

Welcome to our online  
**Retractors**  
catalogue

# Retractors





## About Us

### History

Serving more than 100 years in the field of Surgical, Dental, Manicure & Pedicure Implements, Veterinary and Jewelry Tools etc. Our grandfather was the pioneer who laid down the founding tone of the manufacturing of surgical instruments since 1908. This is our family business and we are the 3rd generation in this field.

### Introduction

Asmed Surgical was established in 2014 the company has, since the start, developed a stable and steady growth. The company success though, is due to the support of health authorities which have recognized our compromised to quality and punctuality.

### Our Philosophy

Our philosophy is to share our knowledge and experience with our customers and give them all the professional assistance they might need.

### Company Policy

Asmed Surgical shall not compromise on quality of the products. We shall achieve quality excellence by using quality assurance programs and techniques. Prompt and dedicated services shall be ensured to customers and efficiently to the best of our ability.

### Our Commitment

Our commitment to quality, based on our continuous monitoring at every stage of the manufacturing process has placed us at par with international standards, while maintaining very competitive prices.

### Quality Management System

Asmed Surgical manufacturing process emphases quality above all else. Our employees are having a ten to fifteen-years technical and practical experience in order to achieve, international standards. The proper stainless steel, stamping and forged materials used are meticulously selected and go through highly effective quality control. All surgical instruments are manufactured using the highest quality Pakistani, German, French and Japanese medical grade Stainless Steel. Every Instrument is Hand Examined from steel forging to final packing; no product passes to the next step unless Hand-Examined by a highly qualified and experienced technician.

### 100% Satisfaction Guaranteed

All our Instruments are produced with high quality stainless steel and are thoroughly checked and inspected during all phases of production, In order to ensure that they correspond to the international standards laid down by the **ISO 13485:2016, ISO 7153-1:2016 EN 10088-1:2005, ISO 9001:2015 and CE** standards and are confirmation of their compliance to use.

### Product Materials

We are Manufacturing stainless steel Grades **AISI 410, 420, 304, 302 ASTM F899** steel according international standards.

Also French & German & Japanese's steel technology that removes calculus efficiently, while retaining its sharp Asmed Surgical for a longer period of time.

## About Us

Asmed Surgical Instruments hold the highest quality standards throughout the creation of the instrument from raw materials to finished product.

We believe in our products and provide the user with a 100% customer satisfaction guarantee. Please feel free to contact us for any information.

### Our Staff

We are convinced that a highly qualified staff brings trust in our company. We are tight team, consisting of people, who with their education and experience contribute to our company strength.

### Support

Our friendly and well-trained staff will happy to assist you. If you are looking for something that not in our range of products, So we will do our best to help you.

### Terms & Condition

Processing of Ordered Goods: after finalize the contract, we start production the articles with zest and zeal, to ensure prompt delivery.

### Minimum Order

The minimum order is Euro €.1000.00, US\$.1000.00

### Price

We normally quote FOB prices. However, we can add freight, shipping and postage charges depending upon the requirement of the buyer.

### Payment

We accept L/C, D/P, T/T, Western Union, Money Gram payments for conformed orders. We prefer 70% advance and the remain 30% on completion of the goods but before shipment. The goods will remain the property of Asmed Surgical before total payment of the order.

**We accept Irrevocable Letter of Credit (L/C).**

### Mode of Shipment

It depends on the requirement of buyer.

### Claim

We always supply the goods with utmost care in all aspects; but still out of human error, any claim arises for any loss or damage, it must be filed within 4 days of the date of goods receipt. The claim is not negotiable after Twenty-One Days from the date of invoice.

### Returns

Returns are not acceptable without prior mutual consent. Any instruments that are custom made, modified, private labeled, custom etched or otherwise modified or hampered are not returnable for

## About Us

credit.

We reserve the right to inspect any returns prior to issuing any credit. Returned goods will be subject to 20% Re-stocking charges.

### Repairs & Warranty Replacements

In case of any manufacturing defect, we guarantee to replace, repair any such piece(s), free of cost but this does not apply to instruments that are repaired, or hampered/mishandled at the importer's end. Instruments which have been repaired by a source other than.

### Void of this warranty

Merchandise will be repaired or replaced at our discretion.

The instruments lost/damaged during this transit to us will not be our responsibility.

The freight of such articles will be borne by the consignee.

### Written By: Production Manager

Signature: \_\_\_\_\_

### Reviewed By: Quality Assurance Manager

Signature: \_\_\_\_\_

### Approved By: CEO

Signature: \_\_\_\_\_

Dated: 01<sup>st</sup> January 2021 to 31<sup>st</sup> December 2021

## User Manual

Asmed Surgical is Manufacturer and Exporter of all kinds of Surgical Instruments for ENT Diagnostic, Ophthalmology & Dermatology Pocket Instruments, Premium ENT Diagnostic and Ophthalmic Instruments, Laryngoscopes, Fibre Optic Laryngoscopes, Laryngoscopes with Direct Illumination, Disposable Laryngoscopes, Laryngoscope Sets, Gynecology Sets,

### INSTRUCTION MANUAL – PLEASE READ BEFORE USE SURGICAL INSTRUMENTS

The Asmed Surgical culture is one of responsibility and accountability, which means we take ownership of our projects with a clear view of the final objective. We are providing the responsiveness to customer needs of a small business, but with the added innovation, advanced manufacturing methods and qualified distribution network of a truly global company. This, in essence, created what Asmed Surgical stands for today: world-class products and services for our customers.

#### INNOVATION

At Asmed Surgical we foster innovation by combining decades of experience in developing and manufacturing diagnostic devices with out-of-the-box, innovative thinking. Our people are always eager to explore new technologies. As a result we are now in the great position of being able to launch innovative products every year, while still having a well-filled product pipeline for the future.

#### CUSTOMER SATISFACTION

Asmed Surgical's customers expect nothing less than world-class products and services. Consequently, they are the center of all our efforts and activities, right across the company, from research and development through to manufacturing, marketing and sales. Designed for demanding, everyday use in doctors' practices and hospitals, many of our products are developed through close cooperation between our engineers and specialists from research centers and university hospitals.

During the development phase, our test procedures and facilities lay the foundation for products of outstanding quality, even before the actual manufacturing process starts.

#### EMPOWERMENT

Our employees are key to our success and we continue to invest in their development. From their initial training when they join Asmed Surgical, followed by ongoing development programs and corporate management training, our employees are encouraged to contribute through excellence and teamwork. Our objective is to empower people and help them assume responsibility to help us, as a team, achieve our ambitious company goals.

#### PRODUCT LAUNCHES

Asmed Surgical Product Launches Surgical Instruments for ENT, Ophthalmology & Dermatology Pocket Instruments - Premium ENT Diagnostic and Ophthalmic Instruments, Laryngoscopes, Fibre Optic (F.O.) Laryngoscopes, Laryngoscopes with Direct Illumination, Disposable Laryngoscopes, Laryngoscope Sets, Gynecology Sets, INTENDED USE These instructions for use are valid for Surgical instruments made of stainless steel, such as Extracting Forceps, instruments for Bone Surgery, Scalpels, Knifes, Scissors, Forceps, Clamps, Retractors, Probes, Scalars Spatulas, Suture Root Elevators instruments with special instructions.

## User Manual

Asmed Surgical sets higher standards than required by norms and guidelines. In order to comply with these exceptionally high internal standards, we only use high-grade materials from reliable suppliers and apply the latest manufacturing methods, with every product having to pass several intermediate and final quality checks. All our manufacturing personnel receive expert training to ensure world-class finishing and quality. Our products come with a minimum two year warranty.

### TESTS

All instruments are high-quality products whose proper handling and use will be described in the following. In order to minimize hazards for patients and users these directions must be closely obeyed. Application, maintenance and test of the instruments may only be carried out by specially skilled staff.

### HANDLING

The instruments must not be over stressed by twisting or levering as this may lead to damages or cracking of the instruments.

### PURPOSE / FIELD OF APPLICATION

These operating instructions are valid for standard surgical instruments of the production of Asmed Surgical. The user decides according to his specialized knowledge whether the instrument may suitable for the intended purpose.

### DISPOSAL

Instruments that cannot be repaired or reprocessed should be disposed in accordance with the respective disposal guidelines of the hospital.

### MATERIALS

#### Product Materials

We are using Materials as per international standards. We have expertise to remove calculus efficiently from the Materials while retaining its sharpness which is durable for a longer period of time. Asmed Surgical Instruments hold the highest quality standards throughout the creation of the instrument from raw materials to finished product.

We believe in our products and provide our clients 100% satisfaction guarantee. Please feel free to contact us for any information.

### QUALITY

100% Satisfaction Guaranteed All our Instruments are produced with high quality stainless steel and are thoroughly checked and inspected during all phases of production, In order to ensure that they correspond to the international standards laid down by the [ISO 13485](#), [ISO 9001](#), [ISO7153-1](#) [EN10088-1](#) and [CE standards](#) and are confirmation of their compliance to use.

### REPROCESSING DIRECTIONS

Instruments may in general only be processed by specially skilled staff possessing the specific knowledge for this kind of work. Detailed information to the maintenance of instruments are available in the

## User Manual

"in this Brochure" of the [www.asmedsurgical.com](http://www.asmedsurgical.com) links to laws, norms and specialized maintenance committees can be found.

### ADVICE

Instruments made of stainless steel must not be put in physiological saline solutions (NaCl), as longer contact may lead to corrosion damages. Instruments may only be sterilized after a previous cleaning and disinfection.

### INSTRUCTION

Due to the design of instruments and the used materials, it is not possible to determine a limited number of reprocessing cycles. The lifetime of surgical instruments is therefore determined by the function / wear of the device. In case of damage the device must be reprocessed before sending back to the manufacturer for repair.

### REPROCESSING INSTRUCTIONS

Preparation at the point of use: Remove gross soiling by submerging the instrument into cold water (<40°C) immediately after use.

Don't use a fixating detergent or hot water (>40°C) as this can cause the fixation of residuals which may influence the result of the reprocess- in process.

### TRANSPORTATION

Safe storage and transportation in a closed container to the reprocessing area to avoid any damage and contamination to the environment.

### PREPARATION FOR DECONTAMINATION

The devices must be reprocessed in an opened or disassembled state. Instruments must be placed on adequate supports or trays. The nature of the supports or trays must not have any negative influence on the result of the following cleaning and disinfection by rinsing or ultrasonic treatment.

### MANUAL PRE CLEANING

Immerse the instrument into cold tap water for at least 5 minutes. Dismantle the instruments If possible and brush under cold tap water until all visible residues are removed. Inner lumen, threads and holes are flushed each with a water jet pistol for minimum 10 seconds in the pulsed mode. Immerse the instrument into an ultrasonic bath with an alkaline or enzymatic detergent (0,5%) and treat with ultrasound for 15 minutes at 40°C.

Remove the instruments from the bath and rinse again with cold tap water.

The cleaning bath must be changed at least once a day, or if required. Any pollution may influence the result of cleaning / disinfection and may favor corrosion.

### MANUAL CLEANING

In case of manual cleaning, the cleaning process needs to be adapted to the pre-treatment. The used detergents must be compatible, in order to avoid any negative influence on the cleaning/disinfection result. The detergent must be suitable for the treatment of surgical instruments.

## User Manual

The manufacturer's instructions regarding concentration and reaction time must be strictly obeyed. Use only soft brushes, no metal brushes. Channels and hollow parts must be rinsed thoroughly. If necessary, a high pressure hose must be used.

- Rinse the instruments with running clear water.
- Dry the instruments thoroughly.
- The cleaning bath must be changed at least once a day, or if required.

### CHEMICAL DISINFECTION

The chemical disinfection follows the manual cleaning. A detergent, suitable for surgical instruments made of stainless steel must be used.

### PACKAGING STORAGE

Storage of sterilized instruments in appropriate packaging in a dry, clean and dust free environment at modest temperatures of 5°C to 40°C, and at a constant humidity. The distance between shelf and floor should be at least 30cm. Storage duration time is to be determined by the user.

Reprocessing validation study information:

The following testing test devices, materials & machines have been used in this validation study; Detergent:

### ADDITIONAL INSTRUCTIONS

If the described chemistry and machines are not available, it is the duty of the user to validate his process. It is the duty of the user to ensure that the reprocessing processes including resources, materials and personnel are capable to reach the required results. State of the art and often national law requiring these processes and included resources to be validated and maintained properly.

### WARRANTY

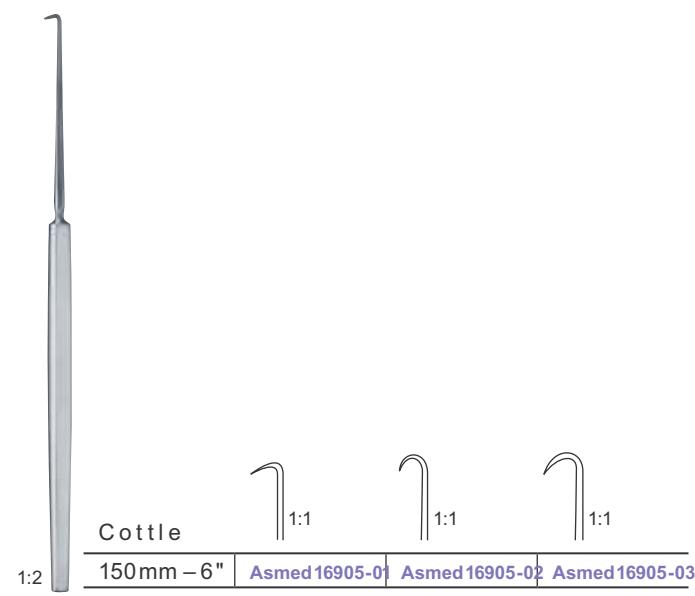
The products are made of high grade medical stainless steel and are controlled prior to sale. In case of any error or inconvenience, please feel free to contact our service.

