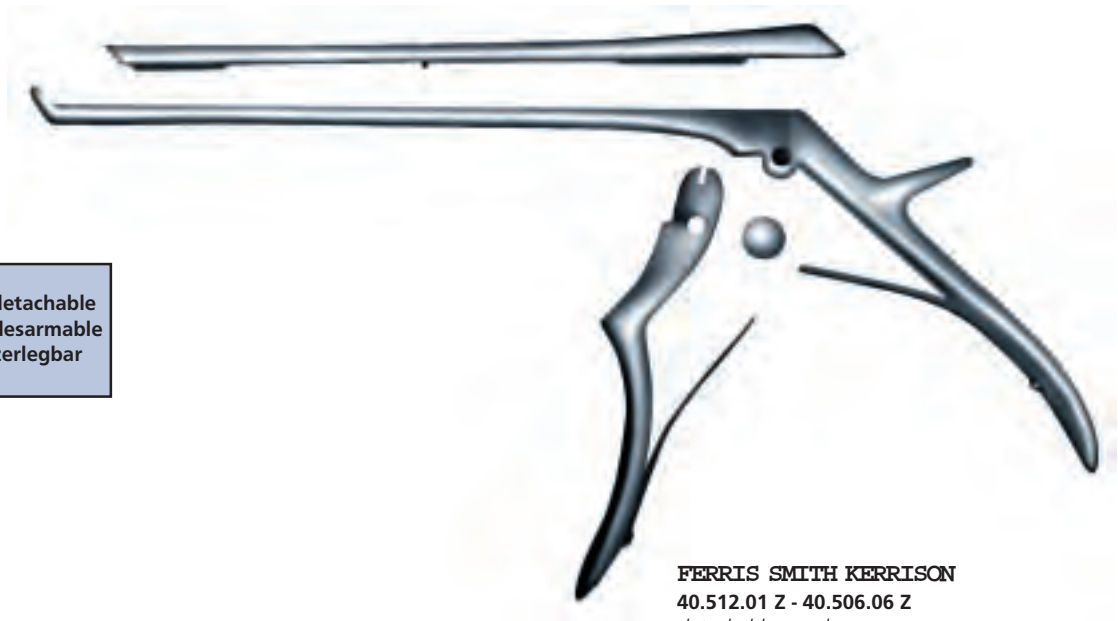
**CASPAR**  
**40.475.30**  
12 x 3 mm



**CASPAR**  
**40.475.40**  
14 x 4 mm



**CASPAR**  
**40.475.30 - 40.475.40**  
18.5 cm



Z= detachable  
desarmable  
zerlegbar

**FERRIS SMITH KERRISON**  
**40.512.01 Z - 40.506.06 Z**  
detachable punches

**Simple disassembly for cleaning**  
Desensamblaje para mejor limpieza  
Einfaches Zerlegen zur Reinigung



Separate spring mechanism  
Separar hojas de resorte  
Federmechanismus lösen



Remove retaining button  
Retirar botón negro de ensamble  
Schwarzen Halteknopf entfernen



Remove handle and top punch component  
by sliding towards handle  
Separar mango y mecanismo superior de la pinza  
Handgriff und oberes Stanzelement entfernen

**Simple assembly**  
Ensamble simple  
Einfaches Zusammenbauen



Replace top punch component  
Colocar el mecanismo superior de la pinza  
Oberes Stanzelement aufsetzen

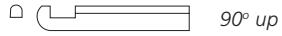


Insert handle  
Insertar mango  
Handgriff einrasten



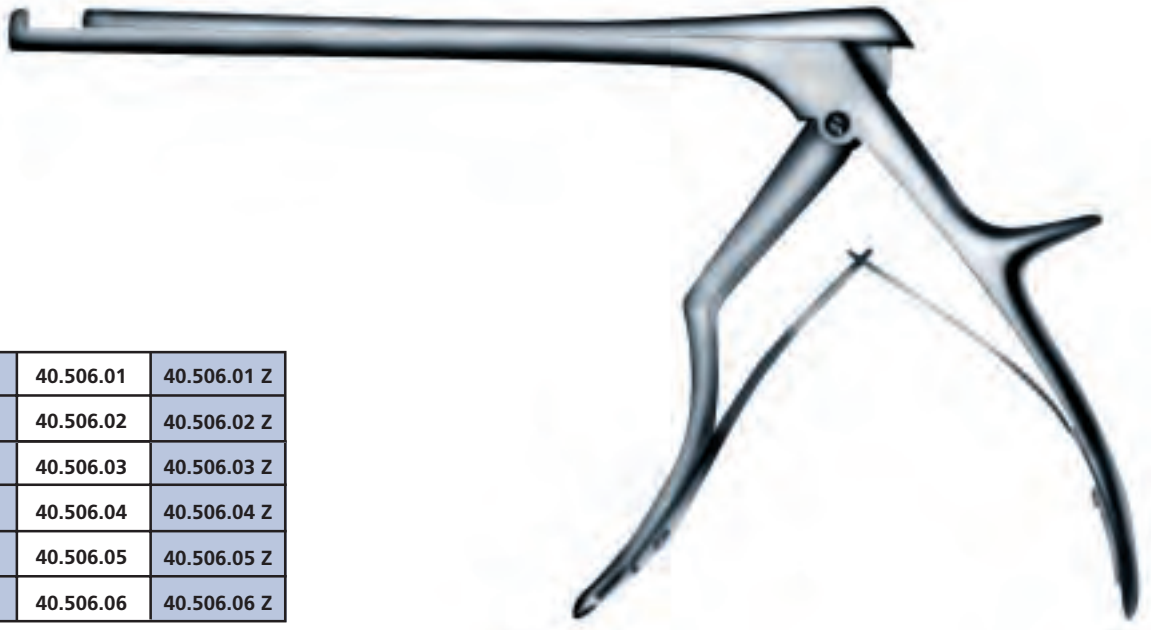
- Insert retaining pin (It is important to align the reference lines before)
- Insertar botón negro de ensamble (es importante alinear antes las líneas de referencia)
- Schwarzen Halteknopf einsetzen (vorher Markierungslinien in eine Ebene bringen)





width  
mm

1	40.506.01	40.506.01 Z
2	40.506.02	40.506.02 Z
3	40.506.03	40.506.03 Z
4	40.506.04	40.506.04 Z
5	40.506.05	40.506.05 Z
6	40.506.06	40.506.06 Z

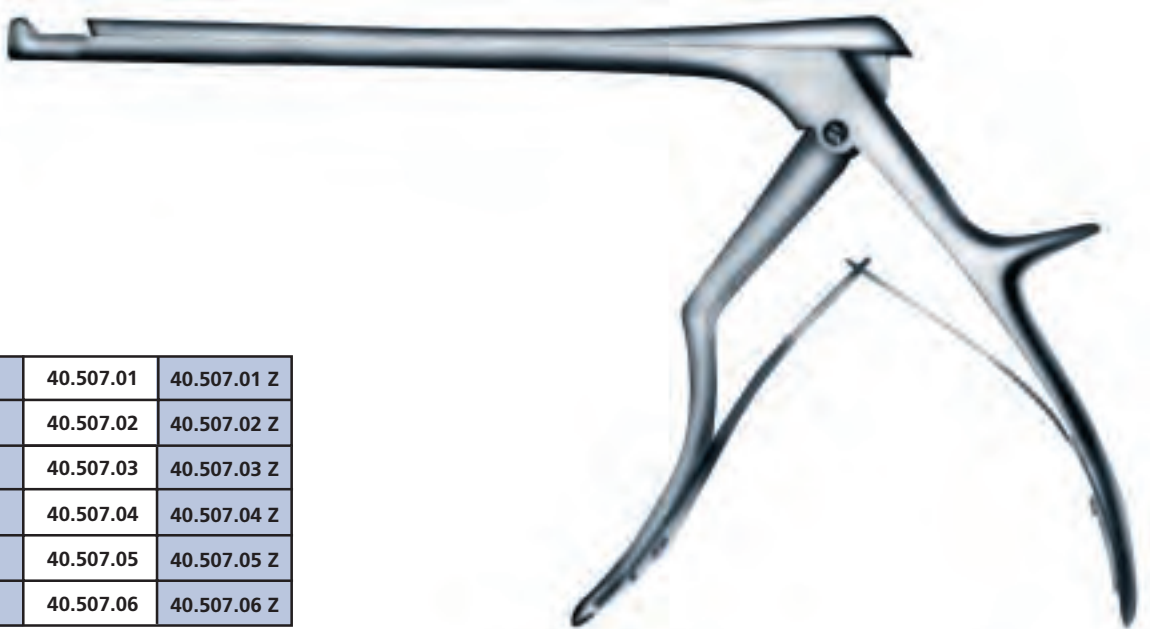


**FERRIS SMITH KERRISON**  
40.506.01 - 40.506.06 Z  
20 cm

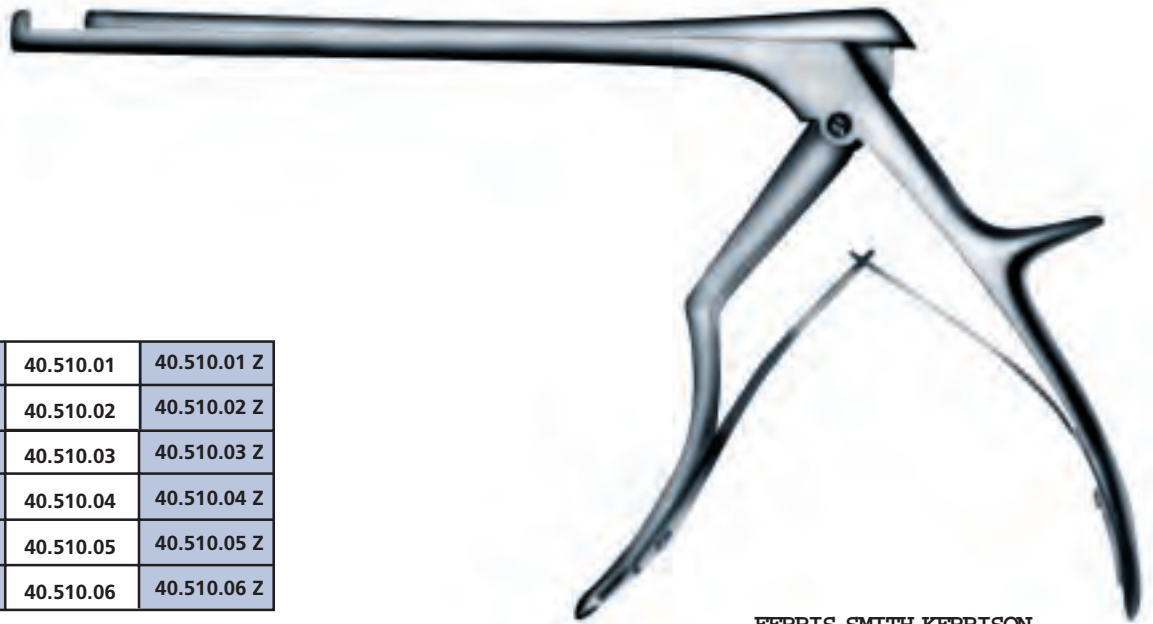
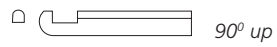


width  
mm

1	40.507.01	40.507.01 Z
2	40.507.02	40.507.02 Z
3	40.507.03	40.507.03 Z
4	40.507.04	40.507.04 Z
5	40.507.05	40.507.05 Z
6	40.507.06	40.507.06 Z



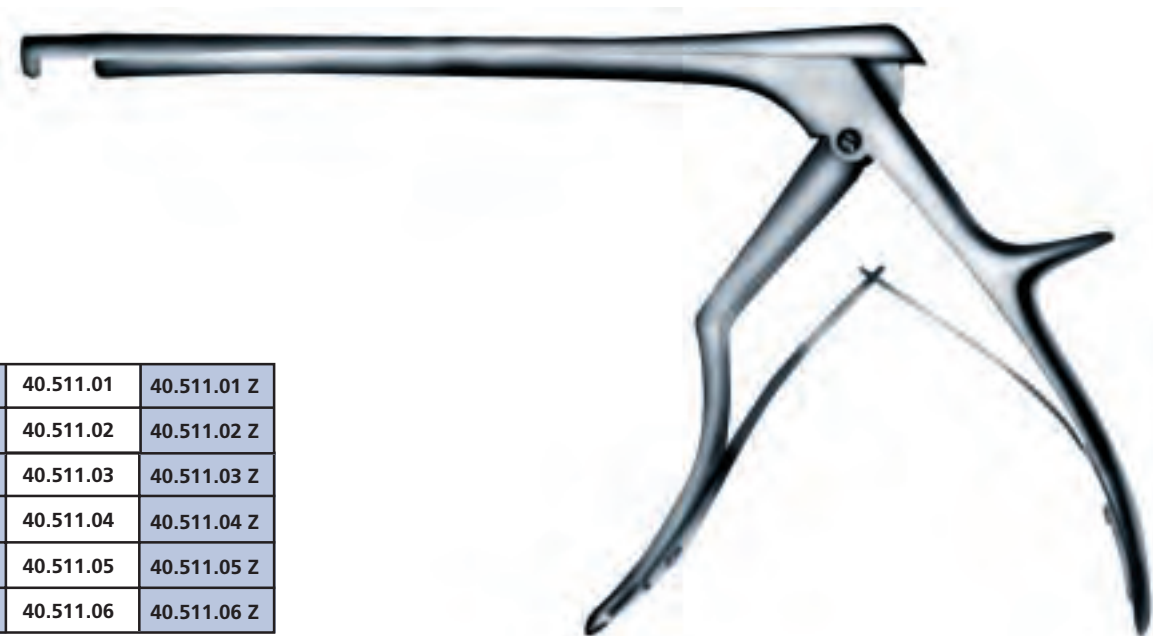
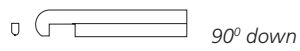
**FERRIS SMITH KERRISON**  
40.507.01 - 40.506.07 Z  
20 cm



width  
mm

1	40.510.01	40.510.01 Z
2	40.510.02	40.510.02 Z
3	40.510.03	40.510.03 Z
4	40.510.04	40.510.04 Z
5	40.510.05	40.510.05 Z
6	40.510.06	40.510.06 Z

**FERRIS SMITH KERRISON**  
40.510.01 - 40.510.06 Z  
18 cm



width  
mm

1	40.511.01	40.511.01 Z
2	40.511.02	40.511.02 Z
3	40.511.03	40.511.03 Z
4	40.511.04	40.511.04 Z
5	40.511.05	40.511.05 Z
6	40.511.06	40.511.06 Z

**FERRIS SMITH KERRISON**  
40.511.01 - 40.511.06 Z  
18 cm





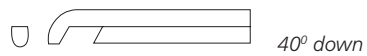
40° up

width  
mm

1	40.512.01	40.512.01 Z
2	40.512.02	40.512.02 Z
3	40.512.03	40.512.03 Z
4	40.512.04	40.512.04 Z
5	40.512.05	40.512.05 Z
6	40.512.06	40.512.06 Z



**FERRIS SMITH KERRISON**  
40.512.01 - 40.512.06 Z  
18 cm



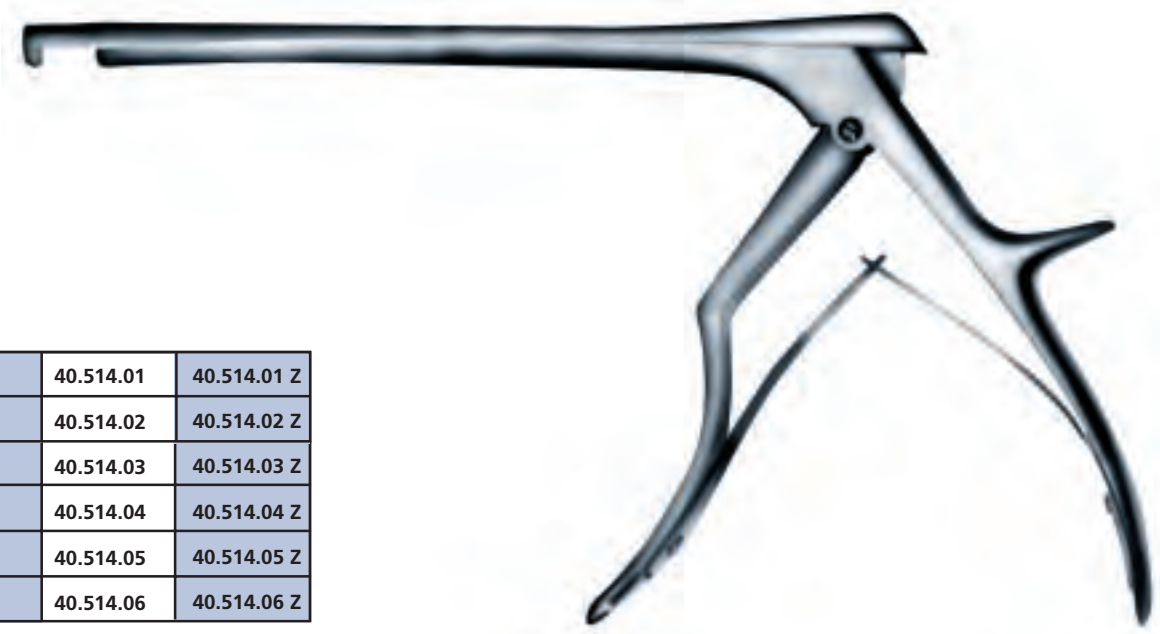
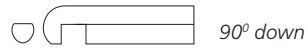
40° down

width  
mm

1	40.513.01
2	40.513.02
3	40.513.03
4	40.513.04
5	40.513.05
6	40.513.06



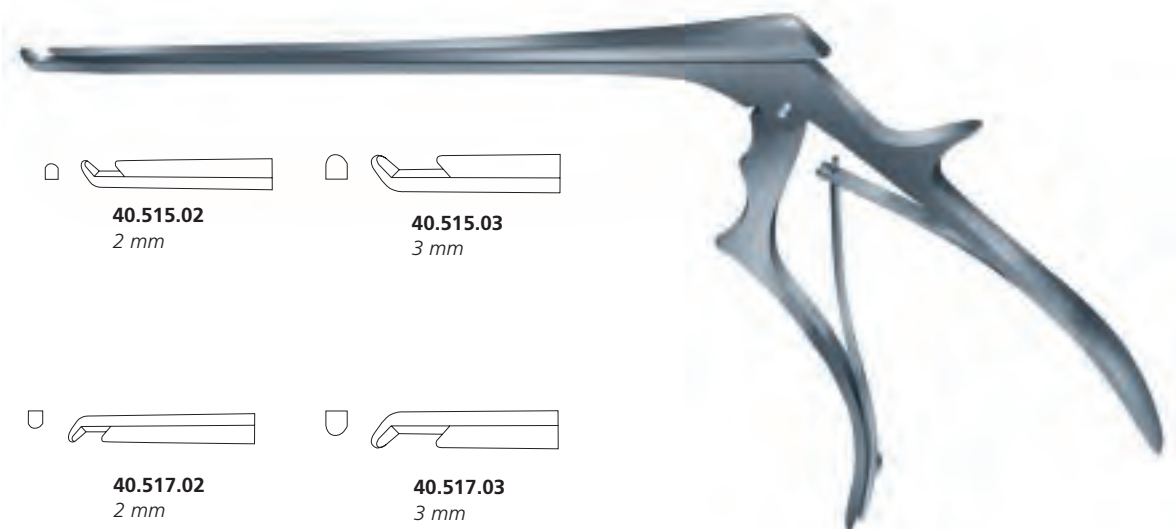
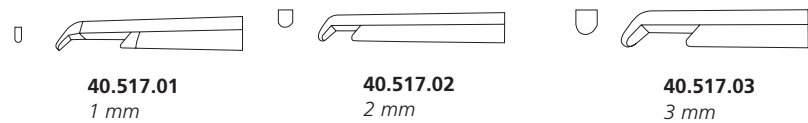
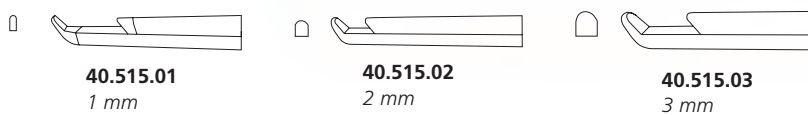
**FERRIS SMITH KERRISON**  
40.513.01 - 40.513.06  
18 cm



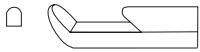
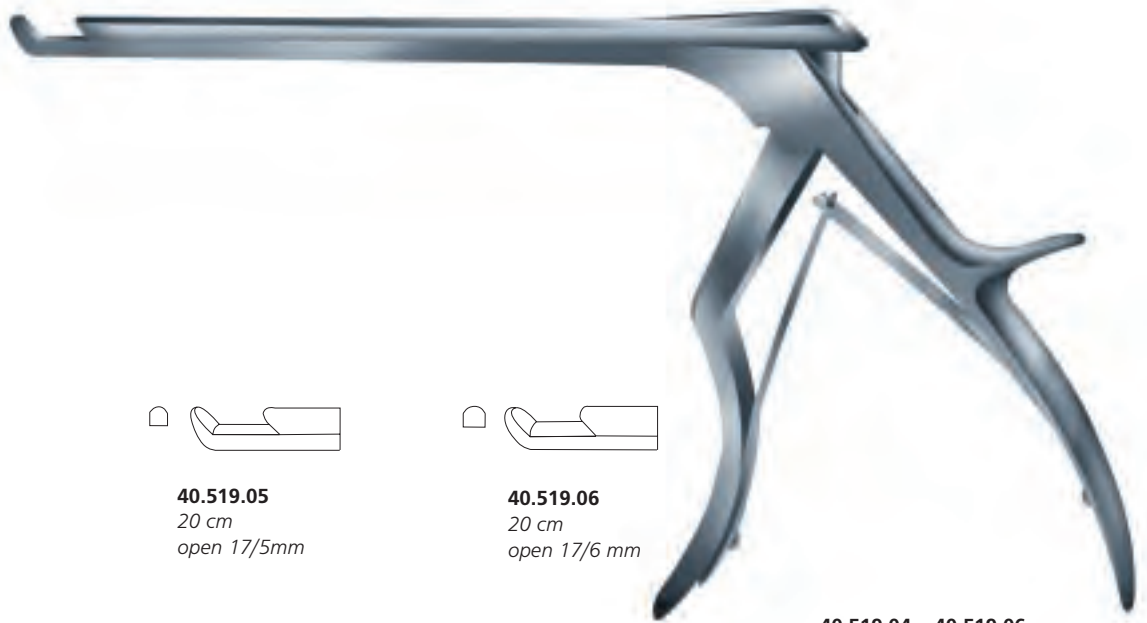
width  
mm

1	40.514.01	40.514.01 Z
2	40.514.02	40.514.02 Z
3	40.514.03	40.514.03 Z
4	40.514.04	40.514.04 Z
5	40.514.05	40.514.05 Z
6	40.514.06	40.514.06 Z

**FERRIS SMITH KERRISON**  
40.514.01 - 40.514.06 Z  
20 cm



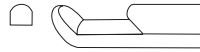
**40.515.01 - 40.517.03**  
17.5 cm



**40.519.04**  
20 cm  
open 17/4mm

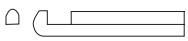


**40.519.05**  
20 cm  
open 17/5mm

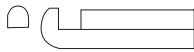


**40.519.06**  
20 cm  
open 17/6 mm

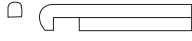
40.519.04 - 40.519.06



**COLCLOUGH**  
**40.520.03**  
3 mm/15 cm  
**40.522.03**  
3 mm/20 cm



**COLCLOUGH**  
**40.520.05**  
5 mm/15 cm  
**40.522.05**  
5 mm/20 cm



**COLCLOUGH**  
**40.524.03**  
3 mm/15 cm  
**40.526.03**  
3 mm/20 cm

**COLCLOUGH**  
40.520.03 - 40.529.05



**COLCLOUGH**  
**40.524.05**  
5mm/15 cm  
**40.526.05**  
5 mm/20 cm



**COLCLOUGH**  
**40.527.03**  
3 mm/15 cm  
**40.529.03**  
3 mm/20 cm



**COLCLOUGH**  
**40.527.05**  
5 mm/15 cm  
**40.529.05**  
5 mm/20 cm



**SCHLESING**  
40.530.03 - 40.532.05

mm/cm

3/15	40.530.03
5/15	40.530.05
3/20	40.532.03
5/20	40.532.05



**SCHLESING**  
40.534.03 - 40.536.05

mm/cm

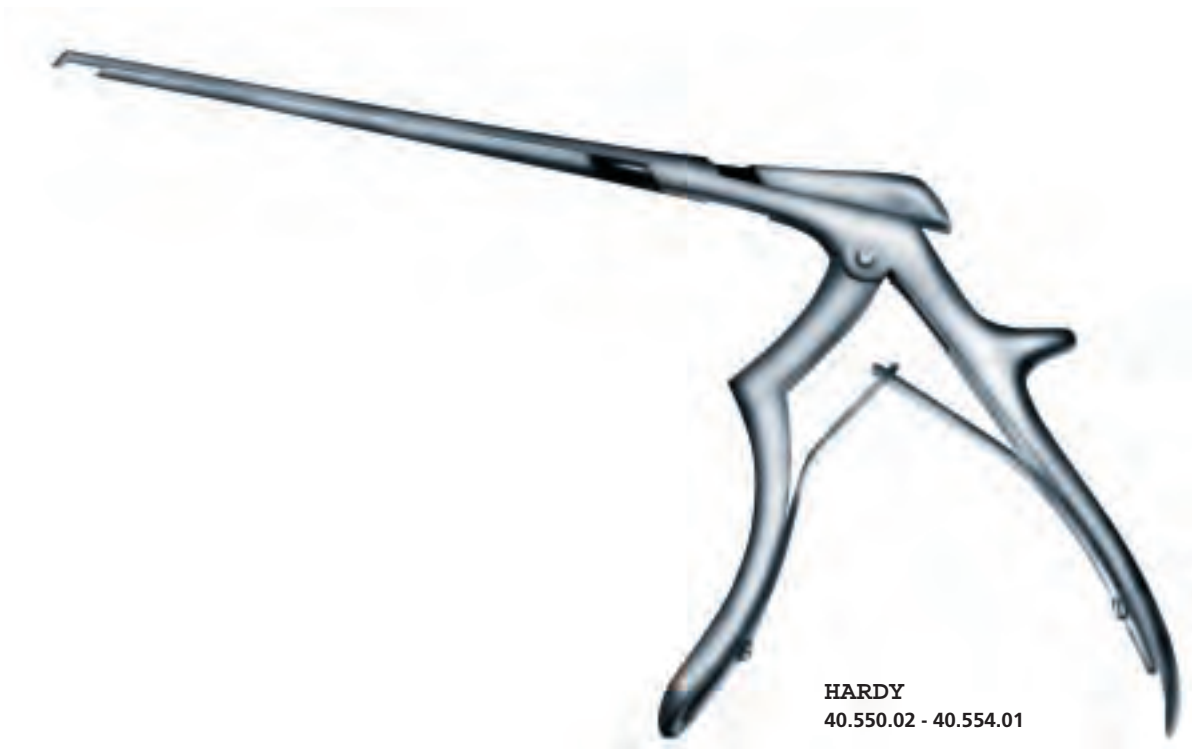
3/15	40.534.03
5/15	40.534.05
3/20	40.536.03
5/20	40.536.05



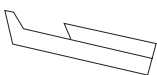
**SCHLESING**  
40.538.03 - 40.540.05  
40°

mm/cm

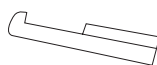
3/15	40.538.03
3/15	40.538.05
3/20	40.540.03
5/20	40.540.05



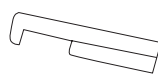
**HARDY**  
40.550.02 - 40.554.01



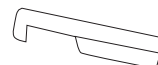
**HARDY**  
40.550.02  
40°  
2 mm/18 cm



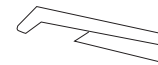
**HARDY**  
40.551.02  
90°  
2 mm/18 cm



**HARDY**  
40.552.02  
90°  
2 mm/18 cm



**HARDY**  
40.553.02  
40°  
2 mm/18 cm



**HARDY**  
40.554.01  
40°  
1 mm/18 cm

see also punches in  
chapter 46, eg. 46.303.03 ff.



## DEWIMED ANEURYSM CLIPS for permanent and temporary occlusion.

DEWIMED ANEURYSM CLIPS are used to ligate cerebral aneurysms.

The high quality clips are available in two types:

### PERMANENT

for permanent ligation with a high and safe pressure up to 200 g / 1,96 N.

This clips are used as long-lasting implants.

### TEMPORARY

for temporary ligation with a lower pressure up to 90 g / 0,88 N for an intermediate ligation of vessels.

DEWIMED ANEURYSM CLIPS are manufactured from high-grade materials: DEWIMED TITANIUM ANEURYSM CLIPS TiAl6V4 / ISO 5832-II, are made from non-ferro- magnetic TITANIUM material and are therefore MR compatible.

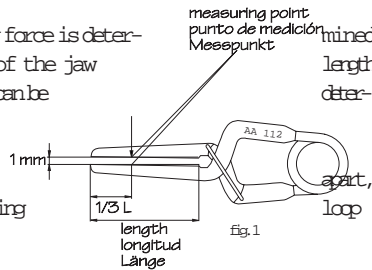
DEWIMED STAINLESS STEEL ANEURYSM CLIPS ISO 5832-I, are manufactured from a high-grade implant steel alloy.

DEWIMED ANEURYSM CLIPS are available in different shapes, allowing the surgeon to choose the one best suited for a given indication:

- jaw lengths 3 mm to 20 mm
- straight - curved - angled - bayonet-shaped
- fenestrated and unfenestrated

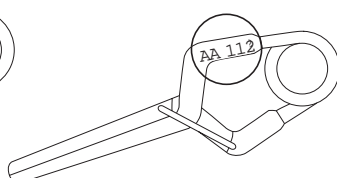
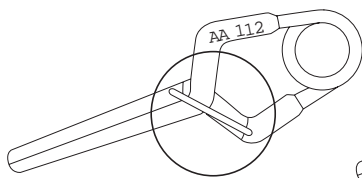
Each individual clip is subjected to continuous quality control during and following production, allowing the reliability of the clip to be monitored. In addition to individual final inspection of finish and surfaces, every DEWIMED ANEURYSM CLIP is tested for its clamping force using an electronic, computercontrolled, calibrated balance. This inspection follows the procedures laid down in ISO 9713.

Under these procedures, the clamping force is determined for a 1 mm jaw opening along 1/3 of the jaw (figure 1). This value is logged and can be mined at any time via batch tracing.



To prevent the jaws from coming apart, each clip is fitted with a unique locking at the end of the jaws (figure 2).

Each clip is provided with an individual serial number, allowing traceability back to the rawmaterial (figure 3).



DEWIMED ANEURYSM CLIPS are colour-coded for easy identification:

### Titanium

permanent	standard	titanium blue
permanent	mini	purple
temporary	standard	gold
temporary	mini	gold

### Stainless Steel

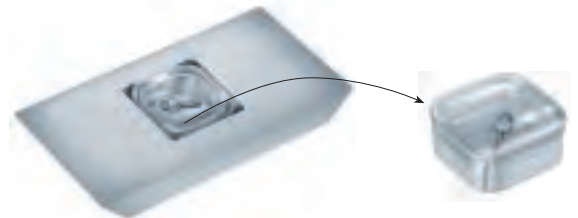
permanent	standard	grey
permanent	mini	grey
temporary	standard	grey jaws / gold spring
temporary	mini	grey jaws / gold spring

DEWIMED ANEURYSM CLIPS are packed individually.

The packaging consists of  
folding box = outer packaging



Membrane inner  
container = primary packaging



A sandwich label which can be detached and used for documentation purposes in the patient file and also for reordering is attached both to the outer packaging and also inside the packaging.

This label carries the following information:

article no.  
model  
picture  
serial number  
clamping force  
warning



For detailed Information please ask for our brochure DEWIMED ANEURYSM CLIPS, and read the description of use in each DEWIMED ANEURYSM CLIP package.



## DEWIMED clips de aneurisma de oclusión permanente y temporal.

Los **DEWIMED** Clips de Aneurisma se utilizan para ocluir aneurismas cerebrales, distinguiéndose entre:

### PERMANENTES

para oclusiones permanentes (duraderas) hasta 200 g / 1,96 N. Estos clips son usados como implantes duraderos.

### TEMPORALES

para oclusiones temporales hasta 90 g / 0.88 N de vasos.

Los **DEWIMED** clips de aneurisma están fabricados con un material de alta calidad:

**DEWIMED CLIPS DE ANEURISMAS DE TITANIO** TiAl6V4 / ISO 5832-II, es de un material no ferromagnético, y por lo tanto compatible con la RM.

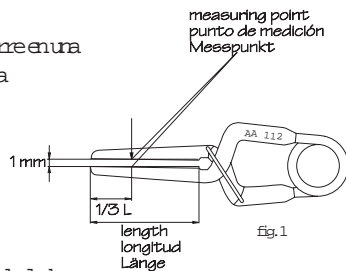
**DEWIMED CLIPS DE ANEURISMAS DE ACERO INOXIDABLE** ISO 5832-I, se fabrican a base de una aleación de acero de alta calidad para implantes.

Los clips para aneurismas de **DEWIMED** se fabrican en diferentes figuras; su utilización está en función de la indicación y de la elección por parte del cirujano:

- longitudes de boca de 3 mm a 20 mm
- rectos - curvos - acodados - en forma de bayoneta
- fenestrados y no fenestrados

Todos y cada uno de los clips se someten a un control de calidad permanente durante y al final de la producción a fin de comprobar la seguridad del clip. Aparte de este control final de la elaboración y de las superficies, se examina también la presión de cierre de cada clip de aneurisma de **DEWIMED** mediante una balanza electrónica, controlada por ordenador y calibrada. Este control se lleva a cabo en base a la norma ISO 9713.

Para ello se determina la presión de cierre en una apertura de boca de 1 mm y 1/3 de la longitud de boca (fig. 1). Este valor queda registrado en el protocolo y puede comprobarse en todo momento mediante la seguibilidad del lote.



Todo clip va provisto en el extremo de la boca de un circlip único para impedir el desvío de las mordazas (fig. 2).

A cada clip se le asigna un número de serie individual que permite su trazabilidad hasta la materia prima (fig. 3).

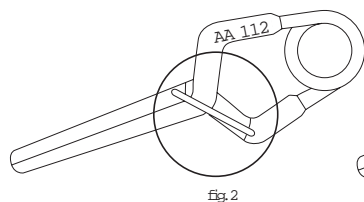


fig. 2

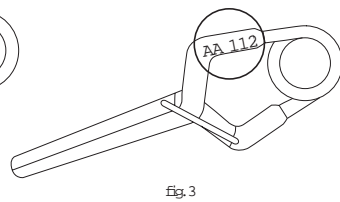


fig. 3

Todos los **DEWIMED** clips de aneurisma disponen de una codificación con colores para su fácil identificación

### Titanio

permanente	estandar	azul titanio
permanente	mini	lila
temporal	estandar	oro
temporal	mini	oro

### Acero Inoxidable

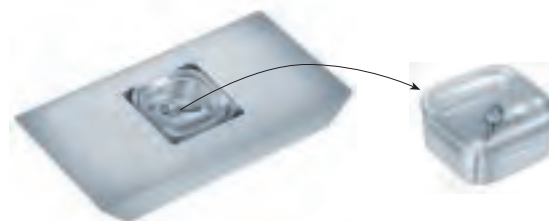
permanente	estandar	gris
permanente	mini	gris
temporal	estandar	boca gris / resorte oro
temporal	mini	boca gris / resorte oro

Cada clip de aneurisma de **DEWIMED** viene en un embalaje individual.

El embalaje consta de  
caja plegable = embalaje externo



Envase interior de  
membrana = embalaje primario



Tanto sobre del embalaje externo como dentro del embalaje se encuentra una etiqueta tipo sandwich que puede despegarse para documentar el acta del paciente y para realizar nuevos pedidos.

Esta etiqueta contiene la siguiente información:

Nb. de artículo  
Modelo  
Ilustración  
Número de serie  
Presión de cierre  
Advertencia



Para información más detallada, pregunte por el folleto **DEWIMED** clips de aneurisma y lea las instrucciones de uso anexas al paquete de cada clip.



## DEWIMED ANEURYSMEN CLIPS für permanente und temporäre Okklusion.

Die DEWIMED ANEURYSMEN CLIPS werden zur Unterbindung von zerebralen Aneurysmen verwendet. Dabei wird unterschieden in:

### PERMANENT

für permanente (dauerhafte) Unterbindung. Druck über 200 g / 1.96 N. und

### TEMPORÄR

für vorübergehende Unterbindung von Gefäßen. Druck über 90 g / 0.88 N.

DEWIMED ANEURYSMEN CLIPS werden aus hochwertigem Material hergestellt:

DEWIMED TITAN ANEURYSMEN CLIPS TiAl6V4/ ISO 5832-II, ist aus nicht ferromagnetischem Material und daher MR-kompatibel

DEWIMED EDELSTEHL ANEURYSMEN CLIPS ISO 5832-I, werden aus einer hochwertigen Implantate-Stahl-Legierung hergestellt.

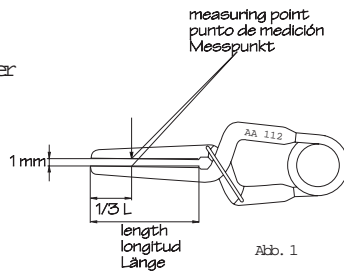
Die DEWIMED ANEURYSMEN CLIPS werden in unterschiedlichen Figuren hergestellt, die, je nach Indikation und Auswahl durch den Chirurgen, zum Einsatz kommen:

- Maulängen von 3 mm bis 20 mm
- gerade - gebogen - abgewinkelt - bajonettförmig
- gefensternt und ungefenstert

Jeder einzelne Clip unterliegt einer permanenten Qualitätskontrolle während und zum Schluß der Produktion, womit die Sicherheit des Clips kontrolliert wird. Neben der einzelnen Schlußprüfung von Verarbeitung und Oberflächen wird jeder DEWIMED ANEURYSMEN CLIP auf seine Schließkraft mittels einer elektronischen, computergesteuerten und geeichten Waage überprüft. Diese Überprüfung erfolgt entsprechend der ISO 9713.

Hierbei wird die Schließkraft bei einer Maulöffnung von 1 mm bei 1/3 der Maullänge ermittelt (Abb. 1).

Dieser Wert wird in einem Protokoll festgehalten und kann über die Chargenrückverfolgung jederzeit festgestellt werden.



Um das Ausscheren der Maulteile zu verhindern, besitzt jeder Clip einen einzigartigen Sicherheitsbügel am Maulende (Abb. 2).

Jeder Clip wird mit einer individuellen Serien-Nummer versehen, der die Rückverfolgung bis zum Rohmaterial zulässt (Abb. 3).

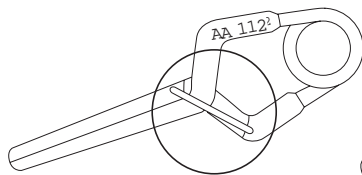


Abb. 2

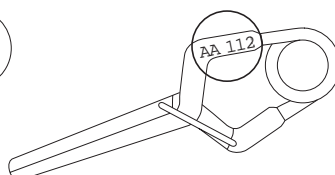


Abb. 3

Alle DEWIMED ANEURYSMEN CLIPS werden zur leichten Identifikation mit einer farblichen Codierung gekennzeichnet:

### Titan

permanent	standard	titanblau
permanent	mini	lila
temporär	standard	gold
temporär	mini	gold

### Edelstahl

permanent	standard	grau
permanent	mini	grau
temporär	standard	Maul grau / Feder gold
temporär	mini	Maul grau / Feder gold

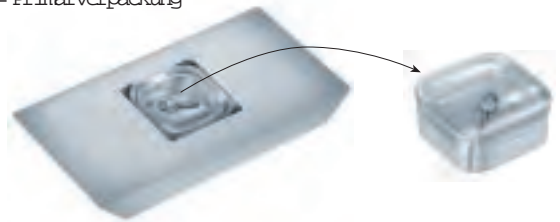
Jeder DEWIMED ANEURYSMEN CLIP ist einzeln verpackt.

Die Verpackung besteht aus Faltschachtel = Aussenverpackung



### Membran

Innendose = Primärverpackung



Sowohl auf der Aussenverpackung als auch in der Verpackung ist ein Sandwich-Etikett angebracht, das zur Dokumentation für die Patienterakte und für Nachbestellungen abgelöst werden kann.

Dieses Etikett enthält folgende Informationen:












- Artikel-Nummer
- Typ
- Abbildung
- Serien-Nummer
- Schließkraft
- Warnhinweis














Für detaillierte Informationen fragen die nach dem DEWIMED ANEURYSMEN CLIP Katalog und lesen die dem Clip beige packten Produktinformation und Beschreibung.






Dewimed mini permanent

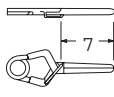
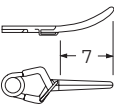
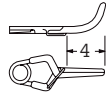
	opening (mm)	length (mm)	force g / N		
	3.3	3	110 / 1.08	40.570.33	40.570.33 T
	4.0	5	110 / 1.08	40.572.40	40.572.40 T
	3.2	3	110 / 1.08	40.580.32	40.580.32 T
	3.8	4	110 / 1.08	40.582.38	40.582.38 T
	3.6	4	110 / 1.08	40.590.36	40.590.36 T
	3.3	3	110 / 1.08	40.600.33	40.600.33 T
	4.0	5	110 / 1.08	40.602.40	40.602.40 T
	4.6	7	110 / 1.08	40.604.46	40.604.46 T
	3.6	4	110 / 1.08	40.574.36	40.574.36 T
	3.8	5	110 / 1.08	40.610.38	40.610.38 T

	opening (mm)	length (mm)	force g / N		
	3.6	4	110 / 1.08	40.575.36	40.575.36 T
	4.0	5	110 / 1.08	40.576.40	40.576.40 T
	4.4	7	110 / 1.08	40.612.44	40.612.44 T
	3.5	4	110 / 1.08	40.620.35	40.620.35 T
	4.0	5	110 / 1.08	40.722.40	40.722.40 T
	7.5	4	130 / 1.28	40.577.70	40.577.70 T
	5.7	7	130 / 1.28	40.730.57	40.730.57 T
	4.5	7	130 / 1.28	40.740.45	40.740.45 T
	3.5	5	130 / 1.28	40.750.35	40.750.35 T
	6	6	200 / 1.96	40.578.60	40.578.60 T



## Dewimed mini temporary

	opening (mm)	length (mm)	force g / N		
	3.3	3	50 / 0.49	<b>40.571.33</b>	<b>40.571.33 T</b>
					
	4.0	5	50 / 0.49	<b>40.573.40</b>	<b>40.573.40 T</b>
					
	3.8	5	50 / 0.49	<b>40.583.38</b>	<b>40.583.38 T</b>

	opening (mm)	length (mm)	force g / N		
	4.6	7	70 / 0.69	<b>40.605.46</b>	<b>40.605.46 T</b>
					
	4.4	7	70 / 0.69	<b>40.613.44</b>	<b>40.613.44 T</b>
					
	4.0	7	70 / 0.69	<b>40.723.40</b>	<b>40.723.40 T</b>



Dewimed standard permanent

	opening (mm)	length (mm)	force g / N				opening (mm)	length (mm)	force g / N			
	6.2	7	150 / 1.47	<b>40.760.62</b>	<b>40.760.62 T</b>			8.7	15	200 / 1.96	<b>40.786.87</b>	<b>40.786.87 T</b>
	7.0	9	180 / 1.77	<b>40.762.70</b>	<b>40.762.70 T</b>			5.5	7	150 / 1.47	<b>40.790.55</b>	<b>40.790.55 T</b>
	7.8	11	180 / 1.77	<b>40.764.78</b>	<b>40.764.78 T</b>			6.1	9	180 / 1.77	<b>40.792.61</b>	<b>40.792.61 T</b>
	9.2	15	200 / 1.96	<b>40.766.92</b>	<b>40.766.92 T</b>			6.5	11	180 / 1.96	<b>40.794.65</b>	<b>40.794.65 T</b>
	10.6	17	200 / 1.96	<b>40.579.06</b>	<b>40.579.06 T</b>			7.4	15	200 / 1.96	<b>40.796.74</b>	<b>40.796.74 T</b>
	11.4	20	200 / 1.96	<b>40.768.11</b>	<b>40.768.11 T</b>			5.4	7	180 / 1.77	<b>40.580.54</b>	<b>40.580.54 T</b>
	13.3	25	200 / 1.96	<b>40.770.13</b>	<b>40.770.13 T</b>			5.8	9	180 / 1.77	<b>40.581.58</b>	<b>40.581.58 T</b>
	6.0	7	150 / 1.47	<b>40.780.60</b>	<b>40.780.60 T</b>			6.2	11	180 / 1.77	<b>40.582.62</b>	<b>40.582.62 T</b>
	6.8	9	180 / 1.77	<b>40.782.68</b>	<b>40.782.68 T</b>			7.9	7	200 / 1.96	<b>40.798.79</b>	<b>40.798.79 T</b>
	7.5	11	180 / 1.77	<b>40.784.75</b>	<b>40.784.75 T</b>			8.7	9	200 / 1.96	<b>40.800.87</b>	<b>40.800.87 T</b>



## Dewimed standard permanent

	opening (mm)	length (mm)	force g / N		
	10.2	12	200 / 1.96	<b>40.583.02</b>	<b>40.583.02 T</b>
	11.9	17	180 / 1.77	<b>40.584.12</b>	<b>40.584.12 T</b>
	13.0	20	180 / 1.77	<b>40.802.13</b>	<b>40.802.13 T</b>
	6.2	5	200/1.96	<b>40.585.62</b>	<b>40.585.62 T</b>
	6.5	7	200/1.96	<b>40.810.65</b>	<b>40.810.65 T</b>
	7.8	9	200/1.96	<b>40.586.78</b>	<b>40.586.78 T</b>
	8.4	11	200 / 1.96	<b>40.587.84</b>	<b>40.587.84 T</b>
	5.6	7	200 / 1.96	<b>40.820.45</b>	<b>40.820.45 T</b>
	5.6	10	200 / 1.96	<b>40.589.56</b>	<b>40.589.56 T</b>
	8	8	200 / 1.96	<b>40.590.54</b>	<b>40.590.54 T</b>
	5.4	8	200 / 1.96	<b>40.590.54</b>	<b>40.590.54 T</b>
	10	5.6	200 / 1.96	<b>40.591.56</b>	<b>40.591.56 T</b>
	5.6	10	200 / 1.96	<b>40.591.56</b>	<b>40.591.56 T</b>
	5	7.2	200 / 1.96	<b>40.592.72</b>	<b>40.592.72 T</b>
	7.2	5	200 / 1.96	<b>40.592.72</b>	<b>40.592.72 T</b>
	9	7.2	200 / 1.96	<b>40.593.72</b>	<b>40.593.72 T</b>
	7.2	9	200 / 1.96	<b>40.593.72</b>	<b>40.593.72 T</b>
	11	8.2	200 / 1.96	<b>40.594.82</b>	<b>40.594.82 T</b>
	8.2	11	200 / 1.96	<b>40.594.82</b>	<b>40.594.82 T</b>
	7	5.7	200 / 1.96	<b>40.830.57</b>	<b>40.830.57 T</b>
	5.7	7	200 / 1.96	<b>40.830.57</b>	<b>40.830.57 T</b>
	11	8.0	200 / 1.96	<b>40.595.80</b>	<b>40.595.80 T</b>
	8.0	11	200 / 1.96	<b>40.595.80</b>	<b>40.595.80 T</b>
	9	7.0	200 / 1.96	<b>40.596.70</b>	<b>40.596.70 T</b>
	7.0	9	200 / 1.96	<b>40.596.70</b>	<b>40.596.70 T</b>



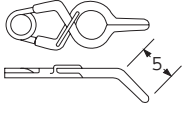
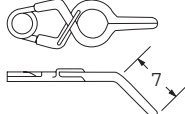
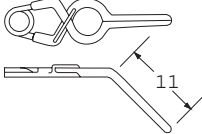
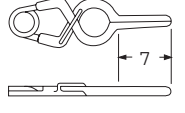
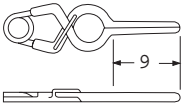
Dewimed standard temporary

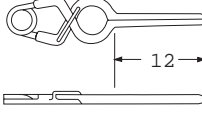
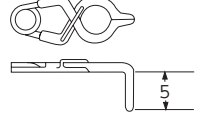
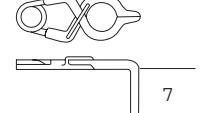
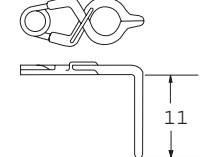
	opening (mm)	length (mm)	force g / N				opening (mm)	length (mm)	force g / N			
	7.0	9	70 / 0.69	<b>40.763.70</b>	<b>40.763.70 T</b>			6.1	9	70 / 0.69	<b>40.795.67</b>	<b>40.795.67 T</b>
	9.2	15	70 / 0.69	<b>40.767.92</b>	<b>40.767.92 T</b>			7.4	15	70 / 0.69	<b>40.797.74</b>	<b>40.797.74 T</b>
	11.4	20	90 / 0.88	<b>40.769.11</b>	<b>40.769.11 T</b>			9.9	17	90 / 0.88	<b>40.597.99</b>	<b>40.597.99 T</b>
	6.8	9	70 / 0.69	<b>40.783.68</b>	<b>40.783.68 T</b>			6.2	9	70 / 0.69	<b>40.598.62</b>	<b>40.598.62 T</b>
	8.7	15	70 / 0.69	<b>40.787.87</b>	<b>40.787.87 T</b>			7.5	13	90 / 0.88	<b>40.599.75</b>	<b>40.599.75 T</b>
	11.0	20	90 / 0.88	<b>40.789.11</b>	<b>40.789.11 T</b>							



## Dewimed standard fenestrated

∅ 3.5 mm

	opening (mm)	length (mm)	force g / N		
	5.8	5	150 / 1.47	<b>40.900.58</b>	<b>40.900.58 T</b>
	6.5	7	150 / 1.47	<b>40.902.65</b>	<b>40.902.65 T</b>
	7.2	11	180 / 1.77	<b>40.904.72</b>	<b>40.904.72 T</b>
	7.4	7	150 / 1.47	<b>40.910.74</b>	<b>40.910.74 T</b>
	8.4	9	150 / 1.47	<b>40.912.84</b>	<b>40.912.84 T</b>

	opening (mm)	length (mm)	force g / N		
	9.6	12	180 / 1.77	<b>40.914.96</b>	<b>40.914.96 T</b>
	4.9	5	150 / 1.47	<b>40.920.49</b>	<b>40.920.49 T</b>
	4.9	7	150 / 1.47	<b>40.922.49</b>	<b>40.922.49 T</b>
	4.9	11	150 / 1.47	<b>40.924.49</b>	<b>40.924.49 T</b>



**Dewimed standard fenestrated**

ø 5 mm

	opening (mm)	length (mm)	force g / N				opening (mm)	length (mm)	force g / N			
	7.9	5	150 / 1.47	<b>40.930.79</b>	<b>40.930.79 T</b>			5.5	7	150 / 1.47	<b>40.962.55</b>	<b>40.962.55 T</b>
	8.8	7	150 / 1.47	<b>40.932.88</b>	<b>40.932.88 T</b>			5.5	11	180 / 1.77	<b>40.964.55</b>	<b>40.964.55 T</b>
	10.0	11	150 / 1.47	<b>40.934.10</b>	<b>40.934.10 T</b>			5.8	5	150 / 1.47	<b>40.600.58</b>	<b>40.600.58 T</b>
	7.9	7	150 / 1.47	<b>40.940.79</b>	<b>40.940.79 T</b>			5.8	7	150 / 1.47	<b>40.601.58</b>	<b>40.601.58 T</b>
	9.1	9	150 / 1.47	<b>40.942.91</b>	<b>40.942.91 T</b>			5.8	7	150 / 1.47	<b>40.602.58</b>	<b>40.602.58 T</b>
	10.3	12	180 / 1.77	<b>40.944.10</b>	<b>40.944.10 T</b>			5.8	5	150 / 1.47	<b>40.603.58</b>	<b>40.603.58 T</b>
	6.5	5	150 / 1.47	<b>40.950.65</b>	<b>40.950.65 T</b>			5.8	7	150 / 1.47	<b>40.604.58</b>	<b>40.604.58 T</b>
	7.2	7	150 / 1.47	<b>40.952.72</b>	<b>40.952.72 T</b>			5.8	10	150 / 1.47	<b>40.605.58</b>	<b>40.605.58 T</b>
	7.8	11	180 / 1.77	<b>40.954.78</b>	<b>40.954.78 T</b>			7	5	150 / 1.47	<b>40.606.70</b>	<b>40.606.70 T</b>
	5.5	5	150 / 1.47	<b>40.960.55</b>	<b>40.960.55 T</b>			7.8	7	150 / 1.47	<b>40.607.78</b>	<b>40.607.78 T</b>



## Dewimed standard fenestrated

∅ 5 mm

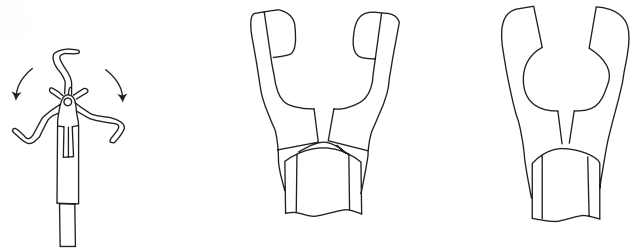
	opening (mm)	length (mm)	force g / N				opening (mm)	length (mm)	force g / N		
	8.8	10	150 / 1.47	<b>40.608.88</b>	<b>40.608.88 T</b>						
	5.8	5	150 / 1.47	<b>40.609.58</b>	<b>40.609.58 T</b>		5.6	5	150 / 1.47	<b>40.613.56</b>	<b>40.613.56 T</b>
	5.8	7	150 / 1.47	<b>40.610.58</b>	<b>40.610.58 T</b>		5.6	7	150 / 1.47	<b>40.614.56</b>	<b>40.614.56 T</b>
	6.2	7	150 / 1.47	<b>40.610.62</b>	<b>40.610.62 T</b>		5.6	5	150 / 1.47	<b>40.615.56</b>	<b>40.615.56 T</b>
	6.8	5	150 / 1.47	<b>40.611.68</b>	<b>40.611.68 T</b>		5.6	7	150 / 1.47	<b>40.616.56</b>	<b>40.616.56 T</b>
	6.2	7	150 / 1.47	<b>40.612.62</b>	<b>40.612.62 T</b>						



MALU Aneurysm Clip Applying Forceps



**Head** with straight or rotatable jaws allows to reach all anatomic situations.



four different sizes available for

- Dewimed **MINI** Aneurysm Clips
- Dewimed **STANDARD** Aneurysm Clips
- Sugita **STANDARD** Aneurysm Clips
- Sugita **LARGE** Aneurysm Clips

Available in working length of 70 mm, 90 mm and 110 mm in straight, rotatable, bayonettand/or flexible design

New designed handpiece for secure and easy handling.

Flexible type without lock.





