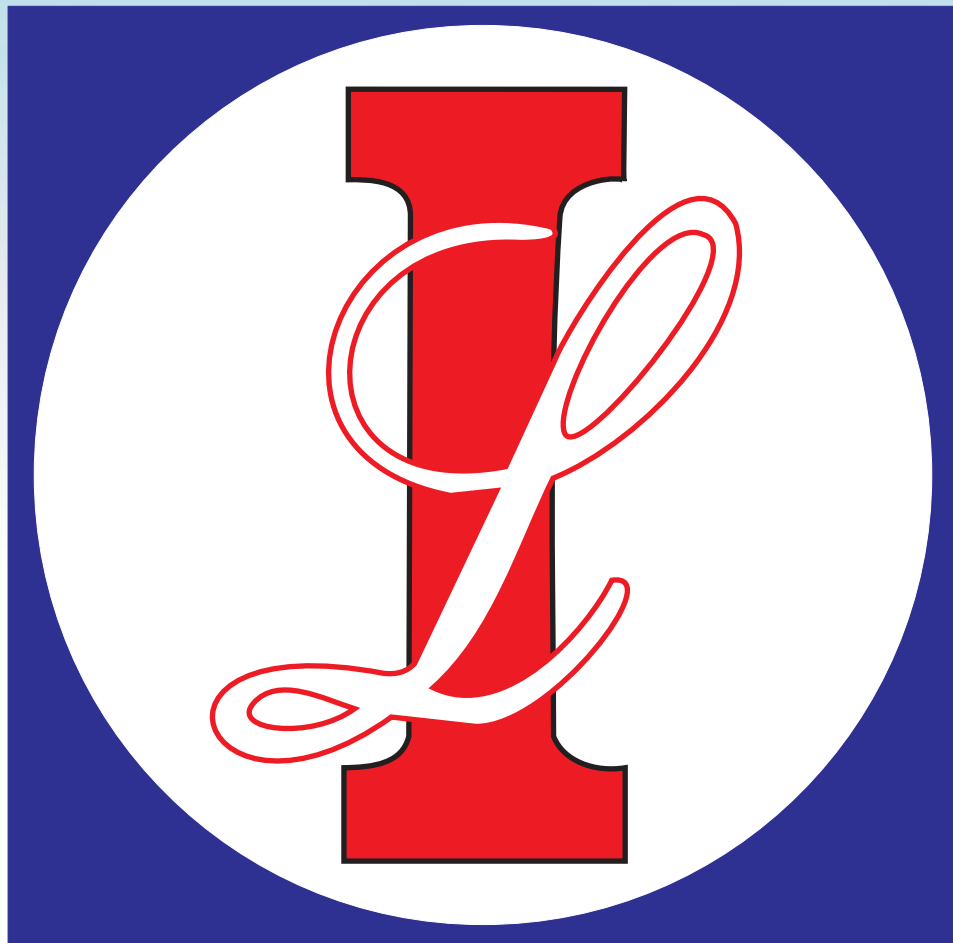


# Instrumed (Pvt) Ltd.

## CATALOGUE



**SURGICAL  
INSTRUMENTS**





**Instrumed**

Fine Surgical Instruments

## COMPANY PROFILE

**Instrumed (Pvt) Ltd.**, was established in 1974. The founder of the company Mr. Ejaz Ahmed Chatha (Late) started his career in the family business with his brothers in 1960. This family business was established in 1908.

**Instrumed (Pvt) Ltd.**, produces a vast range of Surgical, Dental & Veterinary Instruments and Scissors. Such as: Diagnostic, Puncture, Anesthesia, General Suture, Bone, Tracheotomy, Goiter, Stomach, Intestine, Rectum, Kidney, Liver, Gall Stone, Gynecology, Obstetrics, Ophthalmic, E.N.T and Micro Surgery Instruments.

**Instrumed (Pvt) Ltd.**, Is introducing new line of instruments such as cardiovascular, Electro-Medical and gynecology laser instruments. We are always trying to improve the quality and reliability of our products.

**Instrumed (Pvt) Ltd.**, Exports their instruments to 30 countries of the world. Our instruments satisfy our clients entirely. Instrumed (Pvt.) Ltd. Is certified under ISO-9002, ISO 13485 and EN-46002 is also approved under GMP regulation and is authorized to mark "CE" on our instruments.

# Certificate of Registration



The Governing Board of  
Q.A. International Certification Limited  
hereby grants to:

## INSTRUMED (PVT) LTD

Registration No. : QAIC / PK / 1052 - A

*(hereinafter called the Registered Company) the right to be listed in the Directory of Registered Companies in respect of the services listed below. These services shall be offered by the Registered Company at or from only the address given below in accordance with the quality management system in compliance with ISO 9001:2008.*

Address to which this Certificate refers :

**65-B, Small Industrial Estate, Liaquat Ali Road, Sialkot 51310 - Pakistan**

Approved Scope to which this Certificate refers.

### **Manufacture and Export of Inert Surgical and Dental Instruments**

(Further clarification regarding the Scope of this Certificate and the applicability of ISO 9001:2008 requirements may be obtained by consulting the organisation)

Signed for and on behalf of the Board

CHAIRMAN

SCHEME MANAGER

  
A. J. Duffield

  
A. Carter

**Certificate Issue Date : 27th May 2010 - Certificate Expiry Date : 24th April 2011**  
**Date of Initial Registration : 25th April 2007 - Re-assessment Date : 24th April 2011**

This Certificate of Registration is granted subject to the Regulations approved by the Board.

## QA INTERNATIONAL

Q.A. International Certification Ltd.  
Cleveland Hall  
Cleveland Street  
Darlington  
Co, Durham  
DL1 2PE



# Certificate of Registration



The Governing Board of  
Q.A. International Certification Limited  
hereby grants to:

## INSTRUMED (PVT) LTD

Registration No. : QAIC / PK / 1052 - B

*(hereinafter called the Registered Company) the right to be listed in the Directory of Registered Companies in respect of the services listed below. These services shall be offered by the Registered Company at or from only the address given below in accordance with the quality management system in Compliance with the Requirements of*  
**ISO:13485:2003.**

Address to which this Certificate refers :

**65-B, Small Industrial Estate, Liaquat Ali Road, Sialkot 51310 - Pakistan**

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Signed for and on behalf of the Board

CHAIRMAN

SCHEME MANAGER

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Q.A. International Certification Ltd.  
Cleveland Hall  
Cleveland Street  
Darlington  
Co. Durham  
DL1 2PE

Tel: +44 (0)1325 384272  
Fax: +44(0)1325 480980



The use of the Accreditation Mark indicates  
conformance to one of these standards





**CERTIFICATE**

**No. 1099/39/2009/CE**

We hereby declare that the requirements of the national legislation to which the undersigned is subjected, transposing of the **Directive 93/42/EEC** on medical devices are fulfilled & company has appointed EU representative and registered with Medicine and Healthcare Products Regulatory Agency (MHRA) UK.

**Manufacturer:**                      **Instrumed Pvt Ltd.**  
**Sialkot – Pakistan**

**EU Representative:**            **Mr. Abdul Razzaq**  
**Managing Partner**  
**Black Smith Ltd., 13 Church Field Avenues,**  
**Han worth, Middx, TW 13, 5PB, London, UK**

**Products:**

**B3-** Dental Instruments (Re-Usable & Non-Powered)  
**H5-** Surgical Instruments (Re-Usable & Non-Powered)  
**H9-** Surgical Instruments Accessories

**Classification:** Medical Devices, Class-I

**Date of Issue:** July 1, 2010

**Date of Expiry:** June 31, 2011

**Signature**

**Moazma**  
**Co-ordinator**



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| <b>11</b> Puncture Instruments    | <b>26</b> Bladder and Urology Instruments           |
| <b>12</b> Anaesthesia Instruments | <b>27</b> Gynecology Instruments                    |
| <b>13</b> General Instruments     | <b>28</b> Obstetrics Instruments                    |
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| <b>16</b> General Instruments     | <b>31</b> Neuro and Laminectomy Instruments         |
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| <b>21</b> Bone Instruments        | <b>36</b> Tonsil Instruments                        |
| <b>22</b> Tracheotomy Instruments | <b>37</b> Broncho-Esophagoscopy Instruments         |
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| <b>24</b> Dermatology Instruments | <b>39</b> Asepsis                                   |



**Aly**  
10-01000-17  
17cm/6¾"



**Wartenberg**  
10-01004-19  
19cm/7½"



**Weber**  
10-01008-09  
9cm/3½"



wood

**Pinard**  
10-01012-18  
18cm/7"



aluminium

**Pinard**  
10-01016-15  
15cm/6"



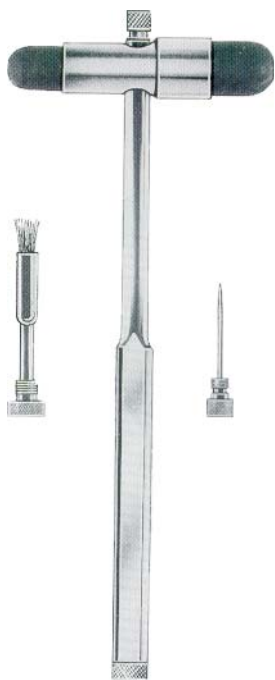
**Chest piece only**  
10-01020-01

**Ford**  
10-01020-00



**Chest piece only**  
10-01024-01

**Dual**  
10-01024-00



**Buck**  
10-01028-18  
18cm/7"



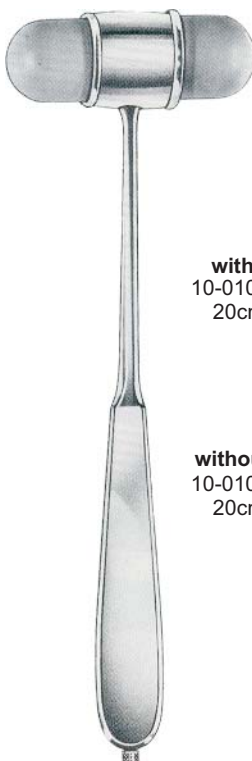
**Buck**  
10-01032-18  
18cm/7"



**Troemner**  
10-01036-24  
24cm/9½"



**Taylor**  
10-01040-16 16cm/6 ½"  
10-01040-18 18cm/7"  
10-01040-20 20cm/8"



**Dejerine**  
20cm/8"

**with pin**  
10-01044-20  
20cm/8"

**without pin**  
10-01046-20  
20cm/8"



**Berliner**  
10-01050-20  
20cm/8"





**Traube**  
10-01054-16  
16 cm/6¼"



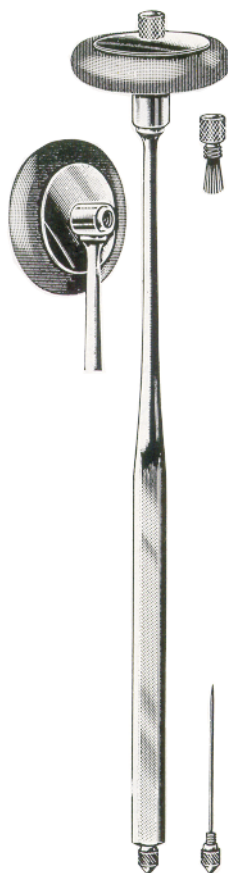
**Troemner**  
10-01058-21  
21cm/8¼"



**Divers-Duoflex**  
10-01062-22  
22 cm/8¾"



**Babinsky**  
10-01066-22 22 cm/8¾"  
10-01066-25 25 cm/10"



**Rabiner**  
10-01068-23  
23 cm/9¼"



**National Hospital**  
10-01070-33  
33 cm/13"



**Queen Sqaure**  
10-01074-26  
26 cm/10¼"



10-01078-00



10-01082-00



10-01086-00

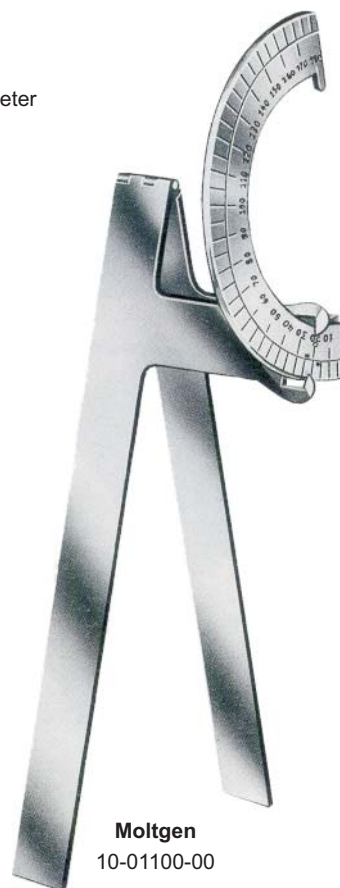


**Jansen**  
10-01092-00

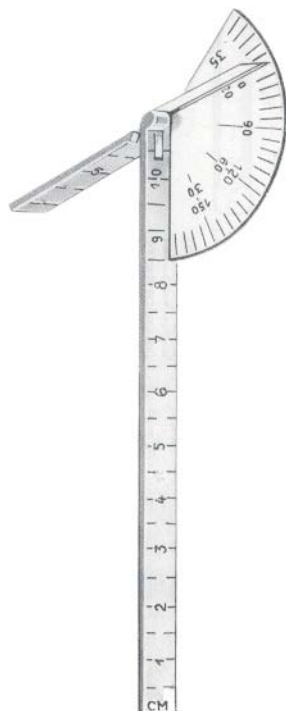


**Collin**  
for children      for adults  
10-01096-01      10-01096-02

Goniometer



**Moltgen**  
10-01100-00



**Caroll**  
10-01104-14  
14cm/5½"



**Townley**  
10-01108-10  
10cm/4"



| Standard (Nelson) |             |  |
|-------------------|-------------|--|
| Ømm               | 11cm/4 1/2" |  |
| 3.0               | 11-01112-30 |  |
| 3.5               | 11-01112-35 |  |
| 4.0               | 11-01112-40 |  |
| 4.5               | 11-01112-45 |  |
| 5.0               | 11-01112-50 |  |
| 5.5               | 11-01112-55 |  |
| 6.0               | 11-01112-60 |  |



| Standard (Nelson) |             |  |
|-------------------|-------------|--|
| Ømm               | 12cm/4 3/4" |  |
| 3.0               | 11-01116-30 |  |
| 3.5               | 11-01116-35 |  |
| 4.0               | 11-01116-40 |  |
| 4.5               | 11-01116-45 |  |
| 5.0               | 11-01116-50 |  |
| 5.5               | 11-01116-55 |  |
| 6.0               | 11-01116-60 |  |



| Standard (Nelson) |             |  |
|-------------------|-------------|--|
| Ømm               | 12cm/4 3/4" |  |
| 3.0               | 11-01120-30 |  |
| 3.5               | 11-01120-35 |  |
| 4.0               | 11-01120-40 |  |
| 4.5               | 11-01120-45 |  |
| 5.0               | 11-01120-50 |  |
| 5.5               | 11-01120-55 |  |
| 6.0               | 11-01120-60 |  |



**Universal**

11-01124-03 =3 Set of 3  
11-01124-04 =4 Set of 4



Ø6



4 1/2



3



1 3/4 mm



**Universal**

11-01128-03 =3 Set of 3  
11-01128-04 =4 Set of 4





Ø 2 mm



**Landau**  
11-01132-16  
16cm/6¼"

Ø 2 mm



**Landau**  
11-01136-19  
19cm/7½"

Ø 13.5mm



**Peau**  
11-01140-16  
16cm/6¼"

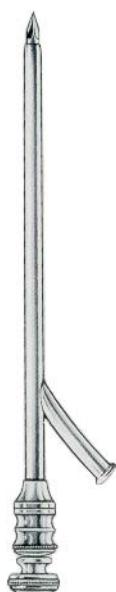
Ø 8 mm



**Buelau**  
11-01144-24  
24cm/9½"



| Nelson |             |
|--------|-------------|
| Ø mm   | 21cm/8¼"    |
| 7.5    | 11-01148-07 |
| 9.0    | 11-01148-09 |
| 10.5   | 11-01148-10 |
| 12.0   | 11-01148-12 |



| Ochsner |             |
|---------|-------------|
| Ø mm    | 14.5cm/5½"  |
| 4.0     | 11-01152-40 |
| 4.6     | 11-01152-46 |
| 5.5     | 11-01152-55 |
| 6.5     | 11-01152-65 |

Ø5.5 mm



**Krause**  
11-01156-15  
15cm/6"



Ø2.25 mm



**Coakley**  
11-01160-16  
16cm/6¼"

Ø1.8 mm



**Lichtwitz**  
11-01164-19  
19cm/7½"

Ø3 mm



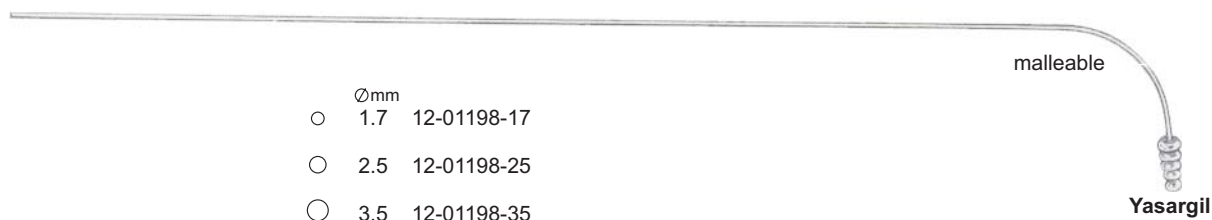
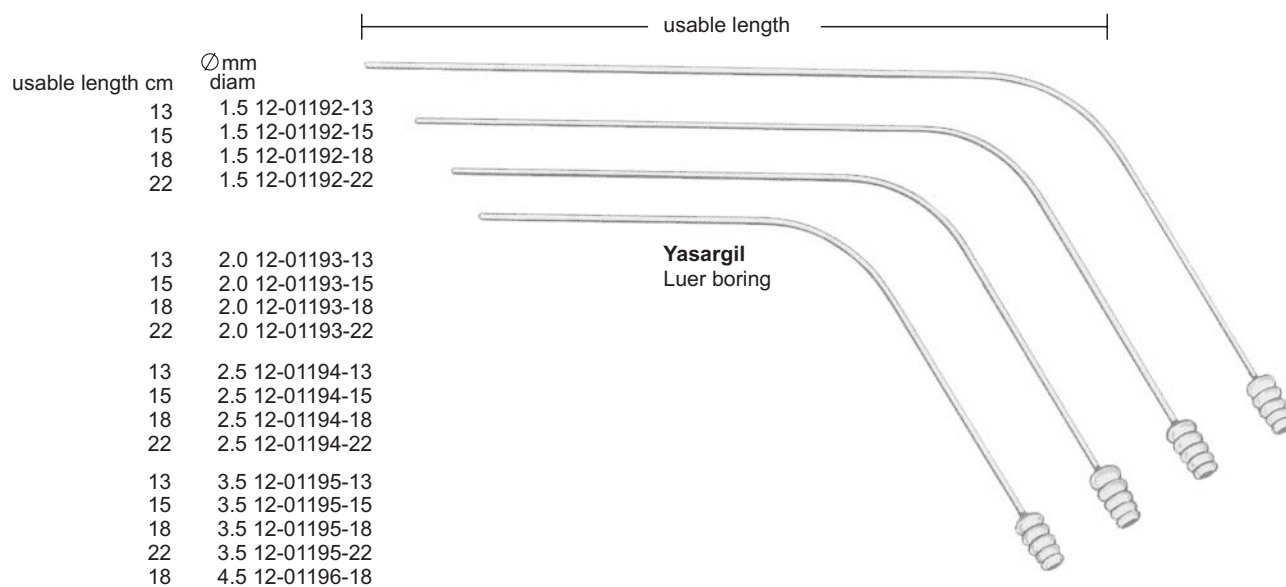
**Douglas**  
11-01168-11  
11.5 cm/4 ½"



11-01172-11  
11.5 cm/4½"



**Pierce**  
Ø mm  
3.0 11-01176-03  
4.0 11-01176-04  
5.0 11-01176-05





Brain Suction Tubes



Ø  
2.0 mm 12-01202-20  
2.5 mm 12-01202-25  
3.0 mm 12-01202-30  
13cm/5"

**Frazier**

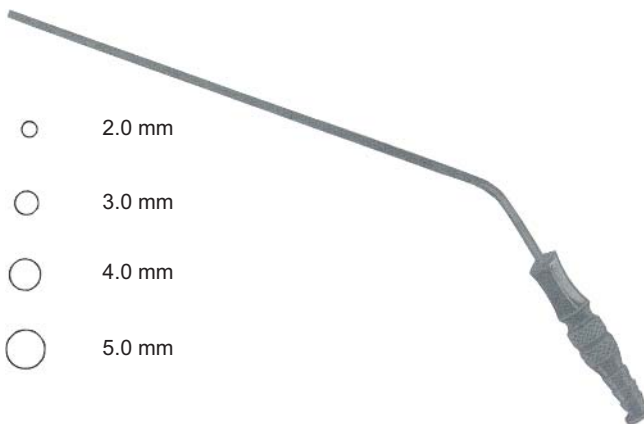


Ø  
1.5 mm 12-01206-15  
2.0 mm 12-01206-20  
2.5 mm 12-01206-25  
3.0 mm 12-01206-30  
19.5cm/7¾"

**Plester**



**Adson**  
12-01210-02  
21cm/8¼"  
Ø4 mm



- 2.0 mm
- 3.0 mm
- 4.0 mm
- 5.0 mm

Ø malleable, black  
2 mm 12-01214-02  
3 mm 12-01214-03  
4 mm 12-01214-04  
5 mm 12-01214-05  
19.5cm/7¾"



**Yankauer**  
12-01218-27  
27cm/10½"



**Yankauer**  
12-01219-27  
27cm/10½"

with stopcock



**Yankauer**  
12-01220-01



Fig. 0  
12-01220-10



Fig. 1  
12-01220-11



Fig. 2  
12-01220-12



Fig. 3  
12-01220-13

12-01220-50 SET



Ø 6 mm  
round

**Nuboer**  
12-01224-01  
21cm/8¼"



6 mm  
ovale

**Nuboer**  
12-01224-02  
21cm/8¼"



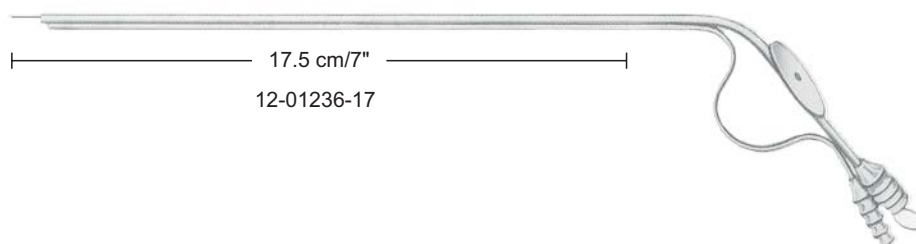
Ø 6 mm

**Andrew-Pynchon**  
12-01228-23  
23 cm/9"





**Finsterer**  
12-01232-30  
30cm/12"



17.5 cm/7"  
12-01236-17

Ø 6 mm



**Baby-Poole**  
12-01240-20  
20cm/8"

Ø10 mm



**Poole**  
12-01240-22  
22cm/8¾"

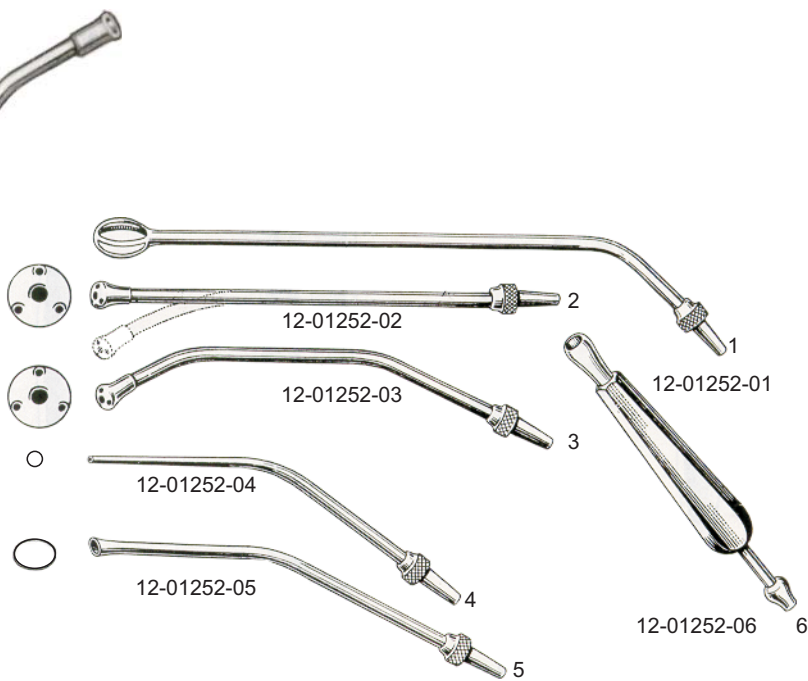
Ø 8 mm



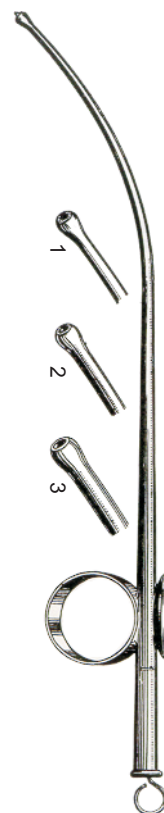
**Poole**  
12-01244-22  
22cm/8¾"



**Yankauer**  
12-01248-34  
34.5cm/13 1/4"



**Yankauer universal**  
Complete Set  
12-01252-60



**Magill**  
12-01256-01=20cm/8"  
12-01256-02=20cm/8"  
12-01256-03=20cm/8"



**Millin**  
12-01262-30  
30cm/12"



**Simpson-Smith**  
12-01266-00



**Schimmelbusch**  
12-01272-01 Child  
12-01272-02 Adult



**Magill**  
12-01280-15 15 cm/6" Infant  
12-01280-20 20 cm/8" Child  
12-01280-25 25 cm/10" Adult



**Yankauer**  
12-01276-01 Child  
12-01276-02 Adult



**Connel**  
12-01284-01 Child  
12-01284-02 Adult



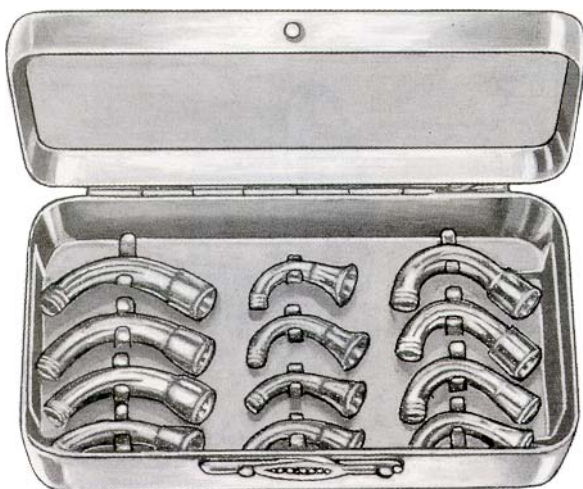
12-01288-01



**Lumbard-Mayo**  
12-01288-02



12-01288-03



**Magill**  
Connection Set  
12-01292-00



**Magill (Nasal)**

|             | mm dia |
|-------------|--------|
| 12-01292-01 | 5.5    |
| 12-01292-02 | 6.5    |
| 12-01292-03 | 7.5    |
| 12-01292-04 | 8.0    |
| 12-01292-05 | 8.5    |
| 12-01292-06 | 9.5    |
| 12-01292-07 | 10.0   |
| 12-01292-08 | 10.5   |

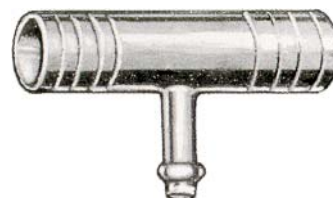


**Magill (Aural)**

|             | mm dia |
|-------------|--------|
| 12-01296-01 | 5.5    |
| 12-01296-02 | 6.5    |
| 12-01296-03 | 7.5    |
| 12-01296-04 | 8.0    |
| 12-01296-05 | 8.5    |
| 12-01296-06 | 9.5    |
| 12-01296-07 | 10.0   |
| 12-01296-08 | 10.5   |



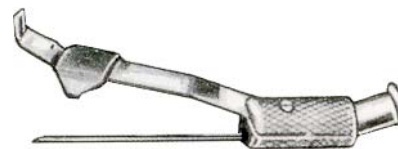
**Cobb**  
12-01300-01 Small  
12-01300-02 Medium  
12-01300-03 Large



**Ayre**  
12-01304-01 Small  
12-01304-02 Medium  
12-01304-03 Large



**Hamilton Bailey**  
12-01308-01 Infant  
12-01308-02 Child  
12-01308-03 Adult



**Mitchell**  
12-01312-18  
12-01312-20  
38 mm



**McIntosh**  
12-01316-30  
12-01316-40

12-01316-30  
Laryngoscope Set  
Consisting of:  
12-01332-00 Battery Handle (without batteries)  
12-01316-11 McIntosh blade, Fig 1  
12-01316-12 ditto, Fig 2  
12-01316-13 ditto, Fig 3



12-01316-10

12-01316-11

12-01316-40  
Laryngoscope Set  
Consisting of:  
12-01332-00 Battery Handle (without batteries)  
12-01316-11 McIntosh blade, Fig 1  
12-01316-12 McIntosh blade, Fig 2  
12-01316-13 McIntosh blade, Fig 3  
12-01316-14 McIntosh blade, Fig 4



12-01316-12



12-01316-13



12-01316-14

**McIntosh Laryngoscope Blades**  
12-01316-10 Fig 0, Working length 55mm, baby's  
12-01316-11 Fig 1, Working length 75mm, children's  
12-01316-12 Fig 2, Working length 90mm, adolescent's  
12-01316-13 Fig 3, Working length 110mm, women's  
12-01316-14 Fig 4, Working length 135mm, men's





12-01320-30  
Laryngoscope Set  
Consisting of:  
12-01332-00 Battery Handle (without batteries)  
12-01320-12 Guedel-Negus Blade, Fig 2  
12-01320-13 ditto, Fig 3  
12-01320-14 ditto, Fig 4

**Guedel-Negus**

12-01320-30  
12-01320-40

12-01320-40  
Laryngoscope Set  
Consisting of:  
12-01332-00 Battery Handle (without batteries)  
12-01320-11 Guedel-Negus Blade, Fig 1  
12-01320-12 Guedel-Negus Blade, Fig 2  
12-01320-13 Guedel-Negus Blade, Fig 3  
12-01320-14 Guedel-Negus Blade, Fig 4



12-01320-11



12-01320-12



12-01320-13



12-01320-14

**Guedel Laryngoscope Blades**

12-01320-11 Fig 1, working length 70mm, children's  
12-01320-12 Fig 2, working length 90mm, adolescent's  
12-01320-13 Fig 3, working length 110mm, women's  
12-01320-14 Fig 4, working length 135mm, men's



**Foregger**  
12-01324-30  
12-01324-40

12-01324-30  
Laryngoscope Set  
Consisting of:  
12-01332-00 Battery Handle (without batteries)  
12-01324-12 Foregger Blade, Fig 2  
12-01324-13 ditto, Fig 3  
12-01324-14 ditto, Fig 4

12-01324-40  
Laryngoscope Set  
Consisting of:  
12-01324-00 Battery Handle (Without batteries)  
12-01324-11 Foregger Blade, Fig 1  
12-01324-12 Foregger Blade, Fig 2  
12-01324-13 Foregger Blade, Fig 3  
12-01324-14 Foregger Blade, Fig 4



12-01324-11



12-01324-12



12-01324-13



12-01324-14

Foregger Laryngoscope Blade,  
12-01324-11 Fig 1, working length 70mm, children's  
12-01324-12 Fig 2, working length 90mm, adolescent's  
12-01324-13 Fig 3, working length 110mm, women's  
12-01324-14 Fig 4, working length 135mm, men's



**Miller-Baby**  
12-01328-20

12-01328-20  
Laryngoscope Set, Baby and Infant,  
consisting of :  
12-01332-00 Battery Handle (without battery)  
12-01328-10 Miller-baby blade, Fig 0  
working length 55 mm  
12-01328-11 ditto, Fig 1 working length 80 mm



32 mm dia  
12-01332-00



28 mm dia  
12-01336-00



18 mm dia  
12-01340-00



**Negus**  
18 mm dia  
12-01344-00



**No. 3**

13-01348-03



**No. 3**

13-01352-03



**No. 4**

13-01356-04



**No. 4**

13-01360-04

double handle  
number 3 + number 4



**No. 7**

13-01364-07



**No. 7k**

13-01368-17



**No. 8**

13-01372-08

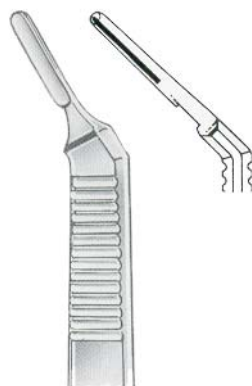


**No.9**

13-01376-09



13-01380-34



3L  
13-01384-13



4L  
13-01388-14



No. 3L  
13-01392-03



No. 4L  
13-01396-04



No. 5  
13-01400-05  
15cm/6"



No. 5A  
13-01404-15  
15cm/6"



13-1408-01  
21cm/8¼"



13-01408-03





17cm/6¾"



Fig. 1  
13-01412-01



Fig. 2  
13-01412-02



Fig. 3  
13-01412-03



Fig. 4  
13-01412-04



Fig. 5  
13-01412-05



Fig. 6  
13-01412-06



Fig. 7  
13-01412-07



Fig. 8  
13-01412-08



Fig. 9  
13-01412-09



Fig. 10  
13-01412-10



Fig. 1  
13-01416-01



Fig. 2  
13-01416-02



Fig. 3  
13-01416-03



Fig. 4  
13-01416-04



Fig. 5  
13-01416-05



Fig. 6  
13-01416-06



Fig. 7  
13-01416-07



Fig. 8  
13-01416-08



Fig. 9  
13-01416-09



Fig. 10  
13-01416-10



Fig. 11  
13-01416-11



Fig. 12  
13-01416-12



Fig. 13  
13-01416-13



Fig. 14  
13-01416-14



Fig. 15  
13-01416-15



Fig. 16  
13-01416-16



Fig. 18  
13-01416-18



Fig. 27  
13-01416-27



Fig. 38  
13-01416-38



Fig. 40  
13-01416-40



Fig. 46  
13-01416-46



Fig. 61  
13-01416-61



Fig. 63  
13-01416-63



**Dieffenbach**  
17cm/6¾"



Fig. 1  
13-01420-01



Fig. 2  
13-01420-02



Fig. 3  
13-01420-03



Fig. 4  
13-01420-04



Fig. 5  
13-01420-05



Fig. 6  
13-01420-06



Fig. 7  
13-01420-07



Fig. 8  
13-01420-08



Fig. 9  
13-01420-09



Fig. 15  
13-01420-15



Fig. 16  
13-01420-16



◀ Fig. 1

**Bergmann**  
13-01424-01  
14.5cm/5¾"



**Dieffenbach**  
13cm/5¼"



Fig. 2  
13-01424-02



Fig. 3  
13-01424-03



Fig. 4  
13-01424-04



Fig. 1  
13-01428-01



Fig. 2  
13-01428-02



Fig. 3  
13-01428-03



Fig. 4  
13-01428-04



Fig. 5  
13-01428-05



Fig. 6  
13-01428-06



Fig. 7  
13-01428-07



Fig. 8  
13-01428-08



Fig. 9  
13-01428-09



Fig. 10  
13-01428-10



Fig. 11  
13-01428-11



Fig. 12  
13-01428-12



**Simon**  
20cm/8"



**Fig. 1**  
13-01432-01



**Fig. 2**  
13-01432-02



**Fig. 3**  
13-01432-03



**Fig. 4**  
13-01432-04



**Ulrich**  
22.5 cm/9"



**Fig. 1**  
13-01436-01



**Fig. 2**  
13-01436-02



**Fig. 3**  
13-01436-03



**Simon**  
23.5 cm/9 1/4 "



**Fig. 1**  
13-01440-01



**Fig. 2**  
13-01440-02



**Fig. 3**  
13-01440-03



**Fig. 4**  
13-01440-04

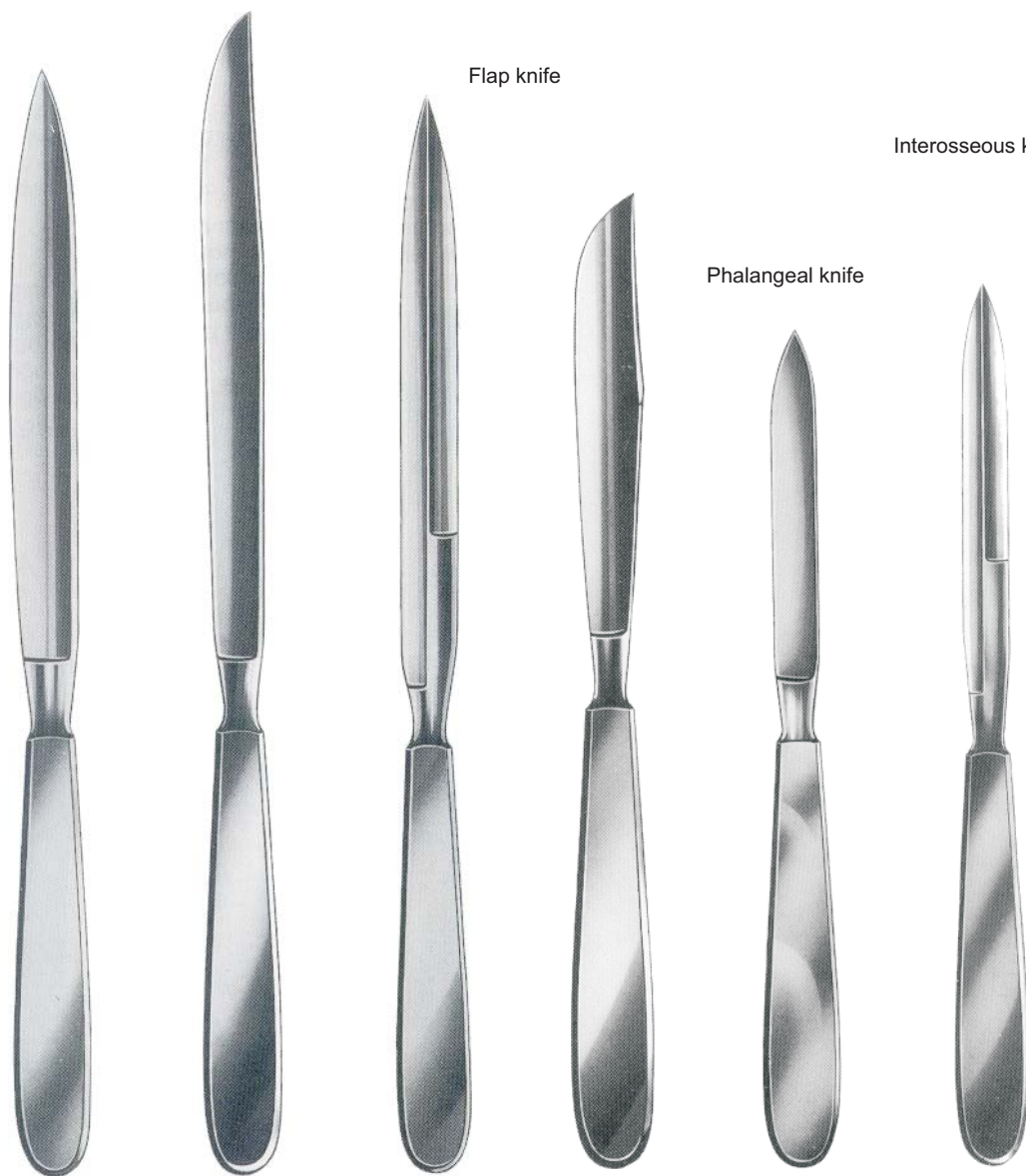


**13-01444-01**  
7.5 cm/3"

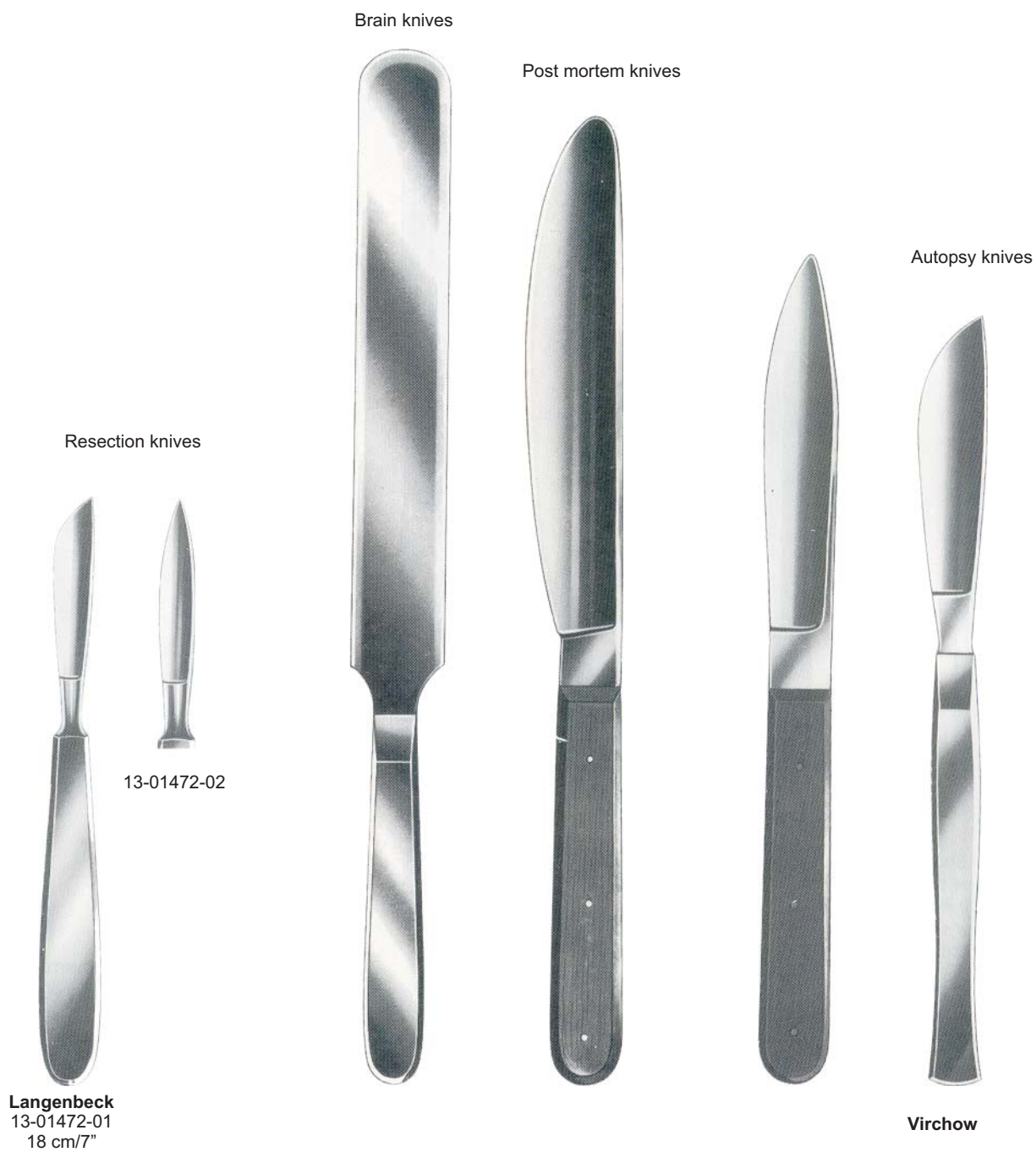


**13-01444-02**  
8 cm/3 1/4 "





| Length of blades |     | Liston      | Catlin      | Langenbeck  |             |             |
|------------------|-----|-------------|-------------|-------------|-------------|-------------|
| cm               | in  |             |             |             |             |             |
| 9.5              | 3 ¾ |             |             |             | 13-01464-09 |             |
| 11.0             | 4 ½ |             |             |             |             | 13-01468-11 |
| 12.0             | 4 ¾ |             |             |             | 13-01460-12 |             |
| 13.0             | 5   | 13-01448-13 |             |             |             |             |
| 15.0             | 6   |             |             |             |             |             |
| 16.0             | 6 ¼ | 13-01448-16 |             | 13-01456-16 |             |             |
| 17.0             | 6 ¾ |             | 13-01452-17 |             |             |             |
| 19.0             | 7 ½ | 13-01448-19 |             | 13-01456-19 |             |             |
| 20.0             | 8   |             | 13-01452-20 |             |             |             |
| 22.0             | 8 ¾ | 13-01448-22 |             | 13-01456-22 |             |             |



Length of blades

|             |             |             |
|-------------|-------------|-------------|
| 8.5 cm/3½"  |             | 13-01488-08 |
| 11.0 cm/4½" | 13-01480-11 | 13-01484-11 |
| 14.0 cm/5½" | 13-01480-14 |             |
| 16.0 cm/6¼" | 13-01476-16 |             |
| 17.0 cm/6¾" | 13-01480-17 |             |
| 20.0 cm/8"  | 13-01476-20 |             |
| 24.0 cm/9½" | 13-01476-24 |             |



Autopsy knives  
Length of blades  
19.5cm/7 3/4"

Length of blades  
9.5cm/3 3/4"

Cartilage knives

Wooden handle

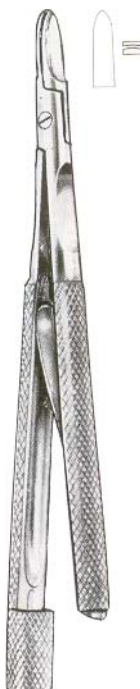
Metal handle

**Virchow**  
13-01492-09

13-01496-19

13-01500-01

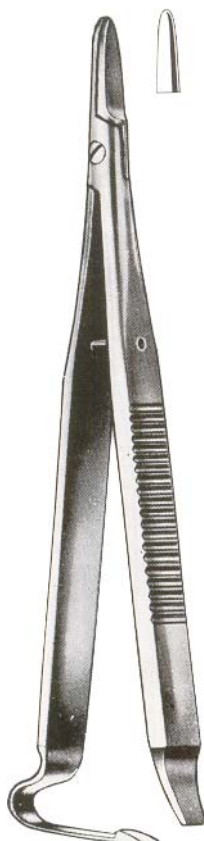
13-01504-01



**Troutman-Chris**  
13-01508-09  
9cm/3 1/2"



**Troutman-Chris**  
13-01509-09  
9cm/3 1/2"



13-01512-11  
11cm/4 1/2"



**Castroviejo**  
13-01516-13  
13cm/5 1/4"



13-01520-18  
18cm/7"



Skull Breaker

13-01524-14  
14 cm/5½"



Rachiotome

13-01528-22  
22 cm/8¾"



23 mm

Osteotome

13-01532-13  
13 cm/5"



**Brunetti**  
13-01536-28  
**Brunetti**  
13-01537-28  
28.5 cm/11¼"

Muscle hooks



13-01540-06  
6.5 cm/2½"



13-01544-07  
7 cm/2¾"



13-01548-01





Microscopic needles



13-01552-13  
13 cm/5"



13-01556-13  
13 cm/5"



Microscopic needle holder

**Kolle**

13-01560-24  
24 cm/ 9½"



Loop for needle holder

13-01564-06  
6 cm/2¼"

Post mortem needles



13-01568-01



13-01568-02



13-01568-03



13-01568-04



13-01568-05



13-01568-06



13-01572-00



13-01576-00



Saw Edge



Straight 14-01580-14  
Curved 14-01581-14  
14.5cm/5¾"



Straight 14-01584-14 14.5cm/5¾"  
Curved 14-01585-14  
14-01584-17 17.0cm/6¾"  
14-01584-23 23.0cm/9"



Straight 14-01588-15 15.0cm/6"  
Curved 14-01589-15  
14-01588-17 17.0cm/6¾"



**Lexer**  
Straight 14-01592-16  
Curved 14-01593-16  
16cm/6¼"



**Baby-Metzenbaum**  
Straight 14-01596-11  
Curved 14-01597-11  
11.5cm/4½"



**Metzenbaum-Fine**  
Straight 14-01600-14  
Curved 14-01601-14  
14.5cm/5¾"



**Metzenbaum-Fine**  
Straight 14-01604-18 18cm/7"  
Curved 14-01605-18  
14-01604-20 20cm/8"  
14-01604-23 23cm/9"



Saw edge



**Sims**

|             |          |             |
|-------------|----------|-------------|
| Straight    |          | Curved      |
| 14-01608-20 | 20 cm/8" | 14-01609-20 |
| 14-01608-23 | 23 cm/9" | 14-01609-23 |



**Siebold**

14-01613-24  
24 cm/9½"



**Jameson**

16-01617-15 15 cm/6"  
16-01617-18 18 cm/7"



**Reynolds**

|             |             |
|-------------|-------------|
| Straight    | Curved      |
| 16-01620-15 | 16-01621-15 |
|             | 15 cm/6"    |



|             |             |
|-------------|-------------|
| Straight    | Curved      |
| 14-01624-11 | 14-01625-11 |
|             | 11.5 cm/4½" |



|             |             |
|-------------|-------------|
| Straight    | Curved      |
| 14-01628-11 | 14-01629-11 |
|             | 11.5 cm/4½" |



**Plastic Surgery**

|             |             |
|-------------|-------------|
| Straight    | Curved      |
| 14-01632-12 | 14-01633-12 |
|             | 12 cm/4¾"   |



**Wagner**

|             |             |
|-------------|-------------|
| Straight    | Curved      |
| 14-01636-12 | 14-01637-12 |
|             | 12 cm/4¾"   |





Saw Edge



14-01641-11  
11.5 cm/4½"



14-01645-14  
14cm/5½"

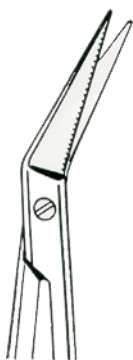


**Reynolds**  
14-01649-13  
13cm/5"

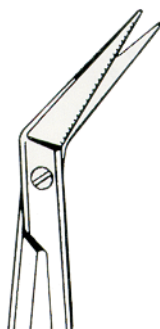
Endarterectomy  
Scissors



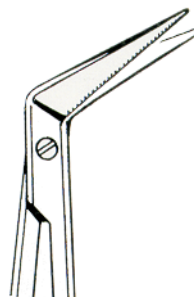
**Potts-Smith**  
19cm/7½"



25°  
14- 01653-19



45°  
14- 01655-19



60°  
14- 01657-19



14-01661-17  
17cm/6¾"





Saw Edge



**Lister**

14-01665-14 14.5cm/5¾"  
14-01665-18 18cm/7"  
14-01665-20 20cm/8"



**Braun-Stadler**

14-01669-14 14.5cm/5¾"  
14-01669-22 22cm/8¾"



**Stevens**

Straight Curved  
14-01672-11 11.5cm/4½" 14-01673-11



**Heymann**

14-01677-18  
18cm/7"



**Fomon**

14-01681-13  
13cm/5"



**Fomon**

14-01685-13  
13cm/5"



**Cottle**

14-01689-16  
16cm/6¼"



Straight

Standard  
Fig. 1

|      |        |
|------|--------|
| 10.0 | cm/4"  |
| 11.5 | cm/4½" |
| 13.0 | cm/5"  |
| 14.5 | cm/5¾" |
| 15.5 | cm/6"  |
| 16.0 | cm/6¼" |
| 18.0 | cm/7"  |
| 20.0 | cm/8"  |

|             |
|-------------|
| 14-01692-10 |
| 14-01692-11 |
| 14-01692-13 |
| 14-01692-14 |
| 14-01692-15 |
| 14-01692-16 |
| 14-01692-18 |
| 14-01692-20 |



Straight

Standard  
Fig. 2

|             |
|-------------|
| 14-01694-10 |
| 14-01694-11 |
| 14-01694-13 |
| 14-01694-14 |
| 14-01694-15 |
| 14-01694-16 |
| 14-01694-18 |
| 14-01694-20 |



Straight

Standard  
Fig. 3

|             |
|-------------|
| 14-01696-10 |
| 14-01696-11 |
| 14-01696-13 |
| 14-01696-14 |
| 14-01696-15 |
| 14-01696-16 |
| 14-01696-18 |
| 14-01696-20 |

**PinsmedTC**



Straight

Standard  
14.5cm/5 ¾"

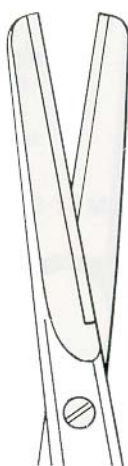


Fig. 1  
14-01700-14

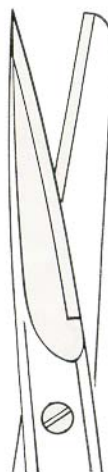


Fig. 2  
14-01702-14



Fig. 3  
14-01704-14



Curved

Standard  
Fig. 1

14-01707-10  
14-01707-11  
14-01707-13  
14-01707-14  
14-01707-15  
14-01707-16  
14-01707-18  
14-01707-20



Curved

Standard  
Fig. 2

14-01709-10  
14-01709-11  
14-01709-13  
14-01709-14  
14-01709-15  
14-01709-16  
14-01709-18  
14-01709-20



Curved

Standard  
Fig. 3

14-01711-10  
14-01711-11  
14-01711-13  
14-01711-14  
14-01711-15  
14-01711-16  
14-01711-18  
14-01711-20

|      |           |
|------|-----------|
| 10.0 | cm/4"     |
| 11.5 | cm/4 1/2" |
| 13.0 | cm/5"     |
| 14.5 | cm/5 3/4" |
| 15.5 | cm/6"     |
| 16.0 | cm/6 1/4" |
| 18.0 | cm/7"     |
| 20.0 | cm/8"     |

***PinsmedTC***



Curved

Standard  
14.5cm/5 3/4"



Fig. 1  
14-01715-14



Fig. 2  
14-01717-14



Fig. 3  
14-01719-14



**Grazil**



14-01722-13 13.0 cm/5" 14-01724-13  
14-01722-14 14.5 cm/5 3/4" 14-01724-14  
**Straight**



**Grazil**



14-01727-13 13.0 cm/5" 14-01729-13  
14-01727-14 14.5 cm/5 3/4" 14-01729-14  
**Curved**



**Straight**

14-01732-14



**Curved**

**Deaver**

14.5cm/5 3/4"

14-01733-14



**Straight**

14-01736-15



**Curved**

**Mixer**

15.5cm/6"

14-01737-15



*Pinsmed TC*



**Lexer**  
Straight  
14-01740-16  
16 cm/6¼"



**Lexer**  
Curved  
14-01741-16  
16 cm/6¼"



**Lexer**  
Straight  
14-01744-16  
16 cm/6¼"



**Lexer**  
Curved  
14-01745-16  
16 cm/6¼"

*Pinsmed TC*



**Lexer-Fine**  
Straight  
14-01748-16  
16 cm/6¼"



**Lexer-Fine**  
Curved  
14-01749-16  
16 cm/6¼"



**Lexer-Fine**  
Straight  
14-01752-16  
16 cm/6¼"



**Lexer-Fine**  
Curved  
14-01753-16  
16 cm/6¼"





Incision Scissors



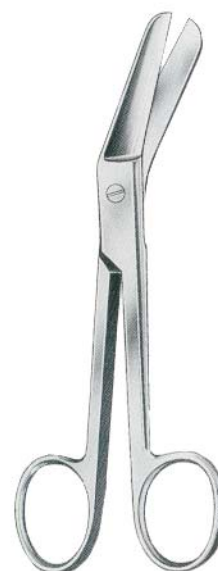
14-01756-13 13.0 cm/5¼"  
14-01756-14 14.5 cm/5¾"



14-01760-15  
15.5 cm/6"



**Richter**  
14-01763-14  
14.5 cm/5¾"



**Richter**  
14-01767-14  
14.5 cm/5¾"



**Fergusson**  
14-01771-18  
18 cm/7"



**New Suture**  
14-01775-14  
14.5 cm/5¾"



***Pinsmed TC***



**Mayo**  
Straight  
14-01778-14 14.5 cm/5¾"  
14-01778-15 15.0 cm/6"  
14-01778-17 17.0 cm/6¾"  
14-01778-19 19.0 cm/7½"  
14-01778-23 23.0 cm/9"



**Mayo**  
Curved  
14-01779-14 14.5 cm/5¾"  
14-01779-15 15.0 cm/6"  
14-01779-17 17.0 cm/6¾"  
14-01779-19 19.0 cm/7½"  
14-01779-23 23.0 cm/9"



**Mayo**  
Straight  
14-01782-14 14.5 cm/5¾"  
14-01782-17 18.0 cm/7"  
14-01782-23 13.0 cm/9"

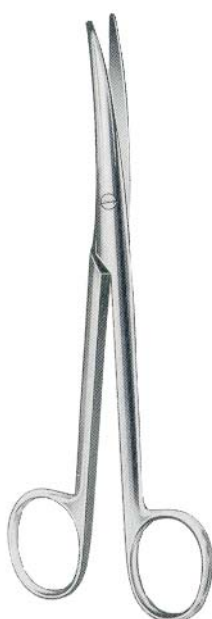


**Mayo**  
Curved  
14-01783-14 14.5 cm/5¾"  
14-01783-17 18.0 cm/7"  
14-01783-23 13.0 cm/9"

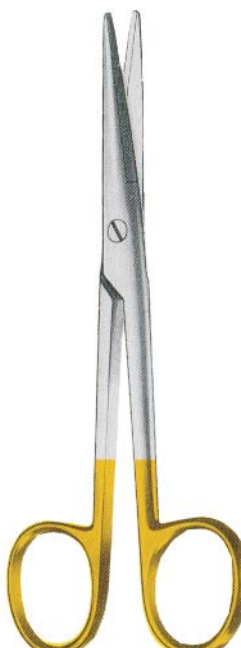
***Pinsmed TC***



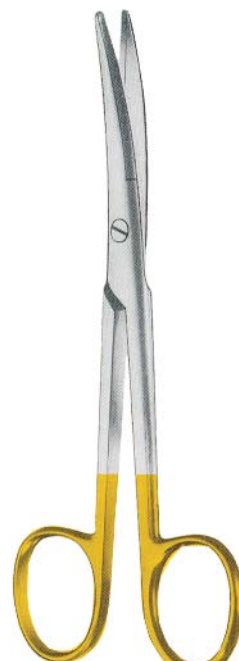
**Mayo-Stille**  
Straight  
14-01786-15 15 cm/6"  
14-01786-17 17 cm/6¾"  
14-01786-19 19 cm/7½"  
14-01786-21 21 cm/8¼"



**Mayo-Stille**  
Curved  
14-01787-15 15 cm/6"  
14-01787-17 17 cm/6¾"  
14-01787-19 19 cm/7½"  
14-01787-21 21 cm/8¼"



**Mayo-Stille**  
Straight  
14-01790-16 15 cm/6"  
14-01790-17 17 cm/6¾"



**Mayo-Stille**  
Curved  
14-01791-16 15 cm/6"  
14-01791-17 17 cm/6¾"



**Mayo-Noble**  
14-01794-17  
17 cm/6¾"



**Mayo-Noble**  
14-01795-17  
17 cm/6¾"



**Baby-Metzenbaum**  
14-01798-11  
11.5 cm/4½"



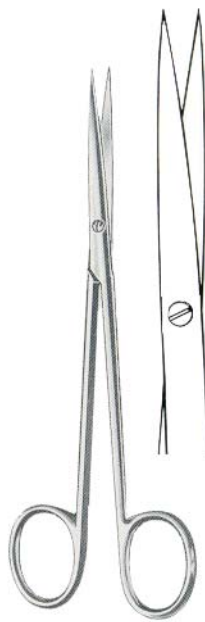
**Baby-Metzenbaum**  
14-01799-11  
11.5 cm/4½"



14-01802-14  
14.5 cm/5¾"



14-01803-14  
14.5 cm/5¾"



14-01806-14  
14.5 cm/5¾"



14-01807-14  
14.5 cm/5¾"



Straight



Fig 1

**Metzenbaum**  
14-01810-14  
14.5 cm/5¾"



Fig 2

**Metzenbaum**  
14-01812-14  
14.5 cm/5¾"

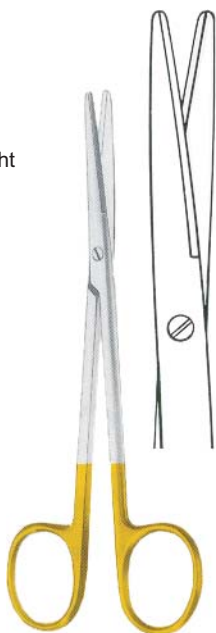


Fig 3

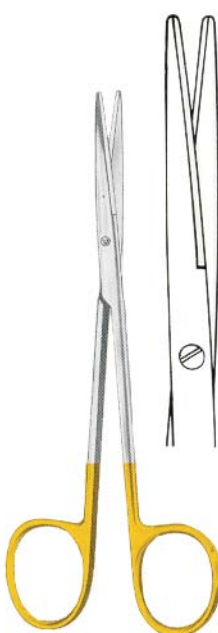
**Metzenbaum**  
14-01814-14  
14.5 cm/5¾"

***Pinsmed TC***

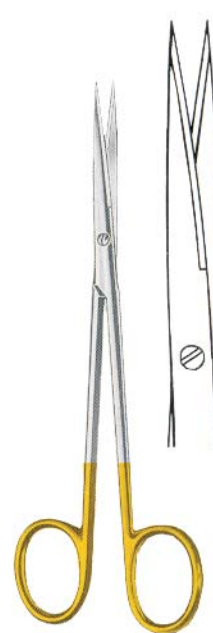
Straight



**Metzenbaum**  
14-01818-14  
14.5 cm/5¾"



**Metzenbaum-Fine**  
14-01820-14  
14.5 cm/5¾"



**Metzenbaum-Fine**  
14-01822-14  
14.5 cm/5¾"



Curved



Fig. 1  
**Metzenbaum**  
14-01825-14  
14.5 cm/5¾"



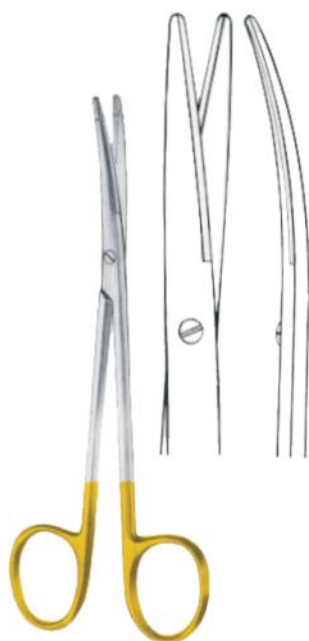
Fig. 2  
**Metzenbaum**  
14-01827-14  
14.5 cm/5¾"



Fig. 3  
**Metzenbaum**  
14-01829-14  
14.5 cm/5¾"

***Pinsmed TC***

Curved



**Metzenbaum**  
14-01831-14  
14.5 cm/5¾"



**Metzenbaum-Fine**  
14-01833-14  
14.5 cm/5¾"



**Metzenbaum-Fine**  
14-01835-14  
14.5 cm/5¾"





Straight



**Metzenbaum-Fine**

|           |             |
|-----------|-------------|
| 18 cm/7"  | 14-01838-18 |
| 20 cm/8"  | 14-01838-20 |
| 23 cm/9"  | 14-01838-23 |
| 25 cm/10" | 14-01838-25 |
| 28 cm/11" | 14-01838-28 |
| 30 cm/12" | 14-01838-30 |



**Metzenbaum**

|             |
|-------------|
| 14-01840-18 |
| 14-01840-20 |
| 14-01840-23 |
| 14-01840-25 |
| 14-01840-28 |
| 14-01840-30 |



**Metzenbaum**

|             |
|-------------|
| 14-01842-18 |
| 14-01842-20 |
| 14-01842-23 |
| 14-01842-25 |
| 14-01842-28 |
| 14-01842-30 |



**Metzenbaum**

|             |
|-------------|
| 14-01844-18 |
| 14-01844-20 |
| 14-01844-23 |
| 14-01844-25 |
| 14-01844-28 |
| 14-01844-30 |

**Pinsmed TC**

Straight



**Metzenbaum**

|           |             |
|-----------|-------------|
| 18 cm/7"  | 14-01848-18 |
| 20 cm/8"  | 14-01848-20 |
| 23 cm/9"  | 14-01848-23 |
| 25 cm/10" | 14-01848-25 |
| 28 cm/11" | 14-01848-28 |
| 30 cm/12" | 14-01848-30 |



**Metzenbaum-Fine**

|             |
|-------------|
| 14-01850-18 |
| 14-01850-20 |
| 14-01850-23 |
| 14-01850-25 |
| 14-01850-28 |
| 14-01850-30 |



**Metzenbaum-Fine**

|             |
|-------------|
| 14-01852-18 |
| 14-01852-20 |
| 14-01852-23 |
| 14-01852-25 |
| 14-01852-28 |
| 14-01852-30 |



Curved



**Metzenbaum-Fine**

|           |             |
|-----------|-------------|
| 18 cm/7"  | 14-01855-18 |
| 20 cm/8"  | 14-01855-20 |
| 23 cm/9"  | 14-01855-23 |
| 25 cm/10" | 14-01855-25 |
| 28 cm/11" | 14-01855-28 |
| 30 cm/12" | 14-01855-30 |



**Metzenbaum**

|             |
|-------------|
| 14-01857-18 |
| 14-01857-20 |
| 14-01857-23 |
| 14-01857-25 |
| 14-01857-28 |
| 14-01857-30 |



**Metzenbaum**

|             |
|-------------|
| 14-01859-18 |
| 14-01859-20 |
| 14-01859-23 |
| 14-01859-25 |
| 14-01859-28 |
| 14-01859-30 |

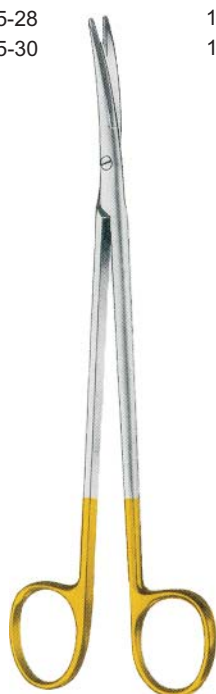


**Metzenbaum**

|             |
|-------------|
| 14-01861-18 |
| 14-01861-20 |
| 14-01861-23 |
| 14-01861-25 |
| 14-01861-28 |
| 14-01861-30 |

**Pinsmed TC**

Curved



**Metzenbaum**

|           |             |
|-----------|-------------|
| 18 cm/7"  | 14-01865-18 |
| 20 cm/8"  | 14-01865-20 |
| 23 cm/9"  | 14-01865-23 |
| 25 cm/10" | 14-01865-25 |
| 28 cm/11" | 14-01865-28 |
| 30 cm/12" | 14-01865-30 |



**Metzenbaum-Fine**

|             |
|-------------|
| 14-01867-18 |
| 14-01867-20 |
| 14-01867-23 |
| 14-01867-25 |
| 14-01867-28 |
| 14-01867-30 |

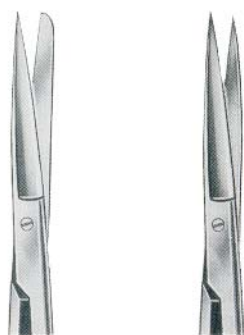


**Metzenbaum-Fine**

|             |
|-------------|
| 14-01869-18 |
| 14-01869-20 |
| 14-01869-23 |
| 14-01869-25 |
| 14-01869-28 |
| 14-01869-30 |



**Sims**  
14-01870-20 20 cm/8"  
14-01870-23 23 cm/9"



**Straight**  
14-01872-20 20 cm/8" 14-01874-20  
14-01872-23 23 cm/9" 14-01874-23



**Sims**  
14-01977-20 20 cm/8"  
14-01977-23 23 cm/9"



**Curved**  
14-01879-20 20 cm/8" 14-01881-20  
14-01879-23 23 cm/9" 14-01881-23

***Pinsmed TC***



**Sims**  
14-01883-20 20 cm/8"  
14-01883-23 23 cm/7"



**Wertheim**  
14-01887-14 14.5 cm/5¾"  
14-01887-19 19.5 cm/7¾"  
14-01887-22 22.5 cm/9"



Curved

**Dubois**  
14-01892-27 27 cm/10½"



**Dubois**  
14-01893-27 27 cm/10½"



Straight

**Doyen**  
14-01896-16 16 cm/6¼"  
14-01896-18 18 cm/7"



Curved

**Doyen**  
14-01897-16 16 cm/6¼"  
14-01897-18 18 cm/7"



**Kelly**  
14-01900-16 16 cm/6¼"  
14-01900-18 18 cm/7"



**Kelly**  
14-01901-16 16 cm/6¼"  
14-01901-18 18 cm/7"



Fig. 1  
14-01904-12



Fig. 2  
14-01906-12

Straight

12cm/4¾"



Fig. 3  
14-01908-12



Fig. 1  
14-01911-12



Fig. 2  
14-01913-12

Curved

12cm/4¾"



Fig. 3  
14-01915-12

Saw Edge



**Wagner**  
12cm/4¾"



Fig. 1  
14-01916-12



Fig. 2  
14-01918-12



Fig. 3  
14-01920-12



Fig. 4  
14-01922-12

Curved



Fig. 1  
14-01923-12



Fig. 2  
14-01925-12



Fig. 3  
14-01927-12



Fig. 4  
14-01929-12

Straight



14-01932-12  
11.5cm/4½"

Curved



14-01933-12  
11.5cm/4½"



Straight

**Brophy (Sullivan)**

14-01936-14

14.5 cm/5¾"

14-01937-14



Curved



Straight

**Reynolds**

14-01940-15

14-01940-18

15 cm/6"

18 cm/7"



Curved

14-01941-15

14-01941-18

**Enucleation Scissors**



**Jameson**  
14-01945-15  
15cm/6"



14-01948-12



14-01951-12



14-01953-12



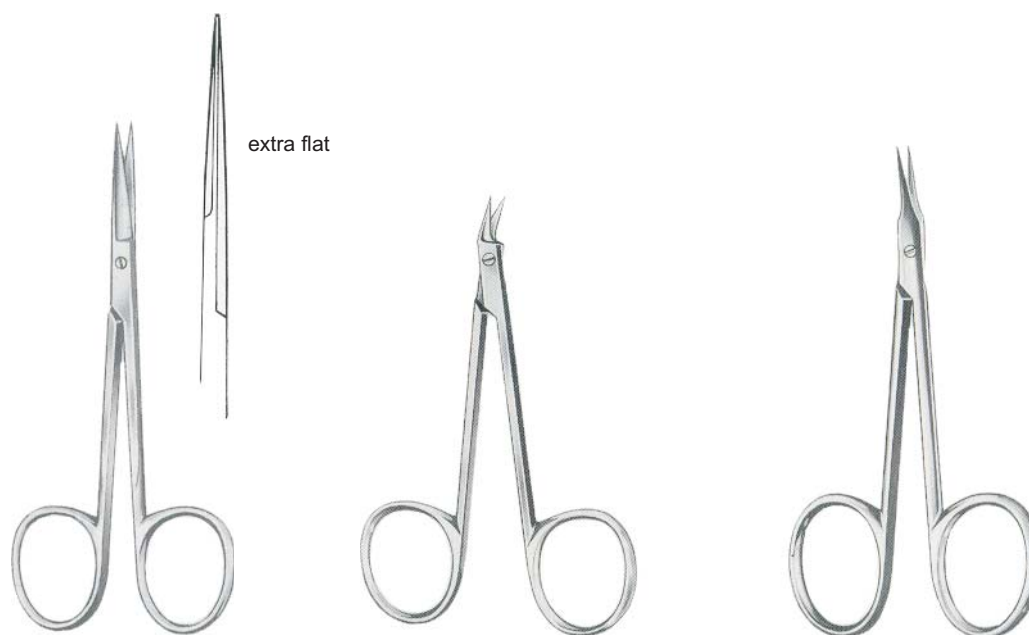
14-01955-12

**Landolt**  
12.5cm/5"





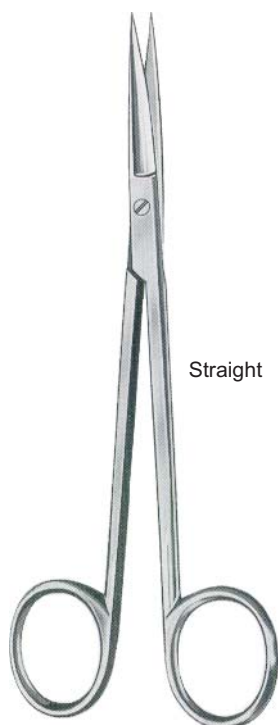
|             |             |             |             |             |                 |             |
|-------------|-------------|-------------|-------------|-------------|-----------------|-------------|
| 9.0 cm/3½"  | 14-01958-09 | 14-01959-09 | 14-01961-09 | 14-01964-09 | <b>Standard</b> | 14-01965-09 |
| 10.5 cm/4¼" | 14-01958-10 | 14-01959-10 | 14-01961-10 | 14-01964-10 |                 | 14-01965-10 |
| 11.5 cm/4½" | 14-01958-11 | 14-01959-11 | 14-01961-11 | 14-01964-11 |                 | 14-01965-11 |



14-01968-10  
10cm/4"

14-01971-09  
9cm/3½"

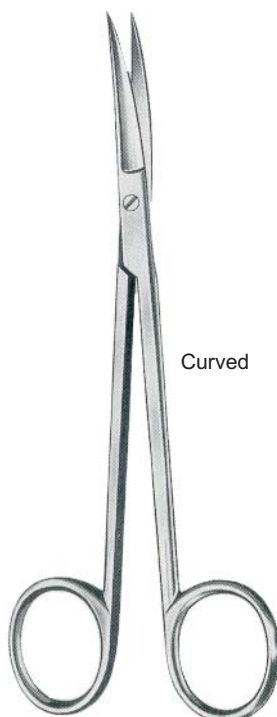
**Walton**  
14-01975-10  
10cm/4"



Straight

14-01978-14

**Sanvenero**  
14.5cm/5¾"



Curved

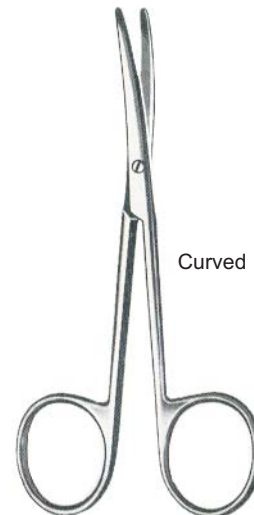
14-01979-14



Straight

14-01982-10

**Baby-Lexer (Knapp)**  
10cm/4"



Curved

14-01983-10



Straight

14-01986-13 13cm/5"

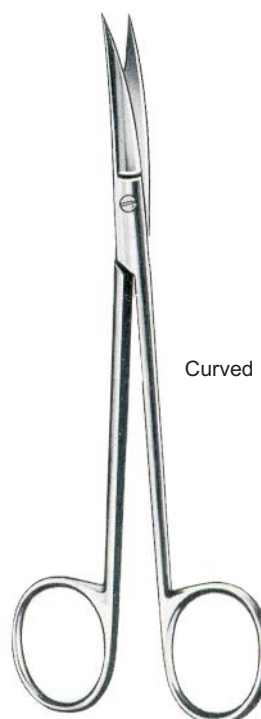
Curved

14-01987-13



Straight

14-01990-14



Curved

**Joseph**  
14cm/5½"

14-01991-14



**Kilner (Regnell)**  
14-01995-12 12cm/4¾"  
14-01995-13 13cm/5"  
14-01995-15 15cm/6"



14-01998-14  
14.5cm/5¾"

Coronary Scissors



14-02002-11  
11.5cm/4½"



**Potts-Smith**  
14-02005-19  
19.5cm/7¾"



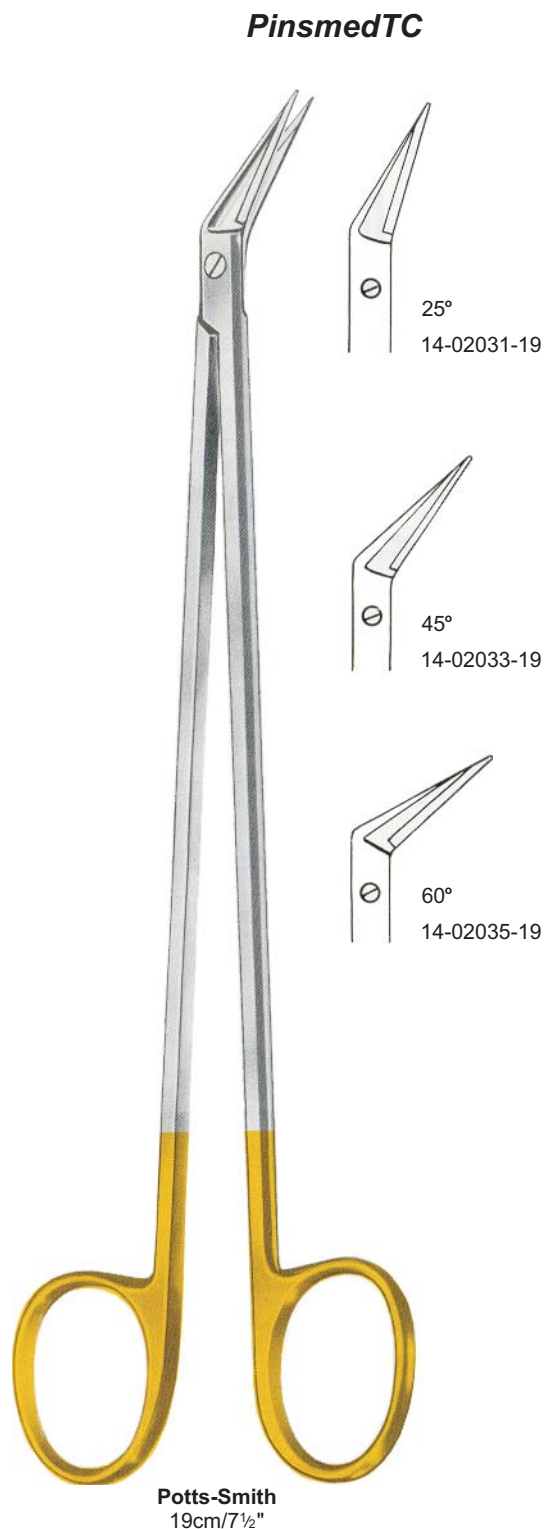
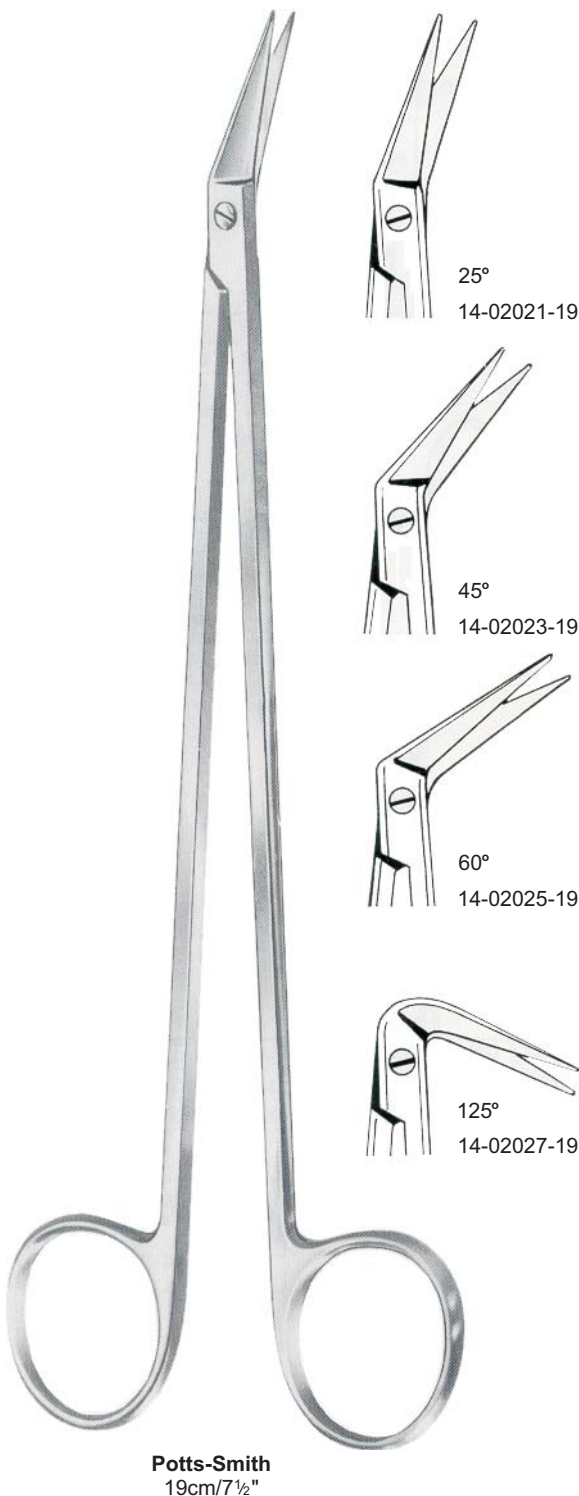
**De Bakey**  
14-02009-15  
15.5cm/6"



**De Bakey**  
14-02013-15  
15.5cm/6"



**Favaloro**  
14-02017-15  
15cm/6"





Saw Edge

**Martin-Cartilage**  
14-02039-20  
20cm/8"



**McIndoe**  
14-02042-19  
19cm/7½"



**Potts-Smith**  
14-02045-19  
19cm/7½"



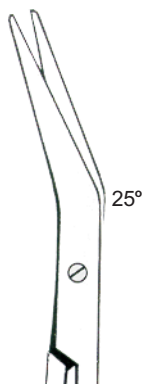
**Satinsky**  
14-02049-24  
24.5cm/10"



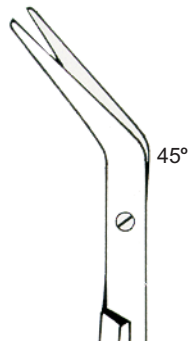
**Klingenberg-Loth**  
14-02053-23  
23cm/9"



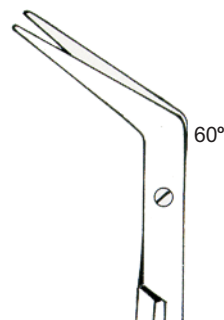
**De Bakey**  
18cm/7"



25°



45°



60°

| cm     | In     |             |             |             |
|--------|--------|-------------|-------------|-------------|
| 16.0cm | 6 1/4" | 14-02057-16 | 14-02059-16 | 14-02061-16 |
| 23.0cm | 9"     | 14-02057-23 | 14-02059-23 | 14-02061-23 |
| 28.0cm | 11"    | 14-02057-28 | 14-02059-28 | 14-02061-28 |

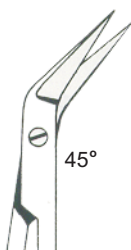


**Baby-Hegemann**  
13.5cm/5 1/4"

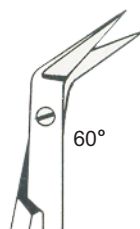
**Hegemann (Diethrich)**  
16cm/6 1/4"  
19cm/7 1/2"



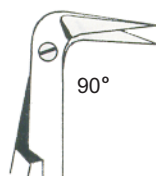
25°



45°



60°



90°



125°

| cm     | In     |             |             |             |             |             |
|--------|--------|-------------|-------------|-------------|-------------|-------------|
| 13.0cm | 5 1/4" | 14-02063-13 | 14-02065-13 | 14-02067-13 | 14-02069-13 | 14-02071-13 |
| 16.0cm | 6 1/4" | 14-02063-16 | 14-02065-16 | 14-02067-16 | 14-02069-16 | 14-02071-16 |
| 19.0cm | 7 1/2" | 14-02063-19 | 14-02065-19 | 14-02067-19 | 14-02069-19 | 14-02071-19 |



**Hegemann (Diethrich)**  
14-02075-19  
19cm/7 1/2"





**Instrumed**  
Fine Surgical Instruments

**General Instruments**  
Vascular Scissors

**14**



18cm/7"

25°



14-02079-18

45°



14-02081-18

60°



14-02083-18

90°



14-02085-18

125°



14-02087-18

25°



14-02091-18

45°



14-02093-18

60°



14-02095-18

90°



14-02097-18

125°



14-02099-18



Nerve Dissecting Scissors



14-02103-15  
15cm/6"

Tonsil Scissors



**Bottcher**  
14-02107-18  
18cm/7"



**Prince**  
14-02111-17  
17.5cm/7"

Arteriotomy Scissors



**Tonnis-Adson-Fine**  
14-02115-17  
17.5cm/7"

***PinsmedTC***

Straight



**Tonnis**  
14-02118-18  
18cm/7"

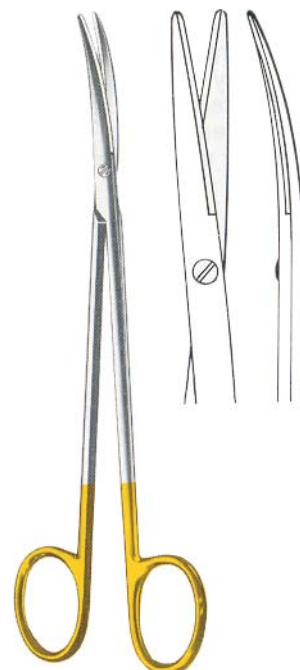
Curved



**Tonnis**  
14-02119-18  
18cm/7"



**Tonnis-Adson**  
14-02123-17  
17.5cm/7"



**Tonnis-Adson**  
14-02125-17  
17.5cm/7"



Tonsil Scissors



**Good**  
14-02129-19  
19 cm/7½"

Lobectomy Scissors



**Crafoord**  
14-02133-30  
30 cm/12"



**Finochietto**  
14-02137-27  
27 cm/10½"

Enterotomy Scissors



14-02142-21  
21 cm/8¼"



14-02146-21  
21 cm/8¼"



14-02150-21  
21 cm/8¼"



**Busch**  
14-02153-13 13 cm/5"  
14-02153-16 16 cm/6¼"



**Schumacher**  
14-02157-16  
16 cm/6¼"



**Mod. USA**  
14-02160-10  
10.5 cm/4¼"

***Pinsmed TC***



**Braun-Stadler**  
14-02163-14  
14 cm/5½"



**Braun-Stadler**  
14-02165-22  
22 cm/8½"



14-02169-23  
23 cm/9"



14-02171-23  
23 cm/9"



**Heymann**  
14-02175-18  
18 cm/7"



**Heymann**  
14-02177-19  
19.5 cm/7¾"



**Knight**  
14-02181-18  
18 cm/7"



**Fomon**  
14-02185-13  
13 cm/5"



**Fomon**  
14-02189-13  
13.5 cm/5¼"



**Fomon**  
14-02191-13  
13.5 cm/5¼"



**Cottle**  
14-02195-16  
16 cm/6¼"



**Halle**  
14-02199-19  
19 cm/7¼"



**Strully**  
14-02202-22 22 cm/8¾" 14-02203-22



**Dandy**  
14-02207-22 17 cm/6¾"



Trigeminal Scissors

**Olivecrona**  
14-02211-15



**Universal**  
14-02215-12 12 cm/4¾"



**Goldman-Fox**  
Straight  
14-02218-13 13 cm/5"



**Goldman-Fox**  
Curved  
14-02219-13 13 cm/5"

*Pinsmed TC*



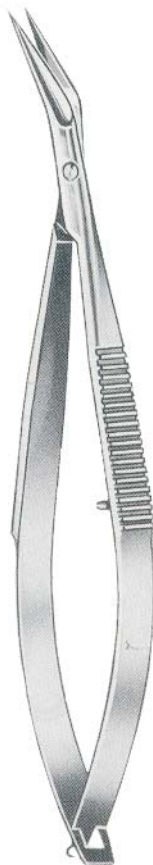


Fig. 1

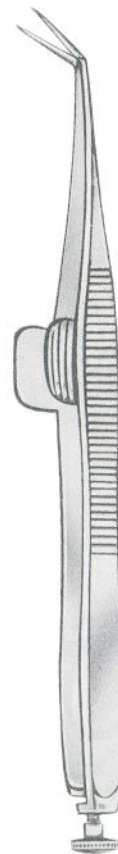


Fig. 2

Fig. 3



**Noyes**  
14-02225-12  
12 cm/4¾"



**Wecker**  
11.5 cm/4½"



14-02229-01

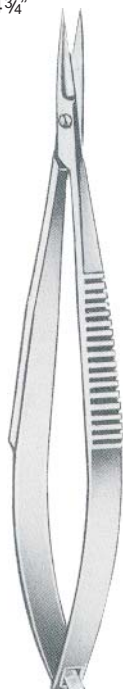


14-02229-02



**Barraquer**  
14-02233-05  
5.5 cm/2¼"

**Noyes**  
Fig. 1 14-02222-01  
Fig. 2 14-02222-02  
Fig. 3 14-02222-03  
12 cm/4¾"



14-02236-09  
9 cm/3½"



14-02238-09



14-02240-09



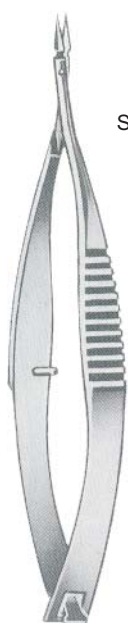
14-02243-09



14-02245-09

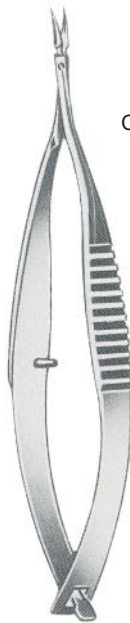


14-02247-09



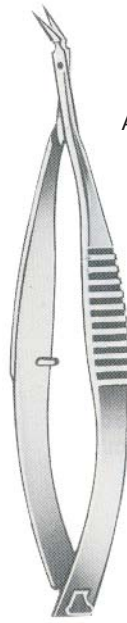
Straight

**Vannas**  
14-02250-08  
8 cm/3¼"



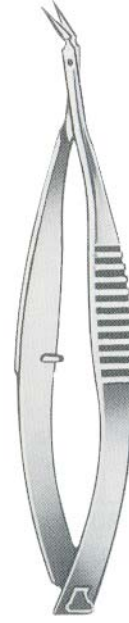
Curved

**Vannas**  
14-02253-08  
8 cm/3¼"



Angular

**Vannas**  
14-02255-08  
8 cm/3¼"



**Vannas**  
14-02257-08  
8 cm/3¼"



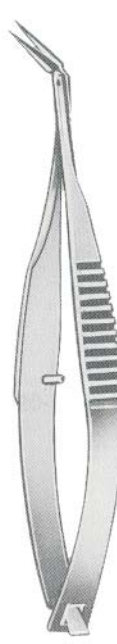
Straight

14-02260-08  
8.5 cm/3¼"



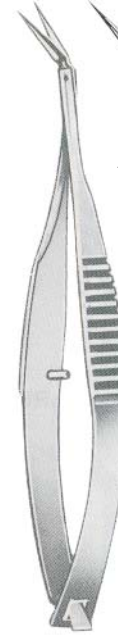
Curved

**Vannas Mod, Tubingen**  
14-02263-08  
8.5 cm/3½"



Angular

14-02265-08  
8.5 cm/3½"



Angular

14-02267-08  
8.5 cm/3½"



14-02270-10  
10 cm/4"



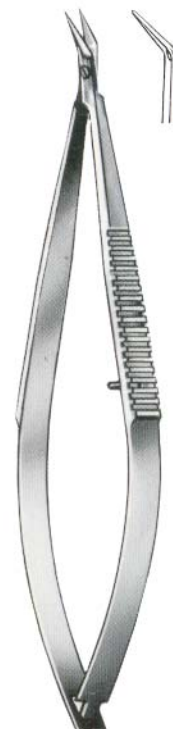
14-02271-10  
10 cm/4"



**Castroviejo**  
14-02273-10  
10 cm/4"



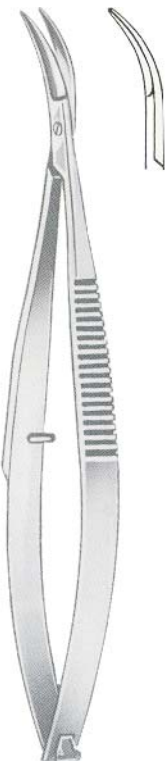
**Castroviejo**  
14-02275-10  
10 cm/4"



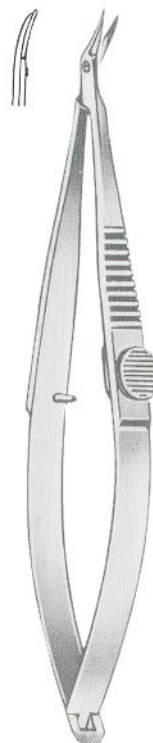
**Aebli**  
14-02277-10  
10 cm/4"



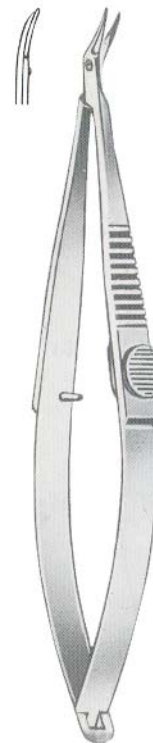
**Castroviejo**  
14-02281-10  
10 cm/4"



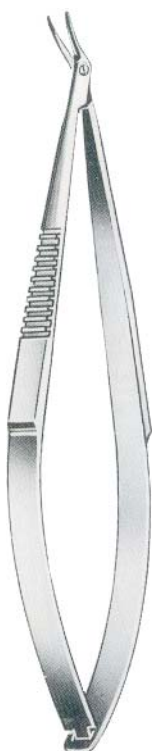
**Castroviejo**  
14-02283-10  
10 cm/4"



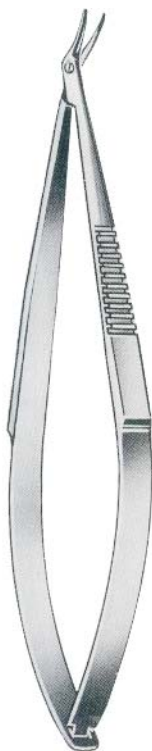
**Troutman-Barraquer**  
14-02285-10  
10 cm/4"



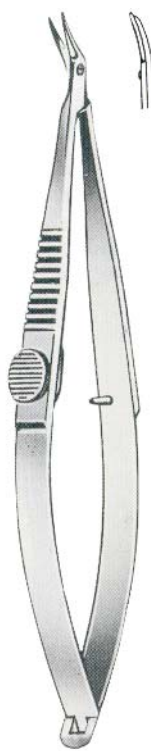
**Troutman-Barraquer**  
14-02287-10  
10 cm/4"



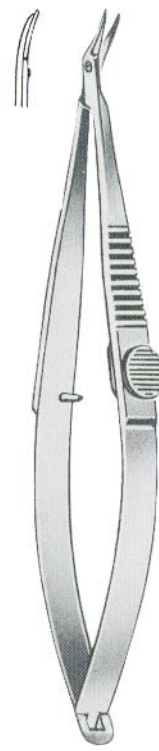
**Troutman**  
14-02291-10  
10 cm/4"



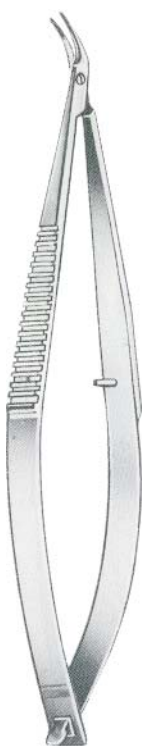
**Troutman**  
14-02293-10  
10 cm/4"



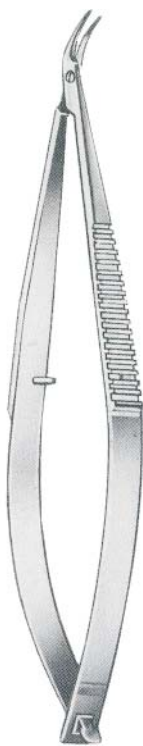
**Katzin-Barraquer**  
14-02295-10  
10 cm/4"



**Katzin-Barraquer**  
14-02297-10  
10 cm/4"



**Katzin**  
14-02301-11  
10 cm/4"



**Katzin**  
14-02303-11  
10 cm/4"



**Westcott**  
14-02307-11  
11 cm/4½"



**Westcott**  
14-02309-11  
11 cm/4½"



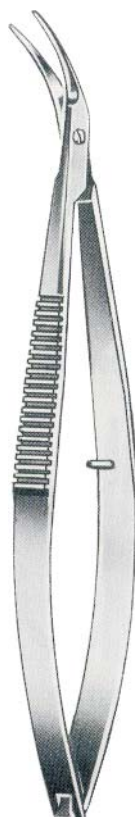
**Westcott**  
14-02311-11  
11 cm/4½"



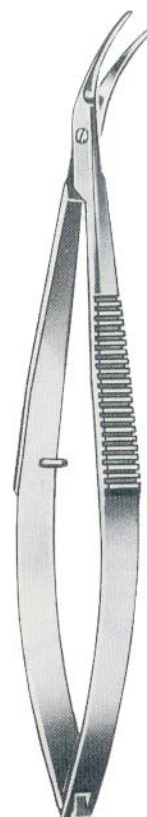
**Castroviejo**  
14-02315-10  
10 cm/4"



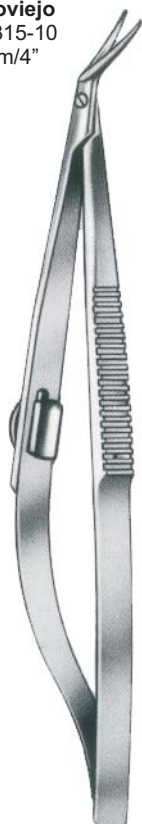
**Castroviejo**  
14-02317-10  
10 cm/4"



**Castroviejo**  
14-02321-11  
11.5 cm/4½"



**Castroviejo**  
14-02323-11  
11.5 cm/4½"



**Troutmann-Castroviejo**  
14-02327-10  
10.5 cm/4¼"



**Troutmann-Castroviejo**  
14-02329-10  
10.5 cm/4¼"

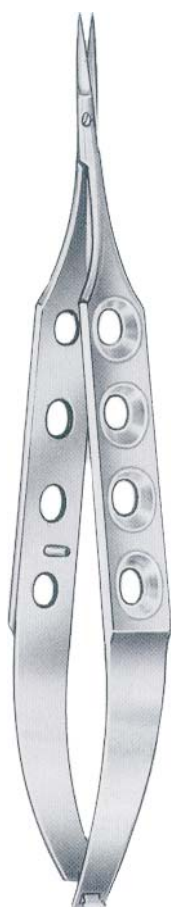


**Straight**  
14-02332-14  
14-02332-18

**Curved**  
14-02333-14  
14-02333-18

14.5 cm/5¾"  
18.0 cm/7"





**Straight**

|             |                |
|-------------|----------------|
| 14-02336-12 | 12.0 cm/4 3/4" |
| 14-02336-16 | 16.0 cm/6 1/4" |
| 14-02336-18 | 18.5 cm/7 1/4" |



**Curved**

|             |                |
|-------------|----------------|
| 14-02337-12 | 12.0 cm/4 3/4" |
| 14-02337-16 | 16.0 cm/6 1/4" |
| 14-02337-18 | 18.5 cm/7 1/4" |



**Vannas**  
**Straight**

|             |                |
|-------------|----------------|
| 14-02340-12 | 12.0 cm/4 3/4" |
| 14-02340-16 | 16.0 cm/6 1/4" |



**Vannas**  
**Curved**

|             |                |
|-------------|----------------|
| 14-02341-12 | 12.0 cm/4 3/4" |
| 14-02341-16 | 16.0 cm/6 1/4" |





**Yasargil**

16.5cm/6½"  
20.0cm/8"



Straight  
14-02344-16  
14-02344-20



Curved  
14-02345-16  
14-02345-20



Curved Downwards  
14-02347-20

20.0cm/8"

**Dissecting Scissors**



Straight  
14-02350-20



Curved  
14-02351-20

20.0cm/8"



**Yasargil**

22.5cm/9"  
24.5cm/9¾"



Straight  
14-02354-22  
14-02354-24



Curved  
14-02355-22  
14-02355-24



22.5cm/9"  
Curved Downwards  
14-02357-22

**Dissecting Scissors**



Straight  
14-02360-22



Curved  
14-02361-22

22.5cm/9"



**Jacobson**  
18cm/7"

14-02364-18



14-02370-19

14-02365-18



14-02371-19

14-02367-18



14-02373-19



14-02376-19



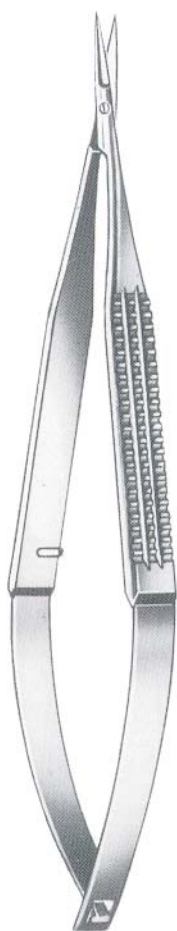
14-02377-19



19cm/7½"



Vein Scissors



Straight  
14-02384-12  
12cm/4¾"



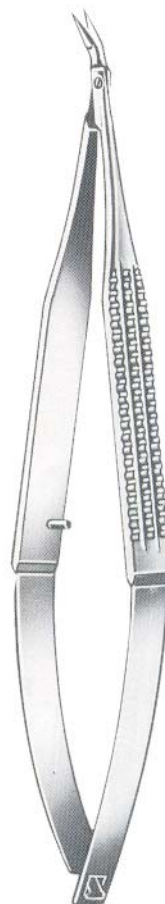
Curved  
14-02385-12  
12cm/4¾"



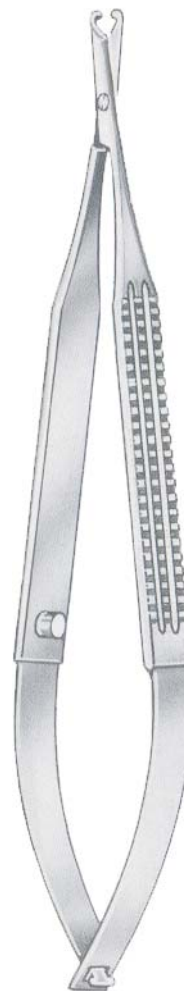
Straight  
14-02392-12  
12cm/4¾"



Curved  
14-02393-12  
12cm/4¾"



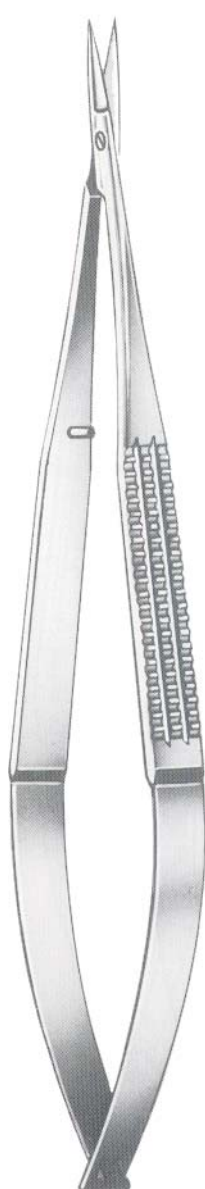
Angled up  
14-02395-12  
12cm/4¾"



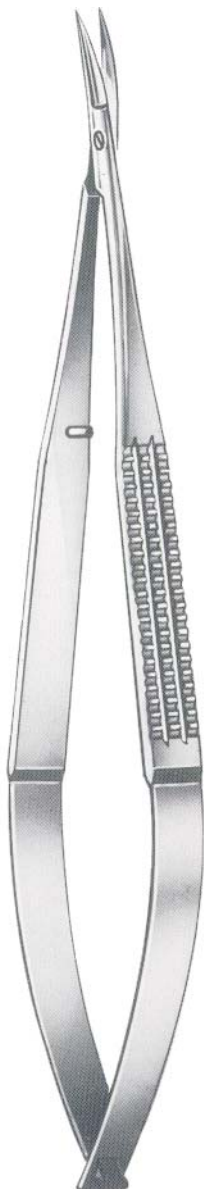
Straight  
14-02400-13  
13cm/5 ⅛"



Saw Edge



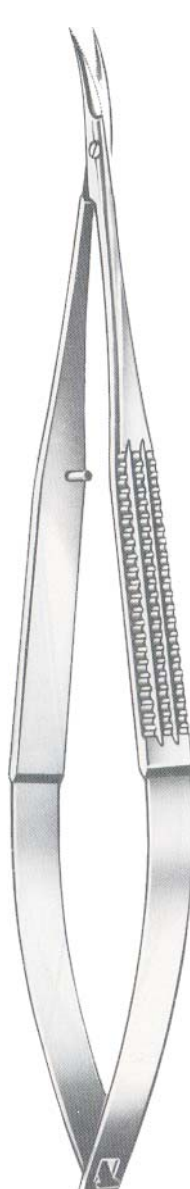
Straight  
14-02404-16  
16cm/6 1/4"



Curved  
14-02405-16  
16cm/6 1/4"



Straight  
14-02408-16  
16cm/6 1/4"



Curved  
14-02409-16  
16cm/6 1/4"



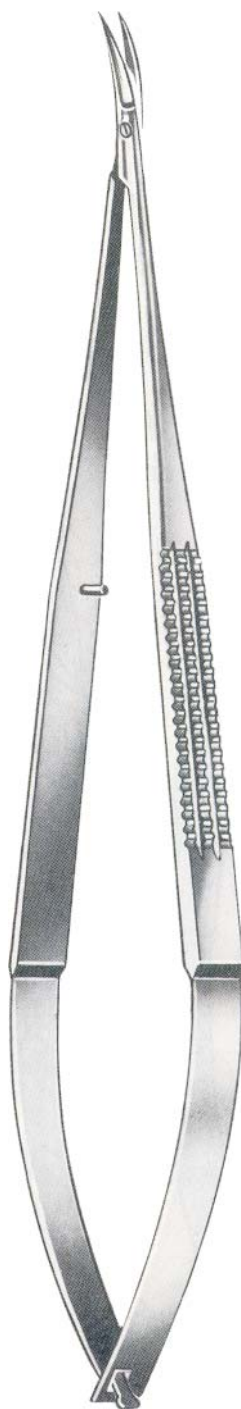
**Millesi**  
Straight  
14-02412-16  
16cm/6 1/4"



**Millesi**  
Curved  
14-02413-16  
16cm/6 1/4"



Straight  
14-02416-18  
18.5cm/7¼"



Curved  
14-02417-18  
18.5cm/7¼"



Angular  
14-02421-18  
18.5cm/7¼"





Straight  
14-02424-16  
16cm/6¼"



Curved  
14-02425-16  
16cm/6¼"



Straight  
14-02428-16  
16cm/6¼"



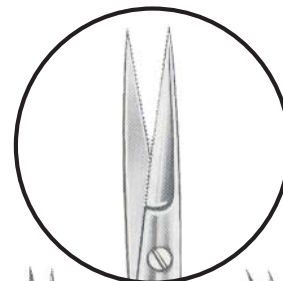
Curved  
14-02429-16  
16cm/6¼"



Straight  
14-02432-16  
16cm/6¼"



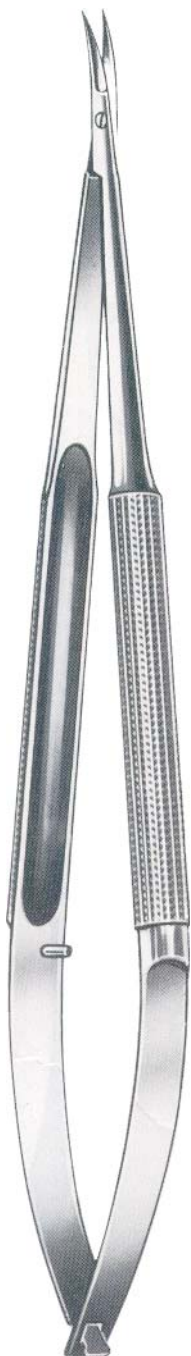
Curved  
14-02433-16  
16cm/6¼"



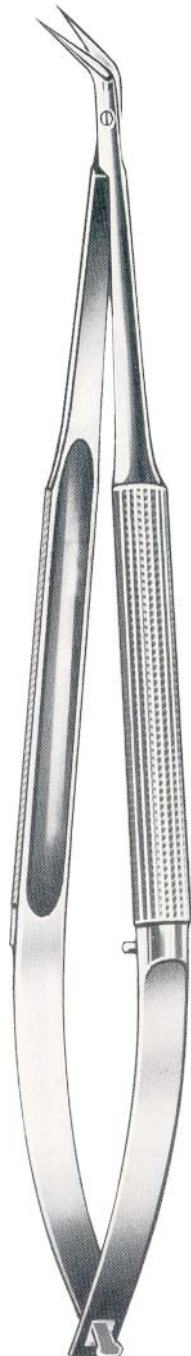
Saw Edge



Straight  
14-02436-18  
18.5cm/7¼"



Curved  
14-02437-18  
18.5cm/7¼"



Angular  
14-02441-18  
18.5cm/7¼"



Straight  
14-02444-23  
23cm/9"



Dissecting Scissors



Straight  
14-02448-14  
14.5cm/5¾"



Curved  
14-02449-14  
14.5cm/5¾"



Curved  
14-02451-14  
14.5cm/5¾"



***PinsmedTC***





**Standard**

|             |             |             |             |             |
|-------------|-------------|-------------|-------------|-------------|
| 9.0 cm/3½"  | 14-02482-09 | 14-02483-09 | 14-02485-09 | 14-02487-09 |
| 10.5 cm/4¼" | 14-02482-10 | 14-02483-10 | 14-02485-10 | 14-02487-10 |
| 11.5 cm/4½" | 14-02482-11 | 14-02483-11 | 14-02485-11 | 14-02487-11 |



**Fine**

**Fine**

|            |             |             |             |             |
|------------|-------------|-------------|-------------|-------------|
| 9.0cm/3¾"  |             |             | 14-02496-09 | 14-02497-09 |
| 10.5cm/4¼" | 14-02492-10 | 14-02493-10 | 14-02496-10 | 14-02497-10 |
| 11.5cm/4½" | 14-02492-11 | 14-02493-11 | 14-02496-11 | 14-02497-11 |





Straight  
**Fine**

|             |             |
|-------------|-------------|
| 9.5 cm/3¾"  | 14-02500-09 |
| 10.5 cm/4¼" | 14-02500-10 |
| 11.5 cm/4½" | 14-02500-11 |



Curved  
**Fine**

|             |
|-------------|
| 14-02501-09 |
| 14-02501-10 |
| 14-02501-11 |



Straight

|             |         |             |
|-------------|---------|-------------|
| 14-02504-10 | 10cm/4" | 14-02505-10 |
|-------------|---------|-------------|

Curved

**Tenotomy Scissors**



10.5cm/4¼"  
11.5cm/4½"



Pointed

|             |
|-------------|
| Straight    |
| 14-02508-10 |
| 14-02508-11 |



|             |
|-------------|
| Curved      |
| 14-02509-10 |
| 14-02509-11 |



Blunt

|             |
|-------------|
| Straight    |
| 14-02512-10 |
| 14-02512-11 |



|             |
|-------------|
| Curved      |
| 14-02513-10 |
| 14-02513-11 |



Straight  
14-02516-08



**Bonn**  
8cm/3¼" Curved  
14-02517-08





**Graefe**  
14-02520-10  
10.5cm/4¼"



**Wilmer**  
14-02521-10  
10cm/4"



14-02524-11



11.5cm/4½" 14-02525-11

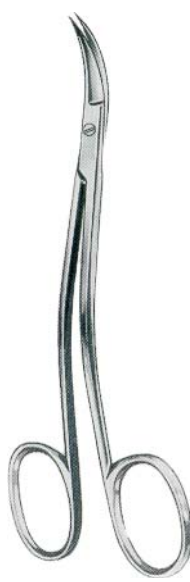
***PinsmedTC***



**Straight**  
14-02528-11



**Curved**  
14-02529-11



**La Grange**  
14-02532-11  
11.5cm/4½"



**Chadwick**  
14-02533-11  
11cm/4½"



Neurosurgical Scissors



Straight

14-02536-11  
14-02536-13

11cm/4½"  
13cm/5"



Curved

14-02537-11  
14-02537-13



**Potts-de Martel**  
14-02541-21  
21cm/8¼"



**Mills**  
14-02543-21  
21cm/8¼"



Dura Scissors

**Schmieden-Taylor**  
14-02547-14 14.5cm/5¾"  
14-02547-17 17.0cm/6¾"



14-02551-22

**Strully**  
22cm/8¾"



14-02553-22



**Dandy**  
14-02555-17  
17cm/6¾"



**Littauer**  
14-02559-14  
14cm/5½"



**Spencer**  
14-02563-09  
9cm/3½"



**Spencer**  
14-02565-10 10.5cm/4¼"  
14-02565-12 12.0cm/4¾"



**Spencer-Fine**  
14-02567-11 11.5cm/4½"  
14-02567-16 16cm/6¼"



**Shortbent**  
14-02571-09  
9cm/3½"



**Northbent**  
14-02575-12  
12.5cm/5"



**Spencer**  
14-02579-11  
11.5cm/4½"



**Littler**  
14-02583-11  
11.5cm/4½"



**Heath**  
14-02587-15  
15cm/6"



14-02591-10  
10cm/4"



**Eiselsberg**  
14-02595-11  
11.5cm/4½"



**Schoemaker-Loth**  
14-02599-12  
12.5cm/5"

Wire Cutting Scissors



**Universal**  
14-02603-12  
12cm/4¾"

Saw Edge



|       | Universal   |
|-------|-------------|
| Black | 14-02607-01 |
| Blue  | 14-02607-02 |
| Red   | 14-02607-03 |
| Green | 14-02607-04 |

14.5 cm/5 $\frac{3}{4}$ "



|  | Universal   |
|--|-------------|
|  | 14-02609-01 |
|  | 14-02609-02 |
|  | 14-02609-03 |
|  | 14-02609-04 |

16 cm/6 $\frac{1}{4}$ "



|  | Universal   |
|--|-------------|
|  | 14-02611-01 |
|  | 14-02611-02 |
|  | 14-02611-03 |
|  | 14-02611-04 |

18 cm/7"

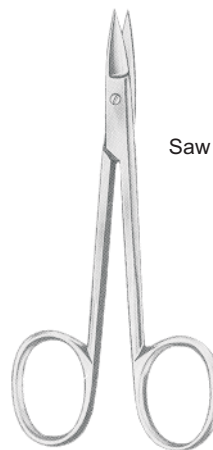


**Smith**  
14-02615-17  
17.5 cm/7"



**Harvey**  
14-02618-12  
12.5 cm/5"

Saw edge



**Schuknecht**  
14-02622-10  
10 cm/4"

Saw edge



Nail Splinting Scissors

14-02626-13 13 cm/5"  
14-02626-15 15 cm/6"



*PinsmedTC*



**Lister**

14-02629-09 09.0 cm/3½"  
14-02629-11 11.5 cm/4½"  
14-02629-14 14.0 cm/5½"  
14-02629-15 15.5 cm/6"  
14-02629-18 18.0 cm/7"  
14-02629-20 20.0 cm/8"



**Lister**

14-02631-18  
18 cm/7"



**Lister**

14-02633-18 18.5 cm/7¼"  
14-02633-21 21.0 cm/8¼"



**Lister-Excentric**

14-02637-16 16 cm/6¼"  
14-02637-19 19 cm/7½"



**Esmarch**

14-02641-20 20 cm/8"  
14-02641-22 22 cm/8¾"



**Bergmann**

14-02645-23  
23 cm/9"



**Lorenz**

14-02649-23  
23 cm/9"





Saw edge

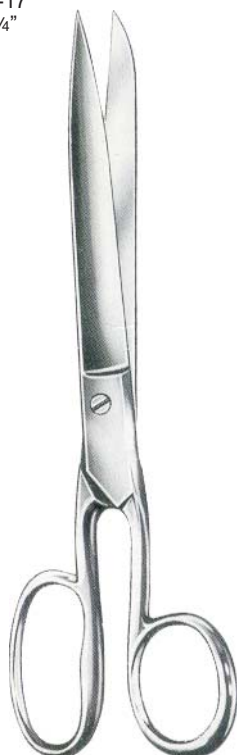
14-02653-17  
17 cm/6¾"