Asmed Surgical cannot provide any guarantee weather the instruments are suitable for the respective intervention. This has to be determined by the user.

Asmed Surgical does not provide any liability for any damages arising from pure chance. Asmed Surgical does not provide any liability for any damages deriving from contravening against this manual. In case of using the instruments on patients with Asmed Surgical does not provide any liability for the reprocessing of the instruments.

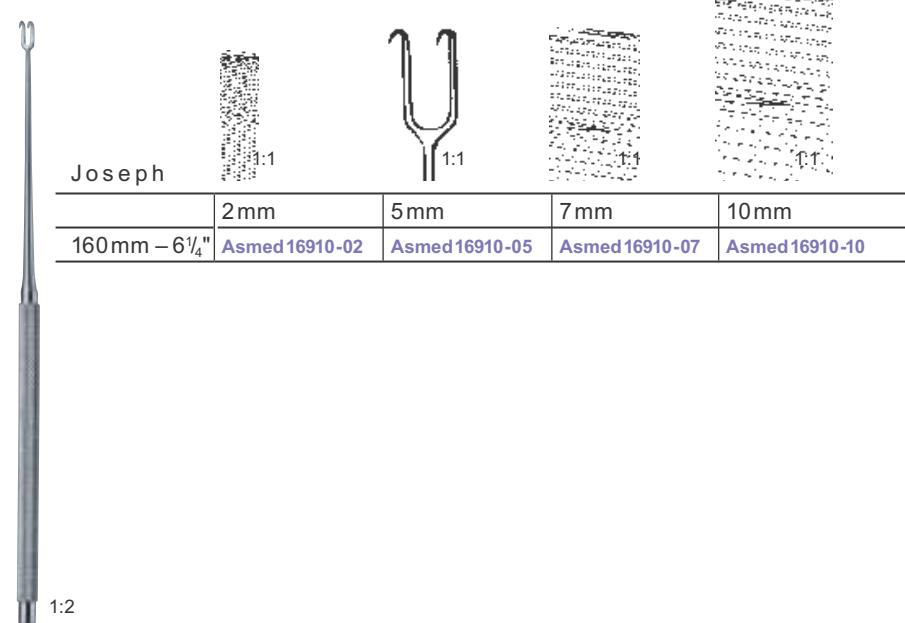
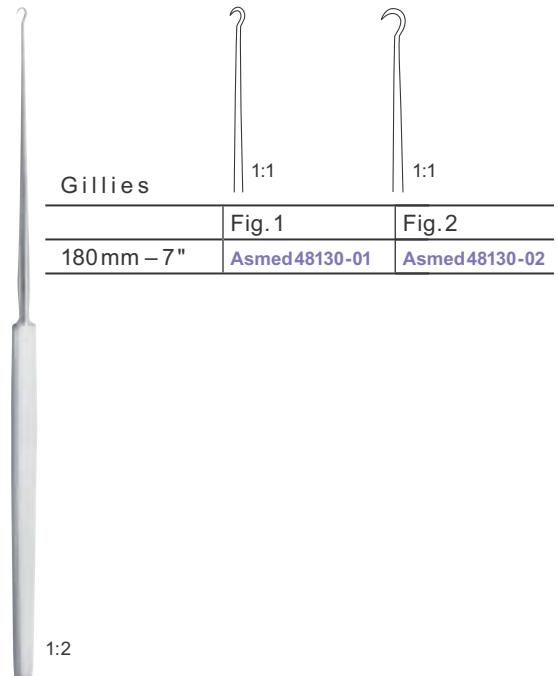
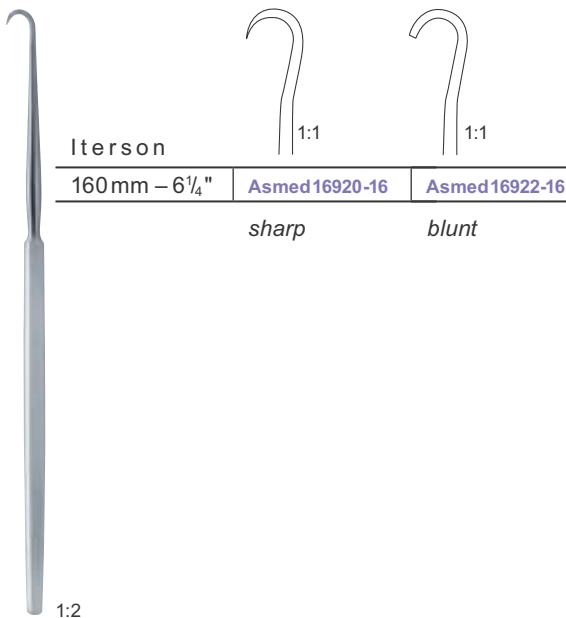
Yours very sincerely,

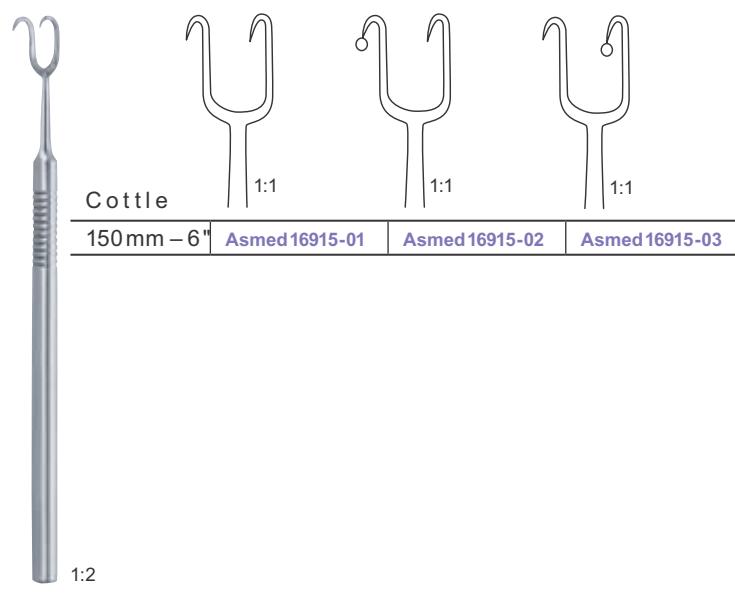
**Management and Staff Asmed Surgical**  
**Asmed Surgical Product Launches**

**Nasal hooks****Surgery**

## Nasal hooks

## Surgery



**Nasal hooks****Surgery**

## Trachea and nose retractors

## Surgery



Cottle

1:2

150 mm - 6"

Asmed 16917-15

1:2

Asmed 16918-15



Aufricht

190 mm - 6 1/4"

Asmed 16906-19



Kilner

100 mm - 4"

Asmed 16907-10



Converse

120 mm - 4 3/4"

Asmed 16908-12



Jackson

150 mm - 6"

Asmed 16930-15

1:2



Lukens

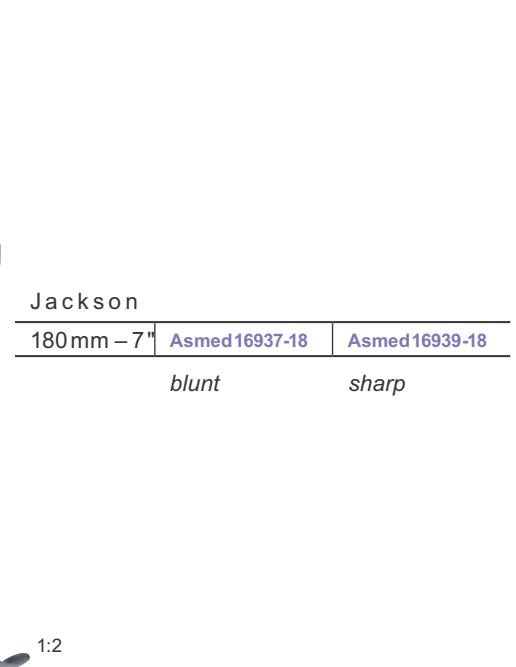
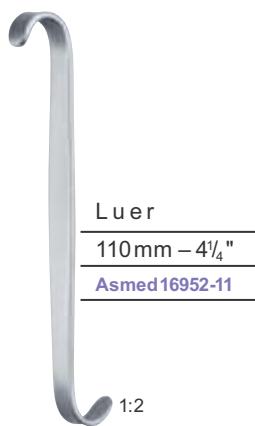
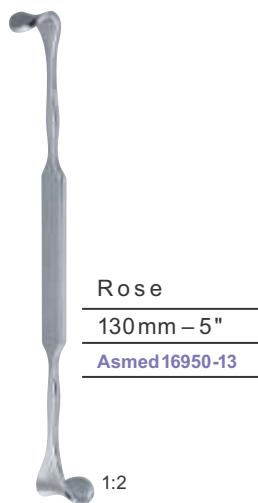
170 mm - 6 2/3"

Asmed 16933-17

blunt

1:2

## Trachea retractors

**Surgery****Retractors**

## Retractors

## Surgery



Emmet	1:1	1:1	1:1	1:1	1:1
	Fig.1	Fig.2	Fig.3	Fig.4	Fig.5
220mm – 8 <sup>3</sup> / <sub>4</sub> "	<a href="#">Asmed16958-01</a>	<a href="#">Asmed16958-02</a>	<a href="#">Asmed16958-03</a>	<a href="#">Asmed16958-04</a>	<a href="#">Asmed16958-05</a>

1:2



1:1	1:1	1:1	1:1	
160mm – 6 <sup>1</sup> / <sub>4</sub> "	<a href="#">Asmed17001-16</a>	<a href="#">Asmed17002-16</a>	<a href="#">Asmed17003-16</a>	<a href="#">Asmed17004-16</a>

sharp

1:2

1:1	1:1	1:1	1:1	
160mm – 6 <sup>1</sup> / <sub>4</sub> "	<a href="#">Asmed17011-16</a>	<a href="#">Asmed17012-16</a>	<a href="#">Asmed17013-16</a>	<a href="#">Asmed17014-16</a>

blunt

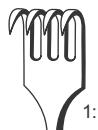
## Retractors

## Surgery



160 mm – 6 1/4 "	Asmed 17021-16	Asmed 17022-16	Asmed 17024-16
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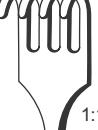
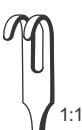
flexible, sharp



1:2

160 mm – 6 1/4 "	Asmed 17031-16	Asmed 17032-16	Asmed 17034-16
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flexible, blunt



	x=8mm	x=10mm	x=12mm
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160 mm – 6 1/4 "	Asmed 17038-08	Asmed 17038-10	Asmed 17038-12
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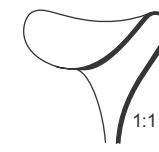
Desmarres



1:2  
Knapp  
(Rollet)

160 mm – 6 1/4 "	Asmed 17025-16
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flexible, sharp



	x=14 mm	x=16 mm	x=18 mm
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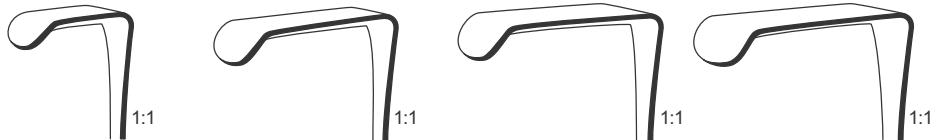
160 mm – 6 1/4 "	Asmed 17038-14	Asmed 17038-16	Asmed 17038-18
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## Retractors

## Surgery



Mini-Langenbeck



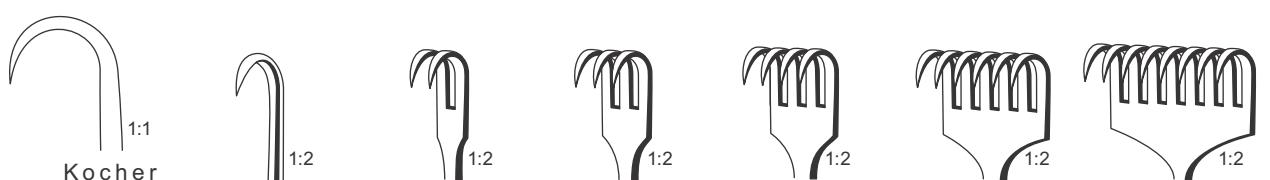
	10mmx6mm	17mmx5mm	20mmx6mm	22mmx8mm
160mm – 6 1/4"	Asmed 17039-10	Asmed 17039-17	Asmed 17039-20	Asmed 17039-22

1:2

1:2

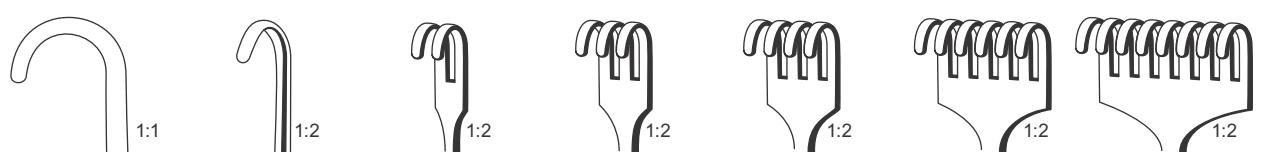


Kocher



220mm – 8 3/4"	Asmed 17041-22	Asmed 17042-22	Asmed 17043-22	Asmed 17044-22	Asmed 17046-22	Asmed 17048-22
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sharp



220mm – 8 3/4"	Asmed 17051-22	Asmed 17052-22	Asmed 17053-22	Asmed 17054-22	Asmed 17056-22	Asmed 17058-22
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blunt