**MALU applicer Dewimed mini**  
40.779.10 - 40.779.91

<i>rigid</i>	70 mm	90 mm	110 mm
<i>non rotating</i>			<b>40.779.10</b>
<i>rotating</i>			<b>40.779.11</b>
<i>non rotating</i>	<b>40.779.70</b>		
<i>rotating</i>	<b>40.779.71</b>		
<i>non rotating</i>		<b>40.779.90</b>	
<i>rotating</i>		<b>40.779.91</b>	

**MALU applicer Dewimed standard**  
40.780.10 - 40.780.91

<i>rigid</i>	70 mm	90 mm	110 mm
<i>non rotating</i>			<b>40.780.10</b>
<i>rotating</i>			<b>40.780.11</b>
<i>non rotating</i>	<b>40.780.70</b>		
<i>rotating</i>	<b>40.780.71</b>		
<i>non rotating</i>		<b>40.780.90</b>	
<i>rotating</i>		<b>40.780.91</b>	

**MALU applicer Sugita large**  
40.780.10 S - 40.779.91 S

<i>rigid</i>	70 mm	90 mm	110 mm
<i>non rotating</i>			<b>40.780.10 S</b>
<i>rotating</i>			<b>40.780.11 S</b>
<i>non rotating</i>	<b>40.780.70 S</b>		
<i>rotating</i>	<b>40.780.71 S</b>		
<i>non rotating</i>		<b>40.780.90 S</b>	
<i>rotating</i>		<b>40.780.91 S</b>	

**MALU applicer Sugita standard**  
40.779.10 S - 40.779.91 S

<i>rigid</i>	70 mm	90 mm	110 mm
<i>non rotating</i>			<b>40.779.10 S</b>
<i>rotating</i>			<b>40.779.11 S</b>
<i>non rotating</i>	<b>40.779.70 S</b>		
<i>rotating</i>	<b>40.779.71 S</b>		
<i>non rotating</i>		<b>40.779.90 S</b>	
<i>rotating</i>		<b>40.779.91 S</b>	



**MALU** applier Dewimed mini  
40.779.12 - 40.779.93

	360° revolving	70 mm	90 mm	110 mm
non rotating				40.779.12
rotating				40.779.13
non rotating	40.779.72			
rotating	40.779.73			
non rotating			40.779.92	
rotating			40.779.93	

**MALU** applier Dewimed standard  
40.780.12 - 40.780.93

	360° revolving	70 mm	90 mm	110 mm
non rotating				40.780.12
rotating				40.780.13
non rotating	40.780.72			
rotating	40.780.73			
non rotating			40.780.92	
rotating			40.780.93	

**MALU** applier Sugita large  
40.780.12 S - 40.780.93 S

	360° revolving	70 mm	90 mm	110 mm
non rotating				40.780.12 S
rotating				40.780.13 S
non rotating	40.780.72 S			
rotating	40.780.73 S			
non rotating			40.780.92 S	
rotating			40.780.93 S	

**MALU** applier Sugita standard  
40.779.12 S - 40.779.93 S

	360° revolving	70 mm	90 mm	110 mm
non rotating				40.779.12 S
rotating				40.779.13 S
non rotating	40.779.72 S			
rotating	40.779.73 S			
non rotating			40.779.92 S	
rotating			40.779.93 S	





**MALU applicator Dewimed mini**  
**40.781.10 - 40.781.91**

bayonet-shaped    70 mm                      90 mm                      110 mm

non rotating			<b>40.781.10</b>
rotating			<b>40.781.11</b>
non rotating	<b>40.781.70</b>		
rotating	<b>40.781.71</b>		
non rotating		<b>40.781.90</b>	
rotating		<b>40.781.91</b>	

**MALU applicator Dewimed standard**  
**40.782.10 - 40.782.91**

bayonet-sharped    70 mm                      90 mm                      110 mm

non rotating			<b>40.782.10</b>
rotating			<b>40.782.11</b>
non rotating	<b>40.782.70</b>		
rotating	<b>40.782.71</b>		
non rotating		<b>40.782.90</b>	
rotating		<b>40.782.91</b>	

**MALU applicator Sugita large**  
**40.782.10 S - 40.782.91 S**

bayonet-shaped    70 mm                      90 mm                      110 mm

non rotating			<b>40.782.10 S</b>
rotating			<b>40.782.11 S</b>
non rotating	<b>40.782.70 S</b>		
rotating	<b>40.782.71 S</b>		
non rotating		<b>40.782.90 S</b>	
rotating		<b>40.782.91 S</b>	

**MALU applicator Sugita standard**  
**40.781.10 S - 40.781.91 S**

bayonet-shaped    70 mm                      90 mm                      110 mm

non rotating			<b>40.781.10 S</b>
rotating			<b>40.781.11 S</b>
non rotating	<b>40.781.70 S</b>		
rotating	<b>40.781.71 S</b>		
non rotating		<b>40.781.90 S</b>	
rotating		<b>40.781.91 S</b>	



**MAJU** applier Dewimed mini  
40.775.10 - 40.775.91

flexible	70 mm	90 mm	110 mm
rotating			40.775.10
non rotating			40.775.11
rotating	40.775.70		
non rotating	40.775.71		
rotating		40.775.90	
non rotating		40.775.91	

**MAJU** applier Dewimed standard  
40.776.10 - 40.776.91

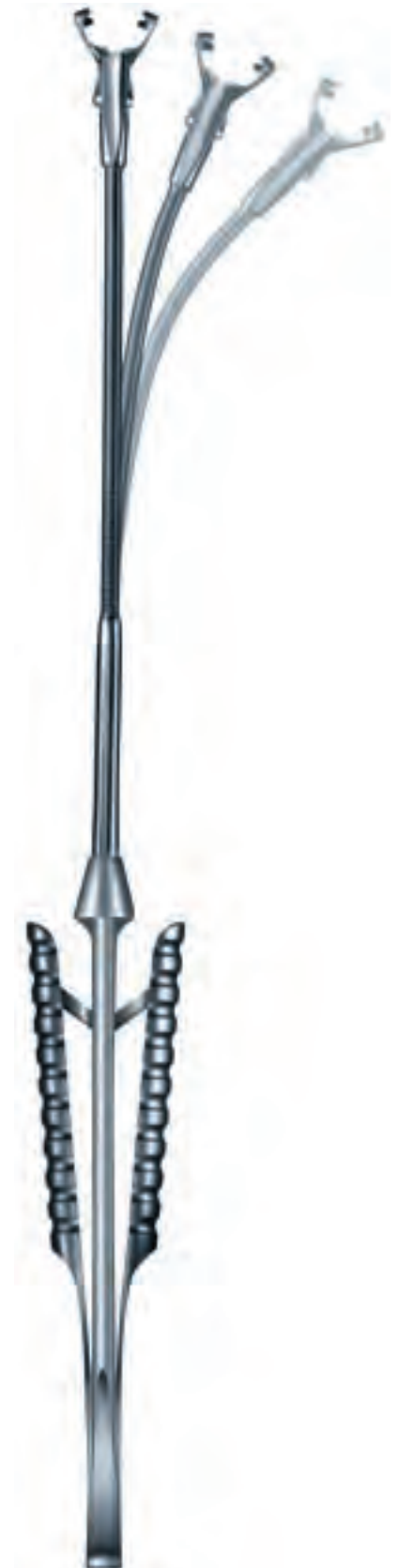
flexible	70 mm	90 mm	110 mm
rotating			40.776.10
non rotating			40.776.11
rotating	40.776.70		
non rotating	40.776.71		
rotating		40.776.90	
non rotating		40.776.91	

**MAJU** applier Sugita large  
40.776.10 S - 40.776.91 S

flexible	70 mm	90 mm	110 mm
rotating			40.776.10 S
non rotating			40.776.11 S
rotating	40.776.70 S		
non rotating	40.776.71 S		
rotating		40.776.90 S	
non rotating		40.776.91 S	

**MAJU** applier Sugita standard  
40.775.10 S - 40.775.91 S

flexible	70 mm	90 mm	110 mm
rotating			40.775.10 S
non rotating			40.775.11 S
rotating	40.775.70 S		
non rotating	40.775.71 S		
rotating		40.775.90 S	
non rotating		40.775.91 S	





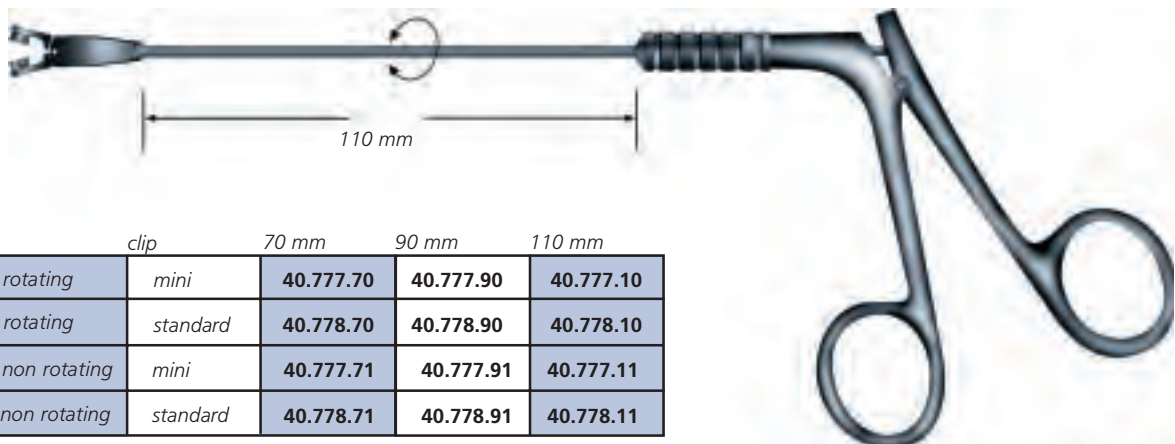
		clip	170 mm	210 mm	230 mm
non rotating	mini		<b>40.772.17</b>		
non rotating	standard		<b>40.774.17</b>		
rotating	mini		<b>40.772.67</b>		
rotating	standard		<b>40.774.67</b>		
non rotating	mini			<b>40.772.21</b>	
non rotating	standard			<b>40.774.21</b>	
rotating	mini			<b>40.772.71</b>	
rotating	standard			<b>40.774.71</b>	
non rotating	mini				<b>40.772.23</b>
non rotating	standard				<b>40.774.23</b>
rotating	mini				<b>40.772.73</b>
rotating	standard				<b>40.774.73</b>



		clip	180 mm
non rotating	mini		<b>40.772.18</b>
non rotating	standard		<b>40.774.18</b>
rotating	mini		<b>40.772.68</b>
rotating	standard		<b>40.774.68</b>

**DEWIMED**  
**40.772.17 - 40.774.73**  
 bayonet

**DEWIMED**  
**40.772.18 - 40.774.68**  
 straight



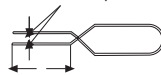
		clip	70 mm	90 mm	110 mm
rotating	mini		<b>40.777.70</b>	<b>40.777.90</b>	<b>40.777.10</b>
rotating	standard		<b>40.778.70</b>	<b>40.778.90</b>	<b>40.778.10</b>
non rotating	mini		<b>40.777.71</b>	<b>40.777.91</b>	<b>40.777.11</b>
non rotating	standard		<b>40.778.71</b>	<b>40.778.91</b>	<b>40.778.11</b>

**CASPAR**  
**40.777.10 - 40.778.91**



**BIEMER**  
**40.996.14**  
with lock  
14.5

force measured  
fuerza punto de medición  
Kraft Meßpunkt

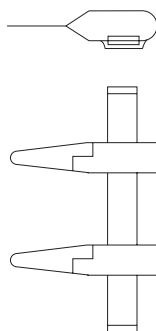


**BIEMER**  
**90.900.40 - 90.994.60**

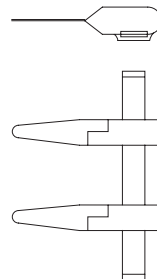
	opening (mm)	length (mm)	force g / N	
	4	6	30 - 40 g 0.29 - 0.39 N	<b>40.900.40</b>
	5	9	30 - 40 g 0.29 - 0.39 N	<b>40.992.50</b>
	5	6	20 - 25 g 0.20 - 0.25	<b>40.994.60</b>



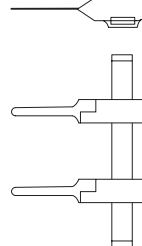
**BIEMER**  
**40.998.14**  
14.5 cm



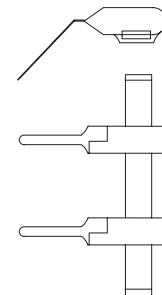
**BIEMER MUELLER**  
**40.996.30**  
opening 3 mm  
4.5 mm



**BIEMER MUELLER**  
**40.996.50**  
opening 5 mm  
9 mm



**BIEMER MUELLER**  
**40.998.50**  
opening 5 mm  
9 mm



**BIEMER MUELLER**  
**40.999.50**  
opening 5 mm  
9 mm





45°

horizontal	40.811.04
vertical	40.813.04

**RAY**  
40.811.04  
ø 4 mm  
18 cm



ø mm

4	40.815.04
6	40.815.06

**HARDY**  
40.815.04 - 40.815.06  
26 cm



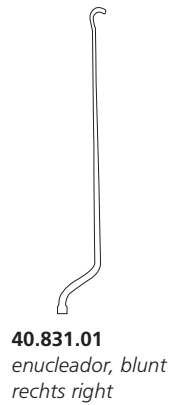
**NICOLA**  
40.817.65 - 40.819.65  
ø 6.5 mm  
21.5 cm



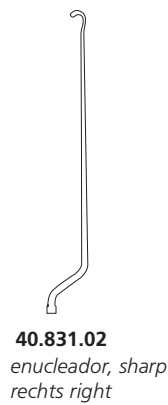
**NICOLA**  
40.821.65  
ø 6.5 mm  
21.5 cm



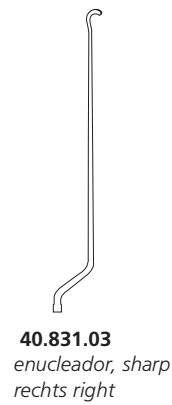
**HARDY**  
40.831.00 - 40.831.04  
24.5 cm



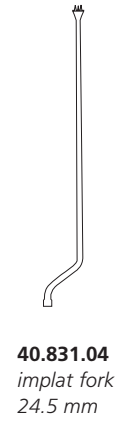
**40.831.01**  
enucleator, blunt  
rechts right



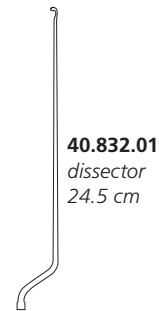
**40.831.02**  
enucleator, sharp  
rechts right



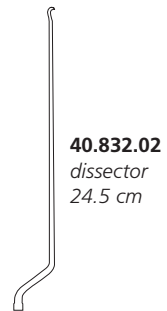
**40.831.03**  
enucleator, sharp  
rechts right



**40.831.04**  
implat fork  
24.5 mm



**40.832.01**  
dissector  
24.5 cm



**40.832.02**  
dissector  
24.5 cm

**HARDY FAHLBUSCH**



ø mm

3	40.850.03
5	40.850.05

**HARDY**  
40.850.03 - 40.850.05  
angled up  
24 cm



ø mm

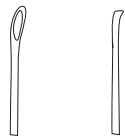
3	40.851.03
5	40.851.05

**HARDY**  
40.851.03 - 40.851.05  
angled down  
24 cm



40.833.02 40.834.02

**HARDY**  
40.833.02 - 40.834.02  
tip width  
24.5 mm



**LANDOLT**  
40.835.01  
malleable  
26 cm



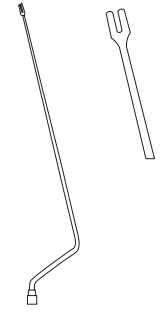
**LANDOLT**  
40.835.02  
malleable  
26 cm



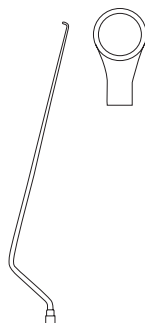
**LANDOLT**  
40.835.03  
malleable  
26 cm



**LANDOLT**  
40.835.04  
malleable  
26 cm



**HOSOBUCHI**  
40.836.00  
malleable  
26 cm



**FAHLBUSCH**  
40.841.25  
ø 2.5mm  
26 cm



**LANDOLT REULEN**  
40.843.22  
ø 2.2 mm  
40.843.32  
ø 3.2 mm  
26 cm



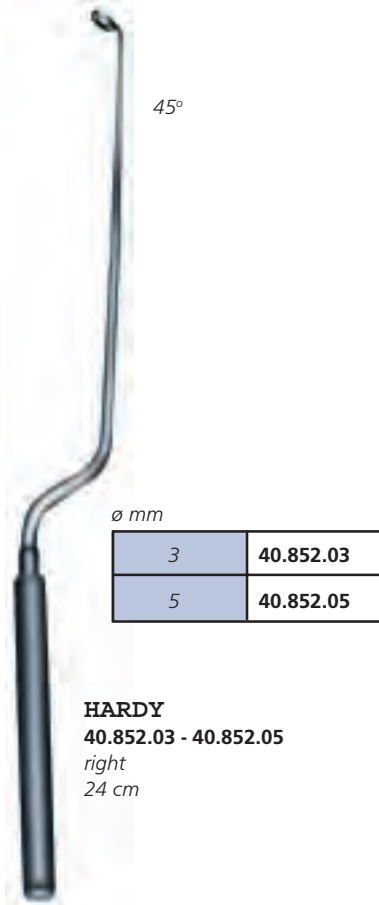
40.845.25  
ø 2.5 mm



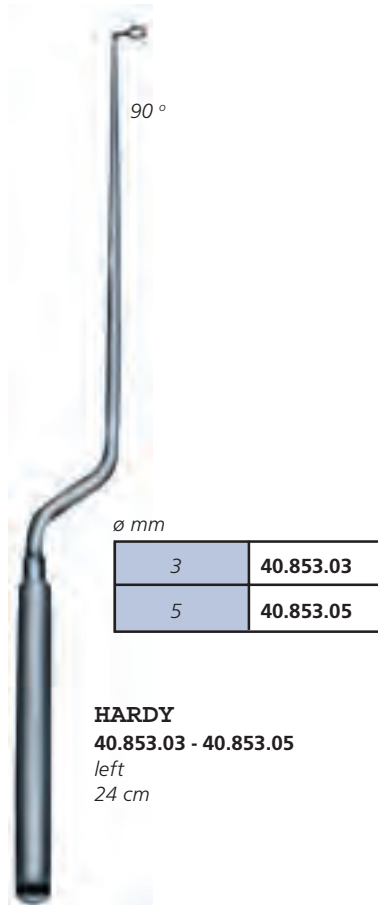
40.849.20  
2 mm



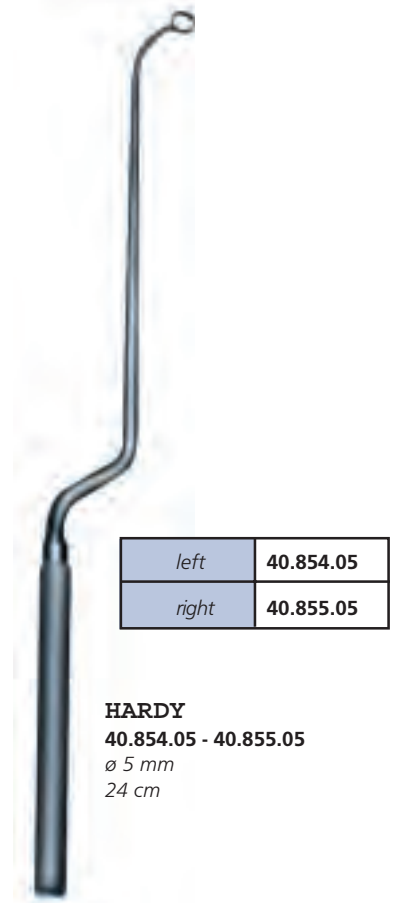
40.847.17  
1.7 mm



**HARDY**  
40.852.03 - 40.852.05  
right  
24 cm



**HARDY**  
40.853.03 - 40.853.05  
left  
24 cm



**HARDY**  
40.854.05 - 40.855.05  
ø 5 mm  
24 cm



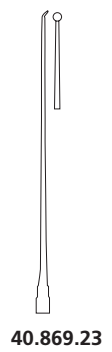
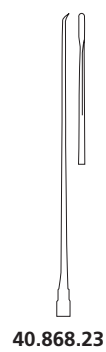
**HARDY**  
40.856.24  
23.5 cm  
bayonet,  
malleable.



40.859.03  
21 cm  
bayonet



40.863.23 - 40.869.23  
23 mm  
curved





**CUSHING LANDOLT**  
40.801.70 - 40.802.10

mm

70 x 15	40.801.70
90 x 15	40.801.90
110 x 15	40.802.10



**LANDOLT**  
40.804.21  
21 cm



**FAHLBUSCH**  
40.881.16  
16.5 cm



**NICOLA**  
40.882.16  
16.5 cm  
ø 2.5 mm



**NICOLA**  
40.884.16  
16.5 cm

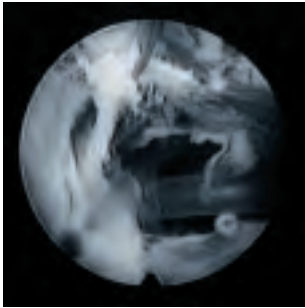


**DEWIMED NICOLA**  
40.886.16  
16.5 cm

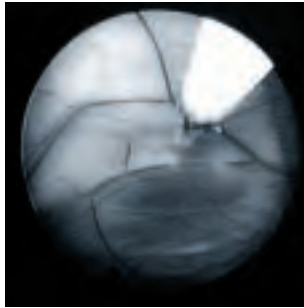




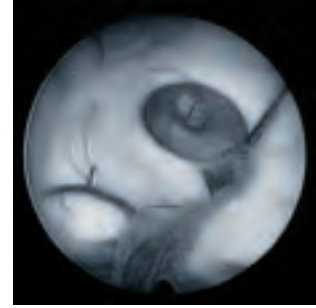
**CAEMAERT neuroendoscopy**  
**CAEMAERT neuroendoscopia**  
**CAEMAERT Neuroendoskopie**



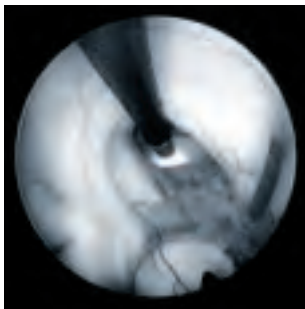
the use of cutting laser on a septum



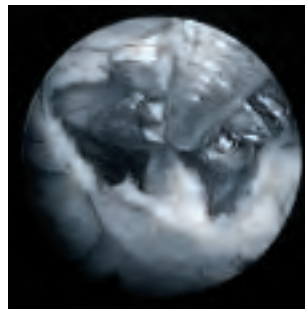
laser coagulation of the blood vessels in a septum pellucidum



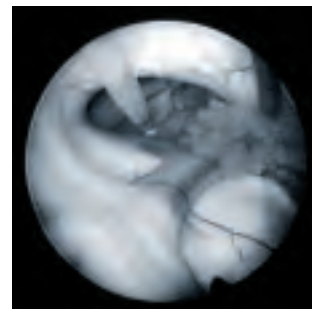
endoscopic view of a choristoma through the foramen of Monro



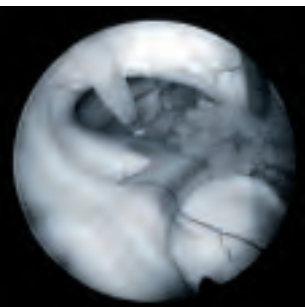
use of the flexible endoscope advanced through the foramen of Monro to inspect the cyst and surroundings



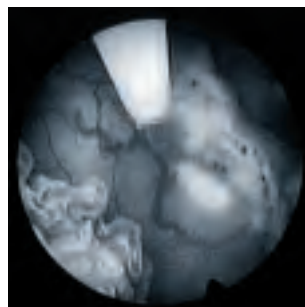
grasping a specimen with forceps



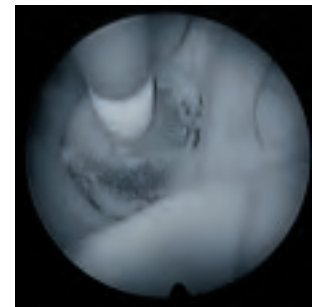
bipolar coagulation of the floor of the third ventricle



opening of the cyst wall with a cutting laser



laser coagulation of the surface vessels



perforation and dilatation with a balloon catheter

all endo-photos were taken during neuro-endoscopic procedures carried out by Prof. Dr. J. Caemaert.



**PANOVIEW telescope**  
8959.431 - 8765.902

	vision angle	ø mm	working length	
	5°			<b>8959.431</b>
		6 mm	295 mm	<b>8765.001</b>



**flexible mini-fiberscope**  
**7321.164**  
1.6 mm / 5 charrier

detachable eyepiece  
active deflection of 90° in one direction  
immersible and suitable for gas sterilisation




ocular desarmable  
ángulo de flección de 90° hacia una dirección  
sumergible y esterilizable

abnehmbares Okular  
aktive Abwinkelung von 90° einseitig  
einleg- und gassterilisierbar

flexible	ø	instrument carrier ø	WL	
flexible mini-fiberscope including instrument port (8954.765), water tightness tester (163.903), gas sterilisation valve (163.904), cleaning probe wl 1000 mm	1.6 mm 5 charr./Fr.	0.65 mm 1.9 charr./Fr.	450 mm for cholangioscopy neuroendoscopy	<b>7321.164</b>



flexible instruments  
828.07 - 830.07

		$\varnothing$	WL	
graspingforceps		2.2 mm	375 mm	828.07
biopsyforceps		2.2 mm	375 mm	829.07
scissor		2.2 mm	375 mm	830.07



suction biopsy needle  
8765.751

8765.751  
 $\varnothing$  2 mm  
WL 400 mm

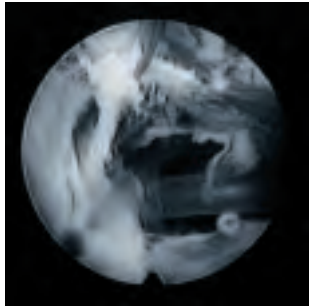


hook electrode  
824.051

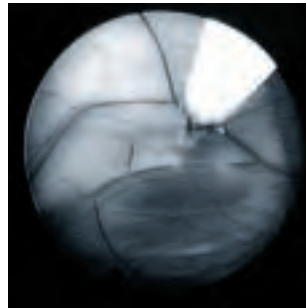
824.051  
 $\varnothing$  2 mm  
WL 600 mm



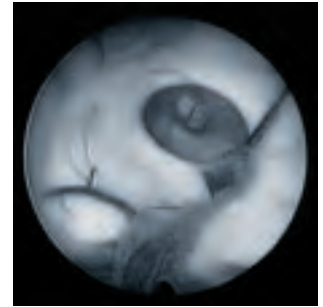
**HOPF pediatric neuroendoscope system**  
**HOPF neuroendoscopia**  
**HOPF Kinderneuroendoskopie**



endoscopic view of foramen of



endoscopic view of the floor of the third ventricle



endoscopic view of the fenestrated floor

- small diameter - 4.4 x 3.3 mm or 6.1 x 4.8 mm
- telescopes with direction of view 5°, 25° or 70°
- different sheaths and working elements
- insert for steering instruments around the corner
- fixation device
- variety of auxiliary instruments

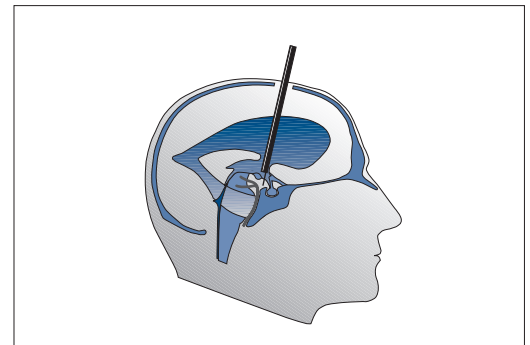


Figure 1. drawing of endoscopic third ventriculostomy.

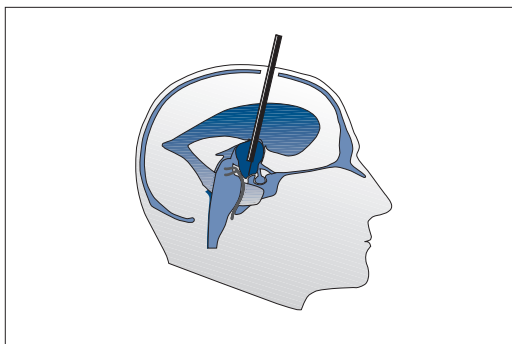


Figure 2. drawing of endoscopic cyst fenestration

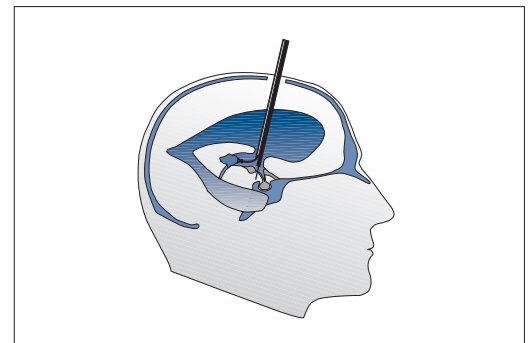


Figure 3. drawing of endoscopic view and biopsy of the intraventricular tumor by third ventriculostomy through a single burrhole.



telescopes  
8672.411 - 8672.413

<i>panoview plus</i>	<i>vision angle</i>	<i>ø</i>	<i>WL</i>	
	0°	2.7 mm		8672.411
	25°	2.7 mm		8672.412
	70°	2.7 mm		8672.413



sheath for infants  
8766.001





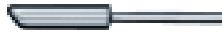
8766.001-A  
sheets focint  
dimension 4.5 x 3.3 mm  
WL 145 mm  
3 charrier



8766.001-B  
obturador






sheath for infants  
 8766.002 - 8766.003

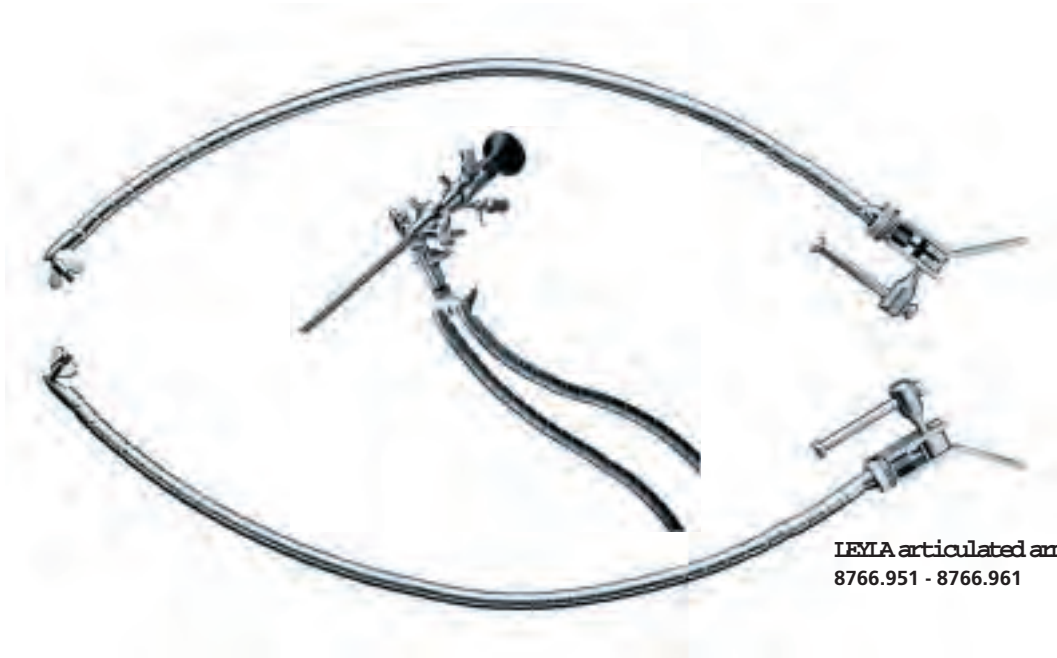
	dimension	W L	charrier	
	5.8 x 4.8 mm	125 mm	2 x 5 1 x 6	<b>8766.002</b>
	5.8 x 4.8 mm	125 mm	2 x 5 1 x 6	<b>8766.003*</b>
				<b>8766.012</b> obturator

\*working element and inserts




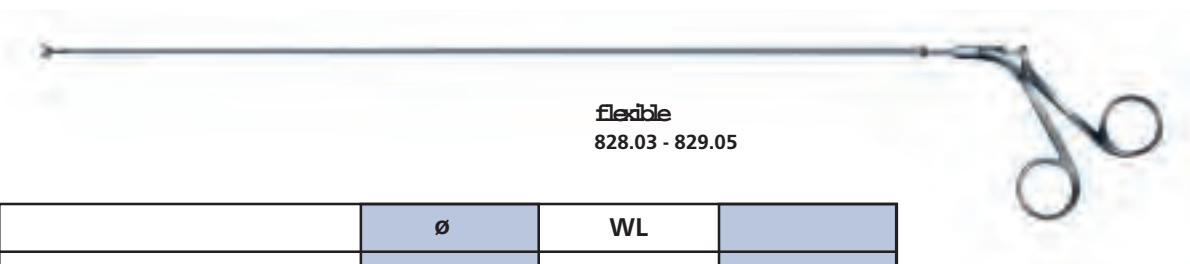
working element / inserts  
 8766.202 - 8766.262

	<b>8766.202</b>
	<b>8766.261</b>
	<b>8766.262</b>







**LEYLA articulated arm**  
8766.951 - 8766.961

	articulated arm (LEYLA)	<b>8766.951</b>
	for 8766.951	<b>8766.961</b>







**flexible**  
828.03 - 829.05

	Ø	WL	
	3 charr	260 mm	<b>828.03</b>
	5 charr	365 mm	<b>828.05</b>
	3 charr	260 mm	<b>829.03</b>
	5 charr	315 mm	<b>829.05</b>






**bipolar electrodes**  
8765.613 - 8765.614

		WL	pieces	
	2 mm	400 mm	3	<b>8765.612</b>
	2mm	400 mm	3	<b>8765.613</b>
	2 mm	400 mm	3	<b>8765.614</b>
	2 mm	400 mm	3	<b>8765.621</b>

also:  
connecting part, bipolar, with EC-connector .....**8765.554**



**button electrodes**  
823.031 - 823.06

	ø	WL	
	3 charr	400 mm	<b>823.031</b>
	5 charr	400 mm	<b>823.05</b>
	6 charr	400 mm	<b>823.06</b>





## BRAIN SURGERY

Cirugía del Cerebro

Hirnchirurgie

Scientific neurosurgery started for real in the 19<sup>th</sup> century with the presence of anesthesia. The first surgery under ether anesthesia was successfully performed in 1867, by William Macewen, a Scottish general surgeon in Boston in the Massachusetts General Hospital.

But before the invention of anesthesia and the practice of asepsis, brain surgery was an awful mess.

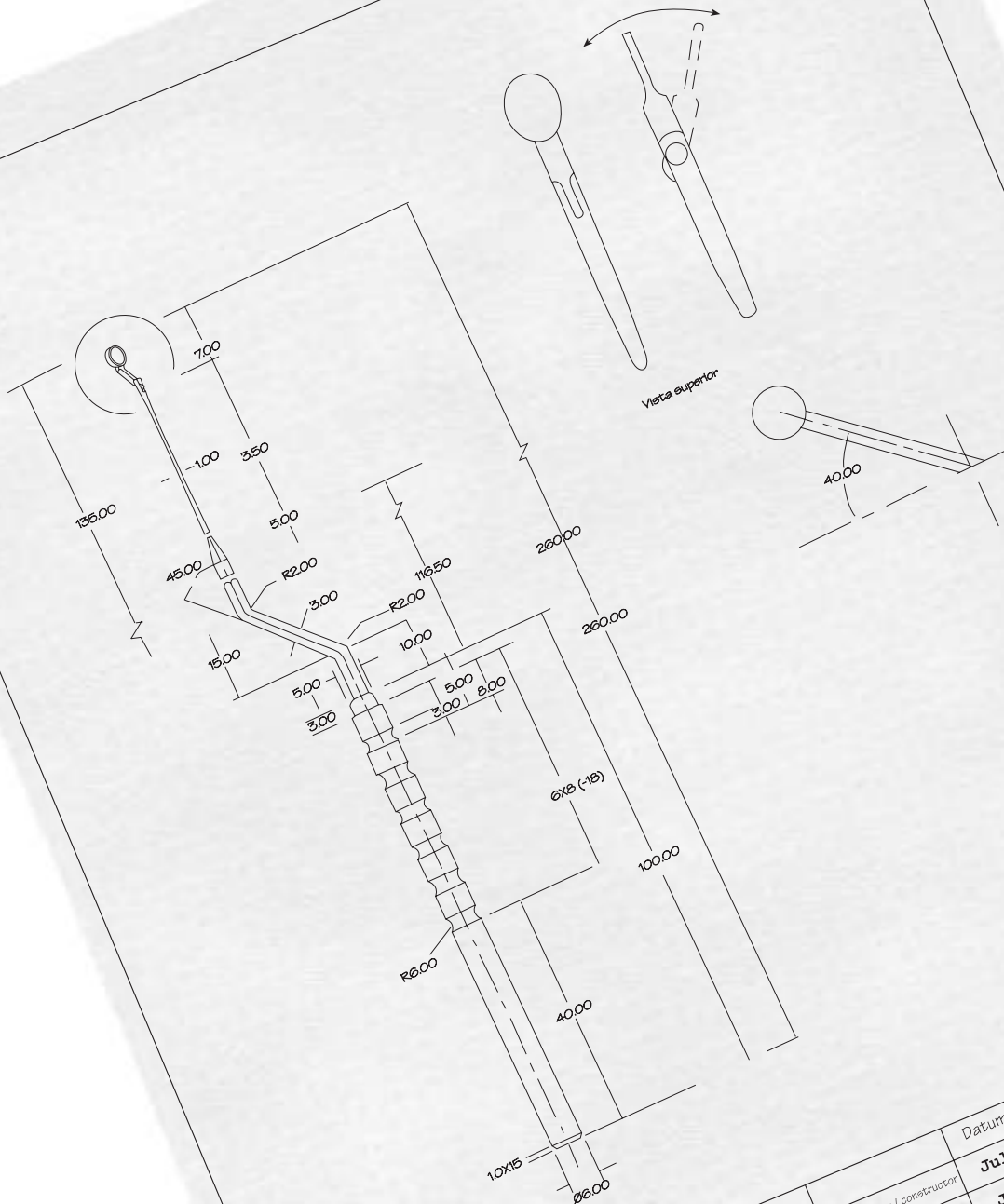
Historical records show that surgery of the brain was practiced already before Christ. Most of the operations were performed for treating madness, epilepsy and other brain diseases, superficial tumors, fractures and brain trauma, especially those caused by weapons. However, most of the patients died.

La Neurocirugía tuvo su inicio en el siglo XIX con la presencia de la anestecia. La primera cirugía con anestecia fue efectuada por William Macewen, un cirujano general escocés y tuvo lugar exitosamente en Boston en el Massachusetts General Hospital en 1867.

Sin embargo antes de la invención de la anestecia y de la práctica de la asepsia, cirugías en el cerebro eran un lío espantoso. Menciones históricas comprueban que la cirugía del cerebro ya se practicaba desde antes de Cristo. La mayoría de las cirugías intencionaban curar locura, epilepsia y otras enfermedades del cerebro, tumores superficiales, fracturas y traumas, especialmente causados por armas. La mayoría de los pacientes morían.



Erst die Fortentwicklung der Anästhesie machte zu Beginn des 19. Jahrhunderts auch die Durchführung von neurochirurgischen Eingriffen möglich. Von William Macewen, einem schottischen Allgemeinchirurgen, wurde 1867 im Bostoner Massachusetts General Hospital der erste neurochirurgische Eingriff unter Äther Anästhesie vorgenommen. Zuvor, ohne Asepsis und Anästhesie, waren solche Eingriffe furchtbare Angelegenheiten, die zumeist mit dem Tod des Patienten endeten. Historische Unterlagen beschreiben, dass sogenannte Hirnchirurgien bereits weit vor unserer Zeitrechnung durchgeführt wurden um Wahnsinn, Epilepsie, oberflächliche Tumoren und Waffenverletzungen wie Brüche zu behandeln.



GENERAL CATALOGUE

Konstrukteur / constructor  
 gezeichnet / dibujado  
 geprüft / verificado  
 Toleranz / tolerancia

Datum / fecha  
**July '98**  
**July '98**  
**June '99**

Name / nombre  
**cvd/jvd**  
**cvd**  
**mj**

Plan / plano 1  
 Maaetab / escala 1:1  
 Abt. / acot. mm  
 Artikel / artículo  
 Artikel-Nr. / No. de artículo





## New Line

- TITANIUM and Stainless Steel
- malleable
- new and ergonomic handpiece

## Malleable

All of the LOYO instruments are malleable in the 50 mm from the working tip downward, Titanium, as well as Stainless Steel. This makes it possible to reach all anatomic regions in the small approach to the hypophysis.

## Dimensions

The LOYO instruments are designed for the microscopic application. The length of these instruments is adjusted to the surgical steps opening and approach, resection of the tumor and closure of the sphenoidal region. The indicated length of the instrument is measured from the first angle up to the angle of the tip.

## Nueva línea

- TITANIO y acero inoxidable
- maleable
- nuevo mango ergonómico

## Maleable

Todos los instrumentos LOYO, tanto en titanio, como en acero inoxidable, son maleables en los 50 mm de la punta de trabajo. Por lo que facilita el alcance de cualquier posición anatómica dentro del estrecho acceso a la hipófisis.

## Dimensiones

Los instrumentos LOYO están perfectamente bien adaptados a la aplicación microscópica. La longitud de los instrumentos está adaptada a los procedimientos del proceso quirúrgico acceso, resección del tumor y cierre de la región esfenoidal. La longitud se mide desde el primer ángulo hasta el ángulo de la punta de trabajo del instrumento.

## Neue Linie

- TITAN und Stahl
- biegsam
- neuer ergonomischer Handgriff

## Biegsam

Alle LOYO Instrumente, sowohl in Titan, als auch in Stahl, sind biegsam im Bereich von 50 mm von Arbeitsteil. Somit kann jede gewünschte oder notwendige anatomische Position im engen Zugang zur Hypophyse erreicht werden.

## Dimensionen

Die LOYO Instrumente sind genau abgestimmt auf das mikroskopische Einsatzgebiet. Die Längen der Arbeitsteile sind angepasst an die einzelnen chirurgischen Arbeitsschritte Zugang, Tumorsektion und Verschluss der Keilbeinhöhle.





LOYO instrument set for transsphenoidal surgery



**LOYO**  
**41.033.26**  
*tip 3 mm*  
*26 cm*



**LOYO**  
**41.034.26**  
*tip 7 mm*  
*26 cm*



**LOYO**  
**41.035.26**  
*tip 10 mm*  
*26 cm*



**LOYO**  
41.036.26  
26 cm



**LOYO**  
41.037.26  
26 cm



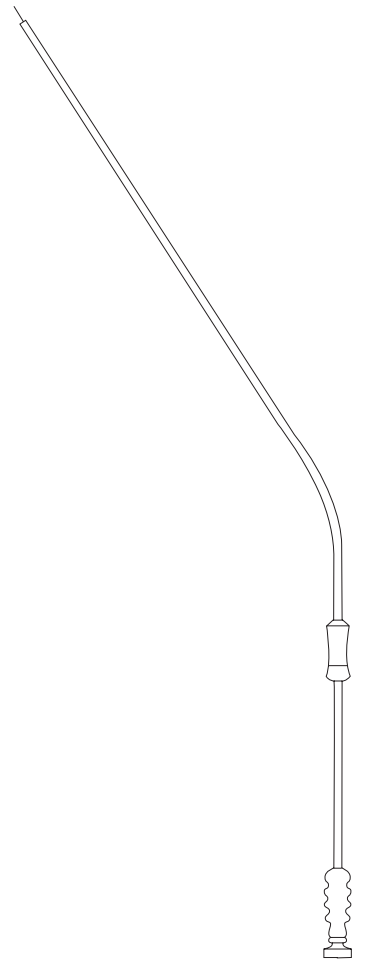
**LOYO**  
41.038.26  
26 cm



**LOYO**  
41.039.26  
26 cm



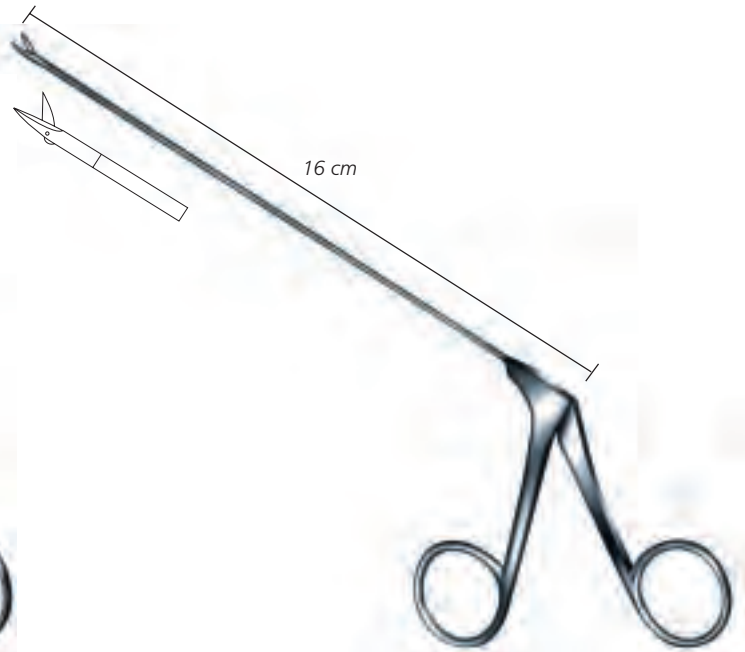
**LOYO**  
41.040.26  
26 cm



**LOYO**  
41.043.15



**WEIL - BLAKESLEY - LOYO**  
41.045.19  
19 cm



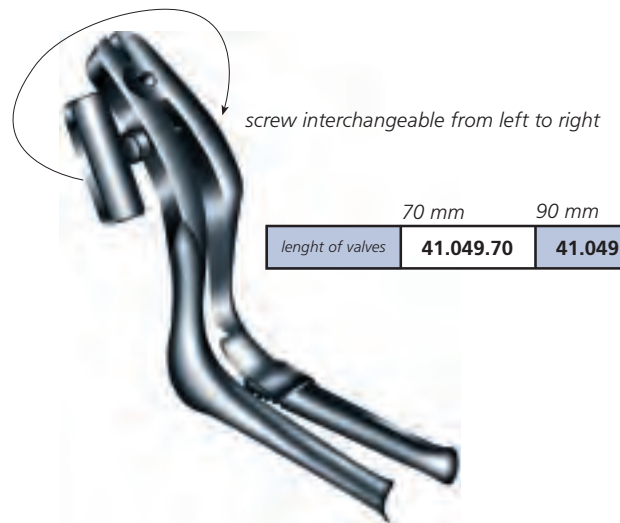
**41.046.24**  
24 cm



**OLIVECRONA**  
41.047.23  
23 cm



**TAYLOR**  
41.048.00  
17 cm



**LOYO**  
41.049.70 - 41.049.90  
specula for transsphenoidal hypophysectomy





4,5 mm



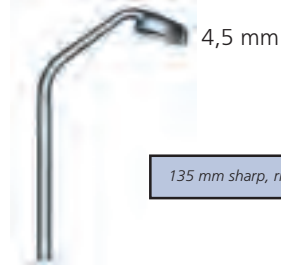
**LOYO**  
curette  
26 cm



*Stainless Steel TITANIUM*

135 mm sharp, left	<b>41.400.05</b>	<b>41.400.05 T</b>
--------------------	------------------	--------------------

**LOYO**  
curette  
26 cm



*Stainless Steel TITANIUM*

135 mm sharp, right	<b>41.400.06</b>	<b>41.400.06 T</b>
---------------------	------------------	--------------------

**LOYO**  
curette  
26 cm



*Stainless Steel TITANIUM*

135 mm upward, sharp	<b>41.400.08</b>	<b>41.400.08 T</b>
----------------------	------------------	--------------------

**LOYO**  
micro curette  
26 cm



*Stainless Steel TITANIUM*

135 mm angled, sharp	<b>41.400.10</b>	<b>41.400.10 T</b>
----------------------	------------------	--------------------

**LOYO**  
curette  
26 cm



*Stainless Steel TITANIUM*

135 mm angled, sharp	<b>41.400.12</b>	<b>41.400.12 T</b>
----------------------	------------------	--------------------

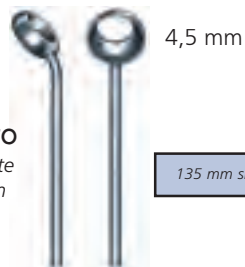
**LOYO**  
curette  
26 cm



*Stainless Steel TITANIUM*

135 mm sharp, right	<b>41.400.14</b>	<b>41.400.14 T</b>
---------------------	------------------	--------------------

**LOYO**  
curette  
26 cm



*Stainless Steel TITANIUM*

135 mm sharp left	<b>41.400.15</b>	<b>41.400.15 T</b>
-------------------	------------------	--------------------



**LOYO**  
curette  
26 cm

	<i>Stainless Steel TITANIUM</i>	
135 mm sharp upw. left	<b>41.400.16</b>	<b>41.400.16 T</b>



**LOYO**  
curette  
26 cm

	<i>Stainless Steel TITANIUM</i>	
135 mm sharp upw. right	<b>41.400.17</b>	<b>41.400.17 T</b>



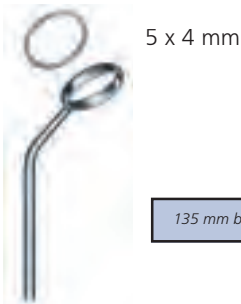
**LOYO**  
pituitary blade holder

	<i>Stainless Steel TITANIUM</i>	
for blade N° 10	<b>41.400.20</b>	<b>41.400.20 T</b>



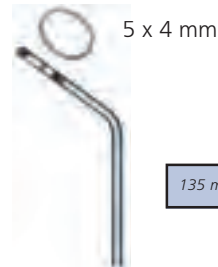
**LOYO**  
curette  
26 cm

	<i>Stainless Steel TITANIUM</i>	
135 mm blunt left	<b>41.400.21</b>	<b>41.400.21 T</b>



**LOYO**  
curette  
26 cm

	<i>Stainless Steel TITANIUM</i>	
135 mm blunt, right	<b>41.400.22</b>	<b>41.400.22 T</b>



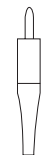
**LOYO**  
curette  
26.5 cm

	<i>Stainless Steel TITANIUM</i>	
135 mm blunt, angled	<b>41.400.25</b>	<b>41.400.25 T</b>

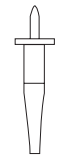


**LOYO**  
micro impactor  
24.5cm

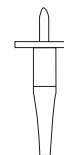
	<i>Stainless Steel TITANIUM</i>	
3 tips interchangeable	<b>41.400.30</b>	<b>41.400.30 T</b>



	<i>Stainless Steel TITANIUM</i>	
	<b>41.400.31</b>	<b>41.400.31 T</b>



	<i>Stainless Steel TITANIUM</i>	
	<b>41.400.32</b>	<b>41.400.32 T</b>



	<i>Stainless Steel TITANIUM</i>	
	<b>41.400.33</b>	<b>41.400.33 T</b>





**LOYO**  
micro chisel



Stainless Steel TITANIUM		
for sella turcica	<b>41.400.40</b>	<b>41.400.40 T</b>

**LOYO**  
pituitary dissector  
26 cm



Stainless Steel TITANIUM		
135 mm	<b>41.400.42</b>	<b>41.400.42 T</b>

**LOYO**  
pituitary dissector  
26 cm



Stainless Steel TITANIUM		
135 mm	<b>41.400.44</b>	<b>41.400.44 T</b>

**LOYO**  
pituitary dissector  
26 cm



Stainless Steel TITANIUM		
135 mm	<b>41.400.46</b>	<b>41.400.46 T</b>

**LOYO**  
pituitary hook  
26 cm



Stainless Steel TITANIUM		
135 mm	<b>41.400.48</b>	<b>41.400.48 T</b>

**LOYO**  
pituitary elevator  
26 cm



Stainless Steel TITANIUM		
135 mm left	<b>41.400.49</b>	<b>41.400.49 T</b>

**LOYO**  
pituitary elevator  
26 cm



Stainless Steel TITANIUM		
135 mm right	<b>41.400.50</b>	<b>41.400.50 T</b>

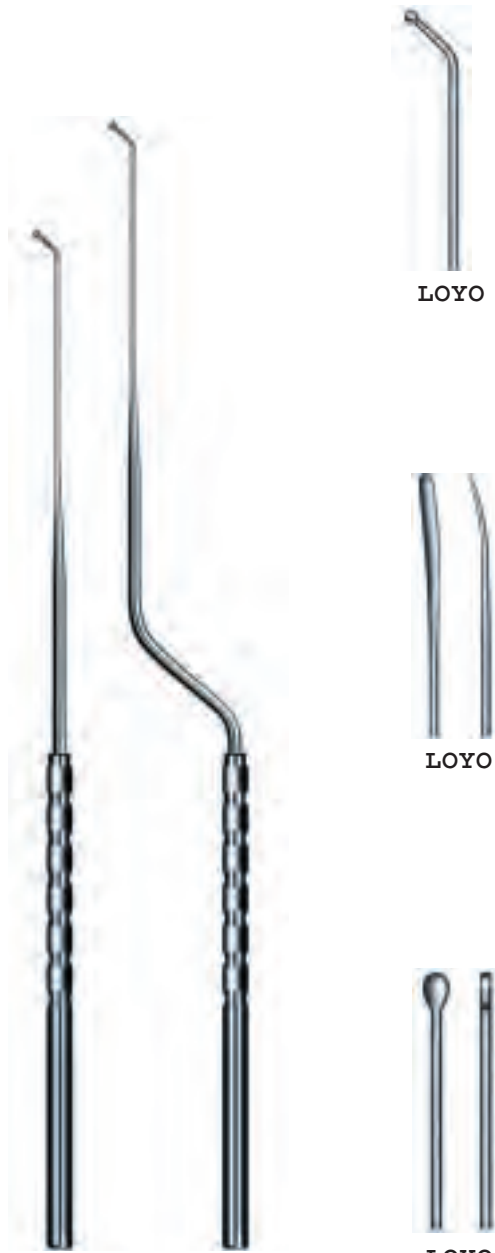
**LOYO**  
pituitary mirror



Stainless Steel TITANIUM		
125 mm	<b>41.400.52</b>	<b>41.400.52 T</b>



Malleable Dissectors according to Dr. Loyo



LOYO

	cm	Stainless Steel	TITANIUM
	20	41.401.02	41.401.02 T
	22	41.401.03	41.401.03 T



LOYO

	cm	Stainless Steel	TITANIUM
	20	41.401.06	41.401.06 T
	22	41.401.07	41.401.07 T



LOYO

	cm	Stainless Steel	TITANIUM
	20	41.401.10	41.401.10 T
	22	41.401.11	41.401.11 T



LOYO

	cm	Stainless Steel	TITANIUM
	20	41.401.14	41.401.14 T
	22	41.401.15	41.401.15 T



LOYO

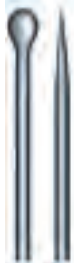
	cm	Stainless Steel	TITANIUM
	20	41.401.18	41.401.18 T
	22	41.401.19	41.401.19 T



LOYO

	cm	Stainless Steel	TITANIUM
	20	41.401.22	41.401.22 T
	22	41.401.23	41.401.23 T

2 mm



LOYO

	cm	Stainless Steel	TITANIUM
	20	41.401.26	41.401.26 T
	22	41.401.27	41.401.27 T



LOYO

2 mm

	cm	Stainless Steel	TITANIUM
	20	41.401.30	41.401.30 T
	22	41.401.31	41.401.31 T





## Neuro - Micro - Instruments

### Features:

- Light weight and ergonomic instruments thanks to its hollow handle, available not insulated or insulated
- All parts of the instruments are made of hardened Stainless Steel.

### Características:

- Instrumentos con mango ergonómico y ligero gracias a que es hueco, en versiones no aisladas y aisladas.
- Todas las partes de los instrumentos son fabricadas en acero inoxidable templado.

### Merkmale:

- Leichte und ergonomische Hohlgriffinstrumente, erhältlich unisoliert oder isoliert.
- Alle Teile der Instrumente sind aus gehärteten, rostfreiem Stahl gefertigt.



Neuro - Micro - Instruments



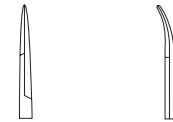
cm

16.0	41.050.16	41.051.16
18.0	41.050.18	41.051.18
20.0	41.050.20	41.051.20
22.5	41.050.22	41.051.22
24.0	41.050.24	41.051.24

insulated

16.0	41.052.16	41.053.16
18.0	41.052.18	41.053.18
20.0	41.052.20	41.053.20
22.5	41.052.22	41.053.22
24.0	41.052.24	41.053.24

micro scissors  
41.050.16 - 41.082.24



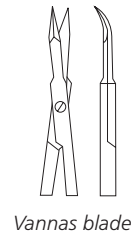
saw edge

cm

16.0	41.070.16	41.071.16
18.0	41.070.18	41.071.18
20.0	41.070.20	41.071.20
22.5	41.070.22	41.071.22
24.0	41.070.24	41.071.24

insulated

16.0	41.072.16	41.073.16
18.0	41.072.18	41.073.18
20.0	41.072.20	41.073.20
22.5	41.072.22	41.073.22
24.0	41.072.24	41.073.24



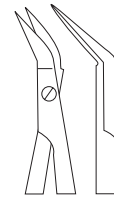
Vannas blade

cm

16.0	41.060.16	41.061.16
18.0	41.060.18	41.061.18
20.0	41.060.20	41.061.20
22.5	41.060.22	41.061.22
24.0	41.060.24	41.061.24

insulated

16.0	41.062.16	41.063.16
18.0	41.062.18	41.063.18
20.0	41.062.20	41.063.20
22.5	41.062.22	41.063.22
24.0	41.062.24	41.063.24



Vannas blade  
angled over  
the blade

cm

16.0	41.080.16
18.0	41.080.18
20.0	41.080.20
22.5	41.080.22
24.0	41.080.24




insulated

16.0	41.082.16
18.0	41.082.18
20.0	41.082.20
22.5	41.082.22
24.0	41.082.24





micro scissors  
41.090.16 - 41.132.24


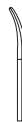
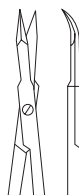




cm

16.0	41.090.16	41.091.16
18.0	41.090.18	41.091.18
20.0	41.090.20	41.091.20
22.5	41.090.22	41.091.22
24.0	41.090.24	41.091.24

insulated

16.0	41.092.16	41.093.16
18.0	41.092.18	41.093.18
20.0	41.092.20	41.093.20
22.5	41.092.22	41.093.22
24.0	41.092.24	41.093.24


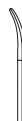
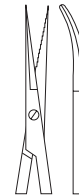




cm

16.0	41.100.16	41.101.16
18.0	41.100.18	41.101.18
20.0	41.100.20	41.101.20
22.5	41.100.22	41.101.22
24.0	41.100.24	41.101.24

insulated

16.0	41.102.16	41.103.16
18.0	41.102.18	41.103.18
20.0	41.102.20	41.103.20
22.5	41.102.22	41.103.22
24.0	41.102.24	41.103.24








cm

16.0	41.110.16	41.111.16
18.0	41.110.18	41.111.18
20.0	41.110.20	41.111.20
22.5	41.110.22	41.111.22
24.0	41.110.24	41.111.24

insulated

16.0	41.112.16	41.113.16
18.0	41.112.18	41.113.18
20.0	41.112.20	41.113.20
22.5	41.112.22	41.113.22
24.0	41.112.24	41.113.24

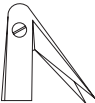
cm

16.0	41.120.16
18.0	41.120.18
20.0	41.120.20
22.5	41.120.22
24.0	41.120.24

Vannas blade  
angled over the  
blade

insulated

16.0	41.122.16
18.0	41.122.18
20.0	41.122.20
22.5	41.122.22
24.0	41.122.24



125°  
angled blade

cm

16.0	41.130.16
18.0	41.130.18
20.0	41.130.20
22.5	41.130.22
24.0	41.130.24

insulated

16.0	41.132.16
18.0	41.132.18
20.0	41.132.20
22.5	41.132.22
24.0	41.132.24



micro forceps  
41.140.16 - 41.172.24

cm

16.0	41.140.16	41.141.16
18.0	41.140.18	41.141.18
20.0	41.140.20	41.141.20
22.5	41.140.22	41.141.22
24.0	41.140.24	41.141.24

insulated

16.0	41.142.16	41.143.16
18.0	41.142.18	41.143.18
20.0	41.142.20	41.143.20
22.5	41.142.22	41.143.22
24.0	41.142.24	41.143.24

cm

16.0	41.150.16
18.0	41.150.18
20.0	41.150.20
22.5	41.150.22
24.0	41.150.24

angled

insulated

16.0	41.152.16
18.0	41.152.18
20.0	41.152.20
22.5	41.152.22
24.0	41.152.24

cm

16.0	41.160.16
18.0	41.160.18
20.0	41.160.20
22.5	41.160.22
24.0	41.160.24

4 x 2 teeth

insulated

16.0	41.162.16
18.0	41.162.18
20.0	41.162.20
22.5	41.162.22
24.0	41.162.24

cm

16.0	41.170.16
18.0	41.170.18
20.0	41.170.20
22.5	41.170.22
24.0	41.170.24

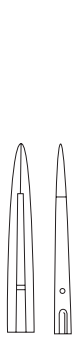
tumor grasping

insulated

16.0	41.172.16
18.0	41.172.18
20.0	41.172.20
22.5	41.172.22
24.0	41.172.24



micro forceps  
41.180.16 - 41.212.24

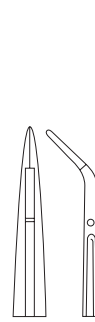
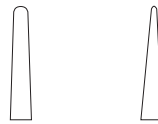


cm

16.0	41.180.16	41.181.16
18.0	41.180.18	41.181.18
20.0	41.180.20	41.181.20
22.5	41.180.22	41.181.22
24.0	41.180.24	41.181.24

insulated

16.0	41.182.16	41.183.16
18.0	41.182.18	41.183.18
20.0	41.182.20	41.183.20
22.5	41.182.22	41.183.22
24.0	41.182.24	41.183.24



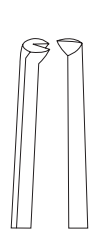
angled

cm

16.0	41.190.16
18.0	41.190.18
20.0	41.190.20
22.5	41.190.22
24.0	41.190.24

insulated

16.0	41.192.16
18.0	41.192.18
20.0	41.192.20
22.5	41.192.22
24.0	41.192.24



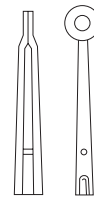
1 x 2 teeth

cm

16.0	41.200.16
18.0	41.200.18
20.0	41.200.20
22.5	41.200.22
24.0	41.200.24

insulated

16.0	41.202.16
18.0	41.202.18
20.0	41.202.20
22.5	41.202.22
24.0	41.202.24



tumor grasping

cm

16.0	41.210.16
18.0	41.210.18
20.0	41.210.20
22.5	41.210.22
24.0	41.210.24

insulated

16.0	41.212.16
18.0	41.212.18
20.0	41.212.20
22.5	41.212.22
24.0	41.212.24



cm

16.0	<b>41.220.16</b>
18.0	<b>41.220.18</b>
20.0	<b>41.220.20</b>
22.5	<b>41.220.22</b>
24.0	<b>41.220.24</b>

insulated

16.0	<b>41.222.16</b>
18.0	<b>41.222.18</b>
20.0	<b>41.222.20</b>
22.5	<b>41.222.22</b>
24.0	<b>41.222.24</b>

cm

16.0	<b>41.230.16</b>	<b>41.231.16</b>
18.0	<b>41.230.18</b>	<b>41.231.18</b>
20.0	<b>41.230.20</b>	<b>41.231.20</b>
22.5	<b>41.230.22</b>	<b>41.231.22</b>
24.0	<b>41.230.24</b>	<b>41.231.24</b>

insulated

16.0	<b>41.232.16</b>	<b>41.233.16</b>
18.0	<b>41.232.18</b>	<b>41.233.18</b>
20.0	<b>41.232.20</b>	<b>41.233.20</b>
22.5	<b>41.232.22</b>	<b>41.233.22</b>
24.0	<b>41.232.24</b>	<b>41.233.24</b>

micro needle holder  
**41.220.16 - 41.233.24**  
without ratchet

cm

16.0	<b>41.240.16</b>
18.0	<b>41.240.18</b>
20.0	<b>41.240.20</b>
22.5	<b>41.240.22</b>
24.0	<b>41.240.24</b>

insulated

16.0	<b>41.242.16</b>
18.0	<b>41.242.18</b>
20.0	<b>41.242.20</b>
22.5	<b>41.242.22</b>
24.0	<b>41.242.24</b>

cm

16.0	<b>41.250.16</b>	<b>41.251.16</b>
18.0	<b>41.250.18</b>	<b>41.251.18</b>
20.0	<b>41.250.20</b>	<b>41.251.20</b>
22.5	<b>41.250.22</b>	<b>41.251.22</b>
24.0	<b>41.250.24</b>	<b>41.251.24</b>

insulated

16.0	<b>41.252.16</b>	<b>41.253.16</b>
18.0	<b>41.252.18</b>	<b>41.253.18</b>
20.0	<b>41.252.20</b>	<b>41.253.20</b>
22.5	<b>41.252.22</b>	<b>41.253.22</b>
24.0	<b>41.252.24</b>	<b>41.253.24</b>



micro needle holder  
**41.240.16 - 41.253.24**  
without ratchet





## WILLIAM HARVEY CUSHING 1869 -1939

Considered as the father of American modern neurosurgery, he was born in Cleveland, Ohio, USA, on the 8th of April 1869. His parents came from England. Cushing made his internship at the Massachusetts General Hospital from 1895 to 1896.

He passed his residency at the Johns Hopkins, under mentorship of Halsted and later he trained in Europe in the clinics of Kocher, Kronecker and Sherrington.

He was the first North American to hold a full-time position in neurosurgery at the Johns Hopkins.

His surgical contributions were numerous, among them are: development of the pituitary gland, he identified the disease bearing his name, he published many monographs among which the one dealing with meningiomas is worth-while mentioning.

Considerado como padre de la moderna Neurocirugía Norteamericana nació en Cleveland, Ohio, E.U.A., el 8 de abril de 1869. Sus padres fueron de procedencia inglesa.

Cushing realizó su internado en el Hospital General de Massachusetts entre 1895 y 1896.

Hizo su residencia en el Hospital Johns Hopkins bajo la tutela de Halsted y más tarde se entrenó en Europa en las clínicas de Kocher, Kronecker y Sherrington.

Fue el primer cirujano norteamericano en dedicarse tiempo completo a la neurocirugía en Johns Hopkins.

Sus contribuciones quirúrgicas fueron numerosas, entre las que destacan: desarrollo del abordaje transesfenoidal para la cirugía de la glándula pituitaria, identificó la enfermedad que lleva su nombre, publicó numerosas monografías entre la que destaca la dedicada a meningiomas.

Der am 8. April 1869 in Cleveland, Ohio, geborene Cushing wird als der Vater der Neurochirurgie bezeichnet.

Seine Ausbildung erhielt er bei Halsted im John Hopkins Hospital. Weitere Stationen waren die Kliniken von Kocher, Kronecker und Sherrington in Europa. Er war der erste amerikanische Chirurg, der sich im John Hopkins Hospital ausschließlich der Neurochirurgie widmete.

Besonders zu erwähnen sind seine Arbeiten zur transphenoidalen Chirurgie der Hirnanhangdrüse, die Erforschung des nach ihm benannten Cushing-Syndroms sowie eine Vielzahl von Publikationen zur Monographie von Meningiomen.