**Lange**  
14-02657-18  
18 cm/7"



**Bruns**  
14-02661-24 24 cm/9½" Saw edge  
14-02663-24 24 cm/9½" Smooth  
14-02667-24 24 cm/9½" **Pinsmed TC**



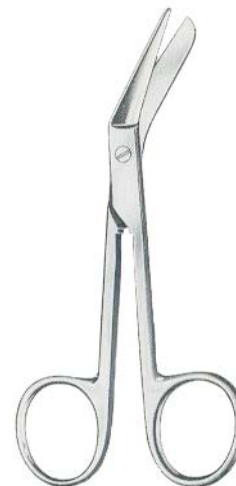
**Smith (Mod. USA)**  
14-02671-18 18 cm/7"  
14-02671-20 20 cm/8"  
14-02671-23 23 cm/9"



**Knowles**  
14-02674-14  
14 cm/5½"



**Knowles**  
14-02675-14  
14 cm/5½"



14-02679-13  
13 cm/5"



14-02683-20  
20 cm/8"



**Seutin**  
14-02687-23  
23 cm/9"



14-2691-23  
23 cm/9"



**Collin**  
14-02695-22  
22 cm/8¾"



**Gluck**  
14-02699-22  
22 cm/8¾"



**Stille**  
14-02701-21  
21 cm/8¼"



**Stille**  
14-02703-24  
24 cm/9½"



**Stille**  
14-02705-23 23 cm/9"  
14-02705-26 26 cm/10¼"  
14-02705-37 37 cm/14½"



**Beebee**  
Straight  
10.5 cm/4 1/4"

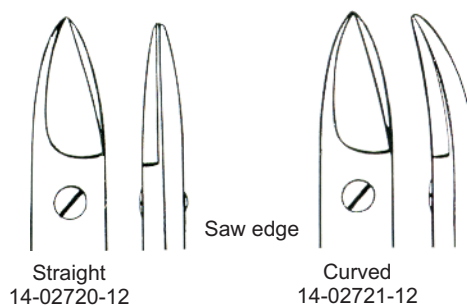


**Beebee**  
Curved  
10.5 cm/4 1/4"



14-02716-10  
10.5 cm/4 1/4"

**Beebee**  
12 cm/4 3/4"



Straight  
14-02720-12

Curved  
14-02721-12



**Goldmann-Fox**  
14-02724-13  
13 cm/5"

Saw edge



**Goldmann-Fox**  
14-02725-13  
13 cm/5"



**Niro**  
14-02729-14  
14 cm/5 1/2"



**Goldmann-Fox**  
(Spezial)  
14-02733-13  
13 cm/5"

Saw edge



14-02737-11  
11.5 cm/4 1/2"

Fine



**Quinby**  
14-02740-12  
12 cm/4 3/4"



**Quinby**  
14-02741-12  
12 cm/4 3/4"



**Dean**  
14-02745-17  
17 cm/6 $\frac{3}{4}$ "

Saw edge



**Dean**  
14-02747-17  
17 cm/6 $\frac{3}{4}$ "



**Locklin**  
14-02751-16  
16.5 cm/6 $\frac{1}{2}$ "

Saw edge



**Locklin**  
14-02753-16  
16.5 cm/6 $\frac{1}{2}$ "



**Sullivan**  
14-02758-14  
14.5 cm/5 $\frac{3}{4}$ "

Saw edge



**Sullivan**  
14-02759-14  
14.5 cm/5 $\frac{3}{4}$ "



**Neumann**  
14-02763-12  
12.5 cm/5"



**La Grange**  
14-02765-11  
11.5 cm/4 $\frac{1}{2}$ "

Saw edge





14-02768-11      **Standard**      11.5 cm/4½"      14-02769-11      14-02772-11      **Standard**      11.5 cm/4½"      14-02773-11      **Chadwick**      14-02777-11      11.5 cm/4½"

**Nail scissors**



09.0 cm/3½"  
10.5 cm/4¼"

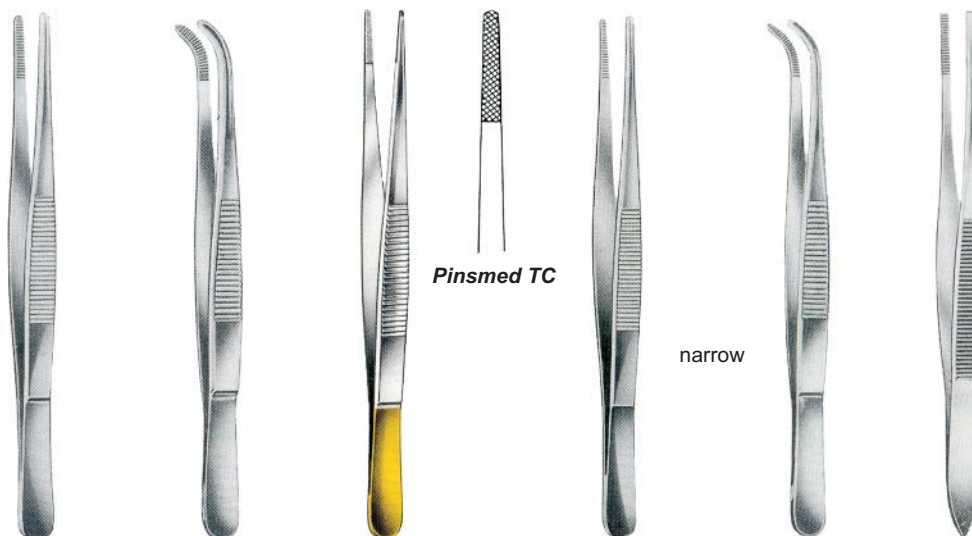
14-02780-09  
14-02780-10

14-02781-09  
14-02781-10

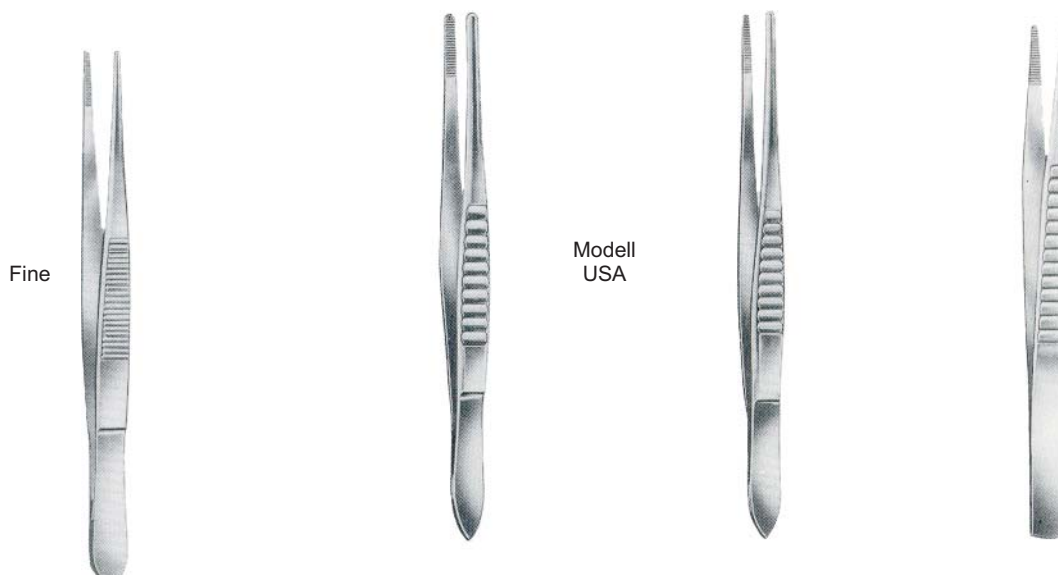
14-02784-09  
14-02784-10

14-02785-09  
14-02785-10

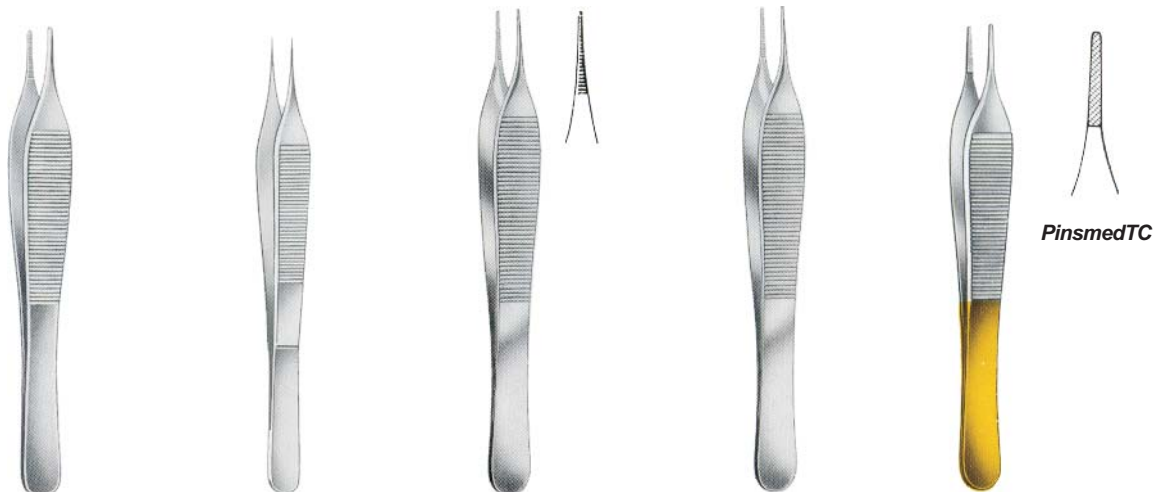




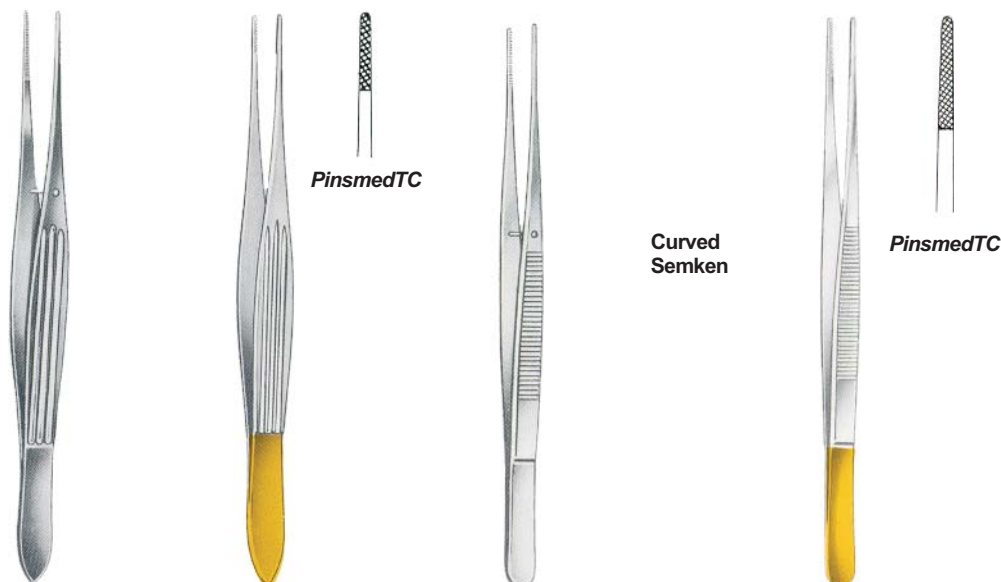
| cm   | in     | Standard    | Standard    | Standard    |             |             | Stille      |
|------|--------|-------------|-------------|-------------|-------------|-------------|-------------|
| 10.5 | 4 1/4" | 15-02788-10 |             |             |             |             |             |
| 11.5 | 4 1/2" | 15-02788-11 | 15-02789-11 |             | 15-02796-11 | 15-02797-11 |             |
| 13.0 | 5"     | 15-02788-13 | 15-02789-13 |             | 15-02796-13 | 15-02797-13 | 15-02802-13 |
| 14.5 | 5 3/4" | 15-02788-14 | 15-02789-14 | 15-02792-14 | 15-02796-14 | 15-02797-14 |             |
| 15.0 | 6"     | 15-02788-15 |             |             |             |             | 15-02802-15 |
| 16.0 | 6 1/4" | 15-02788-16 | 15-02789-16 | 15-02792-16 | 15-02796-16 | 15-02797-16 |             |
| 17.0 | 6 3/4" |             |             |             |             |             | 15-02802-17 |
| 18.0 | 7"     | 15-02788-18 | 15-02789-18 | 15-02792-18 | 15-02796-18 | 15-02797-18 |             |
| 20.0 | 8"     | 15-02788-20 | 15-02789-20 | 15-02792-20 | 15-02796-20 | 15-02797-20 | 15-02802-20 |
| 25.0 | 10"    | 15-02788-25 | 15-02789-25 | 15-02792-25 | 15-02796-25 | 15-02797-25 |             |
| 30.0 | 12"    | 15-02788-30 | 15-02789-30 |             | 15-02796-30 | 15-02797-30 |             |



| cm   | in     | Standard    | Narrow      | Engl. Modell |
|------|--------|-------------|-------------|--------------|
| 11.5 | 4 1/2" | 15-02806-11 |             |              |
| 12.0 | 4 3/4" |             | 15-02810-12 |              |
| 13.0 | 5"     | 15-02806-13 | 15-02810-13 | 15-02818-13  |
| 14.5 | 5 3/4" | 15-02806-14 | 15-02810-14 | 15-02818-14  |
| 15.0 | 6"     | 15-02806-15 | 15-02810-15 | 15-02818-15  |
| 16.0 | 6 1/4" | 15-02806-16 |             |              |
| 18.0 | 7"     | 15-02806-18 |             |              |
| 20.0 | 8"     | 15-02806-20 |             |              |
| 21.0 | 8 1/4" |             | 15-02810-21 |              |
| 25.0 | 10"    |             | 15-02810-25 |              |
| 30.0 | 12"    |             | 15-02810-30 |              |



| cm   | in                              | Ewald       | Jacobson-Adson | Micro-Adson | Adson-Standard | Adson       |
|------|---------------------------------|-------------|----------------|-------------|----------------|-------------|
| 12.0 | 4 <sup>3</sup> / <sub>4</sub> " | 15-02822-12 | 15-02826-12    | 15-02830-12 | 15-02834-12    | 15-02838-12 |
| 15.5 | 6"                              | 15-02822-15 | 15-02826-15    | 15-02830-15 | 15-02834-15    | 15-02838-15 |



| cm   | in                              | McIndoe     | McIndoe     | Semken      | Semken      | Semken      |
|------|---------------------------------|-------------|-------------|-------------|-------------|-------------|
| 12.0 | 4 <sup>3</sup> / <sub>4</sub> " |             |             | 15-02848-12 | 15-02849-12 | 15-02852-12 |
| 15.0 | 6"                              | 15-02842-15 | 15-02844-15 | 15-02848-15 | 15-02849-15 | 15-02852-15 |



15-02856-17



15-02857-17



**Taylor**  
15-02862-17  
17.5cm/7"



15-02863-17



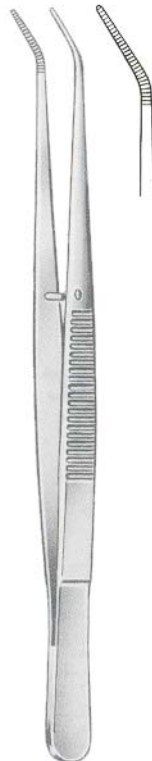
With Dissector

15-02867-17

Smooth Jaw



**Waugh**



15-02874-18

15-02874-20

15-02878-20



**Bonney**

15-02882-18



**Brophy**

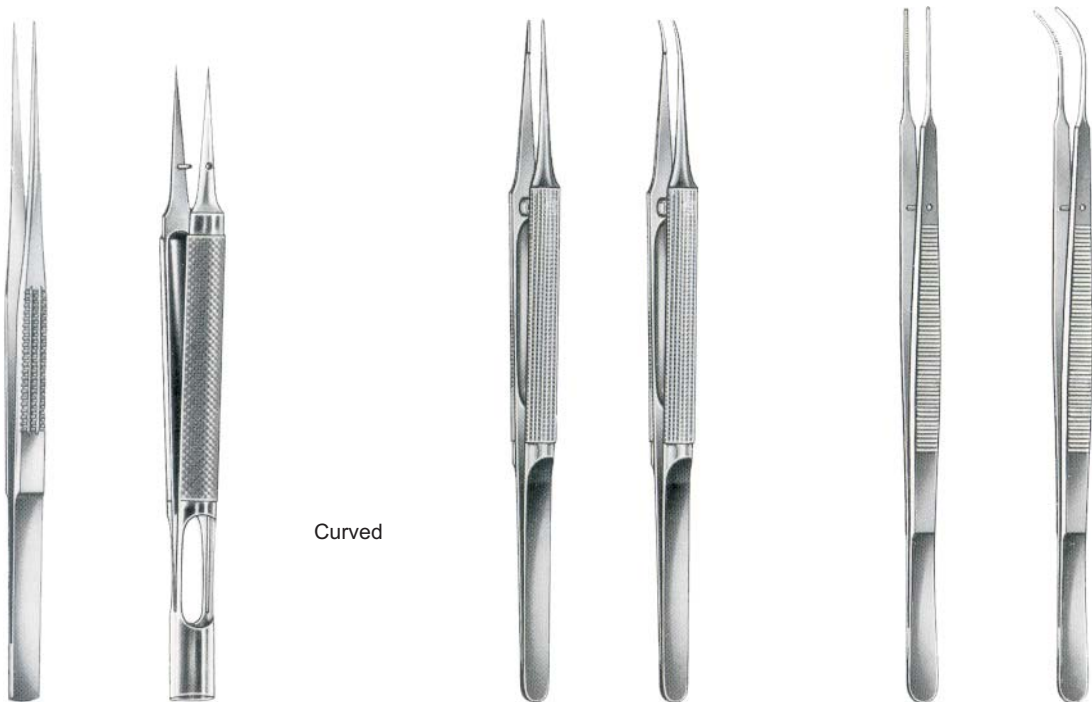
15-02886-18



**Brophy**

15-02887-18

| cm   | in |
|------|----|
| 15.0 | 6" |
| 18.0 | 7" |
| 20.0 | 8" |

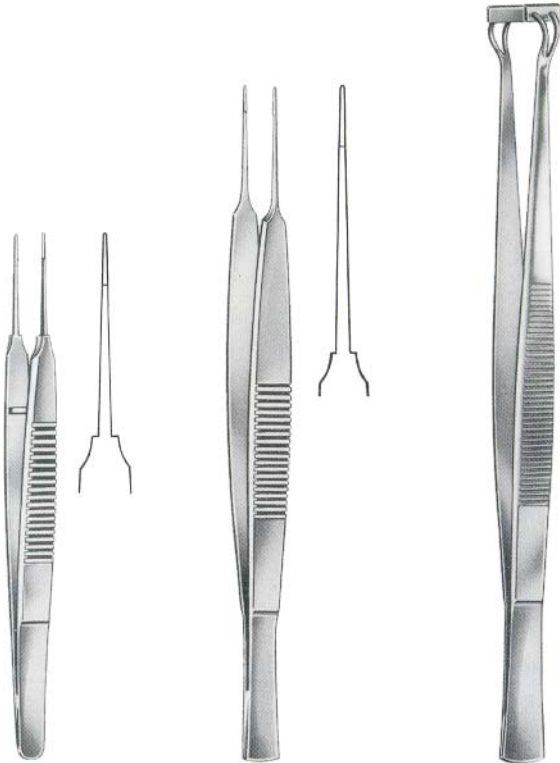


Curved

Gerald

| cm   | in  |             |             |             |             |             |             |
|------|-----|-------------|-------------|-------------|-------------|-------------|-------------|
| 12.0 | 4¾" |             |             | 15-02898-12 | 15-02899-12 |             |             |
| 13.0 | 5"  | 15-02894-13 | 15-02895-13 |             |             |             |             |
| 15.0 | 6"  | 15-02890-15 |             | 15-02898-15 | 15-02899-15 |             |             |
| 17.5 | 7"  |             |             |             |             | 15-02902-17 | 15-02903-17 |
| 18.0 | 7"  | 15-02890-18 |             | 15-02898-18 | 15-02899-18 |             |             |

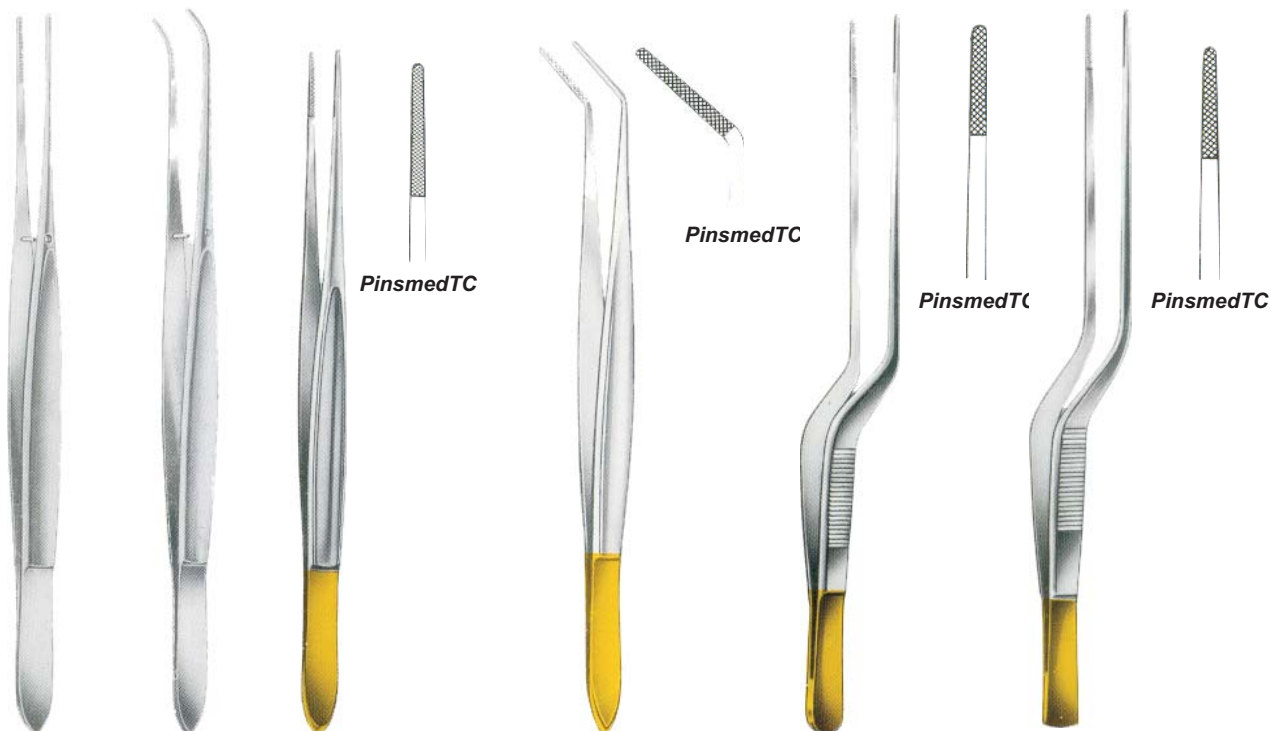
Micro Tubal Forceps



**Austin**  
15-02906-14  
14cm/5½"

**Austin**  
15-02908-18  
18cm/7"

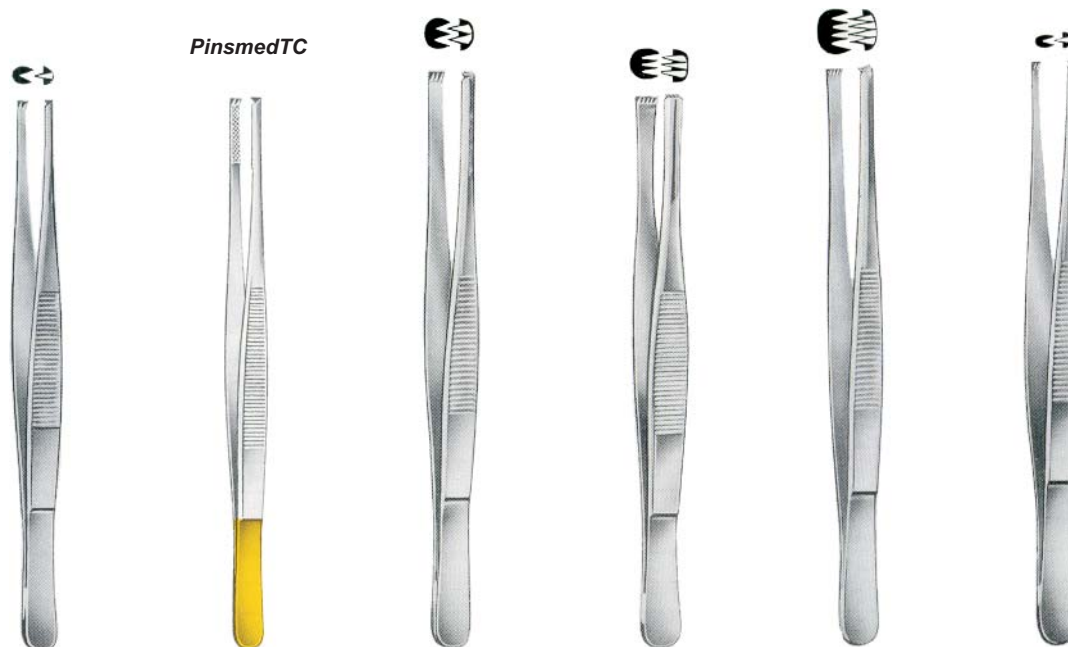
**Neubuser**  
15-02912-20  
20cm/8"



| cm   | in | Cushing     | Cushing     | Cushing     | Cushing     | Cushing-Taylor | Grunwald    |
|------|----|-------------|-------------|-------------|-------------|----------------|-------------|
| 18.0 | 7  | 15-02916-18 | 15-02917-18 | 15-02920-18 | 15-02923-18 | 15-02927-18    | 15-02929-18 |



| cm   | in     | Wangensteen |             | Potts-Smith |             |             |
|------|--------|-------------|-------------|-------------|-------------|-------------|
| 15.0 | 6"     | 15-02932-15 |             |             |             |             |
| 18.0 | 7"     |             | 15-02936-18 | 15-02940-18 | 15-02944-18 | 15-02948-15 |
| 20.0 | 8"     |             |             |             |             | 15-02948-18 |
| 21.0 | 8 1/4" |             |             | 15-02940-21 | 15-02944-21 | 15-02948-20 |
| 23.0 | 9"     | 15-02932-23 | 15-02936-23 |             |             | 15-02948-23 |
| 25.0 | 10"    | 15-02932-25 |             | 15-02940-25 | 15-02944-25 | 15-02948-25 |



| cm   | in  | Standard<br>1:2 | Oehler<br>1:2 | Standard<br>2:3 | Standard<br>3:4 | Standard<br>4:5 | Standard<br>1:2 |
|------|-----|-----------------|---------------|-----------------|-----------------|-----------------|-----------------|
| 10.5 | 4¼" | 15-02952-10     |               |                 |                 |                 |                 |
| 11.5 | 4½" | 15-02952-11     |               |                 |                 |                 |                 |
| 13.0 | 5"  | 15-02952-13     |               | 15-02960-13     | 15-02964-13     | 15-02968-13     | 15-02972-13     |
| 14.5 | 5¾" | 15-02952-14     | 15-02956-14   | 15-02960-14     | 15-02964-14     | 15-02968-14     | 15-02972-14     |
| 15.0 | 6"  | 15-02952-15     |               |                 |                 |                 |                 |
| 16.0 | 6¼" | 15-02952-16     | 15-02956-16   | 15-02960-16     | 15-02964-16     | 15-02968-16     | 15-02972-16     |
| 18.0 | 7"  | 15-02952-18     | 15-02956-18   | 15-02960-18     |                 |                 | 15-02972-18     |
| 20.0 | 8"  | 15-02952-20     | 15-02956-20   | 15-02960-20     |                 |                 | 15-02972-20     |
| 25.0 | 10" | 15-02952-25     | 15-02956-25   | 15-02960-25     |                 |                 | 15-02972-25     |
| 30.0 | 12" | 15-02952-30     | 15-02956-30   | 15-02960-30     |                 |                 |                 |





Modell  
USA



Modell  
USA



Modell  
USA



narrow

**Standard**

| cm   | in                               | 1:2         | 2:3         | 3:4         | 1:2         |
|------|----------------------------------|-------------|-------------|-------------|-------------|
| 12.0 | 4 <sup>3</sup> / <sub>4</sub> "  | 15-02976-12 | 15-02980-12 |             |             |
| 13.0 | 5"                               | 15-02976-13 | 15-02980-13 |             | 15-02988-13 |
| 14.5 | 5 <sup>3</sup> / <sub>4</sub> "  | 15-02976-14 | 15-02980-14 | 15-02984-14 | 15-02988-14 |
| 15.5 | 6"                               | 15-02976-15 |             |             | 15-02988-15 |
| 18.5 | 7 <sup>1</sup> / <sub>4</sub> "  | 15-02976-18 | 15-02980-18 |             |             |
| 21.0 | 8 <sup>1</sup> / <sub>4</sub> "  | 15-02976-21 | 15-02980-21 |             |             |
| 25.0 | 10"                              | 15-02976-25 | 15-02980-25 |             |             |
| 31.0 | 12 <sup>1</sup> / <sub>4</sub> " | 15-02976-31 | 15-02980-31 |             |             |



**Lerche**

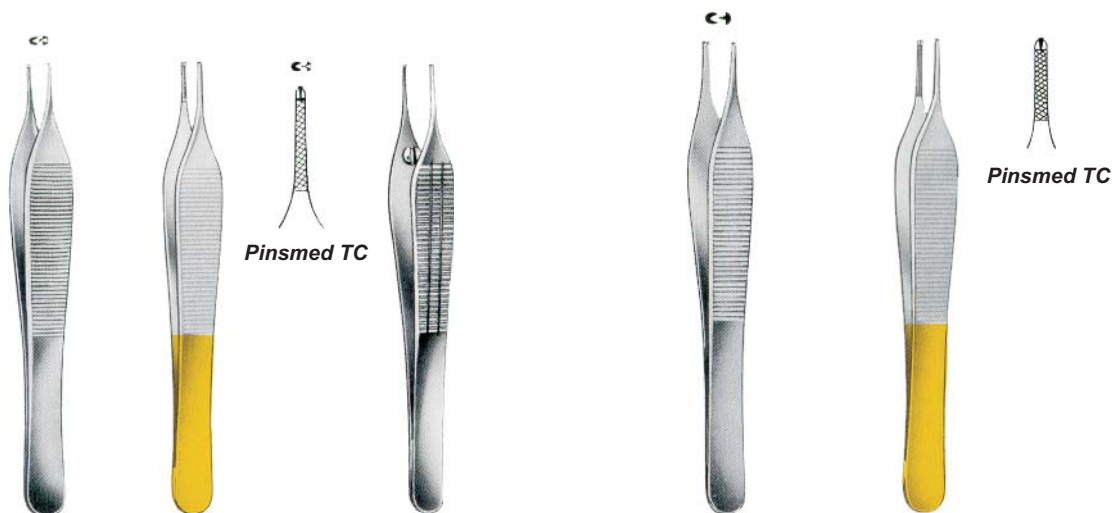


**Stone**

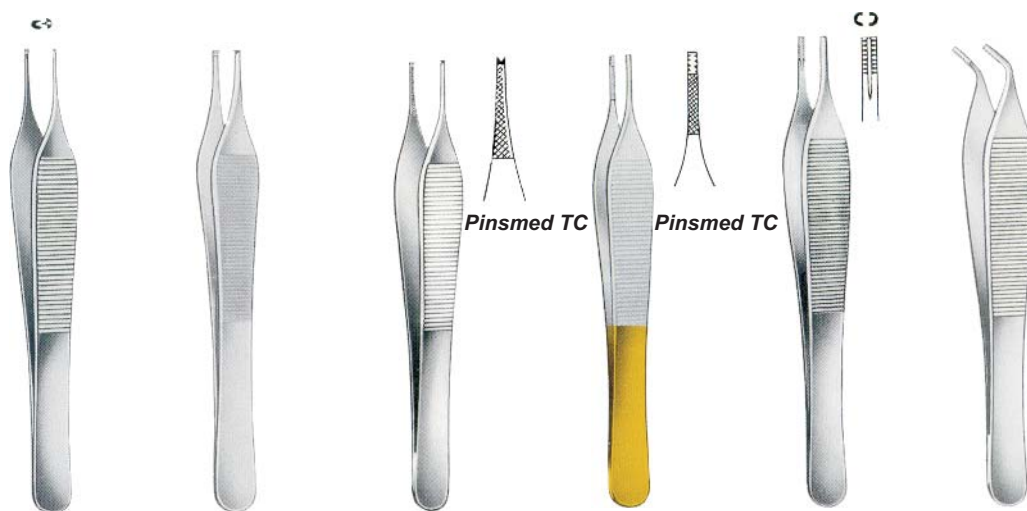


**Treves**

| cm   | in | Lerche      | Stone       | Treves      |
|------|----|-------------|-------------|-------------|
| 13.0 | 5" |             |             | 15-03000-13 |
| 15.0 | 6" | 15-02992-15 | 15-02996-15 | 15-03000-15 |



|      |                   | Micro-Adson |             |             | Ewald       | Standard-Adson |
|------|-------------------|-------------|-------------|-------------|-------------|----------------|
| cm   | in                |             |             |             |             |                |
| 12.0 | 4 $\frac{3}{4}$ " | 15-03004-12 | 15-03008-12 | 15-03012-12 | 15-03016-12 | 15-03020-12    |
| 15.5 | 6"                | 15-03004-15 | 15-03008-15 | 15-03012-15 |             | 15-03020-15    |



|      |                   | Adson       |             |             | Adson-Brown |             |             |
|------|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| cm   | in                |             |             |             |             |             |             |
| 12.0 | 4 $\frac{3}{4}$ " | 15-03024-12 | 15-03028-12 | 15-03032-12 | 15-03036-12 | 15-03040-12 | 15-03041-12 |
| 15.0 | 6"                | 15-03024-15 | 15-03028-15 |             |             |             |             |



**Gillies**  
15-03046-15 15 cm/6"



**Gillies**  
15-03050-15 15 cm/6"



*Pinsmed TC*



**Brown**  
15-03054-15 15 cm/6"  
15-03054-20 20 cm/8"  
15-03054-25 25 cm/10"



**Semken**  
15-03058-12 12 cm/4¾" 15-03062-12  
15-03058-15 15 cm/6" 15-03062-15



**Adlerkreutz**  
15-03066-15 15 cm/6"  
15-03066-20 20 cm/8"  
15-03066-25 25 cm/10"



**Adlerkreutz**  
15-03070-15 15 cm/6"  
15-03070-20 20 cm/8"  
15-03070-25 25 cm/10"



**Taylor**  
15-03074-17 17.5 cm/7"



**Taylor**  
15-03075-17 17.5 cm/7"



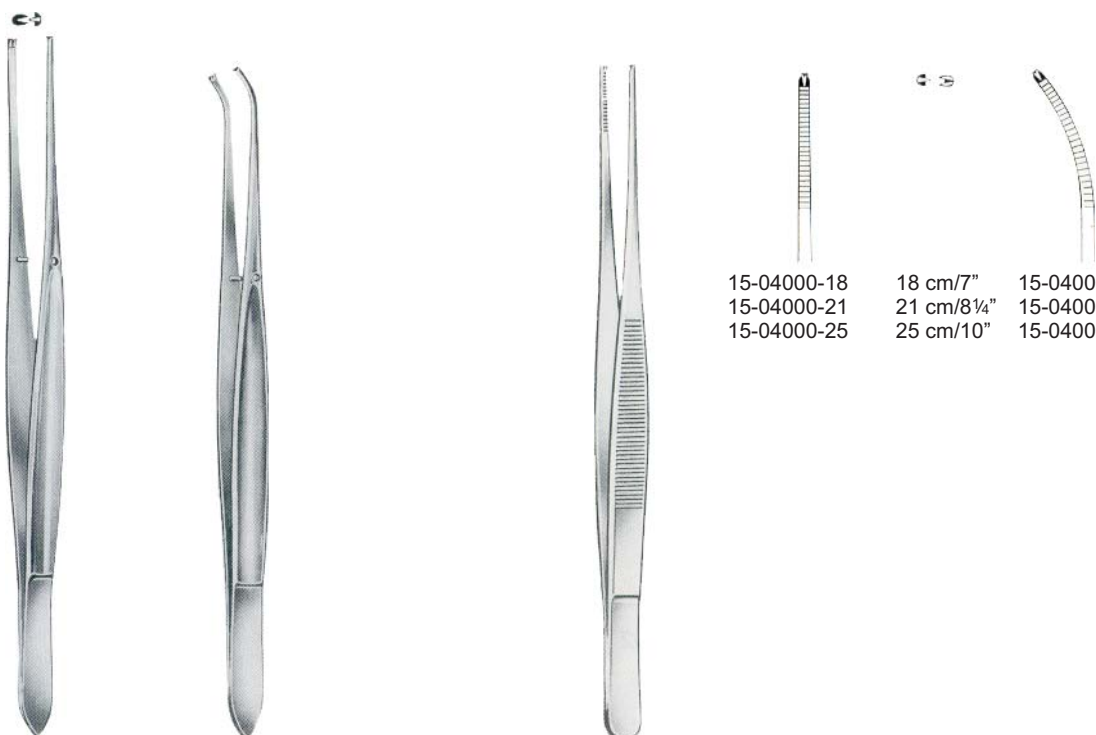
**Taylor**  
15-03078-17 17.5 cm/7"



**Taylor**  
15-03079-17 17.5 cm/7"



| cm | in | Waugh       | Brophy      | Brophy      | Gerald      | Gerald      |
|----|----|-------------|-------------|-------------|-------------|-------------|
| 15 | 6" | 15-03082-15 |             |             |             |             |
| 18 | 7" | 15-03082-18 |             |             | 15-03092-18 | 15-03093-18 |
| 20 | 8" | 15-03082-20 | 15-03086-20 | 15-03087-20 |             |             |



**Cushing**  
15-03096-18  
17.5 cm/7"

**Cushing**  
15-03097-18  
17.5 cm/7"

**Potts-Smith**

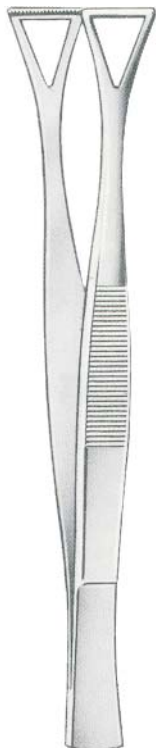
15-04000-18  
15-04000-21  
15-04000-25

18 cm/7"  
21 cm/8¼"  
25 cm/10"

15-04001-18  
15-04001-21  
15-04001-25



**Duval**  
15-04004-14 14.5 cm/5¾"



**Collin-Duval**  
15-04008-20 20 cm/8"



**Durante**  
15-04012-14 14.5 cm/5¾"  
15-04012-16 16.0 cm/6¼"  
15-04012-20 20.0 cm/8"



**Russ. Modell**  
15-04016-15 15 cm/6"  
15-04016-20 20 cm/8"  
15-04016-25 25 cm/10"



**Mayo**  
15-04020-23 23 cm/9"



**Ferris-Smith**  
18 cm/7"



15-04022-18



1:2



15-04023-18



2:3



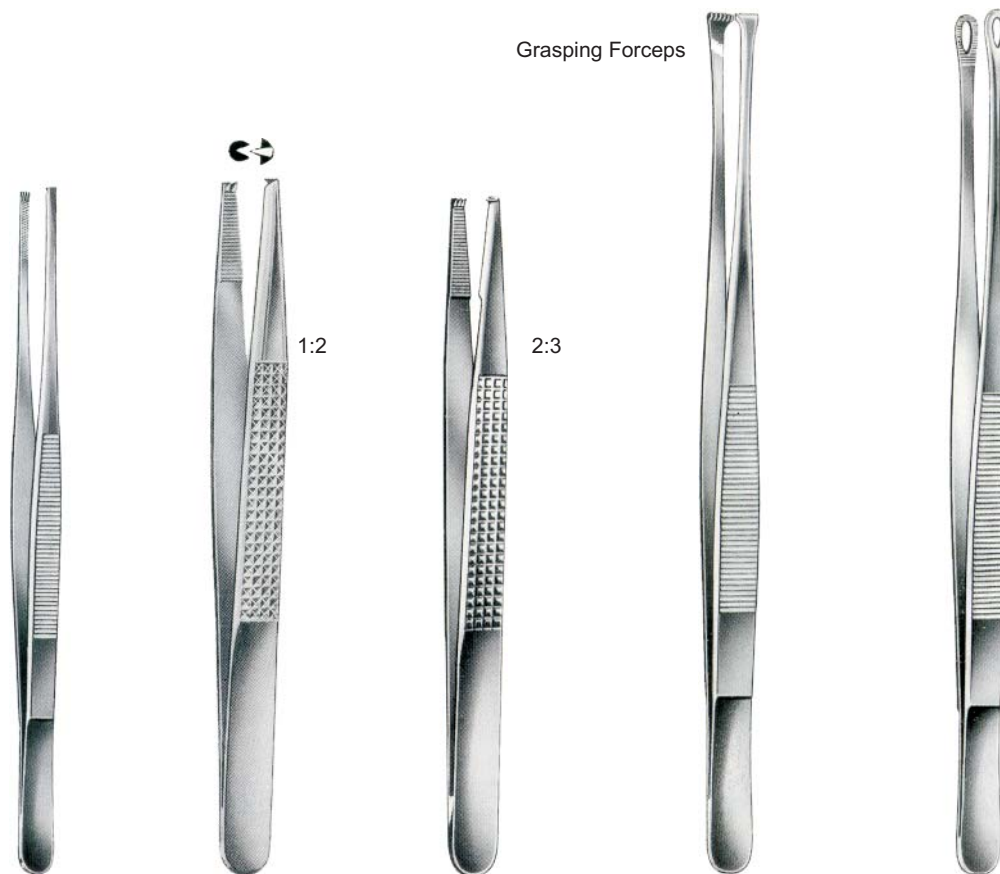
**Lane**  
15-04026-14 14.5 cm/5¾"  
15-04026-20 20.0 cm/8"



15-04028-14  
15-04028-20

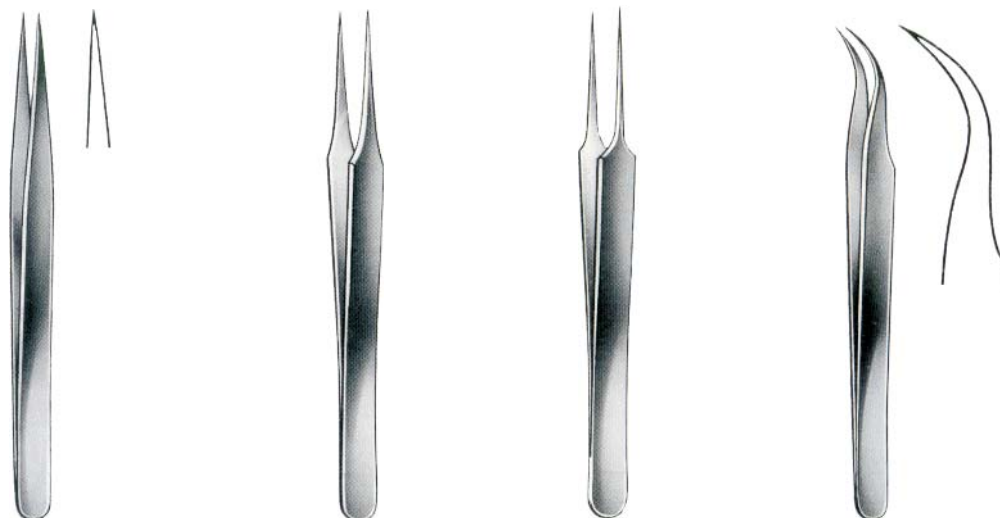


Grasping Forceps



| cm   | in  | Stille-Barraya | Bonney      | Bonney      | Nelson      | Singley-Tuttle |
|------|-----|----------------|-------------|-------------|-------------|----------------|
| 15.0 | 6"  |                |             |             | 15-04042-15 |                |
| 18.0 | 7"  | 15-04032-18    | 15-04036-18 | 15-04038-18 | 15-04042-18 | 15-04046-18    |
| 20.0 | 8"  | 15-04032-20    |             |             | 15-04042-23 |                |
| 23.0 | 9"  |                |             |             |             | 15-04046-23    |
| 25.0 | 10" | 15-04032-25    |             |             |             |                |

Watchmaker's Forceps



No. 3  
15-04050-03  
11.5cm/4½"

No. 4  
15-04050-04  
11.5cm/4½"

No. 5  
15-04050-05  
11.5cm/4½"

No. 7  
15-04050-07  
11.5cm/4½"





| cm   | in     |             |             |             |             |             |             |
|------|--------|-------------|-------------|-------------|-------------|-------------|-------------|
| 10.5 | 4 1/4" | 15-04054-10 | 15-04055-10 | 15-04057-10 | 15-04060-10 | 15-04061-10 | 15-04063-10 |

Splinter Forceps  
With pin

Smooth



| cm   | in     |             |             |             |             |
|------|--------|-------------|-------------|-------------|-------------|
| 9.0  | 3 1/2" | 15-04066-09 | 15-04067-09 | 15-04070-09 | 15-04071-09 |
| 10.5 | 4 1/4" | 15-04066-10 | 15-04067-10 | 15-04070-10 | 15-04071-10 |
| 11.5 | 4 1/2" | 15-04066-11 | 15-04067-11 | 15-04070-11 | 15-04071-11 |
| 12.5 | 5"     | 15-04066-12 | 15-04067-12 | 15-04070-12 | 15-04071-12 |



**Feilchenfeld**

15-04074-07 7.5cm/3"  
15-04074-09 9.0cm/3½"  
15-04074-11 11.5cm/4½"



**Hunter**

15-04078-10 10.5cm/4¼"



15-04079-10



**Walter-Carmalt**

15-04082-10 10.5cm/4¼" 15-04083-10



**Peet**

15-04087-11  
11.5cm/4½"



**Stieglitz**

13.5cm/5¼"

**Without Ratchet**

15-04090-13



**With Ratchet**

15-04094-13



**Ralk**

15-04098-15  
15cm/6"



**Ralk**

15-04099-15  
15cm/6"



Ligature Forceps



**Ochsner**  
15-04102-14  
14.5cm/5¾"



**Adson**  
15-04106-12  
12cm/4¾"



**Adson**  
15-04108-12  
12cm/4¾"

Cilia Forceps



**Beupre**  
15-04111-12  
12cm/4¾"



**Henry**  
15-04115-12  
12cm/4¾"



**Gradle**  
15-04118-09  
9.5cm/3¾"



**Barraquer**  
15-04121-10  
10.5cm/4¼"



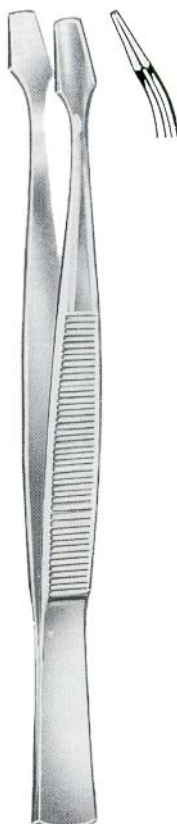
**Bennett**  
15-04124-07  
7cm/2¾"



| cm  | in     | Beer        | Douglas     | Ziegler     |             |
|-----|--------|-------------|-------------|-------------|-------------|
| 8.0 | 3 1/4" | 15-04128-08 |             |             |             |
| 9.0 | 3 1/2" | 15-04128-09 | 15-04132-09 | 15-04136-09 | 15-04140-09 |



**Kuehne**  
15-04144-10  
10.5cm/4 1/4"



**Kuehne**  
15-04145-10  
10.5cm/4 1/4"



15-04148-10  
10.5cm/4 1/4"



Atrauma



1.5 mm



2.0 mm



2.8 mm



3.5 mm



2.0 mm



Adson

15-04164-12 12cm/4¾"  
15-04164-15 15cm/6"

| cm   | in  | 1.5 mm      | 2.0 mm      | 2.8 mm      | 3.5 mm      | 2.0 mm      |
|------|-----|-------------|-------------|-------------|-------------|-------------|
| 16.0 | 6¼" | 15-04154-16 | 15-04156-16 | 15-04158-16 | 15-04160-16 | 15-04161-16 |
| 20.0 | 8"  | 15-04154-20 | 15-04156-20 | 15-04158-20 | 15-04160-20 | 15-04161-20 |
| 24.0 | 9½" | 15-04154-24 | 15-04156-24 | 15-04158-24 | 15-04160-24 | 15-04161-24 |
| 30.0 | 12" | 15-04154-30 | 15-04156-30 | 15-04158-30 | 15-04160-30 | 15-04161-30 |



Troeltsch  
(Wilde)



Troeltsch



Lucae



Lucae



Jansen  
(Gruenwald)

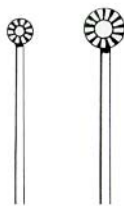


Jansen

| cm   | in  | Troeltsch (Wilde) | Troeltsch   | Lucae       | Lucae       | Jansen (Gruenwald) | Jansen      |
|------|-----|-------------------|-------------|-------------|-------------|--------------------|-------------|
| 11.5 | 4½" | 15-04167-11       |             |             |             |                    |             |
| 12.0 | 4¾" | 15-04167-12       | 15-04171-12 | 15-04175-14 | 15-04177-14 |                    |             |
| 14.0 | 5½" |                   |             |             |             |                    |             |
| 15.0 | 6"  | 15-04167-15       |             |             |             |                    |             |
| 16.0 | 6¼" |                   |             |             |             | 15-04181-16        | 15-04183-16 |
| 18.0 | 7"  | 15-04167-18       |             |             |             | 15-04181-18        | 15-04183-18 |
| 20.0 | 8"  |                   |             |             |             | 15-04181-20        | 15-04183-20 |



Jaw spoon, Shaped  
3 mm 15-04187-03  
5 mm 15-04187-05



Jaw folt, Serrated  
3 mm 15-04189-03  
5 mm 15-04189-05



Curette Jaw, Toothed  
3 mm 15-04191-03  
5 mm 15-04191-05

**Yasargil**  
22cm/8½"



1 x 0.5 mm Ø



1 x 0.5 mm Ø



2 x 1 mm Ø



2 x 1 mm Ø

|          |             |             |             |             |
|----------|-------------|-------------|-------------|-------------|
| 15cm/6"  | 15-04194-16 | 15-04196-16 | 15-04198-18 | 15-04200-18 |
| 18cm/7"  |             |             |             |             |
| 22cm/8¾" | 15-04194-22 | 15-04196-22 | 15-04198-22 | 15-04200-22 |





**Yasargil**

22cm/8¾"  
24cm/9½"

Ø 3 mm  
15-04203-22  
15-04203-24

Ø 5 mm  
15-04205-22  
15-04205-24

Ø 7 mm  
15-04207-24

22cm/8¾"

Ø 3 mm  
15-04209-22

Ø 3 mm  
15-04211-22

Ø 5 mm  
15-04213-22

Ø 5 mm  
15-04215-22  
22cm/8¾"



**Yasargil**

16cm/6 1/4"  
18cm/7"  
20cm/8"  
22cm/8 3/4"  
24cm/9 1/2"



0.6 mm  
15-04219-16  
15-04219-18  
15-04219-20  
15-04219-22  
15-04219-24



0.9 mm  
15-04221-16  
15-04221-18  
15-04221-20  
15-04221-22  
15-04221-24



15-04223-18  
18cm/7"



**Dieffenbach**  
16-04226-03  
3.5cm/1½"  
16-04226-05  
5cm/2"



**Dieffenbach**  
16-04227-03  
3.5cm/1½"  
16-04227-05  
5cm/2"

Straight

For Bulldog Clamps

16-04234-01 38mm/1½"  
16-04234-02 51mm/2"  
16-04234-03 57mm/2¼"  
16-04234-04 63mm/2½"  
16-04234-05 70mm/2¾"  
16-04234-06 75mm/3"  
16-04234-07 90mm/3½"



**Johns-Hopkins**

Curved

16-04235-01 38mm/1½"  
16-04235-02 51mm/2"  
16-04235-03 57mm/2¼"  
16-04235-04 63mm/2½"  
16-04235-05 70mm/2¾"  
16-04235-06 75mm/3"  
16-04235-07 90mm/3½"



**Johns-Hopkins**  
16-04237-24  
24.5cm/9¾"



**Dieffenbach**  
16-04230-06  
6cm/2½"



**Dieffenbach**  
16-04231-06  
6cm/2½"

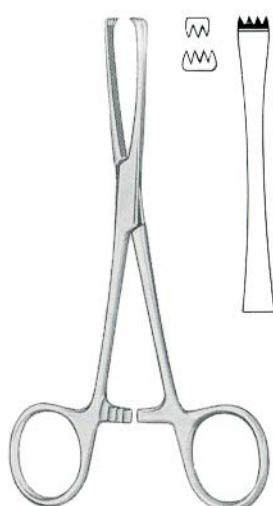
Haemorrhoidal Clamps



**Carrel**  
16-04240-10  
10cm/4"



**Chaput**  
16-04242-13  
13cm/5"



**Tuffier**  
16-04246-13  
13cm/5"



**Pratt**  
16-04250-15  
15cm/6"



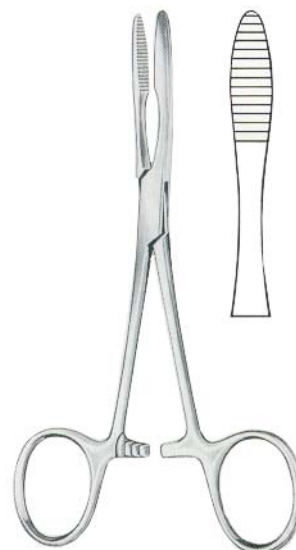
**Terrier**  
16-04254-10 10 cm/4"



**Pennington**  
16-04258-15 15 cm/6"  
16-04558-20 20 cm/8"



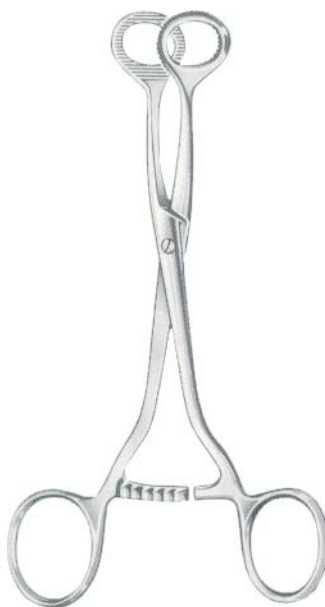
**Pean**  
16-04262-12 12.5 cm/5"



**Pean**  
16-04266-14 14 cm/5 3/4"  
16-04566-16 16 cm/6 1/4"



**Pean**  
16-04270-14 14 cm/5 1/2"



**Collin**  
16-04274-15 15.5 cm/6"



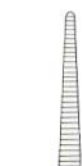
**Collin**  
16-04278-14 14 cm/5 1/2"



**Collin**  
16-04282-16 16.5 cm/6 1/2"



**Hartmann**  
10 cm/4"



16-04286-10



16-04290-10



16-04287-10



16-04291-10



**Halstead-Mosquito**  
12 cm/4 $\frac{3}{4}$ "  
14 cm/5 $\frac{1}{2}$ "



16-04294-12  
16-04294-14



16-04295-12  
16-04295-14



16-04298-12  
16-04298-14



16-04299-12  
16-04299-14



**Micro-Mosquito**  
10 cm/4"  
12 cm/4 $\frac{3}{4}$ "



16-04302-10  
16-04302-12



16-04303-10  
16-04303-12



16-04306-10  
16-04306-12



16-04307-10  
16-04307-12



**Jacobson-Halstead**  
13 cm/5"

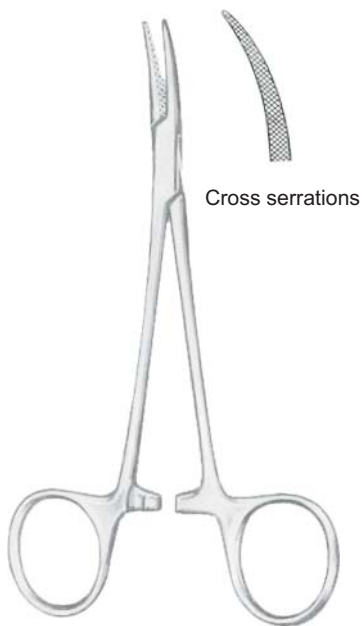


16-04310-13



16-04311-13

Very fine

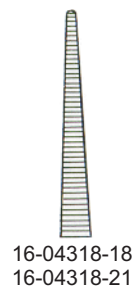


Cross serrations

16-04315-12  
12 cm/4¾"



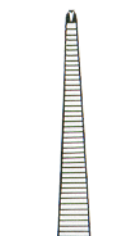
**Halstead-Mosquito**  
18 cm/7"  
21 cm/8¼"



16-04318-18  
16-04318-21



16-04319-18  
16-04319-21



16-04322-18  
16-04322-21



16-04323-18  
16-04323-21



**Kelly**  
14 cm/5½"

**Kelly-Rankin**  
16 cm/6¼"



16-04326-14



14 cm/5½" 16-04327-14



16-04330-16



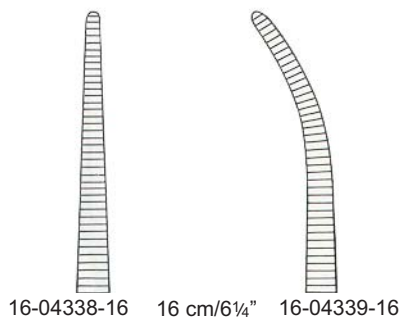
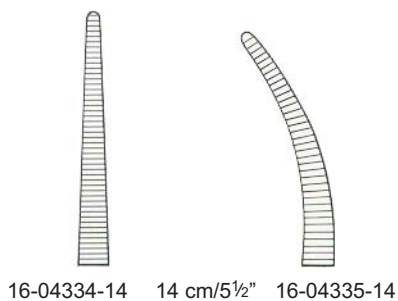
16 cm/6¼" 16-04331-16



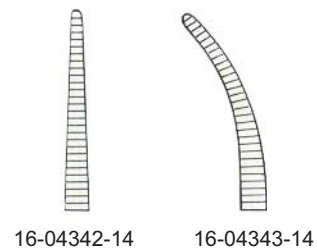


**Crile**  
14 cm/5½"

**Crile-Rankin**  
16 cm/6¼"

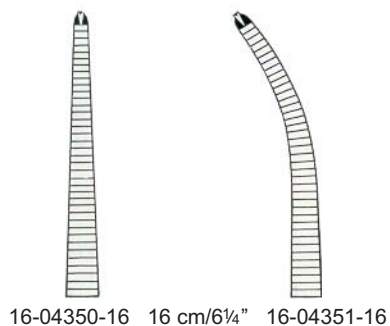
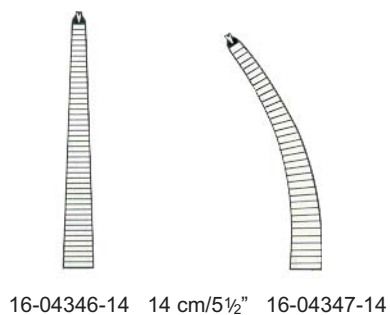


**Baby-Crile**  
14 cm/5½"

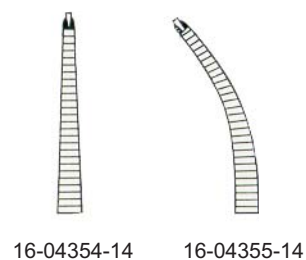


**Crile**  
14 cm/5½"

**Crile-Rankin**  
16 cm/6¼"

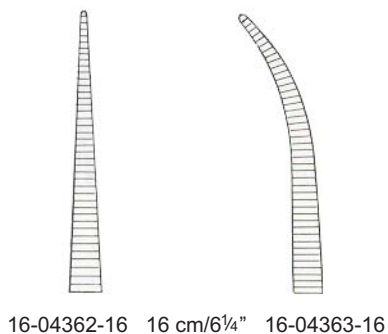
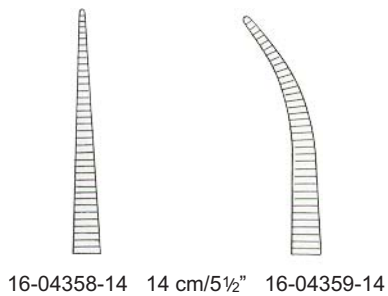


**Baby-Crile**  
14 cm/5½"





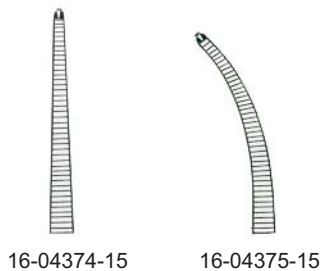
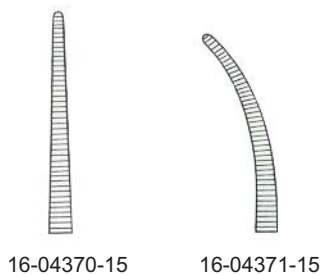
**Coller-Crile**



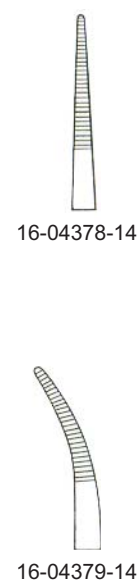
**Coller-Crile**  
16-04367-16  
16 cm/6¼"

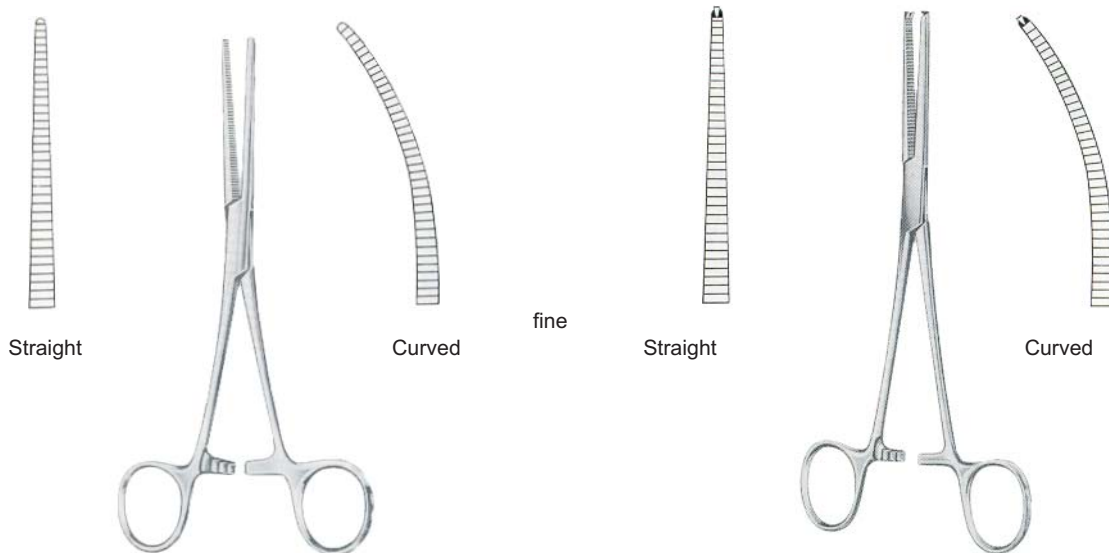


**Leriche**  
15 cm/6"

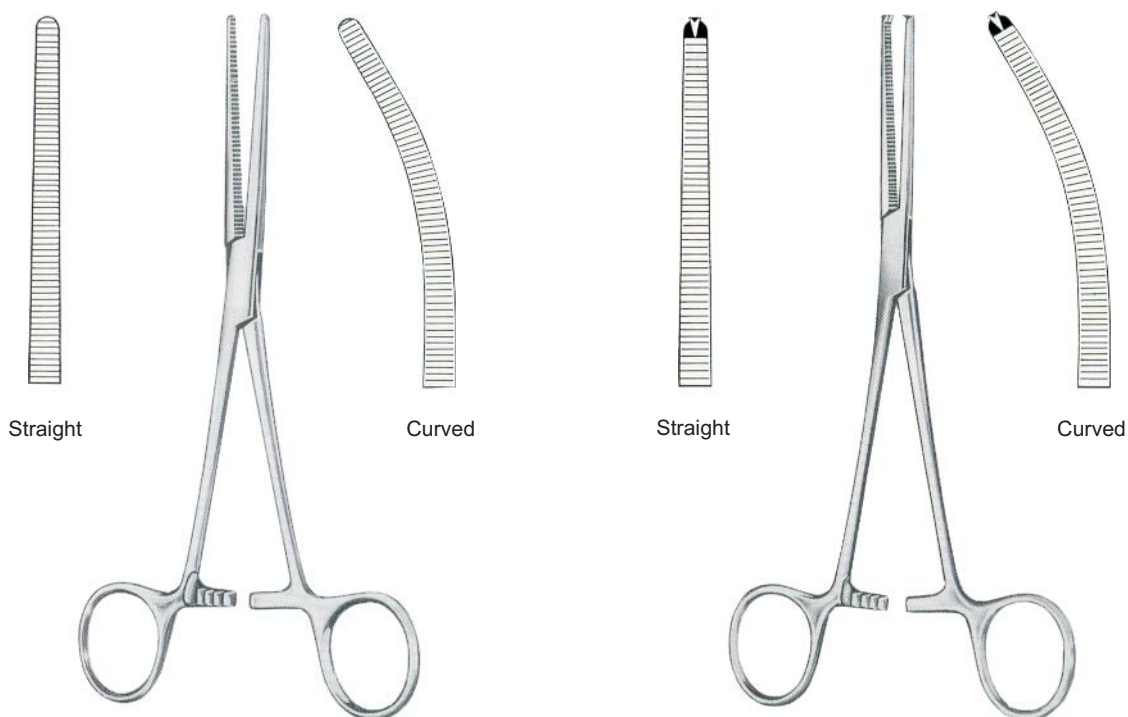


**Providence**  
14 cm/5½"

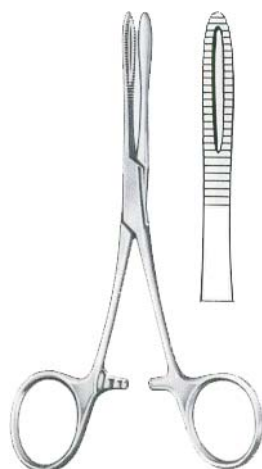




| Rochester-Pean |             | cm   | in  | Ochsner-Kocher |             |
|----------------|-------------|------|-----|----------------|-------------|
| 16-04382-13    | 16-04383-13 | 13.0 | 5"  | 16-04386-13    | 16-04387-13 |
| 16-04382-14    | 16-04383-14 | 14.0 | 5½" | 16-04386-14    | 16-04387-14 |
| 16-04382-16    | 16-04383-16 | 16.0 | 6¼" | 16-04386-16    | 16-04387-16 |



| Rochester-Pean |             | cm   | in   | Ochsner-Kocher |             |
|----------------|-------------|------|------|----------------|-------------|
| 16-04390-13    | 16-04391-13 | 13.0 | 5"   | 16-04394-13    | 16-04395-13 |
| 16-04390-14    | 16-04391-14 | 14.0 | 5½"  | 16-04394-14    | 16-04395-14 |
| 16-04390-16    | 16-04391-16 | 16.0 | 6¼"  | 16-04394-16    | 16-04395-16 |
| 16-04390-18    | 16-04391-18 | 18.0 | 7"   | 16-04394-18    | 16-04395-18 |
| 16-04390-20    | 16-04391-20 | 20.0 | 8"   | 16-04394-20    | 16-04395-20 |
| 16-04390-22    | 16-04391-22 | 22.0 | 8¾"  | 16-04394-22    | 16-04395-22 |
| 16-04390-24    | 16-04391-24 | 24.0 | 9½"  | 16-04394-24    | 16-04395-24 |
| 16-04390-26    | 16-04391-26 | 26.0 | 10¼" | 16-04394-26    | 16-04395-26 |
| 16-04390-30    | 16-04391-30 | 30.0 | 12"  | 16-04394-30    | 16-04395-30 |



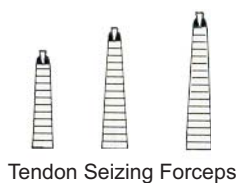
**Kronlein**  
16-04398-13  
13cm/5"



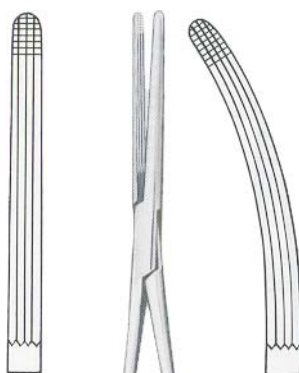
**Brand**  
16-04402-15 15cm/6"  
16-04402-19 19cm/7½"  
16-04402-24 24cm/9½"



**Brand**  
16-04403-15 15cm/6"  
16-04403-19 19cm/7½"  
16-04403-24 24cm/9½"



Tendon Seizing Forceps



16-04406-16  
16-04406-20

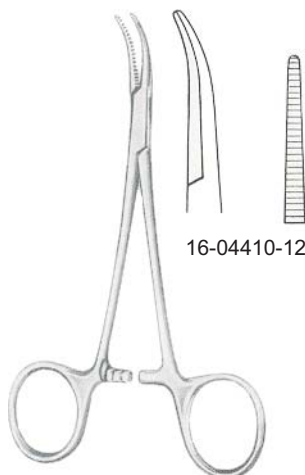


16-04407-16  
16-04407-20



**Rochester-Carmalt**  
16cm/6¼"  
20cm/8"

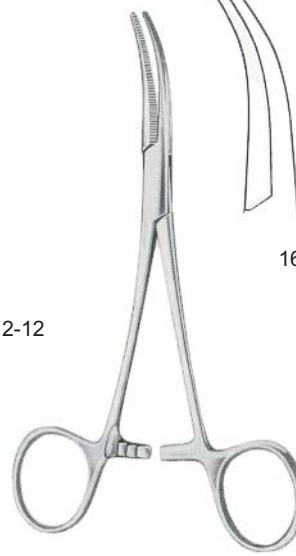
Lateral Curved



**Mosquito-Dandy**  
12cm/4¾"



16-04412-12



**Dandy**  
14cm/5½"



16-04415-14



16-04416-14



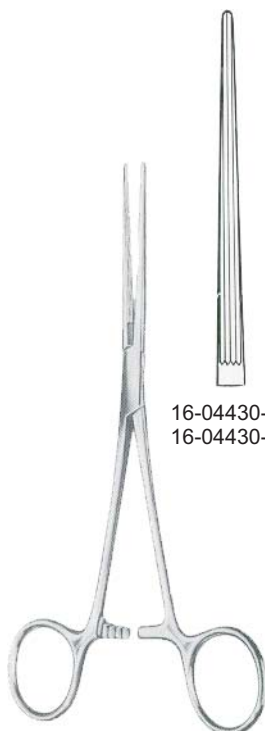
**Lovelace**  
16-04420-15  
15.5cm/6"



**Dixon-Lovelace**  
16-04424-16  
16cm/6¼"



**Dixon-Lovelace**  
16-04426-16  
16cm/6¼"



**Bainbridge**  
15cm/6"  
18cm/7"



16-04430-15  
16-04430-18



16-04431-15  
16-04431-18



**Fuchsig**  
16-04435-19  
19cm/7½"



**Adson**  
18.5cm/7¼"



16-04438-18



16-04439-18



16-04442-18



16-04443-18



**Nissen**  
16-04446-18 18.5cm/7¼"  
16-04446-22 22.0cm/8¾"

Very Fine



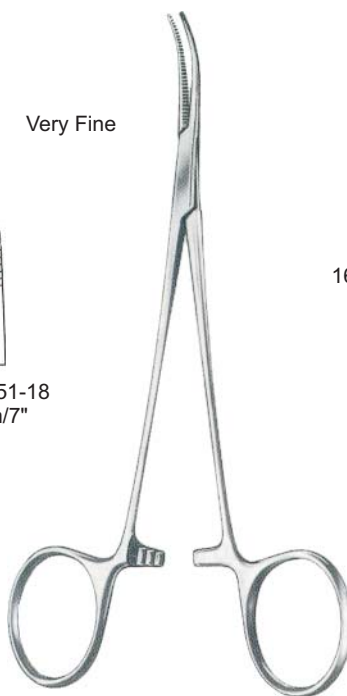
**Baby-Adson**



16-04449-14  
14cm/5½"



16-04451-18  
18cm/7"



**Jacobson-Adson**  
18cm/7"



16-04454-18



16-04455-18

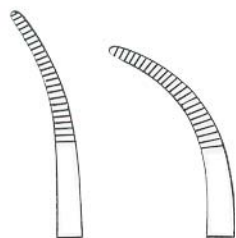


16-04457-18





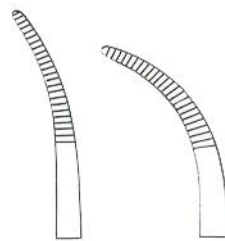
**Schnidt**  
19cm/7½"



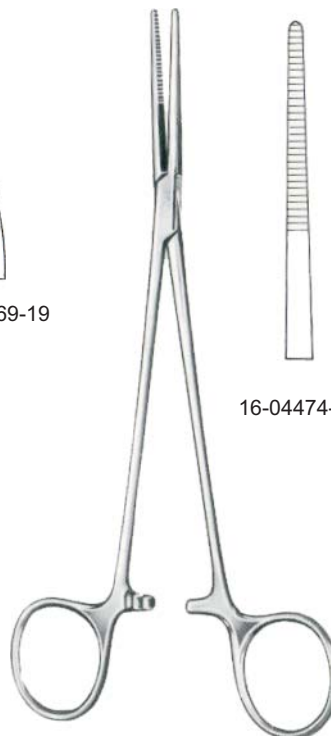
16-04461-19 16-04463-19



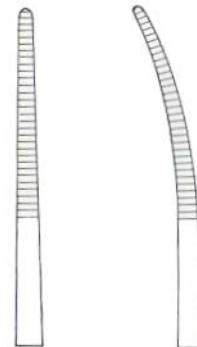
**Schnidt**  
19cm/7½"



16-04467-19 16-04469-19



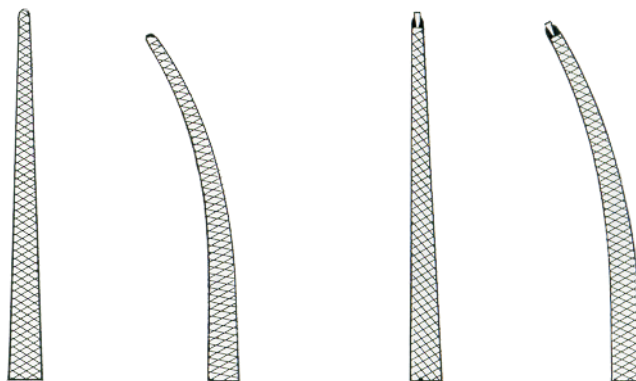
**Birkett**  
19cm/7½"



16-04474-19 16-04475-19



**Bengolea**



|           |             |             |             |             |
|-----------|-------------|-------------|-------------|-------------|
| 20cm/8"   | 16-04478-20 | 16-04479-20 | 16-04482-20 | 16-04483-20 |
| 22cm/8¾"  | 16-04478-22 | 16-04479-22 | 16-04482-22 | 16-04483-22 |
| 24cm/9½"  | 16-04478-24 | 16-04479-24 | 16-04482-24 | 16-04483-24 |
| 26cm/10¼" | 16-04478-26 | 16-04479-26 | 16-04482-26 | 16-04483-26 |



**Bridge**  
27cm/10½"



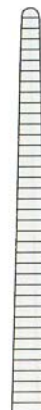
16-04486-27



16-04487-27



**Roberts**  
22cm/8¾"



16-04490-22



16-04491-22



**Kelly**



19cm/7½"

16-04495-19



22cm/8¾"

16-04497-22



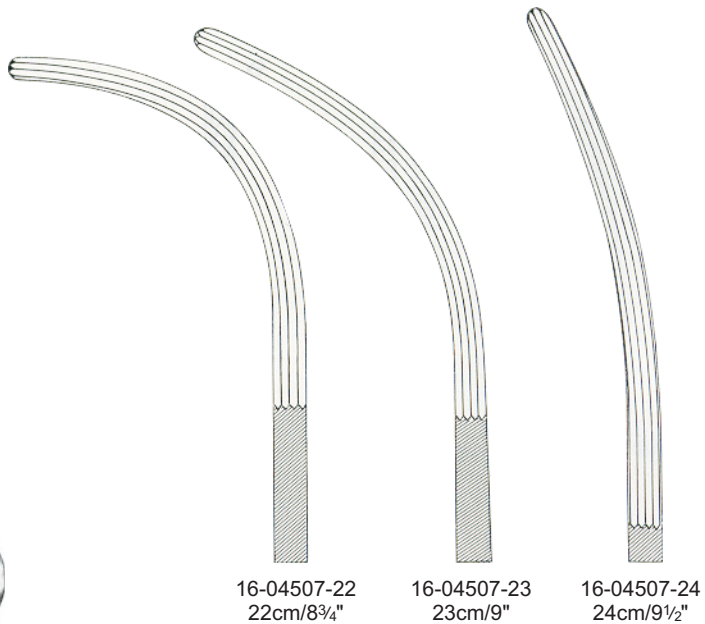
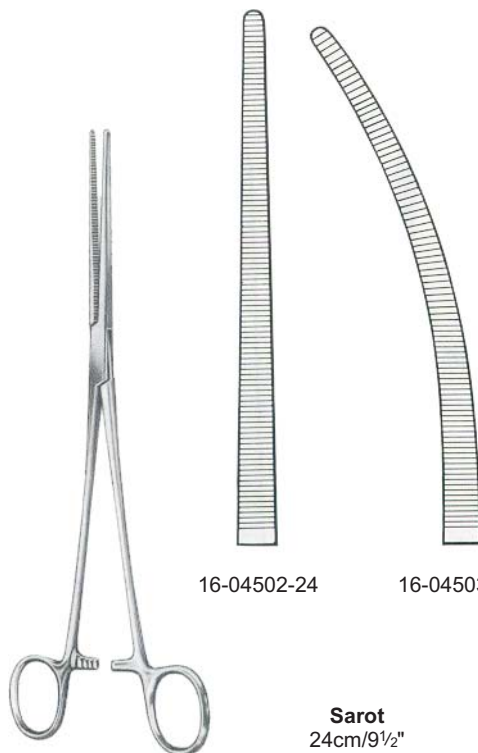
24cm/9½"

16-04497-24

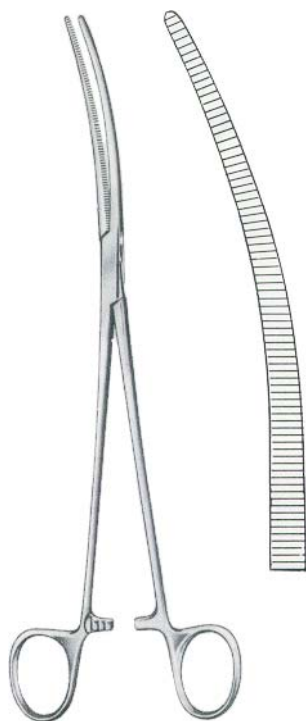
16-04499-19

16-04499-22

16-04499-24



**Crafoord-Sellors**





**Rumel**  
23cm/9"



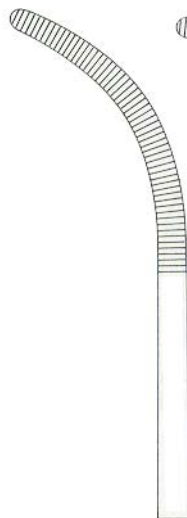
16-04519-23



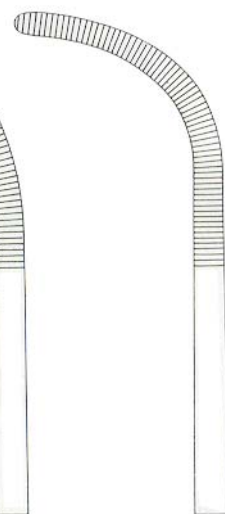
16-04521-23



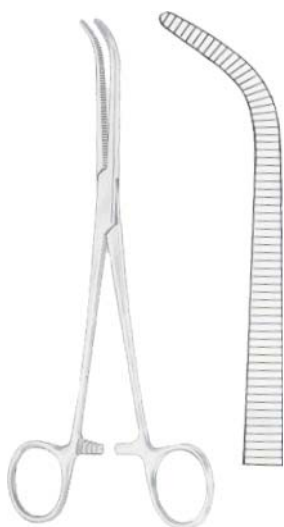
16-04523-23



16-04525-23



16-04527-23



**Johns Hopkins**  
16-04531-20  
20cm/8"



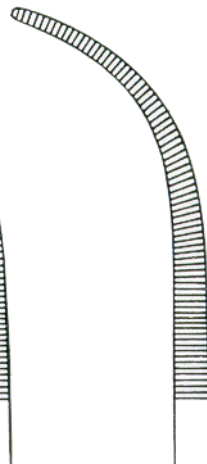
**Zenker**  
29.5cm/11½"



16-04534-29



16-04535-29



16-04537-29



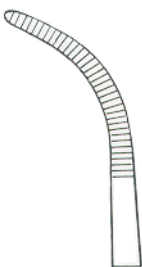
**Baby-Overholt**  
16-04541-13  
13.5cm/5¼"



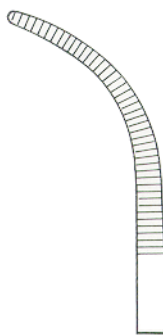
**Overholt-Slim**



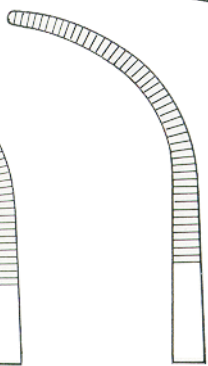
16-04545-18  
18.5cm/7¼"



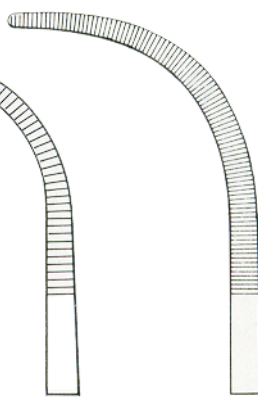
16-04547-20  
20.5cm/8"



16-04549-21  
21cm/8¼"



16-04551-21  
21.5cm/8½"



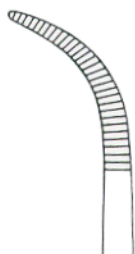
16-04553-24  
24cm/9½"



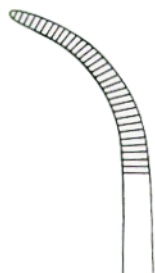
**Overholt-Slim**



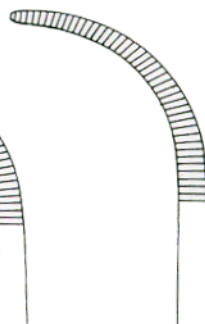
16-04557-18  
18.5cm/7¼"



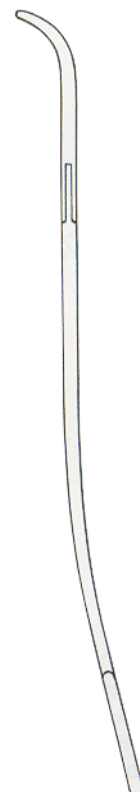
16-04559-20  
20.5cm/8"



16-04561-21  
21cm/8¼"

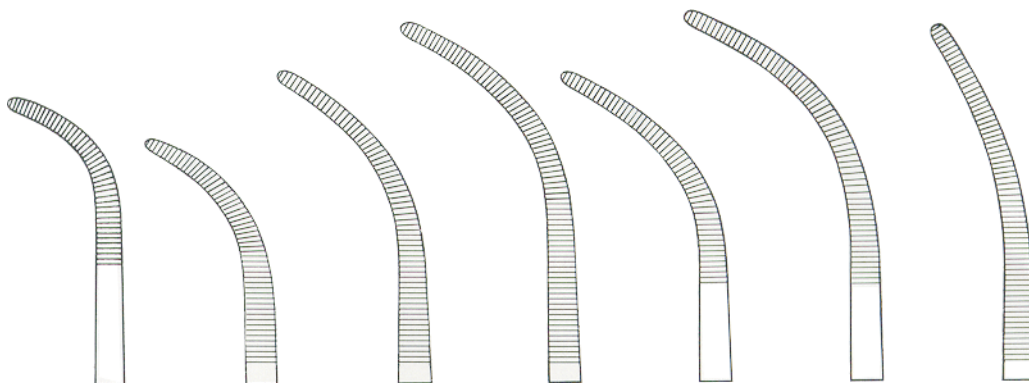


16-04563-21  
21.5cm/8½"





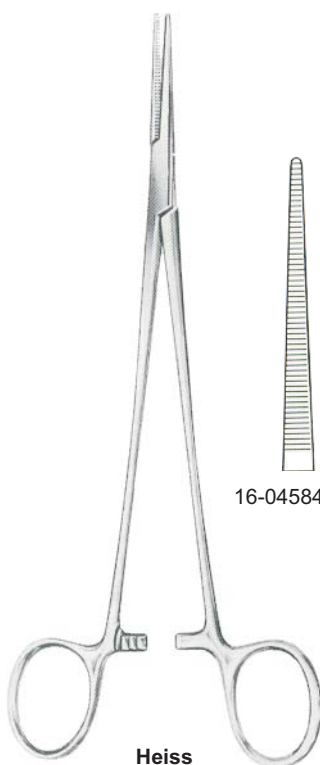
**Overholt-Geissendorfer**  
21cm/8¼"  
27cm/10½"



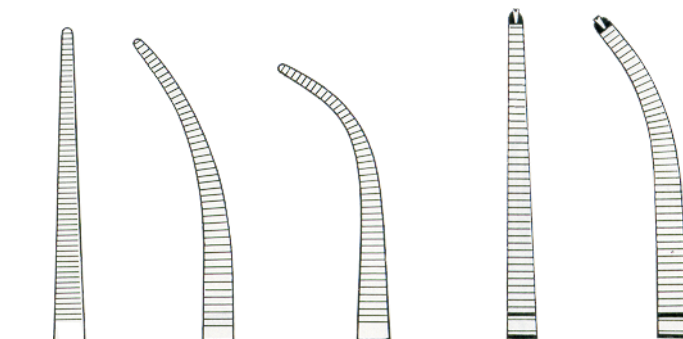
16-04567-21 16-04569-21 16-04571-21 16-04573-21 16-04575-21 16-04577-21 16-04579-21  
16-04567-27 16-04569-27 16-04571-27 16-04573-27 16-04575-27 16-04577-27 16-04579-27



**Overholt-Mixer**  
16-04581-21  
21cm/8¼"



**Heiss**  
20cm/8"

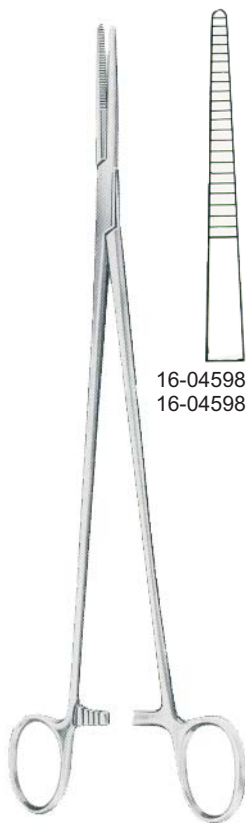


16-04584-20 16-04585-20 16-04587-20 16-04589-20 16-04591-20





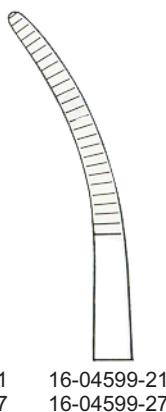
**Meeker**  
16-04595-27  
27 cm/10½"



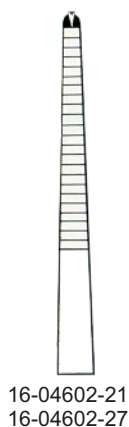
**Toennis**  
21 cm/8¼"  
26 cm/10¼"



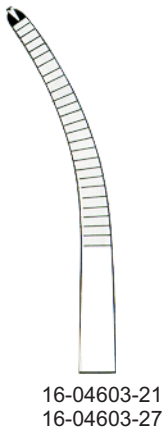
16-04598-21  
16-04598-27



16-04599-21  
16-04599-27



16-04602-21  
16-04602-27



16-04603-21  
16-04603-27



**Lower**  
16-04607-18  
18 cm/7"



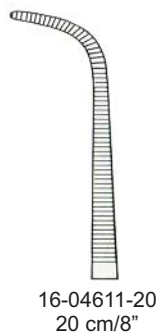
**Gemini**



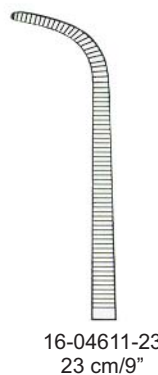
16-04611-13  
13 cm/5"



16-04611-18  
18 cm/7"



16-04611-20  
20 cm/8"



16-04611-23  
23 cm/9"



16-04611-25  
25 cm/10"

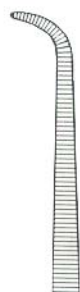


16-04611-27  
27 cm/10½"



**Mini-Gemini**

16-04615-18  
18 cm/7"



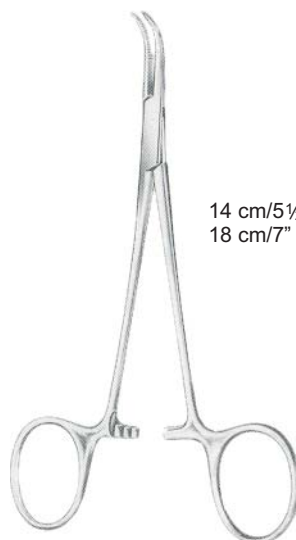
16-04615-22  
22 cm/8¾"



16-04615-25  
25 cm/10"



16-04615-28  
28 cm/11"



**Baby-Mixer**

14 cm/5½"  
18 cm/7"



16-04619-14  
16-04619-18



16-04621-14  
16-04621-18



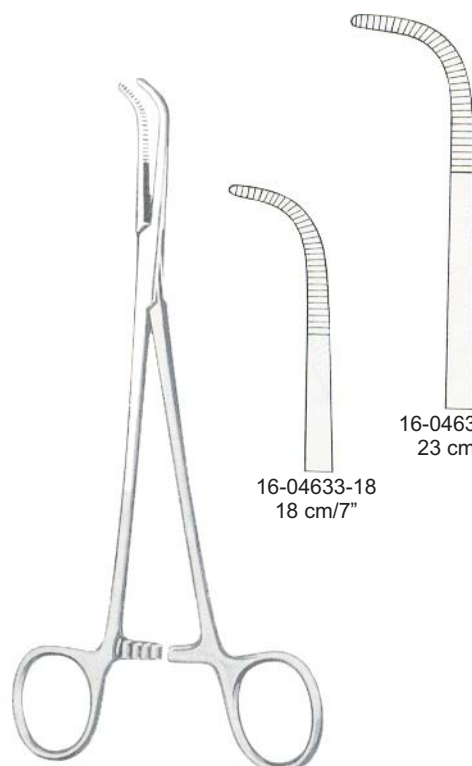
**Mixer**

16-04625-15 15 cm/6"  
16-04625-19 19 cm/7½"



**Mixer-O'Shaugnessy**

16-04629-15 15.5 cm/6"  
16-04629-19 19.0 cm/7½"



**Mixer-Slim**

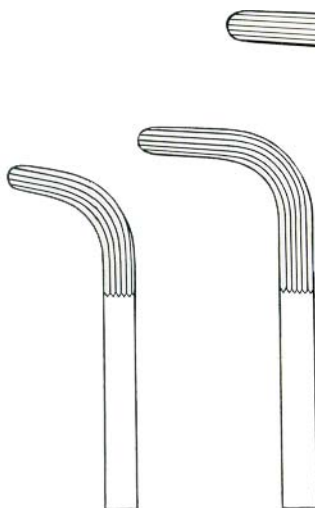
16-04633-18  
18 cm/7"

16-04633-23  
23 cm/9"

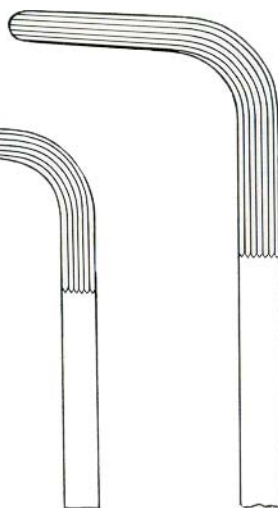


16-04637-22  
22 cm/8¾"

**Mixer**



16-04637-25  
25 cm/10"



16-04637-28  
28 cm/11"



**Mixer**  
16-04641-22  
22 cm/8¾"



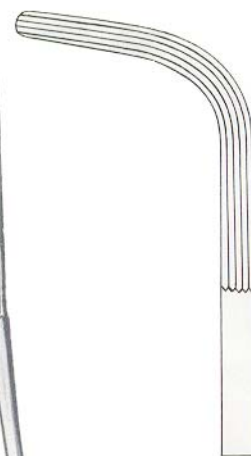
**Wickstroem**  
16-04645-20  
20 cm/8"



**Finocchietto**  
16-04649-24  
24 cm/9½"



**Mc Quigg-Mixer**  
16-04653-22  
22 cm/8¾"





**Lawrence**  
16-04657-27  
27.5 cm/10¾"



**Lahey (Sweet)**

16-04661-19  
19 cm/7½"

16-04663-23  
23 cm/9"



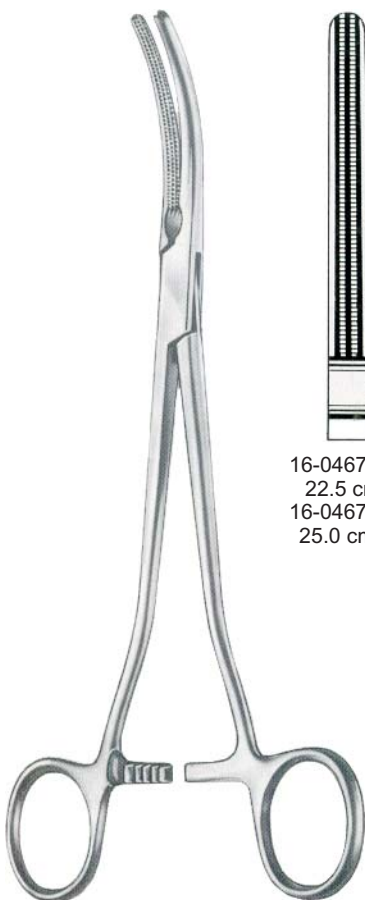
**Spencer-Wells**

|             |          |             |
|-------------|----------|-------------|
| 16-04664-13 | 13 cm/5" | 16-04665-13 |
| 16-04664-15 | 15 cm/6" | 16-04665-15 |
| 16-04664-18 | 18 cm/7" | 16-04665-18 |
| 16-04664-20 | 20 cm/8" | 16-04665-20 |
| 16-04664-23 | 23 cm/9" | 16-04665-23 |



**Spencer-Wells**

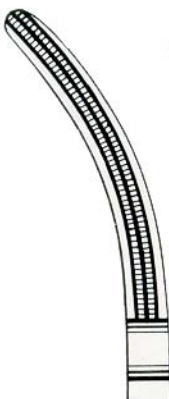
|             |           |             |
|-------------|-----------|-------------|
| 16-04668-13 | 13 cm/5"  | 16-04669-13 |
| 16-04668-14 | 14 cm/5½" | 16-04669-14 |
| 16-04668-15 | 15 cm/6"  | 16-04669-15 |
| 16-04668-18 | 18 cm/7"  | 16-04669-18 |
| 16-04668-20 | 20 cm/8"  | 16-04669-20 |
| 16-04668-23 | 23 cm/9"  | 16-04669-23 |



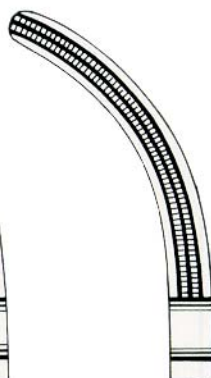
**Rogers**



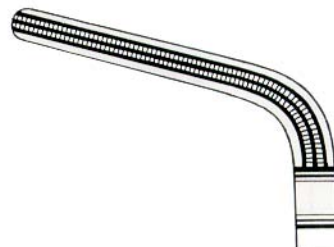
16-04672-22  
22.5 cm/9"  
16-04672-25  
25.0 cm/10"



16-04673-22  
22.0 cm/8 3/4"  
16-04673-24  
24.5 cm/9 3/4"



16-04675-21  
21.5 cm/8 1/2"  
16-04675-24  
24.0 cm/9 1/2"



16-04679-20  
20.5 cm/8"  
16-04679-23  
23.5 cm/9"



**Heaney**

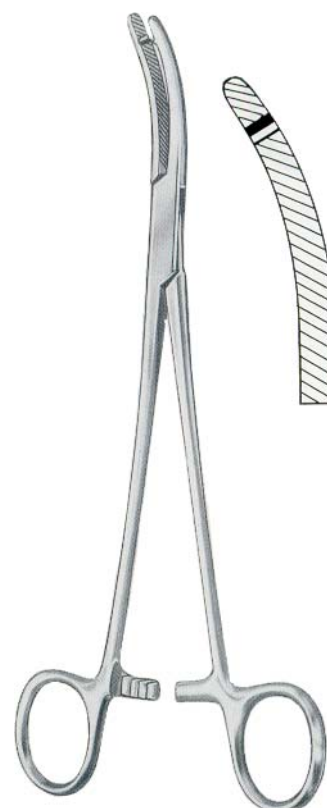


19.5 cm/7 1/2"  
21.5 cm/8 1/4"  
23.5 cm/9"

16-04683-19  
16-04683-21  
16-04683-23



16-04685-19  
16-04685-21  
16-04685-23



**Heaney-Slim**  
16-04687-21  
21 cm/8 1/4"





**Ballentine**  
16-04690-21  
21cm/8¼"



**Heaney-Ballentine**  
16-04691-21  
21cm/8¼"



Tonsil Forceps

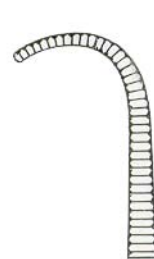
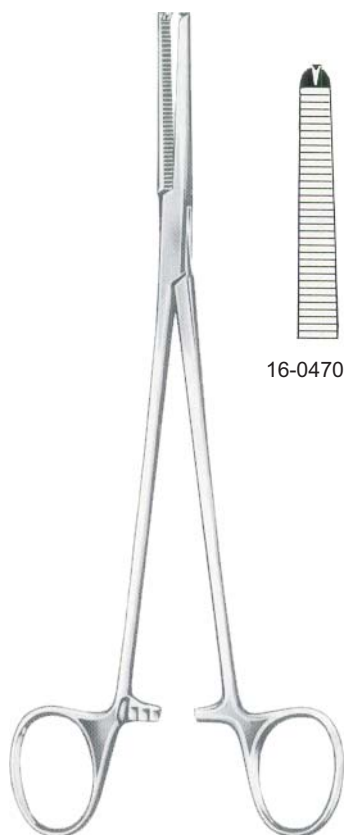


Fig. 1



Fig. 2

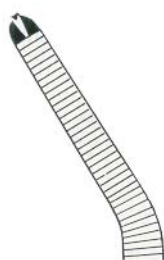
**Negus**  
16-04695-19 19cm/7½" 16-04697-19



**Phaneuf**  
21.5cm/8½"



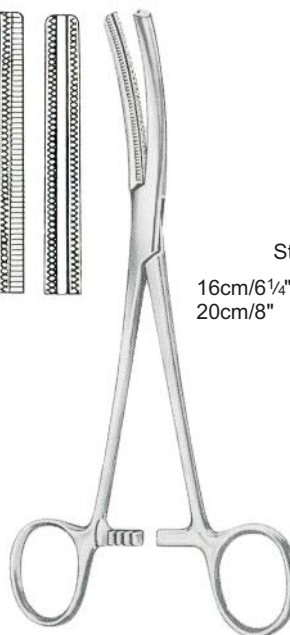
16-04700-21



16-04701-21



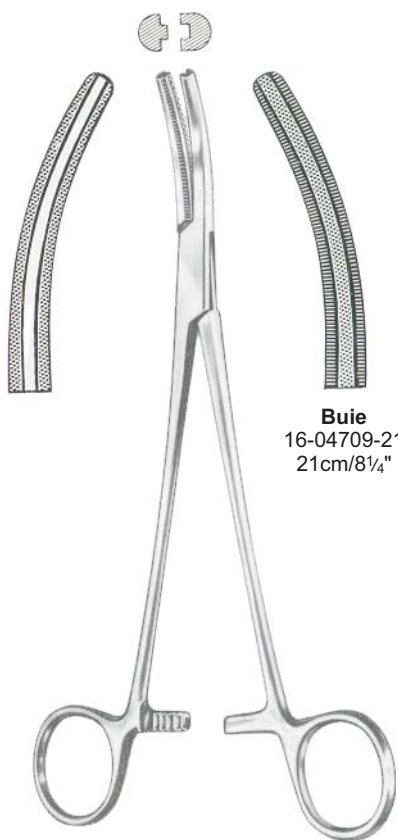
Haemorrhoidal Clamps



**Fergusson**

| Straight |             | Curved      |
|----------|-------------|-------------|
| 16cm/6¼" | 16-04704-16 | 16-04705-16 |
| 20cm/8"  | 16-04704-20 | 16-04705-20 |





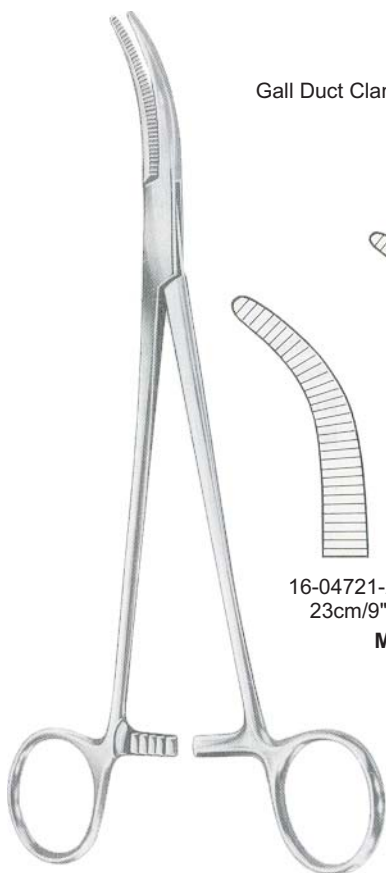
**Buie**  
16-04709-21  
21cm/8¼"



**Long**  
16-04713-19  
19cm/7½"



**Garland**  
16-04717-21  
21cm/8¼"



Gall Duct Clamps

16-04721-23 23cm/9"  
16-04723-24 24cm/9½"

**Moynihan**



Hysterectomy Forceps

16-04726-23 16-04727-23

**Hozlbach**  
23.5cm/9¼"



Pressure Clamps

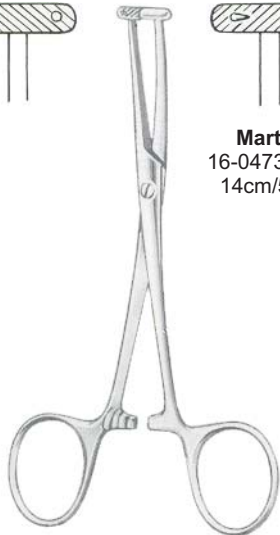
**Zweifel**  
16-04730-17  
17.5cm/7"



Scalp Flap Forceps



**Martel**  
16-04733-14  
14cm/5½"



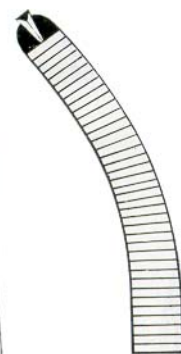
**Wertheim**  
16-04736-25  
25cm/10"



Extra Strong



**Wertheim-Cullen**  
16-04739-21  
21.5cm/8½"



**Wertheim**  
16-04743-24  
24cm/9½"

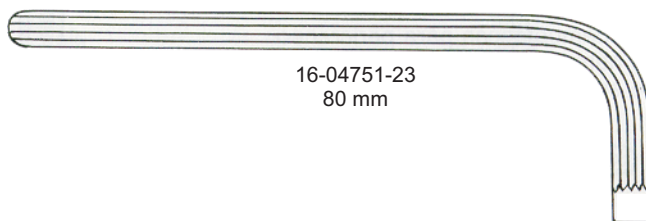




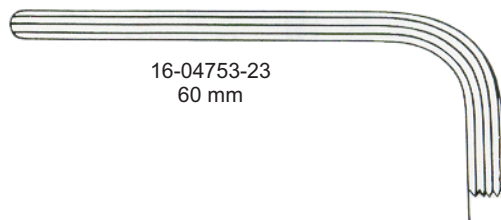
**Faure**  
16-04747-25  
25cm/10"



23cm/9"



16-04751-23  
80 mm



16-04753-23  
60 mm



**Wertheim**  
22cm/8¾"



Slightly Curved  
16-04755-22



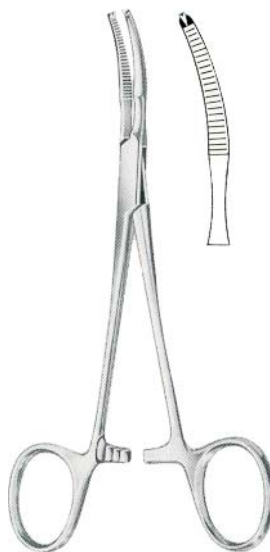
More Curved  
16-04757-22



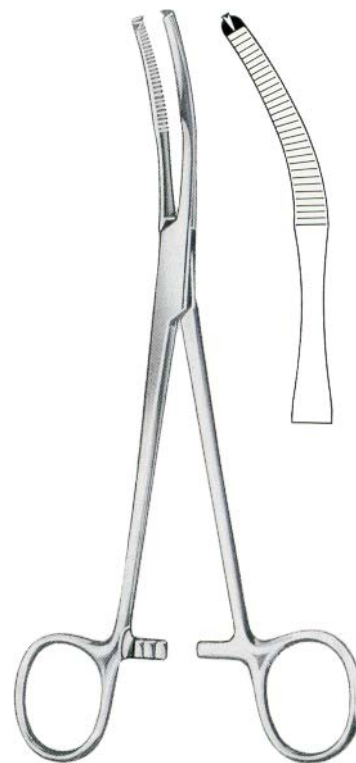
**Wertheim**  
16-04761-22  
22cm/8¾"



**Wertheim**  
16-04765-18  
18 cm/7"



**Baby-Mikulicz**  
16-04769-14  
14 cm/5½"



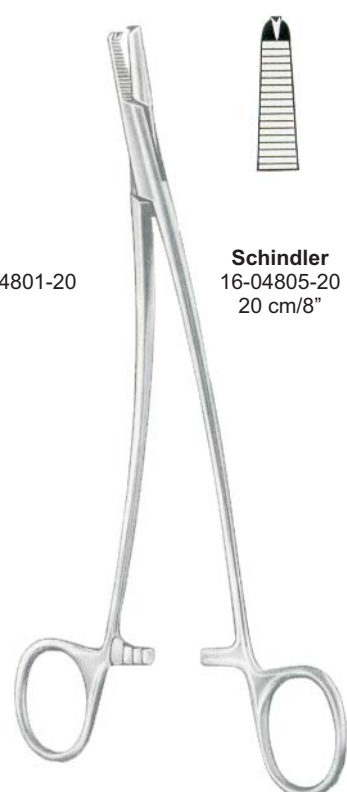
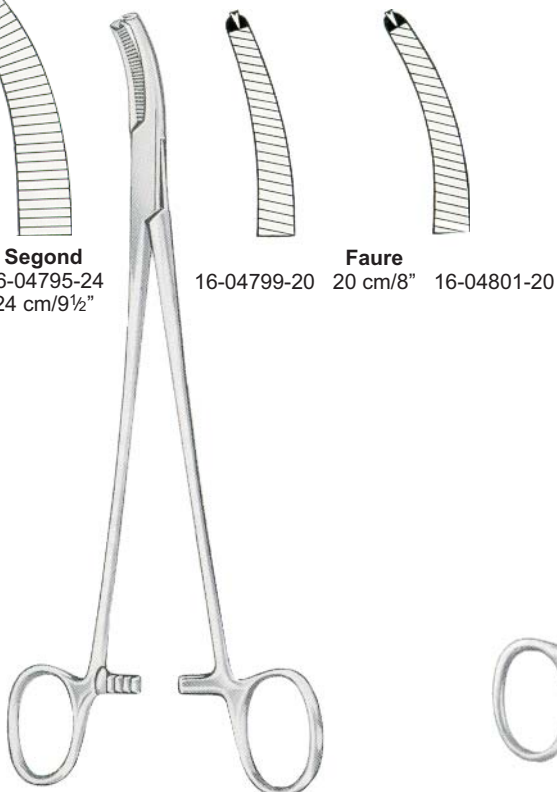
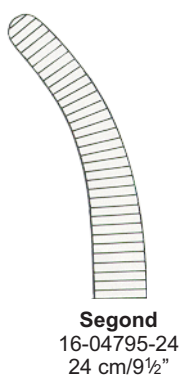
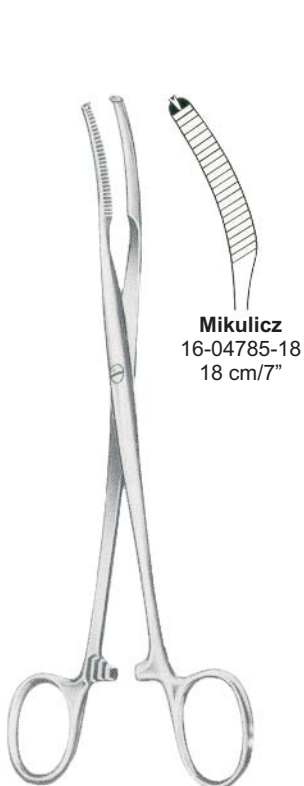
**Mikulicz**  
16-04773-18 18cm/7"  
16-04773-20 20cm/8"



**Mikulicz**  
16-04777-20  
20 cm/8"



**Mikulicz**  
16-04781-18  
18.5 cm/7¼"





**Schadel**  
16-04808-09  
9 cm/3½"



**Jones**  
16-04812-05 5 cm/2"  
16-04812-09 9 cm/3½"



**Engl-Modell**  
16-04816-09  
9 cm/3½"



**Backhaus**  
16-04820-09 9 cm/3½"  
16-04820-11 11 cm/4½"  
16-04820-13 13 cm/5"  
16-04820-15 15 cm/6"

With clip for Tubing or Cable



16-04824-11 11 cm/4½"  
16-04824-13 13 cm/5"



**Peers-Bertram**  
16-04828-14  
14.5 cm/5¾"



**Tohoku**  
16-04832-10 10 cm/4"  
16-04832-13 13 cm/5"





**Roder**  
16-04836-13 13 cm/5"  
16-04836-15 15 cm/6"



**Lorna**  
16-04840-10 10 cm/4"  
16-04840-13 13 cm/5"



**Bernhard**  
16-04844-16 16.5 cm/6½"



**Lane**  
16-04848-20  
20 cm/8"



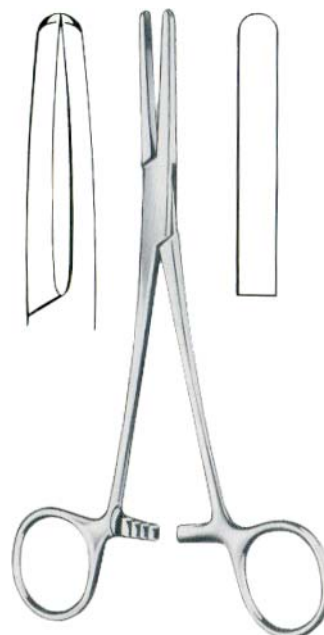
**Doyen**  
16-04852-18  
18 cm/7"



16-04856-14 14 cm/5½"  
16-04856-15 15 cm/6"  
16-04856-18 18 cm/7"  
16-04856-20 20 cm/8"



16-04860-14  
14.5 cm/5¾"



16-04864-16 16.5 cm/6½"  
16-04864-18 18.0 cm/7"

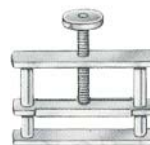


16-04868-15 15 cm/6"  
16-04868-18 18 cm/7"  
16-04868-20 20 cm/8"



**Mohr**  
16-04872-50 50 mm  
16-04872-60 60 mm  
16-04872-70 70 mm  
16-04872-80 80 mm

**Sizes**  
mm  
13  
17  
20  
25  
30



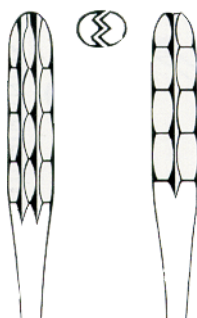
**Hoffmann**  
16-04876-13  
16-04876-17  
16-04876-20  
16-04876-25  
16-04876-30



**Hoffmann**  
16-04880-13  
16-04880-17  
16-04880-20  
16-04880-25  
16-04880-30

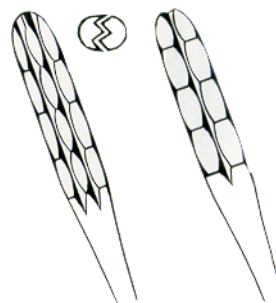


**Ulrich**



**Straight**

16-04884-22  
16-04884-25  
16-04884-27



**Curved**

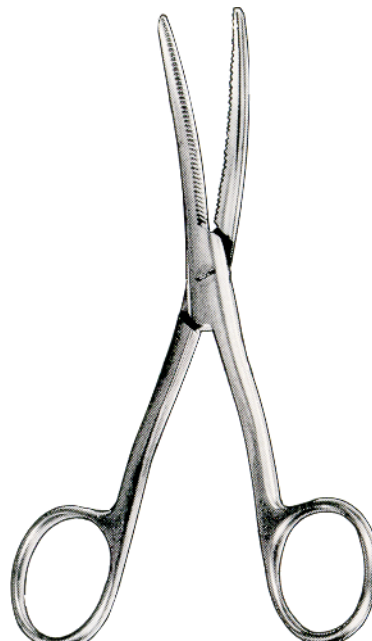
22 cm/8¾"  
25 cm/10"  
27 cm/10½"

16-04885-22  
16-04885-25  
16-04885-27



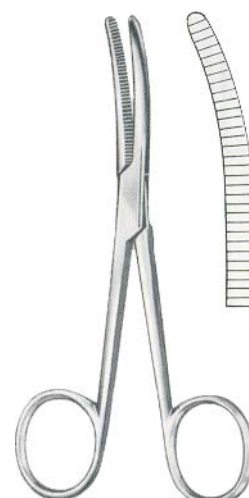
**Lister**

|             |          |             |
|-------------|----------|-------------|
| 16-04888-13 | 13 cm/5" | 16-04890-13 |
| 16-04888-15 | 15 cm/6" | 16-04890-15 |
| 16-04888-18 | 18 cm/7" | 16-04890-18 |



**Bryant**

16-04894-13  
13 cm/5"



**Bryant**

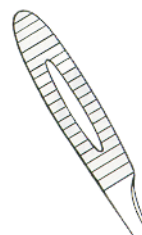
16-04896-13  
13 cm/5"



**Gross-Maier**



Straight



Curved

With Ratchet

16-04900-20  
16-04900-25

20 cm/8"  
25 cm/10"

16-04901-20  
16-04901-25

Without Ratchet

16-04904-20  
16-04904-25

20 cm/8"  
25 cm/10"

16-04905-20  
16-04905-25



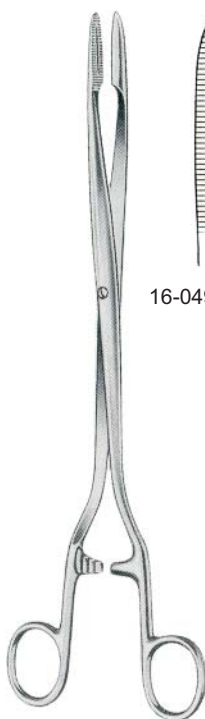
**Pelkmann**  
25 cm/10"