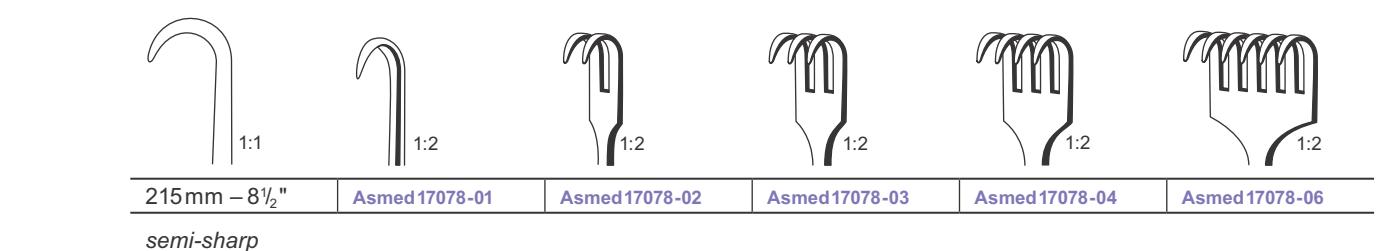
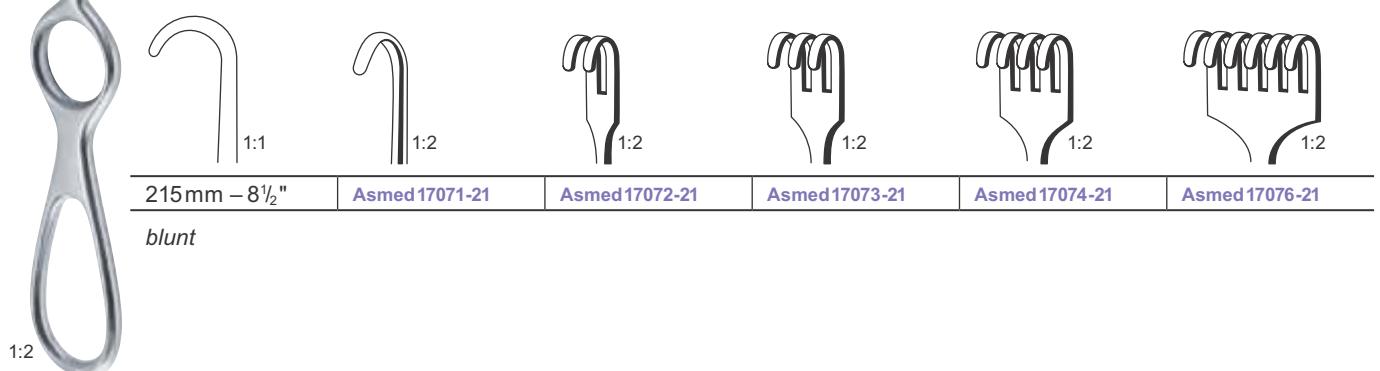
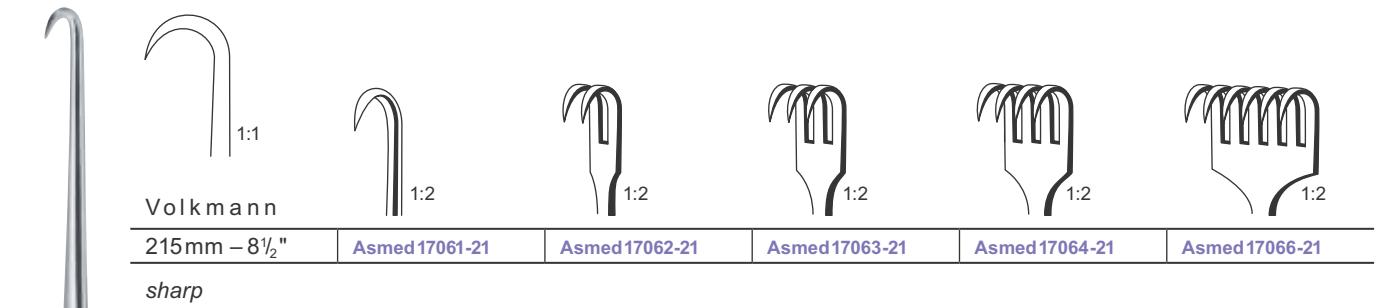


220mm – 8 3/4"	Asmed 17059-01	Asmed 17059-02	Asmed 17059-03	Asmed 17059-04	Asmed 17059-06	Asmed 17059-08
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semi-sharp

## Retractors

## Surgery



## Retractors

## Surgery



Volkmann

 215 mm – 8½" | [Asmed 17040-01](#) | [Asmed 17040-02](#)

sharp

blunt

1:1

1:1



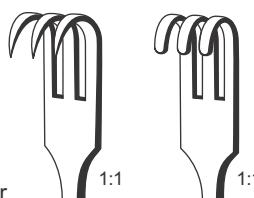
Senn-Mueller

 160 mm – 6¼" | [Asmed 17080-16](#) | [Asmed 17081-16](#)

sharp

blunt

1:1



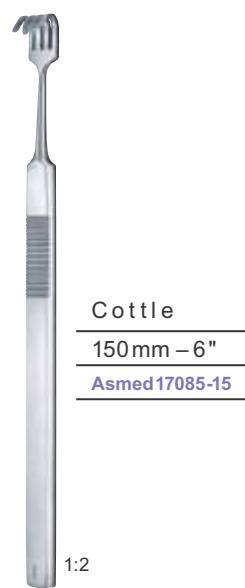
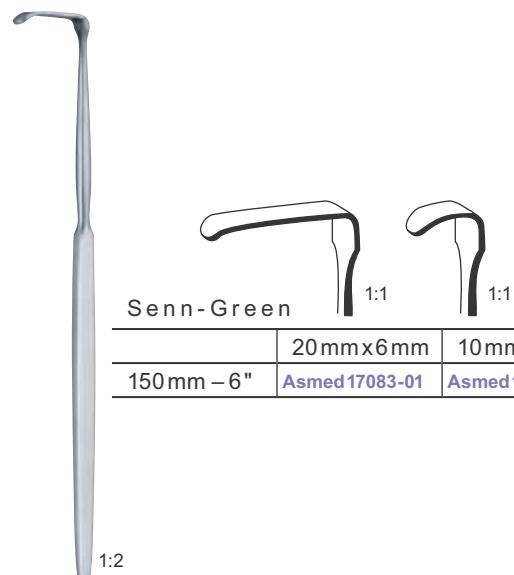
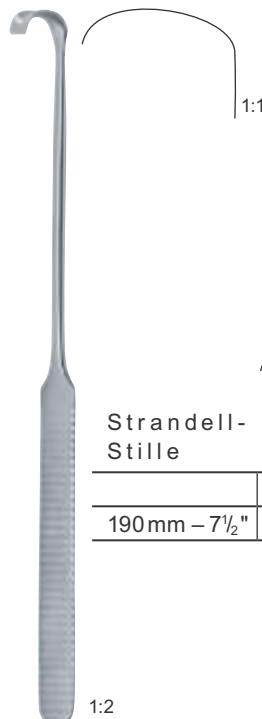
Kilner

155 mm – 6"

 | [Asmed 17082-15](#)

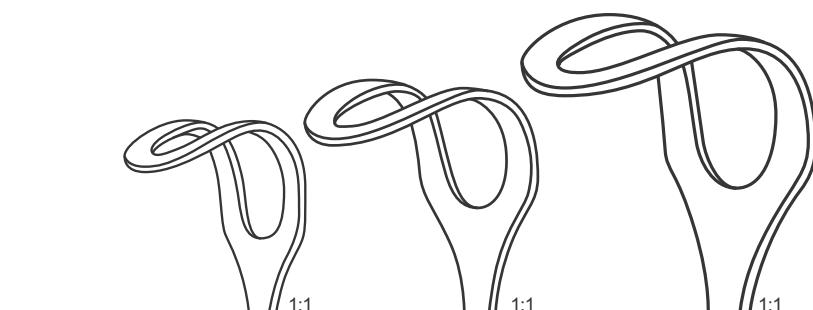
## Retractors

## Surgery



## Retractors

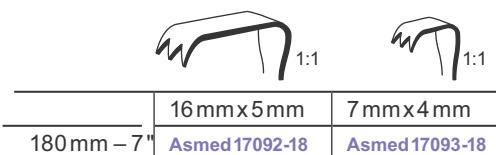
## Surgery



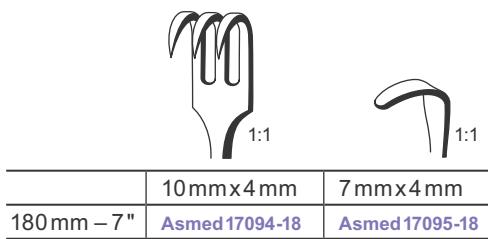
Middeldorp	1:1	1:1	1:1
14mmx17mm	20mmx22mm	26mmx30mm	
215mm - 8½"	220mm - 8¾"	235mm - 9¼"	
Asmed 17085-21	Asmed 17086-22	Asmed 17087-23	



	18mmx7mm	10mmx3mm
180mm - 7"	Asmed 17090-18	Asmed 17091-18



	16mmx5mm	7mmx4mm
180mm - 7"	Asmed 17092-18	Asmed 17093-18



	10mmx4mm	7mmx4mm
180mm - 7"	Asmed 17094-18	Asmed 17095-18

**Retractors****Surgery**

Koerte

	26mmx40mm	26mmx40mm
235 mm – 9 1/4 "	<b>Asmed 17096-08</b>	<b>Asmed 17097-08</b>

sharp

blunt

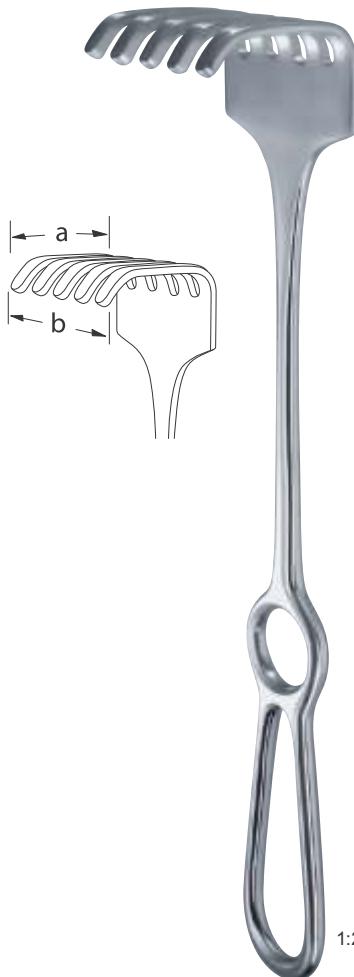


Green

215 mm – 8 1/2 "
<b>Asmed 17099-21</b>

## Retractors

## Surgery



Israel	1:1	a=40 mm - b=40 mm	a=45 mm - b=50 mm	1:1
		250 mm - 9 3/4 "	Asmed17100-25	Asmed17101-25
4 Teeth			5 Teeth	

	1:1	a=50 mm - b=60 mm	a=70 mm - b=70 mm	1:1
		250 mm - 9 3/4 "	Asmed17102-25	Asmed17103-25
6 Teeth			6 Teeth	



	1:1	Fig. 1	Fig. 2	Fig. 3
		30 mm x 11 mm	30 mm x 14 mm	30 mm x 16 mm

220 mm - 8 3/4 "	Asmed17110-01	Asmed17110-02	Asmed17110-03
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220 mm - 8 3/4 "	Asmed17110-01	Asmed17110-02	Asmed17110-03
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	1:1	Fig. 4	Fig. 5	1:1
		40 mm x 11 mm	50 mm x 11 mm	

220 mm - 8 3/4 "	Asmed17110-04	Asmed17110-05
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## Retractors

## Surgery



Langenbeck



1:1



1:1

Fig.1

30mmx11mm

210mm - 8 1/4"

Fig.2

30mmx14mm

Asmed 17112-02

Fig.3

30mmx16mm

Asmed 17112-03



1:1



1:1

Fig.4

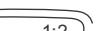
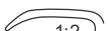
40mmx11mm

210mm - 8 1/4"

Fig.5

50mmx11mm

Asmed 17112-05

 Kocher-Langenbeck  
(Obwegeser)


25mmx7mm

35mmx8mm

35mmx11mm

35mmx15mm

215mm - 8 1/2"

Asmed 17114-01

Asmed 17114-02

Asmed 17114-03

Asmed 17114-04

42mmx10mm

55mmx12mm

70mmx14mm

215mm - 8 1/2"

Asmed 17114-05

Asmed 17114-06

Asmed 17114-07

80mmx12mm

80mmx16mm

215mm - 8 1/2"

Asmed 17114-08

1:2

1:2

1:2

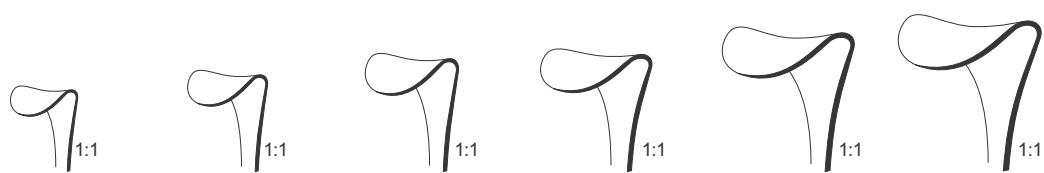
1:2

## Retractors

## Surgery



Cushing



	x=8 mm	x=10 mm	x=12 mm	x=14 mm	x=16 mm	x=18 mm
200 mm - 8"	Asmed 17200-08	Asmed 17200-10	Asmed 17200-12	Asmed 17200-14	Asmed 17200-16	Asmed 17200-18
240 mm - 9 1/2"	Asmed 17201-08	Asmed 17201-10	Asmed 17201-12	Asmed 17201-14	Asmed 17201-16	Asmed 17201-18



Obwegeser

	42 mm x 13 mm	60 mm x 12 mm
220 mm - 8 3/4"	Asmed 52715-01	Asmed 52715-02

	80 mm x 16 mm
220 mm - 8 3/4"	Asmed 52715-03

## Retractors

## Surgery



Obwegeser

1:1

1:1

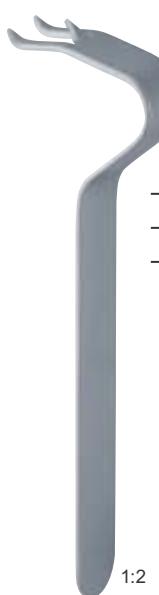
	44mm x 9,5mm	70mm x 11,5mm
220mm - 8 3/4 "	Asmed 52717-22	Asmed 52719-22