**BARRAQUER colibri**  
42.101.03 - 42.101.04

<i>cm</i>	
3	42.101.03
4	42.101.04



**BARRAQUER**  
42.101.06  
4 cm



**BOWMAN**  
42.104.07  
7 cm



**CRITCHETT**  
42.105.06  
6 cm



**SMITH**  
42.106.05  
5 cm



**CLARK**  
42.107.08  
8 cm



<i>cm</i>	
7	42.109.06
9	42.109.09

**GRAEFE**  
42.109.06 - 42.109.09



**WEEK**  
42.110.08  
8 cm

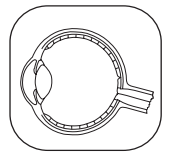


<i>right</i>	42.111.07
<i>left</i>	42.113.07

**ARRUGA**  
42.111.07 - 42.113.07



**MURDOCK**  
42.115.05  
5 cm



right	42.121.07
left	42.123.07

**MELLINGER**  
 42.121.07 - 42.123.07  
 7 cm



cm	
4	42.125.01
5	42.125.03

**COOK**  
 42.125.01 - 42.125.03



cm	
5	42.125.05
7	42.125.07

**MELLINGER**  
 42.125.05 - 42.125.07



**MELLINGER**  
 42.125.09  
 7 cm



**LISTER BURCH**  
 42.127.08  
 8 cm



cm	
7	42.128.07
8	42.128.08

**WILLIAMS**  
 42.128.07 - 42.128.08



**LANCASTER**  
 42.129.07  
 7 cm



**ZIEGLER**  
 42.130.07  
 7 cm





**CASTROVIEJO**  
42.132.08  
8 cm



**PARK**  
42.133.08  
8 cm



**AGRICOLA**  
42.135.04  
4 cm



**MUELLER**  
24.135.07  
7 cm



**SAUER**  
42.137.01  
3cm



**GOLDSTEIN**  
42.137.03  
3 cm



**STEVENSON**  
42.139.07  
7 cm



**JAEGER**  
42.150.11  
11 cm



42.220.00

42.220.01  
2 x 5 mm  
fig 1

42.220.03  
2 x 5 mm  
fig 3

42.220.06  
2 x 5 mm  
fig 6

42.220.07  
2 x 5 mm  
fig 7

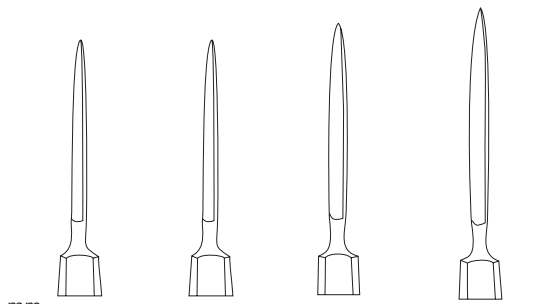
42.220.09  
1 x 3 mm  
fig 9

42.220.11  
1 x 3 mm  
fig 11

42.220.13  
1.1 / 1.3 x 5 mm  
fig 13



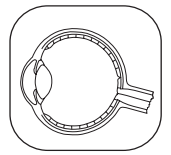
**GRAEFE**  
42.170.00 - 42.170.03  
13 cm



1.3 x 23	1.5 x 25	1.7 x 27	2 x 30
42.170.00	42.170.01	42.070.02	42.070.03



**DEUTSCHMANN**  
42.172.13  
13 cm



8 x 9.5	9.5 x 11	11 x 12.5	8 x 9.5	9.5 x 11	11 x 12.5
42.180.01	42.180.02	42.180.03	42.181.01	42.181.02	42.181.03

**JEAGER**  
 42.180.01 - 42.181.03  
 13 cm



4 x 10	42.181.05
5 x 11	42.181.07
6 x 12	42.185.09

**WESSELY**  
 42.181.05 - 42.181.09  
 13 cm  
 45°

<b>BERENS</b> 42.183.13 13 cm	<b>CASTROVIEJO</b> 42.185.13 13 cm 4 x 13 mm	<b>GRAEFE</b> 42.187.13 13 cm	<b>KNAPP</b> 42.202.01 fig 1	<b>KNAPP</b> 42.202.02 fig 2	<b>KNAPP</b> 42.202.03 fig 3

<b>ZIEGLER</b> 42.210.01 5 mm fig 1	<b>ZIEGLER</b> 42.210.02 6 mm fig 2	<b>ZIEGLER</b> 42.210.03 7 mm fig 3	<b>DEAN</b> 42.213.12 12.5 cm	<b>BOWMAN</b> 42.214.04 0.4 mm 42.214.08 0.8 mm	<b>WHEELER</b> 42.218.12	<b>ZIEGLER</b> 42.221.11 11 cm	<b>SATO</b> 42.226.12 12.5 cm	<b>TOOK</b> 42.228.12 12 cm





**GILL**  
42.231.12  
12 cm



**ELSCHMIG**  
42.233.13  
13 cm



**KUHNT**  
42.240.01  
fig 1



**KUHNT**  
42.240.02  
fig 2



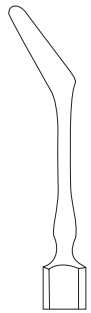
**KUHNT**  
42.240.03  
fig 3



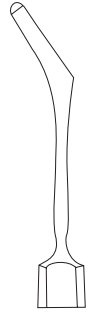
**KUHNT**  
42.240.04  
fig 4



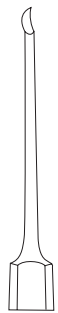
**PATON**  
42.245.12  
12 cm



**LUNDSGAARD**  
42.251.12  
12 cm



**GUYTON**  
LUNDS GAARD  
42.253.12



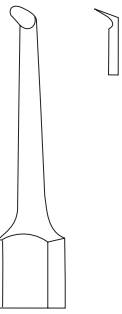
**BARKAN**  
42.256.12



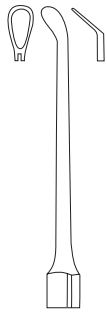
**SCHIE**  
42.258.12



**BURCH**  
42.262.12



**PAUFIQUE**  
42.271.11



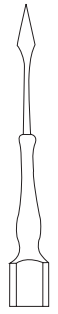
**BARRAQUER**  
42.273.13



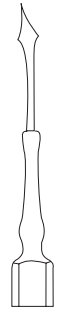
**STAR**  
42.304.12



**STAR**  
42.305.12



**BOWMAN**  
42.308.12



**BOWMAN**  
42.309.12



42.310.13



42.311.13



**LEVINSON**  
42.314.13



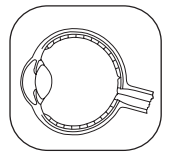
**FRANCIS**  
42.321.12



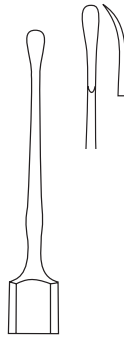
**DAVIS**  
42.325.13  
13 cm



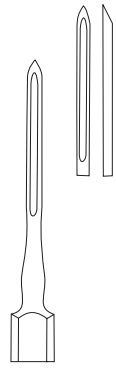
**LAFORCE**  
42.327.12



**DIX**  
42.330.13



**ELIS**  
42.331.11



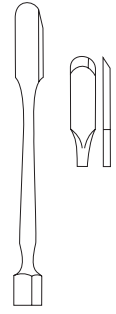
**WALTON**  
42.332.12



**WALTON**  
42.334.12



**ALVIS**  
42.336.12



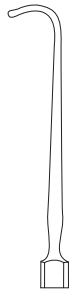
**GREEN**  
42.340.13



**ROLLET**  
42.342.12



**GRAEFE**  
42.351.01  
42.352.01 T  
*fig 1*



**GRAEFE**  
42.351.02  
42.352.02 T  
*fig 2*



**GRAEFE**  
42.351.03  
42.352.03 T  
*fig 3*



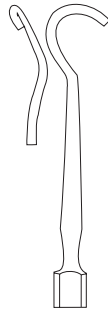
**JAMESON**  
42.353.13



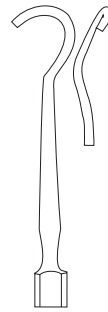
**GREEN**  
42.355.13



**STEVENS**  
42.357.13



**ARRUGA**  
42.363.01



**ARRUGA**  
42.363.02  
*fig 1*



**O'CONNOR**  
42.370.12  
*fig 2*



**WIENER**  
42.372.13



**WIENER**  
42.373.13



**ROLLET**  
42.376.13



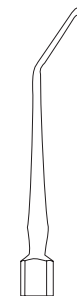
**KNAPP**  
42.377.13



**GRAEFE**  
42.380.13



**GRAEFE**  
42.381.13



**GRAEFE**  
42.383.13



**BECKER**  
42.386.13





**MEYHOEFER**  
42.402.05  
ø 0.5 mm



**MEYHOEFER**  
42.402.10  
ø 1 mm



**MEYHOEFER**  
42.402.15  
ø 1.5 mm



**MEYHOEFER**  
42.402.18  
ø 1.8 mm



**MEYHOEFER**  
42.402.20  
ø 2 mm



**MEYHOEFER**  
42.402.25  
ø 2.5 mm



**MEYHOEFER**  
42.402.35  
ø 3.5 mm



**MEYHOEFER**  
42.402.40  
ø 4 mm



**MEYHOEFER**  
42.402.45  
ø 4.5 mm



**HEBRA**  
42.404.10  
ø 1 mm



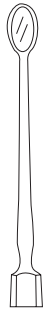
**HEBRA**  
42.404.20  
ø 2 mm



**HEBRA**  
42.404.25  
ø 2.5 mm



**HEBRA**  
42.404.30  
ø 3 mm



**HEBRA**  
42.404.35  
ø 3.5 mm



**AXENFELD**  
42.407.13



**GRAEFE**  
42.410.01



**GRAEFE**  
42.410.02



**DAVIEL**  
42.412.01



**DAVIEL**  
42.412.02



**KNAPP**  
42.414.02



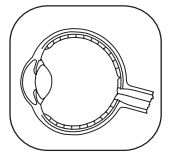
**BUNGE**  
42.420.01



**BUNGE**  
42.420.02



**BUNGE**  
42.420.03



**WEBER**  
 42.441.01  
 fig 1



**WEBER**  
 42.441.02  
 fig 2



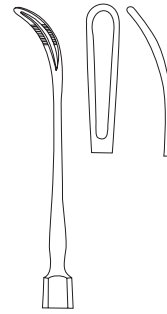
**SNELLEN**  
 42.443.13



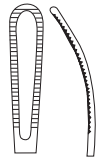
**WILDER**  
 42.445.13  
 fig 1



**WILDER**  
 42.447.13  
 fig 2



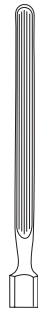
**ARLT**  
 42.449.01



**ARLT**  
 42.449.02



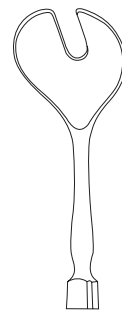
**WECKER**  
 42.461.13



**WECKER**  
 42.462.13



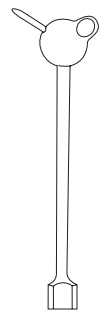
**CULLER**  
 42.467.13



**WELLS**  
 41.482.20



**ARRUGA**  
 42.485.13  
 protector



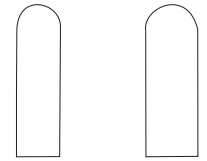
**WADSWORTH**  
 42.487.14  
 cauter



**42.501.06**  
 6 cm



**42.501.10**  
 10 cm



**42.501.12**  
 12 cm

**BANGERTER**  
 42.501.06 - 42.501.12



**LANG**  
 42.424.13  
 13 cm



**CASTROVIEJO**  
 42.511.13 - 42.517.09  
 8 x 15 mm  
 13 cm



**CASTROVIEJO**  
 42.521.12  
 12 cm



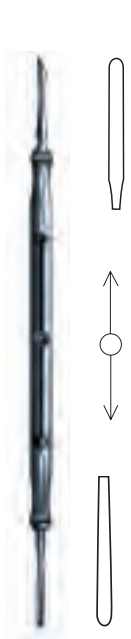
**WHEELER**  
 42.523.12  
 12 cm



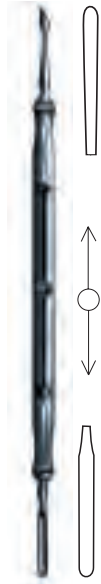
**CASTROVIEJO**  
 42.525.05 - 42.525.10  
 14 cm

ø mm	
0.5	42.525.05
0.75	42.525.07
1.0	42.525.10





**DIX**  
42.542.12



**DIX**  
42.544.12



**DIX**  
42.546.13



**DIX**  
42.548.13



**CASTROVIEJO**  
42.583.07



**CONNIN**  
42.589.13



**DASTOOR**  
42.590.06



**HOLTH**  
42.593.09



**WILDER**  
42.602.01



**WILDER**  
42.602.02



**WILDER**  
42.602.03

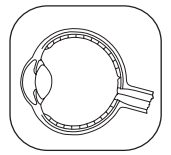


**ZIEGLER**  
42.605.12 - 42.605.56

fig	
1/2	42.605.12
3/4	42.605.34
5/6	42.605.56



**CASTROVIEJO**  
42.608.12



ø mm

0.7 / 0.8	42.614.00
0.8 / 0.9	42.614.01
0.9 / 1.1	42.614.12
1.1 / 1.3	42.614.23
1.3 / 1.4	42.614.34
1.4 / 1.5	42.614.45
1.5 / 1.6	42.614.56
1.6 / 1.8	42.614.67
1.8 / 1.9	42.614.78

**BOWMAN**  
 42.614.00 - 42.614.78



ø mm

0.7 / 0.8	42.616.00
0.8 / 0.9	42.616.01
0.9 / 1.1	42.616.12
1.1 / 1.3	42.616.23
1.3 / 1.4	42.616.34
1.4 / 1.5	42.616.45
1.5 / 1.6	42.616.56
1.6 / 1.8	42.616.67
1.8 / 1.9	42.616.78

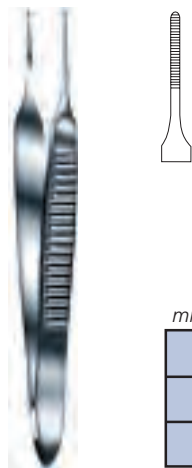
**BOWMAN**  
 42.616.00 - 42.616.78



**HARMS**  
 42.618.80  
 left  
 42.618.81  
 right



**42.620.14**  
 14.5 cm  
 2 eyes



mm

0.5	42.802.05
0.7	42.802.06
1.0	42.802.07

**GRAEFE**  
 42.802.05 - 42.802.07  
 7 cm



mm

0.5	42.803.05
0.7	42.803.06
1.0	42.803.07

**GRAEFE**  
 42.803.05 - 42.803.07  
 7 cm





mm

0.5	42.804.05
0.7	42.804.06
1.0	42.804.07

**GRAEFE**  
42.804.05 - 42.804.07  
7 cm  
1 x 2 teeth



mm

0.5	42.805.05
0.7	42.805.06
1.0	42.805.07

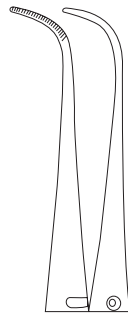
**GRAEFE**  
42.805.05 - 42.805.07  
7 cm  
1 x 2 teeth



**GRAEFE**  
42.810.10



**GRAEFE**  
42.811.10



**GRAEFE**  
42.813.10



**GRAEFE**  
42.820.10  
1 x 2 teeth

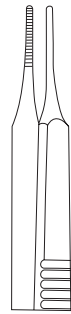
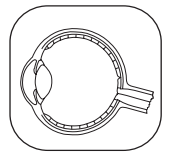


**GRAEFE**  
42.821.10  
1 x 2 teeth

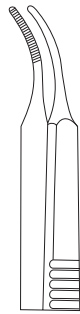


**GRAEFE**  
42.823.10  
1 x 2 teeth

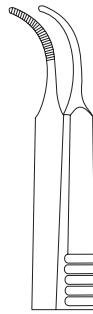
**GRAEFE**  
42.810.10 - 42.823.10  
10 cm



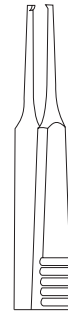
**STEVENS**  
42.830.10



**STEVENS**  
42.831.10



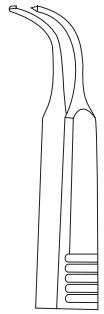
**STEVENS**  
42.833.10



**STEVENS**  
42.840.10



**STEVENS**  
40.841.10



**STEVENS**  
42.843.10

**STEVENS**  
42.830.10 - 42.843.10



**FOERSTER**  
42.850.08  
8.5 cm



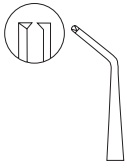
**FOERSTER**  
42.851.08  
8.5 cm



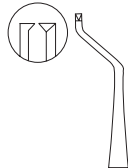
**FOERSTER**  
42.852.08  
8.5 cm



**FOERSTER**  
42.853.08  
8.5 cm



42.855.07



42.857.07

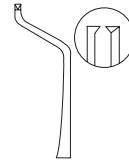
**HESS**  
42.855.07 - 42.857.07  
7 cm  
0.3 mm



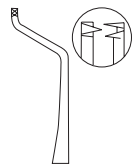
**HESS**  
42.861.07  
7 cm  
0.3 mm



**GILL**  
42.863.07 - 42.865.07  
7.5 cm  
tip 0.3 mm



42.863.07



42.865.07



**FISCHER**  
42.869.07  
7 cm



**BARRAQUER KATZIN**  
42.881.03  
7 cm



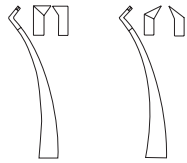
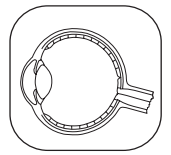
**BARRAQUER KATZIN**  
42.881.05  
0.12 mm  
7 cm



**BARRAQUER KATZIN**  
42.881.07  
0.4 mm  
7 cm



**TROUTMAN**  
42.883.07  
0.12 mm  
7 cm



42.885.07 42.887.07

**BARRAQUER colibri**  
 42.885.07 - 42.887.07  
 0.12 mm  
 7 cm



**KIRBY ARTHUR**  
 42.891.09  
 1 x 2 teeth  
 9 cm  
 ø 0.2



**KIRBY ARTHUR**  
 42.893.09  
 9 cm  
 ø 0.2



**McCULLOUGH**  
 42.902.09  
 9.5 cm



**McCULLOUGH**  
 42.904.09  
 9.5 cm



**JAMESON**  
 42.907.10 - 42.909.10  
 left - right



**BONACCOLTO**  
 42.914.10 - 42.916.10



**BONACCOLTO**  
 42.920.11  
 11 cm  
 sharp



**DASTOOR**  
 42.924.11  
 11 cm  
 blunt





**DASTOOR**  
42.926.11  
11 cm  
1 x 2 teeth



mm	
0.5	42.940.05
0.8	42.940.08

**BISHOP HARMAN**  
42.940.05 - 42.940.08  
8.5 cm



mm	
0.5	42.942.05
0.8	42.942.08

**BISHOP HARMAN**  
42.942.05 - 42.942.08



**BORN**  
42.944.07  
0.12 mm  
7 cm



**BORN**  
42.946.07  
0.12 mm  
7 cm



**BORN**  
42.946.10  
0.12 mm  
10 cm



**ELLIOT**  
42.946.12  
10 cm



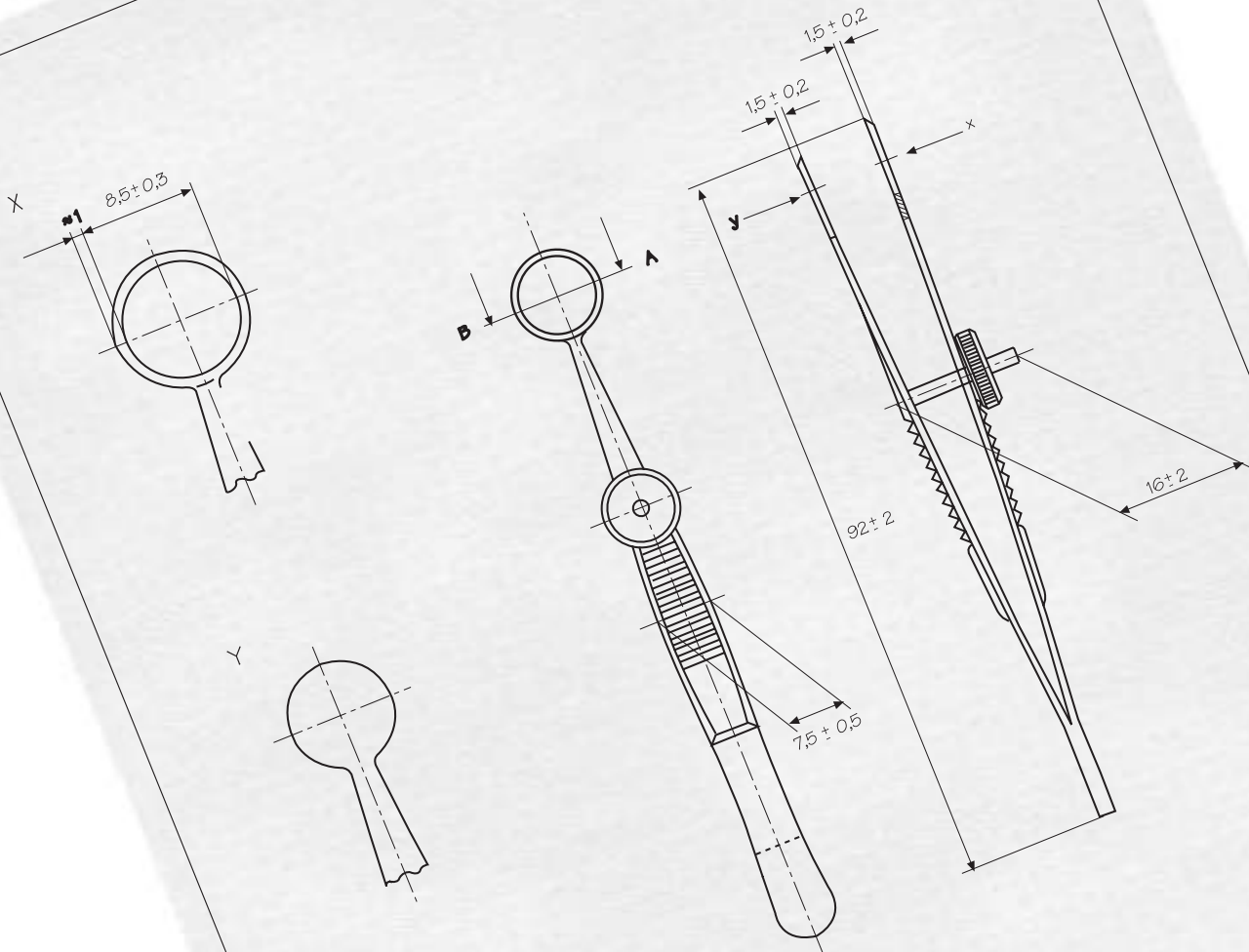
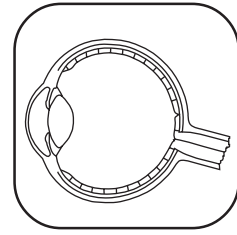
**Tübingen**  
42.950.10  
42.954.10 T  
10 cm



**BORN**  
42.952.10  
42.956.10 T  
10 cm

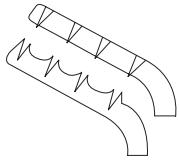


**Tübingen**  
42.953.10  
42.957.10 T  
10 cm

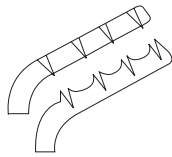


	GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
		gezeichnet / dibujado	July '98	cvd/jvd	1
		geprüft / verificado	July '98	cvd	Maaßstab / escala
		Toleranz / tolerancia	June '99	mj	1:1
	Stainless Steel				Abt. / acot. mm
	Acero inoxidable				Artikel / artículo
					Artikel-Nr. / No. de articulo

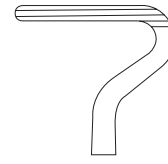




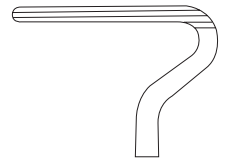
**43.011.10**  
left



**43.013.10**  
right



**43.015.20**



**43.015.27**

**PRINCE**  
43.011.10 - 43.013.10  
10 cm

**BERKE**  
43.015.20 - 43.015.27

cm

20	<b>43.015.20</b>
27	<b>43.015.27</b>



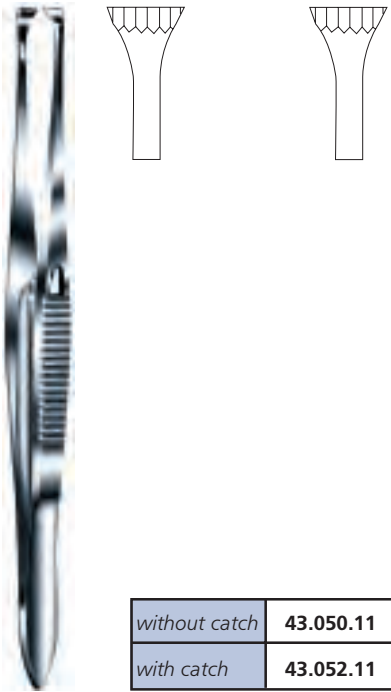
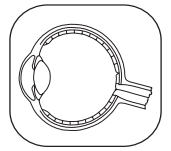
**TROUTMAN**  
43.017.08  
8.5 cm  
0.8 mm



**BARRAQUER**  
43.021.05  
5.5 cm  
7 mm



**ELSCHNIG**  
43.046.11  
11 cm  
1 x 2 teeth

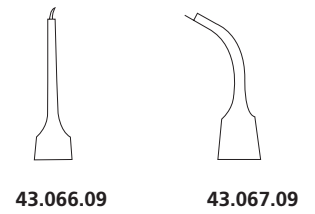


<i>without catch</i>	<b>43.050.11</b>
<i>with catch</i>	<b>43.052.11</b>

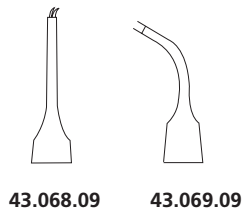
**GRAEFE**  
 43.050.11 - 43.052.11  
 11 cm



**LESTER**  
 43.054.09  
 9 cm  
 1 x 2 teeth



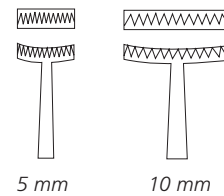
**CASTROVIEJO**  
 43.066.09 - 43.067.09  
 9 cm  
 1 x 1 teeth



**CASTROVIEJO**  
 43.068.09 - 43.069.09  
 9 cm  
 2 x 2 teeth



**BARRAQUER**  
 43.074.10  
 10 cm



mm	<i>without catch</i>	<i>with catch</i>
5	<b>43.076.05</b>	<b>43.078.05</b>
10	<b>43.076.10</b>	<b>43.078.10</b>

**GREEN**  
 43.076.05 - 43.078.10  
 10 cm





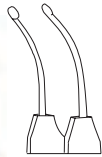
**GILL ARRUGA**  
43.101.07  
7 cm



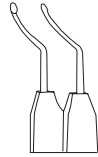
**TERSON**  
43.103.09  
9 cm  
5 x 6 teeth



**ELSCHMIG**  
43.109.10  
10 cm



43.111.10



43.114.10

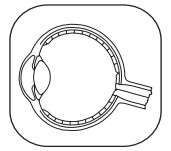
**ARRUGA**  
43.111.10 - 43.114.10  
10 cm



**CASTROVIEJO**  
43.115.10  
10 cm



**SCHWEIGGER**  
43.117.10  
10 cm



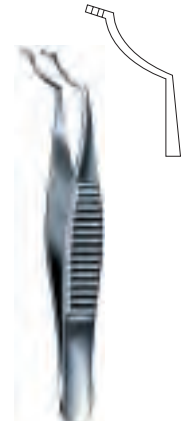
**SCHWEIGGER**  
 43.119.10  
 10 cm



**ELSCHNIG**  
 43.121.10  
 10 cm



**HESS**  
 43.125.06  
 6 cm



**HESS**  
 43.127.06  
 6 cm



**FUCHS**  
 43.129.07  
 7 cm



mm teeth

0.12	43.150.01
0.3	43.150.03
0.5	43.150.05
1.0	43.150.10
1.5	43.150.15

**CASTROVIEJO**  
 43.150.01 - 43.150.15  
 10 cm



mm teeth

0.5	43.151.05
1.0	43.151.10
1.5	43.151.15

**CASTROVIEJO**  
 43.151.01 - 43.151.15  
 10 cm

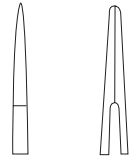




**MOORFIELD**  
43.164.10  
10 cm



**ST. MARTIN**  
43.166.07  
7 cm



**Tübingen**  
43.181.10  
10 cm



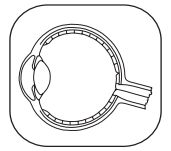
<i>plain</i>	<b>43.190.08</b>
<i>1 x 2 teeth</i>	<b>43.202.08</b>

**PAUFIQUE**  
43.190.08 - 43.202.08  
8 cm



<i>plain</i>	<b>43.202.08 T</b>
<i>1 x 2 teeth</i>	<b>43.206.08 T</b>

**PAUFIQUE**  
43.202.08 T - 43.206.08 T  
8 cm



1 x 2 teeth plain

43.210.10 T	43.220.10 T
43.214.10 T	43.224.10 T

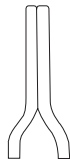
**McPHERSON**  
 43.210.10 T - 43.224.10 T  
 10 cm



**AYER**  
 43.240.09  
 9 cm



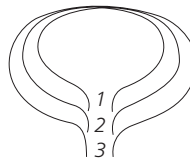
**AYER**  
 43.242.09  
 9 cm



**LAMBERT**  
 43.246.09  
 9 cm



**DESMARRES**  
 43.254.09 - 43.258.09  
 9 cm



43.254.09  
 fig. 1  
 43.256.09  
 fig. 2  
 43.258.09  
 fig. 3



**ERHARDT**  
 43.258.14  
 9 cm



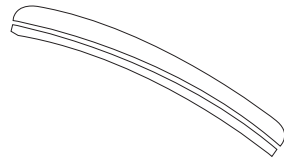


fig. 1

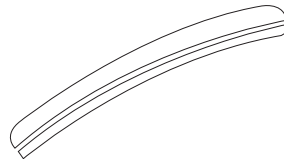


fig. 2

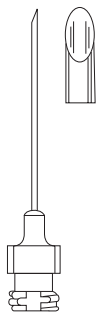
fig.

1	43.265.10
2	43.267.10

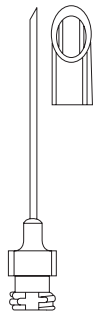
**SNELLEN**  
43.265.10 - 43.267.10  
10 cm



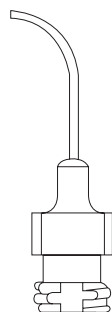
**KNAPP LUER**  
43.274.11  
11 cm



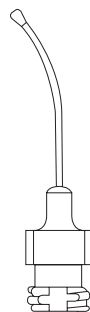
**SCHEIE**  
43.302.28  
0.1 x 2.8 cm



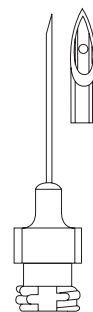
**SCHEIE**  
43.302.33  
1.5 x 3.3 cm



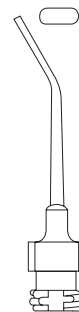
**Tübingen**  
43.303.45



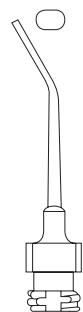
**Hamburg**  
43.305.00



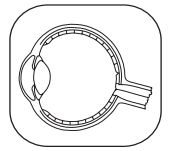
**SIMCOE**  
43.306.00



**Bonn**  
43.307.00



**Bonn**  
43.309.00



∅ mm

5.0	43.310.50
5.5	43.310.55
6.0	43.310.60
6.5	43.310.65
7.0	43.310.70
8.0	43.310.80
9.0	43.310.90
10.0	43.311.00
11.0	43.311.01

**CASTROVIEJO**  
 43.310.50 - 43.311.01



∅ mm

5.0	43.320.50
5.1	43.320.51
6.0	43.320.60
6.1	43.320.61
7.0	43.320.70
7.1	43.320.71
8.0	43.320.80
8.1	43.320.81
9.0	43.320.90
9.1	43.320.91
10.0	43.321.00

**FRANCESCHETTI**  
 43.320.50 - 43.321.00



**ELLIOTT**  
 43.340.00  
 complete = 4



**SCHIOETZ**  
 43.404.00  
 straight scale  
 43.406.00  
 oblique scale



**43.408.00**  
 eye magnet





**BEER**  
43.420.09  
9 cm



**DOUGLAS**  
43.422.09  
9 cm



**LITTAUER**  
43.424.08  
8.5 cm



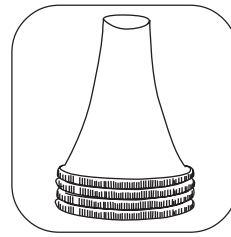
**BARRAQUER**  
43.425.10  
10.5 cm



**43.426.09**  
9 cm

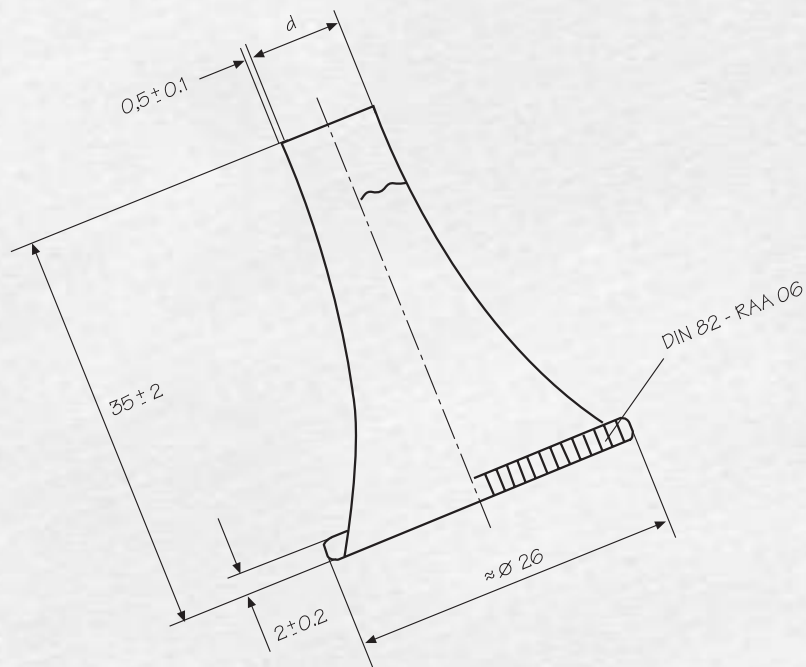


**GRADLE**  
43.428.09  
9 cm



# 44

Otology  
 Otología  
 Otologie



GENERAL CATALOGUE		Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
		gezeichnet / dibujado	July '98	cvd/jvd	Maaetab / escala 1:1
		geprüft / verificado	July '98	cvd	Abt. / acot. mm
		Toleranz / tolerancia	June '99	mj	Artikel / artículo
					Artikel-Nr. / No. de artículo





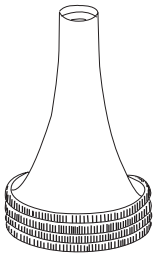
① **44.010.30**  
ø 3.0 mm

② **44.010.45**  
ø 4.5 mm

③ **44.010.55**  
ø 5.5 mm

④ **44.010.65**  
ø 6.5 mm

⑤ **44.010.75**  
ø 7.5 mm



**HARTMAN**  
**44.010.00**  
set 4

② **44.012.55**  
ø 5.5 mm

③ **44.012.65**  
ø 6.5 mm

④ **44.012.75**  
ø 7.5 mm



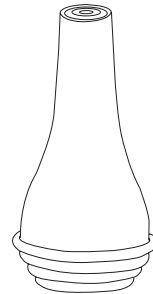
**TOYNBEE**  
**44.012.00**  
set 3

① **44.014.45**  
ø 4.5 mm

② **44.014.55**  
ø 5.5 mm

③ **44.014.65**  
ø 6.5 mm

④ **44.014.75**  
ø 7.5 mm



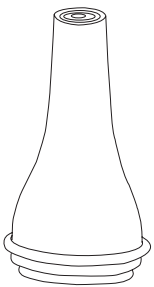
**GRUBER**  
**44.014.00**  
set 4

① **44.015.45**  
ø 4.5 mm

② **44.015.55**  
ø 5.5 mm

③ **44.015.65**  
ø 6.5 mm

④ **44.015.75**  
ø 7.5 mm



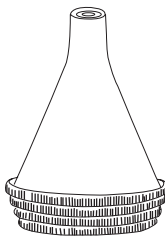
**GRUBER**  
**44.015.00**  
set 3

⑤ **44.018.50**  
ø 5 mm

⑥ **44.018.60**  
ø 6 mm

⑦ **44.018.70**  
ø 7 mm

⑧ **44.018.80**  
ø 8 mm



**BOUCHERON**  
**44.018.00**  
set 4

① **44.020.01**  
ø 3.3 mm

② **44.020.02**  
ø 4.3 mm

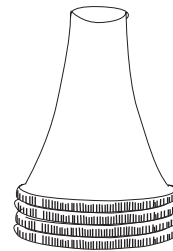
③ **44.020.03**  
ø 4.8 mm

④ **44.020.04**  
ø 5.3 mm

⑤ **44.020.05**  
ø 5.8 mm

⑥ **44.020.06**  
ø 6.3 mm

⑦ **44.020.07**  
ø 6.7 mm



**FARRIOR**  
**44.020.00**  
set 9



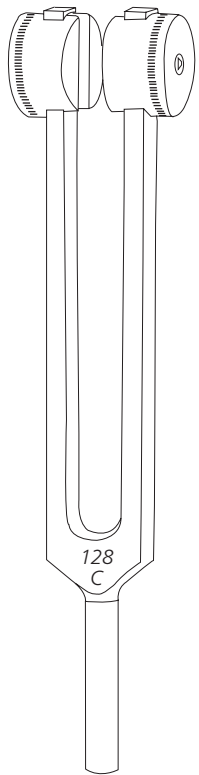
- 6.5 mm (3)
- 7 mm (2)
- 8 mm (1)



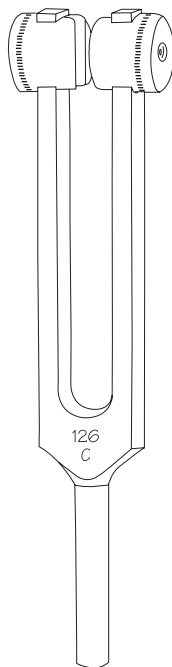
**BHRUENINGS**  
 44.030.04  
 complete



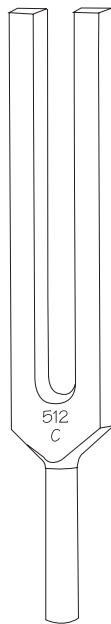
**SIEGLE**  
 44.036.03  
 complete



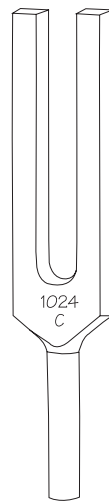
**44.060.01**  
 C 128



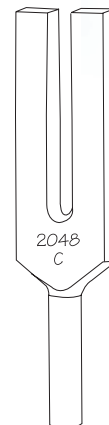
**44.060.02**  
 C 256



**44.060.03**  
 C 512



**44.060.04**  
 C 1024

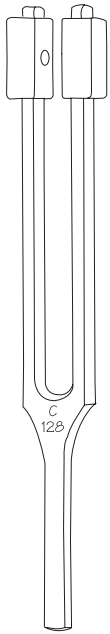


**44.060.05**  
 C 2048

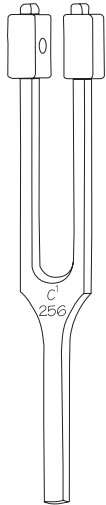


**diapason**  
 44.061.00  
 set 5





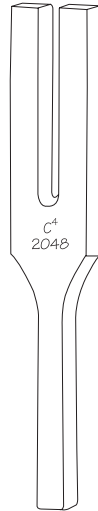
**HARTMAN**  
44.070.01  
C 128



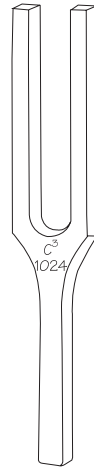
**HARTMAN**  
44.070.02  
C 256



**HARTMAN**  
44.070.03  
C 512



**HARTMAN**  
44.070.04  
C 2048



**HARTMAN**  
44.070.05  
C 1024



**HARTMAN**  
44.071.00  
complete



**LUCAE**  
44.074.01  
C 128



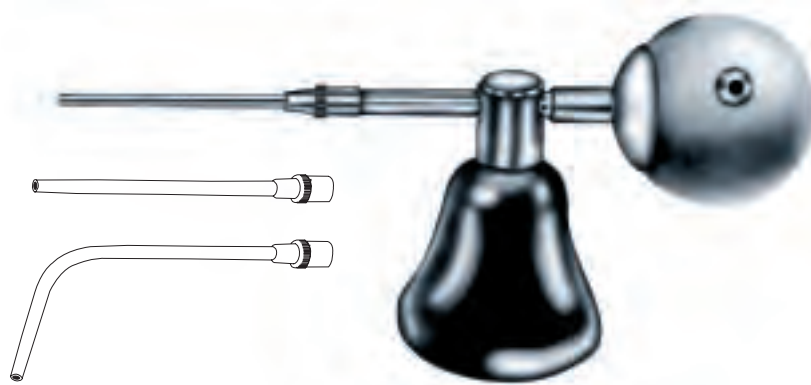
44.075.00



**RYDEL SEIFFER**  
44.076.01  
C 64 / C 128



**BARANY**  
44.080.00  
noise apparatus



**KABIERSKE**  
**44.090.00**  
 powder blower  
 30 cc



**KABIERSKE**  
**44.090.01**  
 powder blower  
 30 cc



**POLTIZER**  
**44.091.00**  
 complete  
**44.091.01**  
 only



**44.091.03**



**44.091.04**  
 ø 4 mm



**44.091.15**  
 ø 15 mm

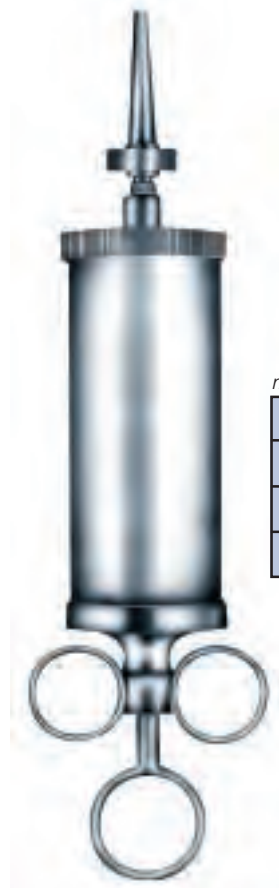


**44.091.17**  
 ø 17 mm



**44.091.22**  
 ø 22 mm

**44.091.35**  
 air bag only



ml	
50	<b>44.096.50</b>
75	<b>44.096.75</b>
100	<b>44.097.10</b>
150	<b>44.097.15</b>

**REINER**  
**44.096.50 - 44.097.15**





mm

1 / 3 charr	<b>44.101.03</b>
1.7/5 charr	<b>44.101.05</b>
2 / 7 charr	<b>44.101.07</b>

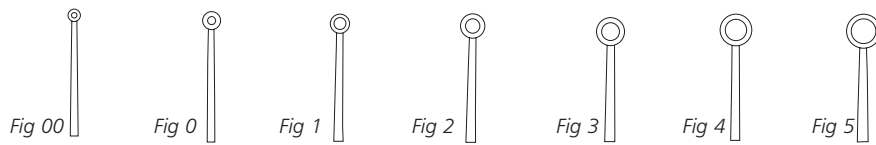
**BARON**  
44.101.03 - 44.101.07



fig

1	<b>44.103.01</b>
2	<b>44.103.02</b>
3	<b>44.103.03</b>
4	<b>44.103.04</b>

**HOUSE**  
44.103.01 - 44.103.04



	<b>44.109.00</b>	<b>44.110.00</b>	<b>44.110.01</b>	<b>44.110.02</b>	<b>44.110.03</b>	<b>44.110.04</b>	<b>44.110.05</b>
	<b>44.111.00</b>	<b>44.112.00</b>	<b>44.112.01</b>	<b>44.112.02</b>	<b>44.112.03</b>	<b>44.112.04</b>	<b>44.112.05</b>
	<b>44.114.00</b>	<b>44.115.00</b>	<b>44.115.01</b>	<b>44.115.02</b>	<b>44.115.03</b>	<b>44.115.04</b>	<b>44.115.05</b>
	<b>44.116.00</b>	<b>44.117.00</b>	<b>44.117.01</b>	<b>44.117.02</b>	<b>44.117.03</b>	<b>44.117.04</b>	<b>44.117.05</b>

**BUCK**  
44.109.00 - 44.117.05  
curettes



- 0 44.131.00
- 1 44.131.01
- 2 44.131.02
- 3 44.131.03
- 4 44.131.04
- 5 44.131.05



- 1 44.133.01
- 2 44.133.02
- 3 44.133.03
- 4 44.133.04
- 5 44.133.05



**HARTMANN**  
44.131.00 - 44.131.05

**ITARD**  
44.133.01 - 44.133.05

**POLITZER**  
44.150.18  
18 cm

**POLITZER**  
44.151.16  
16.5 cm



**POLITZER**  
44.153.16  
16.5 cm



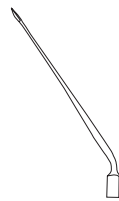
**POLITZER**  
44.160.15  
15 cm



**SEXTON**  
44.162.18  
18 cm  
44.165.17  
17 cm



44.162.18  
18 cm



44.164.17  
17 cm



44.165.17  
17 cm



**GROSS**  
44.170.12  
12 cm



**GROSS**  
44.171.12  
12 cm







-   
44.180.01
-   
44.180.02
-   
44.180.03





**BILLEAU**  
44.180.01 - 44.180.03  
15.5 cm



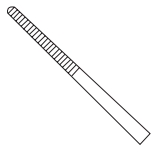
-   
44.190.01
-   
44.190.02

**DAY**  
44.190.01 - 44.190.02  
16 cm

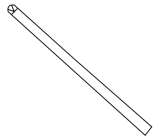


-   
44.192.01
-   
44.192.02
-   
44.192.03
-   
44.192.04

**WAGENER**  
44.192.01 - 44.192.04  
14 cm



44.201.11



44.203.11



**WILDE TROELTSCH**  
44.201.11 - 44.203.11  
12 cm



**LUCAE**  
44.206.14  
14 cm  
44.206.16  
16 cm



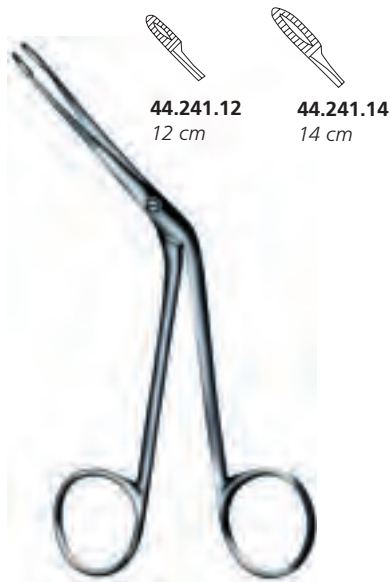
**KRAUSE**  
44.220.16  
16 cm



**WILDE**  
44.222.17  
17 cm



44.225.02  
doz



**HARTMAN**  
44.241.12 - 44.241.14



**TILEY**  
44.243.14  
14 cm



**LITTAUER**  
44.245.12  
12 cm



**QUIRE**  
44.251.10  
10 cm



**BUCK**  
44.253.11  
11 cm



**HARTMANN WULLSTEIN**  
44.255.08  
8.5 cm



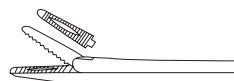
**HARTMANN WULLSTEIN**  
44.257.08  
8.5 cm



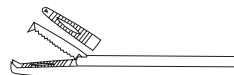
HARTMANN	
8.5	44.261.08
14.0	44.261.14
16.0	44.261.16



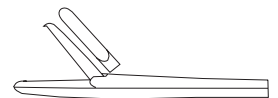
**HARTMANN**  
44.255.08 - 44.275.08  
foreign body levers



HARTMANN	
8.5	44.262.08
14.0	44.262.14
16.0	44.262.16



HARTMANN	
8.5	44.263.08
14.0	44.263.14
16.0	44.263.16

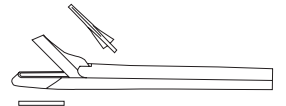
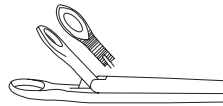


HARTMANN	
8.5	44.265.08
14.0	44.265.14
16.0	44.265.16





○ 3 mm



### HARTMANN

∅ cm      8.5 cm

1.0	44.267.10
2.0	44.267.20
2.5	44.267.25
3.0	44.267.30
3.5	44.267.35

### HARTMANN

44.269.30 - 44.270.30  
8.5 cm

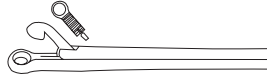
### HARTMANN

44.271.08  
8.5 cm  
44.271.14  
14 cm

### HARTMANN

44.273.08  
8.5 cm / 1 mm  
44.273.09  
8.5 cm / 1.5 mm

○ 2 mm

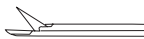


### HARTMANN HOFFMANN

44.275.08  
8.5 cm



**BELLUCCI**  
44.310.40 - 44.322.70  
micro ear scissors



**BELLUCCI**  
44.310.40  
micro mini  
4 mm



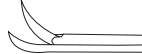
**BELLUCCI**  
44.312.55  
micro standard  
5.5 mm



**BELLUCCI**  
44.313.55  
micro standard  
4 mm



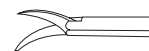
**BELLUCCI**  
44.315.55  
micro standard  
5.5 mm



**BELLUCCI**  
44.317.55  
micro standard  
5.5 mm



**SHEA**  
44.320.70  
7 mm



**SHEA**  
44.321.70  
7 mm



**SHEA**  
44.322.70  
7 mm



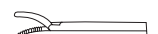
44.350.40  
4 mm



44.350.70  
7 mm



44.352.40  
4 mm



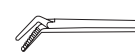
44.353.60  
6 mm



44.355.60  
6 mm



44.357.40  
4 mm



44.359.40  
4 mm



44.360.35  
4 mm



44.350.40 - 44.360.35  
micro ear forceps



44.362.45 - 44.383.30



44.362.45  
 4.5 mm



44.363.45  
 4.5 mm



44.365.45  
 4 mm



44.367.50  
 5 mm



44.369.50  
 5 mm



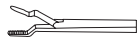
44.370.50  
 5 mm



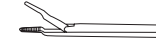
**McGEE**  
 44.371.40  
 0.8 x 4.0 mm



**COS**  
 44.373.30  
 1.8 x 0.8 x 3 mm



**JUERS**  
 44.375.60  
 6 mm



**JUERS**  
 44.377.60  
 6 mm



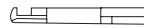
**HAUGH**  
 44.381.30  
 45° 3 mm



**HAUGH**  
 44.383.30  
 45° 3 mm



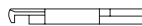
**DIETER**  
 44.385.01 - 44.387.02  
 malleus nippers



44.385.01  
 micro  
 upward



44.387.01  
 mini  
 upward



44.385.02  
 micro  
 downward



44.387.02  
 mini  
 downward



44.410.00 - 44.419.00  
 micro  
 RG  
 ring handle patterns

44.410.00



44.430.00

44.412.00



44.432.00

44.413.00



44.433.00

44.415.00



44.435.00

44.417.00



44.437.00

44.419.00



44.439.00



44.439.08



44.430.00 - 44.439.08  
 micro  
 BG  
 pencil handle patterns





**44.420.00 - 44.429.00**  
micro mini  
RG  
ring handle patterns



**44.510.00 - 44.549.00**  
micro  
RG  
ring handle patterns



44.420.00

44.440.00



44.422.00

44.442.00



44.423.00

44.443.00



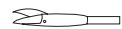
44.425.00

44.445.00



44.427.00

44.447.00



44.429.00

44.449.00



44.510.00

44.610.00



44.511.00

44.611.00



44.513.00

44.613.00



44.514.00

44.614.00



44.515.00

44.615.00



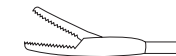
44.516.00

44.616.00



44.517.00

44.617.00



44.519.00

44.619.00



44.520.00

44.620.00



44.521.00



ø 1mm    ø 1.5 mm    ø 2 mm    ø 2.5 mm

44.522.00    44.528.00    44.534.00    44.540.00

44.523.00    44.529.00    44.535.00    44.541.00

44.525.00    44.531.00    44.537.00    44.543.00

44.527.00    44.533.00    44.539.00    44.545.00

44.546.00



44.646.00

44.547.00



44.647.00

44.548.00



44.648.00

44.549.00



44.649.00



**44.440.00 - 44.449.00**  
micro mini  
BG  
pencil handle patterns



**44.610.00 - 44.649.00**  
micro  
BG  
pencil handle patterns

ø 1mm    ø 1.5 mm    ø 2 mm    ø 2.5 mm

44.622.00    44.628.00    44.634.00    44.640.00

44.623.00    44.629.00    44.635.00    44.641.00

44.625.00    44.631.00    44.637.00    44.643.00

44.627.00    44.633.00    44.639.00    44.645.00

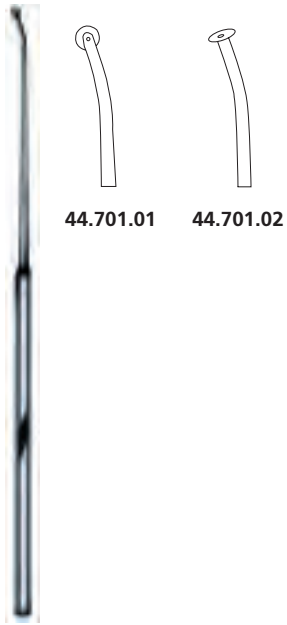


**44.550.00 - 44.589.00**  
 micro mini  
 RG  
 ring handle patterns

44.550.00		44.650.00
44.551.00		44.651.00
44.553.00		44.653.00
44.554.00		44.654.00
44.555.00		44.655.00
44.556.00		
44.557.00		44.657.00
44.559.00		44.659.00
44.560.00		44.660.00
44.561.00		
44.562.00		44.662.00
44.563.00		44.663.00
44.565.00		44.665.00
44.567.00		44.667.00
44.586.00		44.686.00
44.587.00		44.687.00
44.588.00		44.688.00
44.589.00		44.689.00



**44.650.00 - 44.689.00**  
 micro mini  
 BG  
 pencil handle patterns



**SCHUKNECHT**  
44.701.01 - 44.701.02  
15.5 cm



**SCHUKNECHT**  
44.703.15  
15.5 cm



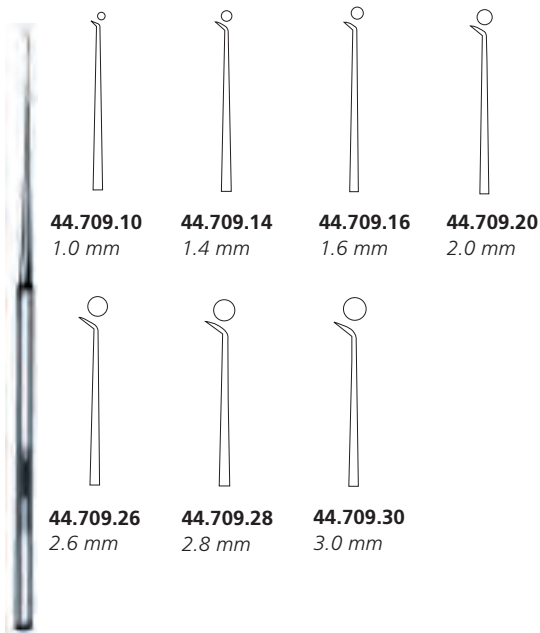
**WULLSTEIN**  
44.704.15  
15.5 cm



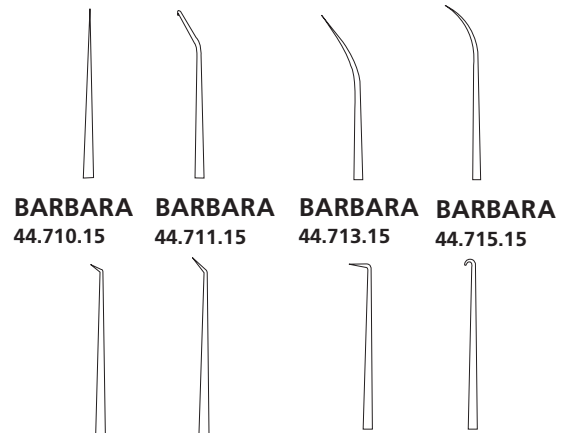
**TABB**  
44.705.15  
15.5 cm



**FLESTER**  
44.706.35  
15.5 cm / ø 3.5 mm



**ROSEN**  
44.709.10 - 44.709.30  
15.5 cm



mm	25°	45°	90°	
0.3	44.720.03	44.722.03	44.724.03	44.725.05
0.6	44.720.06	44.722.06	44.724.06	0.5 mm
1.0	44.720.10	44.722.10	44.724.10	44.725.10
1.2		44.722.12	44.724.12	1.0 mm
1.5		44.722.15	44.724.15	
2.0		44.722.20	44.724.20	
2.5		44.722.25	44.724.25	

**BARBARA**  
44.710.15 - 44.725.10  
15.5 cm

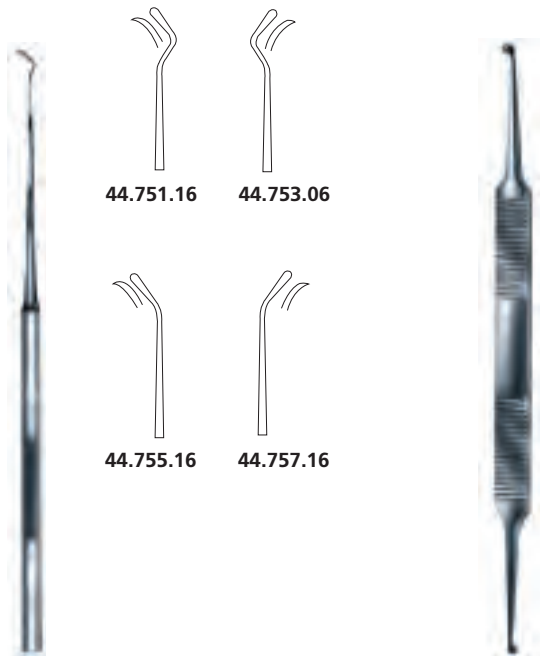


mm	90°	90°
0.3	44.730.03	44.732.03
0.6	44.730.06	44.732.06
1.0	44.730.10	44.732.10

44.730.03 - 44.747.10  
15.5 cm

mm	McGEE		BARBARA	ROSEN
0.5	44.733.05	44.735.05	44.736.15	44.737.15
1.0	44.733.10	44.735.10		

mm	25°	25°	45°	45°
0.3	44.741.03	44.743.03	44.745.03	44.747.03
0.6	44.741.06	44.743.06	44.745.06	44.747.06
1.0	44.741.10	44.743.10	44.745.10	44.747.10



44.751.16	44.753.06
44.755.16	44.757.16

FISCH  
44.751.16 - 44.757.16  
15.5 cm

mm	
1.0 / 1.2	44.760.01
1.5 / 1.8	44.760.02

mm	
1.0 / 1.2	44.762.01
1.5 / 1.8	44.762.02

HOUSE  
44.760.01 - 44.762.02  
15.5 cm

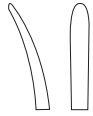
44.766.35	3.5 mm
44.766.40	4.0 mm
44.766.45	4.5 mm
44.766.50	5.0 mm

HOUSE  
44.766.35 - 44.766.55  
15.5 cm

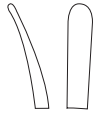




**44.802.16**  
1 mm



**44.803.16**  
2 mm



**44.805.16**  
3 mm

**LEMPERT**  
44.802.16 - 44.805.16  
20.5 cm



**LEMPERT**  
44.807.20  
20.5 cm



**44.810.02**  
2 x 2 mm

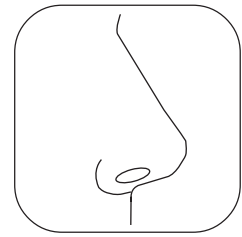


**44.810.03**  
3 x 3 mm

**PASSOW**  
44.810.02 - 44.810.03  
13 cm

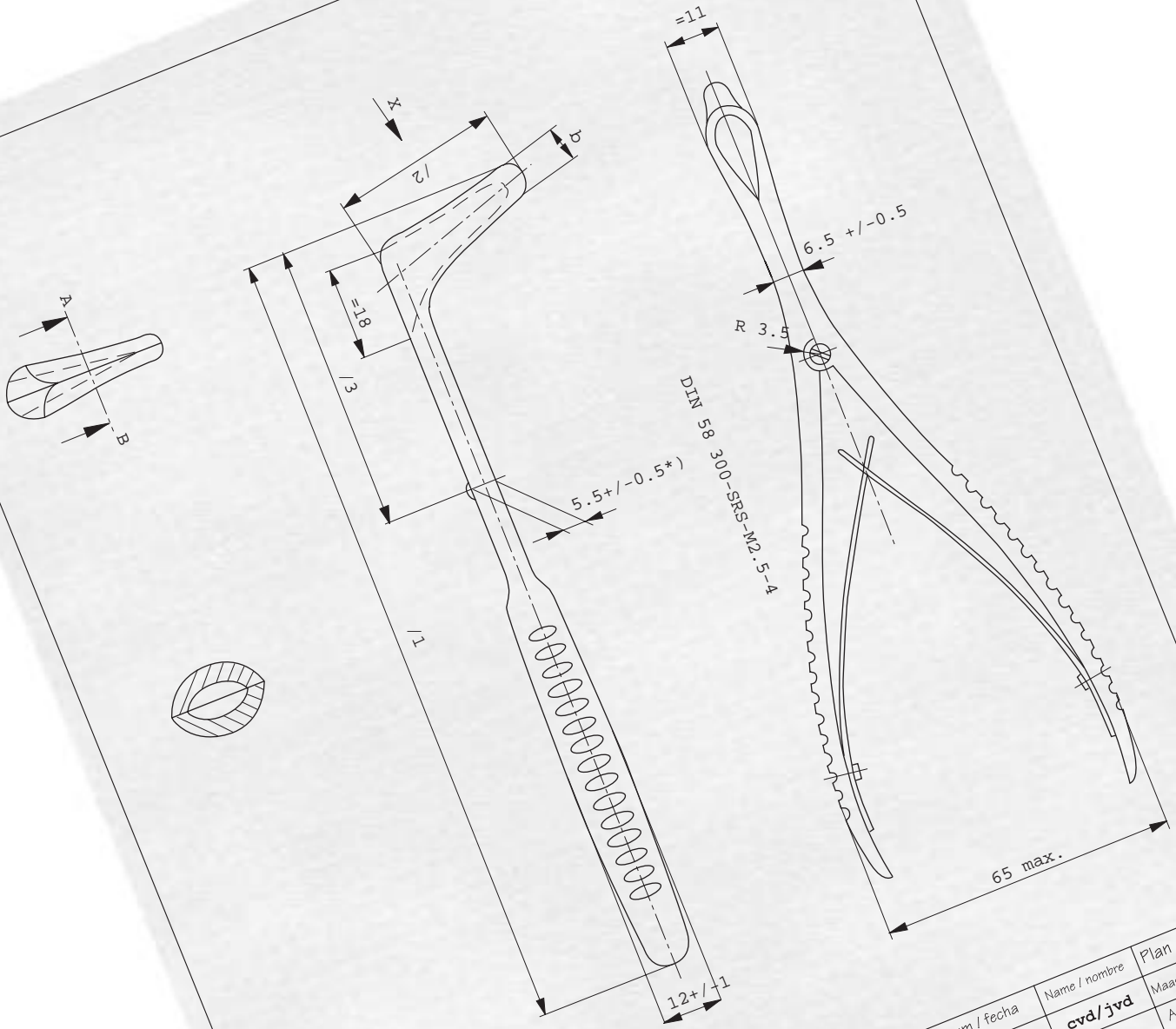


**MUCK**  
44.812.13  
13 cm



# 46

Rhinology  
Rinología  
Rhinologie



F									
	GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano	1			
	Stainless Steel	gezeichnet / dibujado	July '98	cvd/jvd	Maasstab / escala	1:1			
	inoxidable	geprüft / verificado	July '98	cvd	Abt. / acot.	mm			
		Toleranz / tolerancia	June '99	mj	Artikel / artículo				
					Artikel-Nr. / No. de artic				