16-04908-25



16-04909-25



**Sims-Maier**  
28 cm/11"



16-04912-28



16-04913-28



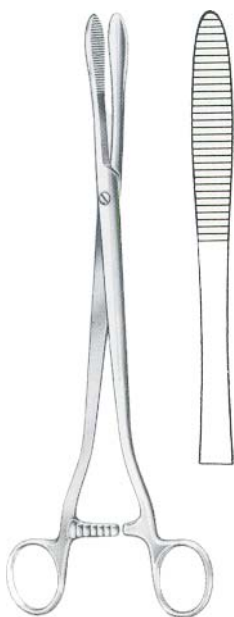
**Duplay**  
20 cm/8"



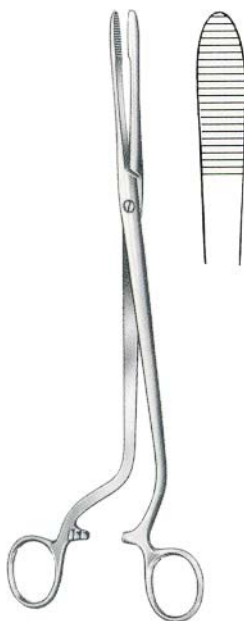
16-04916-20



16-04917-20



**Collin**  
16-04920-25  
25cm/10"



**Cheron**  
16-04924-25  
25cm/10"



**Emmet**  
16-04928-21  
21cm/8¼"



**Bozemann**  
16-04932-26  
26cm/10¼"



**Bozemann**  
26cm/10¼"

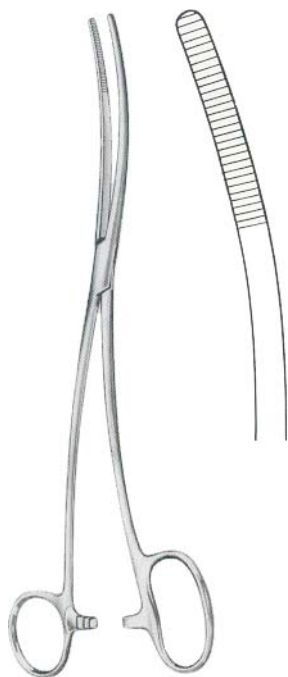


16-04935-26

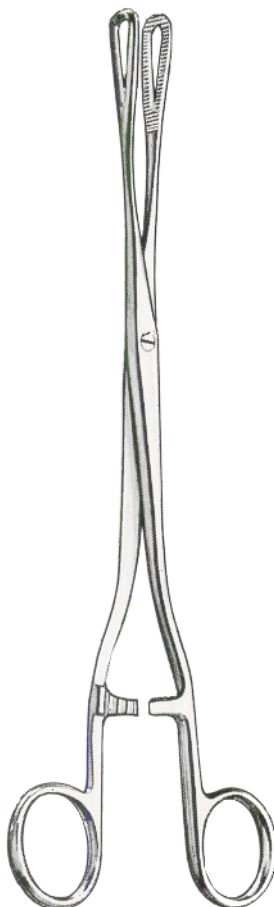


Smooth

16-04937-26



**Bozemann-Douglas**  
16-04941-26  
26cm/10¼"



**Rampley**  
16-04944-18 18cm/7"  
16-04944-24 24cm/9½"



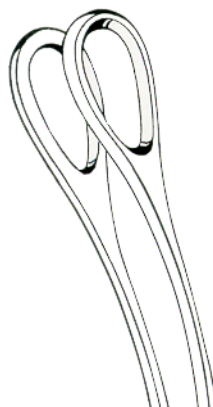
**Rampley**  
16-04946-18 18cm/7"  
16-04946-24 24cm/9½"



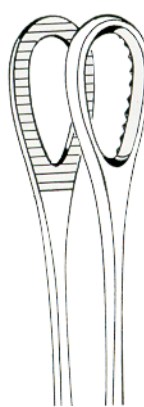
**Foerster**

18 cm/7"  
20 cm/8"  
24 cm/9½"  
25 cm/10"

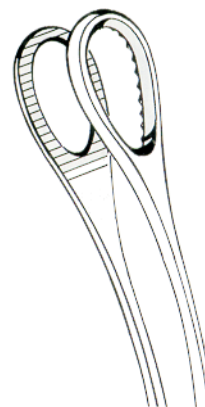
16-04950-18  
16-04950-20  
16-04950-24  
16-04950-25



16-04951-18  
16-04951-20  
16-04951-24  
16-04951-25



16-04954-18  
16-04954-20  
16-04954-24  
16-04954-25



16-04955-18  
16-04955-20  
16-04955-24  
16-04955-25





**Schwartz**  
16-04959-19  
19cm/7½"



16-04962-01



16-04962-02



16-04962-03

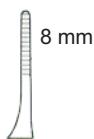
Applying Forceps



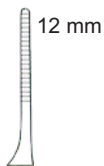
16-04966-23  
23cm/9"



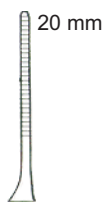
**Diethrich**



16-04970-08



16-04970-12



16-04970-20



16-04971-08



16-04971-12



16-04971-20

**Atrauma**



16-04974-10



16-04974-14



16-04974-20



16-04975-10



16-04975-14



16-04975-20



**Miller**  
13.5cm/5¼"

Sharp  
17-04979-13

Blunt  
17-04980-13



**Crile**  
17-04984-20  
20cm/8"



**Cushing**

19cm/7½"  
28cm/11"

17-04988-19  
17-04988-28

17-04990-19  
17-04990-28



**Kilner**  
17-04993-15  
15cm/6"



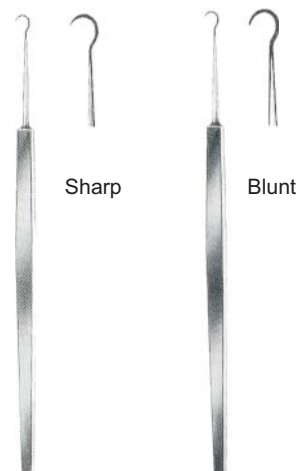
Fig. 1

**Gillies**  
17-04995-18  
18cm/7"



Fig. 2

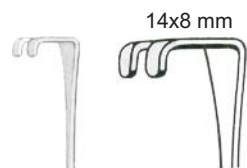
**Gillies**  
17-04997-18  
18cm/7"



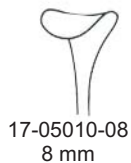
Sharp

Blunt

**Frazier**  
17-05001-13 13cm/5" 17-05002-13  
17-05001-18 18cm/7" 17-05002-18



17-05006-16  
16cm/6¼"



17-05010-08  
8 mm



17-05010-10  
10 mm



17-05014-12  
12 mm



17-05014-14  
14 mm



17-05010-12  
12 mm



17-05010-14  
14 mm



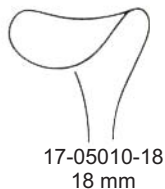
17-05014-16  
16 mm



17-05014-18  
18 mm



17-05010-16  
16 mm



17-05010-18  
18 mm



Sharp



Blunt

**Graefe**  
17-05017-16 16cm/6¼" 17-05018-16



17-05021-16  
16cm/6¼"



17-05023-16  
16cm/6¼"



**O, Connor**  
17-05025-16  
16cm/6¼"



**Guthrie**  
17-05029-16 16cm/6¼" 17-05031-16



17-05035-16  
16cm/6¼"



17-05037-16  
16cm/6¼"



**Mini-Langenbeck**  
16 cm/6¼"



17-05040-10  
10x6 mm



17-05040-17  
17x5 mm



17-05040-20  
20x6 mm



17-05040-22  
22x8 mm



17-05043-01

Sharp



17-05044-01

Blunt



17-05043-02



17-05044-02



17-05043-03



17-05044-03



17-05043-04



17-05044-04

Flexible



17-05047-02



Sharp



17-05048-02



Blunt



17-05047-03



17-05048-03



17-05047-04



17-05048-04



17-05051-04

Sharp



17-05052-04

Blunt





Malleable



**Gil-Vernet**  
24cm/9½"

|                   |             |
|-------------------|-------------|
| 08 mm 17-05080-08 | 17-05082-08 |
| 11 mm 17-05080-11 | 17-05082-11 |
| 15 mm 17-05080-15 | 17-05082-15 |
| 17 mm 17-05080-17 | 17-05082-17 |
| 20 mm 17-05080-20 | 17-05082-20 |
| 23 mm 17-05080-23 | 17-05082-23 |

Malleable



24cm/9½"

12x14 mm



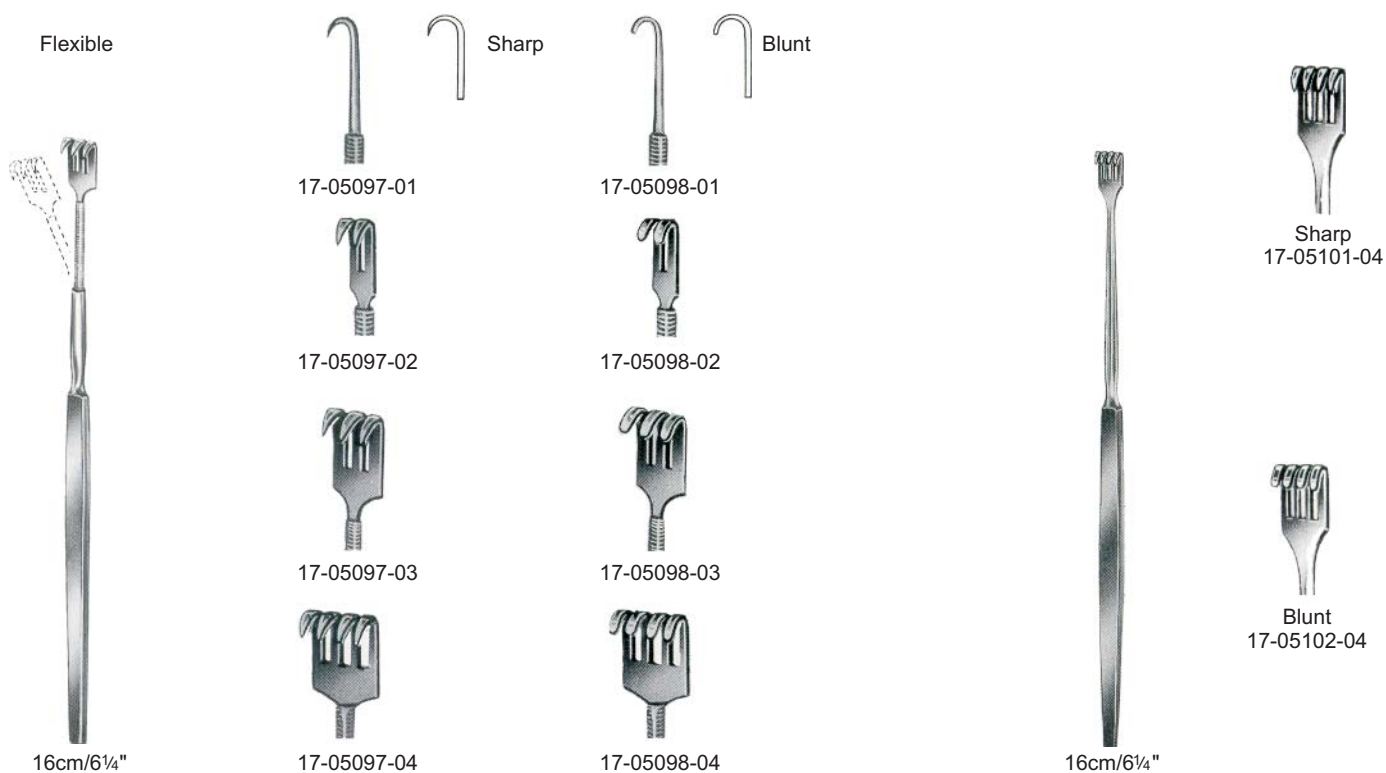
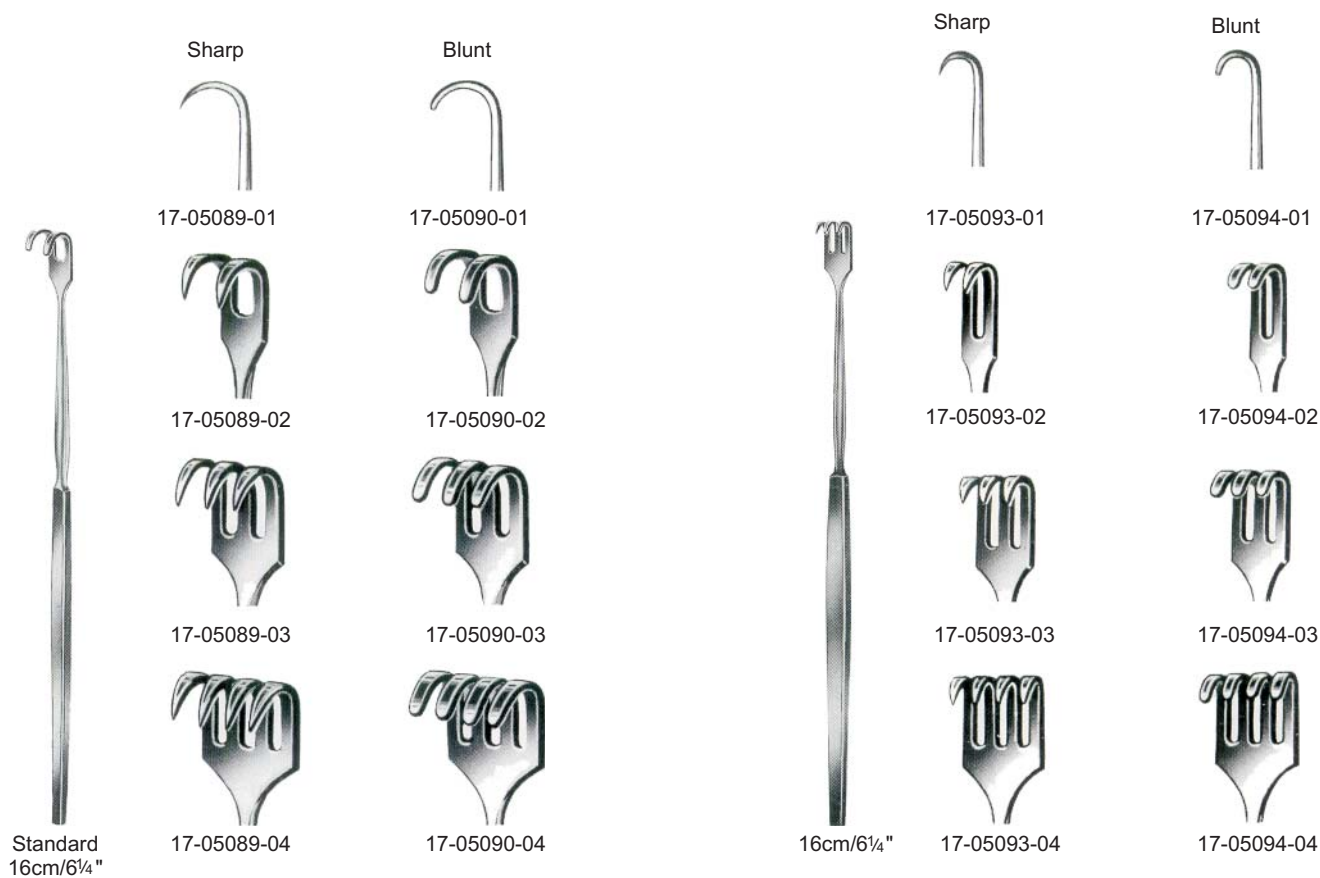
**Little**  
17-05085-20  
20cm/8"



**Love-(Morse)**  
25cm/10"

10 mm 17-05086-10  
15 mm 17-05086-15  
20 mm 17-05086-20  
30 mm 17-05086-30  
40 mm 17-05086-40  
50 mm 17-05086-50







17-05106-02  
13.5cm/5¼"



**Jackson**  
17-05109-13  
13cm/5"



**Bergmann**  
17-05113-14  
14cm/5½"



**Iterson**  
16cm/6¼"



17-05117-16



17-05119-16



**Meyerding**  
18cm/7"



17-05122-18  
18x7 mm



17-05128-18  
16x5 mm



17-05124-18  
7x4 mm



17-05130-18  
10x3 mm



17-05126-18  
7x4 mm



17-05132-18



**Volkman**  
11.5cm/4½"



**Sharp**  
17-05135-02



**Blunt**  
17-05136-02



17-05135-03



17-05136-03



17-05135-04



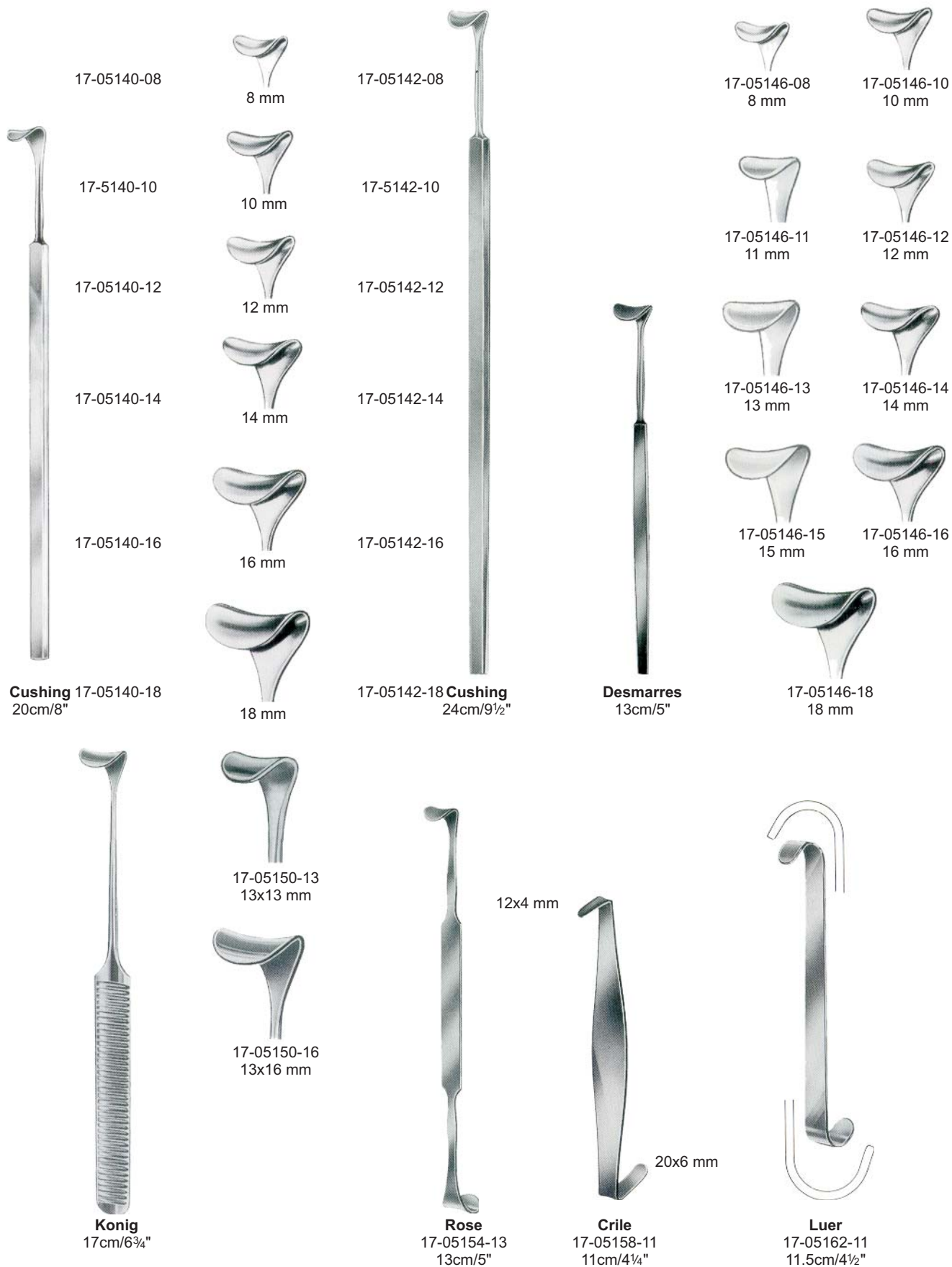
17-05136-04



17-05135-06



17-05136-06



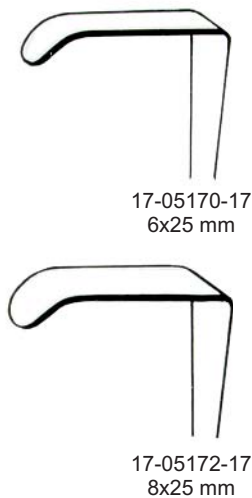


**Cushing-Kocher**  
17-05166-18  
18cm/7"

10x10 mm



**Langenbeck-Green**  
17cm/6¾"



17-05170-17  
6x25 mm

17-05172-17  
8x25 mm



**Strandell-Stille**  
19cm/7½"

Tendon Sheath Hook



17-05176-19



toothed

17-05178-19

Tendon Sheath Hook



**Klapp**  
17.5 cm/7"



17-05182-02



17-05182-03



17-05182-04

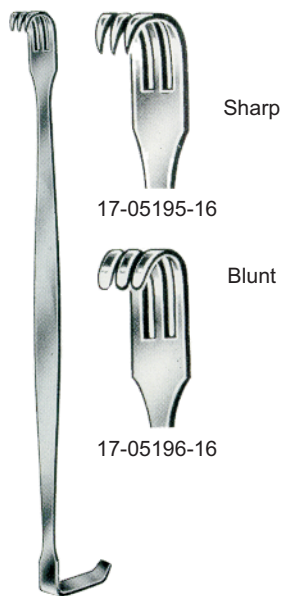
Decompression Hook



**Cushing**  
17-05186-20  
20cm/8"



**Senn-Miller**  
16cm/6¼"



**Baby-Senn-Miller**  
16cm/6¼"



**Rangell-Davis**  
17-05200-14  
14cm/5½"



**Senn-Green**  
15cm/6"



**Langenbeck-Green**  
16cm/6¼"



**Collin-Hartmann**



**Roux**



**Baby-Roux**  
13 cm/5"



**Mini-Roux**  
14 cm/5 1/2"

|              |             |                     |             |             |             |
|--------------|-------------|---------------------|-------------|-------------|-------------|
| Set          | 17-05214-00 | Set                 | 17-05218-00 | 17-05222-13 | 17-05224-14 |
| 14 cm/5 1/2" | 17-05214-01 | 14 cm/5 1/2" Fig. 1 | 17-05218-01 |             |             |
| 16 cm/6"     | 17-05214-02 | 15 cm/6" Fig. 2     | 17-05218-02 |             |             |
|              |             | 17 cm/6 3/4" Fig. 3 | 17-05218-03 |             |             |

37x40 mm



37x31 mm

**Goelet**  
17-05228-19  
19 cm/7 1/2"



**Parker-Langenbeck  
(US-Army)**  
17-05232-21  
21cm/8 1/4"

Set



Set

**Parker**  
17-05236-13  
13.5 cm/5 1/4"



Set

**Parker**  
17-05240-18  
18 cm/7"





Set

**Parker-Mott**  
17-05244-16  
16 cm/6 1/4"



Set

**Farabeuf**  
17-05248-12  
12 cm/4 3/4"



Set

**Farabeuf**  
17-05250-15  
15 cm/6"



Set

**Collin**  
17-05254-16  
16.5 cm/6 1/2"



Set

**Mayo-Collin**  
17-05256-15  
15 cm/6"



Set

**Mathieu**  
17-05260-19  
19 cm/7 1/2"



**Volkmann**  
17-05263-22  
22 cm/8¾"



**Volkmann**  
17-05264-22  
22 cm/8¾"



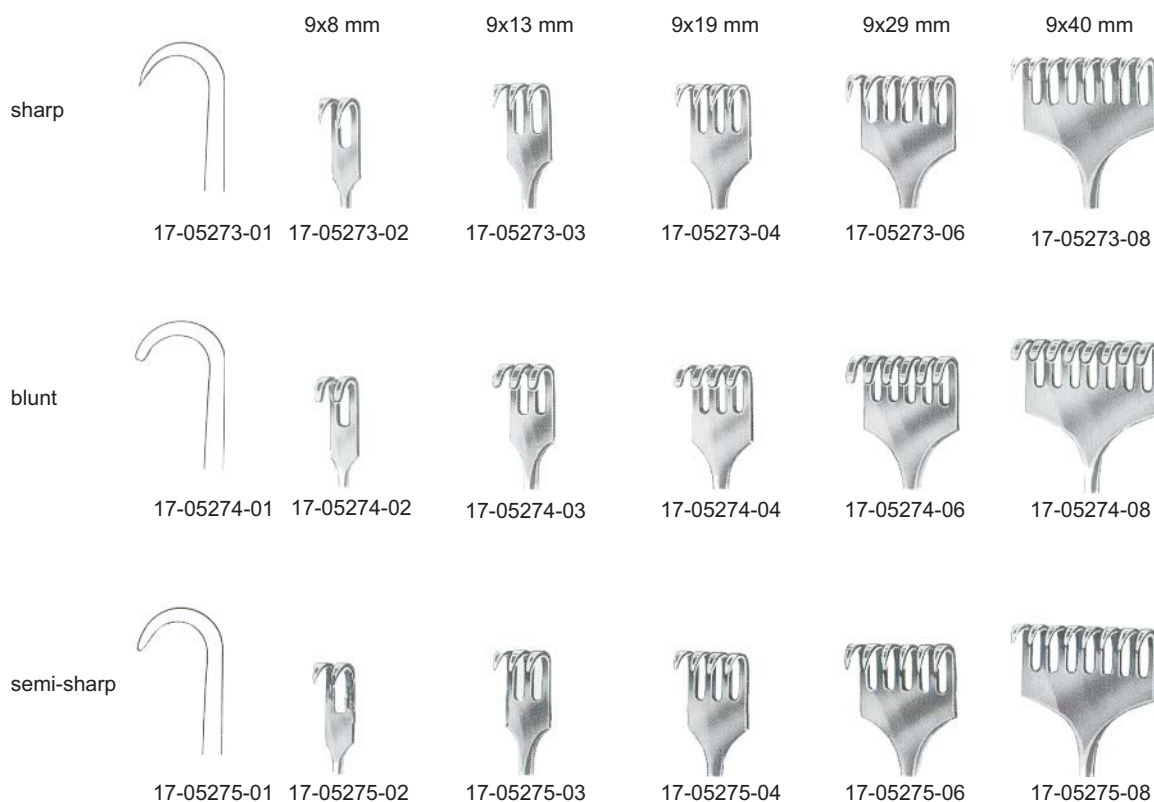
17-05267-23  
23 cm/9"



17-05268-23  
23 cm/9"



**Volkmann**  
22cm/8¾"





**Volkmann**  
23 cm/9"





**Kocher**  
21.5cm/8½"

sharp



17-05295-01

15x10 mm



17-05295-02

15x15 mm



17-05295-03

15x20 mm



17-05295-04

15x30 mm



17-05295-06

15x40 mm



17-05295-08

blunt



17-05296-01



17-05296-02



17-05296-03



17-05296-04



17-05296-06



17-05296-08

semi-sharp



17-05297-01



17-05297-02



17-05297-03



17-05297-04



17-05297-06



17-05297-08



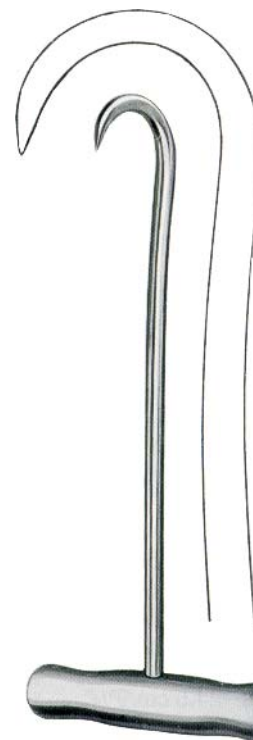
sharp

17-05301-20  
20 cm/8"



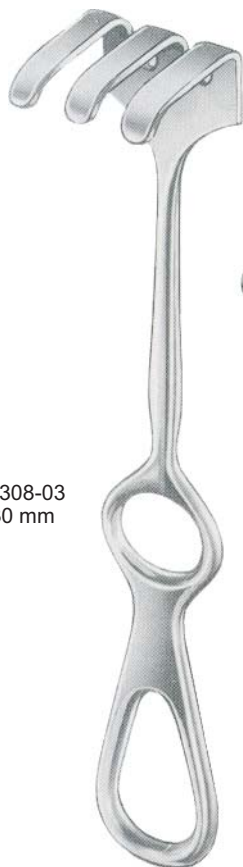
blunt

17-05302-20  
20 cm/8"



sharp

17-05305-14  
14 cm/5½"



17-05308-03  
36x30 mm



17-05308-04  
36x60 mm

**Ollier**  
22.5 cm/9"



**Murphy**  
19.5 cm/7 3/4"

Sharp



17-05311-02



17-05311-03



17-05311-04



17-05311-06



blunt



17-05312-02



17-05312-03



17-05312-04



17-05312-06





**Wassmund**  
17-05316-20  
20cm/8"



**Israel**  
25cm/10"

17-05320-02  
40x50 mm



17-05320-01  
40x40 mm



17-05320-03  
50x60 mm



17-05320-04  
70x70 mm



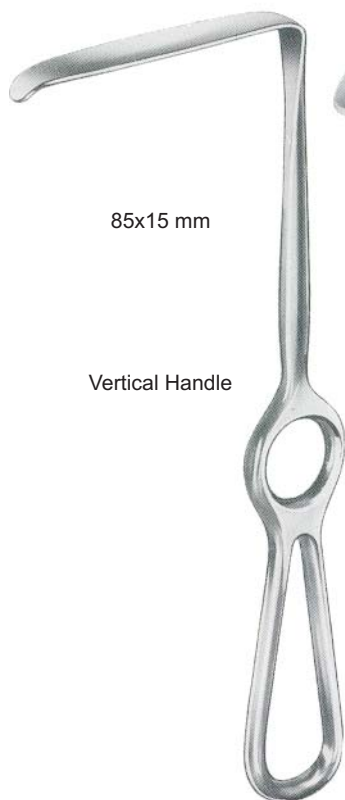
46x55 mm

Vertical Handle  
17-05324-23

**Koerte**  
23cm/9"







85x15 mm

Vertical Handle

**Langenbeck**  
17-05340-21  
21.5cm/8½"



17-05344-01  
55x20 mm  
17-05344-02  
63x20 mm  
17-05344-03  
60x20 mm

**Langenbeck**  
21cm/8¼"



17-05348-01  
35x7 mm  
17-05348-02  
35x10 mm  
17-05348-03  
35x15 mm  
17-05348-04  
60x20 mm

**Langenbeck**  
21cm/8¼"



17-05352-19  
28x6 mm

**Lahey**  
19cm/7½"



23cm/9"

**Sauerbruch**  
17-05356-01 45x15 mm  
17-05356-02 55x23 mm  
17-05356-03 72x20 mm



**Langenbeck**  
21cm/8¼"

17-05360-01 30x11 mm 17-05364-01  
17-05360-02 30x14 mm  
17-05360-03 33x14 mm  
17-05360-04 30x16 mm  
17-05360-05 40x11 mm 17-05364-05  
17-05360-06 42x13 mm 17-05364-06  
17-05360-07 50x11 mm



**Langenbeck**  
22cm/8¾"



38x20 mm



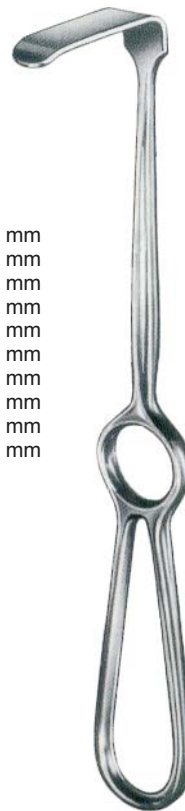
**Kocher**  
17-05368-22  
22cm/8¾"

17-05372-01  
19x12 mm  
17-05372-02  
21x15 mm



**Kocher**  
19cm/7½"

17-05376-01 25x06 mm  
17-05376-02 25x08 mm  
17-05376-03 35x08 mm  
17-05376-04 35x11 mm  
17-05376-05 35x15 mm  
17-05376-06 40x11 mm  
17-05376-07 55x11 mm  
17-05376-08 70x14 mm  
17-05376-09 80x12 mm  
17-05376-10 80x16 mm



**Kocher-Langenbeck**  
21.5cm/8½"

67x17cm



**Casper**  
17-05380-21  
21.5cm/8½"



17-05388-01  
22x15 mm



17-05388-02  
38x20 mm



17-05388-03  
67x25 mm



17-05388-04  
100x35 mm



17-05384-01  
40x18 mm  
17-05384-02  
60x20 mm  
17-05384-03  
60x25 mm  
17-05384-04  
75x30 mm  
17-05384-05  
75x40 mm

**Kocher**  
23cm/9"



**Kocher-Wagner**  
28cm/11"



17-05392-01  
60x20 mm  
17-05392-02  
80x30 mm  
17-05392-03  
100x30 mm  
17-05392-04  
120x30 mm  
17-05392-05  
140x30 mm  
17-05392-06  
140x40 mm

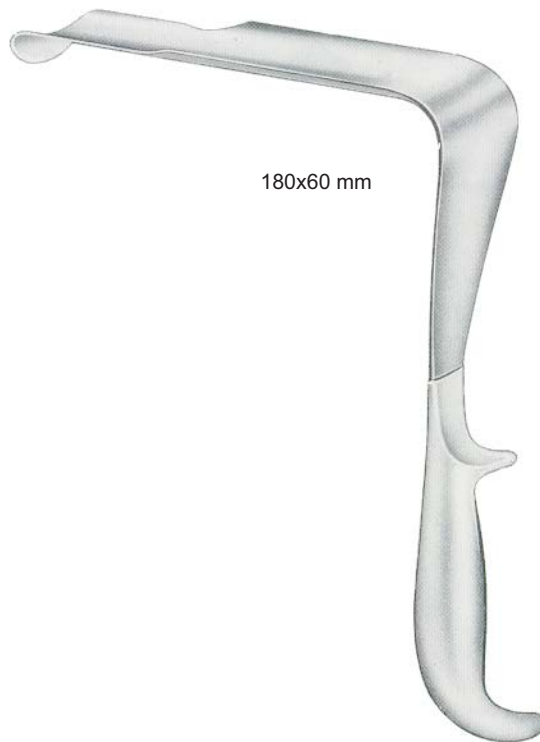
**Heosel**  
25cm/10"





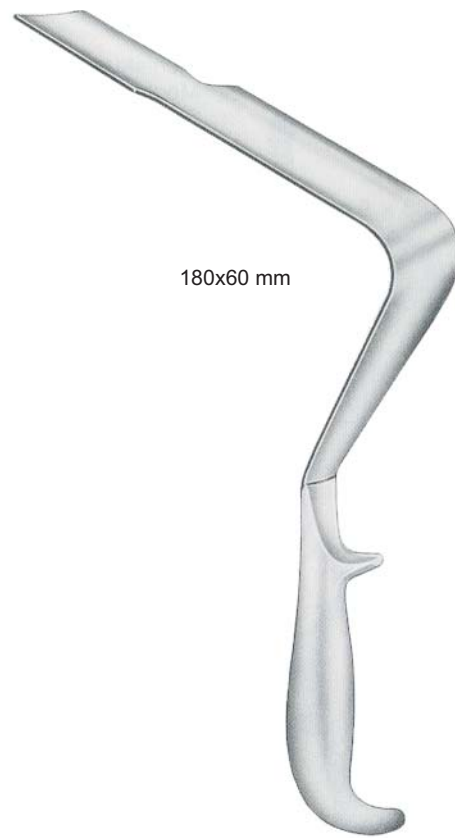
130x60 mm

**St. Marks**  
17-05396-29  
29cm/11½"



180x60 mm

**St. Marks**  
17-05396-32  
32.5cm/12¾"



180x60 mm

**St. Marks**  
17-05396-33  
33cm/13"



**Morris**  
21cm/8¼"

17-05400-01  
70x40 mm  
17-05400-02  
70x50 mm  
17-05400-03  
70x65 mm



**Morris**  
24cm/9½"

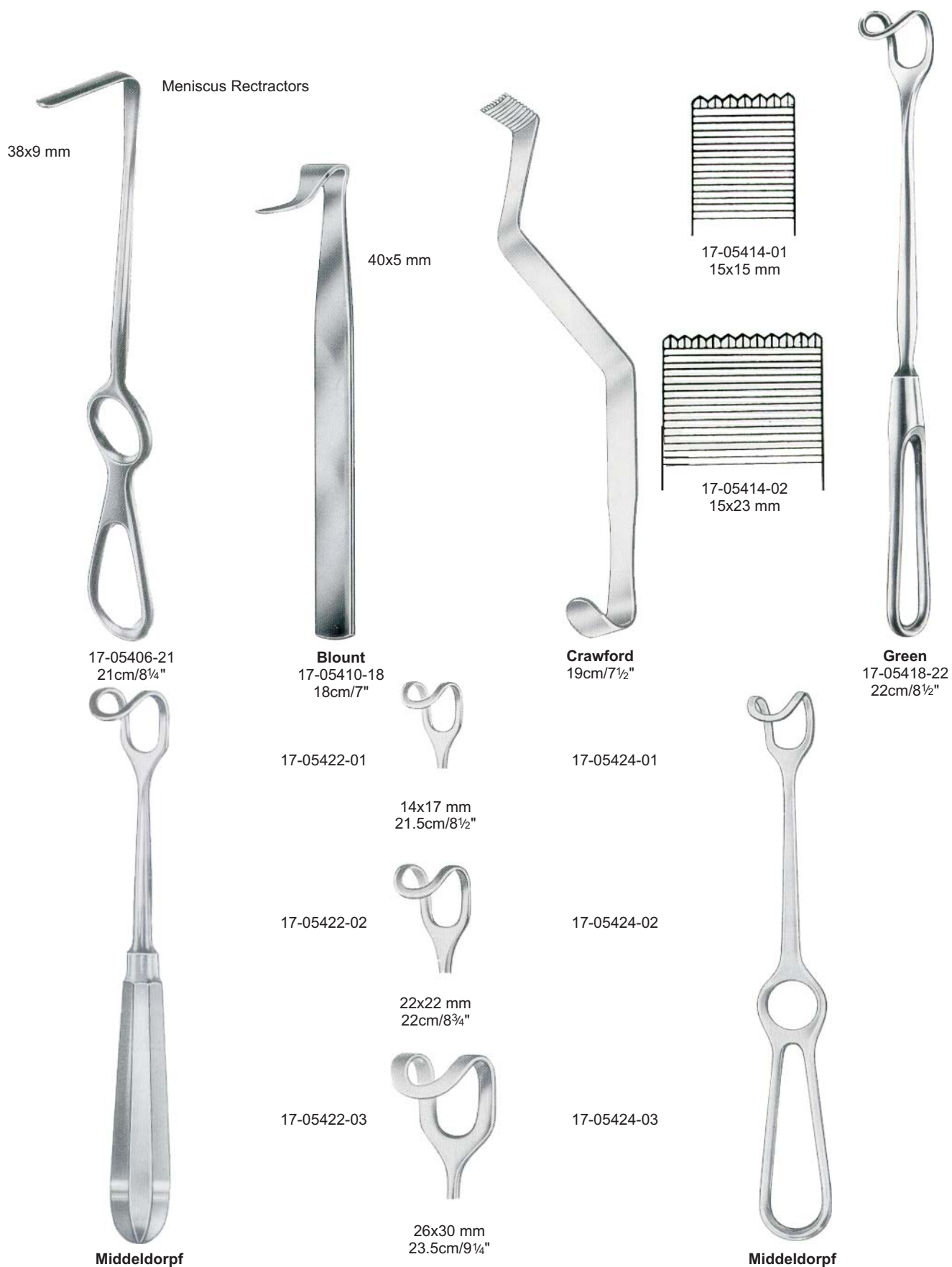
17-05402-01  
32x50 mm/38x50mm  
17-05402-02  
45x50 mm/50x50mm  
17-05402-03  
65x50 mm/38x50mm



## General Instruments

### Retractors and Meniscus Retractors

17







17-05426-01  
45x45 mm

**Middeldorpf**  
25.5cm/10"

17-05426-01  
45x45 mm  
17-05426-02  
45x50 mm  
17-05426-03  
55x70 mm



**Richardson**  
26cm/10 1/4"

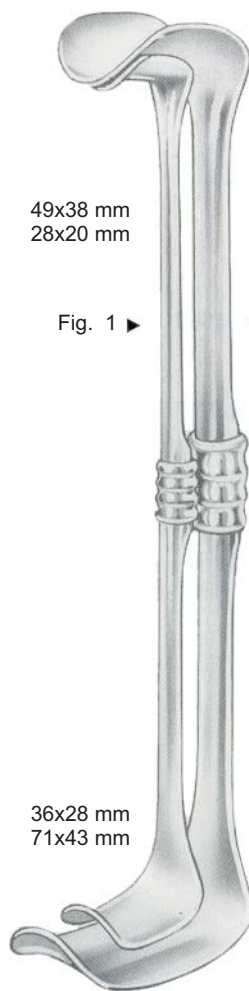


17-05430-01  
28x20 mm

17-05430-02  
30x28 mm

17-05430-03  
38x37 mm

17-05430-04  
52x22 mm



49x38 mm  
28x20 mm

Fig. 1 ▶

36x28 mm  
71x43 mm

**Richardson-Eastman**

Set 17-05434-00

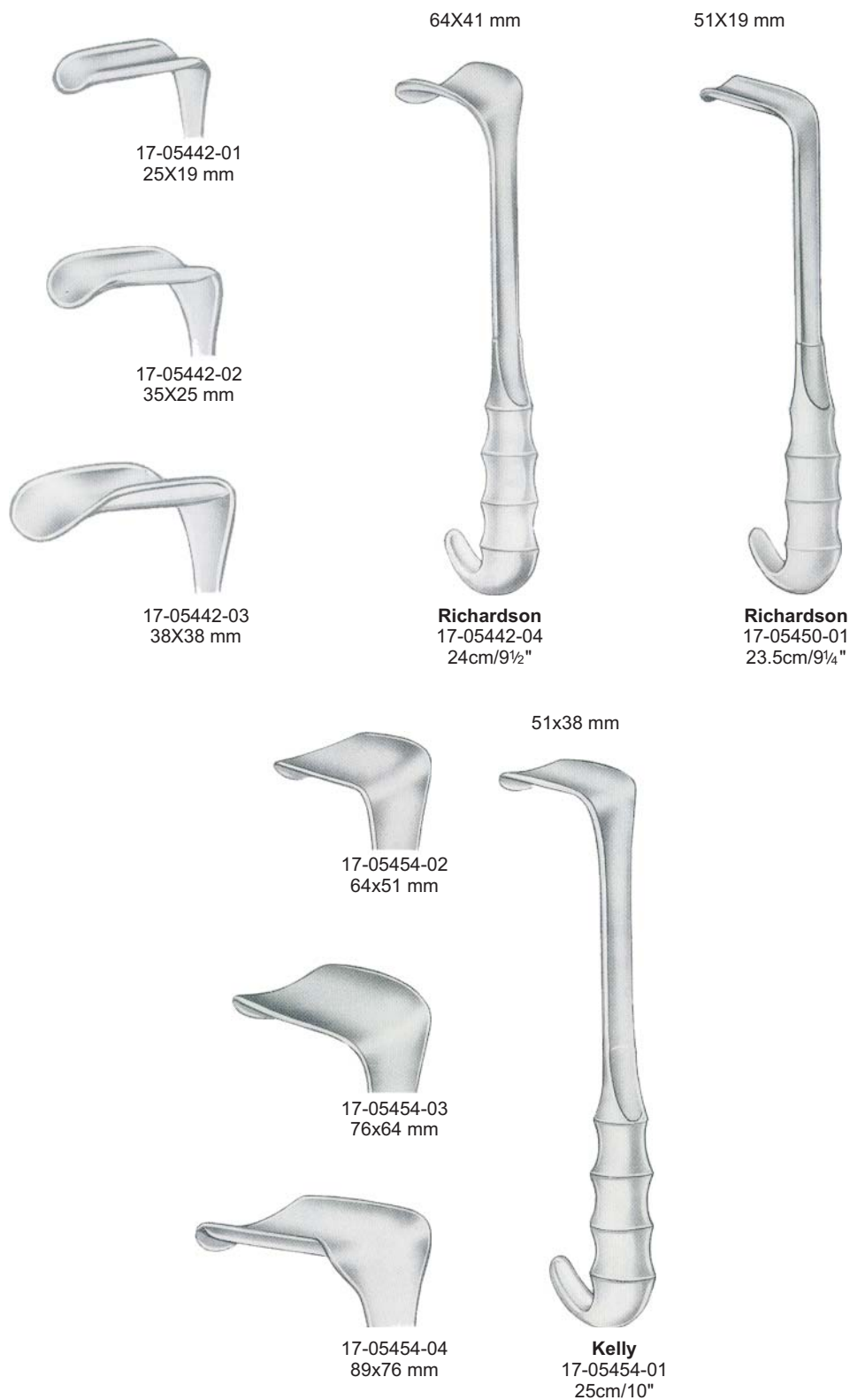
Fig. 1  
26cm/10 1/4" 17-05434-01

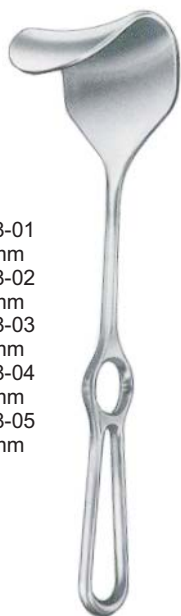
Fig. 2  
28cm/11" 17-05434-02



**Kelly**  
26cm/10 1/4"

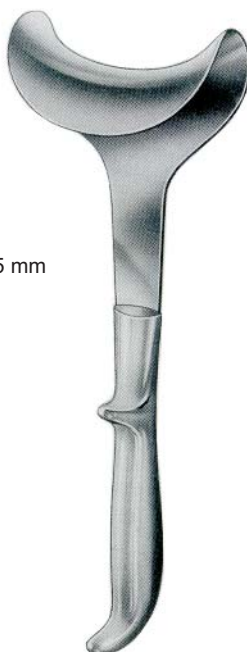
17-05438-01  
40x50 mm  
17-05438-02  
50x65 mm  
17-05438-03  
65x75 mm  
17-05438-04  
75x90 mm





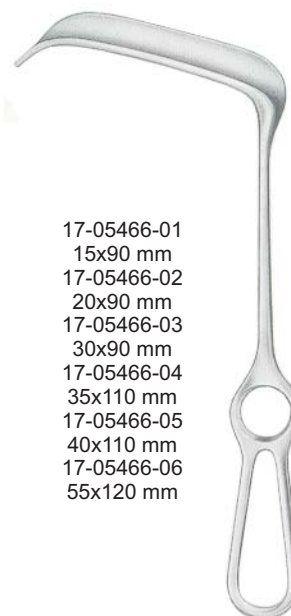
17-05458-01  
45x40 mm  
17-05458-02  
45x50 mm  
17-05458-03  
45x60 mm  
17-05458-04  
45x75 mm  
17-05458-05  
65x85 mm

**Fritsch**  
24cm/9½"



50x85 mm

**Doyen**  
17-05462-25  
25cm/10"



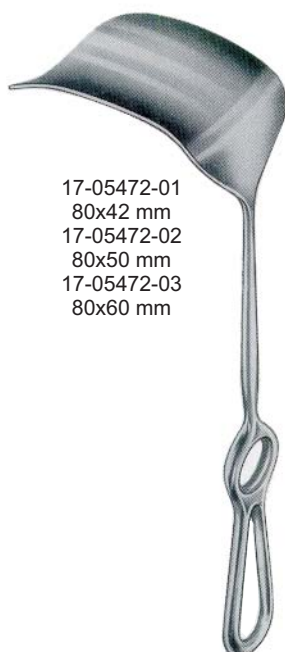
17-05466-01  
15x90 mm  
17-05466-02  
20x90 mm  
17-05466-03  
30x90 mm  
17-05466-04  
35x110 mm  
17-05466-05  
40x110 mm  
17-05466-06  
55x120 mm

**Doyen-Stille**  
24cm/9½"



70x25 mm

**Kocher**  
17-05470-22  
22.5cm/9"



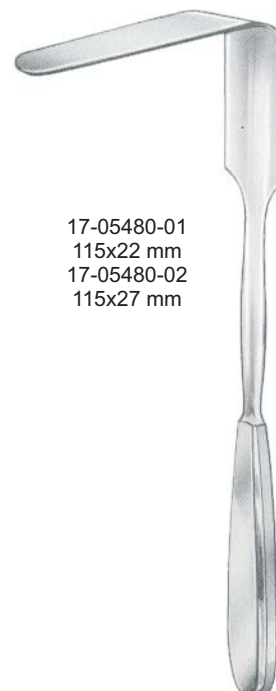
17-05472-01  
80x42 mm  
17-05472-02  
80x50 mm  
17-05472-03  
80x60 mm

**Kocher**  
25cm/10"



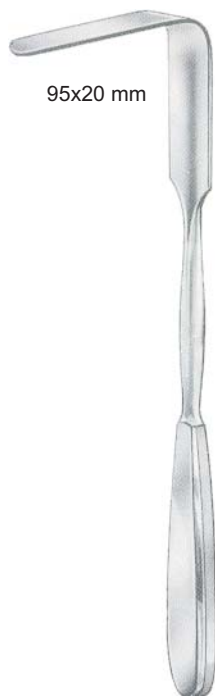
60x60 mm

**Tuffier**  
17-05476-23  
23cm/9"



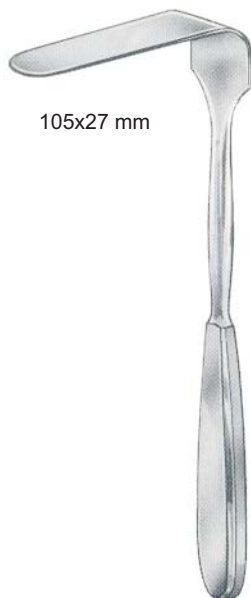
17-05480-01  
115x22 mm  
17-05480-02  
115x27 mm

**Simon**  
28cm/11"



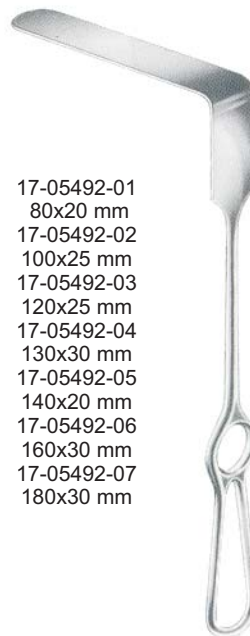
95x20 mm

**Tuebingen**  
17-05484-28  
28cm/11"



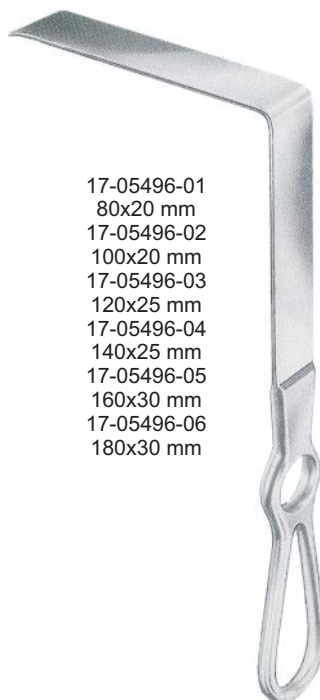
105x27 mm

**Martin**  
17-05488-26  
26cm/10¼"



17-05492-01  
80x20 mm  
17-05492-02  
100x25 mm  
17-05492-03  
120x25 mm  
17-05492-04  
130x30 mm  
17-05492-05  
140x20 mm  
17-05492-06  
160x30 mm  
17-05492-07  
180x30 mm

**Brunner**  
25cm/10"



17-05496-01  
80x20 mm  
17-05496-02  
100x20 mm  
17-05496-03  
120x25 mm  
17-05496-04  
140x25 mm  
17-05496-05  
160x30 mm  
17-05496-06  
180x30 mm

**Brunner**  
25cm/10"



17-05500-01  
85x35 mm  
17-05500-02  
120x50 mm  
17-05500-03  
155x50 mm

**Mikulicz**  
26cm/10¼"



90x50 mm

**Mikulicz**  
17-05502-26  
26cm/10¼"



17-05506-01  
160x38 mm  
17-05506-02  
160x57 mm  
17-05508-01  
190x38 mm  
17-05508-02  
190x57 mm

**Kelly**  
27cm/10½"



**Polloson**  
17-05510-27  
27cm/10½"



**Polloson**  
17-05512-27  
27cm/10½"

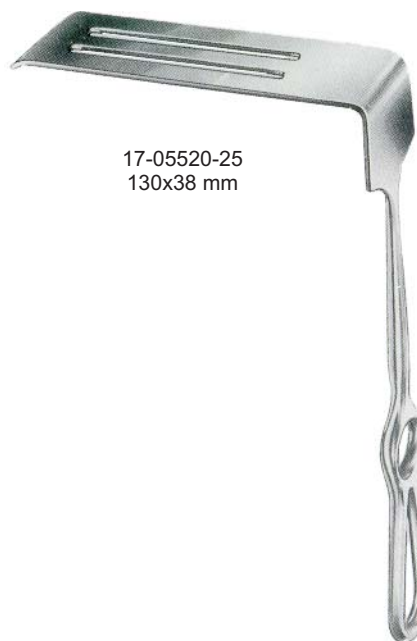


17-05516-03  
115x65 mm

17-05516-02  
115x38 mm

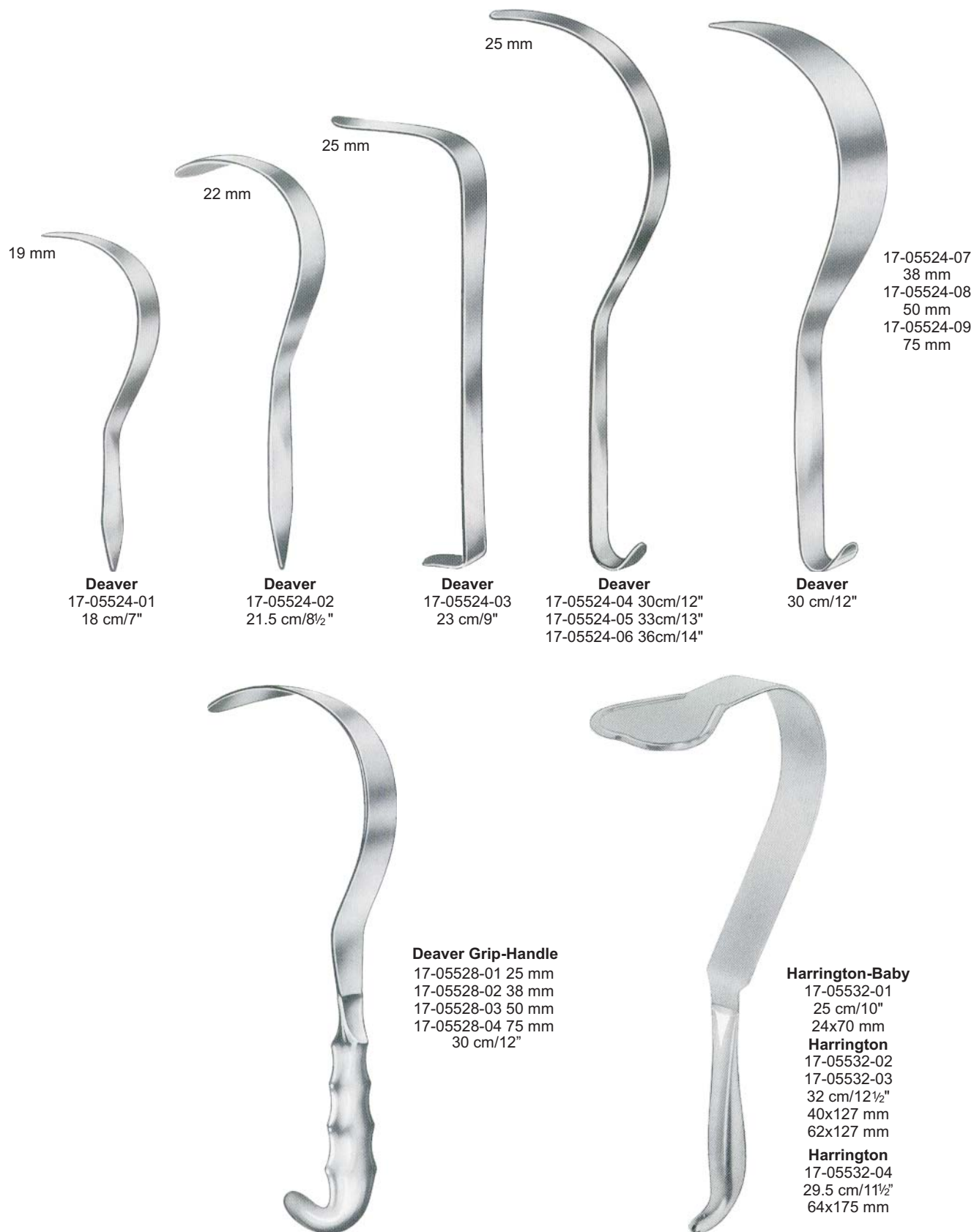
17-05516-01  
82x20 mm

**Coryllos**  
23.0cm/9"



17-05520-25  
130x38 mm

**Sauerbruch**  
25cm/10"

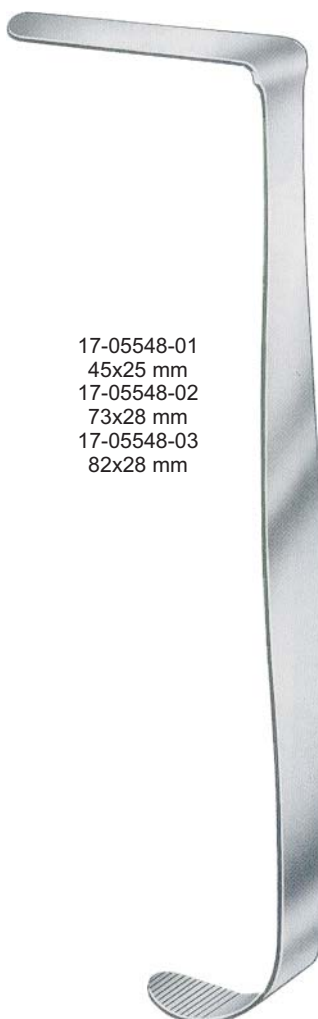






17-05536-01  
50x16 mm  
17-05536-02  
75x25 mm  
17-05536-03  
90x50 mm

**Meyerding**  
22.5cm/9"



17-05548-01  
45x25 mm  
17-05548-02  
73x28 mm  
17-05548-03  
82x28 mm

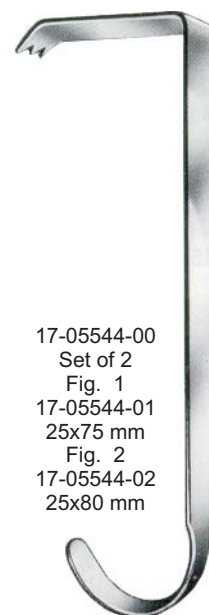
**Heaney**  
27cm/10½"

| <b>Zenker</b> |             |          |
|---------------|-------------|----------|
| 17-05540-01   | 25cm/10"    | 35x08 mm |
| 17-05540-02   | 26cm10¼"    | 60x12 mm |
| 17-05540-03   | 27.5cm/10¾" | 75x12 mm |

46 mm



**Kuemmel**  
17-05552-33  
33cm/13"



17-05544-00  
Set of 2  
Fig. 1  
17-05544-01  
25x75 mm  
Fig. 2  
17-05544-02  
25x80 mm

**Hibbs**  
24cm/9½"



100x45 mm

rigid

**Koerte**  
17-05556-28  
28cm/11"



17-05560-20  
20 mm  
17-05560-30  
30mm  
17-05560-40  
40 mm



**Kader**  
27cm/10½"



17-05564-01  
25.5cm/10"  
45 mm  
17-05564-02  
27.5cm/10¾"  
60 mm

**Leriche**



**Malleable**

17-05568-01 20 mm  
17-05568-02 25 mm  
17-05568-03 30 mm  
17-05568-04 35 mm  
17-05568-05 40 mm  
17-05568-06 45 mm  
17-05568-07 50 mm  
17-05568-08 64 mm  
17-05568-09 76 mm  
17-05568-10 102 mm  
33cm/13"

**Malleable**



**Tuffier**  
17-05570-20  
20 cm/8"  
17x25 mm

**Malleable**

17-05572-01  
200x6 mm  
17-05572-02  
200x8 mm  
17-05572-03  
200x10 mm  
17-05572-04  
200x12 mm  
17-05572-05  
200x17 mm  
17-05572-06  
200x20 mm  
17-05572-07  
200x25 mm  
17-05572-08  
250x25 mm



20cm/8"

**Malleable**

17-05574-01  
280x25/30 mm  
17-05574-02  
300x37/45 mm  
17-05574-03  
300x40/50 mm



**Haberer**  
21cm/8¼"



**Reverdin**  
17-05578-28  
28 cm/11"



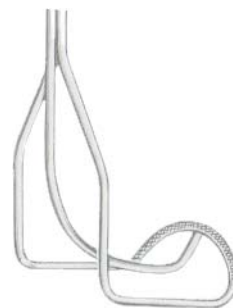
**Davidson**  
16cm/6¼"

75x50 mm  
75x90 mm

17-05582-01  
17-05582-02



**Cooley**  
17-05586-01  
21.5cm/8½"



**Cooley**  
17-05586-02  
21.5cm/8½"



**Cooley**  
17-05586-03  
23cm/9"



**Ross**  
27cm/10½"

- |        |             |          |
|--------|-------------|----------|
| Fig. 1 | 17-05590-01 | 13x13 mm |
| Fig. 2 | 17-05590-02 | 14x12 mm |
| Fig. 3 | 17-05590-03 | 18x18 mm |
| Fig. 4 | 17-05590-04 | 20x20 mm |
| Fig. 5 | 17-05590-05 | 22x18 mm |
| Fig. 6 | 17-05590-06 | 26x24 mm |



**Kirsch**  
17-05594-01  
20cm/8"



**Kirsch**  
17-05594-02  
20cm/8"



Set  
17-05600-00

17-05600-01  
24.5cm/10"

17-05600-02  
24.5cm/10"



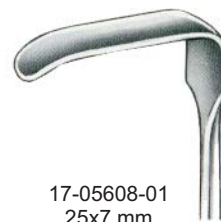
17-05604-01  
40x12 mm

17-05604-02  
55x14 mm

**Dockhorn**  
20cm/8"



22cm/8<sup>3</sup>/<sub>4</sub>"



17-05608-01  
25x7 mm



17-05608-02  
31x10 mm



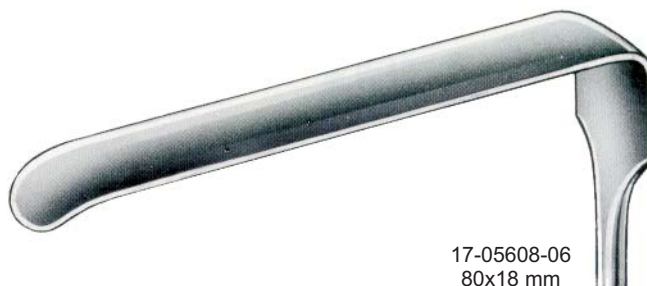
17-05608-03  
42x11 mm



17-05608-04  
55x12 mm



17-05608-05  
70x14 mm



17-05608-06  
80x18 mm



22cm/8¾"



17-05612-01  
42x13 mm



17-05612-02  
60x12 mm

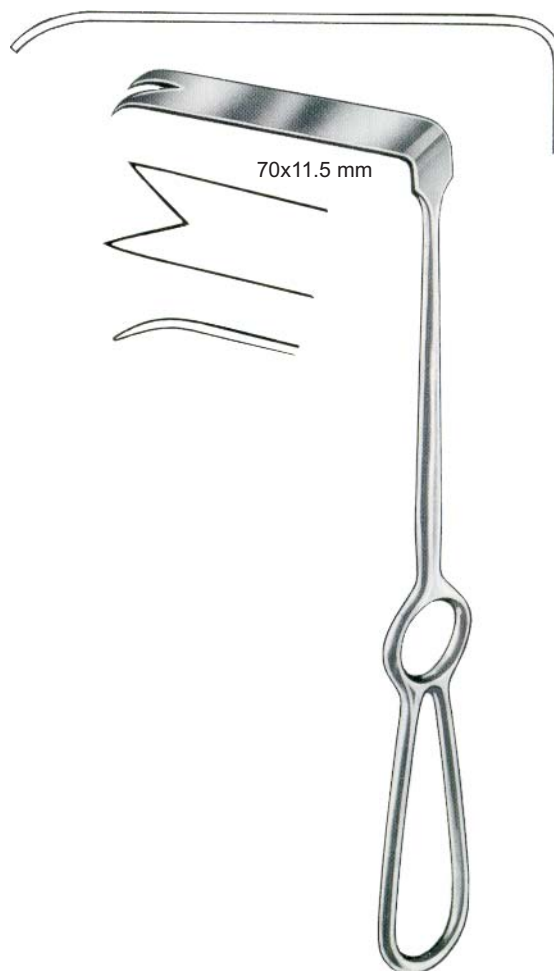


17-05612-03  
80x16 mm





**Spina-Nasalis**  
17-05616-01  
22 cm/8¾"



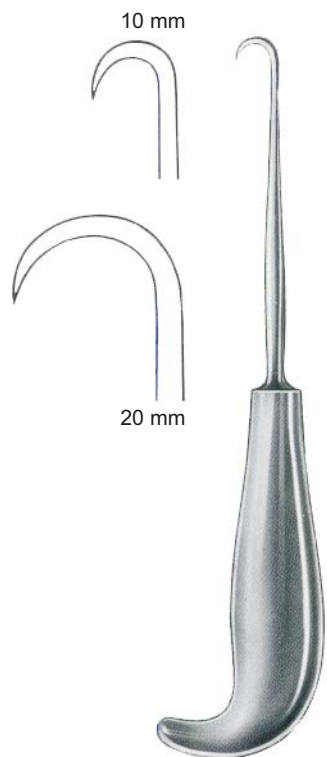
**Ramus**  
17-05616-02  
22 cm/8¾"



17-05620-15  
15.5 cm/6"



17-05624-16  
16 cm/6¼"



17-05627-10 10 mm  
17-05627-20 20 mm  
19cm/7½"



**Dingman**  
17-05629-17  
17.5cm/7"



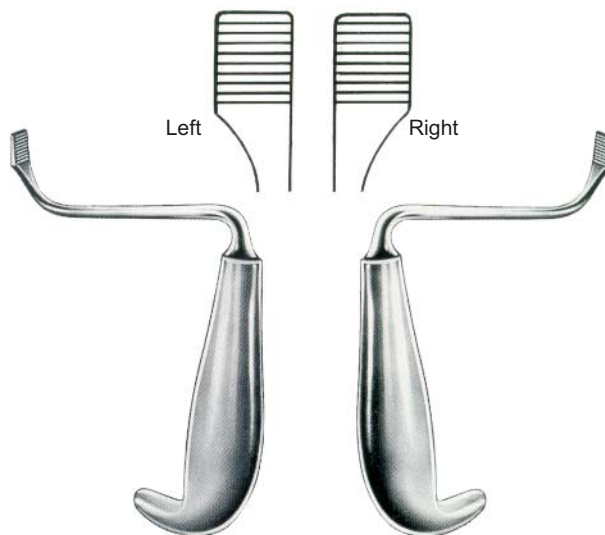
**Soerensen-Hein**  
17-05632-17  
17.5cm/7"



**Dingman**  
17-05636-21  
21cm/8¼"



17-05640-18  
18.5cm/7¼"



**Tessier**  
17-05644-01  
15cm/6"

**Tessier**  
17-05646-02  
15cm/6"



**Dingman**  
17-05648-00



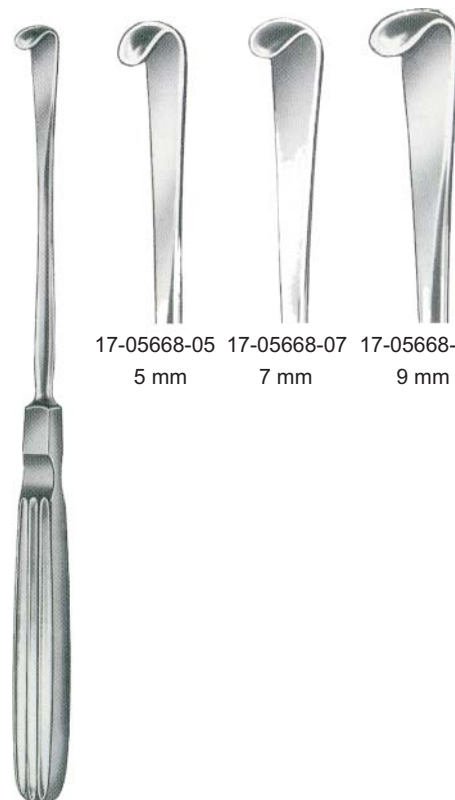
17-05652-21  
21cm/8¼"



17-05658-20  
20.5cm/8"



17-05662-17  
17.5cm/7"



17-05668-05 17-05668-07 17-05668-09  
5 mm 7 mm 9 mm

20cm/8"



17.5cm/7"



17-05672-06  
6 mm



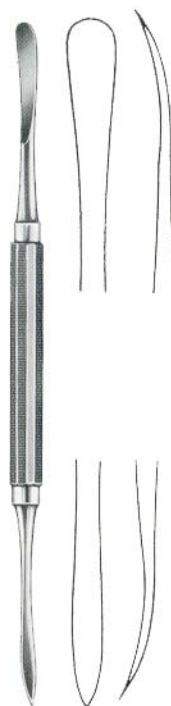
17-05672-07  
7 mm



17-05672-09  
9 mm



17-05672-11  
11 mm



**Dingman**  
17-05676-18  
18cm/7"



17-05680-23  
23.5cm/9¼"  
10 mm



**Tessier**  
20.5cm/8"



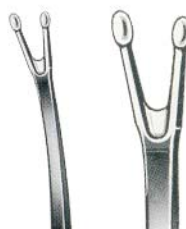
17-05686-10  
10 mm



17-05687-10  
10 mm



17-05690-01  
18.5cm/7¼"



17-05690-02  
18.5cm/7¼"



17-05694-07  
7 mm  
21.5cm/8½"



17-05694-10  
10 mm  
21.5cm/8½"



15cm/6"



17-05698-02  
2.5 mm



17-05698-04  
4 mm



**Bowdler-Henry's**  
17-05702-16  
16.5cm/6½"



**Gillies**  
17-05706-21  
21cm/8¼"



**Gillies**  
17-05708-21  
21cm/8¼"



**Sanders-Brown**  
17-05712-30  
30cm/12"



**Sanders-Brown**  
17-05716-29  
29cm/11½"



17-05720-14  
14cm/5½"



17-05722-23  
23cm/9"



17-05724-18  
18cm/7"



**Kelsey-Fry**  
17-05726-15  
15cm/6"



**Kelsey-Fry**  
17-05728-18  
18cm/7"



**Mershon**  
17-05732-14  
14.5cm/5½"



**Bose**



**Finsen**

Sharp



**Finsen**

Blunt

Sharp

| cm | in  |             |             |             |             |
|----|-----|-------------|-------------|-------------|-------------|
| 5  | 2   |             | 17-05739-05 | 17-05740-05 |             |
| 7  | 2¾" | 17-05736-07 | 17-05739-07 | 17-05740-07 | 17-05743-07 |



**Allport**

17-05750-09  
9.5cm/3¾"

Sharp

**Alm**

Blunt

| cm   | in  |             | cm | in  |             |             |
|------|-----|-------------|----|-----|-------------|-------------|
| 8.5  | 3½" | 17-05746-08 | 7  | 2¾" | 17-05753-07 | 17-05756-07 |
| 11.5 | 4½" | 17-05746-11 | 10 | 4   | 17-05753-10 | 17-05756-10 |





**Holzheimer**  
Sharp 17-05759-10 10 cm/4"  
blunt 17-05760-10



**Jansen**  
Sharp 17-05763-10 10.5 cm/4 1/4"  
blunt 17-05764-10



**Jansen-Deep**  
Sharp 17-05767-10 10.5 cm/4 1/4"  
blunt 17-05768-10



**Plester**  
17-05772-11  
11.5 cm/4 1/2"



**Plester**  
17-05774-11  
11.5 cm/4 1/2"



**Plester**  
Sharp 17-05777-13 13 cm/5"  
blunt 17-05778-13



**Weitlaner**

Sharp

Blunt

10.5 cm/4¼"

17-05781-10

17-05782-10

13.0 cm/5"

17-05781-13

17-05782-13

14.0 cm/5½"

17-05781-14

17-05782-14

16.5 cm/6½"

17-05781-16

17-05782-16



**Weitlaner**

Sharp

Blunt

17-05785-13

17-05786-13

17-05785-14

17-05786-14

17-05785-16

17-05786-16



**Weitlaner-Wullstein**

Sharp

Blunt

17-05789-13

17-05790-13

17-05789-14

17-05790-14

17-05789-16

17-05790-16



**Mollison**

17-05793-15

15 cm/6"



**Tuebinger-Modell**

17-05796-16

16 cm/6¼"



**Henner(Lempert)**

17-05800-12

12 cm/4½"

Complete with 2 pairs of blades and centre blade



Complete with 3 Central blades



**Henley**

|             |             |             |
|-------------|-------------|-------------|
| Sharp       |             | Blunt       |
| 17-05803-16 | 16.5 cm/6½" | 17-05804-16 |

Central blades, only



|             |             |             |
|-------------|-------------|-------------|
| 17-05805-19 | 17-05805-25 | 17-05805-32 |
| 16x19 mm    | 16x25 mm    | 16x32 mm    |



**Weitlaner-Baby**

|           |             |
|-----------|-------------|
| 13 cm/5"  | 17-05808-13 |
| 16 cm/6¼" |             |



**Milligan**

|             |             |
|-------------|-------------|
| Sharp       | Blunt       |
| 17-05811-13 | 17-05812-13 |



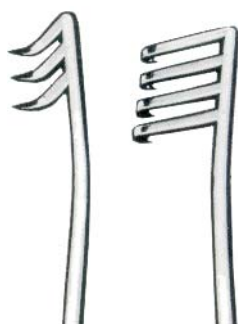
**Cone (Adson-Baby)**

|             |             |
|-------------|-------------|
| Sharp       | Blunt       |
| 17-05815-13 | 17-05816-13 |
| 17-05815-16 | 17-05816-16 |



**Weitlaner**

|           | Sharp       | Blunt       | Sharp       | Blunt       |
|-----------|-------------|-------------|-------------|-------------|
| 20 cm/8"  | 17-05819-20 | 17-05820-20 |             |             |
| 25 cm/10" | 17-05819-25 | 17-05820-25 | 17-05821-25 | 17-05822-25 |



3x4 Teeth



5x6 Teeth



**Adson**

|            | Sharp       | Blunt       |
|------------|-------------|-------------|
| 20 cm/8"   | 17-05823-20 | 17-05824-20 |
| 26 cm/10¼" | 17-05823-26 | 17-05824-26 |



**Anderson-Adson**

|             | Sharp | Blunt       |
|-------------|-------|-------------|
| 17-05827-20 |       | 17-05828-20 |



**Cone**

|             | Sharp | Blunt       |
|-------------|-------|-------------|
| 17-05831-20 |       | 17-05832-20 |
| 17-05831-26 |       | 17-05832-26 |



**Travers**  
17-05836-21  
21 cm/8¼"

**Jaws Depth**

|       |
|-------|
| 25 mm |
| 44 mm |



**Beckmann-Adson**  
31 cm/12¼"

| Sharp       | Blunt       |
|-------------|-------------|
| 17-05839-01 | 17-05840-01 |
| 17-05839-02 | 17-05840-02 |



**Adson**  
27 cm/10½"

| Sharp       | Blunt       |
|-------------|-------------|
| 17-05843-27 | 17-05844-27 |





5x6 Teeth



**Adson**

Sharp 17-05847-27 27cm/10½"  
Blunt 17-05848-27



**Beckmann-Adson  
(Standard)**

Sharp 17-05851-31 31cm/12¼"  
Blunt 17-05852-31



**Adson**

17-05856-33  
33cm/13"





Hemilaminectomy Retractor



17-05861-27  
27cm/10½"



**Beckmann-Eaton**  
17-05864-33  
33 cm/13"

Retractor Only  
17-05868-01

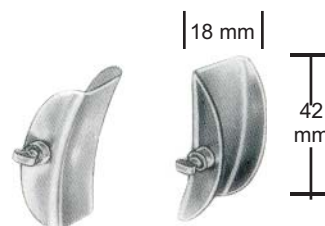
Lateral Blades  
17-05868-02



**Collin**  
17-05868-00  
20cm/8"



**Baby-Collin**  
17-05872-00

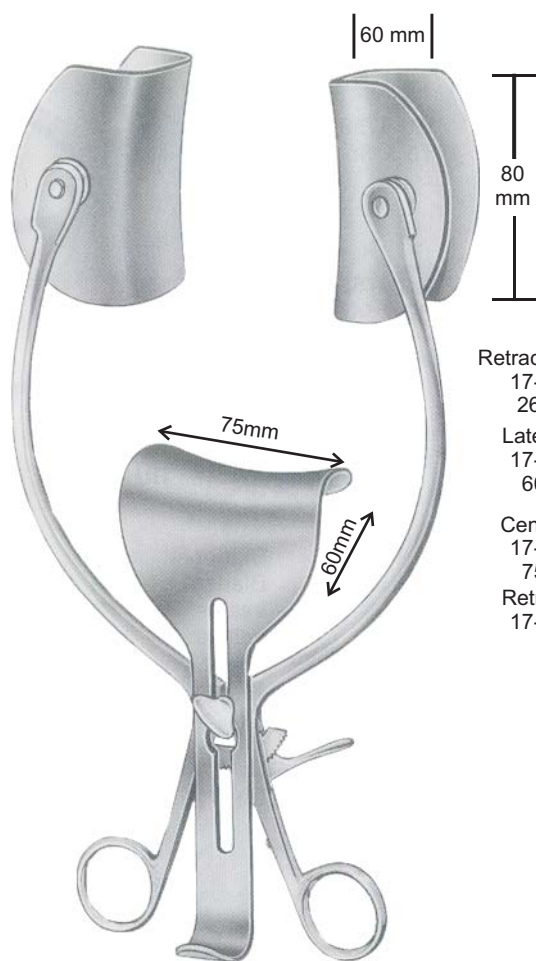


17-05872-01



**Collin**  
20 cm/8"

|                     | Fig. 1<br>17-05876-00   | Fig. 2<br>17-05878-00   | Fig. 3<br>17-05880-00    |
|---------------------|-------------------------|-------------------------|--------------------------|
| Retractors Complete | 17-05876-00             | 17-05878-00             | 17-05880-00              |
| Retractors Only     | 17-05876-01             | 17-05878-01             | 17-05880-01              |
| Lateral Blades      | 17-05876-02<br>38x62 mm | 17-05878-02<br>38x80 mm | 17-05880-02<br>38x100 mm |
| Central Blades      | 17-05876-03<br>55x55 mm |                         | 17-05880-03<br>55x75 mm  |



**Collin**

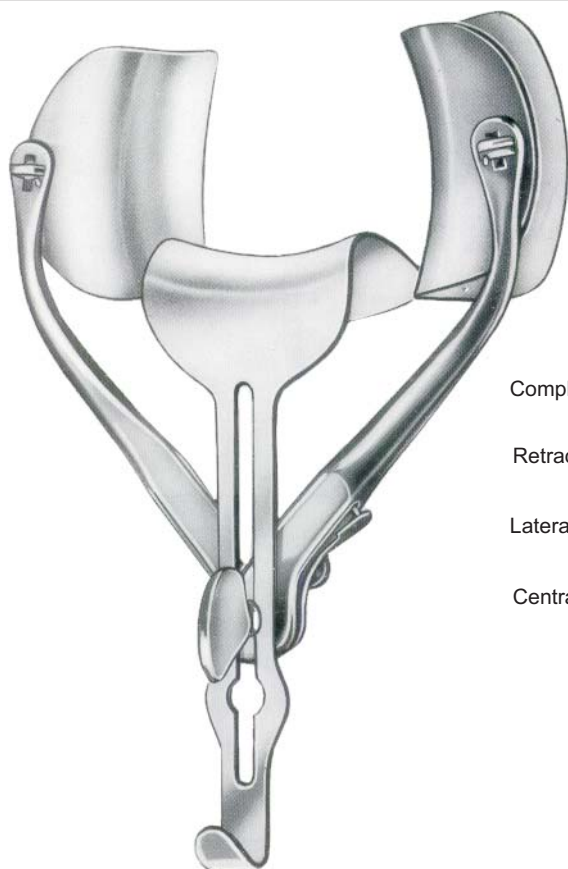
Retractor Complete  
17-05884-00  
26cm/10½"  
Lateral Blades  
17-05884-01  
60X80mm  
Central Blades  
17-05884-02  
75X60mm  
Retractor Only  
17-05884-03



**Mayo-Adams**  
17-05886-01  
17cm/6¾"



**Mayo-Adams**  
17-05886-02  
17cm/6¾"



**Ricard**  
17-05890-00 28cm/11"  
17-05894-00 30cm/12"

|                 | Fig. 1<br>17-05890-00   | Fig. 2<br>17-05894-00   |
|-----------------|-------------------------|-------------------------|
| Complete        |                         |                         |
| Retractors Only | 17-05890-01             | 17-05894-01             |
| Lateral Blades  | 17-05890-02<br>60x80 mm | 17-05894-02<br>75x85 mm |
| Central Only    | 17-05890-03<br>53x70 mm | 17-05894-03<br>80x90 mm |

Vulval Retractor



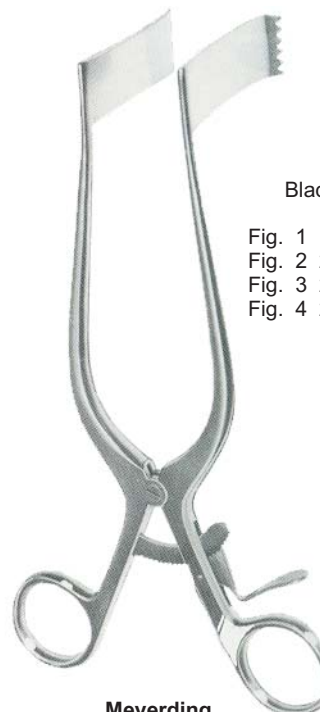
**Richter**  
17-05898-16  
16.5 cm/6½"



**Gelpi**  
17-05902-09 9 cm/3½"  
17-05902-11 11 cm/4½"  
17-05902-13 13 cm/5"  
17-05902-19 19 cm/7½"



**Gelpi**  
17-05904-19  
19 cm/7½"



**Meyerding**  
Fig. 1 17-05908-01  
Fig. 2 17-05908-02  
Fig. 3 17-05908-03  
Fig. 4 17-05908-04  
18 cm/7"

Blades

- Fig. 1 1¾"x1"  
Fig. 2 2⅛"x1"  
Fig. 3 2⅜"x1¾"  
Fig. 4 2⅜"x1"



**Markham-Meyerding**

17-05912-18 18cm/7" 17-05914-18



**Rigby**

17-05918-19  
19cm/7½"



**De Bakey**

17-05922-12 12cm/4¾"  
17-05922-17 17cm/6¾"



**Gosset**

17-05926-00

Fig.1 ◀ 10cm/4" ▶  
Fig.2 ◀ 14cm/5½" ▶



**Gosset**

Fig.1 17-05928-01  
Fig.2 17-05928-02

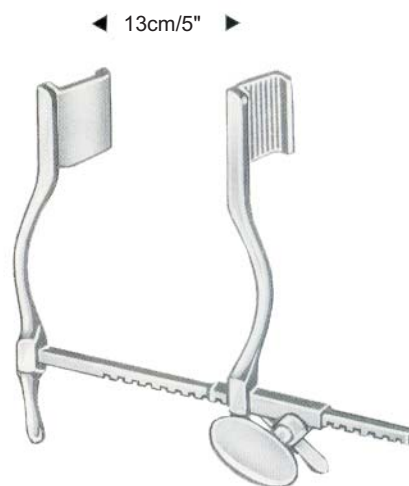




**Gosset**  
17-05932-00

Retractors Only  
17-05932-01

Central Blade  
17-05932-02  
56X60mm

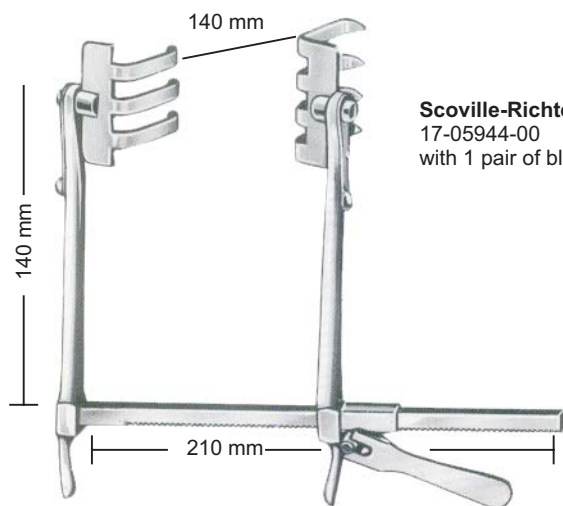


**Hertzler**  
17-05936-00



**Frazier**  
17-05940-00





**Scoville-Richter**  
17-05944-00  
with 1 pair of blades 17-05944-01

the blades are available by pairs



17-05944-01  
60x50 mm



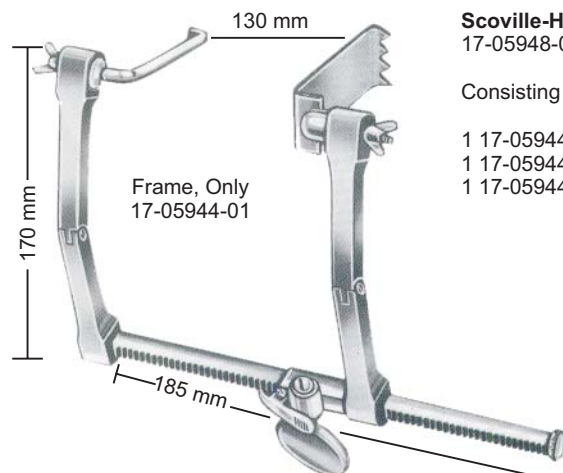
17-05944-02  
48x50 mm



17-05944-03  
28x40 mm



17-05944-04  
38x62 mm



**Scoville-Haverfield**  
17-05948-00

Consisting of:

- 1 17-05944-01
- 1 17-05944-02
- 1 17-05944-03

Frame, Only  
17-05944-01



**Scoville**  
17-05948-02  
51 mm



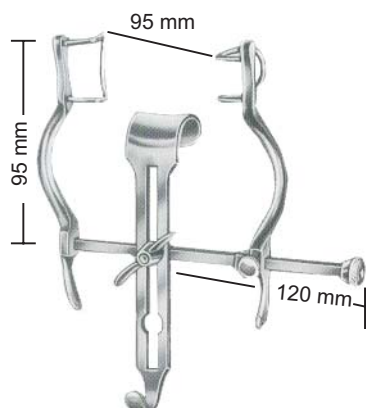
**Scoville**  
17-05948-03 63x25 mm  
17-05948-04 63x51 mm  
17-05948-05 67x32 mm  
17-05948-06 89x25 mm



**Taylor**  
17-05948-07  
48x38 mm

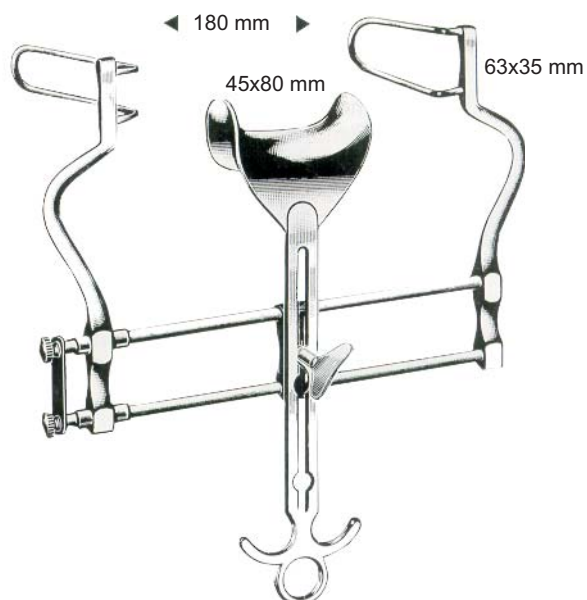


**Taylor**  
17-05948-08 63x51 mm  
17-05948-09 79x57 mm



**Baby-Balfour**  
17-05952-00

Retractor Complete



**Balfour**  
17-05956-00

Retractor Only

17-05952-01

17-05956-01

Central Blade Only

17-05952-02

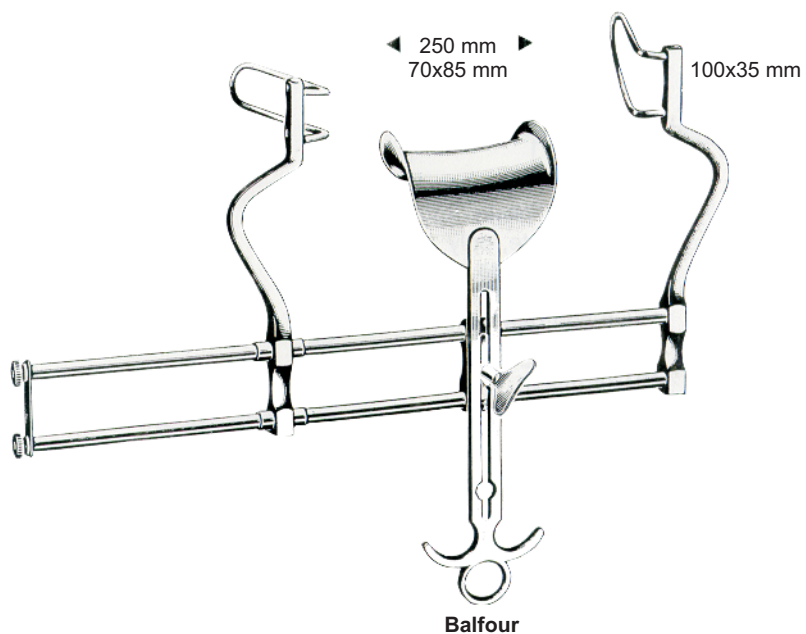
17-05956-02



Retractor Complete  
17-05960-00

Retractor Only  
17-05960-01

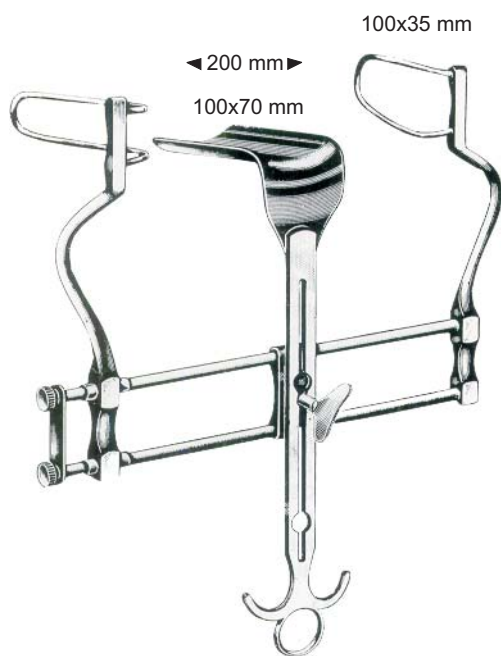
Central Blade Only  
17-05960-02



Retractor, Complete  
17-05964-00

Retractor Only  
17-05964-01

Central Blade Only  
17-05964-02



**Balfour**

Retractor, complete  
17-05968-00  
Retractor, only  
17-05968-01  
Central blade, only  
17-05968-02

Retractor, complete  
17-05972-00

Retractor, only  
17-05972-01

Central blade, only  
17-05972-02  
45x68 mm

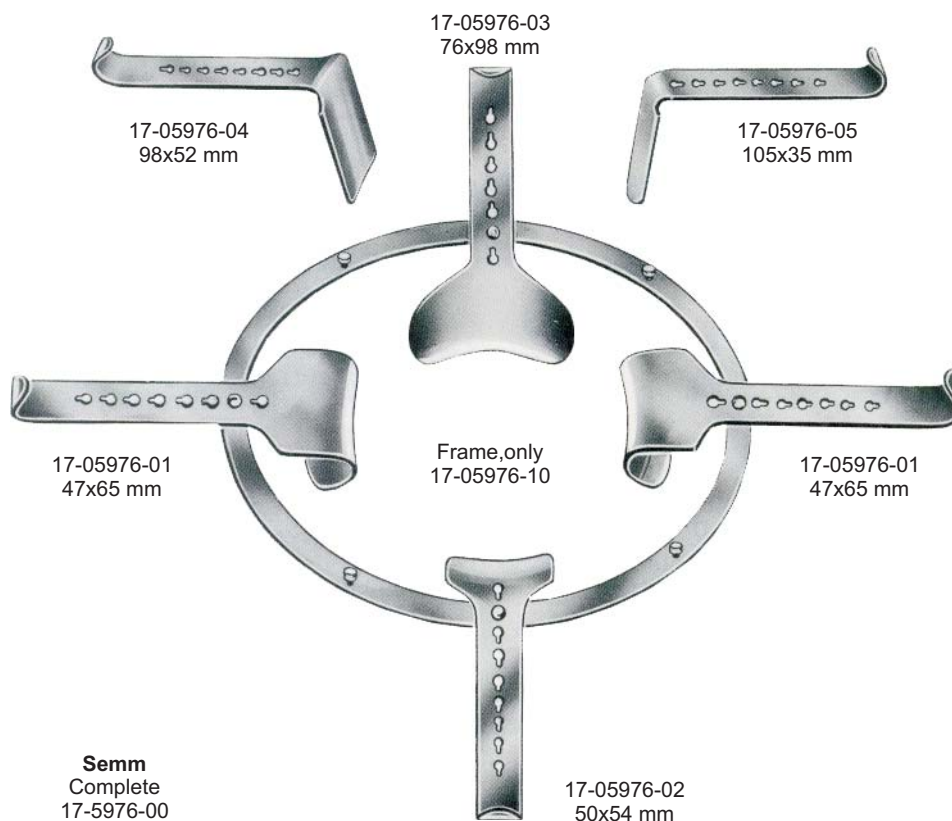
Lateral blades, only  
17-05972-04  
60 mm

17-05972-03  
68x85 mm

17-05972-05  
80 mm



**Balfour USA-Modell**



**Kirschner**  
Complete  
17-05980-00  
1x 17-05980-10  
2x 17-05980-01  
2x 17-05980-02



**Kirschner**  
Complete  
17-05984-00  
1x 17-05984-10  
2x 17-05984-01  
2x 17-05984-02



Frame

17-05988-10 178x140 mm  
17-05990-20 255x178 mm



Fig.1 17-05988-01 38x38 mm  
Fig.2 17-05988-02 38x25 mm

Complete  
17-05988-00  
17-05990-00

**Denis-Brown**  
Consisting of

1x 17-05988-10  
1x 17-05990-20

2x 17-05988-01  
2x 17-05988-02

2x 17-05988-02  
2x 17-05988-02



110x70 mm

**O'Sullivan-O'Connor**  
Complete  
17-05994-00



17-05994-01  
80x45 mm



17-05994-02  
80x45 mm



17-05994-03  
110x70 mm





17-05998-01 38x60 mm  
17-05998-02 45x80 mm



17-05998-03 50x65 mm  
17-05998-04 60x85 mm

Foldable Frame  
17-05998-10

**Franz**

Complete with 4 valves  
17-5998-00

With  
con

17-05998-10 1x  
17-05998-01 2x  
17 05998-03 2x

Complete with 8 valves  
17-5999-00

With  
con

17-05998-10 1x  
17-05998-01 2x  
17 05998-02 2x  
17-05998-03 2x  
17-05998-04 2x



17-06002-01 48x90 mm  
17-06002-02 48x105 mm  
17-06002-03 48x120 mm  
17-06002-04 48x135 mm

**Doyen**  
28cm/11"



| cm   | In  | 1.0 mmØ     | 1.5 mmØ     | 2.0 mmØ     | 2.0 mmØ     |             | Watson-Cheyne | Fish        |
|------|-----|-------------|-------------|-------------|-------------|-------------|---------------|-------------|
| 11.5 | 4½" | 18-06004-11 | 18-06006-11 | 18-06008-11 |             | 18-06012-11 |               |             |
| 13   | 5"  | 18-06004-13 | 18-06006-13 | 18-06008-13 |             | 18-06012-13 | 18-06016-13   |             |
| 14.5 | 5¾" | 18-06004-14 | 18-06006-14 | 18-06008-14 | 18-06010-14 | 18-06012-14 |               | 18-06020-14 |
| 16   | 6¼" | 18-06004-16 | 18-06006-16 | 18-06008-16 | 18-06010-16 | 18-06012-16 |               |             |
| 18   | 7"  | 18-06004-18 | 18-06006-18 | 18-06008-18 |             | 18-06012-18 | 18-06016-18   | 18-06020-18 |
| 20   | 8"  | 18-06004-20 | 18-06006-20 | 18-06008-20 |             | 18-06012-20 |               |             |
| 25   | 10" | 18-06004-25 | 18-06006-25 | 18-06008-25 |             |             |               |             |



| cm   | In  |             |             |             |             |             |  |             |
|------|-----|-------------|-------------|-------------|-------------|-------------|--|-------------|
| 10.5 | 4¼" |             |             |             |             |             |  |             |
| 11.5 | 4½" | 18-06024-11 |             |             |             |             |  |             |
| 13   | 5"  | 18-06024-13 |             | 18-06028-13 | 18-06032-13 |             |  |             |
| 14.5 | 5¾" | 18-06024-14 | 18-06025-14 | 18-06028-14 | 18-06032-14 |             |  |             |
| 16   | 6¼" | 18-06024-16 |             | 18-06028-16 | 18-06032-16 | 18-06033-16 |  | 18-06040-16 |
| 18   | 7"  | 18-06024-18 |             | 18-06028-18 |             |             |  |             |
| 20   | 8"  | 18-06024-20 |             |             | 18-06032-20 |             |  |             |



Of tin

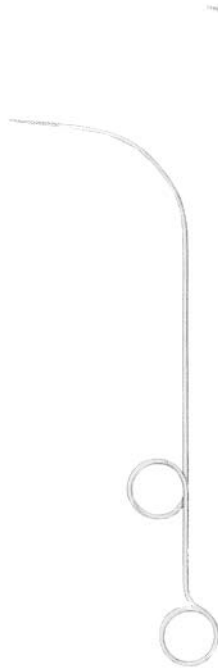


18-06044-25 25 cm/10"  
18-06044-30 30 cm/12"  
18-06044-40 40 cm/15¾"

Plaster spatulas



18-06048-13 13 cm/5"  
18-06048-14 14 cm/5½"



**Pelteson**  
18-06052-23  
23 cm/9"



**Fein**  
18-06054-28  
28 cm/11"



**Buie**  
18-06058-16  
16 cm/6¼"

Fistula probes



**Lockhart-Mummary**  
16.5 cm/6½"



Fig. 1  
18-6062-01



Fig. 2  
18-6062-02



Fig. 3  
18-6062-03



Fig. 4  
18-6062-04



**Pratt**  
21 cm/8¼"



18-06070-01



18-06070-02



18-06070-03



**Universal**

| cm   | in     | 1.2 mm Ø    | 1.5 mm Ø    | 1.7 mm Ø    |
|------|--------|-------------|-------------|-------------|
| 12.5 | 5"     | 18-06074-12 |             |             |
| 16   | 6 1/4" | 18-06074-16 |             |             |
| 18   | 7"     | 18-06074-18 | 18-06075-18 | 18-06076-18 |



**Uckermann**  
18-06078-16  
16 cm/6 1/4"



**Jobson-Horne**  
18-06080-13 13 cm/5"  
18-06080-18 18 cm/7"



Round      Triangular

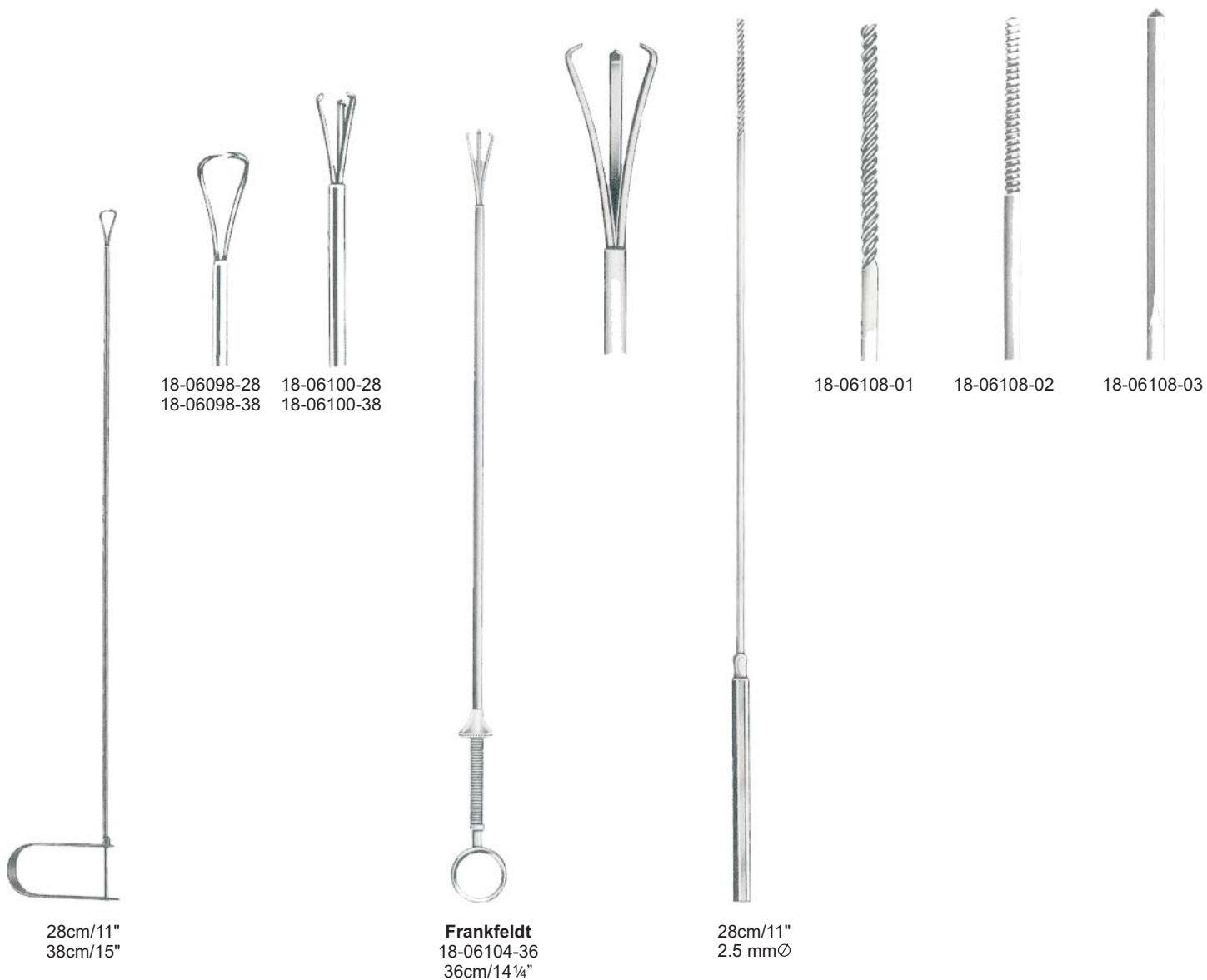
**Farrell**  
(Farrell-Lathbury)

| cm | in     | 0.9 mm Ø    | 1.1 mm Ø    | 1.5 mm Ø |
|----|--------|-------------|-------------|----------|
| 12 | 4 3/4" | 18-06084-12 | 18-06086-12 |          |
| 14 | 5 1/2" | 18-06084-14 | 18-06086-14 |          |
| 16 | 6 1/4" | 18-06084-16 | 18-06086-16 |          |
| 18 | 7"     |             |             |          |



Round      Triangular

| 1.2 mm Ø    | 1.5 mm Ø    | 1.5 mm Ø    |
|-------------|-------------|-------------|
| 18-06090-12 | 18-06092-12 | 18-06094-12 |
| 18-06090-14 | 18-06092-14 | 18-06094-14 |
| 18-06090-16 | 18-06092-16 | 18-06094-16 |
| 18-06090-18 | 18-06092-18 | 18-06094-18 |





**Nabatoff**  
18-06112-00  
135x100x25 mm

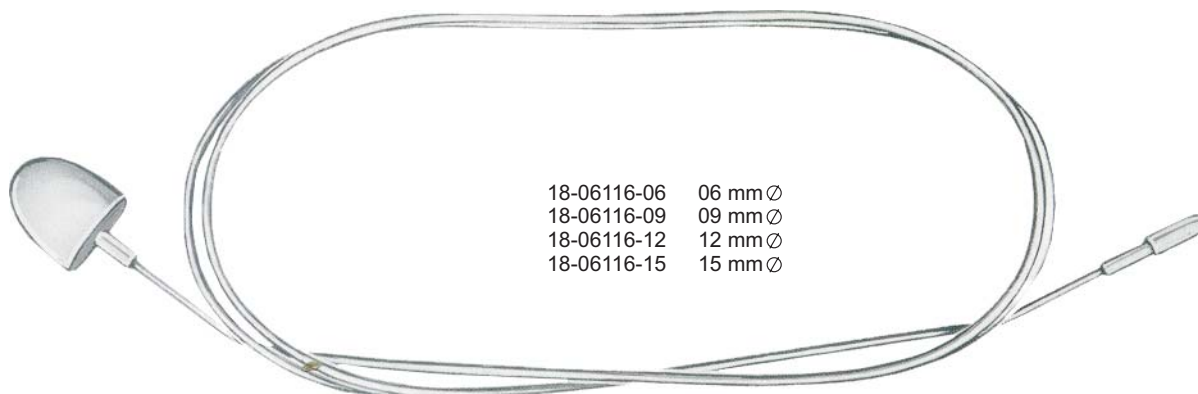
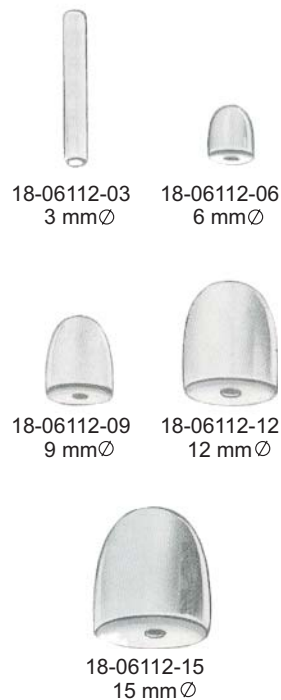
Sterilizable

18-06112-01

18-06112-02



18-06112-20



18-06116-06 06 mm Ø  
18-06116-09 09 mm Ø  
18-06116-12 12 mm Ø  
18-06116-15 15 mm Ø

**Myers**





**Strippers**



55cm/21½"

|             | mm Ø |
|-------------|------|
| 18-06120-02 | 2.0  |
| 18-06120-03 | 3.0  |
| 18-06120-04 | 4.0  |
| 18-06120-06 | 6.0  |
| 18-06120-07 | 7.0  |
| 18-06120-08 | 8.5  |
| 18-06120-10 | 10.0 |
| 18-06120-12 | 12.0 |
| 18-06120-14 | 14.0 |



Handle for  
18-06120-00

**Probes for Varicose Veins**



Malleable

| cm | in   |             |
|----|------|-------------|
| 40 | 13½" | 18-06124-40 |
| 50 | 20"  | 18-06124-50 |
| 65 | 26"  | 18-06124-65 |
| 80 | 32"  | 18-06124-80 |

**Babcock**

**Vessel Irrigating Cannulas**



**Schimd**



18-06128-03  
3 mm Ø



18-06128-04  
4 mm Ø



18-06128-05  
5mmØ



18-06128-06  
6mmØ

**Spatulas**



3 mm  
Blunt

18-06132-18 18.0 cm/7"  
18-06132-21 21.5 cm/8½"



**Schmid**



18-06136-14  
14 cm/5½"  
5 mm



18-06136-24  
24 cm/9¼"  
7 mm



**Castroviejo**  
14cm/5 1/2"



Straight  
19-06140-14



Curved  
19-06141-14



**Castroviejo**



Straight  
19-06144-14  
19-06144-18



Curved  
19-06145-14  
19-06145-18



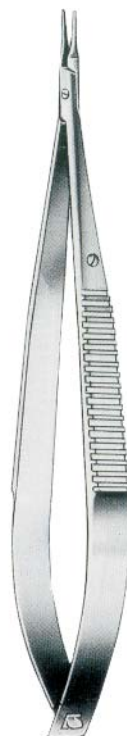
**Castroviejo**  
9cm/3 1/2"



Straight  
19-06148-09



Curved  
19-06149-09



**Castroviejo**  
14cm/5 1/2"



Straight  
19-06152-14



Curved  
19-06153-14



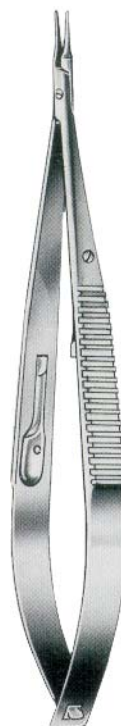
**Castroviejo**  
9 cm/3½"



Straight  
19-06156-09



Curved  
19-06157-09



**Castroviejo**  
14 cm/5½"



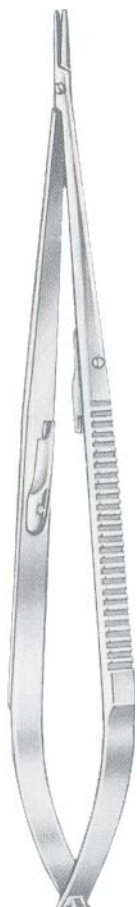
Straight  
19-06160-14



Curved  
19-06161-14



**Paton**  
19-06164-11  
11.5 cm/4½"



**Jacobson**

| cm | in  | Without ratchet | With ratchet |
|----|-----|-----------------|--------------|
|    |     | 19-06168-18     | 19-06170-18  |
| 21 | 8¼" | 19-06168-21     | 19-06170-21  |



Yasargil



Straight

19-06174-20 20.0 cm/8"  
19-06174-22 22.5 cm/9"



Curved

19-06175-16 16.5 cm/6½"  
19-06175-20 20.0 cm/9"  
19-06175-22 22.5 cm/9"  
19-06175-24 24.5 cm/9¾"



Straight

19-06178-16 16.0 cm/6¼"  
19-06178-18 18.5 cm/7¼"



Curved

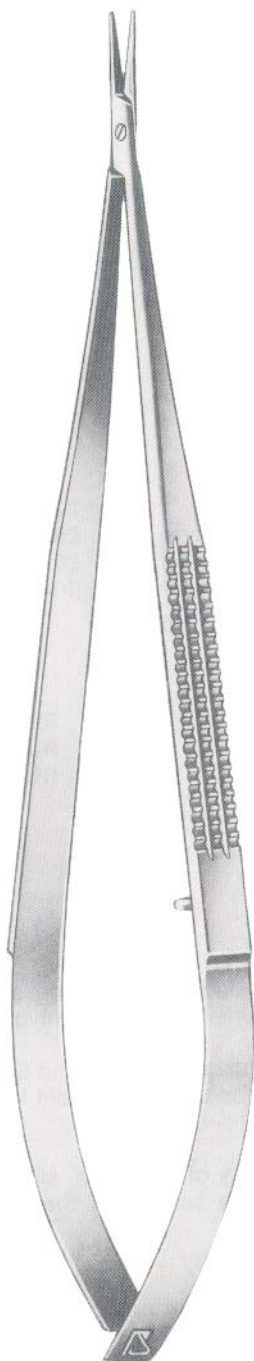
19-06179-16 16.0 cm/6¼"  
19-06179-18 18.5 cm/7¼"



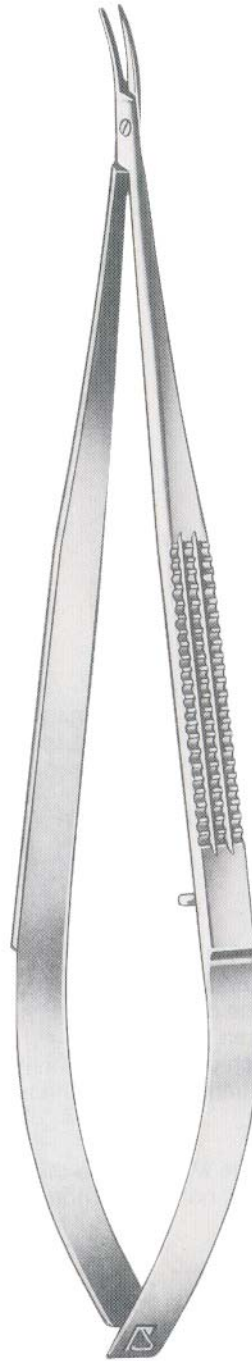
Straight  
19-06182-15  
15 cm/6"



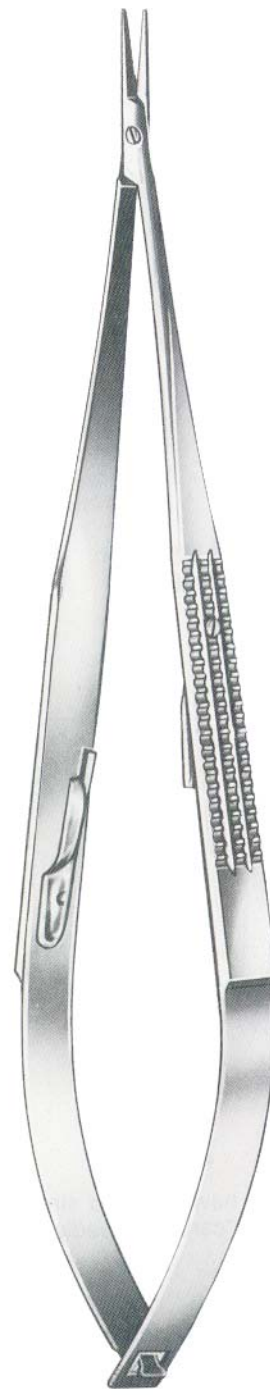
Curved  
19-06183-15  
15 cm/6"



Straight  
19-06186-18  
18 cm/7"



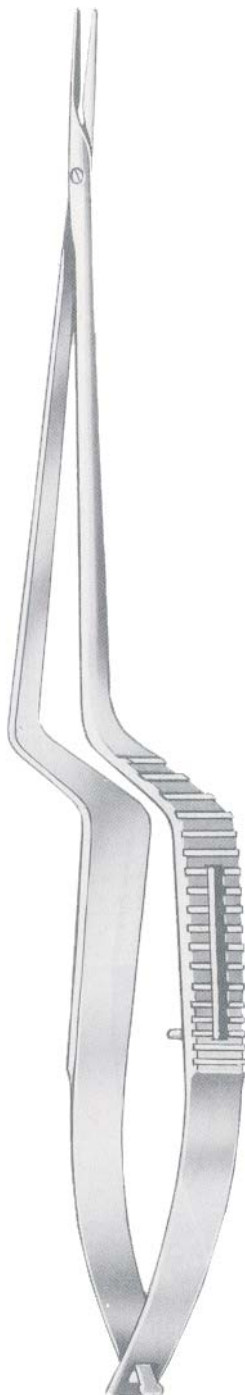
Curved  
19-06187-18  
18 cm/7"



Straight  
19-06190-18  
18 cm/7"



Straight



19-06194-18  
19-06194-22

Curved



19-06195-18  
19-06195-22

**Yasargil**  
18.0 cm/7"  
22.5 cm/8¾"





Straight  
19-06198-15  
15 cm/6"



Curved  
19-06199-15  
15 cm/6"



Straight  
19-06206-15  
15 cm/6"



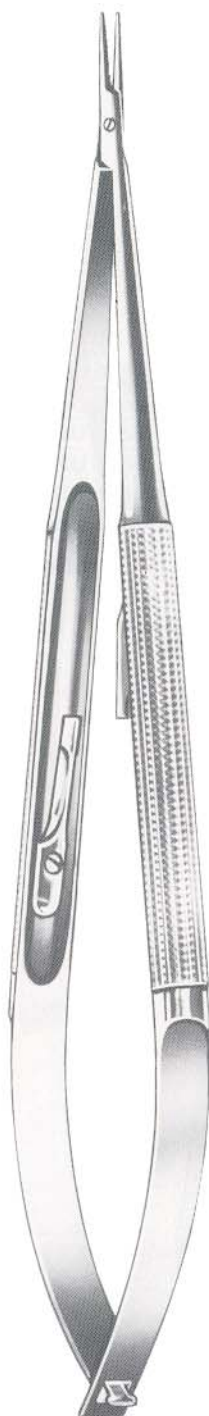
Curved  
19-06207-15  
15 cm/6"



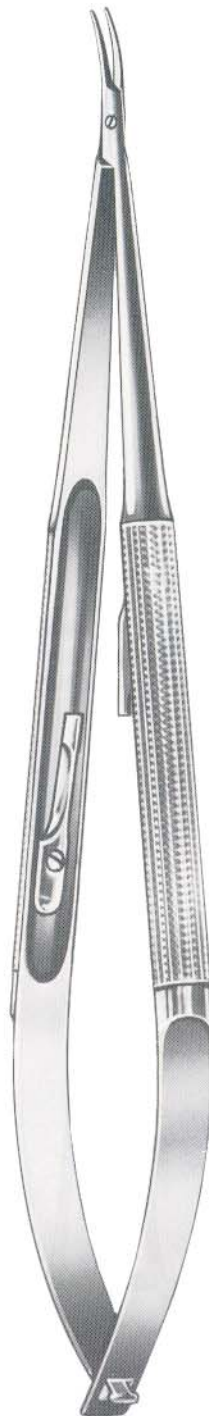
Straight  
19-06210-18  
18.5 cm/7¼"



Curved  
19-06211-18  
18.5 cm/7¼"



Straight  
19-06214-18  
18.5 cm/7¼"



Curved  
19-06215-18  
18.5 cm/7¼"



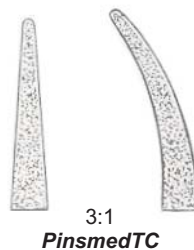
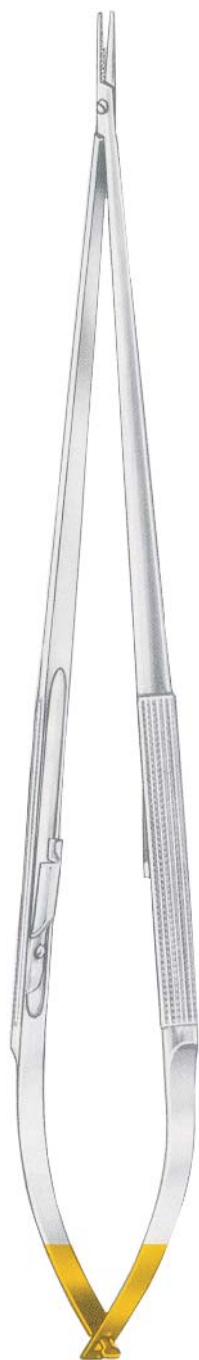
23 cm/9"



Straight  
19-06218-23



Curved  
19-06219-23



Straight



Curved

19-06222-18 18 cm/7"  
19-06222-21 21 cm/8¼"  
19-06222-23 23 cm/9¼"

With ratchet

19-06223-18 18 cm/7"  
19-06223-21 21 cm/8¼"  
19-06223-23 23 cm/9¼"

Without ratchet

The new modified structure of a Mouth aires the possibility of the smooth , slide surface of the suture material.  
The "careful" Needleholder does not cause notches on the surface of the needles. The needle would not loose her gliding ability.