220mm - 8 3/4 "

Asmed 52717-22

Asmed 52719-22

1:2



Obwegeser

155mm - 6 "

Asmed 52723-16

1:2



Obwegeser

x=8mm

x=10mm

160mm - 6 1/4 "

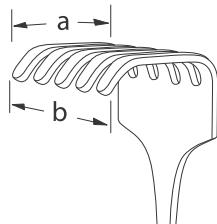
Asmed 52725-08

Asmed 52725-10

malleable

1:2

## Retractors Surgery



Ollier 1:2

	a=36 mm - b=30 mm	a=36 mm - b=60 mm
225 mm - 8 3/4 "	Asmed 17105-03	Asmed 17105-04

Kocher

	55mmx11 mm	40mmx12 mm
210 mm - 8 1/4 "	Asmed 17115-21	Asmed 17116-21

1:2



**Retractors****Surgery****Langenbeck**

	60mmx20mm
210mm - 8 1/4"	<a href="#">Asmed 17117-60</a>

1:2

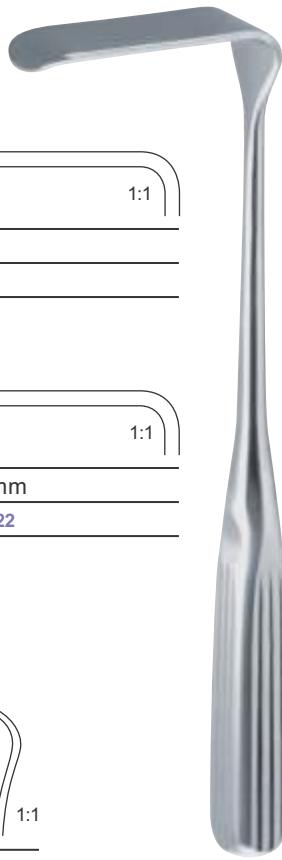
**Langenbeck**

	85mmx15mm
210mm - 8 1/4"	<a href="#">Asmed 17117-85</a>

*Handle vertical to the blade*

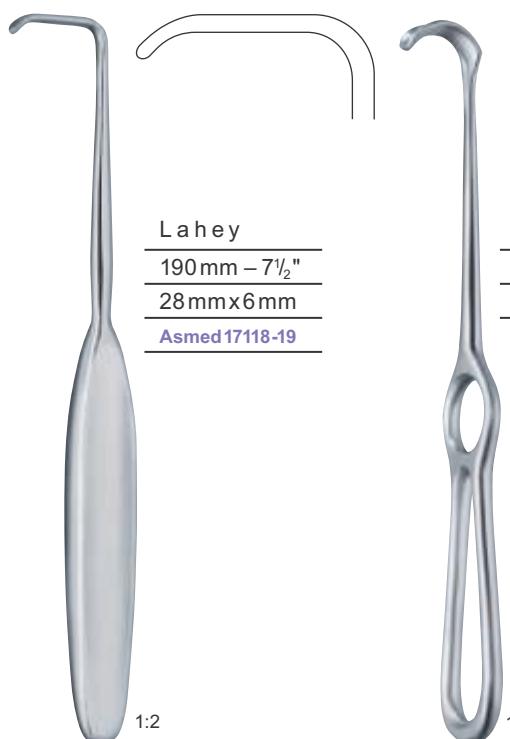
## Retractors

## Surgery



Sauerbruch	1:1	1:1
	45mmx 15mm	75mmx 20mm
225mm – 8¾"	Asmed 17120-22	Asmed 17121-22

1:1
60mmx 23mm
220mm – 8¾"



Lahey
190mm – 7½"
28mmx6mm
Asmed 17118-19

Kocher	1:1	1:1
	19mmx 12mm	21mmx 14mm
190mm – 7½"	Asmed 17125-01	Asmed 17125-02

Kocher	1:2	1:2	1:2
	40mmx 10mm	40mmx 15mm	40mmx 20mm
220cm – 8¾"	Asmed 17127-01	Asmed 17127-02	Asmed 17127-03



## Retractors

## Surgery



Kocher	1:1	1:1
	40mmx18mm	60mmx20mm
230mm – 9"	<a href="#">Asmed17128-18</a>	<a href="#">Asmed17128-20</a>

1:1	1:1
	60mmx25mm
230mm – 9"	<a href="#">Asmed17128-25</a>
	75mmx30mm
	<a href="#">Asmed17128-30</a>

1:1	
	75mmx40mm
230mm – 9"	<a href="#">Asmed17128-40</a>

Richardson	1:1	1:1	1:1
	28mmx20mm	36mmx28mm	44mmx38mm
240mm – 9 1/2"	<a href="#">Asmed17130-24</a>	<a href="#">Asmed17131-24</a>	<a href="#">Asmed17132-24</a>



## Retractors

## Surgery



Richardson-Eastman

1:2

Richardson

1:2

Kelly

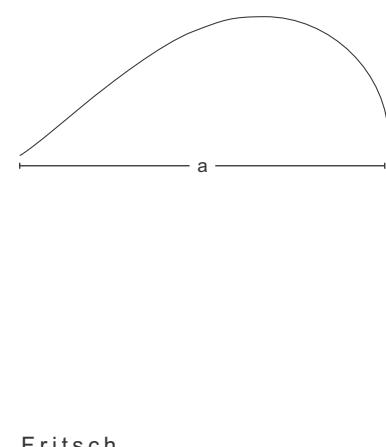
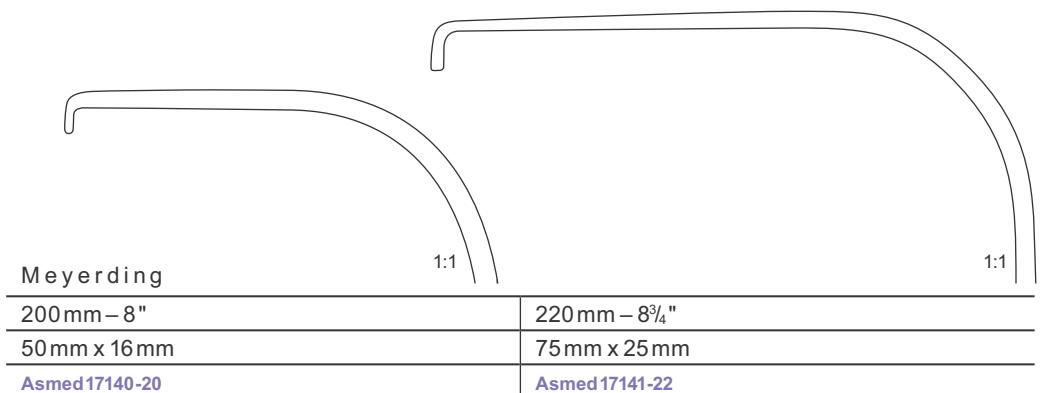
1:2

	Fig. 1	Fig. 2
	280 mm – 11 "	260 mm – 10 1/4 "
	49 mm x 38 mm	36 mm x 28 mm
	63 mm x 49 mm	28 mm x 20 mm
<b>Asmed 17135-01</b>	X	
<b>Asmed 17135-02</b>		X
<b>Asmed 17135-00</b>	X	X

**Retractors****Surgery**

## Retractors

## Surgery

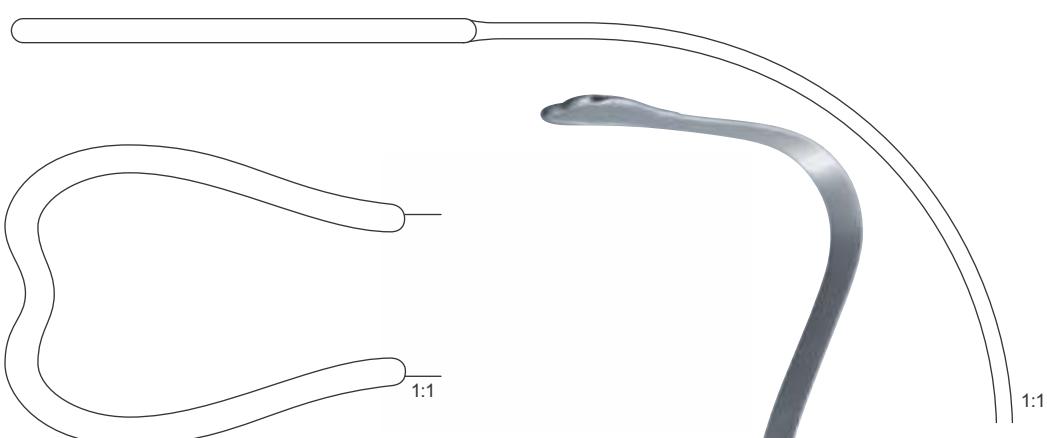


235 mm - 9 $\frac{1}{4}$ "	a = 37 mm - b = 31 mm	<a href="#">Asmed 17150-24</a>
240 mm - 9 $\frac{1}{2}$ "	a = 38 mm - b = 40 mm	<a href="#">Asmed 17151-24</a>
250 mm - 9 $\frac{3}{4}$ "	a = 43 mm - b = 51 mm	<a href="#">Asmed 17152-24</a>
250 mm - 9 $\frac{3}{4}$ "	a = 49 mm - b = 61 mm	<a href="#">Asmed 17153-24</a>
255 mm - 10"	a = 48 mm - b = 75 mm	<a href="#">Asmed 17154-24</a>
265 mm - 10 $\frac{1}{2}$ "	a = 65 mm - b = 85 mm	<a href="#">Asmed 17155-24</a>

**Retractors****Surgery****Simon**

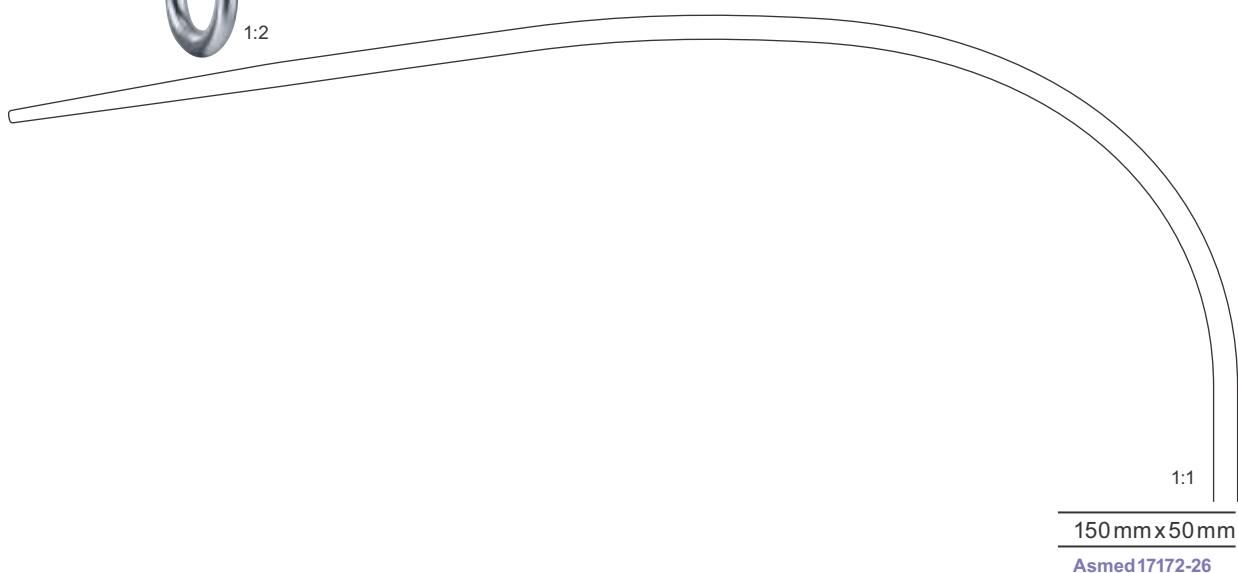
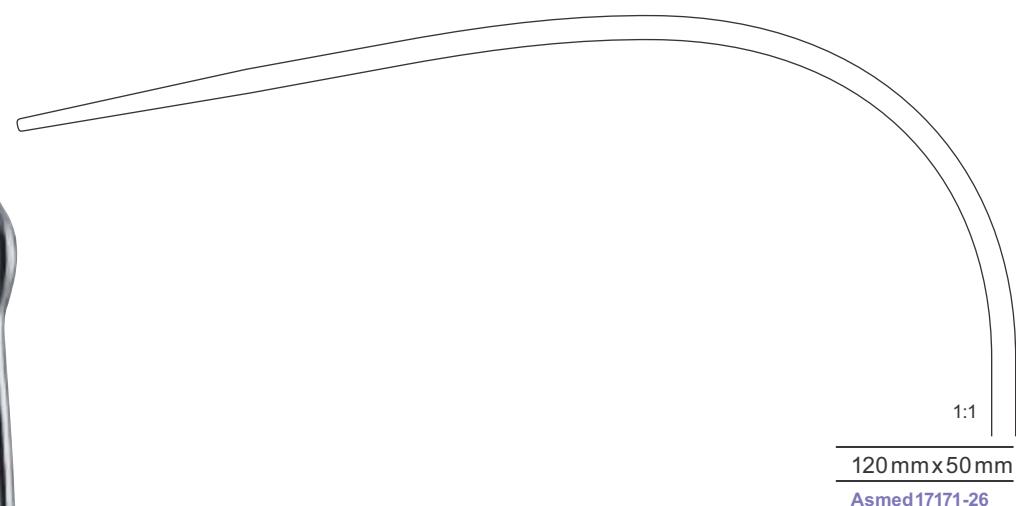
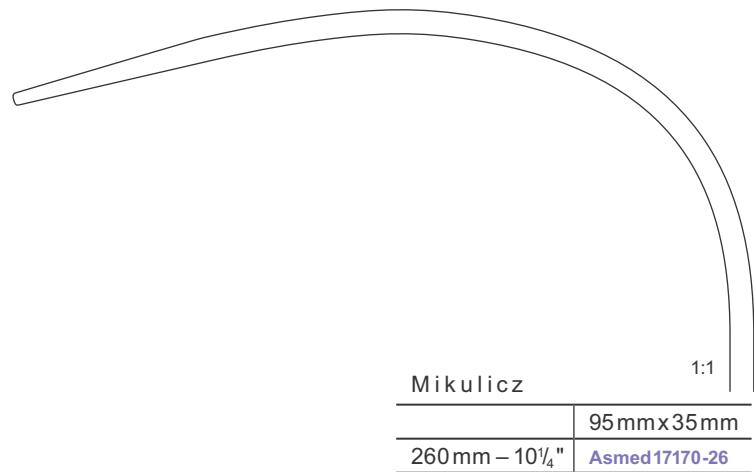
	115mmx22mm	115mmx27mm
280cm – 11"	<a href="#">Asmed17160-28</a>	<a href="#">Asmed17161-28</a>