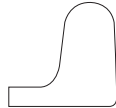




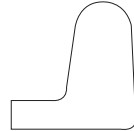
46.050.01



46.050.02



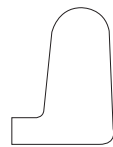
46.050.03



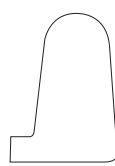
46.050.04



**THUDICHUM**  
46.050.01 - 46.050.07



46.050.05



46.050.06



46.050.07

nasal specula



46.060.01



**VOLTOLINI**  
46.060.01 - 46.060.03



46.060.02



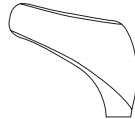
46.060.03



**HARTMANN HALLE**  
46.102.01 - 46.102.03



46.102.01



46.102.02



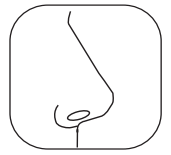
46.102.03



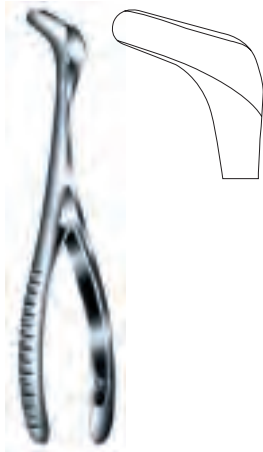
**Vienna**  
46.112.01  
*baby*  
46.112.02  
*child*  
46.112.03  
*adult*



**Vienna**  
46.113.03  
*lightweight*



nasal specula



**TIECK HALLE**  
46.116.13  
13.5 cm



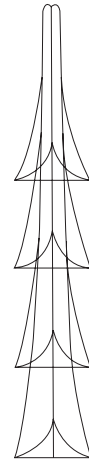
**KILLIAN**  
46.120.35 - 46.120.90



46.120.35  
35 mm  
46.120.50  
50 mm  
46.120.75  
75 mm  
46.120.90  
90 mm



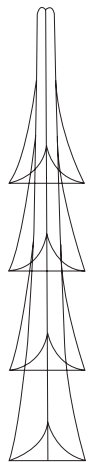
**COTTLE**  
46.124.35 - 46.124.90



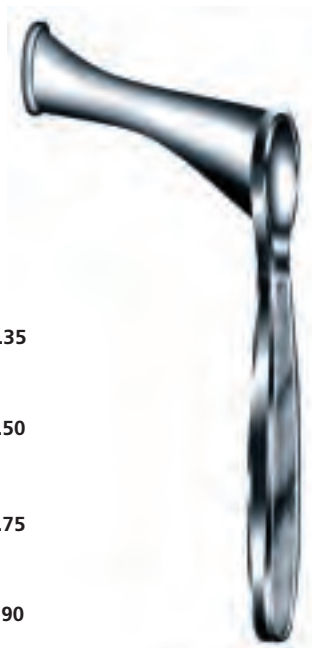
46.124.35  
35 mm  
46.124.50  
50 mm  
46.124.75  
75 mm  
46.124.90  
90 mm



**COTTLE**  
46.126.35 - 46.126.90



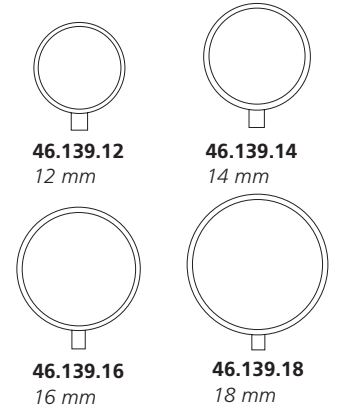
46.126.35  
35 mm  
46.126.50  
50 mm  
46.126.75  
75 mm  
46.126.90  
90 mm



**YANKAUER**  
46.131.19  
19 cm



**MICHEL**  
46.139.12 - 46.139.18  
25 cm



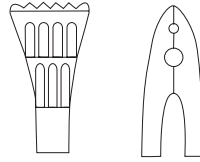
46.139.12  
12 mm  
46.139.14  
14 mm  
46.139.16  
16 mm  
46.139.18  
18 mm



**COTTLE**  
46.151.10  
10 cm



**OGURA**  
46.151.11  
11 cm



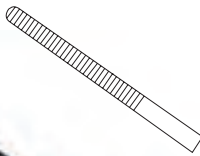
**COTTLE**  
46.151.14  
14 cm



**TROELTSCH**  
46.151.15  
15 cm

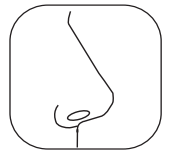


**TROELTSCH**  
46.151.18  
18 cm



**JANSEN**  
46.154.20  
16 cm





**HARTMANN**  
 46.161.16  
 16 cm



**HARTMANN**  
 46.161.20  
 20 cm



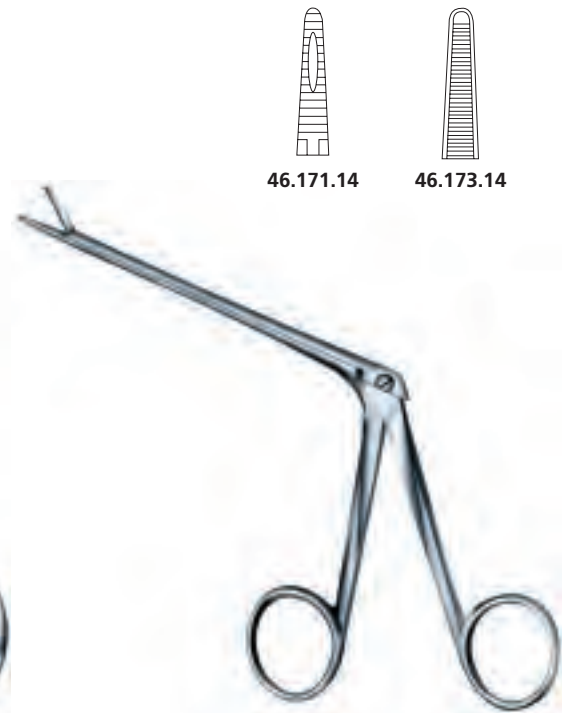
**LUBET BARBON**  
 46.165.20  
 20 cm



**LITTAUER**  
 46.167.18  
 18 cm

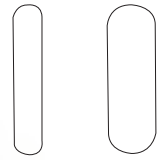


**HEYMANN KNIGHT**  
 46.169.18  
 18 cm

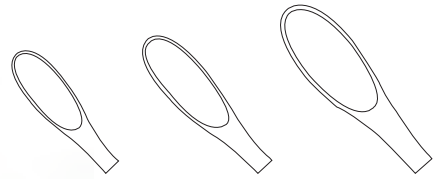
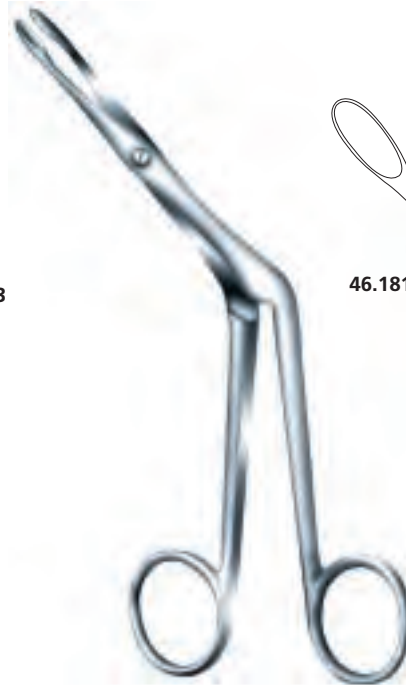


46.171.14      46.173.14

**NOYES**  
 46.171.14 - 46.173.14  
 14 cm



46.175.02 46.175.03



46.181.01 46.181.02 46.181.03

**TAKAHASHI**

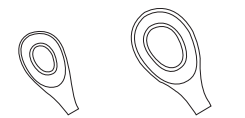
46.175.02 - 46.175.03

12 cm

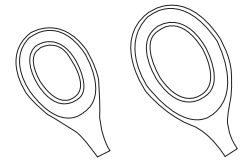
**HEYMANN**

46.181.01 - 46.181.03

18 cm



46.191.01 46.191.02



46.191.03 46.191.04

**KNIGHT**

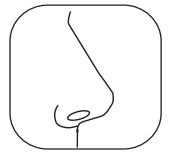
46.185.18

18.5 cm

**BRUENINGS**

46.191.01 - 46.191.04

19 cm



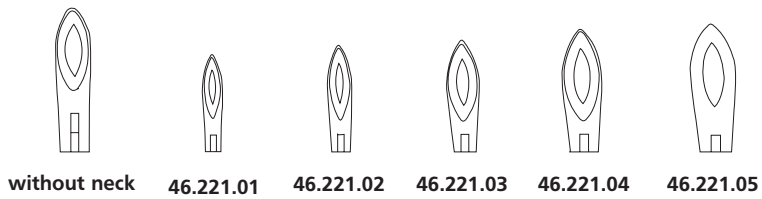
**LUC**  
46.195.01 - 46.195.02  
19 cm



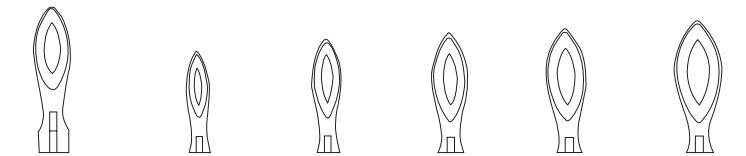
**LUC**  
46.197.01 - 46.197.02  
19 cm



**THORNWALD**  
46.209.23  
23 cm  
tip 3.5 mm



without neck 46.221.01 46.221.02 46.221.03 46.221.04 46.221.05



with neck 46.223.01 46.223.02 46.223.03 46.223.04 46.223.05



**WEIL BLAKESLEY**  
46.221.01 - 46.223.05  
12 cm





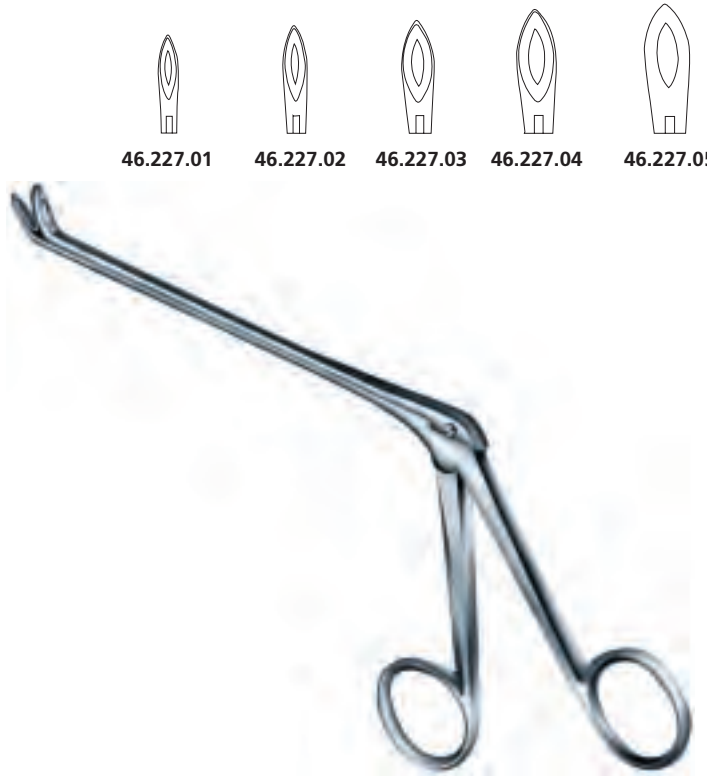
46.225.01



46.225.02



46.225.03



46.227.01

46.227.02

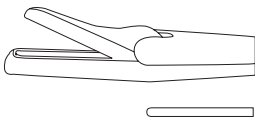
46.227.03

46.227.04

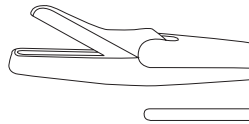
46.227.05

**WEIL BLAKESLEY**  
46.225.01 - 46.225.03  
14 cm

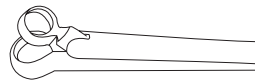
**WEIL BLAKESLEY**  
46.227.01 - 46.227.05  
18 cm



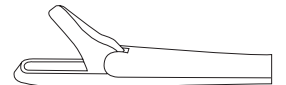
**STRUYCKEN**  
46.231.01 - 46.231.02  
12 cm



**STRUYCKEN**  
46.232.01 - 46.232.02  
18 cm



**HARTMANN**  
46.235.05 - 46.235.11



**MYLES**  
46.237.01 - 46.237.03



**46.231.01 - 46.237.03**  
nasal cutting forceps  
12 cm



46.235.05  
5 mm



46.237.01



46.235.07  
7 mm



46.237.02



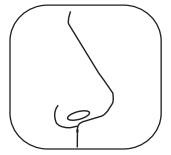
46.235.09  
9 mm



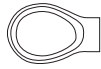
46.237.03



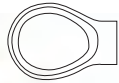
46.235.11  
11 mm



46.239.01



46.239.02



46.239.03



**WATSON WILLIAMS**  
46.239.01 - 46.239.03  
12 cm



**CAPLAN**  
46.251.20  
20 cm



**RUBIN**  
46.251.21  
21 cm



mm

3	46.303.03
4	46.303.04
5	46.303.05
6	46.303.06

**KERRISON**  
46.303.03 - 46.303.06  
17 cm  
85 mm





**HAJEK KOFLER**  
**46.305.01**  
13 cm  
tip 3.5 mm



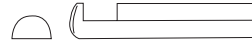
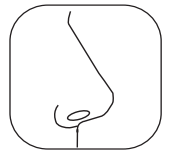
**46.305.01**  
*up wards*



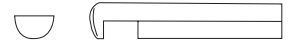
**HAJEK KOFLER**  
**46.305.02**  
13 cm  
tip 3.5 mm



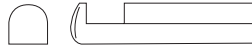
**46.305.02**  
*downwards*



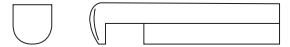
**46.306.03**  
3x3 mm



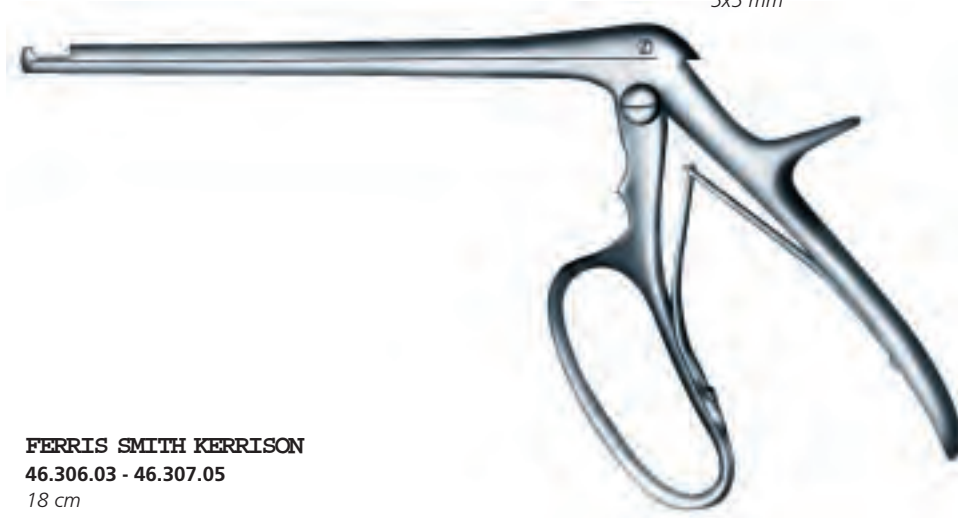
**46.307.03**  
3x3 mm



**46.306.05**  
5x5 mm



**46.307.05**  
5x5 mm



**FERRIS SMITH KERRISON**  
46.306.03 - 46.307.05  
18 cm



**CMELLI**  
46.311.10 - 46.311.40  
6 cm

mm

1.0	<b>46.311.10</b>
2.5	<b>46.311.25</b>
4.0	<b>46.311.40</b>



**BEYER**  
46.315.20  
9 cm  
tip 2.0 mm



**HAJEK CLAUS**  
46.320.20  
20 cm



**MIDDLETON JANSEN**  
46.323.19  
19 cm



**MIDDLETON JANSEN**  
46.325.19  
19 cm



**SEIFFERT**  
46.336.18  
18 cm  
tip 0.9 mm



**LICHTWITZ**  
46.340.15 - 46.340.20

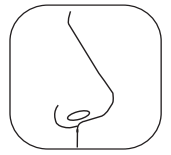
mm	
100 x 1.5	46.340.15
100 x 1.8	46.340.18
100 x 2.0	46.340.20



**KILLIAN**  
46.341.03  
14 cm



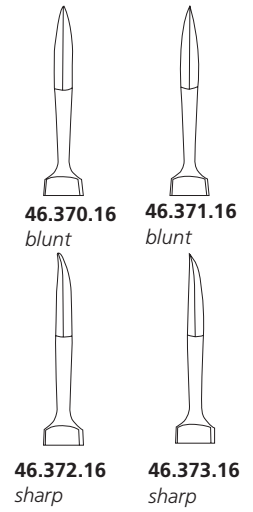
**KRAUSE**  
46.351.26  
26 cm



**WILDE**  
46.352.24  
24 cm



**46.355.03**  
0.3 mm  
bided (12 pieces)



**JOSEPH**  
46.370.16 -46.373.16  
16 cm



**FREER**  
46.374.15  
15 cm



**FREER**  
46.375.19  
19 cm



**JOSEPH**  
46.376.16  
16 cm



**CONVERSE**  
46.379.16  
16 cm





**COTTLE**  
46.380.15  
15 cm



**COTTLE**  
46.382.15  
15 cm



**COTTLE**  
46.384.15  
15 cm



**COTTLE**  
46.385.15  
15 cm



**MALTZ**  
46.387.00  
16 cm



**BALLENGER**  
46.390.03 - 46.390.05  
20 cm



46.390.03  
3 mm



46.390.04  
4 mm



46.390.05  
5 mm



**BALLENGER**  
46.392.03 - 46.392.05  
20 cm



46.392.03  
3 mm



46.392.04  
4 mm



46.392.05  
5 mm



**BRUENINGS**  
46.398.16  
16.5 cm



**46.410.04**  
4 mm

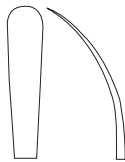


**46.410.05**  
5 mm

**McKENY**  
46.410.04 - 46.410.05  
15 cm



**ORTIZ MONASTERIO**  
46.411.11 - 46.412.11  
11 cm



**ROGER**  
46.413.19  
19 cm



**FREER**  
46.415.18  
18 cm



**46.417.19**



**46.419.19**

**FREER**  
46.417.19 - 46.419.19  
19 cm



**COTTLE**  
46.421.23  
23 cm



**COTTLE**  
46.423.22  
22 cm



**JOSEPH**  
46.425.16  
16 cm



**COTTLE**  
46.425.19  
19 cm



**KILLIAN**  
46.426.22  
23 cm



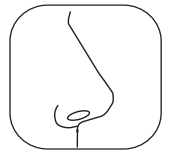
**HAJEK BALLENGER**  
46.428.21  
22 cm



**BALLENGER**  
46.430.22  
22 cm



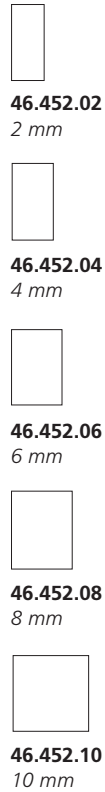
**FREER**  
46.450.04  
16 cm



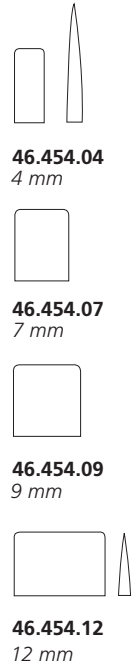
**FREER**  
46.451.04  
16 cm



**ORTIZ MONASTERIO**  
46.452.02 - 46.452.10  
16 cm



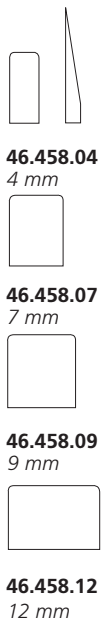
**COTTLE**  
46.454.04 - 46.454.12  
18 cm



**COTTLE**  
46.455.06  
18 cm



**COTTLE**  
46.458.04 - 46.458.12  
18 cm

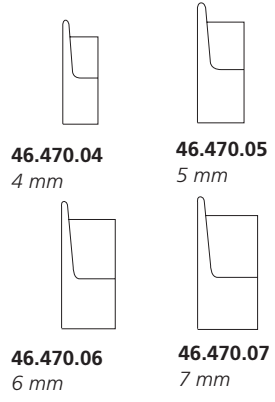


**COTTLE**  
46.460.04 - 46.460.12  
18 cm

mm

4	46.460.04
7	46.460.07
12	46.460.12





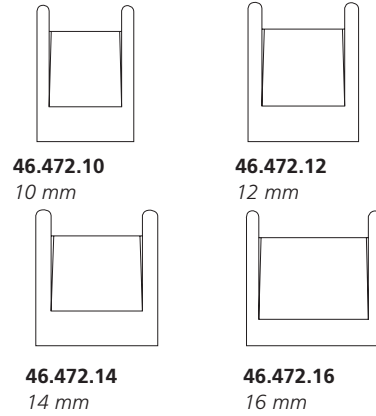
**46.470.04**  
4 mm

**46.470.05**  
5 mm

**46.470.06**  
6 mm

**46.470.07**  
7 mm

**FOMON**  
46.470.04 - 46.470.07  
17 cm



**46.472.10**  
10 mm

**46.472.12**  
12 mm

**46.472.14**  
14 mm

**46.472.16**  
16 mm

**CINELLI**  
46.472.10 - 46.472.16  
16 cm



**SILVER**  
46.473.01  
18 cm



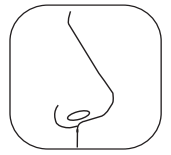
**SILVER**  
46.473.02  
18 cm



**SILVER**  
46.473.03  
18 cm



**KILLIAN CLAUS**  
46.482.05  
17 cm



mm

4	46.484.04
6	46.484.06
8	46.484.08

**HAJEK**  
46.484.04 - 46.484.08  
16 cm



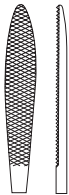
**WEST**  
46.486.16  
16 cm



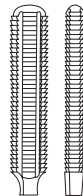
**WEST**  
46.487.16  
16 cm



**FREER**  
46.489.16  
16.5 cm



**JOSEPH**  
46.502.16  
16 cm



**AUFRICHT**  
46.504.18  
18 cm

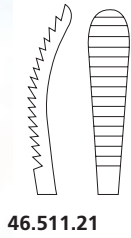


46.507.18

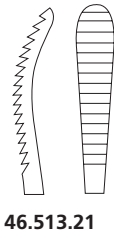
46.507.19

**LEWIS**  
46.507.18 - 46.507.19  
18 cm



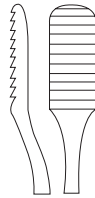


46.511.21

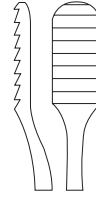


46.513.21

**WEINER**  
46.511.21 - 46.513.21  
21 cm

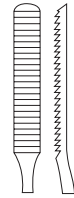


46.514.16

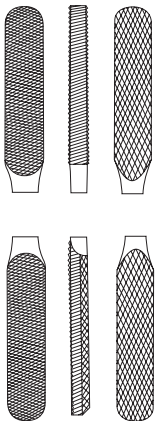


46.516.16

**JOSEPH LEWIS**  
46.514.16 - 46.516.16  
18 cm



**MALTZ**  
46.518.21  
21 cm



**FOMON**  
46.520.21  
21 cm



46.522.01 TC



46.522.03 TC



46.522.05 TC

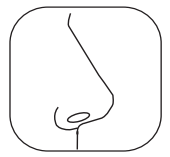


46.522.07 TC



46.522.09 TC

**FOMON**  
46.522.01 TC - 46.522.09 TC  
20 cm



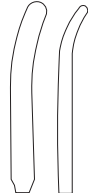
46.526.16



46.527.16



46.529.16



JOSEPH  
 46.535.01  
 17 cm  
 left

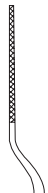


JOSEPH  
 46.535.02  
 17 cm  
 right

GALLAHER  
 46.526.16 - 46.529.16  
 16 cm



46.532.19  
 left



46.534.19  
 right



AUFRICHT  
 46.551.16  
 16 cm



AUFRICHT  
 46.553.13  
 13 cm

JOSEPH  
 46.532.19 - 46.534.19  
 19 cm





**NEIVERT**  
46.553.16  
16 cm



**COTTLE**  
46.554.15  
15 cm



**COTTLE**  
46.555.14  
14 cm



**COTTLE**  
46.555.15  
15 cm



**COTTLE**  
46.556.14  
14 cm



**46.556.14**  
*sharp*



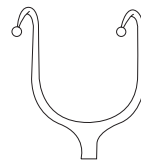
**46.556.12**  
*ball right*



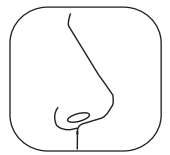
**46.556.11**  
*ball left*



**FOMON**  
46.556.16  
16 cm



**FOMON**  
46.557.17  
17 cm



**COTTLE NEIVERT**  
46.559.20  
20 cm



**46.560.18**  
18 cm  
**46.560.23**  
23 cm



**46.562.18**  
18 cm

**GILLIES**  
46.560.18 - 46.562.18



**ASCH**  
46.571.23  
23 cm



**WALSHAM**  
46.572.23 - 46.575.23  
23 cm

<i>universal</i>	<b>46.572.23</b>
<i>right</i>	<b>46.573.23</b>
<i>left</i>	<b>46.575.23</b>



**JATHO**  
46.595.15  
15 cm

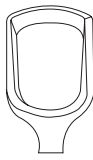




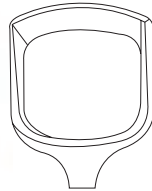
**FAULKNER**  
46.601.21  
21 cm



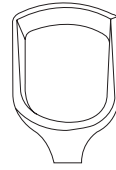
**BECKMANN**  
46.620.01 - 46.620.06  
22 cm



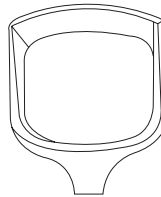
46.620.01



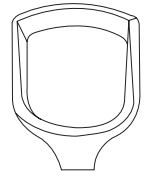
46.620.04



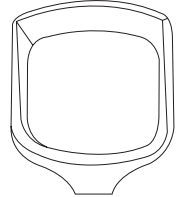
46.620.02



46.620.05



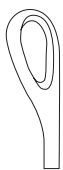
46.620.03



46.620.06



**COAKLEY**  
46.607.01 - 46.607.06  
17 cm



46.607.01



46.607.02



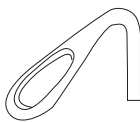
46.607.03



46.607.04



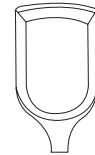
46.607.05



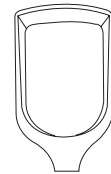
46.607.06



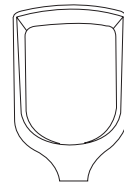
**BARNHILL**  
46.630.01 - 46.630.04  
22 cm



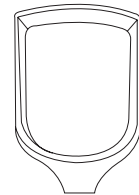
46.630.01



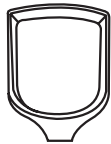
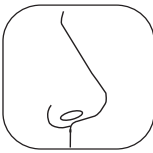
46.630.02



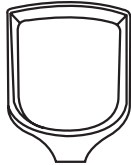
46.630.03



46.630.04



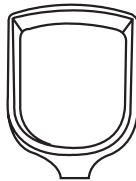
46.636.01



46.636.02

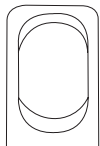


46.636.03

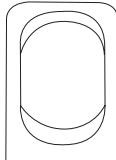


46.636.04

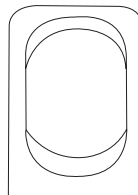
ST. CLAIR THOMSON  
46.636.01 - 46.636.04  
23 cm



46.641.01



46.641.02



46.641.03



LAFORCE  
46.642.01



LAFORCE  
46.642.02



LAFORCE  
46.642.03

LAFORCE  
46.641.01 - 46.641.03





## THE ITALIAN NOSE

La Nariz Italiana

Die Italienische Nase

In the 16<sup>th</sup> century, the Italian surgeon Tagliacozzi made reconstruction of destroyed noses possible. He took a piece of skin from one of the patient's arm and put it over the nose's back and stitched it up. In order to maintain a alimentation bridge, he left a part united to the arm until the new nose was cicatrized. During the whole treatment he bandaged head and arm together.

Even though Tagliacozzi was not the inventor of the surgical nose, he was the first one who described precisely the procedure.



Ya en el siglo XVI la reconstrucción de narices destruidas era posible en Italia gracias al cirujano Tagliacozzi. El colocaba un pedazo de piel de uno de los brazos del paciente sobre el hueso nasal y lo cosía. Dejaba una parte del pedazo todavía unido al brazo, para así mantener un puente alimenticio. Era hasta cuando empezaba a cicatrizar alrededor de la nariz, cuando separaba éste del brazo.

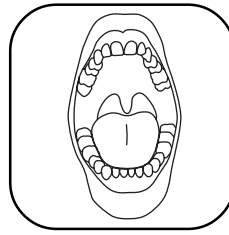
Cabeza y brazo los mantenía bien vendados en la posición correspondiente.

Aunque Tagliacozzi no fue el inventor de la nariz quirúrgica, fue el primero en descubrir exactamente el procedimiento para ésta.

Im 16. Jahrhundert machte der italienische Chirurg Tagliacozzi die Wiederherstellung zerstörter Nasen möglich.

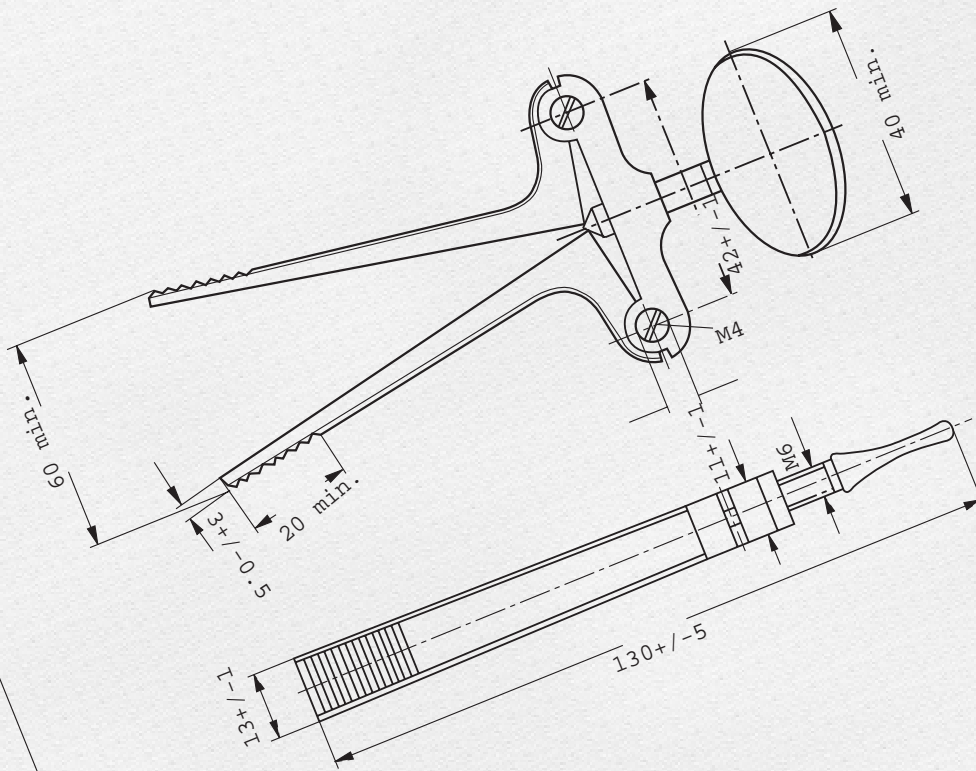
Er nähte einen Hautlappen aus dem Arm auf den Nasenstumpf. Dabei ließ er eine schmale Ernährungsbrücke bestehen, die er erst durchtrennte, wenn der Hautlappen an den Nasenstumpf angewachsen war. Kopf und Arm hielt er durch feste Verbände in der entsprechenden Position fest.

Zwar war Tagliacozzi nicht der Erfinder der chirurgischen Nase, jedoch der erste, der die Vorgehensweise genau beschrieben hat.



# 48

**Mouth and Tongue**  
**Boca y Lengua**  
**Mund und Zunge**



F						
	GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano	1
	Stainless Steel	gezeichnet / dibujado	July '98	cvd/jvd	Maasstab / escala	1:1
	Acero inoxidable	geprüft / verificado	July '98	cvd	Abt. / acot.	mm
		Toleranz / tolerancia	June '99	mj	Artikel / articulo	
					Artikel-Nr. / No. de articulo	

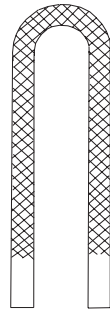




48.102.16  
16 cm



**FRENZEL**  
48.105.16  
16.5 cm



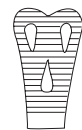
**BRUENINGS**  
48.107.19  
19 cm



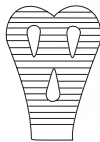
**BUCHWALD**  
48.109.19  
19 cm



**HARTMANN**  
48.111.15  
15 cm



48.115.01  
14 cm



48.115.02  
15 cm

**WIEDER**  
48.115.01 - 48.115.02



**ANDREW**  
48.117.11  
11 cm



**TOBOLD**  
48.119.14  
14.5 cm



cm	
14	48.227.14
16	48.227.16
18	48.227.18

**STERNBERG**  
48.227.14 - 48.227.18



cm	
12	48.229.12
14	48.229.14
16	48.229.16

**STERNBERG**  
48.229.12 - 48.229.16



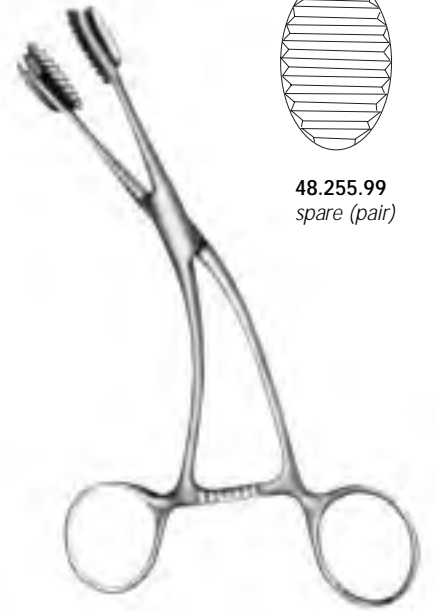
48.230.11  
11 cm



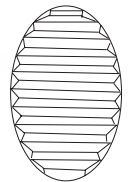
48.235.19  
19 cm



**COLLIN**  
48.250.16  
16 cm  
48.250.18  
18 cm



**YOUNG**  
48.255.16  
16 cm



48.255.99  
spare (pair)



**DOYEN JANSEN**

48.265.12  
12 cm  
48.265.14  
14 cm



**DENHART**

48.267.12  
12 cm



**ROSER KOENIG**

48.270.16  
16 cm  
48.270.19  
19 cm



**HEISTER**

48.272.13  
13 cm

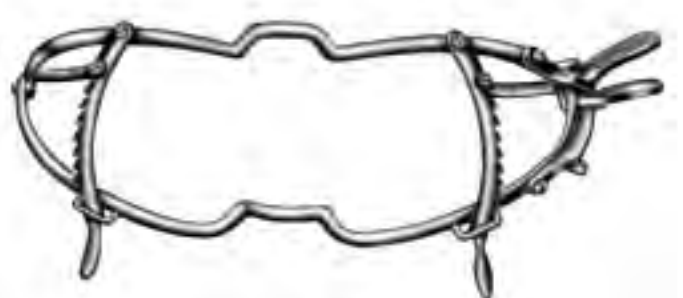


**JENNINGS**

48.274.09 - 48.274.15

cm

9	48.274.09
11	48.274.11
13	48.274.13
15	48.274.15

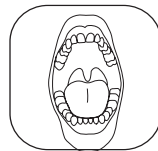


**WHITEHEAD**

48.280.11 - 48.280.15

cm

11	48.280.11
13	48.280.13
15	48.280.15



**WHITEHEAD**  
 48.281.11 - 48.281.15

*cm*

11	48.281.11
13	48.281.13
15	48.281.15



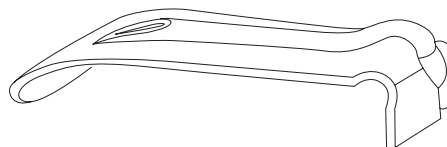
**SEEMANN SEIFFERT**  
 48.285.09 - 48.285.15

*cm*

9	48.285.09
11	48.285.11
13	48.285.13
15	48.285.15

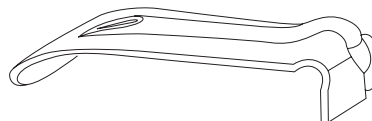


**DAVIS BOYLE**  
 48.310.00  
*complete*



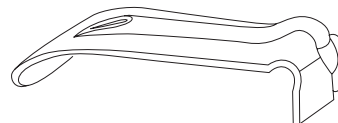
26 x 110 mm

48.310.01



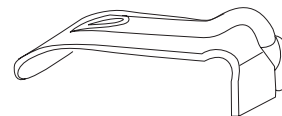
25 x 90 mm

48.310.02



24 x 75 mm

48.310.03



22 x 65 mm

48.310.04



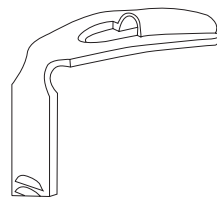
20 x 25 mm

48.310.05

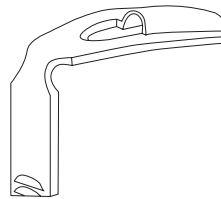


<i>normal</i>	48.310.10
<i>children</i>	48.310.11
<i>teenagers</i>	48.310.12

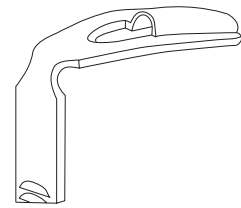
**DAVIS BOYLE**  
48.310.10 - 48.310.12



**48.315.01**  
28 x 65 mm



**48.315.02**  
32 x 75 mm



**48.315.03**  
37 x 80 mm

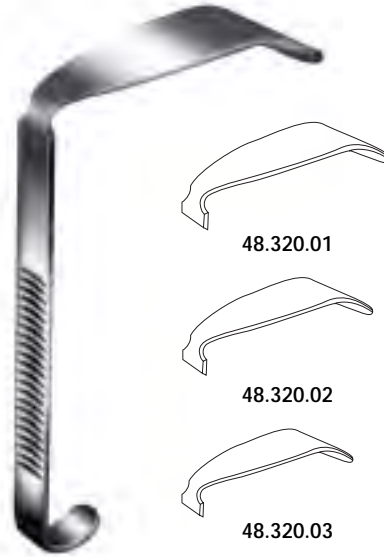


**48.315.00**  
*complete*

**KILNER DOUGHTY**  
48.315.00 - 48.315.03



**KILNER DOUGHTY**  
 48.315.10



**McIVOR**  
 48.320.00

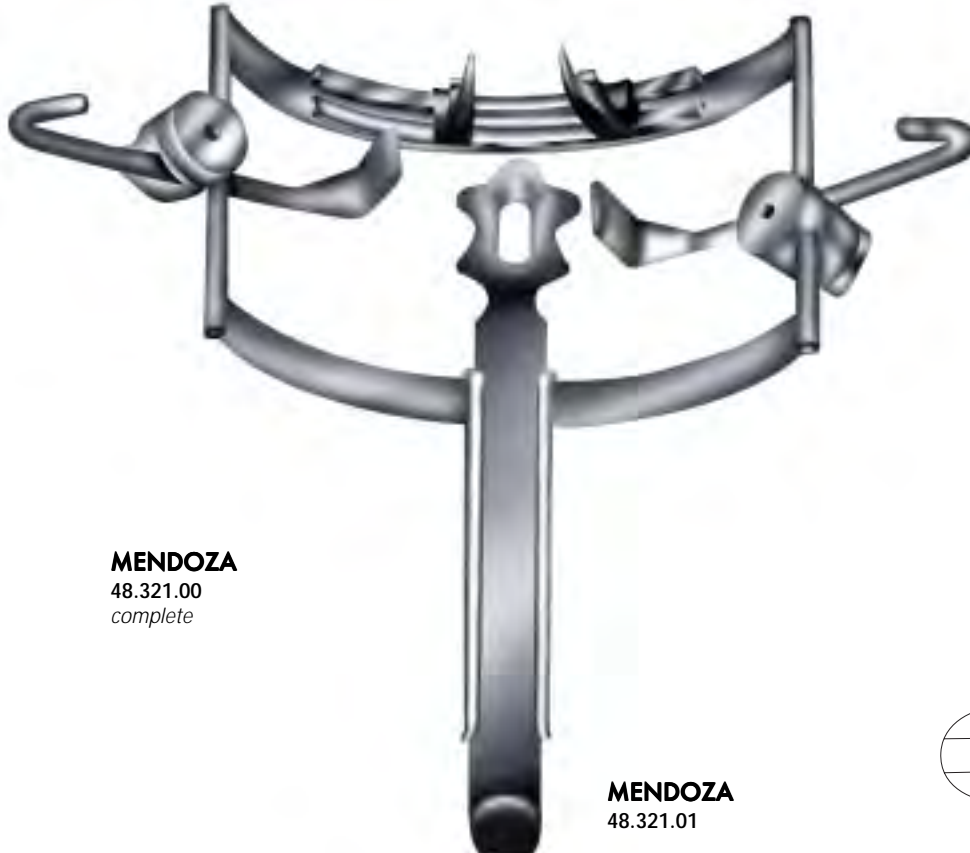
48.320.01

48.320.02

48.320.03

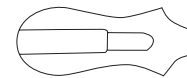


**McIVOR**  
 48.320.10

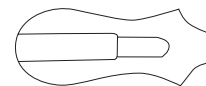


**MENDOZA**  
 48.321.00  
*complete*

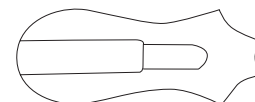
**MENDOZA**  
 48.321.01



48.321.24  
 24 x 55 mm

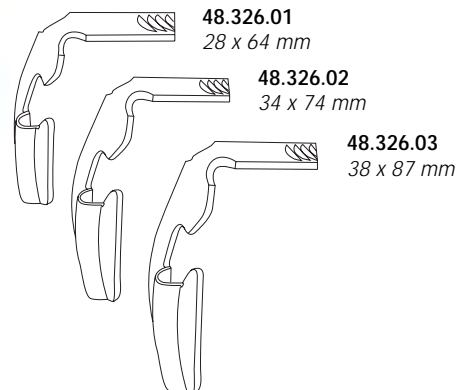
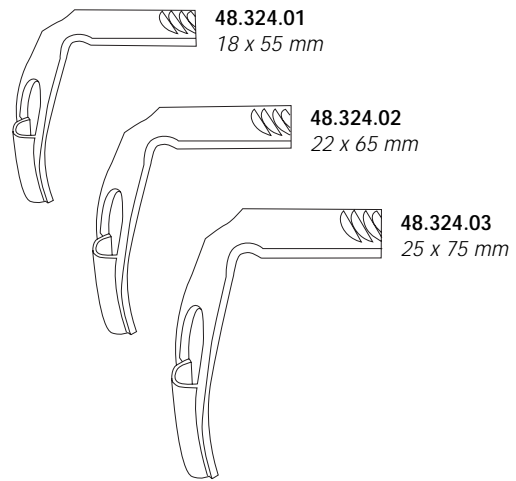
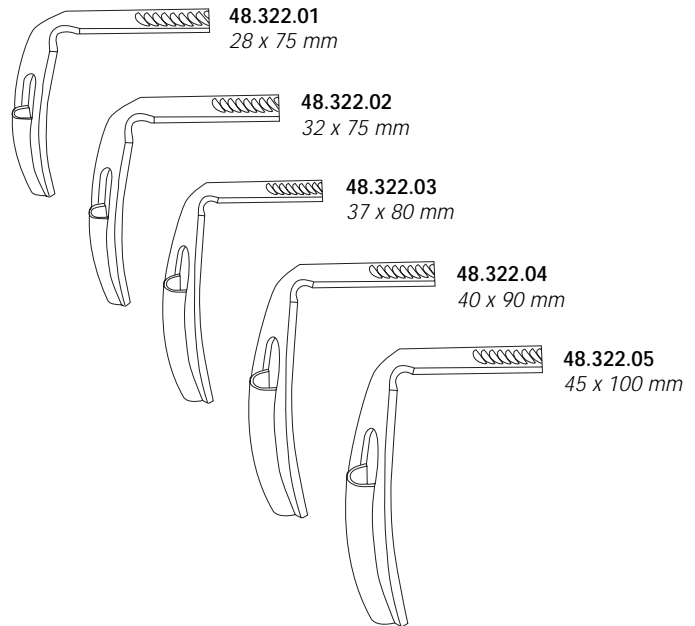


48.321.28  
 28 x 60 mm



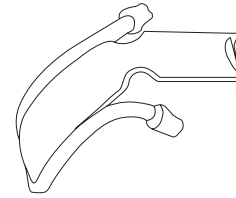
48.321.31  
 31 x 70 mm





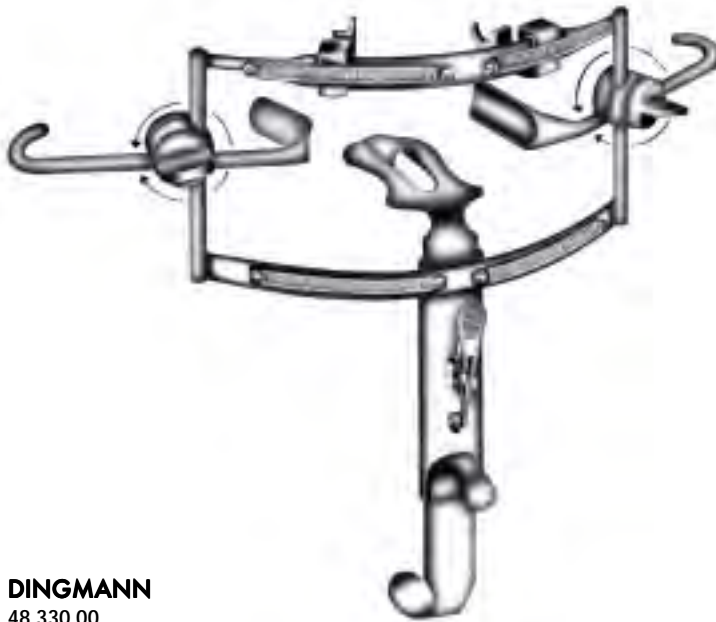


**DAVIS MEAER**  
 48.328.01 - 48.328.07



mm

29 x 70	48.328.01
30.5 x 75	48.328.02
31.5 x 80	48.328.03
32.5 x 85	48.328.04
33.5 x 95	48.328.05
33.8 x 100	48.328.06
34 x 105	48.328.07

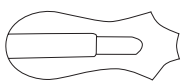


**DINGMANN**  
 48.330.00  
*complete*

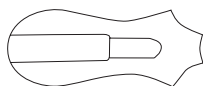
**DINGMANN**  
 48.330.09



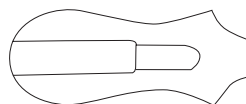
**MAUNDER**  
 48.360.10



48.330.01



48.330.02



48.330.03





**PITHA**  
48.365.10

- 48.365.20 *Large Edentulous*
- 48.365.22 *Large Adult*
- 48.365.24 *Adult Size*
- 48.365.26 *Child Size*
- 48.365.28 *Small Child Size*



**McKESSON**  
48.365.20 - 48.365.28



48.371.01  
*fig. 1*



48.371.02  
*fig. 2*

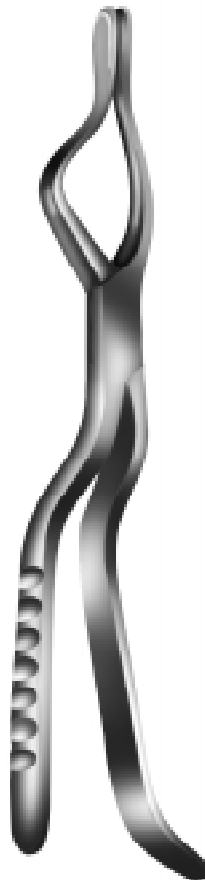


48.371.03  
*fig. 3*

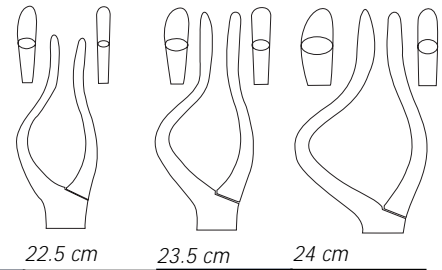
**LANGENBECK**  
48.371.01 - 48.371.03



**ROWE**  
48.501.22 - 48.501.24  
*left*



**ROWE**  
48.503.22 - 48.503.24  
*right*



<i>left</i>	48.501.22	48.501.23	48.501.24
<i>right</i>	48.503.22	48.503.23	48.503.24



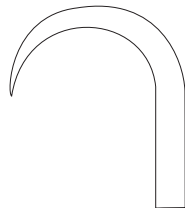
**TESSIER**  
 48.507.01  
*left*  
 48.507.02  
*right*



48.530.01  
 15 cm



48.541.10  
 10 mm



48.541.20  
 20 mm

**DINGMANN**  
 48.541.10  
 19 cm



**DINGMANN**  
 48.543.01  
 15 cm, *right*  
 48.543.02  
 15cm, *left*



**DINGMANN**  
 48.545.20  
 21 cm





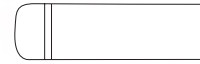
48.581.24  
24 cm



**MUNRO**  
48.591.20 - 48.591.35



48.591.20  
20 mm



48.591.25  
25 mm



48.591.30  
30 mm



48.591.35  
35 mm



**OBWEGESER**  
48.593.40 - 48.593.80  
22 cm



mm

11 x 40	48.593.40
11 x 55	48.593.55
11 x 80	48.593.80



10 x 42 mm

**OBWEGESER**  
48.595.22  
22 cm



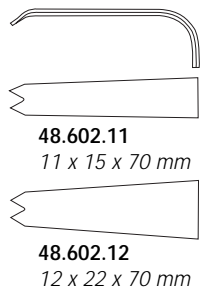
**OBWEGESER**  
48.597.22  
22 cm



**OBWEGESER**  
48.601.16  
15.5 cm



**OBWEGESER**  
48.602.11 - 48.602.12  
22 cm



48.602.11  
11 x 15 x 70 mm

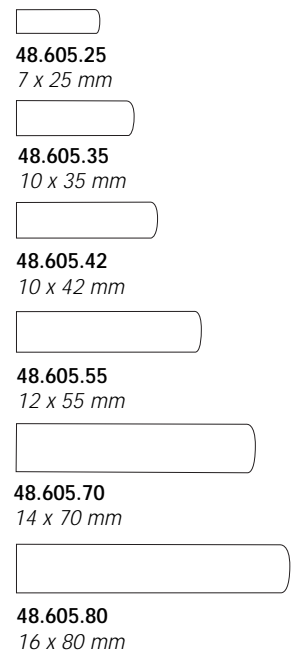
48.602.12  
12 x 22 x 70 mm



**OBWEGESER**  
48.603.08  
17 cm, 8 mm  
48.603.10  
17 cm, 10 mm



**OBWEGESER**  
48.605.25 - 48.605.80  
22 cm



48.605.25  
7 x 25 mm

48.605.35  
10 x 35 mm

48.605.42  
10 x 42 mm

48.605.55  
12 x 55 mm

48.605.70  
14 x 70 mm

48.605.80  
16 x 80 mm

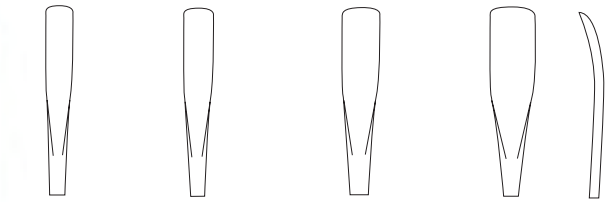




mm	
7 x 25	48.607.25
10 x 35	48.607.35
10 x 42	48.607.42
12 x 55	48.607.55
14 x 70	48.607.70
16 x 80	48.607.80

### OBWEGESER

48.607.25 - 48.607.80  
20 cm



48.608.06  
6 mm

48.608.07  
7 mm

48.608.09  
9 mm

48.608.11  
11 mm

### OBWEGESER

48.608.06 - 48.608.11  
17.5 cm



48.609.06  
6 mm



48.609.07  
7 mm



48.609.09  
9 mm



48.609.11  
11 mm

### OBWEGESER

48.609.06 - 48.609.11  
18 cm



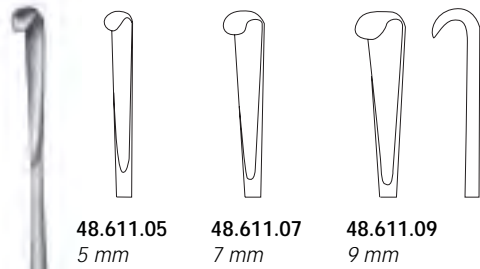
mm

6	48.610.06
7	48.610.07
9	48.610.09
11	48.610.11

### OBWEGESER

48.610.06 - 48.610.11  
17.5 cm

**Mouth and Tongue**  
**Boca y Lengua**  
**Mund und Zunge**



48.611.05  
5 mm

48.611.07  
7 mm

48.611.09  
9 mm



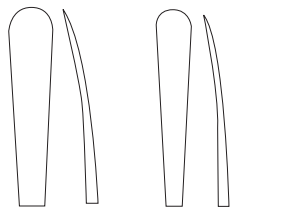
**OBWEGESER**  
 48.611.05 - 48.611.09  
 20 cm



**OBWEGESER**  
 48.612.01  
 17.5 cm

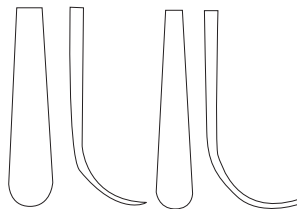


**OBWEGESER**  
 48.612.02  
 17.5 cm



48.614.21

48.616.21



**OBWEGESER**  
 48.614.21 - 48.616.21  
 21 cm



**OBWEGESER FREER**  
 48.619.20  
 21 cm, sharp  
 48.619.21  
 21 cm, blunt





48.620.02  
2.5 mm

48.620.04  
4.0 mm

48.620.06  
6.5 mm

48.626.08  
8 mm

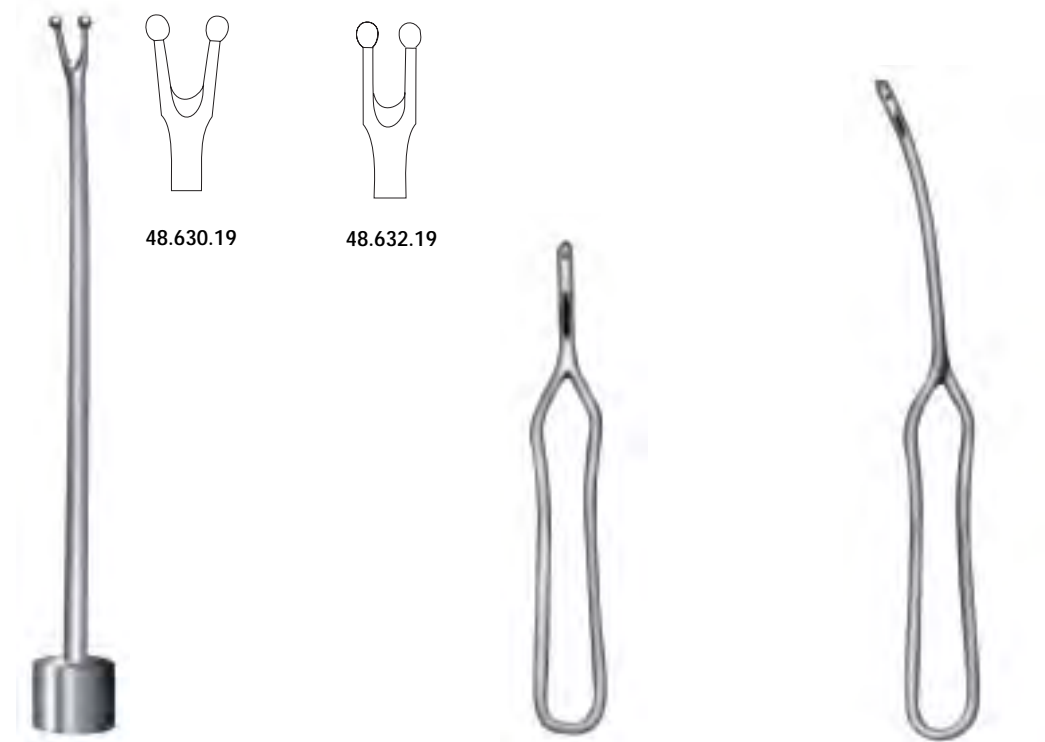
48.626.11  
13 mm

**OBWEGESER**

48.620.02 - 48.620.06  
15 cm

**OBWEGESER**

48.626.08 - 48.626.11  
23.5 cm



48.630.19

48.632.19

**OBWEGESER**

48.630.19 - 48.632.19  
18.5 cm

**KELSEY FRY**

48.636.15  
15 cm

**KELSEY FRY**

48.637.18  
18 cm



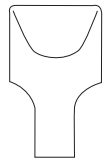
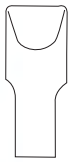
**OBWEGESER**  
48.647.13  
13 cm



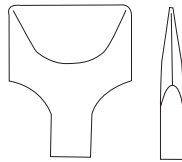
**OBWEGESER**  
48.650.15  
15.5 cm



48.680.08  
8 mm



48.680.12  
12 mm



48.680.16  
16 mm

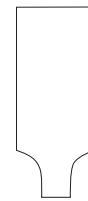
**OBWEGESER**  
48.680.08 - 48.680.16  
22 cm



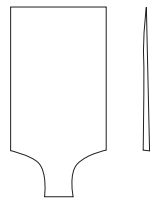
48.682.08  
8 mm



48.682.12  
12 mm



48.682.16  
16 mm



48.682.20  
20 mm

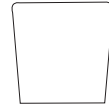
**OBWEGESER**  
48.682.08 - 48.682.20  
22 cm



**48.684.03**  
3 mm

**48.684.04**  
4 mm

**48.684.06**  
6.5 mm

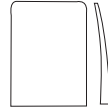
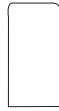


**48.754.10**  
10 mm

**48.754.15**  
15 mm

**48.754.20**  
20 mm

**48.754.30**  
30 mm

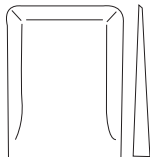
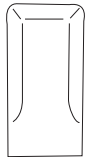


**48.755.10**  
10 mm

**48.755.15**  
15 mm

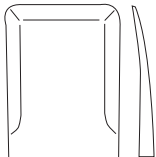
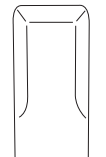
**OBWEGESER**  
48.684.03 - 48.684.06  
15.5 cm

**TESSIER**  
48.754.10 - 48.755.15  
20 cm



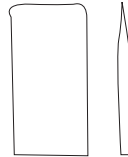
**48.756.10**  
10 mm

**48.756.15**  
15 mm

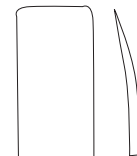


**48.757.10**  
10 mm

**48.757.15**  
15 mm



**48.758.10**



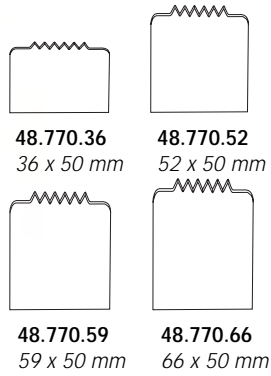
**48.759.10**



**TESSIER**  
48.756.10 - 48.757.15  
16 cm

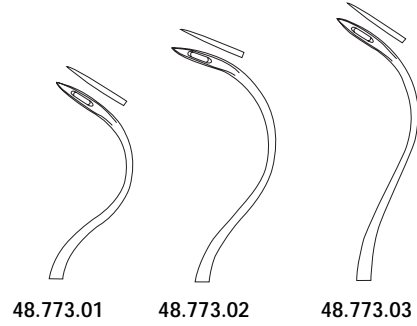
**TESSIER**  
48.758.10 - 48.759.10  
16 cm, 10 mm

**TESSIER**  
48.760.18  
18.5 cm



**TESSIER**  
 48.770.00  
 set of 4

**TESSIER**  
 48.770.36 - 48.770.66



**TESSIER**  
 48.773.00  
 set of 3

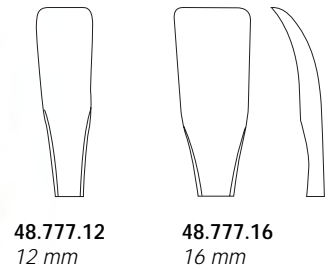
**TESSIER**  
 48.773.01 - 48.773.03  
 21 cm



**TESSIER**  
 48.775.30  
 18 cm / 30°



**TESSIER**  
 48.775.60  
 18 cm / 60°



**TESSIER**  
 48.777.12 - 48.777.16  
 20 cm





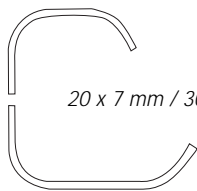
**TESSIER**  
48.781.00  
set of 3



**TESSIER**  
48.781.10  
22 cm, 10 x 12 mm

**TESSIER**  
48.781.15  
22cm, 15 x 17 mm

**TESSIER**  
48.781.20  
22 cm, 20 x 22 mm



20 x 7 mm / 30 x 10 mm



**48.785.01**  
20 x 12 mm / 30 x 16 mm



**48.785.02**  
30 x 12 mm / 35 x 16 mm



**48.785.03**  
35 x 12 mm / 45 x 16 mm



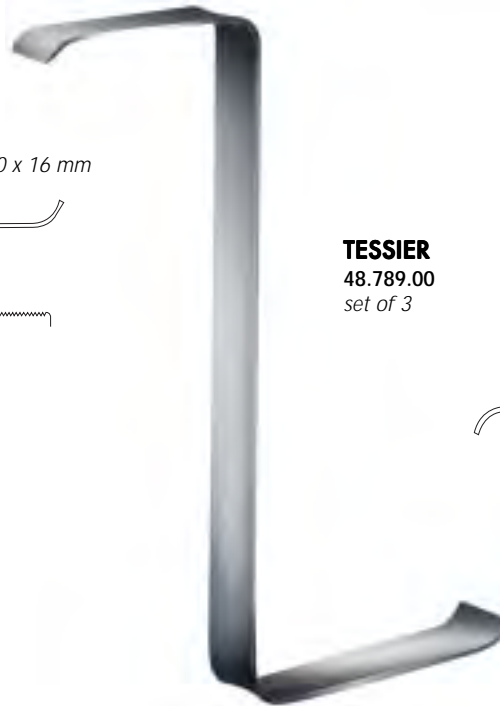
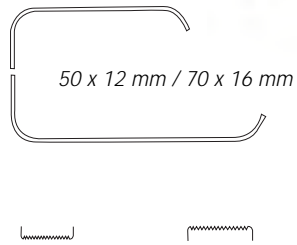
**TESSIER**  
48.785.00  
set of 3