Straight  
19-06226-12  
12 cm/4¾"



Curved  
19-06227-12  
12 cm/4¾"



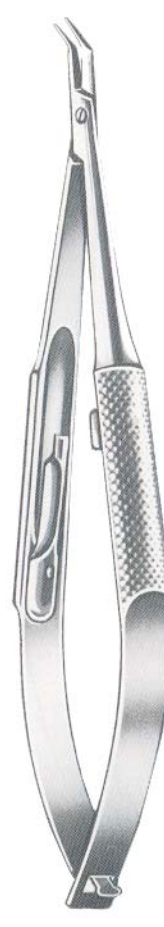
Angled  
19-06229-12  
12 cm/4¾"



Straight  
19-06232-12  
12 cm/4¾"



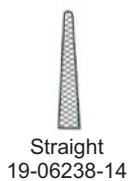
Curved  
19-06233-12  
12 cm/4¾"



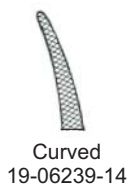
Angled  
19-06235-12  
12 cm/4¾"



**Arruga**  
14 cm/5½"



**Straight**  
19-06238-14



**Curved**  
19-06239-14



**Stevens**  
19-06242-13 13 cm/5"  
19-06242-15 15 cm/6"



**Kalt**  
19-06246-14  
14 cm/5½"



**Castroviejo-Kalt**  
19-06248-13  
13.5 cm/5¼"



**Kalt-Arruga**  
19-06250-14  
14 cm/5½"





**Castroviejo**  
12cm/4¾"



Straight  
19-06254-12



Curved  
19-06255-12



**Castroviejo**  
12cm/4¾"



Straight  
19-06258-12



Curved  
19-06259-12



**Castroviejo**  
19-06262-13  
13cm/5"



**Boynton**  
19-06266-12  
12cm/4¾"



**Arruga**  
16cm/6¼"



Straight  
19-06270-16



Curved  
19-06271-16





**Castroviejo**

**PinsmedTC**

14cm/5½"  
18cm/7"  
21cm/8¼"



19-06274-14  
19-06274-18  
19-06274-21

Smooth



19-06278-14  
19-06278-18  
19-06278-21



14cm/5½"  
18cm/7"  
21cm/8¼"

19-06275-14  
19-06275-18  
19-06275-21



19-06279-14  
19-06279-18  
19-06279-21



**Kalt**  
14cm/5½"



19-06282-14



19-06284-14



**Barraquer**  
19-06288-14  
14cm/5½"



**Castroviejo**  
19-06292-13  
13cm/5"



19-06296-18



19-06298-18

Smooth



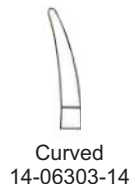
**Hepp-Schiedel**  
18cm/7"



***PinsmedTC***



**Arruga**  
14cm/5½"



**Jacobson**  
19-06306-18 18cm/7"  
19-06306-20 20cm/8"  
19-06306-23 23cm/8¾"



**Diethrich**

| Straight    |          | Curved      |
|-------------|----------|-------------|
| 19-06310-16 | 16cm/6¼" | 19-06311-16 |
| 19-06310-18 | 18cm/7"  | 19-06311-18 |
| 19-06310-20 | 20cm/8"  | 19-06311-20 |
| 19-06310-23 | 23cm/9"  | 19-06311-23 |
| 19-06310-25 | 25cm/10" | 19-06311-25 |



19-06314-13



19-06315-13

Smooth



**Halsey**  
13cm/5"



**Webster**  
13cm/5"



19-06318-13

Smooth



**Derf**  
19-06322-12  
12cm/4 3/4"



**Derf**  
19-06324-12  
12.5cm/5"



**Collier**  
19-06326-12  
12.5cm/5"



**Hegar-Baumgartner**  
19-06330-14  
14cm/5 1/2"



**Brown**  
19-06334-13 13cm/5"  
19-06334-18 18cm/7"



**New Orleans**  
19-06338-18  
18cm/7"





**Mayo-Hegar**

|           |             |             |
|-----------|-------------|-------------|
| 13cm/5"   | 19-06342-13 |             |
| 14cm/5½"  | 19-06342-14 |             |
| 16cm/6¼"  | 19-06342-16 | 19-06343-16 |
| 18cm/7"   | 19-06342-18 | 19-06343-18 |
| 20cm/8"   | 19-06342-20 | 19-06343-20 |
| 24cm/9½"  | 19-06342-24 | 19-06343-24 |
| 26cm/10¼" | 19-06342-26 | 19-06343-26 |
| 30cm/12"  | 19-06342-30 | 19-06343-30 |



**Heaney**  
19-06347-21  
21cm/8¼"

**Delicate Pattern**



**Mayo-Hegar**  
19-06350-16 16cm/6¼"  
19-06350-18 18cm/7"  
19-06350-20 20cm/8"

**Heavy Pattern**



**Hegar**  
19-6354-16 16cm/6¼"  
19-6354-18 18cm/7"  
19-6354-20 20cm/8"



**M.G.H.**  
(Mass.-General-Hospital)  
19-06358-17  
17 cm/6¾"



**Sarot**  
19-06362-18 18.5 cm/7¼"  
19-06362-26 26.0 cm/10¼"



**Finocchietto**  
19-06365-27  
27 cm/10½"



**Masson**  
19-06368-27  
27 cm/10½"



**Jameson**  
19-06372-23  
23.5 cm/9¼"



**Wangensteen**  
19-06376-27  
27 cm/10½"



**Crile-Wood**  
19-06380-15  
15 cm/6"

**Crile-Murray**  
19-06384-15  
15 cm/6"



**Adson**  
19-06388-18  
18 cm/7"



**Ermold**  
19-06392-17 17 cm/6¾"  
19-06392-20 20 cm/8"

Needle holders with scissors



**Baby-Olsen-Hegar**  
11.5 cm/4½"

**Smooth**  
19-06396-11



**Olsen-Hegar**  
19-06398-14 14 cm/5½"  
19-06398-18 18 cm/7"



**Olsen-Hegar**  
19-06400-17  
17 cm/6¾"





**Olsen-Hegar**  
19-06404-14  
14 cm/5½"



**Gillies**  
19-06406-16  
16 cm/6¼"



**Gillies Slim**  
19-06408-14  
14 cm/5½"



**Crile**  
19-06412-15  
15 cm/6"



**Axhausen**  
19-06416-18  
18.5 cm/7¼"



**Lichtenberg**  
19-06420-20  
20 cm/8"



**Toennis**  
19-06424-18  
18 cm/7"



**Mathieu**



19-06428-14  
19-06428-17  
19-06428-20

14 cm/5½"  
17 cm/6¾"  
20 cm/8"



19-06430-14  
19-06430-17  
19-06430-20



**Mathieu**

19-06434-14 14 cm/5½"  
19-06434-17 17 cm/6¾"  
19-06434-20 20 cm/8"



Two rings angled

*PinsmedTC*



**Neivert**  
19-06438-13  
13 cm/5"



**Neivert**  
19-06440-13  
13 cm/5"



**Webster**  
19-06444-13  
13 cm/5"

Smooth



**Derf**  
19-06448-12  
12.5 cm/5"



**New Orleans**  
19-06452-18  
18 cm/7"



**Bozemann**  
19-06456-20 20 cm/8"  
19-06452-24 24 cm/9½"  
19-06452-26 26 cm/10½"



**PinsmedTC**



**Mayo-Hegar**



19-06460-16  
19-06460-18  
19-06460-20  
19-06460-24  
19-06460-26  
19-06460-30



19-06461-20  
19-06461-24  
19-06461-26

16cm/6¼"  
18cm/7"  
20cm/8"  
24cm/9½"  
26cm/10½"  
30cm/12"



**Hegar-Baumgartner**  
19-06464-14  
14cm/5½"



**Mayo-Hegar**  
19-06470-20 20cm/8"  
19-06470-24 24cm/9½"



Heavy Pattern



**De Bakay**  
19-06474-18  
19-06474-20  
19-06474-23  
19-06474-26  
19-06474-31



18cm/7"  
20cm/8"  
23cm/9"  
26cm/10¼"  
31cm/12¼"



**De Bakay-Fine**  
19-06476-18  
19-06476-20  
19-06476-23  
19-06476-26  
19-06476-31





***PinsmedTC***



**Baby-Crile-Wood**  
19-06480-15  
15cm/6"



19-06484-15



**Crile-Wood**  
15cm/6"



19-06488-15  
Smooth

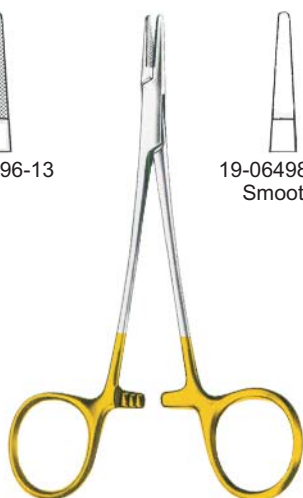


**Crile-Wood**

|             | cm | in   |
|-------------|----|------|
| 19-06492-18 | 18 | 7"   |
| 19-06492-20 | 20 | 8"   |
| 19-06492-23 | 23 | 9"   |
| 19-06492-26 | 26 | 10¼" |
| 19-06492-31 | 31 | 12¼" |



19-06496-13



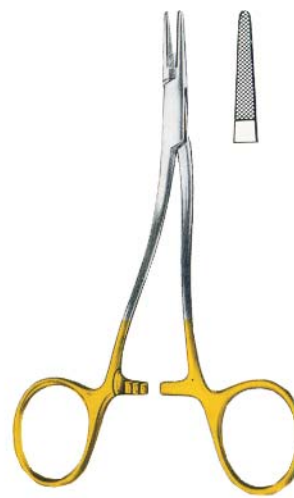
**Halsey**  
13cm/5"



19-06498-13  
Smooth



**Converse**  
19-06502-12  
12.5cm/5"



**Kilner**  
19-06506-13  
13.5cm/5¼"



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**Hegar-Vascular**

19-06510-14 14cm/5½"  
19-06510-18 18cm/7"  
19-06510-20 20cm/8"  
19-06510-23 23cm/9"



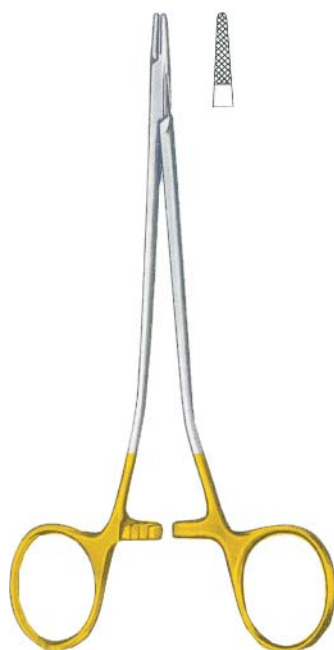
**Ryder**

19-06514-13  
19-06514-15  
19-06514-18  
19-06514-20  
19-06514-23  
19-06514-26



**Micro-Ryder**

19-06516-13 13cm/5"  
19-06516-15 15cm/6"  
19-06516-18 18cm/7"  
19-06516-20 20cm/8"  
19-06516-23 23cm/9"  
19-06516-26 26cm/10¼"



**(Swedish Pattern)**

19-06520-15 15cm/6"  
19-06520-17 17cm/6¾"  
19-06520-20 20cm/8"



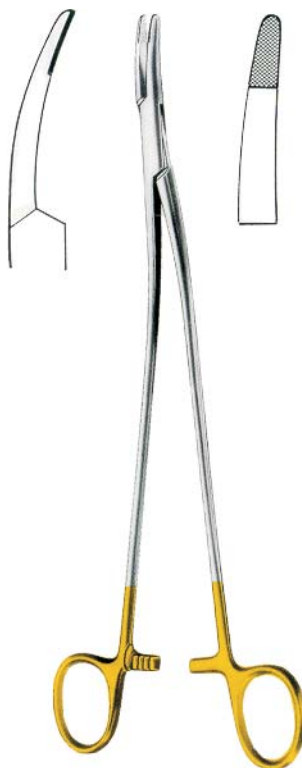
**Sarot**

19-06524-18 18cm/7"  
19-06524-26 26cm/10¼"





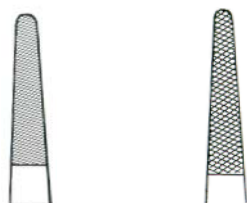
***PinsmedTC***



**Stratte**  
19-06528-23  
23cm/9"



**Masson**  
19-06532-27  
27cm/10½"



**Wangenstein**  
19-06534-27  
27cm/10½"



**Finocchietto**  
19-06537-20 20cm/8"  
19-06537-27 27cm/10½"



*PinsmedTC*



**Mathieu**

|          |             |
|----------|-------------|
| 14cm/5½" | 19-06540-14 |
| 17cm/6¾" | 19-06540-17 |
| 20cm/8"  | 19-06540-20 |
| 24cm/9½" | 19-06540-24 |



**Mathieu**

|             |
|-------------|
| 19-06542-14 |
| 19-06542-17 |
| 19-06542-20 |
| 19-06542-24 |



**Mathieu-Ryder**

|             |
|-------------|
| 19-06544-17 |
| 19-06544-20 |



**Langenbeck**

|          |             |
|----------|-------------|
| 16cm/6¼" | 19-06548-16 |
| 18cm/7"  | 19-06548-18 |
| 20cm/8"  | 19-06548-20 |



**Langenbeck-Ryder**

|             |
|-------------|
| 19-06550-18 |
| 19-06550-20 |



**Lichtenberg**

|             |
|-------------|
| 19-06554-20 |
|-------------|



*PinsmedTC*



**Toennis**  
19-06558-18  
18 cm/7"



**Mathieu-Kocher**  
19-06562-14 14 cm/5½"  
19-06562-17 17 cm/6¾"  
19-06562-20 20 cm/8"



**Axhausen**  
19-06566-18  
18.5 cm/7¼"



**Zweifel**  
19-06570-20 20 cm/8"  
19-06570-23 23 cm/9"



***PinsmedTC***



19-06574-20 20 cm/8"  
19-06574-25 25 cm/10"



**Mathieu**  
19-06578-20 20 cm/8"  
19-06578-24 24 cm/9½"



**Metzenbaum**  
19-06582-17 17 cm/6¾"  
19-06582-20 20 cm/8"



**Arruga**  
16 cm/6¼"

19-06586-16



19-06587-16



**Boynton**  
19-06590-12  
12 cm/4¾"



**Hosel**  
19-06594-20 20 cm/8"  
19-06594-25 25 cm/10"



*PinsmedTC*



**Baby-Olsen-Hegar**  
19-06598-11  
11.5 cm/4½"



**Olsen-Hegar**  
19-06600-14  
14 cm/5½"



**Olsen-Hegar**  
19-06602-17  
17 cm/6¾"



**Olsen-Hegar**  
19-06604-18  
18 cm/7"



**Gillies-Slim**  
19-06607-14  
14.5 cm/5½"



**Gillies**  
19-06609-16  
16 cm/6¼"



Left



20 cm/8"



19-06612-01



Blunt



19-06612-02



19-06617-01



Sharp



19-06617-02

**Deschamps-Standard**

Right



20 cm/8"



20 cm/8"



19-06622-01



Blunt



19-06622-02



19-06627-01



Sharp



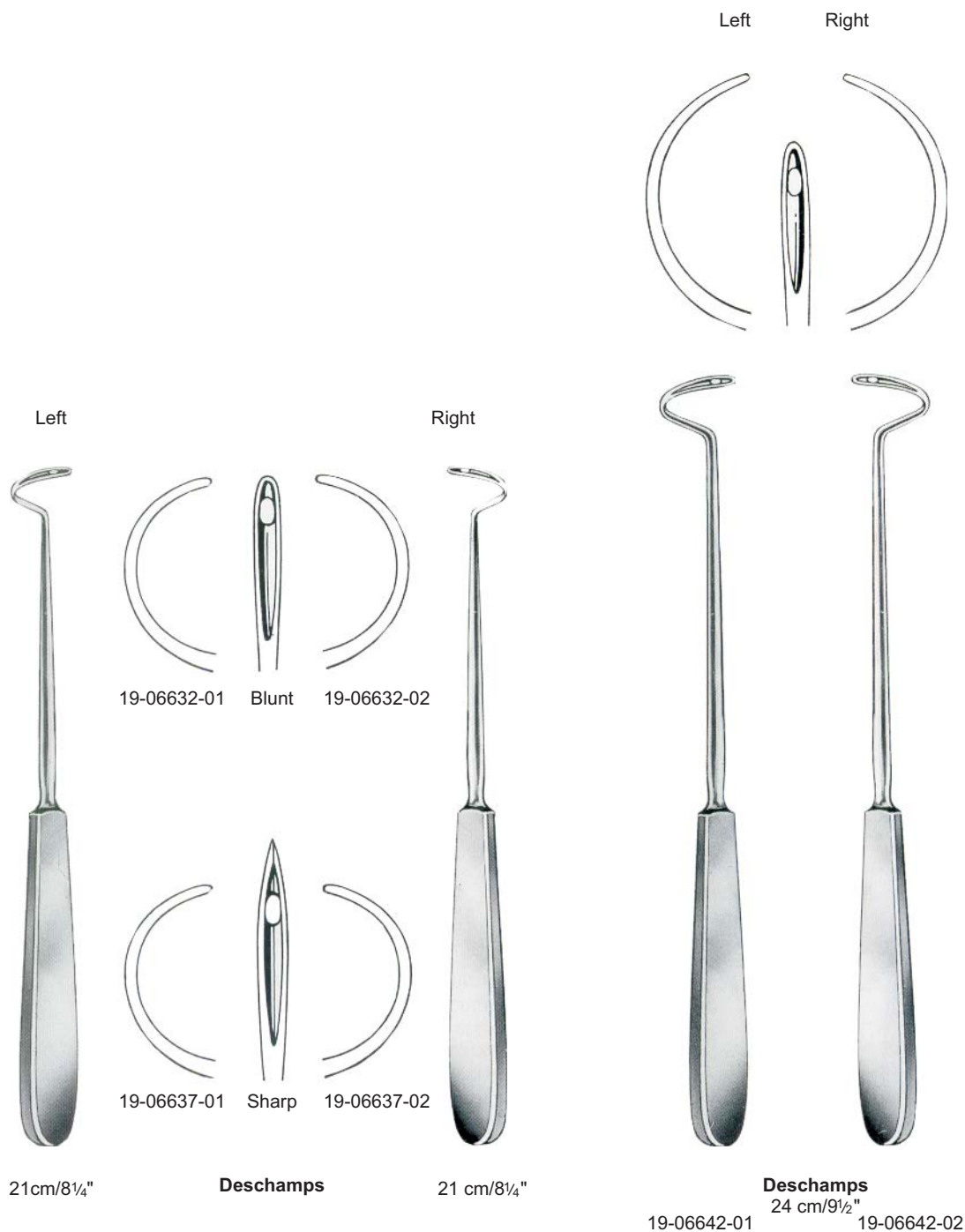
19-06627-02

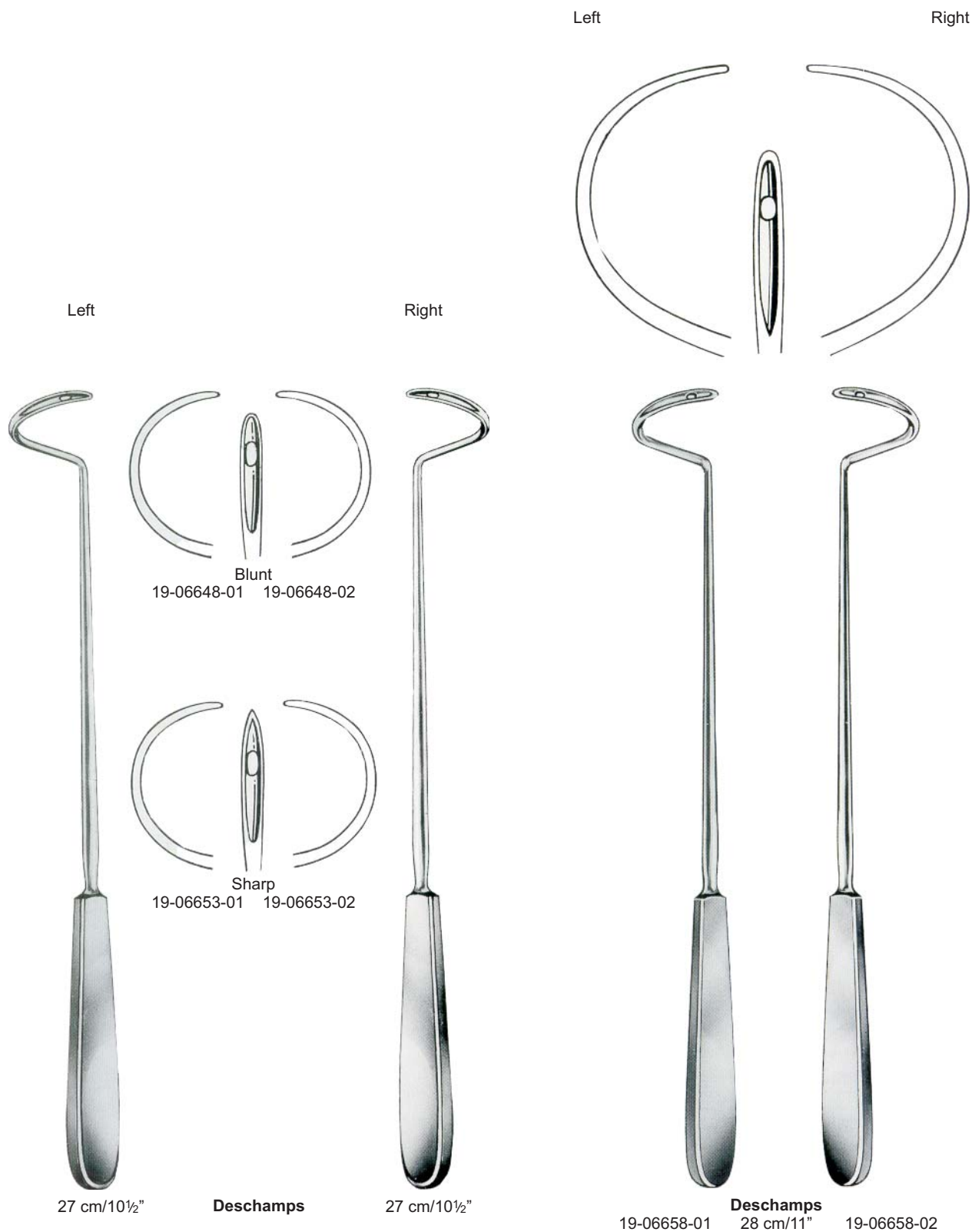
**Deschamps**

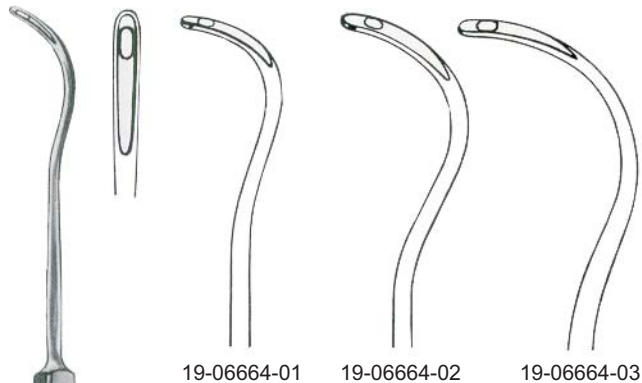


20 cm/8"









19-06664-01

19-06664-02

19-06664-03

**Kocher**  
19 cm/7½"

Left Right



**Kronecker**  
19-06672-01 13 cm/5" 19-06672-02

Left Right



**Dupuy-Weiss**  
19-06677-01 22 cm/8¾" 19-06677-02

Left Right



**Durham**  
19-06685-01 21 cm/8¼" 19-06685-02



Flexible



**Schmieden-Dick**  
19-06690-32  
32 cm/12½"



**Schmieden**  
19-06694-21  
21 cm/8¼"



Flexible

19-06698-20  
20 cm/8"



**Cooper**  
19-06702-19  
19 cm/7½"



With 1 needle

**Young**

19-06705-21 21 cm/8¼"  
19-06707-25 25 cm/10"



19-06705-01



19-06705-02



19-06705-03

Spare needle only



**Reverdin**  
14 cm/5½"



Fig. 1  
19-06711-01



Fig. 2  
19-06711-02



Fig. 3  
19-06711-03



Fig. 4  
19-06711-04



**Reverdin**  
19.5 cm / 7 <sup>3</sup>/<sub>4</sub>"



Fig. 1  
19-06715-01



Fig. 2  
19-06715-02



Fig. 3  
19-06715-03



Fig. 4  
19-06715-04



**Reverdin**  
22.5 cm / 8 <sup>3</sup>/<sub>4</sub>"



Fig. 1  
19-06717-01



Fig. 2  
19-06717-02



Fig. 3  
19-06717-03



Fig. 4  
19-06717-04





**Brunner**  
19-06720-25  
25 cm/10"



**Payr**  
19-06724-22  
22 cm/8¾"



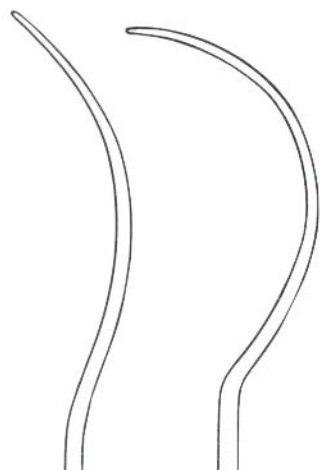
**Payr**  
19-06726-22  
22 cm/8¾"



**Brunner**  
19-06730-24  
24.5 cm/9¾"



**Brunner**  
30 cm/12"



19-06734-01

19-06734-02



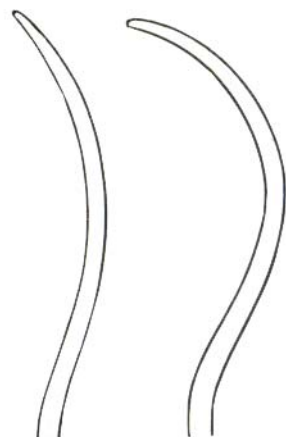
19-06734-03



19-06734-04

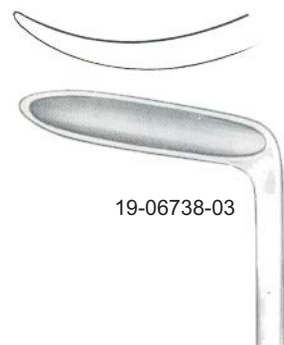


**Brunner**  
30 cm/12"



19-06738-01

19-06738-02



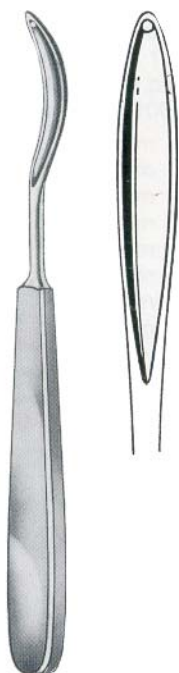
19-06738-03



19-06738-04



**Kirschner**  
19-06742-25  
25.5 cm/10"



**Schmieden-Payr**  
19-06754-19  
19 cm/7 1/2"



19-06746-28  
28 cm/11"



**Schmieden**  
19-06756-19  
19 cm/7 1/2"



**Brunner-Ferrozell**  
19-06750-18 18 cm/7"  
19-06750-27 27 cm/10 1/2"



**Konig**  
19-06760-19  
19.5 cm/7¾"



**Konig**  
19-06762-19  
19.5 cm/7¾"



**Konig**  
19-06764-20  
20 cm/8"



**Wien**  
19-06768-23  
23.5 cm/9¼"



**Bozemann**  
19-06772-21  
21 cm/8¼"



**19-06776-23**  
23 cm/9"



**Micheal**  
19-06780-12  
12 cm/4¾"



**Micheal**  
19-06782-12  
12 cm/4¾"



**Wachenfeldt**  
19-06786-12  
12 cm/4¾"



**Wachenfeldt**  
19-06788-12  
12 cm/4¾"



**Wachenfeldt**  
19-06790-13  
13 cm/5"



**Wachenfeldt**  
19-06792-13  
13 cm/5"



**Michel**  
19-06796-12  
12 cm/4¾"



**Michel Modif**  
19-06798-12  
12.5 cm/5"



**Collin**  
19-06802-13  
13 cm/5"



**Richter-Heath**  
19-06806-14  
14 cm/5½"



**Child**  
19-06810-17  
17 cm/6¾"



**Child**  
19-06812-17  
17 cm/6¾"



**Hopkins**  
20-06816-20  
20 cm/8"



**Esmarch**  
20-06820-18  
18 cm/7"



**Reiner**  
20-06824-18  
18.5 cm/7¼"

Plaster Saw



**Engel**  
20-06828-14  
14cm/5½"



**Henning**  
20-06832-28  
28 cm/11"



**Beeson**  
20-06836-30  
30 cm/12"



**Haglund-Stille**  
20-06840-28  
28 cm/11"



**Mod. USA**  
20-06844-23  
23 cm/9"





**Wolff**  
20-06848-18 18 cm/7"  
20-06848-24 24 cm/9½"



**Stille**  
20-06852-24  
24 cm/9½"



**Stille**  
20-06856-23 23 cm/9"  
20-06856-26 26 cm/10¼"  
20-06856-37 37 cm/14½"



| mm | Partsch        |
|----|----------------|
| 02 | 21-06860-02    |
| 03 | 21-06860-03    |
| 04 | 21-06860-04    |
| 05 | 21-06860-05    |
| 06 | 21-06860-06    |
| 07 | 21-06860-07    |
| 08 | 21-06860-08    |
|    | 13.5 cm/5 1/4" |



| Partsch     |              |
|-------------|--------------|
| 21-06866-02 | 21-06868-04  |
| 21-06866-03 | 21-06868-06  |
| 21-06866-04 | 21-06868-08  |
| 21-06866-05 | 21-06868-10  |
| 21-06866-06 | 21-06868-12  |
| 21-06866-07 | 21-06868-14  |
| 21-06866-08 | 21-06868-16  |
|             | 17 cm/6 3/4" |

Width



| mm |             |                |             |
|----|-------------|----------------|-------------|
| 04 | 21-06870-04 | 21-06872-04    | 21-06874-04 |
| 06 | 21-06870-06 | 21-06872-06    | 21-06874-06 |
| 08 | 21-06870-08 | 21-06872-08    | 21-06874-08 |
| 10 | 21-06870-10 | 21-06872-10    | 21-06874-10 |
| 12 | 21-06870-12 | 21-06872-12    | 21-06874-12 |
| 14 | 21-06870-14 | 21-06872-14    | 21-06874-14 |
| 16 | 21-06870-16 | 21-06872-16    | 21-06874-16 |
|    |             | 13.5 cm/5 1/4" |             |



| mm | Mod. USA    |
|----|-------------|
| 06 | 21-06878-06 |
| 12 | 21-06878-12 |
| 18 | 21-06878-18 |



| Mod. USA    |              |
|-------------|--------------|
| 21-06880-06 |              |
| 21-06880-12 |              |
| 21-06880-18 |              |
|             | 16 cm/6 1/4" |



| Mod. USA    |  |
|-------------|--|
| 21-06882-06 |  |
| 21-06882-12 |  |
| 21-06882-18 |  |



16 cm/6 1/4"

|             |     |
|-------------|-----|
| 21-06886-03 | 3mm |
| 21-06886-05 | 5mm |
| 21-06886-07 | 7mm |
| 21-06886-09 | 9mm |

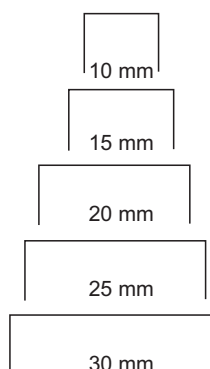


| Passow      |       |
|-------------|-------|
| 21-06890-02 | 2.5mm |
| 21-06890-03 | 3.5mm |

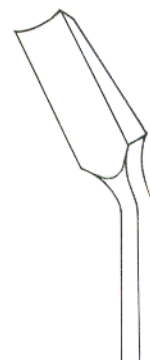
|             |       |
|-------------|-------|
| 21-06890-02 | 2.5mm |
| 21-06890-03 | 3.5mm |



**Lexer**  
27.5 cm/10¾"



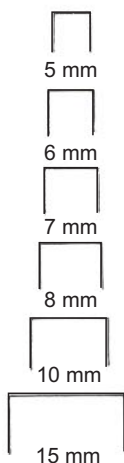
21-06893-10  
21-06893-15  
21-06893-20  
21-06893-25  
21-06893-30



21-06895-10  
21-06895-15  
21-06895-20  
21-06895-25  
21-06895-30



**Cloward**  
24 cm/9½"



21-06898-05  
21-06898-06  
21-06898-07  
21-06898-08  
21-06898-10  
21-06898-15



21-06900-05  
21-06900-06  
21-06900-07  
21-06900-08  
21-06900-10  
21-06900-15



**Alexander**  
18 cm/7"

|             | mm |             |
|-------------|----|-------------|
| 21-06904-04 | 04 | 21-06906-04 |
| 21-06904-06 | 06 | 21-06906-06 |
| 21-06904-08 | 08 | 21-06906-08 |
| 21-06904-10 | 10 | 21-06906-10 |
| 21-06904-12 | 12 | 21-06906-12 |
| 21-06904-14 | 14 | 21-06906-14 |



**Hoke**

14 cm/5½"

|             | mm |             |
|-------------|----|-------------|
| 21-06910-02 | 2  | 21-06911-02 |
| 21-06910-03 | 3  | 21-06911-03 |
| 21-06910-04 | 4  | 21-06911-04 |
| 21-06910-05 | 5  | 21-06911-05 |
| 21-06910-06 | 6  | 21-06911-06 |
| 21-06910-07 | 7  | 21-06911-07 |
| 21-06910-08 | 8  | 21-06911-08 |



**Smith-Petersen**  
20 cm/8"

| mm |             |             |             |             |
|----|-------------|-------------|-------------|-------------|
| 06 | 21-06914-06 | 21-06915-06 | 21-06918-06 | 21-06919-06 |
| 09 | 21-06914-09 | 21-06915-09 | 21-06918-09 | 21-06919-09 |
| 13 | 21-06914-13 | 21-06915-13 |             |             |
| 14 |             |             | 21-06918-14 | 21-06919-14 |
| 16 | 21-06914-16 | 21-06915-16 | 21-06918-16 | 21-06919-16 |
| 19 | 21-06914-19 | 21-06915-19 | 21-06918-19 | 21-06919-19 |
| 25 | 21-06914-25 | 21-06915-25 | 21-06918-25 | 21-06919-25 |
| 32 | 21-06914-32 | 21-06915-32 | 21-06918-32 | 21-06919-32 |



| Lambotte    |    |
|-------------|----|
|             | mm |
| 21-06922-04 | 04 |
| 21-06922-06 | 06 |
| 21-06922-08 | 08 |
| 21-06922-10 | 10 |
| 21-06922-13 | 13 |
| 21-06922-16 | 16 |
| 21-06922-18 | 18 |
| 21-06922-20 | 20 |
| 21-06922-25 | 25 |
| 21-06922-30 | 30 |
| 21-06922-38 | 38 |
| 21-06922-44 | 44 |
| 21-06922-50 | 50 |

24 cm/9½"

Curved



23 cm/9"



| Mini-Lambotte |    |
|---------------|----|
|               | mm |
| 21-06926-02   | 02 |
| 21-06926-03   | 03 |
| 21-06926-04   | 04 |
| 21-06926-06   | 06 |
| 21-06926-08   | 08 |
| 21-06926-10   | 10 |
| 21-06926-12   | 12 |
| 21-06926-15   | 15 |
| 12.5 cm/5"    |    |
| 21-06927-02   |    |
| 21-06927-03   |    |
| 21-06927-04   |    |
| 21-06927-06   |    |
| 21-06927-08   |    |
| 21-06927-10   |    |
| 21-06927-12   |    |
| 21-06927-15   |    |
| 17 cm/6¾"     |    |



| Mini-Lexer  |    |
|-------------|----|
|             | mm |
| 21-06930-04 | 04 |
| 21-06930-06 | 06 |
| 21-06930-08 | 08 |
| 21-06930-10 | 10 |
| 21-06930-12 | 12 |
| 21-06932-04 |    |
| 21-06932-06 |    |
| 21-06932-08 |    |
| 21-06932-10 |    |
| 21-06932-12 |    |

18 cm/7"



| Lexer       |    |
|-------------|----|
|             | mm |
| 21-06936-05 | 05 |
| 21-06936-07 | 07 |
| 21-06936-10 | 10 |
| 21-06936-15 | 15 |
| 21-06936-20 | 20 |
| 21-06936-25 | 25 |
| 21-06936-30 | 30 |
| 21-06938-05 |    |
| 21-06938-07 |    |
| 21-06938-10 |    |
| 21-06938-15 |    |
| 21-06938-20 |    |
| 21-06938-25 |    |
| 21-06938-30 |    |

22 cm/8¾"





**Chisel**  
21-06942-20  
24.5 cm/9 <sup>3</sup>/<sub>4</sub>"  
20 mm



**Chisel-Curved**  
21-06943-20  
26.5 cm/10 <sup>1</sup>/<sub>2</sub>"  
20 mm



Gouge for the  
removing of  
broken screws

21-06944-22  
22 cm/8 <sup>3</sup>/<sub>4</sub>"





**Zielke**  
23 cm/9"  
5.5 mm  
9.0 mm



21-06948-05  
21-06948-09

**Stille**  
20 cm/8"

mm  
06  
08  
10  
12  
15  
20  
25  
30

Width



|             |             |             |             |             |
|-------------|-------------|-------------|-------------|-------------|
| 21-06950-06 | 21-06952-06 | 21-06953-06 | 21-06956-06 | 21-06957-06 |
| 21-06950-08 | 21-06952-08 | 21-06953-08 | 21-06956-08 | 21-06957-08 |
| 21-06950-10 | 21-06952-10 | 21-06953-10 | 21-06956-10 | 21-06957-10 |
| 21-06950-12 | 21-06952-12 | 21-06953-12 | 21-06956-12 | 21-06957-12 |
| 21-06950-15 | 21-06952-15 | 21-06953-15 | 21-06956-15 | 21-06957-15 |
| 21-06950-20 | 21-06952-20 | 21-06953-20 | 21-06956-20 | 21-06957-20 |
| 21-06950-25 | 21-06952-25 | 21-06953-25 | 21-06956-25 | 21-06957-25 |
| 21-06950-30 | 21-06952-30 | 21-06953-30 | 21-06956-30 | 21-06957-30 |

**Hibbs**  
24 cm/9½"

mm  
06  
09  
13  
16  
19  
25  
32



|             |             |             |             |             |
|-------------|-------------|-------------|-------------|-------------|
| 21-06960-06 | 21-06961-06 | 21-06964-06 | 21-06966-06 | 21-06967-06 |
| 21-06960-09 | 21-06961-09 | 21-06964-09 | 21-06966-09 | 21-06967-09 |
| 21-06960-13 | 21-06961-13 | 21-06964-13 | 21-06966-13 | 21-06967-13 |
| 21-06960-16 | 21-06961-16 | 21-06964-16 | 21-06966-16 | 21-06967-16 |
| 21-06960-19 | 21-06961-19 | 21-06964-19 | 21-06966-19 | 21-06967-19 |
| 21-06960-25 | 21-06961-25 | 21-06964-25 | 21-06966-25 | 21-06967-25 |
| 21-06960-32 | 21-06961-32 | 21-06964-32 | 21-06966-32 | 21-06967-32 |



mm **Lexer**  
05 21-06970-05  
10 21-06970-10  
15 21-06970-15  
28 cm/11"



**Lexer**  
21-06972-05  
21-06972-10  
21-06972-15  
25 cm/10"



**Lexer**  
21-06973-05  
21-06973-10  
21-06973-15  
25 cm/10"



21-06976-01



21-06977-02



21-06977-03

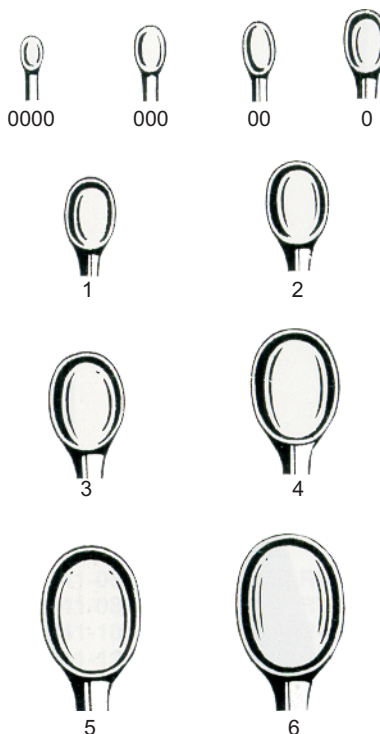


**Cobb**  
28 cm/11"

21-06977-04



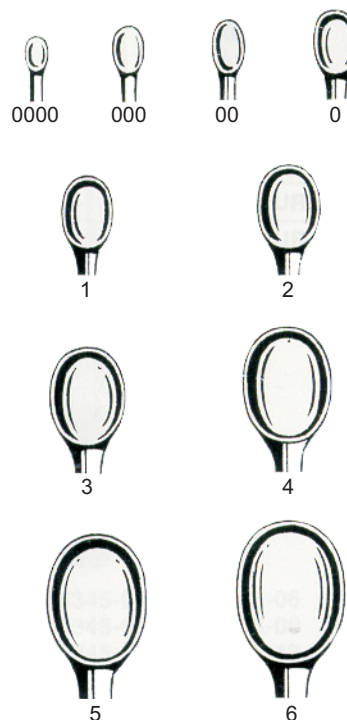
**Volkmann**  
17 cm/6¾"



- Fig.  
0000 21-06980-40  
000 21-06980-30  
00 21-06980-20  
0 21-06980-10  
1 21-06980-01  
2 21-06980-02  
3 21-06980-03  
4 21-06980-04  
5 21-06980-05  
6 21-06980-06



**Volkmann**  
17 cm/6¾"



- Fig.  
0000 21-06984-40  
000 21-06984-30  
00 21-06984-20  
0 21-06984-10  
1 21-06984-01  
2 21-06984-02  
3 21-06984-03  
4 21-06984-04  
5 21-06984-05  
6 21-06984-06

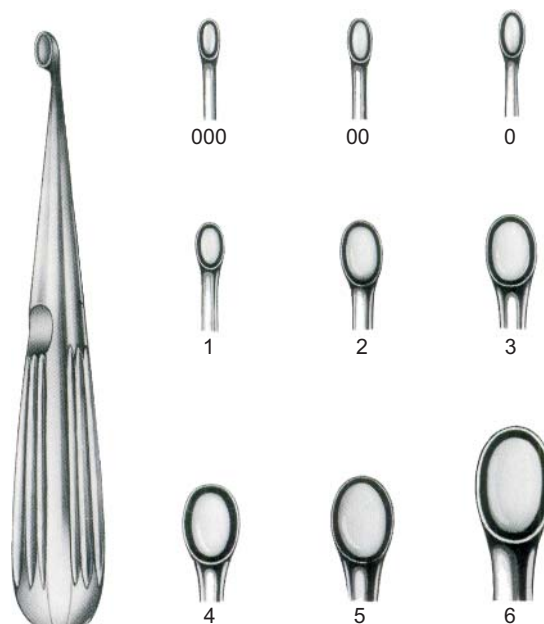


| Fig. | A           | B           | C           | D           |
|------|-------------|-------------|-------------|-------------|
| 000  | 21-06988-30 | 21-06990-30 | 21-06991-30 | 21-06993-30 |
| 00   | 21-06988-20 | 21-06990-20 | 21-06991-20 | 21-06993-20 |
| 0    | 21-06988-10 | 21-06990-10 | 21-06991-10 | 21-06993-10 |
| 1    | 21-06988-01 | 21-06990-01 | 21-06991-01 | 21-06993-01 |
| 2    | 21-06988-02 | 21-06990-02 | 21-06991-02 | 21-06993-02 |
| 3    | 21-06988-03 | 21-06990-03 | 21-06991-03 | 21-06993-03 |
| 4    | 21-06988-04 | 21-06990-04 | 21-06991-04 | 21-06993-04 |
| 5    | 21-06988-05 | 21-06990-05 | 21-06991-05 | 21-06993-05 |
| 6    | 21-06988-06 | 21-06990-06 | 21-06991-06 | 21-06993-06 |



**Brun's**  
17 cm/6¾"

| <b>Brun's</b> | <b>Fig.</b> | <b>Spratt</b> |
|---------------|-------------|---------------|
| 21-06996-30   | 000         | 21-06998-30   |
| 21-06996-20   | 00          | 21-06998-20   |
| 21-06996-10   | 0           | 21-06998-10   |
| 21-06996-01   | 1           | 21-06998-01   |
| 21-06996-02   | 2           | 21-06998-02   |
| 21-06996-03   | 3           | 21-06998-03   |
| 21-06996-04   | 4           | 21-06998-04   |
| 21-06996-05   | 5           | 21-06998-05   |
| 21-06996-06   | 6           | 21-06998-06   |



**Spratt**  
16 cm/6¼"



**Swedish pattern**

| mm | Round       | Oval        |
|----|-------------|-------------|
| 2  | 21-07002-02 | 21-07004-02 |
| 3  | 21-07002-03 | 21-07004-03 |
| 4  | 21-07002-04 | 21-07004-04 |
| 5  | 21-07002-05 | 21-07004-05 |
| 6  | 21-07002-06 | 21-07004-06 |
| 7  | 21-07002-07 | 21-07004-07 |
| 8  | 21-07002-08 | 21-07004-08 |
| 10 | 21-07002-10 | 21-07004-10 |
| 12 | 21-07002-12 | 21-07004-12 |
| 14 | 21-07002-14 | 21-07004-14 |
|    | 17cm/6¾"    | 22cm/8½"    |



**Schede**  
17 cm/6¾"



| Fig. |             |
|------|-------------|
| 000  | 21-07008-30 |
| 00   | 21-07008-20 |
| 0    | 21-07008-10 |
| 1    | 21-07008-01 |
| 2    | 21-07008-02 |
| 3    | 21-07008-03 |
| 4    | 21-07008-04 |



**Williger**  
17.5 cm/7"



Straight, Oval

| Fig. |             |
|------|-------------|
| 00   | 21-07012-20 |
| 0    | 21-07012-10 |
| 1    | 21-07012-01 |
| 2    | 21-07012-02 |



Straight

| Fig. |             |
|------|-------------|
| 00   | 21-07014-20 |
| 0    | 21-07014-10 |
| 1    | 21-07014-01 |
| 2    | 21-07014-02 |



21-07017-01

**Uffenorde**  
17 cm/6¾"



21-07017-02





Fig. 0  
21-07018-10



Fig. 1  
21-07018-01



Fig. 2  
21-07018-02



Fig. 3  
21-07018-03



**Volkmann**  
27 cm/10½"



Fig. 1  
21-07020-01



Fig. 2  
21-07020-02



Fig. 3  
21-07020-03



**Simon**  
24 cm/9½"



Fig. 4  
21-07020-04



Fig. 5  
21-07020-05



Fig. 6  
21-07020-06



Fig. 0000  
21-07022-40



Fig. 000  
21-07022-30



Fig. 00  
21-07022-20



Fig. 0  
21-07022-10



**Simon**  
24 cm/9½"



Fig. 00  
21-07024-20



Fig. 0  
21-07024-10



Fig. 1  
21-07024-01



Fig. 2  
21-07024-02



**Daubenspeck**  
20 cm/8"



Flexible





|        | Volkmann    |  | Volkmann    |
|--------|-------------|--|-------------|
| Length | Oval/Oval   |  | Oval/Round  |
| cm in  |             |  |             |
| 13 5"  | 21-07038-13 |  | 21-07040-13 |
| 14 5½" | 21-07038-14 |  |             |
| 16 6¼" |             |  | 21-07040-16 |
| 17 6¾" | 21-07038-17 |  |             |
| 20 8"  | 21-07038-20 |  | 21-07040-20 |



**Martini**  
13.5 cm/5"



**Jansen**  
21-07046-15  
15 cm/6"



**Jansen**  
21-07050-16  
16 cm/6¼"



**Williger**  
13.5 cm/5"



**Jacobson**  
21-07058-13  
13 cm/5"



**Janson**  
21-07062-15  
15 cm/6"



**Barth**  
21-07064-18  
18 cm/7"



21-07066-21  
21 cm/8 1/4"



**Epstein**



**Spinal**



**Spinal**

Fig.  
000  
00  
0  
1  
2  
3  
4  
5  
6

|             |             |             |
|-------------|-------------|-------------|
| 21-07069-30 | 21-07072-30 | 21-07074-30 |
| 21-07069-20 | 21-07072-20 | 21-07074-20 |
| 21-07069-10 | 21-07072-10 | 21-07074-10 |
| 21-07069-01 | 21-07072-01 | 21-07074-01 |
| 21-07069-02 | 21-07072-02 | 21-07074-02 |
| 21-07069-03 | 21-07072-03 | 21-07074-03 |
| 21-07069-04 | 21-07072-04 | 21-07074-04 |
| 21-07069-05 | 21-07072-05 | 21-07074-05 |
| 21-07069-06 | 21-07072-06 | 21-07074-06 |
| 20 cm/8"    | 20 cm/8"    | 20 cm/8"    |



**Putti**  
21-07078-30  
30 cm/12"



**Putti**  
21-07080-27  
27 cm/10½"



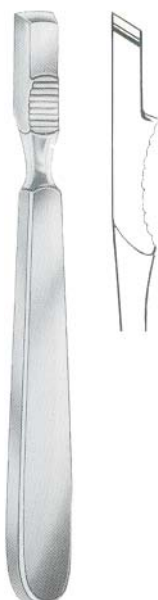
21-07084-25  
25 cm/10"



21-07088-24  
24 cm/9½"



21-07092-22  
22 cm/8¾"



**Farabeuf**  
21-07096-15  
15 cm/6"



**Farabeuf**  
21-07098-15  
15 cm/6"



**Farabeuf-Collin**  
21-07100-15  
15.5 cm/6"  
11 mm



**Farabeuf-Collin**  
21-07102-15  
15.5 cm/6"  
11 mm



**Farabeuf**  
21-07104-19  
19 cm/7½"  
13 mm



**Sedillot**  
21-07108-18  
18 cm/7"  
18 mm



**Sedillot**  
21-07110-21  
21 cm/8¼"  
15 mm



**Langenbeck**  
21-07114-19  
19 cm/7½"



**Langenbeck**  
21-07116-18  
18 cm/7"





**Lambotte**  
21 cm/8¼"

Width

|             |    |
|-------------|----|
|             | mm |
| 21-07120-05 | 05 |
| 21-07120-10 | 10 |
| 21-07120-15 | 15 |
| 21-07120-20 | 20 |
| 21-07120-25 | 25 |



**Schneider**  
21-07124-17  
13 mm  
17.5 cm/7"



**Schneider-Sauerbruch**  
21-07126-19  
13 mm  
19 cm/7½"



**Alexander**  
21-07130-20  
20 cm/8"



**Jansen**  
21-07134-16  
15 mm  
16.5 cm/6½"



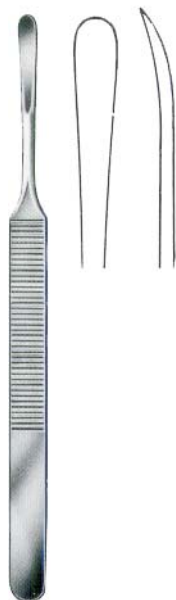
**Seldin**  
21-07138-19  
19 cm/7½"



**Davidson-Alexander**  
21-07142-29  
29 cm/11½"



**Williger**  
21-07146-29  
13 cm/5"



**Konig**  
21-07150-15  
15.5 cm/6"  
5 mm



**Williger**  
21-07154-16  
16 cm/6¼"



**Adson**  
17 cm/6¾"



21-07158-01



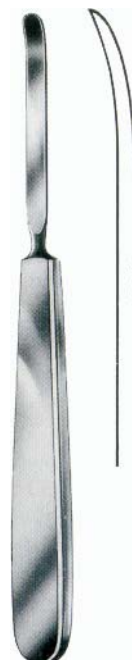
21-07158-02



21-07158-03



21-07158-04



21-07162-06 17 cm/6¾"  
6 mm

21-07162-08  
8 mm



**Overholt**  
21-07166-29  
29.5 cm/11½"



**Overholt**  
21-07168-29  
29.5 cm/11½"



**Overholt**  
21-07170-28  
28.5 cm/11¼"



**Hylin**  
21-07174-03  
14.5 cm/5¾"



21-07174-01



21-07174-02



21-07174-03



**Matson**  
21-07178-22  
22 cm/8¾"



**Semb**



21-07182-01  
19.5 cm/7½"  
12 mm



21-07182-02  
19.5 cm/7½"  
12 mm



21-07182-03  
19.5 cm/7½"  
12 mm



21-07182-04  
22 cm/8¾"  
13 mm



21-07182-05  
21.5 cm/8½"  
13 mm



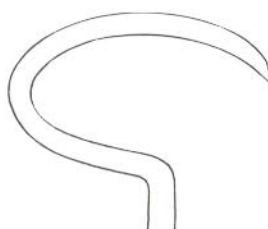
21-07182-06  
22 cm/8½"  
15 mm



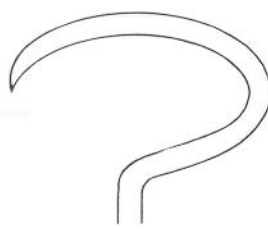
21-07182-07  
22 cm/8½"  
15 mm



**Doyen**  
17 cm/6¾"



21-07186-01



21-07186-02



21-07188-01



21-07188-02



21-07190-01



**Doyen**  
24 cm/9½"



21-07190-02



21-07194-04  
4 mm



21-07194-06  
6 mm



21-07194-08  
8 mm



**Cobb**  
24 cm/9½"



21-07194-10  
10 mm



21-07194-13  
13 mm



21-07194-19  
19 mm



21-07194-25  
25 mm



21-07198-01  
19 cm/7½"  
6 mm



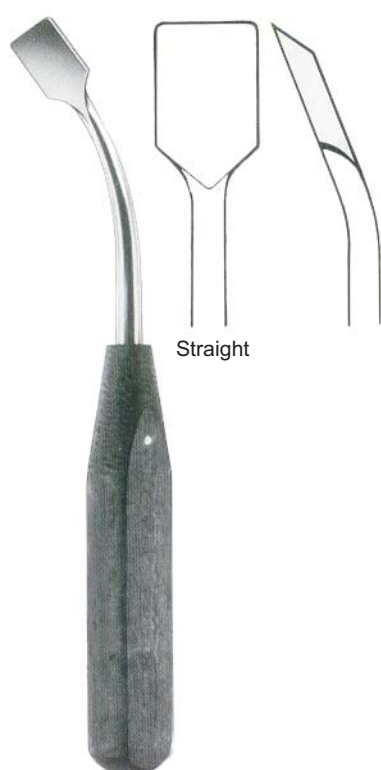
21-07199-02  
18.5 cm/7¼"  
3 mm



21-07201-03  
18.5 cm/7¼"  
6 mm



21-07203-04  
18.5 cm/7¼"  
6 mm



21-07206-05  
18.5 cm/7¼"  
13 mm



21-07207-06  
19.5 cm/7¾"  
14 mm



21-07209-07  
18.5 cm/7¼"  
14 mm



21-07211-08  
20 cm/8"  
20 mm





21-07214-20  
27.5 cm/10<sup>3</sup>/<sub>4</sub>"  
20 mm

**Wagner**  
8 mm 21-07218-08 33 cm/13"  
17 mm 21-07218-17 33 cm/13"

**Cobb**  
10 mm 21-07222-10 25 cm/10"  
13 mm 21-07222-13 25 cm/10"  
19 mm 21-07222-19 25 cm/10"  
25 mm 21-07222-25 25 cm/10"

**Cobb**  
10 mm 21-07224-10 28 cm/11"  
13 mm 21-07224-13 28 cm/11"  
19 mm 21-07224-19 28 cm/11"



21-07228-07  
16 cm/6¼"  
7 mm

21-07228-15  
18.5 cm/7¼"  
15 mm

21-07228-20  
19 cm/7½"  
20 mm

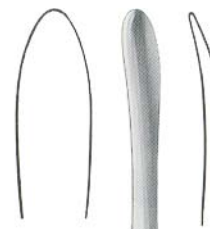
**Hoen**



**Yankauer**  
21-07232-18  
18 cm/7"



**Langenbeck**  
21-07236-20  
20 cm/8"  
8 mm



**Langenbeck**  
21-07238-20  
20 cm/8"  
10 mm



**Langenbeck**  
21-07240-23  
23 cm/9"  
11 mm



**Mass. Gen. Hosp.**  
21-07244-15  
15 cm/6"



**Williger**  
21-07248-17  
17 cm/6¾"  
5.5 mm



**Williger**  
21-07250-16  
16 cm/6¼"



**Quervain**  
21-07254-20  
20 cm/8"



21-07258-16  
16 cm/6 1/4"



Width

**Key**

|       |             |              |
|-------|-------------|--------------|
| 6 mm  | 21-07262-06 | 19 cm/7 1/2" |
| 12 mm | 21-07262-12 | 19 cm/7 1/2" |
| 19 mm | 21-07262-19 | 19 cm/7 1/2" |
| 25 mm | 21-07262-25 | 19 cm/7 1/2" |



**Konig**  
21-07266-15  
15 cm/6"  
4.5 mm



**Konig**  
21-07268-15  
15 cm/6"  
4.5 mm



**Alderdyce**  
21-07272-21  
21 cm/8 1/4"



**McDonald**  
21-07276-19  
19 cm/7 1/2"



**Watson-Cheyne**  
21-07280-19  
17.5 cm/7"



**Sebileau**  
21-07284-17  
17 cm/6 3/4"



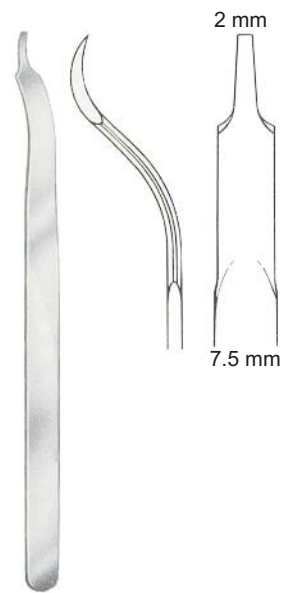
21-07288-14  
14 cm/5 1/2"  
2.8 mm



21-07288-15  
15 cm/6"  
5 mm

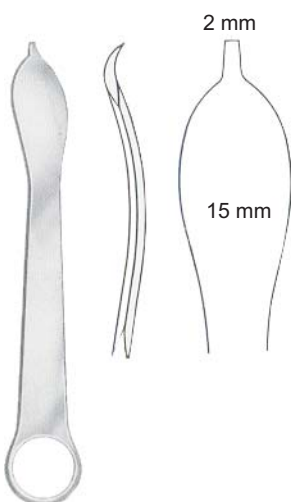


21-07290-15  
15 cm/6"  
7 mm



**Buck-Gramcko**  
21-07292-15  
15 cm/6"

2 mm  
7.5 mm



21-07296-12  
12.5 cm/5"

2 mm

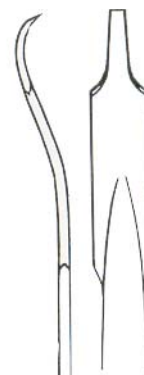
15 mm



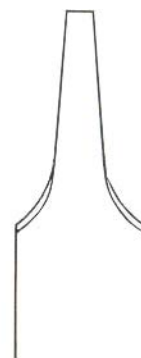
**Mini-Hohmann**  
21-07300-06  
16 cm/6 1/4"



21-07300-06  
6 mm



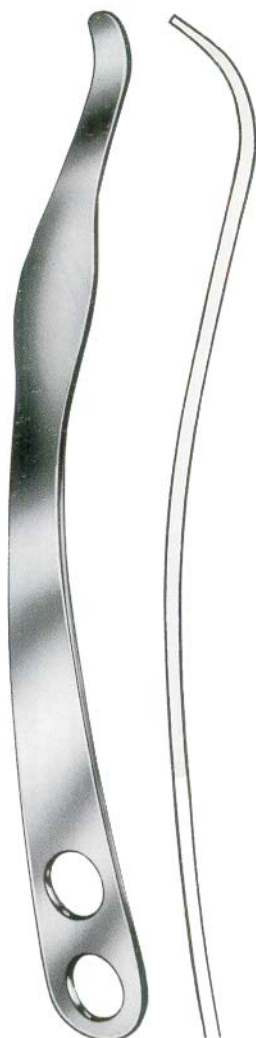
21-07302-08  
8 mm



21-07306-17  
17 mm



21-07308-17  
17 mm



21-07304-26  
26.5 cm/10½"  
24 mm



**Lange-Hohmann**  
21-07305-26  
26 cm/10¼"  
22 mm



**Hohmann**  
21-07308-22  
22 cm/8¾"  
8 mm



**Hohmann**  
21-07308-24  
24 cm/9½"  
14mm



**Hohmann**  
21-07308-26  
26 cm/10 1/4"  
22 mm

**Hohmann**  
21-07308-28  
28 cm/11"  
33 mm

**Hohmann**  
21-07310-24  
24 cm/9 1/2"  
43 mm

**Hohmann**  
21-07312-24  
24.5 cm/9 3/4"  
43 mm

**Hohmann**  
21-07314-24  
24 cm/9 1/2"  
70 mm

**Hohmann**  
21-07316-22  
22 cm/8 3/4"  
18 mm

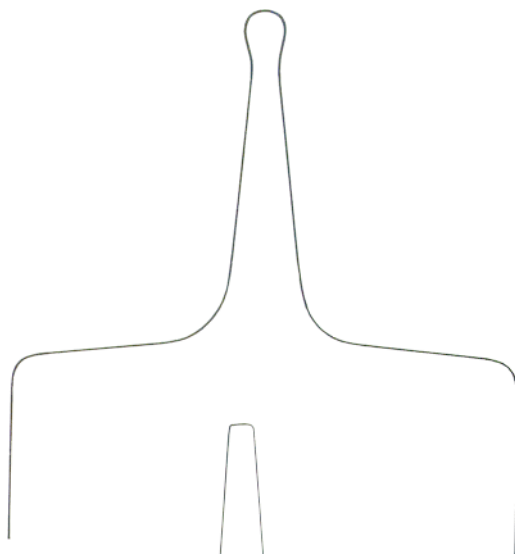




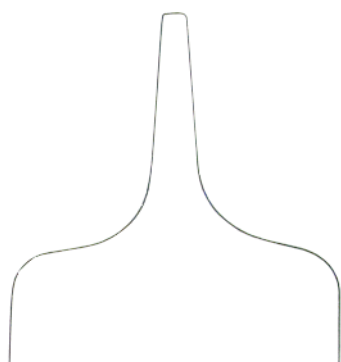
| <b>Lange-Hohmann modif</b> |             |              | <b>Hohmann-Aldinger</b> |  |
|----------------------------|-------------|--------------|-------------------------|--|
| 30 mm                      | 21-07316-26 | 26.5 cm/10½" | 21-07318-27             |  |
| 33 mm                      | 21-07316-29 | 29.0 cm/11½" | 27 cm/10½"              |  |

| <b>Schumacher</b><br>(Wagner) |
|-------------------------------|
| 21-07318-34                   |
| 34.5 cm/13½"                  |

| <b>Schumacher</b> |
|-------------------|
| 21-07320-29       |
| 29 cm/11½"        |



21-07322-25  
25.5 cm/10"  
65 mm



21-07322-24  
24 cm/9 "  
42 mm



**Verbrugge-Muller**



**Lane Trethowan**  
21-07324-21  
21.5 cm/8½"



**Lane**  
21-07328-25  
25.5 cm/10"



**Bristow**  
21-07332-23  
23 cm/9"



**Murphy-Lane**  
21-07336-32  
32 cm/12½"



**Chandler**

| Length | Width |             |
|--------|-------|-------------|
| 18 cm  | 13 mm | 21-07340-13 |
| 20 cm  | 19 mm | 21-07340-19 |
| 23 cm  | 25 mm | 21-07340-23 |
| 25 cm  | 30 mm | 21-07340-30 |



**Blount**  
21-07344-26  
26 cm/10¼"



**Blount**  
21-07346-26  
26 cm/10¼"



**Bennett** 21-07350-44 44 mm  
24 cm/9½" 21-07350-64 64 mm



Smillie  
14 cm/5½"

21-07354-01  
32x19 mm

21-07354-02  
48x19 mm

21-07354-03  
57x19 mm



21-07356-04  
52x13 mm



21-07358-05  
12x13 mm

Spinal retractors



21-07362-01  
75x30 mm

21-07362-02  
100x30 mm

**Taylor**  
17 cm/6½"



21-07366-21  
21.5 cm/8½"

Meniscus retractors



**Blount**  
21-07370-17  
17.5 cm/7"



**Smillie**  
21-07374-17  
17 cm/6¾"



**Smillie**  
21-07376-17  
17 cm/6¾"



**Smillie**  
21-07378-17  
17 cm/6¾"



**Salenius**  
21-07382-22  
22 cm/8¾"



**Salenius**  
21-07384-22  
22 cm/8¾"



**Neff**  
21-07392-21  
21.5 cm/8½"



**Canad-Modell**  
21-07396-01 20 cm/8"



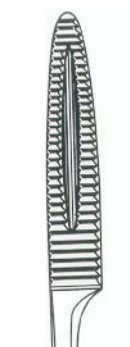
21-07396-02



21-07388-17  
17.5 cm/7"



**Bircher**  
21-07402-20  
20.5 cm/8"



**Straight**  
21-07406-20  
20 cm/8"



**Curved on Flat**  
21-07407-20  
20 cm/8"



**Van Buren**  
21-07410-23  
23 cm/9"



**Dingmann**  
21-07414-19  
19cm/7½"



**Dingmann Modif**  
21-07416-19  
19 cm/7½"



**Neff**  
21-07420-21  
21 cm/8¼"

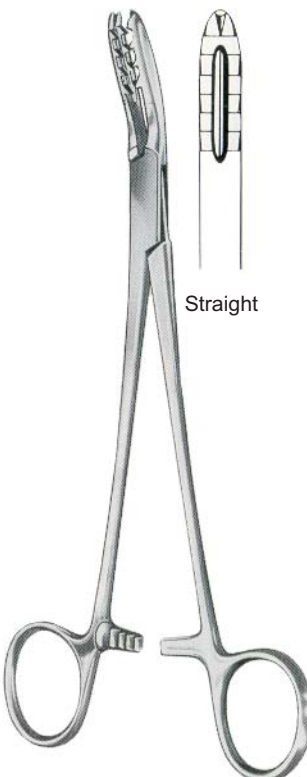




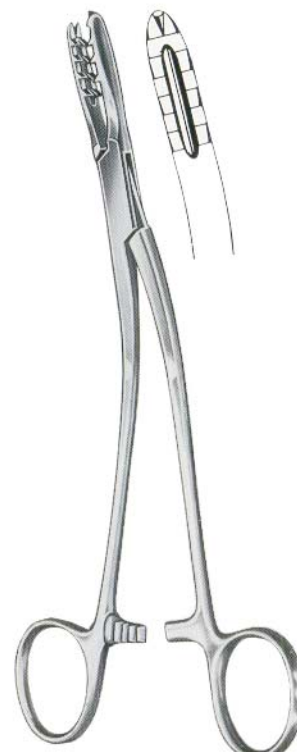
**Martin**  
21-07424-19  
19 cm/7½"



**Preston**  
21-07428-18  
18 cm/7¼"



**Bircher-Ganske**  
21-07432-20  
20 cm/8"



**Bircher-Ganske**  
21-07434-20  
20 cm/8"



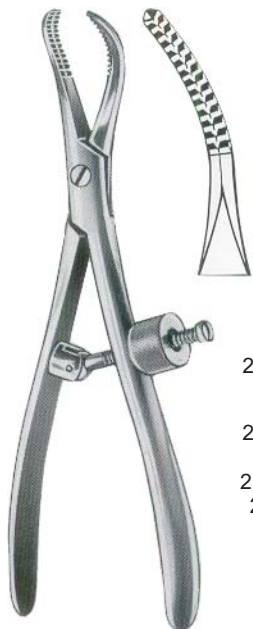
**Lewin**  
21-07438-17  
17.5 cm/7"



**Langenbeck**  
21-07442-21  
21 cm/8¼"



**Fergusson**  
21-07446-21  
21 cm/8¼"



21-07450-16  
16 cm/6 1/4"

21-07450-20  
20 cm/8"  
21-07450-24  
24 cm/9 1/2"



| Without Ratchet | Kern |        | With Ratchet |
|-----------------|------|--------|--------------|
|                 | cm   | in     |              |
| 21-07454-17     | 17   | 6 3/4" | 21-07456-17  |
| 21-07454-21     | 21   | 8 1/4" | 21-07456-21  |



|             |           |             |
|-------------|-----------|-------------|
| 21-07460-18 | 18 cm/07" | 21-07461-18 |
| 21-07460-23 | 23 cm/09" | 21-07461-23 |
| 21-07460-25 | 25 cm/10" | 21-07461-25 |
| 21-07460-28 | 28 cm/11" | 21-07461-28 |



**Hey Groves**  
21-07464-21 21.0 cm/8 1/4"  
21-07464-27 27.0 cm/10 1/2"  
21-07464-30 30.5 cm/12"



**Semb**  
21-07468-19  
19 cm/7½"



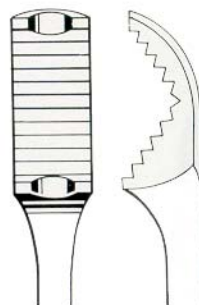
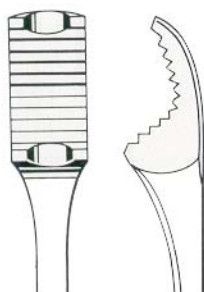
**Semb**  
21-07470-19  
19 cm/7½"



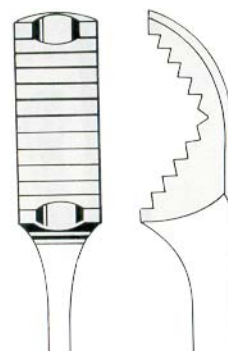
**Verbrugge**  
21-07474-17  
17.5 cm/7"



21-07478-25  
25 cm/10"



21-07478-26  
26 cm/10¼"  
**Verbrugge**



21-07478-27  
27 cm/10½"



21-07482-15 15 cm/6"  
21-07482-19 19 cm/7½"  
21-07482-24 24 cm/9½"  
21-07482-26 26 cm/10¼"  
21-07482-28 28 cm/11"



Handles Detachable

**Percy**  
21-07486-30

Adjustable



**Lambotte**  
21-07490-22 22 cm/8¾"  
21-07490-27 27 cm/10½"  
21-07490-30 30 cm/12"



**Farabeuf**  
21-07494-23 23 cm/9"  
21-07494-26 26 cm/10¼"



**Lambotte**  
21-07498-22 22.5 cm/9"  
21-07498-25 25.5 cm/10½"  
21-07498-33 33 cm/13½"



**Farabeuf-Lambotte**  
21-07502-26  
26 cm/10 $\frac{1}{4}$ "



**Lambotte**  
21-07506-19 19 cm/7 $\frac{1}{2}$ "  
21-07506-23 23 cm/9"  
21-07506-26 26 cm/10 $\frac{1}{4}$ "



| Without Ratchet | <b>Lane</b><br>cm in  | With Ratchet |
|-----------------|-----------------------|--------------|
| 21-07510-33     | 33 13"                | 21-07514-33  |
| 21-07510-45     | 45 17 $\frac{3}{4}$ " | 21-07514-45  |



21-07518-14  
14.5 cm/5 $\frac{3}{4}$ "



21-07522-12  
12 cm/4 $\frac{3}{4}$ "





21-07526-13  
13.5 cm/5¼"



21-07530-20  
20 cm/8"



21-07534-17  
17 cm/6¾"



Patella Forceps

21-07538-17  
17.5 cm/7"



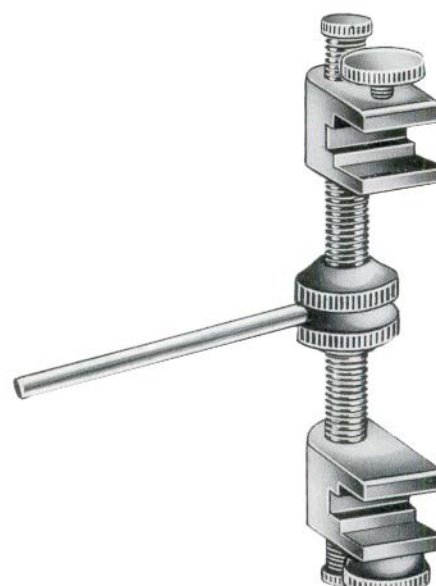
**Lowman-Hoglund**  
21-07542-19  
19 cm/7½"



**Lowman**  
21-07546-18 18 cm/7"  
21-07546-20 20 cm/8"  
21-07546-22 22 cm/8¾"



**Lowman**  
21-07550-12  
12 cm/4¾"



Traction Bar

21-07554-18  
21-07554-50





**Stellbrink**  
17.5 cm/7"



**Bane-Hartmann**  
21-07563-17  
17.5 cm/7"



**Mini-Friedmann**  
21-07567-12  
12.5 cm/5"



**Friedmann**  
21-07571-14  
14 cm/5½"



**Friedmann-Delicate**  
15 cm/6"



21-07575-15



90°

21-07577-15



**Bacon**  
21-07580-20  
20 cm/8"



**Cleveland**  
21-07583-14 14 cm/5½"  
21-07583-17 17 cm/6¾"



**Hartmann**  
21-07587-18  
18.5 cm/7¼"



**Olivecrona**  
21-07591-20  
20 cm/8"



**Mead**  
16.5 cm/6½"



|          | Lempert |     |
|----------|---------|-----|
|          | cm      | in  |
| Straight | 16      | 6¼" |
| Curved   | 19      | 7½" |



**Beyer**  
21-07607-18  
18 cm/7"



**Jansen**  
17.5 cm/7"



**Blumenthal**  
15.5 cm/6"



**Hakansson**  
21-07621-15  
15.5 cm/6"



**Jansen**  
21-07623-18  
18 cm/7"



Straight  
21-07626-17

Curved  
21-07627-17

**Luer**  
17 cm/6 3/4"



Heavy Pattern

**Luer**  
18.5 cm/7 1/4"

Straight  
21-07630-18

Curved  
21-07631-18



**Luer**  
15 cm/6"



21-07635-15



21-07637-15



21-07639-15



**Adson**  
20 cm/8"



21-07642-20



**Kleinert-Kutz**  
15 cm/6"



21-07645-15  
2 mm



21-07647-15  
3 mm



**Bohler**  
15 cm/6"



21-07650-15



21-07651-15



**Beyer**  
**Zaufal-Jansen**  
18 cm/7"



**Zaufal-Jansen**  
21-07653-18



**Beyer**  
21-07655-18



**Mayfield**  
21-07659-17  
17 cm/6¾"



**Ruskin**  
21-07663-18  
18 cm/7"  
Angled



**Straight**  
21-07666-18  
18 cm/7"  
21-07666-23  
23 cm/9"



**Ruskin**

**Curved**  
21-07667-18  
18 cm/7"  
21-07667-23  
23 cm/9"





**Marquardt**  
21-07671-20  
20 cm/8"



**Rottgen-Ruskin**  
21-07675-24  
24 cm/9½"



21-7679-03  
3 mm



21-7679-04  
4 mm



21-7679-05  
5 mm



21-7681-03  
3 mm



21-7681-04  
4 mm



21-7681-05  
5 mm



**Smith-Petersen**  
24 cm/9½"





**Stille-Luer**  
22 cm/8 $\frac{3}{4}$ "



**Straight**  
21-07684-22



**Curved**  
21-07685-22



**Stille-Luer**  
27 cm/10 $\frac{1}{2}$ "



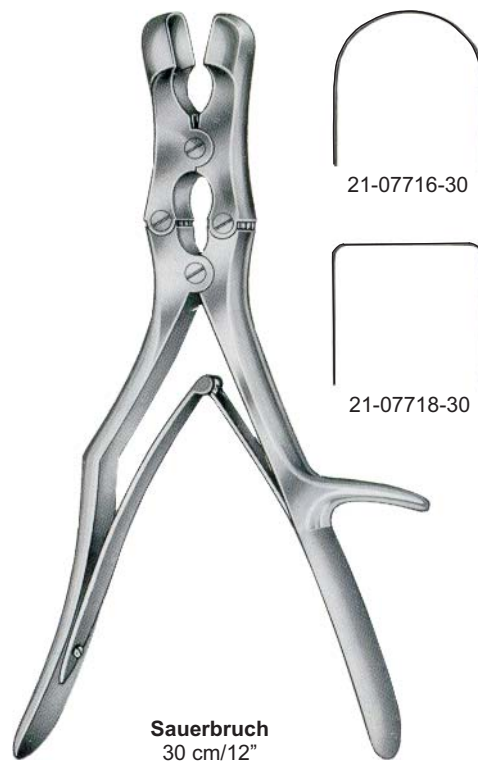
21-07688-27



21-07689-27



**Semb**  
21-07693-23  
23 cm/9"





**Markwalder**  
21-07721-20  
20 cm/8"



**Straight**  
21-07724-14 14  
21-07724-17 17  
21-07724-19 19  
21-07724-22 22



**Liston** **Curved**  
in  
5½ 21-07725-14  
6¾ 21-07725-17  
7½ 21-07725-19  
8¾ 21-07725-22



**Littauer-Liston**  
21-07728-15  
15 cm/6"



**Cleveland**  
21-07731-15 15 cm/6"  
21-07731-17 17 cm/6¾"



**Bohler**  
15 cm/6"



**Straight**  
21-07734-15



**Curved on flat**  
21-07735-15



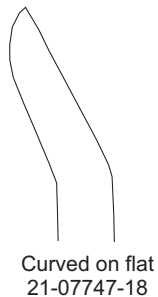
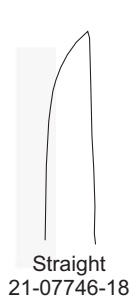
**McIndoe**  
21-07739-17  
17.5 cm/7"



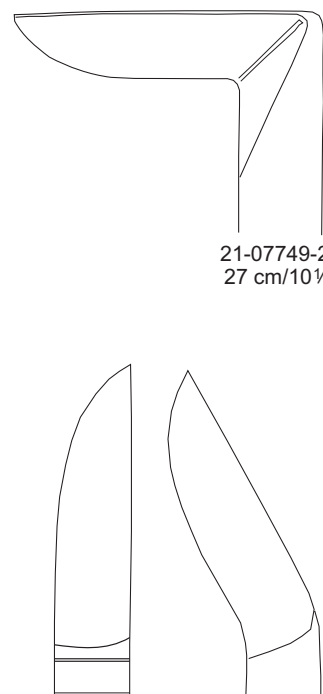
**Kazanjian**  
21-07742-18  
18 cm/7"



**Ruskin-Liston**  
18.5 cm/7 1/4"



**Stille-Liston**  
23 cm/9"  
27 cm/10 1/2"



21-07749-27  
27 cm/10 1/2"

21-07750-23  
21-07750-27

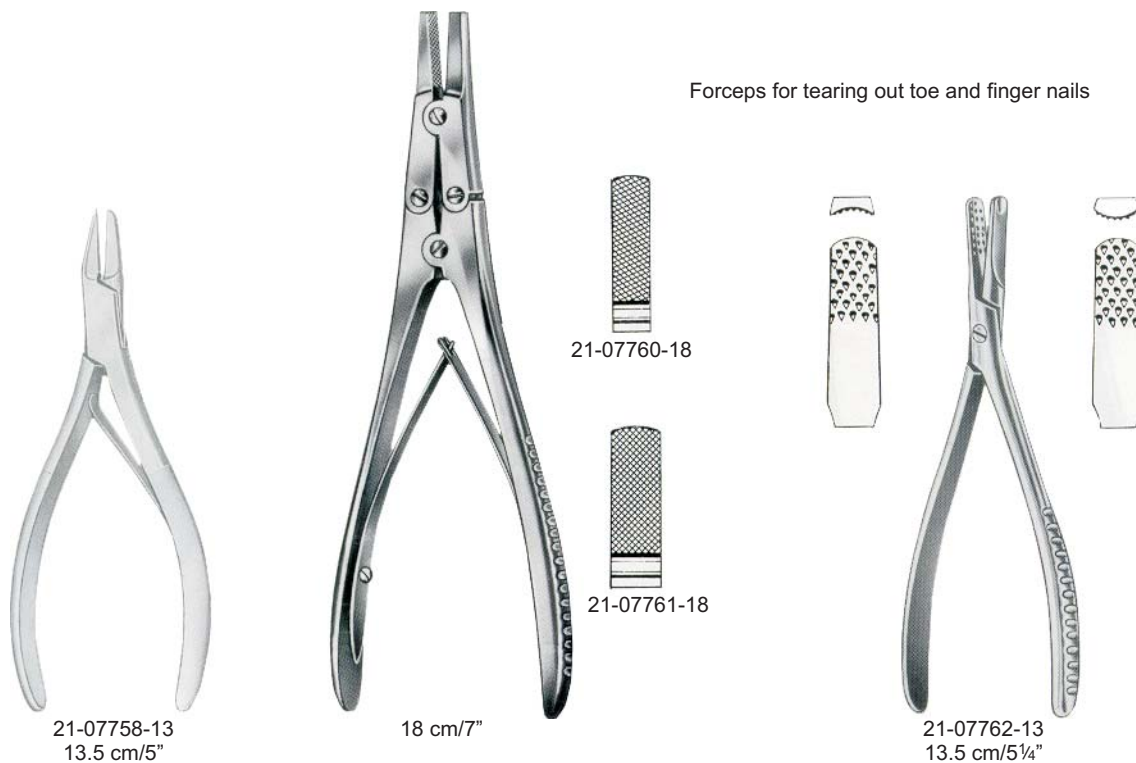
21-07751-23  
21-07751-27



**Liston-Key(Horsley)**  
21-07753-27  
27 cm/10 1/2"



**Semb**  
21-07755-24  
24 cm/9 1/2"



Saw blade



21-07764-17  
17 cm/6 3/4"



Saw blade

21-07766-17  
17 cm/6 3/4"





**Langenbeck**  
21-07768-23  
23 cm/9"



**Satterlee**  
21-07770-31  
31 cm/12¼"



**Charriere**  
21-07772-27 27 cm/10½"  
21-07772-30 30 cm/12"



**Charriere**

Spare saw blades  
21-07774-12 12 mm  
21-07774-15 15 mm  
Complete with 2 blades  
21-07774-35



**Helferich-Bier**

Spare saw blades  
21-07776-43 3 mm  
21-07776-45 5 mm  
21-07776-47 7 mm  
Complete with 3 blades  
21-07776-39





Hudson  
21-07778-00  
Hand drill, with 4 burrs, fig. 1-4

Handle, only  
21-07778-10

Conical and spherical burrs, single

Flat trephine

Extension piece



Fig. 1  
21-07778-01  
9 mmØ



Fig. 2  
21-07778-02  
14 mmØ



Fig. 3  
21-07778-03  
16 mmØ



Fig. 4  
21-07778-04  
22 mmØ



**Cushing**  
Fig. 5  
21-07778-05  
14 mmØ



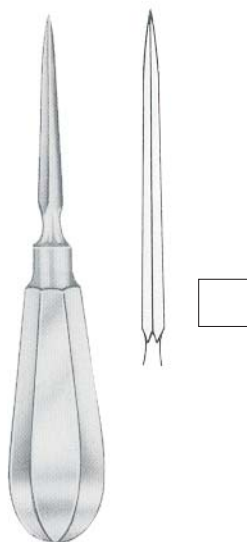
Fig. 6  
21-07778-06



Drill guide and dura protecting forceps



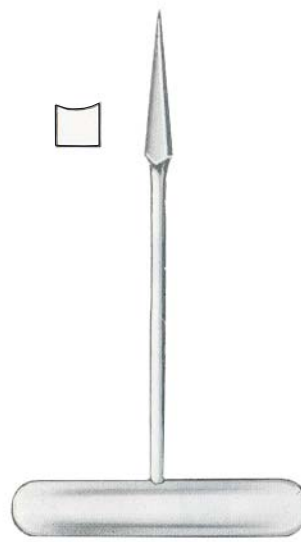
**Adson**  
21-07780-15  
15 cm/6"



21-07784-14  
14 cm/5½"



**Perthes**  
21-07786-21  
21 cm/8¼"



21-07788-14  
14 cm/5½"



21-07792-14  
14 cm/5½"

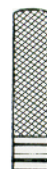


21-07794-16  
16 cm/6¼"



18cm/7"

**Pinsmed TC**



21-07798-01



21-07798-02



21-07798-03



21-07798-04



21-07798-05

**Pinsmed TC**



21-07802-18 18 cm/7"  
21-07802-20 20 cm/8"

**Pinsmed TC**



21-07806-16  
15 cm/6"

21-07806-20  
20 cm/8"



21-07810-16  
15 cm/6"





21-07814-13 13 cm/5"  
21-07814-18 18 cm/7"



21-07818-17  
17 cm/6¾"



21-07822-15  
15.5 cm/6"



21-07826-17 17 cm/6¾" 21-07828-17



21-07830-19  
19 cm/7 ½"



For soft wire  
with a diam. of max.

21-07834-15  
15 cm/6"  
2.0 mm



21-07836-18  
18.5 cm/7 1/4"  
1.7 mm



21-07837-16  
16 cm/6 1/4"  
2.0 mm

For hard wire  
with a diam. of max.

1.5 mm

1.7 mm

2.0 mm



***PinsmedTC***



21-07840-12  
0.7 mm  
0.5 mm  
12 cm/4¾"



21-07844-15  
2.0 mm  
1.0 mm  
15 cm/6"



21-07848-18  
2.0 mm  
1.7 mm  
18 cm/7"



21-07852-18  
2.5 mm  
1.5 mm  
18.5 cm/7¼"



21-07856-18  
2.0 mm  
1.7 mm  
18 cm/7"



21-07860-22  
3.0 mm  
2.5 mm  
22 cm/8¾"



21-07864-22  
3.0 mm  
22 cm/8¾"





With 1 Pin

**Bohler**

| cm     | in                                |             |
|--------|-----------------------------------|-------------|
| h x b  | h x b                             | For Arm     |
| 16 x 9 | 6 $\frac{1}{4}$ x 3 $\frac{1}{2}$ | 21-07868-16 |

|         |                                   | For Thigh and Knee |
|---------|-----------------------------------|--------------------|
| 21 x 11 | 8 $\frac{1}{4}$ x 4 $\frac{1}{2}$ | 21-07868-21        |

With 3 Traction Hooks



**Kirschner**

|             | Clear Width | cm  | in                               |
|-------------|-------------|-----|----------------------------------|
| 21-07872-01 | 9.5x7       |     | 3 $\frac{3}{4}$ x2 $\frac{3}{4}$ |
| 21-07872-02 | 10.5x10.5   |     | 4 $\frac{1}{4}$ x4 $\frac{1}{4}$ |
| 21-07872-03 | 12x12       |     | 4 $\frac{3}{4}$ x4 $\frac{3}{4}$ |
| 21-07872-04 | 15.5x15.5   | 6x6 |                                  |
| 21-07872-05 | 20x15.5     | 8x6 |                                  |

With 3 Traction Hooks



Clear Width

|             | cm    | in                                 |
|-------------|-------|------------------------------------|
| 21-07876-18 | 18x10 | 07x04                              |
| 21-07876-27 | 27x16 | 10 $\frac{1}{2}$ x06 $\frac{1}{4}$ |



**Kirschner**

|             |                |
|-------------|----------------|
| 21-07880-01 | Small Pattern  |
| 21-07880-02 | Medium Pattern |
| 21-07880-03 | Large Pattern  |



Screw Nut Wrench



21-07884-10  
10 cm/4"

Screw Driver



21-07884-12  
12 cm/4¾"

Wire Strainer



21-07884-20  
20 cm/8"

Fixation Discs For Drill Wires



21-07884-30  
Pair



21-07884-40



21-07884-42

Fixation Discs



21-07884-51  
Pair



Bone Wire Guides



Bone Wire Tighteners

**Loute**  
21-07888-00  
21 cm/8 1/4"



**Demel**

Bone Wire Guides

Fig. 1 21-07892-01  
Fig. 2 21-07892-02  
Fig. 3 21-07892-03

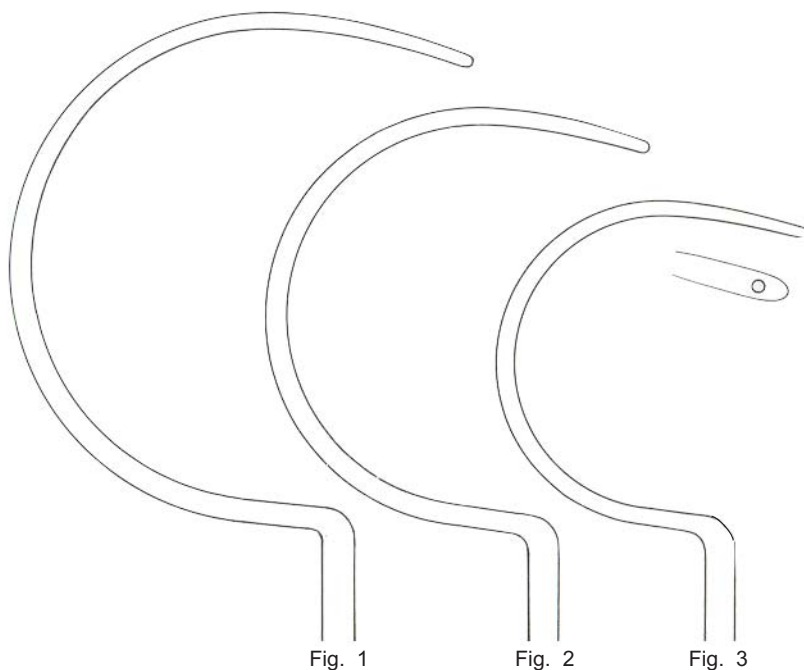


Fig. 1

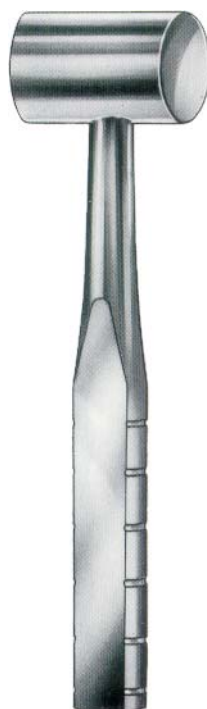
Fig. 2

Fig. 3



100 g 21-07896-10  
350 g 21-07896-35  
500 g 21-07896-50  
700 g 21-07896-70

22 cm/8½"



**Heath**  
21-07900-18  
18 cm/7" Ø 40 mm



**Ombredanne**  
21-07904-24  
Ø 40 mm  
24 cm/9½"  
550 g



1 Side Flat  
1 Side Convex

**Cottle**  
21-07908-19  
Ø 30 mm  
19 cm/7½"  
350 g



**Williger**  
21-07912-23  
23 cm/9"  
150 g



**Hajek**  
21-07916-21  
Ø 27 mm  
21 cm/8¼"  
140 g



165 g  
Ø 22 mm

21-07920-19  
19 cm/7½"

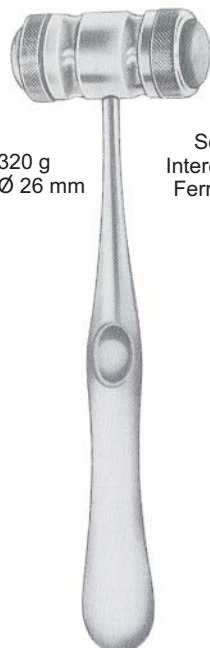


Fig. 1 21-07924-19 19mm Ø  
Fig. 2 21-07924-25 25mm Ø

**Lucae**  
19 cm/7½"



21-07928-16  
16.5 cm/6½"



320 g  
Ø 26 mm

Solid With  
Interchangeable  
Ferrozell Jaws

**Mead**  
21-07932-17  
17 cm/6¾"



280 g

Solid Steel

**Gardner**  
21-07936-14  
14 cm/5½"



200 g  
22 mm Ø  
(7 oz.)

**Partsch**  
21-07940-18  
18 cm/7"



**Gerzog**  
21-07944-19  
19 cm/7½"



7 mm Ø



Spare Screw

Tendon Passing Instruments



Malleable

Tendon Strippers



mm Ø  
4.0 21-07952-40  
4.5 21-07952-45  
5.5 21-07952-55  
Flexible Shaft

21-07948-34  
34cm/13½"

**Bunnell**  
21-07950-18 18cm/7"  
21-07950-23 23cm/9"

**Bunnell**  
23cm/9"



**Fischer**  
21-07956-31  
31 cm/12¼"



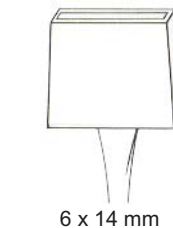
**Brand**



21-07960-50  
50 cm/19½"  
06 mm Ø



21-07962-30  
30 cm/12"  
03 mm Ø



**Brand**  
21-07964-50  
50 cm/19½"





**Steinmann**  
21-07968-16  
16 cm/6¼"



21-07972-02  
2 mm



21-07972-03  
3 mm



21-07972-04  
4 mm



21-07972-05  
5 mm



**Larsen**  
10 cm/4"



**Kleinert-Kutz**  
21-07976-20  
20 cm/8"



**Brand**  
21-07980-15 15 cm/6"  
21-07980-19 19 cm/7½"  
21-07980-24 24 cm/9½"



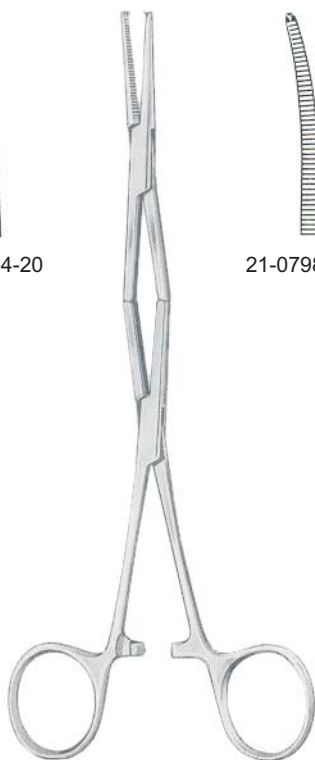
**Brand**  
21-07981-15 15 cm/6"  
21-07981-19 19 cm/7½"  
21-07981-24 24 cm/9½"



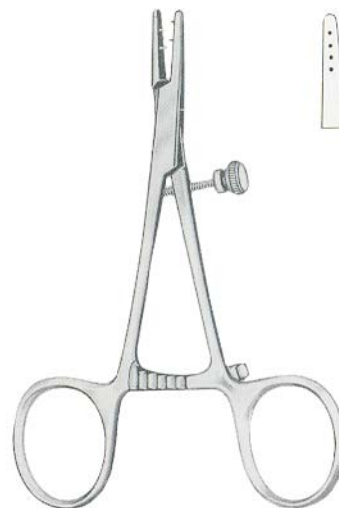
21-07984-20



21-07985-20



20 cm/8"



**Steinmann**  
21-07988-13  
13 cm/5"



**Caroll**  
21-07992-11  
11 cm/4½"



21-07996-15  
15 cm/6"



21-07997-15  
15 cm/6"



**Laborde**  
22-08000-13 13 cm/5"  
22-08000-15 15 cm/6"



**Trousseau**  
22-08004-14  
14 cm/5½"



**Trousseau-Baby**  
22-08006-13  
13 cm/5"

Hooks

Left

Right



Sharp



**Bose**  
22-08010-07  
7 cm/2¾"

22-08013-16



**Bose**  
16 cm/6¼"

22-08015-16



Thyroid Gland Retractor

Trachea Trocars



**Uckerman**

22-08022-08 08 mm Ø  
22-08022-10 10 mm Ø  
13 cm/5"



| Fig        | 0                                                                                 | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                 | 8                                                                                 | 9                                                                                  |
|------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
|            |  |  |  |  |  |  |  |  |  |  |
| Ø mm       | 04                                                                                | 05                                                                                | 06                                                                                | 07                                                                                | 08                                                                                | 09                                                                                | 10                                                                                | 11                                                                                | 12                                                                                | 13                                                                                 |
| Charr./Fr. | 12                                                                                | 15                                                                                | 18                                                                                | 21                                                                                | 24                                                                                | 27                                                                                | 30                                                                                | 33                                                                                | 36                                                                                | 39                                                                                 |
|            | 45                                                                                | 50                                                                                | 55                                                                                | 60                                                                                | 65                                                                                | 70                                                                                | 75                                                                                | 80                                                                                | 85                                                                                | 90                                                                                 |

Length of Outer Tube

Standard Pattern



Luer

| Fig. | mm Ø |             |
|------|------|-------------|
| 0    | 4    | 22-08026-04 |
| 1    | 5    | 22-08026-05 |
| 2    | 6    | 22-08026-06 |
| 3    | 7    | 22-08026-07 |
| 4    | 8    | 22-08026-08 |
| 5    | 9    | 22-08026-09 |
| 6    | 10   | 22-08026-10 |
| 7    | 11   | 22-08026-11 |
| 8    | 12   | 22-08026-12 |
| 9    | 13   | 22-08026-13 |



Chevalier-Jackson



| Fig. | mm Ø |             |
|------|------|-------------|
| 0    | 4    | 22-08028-04 |
| 1    | 5    | 22-08028-05 |
| 2    | 6    | 22-08028-06 |
| 3    | 7    | 22-08028-07 |
| 4    | 8    | 22-08028-08 |
| 5    | 9    | 22-08028-09 |
| 6    | 10   | 22-08028-10 |
| 7    | 11   | 22-08028-11 |
| 8    | 12   | 22-08028-12 |
| 9    | 13   | 22-08028-13 |



Luer

| Fig. | mm Ø |             |
|------|------|-------------|
| 4    | 8    | 22-08030-08 |
| 5    | 9    | 22-08030-09 |
| 6    | 10   | 22-08030-10 |
| 7    | 11   | 22-08030-11 |
| 8    | 12   | 22-08030-12 |
| 9    | 13   | 22-08030-13 |



Goitre Probes

**Kocher**

23-08034-15 15 cm/6"  
23-08034-16 16 cm/6¼"



Goitre Grasping Forceps

**Lahey**

23-08038-15 15 cm/6"  
23-08038-20 20 cm/8"



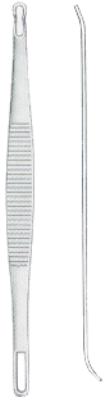
**Muscle Forceps**

23-08042-17

**Mastin**  
17 cm/6¾"



Comedone Extractors



**Schamberg**  
24-08046-10  
10 cm/4"



**Unna**  
24-08050-14  
14 cm/5½"



**Unna**  
24-08052-14  
14 cm/5½"



**Sealfield**  
24-08056-10  
10 cm/4"



**Saalfeld**  
24-08060-14  
14 cm/5½"



**Katsch**  
24-08064-14  
14 cm/5½"



**Hebra**  
24-08068-18  
18 cm/7"

Skin Currettes



Fig. 1 24-08072-01



Fig. 2 24-08072-02



Fig. 3 24-08072-03

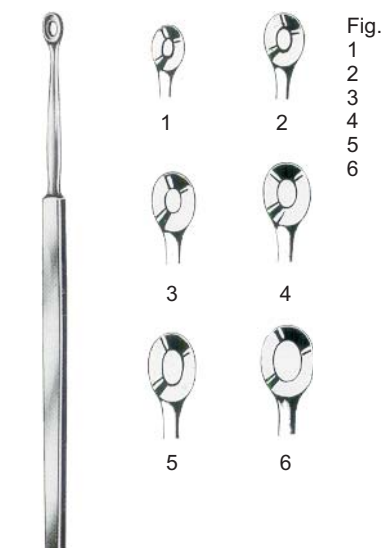


**Piffard**  
14.5cm/5¾"





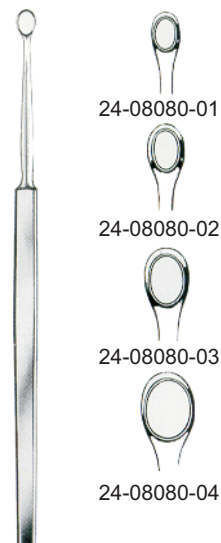
Lupus Currettes



**Wolff**  
14 cm/5½"

Fig.  
1 24-08076-01  
2 24-08076-02  
3 24-08076-03  
4 24-08076-04  
5 24-08076-05  
6 24-08076-06

Lupus Currettes



**Fox**  
14 cm/5½"

Lupus Scraper



**Vidal**  
24-08084-14  
14 cm/5½"

Moncorps Knife



**Moncorps**  
24-08088-14  
14 cm/5½"



**Gillies**  
Fig. 1 24-08092-01  
Fig. 2 24-08092-02  
18 cm/7"

Cutaneous Hook



**Kilner**  
24-08094-15  
15 cm/6"



4 : 5

5 : 6



**Allis**

| cm | in  | 4 : 5       | 5 : 6       |
|----|-----|-------------|-------------|
| 15 | 6"  | 25-08096-15 | 25-08100-15 |
| 19 | 7½" |             | 25-08100-19 |
| 23 | 9"  |             | 25-08100-23 |
| 25 | 10" |             | 25-08100-25 |



**Baby-Allis**

|             |           |
|-------------|-----------|
| 25-08104-12 | 12 cm/4¾" |
| 25-08104-14 | 14 cm/5½" |



**Pinsmed Atrauma**



**Allis-Atrauma**

|             |           |
|-------------|-----------|
| 25-08108-16 | 16 cm/6¼" |
| 25-08108-20 | 20 cm/8"  |
| 25-08108-25 | 25 cm/10" |
| 25-08108-30 | 30 cm/12" |



**Allis-Adair**  
25-08112-15  
15 cm/6"



**Baby-Allis**  
25-08116-15  
15 cm/6"



**Lockwood-Allis**  
25-08120-16 16 cm/6¼"  
25-08120-20 20 cm/8"



6 : 7



**Thoms-Allis**  
25-08124-20  
20 cm/8"



**Judd-Allis**  
25-08128-15 15 cm/6"  
25-08128-19 19 cm/7½"



**Littlewood**  
25-08132-18  
18.5 cm/7¼"



**Williams**  
25-08136-16  
16 cm/6¼"



**Lockwood**  
25-08140-20  
20 cm/8"

***Pinsmed Atrauma***



cm/in **Babcock-Atrauma**  
16 cm/6¼" 25-08144-16  
18 cm/7" 25-08144-18  
20 cm/8" 25-08144-20  
24 cm/9½" 25-08144-24



**Babcock(Standard)**  
25-08148-16  
25-08148-18  
25-08148-20  
25-08148-24



**Baby-Babcock**  
25-08152-16



**Babcock**  
25-08156-16  
25-08156-20

***PinsmedTc***



**Pinsmed Atrauma**



| Duval       |    |    |             |
|-------------|----|----|-------------|
|             | cm | in |             |
| 25-08164-18 | 18 | 7" |             |
| 25-08164-20 | 20 | 8" | 25-08168-20 |
| 25-08164-23 | 23 | 9" | 25-08168-23 |

**PinsmedTC**

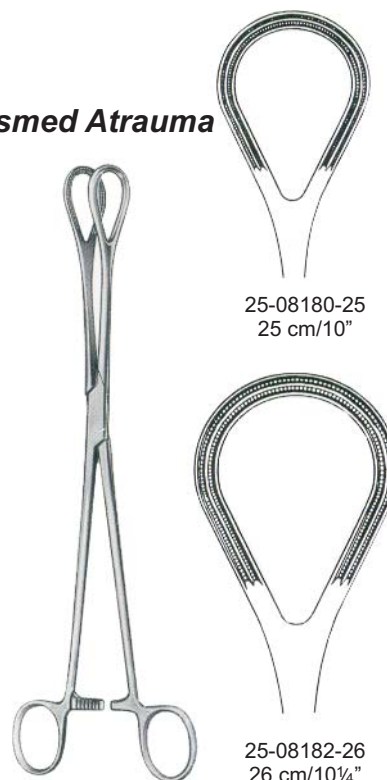


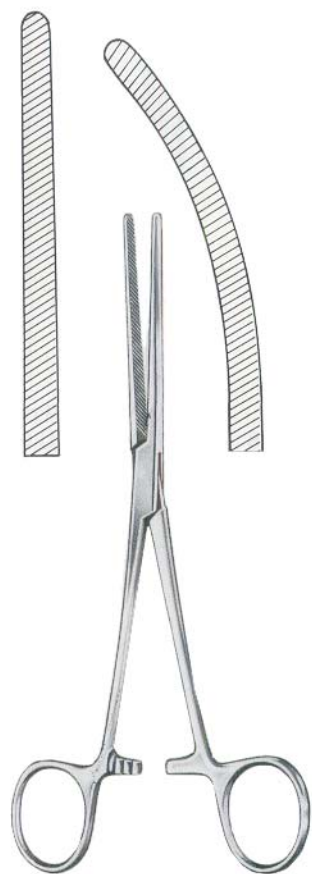
**Duval**  
25-08172-20  
20 cm/8"



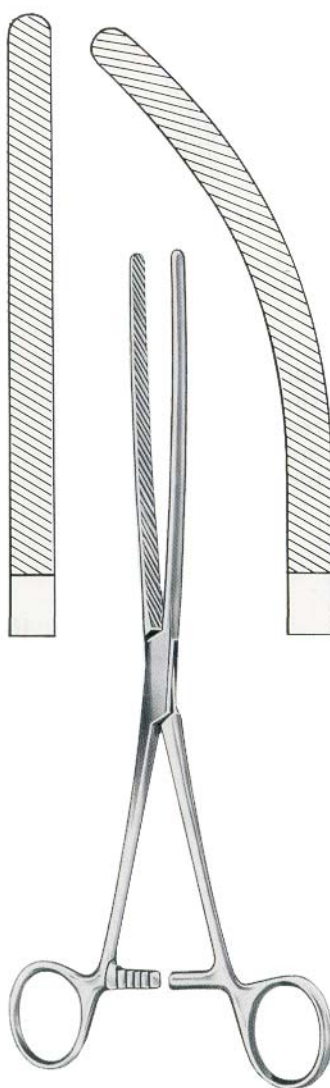
**Child**  
24 cm/9½"

**Pinsmed Atrauma**

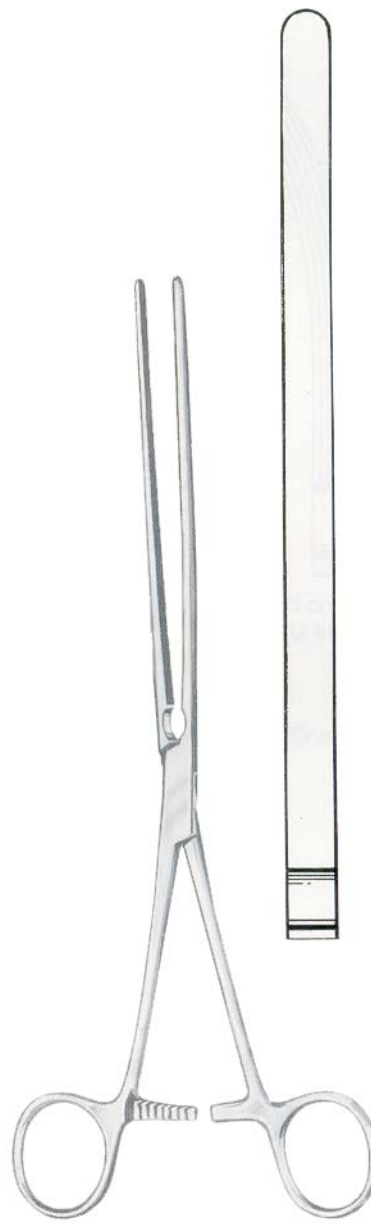




**Baby-Doyen**  
Straight 25-08186-18 18 cm/7"  
Curved 25-08187-18 18 cm/7"



**Doyen**  
Straight 25-08190-21 21 cm/8¼"  
25-08190-23 23 cm/9"  
Curved 25-08191-21 21 cm/8¼"  
25-08191-23 23 cm/9"



**Scudder**  
25-08194-25 25 cm/10"

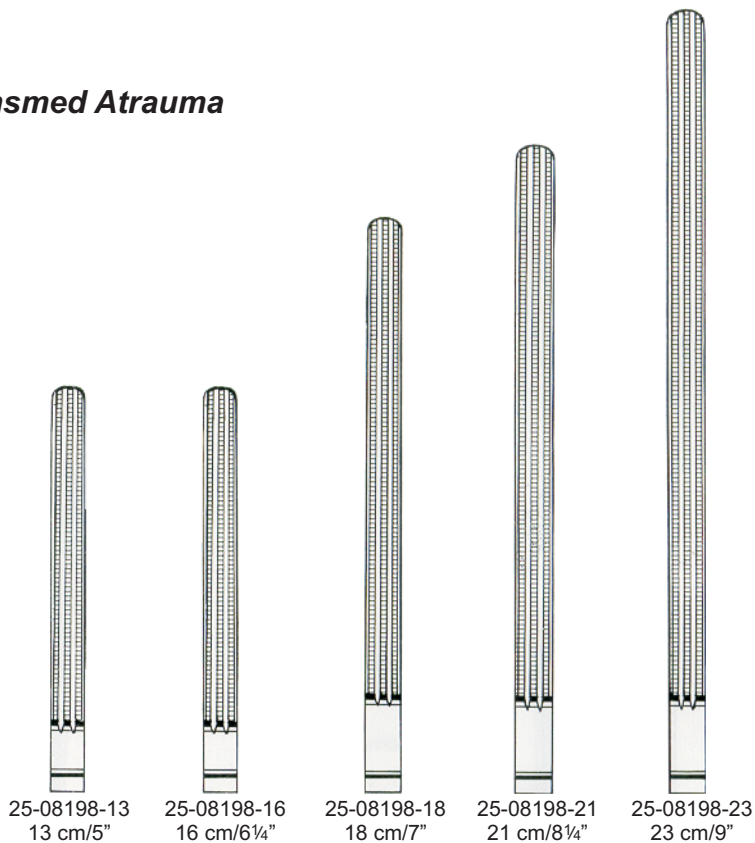


***Pinsmed Atrauma***



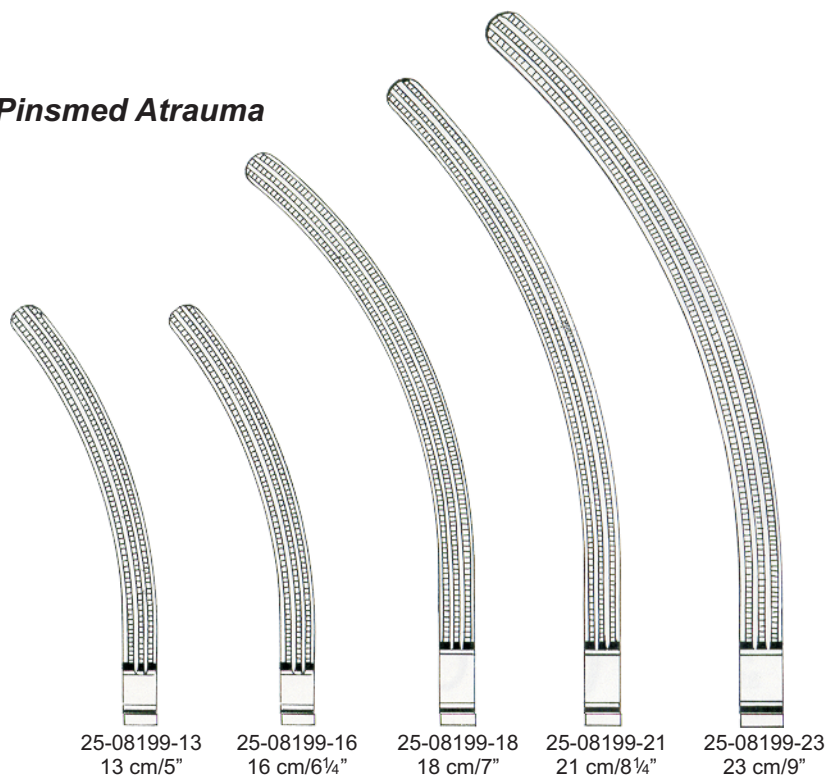
**Doyen-Atrauma**

Straight



***Pinsmed Atrauma***

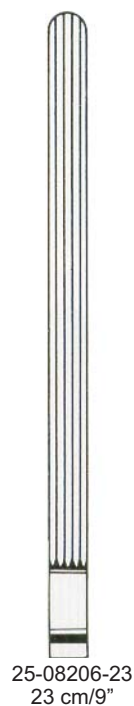
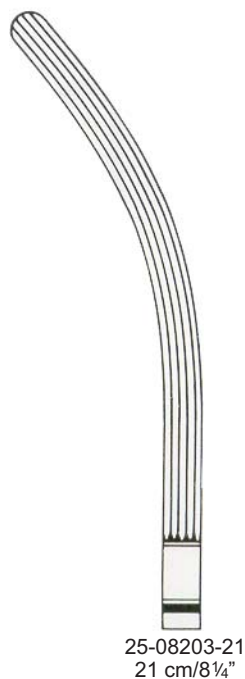
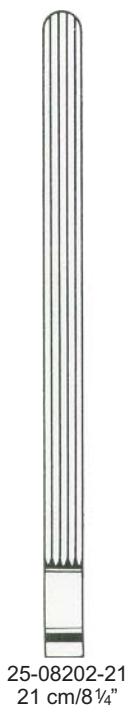
Curved