1:3

**Harrington**

	127mmx40mm	127mmx62mm
320mm – 12½"	<a href="#">Asmed17163-32</a>	<a href="#">Asmed17164-32</a>

1:3

**Retractors****Surgery**

**Retractors****Surgery****Mikulicz**

260mm - 10 1/4 "

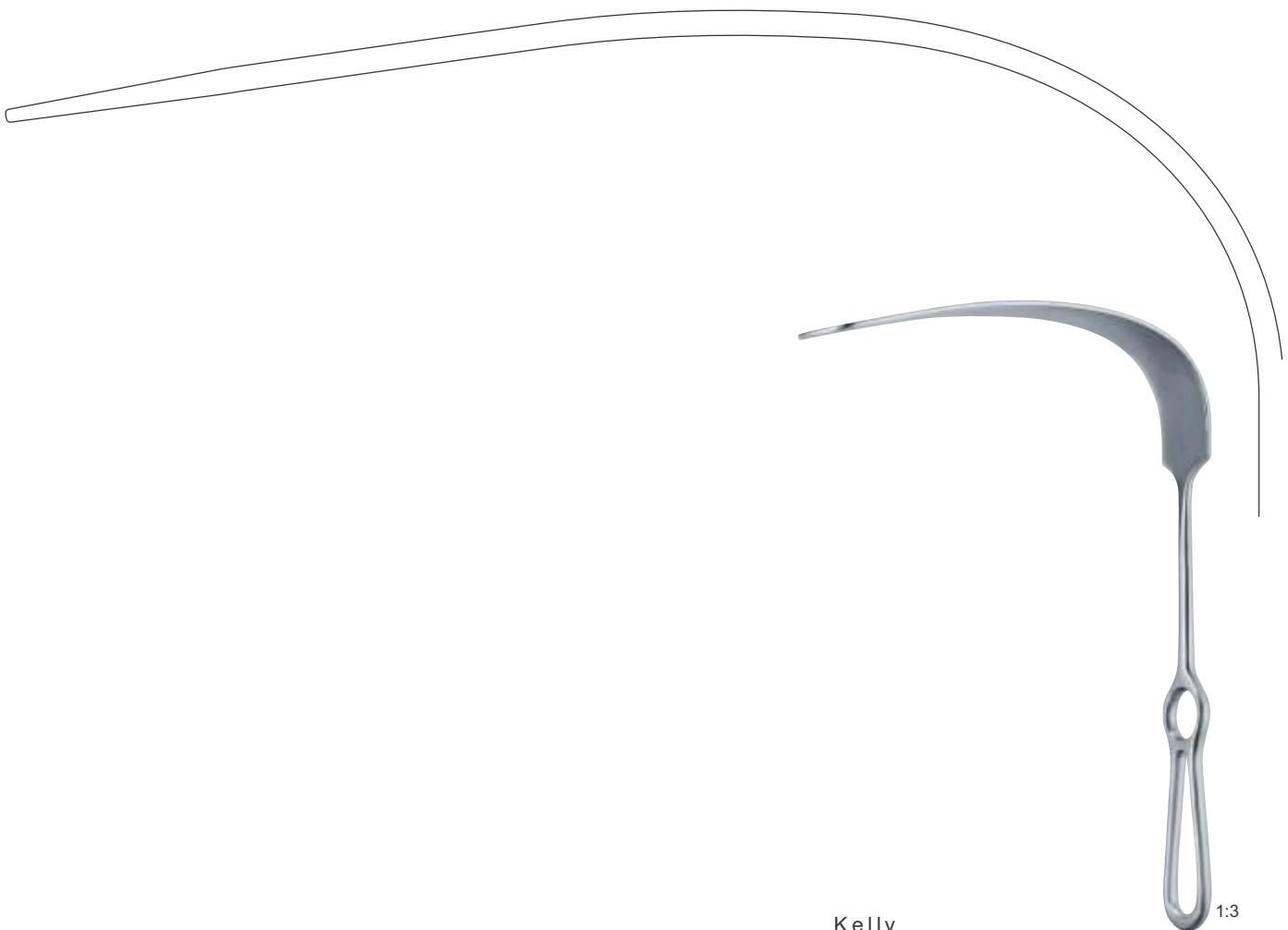
90mm x 50mm

[Asmed 17174-26](#)**Davidson**

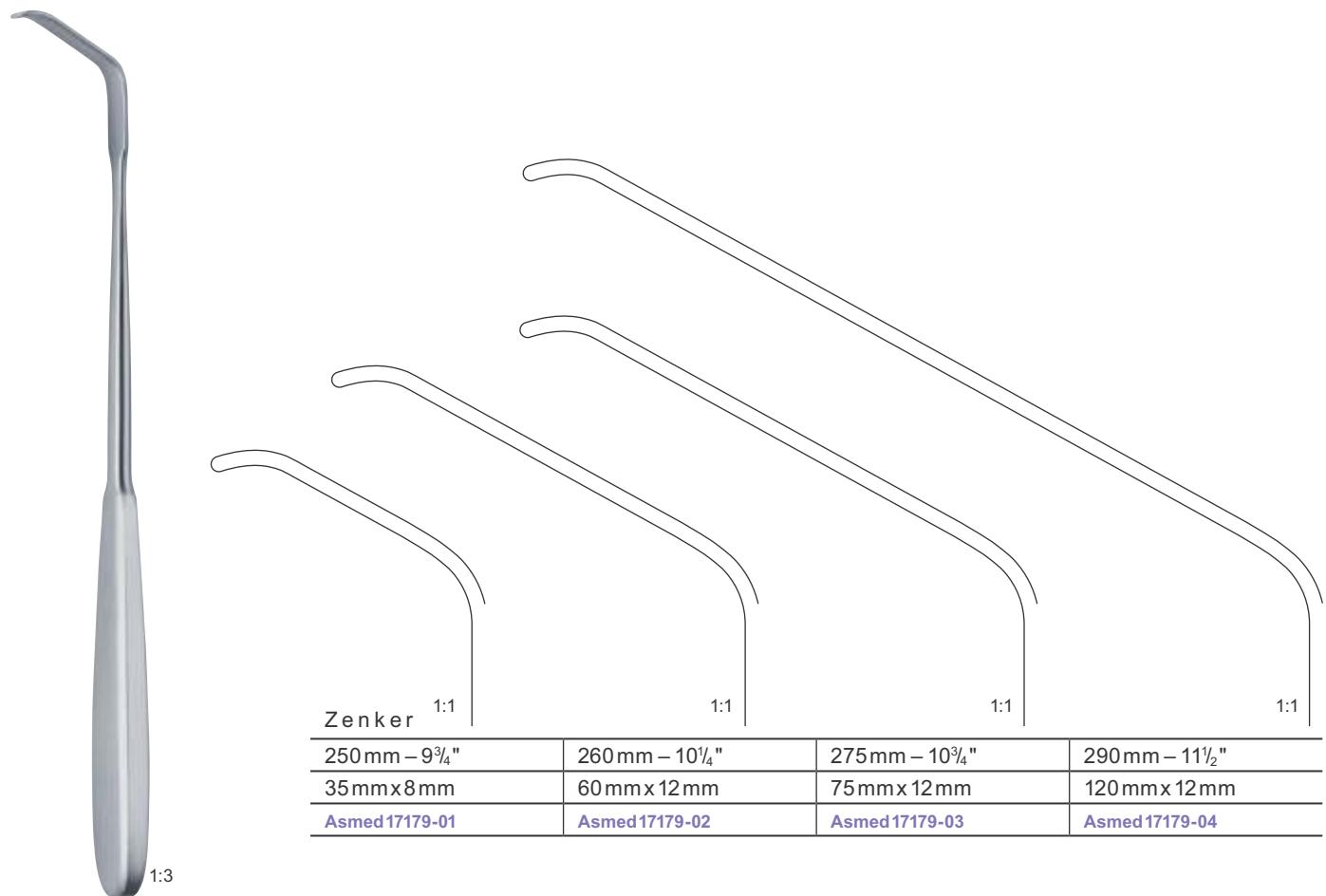
	a=75mm - b=50mm	a=75mm - b=90mm
--	-----------------	-----------------

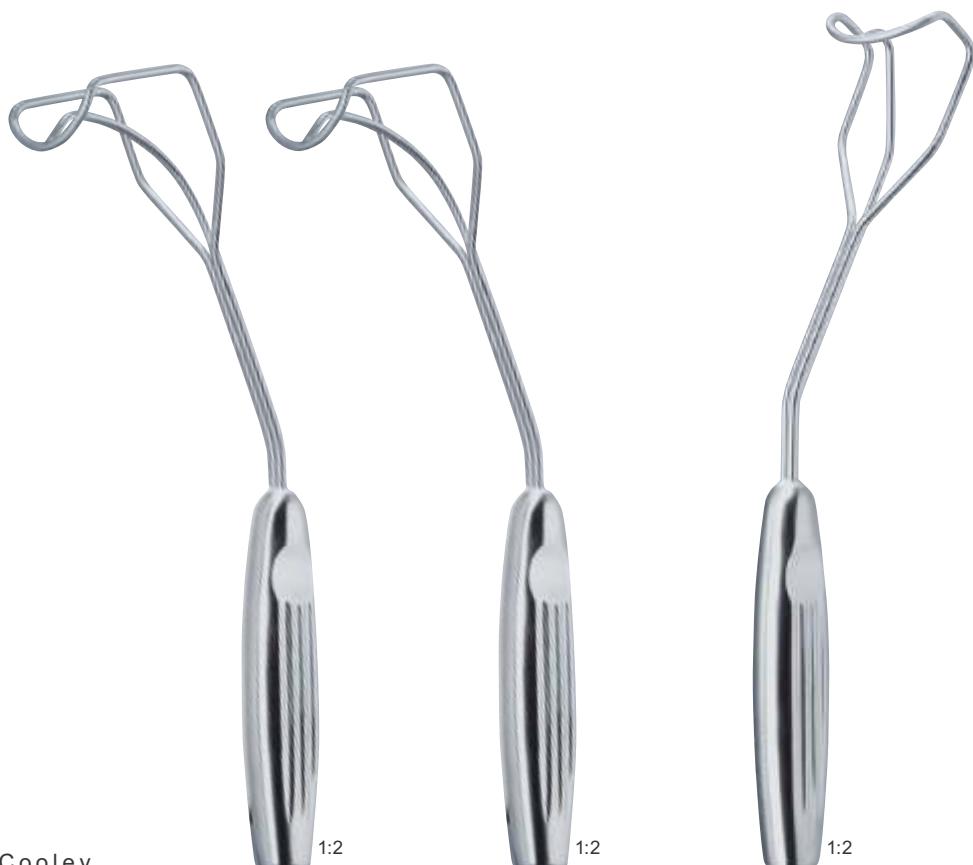
160mm - 6 1/4 "

[Asmed 17176-01](#)[Asmed 17176-02](#)

**Retractors****Surgery****Kelly**

	190 mm x 38 mm	190 mm x 57 mm
270 mm – 10 3/4 "	<a href="#">Asmed 17178-01</a>	<a href="#">Asmed 17178-02</a>

**Retractors****Surgery**

**Retractors****Surgery**

Cooley

1:2

1:2

1:2

250 mm – 9 3/4 "

Asmed 17180-01

right

250 mm – 9 3/4 "