**TESSIER**  
48.783.01  
15 cm

**TESSIER**  
48.785.01 - 48.785.03  
15.5 cm

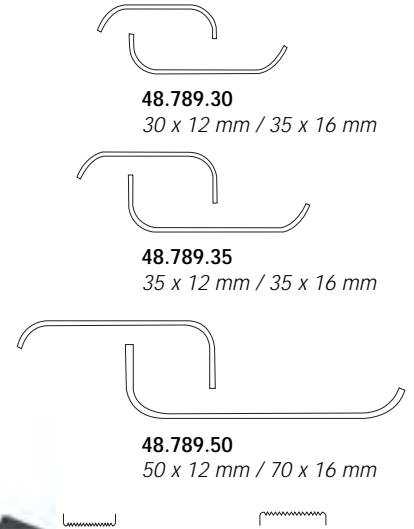


**TESSIER**  
48.787.50  
15.5 cm



**TESSIER**  
48.789.30 - 48.789.50  
17 cm

**TESSIER**  
48.789.00  
set of 3



**TESSIER**  
48.791.01 - 48.791.03  
12.5 cm

**TESSIER**  
48.791.00  
set of 6



48.791.01



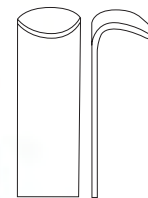
48.791.02



48.791.03



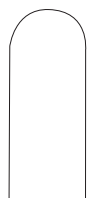
**TESSIER**  
48.791.04 - 48.791.06  
12.5 cm



48.791.04




48.791.05




48.791.06





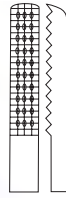
  
**48.795.10**  
10 mm

  
**48.795.17**  
17.5 mm

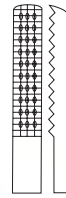
  
**48.795.20**  
20 mm

**TESSIER**  
48.795.00  
set of 3

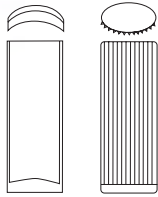
**TESSIER**  
48.795.10 - 48.795.20  
15 cm



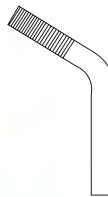
**TESSIER**  
48.796.18  
15.5 cm



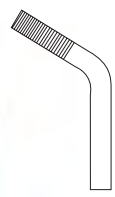
**TESSIER**  
48.797.18  
19 cm



**TESSIER**  
48.799.22  
22 mm



**TESSIER**  
48.802.18  
18 cm



**MARCHAC**  
48.804.17  
17 cm



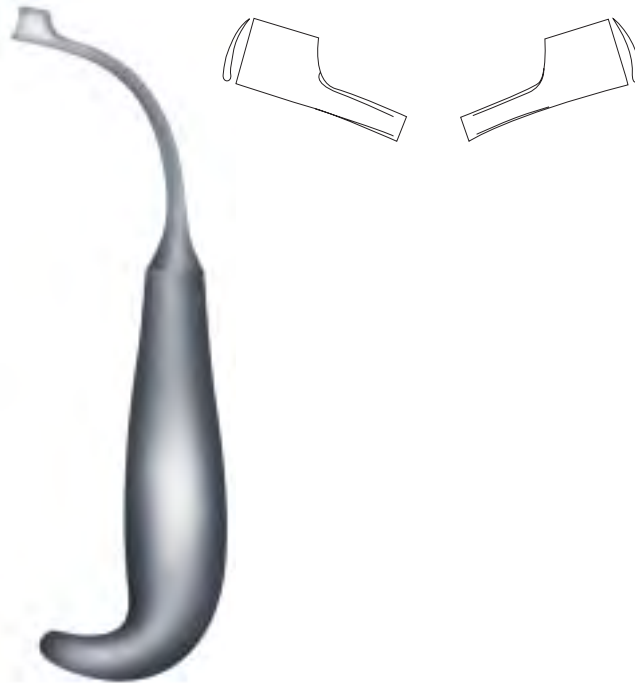
**TESSIER**  
48.805.18  
18.5 cm



**HARGIS**  
48.823.18  
18 cm



**HARGIS**  
48.825.19  
19 cm



**SMITH**  
48.835.01  
left

**SMITH**  
48.835.02  
right



**SMITH**  
48.838.20



**TESSIER**  
48.990.26  
26 cm



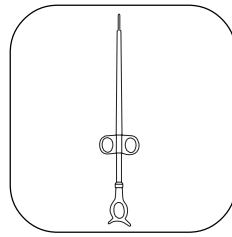
**BAUER**  
48.871.20  
*right*



**BAUER**  
48.873.20  
*left*

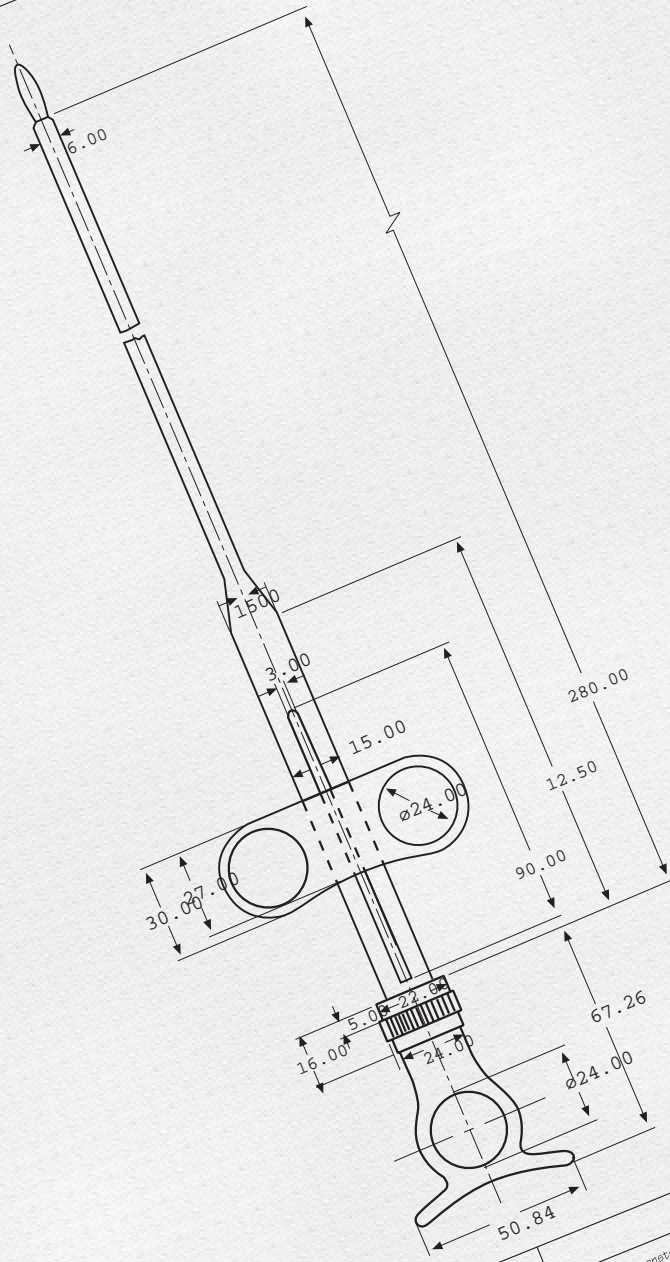


**LEVASSEUR MERRIL**  
48.891.00



# 50

**Tonsils**  
**Amígdalas**  
**Tonsillen**



GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
Stainless Steel	gezeichnet / dibujado	July '98	cvd/jvd	Maaestab / escala 1:1
inoxidable	geprüft / verificado	July '98	cvd	Abt. / acot. mm
	Toleranz / tolerancia	June '99	mj	Artikel / artículo
				Artikel-Nr. / No. de articulo





mm

18	50.103.18
20	50.103.20
22	50.103.22

**LOVE**  
50.103.18 - 50.103.22



**HOFER**  
50.109.24  
24 cm



**NAGER**  
50.111.23  
23 cm



**HASLINGER**  
50.112.00  
17 cm

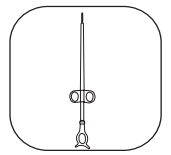


**HURD**  
50.131.22 - 50.133.22  
22 cm



**HENKE**  
50.135.23  
23 cm

**Tonsils  
Amigdalas  
Tonsillen**



**CARPENTER**  
50.139.25  
25 cm



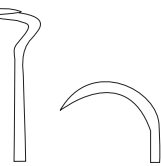
**CARPENTER**  
50.143.24  
24 cm



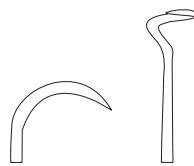
**LUNIATSCHEK**  
50.151.19  
19 cm



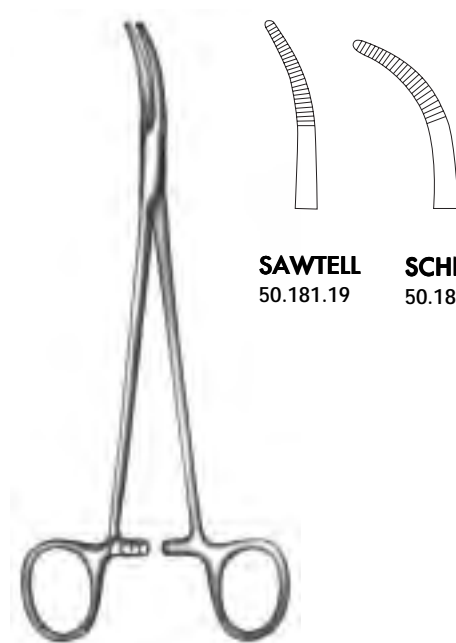
**DUPUY WEISS**  
50.165.22 - 50.167.22  
22 cm



50.165.22



50.167.22



**SAWTELL**  
50.181.19

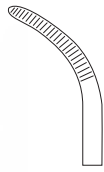
**SCHNIDT**  
50.183.19

50.181.19 - 50.183.19  
19 cm





50.185.19 - 50.187.19  
19 cm



**SAWTELL**  
50.185.19



**SCHNIDT**  
50.187.19



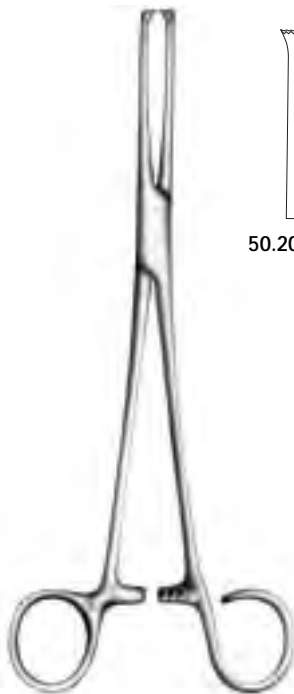
**NEGUS**  
50.191.19 - 50.193.19  
19 cm



50.191.19



50.193.19



**COLVER**  
50.202.19 - 50.203.19  
19 cm



50.202.19



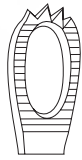
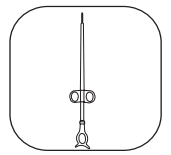
50.203.19



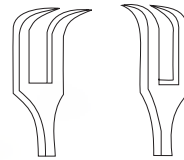
**WHITE**  
50.205.18  
18 cm  
50.205.23  
23 cm



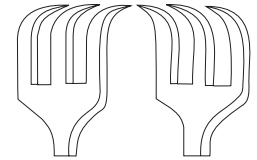
**BALLENGER**  
50.207.21  
21 cm



**BLOHMKE**  
50.209.20  
21 cm



**TYDING**  
50.211.21

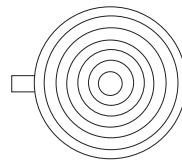


**TIVNEN**  
50.213.21

50.211.21 - 50.213.21  
21 cm



**MARSCHIK**  
50.219.22  
22 cm



**CORWIN**  
50.231.14  
15 cm



**EVES**  
50.250.28  
28 cm



**EVES**  
50.252.28  
28 cm



**BRUENINGS**  
50.256.28  
28 cm



mm

40	50.257.40
50	50.257.50

50.257.40 - 50.257.50  
100 pieces



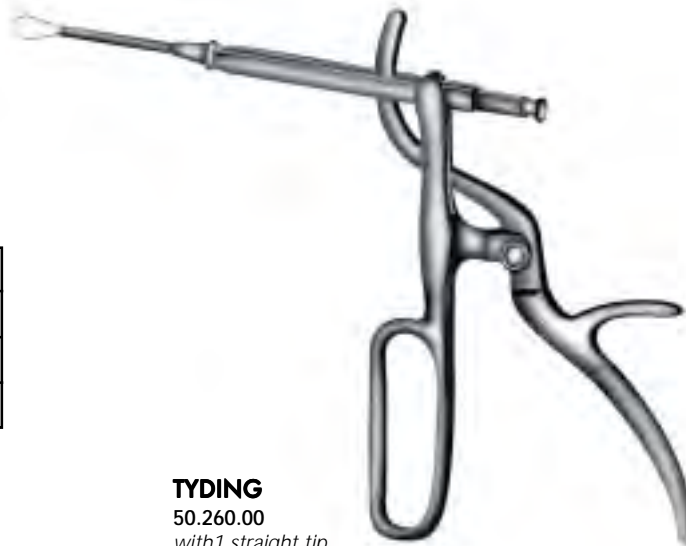
50.259.03  
0.3 mm  
12 pieces each



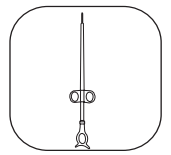
mm

0.35	50.259.35
0.4	50.259.40
0.45	50.259.45
0.5	50.259.50

50.259.35 - 50.259.50  
100 pieces



**TYDING**  
50.260.00  
with 1 straight tip



**SLUDER BALLENGER**  
50.270.00  
3 blades



**LANDOLT**  
50.857.25  
25 cm



**LANDOLT**  
50.858.21  
21 cm



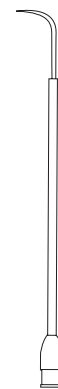
50.290.02 - 50.290.20

*ml*

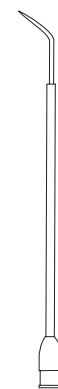
2	50.290.02
5	50.290.05
10	50.290.10
20	50.290.20



50.292.00 - 50.293.90  
0.8 mm



50.293.90  
90°



50.293.45  
45°



50.292.00





**John Singer Sargent**  
1905

**Members of the First Clinical  
Faculty of Johns Hopkins,  
Baltimore, Maryland.**

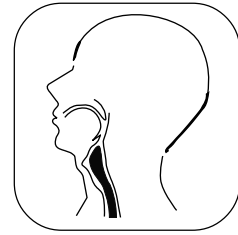
*(left to right) William Osler,  
Howard Attwood Kelly, William  
Steward Halsted, and William  
Henry Welch.*

**Miembros de la Primera  
Facultad Clínica del Johns  
Hopkins, Baltimore, Maryland.**

*(de izquierda a derecha)  
William Osler, Howard  
Attwood Kelly, William  
Steward Halsted y William  
Henry Welch*

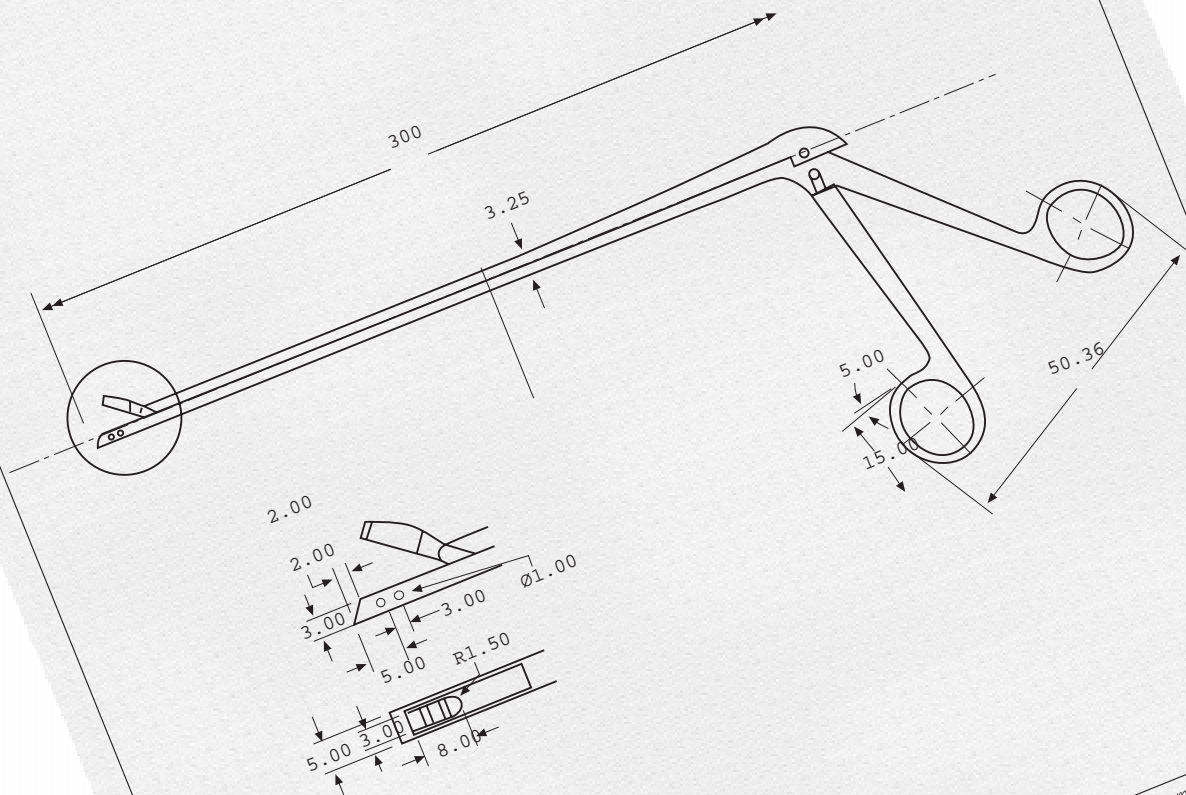
**Mitglieder der ersten Klinik-  
Fakultät in Johns Hopkins,  
Baltimore, Maryland.**

*(von links nach rechts) William  
Osler, Howard Attwood Kelly,  
William Steward Halsted und  
William Henry Welch*



# 52

Larynx  
Laringe  
Larynx

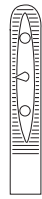


GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
	gezeichnet / dibujado	July '98	cvd/jvd	1
	geprüft / verificado	July '98	cvd	Maaastab / escala 1:1
	Toleranz / tolerancia	June '99	mj	Abt. / acot. mm
				Artikel / artículo
				Artikel-Nr. / No. de articu





52.101.22

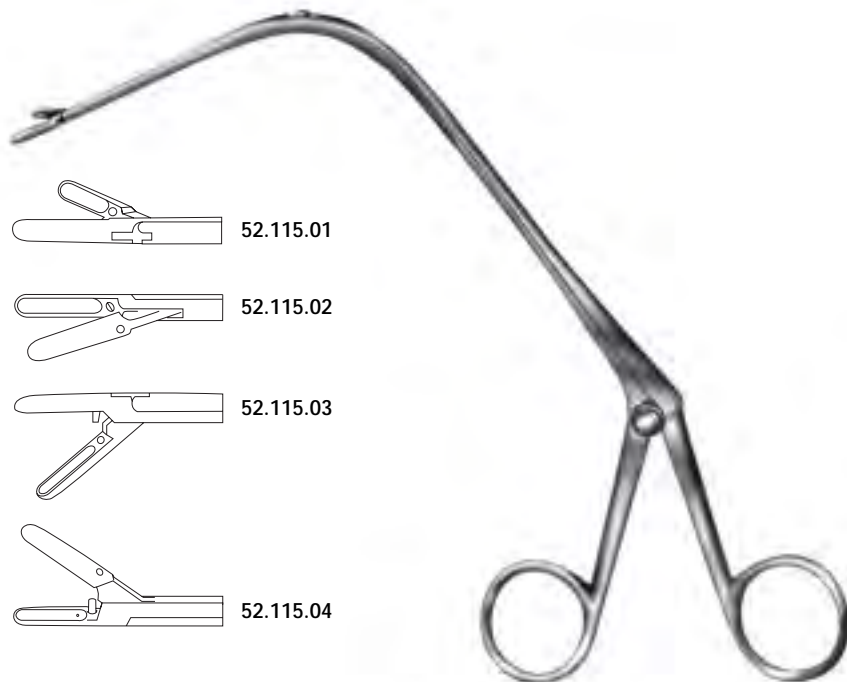


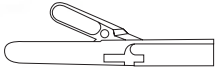
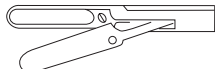
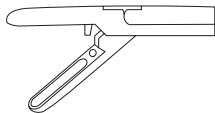
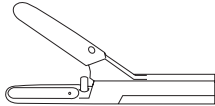
52.103.22



**JACKSON**  
52.101.22 - 52.103.22  
22 cm

**FRAENKEL**  
52.111.18  
18 cm



-  52.115.01
-  52.115.02
-  52.115.03
-  52.115.04

**JURASZ**  
52.115.01 - 52.115.04  
23 cm



**REICHERT**  
52.121.24  
24 cm



**HUBER**  
52.130.00

52.123.00  
only  
2.5 mm

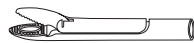


**BRUENINGS**  
52.131.20  
20 cm

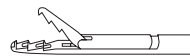


**BRUENINGS**  
52.132.20 - 52.132.60

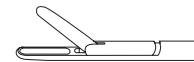
cm	
20	52.132.20
30	52.132.30
40	52.132.40
50	52.132.50
60	52.132.60



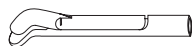
**FRAENKEL**  
52.150.00



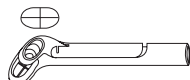
**SEIFERRT**  
52.152.00



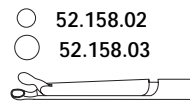
**FRAENKEL**  
52.154.00



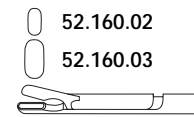
**SCHEINMANN**  
52.155.00



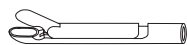
**SCHEINMANN**  
52.157.00



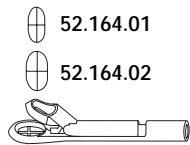
**BRUENINGS**  
52.158.02 - 52.158.03



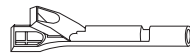
**BRUENINGS**  
52.160.02 - 52.160.03



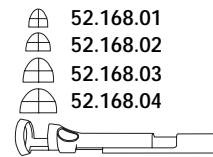
**LANGE**  
52.162.00



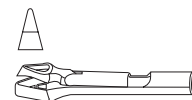
**KRAUSE**  
52.164.01 - 52.164.02



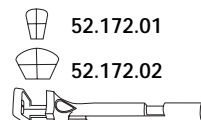
**KRAUSE**  
52.166.00



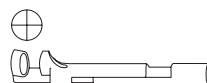
**CORDES**  
52.168.01 - 52.168.04



**SCHUMACHER**  
52.170.00



**CORDES**  
52.172.01 - 52.172.02

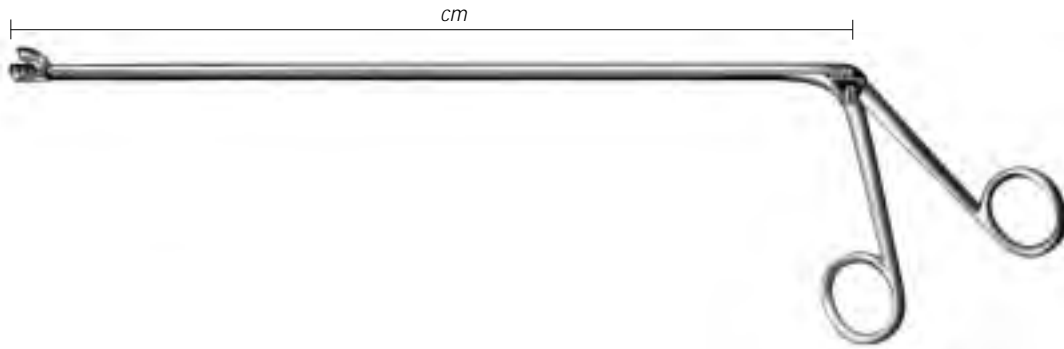


**CORDES**  
52.174.00



**ROSENBERG**  
52.176.00

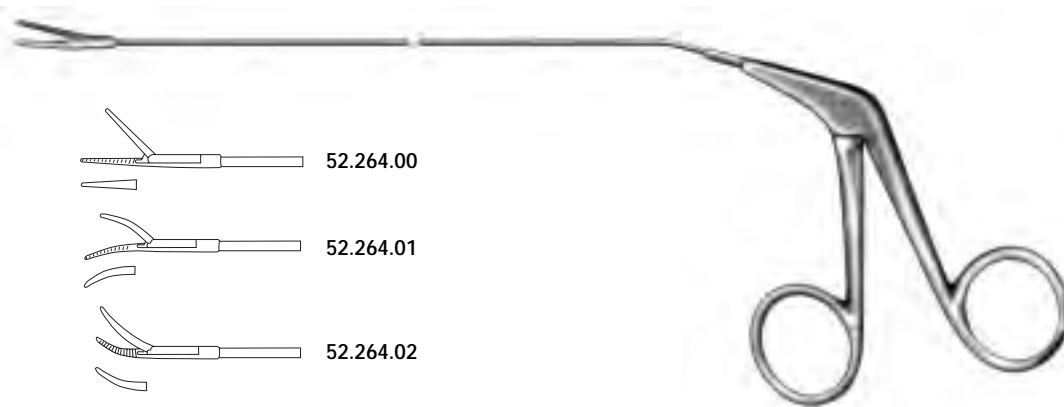




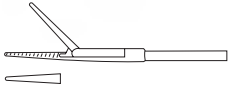
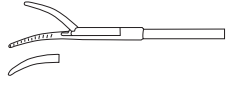
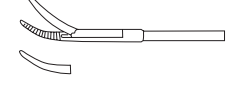
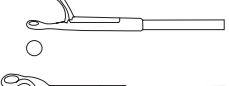
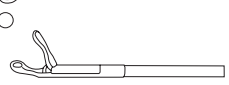
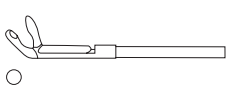
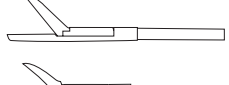
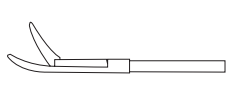


**CHEVALIER JACKSON**  
52.230.01 - 52.260.07

cm

30	52.230.01	52.230.02	52.230.03	52.230.04	52.230.05	52.230.06	52.230.07
40	52.240.01	52.240.02	52.240.03	52.240.04	52.240.05	52.240.06	52.240.07
50	52.250.01	52.250.02	52.250.03	52.250.04	52.250.05	52.250.06	52.250.07
60	52.260.01	52.260.02	52.260.03	52.260.04	52.260.05	52.260.06	52.260.07



52.264.00 - 52.264.13  
24 cm

-  52.264.00
-  52.264.01
-  52.264.02
-  52.264.04
-  52.264.05
-  52.264.06
-  52.264.07
-  52.264.10
-  52.264.11
-  52.264.12
-  52.264.13



mm

52.270.08	0 / 8	52.272.08
52.270.10	0 / 10	52.272.10
52.270.12	1 / 12	52.272.12
52.270.14	2 / 14	52.272.14
52.270.16	3 / 16	52.272.16
52.270.18	4 / 18	52.272.18
52.270.20	5 / 20	52.272.20
52.270.22	6 / 22	52.272.22
52.270.24	7 / 24	52.272.24
52.270.26	8 / 26	52.272.26
52.270.28	9 / 28	52.272.28
52.270.30	10 / 30	52.272.30

52.270.08 - 52.270.30

52.272.08 - 52.272.30



52.274.12



52.276.10



## IGNAZ PHILIPP SEMMELWEIS

En 1847 descubre por primera vez que la causa de infecciones en heridas también es a causa de la falta de higiene de las manos de los médicos.

En sus servicios en el Hospital General de Viena, observó Semmelweis, que el departamento de partos era un nido de infección puerperal.

Encontró que la razón para tal acontecimiento era, que los estudiantes de medicina pasaban de la sala de disecciones a la sala de partos sin lavarse las manos y participaban en exámenes vaginales así como asistencia en partos.

A través del contacto directo contraían infección las pacientes.

Fue así que Semmelweis obligó a todo médico que antes de entrar a la sala de maternidad se lavase las manos con hipoclorito.

El índice de mortalidad bajó notoriamente.

Sin embargo sus descubrimientos no fueron tomados en serio hasta años más tarde.



In 1847 he discovers for the first time that the reason for wound infection is due to the unwashed hands of the doctors.

During his services in the General Hospital of Vienna he found out that the child-birth department was a center of puerperal infections. And that the reason for it was because of the medicine students who came directly from the dissection ward to the child-birth ward without washing their hands. They participated in vaginal examinations and in child-birth assistance.

Through direct contact the patients contracted infection.

Semmelweis obliged each doctor to wash his hands with hypochlorite before entering the natal clinic.

The mortality index came down plainly.

His discovery would be taken seriously years after.

Im Jahre 1847 erkannte er zum ersten Male in den unsauberen Händen der Ärzte eine der Ursachen für Wundinfektionen.

Bei seinem Dienst im Wiener Allgemeinen

Krankenhaus stellte er fest, daß die Gebärdteilung eine ausgesprochene Brutstätte des Kinderbettfieber war.

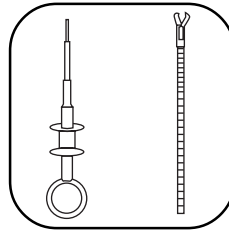
Der Grund hierfür waren die Medizinstudenten, die vom

Sektionssaal mit ungewaschenen Händen in die Gebärdteilung gingen, dort an vaginalen Untersuchungen teilnahmen und zum Teil bei Geburten Assistenz leisteten.

Durch den Direktkontakt erkrankten viele der werdenden Mütter.

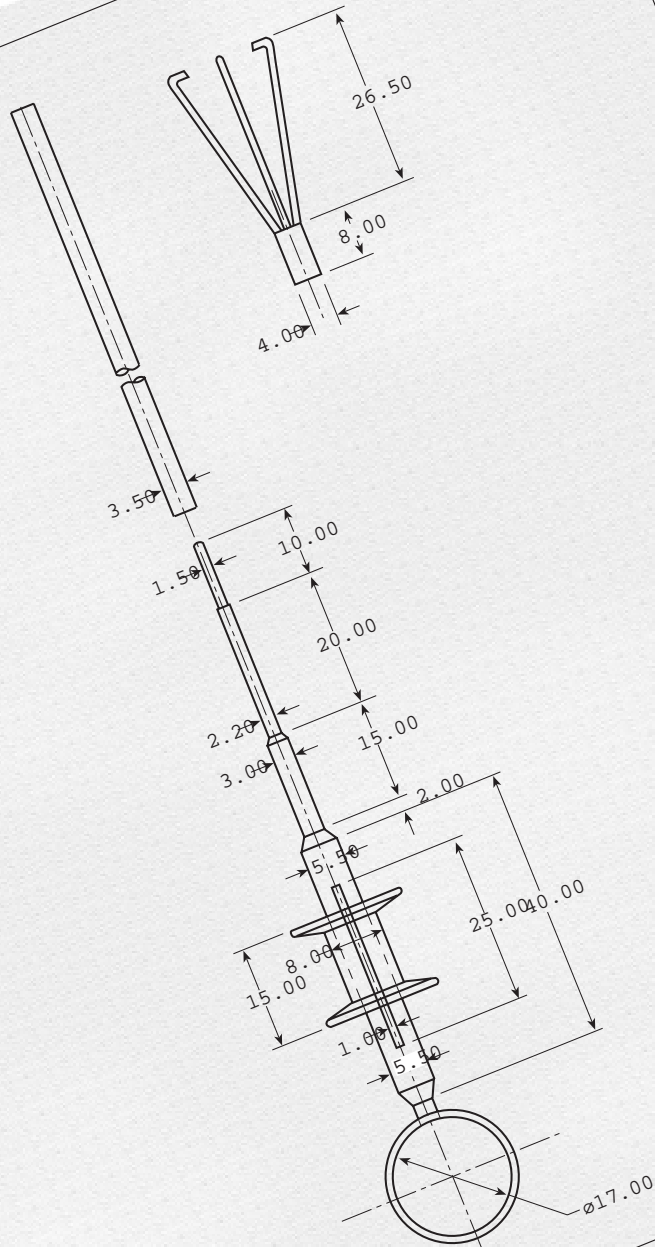
Semmelweis führte aufgrund dessen das Waschen der Hände mit Chlorwasser vor Eintritt in die Geburtsklinik ein, worauf die Sterberate bedeutend sank.

Seine Erkenntnis wurde Anfangs belächelt und erst Jahre später anerkannt.



# 53

**Flexible Endoscopic Forceps**  
**Pinzas Flexibles Endoscópicas**  
**Flexible Endoskopische Faßzangen**



GENERAL CATALOGUE		Datum / fecha	Name / nombre	Plan / plano
	Konstrukteur / constructor	July '98	cvd/jvd	1
	gezeichnet / dibujado	July '98	cvd	Maaßstab / escala 1:1
	geprüft / verificado	June '99	mj	Abt. / acot. mm
	Toleranz / tolerancia			Artikel / artículo
				Artikel-Nr. / No. de artículo

Stainless Steel  
 acero inoxidable





$\varnothing$  / cm

0.18 /16.0	53.110.16
0.18/23.0	53.110.23
0.18/16.0	53.110.26
0.18/23.0	53.110.33
0.18 /16.0	53.112.16
0.18/23.0	53.112.23
0.18/16.0	53.112.26
0.18/23.0	53.112.33



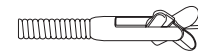
$\varnothing$  / cm

0.18 /16.0	53.111.16
0.18/23.0	53.111.23
0.18/16.0	53.111.26
0.18/23.0	53.111.33
0.18 /16.0	53.113.16
0.18/23.0	53.113.23
0.18/16.0	53.113.26
0.18/23.0	53.113.33



$\varnothing$  / cm

0.22 /16.0	53.120.16
0.22/23.0	53.120.23
0.22/16.0	53.120.26
0.22/23.0	53.120.33
0.22 /16.0	53.122.16
0.22/23.0	53.122.23
0.22/16.0	53.122.26
0.22/23.0	53.122.33

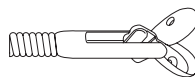


$\varnothing$  / cm

0.22 /16.0	53.121.16
0.22/23.0	53.121.23
0.22/16.0	53.121.26
0.22/23.0	53.121.33
0.22 /16.0	53.123.16
0.22/23.0	53.123.23
0.22/16.0	53.123.26
0.22/23.0	53.123.33

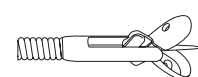


53.110.16 - 53.143.23



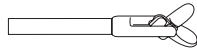
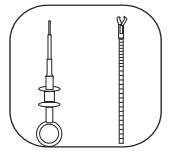
$\varnothing$  / cm

0.26/16.0	53.130.16
0.26/23.0	53.130.23
0.34/16.0	53.140.16
0.34/23.0	53.140.23
0.34/16.0	53.142.16
0.34/23.0	53.142.23



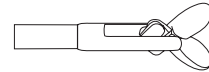
$\varnothing$  / cm

0.26/16.0	53.131.16
0.26/23.0	53.131.23
0.34/16.0	53.141.16
0.34/23.0	53.141.23
0.34/16.0	53.143.16
0.34/23.0	53.143.23



$\sigma / \text{cm}$

0.18/16.0	53.212.16
0.18/23.0	53.212.23

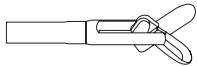


$\sigma / \text{cm}$

0.22/16.0	53.222.16
0.22/23.0	53.222.23

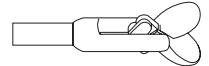


53.212.16 - 53.242.23



$\sigma / \text{cm}$

0.26/16.0	53.232.16
0.26/23.0	53.232.23

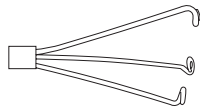


$\sigma / \text{cm}$

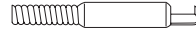
0.34/16.0	53.242.16
0.34/23.0	53.242.23



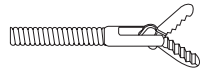
53.291.16 - 53.292.23



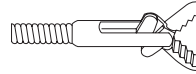
$\varnothing / \text{cm}$	
0.22/16.0	53.291.16
0.22/23.0	53.291.23



$\varnothing / \text{cm}$	
0.22/16.0	53.292.16
0.22/23.0	53.292.23



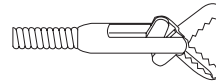
$\varnothing / \text{cm}$	
0.18 / 16.0	53.301.16
0.18 / 23.0	53.301.23
0.18 / 16.0	53.301.26
0.18 / 23.0	53.301.33



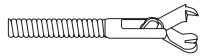
$\varnothing / \text{cm}$	
0.22 / 16.0	53.341.16
0.22 / 23.0	53.341.23



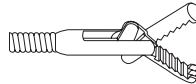
$\varnothing / \text{cm}$	
0.18 / 16.0	53.302.16
0.18 / 23.0	53.302.23
0.18 / 16.0	53.302.26
0.18 / 23.0	53.302.33



$\varnothing / \text{cm}$	
0.22 / 16.0	53.342.16
0.22 / 23.0	53.342.23



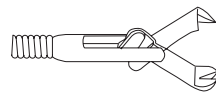
$\varnothing / \text{cm}$	
0.18 / 16.0	53.304.16
0.18 / 23.0	53.304.23



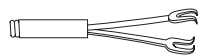
$\varnothing / \text{cm}$	
0.22 / 16.0	53.343.16
0.22 / 23.0	53.343.23



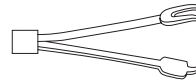
$\varnothing / \text{cm}$	
0.18 / 16.0	53.311.16
0.18 / 23.0	53.311.23



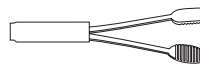
$\varnothing / \text{cm}$	
0.22 / 16.0	53.344.16
0.22 / 23.0	53.344.23



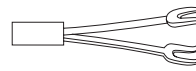
$\varnothing / \text{cm}$	
0.18 / 16.0	53.312.16
0.18 / 23.0	53.312.23



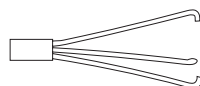
$\varnothing / \text{cm}$	
0.22 / 16.0	53.351.16
0.22 / 23.0	53.351.23



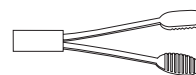
$\varnothing / \text{cm}$	
0.18 / 16.0	53.313.16
0.18 / 23.0	53.313.23



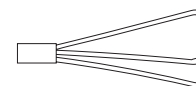
$\varnothing / \text{cm}$	
0.22 / 16.0	53.352.16
0.22 / 23.0	53.352.23



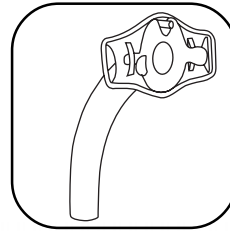
$\varnothing / \text{cm}$	
0.18 / 16.0	53.314.16
0.18 / 23.0	53.314.23



$\varnothing / \text{cm}$	
0.22 / 16.0	53.353.16
0.22 / 23.0	53.353.23

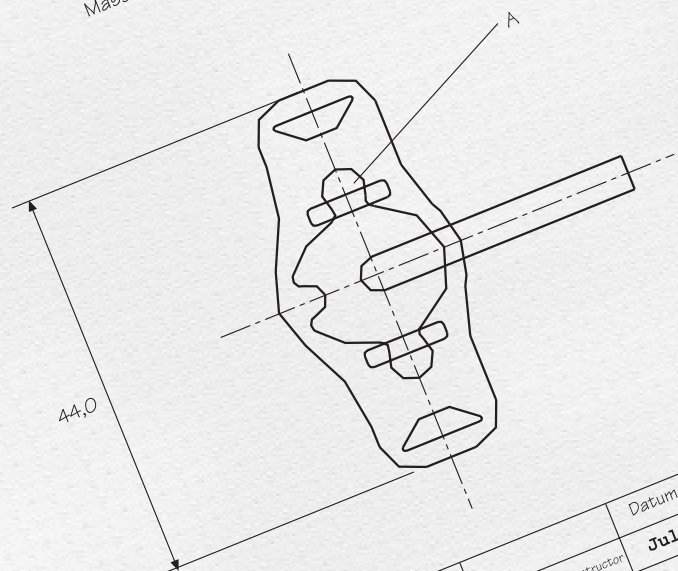
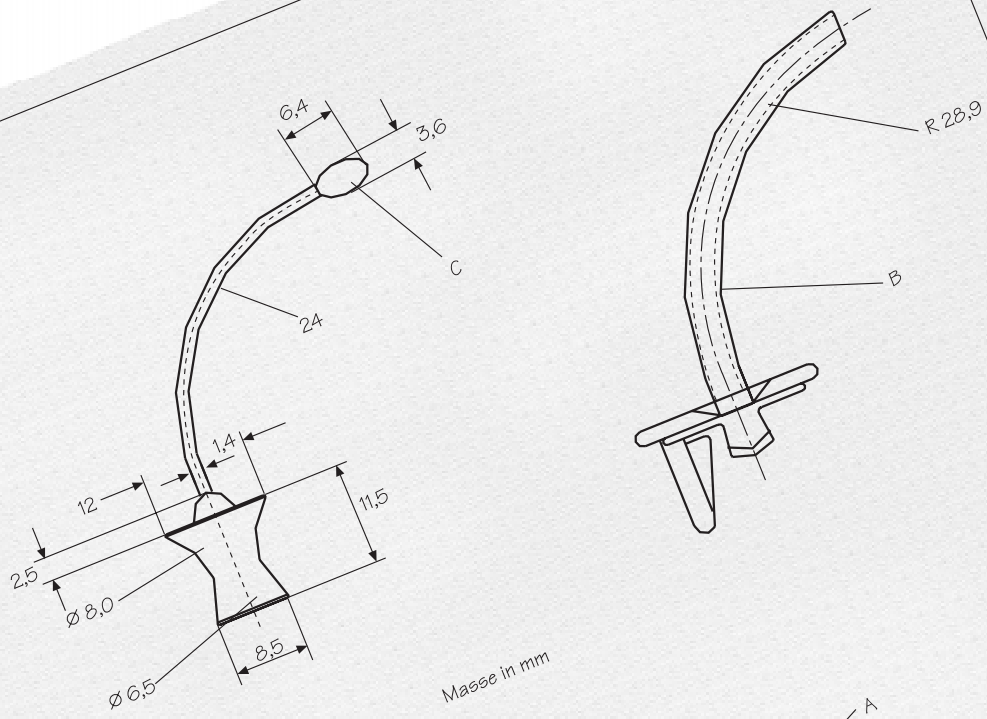


$\varnothing / \text{cm}$	
0.22 / 16.0	53.354.16
0.22 / 23.0	53.354.23



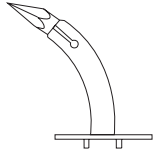
# 54

Tracheostomy  
Traqueotomía  
Tracheotomie



F	GENERAL CATALOGUE	Konstrukteur / constructor gezeichnet / dibujado	Datum / fecha July '98	Name / nombre cvd/jvd	Plan / plano 1
	Stainless Steel acero inoxidable	geprüft / verificado Toleranz / tolerancia	July '98 June '99	cvd mj	Maassstab / escala 1:1 Abt. / acot. mm Artikel / artículo



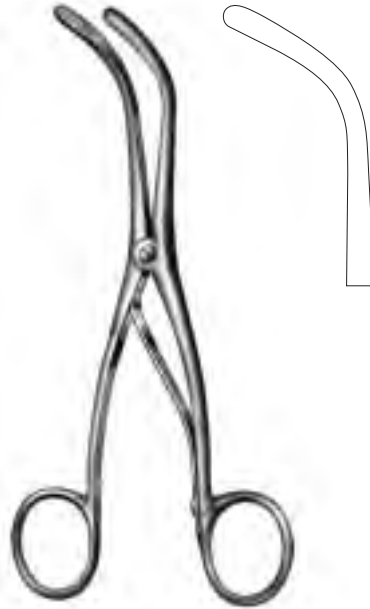


54.101.75  
ø 7.5 mm

54.101.90  
ø 9 mm

### UCKERMANN

54.101.75 - 54.101.90  
13 cm



### TROUSSEAU

54.111.14  
14 cm



### LABORDE

54.113.14  
14 cm



### BOSE

54.115.07  
7 cm



### JACKSON

54.116.15  
15cm



### JACKSON

54.117.17  
17 cm



### ITERSON

54.118.16 - 54.119.16  
16 cm



54.118.16



54.119.16



**BOSE**  
54.122.16  
16 cm



**BOSE**  
54.124.16  
16 cm



**ROSE**  
54.130.13  
13 cm



**TORRINGTON**  
54.141.05 - 54.141.10  
26 cm

ø mm		
5	1.7	54.141.05
6	2.0	54.141.06
7	2.3	54.141.07
8	2.7	51.141.08
9	3.0	54.141.09
10	3.3	54.141.10



**WAGENER MOSHER**  
54.151.05 - 54.151.09

mm	
5	54.151.05
7	54.151.07
9	54.151.09



54.200.03 - 54.200.13

ø mm for catheters		
3	14	54.200.03
4	16	54.200.04
5	18	54.200.05
6	20/22	54.200.06
7	24/26	54.200.07
8	28/30	54.200.08
9	32/34	54.200.09
10	36	54.200.10
11	38	54.200.11
12	40/42	54.200.12
13	44/46	54.200.13





**LUER**  
54.220.04 - 54.220.13

fig.	ø mm	
0	4	54.220.04
1	5	54.220.05
2	6	54.220.06
3	7	54.220.07
4	8	54.220.08
5	9	54.220.09
6	10	54.220.10
7	11	54.220.11
8	12	54.220.12
9	13	54.220.13



**JACKSON**  
54.240.04 - 54.240.13

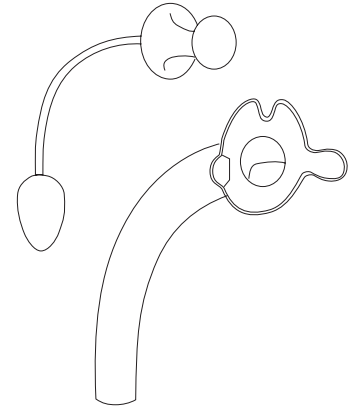


fig.	ø mm	
0	4	54.240.04
1	5	54.240.05
2	6	54.240.06
3	7	54.240.07
4	8	54.240.08
5	9	54.240.09
6	10	54.240.10
7	11	54.240.11
8	12	54.240.12
9	13	54.240.13



**54.270.00**  
set



54.501.15



54.503.15

**KOCHER**

54.501.15 - 54.503.15  
15 cm



**KOCHER**

54.503.16  
15 cm



**SCHOENBORN**

54.511.21  
15 cm



**JOLL**

54.512.15  
15 cm



**LAHEY**

54.520.15  
15 cm  
54.520.20  
20 cm



**MASTIN**

54.523.17  
17 cm





## THEODOR KOCHER

1841 - 1917

Was born in Berne, Switzerland, 1841. He finished his medical studies in 1865 and went into surgery where he had teachers like Demme, Lydec, Billioth y Langenbeck.

In 1872 he was appointed professor of surgery and head of the University Clinic in Berne. He held his position until retirement.

He was one of the first surgeons to apply the aseptic principles of Lister.

Kocher was scientifically active very early and published a large number of experimental and clinical works in various surgical fields.

His tremendous contributions to gastroenterological and orthopedic surgery and to neurology are worth mentioning.

Kocher received the Nobel Prize in 1909 for his work on the pathology, physiology and surgery of the thyroid gland.

Nació en Berne, Suiza en 1841. Finaliza sus estudios de medicina en 1865, e inicia la cirugía con los maestros Demme, Lydec, Billioth y Langenbeck.

En 1872 ya era profesor en cirugía y jefe de la clínica universitaria de Berne, puesto que ocupó hasta su jubilación.

Fue uno de los primeros en aplicar los principios de asepsia de Lister.

Kocher, desde muy joven científicamente activo, publicó varios trabajos experimentales y clínicos en diversos campos quirúrgicos.

Cabe mencionar sus grandes contribuciones a la Cirugía gastroenterológica y ortopédica así como a la Neurología.

En 1909 obtiene Kocher el Premio Nobel por su trabajo de investigación de la patología, fisiología y cirugía de la glándula tiroide.

Wurde 1841 in Bern, Schweiz geboren.

Sein Medizinstudium beendete er 1865 und ging in die Chirurgie unter der Führung von Demme, Lycke, Billroth und Langenbeck.

1872 war er bereits Professor der Chirurgie und Chef der Universitätsklinik Bern, wo er bis zu seiner Pensionierung blieb.

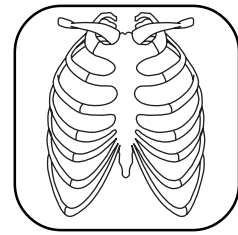
Er gehörte zu den ersten Anwendern der Grundsätze Listers über die Asepsie.

Schon sehr früh war Kocher wissenschaftlich aktiv und veröffentlichte laufend experimentelle und wissenschaftliche Erkenntnisse.

Besonders hervorzuheben sind seine Arbeiten im Bereich Gastroenterologie, Orthopädie und Neurologie.

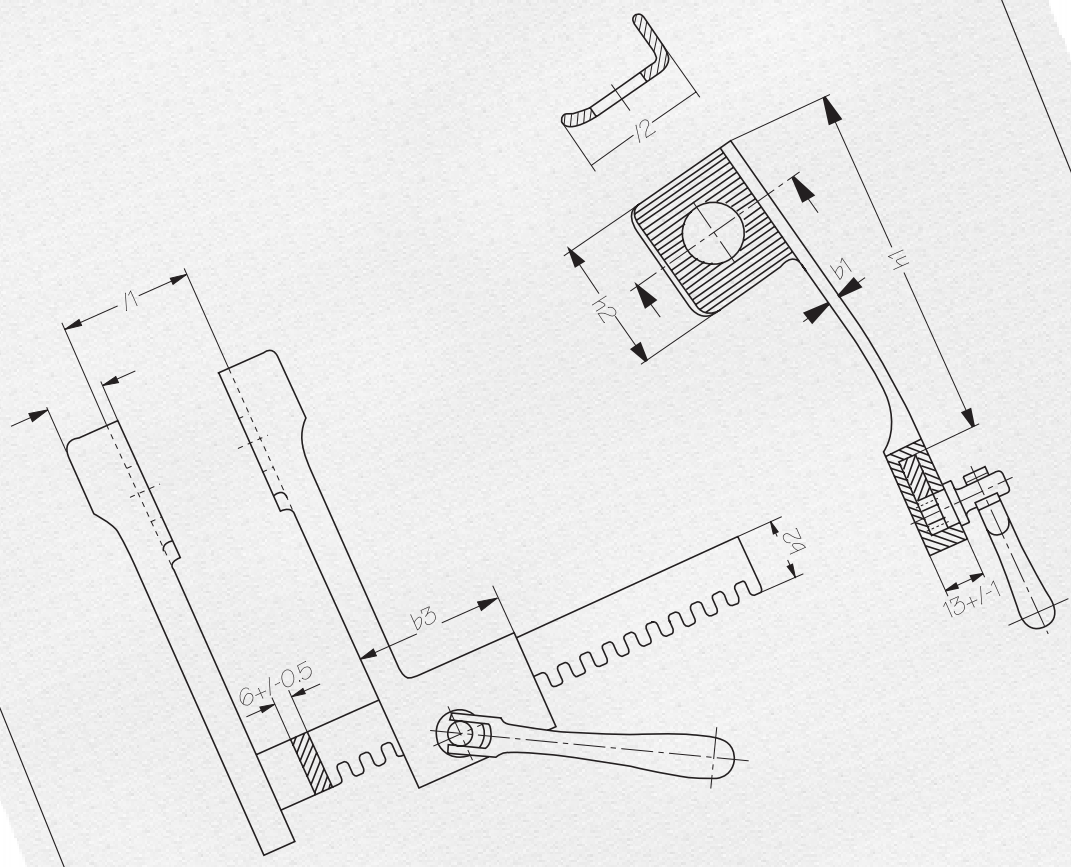
1909 erhielt Kocher den Nobelpreis für seine Forschungsarbeit über die Pathologie, Physiologie und Chirurgie der Schilddrüse.





# 56

**Thorax**  
**Tórax**  
**Thorax**



F		GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
		Stainless Steel	gezeichnet / dibujado	July '98	cvd/jvd	1
		inoxidable	geprüft / verificado	July '98	mj	Maaßstab / escala 1:1
			Toleranz / tolerancia	June '99		Abt. / acot. mm
						Artikel / artículo
						Artikel-Nr. / No. de artículo





56.102.23  
23 cm



56.105.22  
22 cm



**GLUCK**  
56.107.22  
22 cm



**SMILE**  
56.111.21  
21 cm

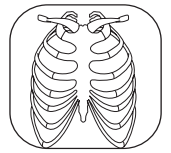


**CORYLLOS**  
56.123.35 - 56.125.35

cm	left	right
35	56.123.35	56.125.35



**BETHUNE**  
56.126.34  
34 cm



**SAUERBRUCH**  
56.131.26  
26 cm



**GIERZ STILLE**  
56.137.27  
27 cm



**SAUERBRUCH FREY**  
56.141.36  
36 cm



**BRUNNER**  
56.147.28  
28 cm



**SCHUMACHER**  
56.148.21  
21 cm





spread cm    depth mm    width mm

16.5	40	40	56.210.16
20.0	45	55	56.210.20
25.0	70	65	56.210.25

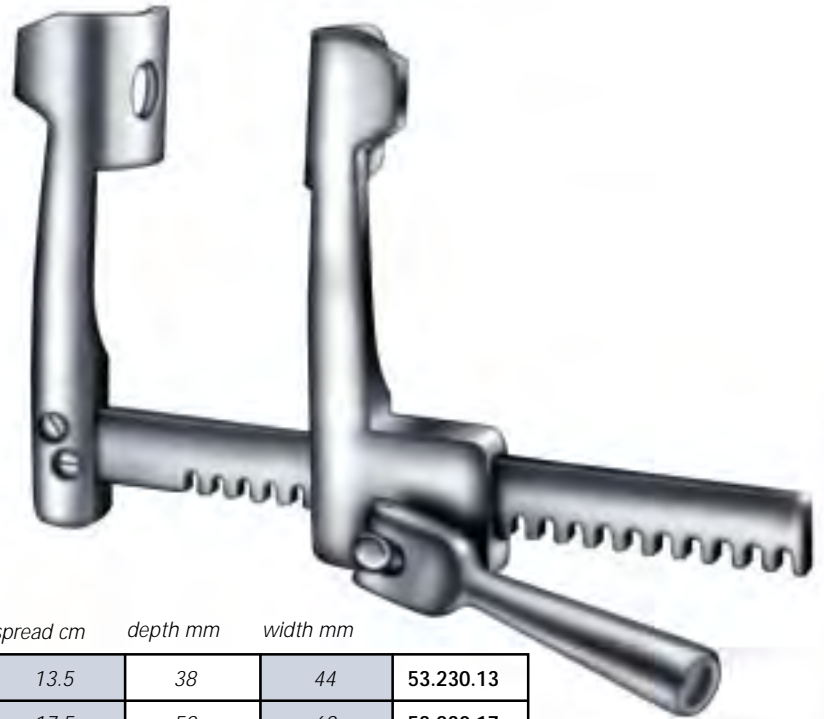
**FINOCHIETTO**  
56.210.16 - 56.210.25



spread cm    depth mm    width mm

7.5	18	20	56.214.75
-----	----	----	-----------

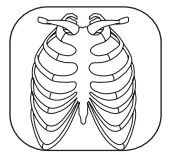
**FINOCHIETTO baby**  
56.214.75



spread cm    depth mm    width mm

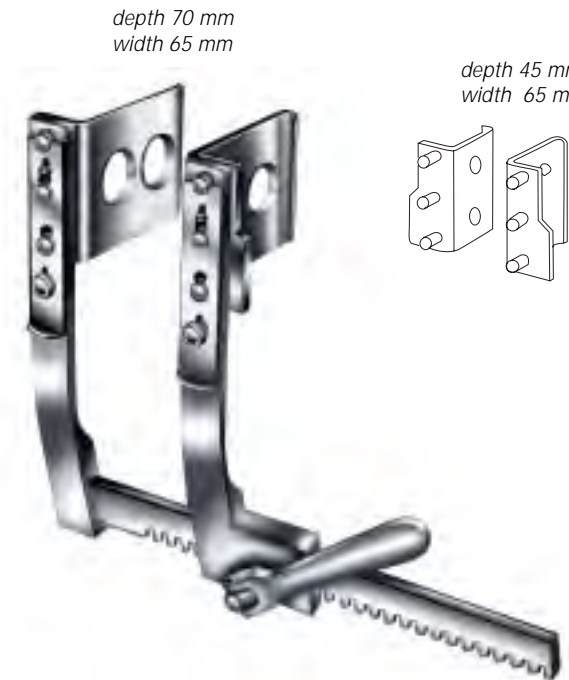
13.5	38	44	53.230.13
17.5	52	62	53.230.17
17.5	85	65	53.230.18

**FINOCHIETTO**  
53.230.13 - 53.230.18  
aluminium

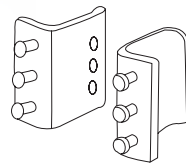


spread cm	depth mm	width mm	
7.5	15	15	56.234.75

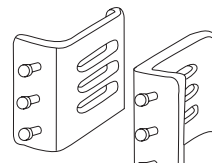
**FINOCHIETTO infant**  
56.234.75  
aluminium



**FINOCHIETTO BURFORD**  
56.236.25  
25 cm



depth 47 mm  
width 62 mm



depth 65 mm  
width 62 mm

spread cm	
18	56.242.18
26	56.242.26
30	56.242.30

**FINOCHIETTO BURFORD**  
56.242.18 - 56.242.30  
aluminium





**FINOCHIETTO BURFORD**  
56.244.13  
13.5 cm  
aluminium

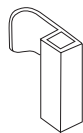


**CASTAÑEDA**  
56.250.05 - 56.250.12  
aluminium

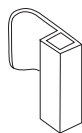
spread cm	depth mm	width mm	
6.5	105	32	56.242.18
7.0	120	45	56.242.26
12	150	60	56.242.30



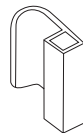
**STRUCK**  
56.258.00 - 56.258.15



56.258.11  
1 x 1 cm



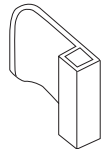
56.258.12  
1 x 1.5 cm



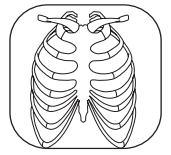
56.258.13  
1 x 2 cm



56.258.14  
1.5 x 2 cm



56.258.15  
2 x 2 cm



**HAIGHT**  
56.260.09

*Spread cm    depth mm    width mm*

9	30	30
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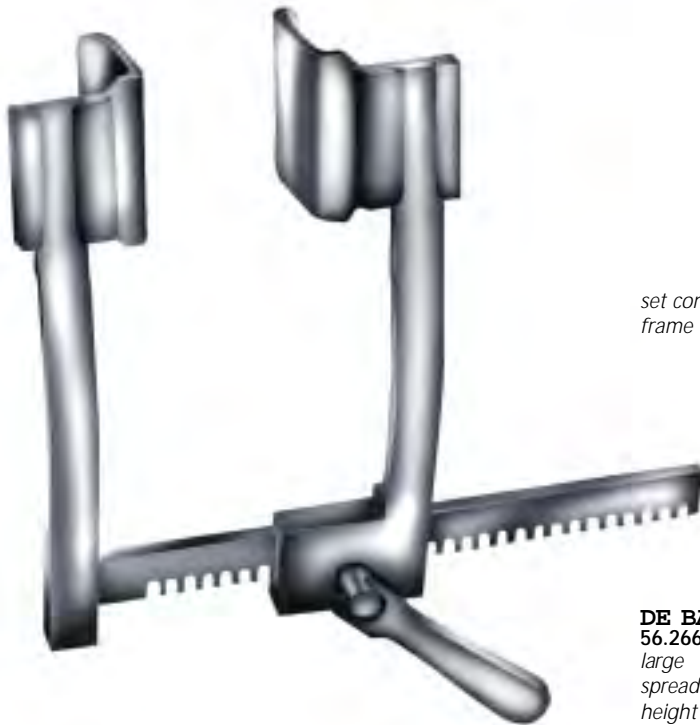


**TUFFIER**  
56.264.16

*Spread cm    depth mm    width mm*

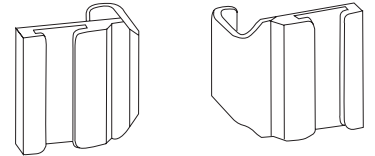
16.5	50	45
------	----	----





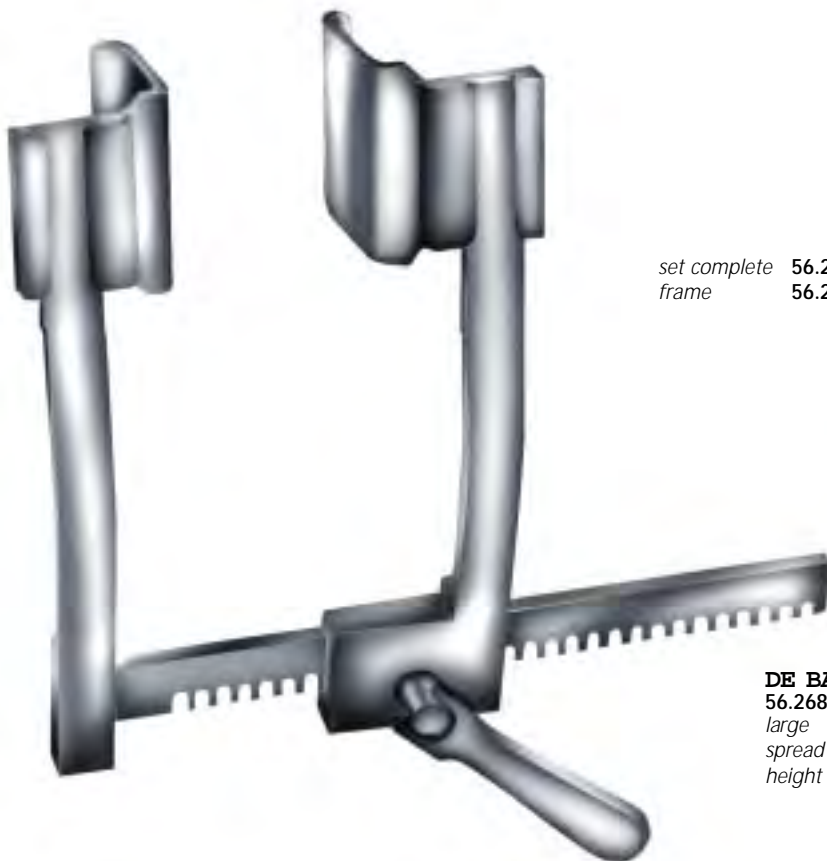
set complete 56.266.00  
frame 56.266.22