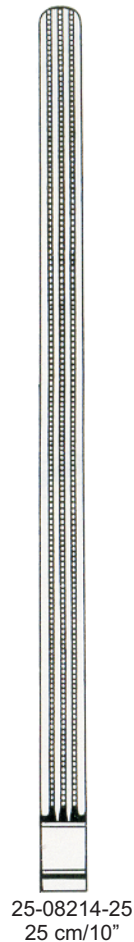
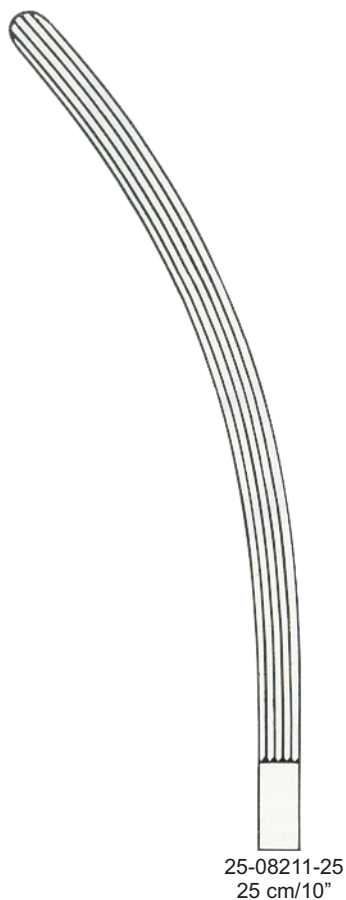
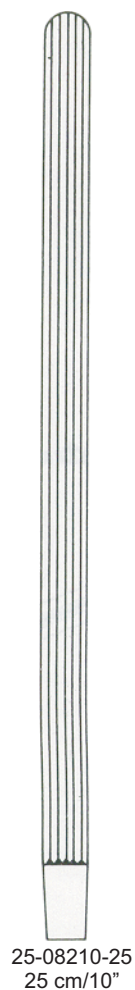


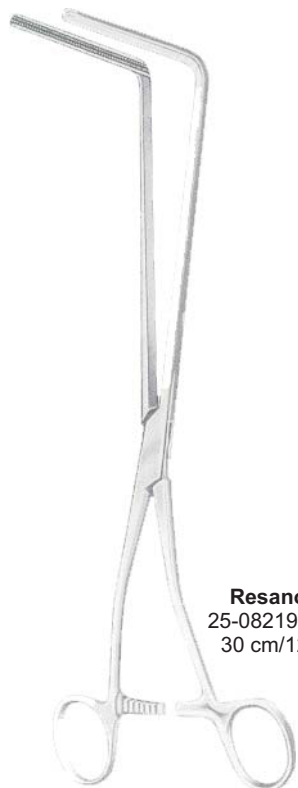


**Mayo-Robson**  
**Mayo-Robson Atrauma**



***Pinsmed Atrauma***





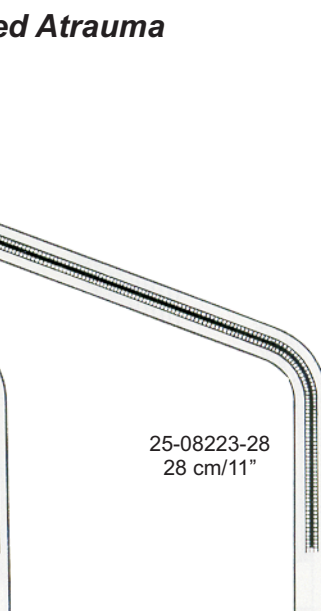
**Resano**  
25-08219-30  
30 cm/12"



**Hayes**



25-08223-26  
26 cm/10¼"



25-08223-28  
28 cm/11"

***Pinsmed Atrauma***



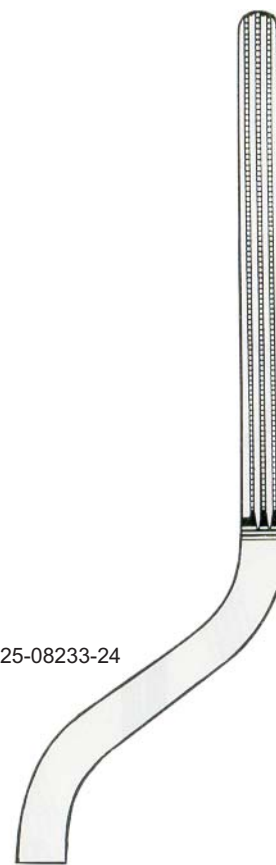
**Fehland**  
25-08227-24  
24 cm/9½"



**Brunner**  
24 cm/9½"



25-08231-24



25-08233-24



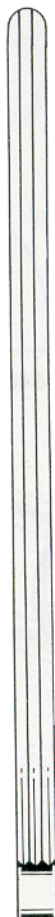
Straight **Baby-Kocher** Curved  
25-08236-13 25-08237-13  
13 cm/5" 13 cm/5"



**Kocher**



25-08240-22  
22 cm/8<sup>3</sup>/<sub>4</sub>"



25-08240-25  
25 cm/10"



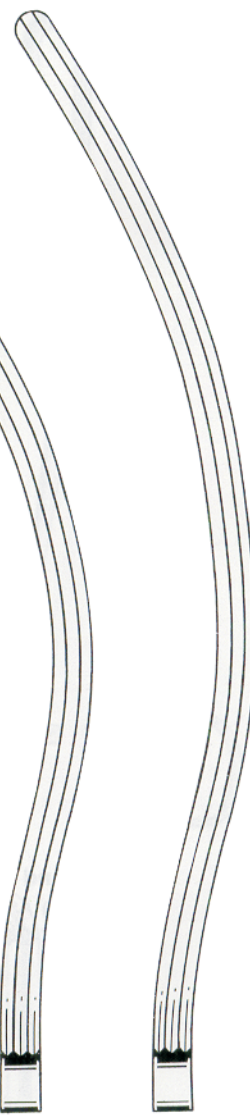
25-08240-28  
28 cm/11"



25-08241-22  
22 cm/8<sup>3</sup>/<sub>4</sub>"



25-08241-25  
25 cm/10"



25-08241-28  
28 cm/11"



*Pinsmed Atrauma*



**Kocher-Atrauma**



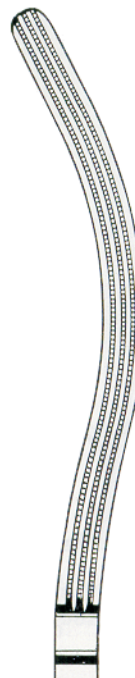
25-08244-22  
22 cm/8¾"



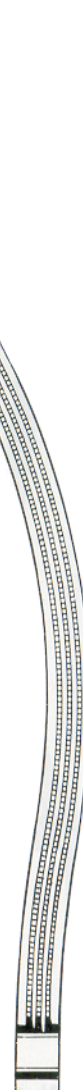
25-08244-25  
25 cm/10"



25-08244-28  
28 cm/11"



25-08245-22  
22 cm/8¾"



25-08245-25  
25 cm/10"



25-08245-28  
28 cm/11"



Pylorus spreader

**Benson**  
25-08252-15  
15.5 cm/6"



Straight  
25-08248-25

**Nussbaum**  
25 cm/10"

Curved  
25-08249-25



**Allen**  
25-08253-15 15.5 cm/6"  
25-08253-20 20.0 cm/8"



**Kleinschmidt**  
25-08255-12  
12 cm/4¾"



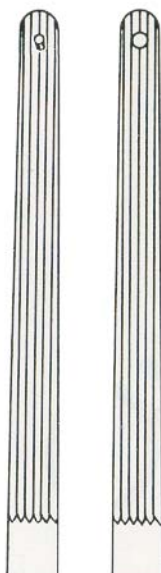


**Payr**  
**(Payr-Baby)**

For children



25-08258-15  
15 cm/6"



25-08258-21  
21 cm/8¼"



25-08258-29  
29 cm/11½"

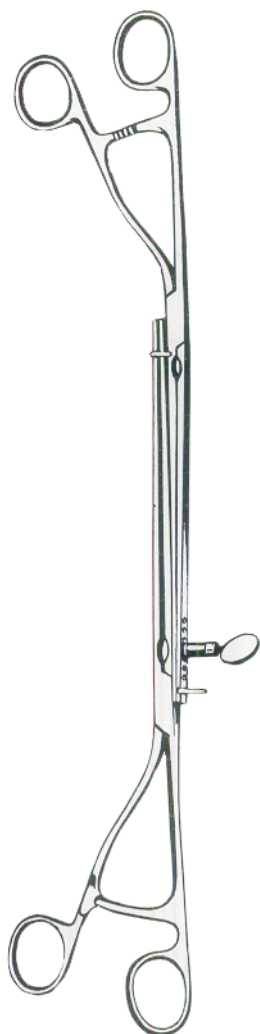


25-08258-35  
35 cm/13¾"





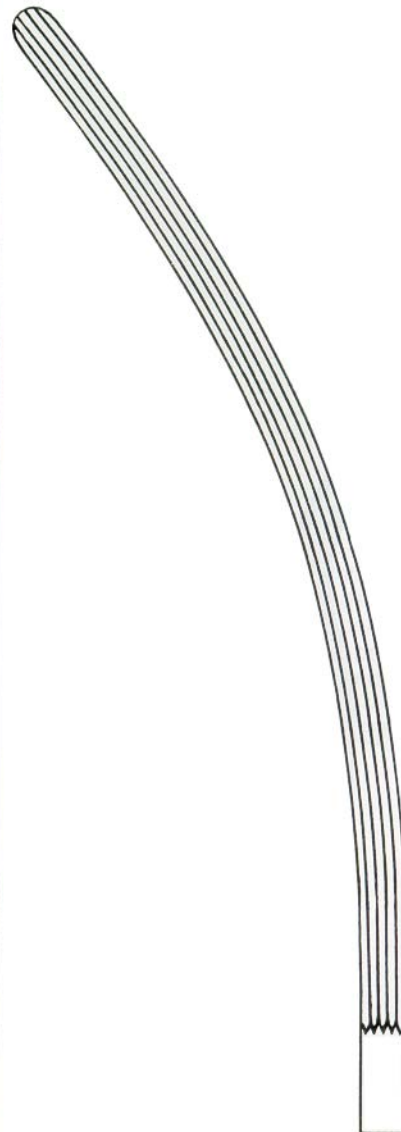
Twin Clamps Forceps



**Lane**  
30 cm/12"



**Straight**  
25-08862-30



**Curved**  
25-08863-30



*Pinsmed Atrauma*



**Scudder**  
**Scudder-Atrauma**  
33 cm/13"



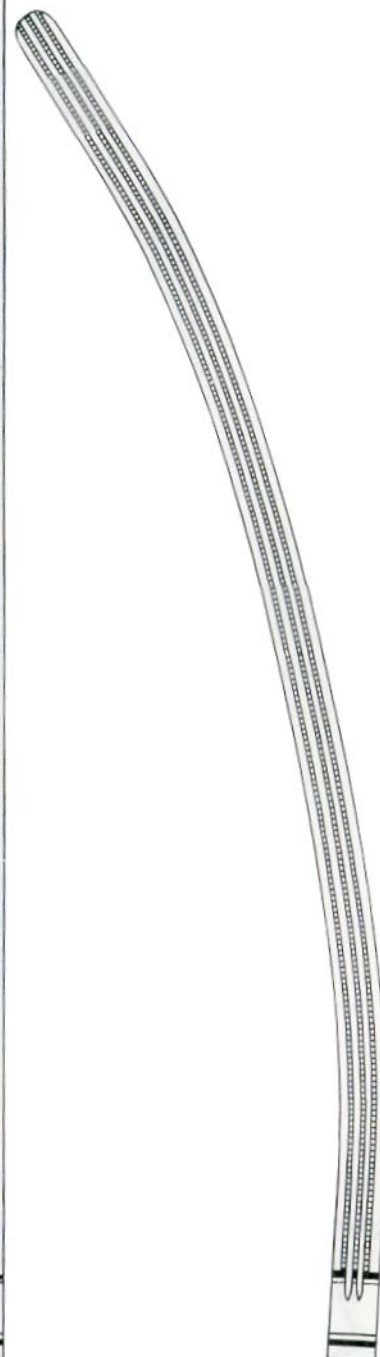
**Straight**  
25-08266-33



**Curved**  
25-08267-33



**Straight**  
25-08270-33



**Curved**  
25-08271-33



Intestinal and Stomach Twin Clamps



**Haberer**  
25-08274-36  
36 cm/14"



**Straight**  
25-08278-30

**Nussbaum**  
30 cm/12"

**Curved**  
25-08279-30



**Czerny**  
25-08282-22  
22 cm/8¾"



**Pratt**  
25-08286-20  
80 x 25 mm  
20.5 cm/8"



**Sims**  
25-08291-15



**(Bodenhammer) Sims**  
25-08290-15  
15 cm/6"



**Sims**  
22 cm/8¾"

Length of Blades

|             |        |
|-------------|--------|
| 25-08294-06 | 60 mm  |
| 25-08294-08 | 80 mm  |
| 25-08294-12 | 125 mm |
| 25-08294-15 | 150 mm |



**Mathieu**  
25-08298-19  
90 x 15 mm  
19.5 cm/7¾"



**Barr**  
25-08302-17  
17 cm/6<sup>3</sup>/<sub>4</sub>"  
70 X 22 mm

Anal Retractors



**Smith-Bule**  
25-08306-15  
15 cm/6"

Anusscopes



**Hirschmann**  
25-08310-01  
25-08310-02  
25-08310-03  
25-08310-04

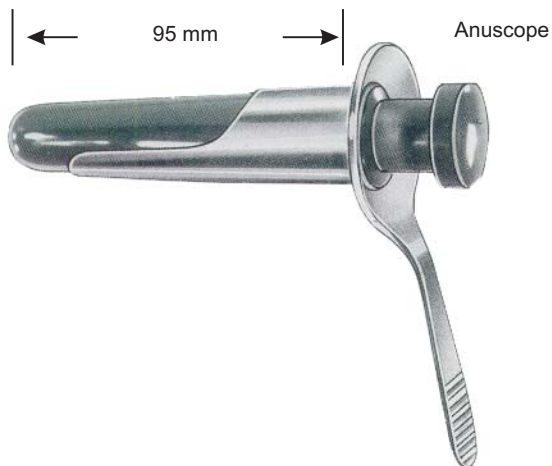
Fig. 1 16 mm Ø x 65 mm  
Fig. 2 19 mm Ø x 65 mm  
Fig. 3 22 mm Ø x 65 mm  
Fig. 4 25 mm Ø x 65 mm



**Bensaude**  
25-08314-01  
25-08314-02

Fig. 1 19 mm Ø x 70 mm  
Fig. 2 22 mm Ø x 70 mm





**Ives-Fansler**  
25-08318-22  
22 mm Ø



Fig. 1 22 mm Ø x 50 mm 25-08322-01  
Fig. 2 22 mm Ø x 100 mm 25-08322-02  
Fig. 3 22 mm Ø x 140 mm 25-08322-03  
Fig. 4 22 mm Ø x 200 mm 25-08322-04



**Kelly**

Fig. 1 21 mm Ø 50 mm 25-08326-01  
Fig. 2 27 mm Ø 50 mm 25-08326-02

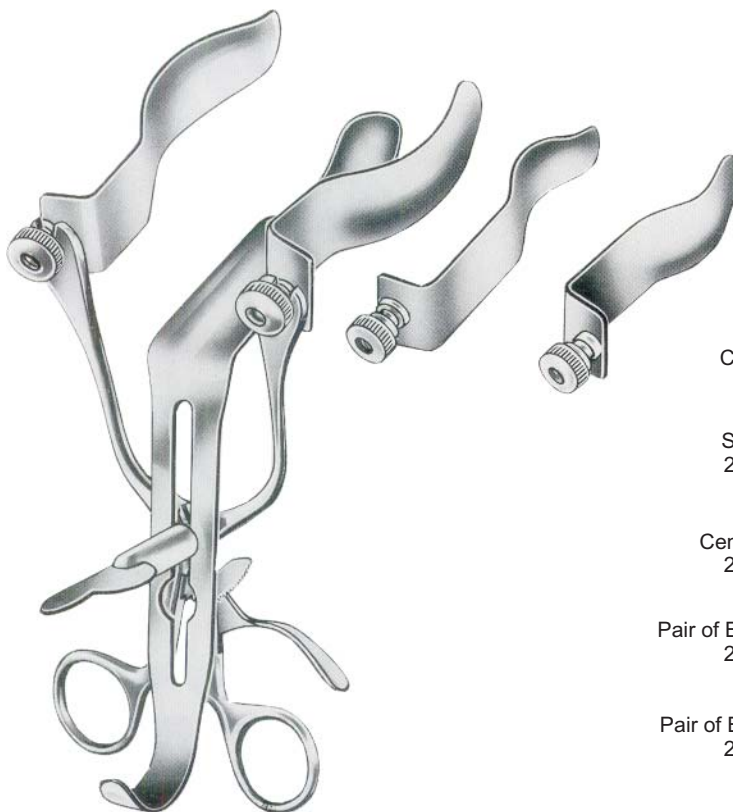




**Instrumed**  
Fine Surgical Instruments

**Stomach, Intestine and Rectum Instruments**  
**Anal Retractors**

**25**



**Park**  
25-08330-00  
14.5 cm/5¾"

Consisting of:

Spreader only  
25-08330-01

Center Blade only  
25-08330-02

Pair of Blades Only 75 mm  
25-08330-03

Pair of Blades only 95 mm  
25-08330-04

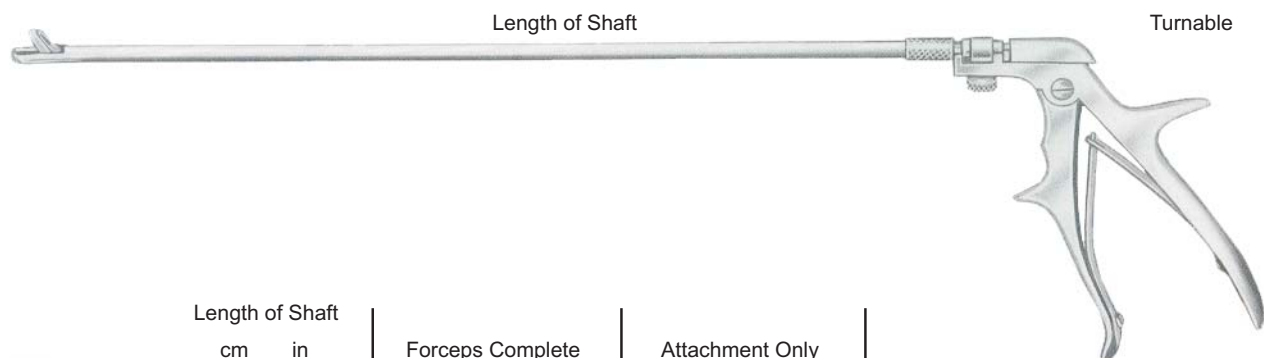
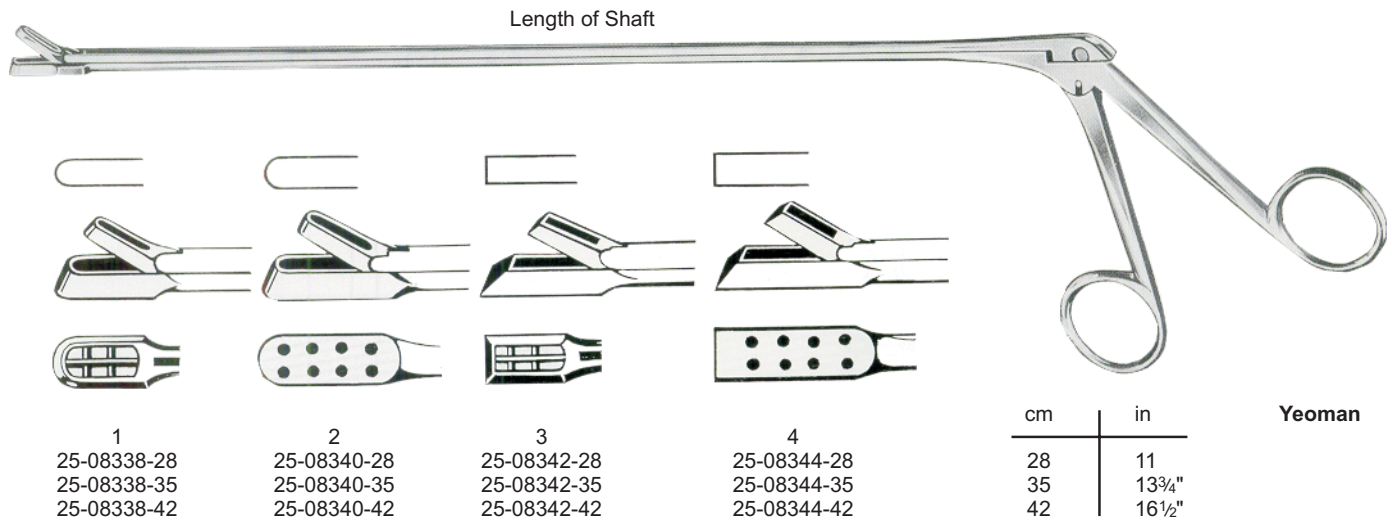


**Park**  
25-08334-00  
13 cm/5"

Consisting of:

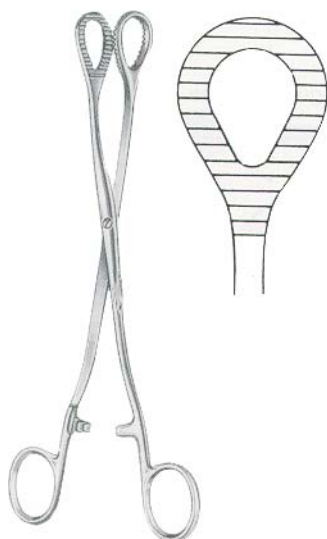
Spreader only  
25-08334-01

Pair of Blades only 95 mm  
25-08334-02



**Yeoman  
(Turrell)**  
Handle Only  
25-08348-00

|                                                                                     | Length of Shaft |    | Forceps Complete           | Attachment Only            |
|-------------------------------------------------------------------------------------|-----------------|----|----------------------------|----------------------------|
|                                                                                     | cm              | in |                            |                            |
|  | 33              | 13 | 25-08348-33<br>25-08348-40 | 25-08358-33<br>25-08358-40 |
|                                                                                     | 40              | 16 |                            |                            |
|  | 33              | 13 | 25-08350-33<br>25-08350-40 | 25-08360-33<br>25-08360-40 |
|                                                                                     | 40              | 16 |                            |                            |
|  | 33              | 13 | 25-08352-33<br>25-08352-40 | 25-08362-33<br>25-08362-40 |
|                                                                                     | 40              | 16 |                            |                            |
|  | 33              | 13 | 25-08354-33<br>25-08354-40 | 25-08364-33<br>25-08364-40 |
|                                                                                     | 40              | 16 |                            |                            |

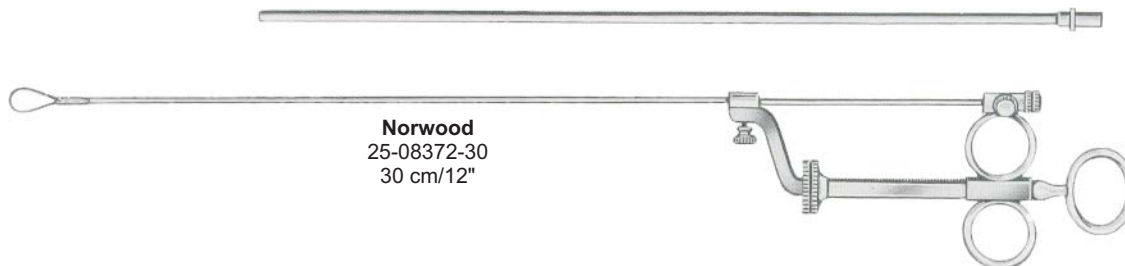


**Heywood-Smith**  
25-08366-21  
21 cm/8¼"



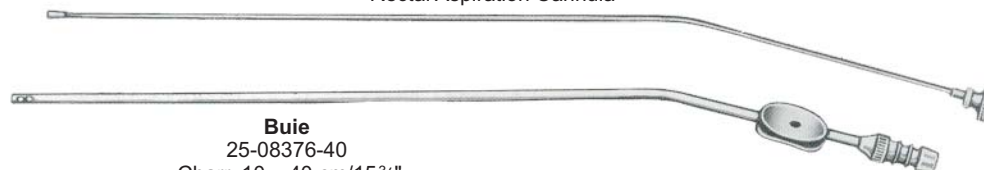
**Heywood-Smith**  
25-08368-21  
21 cm/8¼"

Rectal Snare



**Norwood**  
25-08372-30  
30 cm/12"

Rectal Aspiration Cannula



**Buie**  
25-08376-40  
Charr. 10. 40 cm/15¾"

Rectal Coolers



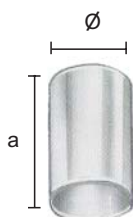
25-08380-01



25-08380-02



Aspiration Tip



|             | a     | Ø     |
|-------------|-------|-------|
| 25-08384-11 | 11 mm | 10 mm |
| 25-08384-16 | 16 mm | 10 mm |

Charging Cone



10 mm Ø

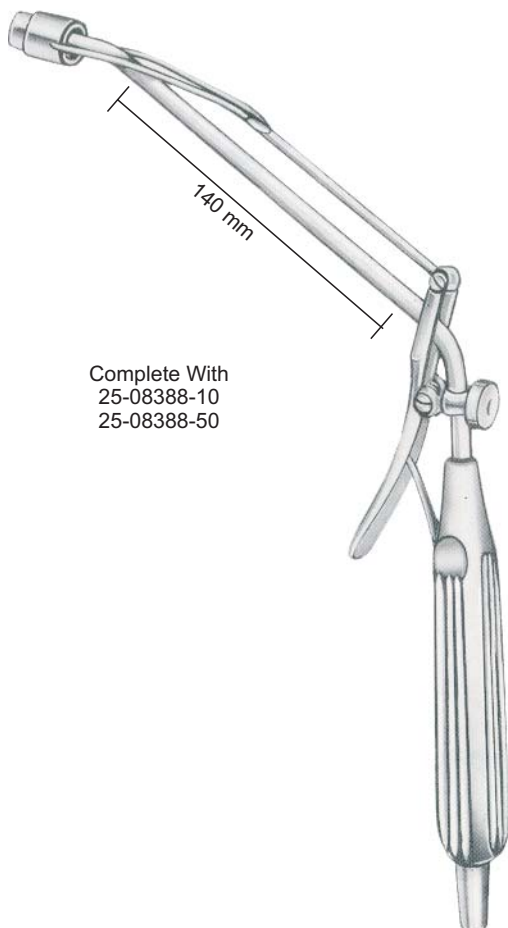
25-08392-10

Charging Cone



12 mm Ø

25-08392-12



Complete With  
25-08388-10  
25-08388-50



Complete With  
25-08396-00  
25-08396-50

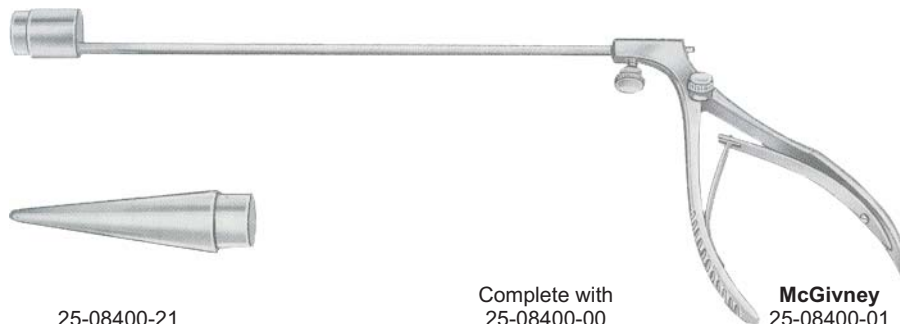
**Rudd**  
31.5 cm/12½"



**Instrumed**  
Fine Surgical Instruments

**Stomach, Intestine and Rectum Instruments  
Haemorrhoidal Ligators**

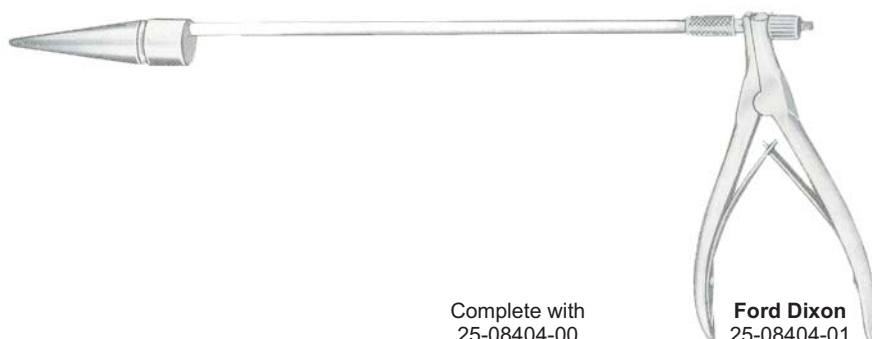
**25**



25-08400-21

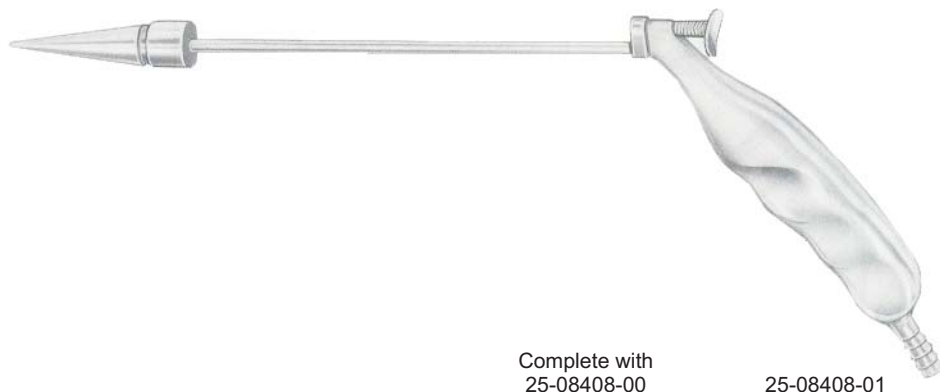
Complete with  
25-08400-00

**McGivney**  
25-08400-01



Complete with  
25-08404-00

**Ford Dixon**  
25-08404-01



Complete with  
25-08408-00

25-08408-01



**McGivney**  
25-08412-19  
19 cm/7 1/2"



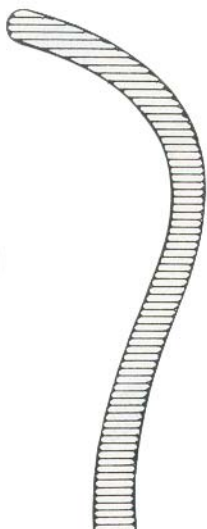
25-08414-00  
Ligator rubber rings  
in box of 100 pieces



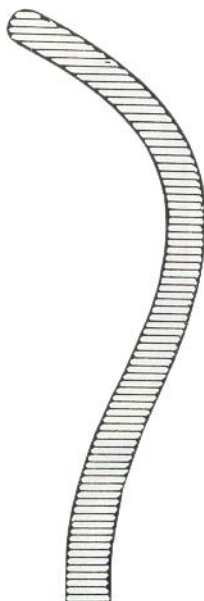
**Guyon**



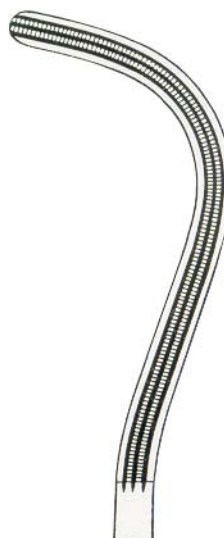
26-08416-20  
20 cm/8"



26-08416-22  
22 cm/8¾"



26-08416-24  
24 cm/9½"



26-08418-23  
23 cm/9"



26-08418-24  
24 cm/9½"

***Pinsmed Atrauma***



**Guyon**  
26-08420-23  
23 cm/9"





**Herrick**  
26-08424-23  
23 cm/9"



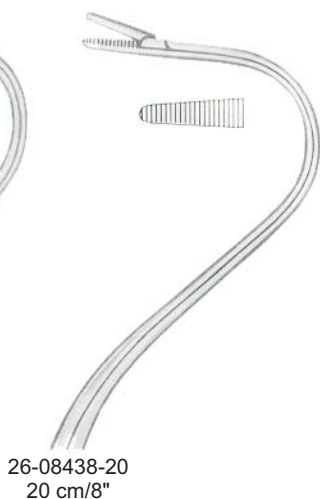
**Mayo-Guyon**  
26-08428-23  
23 cm/9"



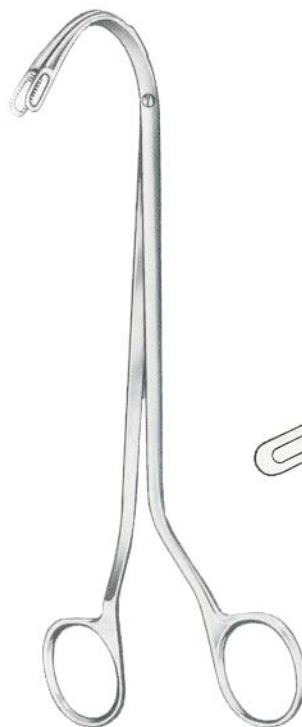
**Stille**  
26-08432-23  
23 cm/9"



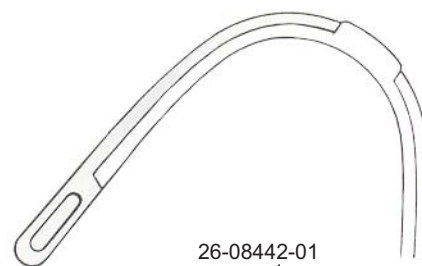
**Elsasser**  
26-08436-20  
20 cm/8"



26-08438-20  
20 cm/8"



**Randall**



26-08442-01  
19 cm/7½"



26-08442-02  
19 cm/7½"



**Randall**

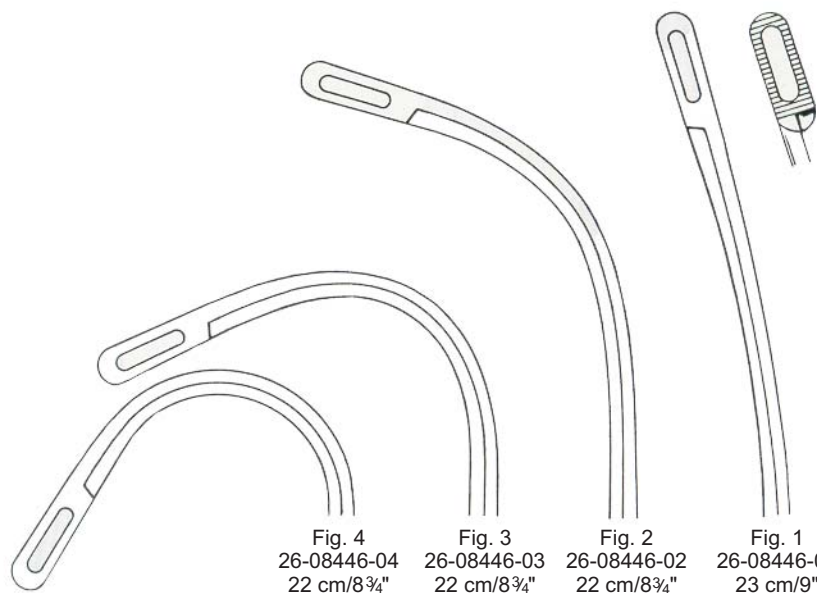


Fig. 4  
26-08446-04  
22 cm/8¾"

Fig. 3  
26-08446-03  
22 cm/8¾"

Fig. 2  
26-08446-02  
22 cm/8¾"

Fig. 1  
26-08446-01  
23 cm/9"



**Gray**  
26-08450-00

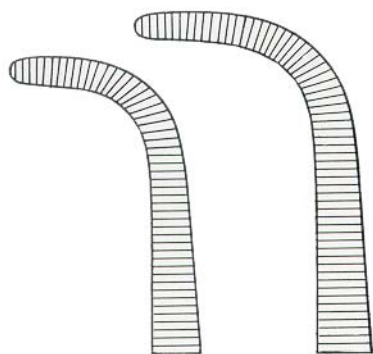


Fig. 1  
26-08450-01  
22 cm/8¾"

Fig. 2  
26-08450-02  
23 cm/9"

Set of 2 pieces



**Gray**  
26-08454-00

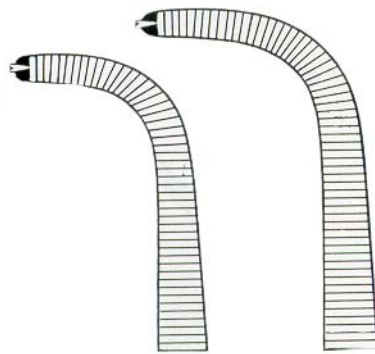


Fig. 1  
26-08454-01  
22 cm/8¾"

Fig. 2  
26-08454-02  
23 cm/9"

Set of 2 pieces



**Desjardins**  
26-08458-21  
21 cm/8¼"

Gall duct and  
cystic forceps



**Nissen**  
26-08462-21  
21.5 cm/8½"



Straight **Blake** Curved  
26-08466-20 20 cm/8" 26-08467-20



Straight **Mayo-Blake** Curved  
26-08472-20 20 cm/8" 26-08473-20



**Czerny**  
26-08476-24  
24.5 cm/9¾"



**Desjardins**  
23 cm/9"



Fig. 1  
26-08480-01



Fig. 2  
26-08480-02

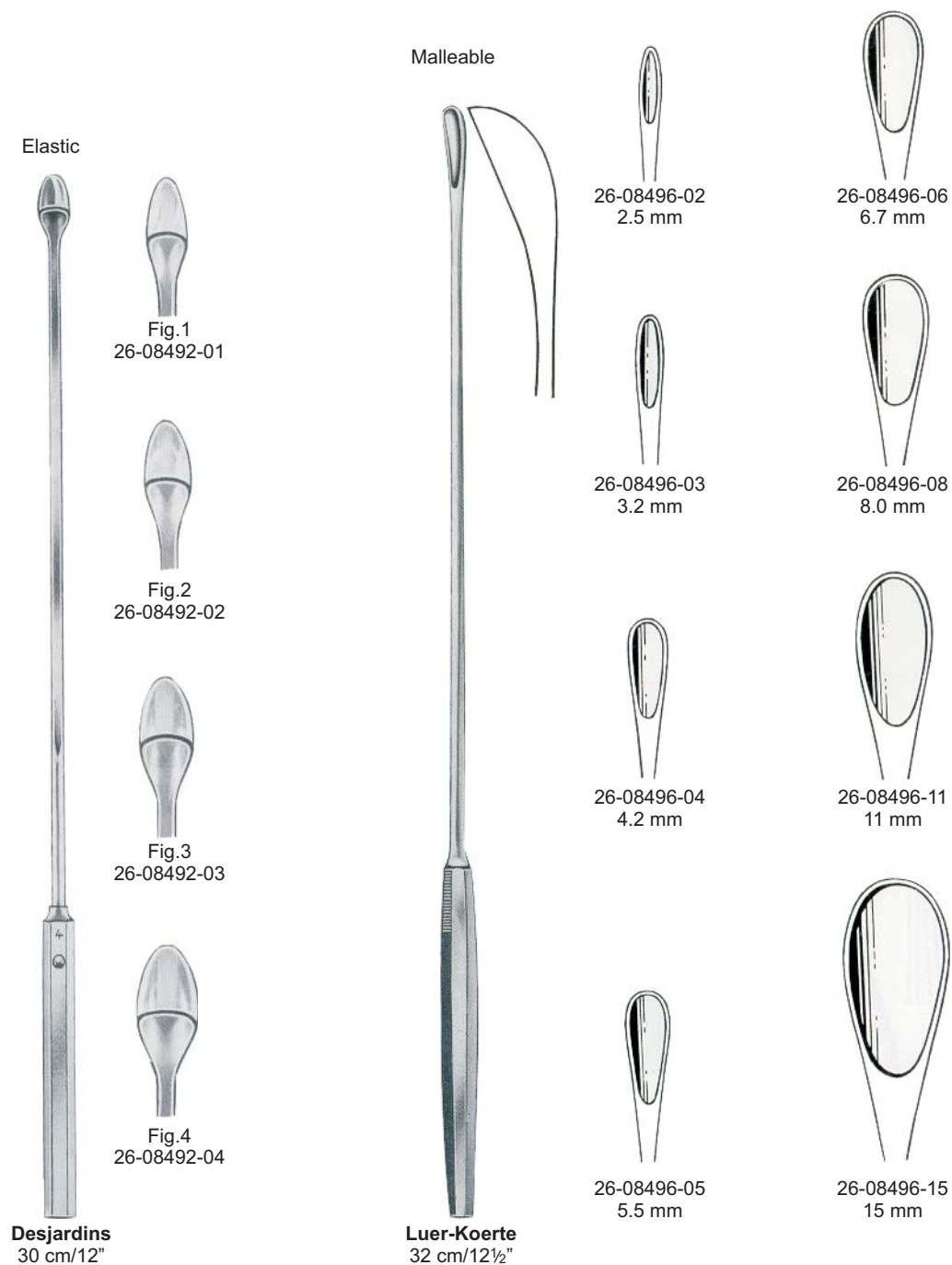


| mm |             |
|----|-------------|
| 1  | 26-08488-01 |
| 2  | 26-08488-02 |
| 3  | 26-08488-03 |
| 4  | 26-08488-04 |
| 5  | 26-08488-05 |
| 6  | 26-08488-06 |
| 7  | 26-08488-07 |
| 8  | 26-08488-08 |
| 9  | 26-08488-09 |
| 10 | 26-08488-10 |
| 11 | 26-08488-11 |
| 12 | 26-08488-12 |
| 13 | 26-08488-13 |

26-08488-00  
set of 9 pieces

26-08488-03 to 26-08488-11

26-08490-00  
set of 9 pieces in canvas pocket





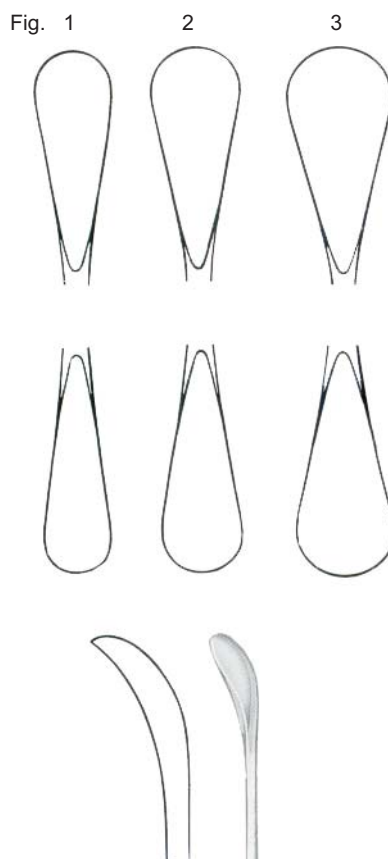


Fig.  
1 26-08508-01  
2 26-08508-02  
3 26-08508-03





**Young**  
26-08510-21  
21 cm/8 1/4"



**Young**  
26-08512-22  
22 cm/8 3/4"



**Young**  
26-08514-21  
21 cm/8 1/4"



**Young**  
26-08514-22  
22 cm/8 3/4"



**Millin**  
26-08516-23  
23 cm/9"



**Millin**  
26-08518-23  
23 cm/9"



**Millin**  
26-08520-23  
23 cm/9"



**Millin**  
26-08522-24  
24 cm/9½"



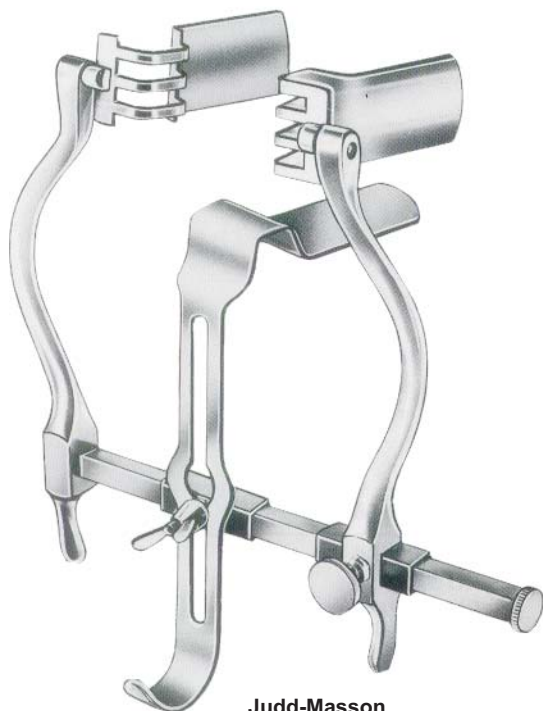
**Millin**  
26-08524-00



**Legueu**  
26-08528-00



**Judd-Masson**  
26-08532-00



**Judd-Masson**  
26-08536-00



**Thomson-Walker**  
26-08540-00



**Legueu**  
26-08544-27  
27 cm/10½"  
35 mm



**Kocher**  
26-08548-26  
26 cm/10¼"  
67 mm



| mm Ø                           | Charriere<br>(French) |
|--------------------------------|-----------------------|
| 2 <sup>2</sup> / <sub>3</sub>  | 8                     |
| 3                              | 9                     |
| 3 <sup>1</sup> / <sub>3</sub>  | 10                    |
| 3 <sup>2</sup> / <sub>3</sub>  | 11                    |
| 4                              | 12                    |
| 4 <sup>1</sup> / <sub>3</sub>  | 13                    |
| 4 <sup>2</sup> / <sub>3</sub>  | 14                    |
| 5                              | 15                    |
| 5 <sup>1</sup> / <sub>3</sub>  | 16                    |
| 5 <sup>2</sup> / <sub>3</sub>  | 17                    |
| 6                              | 18                    |
| 6 <sup>1</sup> / <sub>3</sub>  | 19                    |
| 6 <sup>2</sup> / <sub>3</sub>  | 20                    |
| 7                              | 21                    |
| 7 <sup>1</sup> / <sub>3</sub>  | 22                    |
| 7 <sup>2</sup> / <sub>3</sub>  | 23                    |
| 8                              | 24                    |
| 8 <sup>1</sup> / <sub>3</sub>  | 25                    |
| 8 <sup>2</sup> / <sub>3</sub>  | 26                    |
| 9                              | 27                    |
| 9 <sup>1</sup> / <sub>3</sub>  | 28                    |
| 9 <sup>2</sup> / <sub>3</sub>  | 29                    |
| 10                             | 30                    |
| 10 <sup>1</sup> / <sub>3</sub> | 32                    |
| 11 <sup>2</sup> / <sub>3</sub> | 34                    |
| 12                             | 36                    |



**Van Buren**  
Charriere (French)  
No. 8-36  
26-08552-08  
26-08552-36  
28 cm/11"  
In Canvas Pouch  
26-08552-50  
Set of 6  
6 Pcs. 26-08552-14/24  
26-08552-24  
  
26-08552-60  
Set of 12  
12 Pcs 26-08552-08/30  
26-08552-36

|             |
|-------------|
| 26-08552-08 |
| 26-08552-10 |
| 26-08552-12 |
| 26-08552-14 |
| 26-08552-16 |
| 26-08552-18 |
| 26-08552-20 |
| 26-08552-22 |
| 26-08552-24 |
| 26-08552-26 |
| 26-08552-28 |
| 26-08552-30 |
| 26-08552-32 |
| 26-08552-34 |
| 26-08552-36 |



**Dittel**  
Charriere (French)  
No. 8-30  
26-08554-08  
26-08554-30  
19.5 cm/7 1/2"

| Straight    |
|-------------|
| 26-08554-08 |
| 26-08554-09 |
| 26-08554-10 |
| 26-08554-11 |
| 26-08554-12 |
| 26-08554-13 |
| 26-08554-14 |
| 26-08554-15 |
| 26-08554-16 |
| 26-08554-17 |
| 26-08554-18 |
| 26-08554-19 |
| 26-08554-20 |
| 26-08554-21 |
| 26-08554-22 |
| 26-08554-23 |
| 26-08554-24 |
| 26-08554-25 |
| 26-08554-26 |
| 26-08554-27 |
| 26-08554-28 |
| 26-08554-29 |
| 26-08554-30 |



**Dittel**  
Charriere (French)  
No. 8-30  
26-08556-08  
26-08556-30  
34.5 cm/13 1/2"

| Curved      |
|-------------|
| 26-08556-08 |
| 26-08556-09 |
| 26-08556-10 |
| 26-08556-11 |
| 26-08556-12 |
| 26-08556-13 |
| 26-08556-14 |
| 26-08556-15 |
| 26-08556-16 |
| 26-08556-17 |
| 26-08556-18 |
| 26-08556-19 |
| 26-08556-20 |
| 26-08556-21 |
| 26-08556-22 |
| 26-08556-23 |
| 26-08556-24 |
| 26-08556-25 |
| 26-08556-26 |
| 26-08556-27 |
| 26-08556-28 |
| 26-08556-29 |
| 26-08556-30 |



For men



26-08560-06  
26-08560-24

|             | mm Ø            | Charriere<br>(French) |             |
|-------------|-----------------|-----------------------|-------------|
| 26-08560-06 | 2               | 6                     | 26-08562-06 |
| 26-08560-07 | 2 $\frac{1}{3}$ | 7                     | 26-08562-07 |
| 26-08560-08 | 2 $\frac{2}{3}$ | 8                     | 26-08562-08 |
| 26-08560-09 | 3               | 9                     | 26-08562-09 |
| 26-08560-10 | 3 $\frac{1}{3}$ | 10                    | 26-08562-10 |
| 26-08560-11 | 3 $\frac{2}{3}$ | 11                    | 26-08562-11 |
| 26-08560-12 | 4               | 12                    | 26-08562-12 |
| 26-08560-13 | 4 $\frac{1}{3}$ | 13                    | 26-08562-13 |
| 26-08560-14 | 4 $\frac{2}{3}$ | 14                    | 26-08562-14 |
| 26-08560-15 | 5               | 15                    | 26-08562-15 |
| 26-08560-16 | 5 $\frac{1}{3}$ | 16                    | 26-08562-16 |
| 26-08560-17 | 5 $\frac{2}{3}$ | 17                    | 26-08562-17 |
| 26-08560-18 | 6               | 18                    | 26-08562-18 |
| 26-08560-19 | 6 $\frac{1}{3}$ | 19                    | 26-08562-19 |
| 26-08560-20 | 6 $\frac{2}{3}$ | 20                    | 26-08562-20 |
| 26-08560-21 | 7               | 21                    | 26-08562-21 |
| 26-08560-22 | 7 $\frac{1}{3}$ | 22                    | 26-08562-22 |
| 26-08560-23 | 7 $\frac{2}{3}$ | 23                    | 26-08562-23 |
| 26-08560-24 | 8               | 24                    | 26-08562-24 |

For Women



Catheter Introducing Instruments



**Guyon**  
26-08566-39  
39 cm/15 $\frac{1}{2}$ "

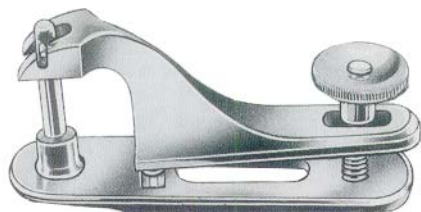


**Guyon**  
26-08568-35  
35 cm/13 $\frac{3}{4}$ "



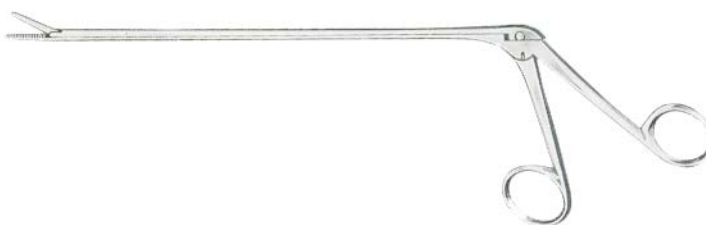


Circumcision Instruments



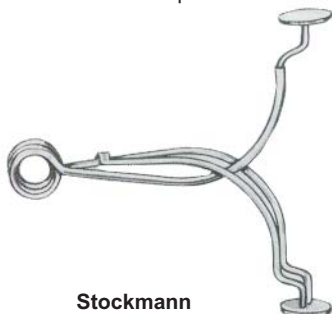
|             |       |
|-------------|-------|
| 26-08572-08 | 08 mm |
| 26-08572-11 | 11 mm |
| 26-08572-13 | 13 mm |
| 26-08572-16 | 16 mm |
| 26-08572-21 | 21 mm |
| 26-08572-26 | 26 mm |
| 26-08572-32 | 32 mm |

Foreign Body Forceps

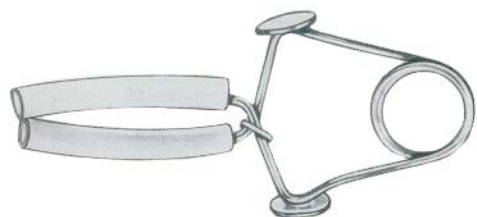


**Mathieu**  
26-08584-20

Penis Clamps



**Stockmann**  
26-08576-00



**Strauss**  
26-08580-00

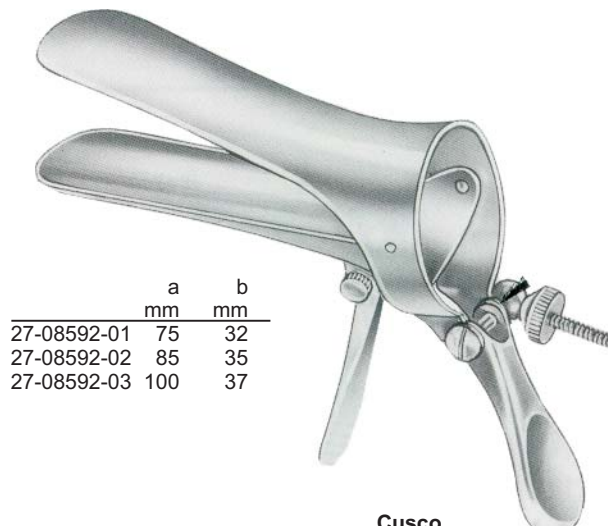
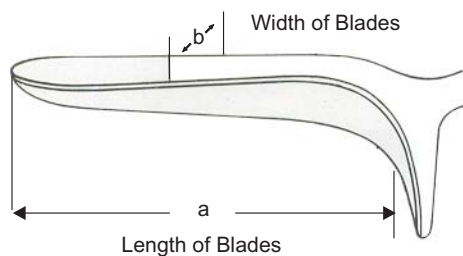
Secretion Scoop



**Guttman**  
26-08588-26  
26.5 cm/10½"

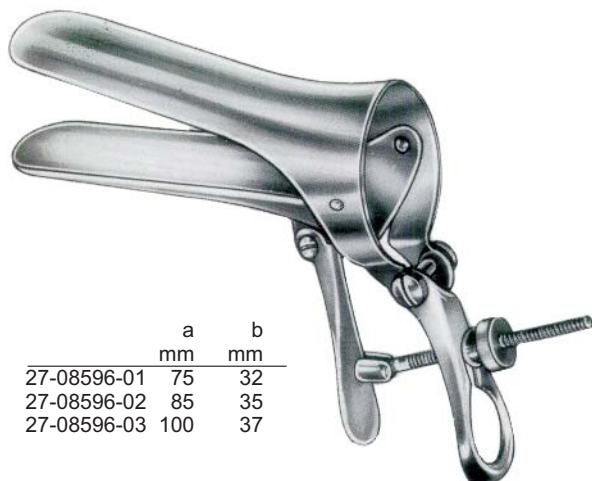


Scheme of Dimensions for Specula



|             | a<br>mm | b<br>mm |
|-------------|---------|---------|
| 27-08592-01 | 75      | 32      |
| 27-08592-02 | 85      | 35      |
| 27-08592-03 | 100     | 37      |

**Cusco**



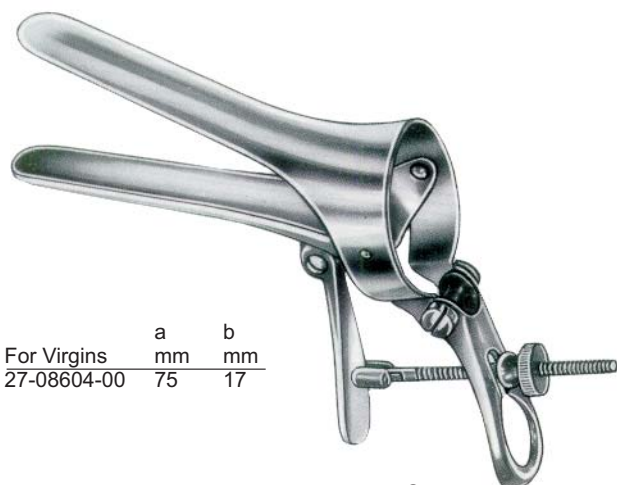
|             | a<br>mm | b<br>mm |
|-------------|---------|---------|
| 27-08596-01 | 75      | 32      |
| 27-08596-02 | 85      | 35      |
| 27-08596-03 | 100     | 37      |

**Cusco**



| For Virgins | a<br>mm | b<br>mm |
|-------------|---------|---------|
| 27-08600-00 | 75      | 17      |

**Cusco**



| For Virgins | a<br>mm | b<br>mm |
|-------------|---------|---------|
| 27-08604-00 | 75      | 17      |

**Cusco**



|             | a<br>mm | b<br>mm |
|-------------|---------|---------|
| 27-08608-01 | 90      | 23-25   |
| 27-08608-02 | 100     | 25-27   |
| 27-08608-03 | 110     | 27-30   |

**Cusco**  
Swiss Pattern



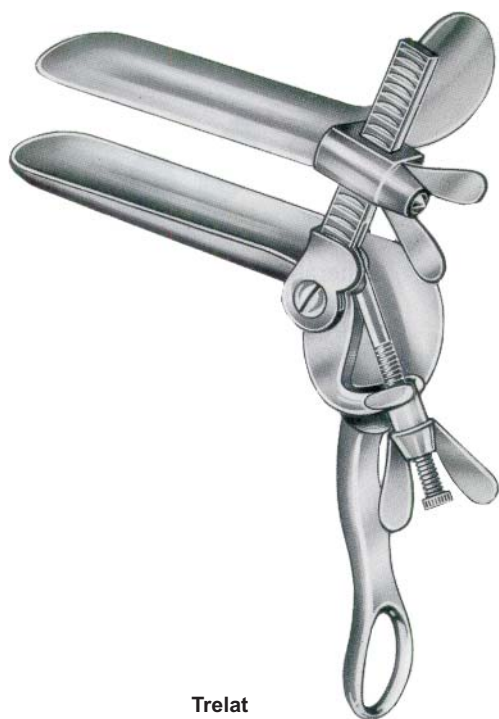
**Collin-Landau**

|             | a<br>mm | b<br>mm |
|-------------|---------|---------|
| 27-08612-01 | 85      | 30      |
| 27-08612-02 | 100     | 35      |
| 27-08612-03 | 110     | 40      |



**Collin**

|             | a<br>mm | b<br>mm |
|-------------|---------|---------|
| 27-08616-01 | 85      | 30      |
| 27-08616-02 | 100     | 35      |
| 27-08616-03 | 110     | 40      |



**Trelat**

|             | a<br>mm | b<br>mm |
|-------------|---------|---------|
| 27-08620-01 | 85      | 33      |
| 27-08620-02 | 95      | 35      |
| 27-08620-03 | 115     | 43      |



**Grave (Standard)**

|             | a<br>mm | b<br>mm |
|-------------|---------|---------|
| 27-08624-01 | 75      | 20      |
| 27-08624-02 | 95      | 30      |
| 27-08624-03 | 115     | 35      |
| 27-08624-04 | 125     | 35      |



Insulated

Black



| Grave       | a<br>mm | b<br>mm |
|-------------|---------|---------|
| 27-08628-01 | 75      | 20      |
| 27-08628-02 | 95      | 30      |
| 27-08628-03 | 115     | 35      |



| Grave<br>Angled 135° | a<br>mm | b<br>mm |
|----------------------|---------|---------|
| 27-08632-00          | 101     | 35      |



Grave  
Right Side open

Grave  
Right Side open Angled

|             | a<br>mm | b<br>mm |
|-------------|---------|---------|
| 27-08636-01 | 101     | 35      |
| 27-08636-02 |         |         |

Lateral Specula

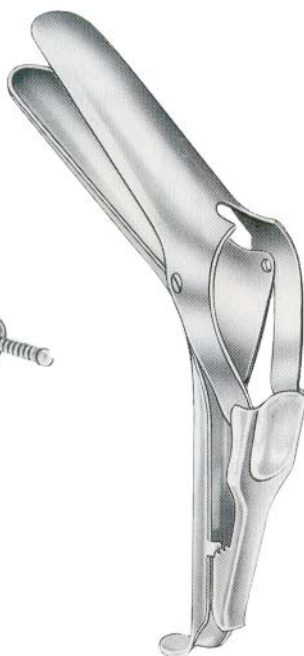


27-08640-00



**Pederson**

|             | a<br>mm | b<br>mm |
|-------------|---------|---------|
| 27-08644-01 | 75      | 13      |
| 27-08644-02 | 100     | 22      |
| 27-08644-03 | 120     | 25      |



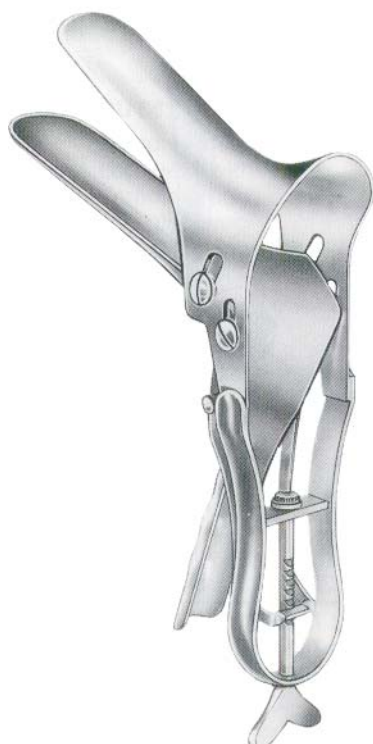
**Semm**

|             | a<br>mm | b<br>mm |
|-------------|---------|---------|
| 27-08648-01 | 90      | 14/18   |
| 27-08648-02 | 100     | 17/20   |
| 27-08648-03 | 100     | 25/30   |



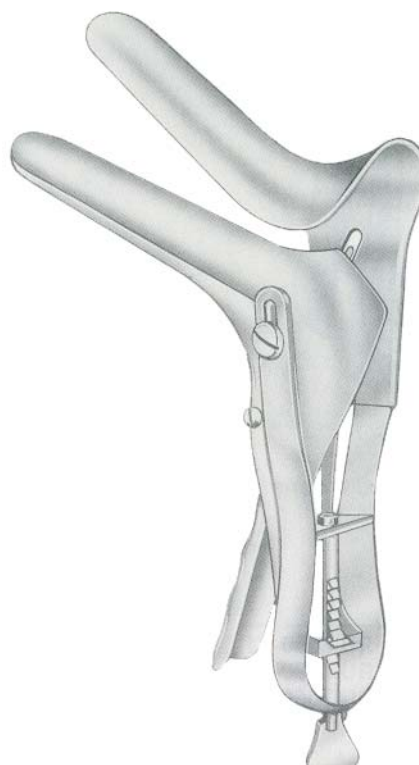
**Nott**

|             | a<br>mm | b<br>mm |
|-------------|---------|---------|
| 27-08652-01 | 90      | 30      |
| 27-08652-02 | 110     | 30      |



**Seyffert**

|             | a<br>mm | b<br>mm |
|-------------|---------|---------|
| 27-08656-01 | 100     | 17      |
| 27-08656-02 | 110     | 33      |



**Seyffert**

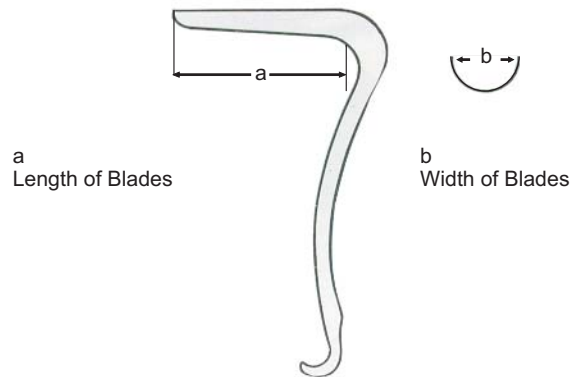
|             | a<br>mm | b<br>mm |
|-------------|---------|---------|
| 27-08658-02 | 110     | 33      |

One Side open





Scheme of Dimensions for Specula



**Sims**

|             |            |
|-------------|------------|
| 27-08662-01 | 63 x 32 mm |
| 27-08662-02 | 76 x 32 mm |
| 27-08662-03 | 89 x 38 mm |



**Sims**

|             | Fig | a<br>mm | b<br>mm |
|-------------|-----|---------|---------|
| 27-08666-01 | 1   | 60      | 25+30   |
| 27-08666-02 | 2   | 70      | 30+35   |
| 27-08666-03 | 3   | 80      | 35+40   |



**Jackson**

|             | Fig. | a<br>mm  | b<br>mm |
|-------------|------|----------|---------|
| 27-08670-01 | 1    | 75 X 40  |         |
| 27-08670-02 | 2    | 90 X 40  |         |
| 27-08670-03 | 3    | 100 X 40 |         |

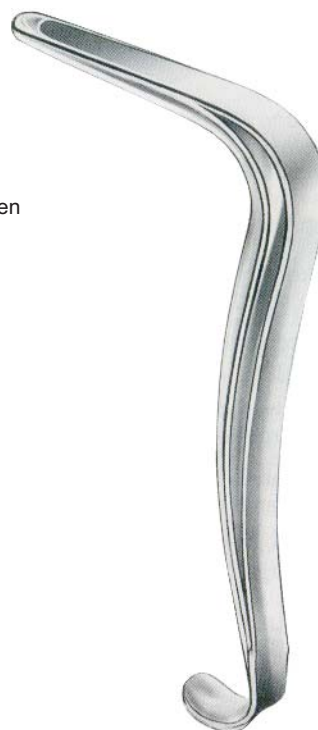




**Eastman**

|             | Fig. | a<br>mm | b<br>mm |
|-------------|------|---------|---------|
| 27-08674-01 | 1    | 76      | 38      |
| 27-08674-02 | 2    | 89      | 38      |
| 27-08674-03 | 3    | 101     | 38      |

For children



Set

**Kristeller**  
27-08678-00  
70x15 mm



Specula

Retractor

**Kristeller**  
(Standard)

Set of 1 specula and 1 retractor

Fig. 1 27-08682-00

Fig. 2 27-08684-00

Fig. 3 27-08686-00

Specula

|             | Fig. | a<br>mm | b<br>mm |
|-------------|------|---------|---------|
| 27-08682-01 | 1    | 70      | 27      |
| 27-07684-01 | 2    | 75      | 30      |
| 27-07686-01 | 3    | 90      | 36      |

Retractors

|             | Fig. | a<br>mm | b<br>mm |
|-------------|------|---------|---------|
| 27-08682-02 | 1    | 75      | 23      |
| 27-07684-02 | 2    | 80      | 26      |
| 27-07686-02 | 3    | 95      | 32      |



With conically shaped  
blades for virgins

**Kristeller**

Set of 1 specula and 1 retractor

Fig. 00 27-08690-00

Fig. 0 27-08692-00

Specula

|             | Fig. | a   | b  |
|-------------|------|-----|----|
|             |      | mm  | mm |
| 27-08690-01 | 00   | 110 | 18 |
| 27-08692-01 | 0    | 110 | 21 |

Retractors

|             | Fig. | a   | b  |
|-------------|------|-----|----|
|             |      | mm  | mm |
| 27-08690-02 | 00   | 115 | 14 |
| 27-08692-02 | 0    | 115 | 17 |



With extra long blades

**Kristeller  
(Standard)**

Set of 1 specula and 1 retractor

Fig. 1 27-08696-00

Fig. 2 27-08698-00

Fig. 3 27-08700-00

Specula

|             | Fig. | a   | b  |
|-------------|------|-----|----|
|             |      | mm  | mm |
| 27-08696-01 | 1    | 110 | 27 |
| 27-08698-01 | 2    | 110 | 30 |
| 27-08700-01 | 3    | 110 | 36 |

Retractors

|             | Fig. | a   | b  |
|-------------|------|-----|----|
|             |      | mm  | mm |
| 27-08696-02 | 1    | 115 | 23 |
| 27-08698-02 | 2    | 115 | 26 |
| 27-08700-02 | 3    | 115 | 32 |



With flat hollow specula

**Kristeller**

Set of 1 specula and 1 retractor

Fig. 1 27-08704-00

Fig. 2 27-08706-00

Fig. 3 27-08708-00

Specula

|             | Fig. | a   | b  |
|-------------|------|-----|----|
|             |      | mm  | mm |
| 27-08704-01 | 1    | 110 | 27 |
| 27-08706-01 | 2    | 110 | 30 |
| 27-08708-01 | 3    | 110 | 36 |

Retractors

|             | Fig. | a   | b  |
|-------------|------|-----|----|
|             |      | mm  | mm |
| 27-08704-02 | 1    | 115 | 23 |
| 27-08706-02 | 2    | 115 | 26 |
| 27-08708-02 | 3    | 115 | 32 |

|             | a   | b  |
|-------------|-----|----|
|             | mm  | mm |
| 27-08712-20 | 100 | 20 |
| 27-08712-25 | 100 | 25 |
| 27-08712-30 | 100 | 30 |
| 27-08712-35 | 100 | 35 |
| 27-08712-40 | 100 | 40 |
| 27-08714-20 | 130 | 20 |
| 27-08714-25 | 130 | 25 |
| 27-08714-30 | 130 | 30 |
| 27-08714-35 | 130 | 35 |
| 27-08714-40 | 130 | 40 |



**Matzenauer**



**Braun**  
27-08718-18  
18 cm/7"  
56x13 mm



**Braun**  
27-08722-18  
18 cm/7"  
60x10 mm



**Ulrich**  
27-08726-19  
19.5 cm/7½"  
80x20 mm



27-08730-19  
19 cm/7½"  
85x17 mm



Set

27-08734-00 Fig. 1  
27-08736-00 Fig. 2

Specula

|             | Fig. | a  | b  |
|-------------|------|----|----|
|             |      | mm | mm |
| 27-08734-01 | 1    | 70 | 40 |
| 27-08736-01 | 2    | 90 | 40 |

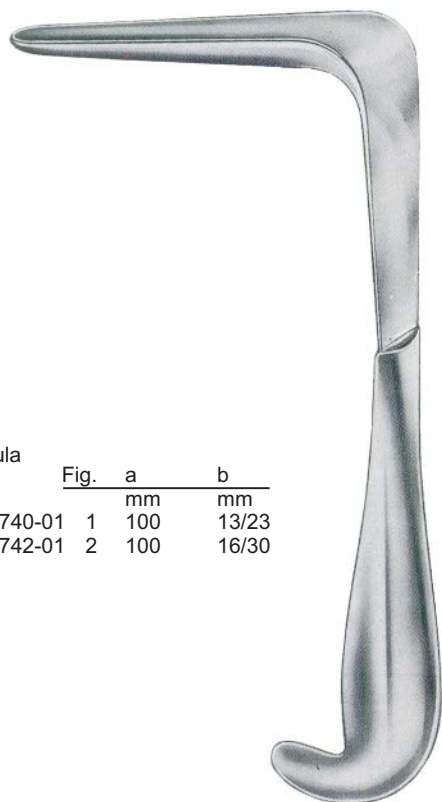
Retractors

|             | Fig. | a  | b  |
|-------------|------|----|----|
|             |      | mm | mm |
| 27-08734-02 | 1    | 70 | 33 |
| 27-08736-02 | 2    | 90 | 33 |



Specula

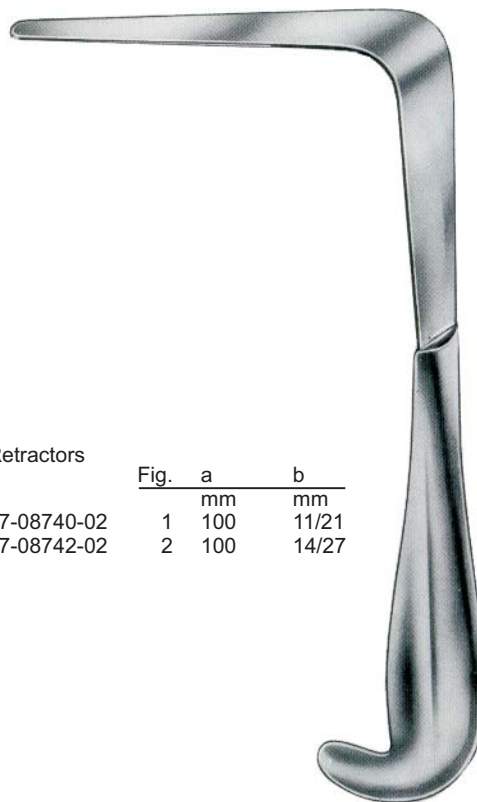
|             | Fig. | a   | b     |
|-------------|------|-----|-------|
|             |      | mm  | mm    |
| 27-08740-01 | 1    | 100 | 13/23 |
| 27-08742-01 | 2    | 100 | 16/30 |



**Mathieu**

Retractors

|             | Fig. | a   | b     |
|-------------|------|-----|-------|
|             |      | mm  | mm    |
| 27-08740-02 | 1    | 100 | 11/21 |
| 27-08742-02 | 2    | 100 | 14/27 |



**Mathieu**

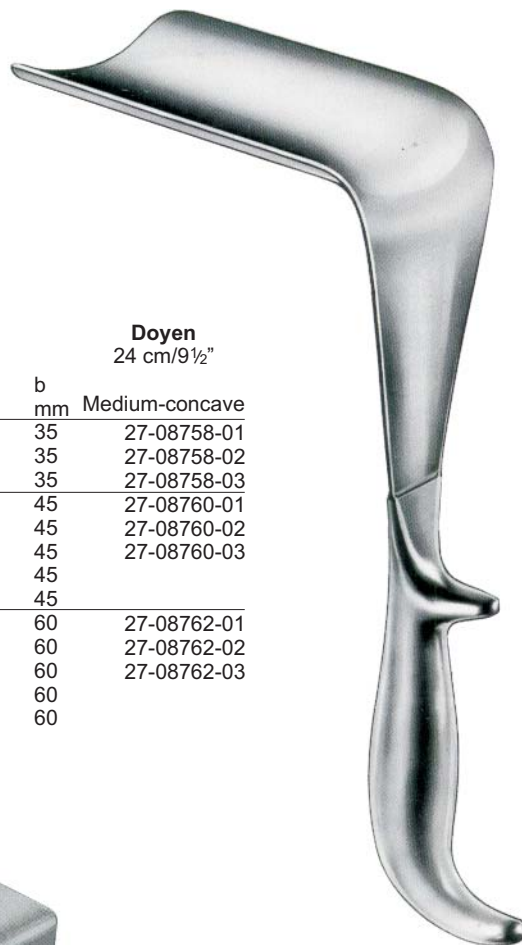
Set

Fig. 1 27-08740-00  
Fig. 2 27-08742-00



**Doyen**

|             | Fig. | a   | b  |
|-------------|------|-----|----|
|             |      | mm  | mm |
| 27-08746-01 | 1    | 75  | 45 |
| 27-08746-02 | 2    | 90  | 45 |
| 27-08746-03 | 3    | 110 | 45 |



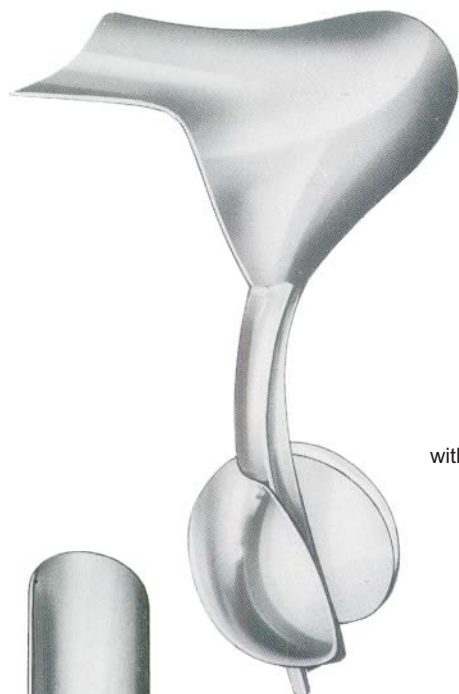
| Doyen<br>24 cm/9½" |      |         |         | Doyen<br>24 cm/9½" |  |
|--------------------|------|---------|---------|--------------------|--|
| slightly-concave   | Fig. | a<br>mm | b<br>mm | Medium-concave     |  |
| 27-08750-01        | 1    | 55      | 35      | 27-08758-01        |  |
| 27-08750-02        | 2    | 85      | 35      | 27-08758-02        |  |
| 27-08750-03        | 3    | 115     | 35      | 27-08758-03        |  |
| 27-08752-01        | 1    | 55      | 45      | 27-08760-01        |  |
| 27-08752-02        | 2    | 85      | 45      | 27-08760-02        |  |
| 27-08752-03        | 3    | 115     | 45      | 27-08760-03        |  |
| 27-08752-04        | 4    | 160     | 45      |                    |  |
| 27-08752-05        | 5    | 180     | 45      |                    |  |
| 27-08754-01        | 1    | 55      | 60      | 27-08762-01        |  |
| 27-08754-02        | 2    | 85      | 60      | 27-08762-02        |  |
| 27-08754-03        | 3    | 115     | 60      | 27-08762-03        |  |
| 27-08754-04        | 4    | 160     | 60      |                    |  |
| 27-08754-05        | 5    | 180     | 60      |                    |  |



**Doyen**  
25 cm/10"

|             | a<br>mm | b<br>mm |
|-------------|---------|---------|
| 27-08766-01 | 60      | 30      |
| 27-08766-02 | 70      | 30      |
| 27-08766-03 | 80      | 30      |





**Auvard**  
with removable weight  
27-08770-01  
80x38 mm  
27-08770-02  
105x42 mm



**Auvard**  
with fixed weight  
27-08772-01  
70x38 mm  
27-08772-02  
102x45 mm



**Landau**

|             | a<br>mm | b<br>mm |
|-------------|---------|---------|
| 27-08776-01 | 100     | 28      |
| 27-08776-02 | 100     | 38      |



**Breisky**

|             | a<br>mm | b<br>mm |
|-------------|---------|---------|
| 27-08780-20 | 100     | 20      |
| 27-08780-25 | 100     | 25      |
| 27-08780-30 | 100     | 30      |
| 27-08780-35 | 100     | 35      |
| 27-08780-40 | 100     | 40      |
| 27-08782-20 | 130     | 20      |
| 27-08782-25 | 130     | 25      |
| 27-08782-30 | 130     | 30      |
| 27-08782-35 | 130     | 35      |
| 27-08782-40 | 130     | 40      |
| 27-08784-20 | 160     | 20      |
| 27-08784-25 | 160     | 25      |
| 27-08784-30 | 160     | 30      |
| 27-08784-35 | 160     | 35      |
| 27-08784-40 | 160     | 40      |
| 27-08786-20 | 180     | 20      |
| 27-08786-25 | 180     | 25      |
| 27-08786-30 | 180     | 30      |
| 27-08786-35 | 180     | 35      |
| 27-08786-40 | 180     | 40      |



**Scherbak**  
27-08790-00

Complete



27-08790-01  
80x30 mm



27-08790-02  
85x35 mm



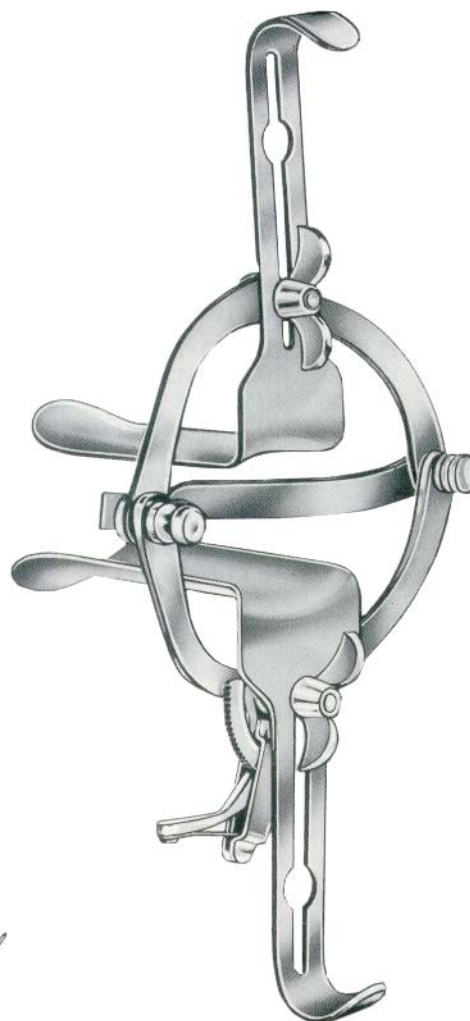
27-08790-03  
90x40 mm



27-08790-04  
55x40/60 mm



27-08790-05  
70x45/70 mm



**O'Sullivan-O'Connor**  
27-08794-00  
Complete

|             | Fig. | a<br>mm | b<br>mm |
|-------------|------|---------|---------|
| 27-08794-01 | 1    | 45      | 17      |
| 27-08794-02 | 2    | 90      | 37      |
| 27-08794-03 | 3    | 90      | 45      |



Hegar

| mmØ  |             | mmØ  |             |
|------|-------------|------|-------------|
| 1.0  | 27-08798-01 | 1.5  | 27-08800-01 |
| 2.0  | 27-08798-02 | 2.5  | 27-08800-02 |
| 3.0  | 27-08798-03 | 3.5  | 27-08800-03 |
| 4.0  | 27-08798-04 | 4.5  | 27-08800-04 |
| 5.0  | 27-08798-05 | 5.5  | 27-08800-05 |
| 6.0  | 27-08798-06 | 6.5  | 27-08800-06 |
| 7.0  | 27-08798-07 | 7.5  | 27-08800-07 |
| 8.0  | 27-08798-08 | 8.5  | 27-08800-08 |
| 9.0  | 27-08798-09 | 9.5  | 27-08800-09 |
| 10.0 | 27-08798-10 | 10.5 | 27-08800-10 |
| 11.0 | 27-08798-11 | 11.5 | 27-08800-11 |
| 12.0 | 27-08798-12 | 12.5 | 27-08800-12 |
| 13.0 | 27-08798-13 | 13.5 | 27-08800-13 |
| 14.0 | 27-08798-14 | 14.5 | 27-08800-14 |
| 15.0 | 27-08798-15 | 15.5 | 27-08800-15 |
| 16.0 | 27-08798-16 | 16.5 | 27-08800-16 |
| 17.0 | 27-08798-17 | 17.5 | 27-08800-17 |
| 18.0 | 27-08798-18 | 18.5 | 27-08800-18 |
| 19.0 | 27-08798-19 | 19.5 | 27-08800-19 |
| 20.0 | 27-08798-20 |      |             |
| 21.0 | 27-08798-21 |      |             |
| 22.0 | 27-08798-22 |      |             |
| 23.0 | 27-08798-23 |      |             |
| 24.0 | 27-08798-24 |      |             |
| 25.0 | 27-08798-25 |      |             |
| 26.0 | 27-08798-26 |      |             |
| 27.0 | 27-08798-27 |      |             |
| 28.0 | 27-08798-28 |      |             |
| 29.0 | 27-08798-29 |      |             |
| 30.0 | 27-08798-30 |      |             |

| Pieces per set |    | set         |
|----------------|----|-------------|
| 27-08798-50    | 14 | 4.0-17.0 mm |
| 27-08798-60    | 26 | 1.0-26.0 mm |



Hegar

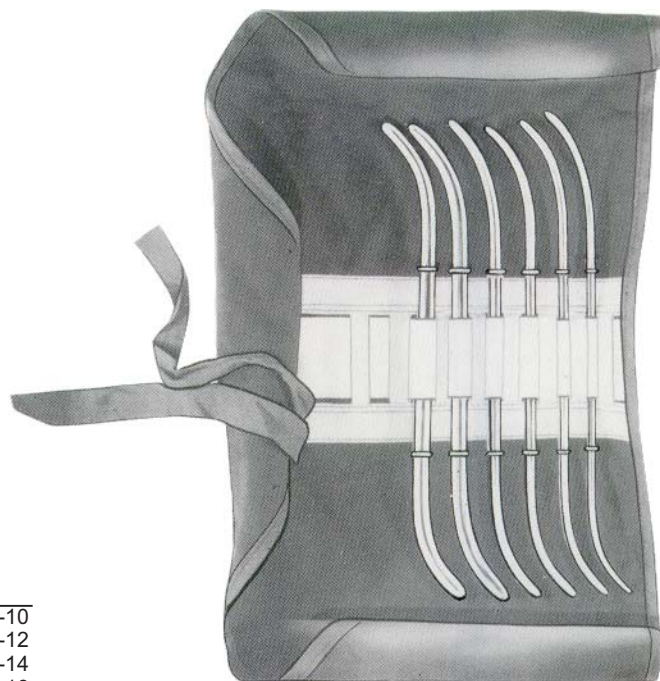
| Ø mm      |             |
|-----------|-------------|
| 1.0/2.0   | 27-08804-02 |
| 3.0/4.0   | 27-08804-04 |
| 5.0/6.0   | 27-08804-06 |
| 7.0/8.0   | 27-08804-08 |
| 9.0/10.0  | 27-08804-10 |
| 11.0/12.0 | 27-08804-12 |
| 13.0/14.0 | 27-08804-14 |
| 15.0/16.0 | 27-08804-16 |
| 17.0/18.0 | 27-08804-18 |
| 19.0/20.0 | 27-08804-20 |
| 21.0/22.0 | 27-08804-22 |
| 23.0/24.0 | 27-08804-24 |
| 25.0/26.0 | 27-08804-26 |

| Pieces per set |    | set                  |
|----------------|----|----------------------|
| 27-08804-00    | 08 | 3.0/4.0-17.0/18.0 mm |
| 27-08806-00    | 13 | 1.0/2.0-25.0/26.0 mm |



**Hank**  
27-08810-00

| Fig.  | mm     |             |
|-------|--------|-------------|
| 9/10  | 4.5/5  | 27-08810-10 |
| 11/12 | 5.5/6  | 27-08810-12 |
| 13/14 | 6.5/7  | 27-08810-14 |
| 15/16 | 7.5/8  | 27-08810-16 |
| 17/18 | 8.5/9  | 27-08810-18 |
| 19/20 | 9.5/10 | 27-08810-20 |

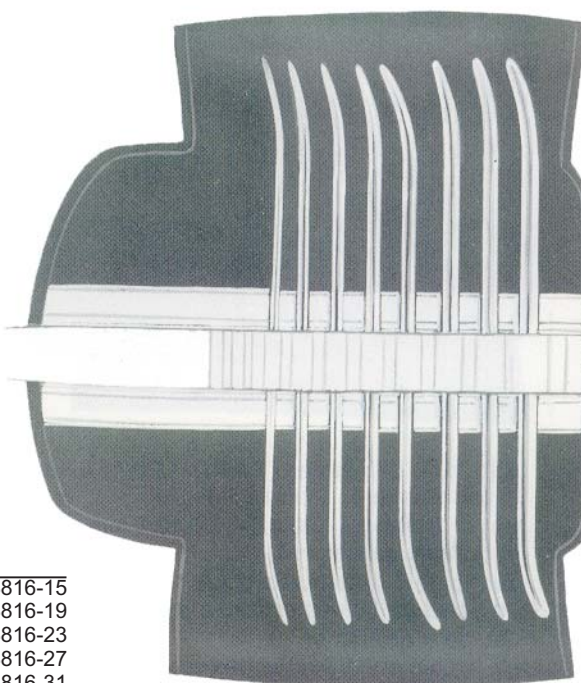


**Set**  
27-08810-00



**Pratt**

| Fig.  | mm        |             |
|-------|-----------|-------------|
| 13/15 | 4.5/5.0   | 27-08816-15 |
| 17/19 | 5.6/6.3   | 27-08816-19 |
| 21/23 | 7.0/7.6   | 27-08816-23 |
| 25/27 | 8.3/9.0   | 27-08816-27 |
| 29/31 | 9.6/10.3  | 27-08816-31 |
| 33/35 | 11.0/11.6 | 27-08816-35 |
| 37/39 | 12.3/13.0 | 27-08816-39 |
| 41/43 | 13.6/14.3 | 27-08816-43 |



**Set**  
27-08816-00



**Goodell**  
27-08820-34  
34 cm/13½"

Black Insulated



**Kogan-Laser**  
28 cm/11"



27-08822-28



27-08824-28



27-08826-28  
28 cm/11"



**Kogan**  
27-08830-24  
24 cm/9½"



**Kogan**  
27-08832-24  
24 cm/9½"



**Kogan**  
28 cm/11"



27-08836-28



27-08838-28





Uterine Depressor



**Sims**  
32 cm/12½"



**Martin (Simpson)**  
32 cm/12½"



**Valleix**  
27-08858-25  
25 cm/10"



**Collin**  
27-08862-28  
28 cm/11"



**Braun**  
27-08866-28  
28 cm/11"

|       |             |             |
|-------|-------------|-------------|
| Rigid | cm          | cm          |
|       | 27-08842-32 | 27-08850-32 |

|           |                            |                            |
|-----------|----------------------------|----------------------------|
| Malleable | cm / in                    | cm / in                    |
|           | 27-08844-32<br>27-08846-32 | 27-08852-32<br>27-08854-32 |





**Laser Probes**



27-08870-01



90°

27-08870-02



45°

27-08870-03



20°

**Measuring Probe**

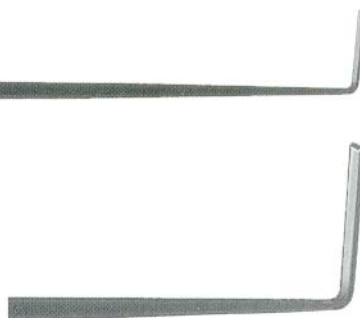


27-08872-01

**Laser Probe**



27-08874-01



90°

27-08874-02



45°

27-08874-03



20°

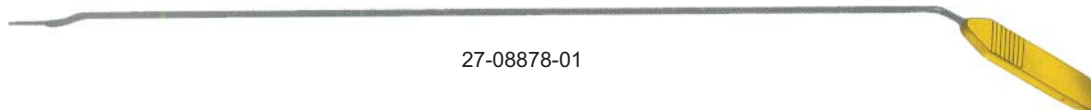
**Depth Ruler**



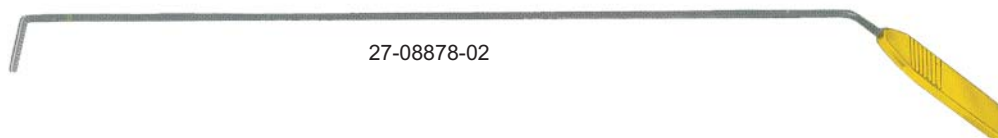
27-08876-01



**Measuring Instruments**



27-08878-01



27-08878-02

**Hooks**



27-08880-01



27-08880-02 **Emmet**



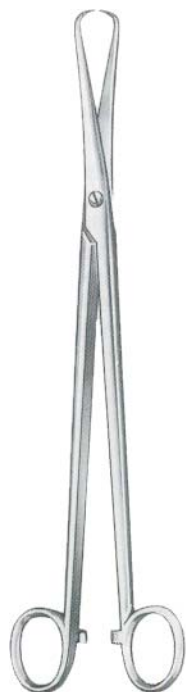
27-08880-03



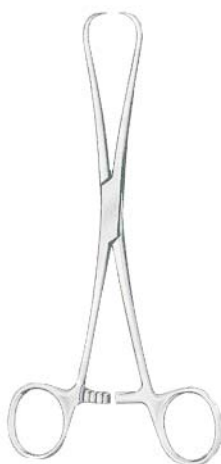
27-08882-01



27-08882-02



**Martin**  
27-08886-27  
27 cm/10½"



**Staude-Moore**  
27-08890-17  
17 cm/6¾"



**Barrett**  
27-08894-18  
18 cm/7"



**Schroeder**  
27-08898-25  
25 cm/10"



**Braun**  
27-08902-25  
25 cm/10"



**Collin-Pozzi**  
27-08906-25  
25 cm/10"



**Pozzi**  
27-08910-25  
25.5 cm/10¼"



**Duplay**  
27-08914-28  
28 cm/11"

Strong Pattern



**Skene**  
27-08918-24  
24 cm/9½"



Amniotome for the amnion Bladder

**Beacham**  
27-08922-26  
26 cm/10¼"



**Czerny**  
27-08926-20  
20.5 cm/8¼"



27-08930-26  
26 cm/10¼"



**Schroeder**  
27-08934-20 20 cm/8"  
27-08934-24 24 cm/9½"

Straight



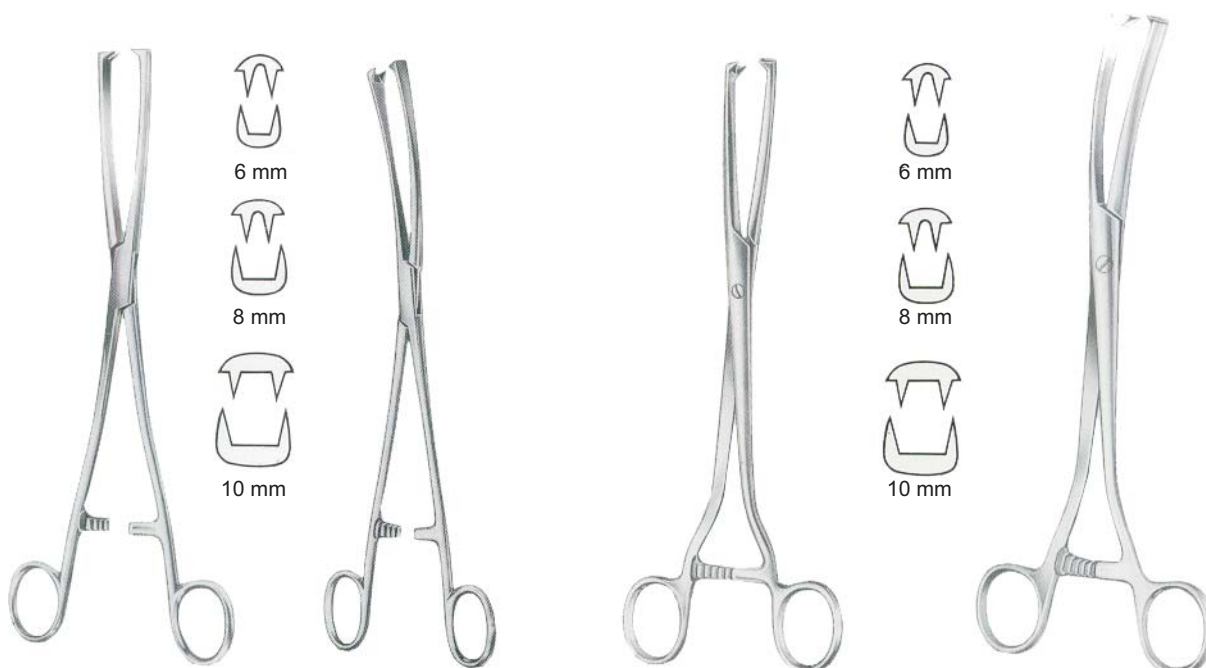
**Schroeder**  
27-08936-20  
27-08936-24

Curved on Flat



**Schroeder**  
27-08938-20  
27-08938-24

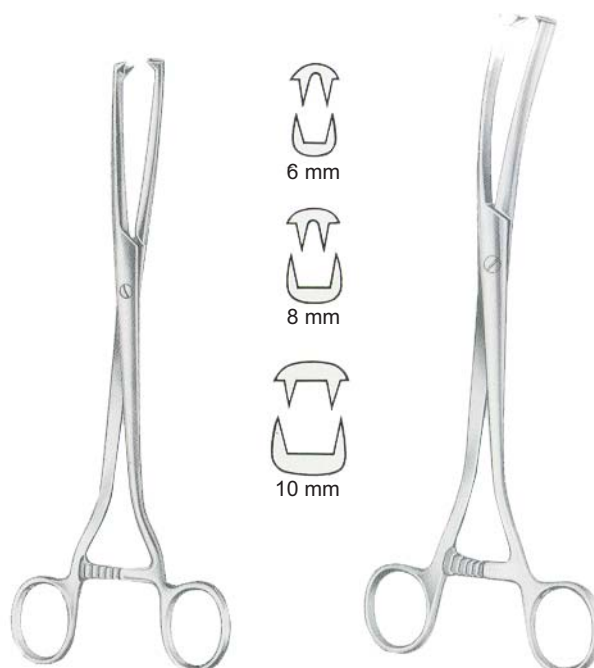
Curved Sideway



**Straight**  
27-08942-06  
27-08942-08  
27-08942-10

**Museux**  
24 cm/9½"  
06 mm  
08 mm  
10 mm

**Curved Sideway**  
27-08944-06  
27-08944-08  
27-08944-10



**Straight**  
27-08948-06  
27-08948-08  
27-08948-10

**Museux**  
24 cm/9½"  
06 mm  
08 mm  
10 mm

**Curved Sideway**  
27-08952-06  
27-08952-08  
27-08952-10



**Braun**  
27-08956-16  
16 cm/6¼"



**Pratt**  
27-08960-28  
28 cm/11"



**Teale**  
27-08964-24  
24 cm/9½"



**Iowa**  
27-08968-26  
26 cm/10¼"



**Jacobs**  
Straight 27-08972-21 21 cm/8¼"  
Curved Sideway 27-08974-21

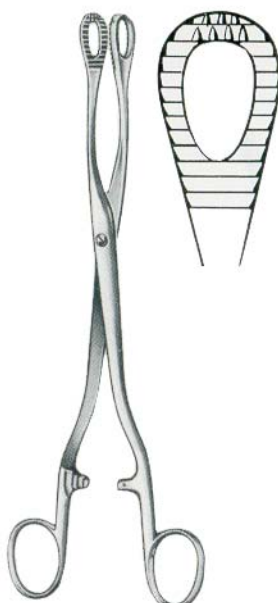
For the amnion Bladder



**Kelly**  
27-08978-32  
32 cm/12½"



**Heywood-Smith**  
27-08982-20  
20 cm/8"



**Heywood-Smith**  
27-08986-25  
25 cm/10"



**Noto**  
27-08990-27  
27 cm/10½"





**Dartigues**  
27-08994-27  
27 cm/10½"



**Somer**  
27-08998-23  
23 cm/9"



**Collin**  
27-09002-25  
25 cm/10"



**Doyen**  
27-09006-18 18 cm/7"  
27-09006-20 20 cm/8"

Ovarian Forceps



**Ayre**  
27-09010-23  
23 cm/9"



**Simon**  
27-09014-22  
22 cm/8¾"



**Simon**  
27-09016-22  
22 cm/8¾"



**Emmet**  
22 cm/8¾"



27-09020-01



27-09020-02



27-09020-03



27-09020-04



27-09020-05



**Doyen**  
27-09024-17  
17 cm/6¾"



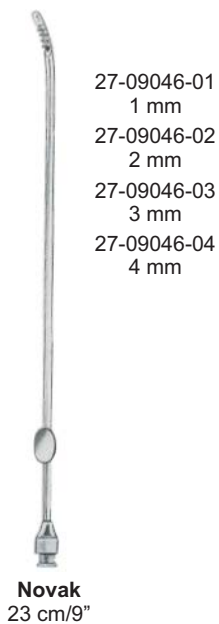
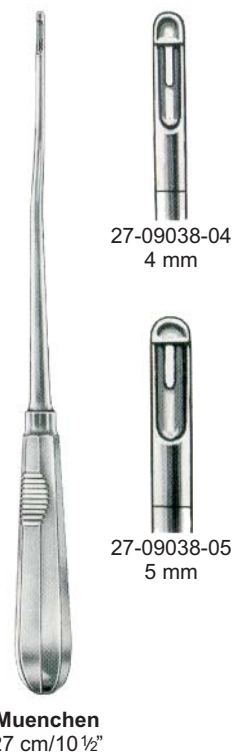
**Doyen**  
27-09026-17  
17 cm/6¾"



**Segond**  
27-09030-27  
27 cm/10½"



Secretion Spoon





**Kevorkian**  
27-09054-30  
30 cm/12"

malleable  
27-09056-30  
30 cm/12"



**Kevorkian**  
27-09060-30  
30 cm/12"

malleable  
27-09062-30  
30 cm/12"



**Townsend**  
27-09066-30  
31 cm/12¼"

malleable  
27-09068-30  
31 cm/12¼"



**Duncan**  
27-09072-31  
31 cm/12¼"



**Duncan**  
27-09074-31  
31 cm/12¼"



**Gellhorn**  
27-09078-23  
23 cm/9"



**Thoms-Gaylor**  
27-09082-24  
24 cm/9½"



**Schubert**  
27-09086-21 21 cm/8¼"  
27-09086-29 29 cm/11¼"



**Schubert**  
27-09090-26  
26 cm/10¼"



**Tischler**  
27-09094-27  
27 cm/10½"



**Van Doren**  
27-09098-25  
25 cm/10"

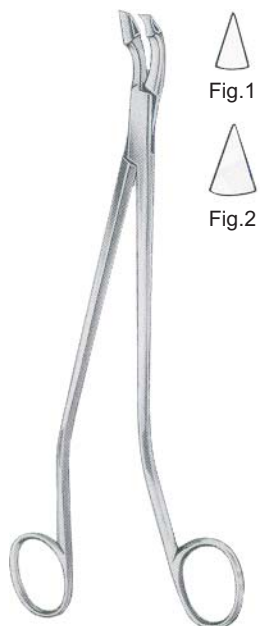
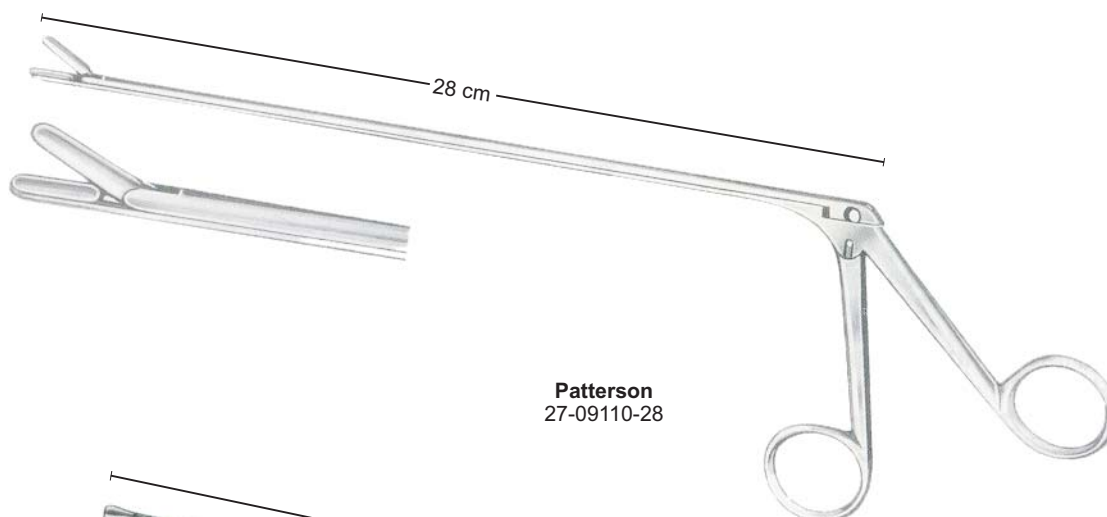


Fig.1  
Fig.2

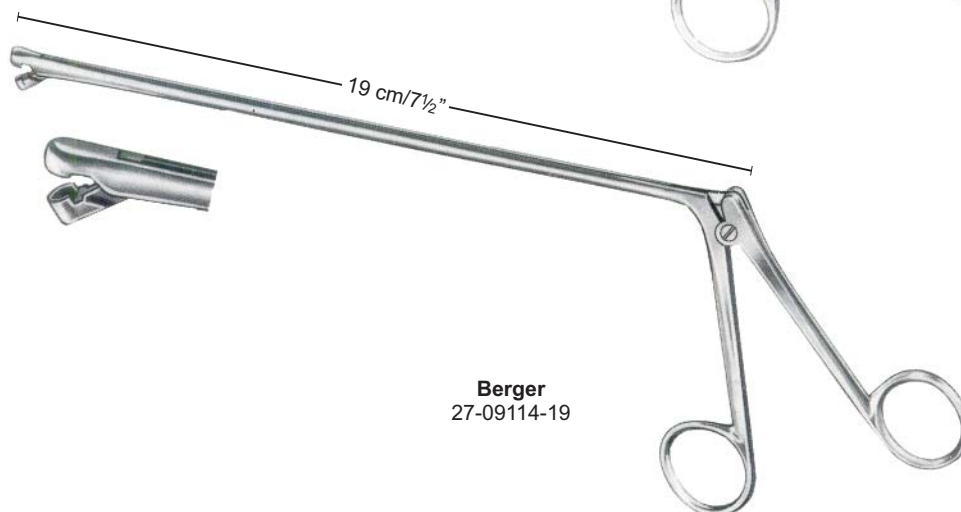
**Schumacher**  
Fig. 1 27-09102-01 24 cm/9½"  
Fig. 2 27-09102-02 24 cm/9½"



**Faure**  
27-09106-21  
21 cm/8¼"



**Patterson**  
27-09110-28

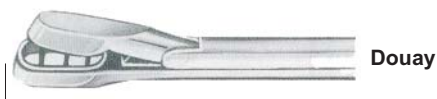


**Berger**  
27-09114-19





27-09118-20 L = 20 cm/8"  
27-09118-25 L = 25 cm/10"  
27-09118-30 L = 30 cm/12"  
27-09118-35 L = 35 cm/14"  
27-09118-40 L = 40 cm/16"



**Douay**

L = 24 cm/9½"



**Schumacher**

27-09124-04  
4 mm

27-09124-06  
6 mm

L = 24 cm/9½"



**Kevorkian**

27-09128-24

L = 20 cm/8"



**Eppendorf**

27-09122-20

L = 23 cm/9"



**Wittner**

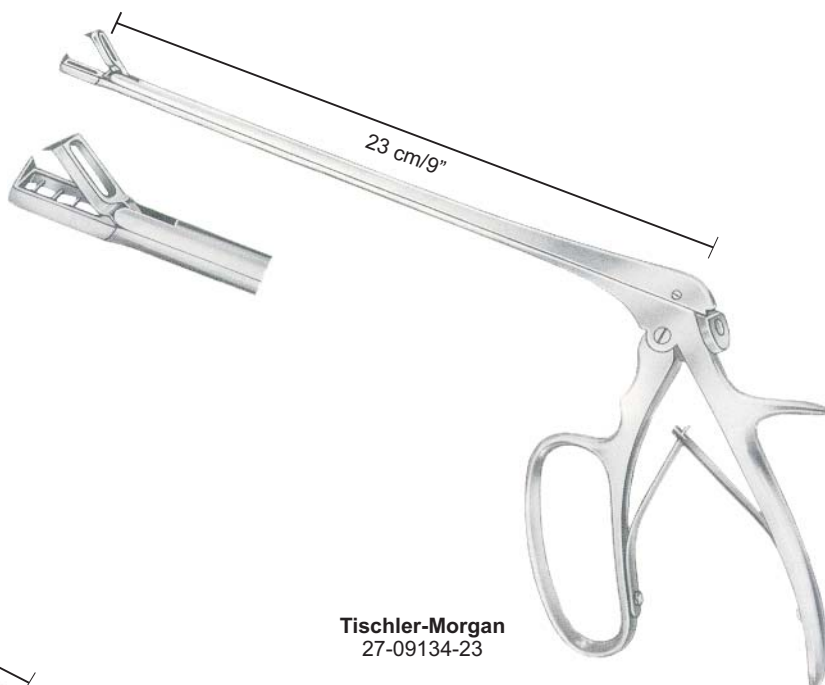
27-09126-23

L = 23 cm/9"



**Wittner**

27-09130-23



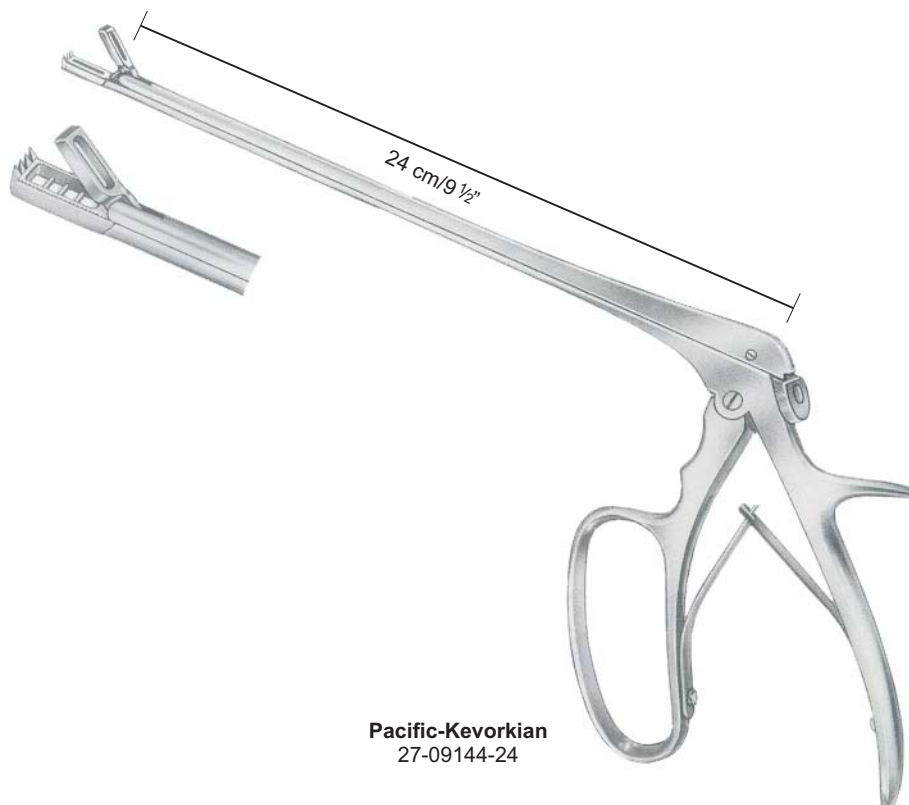
**Tischler-Morgan**  
27-09134-23



**Baby-Tischler**  
27-09136-21



**Alexander**  
27-09140-28



**Pacific-Kevorkian**  
27-09144-24



**Burke**  
27-09148-23



**Townsend**

Handle



Tip with tube



**Tischier**

Complete instrument

Tip, only

27-09152-00

27-09152-01



**Kevorkian**

27-09154-00

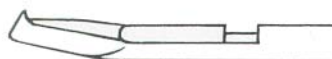
27-09154-01



**Mini-Townsend**

27-09156-00

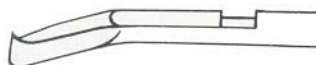
27-09156-01



**Tischler-up**

27-09158-00

27-09158-01



**Tischler-down**

27-09160-00

27-09160-01



**Mini-Townsend-up**

27-09162-00

27-09162-01



**Mini-Townsend-down**

27-09164-00

27-09164-01



**Schroeder**  
30 cm/12"

Sharp Rigid



Fig. 1  
27-09168-01  
27-09170-01



Fig. 2  
27-09168-02  
27-09170-02



Fig. 3  
27-09168-03  
27-09170-03

Schroeder  
Simon



Fig. 4  
27-09168-04  
27-09170-04



Fig. 5  
27-09168-05  
27-09170-05



Fig. 6  
27-09168-06  
27-09170-06

Schroeder  
Simon



**Simon**  
25 cm/10"



**Gourdet**  
28 cm/11"



Fig. 1  
27-09174-01  
6 mm



Fig. 2  
27-09174-02  
8 mm



Fig. 3  
27-09174-03  
10 mm



Fig. 4  
27-09174-04  
12 mm



Fig. 5  
27-09174-05  
14 mm



**Thomas**



Fig. 1  
27-09177-01



Fig. 2  
27-09177-02



Fig. 3  
27-09177-03



Fig. 4  
27-09177-04



Fig. 5  
27-09177-05



Fig. 6  
27-09177-06



**Greene**

27-09180-10  
10 mm

27-09180-12  
12 mm

27-09180-14  
14 mm



**Collin**  
27-09184-30  
30 cm/12"



**Heaney**  
27-09188-24  
24 cm/9½"



**Heaney**  
27-09192-24  
24 cm/9½"





**Milan**  
28.5 cm/11¼"

Malleable



27-09196-05  
5 mm Ø



27-09196-07  
7 mm Ø



27-09196-09  
9 mm Ø

Rigid

27-09198-05  
5 mm Ø

27-09198-07  
7 mm Ø

27-09198-09  
9 mm Ø



28 cm/11"

Hose Connecting Piece



27-09206-00

|             | Ø       |
|-------------|---------|
| 27-09202-04 | 4.0 mm  |
| 27-09202-06 | 6.0 mm  |
| 27-09202-08 | 8.0 mm  |
| 27-09202-10 | 10.0 mm |
| 27-09202-12 | 12.0 mm |
| 27-09202-14 | 14.0 mm |
| 27-09202-16 | 16.0 mm |



**Sims**  
25 cm/10"

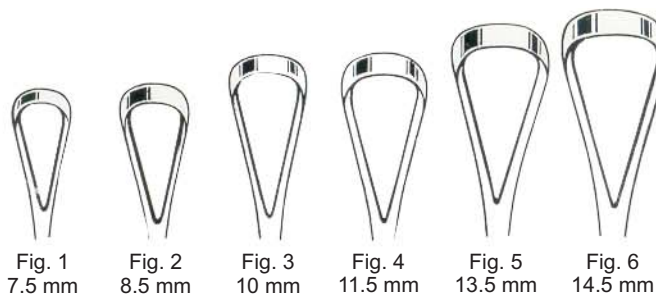


Fig. 1 7.5 mm    Fig. 2 8.5 mm    Fig. 3 10 mm    Fig. 4 11.5 mm    Fig. 5 13.5 mm    Fig. 6 14.5 mm

| Malleable |       | Rigid |       |
|-----------|-------|-------|-------|
| Sharp     | Blunt | Sharp | Blunt |

|        |             |             |             |             |
|--------|-------------|-------------|-------------|-------------|
| Fig. 1 | 27-09210-01 | 27-09211-01 | 27-09214-01 | 27-09215-01 |
| Fig. 2 | 27-09210-02 | 27-09211-02 | 27-09214-02 | 27-09215-02 |
| Fig. 3 | 27-09210-03 | 27-09211-03 | 27-09214-03 | 27-09215-03 |
| Fig. 4 | 27-09210-04 | 27-09211-04 | 27-09214-04 | 27-09215-04 |
| Fig. 5 | 27-09210-05 | 27-09211-05 | 27-09214-05 | 27-09215-05 |
| Fig. 6 | 27-09210-06 | 27-09211-06 | 27-09214-06 | 27-09215-06 |