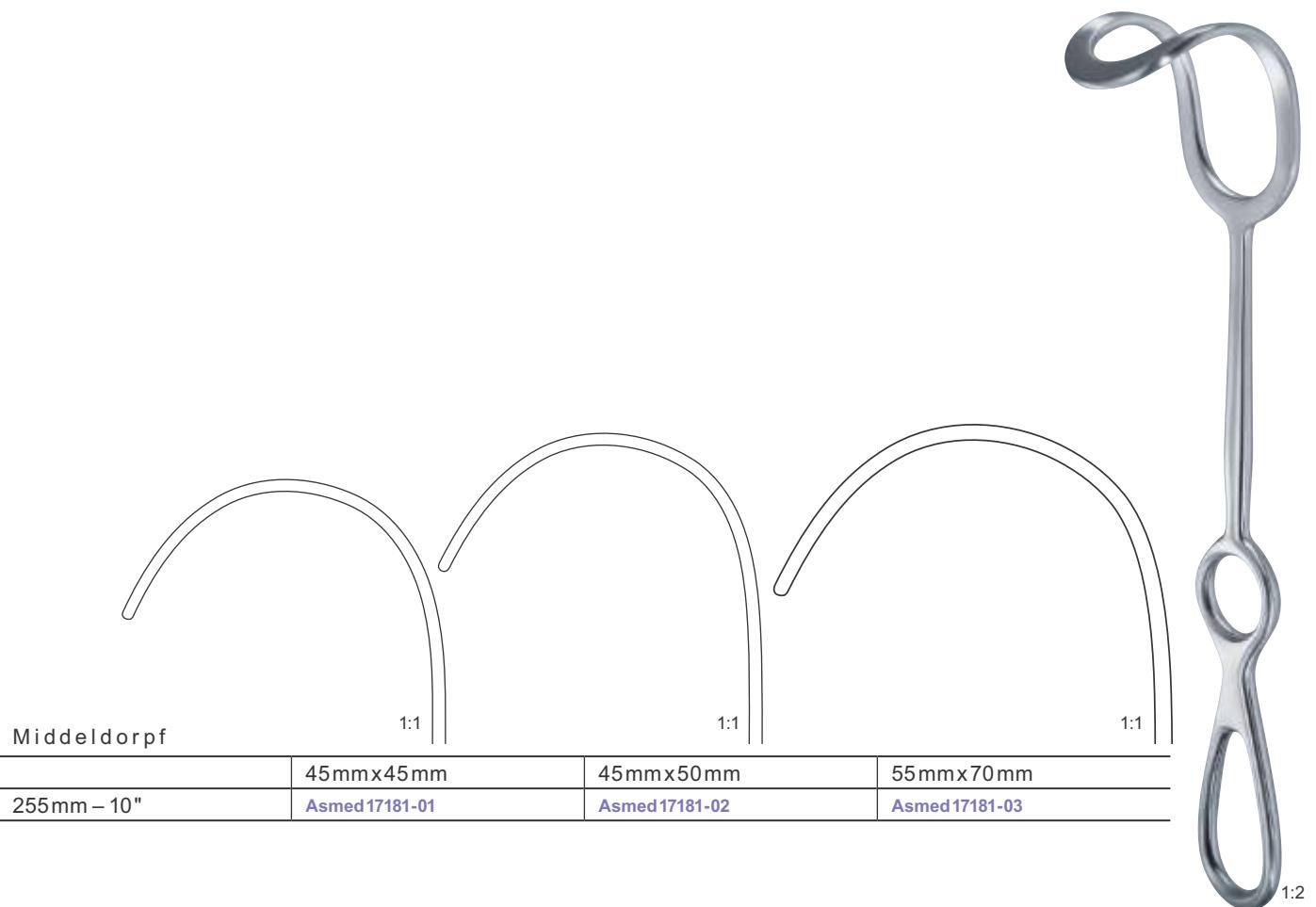
Asmed 17180-02

right, serrated

270 mm – 10 1/2 "

Asmed 17180-03

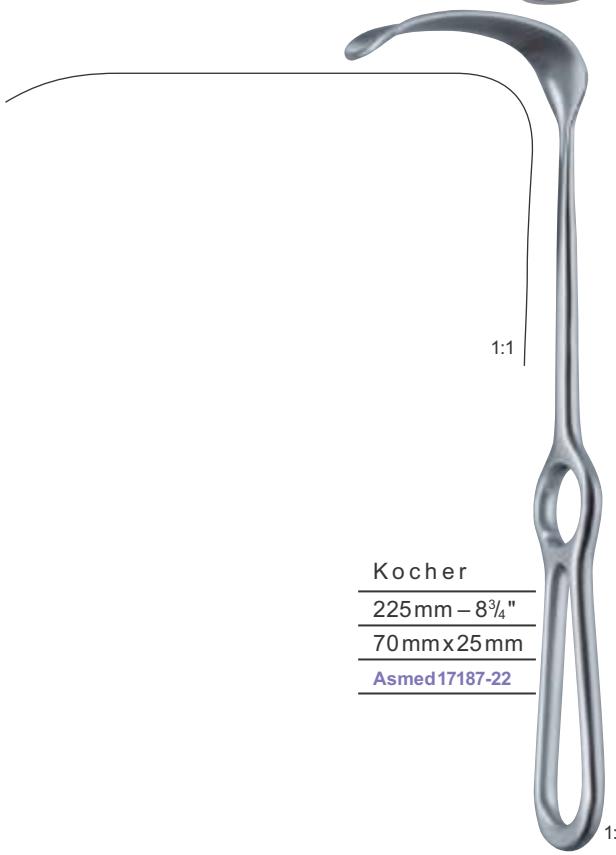
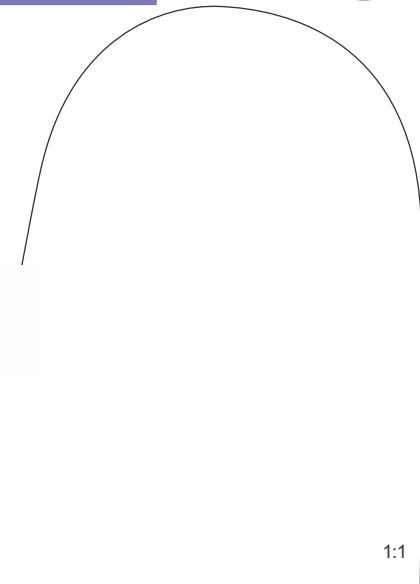
left

**Retractors****Surgery**

**Retractors****Surgery****Doyen**250 mm – 9<sup>3</sup>/<sub>4</sub>"50 mm x 85 mmAsmed 17184-25

1:1

1:2



1:1

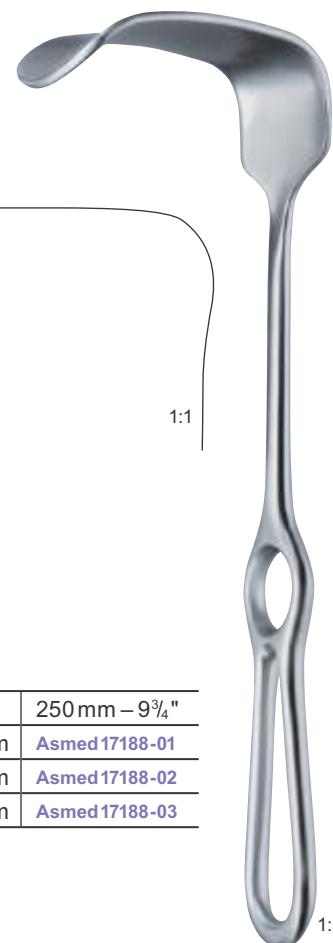
**Kocher**225 mm – 8<sup>3</sup>/<sub>4</sub>"70 mm x 25 mmAsmed 17187-22

1:2

**Kocher**

	250 mm – 9 <sup>3</sup> / <sub>4</sub> "
80 mm x 45 mm	<u>Asmed 17188-01</u>
80 mm x 55 mm	<u>Asmed 17188-02</u>
80 mm x 65 mm	<u>Asmed 17188-03</u>

1:2



**Retractors****Surgery****Tuffier**

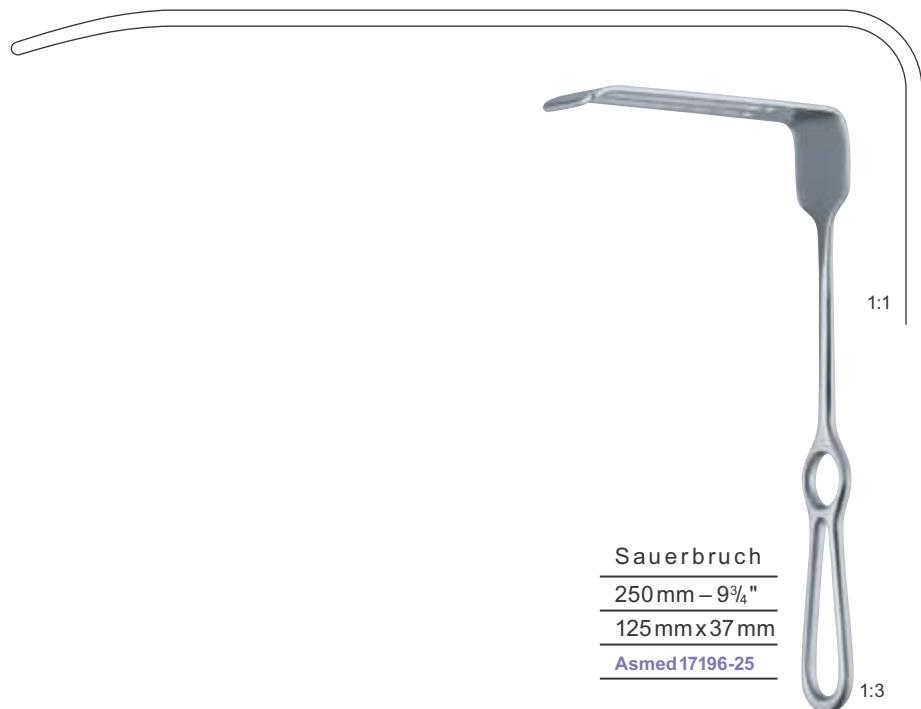
230mm - 9"

64mm x 60mm

Asmed 17189-23**Martin**

250mm - 9¾"

105mm x 27mm

Asmed 17192-25**Sauerbruch**

250mm - 9¾"

125mm x 37mm

Asmed 17196-25

## Retractors

## Surgery

Heaney

1:1

 270mm – 10 $\frac{3}{4}$  "

45mmx25mm

Asmed 17193-01

73mmx28mm

Asmed 17193-02

1:1

1:1

82mmx28mm

Asmed 17193-03

Coryllos

1:1

82mmx22mm

 240mm – 9 $\frac{1}{2}$  "

Asmed 17194-01

1:1

108mmx43mm

Asmed 17194-02

1:2

1:1

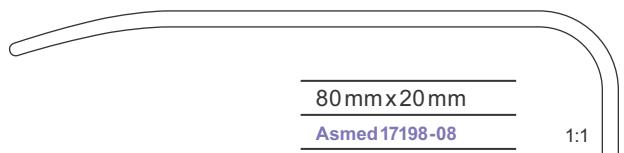
115mmx65mm

Asmed 17194-03

1:2

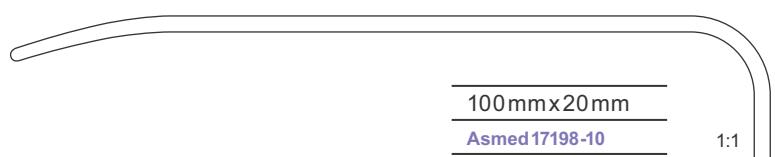
**Retractors****Surgery**

**Brunner**  
250mm - 9 3/4"



80mmx20mm  
Asmed 17198-08

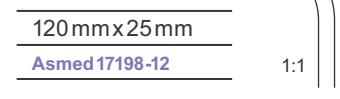
1:1



100mmx20mm  
Asmed 17198-10

1:1

1:2



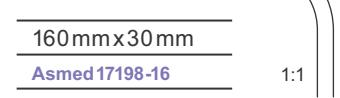
120mmx25mm  
Asmed 17198-12

1:1



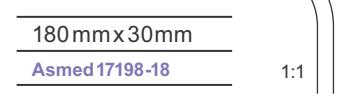
140mmx25mm  
Asmed 17198-14

1:1



160mmx30mm  
Asmed 17198-16

1:1



180mmx30mm  
Asmed 17198-18

1:1

**Retractors****Surgery**

## Retractors

## Surgery



Gil-Vernet



	x=8 mm	x=11 mm	x=15 mm	x=17 mm	x=20 mm	x=23 mm
240 mm – 9½"	<a href="#">Asmed 17203-08</a>	<a href="#">Asmed 17203-11</a>	<a href="#">Asmed 17203-15</a>	<a href="#">Asmed 17203-17</a>	<a href="#">Asmed 17203-20</a>	<a href="#">Asmed 17203-23</a>

malleable

1:2

St. Marks



290 mm – 11½"	325 mm – 12¾"	330 mm – 13"
130 mm x 60 mm	180 mm x 60 mm	180 mm x 60 mm
<a href="#">Asmed 17214-01</a>	<a href="#">Asmed 17214-02</a>	<a href="#">Asmed 17214-03</a>

**Retractors****Surgery**

**Retractors****Surgery**

Deaver	1:2	1:2	1:2
	x=25 mm	x=38 mm	x=50 mm
315 mm - 12 1/2 "	Asmed 17285-25	Asmed 17285-38	Asmed 17285-50

1:3

1:2	1:2
x=75 mm	x=100 mm
Asmed 17285-75	Asmed 17286-10

**Retractors****Surgery**

Deaver

1:2

1:2

1:2

180mm - 7"

215mm - 8½"

230mm - 9"

x=19mm

x=22mm

x=25mm

Asmed 17219-18

Asmed 17222-21

Asmed 17225-23

**Retractors****Surgery**

300 mm – 12"	330 mm – 13"	360 mm – 14 $\frac{1}{4}$ "
x=25 mm	x=25 mm	x=25 mm
Asmed 17225-30	Asmed 17225-33	Asmed 17225-36

**Retractors****Surgery**

## Retractors

## Surgery



1:2

Roux

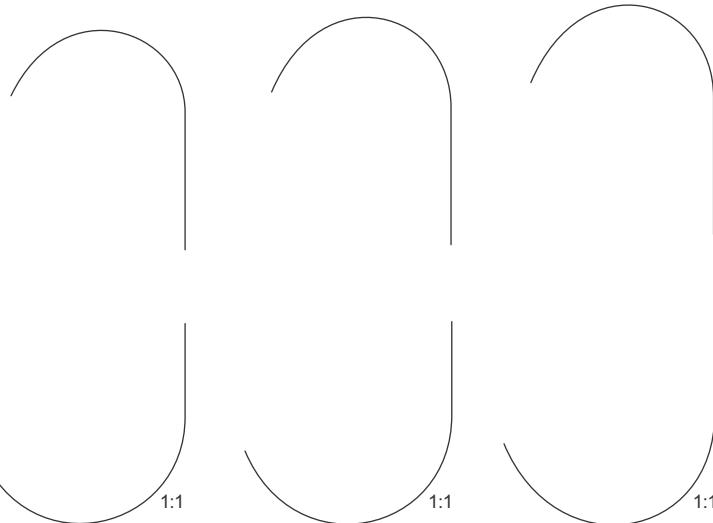


	Fig. 1	Fig. 2	Fig. 3
	140 mm – 5½"	150 mm – 6"	170 mm – 6¾"
	24 mm x 20 mm	29 mm x 26 mm	33 mm x 29 mm
	30 mm x 28 mm	36 mm x 36 mm	38 mm x 43 mm
	<a href="#">Asmed 17301-14</a>	<a href="#">Asmed 17302-15</a>	<a href="#">Asmed 17303-17</a>
<a href="#">Asmed 17300-00</a>	X	X	X