**DE BAKEY**  
56.266.00 - 56.266.66  
large 22 cm  
spread 15 cm  
height 18 cm



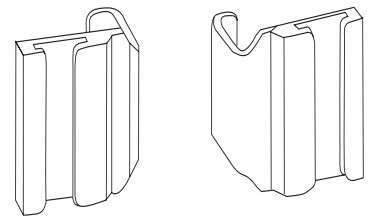
cm

3.0 x 3.0	blade	56.266.30
4.0 x 4.0	blade	56.266.40
5.0 x 5.0	blade	56.266.50
5.0 x 6.6	blade	56.266.66



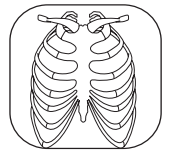
set complete 56.268.00  
frame 56.268.22

**DE BAKEY**  
56.268.00  
large 28.0 cm  
spread 20.0 cm  
height 22.5 cm



cm

4.0 x 10.0	blade	56.268.40
5.0 x 8.0	blade	56.268.50
6.0 x 6.0	blade	56.268.60
8.0 x 6.0	blade	56.268.80

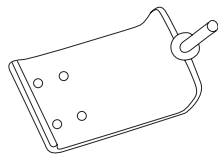
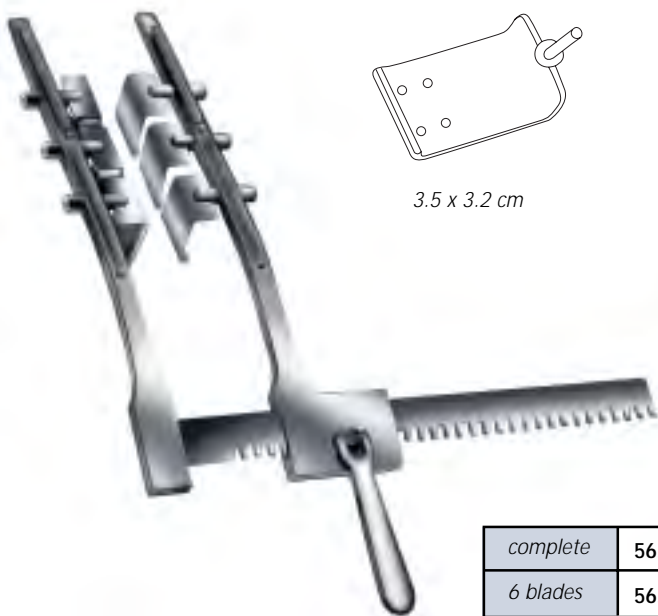


**MERCEDES**  
56.270.00  
complete



**MORSE**  
56.272.15 - 56.272.20

cm	
15	56.272.15
20	56.272.20



3.5 x 3.2 cm

complete	56.274.00
6 blades	56.274.01

**ANKENEY**  
56.274.00 - 56.274.01



**ANKENEY**  
56.276.00  
children





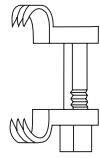
56.280.19  
19 cm



**BAILEY baby**  
56.282.14  
14 cm



**BAILEY**  
56.284.16 - 56.286.16  
16 cm



**BAILEY GIBBON**  
56.286.16



cm	
14	56.288.14
18	56.288.18

**LEMMON**  
56.288.14 - 56.288.18

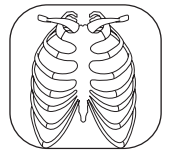


cm	
30	56.289.30
32	56.289.32

**ALLISON**  
56.289.30 - 56.289.32



**LOVELACE**  
56.290.20  
20 cm



**LOVELACE**  
56.291.20  
20 cm



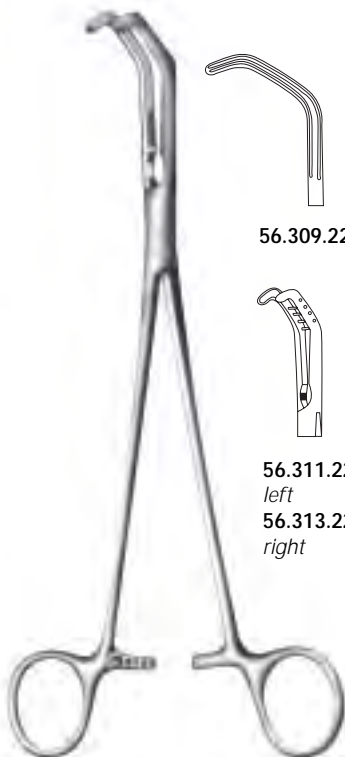
**HARRINGTON**  
56.301.30 - 56.303.29

cm

30.5	56.301.30
29.5	56.303.29



**FINOCHIETTO**  
56.307.24  
24 cm



**PRICE THOMAS**  
56.309.22 - 56.313.22  
22 cm

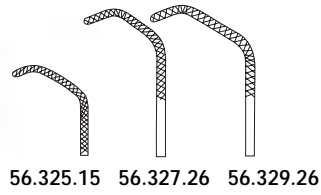


**SAROT**  
56.317.23 - 56.319.23  
23 cm



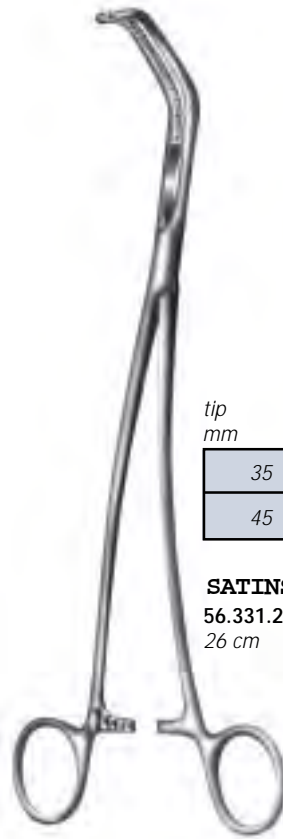
**SEMB**  
56.321.23 - 56.323.23  
23 cm





cm	
15	56.325.15
26	56.327.26
26	56.329.26

**SATINSKY**  
56.325.15 - 56.329.26

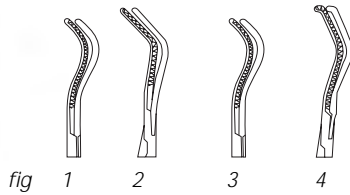


tip mm	
35	56.331.26
45	56.333.26

**SATINSKY**  
56.331.26 - 56.333.26  
26 cm

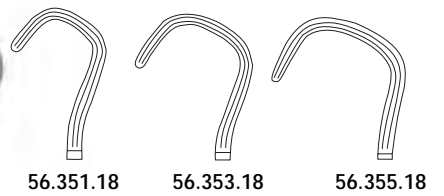


**DERRA**  
56.335.24  
24 cm



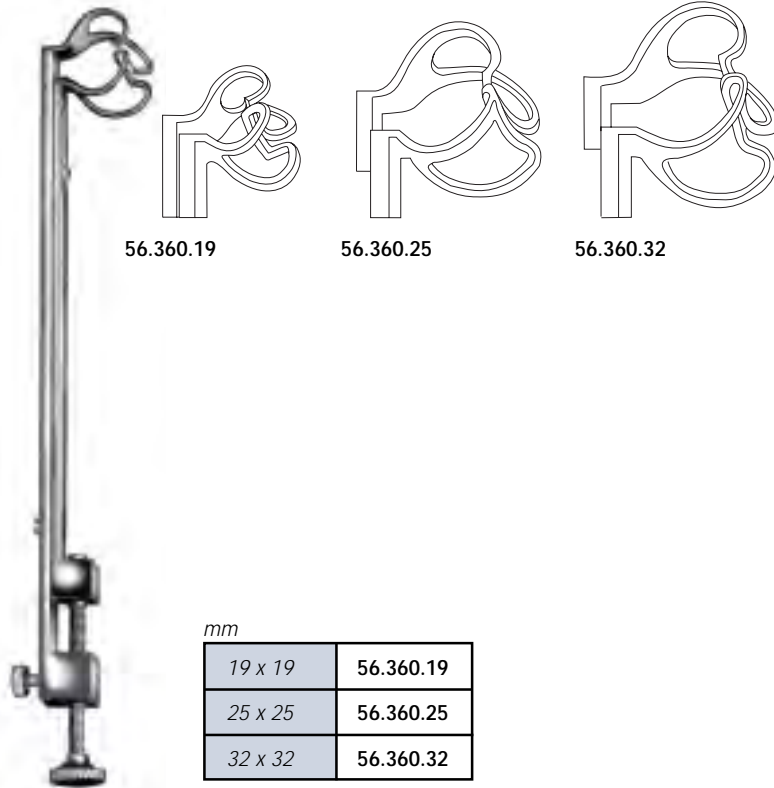
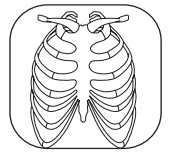
curved	56.343.24
curved	56.345.24
curved	56.347.24
straight	56.349.24

**HARKEN**  
56.343.24 - 56.349.24  
24 cm



small	56.351.18
median	56.353.18
large	56.355.18

**DERRA**  
56.351.18 - 56.355.18  
18 cm



56.360.19

56.360.25

56.360.32

mm

19 x 19	56.360.19
25 x 25	56.360.25
32 x 32	56.360.32

**JOHNS HOPKINS**  
56.360.19 - 56.36.32  
20 cm



mm

4	56.380.04
5	56.380.05

**KARP**  
56.380.04 - 56.380.05

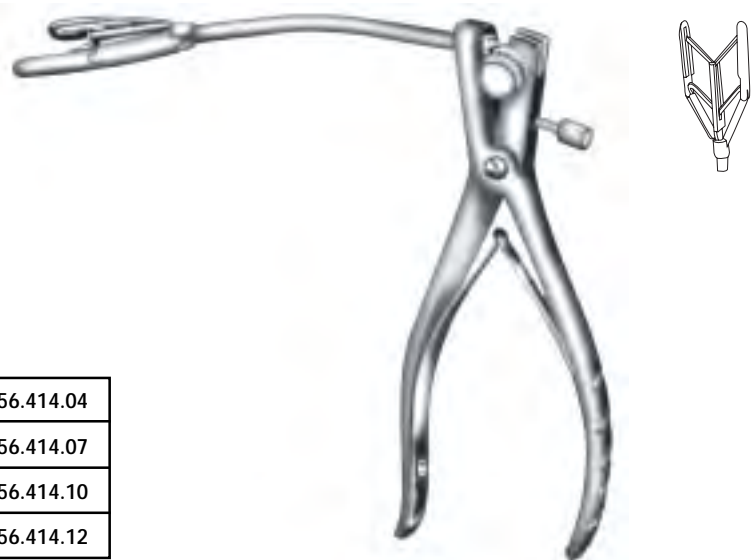


56.412.00

mm

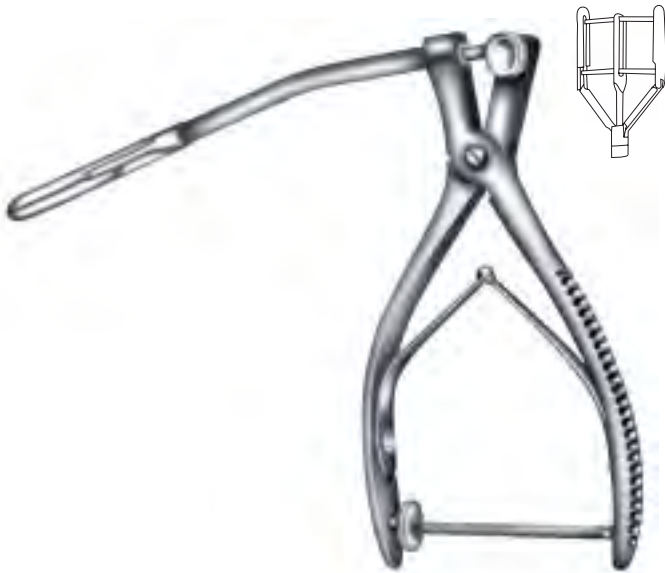
4.0	56.414.04
7.5	56.414.07
10.0	56.414.10
12.0	56.414.12

**BLOCK**  
56.410.00  
handle



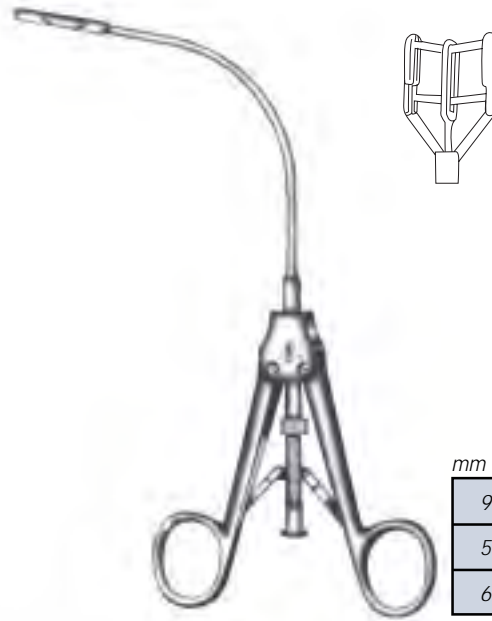
**TUBBS**  
56.418.42 - 56.418.45  
blade opening 8 - 42 mm  
18 cm





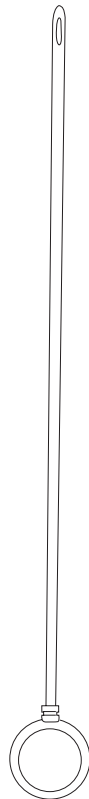
<i>children</i>	56.420.15
<i>adult</i>	56.420.45

**COOLEY**  
56.420.15 - 56.420.45



<i>mm</i>	
9 - 40	56.423.40
5 - 18	56.425.18
6 - 20	56.425.20

**COOLEY**  
56.423.40 - 56.425.20



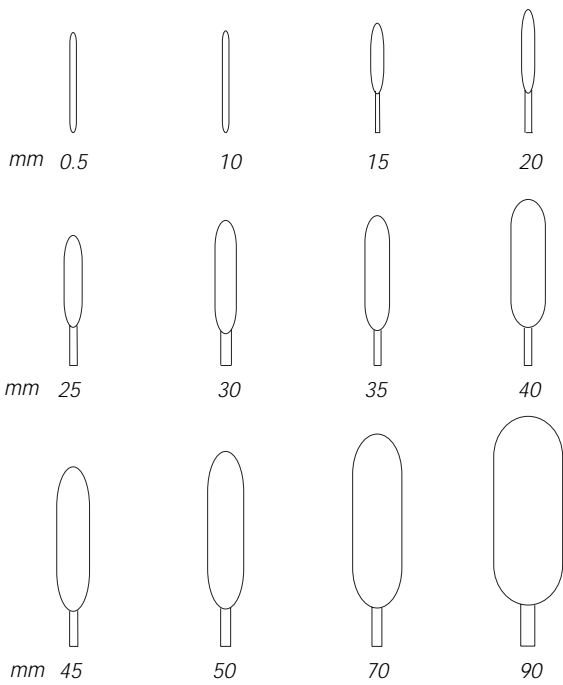
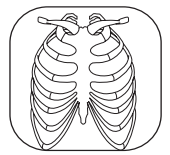
<i>mm</i>	
32	56.430.32
64	56.430.64

**RUMEL BELMONT**  
56.430.32 - 56.430.64  
33 cm



<i>mm</i>	
0.5	56.470.05
10	56.470.10
15	56.470.15
20	56.470.20
25	56.470.25
30	56.470.30
40	56.470.40
50	56.470.50

**COOLEY**  
56.470.05 - 56.470.50  
13 cm



mm	19 cm	35 cm
0.5	56.472.05	56.474.05
10	56.472.10	56.474.10
15	56.472.15	56.474.15
20	56.472.20	56.474.20
25	56.472.25	56.474.25
30	56.472.30	56.474.30
35	56.472.35	56.474.35
40	56.472.40	56.474.40
45	56.472.45	56.474.45
50	56.472.50	56.474.50
70	56.472.70	56.474.70
90	56.472.90	56.474.90



**DE BAKY**  
56.472.05 - 56.474.90  
19 cm



cm	
18.5	56.505.18
21.5	56.505.21

56.505.18 - 56.505.21  
ø 3 mm teeth



cm	
14	56.507.14
24	56.507.24

56.507.14 - 56.507.24



mm	
5	56.509.01
4	56.509.02
3	56.509.03
2	56.509.04

**ROBB**  
56.509.01 - 56.509.04  
24 cm





## WERNER FORSSMANN

1904 - 1979

In 1929 in a small hospital in Eberswalde, Germany, Werner Forssman, a young surgical resident, anaesthetized his own elbow, inserted a catheter in his ante-cubital vein and with the catheter dangling from his arm, proceeded to a basement x-ray room where he documented the catheter's position in his right atrium proving that a catheter could be inserted safely into a human heart.

Forssman's goal was to find a safe way to inject drugs for cardiac resuscitation. He was determined that catheterization was the key, but it was believed that any entry into the heart would be fatal.

He was immediately fired for his self-experimentation, despite the significance of his discovery.

Until 1956 Forssman was awarded a Nobel Prize for his pioneering efforts.



En 1929 Werner Forssmann, un médico residente en el hospital de Eberswalde, Alemania, comprobó la posibilidad de la cateterización segura al corazón autoanestesiándose el codo e introduciéndose el catéter.

Con el mismo catéter tambaleando del brazo, se dirigió a la sala de rayos X para comprobar su posicionamiento en el corazón.

Su meta era encontrar una posibilidad para inyectar medicamentos directamente para la resucitación cardíaca. Él aseguraba que ésta sería la única posibilidad, a pesar de saber que cualquier entrada directa al corazón sería fatal.

Forssman fue expulsado del hospital por efectuar autoexperimentos, a pesar de la importancia de su descubrimiento. Fue hasta 1956 que Forssman recibe el Premio Nobel por su trabajo.

Im Jahre 1929, in der Eberswalder Klinik bei Berlin, wies Werner Forssman, ein junger Assistenzarzt nach, daß ein Katheter sicher in ein menschliches Herz eingeführt werden kann. Er betäubte seinen Ellenbogen und führte ein Katheter in eine Vene ein.

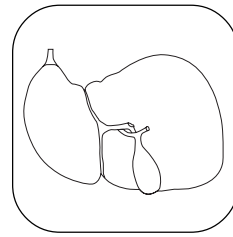
Mit dem am Arm baumelnden Katheter lief Forssman in den Röntgensaal, um die Positionierung des Katheters an seinem Herz nachzuweisen.

Sein Ziel war es, einen sicheren Weg zu finden, Medikamente für die Wiederbelebung des Herzens direkt einzuspritzen.

Er war davon überzeugt, daß die Katheterisierung hierfür die einzige Möglichkeit war, obwohl es bekannt war, daß jeder Herzzugang fatale Folgen haben konnte.

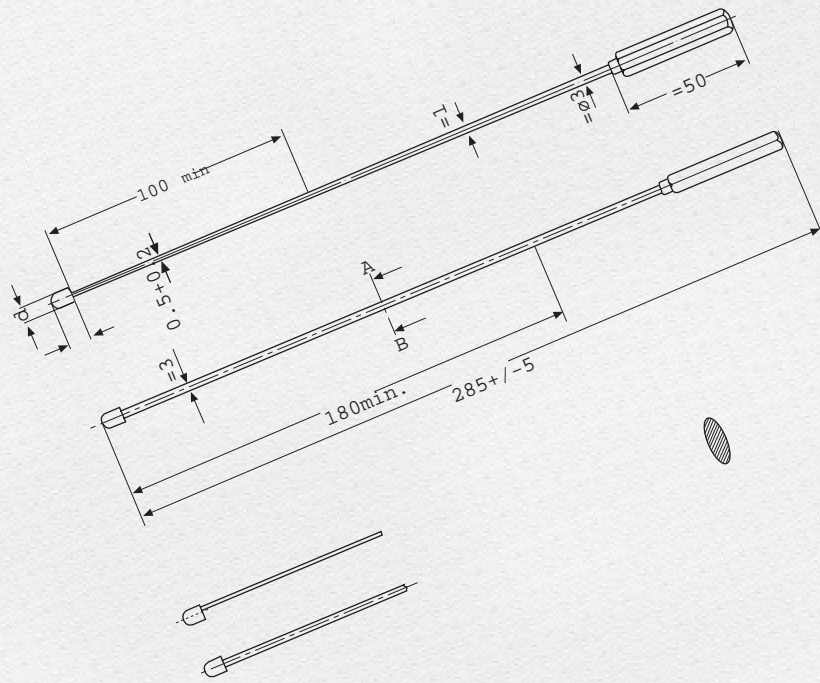
Forssman wurde aufgrund seines Selbstversuches und trotz der Wichtigkeit seine Entdeckung gekündigt.

Erst 1956 erhielt Forssman den Nobelpreis für seine Arbeit.



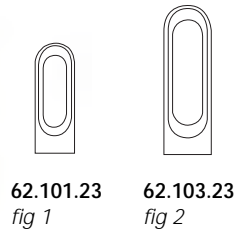
# 62

Gall Bladder  
Vesicula Biliar  
Gallenblase

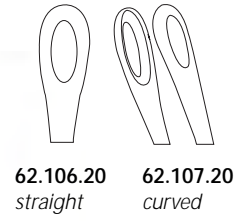


F	GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
		gezeichnet / dibujado	July '98	cvd/jvd	1
		geprüft / verificado	July '98	cvd	Maasstab / escala 1:1
		Toleranz / tolerancia	June '99	mj	Art. / acot. mm
	Stainless Steel Acero inoxidable				Artikel-Nr. / No. de articulo





**DESJARDINS**  
62.101.23 - 62.103.23  
23 cm



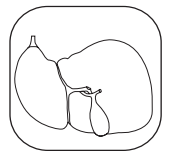
**BLAKE**  
62.106.20 - 62.107.20  
20 cm



**MAYO BLAKE**  
62.110.20 - 62.111.20  
20 cm



**MIXTER**  
62.117.22  
22 cm



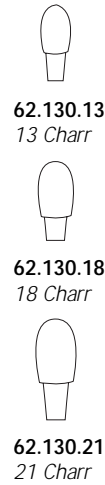
**MOORE**  
62.125.28  
30 cm



**OCHSNER**  
62.128.35  
38 cm



**DESJARDINS**  
62.130.13 - 62.130.21  
30 cm



62.130.13  
13 Charr

62.130.18  
18 Charr

62.130.21  
21 Charr

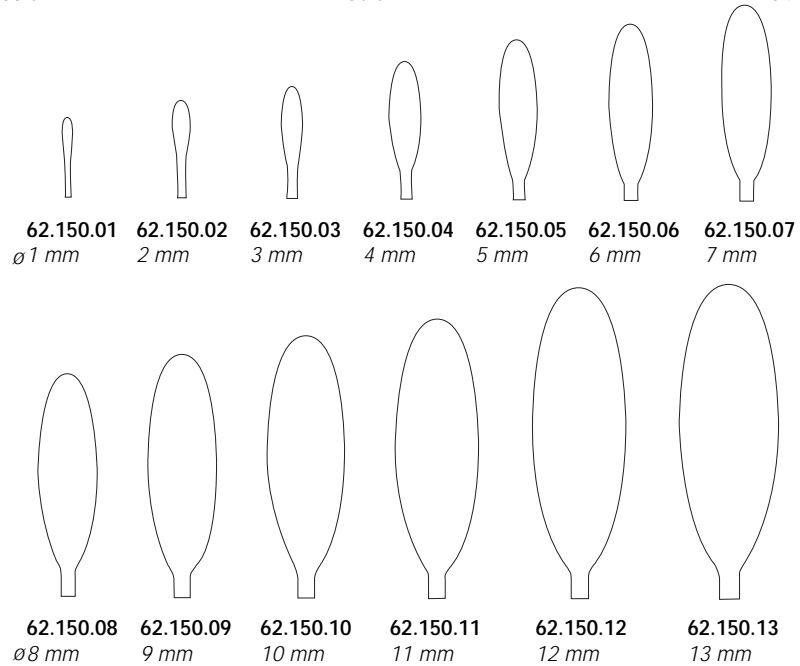


**MOYNIHAN**  
62.142.34  
34 cm



**BAKES**  
62.150.00  
set of 9

**BAKES**  
62.150.01 - 62.150.13  
30 cm



62.150.01 62.150.02 62.150.03 62.150.04 62.150.05 62.150.06 62.150.07  
ø1 mm 2 mm 3 mm 4 mm 5 mm 6 mm 7 mm

62.150.08 62.150.09 62.150.10 62.150.11 62.150.12 62.150.13  
ø8 mm 9 mm 10 mm 11 mm 12 mm 13 mm





**FERGUSSON**  
62.170.21  
21.5 cm



**MAYO**  
62.175.27  
27 cm



62.178.01  
*small*



62.180.17  
*17 charr*



62.180.21  
*21 charr*

62.178.02  
*medium*



62.180.24  
*24 charr*

62.178.03  
*large*



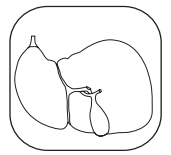
62.180.27  
*27 charr*

**MAYO**  
62.178.01 - 62.178.03  
27 cm

**DESJARDINS**  
62.180.17 - 62.180.27  
30 cm



**MAYO**  
62.210.32  
32 cm



**LURZ**  
62.223.21  
21 cm



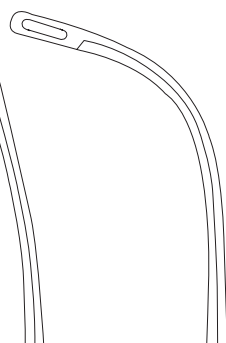
**LURZ**  
62.221.21  
21 cm  
ureter clamp



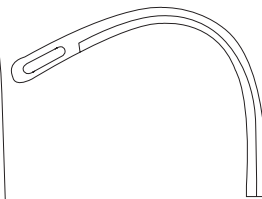
**RANDALL**  
62.231.01 - 62.231.06  
kidney stone forceps



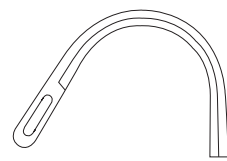
62.231.01  
23 cm



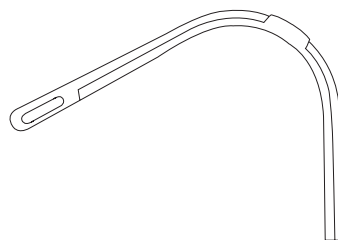
62.231.02  
22 cm



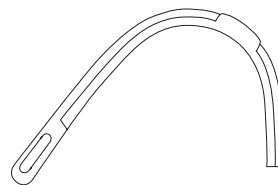
62.231.03  
22 cm



62.231.04  
22 cm



62.231.05  
19 cm



62.231.06  
19 cm





**JOHN B. MURPHY**  
1857 - 1916



In 1889 he realized the first premature appendectomy.

Murphy was very interested in informing the population about the symptoms of appendicitis.

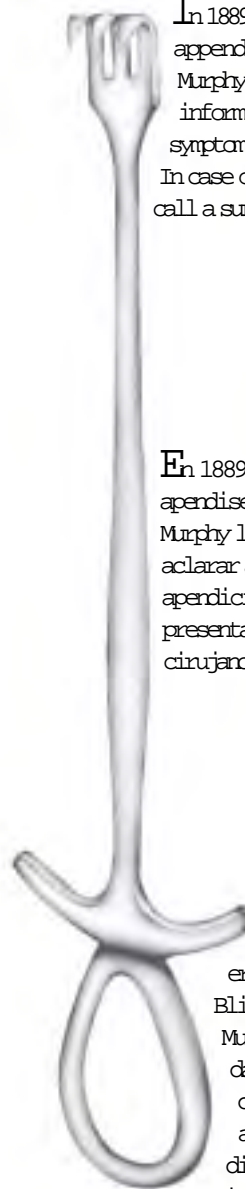
In case of arise they would be able to call a surgeon on time.

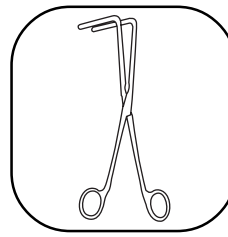
En 1889 realizó en Chicago la primera apendisección prematura.

Murphy le daba especial interés en aclarar al pueblo los síntomas de apendicitis para que en caso de presentarse, pudieran acudir con un cirujano a tiempo.

Im Jahre 1889 führte er die erste Frühoperation der Blinddarmentzündung durch.

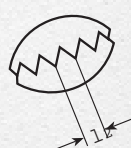
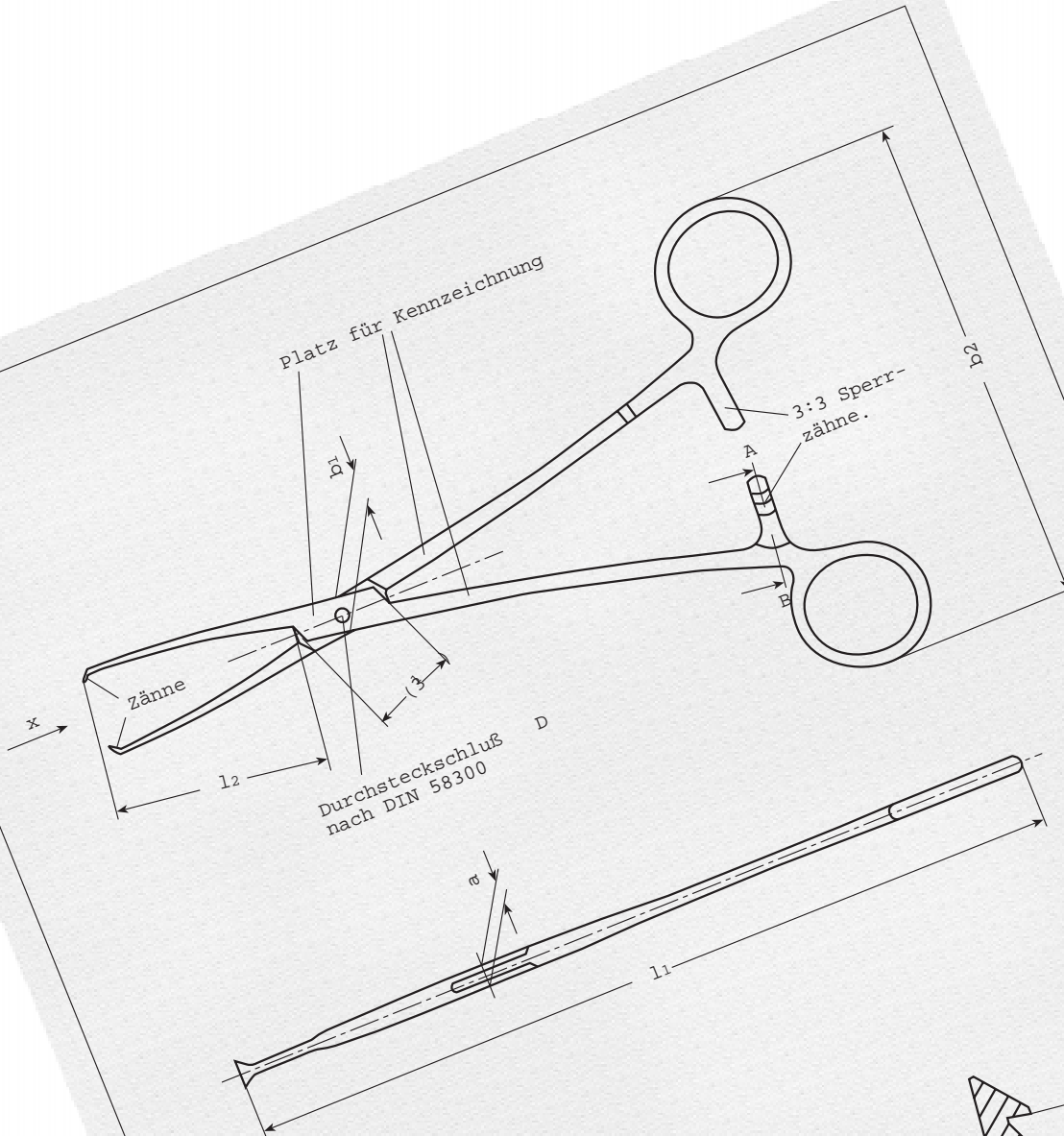
Murphy legte besonderen Wert darauf, die Masse des Volkes auf die Symptome der Apendizitis aufmerksam zu machen, damit diese auch im Notfall rechtzeitig einen Chirurgen aufsuchen.





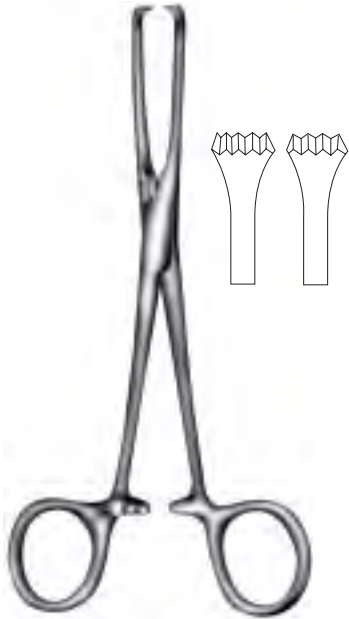
# 64

**Kidney, Intestines, Stomach**  
**Riñón, Intestino, Estómago**  
**Niere, Darm, Magen**

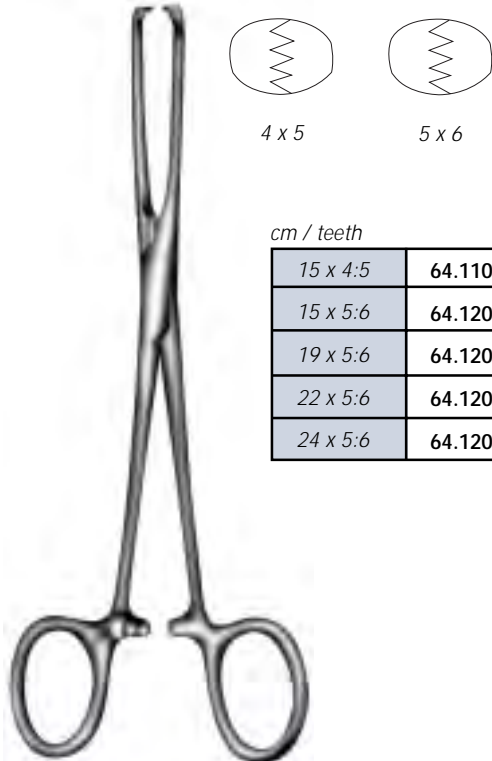


GENERAL CATALOGUE		Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
F		gezeichnet / dibujado	July '98	cvd/jvd	1
		geprüft / verificado	July '98	cvd	Maaetab / escala 1:1
		Toleranz / tolerancia	June '99	mj	Abt. / acot. mm
					Artikel / articulo
					Artikel-Nr. / No. de artic





**ALLIS baby**  
64.102.14  
14 cm  
4 x 5 teeth



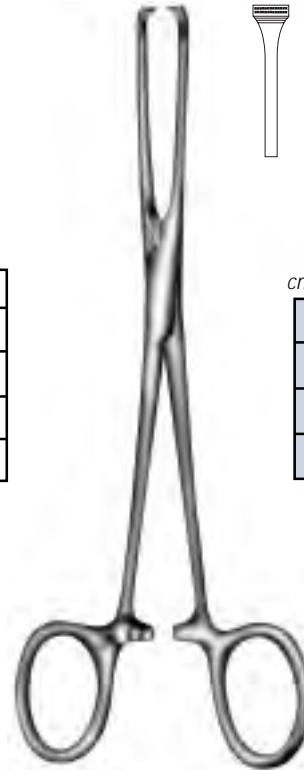
4 x 5

5 x 6

cm / teeth

15 x 4:5	64.110.15
15 x 5:6	64.120.15
19 x 5:6	64.120.19
22 x 5:6	64.120.22
24 x 5:6	64.120.24

**ALLIS**  
64.110.15 - 64.120.24



cm

16	64.124.16
20	64.124.20
25	64.124.25
30	64.124.30

**ALLIS**  
64.124.16 - 64.124.30  
*atraumatic*



**ALLIS ADAIR**  
64.130.15  
15.5 cm  
10 x 11 teeth



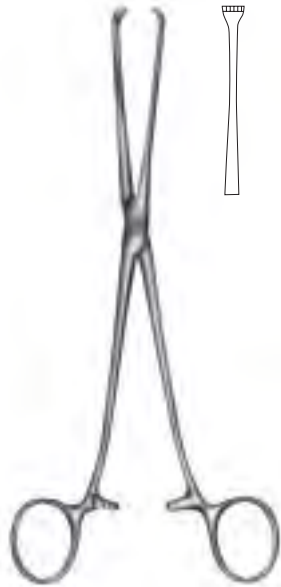
cm

15	64.140.15
19	64.140.19

**JUDD ALLIS**  
64.140.15 - 64.140.19  
3 x 4 teeth



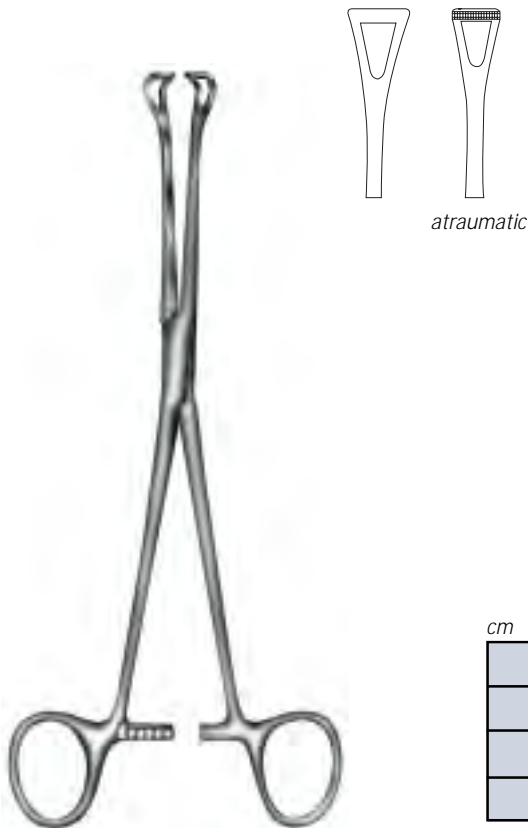
**LOCKWOOD**  
64.146.20  
20 cm



**BOYS ALLIS**  
 64.148.15  
 15 cm  
 5 x 6 teeth



**THOMS ALLIS**  
 64.150.20  
 20 cm  
 6 x 7 teeth



**BABCOCK**  
 64.160.16 - 64.168.20

cm		TC	atraumatic
16	64.160.16	64.164.16 TC	64.168.16
18	64.160.18		
20	64.160.20	64.164.20 TC	64.168.20
24	64.160.24		





13 mm

25 mm

mm / cm

13 / 18	64.170.18
13 / 20	64.170.20
25 / 20	64.172.20
25 / 23	64.172.23
25 / 20	64.174.20 TC

**DUVAL**  
64.170.18 - 64.174.20 TC



**WILLIAMS**  
64.180.16  
16.5 cm



**SCHOENBURG**  
64.182.22  
22 cm



**DOYEN baby**

cm

16		
18	64.210.18	64.211.18
21		
23		

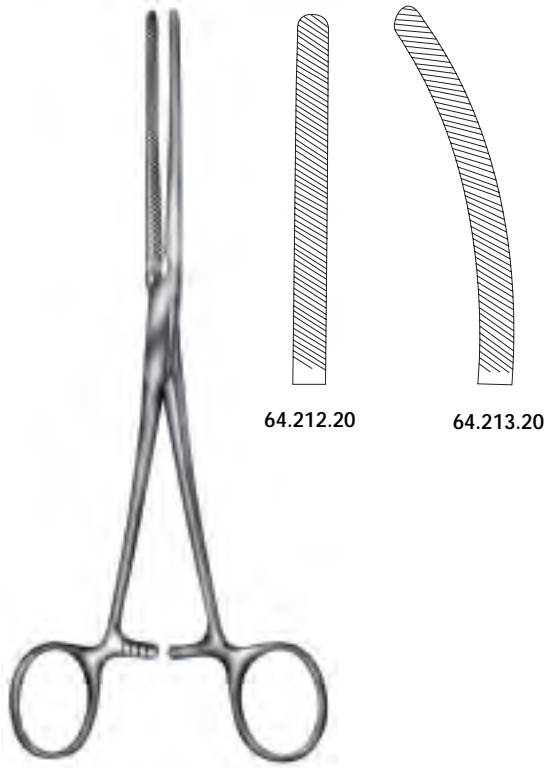
**DOYEN**

64.210.21	64.211.21
64.210.23	64.211.23

**DOYEN**  
atraumatic

64.216.16	64.217.16
64.216.18	64.217.18
64.216.21	64.217.21
64.216.23	64.217.23

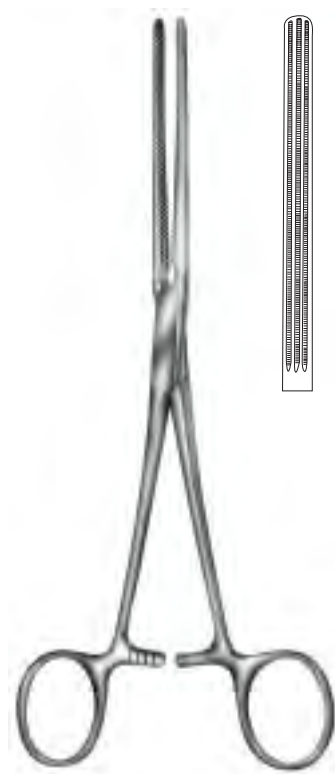
**DOYEN baby**  
64.210.18 - 64.217.23



64.212.20

64.213.20

**HARTMANN**  
 64.212.20 - 64.213.20  
 20 cm



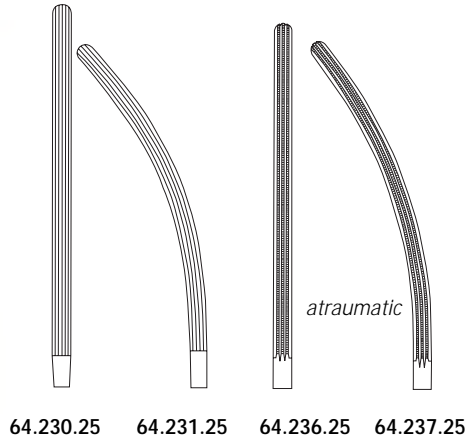
**HARTMANN**  
 64.218.20 - 64.219.20  
 20 cm



			<i>atraumatic</i>		
<i>cm</i>					
22	64.220.22	64.221.22		64.226.22	64.227.22
25	64.220.25	64.221.25		64.226.25	64.227.25
28	64.220.28	64.221.28		64.226.28	64.227.28

**KOCHER**  
 64.220.22 - 64.227.28

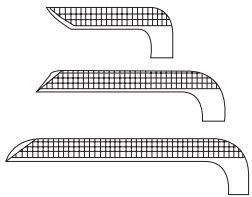
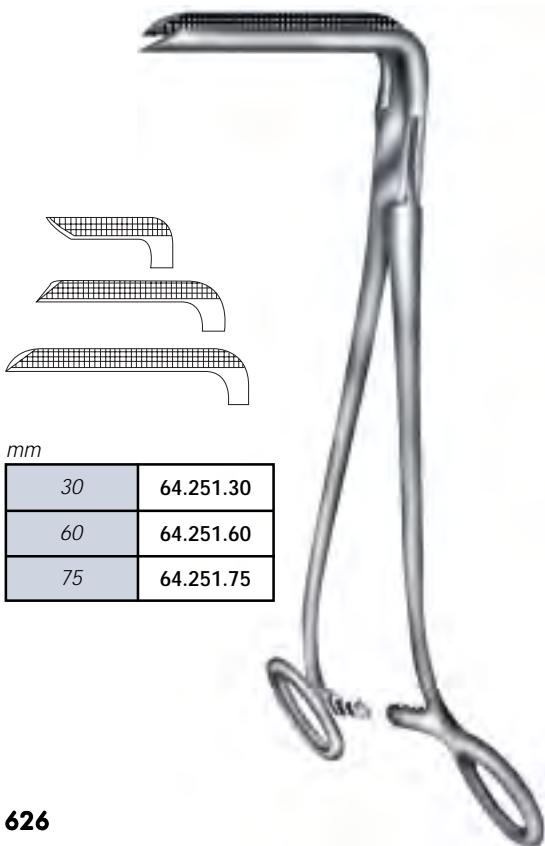




**MAYO ROBSON**  
64.230.25 - 64.237.25  
25 cm



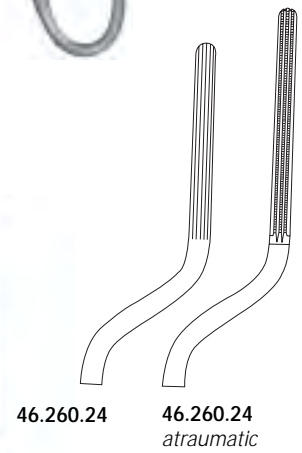
**FEHLAND**  
64.241.23  
23.5 cm  
64.247.23  
atraumatic  
24 cm



mm

30	64.251.30
60	64.251.60
75	64.251.75

**BEST**  
64.251.30 - 64.251.75  
26.5 cm



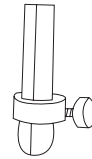
**BRUNNER**  
46.260.24 - 64.266.24  
24 cm



**STONE**  
 64.270.15  
 15.5 cm



**STONE WATT**  
 64.272.07  
 7.5 cm  
 64.272.10  
 10 cm



**STONE WATT**  
 64.274.00



64.208.05  
 5 cm

64.280.07  
 7 cm

64.280.10  
 10 cm

**DE MARTEL WOLFSON**  
 64.280.05 - 64.280.10  
 set 3



**DE MARTEL WOLFSON**  
 64.282.26  
 26 cm



**DE MARTEL WOLFSON**

64.284.08

8.5 cm

64.284.23

23 cm



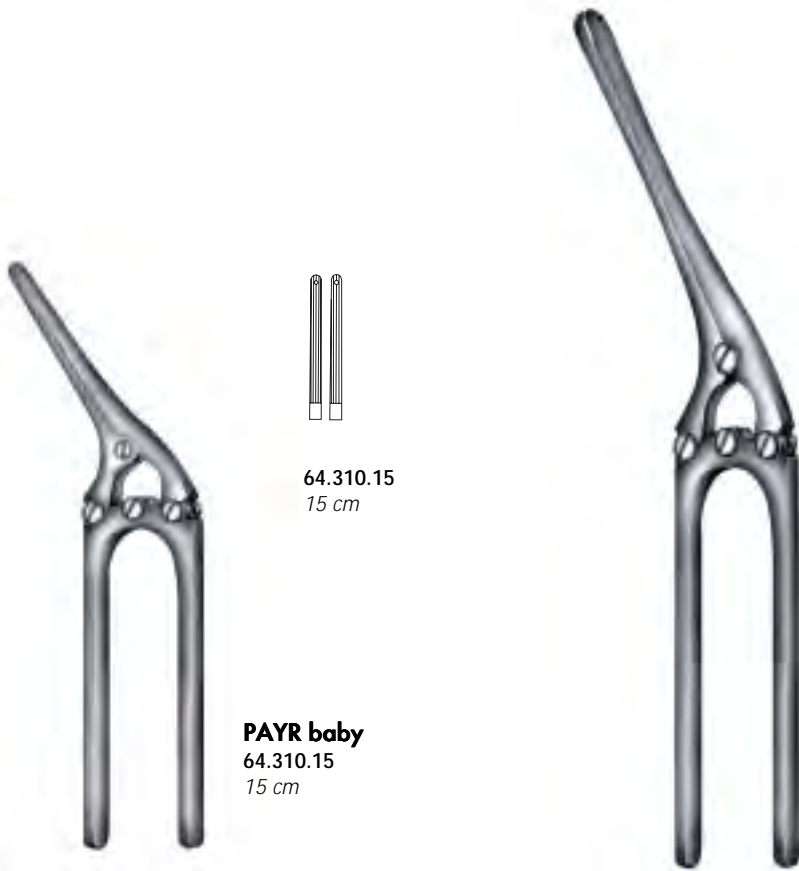
64.290.30

64.291.30

**LANE**

64.290.30 - 64.291.30

30 cm



**64.310.15**  
15 cm

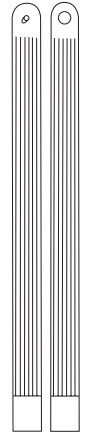
**PAYR baby**  
64.310.15  
15 cm



**64.310.21**  
21 cm



**64.310.29**  
29 cm



**64.310.35**  
35 cm

**PAYR**  
64.310.21 - 64.310.35



**VON PETZ**  
64.320.00  
stomach and intestinal suturing apparatus  
complete



**64.321.00 T**  
300 each

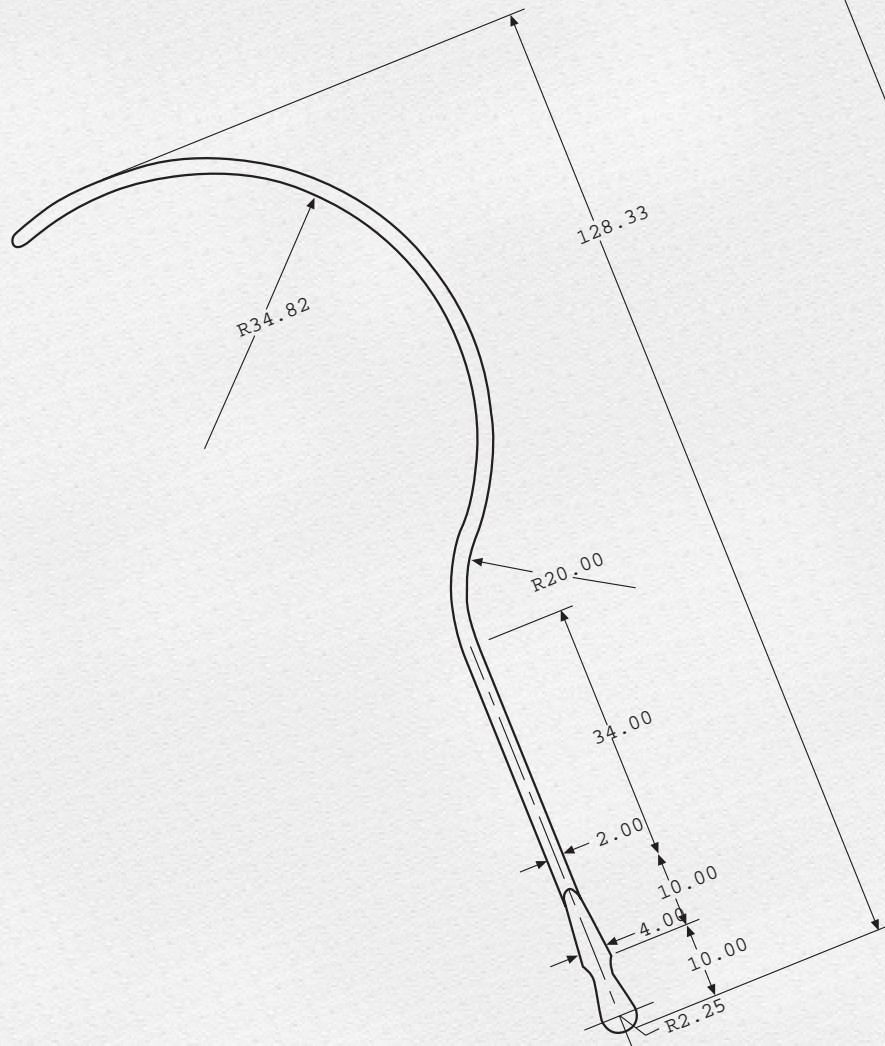
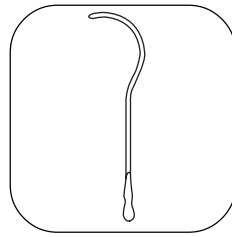


Diego Rivera  
1943 - 1944

The History of Cardiology

La Historia de la Cardiología

Die Geschichte der Kardiologie



			Datum / fecha	Name / nombre	Plan / plano
			July '98	cvd/jvd	1
			July '98	cvd	Maaetab / escala 1:1
			June '99	mj	Abt. / acot. mm
					Artikel / articulo
					Artikel-Nr. / No. de articulo

GENERAL CATALOGUE

Stainless Steel  
 acero inoxidable

Konstrukteur / constructor  
 gezeichnet / dibujado  
 geprüft / verificado  
 Toleranz / tolerancia





**YOUNG**  
66.101.21  
21 cm



**YOUNG**  
66.103.22  
22 cm



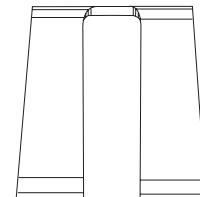
**YOUNG**  
66.105.21  
21 cm

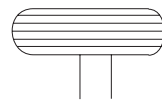
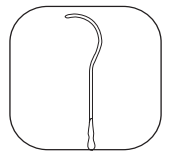


**YOUNG**  
66.106.20  
20 cm

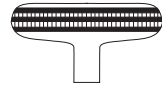


**YOUNG**  
66.107.21  
21 cm

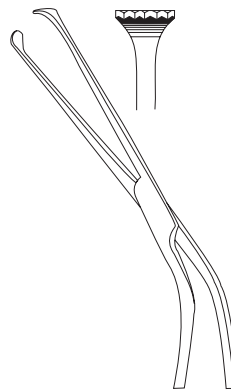




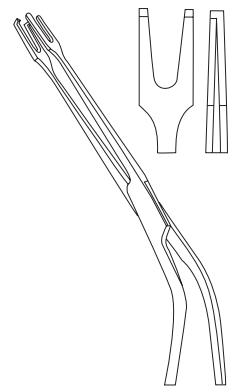
**66.111.23**  
for the capsule  
23 cm



**66.117.23**  
atraumatic  
for the capsule  
23 cm



**66.123.23**  
anterior lobe  
23 cm



**66.125.24**  
ligature carrier  
24 cm

**MILLIN**  
66.111.23 - 66.125.24



**LEGUEU**  
66.147.27  
27 cm



**KOCHER**  
66.149.27  
26 cm





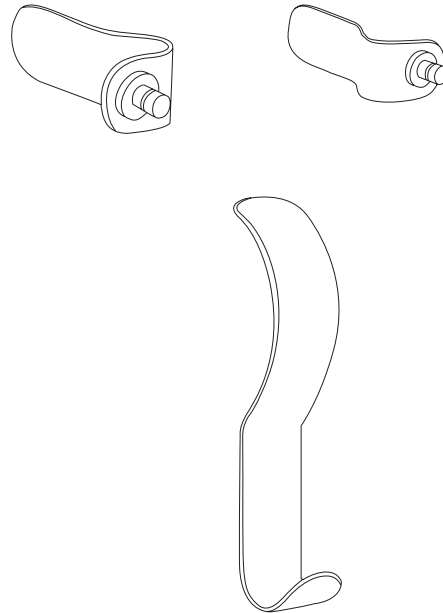
**JUDD MASSON**  
66.150.00

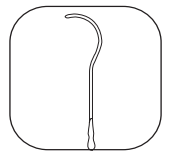


**HRYNTSCHAK**  
66.152.08  
*complete for child*  
66.152.11  
*complete for adult*



**THOMSON WALKER**  
66.160.00





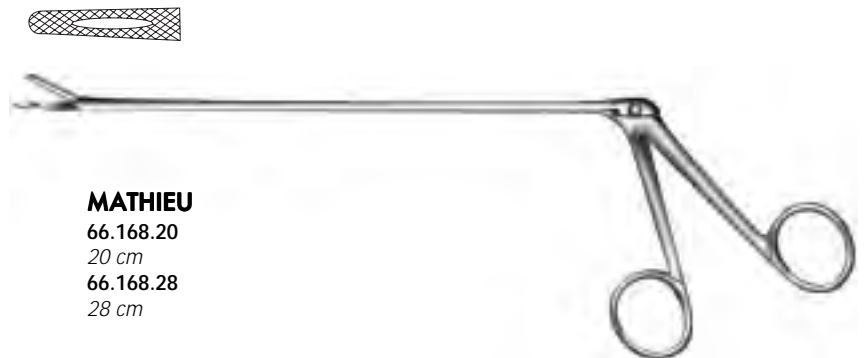
**MILLIN**  
66.162.00  
*with blades*  
66.162.50  
*with blades and cold lig*  
66.162.51  
*cold light for 66.162.00*



**LEGUEU**  
66.163.00

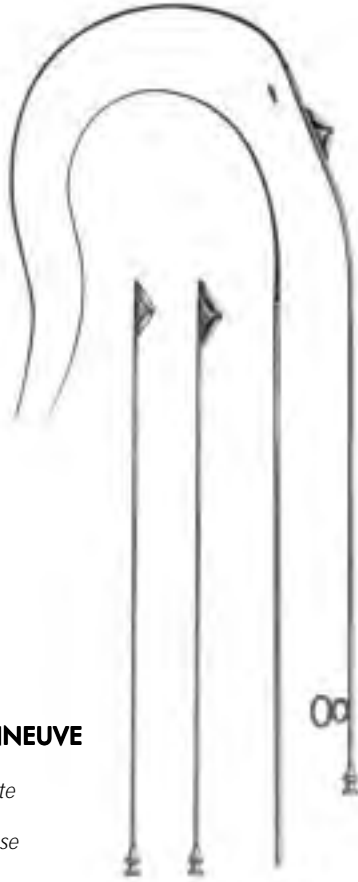


**MILLIN**  
66.165.00  
28 cm



**MATHIEU**  
66.168.20  
20 cm  
66.168.28  
28 cm





**MAISONNEUVE**  
66.170.00  
set complete  
66.170.01  
wooden case



**OTIS**  
66.172.00



**STOCKMANN**  
66.175.08  
8 cm



**OTIS**  
66.172.01



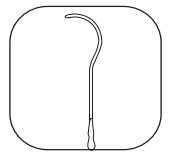
**circumcision instrument**  
66.172.08 - 66.172.35

ø mm

8.0	66.172.08
11.0	66.172.11
13.0	66.172.13
14.5	66.172.14
16.0	66.172.16
21.0	66.172.21
26.0	66.172.26
29.0	66.172.29
32.0	66.172.32
35.0	66.172.35



**STRAUSS**  
66.177.11  
11 cm



66.184.39  
39 cm



66.185.35  
35 cm

**GUYON**  
66.184.39 - 66.185.35



**GUTMANN**  
66.180.26  
26.5 cm



66.201.00  
set complete

**VAN BUREN**  
66.201.00 - 66.201.36  
27.5 cm

Charr. / F.G.

6	66.201.06
8	66.201.08
10	66.201.10
12	66.201.12
14	66.201.14
16	66.201.16
18	66.201.18
20	66.201.20
22	66.201.22
24	66.201.24
26	66.201.26
28	66.201.28
30	66.201.30
32	66.201.32
34	66.201.34
36	66.201.36



**GUYON**  
66.200.00  
urethral dilatation  
set complete





Charr. / F.G.

8	66.205.08
10	66.205.10
11	66.205.11
12	66.205.12
13	66.205.13
14	66.205.14
15	66.205.15
16	66.205.16
17	66.205.17
18	66.205.18
19	66.205.19
20	66.205.20
21	66.205.21
22	66.205.22
23	66.205.23
24	66.205.24

Charr. / F.G.

25	66.205.25
26	66.205.26
27	66.205.27
28	66.205.28
29	66.205.29
30	66.205.30
31	66.205.31
32	66.205.32
33	66.205.33
34	66.205.34
35	66.205.35
36	66.205.36
37	66.205.37
38	66.205.38
39	66.205.39
40	66.205.40

### GUYON

66.205.08 - 66.205.40  
27 cm



Charr. / F.G.

8	66.211.08
10	66.211.10
12	66.211.12
14	66.211.14
16	66.211.16
18	66.211.18
20	66.211.20
22	66.211.22
24	66.211.24

66.211.08 - 66.211.24  
15.5 cm



Charr. / F.G.

8	66.213.08
10	66.213.10
12	66.213.12
14	66.213.14
16	66.213.16
18	66.213.18
20	66.213.20
22	66.213.22
24	66.213.24

66.213.08 - 66.213.24  
15.5 cm

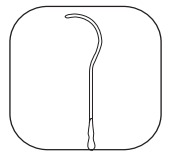


Charr. / F.G.

8	66.219.08
10	66.219.10
12	66.219.12
14	66.219.14
16	66.219.16
18	66.219.18
20	66.219.20
22	66.219.22
24	66.219.24

### COXETER

66.219.08 - 66.219.24



Charr. / F.G.

8	66.223.08
9	66.223.09
10	66.223.10
11	66.223.11
12	66.223.12
13	66.223.13
14	66.223.14
15	66.223.15
16	66.223.16
17	66.223.17
18	66.223.18

**DITTEL**  
66.223.08 - 66.223.30  
35 cm

Charr. / F.G.

19	66.223.19
20	66.223.20
21	66.223.21
22	66.223.22
23	66.223.23
24	66.223.24
25	66.223.25
26	66.223.26
27	66.223.27
28	66.223.28
29	66.223.29
30	66.223.30



66.221.00  
set complete

**WALTHER**  
66.221.00 - 66.221.38

Charr. / F.G.

12	66.221.12
14	66.221.14
16	66.221.16
18	66.221.18
20	66.221.20
22	66.221.22
24	66.221.24
26	66.221.26
28	66.221.28
30	66.221.30
32	66.221.32
34	66.221.34
36	66.221.36
38	66.221.38

66.220.00  
set complete



Charr. / F.G.