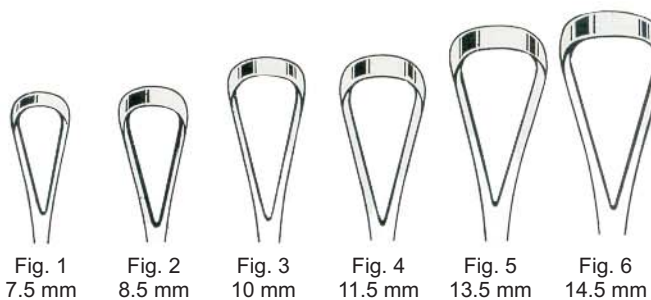


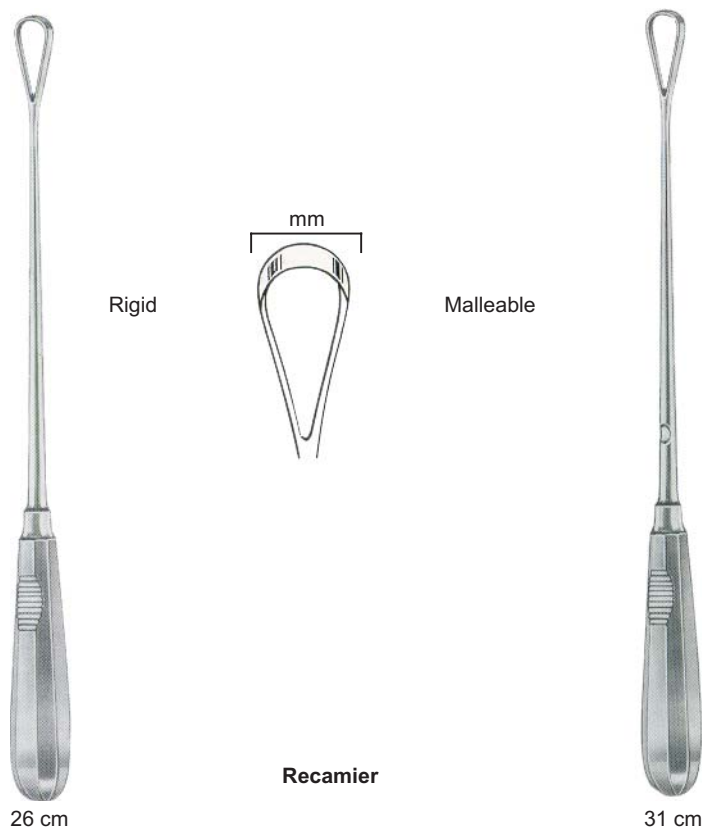
Fig. 1 7.5 mm    Fig. 2 8.5 mm    Fig. 3 10 mm    Fig. 4 11.5 mm    Fig. 5 13.5 mm    Fig. 6 14.5 mm

| Malleable |       | Rigid |       |
|-----------|-------|-------|-------|
| Sharp     | Blunt | Sharp | Blunt |

|        |             |             |             |             |
|--------|-------------|-------------|-------------|-------------|
| Fig. 1 | 27-09218-01 | 27-09219-01 | 27-09222-01 | 27-09223-01 |
| Fig. 2 | 27-09218-02 | 27-09219-02 | 27-09222-02 | 27-09223-02 |
| Fig. 3 | 27-09218-03 | 27-09219-03 | 27-09222-03 | 27-09223-03 |
| Fig. 4 | 27-09218-04 | 27-09219-04 | 27-09222-04 | 27-09223-04 |
| Fig. 5 | 27-09218-05 | 27-09219-05 | 27-09222-05 | 27-09223-05 |
| Fig. 6 | 27-09218-06 | 27-09219-06 | 27-09222-06 | 27-09223-06 |



**Sims**  
25 cm/10"



| Fig. | mm | Malleable   |             | Rigid       |             | Malleable   |             | Rigid       |             |
|------|----|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|      |    | Sharp       | Blunt       | Sharp       | Blunt       | Sharp       | Blunt       | Sharp       | Blunt       |
| 00   | 5  | 27-09226-05 | 27-09227-05 | 27-09228-05 | 27-09229-05 | 27-09230-05 | 27-09231-05 | 27-09232-05 | 27-09233-05 |
| 0    | 6  | 27-09226-06 | 27-09227-06 | 27-09228-06 | 27-09229-06 | 27-09230-06 | 27-09231-06 | 27-09232-06 | 27-09233-06 |
| 1    | 7  | 27-09226-07 | 27-09227-07 | 27-09228-07 | 27-09229-07 | 27-09230-07 | 27-09231-07 | 27-09232-07 | 27-09233-07 |
| 2    | 8  | 27-09226-08 | 27-09227-08 | 27-09228-08 | 27-09229-08 | 27-09230-08 | 27-09231-08 | 27-09232-08 | 27-09233-08 |
| 3    | 9  | 27-09226-09 | 27-09227-09 | 27-09228-09 | 27-09229-09 | 27-09230-09 | 27-09231-09 | 27-09232-09 | 27-09233-09 |
| 4    | 10 | 27-09226-11 | 27-09227-11 | 27-09228-11 | 27-09229-11 | 27-09230-11 | 27-09231-11 | 27-09232-11 | 27-09233-11 |
| 5    | 12 | 27-09226-12 | 27-09227-12 | 27-09228-12 | 27-09229-12 | 27-09230-12 | 27-09231-12 | 27-09232-12 | 27-09233-12 |
| 6    | 14 | 27-09226-14 | 27-09227-14 | 27-09228-14 | 27-09229-14 | 27-09230-14 | 27-09231-14 | 27-09232-14 | 27-09233-14 |
| 7    | 15 | 27-09226-15 | 27-09227-15 | 27-09228-15 | 27-09229-15 | 27-09230-15 | 27-09231-15 | 27-09232-15 | 27-09233-15 |
| 8    | 16 | 27-09226-16 | 27-09227-16 | 27-09228-16 | 27-09229-16 | 27-09230-16 | 27-09231-16 | 27-09232-16 | 27-09233-16 |
| 9    | 19 | 27-09226-19 | 27-09227-19 | 27-09228-19 | 27-09229-19 | 27-09230-19 | 27-09231-19 | 27-09232-19 | 27-09233-19 |
| 10   | 20 | 27-09226-20 | 27-09227-20 | 27-09228-20 | 27-09229-20 | 27-09230-20 | 27-09231-20 | 27-09232-20 | 27-09233-20 |
| 11   | 21 | 27-09226-21 | 27-09227-21 | 27-09228-21 | 27-09229-21 | 27-09230-21 | 27-09231-21 | 27-09232-21 | 27-09233-21 |
| 12   | 23 | 27-09226-23 | 27-09227-23 | 27-09228-23 | 27-09229-23 | 27-09230-23 | 27-09231-23 | 27-09232-23 | 27-09233-23 |
| 13   | 25 |             |             |             |             | 27-09230-25 | 27-09231-25 | 27-09232-25 | 27-09233-25 |
| 14   | 30 |             |             |             |             | 27-09230-30 | 27-09231-30 | 27-09232-30 | 27-09233-30 |
| 15   | 35 |             |             |             |             | 27-09230-35 | 27-09231-35 | 27-09232-35 | 27-09233-35 |
| 16   | 40 |             |             |             |             | 27-09230-40 | 27-09231-40 | 27-09232-40 | 27-09233-40 |



**Bumm**  
max. 29 cm/11½"

| Fig. | mm   | Mealleable  |             |
|------|------|-------------|-------------|
|      |      | Sharp       | Blunt       |
| 0    | 16.0 | 27-09236-16 | 27-09237-16 |
| 1    | 18.0 | 27-09236-18 | 27-09237-18 |
| 2    | 19.5 | 27-09236-19 | 27-09237-19 |
| 3    | 21.5 | 27-09236-21 | 27-09237-21 |
| 4    | 23.5 | 27-09236-23 | 27-09237-23 |
| 5    | 26.0 | 27-09236-26 | 27-09237-26 |
| 6    | 28.5 | 27-09236-28 | 27-09237-28 |



Blunt

Sharp

**Blake (Zweifel)**  
27-09240-27 27 cm/10½"  
27-09240-31 31 cm/12¼"



For Internal Measurements



28-09244-45  
Laparotomy Ring  
1 $\frac{3}{4}$ " Inside Diameter



**De Lee**  
28-09248-20  
20 cm/8"  
cm/Inch Scale



**Martin**  
28-09252-34 34 cm/13 $\frac{1}{2}$ " 28-09254-34  
cm Scale cm/Inch Scale



**Collin**  
28-09258-35  
35 cm/13 $\frac{3}{4}$ "  
cm Scale



**Breisky**  
28-09262-33  
33 cm/13"  
cm Inch Scale



**Collyer**  
28-09266-30  
30 cm/12"  
cm Inch Scale



**Iowa**  
28-09270-14  
14 cm/5 $\frac{1}{2}$ "  
Trumpet Needle Guide



**Winter**  
28 cm/11"



Straight

28-09274-01



28-09274-02



28-09274-03



Curved

28-09275-01



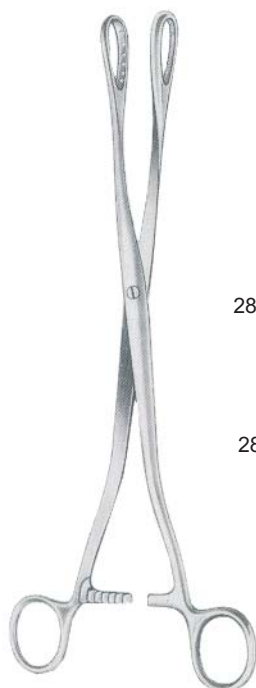
28-09275-02



28-09275-03



**Wallich**  
28-09278-42  
42 cm/16¾"



**Sanger**  
27 cm/10½"

Straight  
28-09282-27

Curved  
28-09283-27

Uterine Haemostasis Forceps



**Green-Armytage**  
28-09286-21  
21 cm/8¼"





Scalp Flap Forceps



**Gauss**  
28-09290-26  
26 cm/10¼"



**Willet-Martel**  
28-09294-19  
19 cm/7½"

Head Lever



**Murless**  
28-09298-26  
26 cm/10¼"

Elevating Spoon



**Sellheim**  
28-09302-28  
28 cm/11"



**Smellie**  
28-09306-25  
25 cm/10"

Perforators



**Nagele**  
28-09310-25  
25 cm/10"



Cranioclast



**Braun**  
28-09314-42  
42 cm/16½"

Basiotribe



**Tarnier**  
28-09318-46  
46 cm/18"

Decapitating Hook



**Braun**  
28-09322-30  
30 cm/12"

Umbilical Cord Clamps



**Collin**  
28-09326-09  
9 cm/3½"



**Nagele**  
28-09330-36 36 cm/14"  
28-09330-40 40 cm/16"



**Wrigley**  
28-09334-28  
28 cm/11"



**Simpson**  
28-09338-23  
23 cm/9"



**Simpson**  
28-09340-30  
30 cm/12"



**Simpson-Braun**  
28-09342-36  
36 cm/14"



**Simpson-Luikart**  
28-09344-36  
36 cm/14"



**De Lee**  
28-09348-30 30 cm/12"  
28-09348-36 36 cm/14"

Traction Handles to be  
used with all obstetrical  
Forceps with Standard type Handles



**Bill**  
28-09350-20



**Kielland**  
28-09352-41  
41 cm/16"



**Kielland-Luikart**  
28-09354-40  
40 cm/15¾"



**Mclean**  
28-09358-36  
36 cm/14"



**Elliot**  
28-09362-32 32 cm/12½"  
28-09362-38 38 cm/15"



**Piper**  
28-09366-44  
44 cm/17¼"



With Traction Handle

**Barnes-Neville**  
28-09370-43  
43.5 cm/17"



With Traction Handle

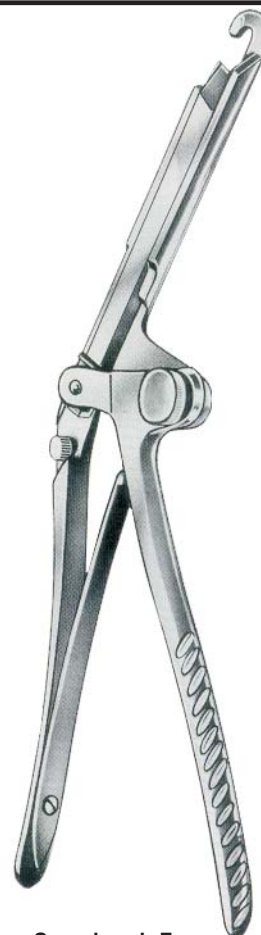
**Tarnier**  
28-09374-40  
40 cm/15¾"



**Sauerbruch**  
29-09378-24 24 cm/9½"  
29-09378-26 26 cm/10¼"



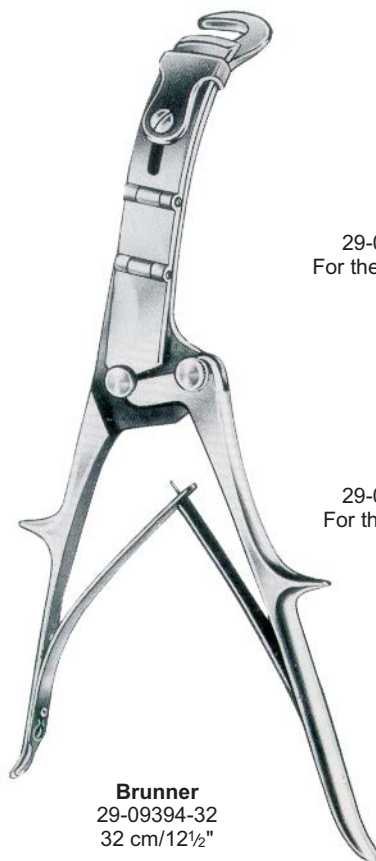
**Giertz-Stille**  
29-09382-27  
27 cm/10½"



**Sauerbruch-Frey**  
29-09386-36  
36 cm/14"



**Bethune**  
29-09390-34  
34 cm/13½"



**Brunner**  
29-09394-32  
32 cm/12½"

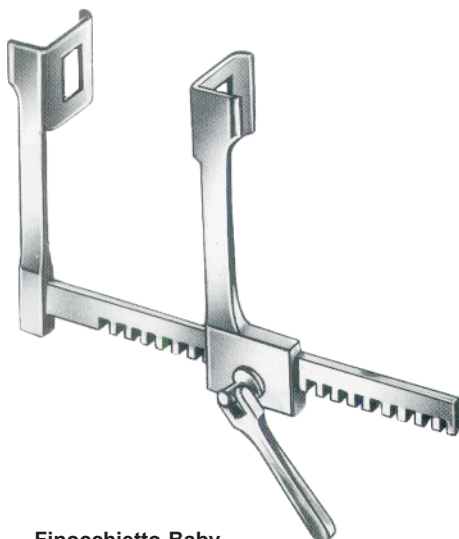
29-09394-32  
For the Right Hand

29-09395-32  
For the left Hand



**Lebsche**  
29-09398-24  
24.5 cm/9¾"

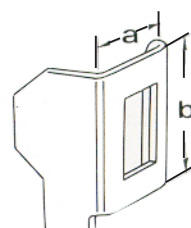




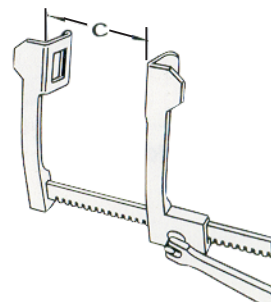
**Finocchietto-Baby**

|             | a     | b     | c      |
|-------------|-------|-------|--------|
| 29-09402-00 | 18 mm | 21 mm | 105 mm |

Scheme of Dimensions



Size of Blades



Total Spread

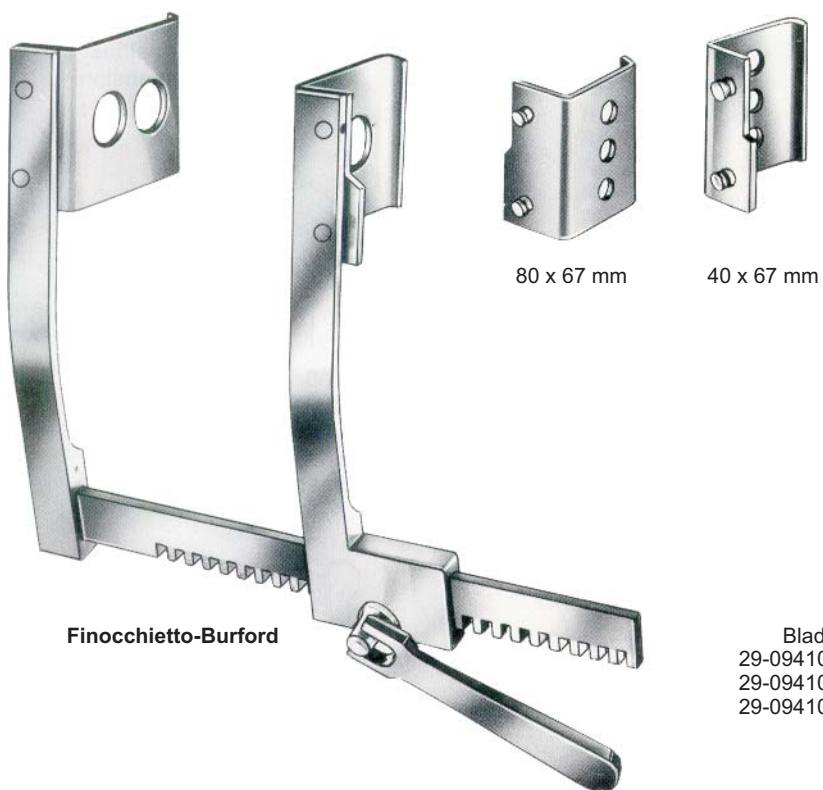


**Finocchietto**

|             | a     | b     | c      |
|-------------|-------|-------|--------|
| 29-09406-01 | 36 mm | 45 mm | 165 mm |
| 29-09406-02 | 44 mm | 65 mm | 200 mm |
| 29-09406-03 | 44 mm | 65 mm | 250 mm |
| 29-09406-04 | 44 mm | 65 mm | 300 mm |
| 29-09406-05 | 65 mm | 65 mm | 200 mm |
| 29-09406-06 | 65 mm | 65 mm | 250 mm |
| 29-09406-07 | 65 mm | 65 mm | 300 mm |



With 2 Pairs of Interchangeable Blades



**Finocchietto-Burford**

Blade Opening  
29-09410-01 200 mm/8"  
29-09410-02 250 mm/10"  
29-09410-03 305 mm/12"

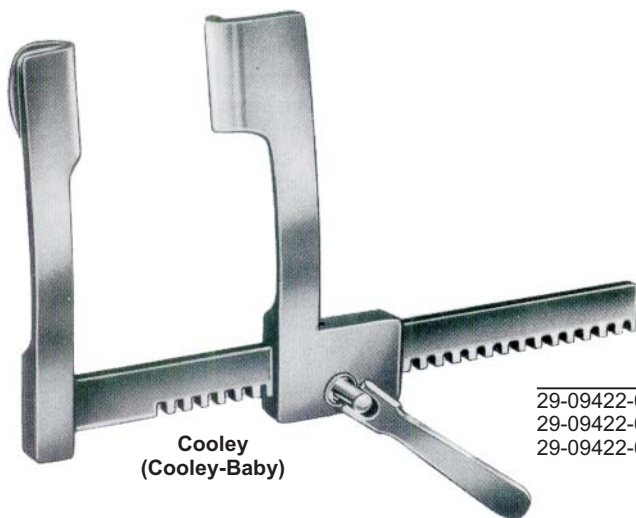


**Tuffier**



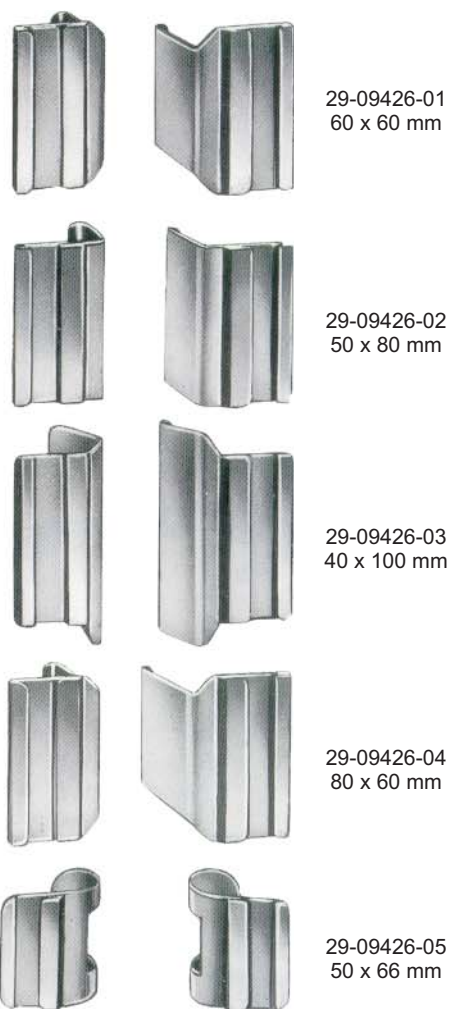
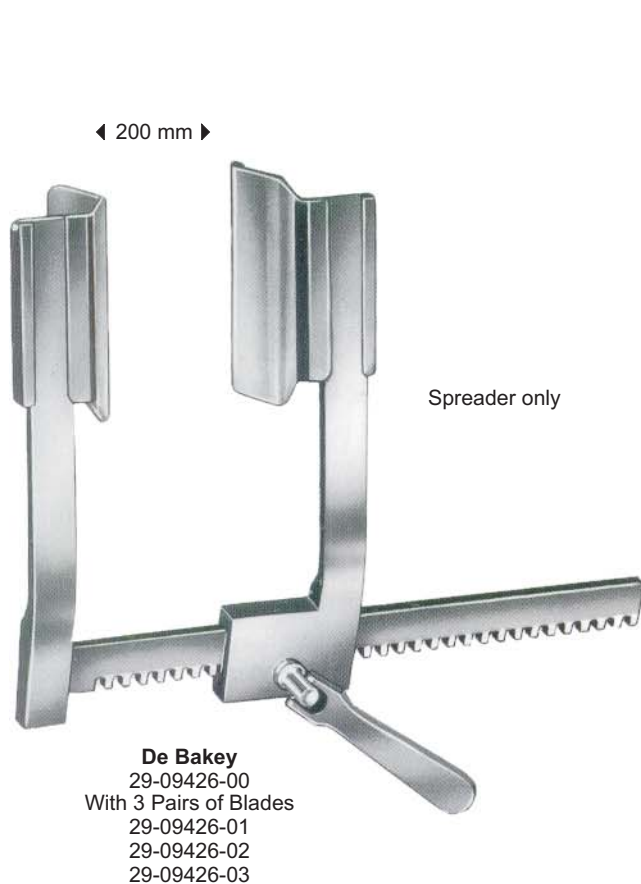
**Haight**

|             | a     | b     | c      |
|-------------|-------|-------|--------|
| 29-09418-00 | 30 mm | 30 mm | 115 mm |



**Cooley  
(Cooley-Baby)**

|             | a     | b     | c      |
|-------------|-------|-------|--------|
| 29-09422-01 | 15 mm | 30 mm | 75 mm  |
| 29-09422-02 | 21 mm | 45 mm | 145 mm |
| 29-09422-03 | 32 mm | 50 mm | 190 mm |





◀ Fig. 1 15 cm/6" ▶  
◀ Fig. 2 20 cm/8" ▶



**Morse-Favaloro**  
Fig. 1 29-09434-01  
Fig. 2 29-09434-02

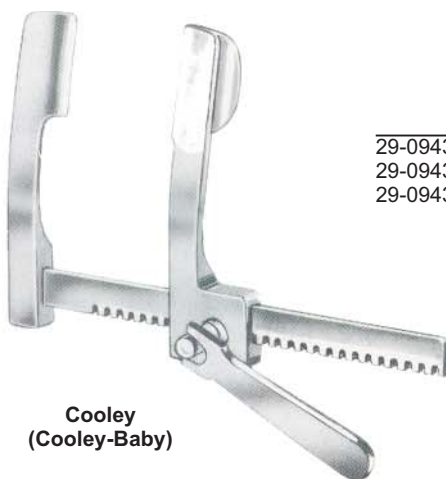
75 x 75 mm

42 x 65 mm

Thoracic Retractor



**(Mercedes-Retractor)**  
29-09436-00  
Complete



**Cooley**  
**(Cooley-Baby)**

|             | a     | b     | c      |
|-------------|-------|-------|--------|
| 29-09438-01 | 12 mm | 17 mm | 75 mm  |
| 29-09438-02 | 16 mm | 30 mm | 105 mm |
| 29-09438-03 | 37 mm | 49 mm | 200 mm |



**Castaneda**

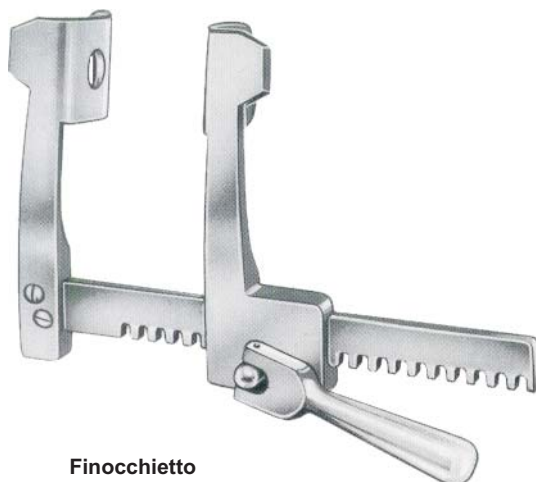
|             | a       | b     | c      |
|-------------|---------|-------|--------|
| 29-09442-01 | 10.5 mm | 32 mm | 65 mm  |
| 29-09442-02 | 12 mm   | 45 mm | 70 mm  |
| 29-09442-03 | 15 mm   | 60 mm | 120 mm |



**Finocchietto-Baby-Haight**

|             | a     | b     | c      |
|-------------|-------|-------|--------|
| 29-09446-01 | 15 mm | 15 mm | 75 mm  |
| 29-09446-02 | 31 mm | 31 mm | 100 mm |





**Finocchietto**

|             | a     | b     | c      |
|-------------|-------|-------|--------|
| 29-09450-01 | 38 mm | 44 mm | 135 mm |
| 29-09450-02 | 52 mm | 62 mm | 135 mm |
| 29-09450-03 | 85 mm | 65 mm | 135 mm |

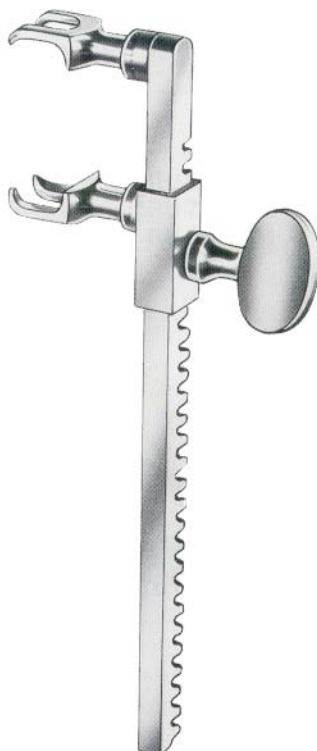


**Burford**  
With 2 Pairs of Blades

| For Child   | a     | b     | c      |
|-------------|-------|-------|--------|
| 29-09454-00 | 48 mm | 42 mm | 135 mm |
| 29-09454-01 | 34 mm | 42 mm | 135 mm |
| 29-09454-02 | 65 mm | 62 mm | 180 mm |
| 29-09454-03 | 47 mm | 62 mm | 260 mm |
|             | 65 mm | 62 mm | 300 mm |
|             | 47 mm | 62 mm |        |



**Lemmon**  
29-09458-18  
18 cm/7"



**Sellors**  
29-09462-19  
19 cm/7½"



**Bailey-Baby**  
29-09466-14  
14 cm/5½"



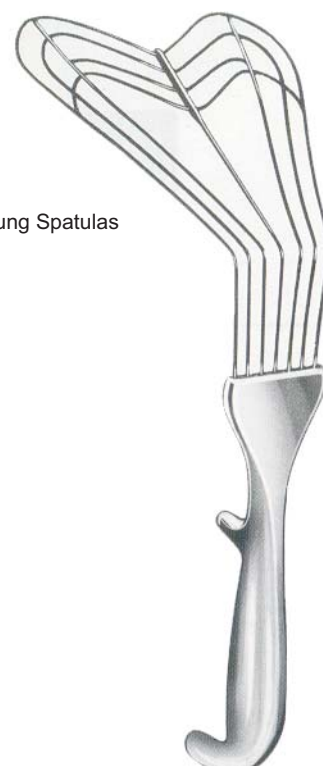
**Bailey**  
29-09470-16  
16 cm/6¼"



**Bailey-Gibbon**  
29-09474-16  
16 cm/6¼"



**Allison**  
29-09478-25 25.5 cm/10"  
29-09478-30 30.0 cm/12"



Lung Spatulas

29-09482-30  
30 cm/12"



**Price-Thomas**  
29-09486-22  
22 cm/8¾"



**Semb**  
24 cm/9½"

29-09490-24 29-09492-24

Lung grasping forceps



**Lovelace**  
29-09496-20  
20 cm/8"



**Lovelace**  
29-09500-20  
20 cm/8"



Fig. 1

Fig. 2



29-09504-01  
29-09504-02



**Satinsky**  
26.5 cm/10½"  
Fig. 1  
Fig. 2

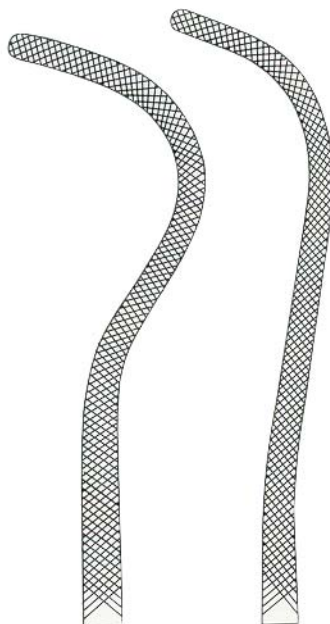
29-09508-01  
29-09508-02



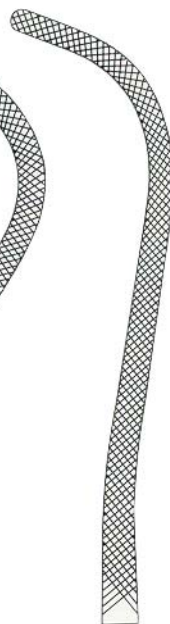
**Baby-Satinsky**  
29-09512-15  
15 cm/6"



**Harken**  
24 cm/9½"



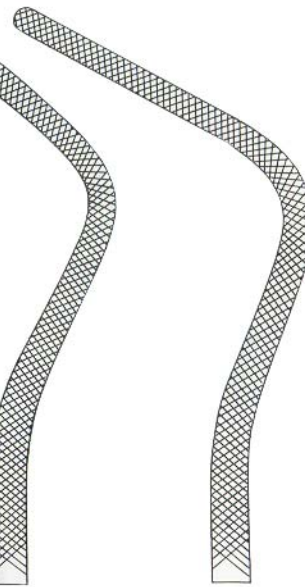
29-09516-01



29-09516-02



29-09516-03



29-09516-04

***Pinsmed AtraumaTC***

Atrauma tissue forceps



**De Bakey**

Wide

|             |             |        |
|-------------|-------------|--------|
| 29-09520-15 | 15.0 cm/6"  | 1.5 mm |
| 29-09520-19 | 19.5 cm/7½" | 1.5 mm |
| 29-09520-24 | 24.0 cm/9½" | 1.5 mm |



**De Bakey**

| 1.2 mm      | 2.0 mm      | Wide      |
|-------------|-------------|-----------|
| 29-09524-18 | 29-09526-18 | 18 cm/7"  |
| 29-09524-21 | 29-09526-21 | 21 cm/8¼" |

***Pinsmed Atrauma***



**Cooley**

|             |             |
|-------------|-------------|
| 29-09530-15 | 15.0 cm/6"  |
| 29-09530-19 | 19.5 cm/7½" |
| 29-09530-24 | 24.0 cm/9½" |



**De Bakey**

| Wide      | 1.5 mm      | 2.0 mm      | 2.7 mm      | 3.5 mm      |
|-----------|-------------|-------------|-------------|-------------|
| 16 cm/6¼" | 29-09534-16 | 29-09536-16 | 29-09538-16 | 29-09540-16 |
| 20 cm/8"  | 29-09534-20 | 29-09536-20 | 29-09538-20 | 29-09540-20 |
| 24 cm/9½" | 29-09534-24 | 29-09536-24 | 29-09538-24 | 29-09540-24 |
| 30 cm/12" | 29-09534-30 | 29-09536-30 | 29-09538-30 | 29-09540-30 |



**De Bakey**

| Wide<br>2.0 mm |
|----------------|
| 29-09543-16    |
| 29-09543-20    |
| 29-09543-24    |
| 29-09543-30    |



De Bakey

Setting forceps



29-09546-23  
23 cm/9"



|             |                |             |
|-------------|----------------|-------------|
| 29-09550-07 | 7.5 cm/3"      | 29-09551-07 |
| 29-09550-08 | 8.5 cm/3 1/2"  | 29-09551-08 |
| 29-09550-10 | 10.5 cm/4 1/4" | 29-09551-10 |
| 29-09550-12 | 12.0 cm/4 3/4" | 29-09551-12 |



29-09554-03  
3.5 cm/1 1/2"



29-09555-03  
3.5 cm/1 1/2"



29-09558-04  
4.5 cm/1 3/4"



29-09559-04  
4.5 cm/1 3/4"



De-Bakey  
29-09562-05  
5.0 cm/2"



De-Bakey  
29-09563-05  
5.0 cm/2"





De Bakey



**Glover**

|             |           |             |
|-------------|-----------|-------------|
| 29-09566-06 | 6 cm/2½"  | 29-09567-06 |
| 29-09566-07 | 7 cm/2¾"  | 29-09567-07 |
| 29-09566-09 | 9 cm/3½"  | 29-09567-09 |
| 29-09566-11 | 11 cm/4½" | 29-09567-11 |

**Glover**



**Glover**  
29-09571-06  
5 cm/2"



**De Bakey-Satinsky**  
29-09575-07  
7 cm/2¾"



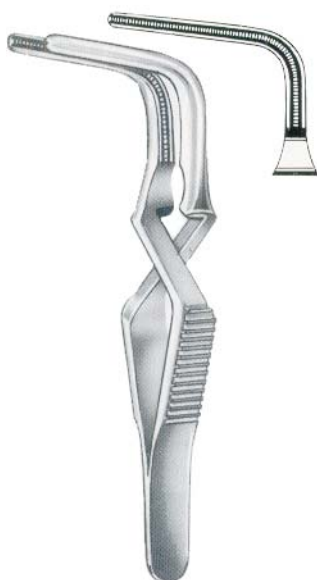
De Bakey



**De Bakey-Carotid**  
29-09579-09  
9 cm/3½"



**De Bakey-Satinsky**  
29-09583-10  
10 cm/4"



**Santulli**  
29-09587-07  
7 cm/2¾"



**Gregory-Soft**  
29-09591-09 29-09593-11  
9 cm/3½" 11 cm/4½"

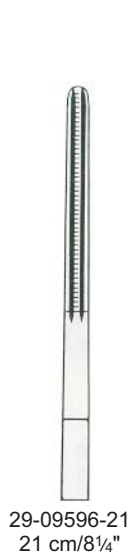


De Bakey

Coarctation Clamps



**Potts  
(De Bakey)**



**Potts  
(De Bakey)**



**Potts**





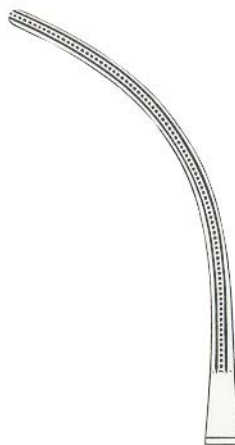
Anastomosis Clamps



**Glover  
(Potts)**



**De Bakey**



29-09605-21  
21 cm/8¼"



29-09605-22  
22 cm/8½"

Dissecting and  
Ligature Forceps



**De Bakey**



29-09609-20  
20 cm/8"



29-09609-24  
24 cm/9½"



**De Bakey**



29-09613-20  
20 cm/8"

29-09615-18  
18 cm/7½"



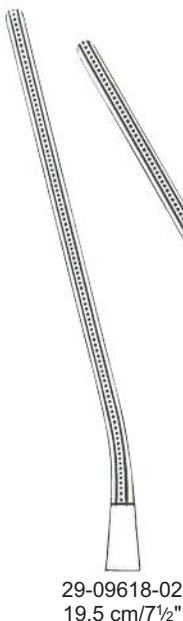
De Bakey



Leland-Jones



29-09618-01  
19.5 cm/7½"



29-09618-02  
19.5 cm/7½"



Leland-Jones  
29-09621-18  
18 cm/7"

29-09618-03  
19.5 cm/7½"



De Bakey-Bainbirdge



29-09624-15  
15 cm/6"



29-09624-18  
18 cm/7"



29-09625-15  
15 cm/6"



29-09625-18  
18 cm/7"



De Bakey  
29-09629-20  
20 cm/8"



De Bakey

Aortic Aneurysm Clamps



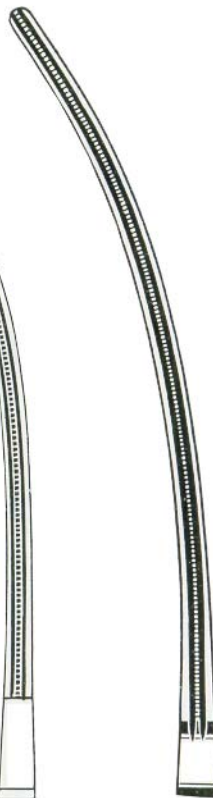
De Bakey



29-09633-24  
24 cm/9½"



29-09633-27  
27 cm/10½"



29-09633-31  
31 cm/12¼"



29-09633-33  
33.5 cm/13¼"





**Instrumed**  
Fine Surgical Instruments

## Cardiovascular Instruments Atrauma Aortic Aneurysm Clamps

29



De Bakay

Aortic Aneurysm Clamps



**De Bakay**  
29-09637-28  
28 cm/11"



29-09641-30  
30 cm/12"



De Bakey

Aortic Clamps



**Ochsner**  
29-09645-23  
23.5 cm/9¼"



**Dietrich**  
29-09649-21  
21 cm/8¼"



De Bakey

Auricle Clamp



Harken



29-09653-01  
24 cm/9½"



29-09653-02  
24 cm/9½"



29-09653-03  
24 cm/9½"



29-09653-04  
24 cm/9½"



De Bakey

Bronchus Clamps



29-09657-25  
25 cm/10"



29-09657-23  
23 cm/9"

Lees

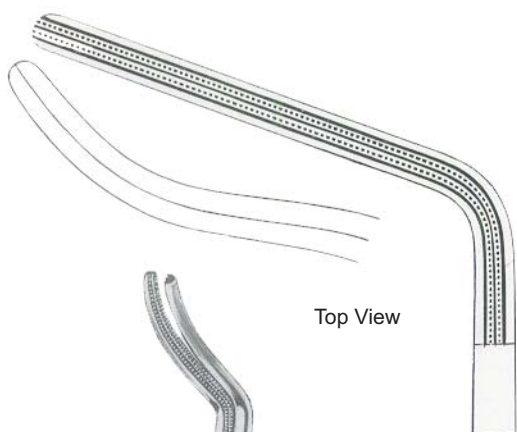


Lees  
29-09661-25  
25 cm/10"



De Bakey

Aortic Clamp



Top View



**De Bakey**  
29-09665-27  
27 cm/10½"



**De Bakey**  
29-09669-24  
24 cm/9½"

Ligature Clamps



**De Bakey**  
29-09673-24  
24 cm/9½"



De Bakey

Ligature clamp,  
Aortic clamp

29-09681-02

29-09681-01

**De Bakey**  
29-09677-26  
26.5 cm/10½"

**De Bakey-Semb**  
29-09677-25  
25 cm/10"

Aortic clamp

**De Bakey-Semb**

**Weber**  
26 cm/10¼"





**Satisfsky/De Bakey**

Tangential occlusion clamps



De Bakey



Set of 5 purchase.  
29-09685-00

29-09685-20  
20 cm/8"

29-09685-25  
25 cm/10"

29-09685-26  
26 cm/10 $\frac{1}{4}$ "

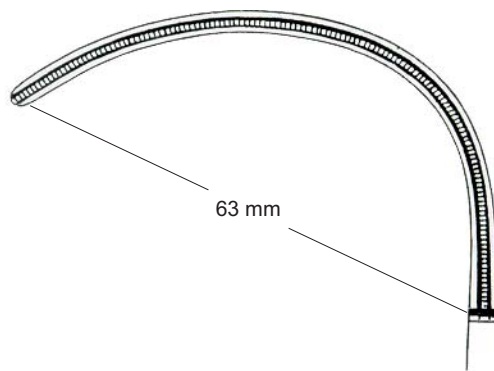
29-09685-27  
27 cm/10 $\frac{1}{2}$ "

29-09885-28  
28 cm/11"



**Glover**

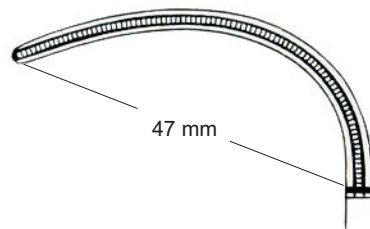
29-09689-01 19.5 cm/7 $\frac{3}{4}$ "  
29-09689-02 21.0 cm/8 $\frac{1}{4}$ "



Anastomosis

63 mm

29-09689-01



47 mm

29-09689-02



De Bakey



**Lambert-Kay**  
21 cm/8¼"



29-09695-21

29-09693-21

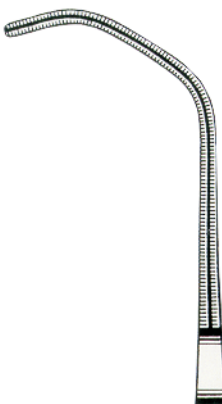
Aortic anastomosis clamps



**De Bakey**  
29-09699-17  
17 cm/6¾"



**Beck**  
29-09703-17  
17 cm/6¾"



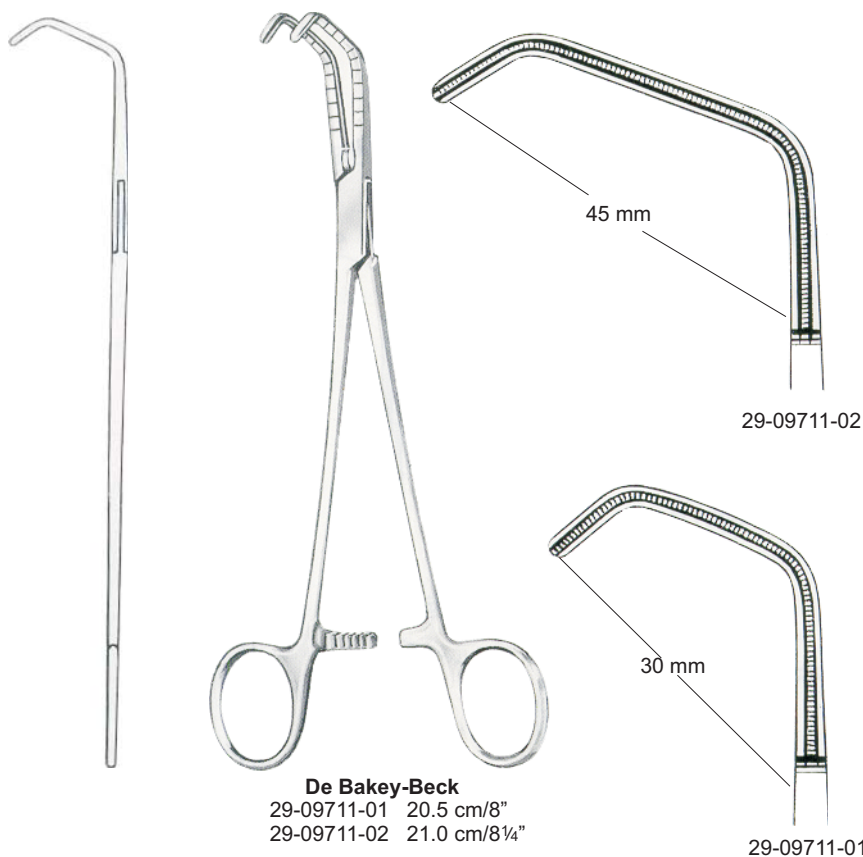


De Bakey



**De Bakey**  
29-09707-16  
16 cm/6 1/4"

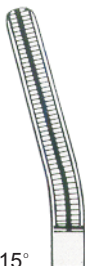
Graduated



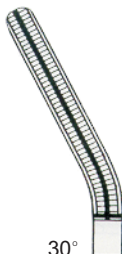
**De Bakey-Beck**  
29-09711-01 20.5 cm/8"  
29-09711-02 21.0 cm/8 1/4"



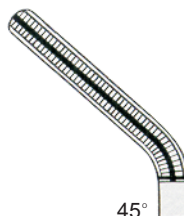
29-09714-00



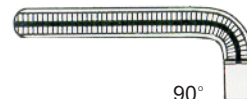
15°  
29-09715-15



30°  
29-09715-30



45°  
29-09715-45



90°  
29-09715-90



29-09718-00



15°  
29-09719-15



30°  
29-09719-30



45°  
29-09719-45



90°  
29-09719-90



**Dardik**  
17 cm/6¾"



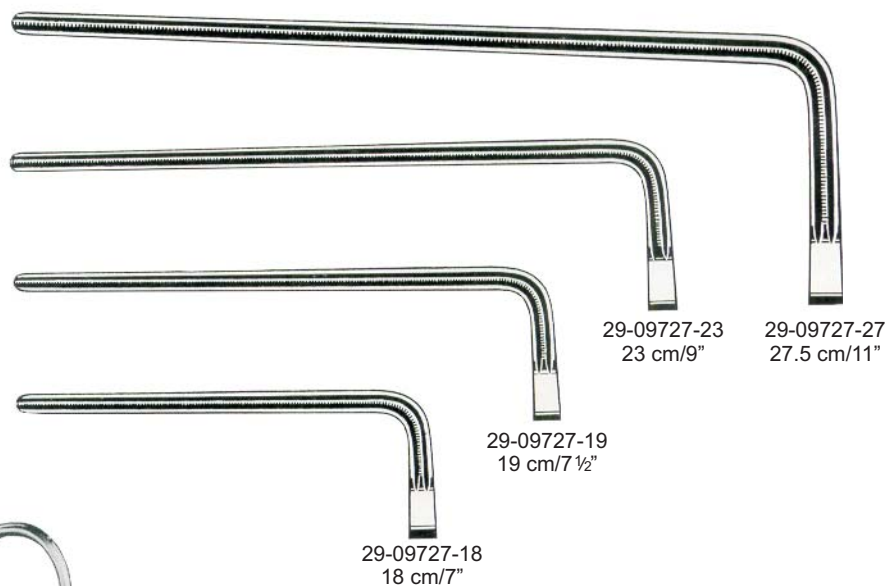
De Bakey



Multi purpose clamps



De Bakey





Aortic anastomosis clamps

**Morris-De Bakey**



29-09731-18  
18 cm/7"

29-09731-20  
20 cm/8"

29-09731-23  
23 cm/9"

29-09731-25  
25 cm/10"



**Glover**  
29-09735-24  
24.5 cm/9¾"





De Bakey

Aorta aneurysm clamps



**De Bakey-Bahnson**



29-09739-24  
24.5 cm/9¾"

29-09739-25  
25.5 cm/10"

29-09739-26  
26.5 cm/10½"

Coarctation clamps



| Straight    | cm/in        | Curved      |
|-------------|--------------|-------------|
| 29-09742-21 | 21.5 cm/8½"  | 29-09743-21 |
| 29-09742-23 | 23.0 cm/9"   | 29-09743-23 |
| 29-09742-27 | 27.0 cm/10½" | 29-09743-27 |
| 29-09742-31 | 31.5 cm/12½" | 29-09743-31 |



De Bakey

Atrauma hemostatic forceps



**Mosquito**  
12 cm/4¾"

29-09746-12

29-09747-12



**De Bakey-Pean**



29-09750-14  
14 cm/5½"



29-09750-16  
16 cm/6¼"



29-09750-18  
18 cm/7"



29-09750-20  
20 cm/8"



29-09751-14  
14 cm/5½"



29-09751-16  
16 cm/6¼"



29-09751-18  
18 cm/7"



29-09751-20  
20 cm/8"



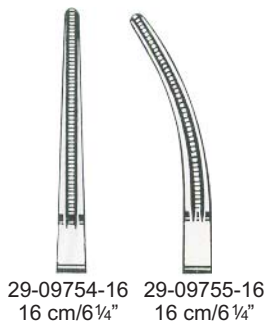
Multi purpose clamps



De Bakey



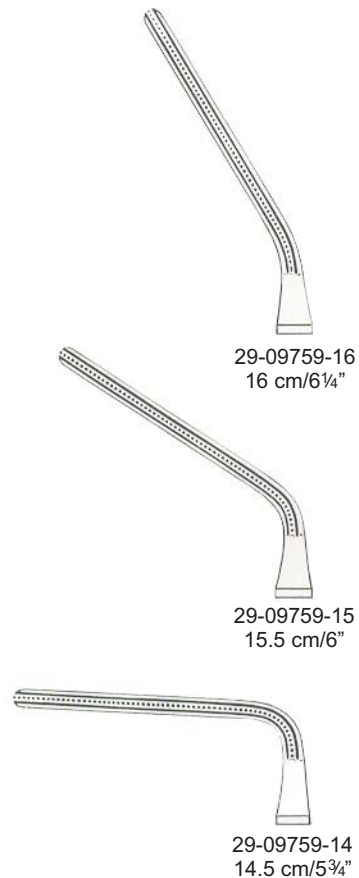
**De Bakey-Rankin**



29-09754-16 16 cm/6 1/4"  
29-09755-16 16 cm/6 1/4"



**Cooley**



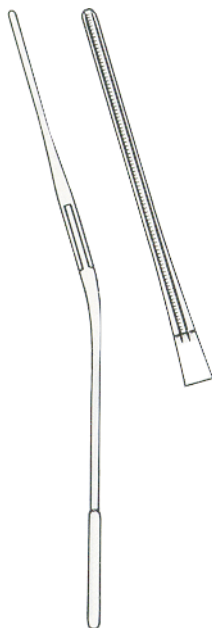
29-09759-16  
16 cm/6 1/4"

29-09759-15  
15.5 cm/6"

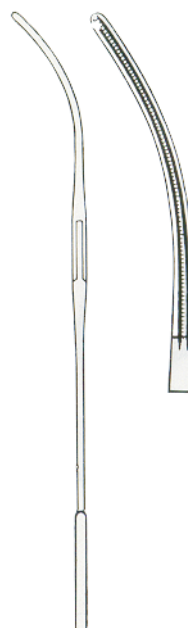
29-09759-14  
14.5 cm/5 3/4"



**De Bakey**  
29-09762-17  
17 cm/6 3/4"



29-09763-17



29-09765-17

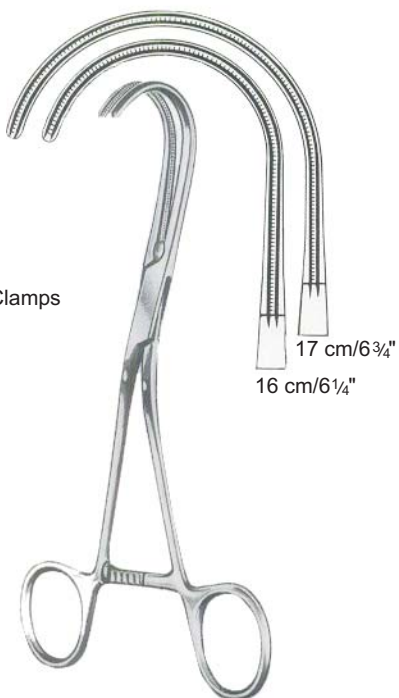


29-09767-17



**De Bakey**

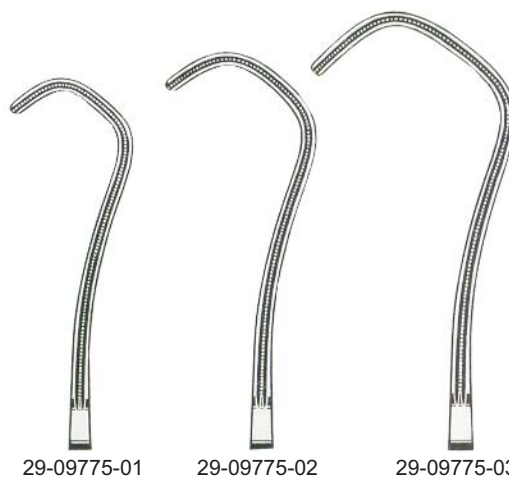
Ligature Clamps



29-09771-16 16cm/6 1/4"  
29-09771-17 17cm/6 3/4"

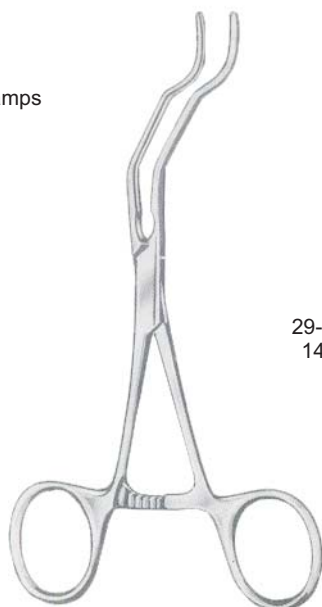


**Derra-De Bakey**  
17 cm/6 3/4"

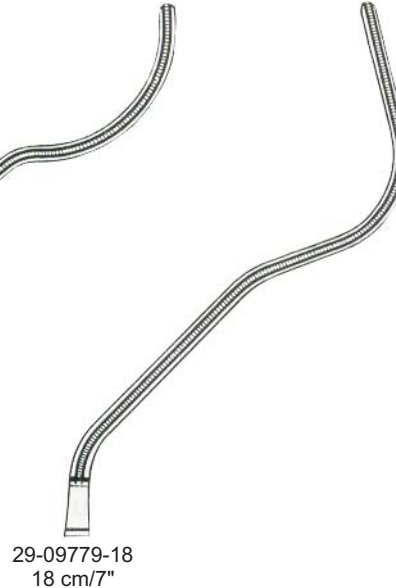


Anastomosis Clamps

Profunda Clamps



**Gregory**





**Instrumed**  
Fine Surgical Instruments

## Cardiovascular Instruments

Atrauma Cardiovascular Forceps

29



**De Bakey**  
29-09782-12  
12 cm/4¾"



**De Bakey**

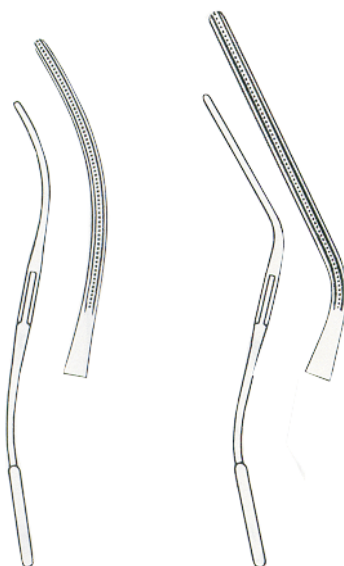


**De Bakey**



29-09783-10  
10 cm/4"

29-09783-11  
10.5 cm/4½"



29-09783-12  
12 cm/4¾"

29-09783-13  
13 cm/5"



Carotid Clamps



**Javid**  
29-09787-18  
18 cm/7"



**Javid**  
29-09787-19  
19 cm/7½"



**Cooley**

| Charriere<br>(French) | Length<br>cm |             |
|-----------------------|--------------|-------------|
| 24                    | 16           | 29-09789-24 |
| 26                    | 16           | 29-09789-26 |
| 28                    | 20           | 29-09789-28 |
| 30                    | 20           | 29-09789-30 |
| 32                    | 20           | 29-09789-32 |
| 36                    | 20           | 29-09789-36 |



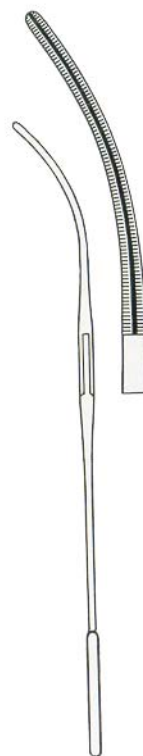


**Cooley**

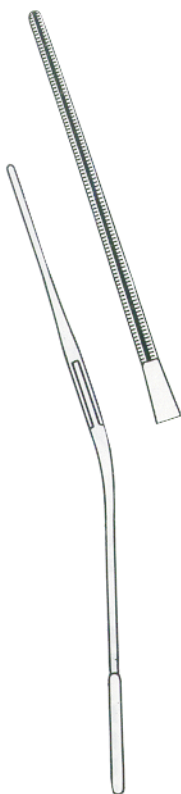
Coarctation Clamps



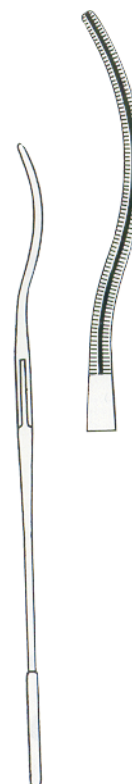
**Cooley**  
29-09792-17  
17 cm/6¾"



29-09793-17  
17 cm/6¾"



29-09795-17  
17 cm/6¾"



29-09797-17  
17 cm/6¾"



**Cooley**  
29-09799-20  
20 cm/8"



**Cooley**



**Cooley**



29-09801-03  
17 cm/6¾"



29-09801-02  
15.5 cm/6"



29-09801-01  
15 cm/6"



**Cooley**  
29-09803-17  
17 cm/6¾"



Anastomosis clamps



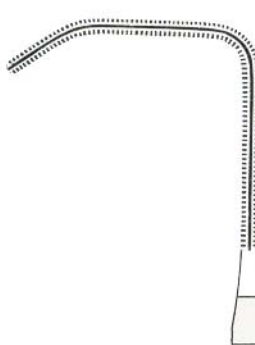
Cooley



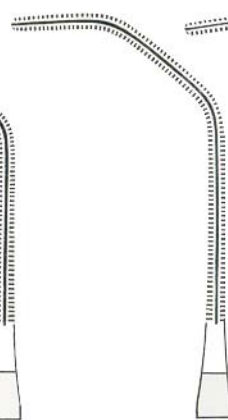
Cooley



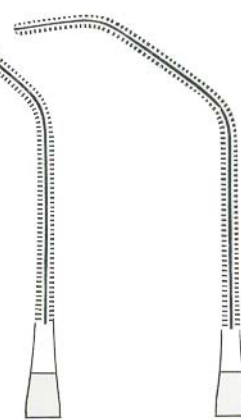
29-09807-01  
16.5 cm/6½"



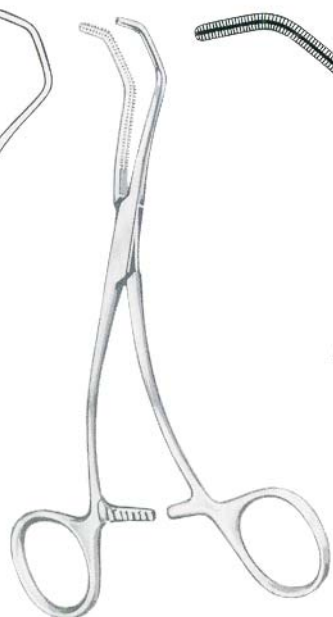
29-09807-02  
16.5 cm/6½"



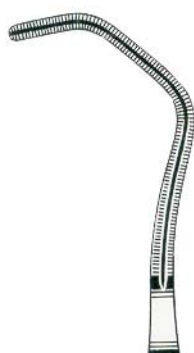
29-09807-03  
17.5 cm/7"



29-09807-04  
17.5 cm/7"



**Cooley**  
29-09811-16  
16 cm/6¼"



**Beck**  
29-09815-17  
17 cm/6¾"



Cooley



**Cooley-Derra**



29-09819-16  
16 cm/6 1/4"

29-09819-17  
17 cm/6 3/4"

29-09819-18  
18 cm/7"



**Cooley**

29-09823-16 16 cm/6 1/4"  
29-09823-17 17 cm/6 3/4"



16 cm/6 1/4"

17 cm/6 3/4"

Ligature clamps



Cooley



**Cooley**  
14 cm/5 1/2"



29-09826-14

29-09827-14



**Cooley**  
29-09830-14  
14 cm/5 1/2"



**Cooley**  
29-09833-14  
14 cm/5 1/2"



**Cooley**  
29-09837-14  
14 cm/5 1/2"

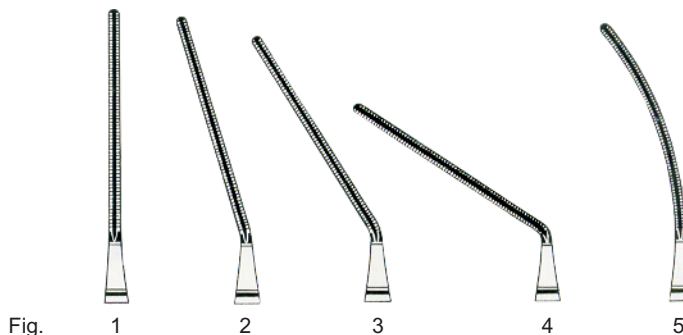


Fig.

1

2

3

4

5

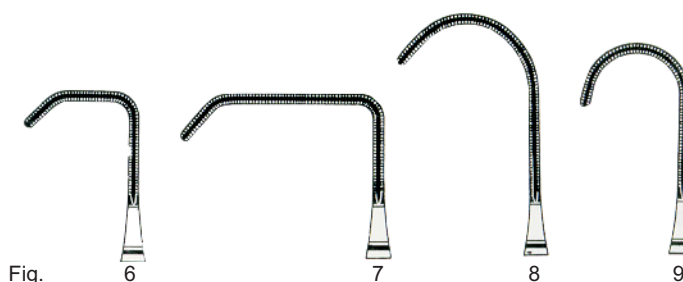


Fig.

6

7

8

9

Fig.

Straight

- |   |             |
|---|-------------|
| 1 | 29-09842-01 |
| 2 | 29-09842-02 |
| 3 | 29-09842-03 |
| 4 | 29-09842-04 |
| 5 | 29-09842-05 |
| 6 | 29-09842-06 |
| 7 | 29-09842-07 |
| 8 | 29-09842-08 |
| 9 | 29-09842-09 |



Fig.

Angled

- |   |             |
|---|-------------|
| 1 | 29-09843-01 |
| 2 | 29-09843-02 |
| 3 | 29-09843-03 |
| 4 | 29-09843-04 |
| 5 | 29-09843-05 |
| 6 | 29-09843-06 |
| 7 | 29-09843-07 |
| 8 | 29-09843-08 |
| 9 | 29-09843-09 |



Fig.

Curved

- |   |             |
|---|-------------|
| 1 | 29-09845-01 |
| 2 | 29-09845-02 |
| 3 | 29-09845-03 |
| 4 | 29-09845-04 |
| 5 | 29-09845-05 |
| 6 | 29-09845-06 |
| 7 | 29-09845-07 |
| 8 | 29-09845-08 |
| 9 | 29-09845-09 |







29-09847-01  
13 cm/5"



29-09847-02  
13 cm/5"



29-09847-03  
13 cm/5"



**Castaneda**



29-09847-04  
15 cm/6"



29-09847-05  
15 cm/6"



29-09847-06  
15 cm/6"



29-09847-07  
15 cm/6"



**Cooley**  
29-09849-01  
25 cm/10"



**Cooley**  
29-09849-02  
33 cm/13"



**Cooley**  
29-09849-03  
30 cm/12"



**Cooley**  
29-09849-04  
30 cm/12"



**Cooley**  
29-09849-05  
35 cm/13¾"

Tourniquets



**Rumel-Belmont**  
29-09851-32 3.2 mm Ø  
29-09851-64 6.4 mm Ø



**Cooley**  
29-09853-00



**Gerbode**  
29-09854-00



**Tubbs**  
29-09855-00



**De Bakey**

| mm Ø | 19 cm/7 1/2" | 35 cm/14"   |
|------|--------------|-------------|
| 0.5  | 29-09857-05  | 29-09858-05 |
| 1.0  | 29-09857-10  | 29-09858-10 |
| 1.5  | 29-09857-15  | 29-09858-15 |
| 2.0  | 29-09857-20  | 29-09858-20 |
| 2.5  | 29-09857-25  | 29-09858-25 |
| 3.0  | 29-09857-30  | 29-09858-30 |
| 3.5  | 29-09857-35  | 29-09858-35 |
| 4.0  | 29-09857-40  | 29-09858-40 |
| 4.5  | 29-09857-45  | 29-09858-45 |
| 5.0  | 29-09857-50  | 29-09858-50 |
| 7.0  | 29-09857-70  | 29-09858-70 |
| 9.0  | 29-09857-90  | 29-09858-90 |

Malleable



**Cooley**  
13 cm/5"

|                         |                         |                         |                         |                         |                         |                         |                         |
|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
|                         |                         |                         |                         |                         |                         |                         |                         |
| 29-09860-05<br>0.5 mm Ø | 29-09860-10<br>1.0 mm Ø | 29-09860-15<br>1.5 mm Ø | 29-09860-20<br>2.0 mm Ø | 29-09860-25<br>2.5 mm Ø | 29-09860-30<br>3.0 mm Ø | 29-09860-40<br>4.0 mm Ø | 29-09860-50<br>5.0 mm Ø |



Children  
30-09862-07  
7 cm/2¾"

**Weiss**

Adults  
30-09862-09  
9 cm/3½"



Children  
30-09864-07  
7 cm/2¾"

**Weiss**

Adults  
30-09864-09  
9 cm/3½"



**Park**  
30-09868-08  
8 cm/3¼"



**Park-Guyton**  
30-09870-08  
8 cm/3¼"



**Park-Maumenee**  
30-09872-08  
8 cm/3¼"



Children  
30-09874-03  
3 cm/1¼"

**Barraquer (Colibri)**

Adults  
30-09874-04  
4 cm/1½"



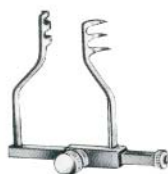
**Barraquer**  
30-09876-04  
4 cm/1½"



**Bowman**  
30-09878-07  
7 cm/2¾"



**Sauer**  
30-09880-03  
3 cm/1¼"

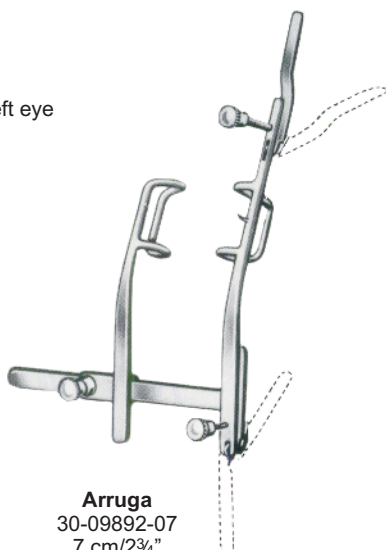


**Goldstein**  
30-09884-03  
3 cm/1¼"



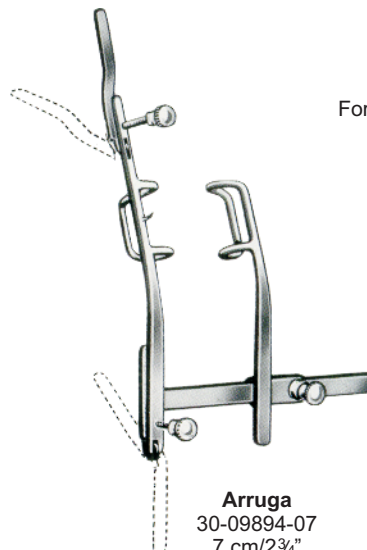
**Pley**  
30-09888-06  
6 cm/2¼"

For left eye



**Arruga**  
30-09892-07  
7 cm/2¾"

For right eye



**Arruga**  
30-09894-07  
7 cm/2¾"



**Mellinger-Axenfeld**  
30-09898-07  
7 cm/2¾"



**Mellinger-Axenfeld**  
30-09900-07  
7 cm/2¾"

Children  
30-09904-05  
5 cm/2¾"



**Mellinger**  
Adults  
30-09904-07  
7 cm/2¾"





|             |                        |             |
|-------------|------------------------|-------------|
| Children    | <b>Mellinger Beard</b> | Adults      |
| 30-09908-05 |                        | 30-09908-07 |
| 5 cm/2"     |                        | 7 cm/2¾"    |



|                    |
|--------------------|
| <b>Knapp Clark</b> |
| 30-09912-08        |
| 8 cm/3¼"           |



|             |               |             |
|-------------|---------------|-------------|
| Children    | <b>Graefe</b> | Adults      |
| 30-09916-06 |               | 30-09916-09 |
| 6 cm/2½"    |               | 9 cm/3½"    |



|             |             |             |
|-------------|-------------|-------------|
| Children    | <b>Cook</b> | Adults      |
| 30-09920-04 |             | 30-09920-05 |
| 4 cm/1½"    |             | 5 cm/2"     |



|                  |
|------------------|
| <b>Lancaster</b> |
| 30-09924-08      |
| 8 cm/3¼"         |



|             |                 |             |
|-------------|-----------------|-------------|
| Children    | <b>Williams</b> | Adults      |
| 30-09928-07 |                 | 30-09928-08 |
| 7 cm/2¾"    |                 | 8 cm/3¼"    |



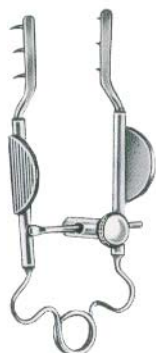
**Lister-Burch**  
30-09932-08  
8 cm/3¼"



**Weiss**  
30-09936-08  
8 cm/3¼"



**Murdock**  
30-09940-05  
5 cm/2"



**Mueller**  
30-09944-07  
7 cm/2¾"



**Critchett**  
30-09948-06  
6 cm/2½"



**Castroviejo**  
30-09952-08  
8 cm/3¼"



**Stevenson**  
30-09956-07  
7 cm/2¾"



**Agricola**  
30-09960-04  
4 cm/1½"



**Schepens**  
30-09964-13  
13 cm/5"



**Desmarres**  
30-09968-13  
13 cm/5"



8 mm

**Conway**  
30-09972-13  
13 cm/5"



**Desmarres**  
13 cm/5"



30-09976-12  
12 mm



30-09976-14  
14 mm



30-09976-16  
16 mm

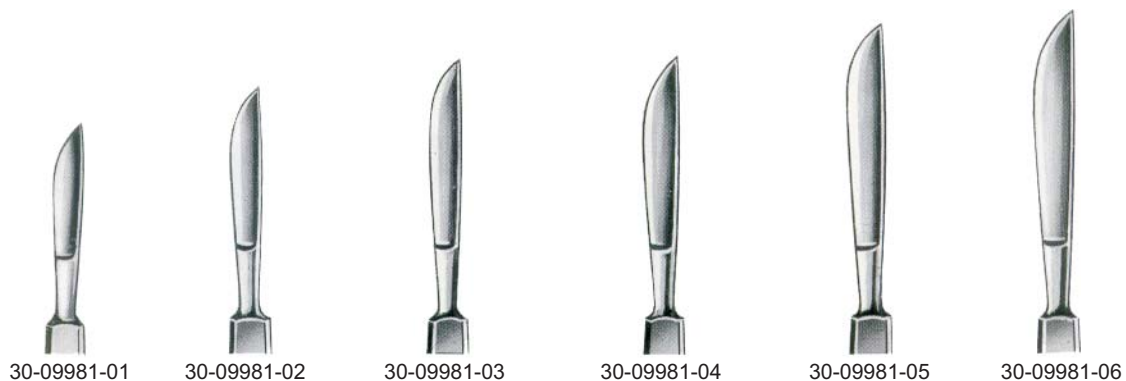


30-09976-18  
18 mm

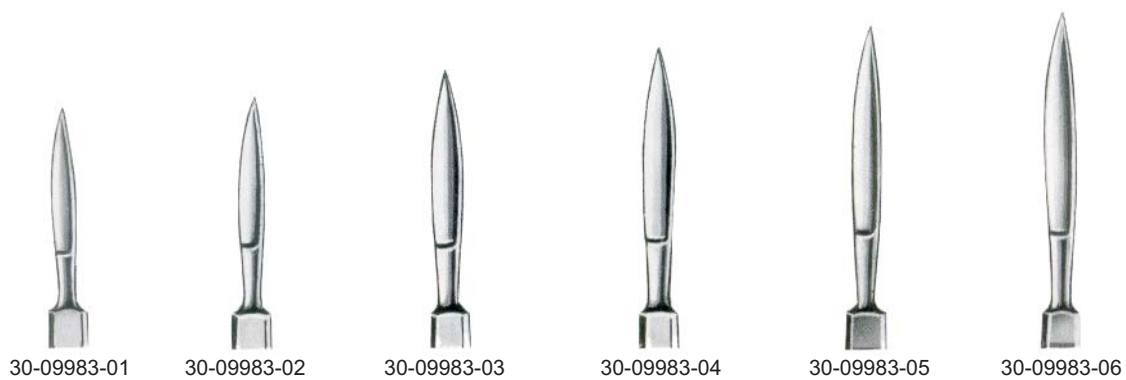
Lid plate



**Jaeger**  
30-09980-11  
11 cm/4 1/2"



30-09981-01 30-09981-02 30-09981-03 30-09981-04 30-09981-05 30-09981-06



30-09983-01 30-09983-02 30-09983-03 30-09983-04 30-09983-05 30-09983-06



30-09985-00 30-09985-01 30-09985-02 30-09985-03 30-09985-04 30-09985-05

**Graefe**



30-09987-01 30-09987-02 30-09987-03 30-09987-04 30-09991-13 30-09993-12

**Graefe-Arruga**

**Deutschmann**

**Wheeler**



**Jaeger**  
30-09997-01



30-09997-02



30-09997-03



30-09997-04



30-09999-01



30-09999-02



30-09999-03



30-09999-04



30-10001-01



30-10001-02



30-10001-03



30-10001-04



30-10003-01



30-10003-02



30-10003-03



30-10003-04

**Jaeger-Grieshaber**



30-10005-01



30-10005-02



30-10005-03



30-10005-04

**Jaeger-Grieshaber**



**Wessely-Grieshaber**

30-010007-01 4 mm  
30-010007-02 5 mm  
30-010007-03 6 mm  
30-010007-04 7 mm



**Wiener**

30-010009-13



**Berens**

30-0100011-13



**Papst**

30-0100013-13



**Castroviejo**

30-0100015-13



**Castroviejo**  
30-010019-01  
9 cm/3½"



**Castroviejo**  
30-010019-02  
9 cm/3½"



**Castroviejo**  
30-010019-03  
9 cm/3½"





**Mod. Hamburg**  
30-010023-12



**Graefe**  
30-010025-13



30-010027-01



**Weber**  
30-010027-02



30-010027-03



**Bowman**  
30-010029-04  
0.4 mm



**Bowman**  
30-010029-05  
0.5 mm



**Bowman**  
30-010029-06  
0.6 mm



**Bowman**  
30-010029-07  
0.7 mm



**Bowman**  
30-010029-08  
0.8 mm



**Bowman**  
Left 30-010031-01 Right 30-010031-02



30-010033-01



**Knapp**  
30-010033-02



30-010033-03



30-010035-05  
5 mm



**Ziegler**  
30-010035-06  
6 mm



30-010035-07  
7 mm



**Dean**  
30-010037-13



**Zigler**  
30-010039-11  
3½ mm



**Sato**  
30-010041-12



**Sichel**  
30-010043-13



**Graefe**  
30-010045-13



**Graefe**  
30-010047-13



30-010049-01



**Kuhnt**  
30-010049-02



30-010049-03



30-010049-04



**Paton**  
30-010051-12



**Elsching**  
30-010053-13



**Took**  
30-010055-12



30-010057-01



**Desmarres**  
30-010057-02



30-010057-03



**Gill**  
30-010059-12



**Instrumed**  
Fine Surgical Instruments

## Ophthalmology Instruments

Various Eye Knives  
and Discission Needles

**30**



**Anderson-Critchett**  
30-010061-12



**Lundsgaard**  
30-010063-12



**Guyton-Lundsgaard**  
30-010065-12



**Barken**  
30-010067-12



**Scheie**  
30-010069-12



**Burch**  
30-010071-12



30-010073-12



30-010075-12



30-010077-12



30-010079-12



30-010081-12



30-010083-12



**Schweiz. Mod.**  
30-010085-12



30-010087-13



30-010089-13



**Levinson**  
30-010091-13



**Alvis**  
30-010093-12



**Francis**  
30-010095-12



**La Force  
(Golf-Club)**  
30-010097-12



**Davis**  
30-010099-13



**Dix**  
30-010101-13



**Ellis**  
30-010103-11



**Plango**  
30-010105-12



**Nicati**  
30-010107-12



**Walton**  
30-010109-12



**Walton**  
30-010111-12



**Meyer**  
30-010113-12



**Green**  
30-010115-13



**Rollet**  
30-010117-12



**Graefe**  
30-010119-13



**Graefe**  
30-010121-19



**Graefe**  
30-010123-13



**Becker  
Melleable**  
30-010125-13



**Tuebingen**  
30-010127-13



**Mod. Bonn**  
30-10129-14  
14 cm/5½"



**Hirschmann**  
Blunt  
30-10132-10



**Graefe**  
Sharp  
30-10133-12



**Graefe**  
Blunt  
30-10136-12



**Knolle**  
30-10140-01

◀ Blunt ▶



**Jaffe-Knolle**  
30-10140-02



**O'Connor**  
30-10144-12



**Wiener**

Sharp  
30-10047-13  
  
Blunt  
30-10148-13



**Hirschmann**  
30-10152-13



**Graefe**  
30-10156-13



**McGannan**  
30-10160-13  
13 cm/5"



**Meyer-Schwickerath**  
30-10164-13  
13 cm/5"



**Jaeger**  
30-10168-01



**Jaeger**  
30-10168-02



**Left Arruga**  
30-10172-01



**Right**  
30-10172-02



**Jameson**  
30-10176-12



**Culler**  
30-10180-12



**Green**  
30-10184-13



**Guthrie**  
30-10188-12



**Guthrie**  
30-10190-13



**Berens**  
30-10194-12



**Knapp**  
Blunt  
30-10198-13



**Rollet**  
Sharp  
30-10201-12



**Rollet**  
30-10204-12



**Fink**  
Blunt  
30-10208-12



Right  
30-10212-01

Left  
30-10212-02

10.5 cm/4 1/4"



**Knapp-Rollet**  
30-10216-02



**Flexible**  
30-10216-03



**Flexible**  
30-10216-04





**Axenfeld**

Sharp  
30-10219-14

Blunt  
30-10220-14



**Axenfeld**

Sharp  
30-10223-14

Blunt  
30-10224-14



**Paul**  
30-10228-12



**Sautter**  
30-10232-01



**Sautter**  
30-10232-02



**Sautter**  
30-10232-03



**Arruga**  
30-10236-13



**Stevens**  
30-10240-14



**Stevens**  
30-10244-12



**Graefe**  
30-10248-01



**Graefe**  
30-10248-02



**Graefe**  
30-10248-03



**Wecker**  
30-10251-13



**Wecker**  
30-10252-13



**Stock**  
30-10255-13



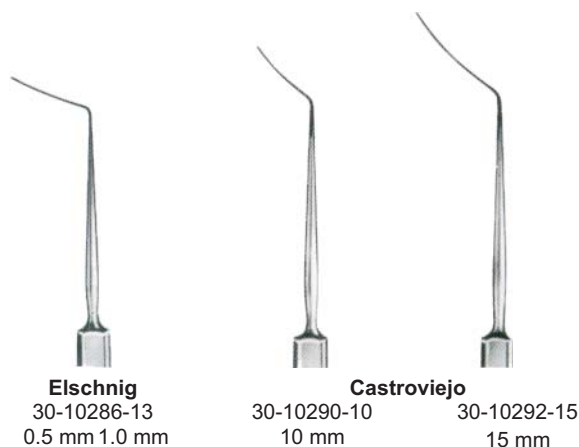
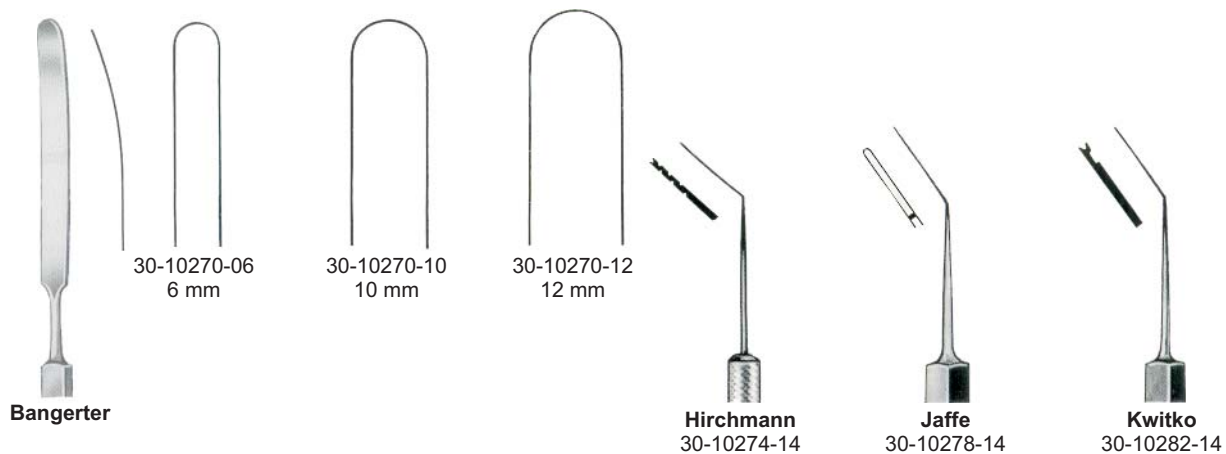
**Stock**  
30-10257-13



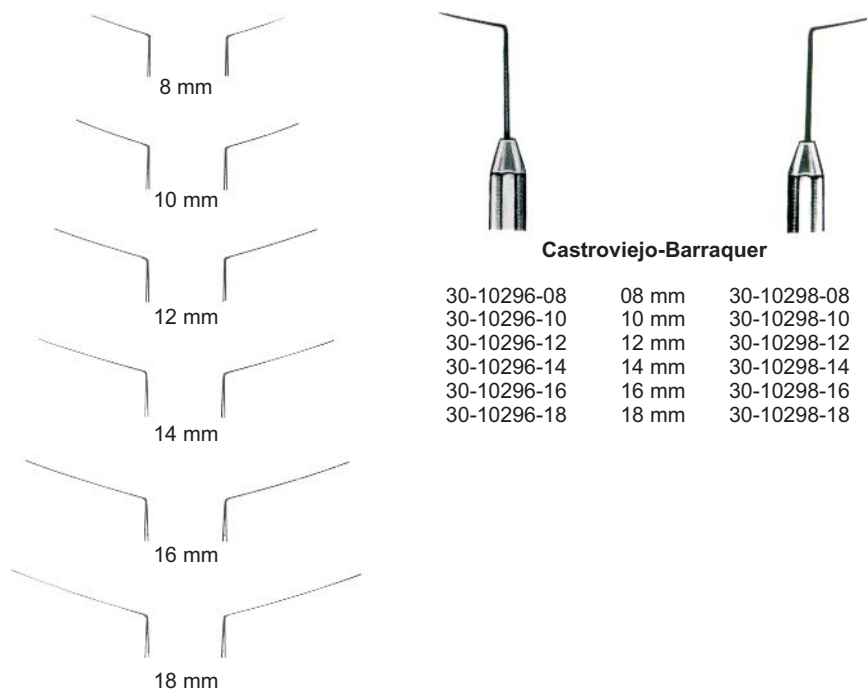
**Culler**  
30-10262-13



**Suker**  
30-10266-14



Width of Spatula







Enucleation Scoops

Small  
30-10348-16

Large  
30-10348-20

**Wells**

Chalazion Curettes



30-10352-05  
0.5 mm Ø



30-10352-10  
1.0 mm Ø



30-10352-15  
1.5 mm Ø



**Meyhoefer**  
30-10352-18  
1.8 mm Ø



30-10352-20  
2.0 mm Ø



30-10352-25  
2.5 mm Ø



30-10352-35  
3.5 mm Ø



**Meyhoefer**  
30-10352-40  
4.0 mm Ø



**Meyhoefer**  
30-10352-45  
4.5 mm Ø



30-10356-10  
1.0 mm Ø



30-10356-20  
2.0 mm Ø



**Hebra**  
30-10356-25  
2.5 mm Ø



30-10356-30  
3.0 mm Ø



30-10356-35  
3.5 mm Ø

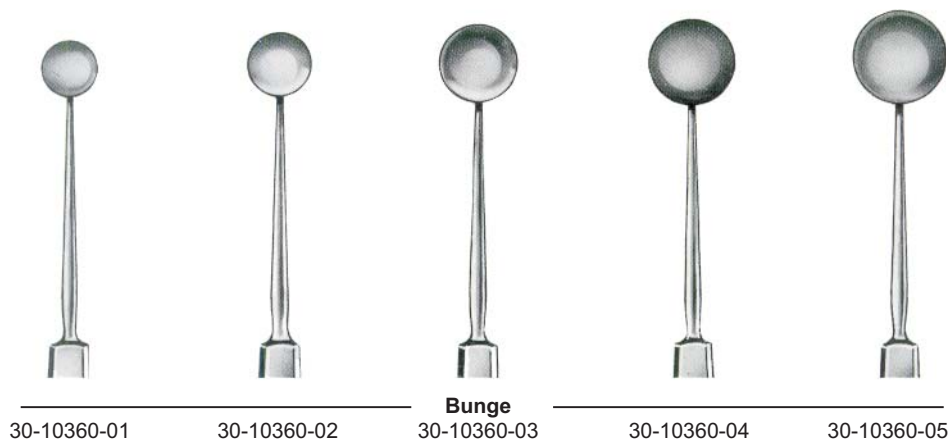


**Instrumed**  
Fine Surgical Instruments

**Ophthalmology Instruments**  
Exenteration Scoops and Chalazion Curettes  
Lachrymal Sac Dissectors

**30**

Exenteration Scoops



30-10360-01

30-10360-02

30-10360-03

30-10360-04

30-10360-05

**Bunge**



Chalazion Curette, Double

**Axenfeld**  
30-10364-13  
13 cm/5"



Lachrymal Sac Dissector

**Lang**  
30-10368-13  
13 cm/5"



Irrigating Cannulas

Straight



**Binkhorst**  
30-10372-01  
22 gauge

Right



**Binkhorst**  
30-10372-02  
22 gauge

Left



**Binkhorst**  
30-10372-03  
22 gauge

Probe Point



**Bonn**  
30-10372-04  
20 gauge



**Bonn**  
30-10372-05  
19 gauge



**Hamburg**  
30-10372-06  
23 gauge





**Simcoe**  
30-10376-01  
23 gauge

Irrigation/Aspiration Cannulas



**Gills-Welsh**  
30-10376-02  
25/23 gauge



**Knolle-Kelmann**  
30-10380-01  
22 gauge



**Nevyas**  
30-10380-02  
22 gauge



**Kratz**  
30-10380-03  
22 gauge

Cystotome Cannulas



**Freeman**  
30-10384-01  
27 gauge

Lens Manipulation Cannulas



**Sheets**  
30-10388-01

Irrigating Vectis Cannulas



**Knolle Pearce**  
30-10388-02



**Serrated**  
**Simcoe**  
30-10388-03

Cortex Aspiration Cannulas



**Simcoe**  
30-10392-01  
23 gauge



**Simcoe**  
30-10392-02  
23 gauge

Capsule Polishing Cannulas



**Kratz**  
30-10396-01



**Simcoe**  
30-10396-02



**Jensen**  
30-10396-03

Posterior



Lachrymal Cannulas



30-10400-01  
25 gauge



30-10400-02  
25 gauge



30-10400-03  
25 gauge



30-10400-04  
25 gauge



**Bonn**  
30-10400-05  
19 gauge



**Bangerter**  
30-10400-06 40 mm  
30-10401-06 60 mm



**Anel**  
30-10400-07  
23 gauge



**Anel**  
30-10400-08  
23 gauge



Alpha-Chymotrypsin Cannula



30-10404-00  
23 gauge

Air Injection Cannula



**Sauter**  
30-10406-00  
27 gauge

Collar Button Cannulas



**Graether**

Straight  
30-10408-01

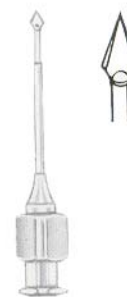
Angled  
30-10408-02

Knife Cannula



**Sato**  
30-10408-03  
23 gauge

A/C Puncture Cannula



**Schreck**  
30-10408-04  
21 gauge



**Instrumed**  
Fine Surgical Instruments

## Ophthalmology Instruments

Calipers, Markers, Punches Chisels,  
Marking Instruments and Lachrymal Dilators

**30**



**Castroviejo**  
30-10412-15



**Castroviejo**  
30-10412-20  
20 mm



**Holth**  
30-10416-01



**Haitz**  
30-10416-02



**West**  
30-10420-16  
16 cm/6 1/4"



**West**  
30-10422-16  
16 cm/6 1/4"



**Connin-Amsler**  
30-10426-13  
13 cm/5"



**Wilder**  
30-10430-01



**Wilder**  
30-10430-02



**Wilder**  
30-10430-03



**Castroviejo**  
30-010434-12



**Muldoon**  
30-10438-10



**Simpson**  
30-10442-01



**Harms**  
30-10446-01



30-10446-02

**Bowman  
Fig.**

|           |             |
|-----------|-------------|
| 0000/0000 | 30-10450-04 |
| 000/000   | 30-10450-03 |
| 00/00     | 30-10450-02 |
| 0/0       | 30-10450-01 |
| 1/1       | 30-10450-11 |
| 2/2       | 30-10450-22 |
| 3/3       | 30-10450-33 |
| 4/4       | 30-10450-44 |
| 5/5       | 30-10450-55 |
| 6/6       | 30-10450-66 |
| 7/7       | 30-10450-77 |
| 8/8       | 30-10450-88 |



**Bowman  
Fig.**

|          |             |
|----------|-------------|
| 0000/000 | 30-10452-03 |
| 000/00   | 30-10452-02 |
| 00/0     | 30-10452-00 |
| 0/1      | 30-10452-01 |
| 1/2      | 30-10452-12 |
| 2/3      | 30-10452-23 |
| 3/4      | 30-10452-34 |
| 4/5      | 30-10452-45 |
| 5/6      | 30-10452-56 |
| 6/7      | 30-10452-67 |
| 7/8      | 30-10452-78 |



**Bowman  
Fig.**

|          |             |
|----------|-------------|
| 0000/000 | 30-10454-03 |
| 000/00   | 30-10454-02 |
| 00/0     | 30-10454-00 |
| 0/1      | 30-10454-01 |
| 1/2      | 30-10454-12 |
| 2/3      | 30-10454-23 |
| 3/4      | 30-10454-34 |
| 4/5      | 30-10454-45 |
| 5/6      | 30-10454-56 |
| 6/7      | 30-10454-67 |
| 7/8      | 30-10454-78 |



Material: NS German Silver



**Castroviejo**

**Castroviejo**  
Width of Spatula

|             |      |
|-------------|------|
|             | mm   |
| 30-10458-05 | 0.50 |
| 30-10458-07 | 0.75 |
| 30-10458-10 | 1.00 |



**Castroviejo**  
30-10462-12



**Wheeler**  
30-10466-12



**Lindner**  
30-10470-13



**Smith-Fisher**  
30-10474-12



**Green**  
30-10478-12



**Dix**  
30-10482-01



**Dix**  
30-10482-02



**Stille**  
30-10486-01



**Stille**  
30-10486-02



30-10490-12





**Instrumed**  
Fine Surgical Instruments

## Ophthalmology Instruments

### Double-Ended Instruments and Instruments for D.B Kirby Operations

**30**



30-10494-13 30-10495-13

Needle Only  
30-10498-01

Chisel Only  
30-10498-02

Gouge Only  
30-10498-03



30-10500-13

#### Instrumentation for D. B. Kirby Operations



30-10502-10



Teeth  
30-10506-10 1:2 Teeth  
30-10508-10 2:3 Teeth



30-10510-10  
1 : 2



**Kirby**  
30-10514-10  
10 cm/4"



**Kirby**  
30-10516-10  
10 cm/4"



30-10518-10



30-10520-10



**Bores**

|             |               |
|-------------|---------------|
| 30-10524-01 | =3.0 x 3.5 mm |
| 30-10524-02 | =3.0 x 4.0 mm |
| 30-10524-03 | =3.0 x 4.5 mm |
| 30-10524-04 | =3.5 x 4.0 mm |
| 30-10524-05 | =3.5 x 4.5 mm |
| 30-10524-06 | =3.5 x 5.0 mm |



**Bores**

|             |          |
|-------------|----------|
| 30-10528-01 | =2.75 mm |
| 30-10528-02 | =3.00 mm |
| 30-10528-03 | =3.25 mm |
| 30-10528-04 | =3.75 mm |
| 30-10528-05 | =4.00 mm |
| 30-10528-06 | =4.25 mm |
| 30-10528-07 | =4.50 mm |
| 30-10528-08 | =4.75 mm |
| 30-10528-09 | =5.00 mm |
| 30-10528-10 | =6.00 mm |
| 30-10528-11 | =8.00 mm |



**Hoffer**

|             |          |
|-------------|----------|
| 30-10532-01 | =3.00 mm |
| 30-10532-02 | =3.25 mm |
| 30-10532-03 | =3.50 mm |
| 30-10532-04 | =3.75 mm |
| 30-10532-05 | =4.00 mm |
| 30-10532-06 | =4.25 mm |
| 30-10532-07 | =4.50 mm |
| 30-10532-08 | =4.75 mm |
| 30-10532-09 | =5.00 mm |
| 30-10532-10 | =5.50 mm |
| 30-10532-11 | =6.00 mm |
| 30-10532-12 | =7.00 mm |
| 30-10532-13 | =8.00 mm |
| 30-10532-14 | =9.00 mm |
| 30-10532-15 | =1.11 mm |



**Hoffer**

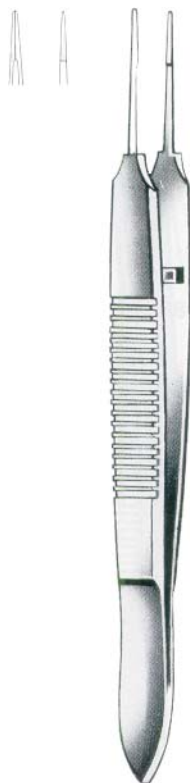
30-10536-00  
3 - 5 mm



**Hoffer**

30-10536-01  
3 - 5 - 7 mm

30-10536-02  
3 - 6 - 8 mm



**Tuebingen**  
30-10540-10  
10 cm/4"



**Tuebingen**  
30-10544-08  
8.5 cm/3½"



**Paufigue**  
30-10548-10  
10 cm/4"



**Barraquer**  
30-10552-10  
10.5 cm/4¼"



**McPherson**  
30-10556-10  
10 cm/4"



**McPherson**  
30-10560-07  
7.5 cm/3"



**McCullough**  
30-10564-09  
9.5 cm/3 3/4"



**McCullough**  
30-10568-09  
9.5 cm/3 3/4"



**Bonaccoito**  
30-10572-10  
10 cm/4"



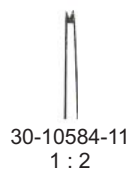
**Bonaccoito**  
30-10576-10  
10 cm/4"



30-10580-11  
11 cm/4 1/2"



11 cm/4 1/2"



30-10584-11  
1 : 2



30-10586-11  
2 : 3



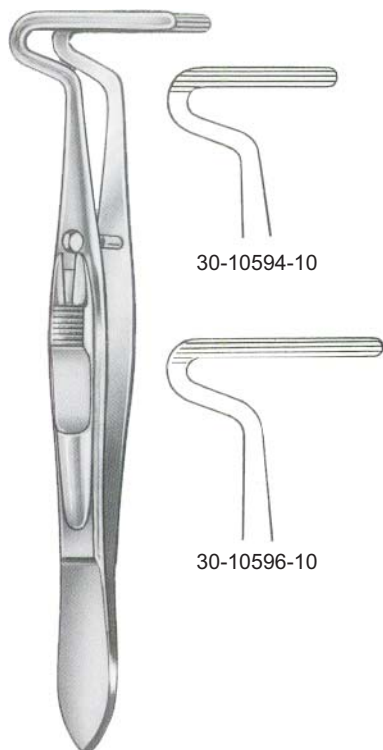
**Nugent**  
10 cm/4"



30-10590-01



30-10590-02



**Berke**  
10 cm/4"

30-10594-10

30-10596-10



**Blascovics**  
30-10600-09  
9 cm/3½"



**Blascovics**  
30-10601-09  
9 cm/3½"



**Worth**  
30-10604-10  
10 cm/4"



**Worth**  
30-10605-10  
10 cm/4"



**Jameson**  
30-10608-10  
10 cm/4"



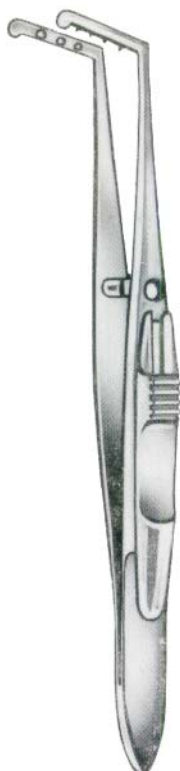
**Jameson**  
30-10609-10  
10 cm/4"



**Prince**  
30-10612-10  
10 cm/4"



**Prince**  
30-10613-10  
10 cm/4"



**Sattler**  
30-10616-10  
10 cm/4"



**Sattler**  
30-10617-10  
10 cm/4"



**Snellen**  
30-10620-10  
10 cm/4"



**Snellen**  
30-10621-10  
10 cm/4"



**Erhardt**  
30-10624-09  
9 cm/3½"





**Barraquer**  
30-10628-05  
5.5 cm/2¼"



**Barraquer**  
30-10628-07  
5.5 cm/2¼"



**Barraquer**  
30-10628-10  
5.5 cm/2¼"



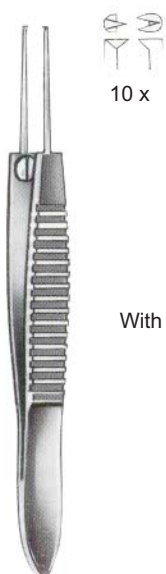
**Hess**  
30-10632-09  
9 cm/3½"

◀Swiss patterns▶



**Hess**  
30-10634-09  
9 cm/3½"





10 x

With guide pin

1:2  
**Bonn**  
30-10638-07  
7 cm/2¾"



10 x

Without guide pin

1:2  
**Bonn**  
30-10640-07  
7 cm/2¾"



0.12 mm

**Bonn**  
30-10642-10  
10 cm/4"



**Bishop-Harman**  
30-10646-08  
8.5 cm/3½"



**Bishop-Harman**  
30-10648-08  
8.5 cm/3½"



**Bishop-Harman**  
30-10650-08  
8.5 cm/3½"



1:2  
**Bishop-Harman**  
30-10652-08  
8.5 cm/3½"



**Graefe**

30-10656-05 0.5 mm  
30-10656-07 0.7 mm  
30-10656-10 1.0 mm  
7 cm/2¾"



**Graefe**

30-10657-05 0.5 mm  
30-10657-07 0.7 mm  
30-10657-10 1.0 mm  
7 cm/2¾"



1:2  
**Graefe**

30-10660-05 0.5 mm  
30-10660-07 0.7 mm  
30-10660-10 1.0 mm  
7 cm/2¾"



1:2  
**Graefe**

30-10661-05 0.5 mm  
30-10661-07 0.7 mm  
30-10661-10 1.0 mm  
7 cm/2¾"



**Foerster**

30-10664-08  
8.5 cm/3½"



**Foerster**

30-10665-08  
8.5 cm/3½"



**Foerster**

30-10668-08  
8.5 cm/3½"



**Foerster**

30-10669-08  
8.5 cm/3½"



**Graefe**  
10 cm/4"



30-10672-10



30-10673-10



30-10675-10



30-10678-10



30-10679-10



30-10681-10

Conjunctival forceps



**Stevens**  
10.5 cm/4 1/4"



30-10684-10



30-10685-10



30-10687-10



**O'Connor**  
30-10696-10  
10 cm/4"



30-10690-10



30-10691-10



30-10693-10



**Stevens**  
30-10700-11  
11 cm/4 1/2"



**Stevens**  
30-10701-11  
11 cm/4 1/2"



**Fischer**  
30-10705-07  
7 cm/2¾"



**Fischer-Arit**  
30-10707-07  
7 cm/2¾"



**Hess**  
30-10711-07  
7 cm/2¾"



**Hess**  
30-10713-07  
7 cm/2¾"



Smooth **Chandler** Serrated  
30-10717-01 7 cm/2¾" 30-10717-02



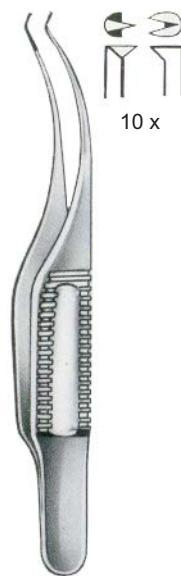
**Fuchs**  
30-10721-07  
7 cm/2¾"



**Gill-Hess**  
30-10723-07  
7.5 cm/3"



**Gill-Hess** Teeth Below  
30-10727-07 7.5 cm/3" 30-10729-07  
Teeth on side



**Barraquer-Katzin**  
(Colibri)  
30-10733-07  
7 cm/2¾"



10 x



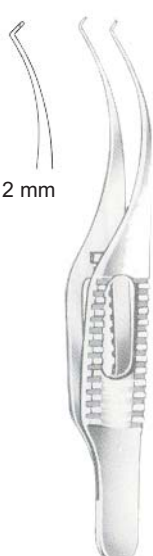
0.12 mm

**Troutman (Colibri)**  
30-10737-07  
7.5 cm/3"



0.12 mm

**Barraquer (Colibri)**  
30-10739-07  
7 cm/2¾"



0.12 mm

**Barraquer-Katzin (Colibri)**  
30-10741-07  
7 cm/2¾"



0.12 mm

**Barraquer (Colibri)**  
30-10743-07  
7 cm/2¾"



**Gill-Arruga**  
30-10745-07  
7.5 cm/3"



**Terson**  
30-10749-09  
9 cm/3½"



**Schweigger**  
30-10753-10  
10 cm/4"



**Schweigger**  
30-10755-10  
10 cm/4"



**Elschnig**  
30-10759-10  
10 cm/4"



**Hess**  
30-10763-06  
6 cm/2¼"



**Hess**  
30-10765-06  
6.5 cm/2½"



**Fuchs**  
30-10771-07  
7 cm/2¾"



**Kalt**  
30-10775-10  
10 cm/4"



**Terson**  
30-10779-09  
9.5 cm/3¾"



**Arruga-Nizetic**  
30-10783-10  
10 cm/4"



**Castroviejo**  
30-10787-10  
10 cm/4"



**Castroviejo**  
30-10789-10  
10 cm/4"



**Elschnig**  
30-10793-10  
10 cm/4"

For Len Implantation



**Binkhorst**  
30-10797-07  
7 cm/2¾"



**Arruga**  
30-10801-09  
9.5 cm/3¾"



**Arruga**  
30-10803-09  
9.5 cm/3¾"





**Shepard**

With irrigator  
30-10807-01

Without irrigator  
30-10807-02



**Dastoor**

30-10811-06  
6 cm/2 1/4"



**Arruga**  
30-10815-10  
10 cm/4"

Calibrated  
**Arruga**  
30-10817-10  
10 cm/4"



**Arruga**  
30-10819-10  
10 cm/4"

Calibrated  
**Arruga-Elschnig**  
30-10821-10  
10 cm/4"





**Knapp**  
30-10824-11  
11 cm/4¼"



**Ayer**  
30-10828-09  
9 cm/3½"



**Ayer**  
30-10830-09  
9 cm/3½"



**Lambert**  
30-10834-09  
9 cm/3½"



**Desmarres**  
9 cm/3½"



30-10838-01



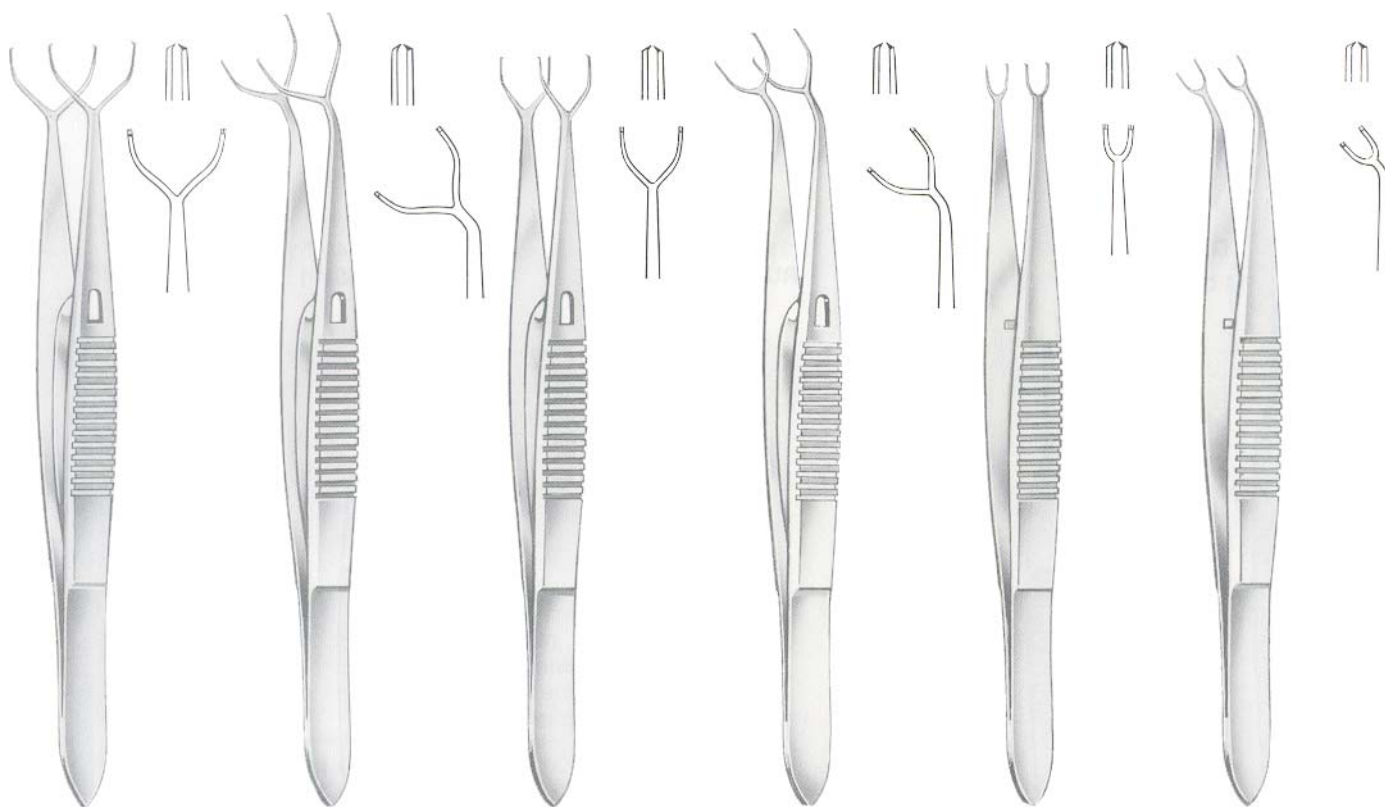
30-10838-02



30-10838-03



Corneal Fixation Forceps



**Kremer**  
30-10842-10  
10 cm/4"  
0.12 mm

**Kremer**  
30-10843-10  
10 cm/4"  
0.12 mm

**Arrowsmith**  
30-10848-10  
10 cm/4"  
0.12 mm

**Arrowsmith**  
30-10849-10  
10 cm/4"  
0.12 mm

**Bores**  
30-10852-10  
10 cm/4"  
0.12 mm

**Rubman-Bores**  
30-10853-10  
10 cm/4"  
0.12 mm



Without Spring Catch  
30-10858-11

With Spring Catch  
30-10860-11

**Graefe**  
11 cm/4½"



2 : 3 Teeth

30-10864-11  
11 cm/4½"



3 : 4 Teeth

30-10866-11  
11 cm/4½"



**Castroviejo**  
30-10870-09  
9 cm/3½"



**Castroviejo**  
30-10872-09  
9 cm/3½"



**Moorfield**  
30-10876-10  
10 cm/4"



**Lester**  
30-10880-02 1 : 2  
30-10882-03 2 : 3  
9 cm/3½"



**Castroviejo**  
10 cm/4"

Straight  
30-10886-01  
30-10886-02  
30-10886-03  
30-10886-04  
30-10886-05

Width of Teeth  
0.12 mm  
0.30 mm  
0.50 mm  
1.00 mm  
1.05 mm

Curved  
30-10887-01  
30-10887-02  
30-10887-03  
30-10887-04  
30-10887-05



**Castroviejo**  
10 cm/4"



**Castroviejo**  
30-10890-09  
9 cm/3½"



**St. Martin**  
30-10894-07  
7 cm/2 3/4"



**Elschnig**  
30-10898-11  
11.5 cm/4 1/2"



**Elschnig**  
30-10900-11  
11.5 cm/4 1/2"



**Barraquer**  
30-10904-10  
10 cm/4"



**Green**  
10 cm/4"

Wide  
05 mm  
10 mm

Without Spring Catch  
30-10908-05  
30-10908-10

Wide  
05 mm  
10 mm

With Spring Catch  
30-10910-05  
30-10910-10



30-10913-12  
12 cm/4 3/4"



30-10914-12  
12 cm/4 3/4"



**Instrumed**  
Fine Surgical Instruments

## Ophthalmology Instruments

### Ligature Needles

**30**



**Woodruff**  
30-10918-13  
13 cm/5"



**Woodruff**  
30-10920-13  
13 cm/5"



**Jacobi**  
30-10924-14  
14 cm/5½"



Wire Saws

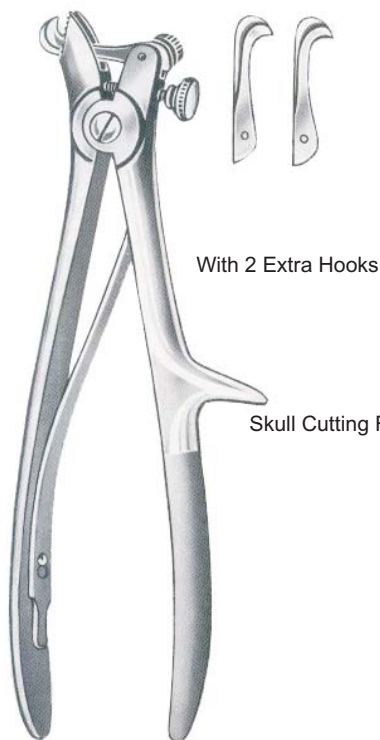


**Gigli**  
31-10932-30 30 cm/12"  
31-10932-40 40 cm/16"  
31-10932-50 50 cm/20"

Conductors



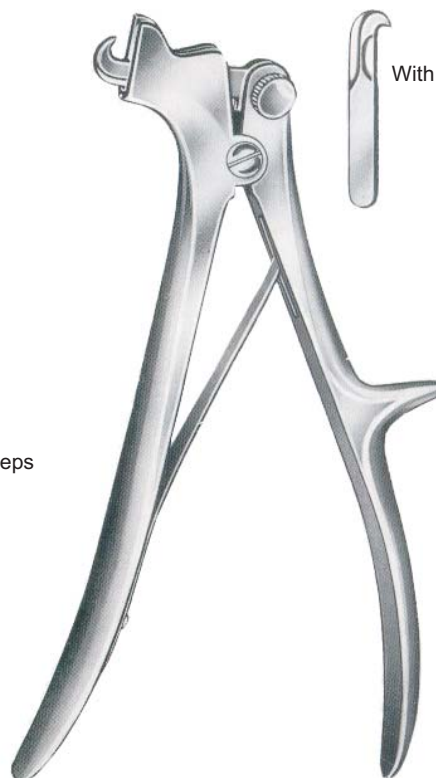
**Martel**  
31-10636-33  
33 cm/13"



With 2 Extra Hooks

Skull Cutting Forceps

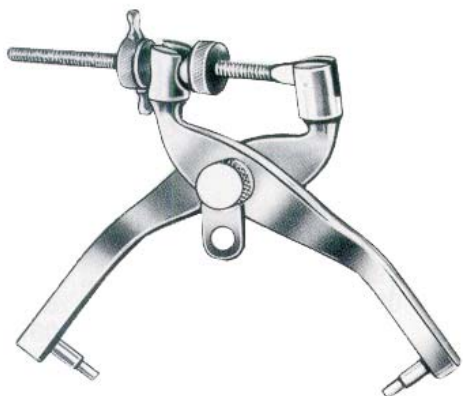
**Dahlgren**  
31-10640-20  
20 cm/8"



With 1 Hook Each

**De Vilbiss**  
31-10644-21  
21 cm/8 1/4"





**Crutchfield**  
31-10948-00



**Crutchfield**  
31-10952-00



31-10956-00



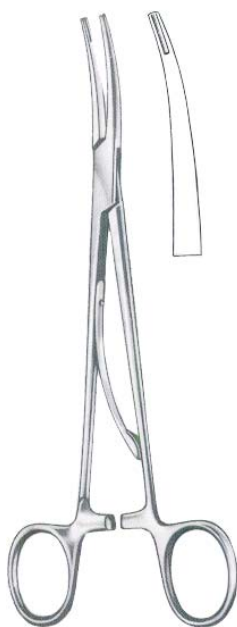
**Crutchfield**  
31-10960-00  
Complete With 2 Drills



Applying and Removing Forceps



**Raney**  
31-10964-00  
16 cm/6¼"



**McKenzie**  
31-10968-15 15 cm/6"  
31-10968-19 19 cm/7½"



**Olivecrona-Tonniss**  
31-10972-14



Medial



mm  
31-10976-40 40 x 20  
31-10976-45 45 x 20  
31-10976-50 50 x 20  
31-10976-55 55 x 20  
31-10976-60 60 x 20

Lateral



mm  
31-10978-40 40 x 20  
31-10978-45 45 x 20  
31-10978-50 50 x 20  
31-10978-55 55 x 20  
31-10978-60 60 x 20



mm  
31-10980-40 40 x 20  
31-10980-45 45 x 20  
31-10980-50 50 x 20  
31-10980-55 55 x 20  
31-10980-60 60 x 20



Blunt Blades, For Taking  
mm  
31-10982-50 50 x 25  
31-10982-60 60 x 25



mm  
31-10984-35 35 x 52  
31-10984-40 40 x 52  
31-10984-45 45 x 52  
31-10984-50 50 x 52  
31-10984-55 55 x 52  
31-10984-60 60 x 52  
31-10984-65 65 x 52  
31-10984-70 70 x 52



mm  
31-10986-35 35 x 37  
31-10986-40 40 x 37  
31-10986-45 45 x 37  
31-10986-50 50 x 37  
31-10986-55 55 x 37  
31-10986-60 60 x 37  
31-10986-65 65 x 37  
31-10986-70 70 x 37



mm  
31-10988-35 35 x 22  
31-10988-40 40 x 22  
31-10988-45 45 x 22  
31-10988-50 50 x 22  
31-10988-55 55 x 22  
31-10988-60 60 x 22  
31-10988-65 65 x 22  
31-10988-70 70 x 22

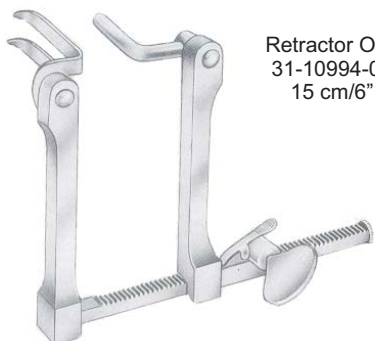


mm  
31-10990-50 50

Hook



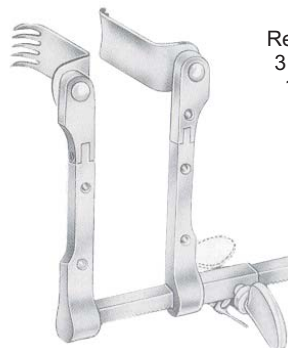
mm  
31-10992-70 70



Retractor Only  
31-10994-01  
15 cm/6"