Set



1:2

Parker

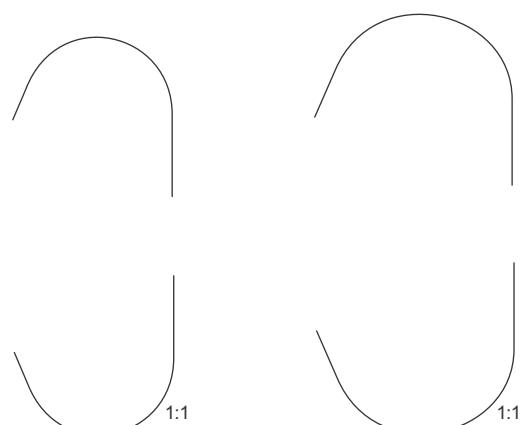


	Fig. 1	Fig. 2
	135 mm – 5¼"	135 mm – 5½"
	18 mm x 15 mm	22 mm x 15 mm
<a href="#">Asmed 17305-00</a>	X	X

Set

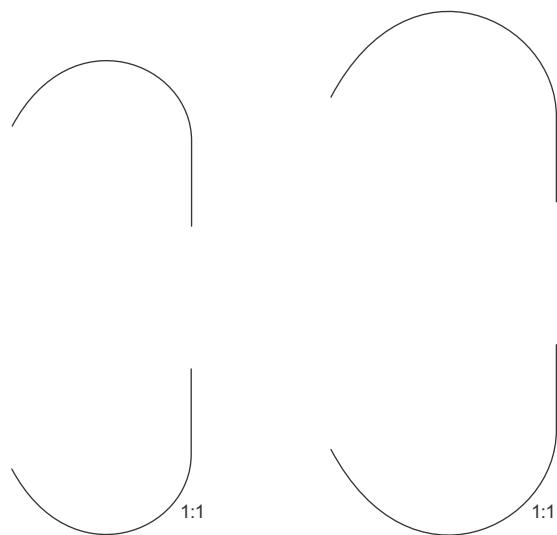
## Retractors

## Surgery



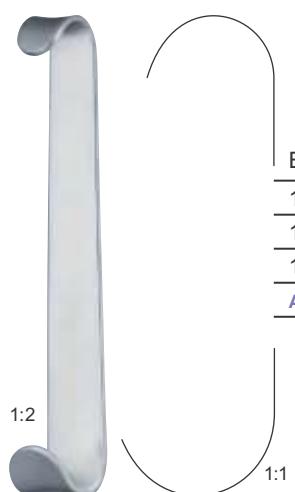
Parker

180mm - 7"	Fig.1	Fig.2
	26mmx25mm	29mmx25mm
	27mmx25mm	27mmx25mm
<b>Asmed 17305-18</b>	x	x
<b>Set</b>		



Mini-Roux

145mm - 5 <sup>3</sup> / <sub>4</sub> "
8mmx6mm
<b>Asmed 17306-01</b>



Baby-Roux

130mm - 5"
17mmx16mm
18mmx22mm
<b>Asmed 17306-02</b>

## Retractors

## Surgery



1:2

Mayo-Collin

150mm - 6"	Fig. 1	Fig. 2
	25mmx18mm	28mmx19mm
	28mmx18mm	32mmx19mm
<b>Asmed 17307-00</b>	x	x
<b>Set</b>		



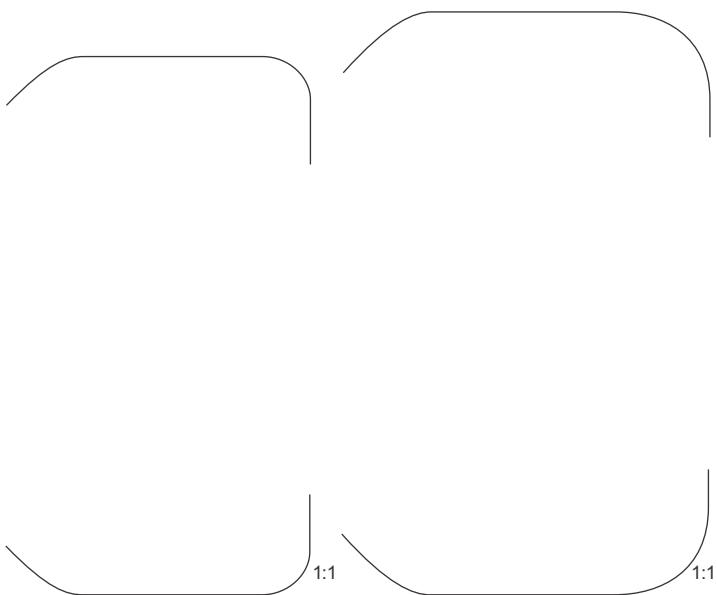
1:2

 Parker-Langenbeck  
(US Army)

210mm - 8 $\frac{1}{4}$ "	Fig. 1	Fig. 2
	21mmx24mm	25mmx24mm
	40mmx15mm	45mmx15mm
<b>Asmed 17309-00</b>	x	x
<b>Set</b>		

**Retractors****Surgery****Mathieu**

200mm-8"	Fig.1	Fig.2
42mmx13mm		47mmx13mm
42mmx26mm		46mmx26mm
<b>Asmed17310-00</b>	<b>x</b>	<b>x</b>

**Set**

**Retractors****Surgery****Farabeuf**

120 mm - 4 3/4 "	Fig. 1	Fig. 2
	26 mm x 10 mm	30 mm x 10 mm
	30 mm x 12 mm	34 mm x 12 mm
<b>Asmed 17311-12</b>	x	x
<b>Set</b>		

1:2



1:1

1:1

**Farabeuf**

150 mm - 6 "	Fig. 1	Fig. 2
	23 mm x 16 mm	27 mm x 16 mm
	26 mm x 16 mm	30 mm x 16 mm
<b>Asmed 17312-15</b>	x	x
<b>Set</b>		

1:2



1:1

1:1

## Self-retaining retractors

## Surgery



Alm

70 mm - 2 3/4 "	Asmed 17330-07	Asmed 17330-17	Asmed 17331-07
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100 mm - 4 "	Asmed 17330-10	Asmed 17330-20	Asmed 17331-10
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*sharp*
*semi sharp*
*blunt*


Holtzheimer

100 mm - 4 "	Asmed 17336-10	Asmed 17337-10
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<i>sharp</i>	<i>blunt</i>
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1:2

Bose

70 mm - 2 3/4 "

Asmed 17395-07



Jansen

100 mm - 4 "	Asmed 17480-01	Asmed 17480-02
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110 mm - 4 1/4 "		Asmed 17482-11
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<i>sharp</i>
--------------

<i>blunt</i>
--------------

## Self-retaining retractors

## Surgery



Cloward-Contour

140mm - 5½" | Asmed 17406-01 | Asmed 17406-02

 3x4  
sharp

 3x4  
blunt


Wullstein

100mm - 4" | Asmed 17408-01 | Asmed 17408-02

 3x3  
sharp

 3x3  
blunt


Weitlaner-Wullstein

130m - 5" | Asmed 17408-13 | Asmed 17408-14

 3x3  
sharp

 3x3  
blunt


Milligan

130mm - 5" | Asmed 17409-13

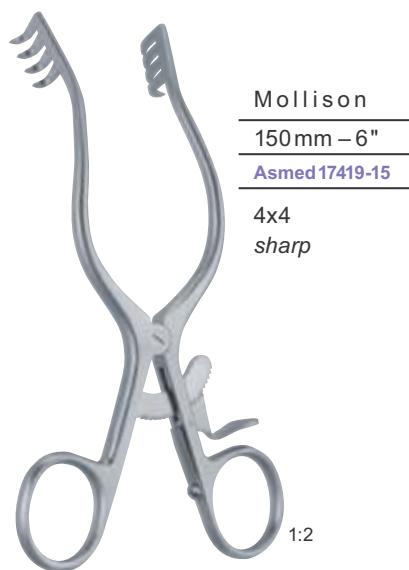
 3x3  
blunt

## Self-retaining retractors

**Surgery**

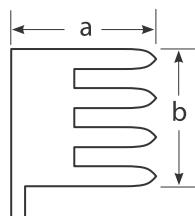
Belucci

110mm - 4 1/4"	<a href="#">Asmed17410-11</a>	<a href="#">Asmed17411-11</a>
130mm - 5"	<a href="#">Asmed17410-13</a>	<a href="#">Asmed17411-13</a>

1x2  
*left, blunt*1x2  
*right, blunt*

## Self-retaining retractors

## Surgery



Weitlaner-Loktite

105 mm - 4 1/4 "	a=17 mm - b=13 mm	Asmed 17400-10	Asmed 17400-20	Asmed 17401-10			
130 mm - 5 "	a=17 mm - b=17 mm				Asmed 17402-13	Asmed 17402-23	Asmed 17403-13
165 mm - 6 1/2 "	a=17 mm - b=17 mm				Asmed 17402-16	Asmed 17402-26	Asmed 17403-16
200 mm - 8 "	a=20 mm - b=19 mm				Asmed 17404-20	Asmed 17404-30	Asmed 17405-20
260 mm - 10 1/4 "	a=26 mm - b=21 mm				Asmed 17404-26	Asmed 17404-36	Asmed 17405-26

2x3  
sharp

2x3  
semi sharp

2x3  
blunt

3x4  
sharp

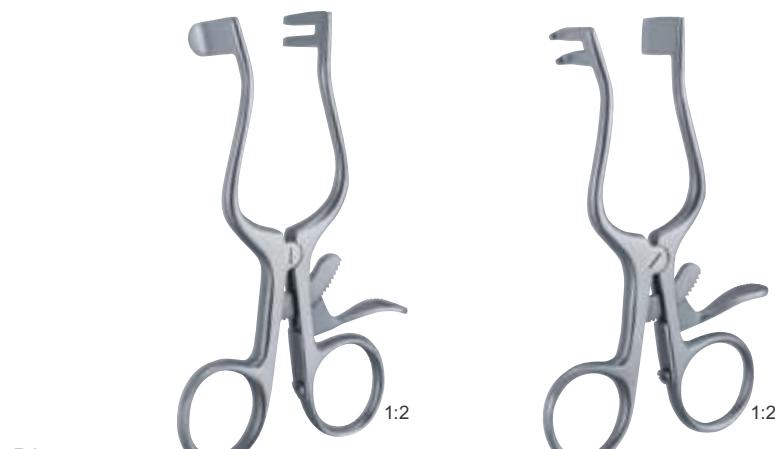
3x4  
semi sharp

3x4  
blunt

**Self-retaining retractors****Surgery**

Plester

130mm - 5"	Asmed 17450-13	Asmed 17451-13
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2x2  
blunt2x2  
sharp

Plester

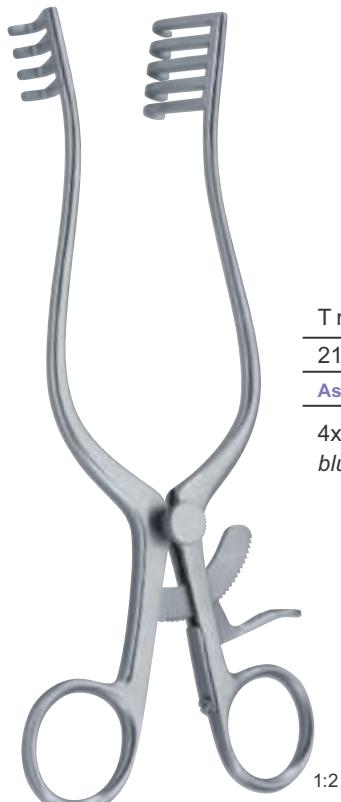
110mm - 4 1/4 "	Asmed 17452-11	Asmed 17453-11
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2x1  
left, blunt1x2  
right, blunt

## Self-retaining retractors

**Surgery**

Norfolk  
and Norwich  
220mm – 8¾"  
Asmed 17413-22  
4x5  
blunt



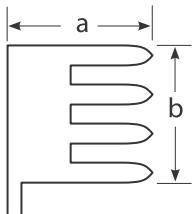
Travers  
215mm – 8½"  
Asmed 17412-20  
4x5  
blunt



Anderson-Adson  
195mm – 7¾"      Asmed 17417-19      Asmed 17418-19  
4x4                    4x4