6	66.220.06
7	66.220.07
8	66.220.08
9	66.220.09
10	66.220.10
11	66.220.11
12	66.220.12
13	66.220.13
14	66.220.14
15	66.220.15
16	66.220.16
17	66.220.17

**DITTEL**  
66.220.00 - 66.220.30  
35 cm

Charr. / F.G.

18	66.220.18
19	66.220.19
20	66.220.20
21	66.220.21
22	66.220.22
23	66.220.23
24	66.220.24
25	66.220.25
26	66.220.26
27	66.220.27
28	66.220.28
29	66.220.29
30	66.220.30





Heinrich Kullmerer and Albrecht Meher  
16th century

**Short - robed surgeon catheterizes a patient**

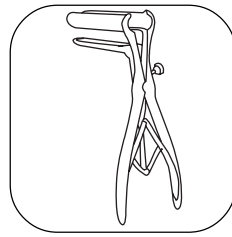
*... to relieve urinary obstruction, usually due to stones, but the spread of syphilis in the 16th century dramatically increased the problem of obstruction.*

**Cirujano cateteriza a un paciente**

*... para liberar la obstrucción urinaria, por lo general causada por cálculos. Sin embargo la propagación de sífilis en el siglo XVI aumentó dramáticamente el problema de la obstrucción en las vías urinarias.*

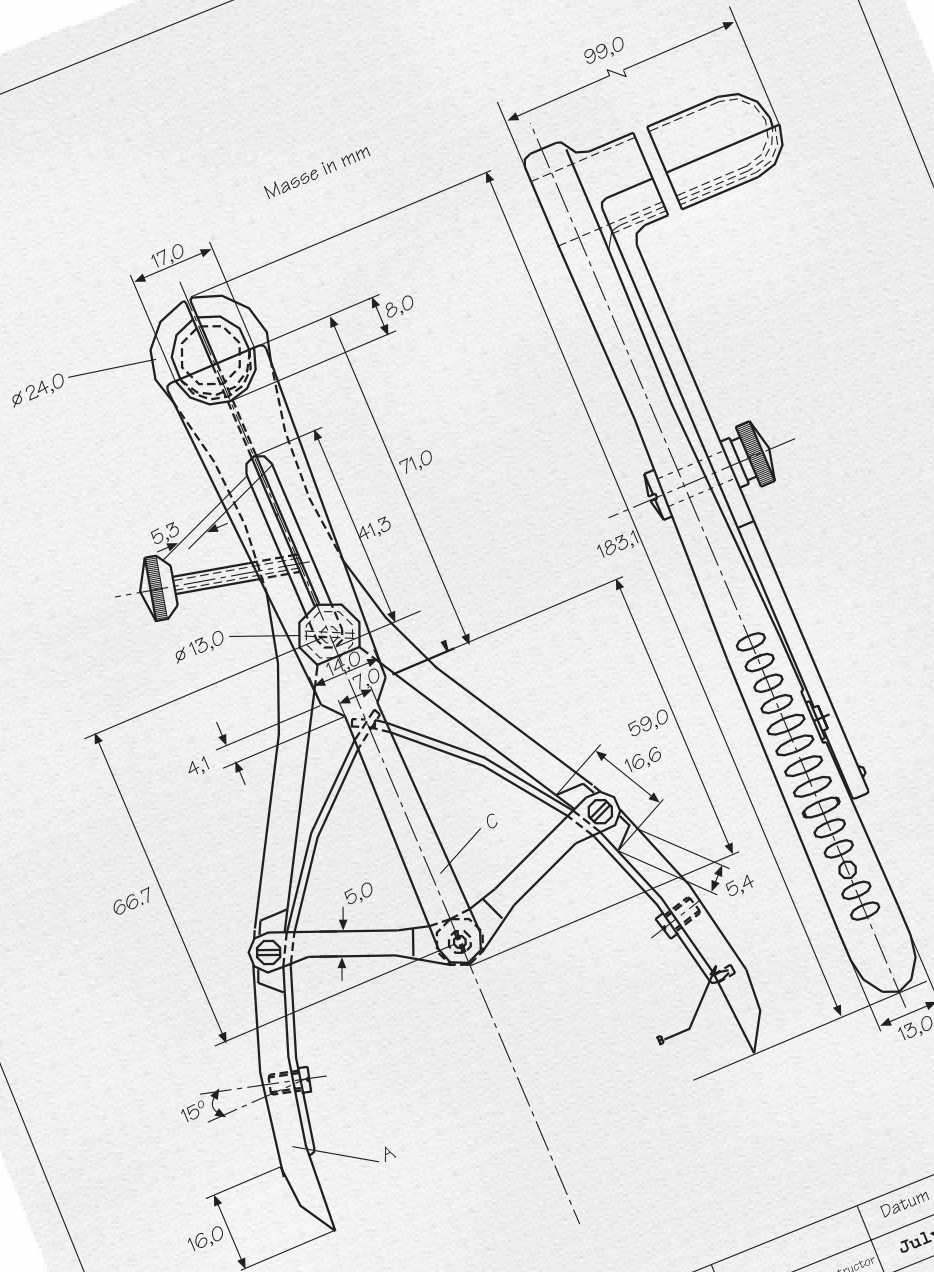
**Kurzgekleideter Chirurg katheterisiert Patient**

*... um die Harnabflussbehinderung zu heilen, die durch Blasen- oder Nierensteine entstehen kann. Jedoch ist aufgrund der Syphilis-Ausbreitung im 16. Jahrhundert das Problem der Harnobstruktion dramatisch gestiegen.*



# 68

**Rectum  
Recto  
Mastdarm**



GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
	gezeichnet / dibujado	July '98	cvd/jvd	1
	geprüft / verificado	July '98	cvd	Maasstab / escala 1:1
	Toleranz / tolerancia	June '99	mj	Abt. / acot. mm
				Artikel / artículo
				Artikel-Nr. / No. de artículo





**CZERNY**  
68.105.22  
22 cm



**SIMS**  
68.110.15  
15 cm



**BODENHAMMER**  
68.115.15  
15 cm  
**SIMS**  
68.117.15  
*cold light*  
15 cm



**PRATT**  
68.121.00  
20.5 cm



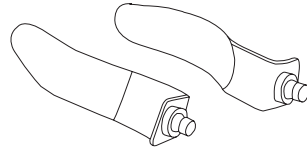
**BARR**  
68.125.17  
70 x 22 mm  
17 cm



**MATHIEU**  
68.130.19  
90 x 15 mm  
19.5 cm



**ALAN PARKS**  
68.147.00  
complete  
13.5 cm



68.147.09  
left  
68.147.15  
right  
150 mm

**ALAN PARKS**  
68.148.00  
cold light attachment  
for 68.147.00



**SMITH BUIE**  
68.150.15  
75 x 23 mm  
15 cm



**STRAUSS**  
68.160.00  
complete  
**STRAUSS**  
68.161.00  
cold light  
complete



**IVES FANSLER**  
68.210.22  
ø 22 mm  
L=80 mm

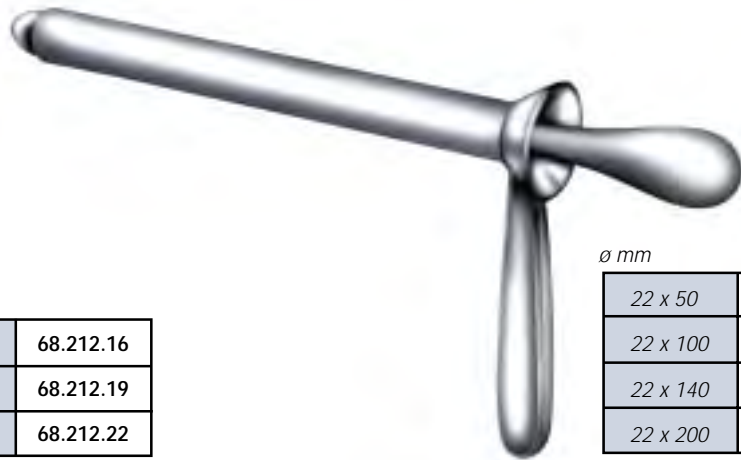




ø mm

16	68.212.16
19	68.212.19
22	68.212.22

**HIRSCHMANN**  
68.212.16 - 68.212.22  
L = 65 mm



ø mm

22 x 50	68.220.05
22 x 100	68.220.10
22 x 140	68.220.14
22 x 200	68.220.20

**KELLY**  
68.220.05 - 68.220.20



ø mm

21	68.224.21
27	68.224.27

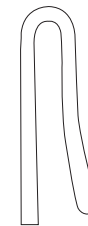
**KELLY**  
68.224.21 - 68.224.27  
L = 50 mm



68.251.01



68.251.02



68.251.03

**PRATT**  
68.251.01 - 68.251.03  
21 cm  
cystic hooks



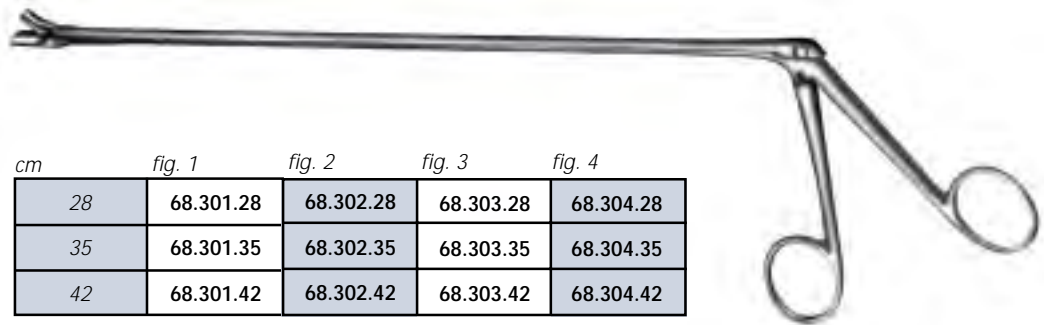
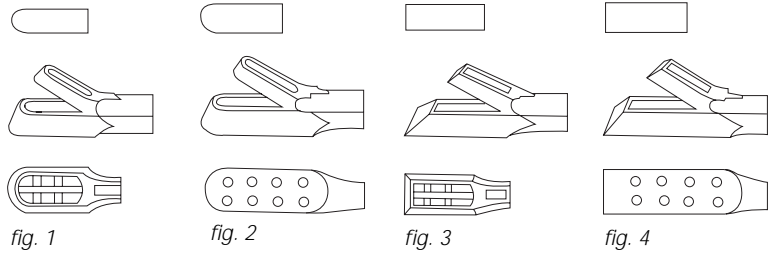
68.253.24  
24 cm



**BUIE**  
68.261.41  
41 cm



**WESTON**  
68.263.30  
30 cm



cm	fig. 1	fig. 2	fig. 3	fig. 4
28	68.301.28	68.302.28	68.303.28	68.304.28
35	68.301.35	68.302.35	68.303.35	68.304.35
42	68.301.42	68.302.42	68.303.42	68.304.42

**YEOMAN**  
68.301.28 - 68.304.42  
biopsy specimen forceps



cm	
23	68.311.23
33	68.311.33
40	68.311.40

**YEOMAN**  
68.311.23 - 68.311.40  
rotatable



cm	
23	68.321.23
33	68.321.33
40	68.321.40

**TURREL**  
68.321.23 - 68.321.40  
rotatable



**HEYWOOD SMITH**  
68.402.21  
21 cm



68.420.00  
*haemorrhoidal ligator complete*  
68.420.01  
*only*



68.420.02  
*loading cone*



68.420.03  
*10 x 11 mm*  
68.420.04  
*10 x 16 mm*



**McGIVNEY**  
68.430.00  
*ligator*



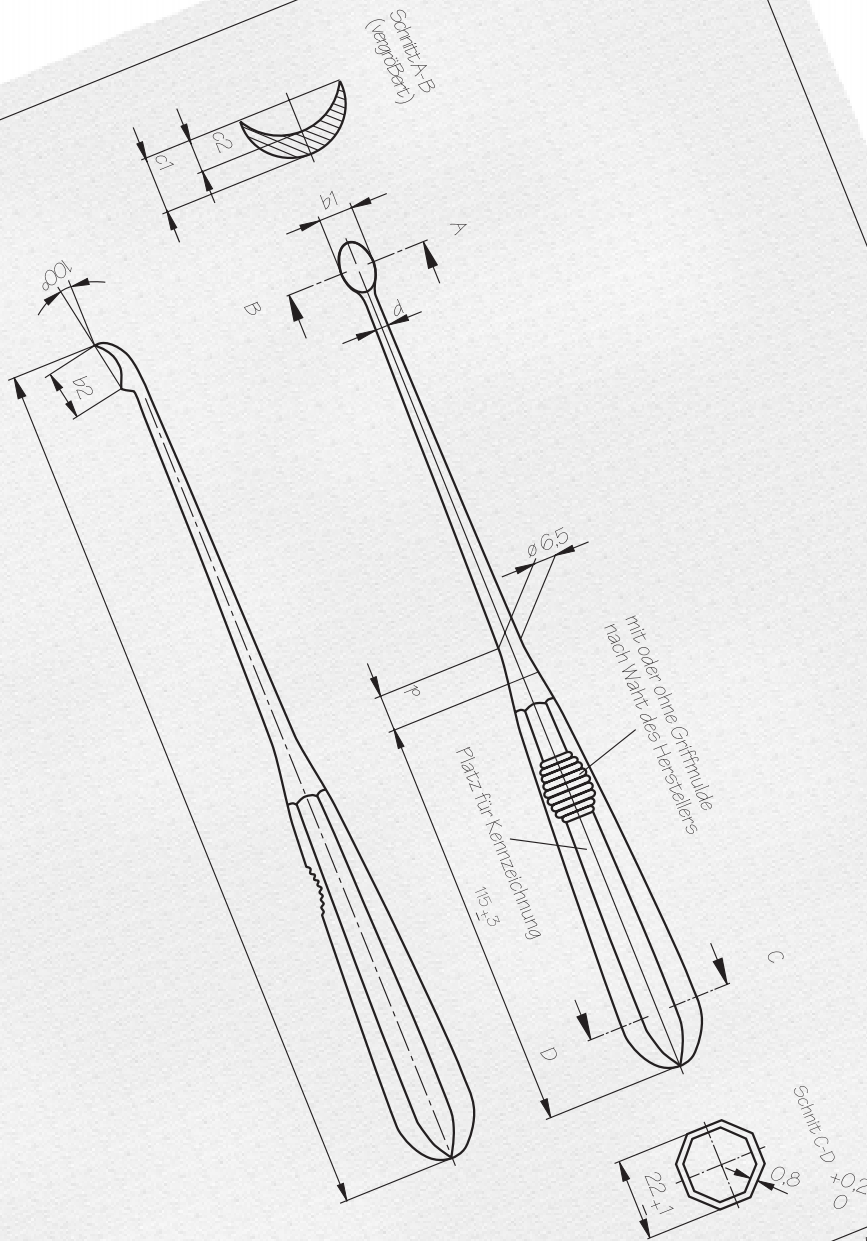
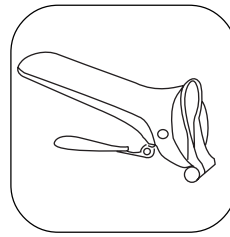
**RUDD**  
68.432.00  
31.5 cm



68.433.00



**McGIVNEY**  
68.439.19  
19 cm



F	GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
	Stainless Steel	gezeichnet / dibujado	July '98	cvd/jvd	Maaßstab / escala
	Acero inoxidable	geprüft / verificado	July '98	cvd	Abt. / acot. mm
		Toleranz / tolerancia	June '99	mj	Artikel / artículo
					Artikel-Nr. / No. de artículo





**GRAVE**

mm	standard	laser
75 x 20	70.110.01	
95 x 35	70.110.02	70.114.02
115 x 35	70.110.03	70.114.03



**PEDERSON**

mm	
75 x 13	70.120.01
100 x 22	70.120.02
120 x 25	70.120.03

**PEDERSON**

70.122.10  
100 x 16 mm



**COLLIN**

70.130.01 - 70.130.03

mm

85 x 30	70.130.01
100 x 35	70.130.02
110 x 40	70.130.03



**COLLIN**

70.131.00  
65 x 20 mm



**COLLIN**

70.132.00  
65 x 10 mm



**CUSCO**

mm	standard	laser
80 x 24	70.140.00	
75 x 32	70.140.01	
85 x 35	70.140.02	70.144.02
100 x 35	70.140.03	70.144.03



**CUSCO**  
70.142.00  
75 X 17 mm



**CUSCO**  
70.150.00 - 70.151.01

mm

80 x 24	70.150.00
75 x 32	70.150.01
85 x 36	70.150.02
95 x 37	70.150.03
110 x 37	70.150.04
75 x 17	70.151.00



**CUSCO**  
70.152.01 - 70.152.03

mm

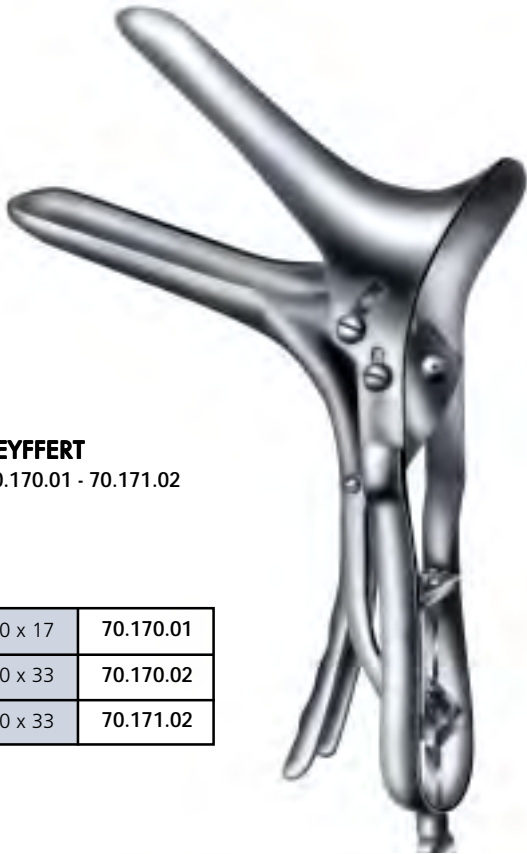
80 x 32	70.152.01
90 x 37	70.152.02
115 x 37	70.152.03



**CUSCO**  
70.160.01 - 70.160.03  
swiss pattern

mm

90 x 23 - 25	70.160.01
100 x 25 - 27	70.160.02
110 x 27 - 30	70.160.03

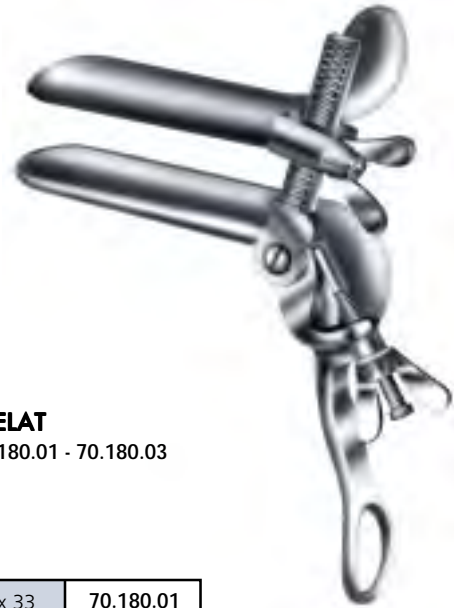


### SEYFFERT

70.170.01 - 70.171.02

*mm*

100 x 17	70.170.01
110 x 33	70.170.02
110 x 33	70.171.02



### TRELAT

70.180.01 - 70.180.03

*mm*

85 x 33	70.180.01
95 x 35	70.180.02
115 x 43	70.180.03



### SEMM

70.190.01

100 mm / 17 - 20 mm

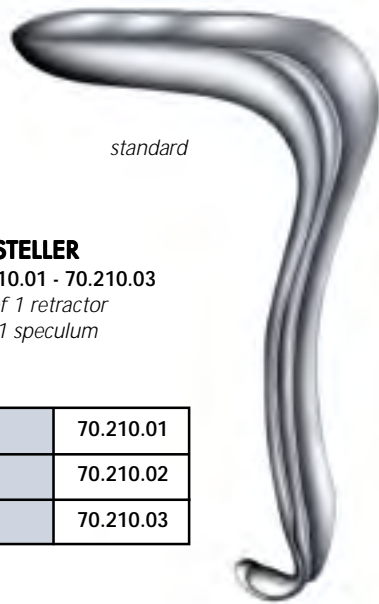
70.190.02

100 mm / 25 - 30 mm



### O'SULLIVAN O'CONNOR

70.196.00



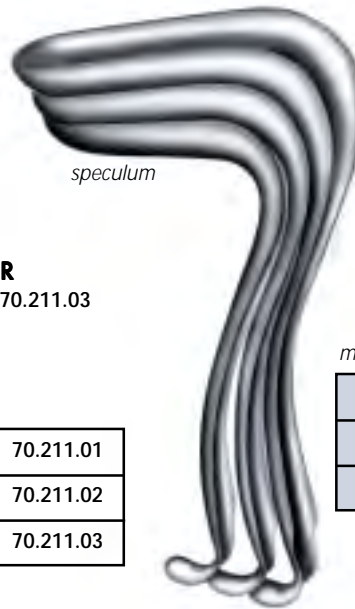
standard

**KRISTELLER**

70.210.01 - 70.210.03  
set of 1 retractor  
and 1 speculum

fig

1	70.210.01
2	70.210.02
3	70.210.03



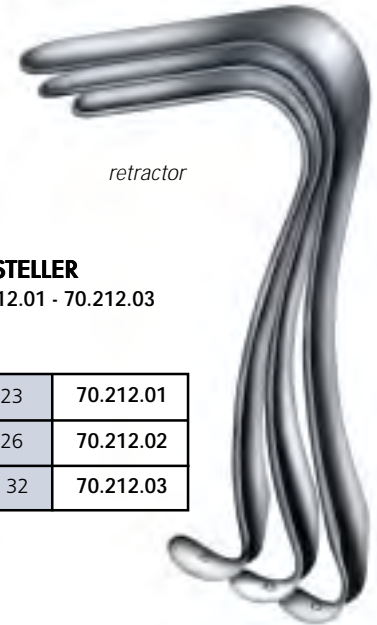
speculum

**KRISTELLER**

70.211.01 - 70.211.03

mm

70 x 27	70.211.01
80 x 30	70.211.02
90 x 36	70.211.03



retractor

**KRISTELLER**

70.212.01 - 70.212.03

mm

75 x 23	70.212.01
85 x 26	70.212.02
100 x 32	70.212.03



**KRISTELLER**

70.220.01  
fig 1  
70.220.02  
fig 2

set of 1 retractor  
and 1 speculum



speculum

**KRISTELLER**

70.221.01  
105 x 18 mm  
70.221.02  
105 x 21 mm



retractor

**KRISTELLER**

70.222.01  
110 x 14 mm  
70.222.02  
115 x 17 mm





### KRISTELLER

70.230.01 - 70.230.03

set of 1 retractor  
and 1 speculum

fig

1	70.230.01
2	70.230.02
3	70.230.03



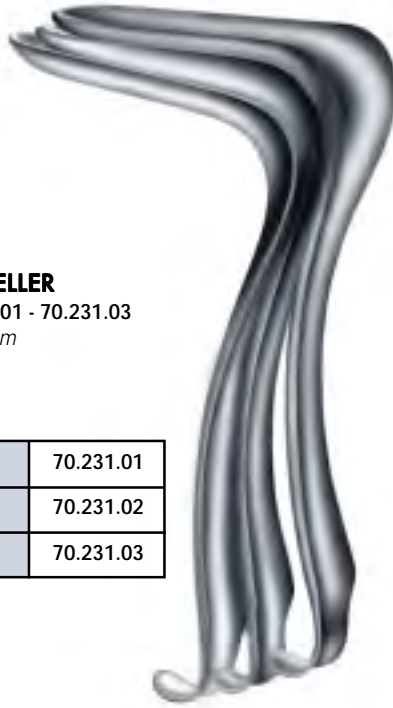
### KRISTELLER

70.231.01 - 70.231.03

speculum

mm

105 x 26	70.231.01
105 x 28	70.231.02
105 x 33	70.231.03



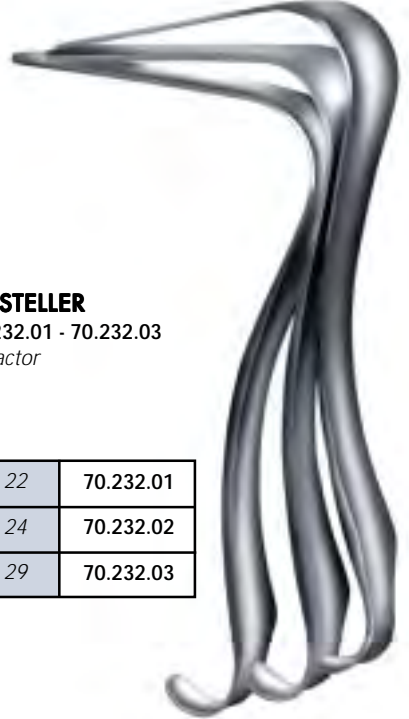
### KRISTELLER

70.232.01 - 70.232.03

retractor

mm

115 x 22	70.232.01
115 x 24	70.232.02
115 x 29	70.232.03



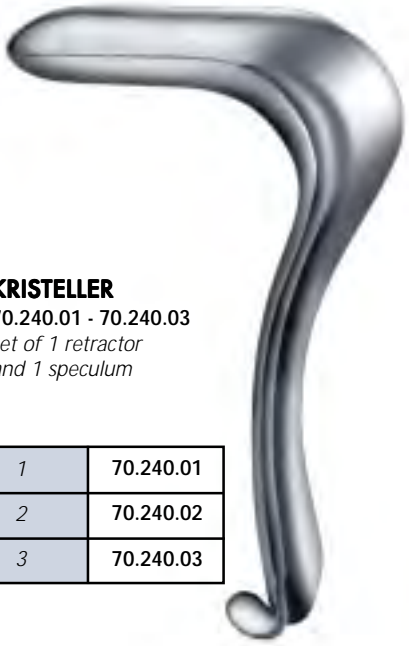
### KRISTELLER

70.240.01 - 70.240.03

set of 1 retractor  
and 1 speculum

fig

1	70.240.01
2	70.240.02
3	70.240.03



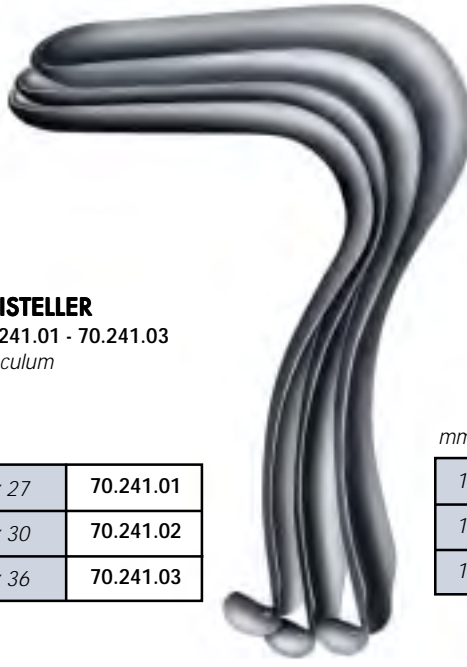
### KRISTELLER

70.241.01 - 70.241.03

speculum

mm

110 x 27	70.241.01
110 x 30	70.241.02
110 x 36	70.241.03



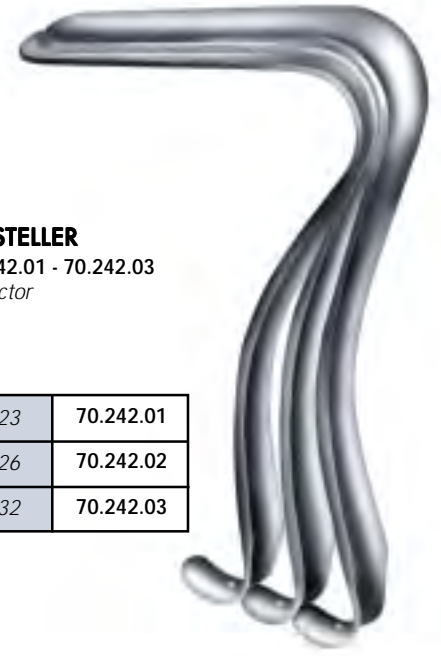
### KRISTELLER

70.242.01 - 70.242.03

retractor

mm

115 x 23	70.242.01
115 x 26	70.242.02
115 x 32	70.242.03





**KRISTELLER**  
70.244.00  
70 x 15 mm



**KRISTELLER**  
70.245.00  
speculum  
70 x 15 mm  
70.246.00  
retractor  
70 x 15 mm



*extra  
large  
pattern*

**KRISTELLER**  
70.252.00  
140 x 30 mm

**KRISTELLER**  
70.251.00  
135 x 36 mm

**KRISTELLER**  
70.250.00  
set

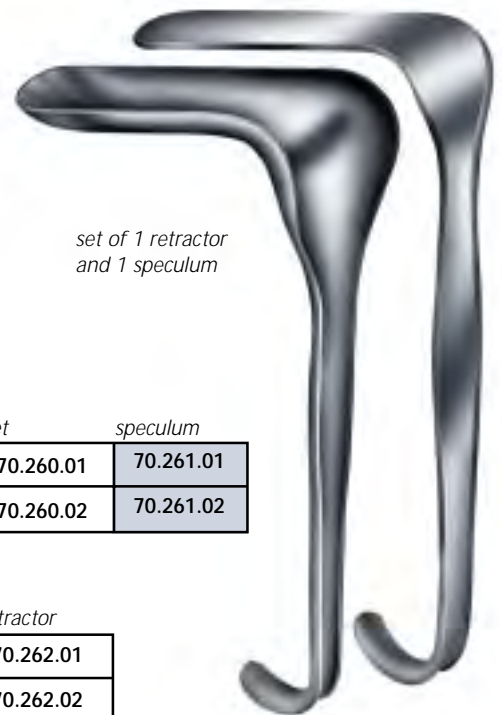


**SEIDL**  
70.258.08 - 70.258.14

70.258.08  
80 x 8 mm

70.258.10  
80 x 10 mm

70.258.14  
90 x 14 mm



*set of 1 retractor  
and 1 speculum*

mm	set	speculum
70 x 40	70.260.01	70.261.01
90 x 40	70.260.02	70.261.02

mm	retractor
70 x 33	70.262.01
90 x 33	70.262.02

**KALLMORGEN**  
70.260.01 - 70.262.02





mm

75 x 38	70.271.01
90 x 38	70.271.02
100 x 38	70.271.03

**JACKSON**  
70.271.01 - 70.271.03



small	70.281.01
medium	70.281.02
large	70.281.03

**SIMS**  
70.281.01 - 70.281.03

**SIMS**

set	70.291.00
fig. 1	70.291.01
fig. 2	70.291.02
fig. 3	70.291.03

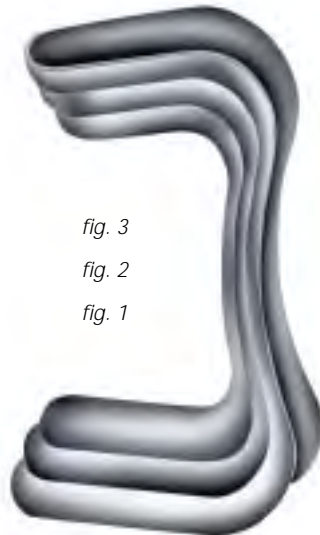
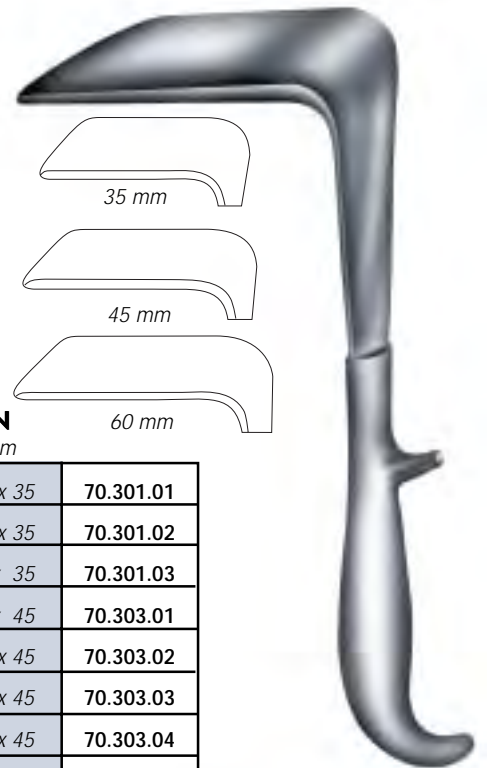


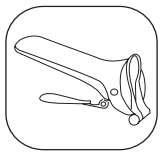
fig. 3  
fig. 2  
fig. 1



**DOYEN**

mm x mm

55 x 35	70.301.01
85 x 35	70.301.02
115 x 35	70.301.03
55 x 45	70.303.01
85 x 45	70.303.02
115 x 45	70.303.03
160 x 45	70.303.04
55 x 60	70.305.01
85 x 60	70.305.02
115 x 60	70.305.03
160 x 60	70.305.04



**AUVARD**  
70.307.00  
*detachable weight*  
70.309.00  
*fixed weight*



**AUVARD**  
70.309.25



**BREISKY**  
70.310.20 - 70.315.40

mm x mm

100 x 20	70.310.20
100 x 25	70.310.25
100 x 30	70.310.30
100 x 35	70.310.35
100 x 40	70.310.40
130 x 20	70.313.20
130 x 25	70.313.25
130 x 30	70.313.30
130 x 35	70.313.35
130 x 40	70.313.40
155 x 40	70.315.40



**LANDAU**  
70.319.28  
*100 x 28 mm*  
70.319.38  
*100 x 38 mm*



**FRIEDMANN**  
70.351.10  
*10 cm*



**KOGAN**  
70.366.24  
*laser 2 / 4 mm*  
70.366.48  
*laser 4 / 8 mm*

**KOGAN**  
70.360.24  
*standard 24 cm*  
70.364.24  
*laser 24 cm*





**HEGAR**  
70.410.01 - 70.415.16

**70.404.14**  
set 70.410.04 - 70.410.17  
14 pieces  
**70.404.26**  
set 70.410.01 - 70.410.26  
26 pieces

mm

1.0	70.410.01
1.5	70.415.01
2.0	70.410.02
2.5	70.415.02
3.0	70.410.03
3.5	70.415.03
4.0	70.410.04
4.5	70.415.04
5.0	70.410.05
5.5	70.415.05
6.0	70.410.06
6.5	70.415.06
7.0	70.410.07
7.5	70.415.07
8.0	70.410.08
8.5	70.415.08
9.0	70.410.09
9.5	70.415.09
10.0	70.410.10
10.5	70.415.10
11.0	70.410.11
11.5	70.415.11
12.0	70.410.12
12.5	70.415.12
13.0	70.410.13
13.5	70.415.13
14.0	70.410.14
14.5	70.415.14
15.0	70.410.15
15.5	70.415.15



**HEGAR**  
70.405.14  
set 14 pieces

mm

16.0	70.410.16
16.5	70.415.16
17.0	70.410.17
18.0	70.410.18
19.0	70.410.19
20.0	70.410.20
21.0	70.410.21
22.0	70.410.22
23.0	70.410.23
24.0	70.410.24
25.0	70.410.25
26.0	70.410.26
27.0	70.410.27
28.0	70.410.28
29.0	70.410.29
30.0	70.410.30



**HEGAR**  
70.406.14  
set 14 pieces 4 - 17 mm  
70.406.26  
set 26 pieces 1 - 26 mm



**HEGAR**

70.424.08

set 8 pieces 70.420.03 - 70.420.17

70.424.13

set 13 pieces 70.420.01 - 70.420.25

mm

1/2	70.420.01
3/4	70.420.03
5/6	70.420.05
7/8	70.420.07
9/10	70.420.09
11/12	70.420.11
13/14	70.420.13
15/16	70.420.15
17/18	70.420.17
19/20	70.420.19
21/22	70.420.21
23/24	70.420.23
25/26	70.420.25



**HEGAR**

70.425.08

8 pieces 3/4 - 17/18 mm



**HEGAR**

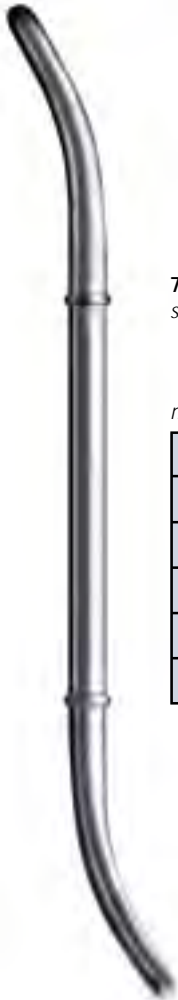
70.426.08

8 pieces 3/4 - 17/18 mm

70.426.13

13 pieces 1/2 - 25/26 mm





**70.435.06**  
set 6

mm/cm		fig/U. S.
4.5 / 5	<b>70.430.10</b>	9 / 10
5.5 / 6	<b>70.430.12</b>	11 / 12
6.5 / 7	<b>70.430.14</b>	13 / 14
7.5 / 8	<b>70.430.16</b>	15 / 16
8.5 / 9	<b>70.430.18</b>	17 / 18
9.5 / 10	<b>70.430.20</b>	19 / 20

**HANK**  
70.430.10 - 70.430.20



**HANK**  
70.436.08  
set 6  
with bag



**GOODELL**  
70.441.34  
34 cm



**WYLIE**  
70.443.29  
29 cm



**SIMS**  
70.445.29  
29 cm



charr. FG

13 / 15	70.447.13
17 / 19	70.447.17
21 / 23	70.447.21
25 / 27	70.447.25
29 / 31	70.447.29
33 / 35	70.447.33
37 / 39	70.447.37
41 / 43	70.447.41

**PRATT**  
70.447.08  
set 8



**PRATT**  
70.447.13 - 70.447.41

**SCHROEDER**  
70.502.25  
25 cm

**BRAUN**  
70.504.25  
25 cm



**SKENE**  
70.505.24  
24 cm

**POZZI**  
70.506.25  
25 cm

**DUPLAY**  
70.507.28  
28 cm

**STAUDE MOORE**  
70.508.17  
17 cm

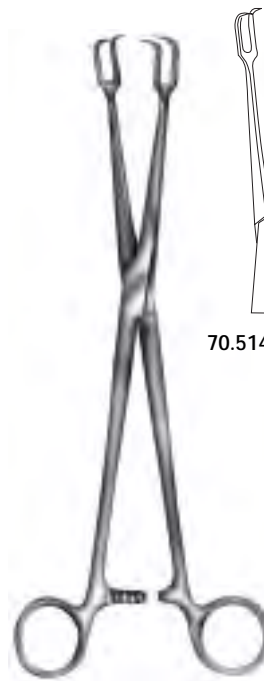




**BARRETT**  
70.510.18  
18 cm



**JARCHO**  
70.512.20  
20 cm



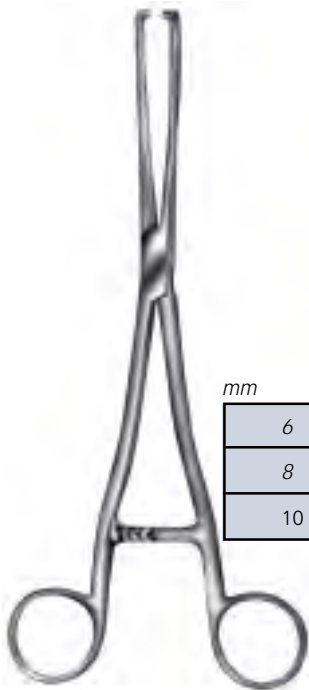
**SCHROEDER**  
70.514.24 - 70.515.24  
2 x 2 teeth



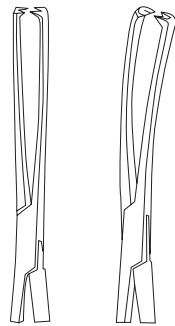
70.514.24



70.515.24



**MUSEUX**  
70.524.06 - 70.525.10  
2 x 2 teeth  
24 cm



mm

6	70.524.06	70.525.06
8	70.524.08	70.525.08
10	70.524.10	70.525.10

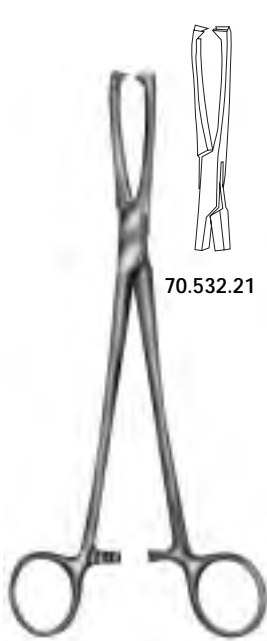


**TEALE**  
70.526.20  
4 x 3 teeth 10 mm  
23 cm

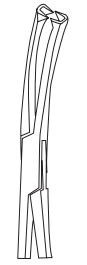


**TEALE**  
70.531.23  
23 cm





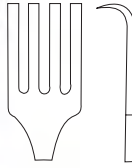
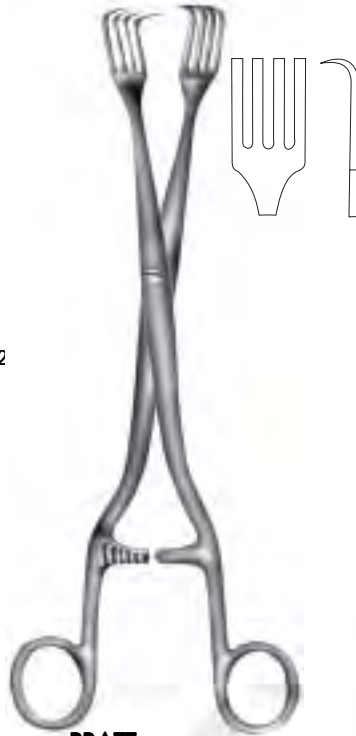
70.532.21



70.533.2

**JACOBS**

70.532.21 - 70.533.21  
21 cm



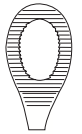
**PRATT**

70.536.28  
28 cm



**IOWA**

70.539.26  
26 cm



**NOTO**

70.540.27  
27 cm



**DOYEN**

70.542.20  
20 cm



**KELLY**

70.543.32  
32 cm



**DARTIGUES**

70.545.27  
27 cm



**SOMER**

70.547.23  
23 cm

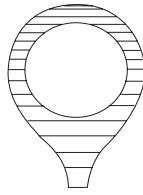




**COLLIN**  
70.549.25  
25 cm



**COLLIN**  
70.550.28  
28 cm



**BUMM**  
70.552.28  
28 cm



**BEACHAM**  
70.559.26  
26 cm



**BRAUN**  
70.565.28  
28 cm



**SIMS**  
70.567.26  
26 cm



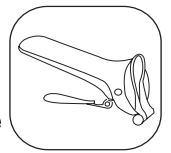
**SIMS**  
70.580.32  
*rigid*  
70.581.32  
*malleable*



**MARTIN**  
70.582.32  
*rigid*  
70.583.32  
*malleable*



**COLLIN**  
70.584.28  
28 cm



**RANDALL**  
70.590.04  
24 cm / 4 mm



**NOVAK**  
70.592.01 - 70.592.04  
23 cm

mm

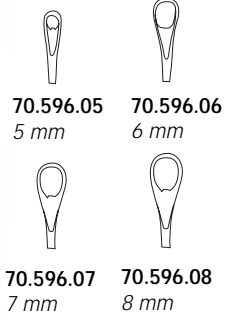
1	70.592.01
2	70.592.02
3	70.592.03
4	70.592.04



**KEVORKIAN**  
70.594.12  
30 cm  
1.2 mm  
70.594.40  
30 cm  
4 mm



**KELLY GRAY**  
70.596.05 - 70.596.08  
24 cm



**KEVORKIAN**  
70.596.40  
30 cm



**FAURE**  
70.601.21  
21 cm



**SCHUBERT**  
70.604.21  
21 cm  
70.604.28  
28 cm





**SCHUBERT**  
70.605.26  
26 cm



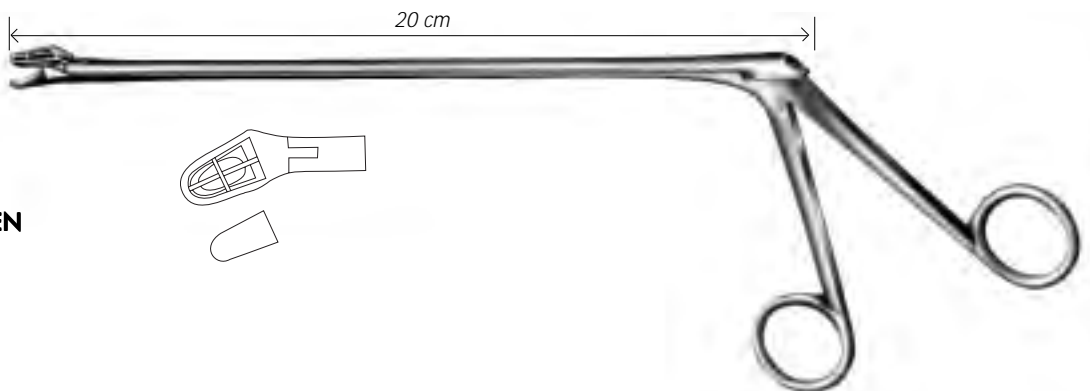
**THOMS GAYLOR**  
70.606.24  
24 cm



**GELLHORN**  
70.609.23  
23 cm



**VAN DOREN**  
70.611.25  
25 cm

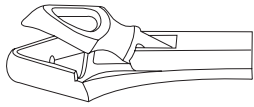


**ALEXANDER**  
70.613.28  
28 cm



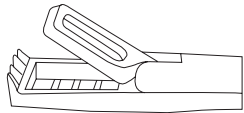
70.615.01

70.615.02



24 cm

**SCHUMACHER**  
70.615.01 - 70.615.02  
24 cm



3 x 9.7 mm

24.5 cm

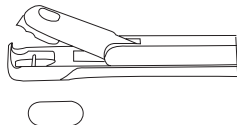
**KEVORKIAN**  
70.617.04  
24.5 cm



4 x 8 mm

23 cm

**WITTNER**  
70.618.23  
*straight*  
70.619.23  
*curved*

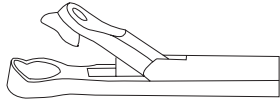


3 x 7 mm

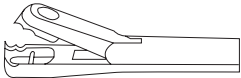


**TISCHLER MORGAN**  
70.621.01



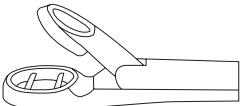


7 x 5 mm

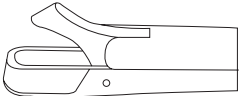


**TISCHLER Morgan**

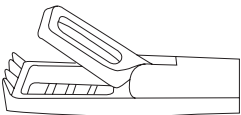
fig 1



3.7 x 5 mm  
fig 3

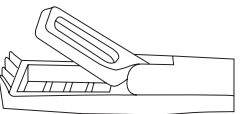


mini  
fig 5

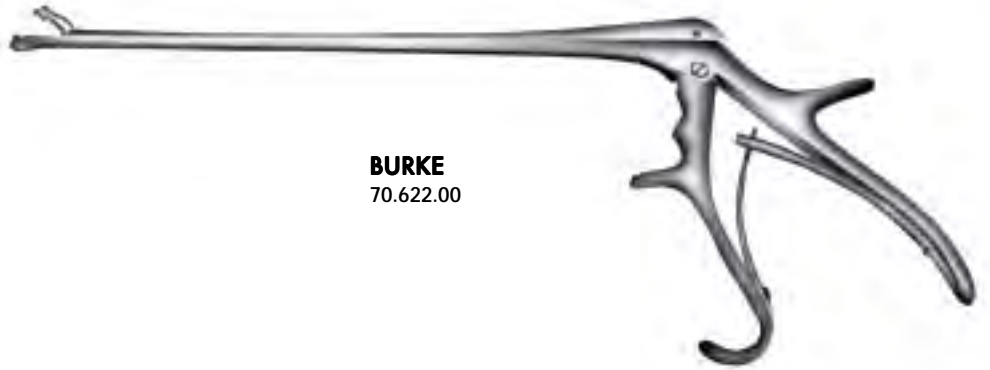


**KEVORKIAN**

fig 4



3 x 8 mm



**BURKE**  
70.622.00

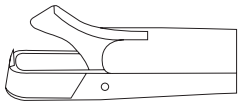


**TOWNSEND**  
70.624.01 - 70.624.15

fig	complete	tip only
1	70.624.01	70.624.11
3	70.624.03	70.624.13
4	70.624.04	70.624.14
5	70.624.05	70.624.15



**KEVORKIAN PACIFIC**  
70.625.04



2.3 x 4.2 mm



**TOWNSEND mini**  
70.626.00



3 x 9.5 mm



**TISCHLER KEVORKIAN**  
70.627.00



4 x 6.5 mm



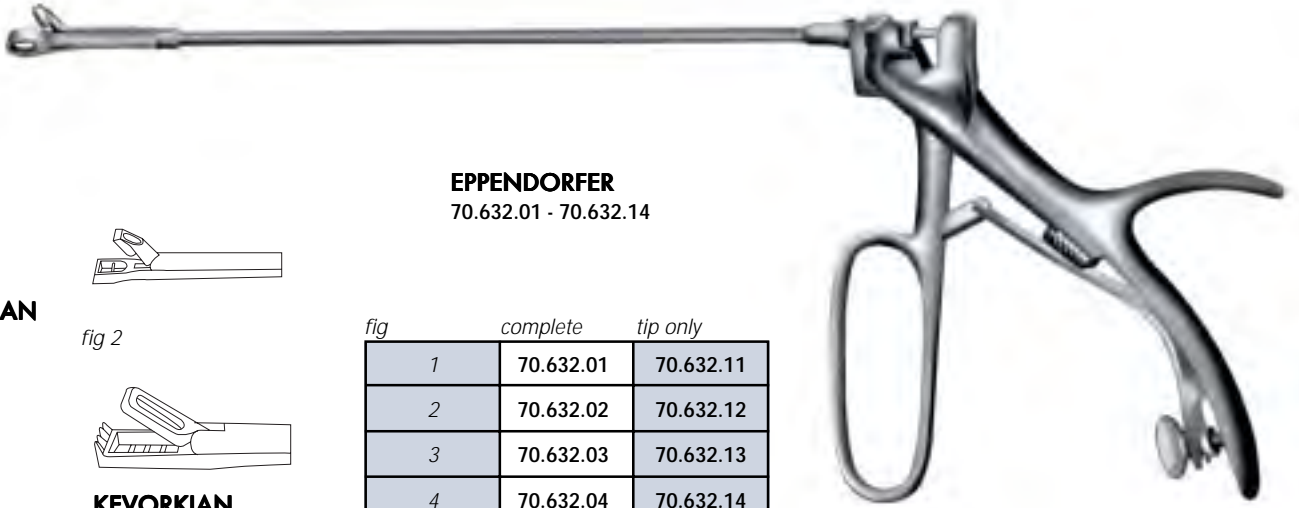
**BAGGISH**  
70.628.00



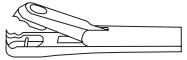
4 x 8 mm



**EPPENDORFER**  
70.630.00



**EPPENDORFER**  
70.632.01 - 70.632.14



**TISCHLER MORGAN**  
fig 1

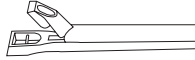


fig 2

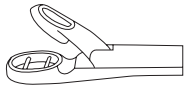
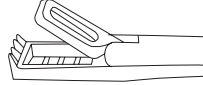


fig 3



**KEVORKIAN**  
fig 4

fig	complete	tip only
1	70.632.01	70.632.11
2	70.632.02	70.632.12
3	70.632.03	70.632.13
4	70.632.04	70.632.14



**DOYEN**  
70.641.17  
myoma screw  
17 cm



**SEGOND**  
70.643.27  
myoma knife  
27 cm



**EMMET**  
70.645.01 - 70.645.05  
fistula hooks  
22 cm



70.645.01



70.645.02



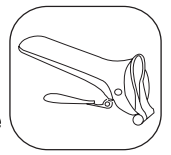
70.645.03



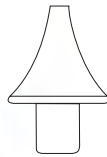
70.645.04



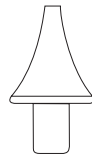
70.645.05



**SCHULTZE**  
70.650.00  
complete  
salpinograph



70.650.13



70.650.12



70.650.11



fig 1



fig 2



fig 3



fig 4



fig 5



fig 6



**SCHROEDER**  
70.700.01 - 70.700.06  
31 cm

fig

1	70.700.01
2	70.700.02
3	70.700.03
4	70.700.04
5	70.700.05
6	70.700.06



fig 1



fig 2



fig 3

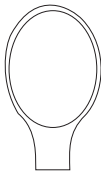


fig 4

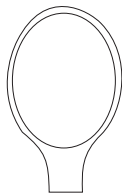


fig 5

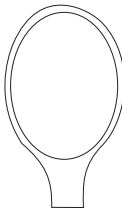


fig 6



**SIMON**

70.702.01 - 70.702.06  
25 cm

fig

1	70.702.01
2	70.702.02
3	70.702.03
4	70.702.04
5	70.702.05
6	70.702.06



sharp

blunt



**BLAKE**  
70.704.27  
27 cm



70.710.05 - 70.717.05  
5 mm



70.710.06 - 70.717.06  
6 mm



70.710.07 - 70.717.07  
7 mm



70.710.08 - 70.717.08  
8 mm



70.710.09 - 70.717.09  
9 mm



70.710.11 - 70.717.11  
11 mm



70.710.12 - 70.717.12  
12 mm



70.710.14 - 70.717.14  
6 mm

**SIMS**

70.710.05 - 70.717.14  
28 cm

<i>rigid /sharp</i>	<i>rigid /blunt</i>	<i>malleable/sharp</i>	<i>malleable/blunt</i>
70.710.05	70.712.05	70.715.05	70.717.05
70.710.06	70.712.06	70.715.06	70.717.06
70.710.07	70.712.07	70.715.07	70.717.07
70.710.08	70.712.08	70.715.08	70.717.08
70.710.09	70.712.09	70.715.09	70.717.09
70.710.11	70.712.11	70.715.11	70.717.11
70.710.12	70.712.12	70.715.12	70.717.12
70.710.14	70.712.14	70.715.14	70.717.14





**SIMS**

70.710.05 - 70.717.14  
28 cm



70.720.07 - 70.727.07  
7 mm



70.720.08 - 70.727.08  
8 mm



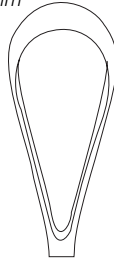
70.720.09 - 70.727.09  
9 mm



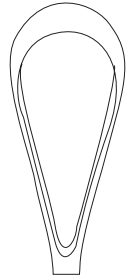
70.720.11 - 70.727.11  
11 mm



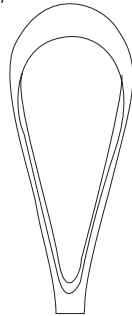
70.720.12 - 70.727.12  
12 mm



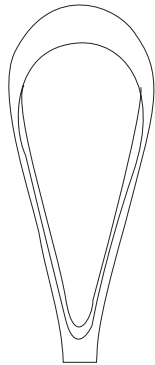
70.720.14 - 70.727.14  
14 mm



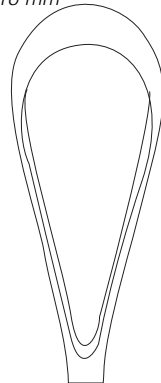
70.720.15 - 70.727.15  
15 mm



70.720.16 - 70.727.16  
16 mm



70.720.19 - 70.727.19  
19 mm



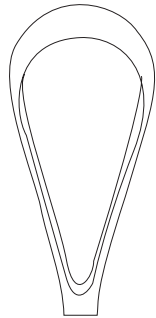
70.720.20 - 70.727.20  
20 mm

<i>rigid /sharp</i>	<i>rigid /blunt</i>	<i>malleable/sharp</i>	<i>malleable/blunt</i>
70.720.07	70.722.07	70.725.07	70.727.07
70.720.08	70.722.08	70.725.08	70.727.08
70.720.09	70.722.09	70.725.09	70.727.09
70.720.11	70.722.11	70.725.11	70.727.11
70.720.12	70.722.12	70.725.12	70.727.12
70.720.14	70.722.14	70.725.14	70.727.14
70.720.15	70.722.15	70.725.15	70.727.15
70.720.16	70.722.16	70.725.16	70.727.16
70.720.19	70.722.19	70.725.19	70.727.19
70.720.20	70.722.20	70.725.20	70.727.20

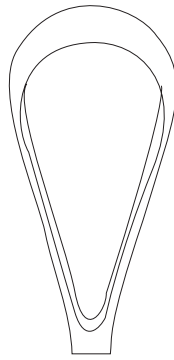


**BUMM**

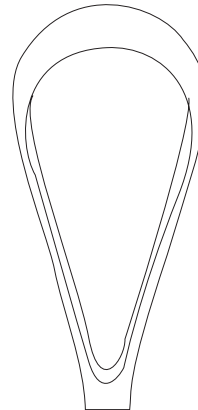
70.730.30 - 70.737.40  
28 cm



70.730.30 - 70.737.30  
30 mm



70.730.35 - 70.737.35  
35 mm



70.730.40 - 70.737.40  
40 mm

<i>rigid /sharp</i>	<i>rigid /blunt</i>	<i>malleable/sharp</i>	<i>malleable/blunt</i>
70.730.30	70.732.30	70.735.30	70.737.30
70.730.35	70.732.35	70.735.35	70.737.35
70.730.40	70.732.40	70.735.40	70.737.40



**THOMAS**

70.741.01 - 70.741.06  
malleable  
28 cm



70.741.01



70.741.02



70.741.03



70.741.04

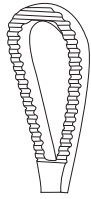


70.741.05

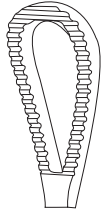


70.741.06

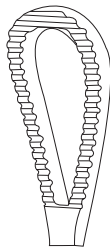




**70.743.10**  
10 mm



**70.743.12**  
12 mm



**70.743.14**  
14 mm

**GREENE**  
70.743.10 - 70.743.14  
malleable  
28 cm



**70.749.03**  
3.0 mm



**70.749.04**  
4.5 mm

**70.749.03 - 70.749.04**  
28 cm



**70.749.06**  
6.0 mm



**70.749.08**  
8.0 mm



**70.749.10**  
10 mm



**70.749.12**  
12 mm

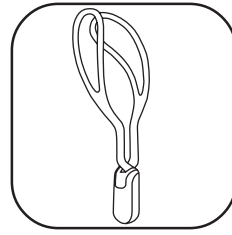


**70.749.14**  
14 mm

**70.749.06 - 70.749.14**  
28 cm

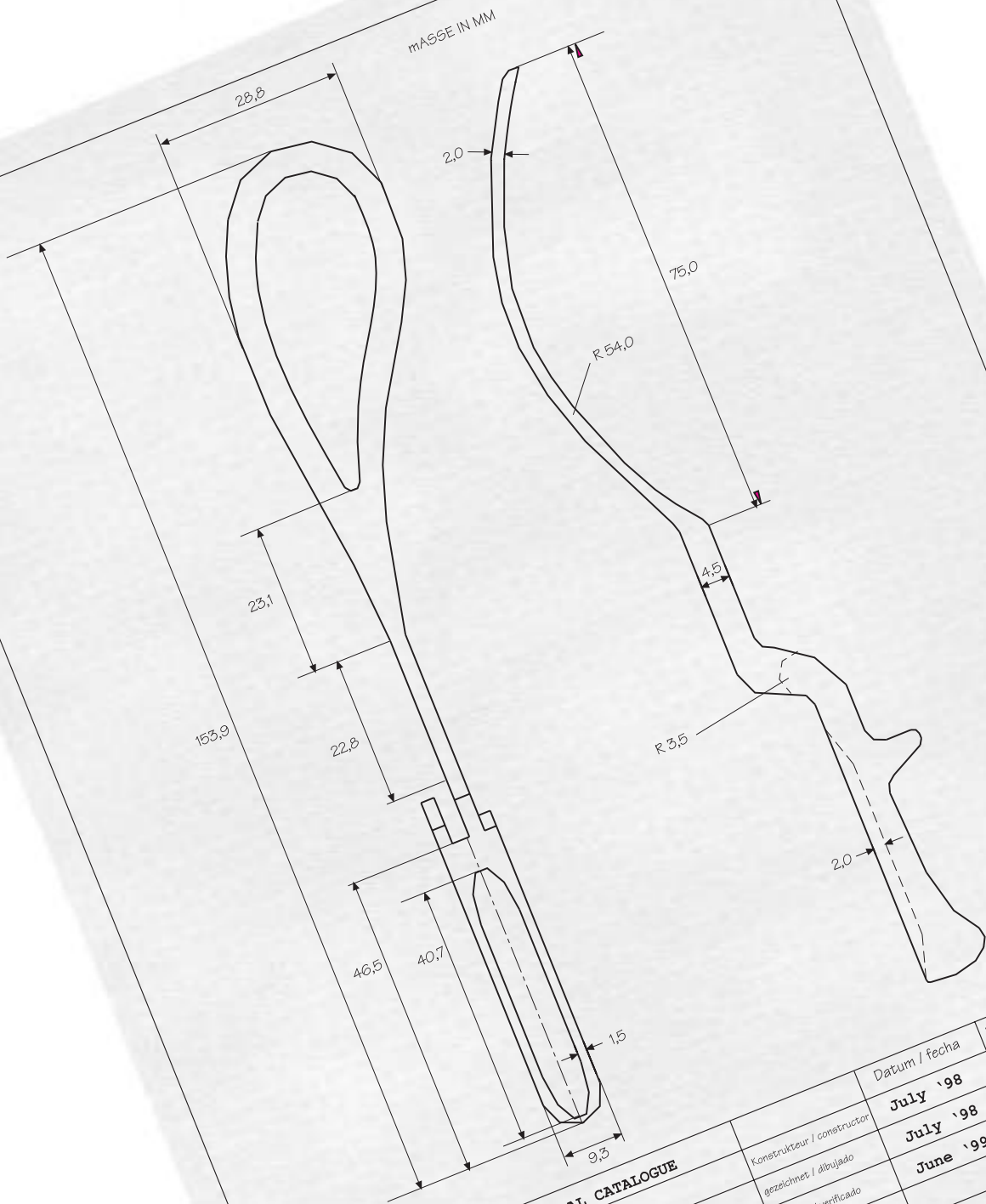


**70.749.50**  
hose connection inside  
ø 11 mm  
curved  
Stainless Steel



# 72

Obstetrics  
 Obstetricia  
 Geburtshilfe



GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
	gezeichnet / dibujado	July '98	cvd/jvd	1
	geprüft / verificado	July '98	cvd	1:1
	Toleranz / tolerancia	June '99	mj	mm
				Artikel / artículo
				Artikel-Nr. / No. de articulo





**WRIGLEY**  
72.101.23  
28 cm



cm	
30	72.102.30
23	72.103.23

**SIMPSON**  
72.102.30 - 72.103.23



cm	
33	72.105.33
36	72.105.36

**SIMPSON BRAUN**  
72.105.33 - 72.105.36



**LEE**  
72.107.30  
30 cm



cm	
36	72.108.36
39	72.108.39

**LEE**  
72.108.36 - 72.108.39



**KIELLAND**  
72.110.41  
41 cm



cm

32	72.115.32
38	72.115.38

**ELLIOT**  
 72.115.32 - 72.115.38



cm

36	72.119.36
40	72.119.40



**LUKART**  
 72.125.40  
 40 cm



**KIELLAND**  
 72.127.40  
 40 cm



**SIMPSON**  
 72.135.36  
 36 cm



**MCLEAN TUCKER LUKART**  
 72.139.40  
 40 cm





**Mc LEAN TUCKER**  
72.141.39  
39 cm



**Mc LEAN LUIKART**  
72.143.39  
39 cm



**Mc LEAN**  
72.145.36  
36 cm



**BARTON**  
72.147.36  
36 cm



**BOERMA**  
72.151.29  
29 cm



**PIPER**  
72.155.44  
44 cm



**PIPER**  
72.157.40  
40 cm



**BARTON**  
72.148.17  
17 cm



**DEWEY**  
 72.160.37  
 37 cm



**TARNIER**  
 72.162.40  
 40 cm



**BILL**  
 72.170.00



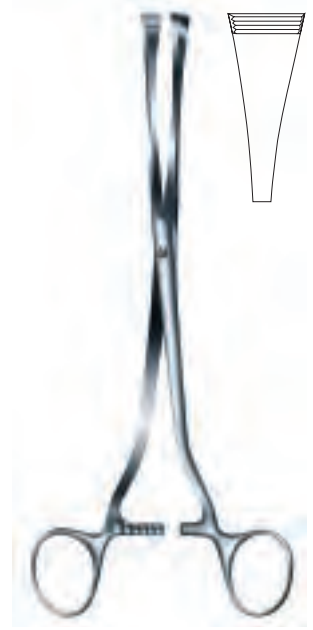
**LUIKART BILL**  
 72.171.21  
 21 cm



**SMELLIE**  
 72.181.33  
 33 cm



**GAUSS**  
 72.183.27  
 27 cm



**GREEN ARMYTAGE**  
 72.184.21  
 21 cm





**COLLIN**  
72.187.09  
9 cm



**KANE**  
72.189.09  
8.5 cm



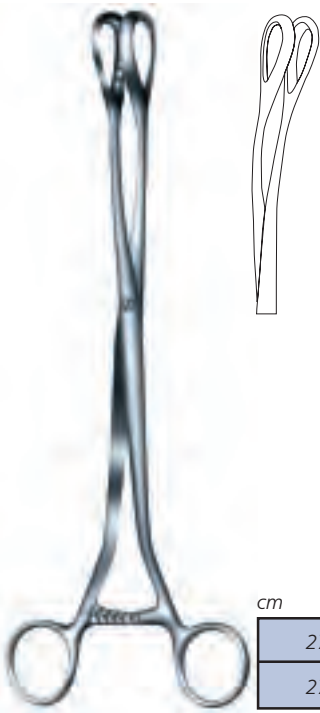
**MARTIN**  
72.191.34  
34 cm



**COLLYER**  
72.193.30  
30 cm



**COLLIN**  
72.195.35  
35 cm

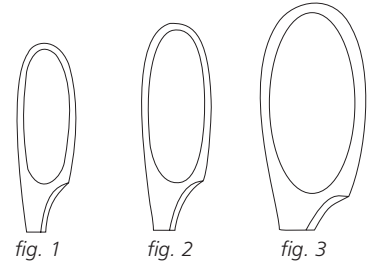


**SAENGER**  
72.242.27 - 72.243.27  
27 cm

cm	
27	72.242.27
27	72.243.27



**WINTER**  
72.244.01 - 72.245.03  
28 cm



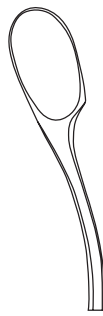
cm		
fig 1	72.244.01	72.245.01
fig 2	72.244.02	72.245.02
fig 3	72.244.03	72.245.03



**WINTER**  
 72.247.02 - 72.247.03  
 28 cm



72.247.02



72.247.03



**LEWKOWITZ**  
 72.248.24 - 72.249.24  
 24.5 cm



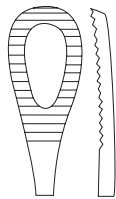
72.248.24



72.249.24



**PESTALOZZA**  
 72.252.30  
 30 cm



**CUZZI**  
 72.254.14 - 72.254.21  
 30 cm



72.254.14



72.254.18



72.254.21



**WALLICH**  
 72.256.42  
 42 cm



**SELLHEIM**  
72.259.28  
28 cm



**BRAUN**  
72.302.42  
42 cm



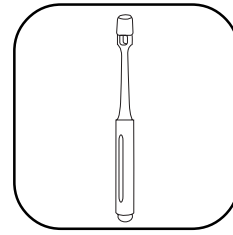
**TARNIER**  
72.304.46  
46 cm



**SMELLIE**  
72.306.25  
25 cm

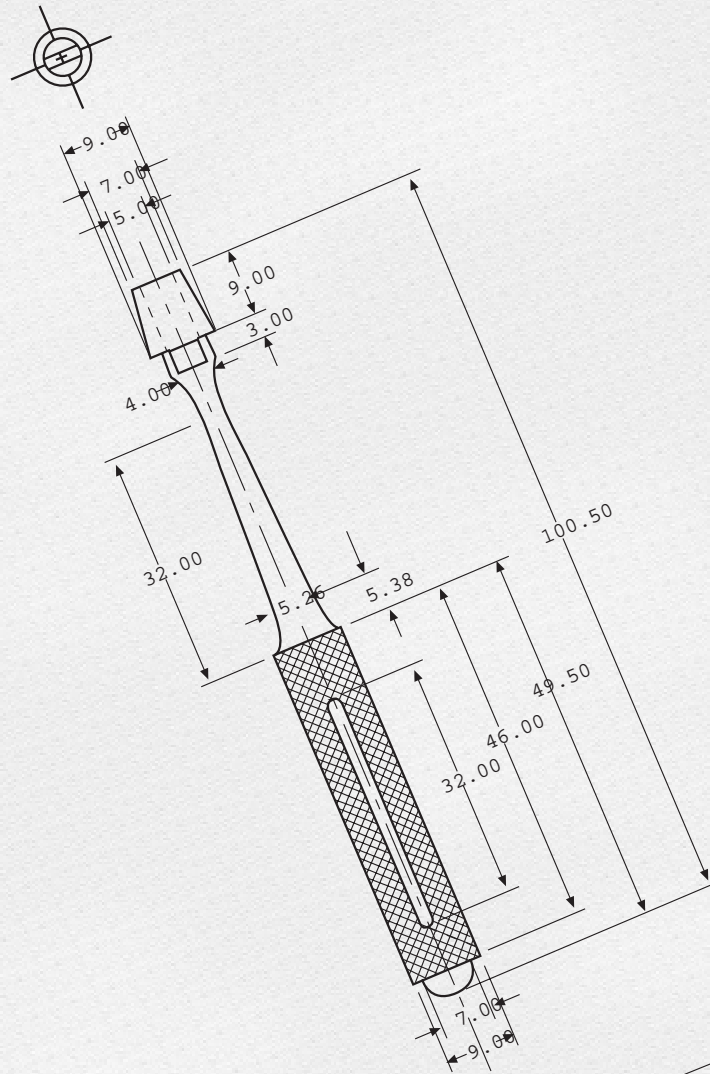


**BRAUN**  
72.309.30  
30 cm



# 74

Dermatology, Hygiene  
 Dermatología, Higiene  
 Dermatologie, Hygiene



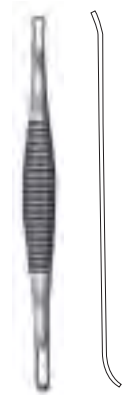
GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
	gezeichnet / dibujado	July '98	cvd/jvd	1
	geprüft / verificado	July '98	cvd	Maaßstab / escala 1:1
	Toleranz / tolerancia	June '99	mj	Abt. / acot. mm
				Artikel / artículo
				Artikel-Nr. / No. de artículo

Stainless Steel  
 acero inoxidable





**KILNER**  
74.103.15  
15 cm



**SCHAMBERG**  
74.111.10  
10 cm



**UNNA**  
74.113.14  
14 cm



**UNNA**  
74.115.14  
14 cm



**WALTON**  
74.118.14  
14 cm



**SAALFELD**  
74.121.10  
10 cm



**FOX**  
74.128.03 - 74.128.06  
14 cm



cm

0.3	74.128.03
0.4	74.128.04
0.5	74.128.05
0.6	74.128.06

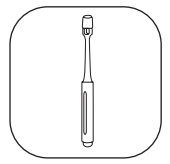


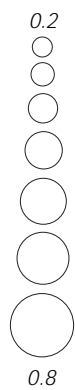
fig.