**Caspar**  
31-10994-00

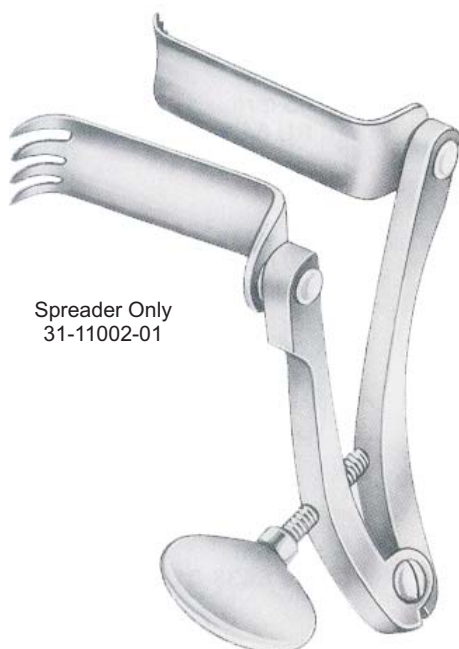
Retractor Complete With  
1 Blade Each  
31-10988-40  
31-10990-50



Retractor Only  
31-10998-01  
12 cm/4¾"

**Caspar**  
31-10998-00

Retractor Complete With  
1 Blade Each  
31-10976-40  
31-10978-40



Spreader Only  
31-11002-01

**Caspar**  
31-11002-00  
Retractors Only  
Spreader Complete With  
1 Blade Each  
31-11976-45  
31-11976-60



Spreader Only  
31-11006-01

**Caspar**  
31-11006-00  
Spreader Only  
Retractor Complete With  
1 Blade Each  
31-11980-40  
31-11980-40



31-11010-01  
15 cm/6"  
Retractor only

**Caspar**  
31-11010-00  
31-10980-45  
31-10980-65  
Retractor complete with  
1 blade each



31-11014-01  
15 cm/6"  
Retractor only

**Caspar**  
31-11014-00  
31-10980-45  
31-10980-65  
Retractor adjustable, con  
1 blade each



31-11018-01  
Retractor only  
with 1 fixed blade

**Caspar**  
31-11018-00  
Retractor complete,  
eith 5 blades

31-11018-40  
40 mm



31-11018-45  
45 mm



31-11018-50  
50 mm



31-11018-55  
55 mm



31-11018-60  
60 mm





31-11022-01  
Retractor only

**Cloward**  
31-11022-00  
25 cm/10"  
complete with 5 blades



31-11022-40  
15x40 mm



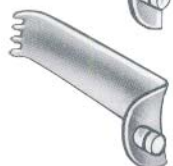
31-11022-45  
15x45 mm



31-11022-50  
15x50 mm



31-11022-55  
15x55 mm



31-11022-60  
15x60 mm



31-11026-01  
Retractor only

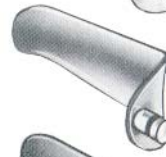
**Cloward**  
31-11026-00  
15 cm/6"  
complete with 5 blades



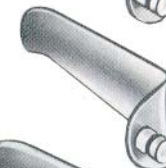
31-11026-40  
15x40 mm



31-11026-45  
15x45 mm



31-11026-50  
15x50 mm



31-11026-55  
15x55 mm



31-11026-60  
15x60 mm





**Inge**  
31-11030-16  
16 cm/6¼"



**Inge**  
31-11032-27  
27 cm/10¾"



**Cloward**  
31-11036-15  
15 cm/6"



**Cloward**  
31-11040-16  
16 cm/6¼"



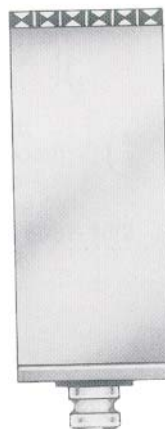
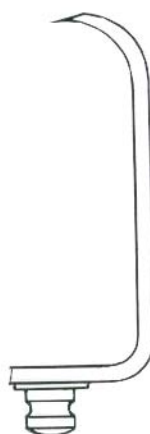


Muscle blades



Frame  
31-11044-01

**Hey**  
31-11044-00  
31-11046-00  
23 cm/9"



31-11044-50  
20x50 mm



31-11044-60  
20x60 mm



31-11044-70  
20x70 mm

Vertebra-pins



31-11046-50  
50 mm



31-11046-60  
60 mm



31-11046-70  
70 mm



Left-type

Right-type

50x10 mm

31-11050-01

31-11052-01

60x10 mm

31-11050-02

31-11052-02

70x10 mm

31-11050-03

31-11052-03

50x20 mm

31-11054-01

31-11056-01

60x20 mm

31-11054-02

31-11056-02

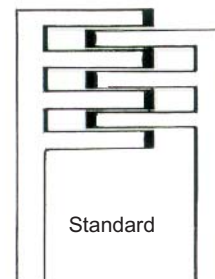
70x20 mm

31-11054-03

31-11056-03



Toothed



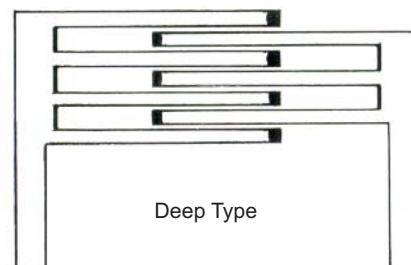
Standard

31-11060-00 Complete 31-11062-00  
14.5 cm/5 $\frac{3}{4}$ " Consisting of 17 cm/6 $\frac{3}{4}$ "

31-11060-01 Frame 31-11062-01  
31-11060-21 Centre Blades 31-11060-21  
31-11060-22 31-11060-22  
31-11060-23 31-11060-23



Henly



Deep Type

31-11064-00 Complete 31-11066-00  
14.5 cm/5 $\frac{3}{4}$ " Consisting of 17 cm/6 $\frac{3}{4}$ "

31-11060-01 Centre Blades 31-11066-01  
31-11060-21 31-11060-21  
31-11060-22 31-11060-22  
31-11060-23 31-11060-23



**Davis**  
31-11070-24  
24.5 cm/9  $\frac{3}{4}$ "



**Toennis**  
31-11074-25  
25 cm/10"



**Frazier**  
31-11078-15



**Hoen**  
31-11080-15



**Hoen**  
31-11082-15  
15 cm/6"



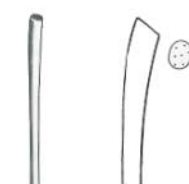
**Love-Adson**  
31-11086-16  
16 cm/6  $\frac{1}{2}$ "



**Penfield**  
Fig. 1  
31-11090-01  
17.5 cm/7"



**Penfield**  
Fig. 2  
31-11090-02  
19.5 cm/7  $\frac{3}{4}$ "



**Penfield**  
Fig. 3  
31-11090-03  
19.5 cm/7  $\frac{3}{4}$ "



**Penfield**  
Fig. 4  
31-11090-04  
21.5 cm/8  $\frac{1}{2}$ "

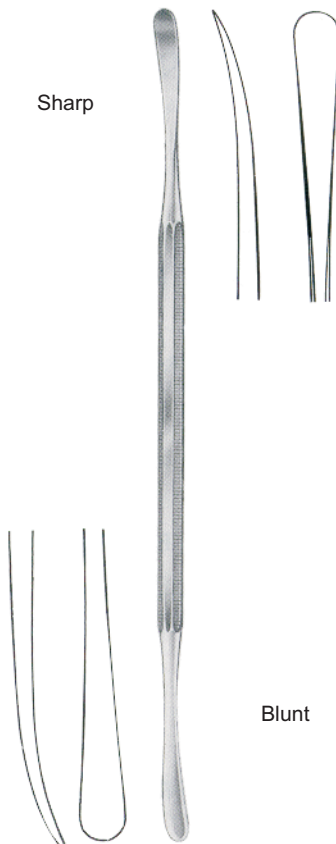


**Penfield**  
Fig. 5  
31-11090-05  
29 cm/11  $\frac{1}{2}$ "



**Sachs**  
31-11094-21  
21 cm/8¼"

Sharp



31-11098-22  
22 cm/8¼"

Blunt



**Woodsen**  
31-11102-25  
25 cm/10"



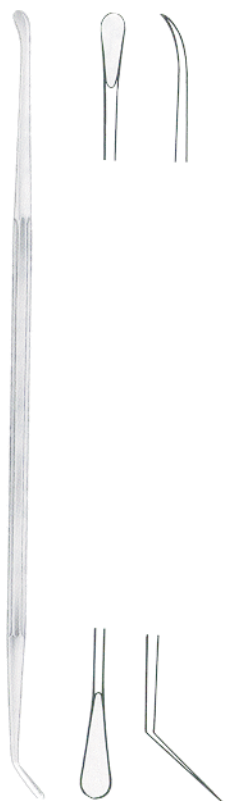
**Frager**  
31-11106-20  
20 cm/8"



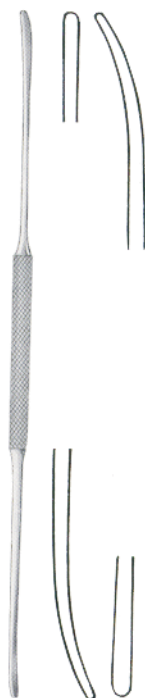
**Frager**  
31-11108-20  
20 cm/8"



**Sachs**  
31-11112-21  
21 cm/8¼"



**Milligan**  
31-11116-21  
21 cm/8¼"



**Olivecrona**  
31-11120-18 18 cm/7"  
31-11120-24 24 cm/9½"



**Olivecrona**  
31-11124-19 19.5 cm/7¾"  
31-11124-24 24 cm/9½"



**Horsley**  
31-11128-20  
20 cm/8"



**Sachs**  
31-11132-21  
21 cm/8¼"



**Cushing**  
17 cm/6¾"  
20 cm/8"  
28 cm/11"

31-11136-17  
31-11136-20  
31-11136-28



**Olivecrone**  
18 cm/7"  
Width of Spatulas

|             | Upper end |    | Lower end |             |
|-------------|-----------|----|-----------|-------------|
|             | Concave   | mm | mm        | Convex      |
| 31-11140-01 |           | 7  | 9         | 31-11142-01 |
| 31-11140-02 |           | 11 | 13        | 31-11142-02 |
| 31-11140-03 |           | 15 | 18        | 31-11142-03 |
| 31-11140-04 |           | 18 | 22        | 31-11142-04 |



**Heifetz**  
20 cm/8"

| Width of Spatulas |             |           |  |
|-------------------|-------------|-----------|--|
| Upper end         |             | Lower end |  |
| mm                |             | mm        |  |
| 7                 | 31-11144-08 | 8         |  |
| 10                | 31-11144-11 | 11        |  |
| 13                | 31-11144-14 | 14        |  |
| 16                | 31-11144-17 | 17        |  |
| 19                | 31-11144-20 | 20        |  |
| 22                | 31-11144-25 | 22        |  |



**Heifetz**  
15.5 cm/6"

Width of Spatulas

|             | mm |
|-------------|----|
| 31-11148-08 | 8  |
| 31-11148-11 | 11 |
| 31-11148-14 | 14 |
| 31-11148-17 | 17 |

Length of Spatulas





18 cm/7"

Width of spatulas

| Upper end | Lower end |             |
|-----------|-----------|-------------|
| mm        | mm        |             |
| 7         | 9         | 31-11152-09 |
| 11        | 13        | 31-11152-13 |
| 15        | 18        | 31-11152-18 |
| 18        | 22        | 31-11152-22 |



20 cm/8"  
12 mm 31-11156-12  
17 mm 31-11156-17



20 cm/8"  
14 mm 31-11160-14  
17 mm 31-11160-17  
20 mm 31-11160-20



31-11164-01  
19cm/7½"



**Love**  
31-11164-02  
19 cm/7½"



31-11164-03



**Love**  
31-11168-21  
21 cm/8¼"



Length of spatulas



70 mm  
3 mm 31-11172-03

100 mm  
31-11174-03



5 mm 31-11172-05

31-11174-05



7 mm 31-11172-07

31-11174-07



**Love**



**Scoville**  
23 cm/9"

7 mm 31-11176-07  
9 mm 31-11176-09



**Holsher**  
7mm 31-11177-07  
9mm 31-11177-09  
24 cm/9½"



8 mm 31-11179-08  
13 mm 31-11179-13



**Taylor**

30x 70 mm 31-11180-07 17 cm/6<sup>3</sup>/<sub>4</sub>"  
30x100 mm 31-11180-10 17 cm/6<sup>3</sup>/<sub>4</sub>"



**Oldberg**

21 cm/8<sup>1</sup>/<sub>4</sub>"



31-11182-01



31-11182-02



31-11182-03



31-11182-04



**Cushing**

31-11184-19 19 cm/7<sup>3</sup>/<sub>4</sub>"  
31-11184-28 28 cm/11"



**Smithwick**

31-11188-17 17 cm/6<sup>1</sup>/<sub>2</sub>"  
31-11188-21 21 cm/8<sup>1</sup>/<sub>4</sub>"



**Cushnig**

31-11190-14 14 cm/5<sup>1</sup>/<sub>2</sub>"



**Adson**

20 cm/8"



31-11192-01



31-11192-02



**Cloward**  
31-11196-16  
16 cm/6½"



**Hoen**  
31-11200-22  
22 cm/8¾"



**Dandy**  
31-11204-01  
20 cm/8"



**Dandy**  
31-11204-02  
20 cm/8"



**Dandy**  
31-11204-03  
20 cm/8"



**Smithwick**  
31-11208-29  
29 cm/11¾"



**Scoville**  
31-11212-30  
30 cm/12"



**Scoville**  
31-11214-30  
30 cm/12"



**Instrumed**  
Fine Surgical Instruments

## Neuro and Laminectomy Instruments Nerve Retractors and Knives

**31**



**Graham**  
31-11218-16  
16.5 cm/6½"



**Toennis**  
31-11222-15  
15 cm/6"



**Frazier**  
31-11226-13 13 cm/5"  
31-11226-18 18 cm/7"



**Toennis**  
31-11230-13 13 cm/5"  
31-11230-18 18 cm/7"



**Olivecrona**  
31-11234-23  
23 cm/9"



**Olivecrona**  
31-11236-20  
20.5 cm/8"



**Ferris-Smith-Kerrison**

|                    |                                                                                     | Width of Bite |             | Length of Shaft |             |             |
|--------------------|-------------------------------------------------------------------------------------|---------------|-------------|-----------------|-------------|-------------|
|                    |                                                                                     |               |             | 15 cm/6"        | 20 cm/8"    | 18 cm/7"    |
| Cutting Upward     |  | 0.6 mm        |             |                 |             | 31-11252-00 |
|                    |                                                                                     | 1 mm          |             |                 |             | 31-11252-01 |
|                    |                                                                                     | 2 mm          |             |                 |             | 31-11252-02 |
|                    |                                                                                     | 3 mm          | 31-11240-03 | 31-11246-03     | 31-11252-03 |             |
|                    |                                                                                     | 4 mm          |             |                 | 31-11252-04 |             |
|                    |                                                                                     | 5 mm          | 31-11240-05 | 31-11246-05     | 31-11252-05 |             |
| Cutting Upward 40° |  | 0.6 mm        |             |                 |             | 31-11254-00 |
|                    |                                                                                     | 1 mm          |             |                 |             | 31-11254-01 |
|                    |                                                                                     | 2 mm          |             |                 |             | 31-11254-02 |
|                    |                                                                                     | 3 mm          | 31-11242-03 | 31-11248-03     | 31-11254-03 |             |
|                    |                                                                                     | 4 mm          |             |                 | 31-11254-04 |             |
|                    |                                                                                     | 5 mm          | 31-11242-05 | 31-11248-05     | 31-11254-05 |             |
| Cutting Downwards  |  | 0.6 mm        |             |                 |             | 31-11256-00 |
|                    |                                                                                     | 1 mm          |             |                 |             | 31-11256-01 |
|                    |                                                                                     | 2 mm          |             |                 |             | 31-11256-02 |
|                    |                                                                                     | 3 mm          | 31-11244-03 | 31-11250-03     | 31-11256-03 |             |
|                    |                                                                                     | 4 mm          |             |                 | 31-11256-04 |             |
|                    |                                                                                     | 5 mm          | 31-11244-05 | 31-11250-05     | 31-11256-05 |             |



**Ferris-Smith-Kerrison**

|                    |                                                                                     | Width of Bite |                            | Length of Shaft            |                            |  |
|--------------------|-------------------------------------------------------------------------------------|---------------|----------------------------|----------------------------|----------------------------|--|
|                    |                                                                                     |               | 15 cm/6"                   | 20 cm/8"                   | 18 cm/7"                   |  |
| Cutting Upward     |  | 3 mm<br>5 mm  | 31-11260-03<br>31-11260-05 | 31-11266-03<br>31-11266-05 | 31-11272-03<br>31-11272-05 |  |
| Cutting Upward 40° |  | 3 mm<br>5 mm  | 31-11262-03<br>31-11262-05 | 31-11268-03<br>31-11268-05 |                            |  |
| Cutting Downward   |  | 3 mm<br>5 mm  | 31-11264-03<br>31-11264-05 | 31-11270-03<br>31-11270-05 | 31-11274-03<br>31-11274-05 |  |



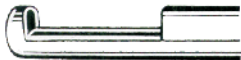


**Love-Kerrison**

|                    |  | Width of Bite |             | Length of Shaft |             |
|--------------------|--|---------------|-------------|-----------------|-------------|
|                    |  |               | 15 cm/6"    | 20 cm/8"        | 18 cm/7"    |
| Cutting Upward     |  | 2 mm          |             |                 | 31-11286-02 |
|                    |  | 3 mm          | 31-11278-03 | 31-11282-03     | 31-11286-03 |
|                    |  | 4 mm          | 31-11278-04 | 31-11282-04     | 31-11286-04 |
|                    |  | 5 mm          | 31-11278-05 | 31-11282-05     | 31-11286-05 |
|                    |  | 6 mm          |             |                 | 31-11286-06 |
| Cutting Upward 40° |  | 2 mm          |             |                 | 31-11288-02 |
|                    |  | 3 mm          |             |                 | 31-11288-03 |
|                    |  | 4 mm          |             |                 | 31-11288-04 |
|                    |  | 5 mm          |             |                 | 31-11288-05 |
|                    |  | 6 mm          |             |                 | 31-11288-06 |
| Cutting Downward   |  | 2 mm          |             |                 | 31-11290-02 |
|                    |  | 3 mm          | 31-11280-03 | 31-11284-03     | 31-11290-03 |
|                    |  | 4 mm          | 31-11280-04 | 31-11284-04     | 31-11290-04 |
|                    |  | 5 mm          | 31-11280-05 | 31-11284-05     | 31-11290-05 |
|                    |  | 6 mm          |             |                 | 31-11290-06 |
| Cutting Upward 40° |  | 2 mm          |             |                 | 31-11292-02 |
|                    |  | 3 mm          |             |                 | 31-11292-03 |
|                    |  | 4 mm          |             |                 | 31-11292-04 |
|                    |  | 5 mm          |             |                 | 31-11292-05 |
|                    |  | 6 mm          |             |                 | 31-11292-06 |



**Colclough**

|                    |                                                                                     | Width of Bite | Length of Shaft            |                            |
|--------------------|-------------------------------------------------------------------------------------|---------------|----------------------------|----------------------------|
|                    |                                                                                     |               | 15 cm/6"                   | 20 cm/8"                   |
| Cutting Upward     |  | 3 mm<br>5 mm  | 31-11296-03<br>31-11296-05 | 31-11302-03<br>31-11302-05 |
| Cutting Upward 40° |  | 3 mm<br>5 mm  | 31-11298-03<br>31-11298-05 | 31-11304-03<br>31-11304-05 |
| Cutting Downward   |  | 3 mm<br>5 mm  | 31-11300-03<br>31-11300-05 | 31-11306-03<br>31-11306-05 |



|                                   | Length Of Shaft |             |             |             |
|-----------------------------------|-----------------|-------------|-------------|-------------|
| <b>Cushing</b><br>2 x 10 cm       | 5"/13 cm        | 31-11310-01 | 31-11310-02 | 31-11310-03 |
|                                   | 6"/15 cm        | 31-11312-01 | 31-11312-02 | 31-11312-03 |
|                                   | 7"/18 cm        | 31-11314-01 | 31-11314-02 | 31-11314-03 |
| <b>Love-Grunwald</b><br>3 x 10 cm | 5"/13 cm        | 31-11316-01 | 31-11316-02 | 31-11316-03 |
|                                   | 6"/15 cm        | 31-11318-01 | 31-11318-02 | 31-11318-03 |
|                                   | 7"/18 cm        | 31-11320-01 | 31-11320-02 | 31-11320-03 |
| <b>Spurling</b><br>4 x 10 cm      | 5"/13 cm        | 31-11322-01 | 31-11322-02 | 31-11322-03 |
|                                   | 6"/15 cm        | 31-11324-01 | 31-11324-02 | 31-11324-03 |
|                                   | 7"/18 cm        | 31-11326-01 | 31-11326-02 | 31-11326-03 |



|                                   | Length Of Shaft |             |             |             |
|-----------------------------------|-----------------|-------------|-------------|-------------|
| <b>Cushing</b><br>2 x 10 cm       | 5"/13 cm        | 31-11330-01 | 31-11330-02 | 31-11330-03 |
|                                   | 6"/15 cm        | 31-11332-01 | 31-11332-02 | 31-11332-03 |
|                                   | 7"/18 cm        | 31-11334-01 | 31-11334-02 | 31-11334-03 |
| <b>Love-Grunwald</b><br>3 x 10 cm | 5"/13 cm        | 31-11336-01 | 31-11336-02 | 31-11336-03 |
|                                   | 6"/15 cm        | 31-11338-01 | 31-11338-02 | 31-11338-03 |
|                                   | 7"/18 cm        | 31-11340-01 | 31-11340-02 | 31-11340-03 |
| <b>Spurling</b><br>4 x 10 cm      | 5"/13 cm        | 31-11342-01 | 31-11342-02 | 31-11342-03 |
|                                   | 6"/15 cm        | 31-11344-01 | 31-11344-02 | 31-11344-03 |
|                                   | 7"/18 cm        | 31-11346-01 | 31-11346-02 | 31-11346-03 |

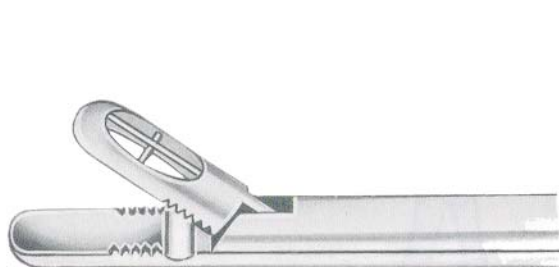


**Ferris-Smith**

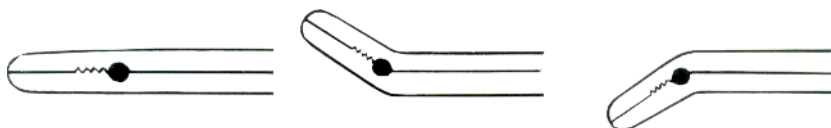
Width Of Jaw



|           |             |             |             |
|-----------|-------------|-------------|-------------|
| 2 x 10 mm | 31-11350-01 | 31-11350-02 | 31-11350-03 |
| 3 x 10 mm | 31-11352-01 | 31-11352-02 | 31-11352-03 |
| 4 x 10 mm | 31-11354-01 | 31-11354-02 | 31-11354-03 |



Serrated and Fenestrated Jaws



| Width Of Jaw | Length Of Shaft |             |             |             |
|--------------|-----------------|-------------|-------------|-------------|
| mm           | 14 cm/5 1/2"    | 31-11358-01 | 31-11358-02 | 31-11358-03 |
| 2 x 12       | 16 cm/6 1/4"    | 31-11360-01 | 31-11360-02 | 31-11360-03 |
| 3 x 12       | 14 cm/5 1/2"    | 31-11362-01 | 31-11362-02 | 31-11362-03 |
|              | 16 cm/6 1/4"    | 31-11364-01 | 31-11364-02 | 31-11364-03 |
| 4 x 14       | 14 cm/5 1/2"    | 31-11366-01 | 31-11366-02 | 31-11366-03 |
|              | 16 cm/6 1/4"    | 31-11368-01 | 31-11368-02 | 31-11368-03 |
| 5 x 14       | 14 cm/5 1/2"    | 31-11370-01 | 31-11370-02 | 31-11370-03 |
|              | 16 cm/6 1/4"    | 31-11372-01 | 31-11372-02 | 31-11372-03 |
| 6 x 16       | 14 cm/5 1/2"    | 31-11374-01 | 31-11374-02 | 31-11374-03 |
|              | 16 cm/6 1/4"    | 31-11376-01 | 31-11376-02 | 31-11376-03 |



Serrated Jaws

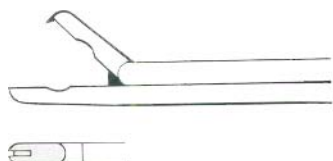
Length Of Shaft

|                                                                                   |             | mm     |          |
|-----------------------------------------------------------------------------------|-------------|--------|----------|
|  | 31-11378-02 | 2 x 10 | 13 cm/5" |
|  | 31-11378-03 | 3 x 10 | 13 cm/5" |
|  | 31-11378-04 | 4 x 10 | 13 cm/5" |



**Schlessinger**

Grasping Forceps



31-11382-16

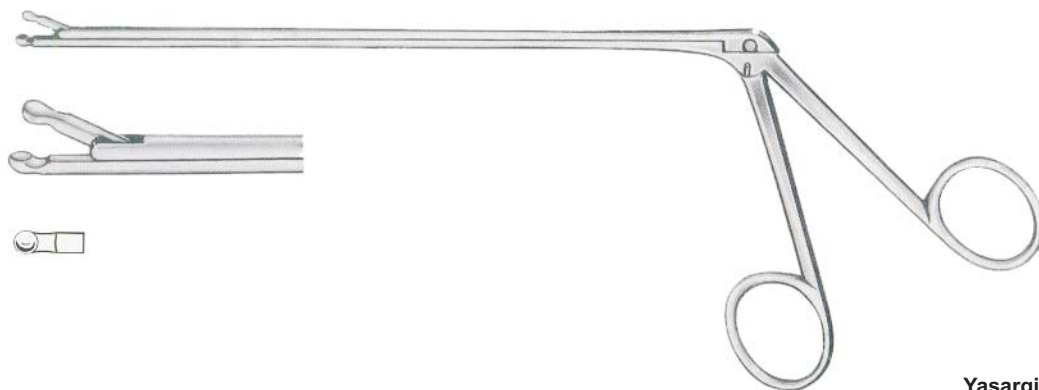




**Instrumed**  
Fine Surgical Instruments

## Neuro and Laminectomy Instruments Laminectomy Rongeurs

**31**



Ø 3.5 mm

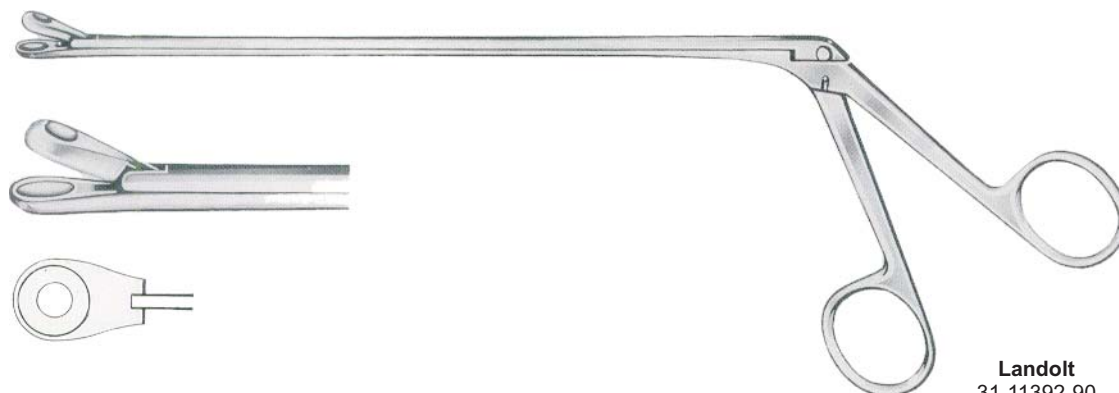


**Yasargil**  
31-11386-35  
19.5 cm/7<sup>3</sup>/<sub>4</sub>"



Ø 6.5 mm

**Oldberg**  
31-11390-65  
18 cm/7"



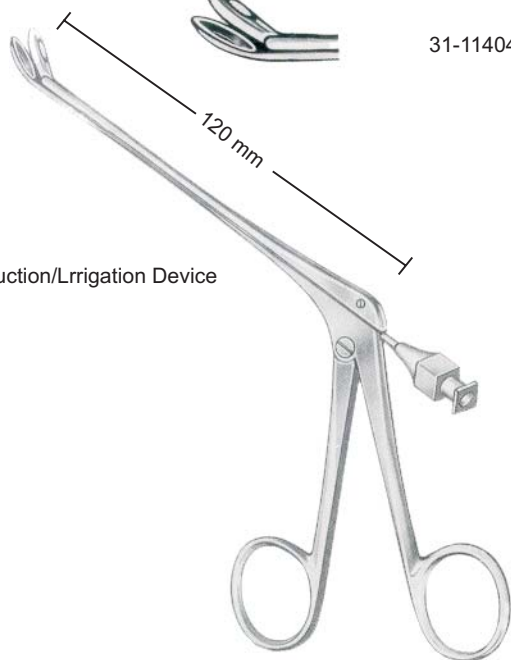
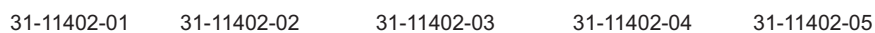
Ø 9 mm

**Landolt**  
31-11392-90  
21 cm/8<sup>1</sup>/<sub>4</sub>"

Tumor Grasping Forceps Blunt

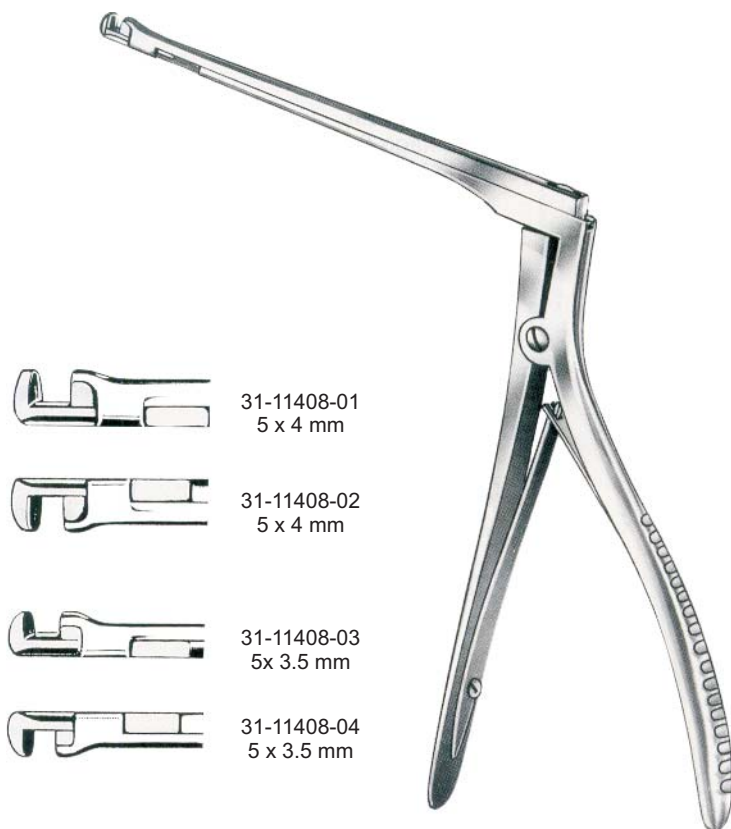


**Weil-Blakesley**



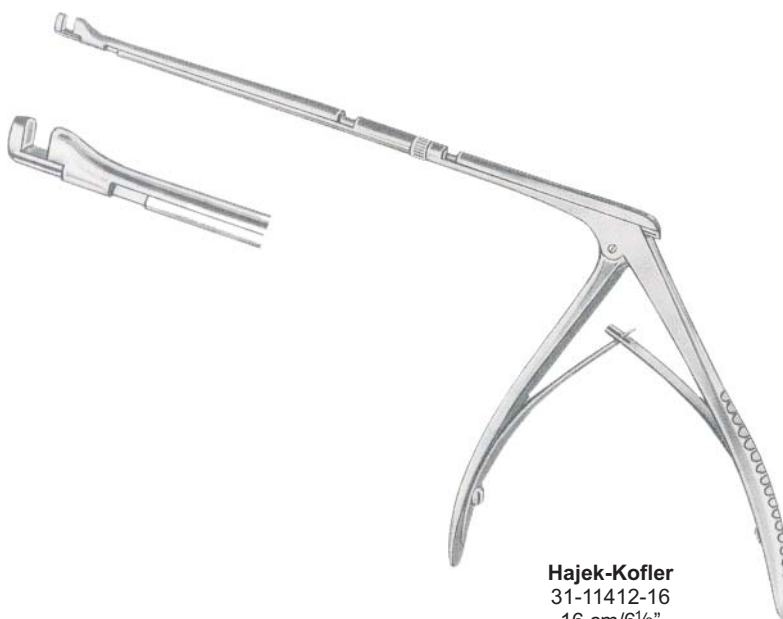
With Suction/Irrigation Device

**Weil-Blakesley**

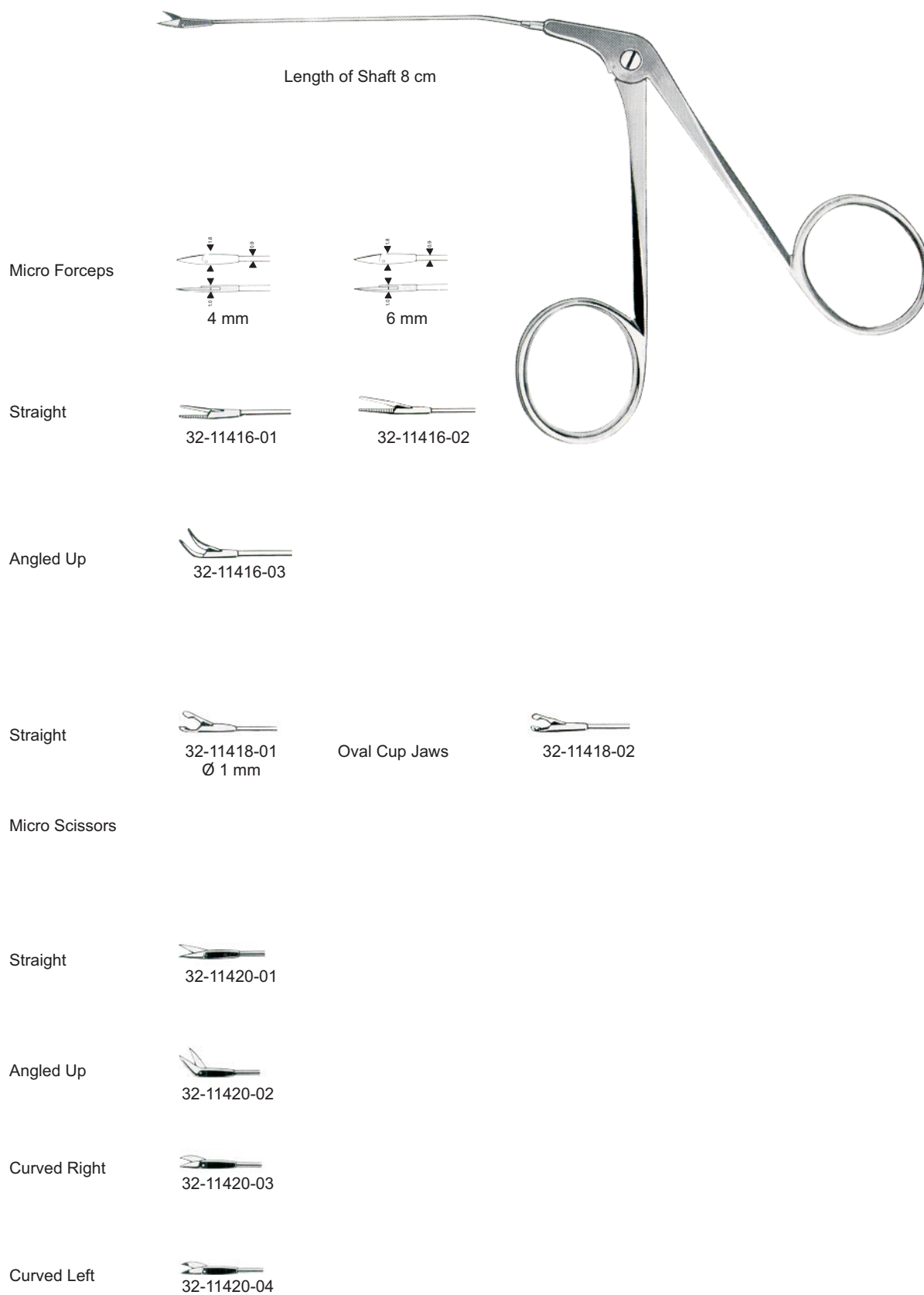


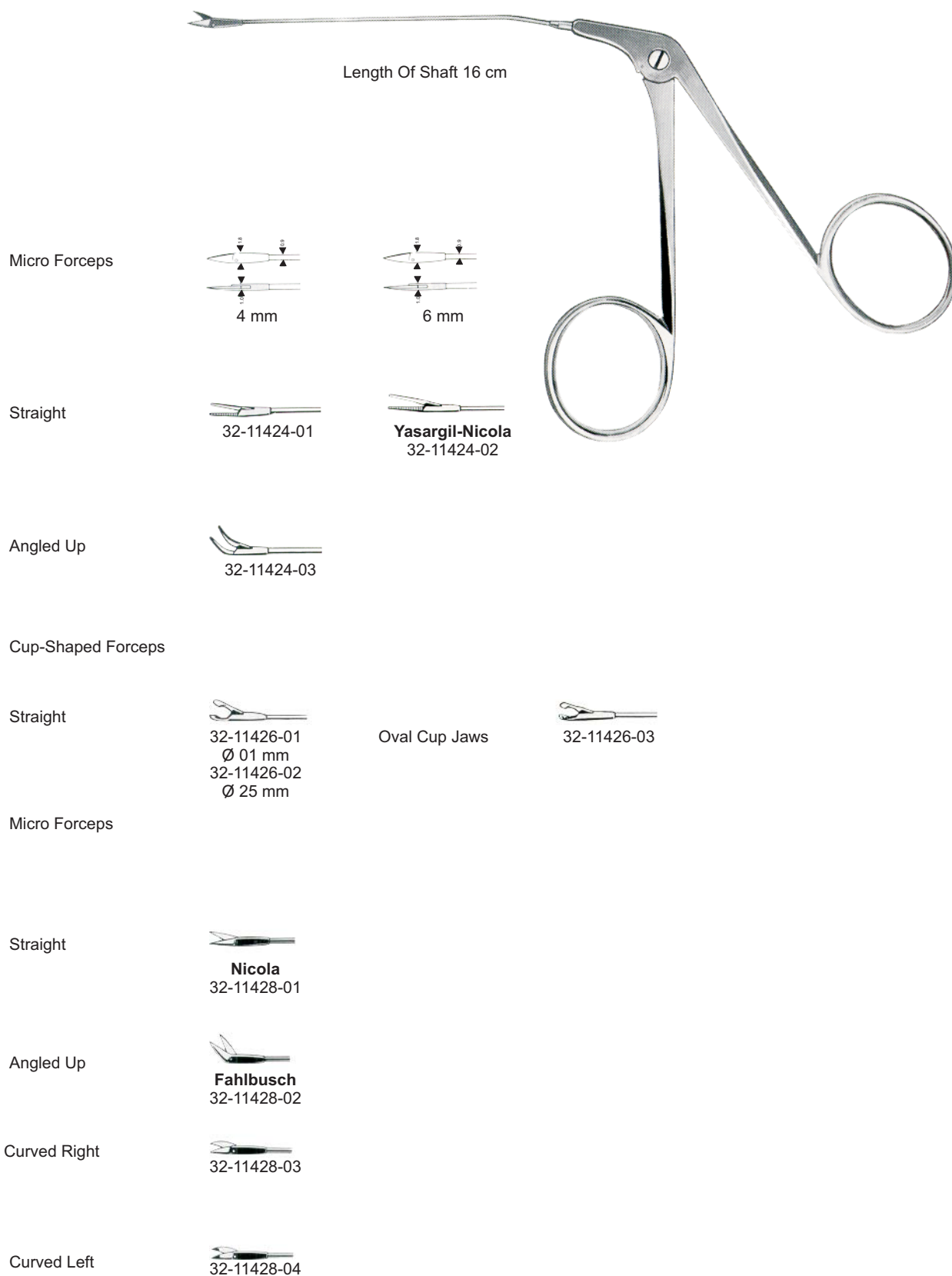
**Hajek**  
**(Hajek-Kofler)**  
14 cm/5½"

360° Turnable



**Hajek-Kofler**  
31-11412-16  
16 cm/6½"

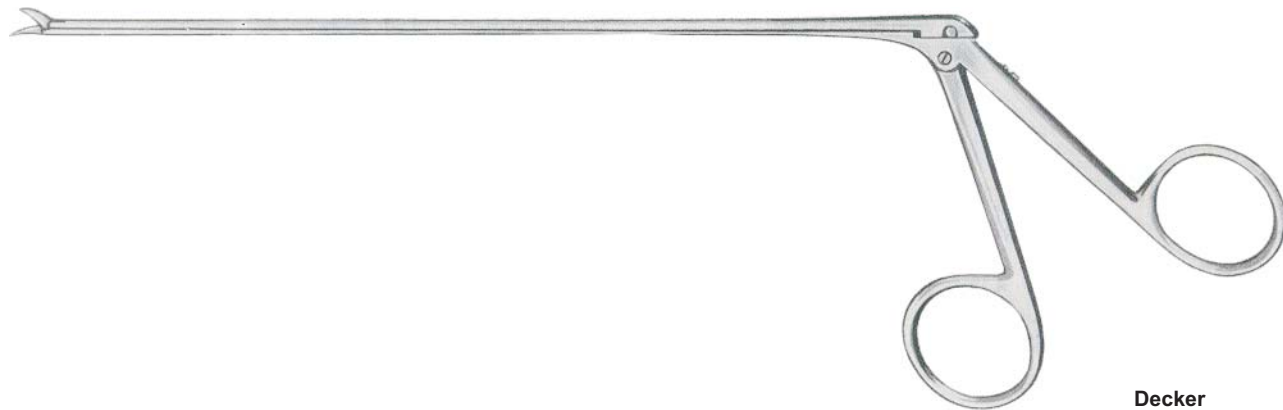






Micro Scissors

Length of Shaft 14 cm



**Decker**



Straight  
32-11430-01



Curved Right  
32-11430-02



Curved Left  
32-11430-03



**Jacobson**  
32-11432-00  
18.5 cm/7¼"



**Koos**  
32-11432-01  
18.5 cm/7¼"



**Koos**  
32-11432-02  
18.5 cm/7¼"



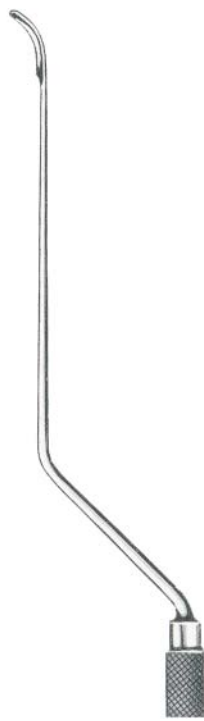
**Koos**  
32-11432-03  
18.5 cm/7¼"



**Koos**  
32-11432-04  
18.5 cm/7¼"



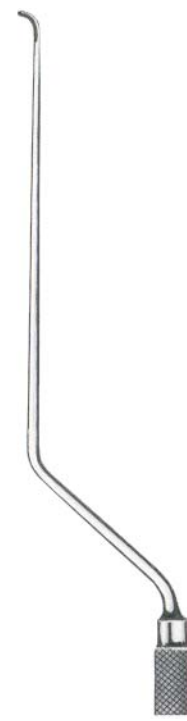
**Koos**  
32-11434-01  
18.5 cm/7¼"



**Koos**  
32-11434-02  
18.5 cm/7¼"

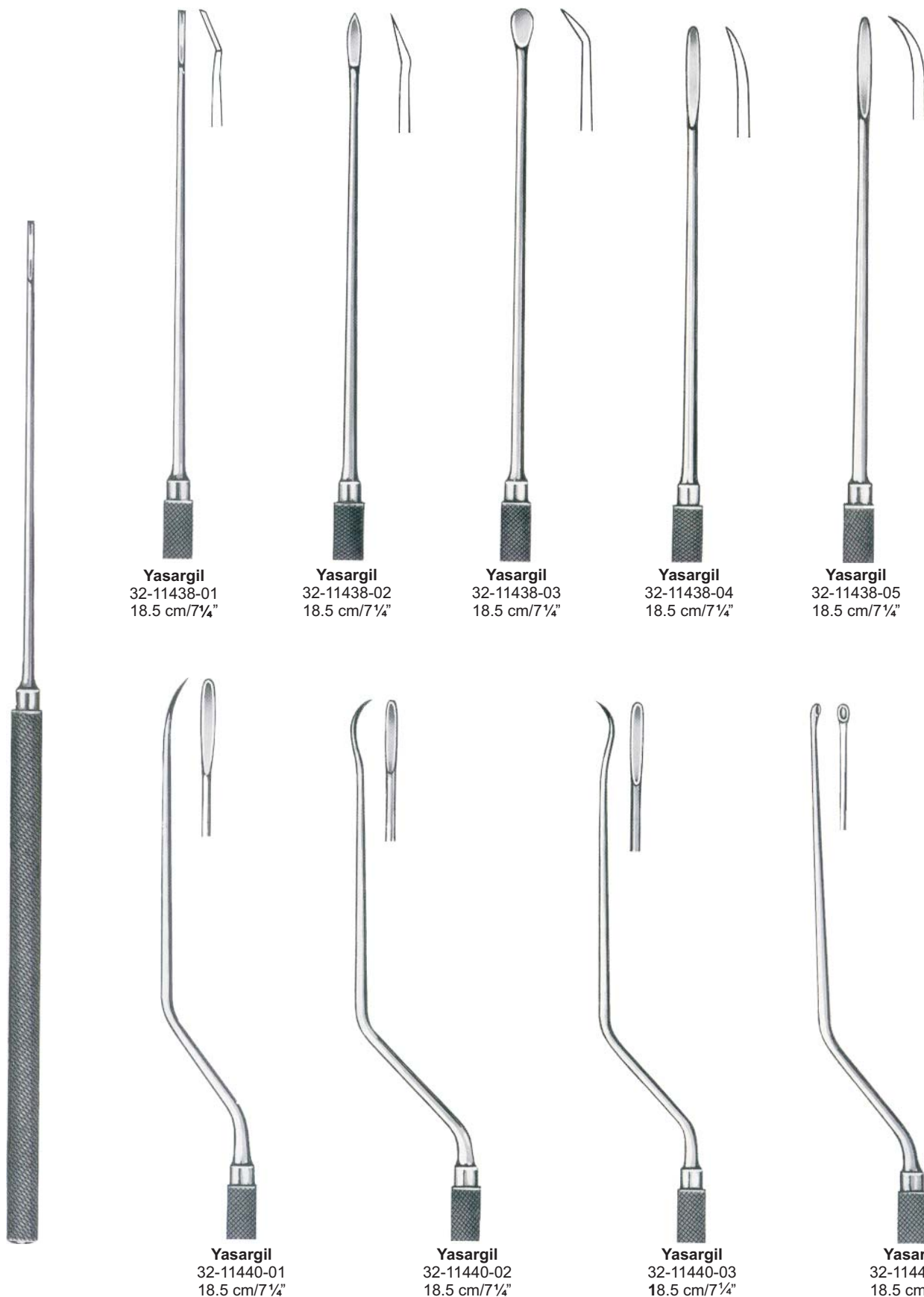


**Yasargil**  
32-11434-03  
18.5 cm/7¼"



**Yasargil**  
32-11434-04  
18.5 cm/7¼"







32-11444-01  
18.5 cm/7¼"



32-11444-02  
18.5 cm/7¼"



**kraeynbuhl**  
32-11448-01  
18.5 cm/7¼"



32-11448-02



32-11448-03



32-11448-04



**Yasargil**  
32-11450-01  
18.5 cm/7¼"



**Yasargil**  
32-11450-02  
18.5 cm/7¼"



**Yasargil**  
32-11450-03  
18.5 cm/7¼"



**Yasargil**  
32-11450-04  
18.5 cm/7¼"



Tissue Pick  
32-11454-11  
11 cm/4 1/8"

Tissue Pick  
32-11456-10 1.0 mm  
32-11456-18 1.8 mm  
18.5 cm/7 1/4"

Vessel Dilator  
32-11460-05 0.5 mm  
32-11460-10 1.0 mm  
32-11460-15 1.5 mm  
12.5 cm/5"

Jacobson  
Probe  
32-11464-01  
18.5 cm/7 1/4"

Vessel Probe  
32-11464-02

Suture Pusher  
32-11464-03



**Rhoton**  
19 cm/7½"



Dissector Round  
32-11470-01  
Ø 1 mm



Dissector Round  
32-11470-02  
Ø 2 mm



Dissector Round  
32-11470-03  
Ø 3 mm



Dissector Spatula Shaped  
32-11470-04  
Ø 1 mm



Dissector Spatula Shaped  
32-11470-05  
Ø 1.5 mm



Dissector Spatula Shaped  
32-11470-06  
Ø 2.0 mm



Elevator  
32-11470-07  
Ø 1.2 mm



Elevator  
32-11470-08  
Ø 2.8 mm



Needle Semi-Sharp  
32-11470-09



Hook Blunt  
32-11470-10  
90° 2 mm



Hook Semi-Sharp  
32-11470-11  
90° 2 mm



Hook Semi-Sharp  
32-11470-12  
45° 3 mm



Probe Angled  
32-11470-13  
90°



Probe Angled  
32-11470-14  
1.0 x 2.0 mm



Probe Angled  
32-11470-15  
1.0 x 2.0 mm  
45°



**Instrumed**  
Fine Surgical Instruments

**Jannetta Microsurgical Instruments**  
Dissectors, Raspatories, Hooks, Elevators, Knives and Probes

**32**



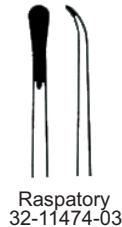
**Jannetta**  
19 cm/7½"



Dissector, Small  
32-11474-01



Dissector, large  
32-11474-02



Raspatory  
32-11474-03



Hook, Small  
32-11474-04  
90°



Hook Medium  
32-1474-05  
90°



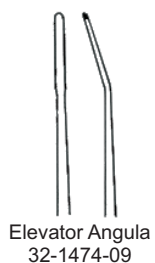
Hook large  
32-1474-06  
90°



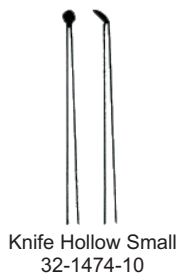
Hook Angular  
32-1474-07  
45°



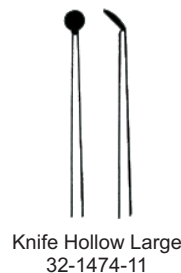
Hook Medium  
32-1474-08  
45°



Elevator Angula  
32-1474-09



Knife Hollow Small  
32-1474-10



Knife Hollow Large  
32-1474-11



Probe ball-tipped  
32-1474-12



Ligature Carrier left  
32-11474-13



Ligature Carrier right  
32-11474-14



Fork Small  
32-11474-15  
30°



Fork Large  
Probe Ball-Tipped  
32-11474-16  
30°



19 cm/7½"



Micro Dissectors  
32-11478-01  
2 mm



32-11478-02  
5mm



32-11478-03  
8mm

Nerve Hooks



32-11478-04  
3mm



32-11478-05  
5mm

Micro Ligature Needle



**Samil**  
20 cm/8"  
23 cm/9"



32-11482-01  
32-11484-01  
1.0 x 5.0 mm



20 cm/8"  
23 cm/9"



32-11482-02  
32-11484-02  
1.5 x 5.0 mm



32-11482-03  
32-11484-03  
2.0 x 5.5 mm



20 cm/8"  
23 cm/9"



32-11482-04  
32-11484-04  
2.5 x 6.0 mm



32-11482-05  
32-11484-05  
3.0 x 7.0 mm



20 cm/8"  
23 cm/9"



32-11482-06  
32-11484-06  
3.5 x 7.0 mm



32-11482-07  
32-11484-07  
4.0 x 7.5 mm



20 cm/8"  
23 cm/9"



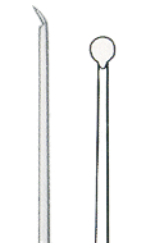
32-11482-08  
32-11484-08  
5.0 x 8.0 mm





Working Length  
12.5 cm/5"

Angled up 32-11488-01  
Curved down 32-11488-02  
Curved right 32-11488-03  
Curved left 32-11488-04



Curved upwards  
32-11488-05



Angled up  
32-11488-06  
1.0 x 1.0 mm



Angled up  
32-11488-07  
2.5 x 5 mm



Curved up  
32-11488-08  
1.0 x 4 mm



Curved up  
32-11488-09  
1.5 x 5 mm



Straight  
32-11488-10  
0.4 mm



Curved up  
32-11488-11  
2.0 x 6 mm



Angled Up 32-11488-12  
3 x 5 mm  
Angled To Right 32-11488-13  
3 x 5 mm  
Angled To Left 32-11488-14  
3 x 5 mm

24 cm/9 1/2"



12.5 cm/5"



Angled Up  
Curved Right  
Curved Left

Blunt  
32-11492-01  
32-11494-01  
32-11496-01  
90° 2 mm

Blunt  
32-11492-02  
32-11494-02  
32-11496-02  
90° 2.5 mm

Semi-Sharp  
32-11492-03  
32-11494-03  
32-11496-03  
90° 2 mm

Angled Up  
Curved Right  
Curved Left

Blunt  
32-11492-04  
32-11494-04  
32-11496-04  
90° 3 mm

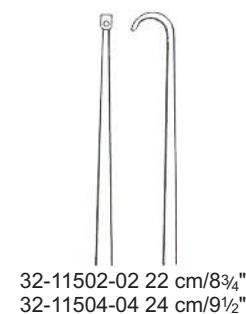
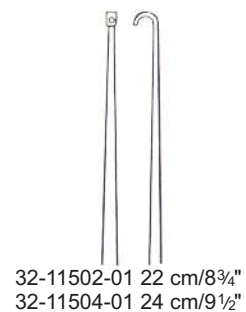
Ball Pointed  
32-11492-05  
32-11494-05  
32-11496-05  
90° 3 mm

Blunt  
32-11492-06  
32-11494-06  
32-11496-06  
30° 3 mm

24 cm/9½"



Working Length  
12.5 cm/5"



24 cm/9½"

22 cm/8¾"  
24 cm/9½"



**Hardy**  
24 cm/9½"

**Sickle Dissectors**

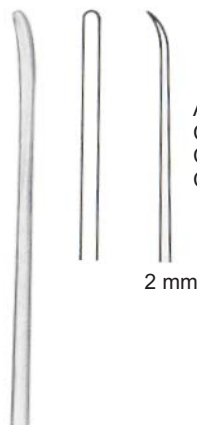


Angled Up 32-11508-01  
Curved Down 32-11508-02  
Curved Right 32-11508-03  
Curved Left 32-11508-04



**Implant Fork**  
32-11508-07

**Hardy**



Angled Up 32-11508-08  
Curved Down 32-11508-09  
Curved Right 32-11508-10  
Curved Left 32-11508-11

2 mm



**Hardy-Fahlbusch**  
32-11508-05



**Hardy-Fahlbusch**  
32-11508-06



Angled Up 32-11508-12  
Curved Down 32-11508-13

4 mm



24 cm/9½"

**Spatula Dissectors**



Curved Up Flexible  
32-11512-01  
8 x 100 mm

Curved Down Flexible  
32-11512-02  
8 x 100 mm



Straight  
32-11512-03  
5 x 20 mm



32-11512-06  
32-11512-07  
2 mm

**Dissectors Angled**



Sharp Angled Up  
32-11512-04  
5 mm  
Sharp Angled Down  
32-11512-05

**Raspatories**



Curved Up  
Curved Down

32-11512-08  
32-11512-09  
4 mm



24 cm/9½"

Right

Up  
Down  
Right  
Left



32-11516-01  
32-11518-01  
32-11520-01  
32-11522-01  
Ø 2.5 mm  
90°



32-11516-02  
32-11518-02  
32-11520-02  
32-11522-02  
Ø 4.0 mm  
90°



32-11516-03  
32-11518-03  
32-11520-03  
32-11522-03  
Ø 5.0 mm  
90°

Down

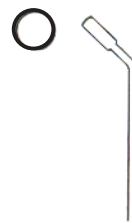
Up  
Down  
Right  
Left



32-11516-04  
32-11518-04  
32-11520-04  
32-11522-04  
25 mm  
45°



32-11516-05  
32-11518-05  
32-11520-05  
32-11522-05  
40 mm  
45°



32-11516-06  
32-11518-06  
32-11520-06  
32-11522-06  
5 mm  
45°



24 cm/9½"

Malleable



32-11526-01  
90°  
Ø 3 mm



32-11526-02  
45°  
Ø 3 mm



32-11526-03  
90°  
Ø 3 mm



32-11526-04  
45° Up  
Ø 3 mm

With Stick



Stick 5 mm  
32-11528-01  
32-11530-01  
32-11532-01  
32-11534-01  
90°  
Ø 3 mm



Stick 5 mm  
32-11528-02  
32-11530-02  
32-11532-02  
32-11534-02  
45°  
Ø 3 mm



Stick 10 mm  
32-11528-03  
32-11530-03  
32-11532-03  
32-11534-03  
45°  
Ø 3 mm



32-11536-25  
Ø 2.5 mm



32-11536-30  
Ø 3.0 mm



32-11536-35  
Ø 3.5 mm



32-11536-40  
Ø 4.0 mm





**Instrumed**  
Fine Surgical Instruments

**Micro Instruments**  
Raspatories, Scoops and Nerve Hooks

**32**



Sharp  
32-11538-01  
24 cm/9½"



32-11538-02



32-11538-03



32-11538-04



32-11538-05



32-11538-06  
2.5 mm



32-11538-07  
3 mm



32-11538-08  
3 mm



32-11538-09  
5 mm



32-11538-10  
8 mm



Curved Down  
4.5 mm

**Caspar**  
32-11540-01  
24 cm/9½"

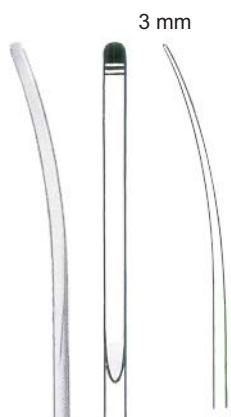


Curved Down  
4.5 mm

**Caspar**  
32-11540-02  
24 cm/9½"



**Caspar**  
Curved Down  
32-11540-03  
24 cm/9½"  
2 mm



32-11542-01  
19 cm/7½"



32-11542-02  
21.5 cm/8½"

Curette



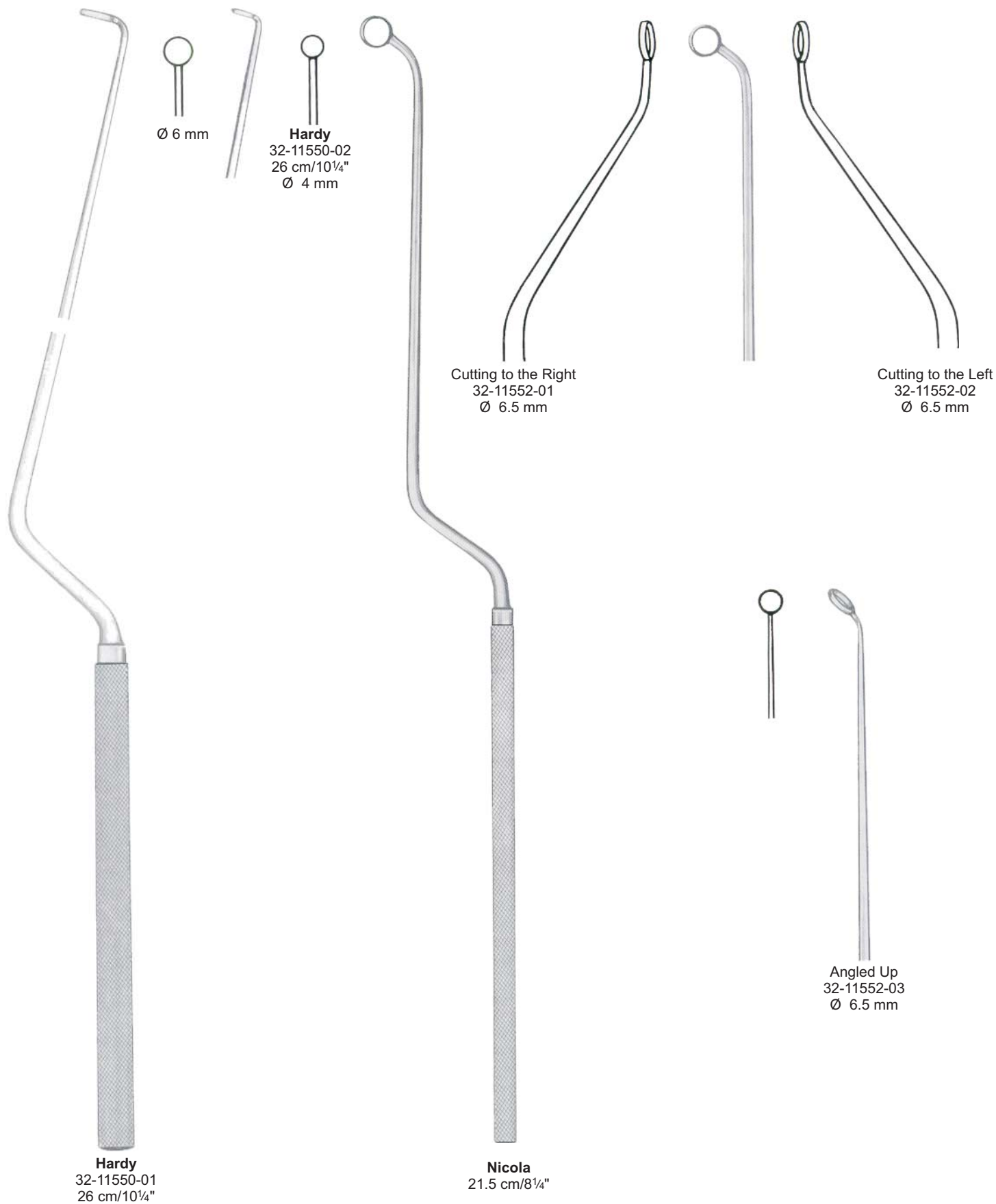
**Ray**  
19 cm/7½"



Horizontal 45°  
32-11546-01  
Ø 4 mm



Vertical 45°  
32-11546-02  
Ø 4 mm







26 cm/10<sup>3</sup>/<sub>4</sub>"



**Landolt-Reulen**  
Dissector rigid  
32-11562-01  
2mm



**Landolt-Reulen**  
Blunt Hook rigid  
32-11562-02  
1.7mm



**Fahlbusch**  
Curette malleable  
32-11562-03  
2.5 mm Ø



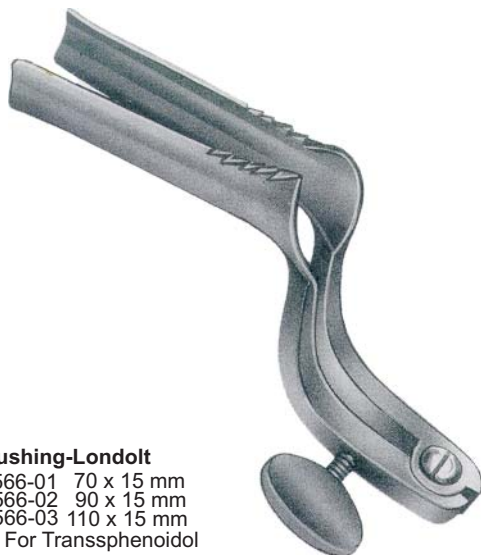
**Landolt-Reulen**  
Curette rigid  
32-11562-04  
2.5 mm Ø



**Fahlbusch**  
Scoop malleable  
32-11562-05



**Landolt-Reulen**  
Raspatory rigid  
32-11562-06  
2.2 mm  
3.2 mm



**Cushing-Londolt**  
32-11566-01 70 x 15 mm  
32-11566-02 90 x 15 mm  
32-11566-03 110 x 15 mm  
Specula For Transsphenoidol

Mirrors



32-11570-06  
6 mm



32-11570-08  
8 mm



32-11570-10  
10 mm



32-11570-12  
12mm



**Mirror handle**  
32-11570-00





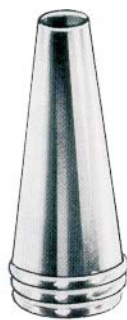
Ø=Inside Dia



**Troltsch**  
For Babies

Fig. 1 33-11574-01 1.5 mm Ø  
Fig. 2 33-11574-02 2.5 mm Ø  
Fig. 3 33-11574-03 3.5 mm Ø

33-11574-30  
Set of 3  
Fig 1-3



**Troltsch**  
For Adults

Fig. 4 33-11574-04 4.0 mm Ø  
Fig. 5 33-11574-05 5.0 mm Ø  
Fig. 6 33-11574-06 6.0 mm Ø  
Fig. 7 33-11574-07 7.0 mm Ø

33-11574-30 33-11574-40  
Set of 3 Set of 4  
Fig 4-6 Fig 4-7



**Poltzer**

Fig. 1 33-11578-01 2.0 mm Ø  
Fig. 2 33-11578-02 3.0 mm Ø  
Fig. 3 33-11578-03 4.0 mm Ø

33-12278-30  
Set of 3  
Fig 1-3



**Erhard**  
For Adults

Fig. 1 33-11582-01 3.0 mm Ø  
Fig. 2 33-11582-02 4.0 mm Ø  
Fig. 3 33-11582-03 5.0 mm Ø  
Fig. 4 33-11582-04 6.0 mm Ø

33-11582-30 33-11582-40  
Set of 3 Set of 4  
Fig.1-3 Fig.1-4



**Hartmann**  
For Babies

Fig. 1 33-11586-01 2.0 mm Ø



**Hartmann**  
For Children

Fig. 2 33-11586-02 3.0 mm Ø  
Fig. 3 33-11586-03 4.0 mm Ø  
Fig. 4 33-11586-04 5.5 mm Ø

33-11586-30  
Set of 3  
Fig.2-4



**Hartmann**  
For Adults

Fig. 3 33-11590-03 4.0 mm Ø  
Fig. 4 33-11590-04 5.5 mm Ø  
Fig. 5 33-11590-05 6.5 mm Ø  
Fig. 6 33-11590-06 7.5 mm Ø

33-11590-30 33-11590-40  
Set of 3 Set of 4  
Fig.4-6 Fig.3-6



**Toynbee**  
For Adults

Fig. 1 33-11594-01 4.5 mm Ø  
Fig. 2 33-11594-02 5.5 mm Ø  
Fig. 3 33-11594-03 6.5 mm Ø  
Fig. 4 33-11594-04 7.5 mm Ø

33-11594-30 33-11594-40  
Set of 3 Set of 4  
Fig.2-4 Fig.1-4



Alu Black



33-11598-60  
Set of 6  
Fig. 1-6

Ø=Inside Dia



Fig. 1 33-11598-01  
4.5 x 5.5 mm Ø



Fig. 2 33-11598-02  
5.5 x 6.5 mm Ø



Fig. 3 33-11598-03  
6.5 x 7.5 mm Ø



Fig. 4 33-11598-04  
7.5 x 8.5 mm Ø



Fig. 5 33-11598-05  
8.5 x 9.5 mm Ø



Fig. 6 33-11598-06  
9.5 x 10.5 mm Ø



**Gruber**

33-11602-30  
Set of 3  
Fig. 2-4

33-11602-40  
Set of 4  
Fig. 1-4

Fig. 1 33-11602-01  
2.8 x 3.8 mm Ø



Fig. 2 33-11602-02  
3.8 x 4.8 mm Ø



Fig. 3 33-11602-03  
5.0 x 6.2 mm Ø



Fig. 4 33-11602-04  
6.0 x 7.2 mm Ø



Fig. 1 33-11604-01  
4.5 mm Ø



Fig. 2 33-11604-02  
5.0 mm Ø



Fig. 3 33-11604-03  
5.5 mm Ø



Fig. 4 33-11604-04  
6.0 mm Ø

Black



**Hartmann**  
33-11608-40  
Set of 4  
Fig. 1-4

Fig. 1 33-11608-01  
3.0 mm Ø

Fig. 2 33-11608-02  
4.0 mm Ø

Fig. 3 33-11608-03  
5.0 mm Ø

Fig. 4 33-11608-04  
7.0 mm Ø

Black



**Hartmann**  
33-11608-20  
Set of 2  
Fig. 5-6

Fig. 5 33-11608-05  
9.0 mm Ø

Fig. 6 33-11608-06  
11.0 mm Ø



**Boucheron**  
33-11612-40  
Set of 4  
Fig. 3-6

33-11612-03 3.5 mm Ø  
33-11612-04 4.5 mm Ø  
33-11612-05 5.5 mm Ø  
33-11612-06 6.5 mm Ø



33-11618-01



33-11618-02

Fig. 1 33-11618-01 4.2 x 3.8 mm

Fig. 2 33-11618-02 5.5 x 3.8 mm

Fig. 3 33-11618-03 6.5 x 3.8 mm

33-11618-30

Set of 3

Fig. 1-3



33-11618-03



33-11620-01



33-11620-02



33-11620-03

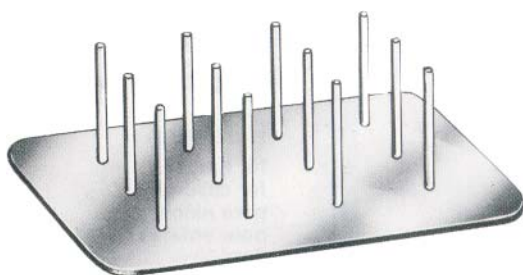
Fig. 1 33-11620-01 4.2 mm  
Fig. 2 33-11620-02 5.5 mm  
Fig. 3 33-11620-03 6.5 mm  
33-11620-30  
Set of 3  
Fig. 1-3



**Richnau-Holmgren**

33-11628-02 2.0 mm Ø  
33-11628-04 4.0 mm Ø  
33-11628-06 6.0 mm Ø

Metal supports for specula



For 12 Specula  
33-11624-00



**Siegle**



6.5 mm



7 mm



8 mm

Otoscope with 3 ear specula and rubber tube with bulb  
33-11632-00



**Hartmann**



**Lucae**



**French  
Hartmann**

|                |      |             |             |             |
|----------------|------|-------------|-------------|-------------|
| C <sub>2</sub> | 16   |             |             | 33-11644-16 |
| C <sub>2</sub> | 32   |             |             | 33-11644-32 |
| C              | 64   |             |             | 33-11645-01 |
| C              | 128  | 33-11636-00 | 33-11640-00 | 33-11645-02 |
| C <sub>1</sub> | 256  | 33-11636-01 | 33-11640-01 | 33-11645-03 |
| C <sub>2</sub> | 512  | 33-11636-02 | 33-11640-02 |             |
| C <sub>3</sub> | 1024 | 33-11636-03 | 33-11640-03 |             |
| C <sub>4</sub> | 2048 | 33-11636-04 | 33-11640-04 |             |
| C <sub>5</sub> | 4096 | 33-11636-05 | 33-11640-05 |             |

**Tuning Forks**



**Lucae  
C 128**



**Hartmann  
C 128**

Variable up to h (Engl. B)

33-11648-00

33-11652-00



**Rydel-Seiffer**  
33-11656-00  
C 64/C 128

With Clamps = C 64  
Without Clamps = C 128



Tuning Fork for neuro-  
logical examination, with  
percussion hammer, pin  
wheel, brush and needle  
33-11660-00



33-11664-01  
C 64



33-11664-02  
C 128



33-11664-03  
C 256



33-11664-04  
C 512



33-11664-05  
C 1024



33-11664-06  
C 2048



33-11664-07  
C 4096



**Hartmann**

- 33-11668-20  
2.0 mm Ø
- 33-11668-25  
2.5 mm Ø
- 33-11668-30  
3.0 mm Ø
- 33-11668-40  
4.0 mm Ø
- 33-11668-50  
5.0 mm Ø



**Itard**



33-11672-30  
3 mm Ø



33-11672-35  
3.5 mm Ø



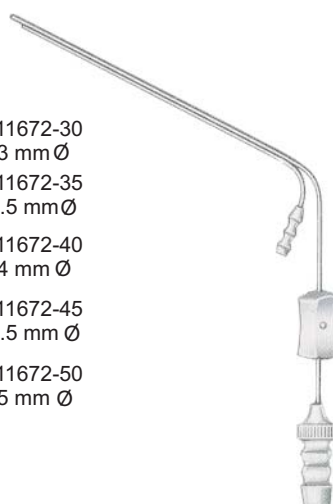
33-11672-40  
4 mm Ø



33-11672-45  
4.5 mm Ø



33-11672-50  
5 mm Ø



**House**

- 33-11676-09 0.9 mm Ø
- 33-11676-12 1.2 mm Ø
- 33-11676-15 1.5 mm Ø



**Baron (Schuknecht)**

- 33-11680-01 1.0 x 75 mm Ø
- 33-11680-02 1.5 x 75 mm Ø
- 33-11680-03 2.0 x 75 mm Ø



**Krause**  
33-11684-16  
16 cm/6¼"



**Krause-Voss**  
33-11688-16  
16 cm/6¼"



**Lange-Wilde**  
33-11692-16  
16 cm/6¼"



Package of 1 dozen each

|             | mm Ø |
|-------------|------|
| 33-11700-02 | 0.2  |
| 33-11700-03 | 0.3  |

*Ear Dressing Forceps*



**Troeltsch  
(Wilde)**



**Troeltsch**



**Lucae**



**Lucae**



**Jansen**

| Cm   | In  |             |             |             |
|------|-----|-------------|-------------|-------------|
| 11.0 | 4¼" | 33-11704-11 |             |             |
| 12.0 | 4¾" | 33-11704-12 | 33-11706-12 | 33-11712-14 |
| 14.0 | 5½" | 33-11704-14 |             |             |
| 15.0 | 6"  | 33-11704-15 | 33-11710-14 |             |
| 16.0 | 6¼" |             |             | 33-11716-16 |
| 18.0 | 7"  |             |             | 33-11716-18 |
| 20.0 | 8"  |             |             | 33-11716-20 |



**Okonogto**  
33-11720-16  
16 cm/6 1/4"



**Littauer**  
33-11724-12  
12 cm/4 3/4"



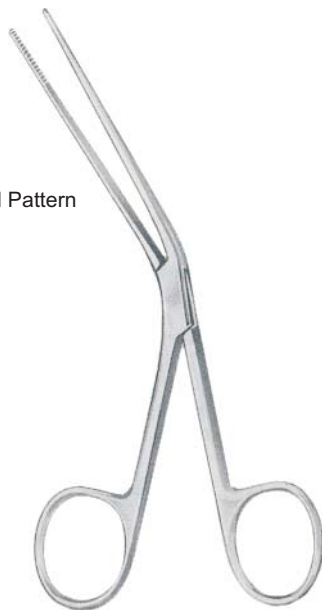
**Hartmann**  
33-11726-12  
12 cm/4 3/4"

Fine Pattern



**Hartmann**  
33-11728-14  
14 cm/5 1/2"

Standard Pattern



**Tilley**  
33-11732-14  
33-11732-16  
14 cm/5 1/2"

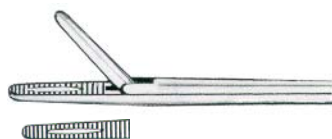


**Buck**  
33-11736-09  
9 cm/3 1/2"

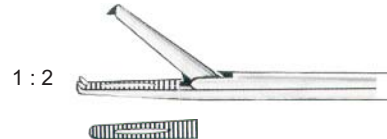


**Quire**  
33-11740-08  
8 cm/3 1/4"





**Hartmann-Noyes**  
33-11744-09  
8.5 cm/3 1/4"



**Hartmann-Noyes**  
33-11746-09  
8.5 cm/3 1/4"



**Hartmann**  
33-11750-09 8.5 cm/3 1/4"  
33-11750-14 14 cm/5 1/2"  
33-11750-16 16 cm/6 1/4"



**Hartmann**  
33-11752-09 8.5 cm/3 1/4"  
33-11752-14 14.0 cm/5 1/2"



**Hartmann**  
33-11756-20 8.5 cm/3 1/4" ○ 2.0 mm  
33-11756-25 8.5 cm/3 1/4" ○ 2.5 mm  
33-11756-30 8.5 cm/3 1/4" ○ 3.0 mm



**Hartmann-Citelli**  
33-11760-02 ○ 2 mm 8.5 cm/3 1/4"  
33-11760-03 ○ 3 mm 8.5 cm/3 1/4"



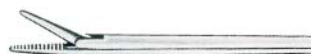
**Strumpel**  
33-11762-09  
8.5 cm/3 1/4"



**Hartamm-Weingartner**  
33-11766-09  
8.5 cm/3 1/4"



**Hartamm**  
33-11770-01  
8.5 cm/3 1/4"



**Hartamm-Wullstein**  
33-11774-06 8.5 cm/3 1/4" 08 x 6 mm  
33-11774-08 8.5 cm/3 1/4" 1.8 x 8 mm



**Hartamm-Wullstein**  
33-11778-01 ○ 1 mm 8.5 cm/3 1/4"  
33-11778-02 ○ 2 mm 8.5 cm/3 1/4"



Length of Shaft 8 cm

|              | Micro Forceps               | Mini         | Cup-Shaped Forceps          |
|--------------|-----------------------------|--------------|-----------------------------|
|              | 1.6 x 7.0 mm                | 0.7 x 3.5 mm | 0.9 x 1.1 mm                |
|              |                             |              |                             |
|              | 33-11782-01                 | 33-11782-08  | 33-11782-11                 |
|              |                             |              |                             |
|              | 33-11782-02<br>0.8 x 4.0 mm |              |                             |
| Smooth Jaw   |                             |              |                             |
|              | 33-11782-03<br>0.8 x 6.0 mm |              |                             |
| Curved Left  |                             |              |                             |
|              | 33-11782-04<br>0.8 x 6.0 mm |              | 33-11782-12<br>0.9 x 1.1 mm |
| Curved Right |                             |              |                             |
|              | 33-11782-05<br>0.8 x 4.0 mm |              | 33-11782-13<br>0.9 x 1.1 mm |
| Angled Up    |                             |              |                             |
|              | 33-11782-06<br>0.8 x 4.0 mm |              | 33-11782-14<br>0.9 x 1.1 mm |
| Angled Down  |                             |              |                             |
|              | 33-11782-07<br>0.8 x 4.0 mm |              | 33-11782-15<br>0.9 x 1.1 mm |



Micro Forceps



**Greven**  
33-11782-16  
0.8 x 5.0 mm



**Cos**  
33-11782-18  
0.8 x 3.0 mm

Left Angled



**Juers**  
33-11782-19  
0.8 x 6.0 mm



**Hough**  
33-11782-21  
0.8 x 3.0 mm

Right Angled



**Juers**  
33-11782-20  
0.8 x 6.0 mm



**Hough**  
33-11782-22  
0.8 x 3.0 mm



**Fuller**  
33-11782-23  
0.8 x 6.0 mm



**Tabb**  
33-11782-24

Upward Cutting



**Dieter**  
33-11782-30

Downward Cutting



**Dieter**  
33-11782-31

Cutting to the Right



**Dieter**  
33-11782-32

Cutting to the left



**Dieter**  
33-11782-33

Micro Scissors



**Bellucci**  
33-11786-01  
4.0 mm



**Bellucci**  
33-11786-02  
5.5 mm

Angled Up



**Bellucci**  
33-11786-03  
5.5 mm

Curved Left



**Bellucci**  
33-11786-04  
5.5 mm

Curved Right



**Bellucci**  
33-11786-05  
5.5 mm



**Shea**  
33-11786-06  
7.0 mm

Curved Left



**Shea**  
33-11786-07  
7.0 mm

Curved Right



**Shea**  
33-11786-08  
7.0 mm

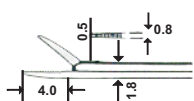


Micro Forceps

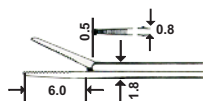
0.5 mm

Smooth Jaw

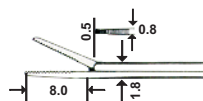
Straight



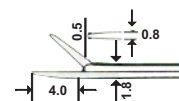
33-11790-01



33-11790-02



33-11790-03



33-11790-04

Curved Right  
Curved Left  
Angled Up  
Angled Down

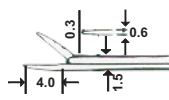
33-11794-01  
33-11794-02  
33-11794-03  
33-11794-04

Micro Forceps

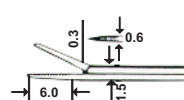
0.3 mm

Smooth Jaw

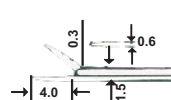
Straight



33-11800-01



33-11800-02



33-11800-03



Length of Shaft 8 cm

Cup-Shaped Forceps

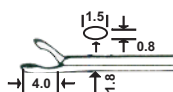


Micro Scissors



**Bellucci**  
0.8 mm

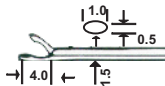
1.5 x 0.8 mm



Straight  
Curved Right  
Curved Left  
Angled Up  
Angled Down

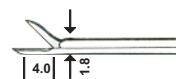
33-11804-01  
33-11804-02  
33-11804-03  
33-11804-04  
33-11804-05

1.0 x 0.5 mm



Straight

33-11804-06



33-11806-01  
33-11806-02  
33-11806-03  
33-11806-04  
33-11806-05



Length of Shaft 8 cm



Crura Forceps



Open to Right

**Fisch**  
33-11810-01



Open to Left

**Fisch**  
33-11810-02

Length of Shaft 8 cm



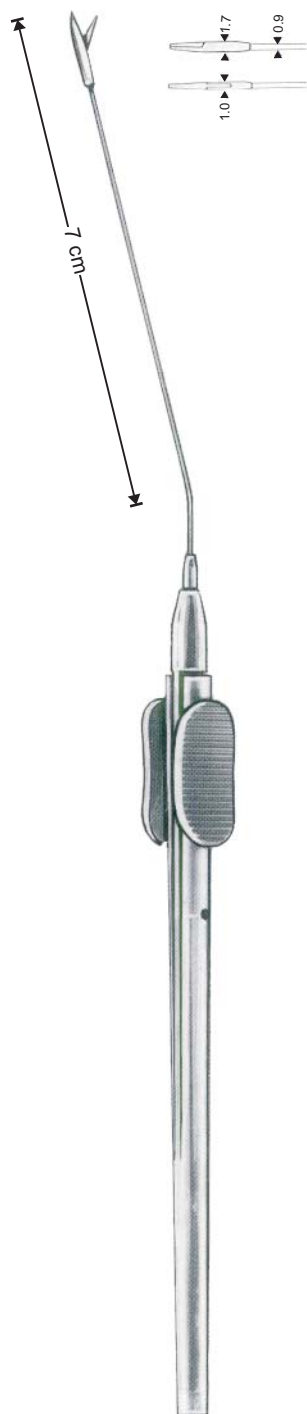
Wire Closure Forceps



**Mc Gee**  
33-11814-01



**Mc Gee/Fisch**  
33-11814-02



33-11818-01



33-11818-02

Micro Scissors



33-11820-01



33-11820-02

Micro Forceps



33-11822-01



33-11822-02

Cup-Shaped Forceps





Messer



**Schuknecht**  
33-11826-01

**Schuknecht**  
33-11826-02

**Schuknecht**  
33-11828-01

Knives



**Wullstein**  
33-11830-01



**Tabb**  
33-11832-01



**Plester**  
33-11834-01



**Plester**  
33-11834-02



33-11834-03



**Rosen**



33-11838-10  
1.0 mm



33-11838-14  
1.4 mm



33-11838-16  
1.6 mm



33-11838-20  
2.0 mm



33-11838-26  
2.6 mm



33-11838-28  
2.8 mm



33-11838-30  
3.0 mm



Needles And Hooks



**Barbara**  
33-11842-01



33-11842-02



33-11842-03



**Rosen**  
33-11842-04



**Barbara**



**25°**  
33-11844-03 0.3 mm  
33-11844-06 0.6 mm  
33-11844-10 1.0 mm



**45°**  
33-11846-03 0.3 mm  
33-11846-06 0.6 mm  
33-11846-10 1.0 mm  
33-11846-12 1.2 mm  
33-11846-15 1.5 mm  
33-11846-20 2.0 mm  
33-11846-25 2.5 mm



**90°**  
33-11848-03 0.3 mm  
33-11848-06 0.6 mm  
33-11848-10 1.0 mm  
33-11848-12 1.2 mm  
33-11848-15 1.5 mm  
33-11848-20 2.0 mm  
33-11848-25 2.5 mm



33-11850-05 0.5 mm  
33-11850-10 1.0 mm



Needles And Hooks



90°

33-11852-03 0.3 mm  
33-11852-06 0.6 mm  
33-11852-10 1.0 mm



90°

33-11854-03 0.3 mm  
33-11854-06 0.6 mm  
33-11854-10 1.0 mm



**McGee**

33-11856-05 0.5 mm  
33-11856-10 1.0 mm



**McGee**

33-11858-05 0.5 mm  
33-11858-10 1.0 mm



**Barbara**

33-11860-01



**Rosen**

33-11860-02



25°

33-11862-03 0.3 mm  
33-11862-06 0.6 mm  
33-11862-10 1.0 mm



25°

33-11864-03 0.3 mm  
33-11864-06 0.6 mm  
33-11864-10 1.0 mm



45°

33-11868-03 0.3 mm  
33-11868-06 0.6 mm  
33-11868-10 1.0 mm



45°

33-11870-03 0.3 mm  
33-11870-06 0.6 mm  
33-11870-10 1.0 mm



Dissectors, Measuring Road, Elevators, Curettes and Mobilizer



**Fisch**



33-11874-01



33-11874-02



33-11874-03



33-11874-04



**Rosen**

33-11878-15 33-11878-25  
1.5 mm 2.5 mm



**Rosen**



33-11880-01



33-11880-02



33-11880-03



33-11880-04



33-11880-05



33-11880-06



**House**



33-11882-01  
3.5 mm



33-11882-02  
4.0 mm



33-11882-03  
4.5 mm



33-11882-04  
5.0 mm



**Buckingham**



33-11886-01



33-11886-02



33-11886-03



**House**

33-11890-10 1.0/1.2 mm  
33-11890-15 1.5/1.8 mm



**House**

33-11892-10 1.0/1.2 mm  
33-11892-15 1.5/1.8 mm



**Shea**

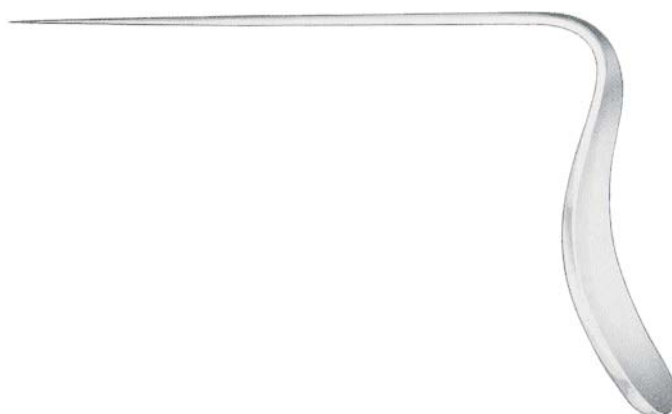
33-11896-15 1.5 mm



33-11900-01

33-11900-02

33-11900-03



**Zollner**



33-11900-04

33-11900-05

33-11900-06

33-11900-07

33-11900-08

33-11900-09

33-11900-10

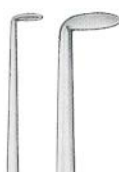
33-11900-11



33-11900-12



33-11900-13



33-11900-14



33-11900-15



33-11900-16



33-11900-17



33-11900-18



33-11900-19



33-11900-20



33-11900-21



33-11900-22



33-11900-23



33-11900-24



Width of Bite

**Citelli**  
33-11904-20 2.0 mm  
33-11904-30 3.0 mm



Width of Bite

**Citelli-Beyer**  
33-11906-15 1.5 mm  
33-11906-20 2.0 mm



Width of Bite



4.0 mm



6.0 mm

**Brunings**  
33-11910-40  
33-11910-60

-  33-11912-30 3.0 mm
-  33-11912-40 4.0 mm
-  33-11912-50 5.0 mm
-  33-11912-60 6.0 mm



**Kerrison**  
20 cm/8"





**Buck**

|       |  | Fig. 000    | 00          | 0           | 1           | 2           | 3           | 4           | 5           |
|-------|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Blunt |  | 33-11914-30 | 33-11914-20 | 33-11914-10 | 33-11914-01 | 33-11914-02 | 33-11914-03 | 33-11914-04 | 33-11914-05 |
| Sharp |  | 33-11915-30 | 33-11915-20 | 33-11915-10 | 33-11915-01 | 33-11915-02 | 33-11915-03 | 33-11915-04 | 33-11915-05 |
| Blunt |  | 33-11916-30 | 33-11916-20 | 33-11916-10 | 33-11916-01 | 33-11916-02 | 33-11916-03 | 33-11916-04 | 33-11916-05 |
| Sharp |  | 33-11917-30 | 33-11917-20 | 33-11917-10 | 33-11917-01 | 33-11917-02 | 33-11917-03 | 33-11917-04 | 33-11917-05 |



**Langenbeck**  
33-11920-13  
13 cm/5 1/8"



**Shapleigh**  
13 cm/5 1/8"



33-11924-01



33-11924-02



**Jansen**  
33-11928-15  
15 cm/6"



**Barth**  
33-11932-18  
18 cm/7"



**Billeau**  
16.5 cm/6 1/2"



33-11936-01



33-11936-02



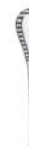
33-11936-03



**Snellen**  
16 cm/6 1/4"



33-11940-01



33-11940-02



**Gross**  
33-11944-12  
12 cm/4¾"



**Zaufal**  
33-11948-16  
16 cm/6¼"



**Hartmann**  
33-11952-16  
16 cm/6¼"



**Lucae**  
14 cm/5½"

33-11956-01

33-11956-02

33-11956-03



**Wagener**  
14 cm/5½"

33-11960-01

33-11960-02

33-11960-03

33-11960-04

33-11960-05

33-11960-06



**Day**  
16 cm/6¼"

33-11964-01

33-11964-02



**Muck**  
33-11968-13  
13.5 cm/5⅓"



**Poltzer**  
33-11972-16  
16 cm/6¼"



Fig. Straight  
1 33-11976-01  
2 33-11976-02  
3 33-11976-03

**Sexton**



Curved  
33-11980-01  
33-11980-02  
33-11980-03



**Gerzog-Sexton**  
33-11984-17  
17 cm/6½"



Messer



**Poltzer**  
33-11988-17  
17 cm/6¾"



**Lempert**  
33-11992-15  
15 cm/6 "



**Lempert**  
15 cm/6"



33-11996-01



33-11996-02

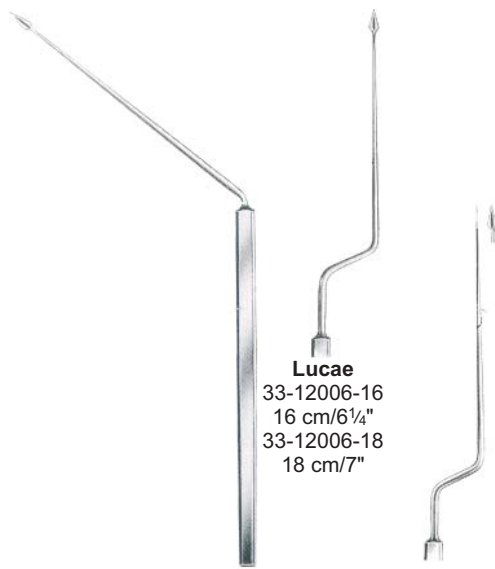


**Lempert**  
33-12000-01  
15 cm/6"



**Lempert**  
33-12000-02  
15 cm/6"

Knives



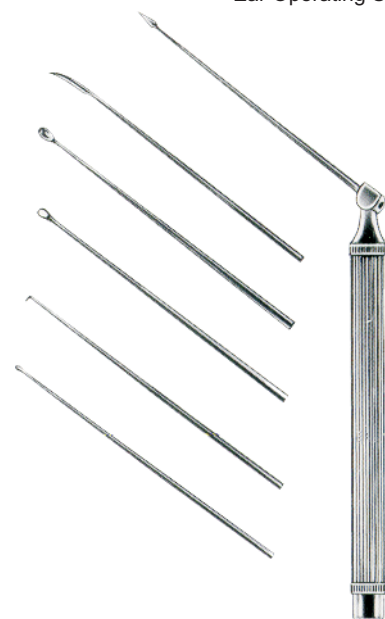
**Poltzer**  
33-12004-16  
16.5 cm/6½"

**Lucae**  
33-12006-16  
16 cm/6¼"  
33-12006-18  
18 cm/7"

**Lucae**  
33-12008-18  
18 cm/7 "



**Poltzer**  
33-12012-17  
17 cm/6¾"



Ear Operating Set

**Sprague**  
33-12014-19  
19 cm/7½"



33-12018-10



33-12018-20



33-12018-30

Ear Syringe, Complete With 2 Cannulas and 1Protecting Disk

|             |        |
|-------------|--------|
| 33-12018-02 | 50 ml  |
| 33-12018-03 | 75 ml  |
| 33-12018-04 | 100 ml |
| 33-12018-06 | 150 ml |
| 33-12018-08 | 200 ml |



**Fraenkel**  
34-12022-01 Fig. 1  
34-12022-02 Fig. 2  
34-12022-03 Fig. 3



34-12026-01  
34-12026-02  
34-12026-03  
13 cm/5"



Fig. 1  
34-12026-01  
34-12028-01



Fig. 2  
34-12026-02  
34-12028-02



Fig. 3  
34-12026-03  
34-12028-03



34-12028-01  
34-12028-02  
34-12028-03  
13 cm/5"



**Hartmann**  
15 cm/6"

34-12030-01



Fig. 1

34-12032-01

34-12030-02

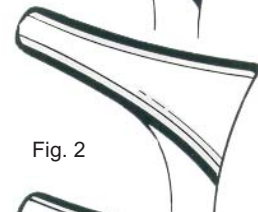


Fig. 2

34-12032-02

34-12030-03

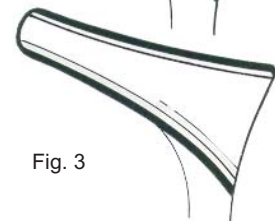


Fig. 3

34-12032-03



**Hartmann**  
15 cm/6"



34-12036-01

34-12036-02

34-12036-03

**Hartmann-Halle**  
15 cm/6"



Fig. 1

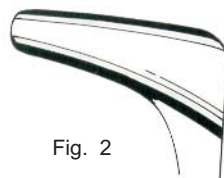


Fig. 2

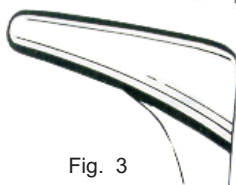


Fig. 3



34-12038-01

34-12038-02

34-12038-03

**Hartmann-Halle**  
15 cm/6"



34-12042-01

34-12042-02

**Tieck**  
13.5 cm/5 1/4"



34-12044-01

34-12044-02



**Tieck**  
13.5 cm/5 1/4"



**Beckmann**  
15 cm/6"



Fig. 1  
34-12048-01



Fig. 2  
34-12048-02



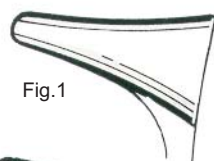
Fig. 3  
34-12048-03



**Mod. Wien**

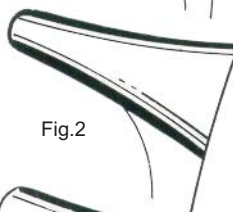
34-12052-01

Fig.1



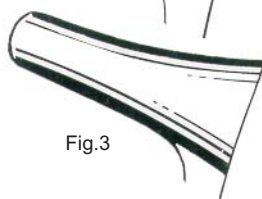
34-12052-02

Fig.2



34-12052-03

Fig.3



34-12054-01



**Wien**

34-12054-02

34-12054-03



**Killian**

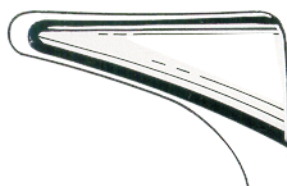


Fig.1  
34-12058-01  
35 mm

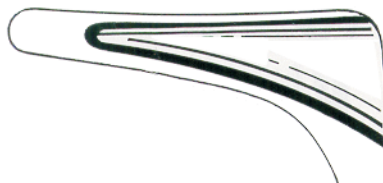


Fig.2  
34-12058-02  
50 mm



Fig.3  
34-12058-03  
75 mm

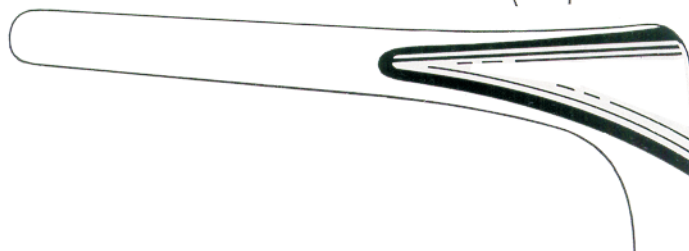


Fig.4  
34-12058-04  
90 mm





**Cottle**  
34-12062-01  
34-12062-02  
34-12062-03  
34-12062-04  
15 cm/6"

**Cottle**  
34-12064-01  
34-12064-02  
34-12064-03  
34-12064-04  
15 cm/6"



Fig 1  
34-12062-01  
34-12064-01  
35 mm

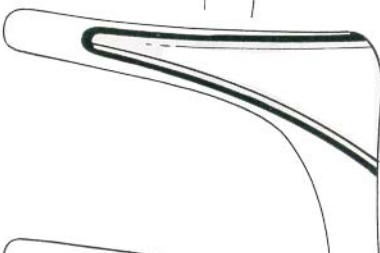


Fig 2  
34-12062-02  
34-12064-02  
50 mm



Fig 3  
34-12062-03  
34-12064-03  
75 mm

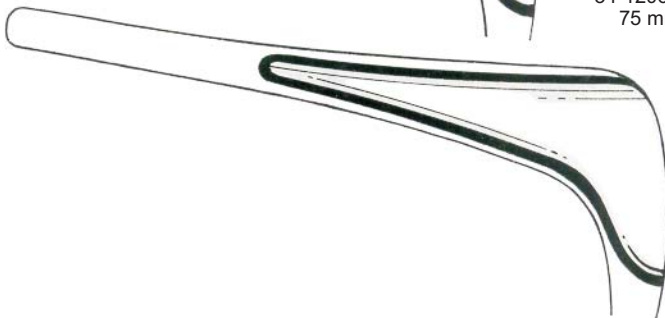


Fig 4  
34-12062-04  
34-12064-04  
90 mm



34-12068-30 Fig. 1- 3  
34-12068-40 Fig. 1- 4  
34-12068-70 Fig. 1- 7



34-12068-01    34-12068-02    34-12068-03    34-12068-04



34-12068-05    34-12068-06    34-12068-07



**Krause**  
34-12074-26  
26 cm/10 $\frac{1}{4}$ "



**Krause-Voss**  
34-12076-26  
26 cm/10 $\frac{1}{4}$ "



**Lange-Wilde**  
34-12078-24  
24 cm/9 $\frac{1}{2}$ "



Package Of 1 Dozen Each  
34-12080-10  
0.3 mm



| Cm   | In | Troeltsch<br>(Wilde) | Gruenwald<br>(Jansen) |
|------|----|----------------------|-----------------------|
| 15.0 | 6  | 34-12084-15          | 34-12088-16           |
| 18.0 | 7  | 34-12084-18          | 34-12088-18           |
| 20.0 | 8  |                      | 34-12088-20           |



**Westmacott  
(West)**  
34-12092-20  
20 cm/8"



**Lubet-Barbon**  
34-12096-20  
20 cm/8"



**Hartmann**  
34-13000-16  
16 cm/6¼"



**Hartmann**  
34-13002-20  
20 cm/8"



**Heymann**  
34-13006-18  
18 cm/7"



**Craig**  
34-13010-18  
18 cm/7"



34-13014-01

34-13014-02



**Craig Domnick**  
18 cm/7"



34-13018-01



34-13018-02

**Luc**  
20 cm/8"



34-13022-01



34-13022-02

**Luc**  
20 cm/8"



**Bruenings**  
19 cm/7½"



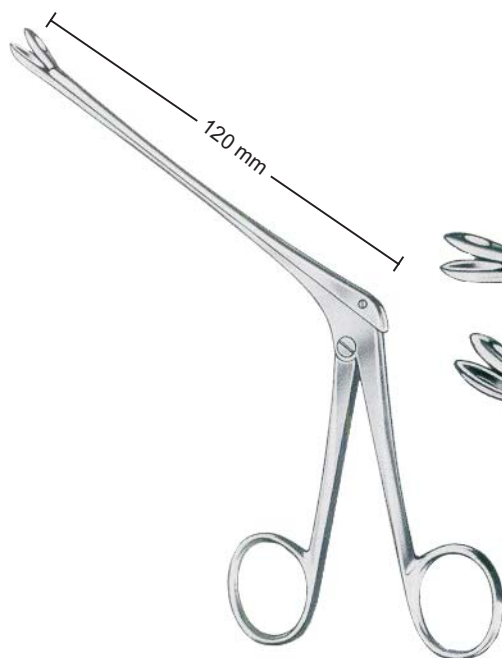
**Takahashi**  
19 cm/7½"



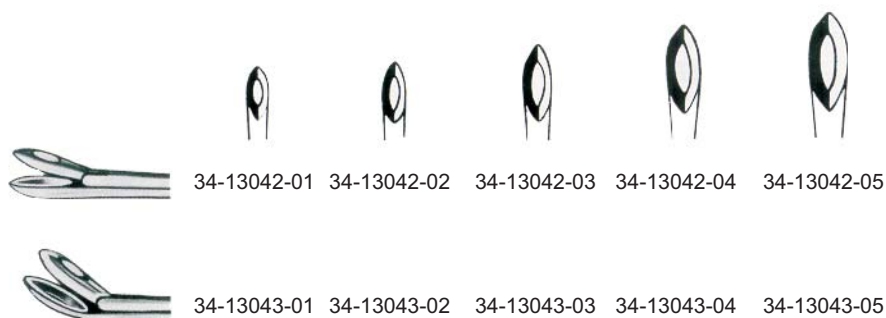
**Watson-Williams**  
19 cm/7½"



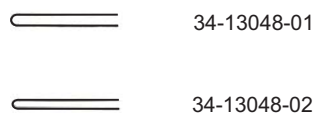
**Ferris-Smith**  
34-13038-12  
19 cm/7½"



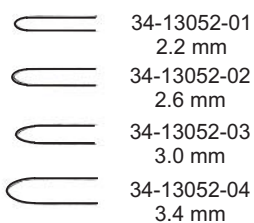
**Weil-Blakesley**



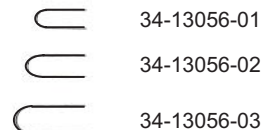
**Struycken**



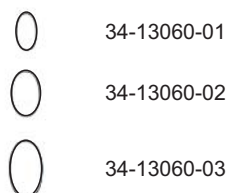
**Hajek**



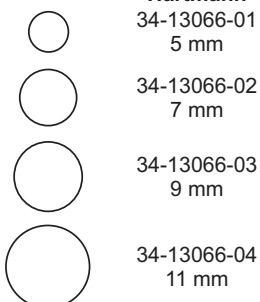
**Myles**



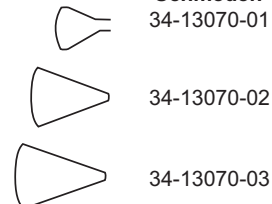
**Grunwald**



**Hartmann**



**Schmeden**



**Grunwald**  
34-13062-01



**Middleton-Jansen**  
34-13074-19  
19 cm/7½"



**Middleton-Jansen**  
34-13076-19  
19 cm/7½"



**Kazanjian**  
34-13080-18  
18 cm/7"



**Caplan**  
34-13084-20  
20 cm/8"



34-13088-01  
5x4 mm



34-13088-02  
5x4 mm



34-13088-03  
5x3.5 mm



34-13088-04  
5x3.5 mm



**Hajek**  
**(Hajek-Kofler)**  
**Shaft**  
14 cm/5½"





**Ferris-Smith-Kerrison**



**Ferris-Smith-Kerrison**

|                    |  | Width of Bite |      | Length of Shaft |  | Width of Bite |          | Length of Shaft |             |
|--------------------|--|---------------|------|-----------------|--|---------------|----------|-----------------|-------------|
|                    |  | 15 cm/6"      |      | 20 cm/8"        |  | 18 cm/7"      | 15 cm/6" | 20 cm/8"        | 18 cm/7"    |
| Cutting Upward     |  | 34-13092-03   | 3 mm | 34-13098-03     |  | 34-13104-03   | 1 mm     | 34-13108-03     | 34-13120-01 |
|                    |  |               |      |                 |  |               | 2 mm     |                 | 34-13120-02 |
|                    |  |               |      |                 |  |               | 3 mm     |                 | 34-13120-03 |
|                    |  |               |      |                 |  |               | 4 mm     |                 | 34-13120-04 |
|                    |  | 34-13092-05   | 5 mm | 34-13098-05     |  | 34-13104-05   | 5 mm     |                 | 34-13120-05 |
| Cutting Upward 40° |  | 34-13094-03   | 3 mm | 34-13100-03     |  |               | 1 mm     | 34-13110-03     | 34-13122-01 |
|                    |  |               |      |                 |  |               | 2 mm     |                 | 34-13122-02 |
|                    |  |               |      |                 |  |               | 3 mm     |                 | 34-13122-03 |
|                    |  |               |      |                 |  |               | 4 mm     |                 | 34-13122-04 |
|                    |  | 34-13094-05   | 5 mm | 34-13100-05     |  |               | 5 mm     |                 | 34-13122-05 |
| Cutting Downward   |  | 34-13096-03   | 3 mm | 34-13102-03     |  | 34-13106-03   | 1 mm     | 34-13112-03     | 34-13124-01 |
|                    |  |               |      |                 |  |               | 2 mm     |                 | 34-13124-02 |
|                    |  |               |      |                 |  |               | 3 mm     |                 | 34-13124-03 |
|                    |  |               |      |                 |  |               | 4 mm     |                 | 34-13124-04 |
|                    |  | 34-13096-05   | 5 mm | 34-13102-05     |  | 34-13106-05   | 5 mm     |                 | 34-13124-05 |



360° Turnable

**Hajek-Kofler**  
34-13128-16  
16 cm/6½"

34-13132-03  
3 mm  
34-13132-04  
4 mm  
34-13132-05  
5 mm  
34-13132-06  
6 mm



**Kerrison**  
20 cm/8"





**Jurasz**  
22 cm/8¾"



34-13136-01



34-13136-02



34-13136-03

Rhinoplastic and Nasal Knives



**Joseph**  
Pointed

← Straight  
34-13140-01



Curved  
34-13141-01



**Joseph**  
Blunt

← Straight  
34-13144-01



Curved  
34-13145-01



**Converse**  
34-13149-15  
15 cm/6"



**Joseph**  
34-13152-14  
14 cm/5½"



**Cottle**  
34-13156-15  
15 cm/6"



**Cottle**  
34-13158-14  
14 cm/5½"



**Freer**  
34-13162-16  
16 cm/6¼"



**Joseph**  
34-13166-16  
16.5 cm/6½"



**Maltz**  
34-13170-16  
16.5 cm/6½"



**Freer**  
34-13174-19  
19 cm/7½"

Septum Knives



**Ballenger**  
20cm/8"



34-13178-03 3 mm 34-13179-03  
34-13178-04 4 mm 34-13179-04  
34-13178-05 5 mm 34-13179-05



**Ballenger**  
20cm/8"



**Bruenings**  
34-13182-16  
16cm/6¼"



34-13186-04 4 mm  
34-13186-05 5 mm

**Mc Kenty**  
15 cm/6"



**Halle**  
34-13190-16  
16.5 cm/6½"



**Joseph**  
34-13194-16  
16.5 cm/6½"



**Cottle**  
34-13198-19  
19.5 cm/7½"



Blunt

**Freer**  
34-13202-19  
19 cm/7½"



Sharp

**Freer**  
34-13203-19  
19 cm/7½"



**Freer**  
34-13206-18  
18 cm/7"



**Freer-Yasargil**  
34-13208-18  
18.5 cm/7¼"



**Howarth**  
34-13212-21  
21.5 cm/8½"



**Mc Kenty**  
34-13216-22  
22 cm/8¾"



**Killian**  
34-13220-18  
18.5 cm/7¼"



**Cottle**  
34-13224-23  
23 cm/9"



**Killian**  
34-13228-18  
18.5 cm/7¼"



**Pierce**  
34-13232-21  
21 cm/8¼"



**Pennington**  
34-13236-21  
21 cm/8¼"

Raspatories



34-13240-18  
18 cm/7"



**Joseph (Cottle)  
Masing**  
34-13244-22  
22 cm/8¾"



**Masing**  
34-13248-20  
20.5 cm/8⅜"



**Joseph**  
34-13252-16  
16cm/6¼"

Periost-Elevators



4 mm

**Freer**

34-13256-16  
16 cm/6¼"



4 mm

**Freer**

34-13260-16  
16 cm/6¼"



6 mm

**Freer**

34-13264-15  
15 cm/6"



**Ballenger**

34-13268-04 4 mm  
34-13268-06 6 mm  
34-13268-08 8 mm  
16 cm/6¼"



**Killian**

34-13272-16  
16 cm/6¼"



**Killian-Claus**

34-13276-16  
16 cm/6¼"



4 mm



7 mm



9 mm



12 mm

**Cottle**

34-13280-04 4 mm  
34-13280-07 7 mm  
34-13280-09 9 mm  
34-13280-12 12 mm  
18 cm/7"



**Cottle**

34-13284-04 4 mm  
34-13284-07 7 mm  
34-13284-09 9 mm  
34-13284-12 12 mm  
18 cm/7"



**Cottle**

34-13288-18  
18 cm/7"



16 mm



**Cottle**

34-13290-18  
18 cm/7"



34-13294-08  
16 cm/6¼"  
8 mm



**Cottle**  
34-13298-04 4 mm  
34-13298-07 7 mm  
34-13298-09 9 mm  
34-13298-12 12 mm  
18 cm/7"



**Cottle**  
Curved  
34-13299-06  
18 cm/7"  
6 mm



**Fomon**  
34-13302-05 5mm  
34-13302-08 8mm  
17 cm/6¾"



**Walter**  
34-13306-03 3 mm  
34-13306-04 4 mm  
18 cm/7"



34-13310-01



**(Silver)**  
**Masing**  
34-13310-02  
17.5 cm/7⅞"



34-13310-03



**Cinelli**  
34-13314-10 10 mm  
34-13314-12 12 mm  
34-13314-14 14 mm  
34-13314-16 16 mm  
16 cm/6¼"



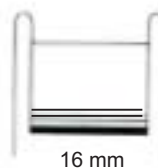
10 mm



12 mm



14 mm



16 mm



**Masing**  
34-13318-17  
17.5 cm/6⅞"



**West**  
34-13322-16  
16 cm/6¼"



**West**  
34-13324-16  
16 cm/6¼"



34-13328-01



34-13328-02

**Joseph**  
17 cm/6¾"



**Joseph**  
34-13330-01  
17 cm/6¾"



**Joseph**  
34-13332-02  
17 cm/6¾"



**Joseph**  
34-13332-03  
17 cm/6¾"





***PinsmedTc***



Fig.1



Fig.3



Fig.5



Fig.7



Fig.9



Fig.2



Fig.4



Fig.6



Fig.8



Fig.10

**Fomon**

Fig. 1/ 2 34-13336-12  
Fig. 3/ 4 34-13336-34  
Fig. 5/ 6 34-13336-56  
Fig. 7/ 8 34-13336-78  
Fig. 9/10 34-13336-90  
21 cm/8 1/4"

***PinsmedTc***



**Parkes**

|                    |                    |
|--------------------|--------------------|
| Fig. 1 34-13340-01 | Fig. 1 34-13344-01 |
| Fig. 2 34-13340-02 | Fig. 2 34-13344-02 |
| Fig. 3 34-13340-03 | Fig. 3 34-13344-03 |
| Fig. 4 34-13340-04 | Fig. 4 34-13344-04 |
| Fig. 5 34-13340-05 | Fig. 5 34-13344-05 |
| Fig. 6 34-13340-06 | Fig. 6 34-13344-06 |
| Fig. 7 34-13340-07 | Fig. 7 34-13344-07 |
| Fig. 8 34-13340-08 | Fig. 8 34-13344-08 |
| Fig. 9 34-13340-09 | Fig. 9 34-13344-09 |
| Fig.10 34-13340-10 | Fig.10 34-13344-10 |
| 20.5 cm/8 1/8"     | 17 cm/6 3/4"       |

**Maltz**



**Maltz**  
17 cm/6¾"



34-13348-01

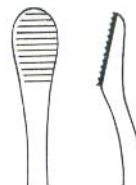


34-13348-02

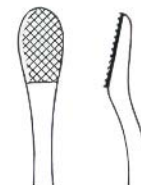
**PinsmedTC**



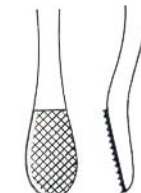
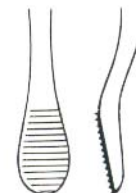
**Miller**  
16 cm/6¼"



34-13352-01



34-13352-02



19 cm/7½"



34-13356-02



34-13356-03



34-13356-04



34-13356-05



34-13356-06



34-13356-07



**Aufricht**  
34-13360-17  
17.5 cm/6⅞"



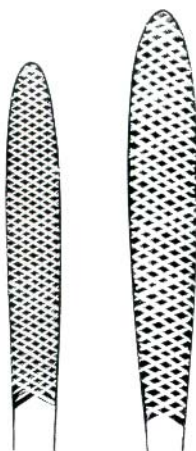
**Fomon**  
34-13364-21  
21 cm/8¼"



**Maltz**  
34-13368-18  
18 cm/7"



**Joseph**  
16 cm/6¼"



34-13372-01 34-13372-02



**Lewis**  
18 cm/7"



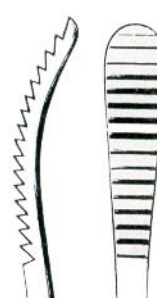
Fine  
34-13376-01



Coarse  
34-13376-02



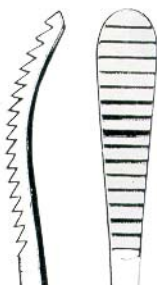
**Cottle**  
34-13380-21  
21 cm/8¼"



34-13384-01



**Aufrecht**  
21 cm/8¼"



34-13384-02



**Joseph**  
34-13388-16  
15 cm/6"



**Cottle**  
34-13392-16  
15 cm/6 1/4"



**Lange**  
34-13396-22  
22 cm/8 3/4"



**Fomon**  
34-13400-17  
17 cm/6 3/4"



**Freer**  
34-13404-15  
15 cm/6"



**Frazier**  
34-13408-13 13 cm/5"  
34-13408-18 18 cm/7"



**Joseph**  
16 cm/6 1/4"



34-13412-02  
2 mm



34-13412-05  
5 mm



34-13412-07  
7 mm



34-13412-10  
10 mm



**Fomon**  
34-13416-16  
16 cm/6 1/4"



**Neivert  
(Masing)**  
34-13420-20  
20 cm/8"



**Cottle-Neivert**  
34-13424-20  
20 cm/8"



Hooks



**Fomon**  
34-13428-14  
14.5 cm/5 3/4"



**Cottle**  
34-13432-14  
14.5 cm/5 3/4"



**Cottle**  
34-13434-14  
14.5 cm/5 3/4"



**Cottle**  
34-13436-14  
14.5 cm/5 3/4"



**Cottle**  
34-13440-16  
15 cm/6"



**Kilner**  
34-13444-08  
8 cm/3 1/8"  
10 mm

Columella Forceps



**Converse**  
34-13448-12  
12 cm/4 3/4"



**Aufrecht**  
34-13452-16  
16 cm/6 1/4"



**Cottle**  
34-13456-10  
10 cm/4"

Tissue Lifter



34-13460-14  
14 cm/5 1/2"