1	74.130.01
2	74.130.02
3	74.130.03

**PIFFARD**  
 74.130.01 - 74.130.03  
 14.5 cm



**KEYES**  
 74.138.00  
 complet



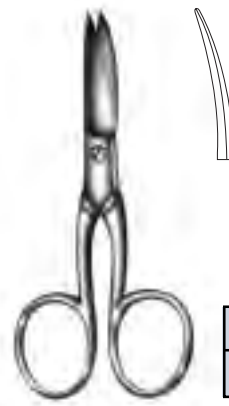
mm

0.2	74.140.02
0.3	74.140.03
0.4	74.140.04
0.5	74.140.05
0.6	74.140.06
0.7	74.140.07
0.8	74.140.08

**KEYES**  
 74.140.02 - 74.140.08  
 10 cm



74.301.10  
 10 cm



straight	74.304.10
curved	74.305.10

74.304.10 - 74.305.10  
 10 cm





74.331.14  
14 cm



74.336.14  
14 cm



**TURNBULL**  
74.341.11 - 74.341.13

cm

11.5	74.341.11
13.5	74.341.13



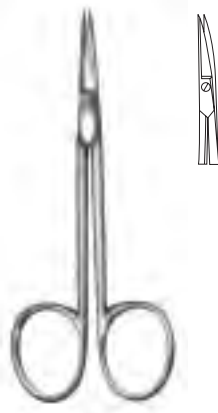
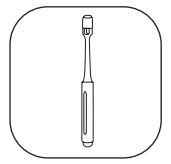
74.360.13  
13 cm



74.365.11  
11 cm



74.373.10  
10 cm



74.378.10 - 74.379.10  
10 cm

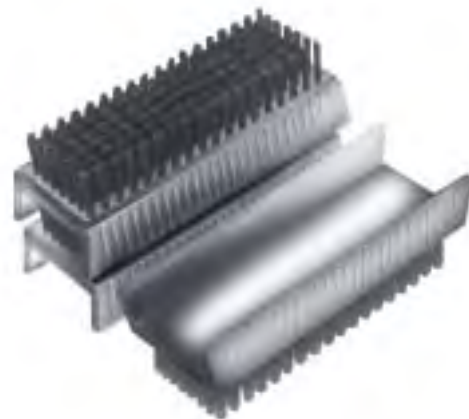


74.386.10 - 74.386.12

cm	
10	74.386.10
12	74.386.12



74.395.14  
14.5 cm



74.398.00  
1 piece





**Rembrandt van Rijn**  
1632

**The Anatomy Lesson of Dr. Nicolaes Tulp**

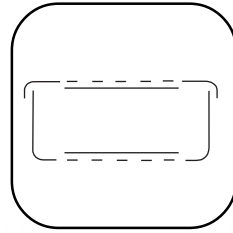
*Posed anatomy lessons were a popular genre among surgeons and physicians of the early 17th century.*

**La Lección de Anatomía del Dr. Nicolaes Tulp**

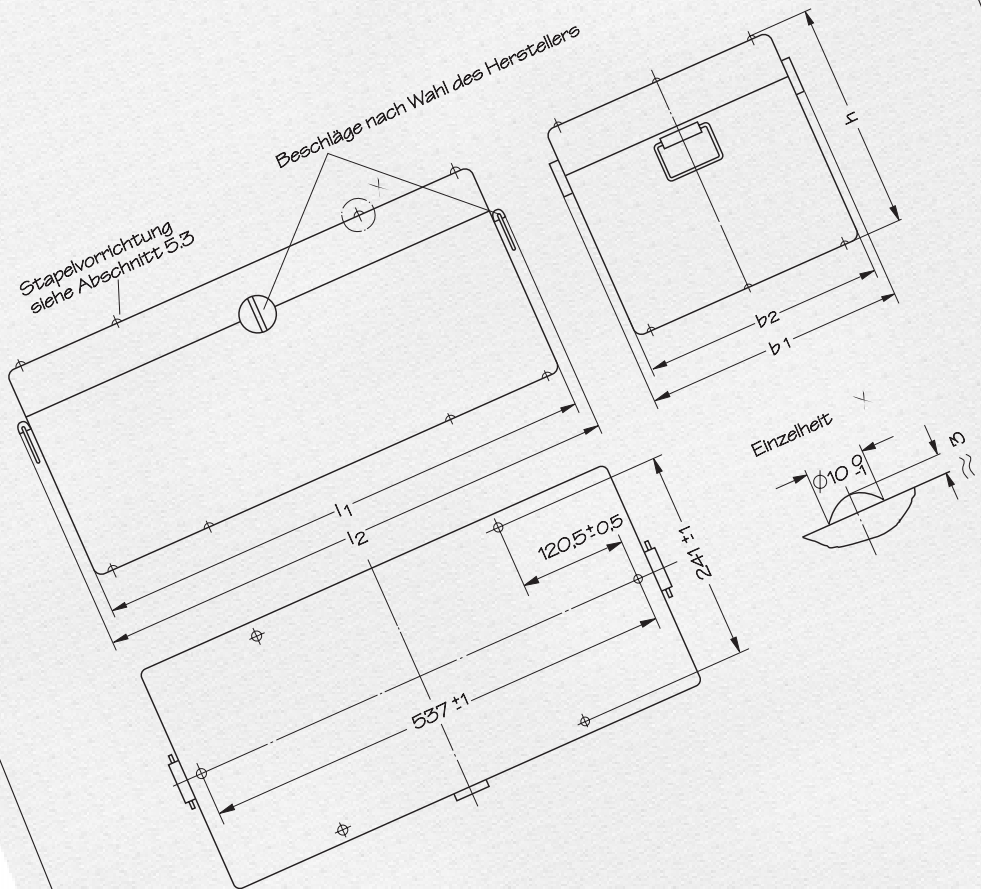
*Lecciones de anatomía posadas era un género muy común entre cirujanos y médicos a principios del siglo XVII.*

**Anatomielektion von Dr. Nicolaes Tulp**

*Im 17. Jahrhundert waren posierte Anatomielektionen sehr gängig.*



Instrument Boxes and Trays  
 Contenedores y bandejas  
 Behälter und Siebschalen



GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
Stainless Steel	gezeichnet / dibujado	July '98	cvd/jvd	Maastab / escala 1:1
inoxidable	geprüft / verificado	July '98	cvd	Abt. / acot. mm
	Toleranz / tolerancia	June '99	mj	Artikel / artículo
				Artikel-Nr. / No. de artículo





**SAUERBRUCH**

88.110.21  
210 x 125 x 17 mm



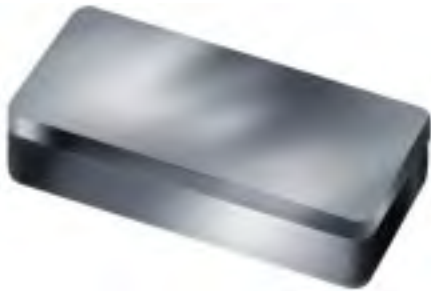
88.114.00  
150 x 95 x 13 mm



88.112.65  
65 x 15mm



88.113.65



88.120.18 - 88.120.50



88.124.14 - 88.124.30



88.125.10 - 88.125.20



88.130.04 - 88.130.15

mmxmmxmm

180x80x40	88.120.18
200x100x60	88.120.20
220x120x60	88.120.22
250x120x60	88.120.25
300x125x60	88.120.30
320x150x60	88.120.32
400x160x75	88.120.40
500x200x120	88.120.50

mmxmmxmm

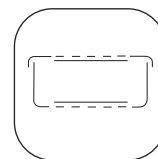
140x80x50	88.124.14
170x120x60	88.124.17
200x60x40	88.124.20
220x100x50	88.124.22
220x140x60	88.124.23
270x170x60	88.124.27
300x180x65	88.124.30

mmxmm

100x100	88.125.10
120x120	88.125.12
150x150	88.125.15
180x180	88.125.18
200x200	88.125.20

ø mm

40	88.130.04
60	88.130.06
80	88.130.08
100	88.130.10
120	88.130.12
150	88.130.15



88.133.16 - 88.138.41

mm	liters	
165 x 60	0.75	88.133.16
175 x 70	1.00	88.133.17
220 x 80	2.00	88.133.22
225 x 90	2.50	88.133.23
240 x 110	3.00	88.133.24
255 x 115	4.00	88.133.25
275 x 115	4.50	88.133.27
290 x 125	6.00	88.133.29
310 x 120	6.00	88.133.31
345 x 125	8.50	88.133.34
380 x 130	11.00	88.133.38
415 x 140	14.00	88.133.41



88.134.10 - 88.134.20

liters	
1.0	88.134.10
1.5	88.134.15
2.0	88.134.20



88.139.17 - 88.139.27

mm	
170 x 35	88.139.17
250 x 35	88.139.25
275 x 35	88.139.27



**PETRI**  
 88.141.10  
 100 x 20mm



88.140.02 - 88.140.20

liters	
0.25	88.140.02
0.5	88.140.05
1.0	88.140.10
1.5	88.140.15
2.0	88.140.20



88.142.01 - 88.142.09

mm	
30 x 90	88.142.01
50 x 100	88.142.02
50 x 130	88.142.03
50 x 175	88.142.04
75 x 100	88.142.05
75 x 130	88.142.06
75 x 175	88.142.07
100 x 175	88.142.08
100 x 200	88.142.09





88.143.25 - 88.143.39

cm

25	88.143.25
32	88.143.32
39	88.143.39



88.144.20 - 88.144.68

mm

200 x 150 x 25	88.144.20
260 x 160 x 30	88.144.26
300 x 220 x 30	88.144.30
350 x 220 x 40	88.144.35
540 x 360 x 25	88.144.54
680 x 450 x 25	88.144.68



88.146.22 - 88.146.42

mm

220 x 170 x 50	88.146.22
280 x 200 x 50	88.146.28
320 x 240 x 50	88.146.32
370 x 270 x 50	88.146.37
420 x 320 x 50	88.146.42



88.147.21 - 88.147.42

mm

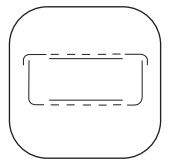
210 x 160 x 10	88.147.21
240 x 180 x 10	88.147.24
310 x 150 x 10	88.147.30
310 x 210 x 10	88.147.31
350 x 240 x 10	88.147.35
400 x 270 x 20	88.147.40
420 x 280 x 10	88.147.42



88.149.05 - 88.149.30

litres

0.5	88.149.05
1.0	88.149.10
2.0	88.149.20
3.0	88.149.30



**SCHIMMELBUSCH**  
 88.152.08 - 88.179.59



**KONRICH**  
 88.182.08 - 88.209.59

*mm*

88.152.08	125 x 80	88.182.08
88.152.10	125 x 100	88.182.10
88.158.12	125 x 125	88.188.12
88.155.08	150 x 80	88.185.08
88.155.10	150 x 100	88.185.10
88.155.13	150 x 130	88.185.13
88.155.15	150 x 150	88.185.15
88.155.19	150 x 190	88.185.19
88.159.14	190 x 145	88.189.14
88.159.16	190 x 165	88.189.16
88.159.19	190 x 190	88.189.19
88.159.24	190 x 240	88.189.24
88.164.14	240 x 145	88.194.14
88.164.16	240 x 165	88.194.16
88.164.19	240 x 190	88.194.19
88.164.24	240 x 240	88.194.24
88.164.29	240 x 290	88.194.29
88.164.34	240 x 340	88.194.34
88.164.39	240 x 390	88.194.39
88.169.14	290 x 145	88.199.14
88.169.16	290 x 165	88.199.16
88.169.19	290 x 190	88.199.19
88.169.24	290 x 240	88.199.24
88.169.29	290 x 290	88.199.29
88.169.34	290 x 340	88.199.34
88.169.39	290 x 390	88.199.39
88.174.14	340 x 145	88.204.14
88.174.16	340 x 165	88.204.16
88.174.19	340 x 190	88.204.19
88.174.24	340 x 240	88.204.24
88.174.29	340 x 290	88.204.29
88.174.34	340 x 340	88.204.34
88.174.39	340 x 390	88.204.39
88.179.14	390 x 145	88.209.14
88.179.16	390 x 165	88.209.16
88.179.19	390 x 190	88.209.19
88.179.24	390 x 240	88.209.24
88.179.29	390 x 290	88.209.29
88.179.34	390 x 340	88.209.34
88.179.39	390 x 390	88.209.39
88.179.49	390 x 490	88.209.49
88.179.59	390 x 590	88.209.59





Dewimed offers basically two types of containers:

## containers with lid perforated and bottom non perforated:

applicable for procedures with large sterilizers:  
(DIN 58946, part 6):

### fractionated flow method

steam evacuation with saturated steam inflow (> 1 bar), alternating with pressure drop.

### fractionated vacuum method

characteristical for:

1. repeated steam evacuation down to < 130 mbar alternating with steam inflow up to a pressure level below or above the atmospheric pressure.
2. steam inflow until the required sterilization pressure level is reached

### steam injection method

characteristical for:

1. only one evacuation down to < 70 mbar with simultaneous minor steam inflow.
2. steam inflow until reached the operation pressure.

## containers with lid and bottom perforated:

applicable for any other streilizing procedure:  
(DIN 58946, part 6):

### gravity method

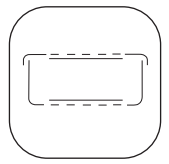
circulation method, in which saturayed steam makes air is to evacuate through saftey valve.

### prevacuum method

1. only one evacuation down to = 20 - 70 mbar
2. steam inflow until having reached required sterilization pressur.

description	symbol	system for sterilising DIN 58946 part 1				
		gravity method	pre-vacuum method	fraction-ated vacuum method	fraction-ated flow method	steam injections method
textiles in sterilising container with filter in cover and base, according DIN 58952 part 1		+	+	+	+	+
		o	o	+	+	+
textiles in sterilising container with filter in cover base non perforated, according DIN 58952 part 1		-	-	+	+	+
		-	-	+	+	o
textiles in sterilising container with filter in base cover non perforated, according DIN 58952 part 1		o	+	+	+	+
		-	o	+	+	+
textiles in sterilizing container with valve in cover and base according DIN 58952 part 1		-	o	+	+	o
		-	-	+	+	o
textiles in sterilizing container with valve in cover and base without valve DIN 58952 part 1		-	-	+	+	-
		-	-	+	+	+
instruments on sterilising trays in sterilising container with filter in cover and base, according DIN 58952 part 1		+ <sup>3)</sup>	+	+	+	+
instruments on sterilising trays in sterilising container with filter in cover: base non perforated, according DIN 58952 part 1		-	+ <sup>2)</sup>	+ <sup>2)</sup>	+ <sup>2)</sup>	+ <sup>2)</sup>
instruments on sterilising trays in sterilising container with filter in base, according DIN 58952 part 1		o	+	+	+	+

applicable + non applicable - conditionally applicable o



Dewimed ofrece básicamente dos tipos de contenedores:

### contenedores con tapa perforada y fondo no perforado:

éstos contenedores son indicados para el servicio de esterilizadores grandes (DIN 58946, parte 6):

#### esterilización por circulación fraccionada

consiste en expulsar el aire del contenedor a presión del esterilizador, mediante repetidos golpes con vapor saturado de < 1 bar, seguidos de descarga de presión.

#### método de vacío fraccionado

se caracteriza por las siguientes fases de operación:

1. evacuación reiterada hasta una presión de < 130 mbar alternanda con entrada de vapor a una presión superior o inferior a la presión atmosférica.
2. introducción de vapor saturado hasta alcanzar la presión necesaria de esterilización

#### esterilización por inyección de vapor

se caracteriza por:

1. una sola evacuación hasta una presión de < 70 m bar con entrada de poco vapor.
2. introducción de vapor hasta alcanzar la sobrepresión necesaria.

### contenedores con tapa perforada y fondo perforado:

éstos contenedores son indicados para demás servicios de esterilizadores (DIN 58946, parte 6):

#### esterilización por desplazamiento gravitacional

es un procedimiento de circulación, en el cual, por medio de vapor saturado, el aire es desplazado a través de una válvula de escape

#### esterilización por prevacío

1. una sola evacuación hasta =20 - 70 mbar
2. introducción de vapor hasta alcanzar la sobrepresión necesaria.

descripción	símbolo	sistema de esterilización a vapor según DIN 58946 parte 1				
		sistema de gravitación	sistema de prevacío	sistema de prevacío fraccionado	sistema de flujo fraccionado	sistema de inyección de vapor
contenedor con carga textil con filtro en la tapa y en el fondo, según DIN 58952 parte 1		+	+	+	+	+
		o	o	+	+	+
contenedor con carga textil con filtro en la tapa, fondo no perforado, según DIN 58952 parte 1		-	-	+	+	+
		-	-	+	+	o
contenedor con carga textil filtro en el fondo, tapa no perforada, según DIN 58952 parte 1		o	+	+	+	+
		-	o	+	+	+
contenedor con carga textil con válvula en tapa y en fondo, según DIN 58952 parte 1		-	o	+	+	o
		-	-	+	+	o
contenedor con carga textil con válvula en tapa y fondo sin válvula, según DIN 58952 parte 1		-	-	+	+	-
		-	-	+	+	+
instrumental en bandeja según DIN parte 3, en contenedor con filtro en la tapa y en el fondo según DIN 58952 parte 1		+ <sup>3)</sup>	+	+	+	+
instrumental en bandeja según DIN parte 3, en contenedor con filtro en la tapa, fondo no perforado según DIN 58952 parte 1		-	+ <sup>2)</sup>	+ <sup>2)</sup>	+ <sup>2)</sup>	+ <sup>2)</sup>
instrumental en bandeja según DIN parte 3, en contenedor con filtro en el fondo según DIN 58952 parte 1		o	+	+	+	+

aplicable +

no aplicable -

limitadamente aplicable o





Die Steril - Container, die Dewimed bietet, bestehen aus zwei Gruppen:

## Container mit gelochtem Deckel und nicht gelochtem Boden:

geeignet für das Verfahren bei Gross - Sterilisatoren (DIN 58946, Teil 6):

### Fraktioniertes Strömungsverfahren

besteht aus mehrfachen Stößen mit Satttdampf (> 1 bar), mit jeweils anschliessender Druckentlastungen, um die Luft aus dem Sterilisierdruckbehälter zu verdrängen.

### Fraktioniertes Vakuumverfahren

besondere Eigenschaften:

1. mehrfaches wiederholtes Evakuieren bis zu einem Druck < 130 mbar im Wechsel mit Dampfströmung auf einen Druck, der unter oder über dem Atmosphärendruck liegt
2. Dampfeinlassen bis zum Erreichen des notwendigen Sterilisierdrucks

### Dampfinjektionsverfahren

ist ein Vakuumverfahren, das durch folgende Phasen gekennzeichnet ist:

1. einmaliges Evakuieren bis zu einem Druck < 70 mbar bei gleichzeitigem Einstromengeringer Dampfmenge.
2. Dampfeinlassen bis zum Erreichen des Betriebsüberdrucks.

## Container mit gelochtem Deckel und gelochtem Boden:

beeignet für sonstige andere Sterilisatoren (DIN 58946):

### Gravitationsverfahren

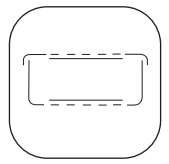
ist ein Strömungsverfahren, bei dem die Luft durch den Satttdampf nach unten über ein Strömungsventil aus dem Sterilisierdruckbehälter verdrängt wird.

### Vorvakuumverfahren

Vakuumverfahren, das durch folgende Phasen gekennzeichnet ist:

1. einmaliges Evakuieren bis zu einem Druck = 20 - 70 mbar
2. Dampfeinlassen bis zum Erreichen des notwendigen Sterilisierdrucks

beschreibung	symbolische	Dampf - sterilisationsverfahren nach DIN 58946 teil 1				
		gravitations- verfahren	vorvakuum- verfahren	fraktioniertes vakuum- verfahren	fraktioniertes strömungs- verfahren	dampf- injektions- verfahren
textilien in sterilisierbehälter mit filter im deckel und boden, nach DIN 58952 teil 1		+	+	+	+	+
		O	O	+	+	+
textilien in sterilisierbehälter, mit filter im deckel, boden nicht perforiert, nach DIN 58952 teil 1		-	-	+	+	+
		-	-	+	+	O
textilien in sterilisierbehälter mit filter im boden, deckel nicht perforiert, nach DIN 58952 teil 1		O	+	+	+	+
		-	O	+	+	+
textilien in sterilisierbehälter mit Ventil im Deckel Kein Ventil am Boden nach DIN 58952 teil 1		-	O	+	+	O
		-	-	+	+	O
textilien in sterilisierbehälter mit Ventilen an Deckel und Boden nach DIN 58952 teil 1		-	-	+	+	-
		-	-	+	+	+
instrumente auf sterilisierbechale nach, DIN 58952 teil 3 in sterilisier-behälter mit filter in deckel und boden nach DIN 58952 teil 1		+ <sup>3)</sup>	+	+	+	+
instrumente auf sterilisierbechale nach, DIN 58952 teil 3 in sterilisier-behälter mit filter in deckel, boden nach perforiert nach DIN 58952 teil 1		-	+ <sup>2)</sup>	+ <sup>2)</sup>	+ <sup>2)</sup>	+ <sup>2)</sup>
instrumente auf sterilisierbechale nach, DIN 58952 teil 3 in sterilisier-behälter mit filter in boden nach DIN 58952 teil 1		O	+	+	+	+



filters in lid and bottom  
 aluminum container lids.



88.303.10 - 88.303.26

cm x cm x cm

30 x 30 x 10	88.303.10
30 x 30 x 15	88.303.15
30 x 30 x 20	88.303.20
30 x 30 x 26	88.303.26

colors - lid

grey
yellow
red
blue
green



88.306.10 - 88.306.26

cm x cm x cm

60 x 30 x 10	88.306.10
60 x 30 x 15	88.306.15
60 x 30 x 20	88.306.20
60 x 30 x 26	88.306.26



88.329.30 - 88.330.30

filter cm

textile	30 x 30	88.329.30
paper	30 x 30	88.330.30



88.329.60 - 88.330.60

filter cm

textile	60 x 30	88.329.60
paper	60 x 30	88.330.60



88.319.00  
 seal for sterilization  
 containers  
 1000 pieces





stainless steel 18/10  
filters in lid and bottom



88.304.10 - 88.304.26

cm x cm x cm

30 x 30 x 10	88.304.10
30 x 30 x 15	88.304.15
30 x 30 x 20	88.304.20
30 x 30 x 26	88.304.26



88.307.10 - 88.307.26

cm x cm x cm

60 x 30 x 10	88.307.10
60 x 30 x 15	88.307.15
60 x 30 x 20	88.307.20
60 x 30 x 26	88.307.26



88.329.30 - 88.330.30

filter cm

textile	30 x 30	88.329.30
paper	30 x 30	88.330.30



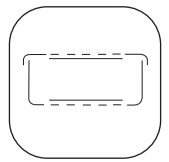
88.329.60 - 88.330.60

filter cm

textile	60 x 30	88.329.60
paper	60 x 30	88.330.60



88.319.00  
seal for sterilization  
containers  
1000 pieces



stainless steel filter protected  
 in the lid bottom  
 non-perforated



**88.305.10 - 88.305.26**

cm x cm x cm

30 x 30 x 10	88.305.10
30 x 30 x 15	88.305.15
30 x 30 x 20	88.305.20
30 x 30 x 26	88.305.26

**88.308.10 - 88.308.26**

cm x cm x cm

60 x 30 x 10	88.308.10
60 x 30 x 15	88.308.15
60 x 30 x 20	88.308.20
60 x 30 x 26	88.308.26



**88.329.30 - 88.330.30**

filter cm

textile	30 x 30	88.329.30
paper	30 x 30	88.330.30



**88.329.60 - 88.330.60**

filter cm

textile	60 x 30	88.329.60
paper	60 x 30	88.330.60



**88.319.00**  
 seal for sterilization  
 containers  
 1000 pieces





aluminum anodized  
valve(s) in the lid bottom  
non-perforated



**88.313.10 - 88.313.26**

cm x cm x cm

30 x 30 x 10	<b>88.313.10</b>
30 x 30 x 15	<b>88.313.15</b>
30 x 30 x 20	<b>88.313.20</b>
30 x 30 x 26	<b>88.313.26</b>

colors - valve

grey
yellow
red
blue
green



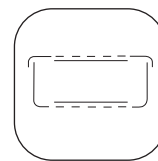
**88.316.10 - 88.316.26**

cm x cm x cm

60 x 30 x 10	<b>88.316.10</b>
60 x 30 x 15	<b>88.316.15</b>
60 x 30 x 20	<b>88.316.20</b>
60 x 30 x 26	<b>88.316.26</b>



**88.319.00**  
seal for sterilization  
containers  
1000 pieces



**88.321.01**  
*simple*  
**88.321.02**  
*double*



**88.329.30**  
 30 x 30 cm  
*textile filter lasting*



**88.329.60**  
 60 x 30 cm  
*textile filter lasting*



**88.322.01**  
*identification labels*  
 aluminium neutral  
**88.322.02**  
*identification labels*  
 aluminium engraved



**88.340.01 - 88.350.01**

cm

40.2 x 15.8 x 11.2	<b>88.340.01</b>
40.2 x 15.8 x 5.2	<b>88.340.02</b>
39.2 x 13.8 x 7.7	<b>88.342.01</b>
39.2 x 13.8 x 3.2	<b>88.342.02</b>
19.8 x 14.1 x 4.0	<b>88.344.01</b>
30.2 x 15.8 x 11.2	<b>88.346.01</b>
30.2 x 15.8 x 5.2	<b>88.346.02</b>
33.2 x 11.8 x 6.7	<b>88.348.01</b>
33.2 x 11.8 x 2.7	<b>88.348.02</b>
162 x 118 x 27	<b>88.350.01</b>



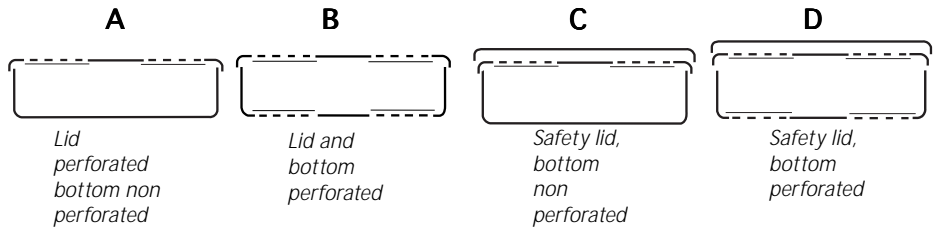
**88.322.99**  
*label indicator letter*





**88.510.10 - 88.553.26**  
 Dewimed  
 Container  
 System  
 Full size

**88.510.10 - 88.553.10**  
 58 x 28 x 10 cm



color lid	A	B	C	D
grey	88.510.10	88.511.10	88.512.10	88.513.10
yellow	88.520.10	88.521.10	88.522.10	88.523.10
red	88.530.10	88.531.10	88.532.10	88.533.10
blue	88.540.10	88.541.10	88.542.10	88.543.10
green	88.550.10	88.551.10	88.552.10	88.553.10

**88.510.13 - 88.553.13**  
 58 x 28 x 13.5 cm

grey	88.510.13	88.511.13	88.512.13	88.513.13
yellow	88.520.13	88.521.13	88.522.13	88.523.13
red	88.530.13	88.531.13	88.532.13	88.533.13
blue	88.540.13	88.541.13	88.542.13	88.543.13
green	88.550.13	88.551.13	88.552.13	88.553.13

**88.510.15 - 88.553.15**  
 58 x 28 x 15 cm

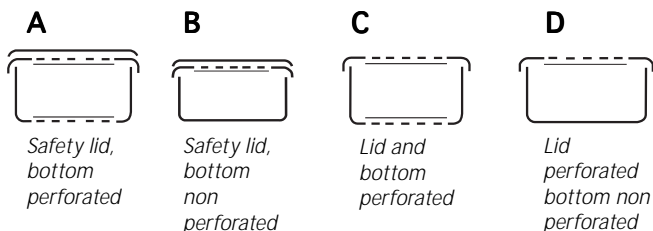
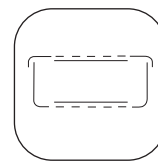
grey	88.510.15	88.511.15	88.512.15	88.513.15
yellow	88.520.15	88.521.15	88.522.15	88.523.15
red	88.530.15	88.531.15	88.532.15	88.533.15
blue	88.540.15	88.541.15	88.542.15	88.543.15
green	88.550.15	88.551.15	88.552.15	88.553.15

**88.510.20 - 88.553.20**  
 58 x 28 x 20 cm

grey	88.510.20	88.511.20	88.512.20	88.513.20
yellow	88.520.20	88.521.20	88.522.20	88.523.20
red	88.530.20	88.531.20	88.532.20	88.533.20
blue	88.540.20	88.541.20	88.542.20	88.543.20
green	88.550.20	88.551.20	88.552.20	88.553.20

**88.510.26 - 88.553.26**  
 58 x 28 x 25 cm

grey	88.510.26	88.511.26	88.512.26	88.513.26
yellow	88.520.26	88.521.26	88.522.26	88.523.26
red	88.530.26	88.531.26	88.532.26	88.533.26
blue	88.540.26	88.541.26	88.542.26	88.543.26
green	88.550.26	88.551.26	88.552.26	88.553.26



88.613.10 - 88.653.26

Dewimed  
Container  
System  
Half size

88.613.10 - 88.650.10  
 28.5 x 28 x 10 cm

color lid	A	B	C	D
grey	88.613.10	88.612.10	88.611.10	88.610.10
yellow	88.623.10	88.622.10	88.621.10	88.620.10
red	88.633.10	88.632.10	88.631.10	88.630.10
blue	88.643.10	88.642.10	88.641.10	88.640.10
green	88.653.10	88.652.10	88.651.10	88.650.10

88.613.13 - 88.650.13  
 28.5 x 28 x 13.5 cm

grey	88.613.13	88.612.13	88.611.13	88.610.13
yellow	88.623.13	88.622.13	88.621.13	88.620.13
red	88.633.13	88.632.13	88.631.13	88.630.13
blue	88.643.13	88.642.13	88.641.13	88.640.13
green	88.653.13	88.652.13	88.651.13	88.650.13

88.613.15 - 88.650.15  
 28.5 x 28 x 15 cm

grey	88.613.15	88.612.15	88.611.15	88.610.15
yellow	88.623.15	88.622.15	88.621.15	88.620.15
red	88.633.15	88.632.15	88.631.15	88.630.15
blue	88.643.15	88.642.15	88.641.15	88.640.15
green	88.653.15	88.652.15	88.651.15	88.650.15

88.613.20 - 88.650.20  
 28.5 x 28 x 20 cm

grey	88.613.20	88.612.20	88.611.20	88.610.20
yellow	88.623.20	88.622.20	88.621.20	88.620.20
red	88.633.20	88.632.20	88.631.20	88.630.20
blue	88.643.20	88.642.20	88.641.20	88.640.20
green	88.653.20	88.652.20	88.651.20	88.650.20

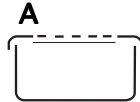
88.613.26 - 88.650.26  
 28.5 x 28 x 25 cm

grey	88.613.26	88.612.26	88.611.26	88.610.26
yellow	88.623.26	88.622.26	88.621.26	88.620.26
red	88.633.26	88.632.26	88.631.26	88.630.26
blue	88.643.26	88.642.26	88.641.26	88.640.26
green	88.653.26	88.652.26	88.651.26	88.650.26





**88.610.05 - 88.650.05**  
28.5 x 28 x 5.5 cm



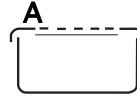
**A**  
Lid  
perforated  
bottom non  
perforated

color lid

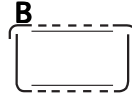
	<b>A</b>
grey	88.610.05
yellow	88.620.05
red	88.630.05
blue	88.640.05
green	88.650.05



**88.610.08 - 88.651.08**  
28.5 x 28 x 8.5 cm



**A**  
Lid  
perforated  
bottom non  
perforated



**B**  
Lid and  
bottom  
perforated

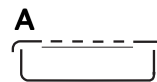
color lid

	<b>A</b>	<b>B</b>
grey	88.610.08	88.611.08
yellow	88.620.08	88.621.08
red	88.630.08	88.631.08
blue	88.640.08	88.641.08
green	88.650.08	88.651.08



**small containers**  
88.660.04 - 88.681.07

**88.660.04 - 88.680.04**  
30 x 14 x 4 cm



**A**  
Lid  
perforated  
bottom non  
perforated



**B**  
Lid and  
bottom  
perforated

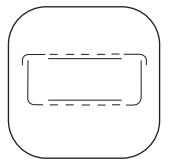
color lid

	<b>A</b>	<b>B</b>
grey	88.660.04	88.661.04
yellow	88.665.04	88.666.04
red	88.670.04	88.671.04
blue	88.675.04	88.676.04
green	88.680.04	88.681.04

**88.660.07 - 88.681.07**  
30 x 14 x 7 cm

color lid

	<b>A</b>	<b>B</b>
grey	88.660.07	88.661.07
yellow	88.665.07	88.666.07
red	88.670.07	88.671.07
blue	88.675.07	88.676.07
green	88.680.07	88.681.07



88.690.04 - 88.690.13



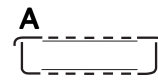
Lid and  
 bottom  
 perforated

cm	<b>A</b>
31 x 19 x 4.0	88.690.04
31 x 19 x 6.5	88.690.06
31 x 19 x 13.0	88.690.13



**small container**

88.690.65 - 88.694.65  
 30 x 13.8 x 6.5 cm



Lid and bottom  
 perforated, no filter

color	<b>A</b>
grey	88.690.65
yellow	88.691.65
red	88.692.65
blue	88.693.65
green	88.694.65



**small container**

88.690.70 - 88.694.70  
 50 x 15.5 x 7.5 cm



Lid and bottom  
 perforated, no filter

color	<b>A</b>
grey	88.690.70
yellow	88.691.70
red	88.692.70
blue	88.693.70
green	88.694.70





88.250.26 - 88.250.48

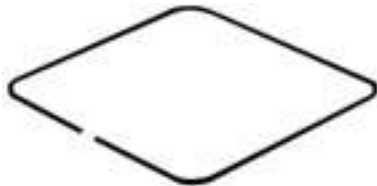
mm

260 x 260 x 50	88.250.26
480 x 260 x 50	88.250.48



88.250.53

505 x 305 x 40 mm



88.695.00

255 x 255mm

88.695.10

270 x 245mm



88.595.00

540 x 255 mm



88.590.03 - 88.591.10

mm

485 x 255 x 30	88.590.03
485 x 255 x 50	88.590.05
485 x 255 x 70	88.590.07
485 x 255 x 100	88.590.10

mm

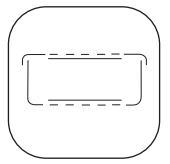
540 x 255 x 30	88.591.03
540 x 255 x 50	88.591.05
540 x 255 x 70	88.591.07
540 x 255 x 100	88.591.10



88.690.03 - 88.690.10

mm

255x245x30	88.690.03
255x245x50	88.690.05
255x245x70	88.690.07
255x245x100	88.690.10



88.597.13 - 88.597.23

cm

51 x 25 x 13	88.597.13
51 x 25 x 18	88.597.18
51 x 25 x 23	88.597.23



88.598.13 - 88.598.23

cm

51 x 25 x 13	88.598.13
51 x 25 x 18	88.598.18
51 x 25 x 23	88.598.23



88.699.13 - 88.699.23

cm

25.5 x 24.5 x 13	88.699.13
25.5 x 24.5 x 18	88.699.18
25.5 x 24.5 x 23	88.699.23





**88.700.00 - 88.700.01**

*filter*

<i>disposable paper</i>	<i>100 pieces</i>	<b>88.700.00</b>
<i>textile</i>	<i>single</i>	<b>88.700.01</b>



**88.700.02 - 88.700.03**  
*for small size containers*

*filter*

<i>disposable paper</i>	<i>100 pieces</i>	<b>88.700.02</b>
<i>textile</i>	<i>single</i>	<b>88.700.03</b>



**88.700.04 - 88.700.05**  
*for special set containers*

*filter*

<i>disposable paper</i>	<i>100 pieces</i>	<b>88.700.04</b>
<i>textile</i>	<i>single</i>	<b>88.700.05</b>



**88.710.02**  
*paper label with indicator, large*  
*100 pieces package*



**88.710.10**  
*seal for sterilization containers*  
*100 pieces package*



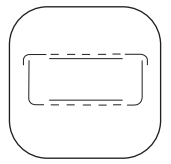
**88.710.20 - 88.710.28**  
*identification labels, max. 12 figures*

*color*

<i>grey</i>	<b>88.710.20</b>
<i>yellow</i>	<b>88.710.22</b>
<i>red</i>	<b>88.710.24</b>
<i>blue</i>	<b>88.710.26</b>
<i>green</i>	<b>88.710.28</b>



**88.710.04**  
*paper label with indicator, small*  
*100 pieces package*



**88.710.30**  
*dispenser for identification labels*



**88.321.01**  
*simple*  
**88.321.02**  
*double*



**88.720.00**  
*holding pin for instrument*



**88.720.01**  
*holding pin with is lot for partition sheets*



**88.720.05 - 88.720.46**  
*partition sheets*

*mm*

50 x 20	<b>88.720.05</b>
130 x 20	<b>88.720.13</b>
225 x 20	<b>88.720.22</b>
460 x 20	<b>88.720.46</b>



**88.260.04 - 88.260.16**  
*wrapping drapes*

*mm*

40 x 60	<b>88.260.04</b>
100 x 100	<b>88.260.10</b>
100 x 130	<b>88.260.13</b>
100 x 160	<b>88.260.16</b>





**88.591.30**  
Vasectomy set sterilizer tray



**88.267.00 - 88.267.08**  
6.5 mm x 7.6 m

colors

white	88.267.00
blue	88.267.01
green	88.267.02
red	88.267.03
yellow	88.267.04
violet	88.267.05
orange	88.267.06
brown	88.267.07
black	88.267.08



**88.268.40**  
400ml



**88.402.08 - 88.402.25**  
16 cm

ø mm

0.8	88.402.08
1.0	88.402.10
1.2	88.402.12
1.4	88.402.14
1.5	88.402.15
1.6	88.402.16
2.0	88.402.20
2.2	88.402.22
2.5	88.402.25

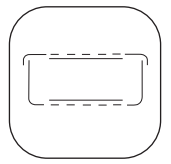


**88.404.08 - 88.404.25**  
31 cm

ø mm

0.8	88.404.08
1.0	88.404.10
1.2	88.404.12
1.4	88.404.14
1.5	88.404.15
1.6	88.404.16
2.0	88.404.20
2.2	88.404.22
2.5	88.404.25

**88.269.05**  
PREP LUBE  
instrumental milk 5 l.



### **MICROSTERIL**

**88.900.10 - 88.900.22**

*outer construction made of painted steel.*

*inner construction made of stainless steel.*

*heat insulated with fiberglass.*

*thermoregulator at 240° C.*

*timer 0" + 30" sec. (art. 88.900.12 - 88.900.22).*

*220V. - 50 Hz.*

size

<i>small</i>	<i>with clock</i>	<b>88.900.10</b>
<i>small</i>	<i>with out clock</i>	<b>88.900.12</b>
<i>large</i>	<i>with clock</i>	<b>88.900.20</b>
<i>large</i>	<i>with out clock</i>	<b>88.900.22</b>

### **MICROSTERIL**

**88.900.15**

*beads for sterilization*

*(pack)*





## RUDOLF LUDWIG VIRCHOW

1821-1902

Nacido el 13 de Octubre de 1821 en Schivelbein, Pomeriana y muerto el 5 de Septiembre de 1902 en Berlín, Virchow es reconocido como uno de los “Padres de la Medicina” y fundador de la patología celular. Con su frase “omnis cellula e cellula” (toda célula únicamente puede surgir a través de otra célula), estableció principios en la medicina. Según sus principios no puede enfermarse todo el cuerpo, sino únicamente un grupo de células. De esta manera objetivizó el concepto enfermedad. Para comprobar lo arriba mencionado tuvo que hacer trabajos científicos muy laboriosos.



Born on the 13<sup>th</sup> of October 1821 in Schivelbein, Pomeriana and died on the 5<sup>th</sup> of September 1902 in Berlin, Virchow is considered as one of the “Fathers of Medicine” and founder of the cellular pathology.

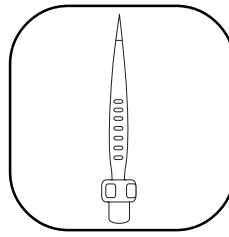
With his phrase “omnis cellula e cellula” (a cell can only arise through another cell), he established principles of medicine. He assured that it is not the whole body that falls ill, but a group of cells. This way he objectified the concept of illness. In order to prove the above mentioned, he had to do laborious scientific work.

Geboren am 13. Oktober 1821 in Schivelbein, Pommern, und gestorben am 5. September 1902 in Berlin gilt Virchow als “Papst der Medizin” und Begründer der Zellpathologie. Mit dem Satz “omnis cellula e cellula

(jede Zede kann nur aus einer anderen Zelle entstehen) setzte er einen Grundstein in der Medizin.

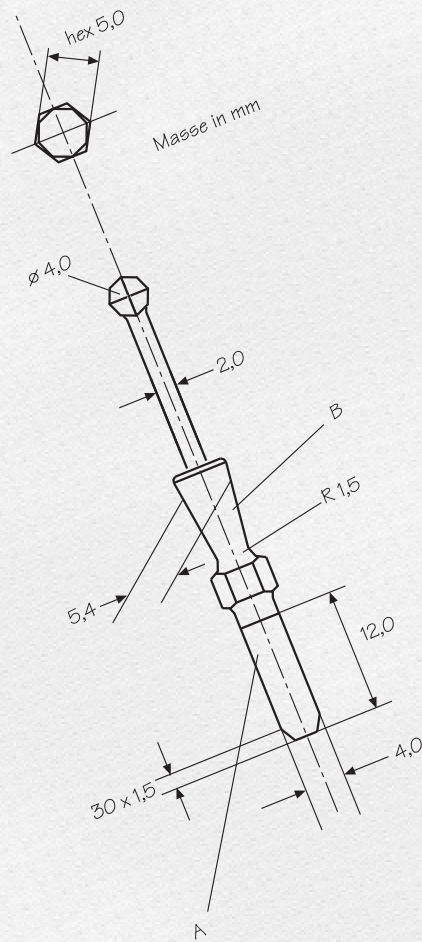
Nach seiner Aussage kann nicht der ganze Körper erkranken, sondern nur einzelne Zellen oder Zellgruppen. Somit objektivierte er den Begriff Krankheit.

Um dieses zu beweisen, mußte er mühsame systematische Forschungsarbeit leisten.



# 90

HF Surgery (Diathermy)  
 Cirugía de Alta Frecuencia  
 Hochfrequenzchirurgie



GENERAL CATALOGUE	Konstrukteur / constructor	Datum / fecha	Name / nombre	Plan / plano
	gezeichnet / dibujado	July '98	cvd/jvd	1
	geprüft / verificado	July '98	cvd	Maaetab / escala 1:1
	Toleranz / tolerancia	June '99	m'j	Abt. / acot. mm
				Artikel / articulo
				Artikel-Nr. / No. de articulo

Stainless Steel  
 acero inoxidable





90.010.01



90.010.02  
45°



90.010.03  
120°



90.010.11  
ø 3 mm



90.010.12  
ø 5 mm



90.010.13  
ø 8 mm



90.010.14



90.010.15  
7.0 x 1.5 mm  
45°



90.010.16  
7 mm  
45°



90.010.17  
6.0 x 1.3 mm



90.010.18  
7.0 x 7.1 mm  
30°



90.010.21  
7.0 x 1.7 mm



90.010.31



90.010.33  
ø 0.6 mm  
45°



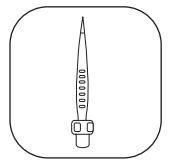
90.010.34  
ø 1.7 mm  
45°



90.010.35  
ø 3.0 mm  
45°



90.010.36  
92°



90.011.51  
 ø 03 mm  
 45°



90.011.52  
 7.0 x 1.7 mm  
 45°



90.011.53  
 45°



90.011.54



90.011.55



90.011.56  
 ø 5 mm  
 45°



90.011.61  
 45°



90.011.62  
 90° shaft  
 ø 4 mm



90.020.01  
 shaft  
 ø 4 mm  
 25 mm



90.020.02  
 shaft  
 ø 4 mm  
 20 mm



90.020.03 - 90.020.07  
 20 mm

ø mm

3.4 x 24	straight	90.020.03
1.5 x 17	straight	90.020.06
1.5 x 17	curved	90.020.07



90.020.04 - 90.020.12  
 25 mm

ø mm

0.8 x 22	straight	90.020.04
0.8 x 20	curved	90.020.05
1 x 29	straight	90.020.12





ø mm

5	90.022.05
6	90.022.06
10	90.022.10
12	90.022.12
16	90.022.16
20	90.022.20

90.022.05 - 90.022.20



ø mm

10	90.024.10
12	90.024.12
15	90.024.15
16	90.024.16
20	90.024.20

90.024.10 - 90.024.20



ø mm

2	90.030.02
4	90.030.04
6	90.030.06

90.030.02 - 90.030.06



ø mm

2	straight	90.030.12
2	curved	90.030.13
4	straight	90.030.14
4	curved	90.030.15
6	straight	90.030.16

90.030.12 - 90.030.16

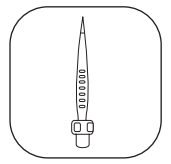
**90.031.01**  
electrode set large  
**90.031.02**  
electrode set small

**90.905.09**  
instrument set for general surgery  
consist 8 electrodes, electrode support  
**90.905.10**  
instrument set for veterinary surgery  
consist 8 electrodes, electrode support



90.905.08      **90.905.12 - 90.905.14**  
shaft ø 4 mm

For 8 electrodes with shaft of ø 4 mm	<b>90.905.12</b>
For 16 electrodes with shaft of ø 4 mm	<b>90.905.14</b>



90.102.11  
11 cm



90.104.11  
11 cm



90.105.11  
11 cm



90.109.11  
11 cm  
45°



90.113.11  
11 cm  
45°



90.115.11  
11 cm  
45°



90.122.16  
16.5 cm



90.123.16  
16.5 cm



90.124.16  
16.5 cm  
tip 1 mm



90.125.16  
16.5 cm



90.127.16  
16.5 cm  
tip 1 mm





90.135.16  
16.5 cm



90.139.16  
16.5 cm



90.142.16  
16.5 cm



90.144.16  
16.5 cm



90.146.16  
16.5 cm  
tip 1 mm



90.152.19  
19.5 cm



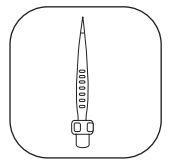
90.154.19  
19.5 cm  
1 mm



90.157.19 - 90.159.19  
19.5 cm

tip mm

1	90.157.19
2	90.159.19



**90.162.19**  
 19.5 cm



**90.164.19**  
 19.5 cm

tip mm	
1	90.164.19
2	90.166.19



**90.167.19**  
 19.5 cm  
 tip 1 mm



**90.169.19**  
 19.5 cm  
 tip 1 mm



**90.172.03 - 90.172.12**  
 22.5 cm

tip mm	
0.3	90.172.03
0.7	90.172.07
1.2	90.172.12





*m*

3	90.190.30
5	90.190.50

90.190.30 - 90.190.50



90.191.30  
3 m



*m*

3	90.192.30
5	90.192.50

90.192.30 - 90.192.50



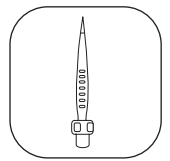
*m*

3	90.193.30
5	90.193.50

90.193.30 - 90.193.50



90.194.32  
adapter



**McPHERSON**  
 90.300.07 - 90.313.07  
 7 cm

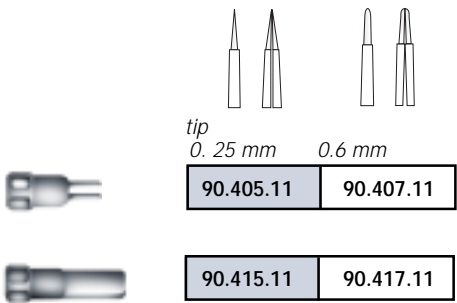
<i>tip</i>	0.25 mm	0.45 mm	0.25 mm	0.45 mm
	90.300.07	90.302.07	90.301.07	90.303.07
	90.310.07	90.312.07	90.311.07	90.313.07



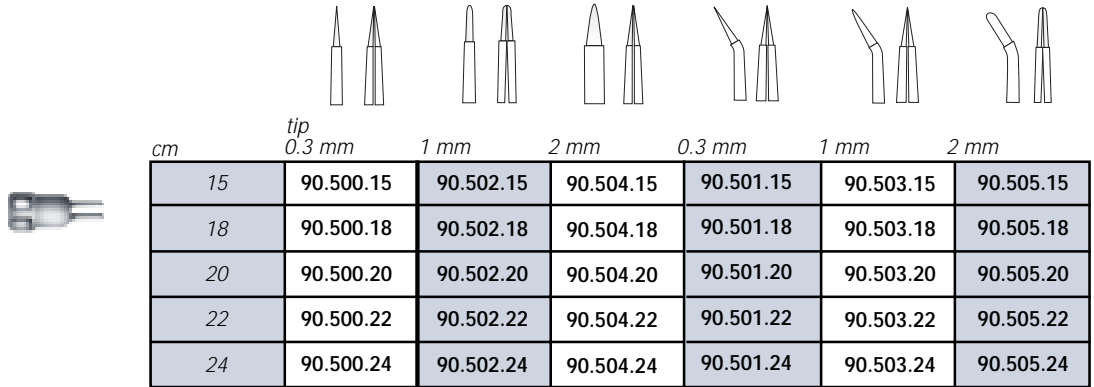
90.400.11 - 90.413.11  
 11 cm

<i>tip</i>	0.25 mm	0.6 mm	0.25 mm	0.6 mm
	90.400.11	90.402.11	90.401.11	90.403.11
	90.410.11	90.412.11	90.411.11	90.413.11





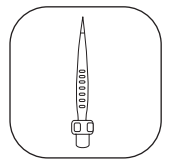
90.405.11 - 90.413.11  
11 cm



cm	tip 0.3 mm	1 mm	2 mm	0.3 mm	1 mm	2 mm
15	90.500.15	90.502.15	90.504.15	90.501.15	90.503.15	90.505.15
18	90.500.18	90.502.18	90.504.18	90.501.18	90.503.18	90.505.18
20	90.500.20	90.502.20	90.504.20	90.501.20	90.503.20	90.505.20
22	90.500.22	90.502.22	90.504.22	90.501.22	90.503.22	90.505.22
24	90.500.24	90.502.24	90.504.24	90.501.24	90.503.24	90.505.24

15	90.510.15	90.512.15	90.514.15	90.511.15	90.513.15	90.515.15
18	90.510.18	90.512.18	90.514.18	90.511.18	90.513.18	90.515.18
20	90.510.20	90.512.20	90.514.20	90.511.20	90.513.20	90.515.20
22	90.510.22	90.512.22	90.514.22	90.511.22	90.513.22	90.515.22
24	90.510.24	90.512.24	90.514.24	90.511.24	90.513.24	90.515.24

90.500.15 - 90.515.24



cm	tip		
	0.3 mm	1 mm	2 mm
18	90.600.18	90.602.18	90.604.18
20	90.600.20	90.602.20	90.604.20
22	90.600.22	90.602.22	90.604.22
24	90.600.24	90.602.24	90.604.24

18	90.610.18	90.612.18	90.614.18
20	90.610.20	90.612.20	90.614.20
22	90.610.22	90.612.22	90.614.22
24	90.610.24	90.612.24	90.614.24



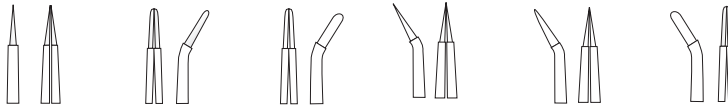
90.600.18 - 90.614.20



90.601.18 - 90.615.20



90.701.18 - 90.715.20



cm	tip					
	0.3 mm	1 mm	2 mm	0.3 mm	1 mm	2 mm
18	90.601.18	90.603.18	90.605.18	90.701.18	90.703.18	90.705.18
20	90.601.20	90.603.20	90.605.20	90.701.20	90.703.20	90.705.20
22	90.601.22	90.603.22	90.605.22	90.701.22	90.703.22	90.705.22
24	90.601.24	90.603.24	90.605.24	90.701.24	90.703.24	90.705.24

18	90.611.18	90.613.18	90.615.18	90.711.18	90.713.18	90.715.18
20	90.611.20	90.613.20	90.615.20	90.711.20	90.713.20	90.715.20
22	90.611.22	90.613.22	90.615.22	90.711.22	90.713.22	90.715.22
24	90.611.24	90.613.24	90.615.24	90.711.24	90.713.24	90.715.24



90.601.18 - 90.715.24





**90.904.01**  
dust cover for minicutters

90.900.00 - 90.901.00

90.900.00	70 W monopolar	60 W bipolar	115 / 230 V - 50/60 Hz
90.901.00	70 W monopolar	60 W bipolar	127 V - 60 Hz



**90.905.03**  
rubber neutral electrode



90.905.04 - 90.905.06

<i>m</i>	
0.5	90.905.04
1.0	90.905.05
bottom	90.905.06



**90.601.01**  
bipolar foot switch

**90.905.01**  
eletrode handle with a finger switch  
and connection cable of 4 m.

**90.905.02**  
electrode handle without switch with  
connection cable of 4 m.



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