Tissue Picks



34-13464-11  
11 cm/4 3/8"



1.0 mm 34-13468-10  
1.8 mm 34-13468-18



**Walsham**  
23 cm/9"



34-13472-01



34-13472-02



34-13472-03



**Cottle-Walsham**  
34-13474-22  
22 cm/8 3/4"



**Asch**  
34-13476-23  
23 cm/9"



**Kressner**  
34-13480-20  
20 cm/8"



**Rubin**  
34-13484-20  
20 cm/8"



**Faulkner**  
34-13488-21  
21 cm/8¼"



**Sewall**  
34-13492-20  
20 cm/8"  
6 mm



**Coakley**  
17 cm/6¾"



34-13496-01    34-13496-02    34-13496-03



34-13496-04    34-13496-05    34-13496-06

Ringmesser



**Beckmann**  
22 cm/8¾"

34-13500-01



34-13501-01

34-13500-02



34-13501-02

34-13500-03



34-13501-03

34-13500-04



34-13501-04

34-13500-05



34-13501-05

34-13500-06



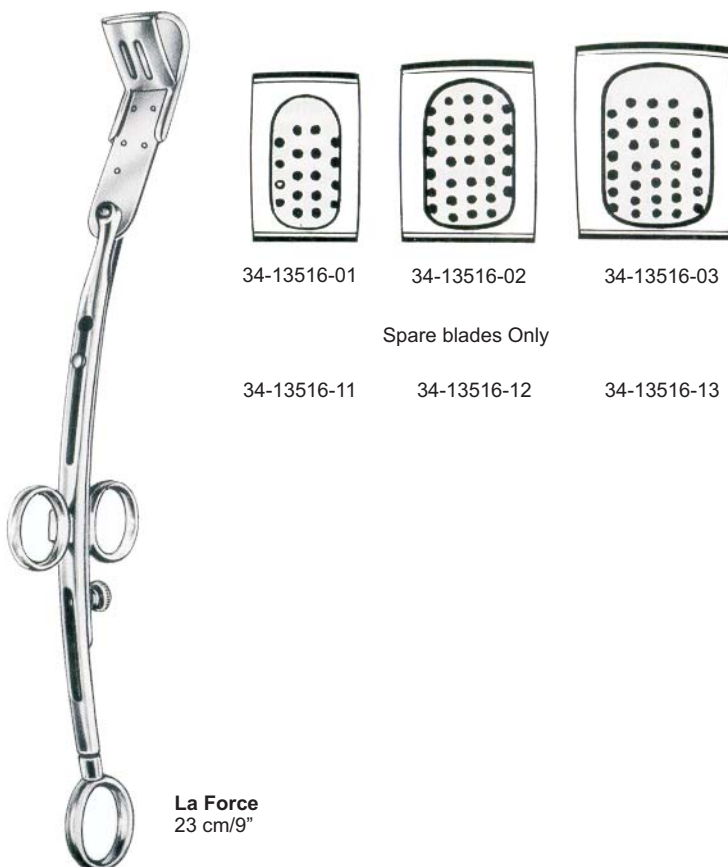
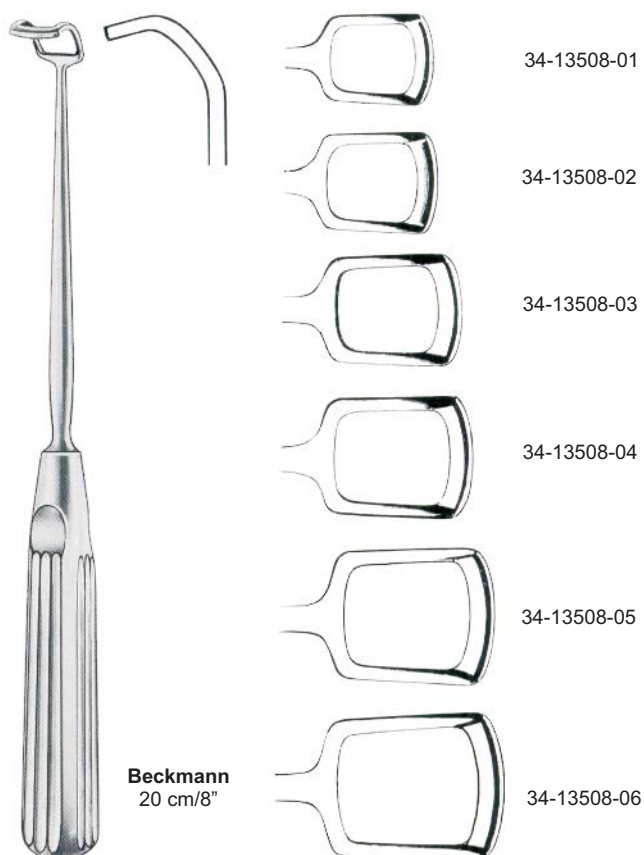
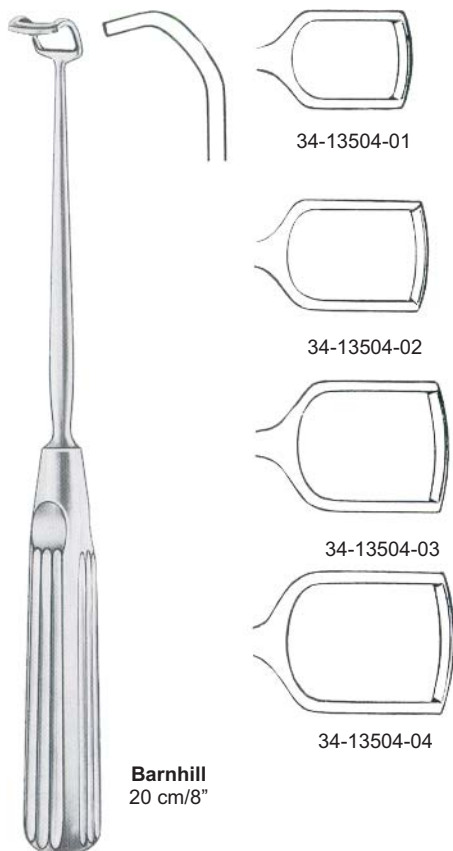
34-13501-06

Adenoid Curettes



**Negus**  
20 cm/8"







**Bruenings- Brunk**  
34-13520-19  
19 cm/7½"



**Siebenmann**



mm Ø

|             |     |             |
|-------------|-----|-------------|
| 34-13524-15 | 1.5 | 34-13526-15 |
| 34-13524-17 | 1.7 | 34-13526-17 |
| 34-13524-20 | 2.0 | 34-13526-20 |
| 34-13524-25 | 2.5 | 34-13526-25 |
| 34-13524-30 | 3.0 | 34-13526-30 |



Fig. 1



**Hartmann**

Fig. 2

| Fig. 1      | mm Ø | Fig. 2      |
|-------------|------|-------------|
| 34-13530-20 |      | 34-13534-20 |
| 34-13530-25 |      | 34-13534-25 |
| 34-13530-30 |      | 34-13534-30 |



**Eicken - Killian**  
34-13538-03  
3 mm Ø



**Killian**  
34-13538-15  
1.5 mm Ø



**Ritter - Halle**  
2.5 mm 34-13540-25  
3.0 mm 34-13540-30  
4.0 mm 34-13540-40



Gag Only  
35-13546-10



Fig. 1  
35-13546-01  
65 x 28 mm

**Kilner-Doughty**  
Complete  
35-13546-00



Fig. 2  
35-13546-02  
75 x 32 mm

Fig. 3  
35-13546-03  
80 x 37 mm

Gag Only  
35-13550-10



Fig. 1  
35-13550-01  
24 x 62 mm

**Dingmann**  
Complete  
35-13550-00



Fig. 2  
35-13550-02  
28 x 65 mm

Fig. 3  
35-13550-03  
31 x 75 mm

Gag Only  
35-13554-10



Fig. 1  
35-13554-01  
21 x 26 mm

**Davis-Boyle**  
Complete  
35-13554-00



Fig. 2  
35-13554-02  
23 x 65 mm

Fig. 3  
35-13554-03  
24 x 80 mm

Fig. 4  
35-13554-04  
25 x 93 mm

Fig. 5  
35-13554-05  
26 x 108 mm

Gag Only  
35-13558-10



Fig. 1  
35-13558-01  
23 x 70 mm

**Mc Ivor**  
Complete  
35-13558-00



Fig. 2  
35-13558-02  
25 x 86 mm

Fig. 3  
35-13558-03  
26 x 100 mm



**Modell Wurzburg**

| Fig. |             | mm       |
|------|-------------|----------|
| 2    | 35-13562-02 | 23 x 65  |
| 3    | 35-13562-03 | 24 x 80  |
| 4    | 35-13562-04 | 25 x 93  |
| 5    | 35-13562-05 | 26 x 108 |

| Fig. | mm                   |
|------|----------------------|
| 1    | 35-13566-01 28 x 66  |
| 2    | 35-13566-02 32 x 75  |
| 3    | 35-13566-03 34 x 83  |
| 4    | 35-13566-04 37 x 93  |
| 5    | 35-13566-05 38 x 100 |



Chest Support for  
Mouth gag  
35-13570-00



**Baby-Molt**  
35-13574-10  
10 cm/4"



**Molt**  
35-13576-11 11 cm/4¼"  
35-13576-14 14 cm/5½"



**Roser-Konig**  
35-13580-16 16 cm/6¼"  
35-13580-19 19 cm/7½"

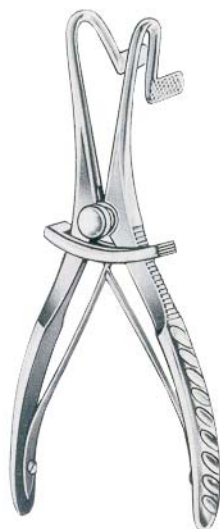


**Denhart**  
35-13584-12  
12 cm/4¾"

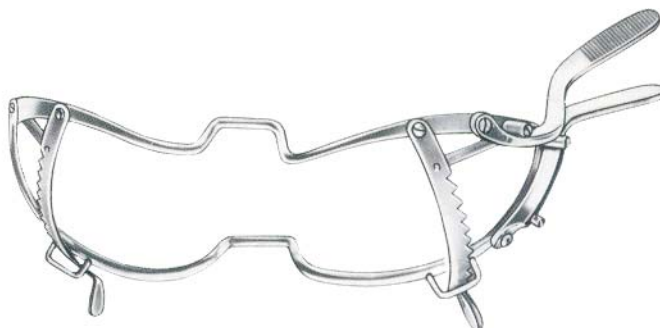
Mouth Gags



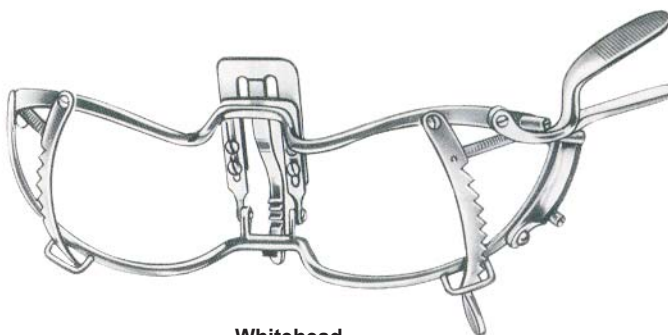
**Heister**  
35-13588-13  
13 cm/5"



**Fergusson-Ackland**  
35-13592-18 18 cm/7"  
35-13592-20 20 cm/8"



**Whitehead**  
35-13596-11 11 cm/4¼"  
35-13596-13 13 cm/5"  
35-13596-15 15 cm/6"



**Whitehead**  
35-13600-13  
13 cm/5"



**Jennings**  
35-13604-09 09 cm/3½"  
35-13604-11 11 cm/4¼"  
35-13604-13 13 cm/5"  
35-13604-15 15 cm/6"



**Sternberg**  
35-13608-12 12 cm/4¾"  
35-13608-14 14 cm/5½"  
35-13608-16 16 cm/6¼"



35-13612-19  
19 cm/7½"



**Moritz-Schmidt**  
35-13616-19  
19 cm/7½"



**Hartmann**  
35-13620-15  
15 cm/6"



**Tobold**  
35-13624-14  
14.5 cm/5¾"



**Fraenkel**  
35-13628-19  
19 cm/7½"



**Frenzel**  
35-13632-16  
16.5 cm/6½"



35-13636-13  
13 cm/5"



35-13640-14  
14.5 cm/5¾"



35-13646-14  
14.5 cm/5¾"



**Kroenig**  
35-13650-15  
15 cm/6"



**Mayo**  
35-13654-17  
17 cm/6¾"





**Bruenings**  
35-13658-19  
19 cm/7½"



**Bruenings**  
35-13662-19  
19 cm/7½"



**Wieder**

35-13666-01

35-13666-02



**Collin**  
35-13670-16  
16 cm/6¼"



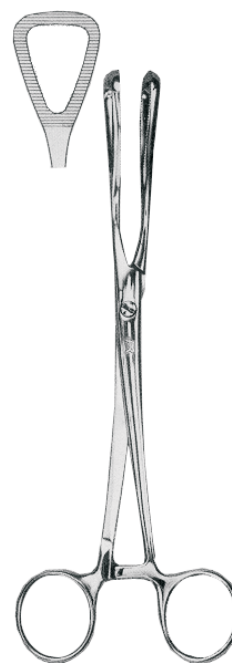
**Collin**  
35-13672-19  
19 cm/7½"



35-13676-19  
19 cm/7½"



**Young**  
35-13680-17  
17 cm/6¾"



**Guys**  
35-13682-19  
19 cm/7½"

**Finger Protectors**



**Lengenbeck**  
35-13684-01 Ø 22.0 mm  
35-13684-02 Ø 24.5 mm  
35-13684-03 Ø 26.5 mm





2.5 mm

1.8 mm

Gauze Packers

**Luniatschek**  
36-13688-18  
18 cm/7"

**Luniatschek**  
36-13690-18  
18 cm/7"

**Trelat**  
36-13694-23  
23 cm/9"

**Claus**  
36-13698-23  
23 cm/9"

**Hurd**  
36-13702-24  
24 cm/9½"

**Hurd**  
36-13704-21  
21 cm/8¼"

**Nager**  
36-13708-24  
24 cm/9½"

**Falk**  
36-13712-24  
24 cm/9½"

**Falk**  
36-13716-24  
24 cm/9½"

**Claus-Eicken**  
36-13720-23  
23 cm/9 "

Ligature Carrier

**Roeder**  
36-13724-26  
26 cm/10¼"



36-13728-17  
17.5 cm/6<sup>7</sup>/<sub>8</sub>"



**Fischer**  
36-13732-22  
22.5 cm/8<sup>7</sup>/<sub>8</sub>"



**Douglas**  
36-13736-21  
21 cm/8<sup>1</sup>/<sub>4</sub>"



**Abraham**  
36-13740-21  
21 cm/8<sup>1</sup>/<sub>4</sub>"



**Bruenings**  
36-13744-23  
23 cm/9"



**Abraham**  
36-13748-19  
19 cm/7<sup>1</sup>/<sub>2</sub>"



**Canfield**  
36-13752-21  
21 cm/8<sup>1</sup>/<sub>4</sub>"



**Hurd**  
36-13756-22  
22.5 cm/8<sup>7</sup>/<sub>8</sub>"



**Yankauer**  
36-13760-21  
21 cm/8<sup>1</sup>/<sub>4</sub>"



**Luniatschek**  
36-13764-19  
19 cm/7<sup>1</sup>/<sub>2</sub>"



**Henke**  
23 cm/9"



36-13768-01



36-13768-02



**Nager**  
36-13772-23  
23 cm/9"



Wide  
36-13776-18 18 mm  
36-13776-20 20 mm  
36-13776-22 22 mm



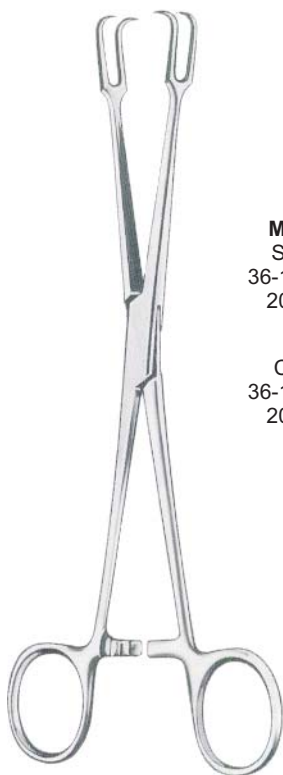
**Love**  
23 cm/9"



**Haslinger**  
36-13780-16



**Hofer**  
36-13784-24  
24 cm/9<sup>1</sup>/<sub>2</sub>"



**Museux**  
Straight  
36-13788-20  
20 cm/8"

Curved  
36-13789-20  
20 cm/8"



**Ballenger**  
36-13792-21  
21.5 cm/8½"



**White**  
36-13796-18 18 cm/7"  
36-13796-23 23 cm/9"



**Marschik Kroni**  
36-13800-20  
20.5 cm/8"



**Colver**  
Straight  
36-13804-19  
19 cm/7½"

Curved  
36-13805-19  
19 cm/7½"



**Blohmke**  
36-13808-20  
20 cm/8"



**Eves**  
36-13812-28  
28 cm/11"



**Eves**  
36-13814-28  
28 cm/11"



**Bruenings**  
36-13818-28  
28 cm/11"



With 1 Straight Tip

**Brown**  
36-13822-00



With 1 Straight Tip

**Tyding**  
36-13826-00



**Sluder-Ballenger**  
Complete, With 3 Tips  
36-13830-00



Tonsil Punch Forceps

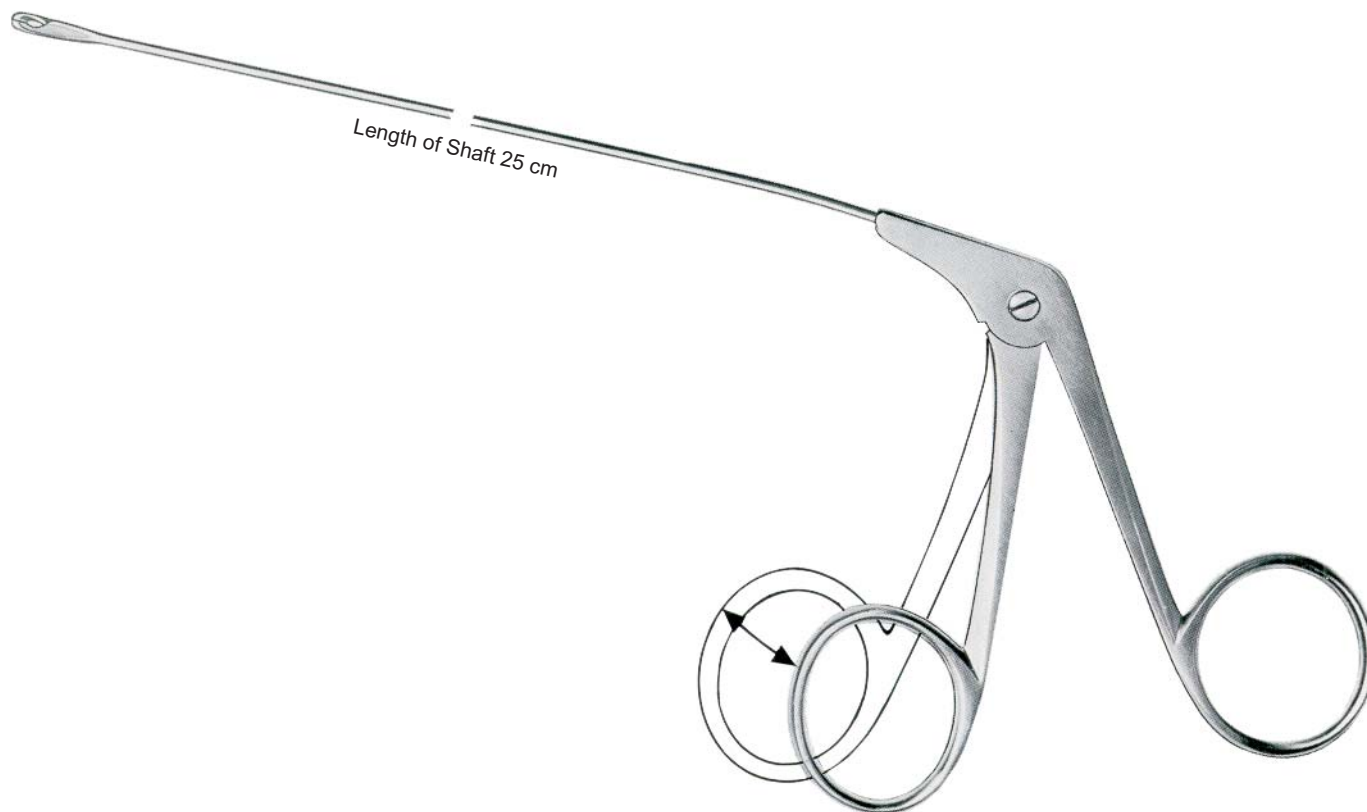
36-13834-13 13 mm Ø  
36-13834-15 15 mm Ø  
36-13834-17 17 mm Ø

**Hartmann**

Tonsil Haemostats



**Corwin**  
36-13838-14  
14 cm/5½"



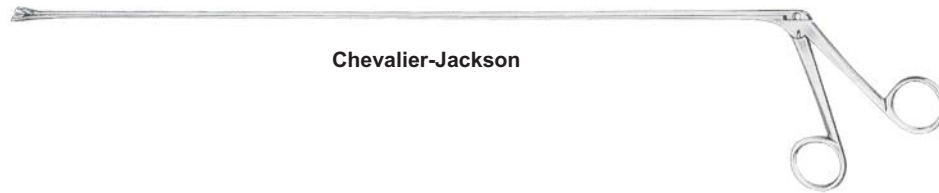
|                      | Micro Scissors                                                                      | Micro Forceps                                                                       | Cup Shaped Forceps<br>2.5 mm Ø                                                        |
|----------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Straight             |  |  |   |
|                      | 37-13842-01                                                                         | 37-13844-01                                                                         | 37-13846-01                                                                           |
| Straight Horizontal  |  |  |                                                                                       |
|                      | 37-13842-02                                                                         | 37-13844-02                                                                         |                                                                                       |
| Angled Up            |  |                                                                                     |  |
|                      | 37-13842-03                                                                         |                                                                                     | 37-13846-03                                                                           |
| Angled Up Horizontal |  |  |  |
|                      | 37-13842-04                                                                         | 37-13844-04                                                                         | 37-13846-04                                                                           |
| Curved Right         |  |  |   |
|                      | 37-13842-05                                                                         | 37-13844-05                                                                         | 37-13846-05                                                                           |
| Curved Left          |  |  |   |
|                      | 37-13842-06                                                                         | 37-13844-06                                                                         | 37-13846-06                                                                           |
|                      |                                                                                     |                                                                                     |   |
|                      |                                                                                     |                                                                                     | Oval<br>37-13846-07                                                                   |





Length of Shaft

| Length of Shaft<br>For Children                                                     |                      | Length of Shaft                                                                     |             |             |             |
|-------------------------------------------------------------------------------------|----------------------|-------------------------------------------------------------------------------------|-------------|-------------|-------------|
|                                                                                     |                      | 40 cm                                                                               | 50 cm       | 60 cm       |             |
|  | 35 cm<br>37-13850-01 |    | 37-13852-01 | 37-13854-01 | 37-13856-01 |
|  | 37-13850-02          |  | 37-13852-02 | 37-13854-02 | 37-13856-02 |
|  | 37-13850-03          |  | 37-13852-03 | 37-13854-03 | 37-13856-03 |
|  | 37-13850-04          |  | 37-13852-04 | 37-13854-04 | 37-13856-04 |
|  | 37-13850-05          |  | 37-13852-05 | 37-13854-05 | 37-13856-05 |
|  | 37-13850-06          |  | 37-13852-06 | 37-13854-06 | 37-13856-06 |
|  | 37-13850-07          |  | 37-13852-07 | 37-13854-07 | 37-13856-07 |
|  | 37-13850-08          |  | 37-13852-08 | 37-13854-08 | 37-13856-08 |
|  | 37-13850-09          |  | 37-13852-09 | 37-13854-09 | 37-13856-09 |
|  | 37-13850-10          |  | 37-13852-10 | 37-13854-10 | 37-13856-10 |
|  | 37-13850-11          |  | 37-13852-11 | 37-13854-11 | 37-13856-11 |
|                                                                                     |                      |  | 37-13852-12 | 37-13854-12 | 37-13856-12 |
|                                                                                     |                      |  | 37-13852-13 | 37-13854-13 | 37-13856-13 |



**Chevalier-Jackson**



Length  
cm in

|    |    |             |             |             |             |             |             |             |             |
|----|----|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 30 | 12 | 37-13860-30 | 37-13862-30 | 37-13864-30 | 37-13866-30 | 37-13868-30 | 37-13870-30 | 37-13872-30 | 37-13874-30 |
| 40 | 16 | 37-13860-40 | 37-13862-40 | 37-13864-40 | 37-13866-40 | 37-13868-40 | 37-13870-40 | 37-13872-40 | 37-13874-40 |
| 50 | 20 | 37-13860-50 | 37-13862-50 | 37-13864-50 | 37-13866-50 | 37-13868-50 | 37-13870-50 | 37-13872-50 | 37-13874-50 |
| 60 | 24 | 37-13860-60 | 37-13862-60 | 37-13864-60 | 37-13866-60 | 37-13868-60 | 37-13870-60 | 37-13872-60 | 37-13874-60 |

**Interchangeable Tips**



**Huber**  
37-13876-00



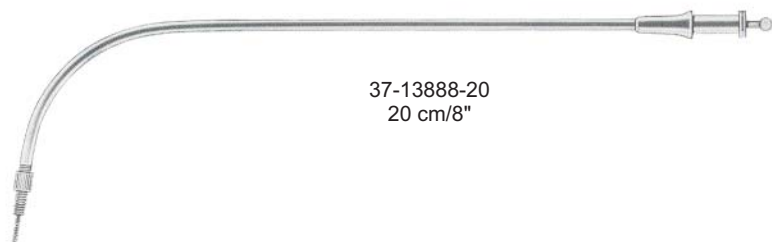
**Bruenings**  
37-13880-00



**Straight**  
37-13884-20  
37-13884-30  
37-13884-40  
37-13884-50  
37-13884-60

**Lengths**  
cm in  
20 08  
30 12  
40 16  
50 20  
60 24

**Angular**  
37-13885-20  
37-13885-30  
37-13885-40  
37-13885-50  
37-13885-60



**37-13888-20**  
20 cm/8"



**Baracani**  
37-13890-01



**Seiffert**  
37-13892-01



**Frankel**  
37-13894-01



**Scheinmann**  
37-13896-01



**Scheinmann**  
37-13896-02



**Bruenings**  
37-13898-01 2 mm Ø  
37-13898-02 3 mm Ø



**Bruenings**  
37-13898-03



**Bruenings**  
37-13898-04



**Lange**  
37-13900-01



**Krause**  
37-13902-01



**Krause**  
37-13904-01



**Cordes**  
37-13906-01



**Schumacher**  
37-13908-01



**Cordes**



37-13910-01



37-13910-02



**Flatau**  
37-13912-01



**Fraenkel**  
37-13914-01



Metal Handles



| Fig. | mm Ø |
|------|------|
| 000  | 06   |
| 00   | 08   |
| 0    | 10   |
| 1    | 12   |
| 2    | 14   |
| 3    | 16   |
| 4    | 18   |
| 5    | 20   |
| 6    | 22   |
| 7    | 24   |
| 8    | 26   |
| 9    | 28   |
| 10   | 30   |

37-13916-06  
37-13916-08  
37-13916-10  
37-13916-12  
37-13916-14  
37-13916-16  
37-13916-18  
37-13916-20  
37-13916-22  
37-13916-24  
37-13916-26  
37-13916-28  
37-13916-30

37-13918-06  
37-13918-08  
37-13918-10  
37-13918-12  
37-13918-14  
37-13918-16  
37-13918-18  
37-13918-20  
37-13918-22  
37-13918-24  
37-13918-26  
37-13918-28  
37-13918-30

**Michel**

37-13920-10  
37-13920-12  
37-13920-14  
37-13920-16  
37-13920-18  
25 cm/10"

37-13924-01



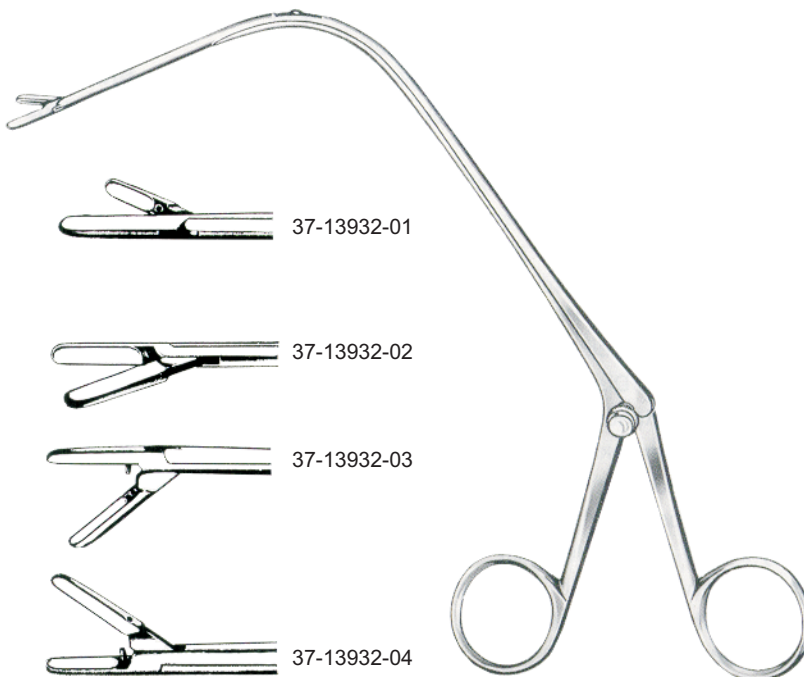
**Instrumed**  
Fine Surgical Instruments

**Broncho-Esophagoscopy Instruments**  
Laryngeal Polypus Forceps and  
Epiglottis Retractors

**37**



**Fraenkel**  
37-13928-18  
18 cm/7"



**Jurasz**  
23 cm/9"

Epiglottis Retractor



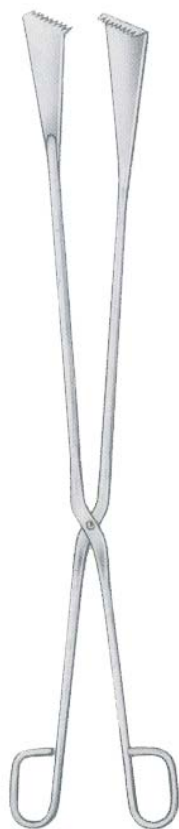
**Reichert**  
37-13936-24  
24 cm/9½"



**Killian**  
37-13940-20  
20 cm/8"



**Davis**  
38-13944-16 16 cm/6¼"  
38-13944-24 24 cm/9½"



**Sauerbruch**  
38-13948-55  
55 cm/21½"



38-13952-20 20 cm/8"  
38-13952-28 28 cm/11"  
38-13952-30 30 cm/12"



**Rogge**  
38-13956-23  
23 cm/9"



**Cheatle**  
38-13960-27  
27 cm/10½"



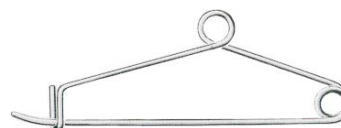
**Universal**  
38-13964-20 20 cm/8"  
38-13964-28 28 cm/11"



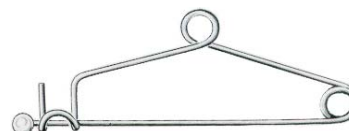
**Universal**  
38-13968-20  
38-13968-28



**Bunt**  
38-13972-01  
10.5 cm/4¼"



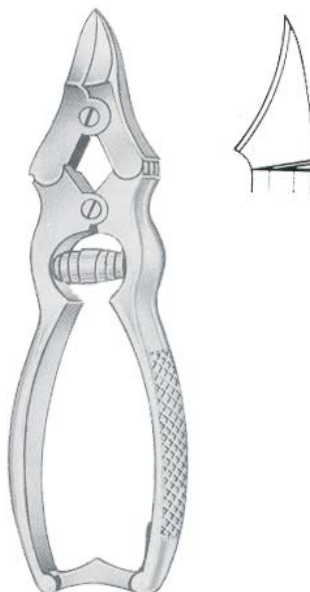
**Mayo**  
38-13972-02  
14 cm/5½"



**Mayo**  
38-13972-03  
14 cm/5½"



Stainless



39-13976-15  
15 cm/6"



39-13980-10  
39-13981-10  
10 cm/4"

Straight  
Curved



39-13984-10  
39-13985-10  
10 cm/4"



39-13992-10  
10 cm/4"



39-13996-11  
11 cm/4½"  
39-13996-13  
13 cm/5"





| cm | in  |             |             |
|----|-----|-------------|-------------|
| 11 | 4½" | 39-14000-11 |             |
| 13 | 5   | 39-14000-13 |             |
| 14 | 5½" |             | 39-14004-14 |
| 16 | 6¼" |             | 39-14004-16 |



| cm | in  |             |             |
|----|-----|-------------|-------------|
| 11 | 4½" |             | 39-14012-11 |
| 13 | 5   |             | 39-14012-13 |
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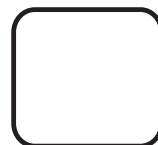
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**14**

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| 14-01767-14 | 42   | 14-01848-23 | 47   | 14-01896-18 | 50   | 14-02042-19 | 57   | 14-02222-02 | 65   | 14-02373-19 | 73   |
| 14-01771-18 | 42   | 14-01848-25 | 47   | 14-01897-16 | 50   | 14-02045-19 | 57   | 14-02222-03 | 65   | 14-02376-19 | 73   |
| 14-01775-14 | 42   | 14-01848-28 | 47   | 14-01897-18 | 50   | 14-02049-24 | 57   | 14-02225-12 | 65   | 14-02377-19 | 73   |
| 14-01778-14 | 43   | 14-01848-30 | 47   | 14-01900-16 | 50   | 14-02053-23 | 57   | 14-02229-01 | 65   | 14-02384-12 | 74   |
| 14-01778-15 | 43   | 14-01850-18 | 47   | 14-01900-18 | 50   | 14-02057-16 | 58   | 14-02229-02 | 65   | 14-02385-12 | 74   |
| 14-01778-17 | 43   | 14-01850-20 | 47   | 14-01901-16 | 50   | 14-02057-23 | 58   | 14-02233-05 | 65   | 14-02392-12 | 74   |
| 14-01778-19 | 43   | 14-01850-23 | 47   | 14-01901-18 | 50   | 14-02057-28 | 58   | 14-02236-09 | 65   | 14-02393-12 | 74   |
| 14-01778-23 | 43   | 14-01850-25 | 47   | 14-01904-12 | 51   | 14-02059-16 | 58   | 14-02238-09 | 65   | 14-02395-12 | 74   |
| 14-01779-14 | 43   | 14-01850-28 | 47   | 14-01906-12 | 51   | 14-02059-23 | 58   | 14-02240-09 | 65   | 14-02400-13 | 74   |
| 14-01779-15 | 43   | 14-01850-30 | 47   | 14-01908-12 | 51   | 14-02059-28 | 58   | 14-02243-09 | 65   | 14-02404-16 | 75   |
| 14-01779-17 | 43   | 14-01852-18 | 47   | 14-01911-12 | 51   | 14-02061-16 | 58   | 14-02245-09 | 65   | 14-02405-16 | 75   |
| 14-01779-19 | 43   | 14-01852-20 | 47   | 14-01913-12 | 51   | 14-02061-23 | 58   | 14-02247-09 | 65   | 14-02408-16 | 75   |
| 14-01779-23 | 43   | 14-01852-23 | 47   | 14-01915-12 | 51   | 14-02061-28 | 58   | 14-02250-08 | 66   | 14-02409-16 | 75   |
| 14-01782-14 | 43   | 14-01852-25 | 47   | 14-01916-12 | 51   | 14-02063-13 | 58   | 14-02253-08 | 66   | 14-02412-16 | 75   |
| 14-01782-17 | 43   | 14-01852-28 | 47   | 14-01918-12 | 51   | 14-02063-16 | 58   | 14-02255-08 | 66   | 14-02413-16 | 75   |
| 14-01782-23 | 43   | 14-01852-30 | 47   | 14-01920-12 | 51   | 14-02063-19 | 58   | 14-02257-08 | 66   | 14-02416-18 | 76   |
| 14-01783-14 | 43   | 14-01855-18 | 48   | 14-01922-12 | 51   | 14-02065-13 | 58   | 14-02260-08 | 66   | 14-02417-18 | 76   |
| 14-01783-17 | 43   | 14-01855-20 | 48   | 14-01923-12 | 51   | 14-02065-16 | 58   | 14-02263-08 | 66   | 14-02421-18 | 76   |
| 14-01783-23 | 43   | 14-01855-23 | 48   | 14-01925-12 | 51   | 14-02065-19 | 58   | 14-02265-08 | 66   | 14-02424-16 | 77   |
| 14-01786-15 | 43   | 14-01855-25 | 48   | 14-01927-12 | 51   | 14-02067-13 | 58   | 14-02267-08 | 66   | 14-02425-16 | 77   |
| 14-01786-17 | 43   | 14-01855-28 | 48   | 14-01929-12 | 51   | 14-02067-16 | 58   | 14-02270-10 | 67   | 14-02428-16 | 77   |
| 14-01786-19 | 43   | 14-01855-30 | 48   | 14-01932-12 | 51   | 14-02067-19 | 58   | 14-02271-10 | 67   | 14-02429-16 | 77   |
| 14-01786-21 | 43   | 14-01857-18 | 48   | 14-01933-12 | 51   | 14-02069-13 | 58   | 14-02273-10 | 67   | 14-02432-16 | 77   |
| 14-01787-15 | 43   | 14-01857-20 | 48   | 14-01936-14 | 52   | 14-02069-16 | 58   | 14-02275-10 | 67   | 14-02433-16 | 77   |
| 14-01787-17 | 43   | 14-01857-23 | 48   | 14-01937-14 | 52   | 14-02069-19 | 58   | 14-02277-10 | 67   | 14-02436-18 | 78   |
| 14-01787-19 | 43   | 14-01857-25 | 48   | 14-01940-15 | 52   | 14-02071-13 | 58   | 14-02281-10 | 67   | 14-02437-18 | 78   |
| 14-01787-21 | 43   | 14-01857-30 | 48   | 14-01940-18 | 52   | 14-02071-16 | 58   | 14-02283-10 | 67   | 14-02441-18 | 78   |
| 14-01790-15 | 43   | 14-01859-18 | 48   | 14-01941-15 | 52   | 14-02071-19 | 58   | 14-02285-10 | 67   | 14-02444-23 | 78   |
| 14-01790-17 | 43   | 14-01859-20 | 48   | 14-01941-18 | 52   | 14-02075-19 | 58   | 14-02287-10 | 67   | 14-02448-14 | 79   |
| 14-01791-15 | 43   | 14-01859-23 | 48   | 14-01945-15 | 52   | 14-02079-18 | 59   | 14-02291-10 | 68   | 14-02449-14 | 79   |
| 14-01791-17 | 43   | 14-01859-25 | 48   | 14-01948-12 | 52   | 14-02081-18 | 59   | 14-02293-10 | 68   | 14-02451-14 | 79   |
| 14-01794-17 | 44   | 14-01859-28 | 48   | 14-01951-12 | 52   | 14-02083-18 | 59   | 14-02295-10 | 68   | 14-02454-11 | 80   |
| 14-01795-17 | 44   | 14-01859-30 | 48   | 14-01953-12 | 52   | 14-02085-18 | 59   | 14-02297-10 | 68   | 14-02455-11 | 80   |
| 14-01798-11 | 44   | 14-01861-18 | 48   | 14-01955-12 | 52   | 14-02087-18 | 59   | 14-02301-10 | 68   | 14-02458-11 | 80   |
| 14-01799-11 | 44   | 14-01861-20 | 48   | 14-01958-09 | 53   | 14-02091-18 | 59   | 14-02303-10 | 68   | 14-02459-11 | 80   |
| 14-01802-14 | 44   | 14-01861-23 | 48   | 14-01958-10 | 53   | 14-02093-18 | 59   | 14-02307-11 | 68   | 14-02462-12 | 80   |
| 14-01803-14 | 44   | 14-01861-25 | 48   | 14-01958-11 | 53   | 14-02095-18 | 59   | 14-02309-11 | 68   | 14-02463-12 | 80   |
| 14-01806-14 | 44   | 14-01861-28 | 48   | 14-01959-09 | 53   | 14-02097-18 | 59   | 14-02311-11 | 68   | 14-02466-10 | 80   |
| 14-01807-14 | 44   | 14-01861-30 | 48   | 14-01959-10 | 53   | 14-02099-18 | 59   | 14-02315-10 | 69   | 14-02467-10 | 80   |



**14**

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| 14-02474-10 | 80   | 14-02603-12 | 86   | 14-02769-11 | 94   | 15-02814-15 | 95   | 15-02952-15 | 100  | 15-03058-13 | 103  |
| 14-02475-10 | 80   | 14-02607-01 | 87   | 14-02772-11 | 94   | 15-02818-13 | 95   | 15-02952-16 | 100  | 15-03062-12 | 103  |
| 14-02478-11 | 80   | 14-02607-02 | 87   | 14-02773-11 | 94   | 15-02818-14 | 95   | 15-02952-18 | 100  | 15-03062-15 | 103  |
| 14-02479-11 | 80   | 14-02607-03 | 87   | 14-02777-11 | 94   | 15-02818-15 | 95   | 15-02952-20 | 100  | 15-03066-15 | 103  |
| 14-02482-09 | 81   | 14-02607-04 | 87   | 14-02780-09 | 94   | 15-02822-12 | 96   | 15-02952-25 | 100  | 15-03066-20 | 103  |
| 14-02482-10 | 81   | 14-02609-01 | 87   | 14-02780-10 | 94   | 15-02822-15 | 96   | 15-02952-30 | 100  | 15-03066-25 | 103  |
| 14-02482-11 | 81   | 14-02609-02 | 87   | 14-02781-09 | 94   | 15-02826-12 | 96   | 15-02956-14 | 100  | 15-03070-15 | 103  |
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| 14-02485-10 | 81   | 14-02611-03 | 87   | 14-02785-10 | 94   | 15-02834-15 | 96   | 15-02956-30 | 100  | 15-03078-17 | 103  |
| 14-02485-11 | 81   | 14-02611-04 | 87   |             |      | 15-02838-12 | 96   | 15-02960-13 | 100  | 15-03079-17 | 103  |
| 14-02487-09 | 81   | 14-02615-17 | 87   |             |      | 15-02838-15 | 96   | 15-02960-14 | 100  | 15-03082-15 | 104  |
| 14-02487-10 | 81   | 14-02618-12 | 87   |             |      | 15-02842-15 | 96   | 15-02960-16 | 100  | 15-03082-18 | 104  |
| 14-02487-11 | 81   | 14-02622-10 | 87   |             |      | 15-02844-15 | 96   | 15-02960-18 | 100  | 15-03082-20 | 104  |
| 14-02492-10 | 81   | 14-02626-13 | 87   |             |      | 15-02848-12 | 96   | 15-02960-20 | 100  | 15-03086-20 | 104  |
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| 14-02493-10 | 81   | 14-02629-09 | 88   |             |      | 15-02849-12 | 96   | 15-02960-30 | 100  | 15-03092-18 | 104  |
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| 14-02496-09 | 81   | 14-02629-11 | 88   |             |      | 15-02852-12 | 96   | 15-02964-14 | 100  | 15-03096-18 | 104  |
| 14-02496-10 | 81   | 14-02629-14 | 88   |             |      | 15-02852-15 | 96   | 15-02964-16 | 100  | 15-03097-18 | 104  |
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| 14-02497-11 | 81   | 14-02633-18 | 88   |             |      | 15-02863-17 | 97   | 15-02972-13 | 100  | 15-04001-18 | 104  |
| 14-02500-09 | 82   | 14-02633-21 | 88   |             |      | 15-02867-17 | 97   | 15-02972-14 | 100  | 15-04001-21 | 104  |
| 14-02500-10 | 82   | 14-02637-16 | 88   |             |      | 15-02870-15 | 97   | 15-02972-16 | 100  | 15-04001-25 | 104  |
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| 14-02501-09 | 82   | 14-02641-20 | 88   |             |      | 15-02870-20 | 97   | 15-02972-20 | 100  | 15-04008-20 | 105  |
| 14-02501-10 | 82   | 14-02641-22 | 88   |             |      | 15-02874-18 | 97   | 15-02972-25 | 100  | 15-04012-14 | 105  |
| 14-02501-11 | 82   | 14-02645-23 | 88   |             |      | 15-02874-20 | 97   | 15-02976-12 | 101  | 15-04012-16 | 105  |
| 14-02504-10 | 82   | 14-02649-23 | 88   |             |      | 15-02878-20 | 97   | 15-02976-13 | 101  | 15-04012-20 | 105  |
| 14-02505-10 | 82   | 14-02653-17 | 89   |             |      | 15-02882-18 | 97   | 15-02976-14 | 101  | 15-04016-15 | 105  |
| 14-02508-10 | 82   | 14-02657-18 | 89   |             |      | 15-02886-18 | 97   | 15-02976-15 | 101  | 15-04016-20 | 105  |
| 14-02508-11 | 82   | 14-02661-24 | 89   |             |      | 15-02887-18 | 97   | 15-02976-18 | 101  | 15-04016-25 | 105  |
| 14-02509-10 | 82   | 14-02659-14 | 89   |             |      | 15-02890-15 | 98   | 15-02976-21 | 101  | 15-04020-23 | 105  |
| 14-02509-11 | 82   | 14-02667-24 | 89   |             |      | 15-02890-18 | 98   | 15-02976-25 | 101  | 15-04022-18 | 105  |
| 14-02512-10 | 82   | 14-02671-18 | 89   |             |      | 15-02894-13 | 98   | 15-02976-31 | 101  | 15-04023-18 | 105  |
| 14-02512-11 | 82   | 14-02673-20 | 89   |             |      | 15-02895-13 | 98   | 15-02980-12 | 101  | 15-04026-14 | 105  |
| 14-02513-10 | 82   | 14-02671-23 | 89   |             |      | 15-02898-12 | 98   | 15-02980-13 | 101  | 15-04026-20 | 105  |
| 14-02513-11 | 82   | 14-02674-14 | 89   |             |      | 15-02898-15 | 98   | 15-02980-14 | 101  | 15-04028-14 | 105  |
| 14-02516-08 | 82   | 14-02675-14 | 89   |             |      | 15-02898-18 | 98   | 15-02980-18 | 101  | 15-04028-20 | 105  |
| 14-02517-08 | 82   | 14-02679-13 | 89   |             |      | 15-02899-12 | 98   | 15-02980-21 | 101  | 15-04032-18 | 106  |
| 14-02520-10 | 83   | 14-02683-20 | 90   |             |      | 15-02899-15 | 98   | 15-02980-25 | 101  | 15-04032-20 | 106  |
| 14-02521-10 | 83   | 14-02687-23 | 90   |             |      | 15-02899-18 | 98   | 15-02980-31 | 101  | 15-04032-25 | 106  |
| 14-02524-11 | 83   | 14-02691-23 | 90   |             |      | 15-02902-18 | 98   | 15-02984-14 | 101  | 15-04036-18 | 106  |
| 14-02525-11 | 83   | 14-02695-22 | 90   |             |      | 15-02903-18 | 98   | 15-02988-13 | 101  | 15-04038-18 | 106  |
| 14-02528-11 | 83   | 14-02699-22 | 90   |             |      | 15-02906-14 | 98   | 15-02988-14 | 101  | 15-04042-15 | 106  |
| 14-02529-11 | 83   | 14-02701-21 | 90   |             |      | 15-02908-18 | 98   | 15-02988-15 | 101  | 15-04042-18 | 106  |
| 14-02532-11 | 83   | 14-02703-24 | 90   |             |      | 15-02912-20 | 98   | 15-02992-15 | 101  | 15-04042-23 | 106  |
| 14-02533-11 | 83   | 14-02705-23 | 90   |             |      | 15-02916-18 | 99   | 15-02996-15 | 101  | 15-04046-18 | 106  |
| 14-02536-11 | 84   | 14-02705-26 | 90   |             |      | 15-02917-18 | 99   | 15-03000-13 | 101  | 15-04050-03 | 106  |
| 14-02536-13 | 84   | 14-02705-37 | 90   |             |      | 15-02920-18 | 99   | 15-03000-15 | 101  | 15-04050-04 | 106  |
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| 14-02547-14 | 84   | 14-02716-10 | 91   |             |      | 15-02932-23 | 99   | 15-03012-12 | 102  | 15-04057-10 | 107  |
| 14-02547-17 | 84   | 14-02720-12 | 91   |             |      | 15-02932-25 | 99   | 15-03012-15 | 102  | 15-04060-10 | 107  |
| 14-02551-22 | 84   | 14-02721-12 | 91   |             |      | 15-02936-18 | 99   | 15-03016-12 | 102  | 15-04061-10 | 107  |
| 14-02553-22 | 84   | 14-02724-13 | 92   |             |      | 15-02936-23 | 99   | 15-03020-13 | 102  | 15-04063-10 | 107  |
| 14-02555-17 | 84   | 14-02725-13 | 92   |             |      | 15-02940-18 | 99   | 15-03020-15 | 102  | 15-04066-09 | 107  |
| 14-02559-14 | 85   | 14-02729-14 | 92   |             |      | 15-02940-21 | 99   | 15-03024-12 | 102  | 15-04066-10 | 107  |
| 14-02563-09 | 85   | 14-02733-13 | 92   |             |      | 15-02940-25 | 99   | 15-03024-15 | 102  | 15-04066-11 | 107  |
| 14-02565-10 | 85   | 14-02737-11 | 92   |             |      | 15-02944-18 | 99   | 15-03028-12 | 102  | 15-04066-12 | 107  |
| 14-02565-12 | 85   | 14-02740-12 | 92   |             |      | 15-02944-21 | 99   | 15-03028-15 | 102  | 15-04067-09 | 107  |
| 14-02567-11 | 85   | 14-02741-12 | 92   |             |      | 15-02944-25 | 99   | 15-03032-12 | 102  | 15-04067-10 | 107  |
| 14-02567-16 | 85   | 14-02745-17 | 92   |             |      | 15-02948-15 | 99   | 15-03036-12 | 102  | 15-04067-11 | 107  |
| 14-02571-09 | 85   | 14-02747-17 | 92   |             |      | 15-02948-18 | 99   | 15-03040-12 | 102  | 15-04067-12 | 107  |
| 14-02575-12 | 85   | 14-02751-16 | 93   |             |      | 15-02948-20 | 99   | 15-03041-12 | 102  | 15-04070-09 | 107  |
| 14-02579-11 | 85   | 14-02753-16 | 93   |             |      | 15-02948-23 | 99   | 15-03046-15 | 103  | 15-04070-10 | 107  |
| 14-02583-11 | 85   | 14-02758-14 | 93   |             |      | 15-02948-25 | 99   | 15-03050-15 | 103  | 15-04070-11 | 107  |
| 14-02587-15 | 86   | 14-02759-14 | 93   |             |      | 15-02952-10 | 100  | 15-03054-15 | 103  | 15-04070-12 | 107  |
| 14-02591-10 | 86   | 14-02763-12 | 93   |             |      | 15-02952-11 | 100  | 15-03054-20 | 103  | 15-04071-09 | 107  |



**15**

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| 15-04071-11 | 107  | 15-04198-18 | 112  | 16-04303-10 | 117  | 16-04394-18 | 121  | 16-04495-24 | 126  | 16-04619-18 | 132  |
| 15-04071-12 | 107  | 15-04198-22 | 112  | 16-04303-12 | 117  | 16-04394-20 | 121  | 16-04497-19 | 126  | 16-04621-14 | 132  |
| 15-04074-07 | 108  | 15-04200-18 | 112  | 16-04306-10 | 117  | 16-04394-22 | 121  | 16-04497-22 | 126  | 16-04621-18 | 132  |
| 15-04074-09 | 108  | 15-04200-22 | 112  | 16-04306-12 | 117  | 16-04394-24 | 121  | 16-04497-24 | 126  | 16-04625-15 | 132  |
| 15-04074-11 | 108  | 15-04203-22 | 113  | 16-04307-10 | 117  | 16-04394-26 | 121  | 16-04499-19 | 126  | 16-04625-19 | 132  |
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| 15-04079-10 | 108  | 15-04205-22 | 113  | 16-04310-13 | 117  | 16-04395-13 | 121  | 16-04499-24 | 126  | 16-04629-19 | 132  |
| 15-04082-10 | 108  | 15-04205-24 | 113  | 16-04311-13 | 117  | 16-04395-14 | 121  | 16-04502-24 | 127  | 16-04633-18 | 132  |
| 15-04083-10 | 108  | 15-04207-24 | 113  | 16-04315-12 | 118  | 16-04395-16 | 121  | 16-04503-24 | 127  | 16-04633-23 | 133  |
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| 15-04090-13 | 108  | 15-04211-22 | 113  | 16-04318-21 | 118  | 16-04395-20 | 121  | 16-04507-23 | 127  | 16-04637-25 | 133  |
| 15-04091-13 | 108  | 15-04213-22 | 113  | 16-04319-18 | 118  | 16-04395-22 | 121  | 16-04507-24 | 127  | 16-04637-28 | 133  |
| 15-04094-13 | 108  | 15-04215-22 | 113  | 16-04319-21 | 118  | 16-04395-24 | 121  | 16-04511-18 | 127  | 16-04641-22 | 133  |
| 15-04095-13 | 108  | 15-04219-16 | 114  | 16-04322-18 | 118  | 16-04395-26 | 121  | 16-04511-24 | 127  | 16-04645-20 | 133  |
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| 15-04108-12 | 109  | 15-04221-16 | 114  | 16-04327-14 | 118  | 16-04402-24 | 122  | 16-04521-23 | 128  | 16-04663-23 | 134  |
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| 15-04118-09 | 109  | 15-04221-22 | 114  | 16-04334-14 | 119  | 16-04403-24 | 122  | 16-04527-23 | 128  | 16-04664-18 | 134  |
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| 15-04124-07 | 109  | 15-04223-18 | 114  | 16-04338-16 | 119  | 16-04406-20 | 122  | 16-04534-29 | 128  | 16-04664-23 | 134  |
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| 15-04140-09 | 110  | 16-04226-03 | 115  | 16-04347-14 | 119  | 16-04415-14 | 122  | 16-04547-20 | 129  | 16-04665-23 | 134  |
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| 15-04145-10 | 110  | 16-04227-03 | 115  | 16-04351-16 | 119  | 16-04420-15 | 123  | 16-04551-21 | 129  | 16-04668-14 | 134  |
| 15-04148-10 | 110  | 16-04227-05 | 115  | 16-04354-14 | 119  | 16-04424-16 | 123  | 16-04553-24 | 129  | 16-04668-15 | 134  |
| 15-04154-16 | 111  | 16-04230-06 | 115  | 16-04355-14 | 119  | 16-04426-16 | 123  | 16-04557-18 | 129  | 16-04668-18 | 134  |
| 15-04154-20 | 111  | 16-04231-06 | 115  | 16-04358-14 | 120  | 16-04430-15 | 123  | 16-04559-20 | 129  | 16-04668-20 | 134  |
| 15-04154-24 | 111  | 16-04234-01 | 115  | 16-04359-14 | 120  | 16-04430-18 | 123  | 16-04561-21 | 129  | 16-04668-23 | 134  |
| 15-04154-30 | 111  | 16-04234-02 | 115  | 16-04362-16 | 120  | 16-04431-15 | 123  | 16-04563-21 | 129  | 16-04669-13 | 134  |
| 15-04156-16 | 111  | 16-04234-03 | 115  | 16-04363-16 | 120  | 16-04431-18 | 123  | 16-04567-21 | 130  | 16-04669-15 | 134  |
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| 15-04161-16 | 111  | 16-04237-24 | 115  | 16-04383-14 | 121  | 16-04457-18 | 124  | 16-04579-21 | 130  | 16-04683-19 | 135  |
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| 15-04161-24 | 111  | 16-04242-13 | 115  | 16-04386-13 | 121  | 16-04463-19 | 125  | 16-04581-21 | 130  | 16-04683-23 | 135  |
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| 15-04164-15 | 111  | 16-04254-10 | 116  | 16-04387-13 | 121  | 16-04474-19 | 125  | 16-04587-20 | 130  | 16-04685-23 | 135  |
| 15-04167-11 | 111  | 16-04258-15 | 116  | 16-04387-14 | 121  | 16-04475-19 | 125  | 16-04589-20 | 130  | 16-04687-21 | 135  |
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**16**

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| 16-04884-22 | 145  | 17-04988-19 | 150  | 17-05090-02 | 155  | 17-05195-16 | 159  | 17-05295-08 | 164  | 17-05384-05 | 170  |
| 16-04884-25 | 145  | 17-04988-28 | 150  | 17-05090-03 | 155  | 17-05196-16 | 159  | 17-05296-01 | 164  | 17-05388-01 | 170  |
| 16-04884-27 | 145  | 17-04990-19 | 150  | 17-05090-04 | 155  | 17-05200-16 | 159  | 17-05296-02 | 164  | 17-05388-02 | 170  |
| 16-04885-22 | 145  | 17-04990-28 | 150  | 17-05093-01 | 155  | 17-05204-15 | 159  | 17-05296-03 | 164  | 17-05388-03 | 170  |
| 16-04885-25 | 145  | 17-04993-15 | 150  | 17-05093-02 | 155  | 17-05206-15 | 159  | 17-05296-04 | 164  | 17-05388-04 | 170  |
| 16-04885-27 | 145  | 17-04995-18 | 150  | 17-05093-03 | 155  | 17-05209-01 | 159  | 17-05296-06 | 164  | 17-05392-01 | 170  |
| 16-04888-13 | 145  | 17-04997-18 | 150  | 17-05093-04 | 155  | 17-05209-02 | 159  | 17-05296-08 | 164  | 17-05392-02 | 170  |
| 16-04888-15 | 145  | 17-05001-13 | 150  | 17-05094-01 | 155  | 17-05209-03 | 159  | 17-05297-01 | 164  | 17-05392-03 | 170  |
| 16-04888-18 | 145  | 17-05001-18 | 150  | 17-05094-02 | 155  | 17-05210-01 | 159  | 17-05297-02 | 164  | 17-05392-04 | 170  |
| 16-04890-13 | 145  | 17-05002-13 | 150  | 17-05094-03 | 155  | 17-05210-02 | 159  | 17-05297-03 | 164  | 17-05392-05 | 170  |
| 16-04890-15 | 145  | 17-05002-18 | 150  | 17-05094-04 | 155  | 17-05210-03 | 159  | 17-05297-04 | 164  | 17-05392-06 | 170  |
| 16-04890-18 | 145  |             |      | 17-05097-01 | 155  | 17-05214-00 | 160  | 17-05297-06 | 164  | 17-05396-29 | 171  |





**17**

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| 17-05400-01 | 171  | 17-05500-03 | 176  | 17-05590-04 | 181  | 17-05763-10 | 191  | 17-05876-01 | 198  | 17-05972-00 | 206  |
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| 17-05410-17 | 172  | 17-05512-27 | 177  | 17-05604-01 | 182  | 17-05778-13 | 191  | 17-05880-01 | 198  | 17-05976-01 | 207  |
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| 17-05418-22 | 172  | 17-05520-25 | 177  | 17-05608-02 | 183  | 17-05781-14 | 192  | 17-05884-00 | 199  | 17-05976-04 | 207  |
| 17-05422-01 | 172  | 17-05524-01 | 178  | 17-05608-03 | 183  | 17-05781-16 | 192  | 17-05884-01 | 199  | 17-05976-05 | 207  |
| 17-05422-02 | 172  | 17-05524-02 | 178  | 17-05608-04 | 183  | 17-05782-10 | 192  | 17-05884-02 | 199  | 17-05976-10 | 207  |
| 17-05422-03 | 172  | 17-05524-03 | 178  | 17-05608-05 | 183  | 17-05782-13 | 192  | 17-05884-03 | 199  | 17-05980-00 | 207  |
| 17-05422-04 | 172  | 17-05524-04 | 178  | 17-05608-06 | 183  | 17-05782-14 | 192  | 17-05886-01 | 199  | 17-05980-01 | 207  |
| 17-05424-01 | 172  | 17-05524-05 | 178  | 17-05612-01 | 184  | 17-05782-16 | 192  | 17-05886-02 | 199  | 17-05980-02 | 207  |
| 17-05424-02 | 172  | 17-05524-06 | 178  | 17-05612-02 | 184  | 17-05785-13 | 192  | 17-05890-00 | 200  | 17-05980-03 | 207  |
| 17-05424-03 | 172  | 17-05524-07 | 178  | 17-05612-03 | 184  | 17-05785-14 | 192  | 17-05890-01 | 200  | 17-05980-04 | 207  |
| 17-05426-01 | 173  | 17-05524-08 | 178  | 17-05616-01 | 185  | 17-05785-16 | 192  | 17-05890-02 | 200  | 17-05980-05 | 207  |
| 17-05426-02 | 173  | 17-05524-09 | 178  | 17-05616-02 | 185  | 17-05786-13 | 192  | 17-05890-03 | 200  | 17-05980-06 | 207  |
| 17-05426-03 | 173  | 17-05528-01 | 178  | 17-05620-15 | 185  | 17-05786-14 | 192  | 17-05894-00 | 200  | 17-05980-10 | 207  |
| 17-05430-01 | 173  | 17-05528-02 | 178  | 17-05624-16 | 185  | 17-05786-16 | 192  | 17-05894-01 | 200  | 17-05984-00 | 207  |
| 17-05430-02 | 173  | 17-05528-03 | 178  | 17-05627-10 | 186  | 17-05789-13 | 192  | 17-05894-02 | 200  | 17-05984-01 | 207  |
| 17-05430-03 | 173  | 17-05528-04 | 178  | 17-05627-20 | 186  | 17-05789-14 | 192  | 17-05894-03 | 200  | 17-05984-02 | 207  |
| 17-05430-04 | 173  | 17-05532-01 | 178  | 17-05629-17 | 186  | 17-05789-16 | 192  | 17-05898-16 | 200  | 17-05984-10 | 207  |
| 17-05434-00 | 173  | 17-05532-02 | 178  | 17-05632-17 | 186  | 17-05900-13 | 192  | 17-05902-09 | 200  | 17-05988-00 | 208  |
| 17-05434-01 | 173  | 17-05532-03 | 178  | 17-05636-21 | 186  | 17-05790-14 | 192  | 17-05902-11 | 200  | 17-05988-01 | 208  |
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| 17-05438-01 | 173  | 17-05536-01 | 179  | 17-05644-01 | 186  | 17-05793-15 | 192  | 17-05902-19 | 200  | 17-05988-10 | 208  |
| 17-05438-02 | 173  | 17-05536-02 | 179  | 17-05644-02 | 186  | 17-05796-16 | 192  | 17-05904-19 | 200  | 17-05990-00 | 208  |
| 17-05438-03 | 173  | 17-05536-03 | 179  | 17-05648-00 | 186  | 17-05800-12 | 192  | 17-05908-01 | 200  | 17-05994-00 | 208  |
| 17-05438-04 | 173  | 17-05540-01 | 179  | 17-05652-21 | 187  | 17-05803-16 | 193  | 17-05908-02 | 200  | 17-05994-01 | 208  |
| 17-05442-01 | 174  | 17-05540-02 | 179  | 17-05658-20 | 187  | 17-05804-16 | 193  | 17-05908-03 | 200  | 17-05994-02 | 208  |
| 17-05442-02 | 174  | 17-05540-03 | 179  | 17-05662-17 | 187  | 17-05805-19 | 193  | 17-05908-04 | 200  | 17-05994-03 | 208  |
| 17-05442-03 | 174  | 17-05544-00 | 179  | 17-05668-05 | 187  | 17-05805-25 | 193  | 17-05912-18 | 201  | 17-05998-00 | 209  |
| 17-05446-04 | 174  | 17-05544-01 | 179  | 17-05668-07 | 187  | 17-05805-32 | 193  | 17-05914-18 | 201  | 17-05998-01 | 209  |
| 17-05450-01 | 174  | 17-05544-02 | 179  | 17-05668-09 | 187  | 17-05808-13 | 193  | 17-05918-19 | 201  | 17-05998-02 | 209  |
| 17-05454-01 | 174  | 17-05548-01 | 179  | 17-05672-06 | 187  | 17-05811-13 | 193  | 17-05922-12 | 201  | 17-05998-03 | 209  |
| 17-05454-02 | 174  | 17-05548-02 | 179  | 17-05672-07 | 187  | 17-05812-13 | 193  | 17-05922-17 | 201  | 17-05998-04 | 209  |
| 17-05454-03 | 174  | 17-05548-03 | 179  | 17-05672-09 | 187  | 17-05815-13 | 193  | 17-05926-00 | 201  | 17-05998-10 | 209  |
| 17-05454-04 | 174  | 17-05552-33 | 179  | 17-05672-11 | 187  | 17-05815-16 | 193  | 17-05928-01 | 201  | 17-05999-00 | 209  |
| 17-05458-01 | 175  | 17-05556-28 | 179  | 17-05676-18 | 187  | 17-05816-13 | 193  | 17-05928-02 | 201  | 17-06000-01 | 209  |
| 17-05458-02 | 175  | 17-05560-20 | 180  | 17-05680-23 | 187  | 17-05816-16 | 193  | 17-05932-00 | 202  | 17-06000-02 | 209  |
| 17-05458-03 | 175  | 17-05560-30 | 180  | 17-05686-10 | 188  | 17-05819-25 | 194  | 17-05932-01 | 202  | 17-06000-03 | 209  |
| 17-05458-04 | 175  | 17-05560-40 | 180  | 17-05687-10 | 188  | 17-05820-20 | 194  | 17-05932-02 | 202  | 17-06000-04 | 209  |
| 17-05458-05 | 175  | 17-05564-01 | 180  | 17-05690-01 | 188  | 17-05820-25 | 194  | 17-05936-00 | 202  |             |      |
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| 17-05466-01 | 175  | 17-05568-01 | 180  | 17-05694-07 | 188  | 17-05822-25 | 194  | 17-05944-00 | 203  | 18-06004-11 | 210  |
| 17-05466-02 | 175  | 17-05568-02 | 180  | 17-05694-10 | 188  | 17-05823-20 | 194  | 17-05944-01 | 203  | 18-06004-13 | 210  |
| 17-05466-03 | 175  | 17-05568-03 | 180  | 17-05698-02 | 188  | 17-05823-26 | 194  | 17-05944-02 | 203  | 18-06004-14 | 210  |
| 17-05466-04 | 175  | 17-05568-04 | 180  | 17-05698-04 | 188  | 17-05824-20 | 194  | 17-05944-03 | 203  | 18-06004-16 | 210  |
| 17-05466-05 | 175  | 17-05568-05 | 180  | 17-05702-16 | 188  | 17-05824-26 | 194  | 17-05948-00 | 203  | 18-06004-18 | 210  |
| 17-05466-06 | 175  | 17-05568-06 | 180  | 17-05706-21 | 188  | 17-05827-20 | 194  | 17-05948-01 | 203  | 18-06004-20 | 210  |
| 17-05470-22 | 175  | 17-05568-07 | 180  | 17-05708-21 | 188  | 17-05828-20 | 194  | 17-05948-02 | 203  | 18-06004-25 | 210  |
| 17-05472-01 | 175  | 17-05568-08 | 180  | 17-05712-30 | 189  | 17-05831-20 | 194  | 17-05948-03 | 203  | 18-06006-11 | 210  |
| 17-05472-02 | 175  | 17-05568-09 | 180  | 17-05716-29 | 189  | 17-05831-26 | 194  | 17-05948-04 | 203  | 18-06006-13 | 210  |
| 17-05472-03 | 175  | 17-05568-10 | 180  | 17-05720-14 | 189  | 17-05832-20 | 194  | 17-05948-05 | 203  | 18-06006-14 | 210  |
| 17-05476-23 | 175  | 17-05572-01 | 180  | 17-05722-23 | 189  | 17-05832-26 | 194  | 17-05948-06 | 203  | 18-06006-16 | 210  |
| 17-05480-01 | 175  | 17-05572-02 | 180  | 17-05724-18 | 189  | 17-05836-21 | 195  | 17-05948-07 | 203  | 18-06006-18 | 210  |
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| 17-05488-26 | 176  | 17-05572-05 | 180  | 17-05732-14 | 189  | 17-05840-01 | 195  | 17-05948-10 | 203  | 18-06008-11 | 210  |
| 17-05492-01 | 176  | 17-05572-06 | 180  | 17-05736-07 | 190  | 17-05840-02 | 195  | 17-05952-00 | 204  | 18-06008-13 | 210  |
| 17-05492-02 | 176  | 17-05572-07 | 180  | 17-05739-05 | 190  | 17-05843-27 | 195  | 17-05952-01 | 204  | 18-06008-14 | 210  |
| 17-05492-03 | 176  | 17-05572-08 | 180  | 17-05739-07 | 190  | 17-05844-27 | 195  | 17-05952-02 | 204  | 18-06008-16 | 210  |
| 17-05492-04 | 176  | 17-05574-01 | 180  | 17-05740-05 | 190  | 17-05847-27 | 195  | 17-05956-00 | 204  | 18-06008-18 | 210  |
| 17-05492-05 | 176  | 17-05574-02 | 180  | 17-05740-07 | 190  | 17-05848-27 | 196  | 17-05956-01 | 204  | 18-06008-20 | 210  |
| 17-05492-06 | 176  | 17-05574-03 | 180  | 17-05743-07 | 190  | 17-05851-31 | 196  | 17-05956-02 | 204  | 18-06008-25 | 210  |
| 17-05492-07 | 176  | 17-05578-28 | 180  | 17-05746-08 | 190  | 17-05852-31 | 196  | 17-05960-00 | 205  | 18-06010-14 | 210  |
| 17-05496-01 | 176  | 17-05582-01 | 181  | 17-05746-11 | 190  | 17-05853-33 | 196  | 17-05960-01 | 205  | 18-06010-16 | 210  |
| 17-05496-02 | 176  | 17-05582-02 | 181  | 17-05750-09 | 190  | 17-05861-27 | 196  | 17-05960-02 | 205  | 18-06012-11 | 210  |
| 17-05496-03 | 176  | 17-05586-01 | 181  | 17-05753-07 | 190  | 17-05864-33 | 197  | 17-05964-00 | 205  | 18-06012-13 | 210  |
| 17-05496-04 | 176  | 17-05586-02 | 181  | 17-05753-10 | 190  | 17-05868-00 | 197  | 17-05964-01 | 205  | 18-06012-14 | 210  |
| 17-05496-05 | 176  | 17-05586-03 | 181  | 17-05756-07 | 190  | 17-05872-00 | 197  | 17-05964-02 | 205  | 18-06012-16 | 210  |
| 17-05496-06 | 176  | 17-05590-01 | 181  | 17-05756-10 | 190  |             |      | 17-05968-00 | 206  | 18-06012-18 | 210  |
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**18**

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| 18-06016-18 | 210  | 18-06116-09 | 214  | 19-06222-18 | 223  | 19-06342-30 | 230  | 19-06480-15 | 237  | 19-06609-16 | 243  |
| 18-06020-14 | 210  | 18-06116-12 | 214  | 19-06222-21 | 223  | 19-06343-16 | 230  | 19-06484-15 | 237  | 19-06612-01 | 244  |
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| 18-06028-18 | 210  | 18-06124-40 | 215  | 19-06239-14 | 225  | 19-06354-20 | 230  | 19-06510-18 | 238  | 19-06642-01 | 245  |
| 18-06032-13 | 210  | 18-06124-50 | 215  | 19-06242-13 | 225  | 19-06358-17 | 231  | 19-06510-20 | 238  | 19-06642-02 | 245  |
| 18-06032-14 | 210  | 18-06124-65 | 215  | 19-06242-15 | 225  | 19-06362-18 | 231  | 19-06510-23 | 238  | 19-06648-01 | 246  |
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| 18-06044-25 | 211  | 18-06132-18 | 215  | 19-06258-12 | 226  | 19-06380-15 | 232  | 19-06514-26 | 238  | 19-06664-01 | 247  |
| 18-06044-30 | 211  | 18-06132-21 | 215  | 19-06259-12 | 226  | 19-06384-15 | 232  | 19-06516-13 | 238  | 19-06664-02 | 247  |
| 18-06044-40 | 211  | 18-06136-14 | 215  | 19-06262-13 | 226  | 19-06388-18 | 232  | 19-06516-15 | 238  | 19-06664-03 | 247  |
| 18-06048-13 | 211  | 18-06136-24 | 215  | 19-06266-12 | 226  | 19-06392-17 | 232  | 19-06516-18 | 238  | 19-06672-01 | 247  |
| 18-06048-14 | 211  |             |      | 19-06270-16 | 226  | 19-06392-20 | 232  | 19-06516-20 | 238  | 19-06672-02 | 247  |
| 18-06052-23 | 211  |             |      | 19-06271-16 | 226  | 19-06396-11 | 232  | 19-06516-23 | 238  | 19-06677-01 | 247  |
| 18-06054-28 | 211  |             |      | 19-06274-14 | 227  | 19-06398-14 | 232  | 19-06516-26 | 238  | 19-06677-02 | 247  |
| 18-06058-16 | 211  |             |      | 19-06274-18 | 227  | 19-06398-18 | 232  | 19-06520-15 | 238  | 19-06685-01 | 247  |
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| 18-06062-03 | 211  | 19-06144-14 | 216  | 19-06275-18 | 227  | 19-06406-16 | 233  | 19-06524-18 | 238  | 19-06694-21 | 248  |
| 18-06062-04 | 211  | 19-06144-18 | 216  | 19-06275-21 | 227  | 19-06408-14 | 233  | 19-06524-20 | 238  | 19-06698-20 | 248  |
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| 18-06080-18 | 212  | 19-06164-11 | 217  | 19-06296-18 | 227  | 19-06434-14 | 235  | 19-06542-17 | 240  | 19-06715-01 | 250  |
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| 18-06090-16 | 212  | 19-06175-16 | 218  | 19-06310-16 | 228  | 19-06452-18 | 235  | 19-06548-20 | 240  | 19-06717-04 | 250  |
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| 18-06108-01 | 213  | 19-06195-18 | 220  | 19-06326-12 | 229  | 19-06470-20 | 236  | 19-06582-17 | 242  | 19-06750-18 | 253  |
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| 18-06112-02 | 214  | 19-06207-15 | 221  | 19-06342-13 | 230  | 19-06474-26 | 236  | 19-06594-20 | 242  | 19-06762-19 | 254  |
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| 18-06112-12 | 214  | 19-06215-18 | 222  | 19-06342-20 | 230  | 19-06476-23 | 236  | 19-06602-17 | 243  | 19-06776-23 | 254  |
| 18-06112-15 | 214  | 19-06218-23 | 222  | 19-06342-24 | 230  | 19-06476-26 | 236  | 19-06604-18 | 243  | 19-06780-12 | 255  |



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| 27-09170-04 | 399  | 27-09223-03 | 402  | 27-09230-40 | 403  |
| 27-09170-05 | 399  | 27-09223-04 | 402  | 27-09231-05 | 403  |
| 27-09170-06 | 399  | 27-09223-05 | 402  | 27-09231-06 | 403  |
| 27-09174-01 | 399  | 27-09223-06 | 402  | 27-09231-07 | 403  |
| 27-09174-02 | 399  | 27-09226-05 | 403  | 27-09231-08 | 403  |
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| 27-09174-04 | 399  | 27-09226-07 | 403  | 27-09231-11 | 403  |
| 27-09174-05 | 399  | 27-09226-08 | 403  | 27-09231-12 | 403  |
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| 27-09177-03 | 400  | 27-09226-12 | 403  | 27-09231-16 | 403  |
| 27-09177-04 | 400  | 27-09226-14 | 403  | 27-09231-19 | 403  |
| 27-09177-05 | 400  | 27-09226-15 | 403  | 27-09231-20 | 403  |
| 27-09177-06 | 400  | 27-09226-16 | 403  | 27-09231-21 | 403  |
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| 27-09180-14 | 400  | 27-09226-21 | 403  | 27-09231-30 | 403  |
| 27-09184-30 | 400  | 27-09226-23 | 403  | 27-09231-35 | 403  |
| 27-09188-24 | 400  | 27-09227-05 | 403  | 27-09231-40 | 403  |
| 27-09192-24 | 400  | 27-09227-06 | 403  | 27-09232-05 | 403  |
| 27-09196-05 | 401  | 27-09227-07 | 403  | 27-09232-06 | 403  |
| 27-09196-07 | 401  | 27-09227-08 | 403  | 27-09232-07 | 403  |
| 27-09196-09 | 401  | 27-09227-09 | 403  | 27-09232-08 | 403  |
| 27-09198-05 | 401  | 27-09227-11 | 403  | 27-09232-09 | 403  |
| 27-09198-07 | 401  | 27-09227-12 | 403  | 27-09232-11 | 403  |
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| 27-09202-04 | 401  | 27-09227-15 | 403  | 27-09232-14 | 403  |
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| 27-09210-02 | 402  | 27-09228-07 | 403  | 27-09232-30 | 403  |
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| 27-09210-06 | 402  | 27-09228-12 | 403  | 27-09233-06 | 403  |
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| 27-09211-02 | 402  | 27-09228-15 | 403  | 27-09233-08 | 403  |
| 27-09211-03 | 402  | 27-09228-16 | 403  | 27-09233-09 | 403  |
| 27-09211-04 | 402  | 27-09228-19 | 403  | 27-09233-11 | 403  |
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| 27-09211-06 | 402  | 27-09228-21 | 403  | 27-09233-14 | 403  |
| 27-09214-01 | 402  | 27-09228-23 | 403  | 27-09233-15 | 403  |
| 27-09214-02 | 402  | 27-09229-05 | 403  | 27-09233-16 | 403  |
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| 27-09214-05 | 402  | 27-09229-08 | 403  | 27-09233-21 | 403  |
| 27-09214-06 | 402  | 27-09229-09 | 403  | 27-09233-23 | 403  |
| 27-09215-01 | 402  | 27-09229-11 | 403  | 27-09233-25 | 403  |
| 27-09215-02 | 402  | 27-09229-12 | 403  | 27-09233-30 | 403  |
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| 27-09215-04 | 402  | 27-09229-15 | 403  | 27-09233-40 | 403  |
| 27-09215-05 | 402  | 27-09229-16 | 403  | 27-09236-16 | 404  |
| 27-09215-06 | 402  | 27-09229-19 | 403  | 27-09236-18 | 404  |
| 27-09218-01 | 402  | 27-09229-20 | 403  | 27-09236-19 | 404  |
| 27-09218-02 | 402  | 27-09229-21 | 403  | 27-09236-21 | 404  |
| 27-09218-03 | 402  | 27-09229-23 | 403  | 27-09236-23 | 404  |
| 27-09218-04 | 402  | 27-09230-05 | 403  | 27-09236-26 | 404  |
| 27-09218-05 | 402  | 27-09230-06 | 403  | 27-09236-28 | 404  |
| 27-09218-06 | 402  | 27-09230-07 | 403  | 27-09237-16 | 404  |
| 27-09219-01 | 402  | 27-09230-08 | 403  | 27-09237-18 | 404  |
| 27-09219-02 | 402  | 27-09230-09 | 403  | 27-09237-19 | 404  |
| 27-09219-03 | 402  | 27-09230-11 | 403  | 27-09237-21 | 404  |
| 27-09219-04 | 402  | 27-09230-12 | 403  | 27-09237-23 | 404  |
| 27-09219-05 | 402  | 27-09230-14 | 403  | 27-09237-26 | 404  |
| 27-09219-06 | 402  | 27-09230-15 | 403  | 27-09237-28 | 404  |

**28**

| Cat #       | Pg # | Cat #       | Pg # | Cat #       | Pg # |
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|             |      | 29-09426-03 | 416  | 29-09550-10 | 424  |
|             |      | 29-09426-04 | 416  | 29-09550-12 | 424  |
| 28-09244-45 | 405  | 29-09426-05 | 416  | 29-09551-07 | 424  |
| 28-09248-20 | 405  | 29-09430-00 | 416  | 29-09551-08 | 424  |
| 28-09252-34 | 405  | 29-09430-01 | 416  | 29-09551-10 | 424  |
| 28-09254-34 | 405  | 29-09430-02 | 416  | 29-09551-12 | 424  |
| 28-09258-35 | 405  | 29-09430-03 | 416  | 29-09554-03 | 424  |
| 28-09262-33 | 405  | 29-09434-01 | 417  | 29-09555-03 | 424  |
| 28-09266-30 | 405  | 29-09434-02 | 417  | 29-09558-04 | 424  |
| 28-09270-14 | 405  | 29-09436-00 | 417  | 29-09559-04 | 424  |
| 28-09274-01 | 406  | 29-09438-01 | 418  | 29-09562-05 | 424  |
| 28-09274-02 | 406  | 29-09438-02 | 418  | 29-09563-05 | 424  |
| 28-09274-03 | 406  | 29-09438-03 | 418  | 29-09566-06 | 425  |
| 28-09275-01 | 406  | 29-09442-01 | 418  | 29-09566-07 | 425  |
| 28-09275-02 | 406  | 29-09442-02 | 418  | 29-09566-09 | 425  |
| 28-09275-03 | 406  | 29-09442-03 | 418  | 29-09566-11 | 425  |
| 28-09278-42 | 406  | 29-09446-01 | 418  | 29-09567-06 | 425  |
| 28-09282-27 | 406  | 29-09446-02 | 418  | 29-09567-07 | 425  |
| 28-09283-27 | 406  | 29-09450-01 | 419  | 29-09567-09 | 425  |
| 28-09286-21 | 406  | 29-09450-02 | 419  | 29-09567-11 | 425  |
| 28-09290-26 | 407  | 29-09450-03 | 419  | 29-09671-06 | 425  |
| 28-09294-19 | 407  | 29-09454-00 | 419  | 29-09575-07 | 425  |
| 28-09298-26 | 407  | 29-09454-01 | 419  | 29-09579-09 | 426  |
| 28-09302-28 | 407  | 29-09454-02 | 419  | 29-09583-10 | 426  |
| 28-09306-25 | 407  | 29-09454-03 | 419  | 29-09587-07 | 426  |
| 28-09310-25 | 407  | 29-09258-18 | 420  | 29-09591-09 | 426  |
| 28-09314-42 | 408  | 29-09462-19 | 420  | 29-09593-11 | 426  |
| 28-09318-46 | 408  | 29-09466-14 | 420  | 29-09596-21 | 427  |
| 28-09322-30 | 408  | 29-09470-16 | 420  | 29-09596-22 | 427  |
| 28-09326-09 | 408  | 29-09474-16 | 420  | 29-09599-21 | 427  |
| 28-09330-36 | 409  | 29-09478-25 | 420  | 29-09599-22 | 427  |
| 28-09330-40 | 409  | 29-09478-30 | 420  | 29-09601-21 | 427  |
| 28-09334-28 | 409  | 29-09482-30 | 420  | 29-09601-22 | 427  |
| 28-09338-23 | 409  | 29-09486-22 | 421  | 29-09605-21 | 428  |
| 28-09340-30 | 409  | 29-09490-24 | 421  | 29-09605-22 | 428  |
| 28-09342-36 | 409  | 29-09492-24 | 421  | 29-09609-20 | 428  |
| 28-09344-36 | 409  | 29-09496-20 | 421  | 29-09609-24 | 428  |
| 28-09348-30 | 410  | 29-09500-20 | 421  | 29-09613-20 | 428  |
| 28-09348-36 | 410  | 29-09504-01 | 421  | 29-09615-18 | 428  |
| 28-09350-20 | 410  | 29-09504-02 | 421  | 29-09618-01 | 429  |
| 28-09352-41 | 410  | 29-09508-01 | 421  | 29-09618-02 | 429  |
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| 28-09358-36 | 410  | 29-09512-15 | 422  | 29-09621-18 | 429  |
| 28-09362-32 | 411  | 29-09516-01 | 422  | 29-09624-15 | 429  |
| 28-09362-38 | 411  | 29-09516-02 | 422  | 29-09624-18 | 429  |
| 28-09366-44 | 411  | 29-09516-03 | 422  | 29-09625-15 | 429  |
| 28-09370-43 | 411  | 29-09516-04 | 422  | 29-09625-18 | 429  |
| 28-09374-40 | 411  | 29-09520-15 | 422  | 29-09629-20 | 429  |
|             |      | 29-09520-19 | 422  | 29-09633-24 | 430  |
|             |      | 29-09520-24 | 422  | 29-09633-27 | 430  |
|             |      | 29-09524-18 | 423  | 29-09633-31 | 430  |
| 29-09378-24 | 412  | 29-09524-21 | 423  | 29-09633-33 | 430  |
| 29-09378-26 | 412  | 29-09526-18 | 423  | 29-09637-28 | 431  |
| 29-09382-27 | 412  | 29-09526-21 | 423  | 29-09641-30 | 431  |
| 29-09386-36 | 412  | 29-09530-15 | 423  | 29-09645-23 | 432  |
| 29-09390-34 | 412  | 29-09530-19 | 423  | 29-09649-21 | 432  |
| 29-09394-32 | 412  | 29-09530-24 | 423  | 29-09653-01 | 433  |
| 29-09398-24 | 412  | 29-09534-16 | 423  | 29-09653-02 | 433  |
| 29-09402-00 | 413  | 29-09534-20 | 423  | 29-09653-03 | 433  |
| 29-09406-01 | 413  | 29-09534-24 | 423  | 29-09653-04 | 433  |
| 29-09406-02 | 413  | 29-09534-30 | 423  | 29-09657-23 | 434  |
| 29-09406-03 | 413  | 29-09536-16 | 423  | 29-09657-25 | 434  |
| 29-09406-04 | 413  | 29-09536-20 | 423  | 29-09661-25 | 434  |
| 29-09406-05 | 413  | 29-09536-24 | 423  | 29-09665-27 | 435  |
| 29-09406-06 | 413  | 29-09536-30 | 423  | 29-09669-24 | 435  |
| 29-09409-07 | 413  | 29-09540-16 | 423  | 29-09673-24 | 435  |
| 29-09410-01 | 414  | 29-09540-20 | 423  | 29-09677-25 | 436  |
| 29-09410-02 | 414  | 29-09540-24 | 423  | 29-09677-26 | 436  |
| 29-09410-03 | 414  | 29-09543-16 | 423  | 29-09681-01 | 436  |
| 29-09414-00 | 415  | 29-09543-20 | 423  | 29-09681-02 | 436  |
| 29-09418-00 | 415  | 29-09543-24 | 423  | 29-09685-00 | 437  |
| 29-09422-01 | 415  | 29-09543-30 | 423  | 29-09685-20 | 437  |
| 29-09422-02 | 415  |             |      | 29-09685-25 | 437  |
| 29-09422-03 | 415  |             |      | 29-09685-26 | 437  |



**29**

| Cat #       | Pg # | Cat #       | Pg # | Cat #       | Pg # | Cat #       | Pg # | Cat #       | Pg # | Cat #       | Pg # |
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| 29-09685-28 | 437  | 29-09787-18 | 448  | 29-09857-05 | 458  | 30-09976-14 | 463  | 30-10041-12 | 468  | 30-10216-02 | 472  |
| 29-09689-01 | 437  | 29-09787-19 | 448  | 29-09857-10 | 458  | 30-09976-16 | 463  | 30-10043-13 | 468  | 30-10216-03 | 472  |
| 29-09689-02 | 437  | 29-09789-24 | 448  | 29-09857-15 | 458  | 30-09976-18 | 463  | 30-10045-13 | 468  | 30-10216-04 | 472  |
| 29-09693-21 | 438  | 29-09789-26 | 448  | 29-09857-20 | 458  | 30-09980-11 | 463  | 30-10047-13 | 468  | 30-10219-14 | 473  |
| 29-09695-21 | 438  | 29-09789-28 | 448  | 29-09857-25 | 458  | 30-09981-01 | 464  | 30-10049-01 | 468  | 30-10220-14 | 473  |
| 29-09699-17 | 438  | 29-09789-30 | 448  | 29-09857-30 | 458  | 30-09981-02 | 464  | 30-10049-02 | 468  | 30-10223-14 | 473  |
| 29-09703-17 | 438  | 29-09789-32 | 448  | 29-09857-35 | 458  | 30-09981-04 | 464  | 30-10049-03 | 468  | 30-10224-14 | 473  |
| 29-09707-16 | 439  | 29-09789-36 | 448  | 29-09857-40 | 458  | 30-09981-04 | 464  | 30-10049-04 | 468  | 30-10228-12 | 473  |
| 29-09711-01 | 439  | 29-09791-17 | 449  | 29-09857-45 | 458  | 30-09981-05 | 464  | 30-10051-12 | 468  | 30-10232-01 | 473  |
| 29-09711-02 | 439  | 29-09793-17 | 449  | 29-09857-50 | 458  | 30-09981-06 | 464  | 30-10053-13 | 468  | 30-10232-02 | 473  |
| 29-09714-00 | 440  | 29-09795-17 | 449  | 29-09857-70 | 458  | 30-09983-01 | 464  | 30-10055-12 | 468  | 30-10232-03 | 473  |
| 29-09715-15 | 440  | 29-09797-17 | 449  | 29-09857-90 | 458  | 30-09983-02 | 464  | 30-10057-01 | 468  | 30-10236-13 | 473  |
| 29-09715-30 | 440  | 29-09799-20 | 450  | 29-09858-05 | 458  | 30-09983-03 | 464  | 30-10057-02 | 468  | 30-10244-14 | 473  |
| 29-09715-45 | 440  | 29-09801-01 | 450  | 29-09858-10 | 458  | 30-09983-04 | 464  | 30-10057-03 | 468  | 30-10244-12 | 473  |
| 29-09715-90 | 440  | 29-09801-02 | 450  | 29-09858-15 | 458  | 30-09983-05 | 464  | 30-10059-12 | 468  | 30-10248-01 | 473  |
| 29-09718-00 | 440  | 29-09801-03 | 450  | 29-09858-20 | 458  | 30-09983-06 | 464  | 30-10061-12 | 469  | 30-10248-02 | 473  |
| 29-09718-15 | 440  | 29-09803-17 | 450  | 29-09858-25 | 458  | 30-09985-00 | 464  | 30-10063-12 | 469  | 30-10248-03 | 473  |
| 29-09718-30 | 440  | 29-09807-01 | 451  | 29-09858-30 | 458  | 30-09985-01 | 464  | 30-10065-12 | 469  | 30-10251-13 | 473  |
| 29-09718-45 | 440  | 29-09807-02 | 451  | 29-09858-35 | 458  | 30-09985-02 | 464  | 30-10067-12 | 469  | 30-10252-13 | 473  |
| 29-09718-90 | 440  | 29-09807-03 | 451  | 29-09858-40 | 458  | 30-09985-03 | 464  | 30-10069-12 | 469  | 30-10255-13 | 473  |
| 29-09723-20 | 441  | 29-09807-04 | 451  | 29-09858-45 | 458  | 30-09985-04 | 464  | 30-10071-12 | 469  | 30-10257-13 | 473  |
| 29-09723-22 | 441  | 29-09811-16 | 451  | 29-09858-50 | 458  | 30-09985-05 | 464  | 30-10073-12 | 469  | 30-10262-13 | 473  |
| 29-09723-24 | 441  | 29-09815-17 | 451  | 29-09858-70 | 458  | 30-09987-01 | 464  | 30-10075-12 | 469  | 30-10266-14 | 473  |
| 29-09723-30 | 441  | 29-09819-16 | 452  | 29-09858-90 | 458  | 30-09987-02 | 464  | 30-10077-12 | 469  | 30-10270-06 | 474  |
| 29-09727-18 | 441  | 29-09819-17 | 452  | 29-09860-05 | 458  | 30-09987-03 | 464  | 30-10079-12 | 469  | 30-10270-10 | 474  |
| 29-09727-19 | 441  | 29-09817-18 | 452  | 29-09860-10 | 458  | 30-09987-04 | 464  | 30-10081-12 | 469  | 30-10270-12 | 474  |
| 29-09727-23 | 441  | 29-09823-16 | 452  | 29-09860-15 | 458  | 30-09991-13 | 464  | 30-10083-12 | 469  | 30-10274-14 | 474  |
| 29-09727-27 | 441  | 29-09823-17 | 452  | 29-09860-20 | 458  | 30-09993-12 | 464  | 30-10085-12 | 469  | 30-10278-14 | 474  |
| 29-09731-18 | 442  | 29-09826-14 | 453  | 29-09860-25 | 458  | 30-09997-02 | 465  | 30-10087-13 | 469  | 30-10282-14 | 474  |
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| 29-09731-23 | 442  | 29-09830-14 | 453  | 29-09860-35 | 458  | 30-09997-04 | 465  | 30-10091-13 | 469  | 30-10290-10 | 474  |
| 29-09731-25 | 442  | 29-09833-14 | 453  | 29-09860-40 | 458  | 30-09999-01 | 465  | 30-10093-12 | 469  | 30-10292-15 | 474  |
| 29-09735-24 | 442  | 29-09837-14 | 453  | 29-09860-50 | 458  | 30-09999-02 | 465  | 30-10095-12 | 469  | 30-10296-08 | 474  |
| 29-09739-24 | 443  | 29-09841-01 | 454  |             |      | 30-09999-03 | 465  | 30-10097-12 | 470  | 30-10296-10 | 474  |
| 29-09739-25 | 443  | 29-09841-02 | 454  |             |      | 30-09999-04 | 465  | 30-10099-13 | 470  | 30-10296-12 | 474  |
| 29-09739-26 | 443  | 29-09841-03 | 454  |             |      | 30-10001-01 | 465  | 30-10099-13 | 470  | 30-10296-14 | 474  |
| 29-09742-21 | 443  | 29-09841-04 | 454  |             |      | 30-10001-02 | 465  | 30-10101-13 | 470  | 30-10296-16 | 474  |
| 29-09742-23 | 443  | 29-09841-05 | 454  |             |      | 30-10001-03 | 465  | 30-10105-12 | 470  | 30-10296-18 | 474  |
| 29-09742-27 | 443  | 29-09841-06 | 454  |             |      | 30-10001-04 | 465  | 30-10107-12 | 470  | 30-10298-08 | 474  |
| 29-09742-31 | 443  | 29-09841-07 | 454  |             |      | 30-10003-01 | 465  | 30-10109-12 | 470  | 30-10298-10 | 474  |
| 29-09743-21 | 443  | 29-09841-08 | 454  |             |      | 30-10003-02 | 465  | 30-10111-12 | 470  | 30-10298-12 | 474  |
| 29-09743-23 | 443  | 29-09841-09 | 454  |             |      | 30-10003-03 | 465  | 30-10113-12 | 470  | 30-10298-14 | 474  |
| 29-09743-27 | 443  | 29-09843-01 | 454  |             |      | 30-10003-04 | 465  | 30-10115-13 | 470  | 30-10298-16 | 474  |
| 29-09743-31 | 443  | 29-09843-02 | 454  |             |      | 30-10005-01 | 465  | 30-10117-12 | 470  | 30-10298-18 | 474  |
| 29-09746-12 | 444  | 29-09843-03 | 454  |             |      | 30-10005-02 | 465  | 30-10119-13 | 470  | 30-10302-09 | 475  |
| 29-09747-12 | 444  | 29-09843-04 | 454  |             |      | 30-10005-03 | 465  | 30-10121-13 | 470  | 30-10304-09 | 475  |
| 29-09750-14 | 444  | 29-09843-05 | 454  |             |      | 30-10005-04 | 465  | 30-10123-13 | 470  | 30-10308-13 | 475  |
| 29-09750-16 | 444  | 29-09843-06 | 454  |             |      | 30-10007-01 | 466  | 30-10125-13 | 470  | 30-10312-14 | 475  |
| 29-09750-18 | 444  | 29-09843-07 | 454  |             |      | 30-10007-02 | 466  | 30-10127-13 | 470  | 30-10314-14 | 475  |
| 29-09750-20 | 444  | 29-09843-08 | 454  |             |      | 30-10007-03 | 466  | 30-10129-14 | 471  | 30-10318-13 | 475  |
| 29-09751-14 | 444  | 29-09843-09 | 454  |             |      | 30-10007-04 | 466  | 30-10132-10 | 471  | 30-10318-14 | 475  |
| 29-09751-16 | 444  | 29-09845-01 | 454  |             |      | 30-10009-13 | 466  | 30-10133-12 | 471  | 30-10322-13 | 475  |
| 29-09751-18 | 444  | 29-09845-02 | 454  |             |      | 30-10011-13 | 466  | 30-10136-12 | 471  | 30-10326-13 | 475  |
| 29-09751-20 | 444  | 29-09845-03 | 454  |             |      | 30-10013-13 | 466  | 30-10140-01 | 471  | 30-10328-13 | 475  |
| 29-09754-16 | 445  | 29-09845-04 | 454  |             |      | 30-10015-13 | 466  | 30-10140-02 | 471  | 30-10332-13 | 475  |
| 29-09755-16 | 445  | 29-09845-05 | 454  |             |      | 30-10019-01 | 466  | 30-10144-12 | 471  | 30-10336-01 | 475  |
| 29-09755-14 | 445  | 29-09845-06 | 454  |             |      | 30-10019-02 | 466  | 30-10147-13 | 471  | 30-10336-02 | 475  |
| 29-09759-14 | 445  | 29-09845-07 | 454  |             |      | 30-10019-03 | 466  | 30-10148-13 | 471  | 30-10340-01 | 475  |
| 29-09759-15 | 445  | 29-09845-08 | 454  |             |      | 30-10023-12 | 467  | 30-10152-13 | 471  | 30-10340-02 | 475  |
| 29-09759-16 | 445  | 29-09845-09 | 454  |             |      | 30-10025-13 | 467  | 30-10156-13 | 471  | 30-10344-12 | 475  |
| 29-09762-17 | 445  | 29-09847-01 | 455  |             |      | 30-10027-01 | 467  | 30-10160-13 | 471  | 30-10348-16 | 476  |
| 29-09763-17 | 445  | 29-09847-02 | 455  |             |      | 30-10027-02 | 467  | 30-10164-13 | 471  | 30-10348-20 | 476  |
| 29-09765-17 | 445  | 29-09847-03 | 455  |             |      | 30-10027-03 | 467  | 30-10168-01 | 471  | 30-10352-05 | 476  |
| 29-09767-17 | 445  | 29-09847-04 | 455  |             |      | 30-10029-04 | 467  | 30-10168-02 | 471  | 30-10352-10 | 476  |
| 29-09771-16 | 446  | 29-09847-05 | 455  |             |      | 30-10029-05 | 467  | 30-10172-01 | 471  | 30-10352-15 | 476  |
| 29-09771-17 | 446  | 29-09847-06 | 455  |             |      | 30-10029-06 | 467  | 30-10172-02 | 471  | 30-10352-18 | 476  |
| 29-09775-01 | 446  | 29-09847-07 | 455  |             |      | 30-10029-07 | 467  | 30-10176-12 | 471  | 30-10352-25 | 476  |
| 29-09775-02 | 446  | 29-09849-01 | 456  |             |      | 30-10029-08 | 467  | 30-10180-12 | 471  | 30-10352-35 | 476  |
| 29-09775-03 | 446  | 29-09849-02 | 456  |             |      | 30-10031-01 | 467  | 30-10184-13 | 471  | 30-10352-40 | 476  |
| 29-09779-14 | 446  | 29-09849-03 | 456  |             |      | 30-10031-02 | 467  | 30-10188-12 | 472  | 30-10352-45 | 476  |
| 29-09779-16 | 446  | 29-09849-04 | 456  |             |      | 30-10033-01 | 467  | 30-10190-13 | 472  | 30-10356-10 | 476  |
| 29-09779-18 | 446  | 29-09849-05 | 456  |             |      | 30-10033-02 | 467  | 30-10194-12 | 472  | 30-10356-20 | 476  |
| 29-09782-12 | 447  | 29-09851-32 | 456  |             |      | 30-10033-03 | 467  | 30-10198-13 | 472  | 30-10356-25 | 476  |
| 29-09783-10 | 447  | 29-09851-64 | 456  |             |      | 30-10035-05 | 467  | 30-10201-12 | 472  | 30-10356-30 | 476  |
| 29-09783-11 | 447  | 29-09853-00 | 457  |             |      | 30-10035-06 | 467  | 30-10204-12 | 472  | 30-10356-35 | 476  |
| 29-09783-12 | 447  | 29-09854-00 | 457  |             |      | 30-10035-07 | 467  | 30-10208-12 | 472  | 30-10360-01 | 477  |
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**30**



**30**

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| 30-10360-03 | 477  | 30-10452-78 | 484  | 30-10556-10 | 488  |
| 30-10360-04 | 477  | 30-10454-00 | 484  | 30-10560-07 | 488  |
| 30-10360-05 | 477  | 30-10454-01 | 484  | 30-10564-09 | 489  |
| 30-10364-13 | 477  | 30-10454-02 | 484  | 30-10568-09 | 489  |
| 30-10368-13 | 477  | 30-10454-03 | 484  | 30-10572-10 | 489  |
| 30-10372-01 | 478  | 30-10454-12 | 484  | 30-10576-10 | 489  |
| 30-10372-02 | 478  | 30-10454-23 | 484  | 30-10580-11 | 489  |
| 30-10372-03 | 478  | 30-10454-34 | 484  | 30-10584-11 | 489  |
| 30-10372-04 | 478  | 30-10454-45 | 484  | 30-10586-11 | 489  |
| 30-10372-05 | 478  | 30-10454-56 | 484  | 30-10590-01 | 489  |
| 30-10372-06 | 478  | 30-10454-67 | 484  | 30-10590-02 | 489  |
| 30-10376-01 | 479  | 30-10454-78 | 484  | 30-10594-10 | 490  |
| 30-10376-02 | 479  | 30-10458-05 | 485  | 30-10596-10 | 490  |
| 30-10380-01 | 479  | 30-10458-07 | 485  | 30-10600-09 | 490  |
| 30-10380-02 | 479  | 30-10458-10 | 485  | 30-10601-09 | 490  |
| 30-10380-03 | 479  | 30-10462-12 | 485  | 30-10604-10 | 490  |
| 30-10384-01 | 479  | 30-10466-12 | 485  | 30-10605-10 | 490  |
| 30-10388-01 | 480  | 30-10470-13 | 485  | 30-10608-10 | 490  |
| 30-10388-02 | 480  | 30-10474-12 | 485  | 30-10609-10 | 490  |
| 30-10388-03 | 480  | 30-10478-12 | 485  | 30-10612-10 | 490  |
| 30-10392-01 | 480  | 30-10482-01 | 485  | 30-10613-10 | 490  |
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| 30-10396-03 | 480  | 30-10490-12 | 485  | 30-10621-10 | 491  |
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| 30-10400-03 | 481  | 30-10498-01 | 486  | 30-10628-07 | 492  |
| 30-10400-04 | 481  | 30-10498-02 | 486  | 30-10628-10 | 492  |
| 30-10400-05 | 481  | 30-10498-03 | 486  | 30-10632-09 | 492  |
| 30-10400-06 | 481  | 30-10500-13 | 486  | 30-10634-09 | 492  |
| 30-10400-07 | 481  | 30-10502-10 | 486  | 30-10638-07 | 493  |
| 30-10400-08 | 481  | 30-10506-10 | 486  | 30-10640-07 | 493  |
| 30-10401-06 | 481  | 30-10508-10 | 486  | 30-10642-10 | 493  |
| 30-10404-00 | 482  | 30-10510-10 | 486  | 30-10646-08 | 493  |
| 30-10406-00 | 482  | 30-10514-10 | 486  | 30-10648-08 | 493  |
| 30-10408-01 | 482  | 30-10516-10 | 486  | 30-10650-08 | 493  |
| 30-10408-02 | 482  | 30-10518-10 | 486  | 30-10652-08 | 493  |
| 30-10408-03 | 482  | 30-10520-10 | 486  | 30-10656-05 | 494  |
| 30-10408-04 | 482  | 30-10524-01 | 487  | 30-10656-07 | 494  |
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| 30-10438-10 | 484  | 30-10528-07 | 487  | 30-10668-08 | 494  |
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| 30-10450-04 | 484  | 30-10532-03 | 487  | 30-10679-10 | 495  |
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| 30-10450-33 | 484  | 30-10532-06 | 487  | 30-10685-10 | 495  |
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| 30-10450-66 | 484  | 30-10532-09 | 487  | 30-10691-10 | 495  |
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| 30-10452-45 | 484  | 30-10540-10 | 488  | 30-10717-02 | 496  |
| 30-10452-56 | 484  | 30-10544-08 | 488  | 30-10721-07 | 496  |
|             |      | 30-10548-10 | 488  | 30-10723-07 | 496  |

**31**

| Cat #       | Pg # | Cat #       | Pg # |
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| 31-10932-40 | 506  | 31-11022-01 | 512  |
| 31-10932-50 | 506  | 31-11022-40 | 512  |
| 31-10936-33 | 506  | 31-11022-45 | 512  |
| 31-10940-20 | 506  | 31-11022-50 | 512  |
| 31-10944-21 | 506  | 31-11022-55 | 512  |
| 31-10948-00 | 507  | 31-11022-60 | 512  |
| 31-10952-00 | 507  | 31-11026-00 | 512  |
| 31-10956-00 | 507  | 31-11026-01 | 512  |
| 31-10960-00 | 507  | 31-11026-40 | 512  |
| 31-10964-00 | 508  | 31-11026-45 | 512  |
| 31-10968-15 | 508  | 31-11026-50 | 512  |
| 31-10968-19 | 508  | 31-11026-55 | 512  |
| 31-10972-14 | 508  | 31-11026-60 | 512  |
| 31-10976-40 | 509  | 31-11030-16 | 513  |
| 31-10976-45 | 509  | 31-11032-27 | 513  |
| 31-10976-50 | 509  | 31-11036-15 | 513  |
| 31-10976-55 | 509  | 31-11040-16 | 513  |
| 31-10976-60 | 509  | 31-11044-00 | 514  |
| 31-10978-40 | 509  | 31-11044-01 | 514  |
| 31-10978-45 | 509  | 31-11044-50 | 514  |
| 31-10978-50 | 509  | 31-11044-60 | 514  |
| 31-10978-55 | 509  | 31-11044-70 | 514  |
| 31-10978-60 | 509  | 31-11046-00 | 514  |
| 31-10980-40 | 509  | 31-11046-01 | 514  |
| 31-10980-45 | 509  | 31-11046-50 | 514  |
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| 31-10980-55 | 509  | 31-11046-70 | 514  |
| 31-10980-60 | 509  | 31-11050-01 | 515  |
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| 31-10982-55 | 509  | 31-11050-03 | 515  |
| 31-10982-60 | 509  | 31-11052-01 | 515  |
| 31-10984-35 | 509  | 31-11052-02 | 515  |
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| 31-10986-35 | 509  | 31-11060-00 | 516  |
| 31-10986-40 | 509  | 31-11060-01 | 516  |
| 31-10986-45 | 509  | 31-11060-21 | 516  |
| 31-10986-50 | 509  | 31-11060-22 | 516  |
| 31-10986-55 | 509  | 31-11060-23 | 516  |
| 31-10986-60 | 509  | 31-11062-00 | 516  |
| 31-10986-65 | 509  | 31-11062-01 | 516  |
| 31-10986-70 | 509  | 31-11064-00 | 516  |
| 31-10988-35 | 509  | 31-11064-01 | 516  |
| 31-10988-40 | 509  | 31-11066-00 | 516  |
| 31-10988-45 | 509  | 31-11066-01 | 516  |
| 31-10988-50 | 509  | 31-11070-24 | 517  |
| 31-10988-55 | 509  | 31-11074-25 | 517  |
| 31-10988-60 | 509  | 31-11078-15 | 517  |
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| 31-10998-05 | 510  | 31-11090-05 | 517  |
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| 31-11002-01 | 510  | 31-11098-22 | 518  |
| 31-11006-00 | 510  | 31-11102-25 | 518  |
| 31-11006-01 | 510  | 31-11106-20 | 518  |
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| 31-11014-00 | 511  | 31-11116-21 | 519  |
| 31-11014-01 | 511  | 31-11120-18 | 519  |
| 31-11018-00 | 511  | 31-11120-24 | 519  |
| 31-11018-01 | 511  | 31-11124-19 | 519  |
| 31-11018-40 | 511  | 31-11124-24 | 519  |
| 31-11018-45 | 511  | 31-11128-20 | 519  |
| 31-11018-50 | 511  | 31-11132-21 | 519  |
| 31-11018-55 | 511  | 31-11136-17 | 520  |

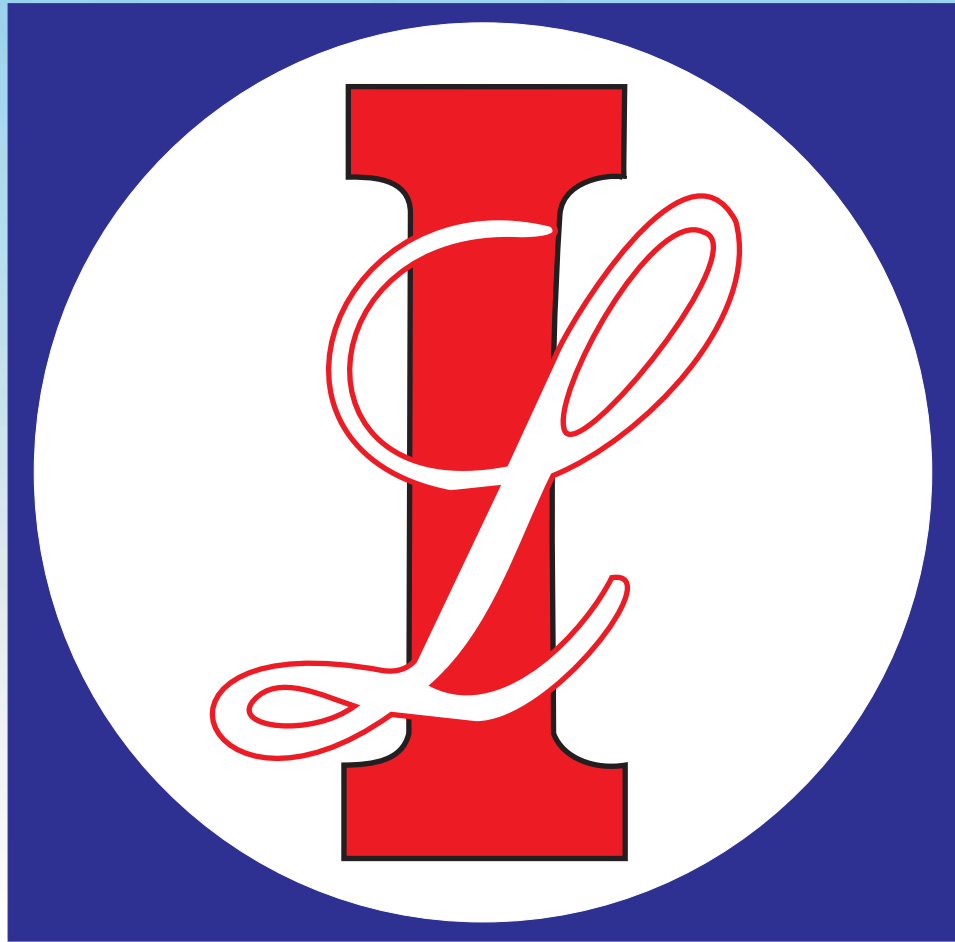




**31**

| Cat #       | Pg # | Cat #       | Pg # | Cat #       | Pg # | Cat #       | Pg # | Cat #       | Pg # | Cat #       | Pg # |
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| 31-11136-28 | 520  | 31-11244-05 | 526  | 31-11298-05 | 529  | 31-11360-01 | 533  | 32-11428-01 | 539  | 32-11478-03 | 547  |
| 31-11140-01 | 520  | 31-11246-03 | 526  | 31-11300-03 | 529  | 31-11360-02 | 533  | 32-11428-02 | 539  | 32-11478-04 | 547  |
| 31-11140-02 | 520  | 31-11246-05 | 526  | 31-11300-05 | 529  | 31-11360-03 | 533  | 32-11428-03 | 539  | 32-11478-05 | 547  |
| 31-11140-03 | 520  | 31-11248-03 | 526  | 31-11302-03 | 529  | 31-11362-01 | 533  | 32-11428-04 | 539  | 32-11482-01 | 548  |
| 31-11140-04 | 520  | 31-11248-05 | 526  | 31-11302-05 | 529  | 31-11362-02 | 533  | 32-11430-01 | 540  | 32-11482-02 | 548  |
| 31-11142-01 | 520  | 31-11250-03 | 526  | 31-11304-03 | 529  | 31-11362-03 | 533  | 32-11430-02 | 540  | 32-11482-03 | 548  |
| 31-11142-02 | 520  | 31-11250-05 | 526  | 31-11304-05 | 529  | 31-11364-01 | 533  | 32-11430-03 | 540  | 32-11482-04 | 548  |
| 31-11142-03 | 520  | 31-11252-00 | 526  | 31-11304-03 | 529  | 31-11364-02 | 533  | 32-11432-00 | 541  | 32-11482-05 | 548  |
| 31-11142-04 | 520  | 31-11252-01 | 526  | 31-11304-05 | 529  | 31-11364-03 | 533  | 32-11432-01 | 541  | 32-11482-06 | 548  |
| 31-11144-08 | 520  | 31-11252-02 | 526  | 31-11306-03 | 529  | 31-11366-01 | 533  | 32-11432-02 | 541  | 32-11482-07 | 548  |
| 31-11144-11 | 520  | 31-11252-03 | 526  | 31-11306-05 | 529  | 31-11366-02 | 533  | 32-11432-03 | 541  | 32-11482-08 | 548  |
| 31-11144-14 | 520  | 31-11252-04 | 526  | 31-11310-01 | 530  | 31-11366-03 | 533  | 32-11432-04 | 541  | 32-11484-01 | 548  |
| 31-11144-17 | 520  | 31-11252-05 | 526  | 31-11310-02 | 530  | 31-11368-01 | 533  | 32-11434-01 | 541  | 32-11484-02 | 548  |
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| 31-11144-25 | 520  | 31-11254-01 | 526  | 31-11312-01 | 530  | 31-11368-03 | 533  | 32-11434-03 | 541  | 32-11484-04 | 548  |
| 31-11148-08 | 520  | 31-11254-02 | 526  | 31-11312-02 | 530  | 31-11370-01 | 533  | 32-11434-04 | 541  | 32-11484-05 | 548  |
| 31-11148-11 | 520  | 31-11254-03 | 526  | 31-11312-03 | 530  | 31-11370-02 | 533  | 32-11348-01 | 542  | 32-11484-06 | 548  |
| 31-11148-14 | 520  | 31-11254-04 | 526  | 31-11314-01 | 530  | 31-11370-03 | 533  | 32-11438-02 | 542  | 32-11484-07 | 548  |
| 31-11148-17 | 520  | 31-11254-05 | 526  | 31-11314-02 | 530  | 31-11372-01 | 533  | 32-11438-03 | 542  | 32-11484-08 | 548  |
| 31-11152-09 | 521  | 31-11256-00 | 526  | 31-11314-03 | 530  | 31-11372-02 | 533  | 32-11438-04 | 542  | 32-11488-01 | 549  |
| 31-11152-13 | 521  | 31-11256-01 | 526  | 31-11316-01 | 530  | 31-11372-03 | 533  | 32-11438-05 | 542  | 32-11488-02 | 549  |
| 31-11152-18 | 521  | 31-11256-02 | 526  | 31-11316-02 | 530  | 31-11374-01 | 533  | 32-11440-01 | 542  | 32-11488-03 | 549  |
| 31-11152-22 | 521  | 31-11256-03 | 526  | 31-11316-03 | 530  | 31-11374-02 | 533  | 32-11440-02 | 542  | 32-11488-04 | 549  |
| 31-11156-12 | 521  | 31-11256-04 | 526  | 31-11318-01 | 530  | 31-11374-03 | 533  | 32-11440-03 | 542  | 32-11488-05 | 549  |
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| 31-11160-17 | 521  | 31-11260-05 | 527  | 31-11320-01 | 530  | 31-11376-03 | 533  | 32-11444-02 | 543  | 32-11488-08 | 549  |
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