## Self-retaining retractors

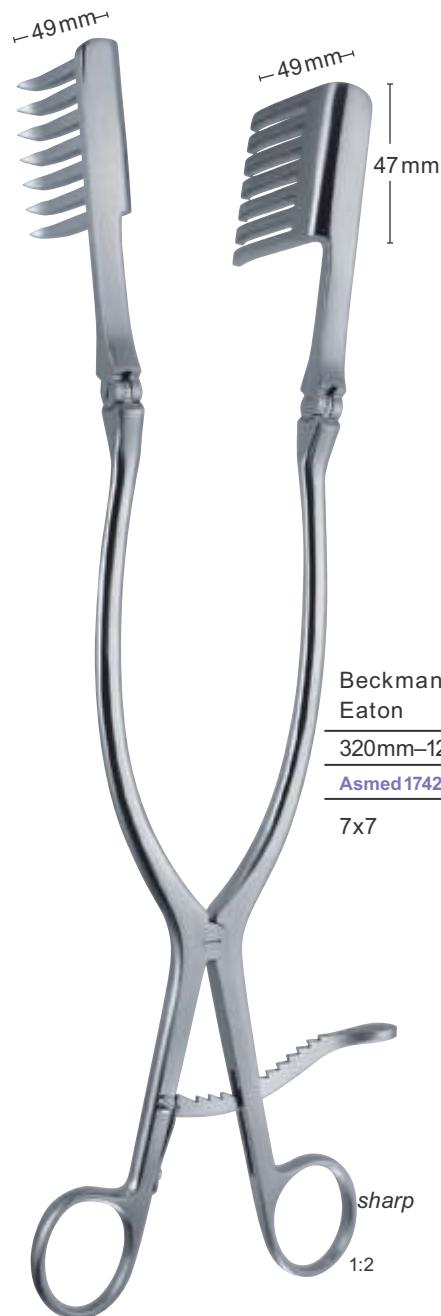
## Surgery



Adson (Cone)

130 mm - 5"	a=17 mm - b=19 mm	<a href="#">Asmed 17423-13</a>	<a href="#">Asmed 17424-13</a>
160 mm - 6 1/4"	a=17 mm - b=19 mm	<a href="#">Asmed 17423-16</a>	<a href="#">Asmed 17424-16</a>
200 mm - 8"	a=20 mm - b=20 mm	<a href="#">Asmed 17423-20</a>	<a href="#">Asmed 17424-20</a>
260 mm - 10 1/4"	a=26 mm - b=21 mm	<a href="#">Asmed 17423-26</a>	<a href="#">Asmed 17424-26</a>

 3x4  
sharp

 3x4  
blunt


Beckmann-Eaton

320mm-12 1/2"

[Asmed 17425-32](#)

7x7

sharp

1:2

## Self-retaining retractors

## Surgery



Beckmann

310mm - 12 1/4"

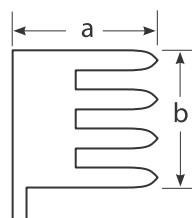
Asmed17427-31

Asmed17427-41

Asmed17428-31

 4x4  
sharp

 4x4  
semi sharp

 4x4  
blunt


Adson

265 mm - 10 1/2" 265 mm - 10 1/2"

3x4 a=24 mm - b=24 mm

Asmed17432-26 Asmed17433-26

6x6 a=40 mm - b=40 mm

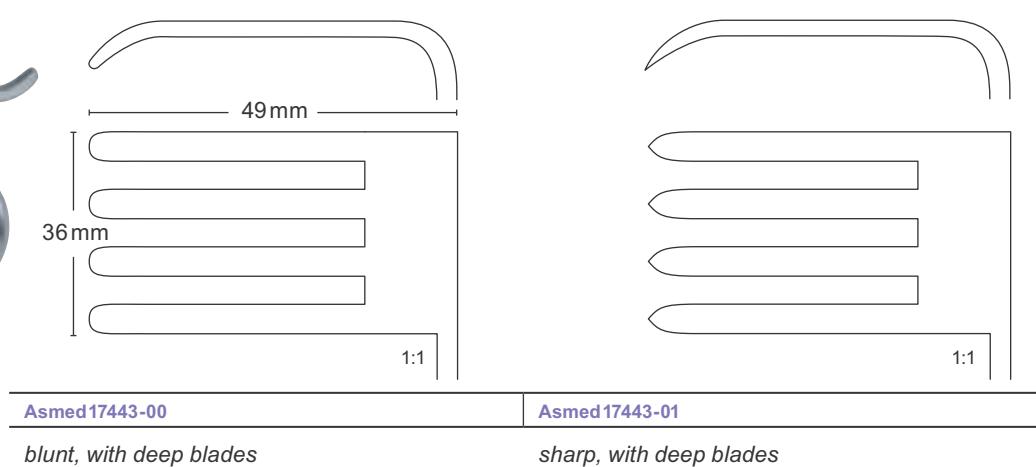
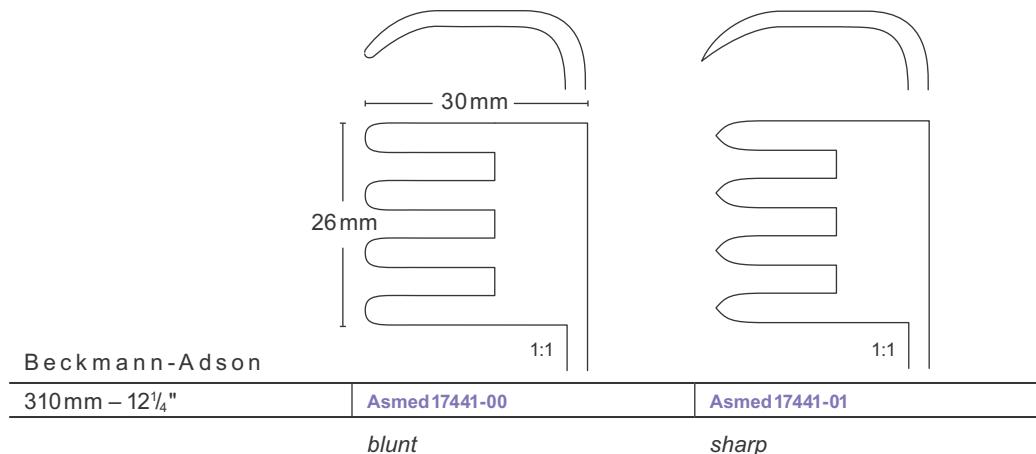
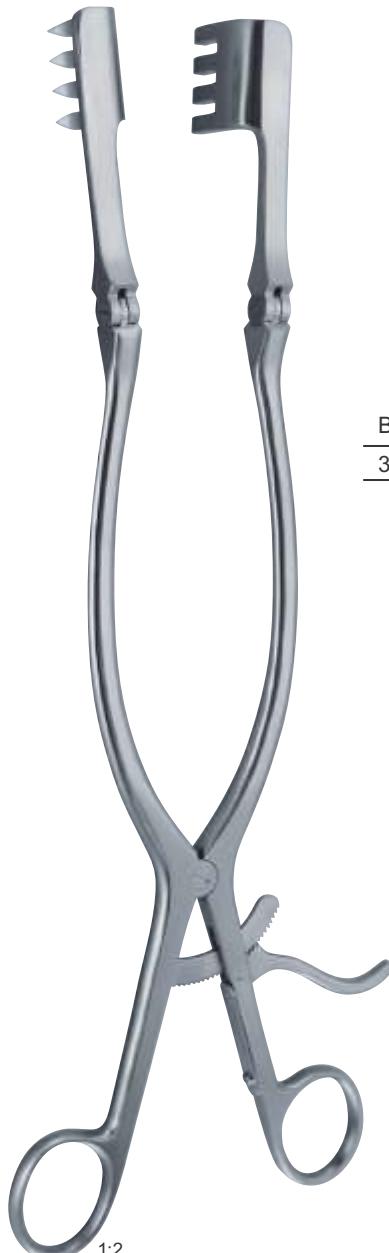
Asmed17438-26 Asmed17439-26

sharp

blunt

## Self-retaining retractors

## Surgery



## Self-retaining retractors

## Surgery

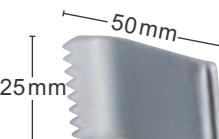


Gelpi-Loktite

90 mm - 3 1/2"	Asmed 17470-09	
110 mm - 4 1/4"	Asmed 17470-11	
130 mm - 5"	Asmed 17470-13	
180 mm - 7"	Asmed 17470-18	Asmed 17471-18



1:2



Markham-Meyerding

180 mm - 7"	Asmed 17476-18	Asmed 17477-18
	right	left



Rigby

 180 mm - 7"  
 Asmed 17490-18

**Self-retaining retractors****Surgery****Henley**

165 mm - 6½"	<b>Asmed 17414-01</b>	<b>Asmed 17414-02</b>
3x4 <i>sharp</i>	3x4 <i>blunt</i>	



19mm x 16 mm	25mm x 16 mm	32mm x 16 mm
<b>Asmed 17472-19</b>	<b>Asmed 17472-25</b>	<b>Asmed 17472-32</b>

*Center blades*

## Abdominal retractors

## Surgery



Baby-Collin

180 mm - 7"		
x=80 mm		
Asmed 17500-00	40mmx18mm	40mmx27mm

complete with 2 pairs of blades



Collin

220 mm - 8 3/4"	
x=100 mm	
Asmed 17500-22	



Collin

225 mm - 8 3/4"		
x=100 mm		
Asmed 17501-22	a=38mm - b=60mm	a=38mm - b=55mm
Asmed 17502-22	a=38mm - b=80mm	a=50mm - b=75mm
Asmed 17503-22	a=37mm - b=98mm	a=53mm - b=76mm

complete with

Lateral blades

Center blade

## Abdominal retractors

## Surgery



**Collin**

260 mm - 10 1/4 "		
<b>x=100 mm</b>		
<b>Asmed 17504-00</b>	60 mm x 80 mm	60 mm x 75 mm

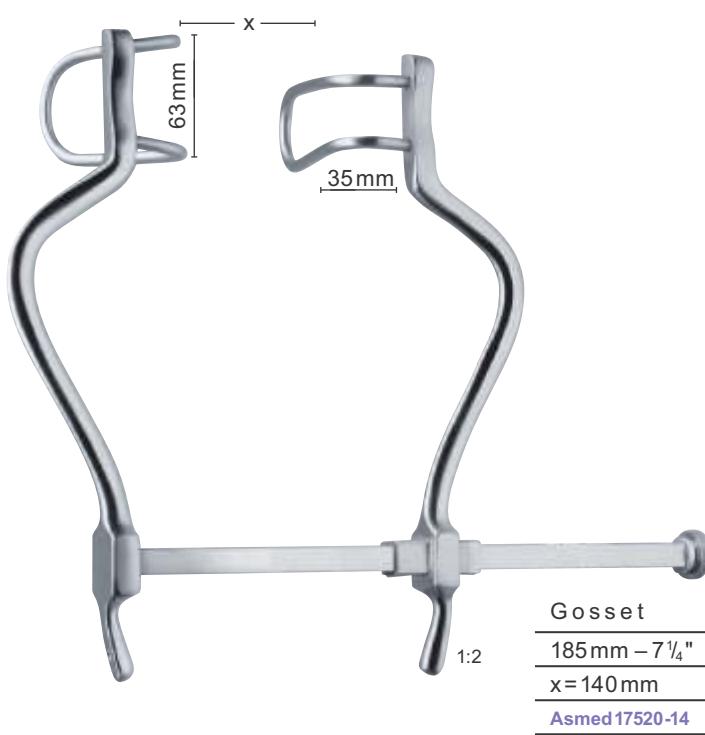
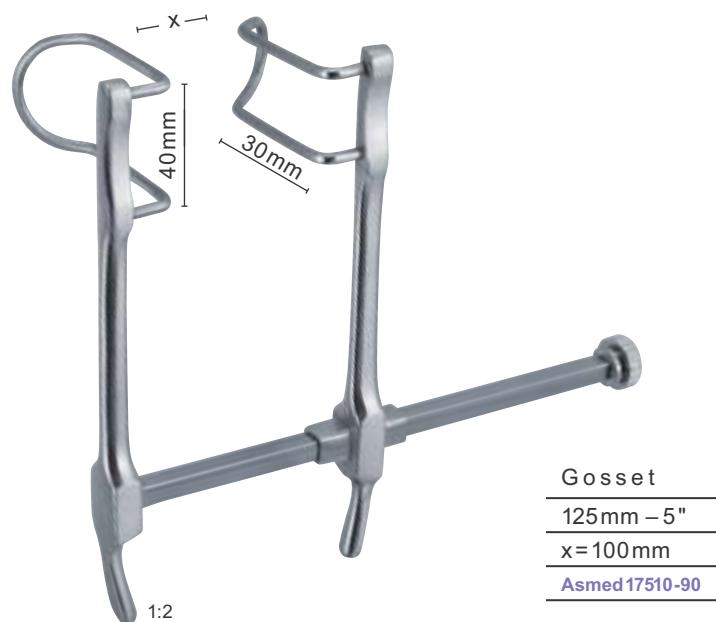
complete with      *Lateral blades*      *Center blade*



**Holzbach**

260 mm - 10 1/4 "		
<b>x=100 mm</b>		
<b>Asmed 17507-00</b>	62 mm x 80 mm	80 mm x 80 mm

complete with      *Lateral blades*      *Center blade*

**Abdominal retractors****Surgery**

## Abdominal retractors

## Surgery



Gosset

$x = 160\text{mm}$		
<b>Asmed 17530-16</b>	35mmx63mm	65mmx70mm

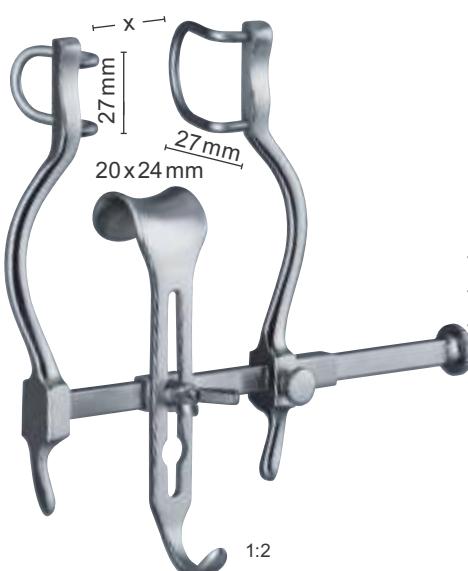
complete with      Lateral blades      Center blade



Balfour

$x = 200\text{mm}$		
<b>Asmed 17540-20</b>	35mmx100mm	70mmx100mm

complete with      Lateral blades      Center blade



Balfour-Baby

$x = 90\text{mm}$		
<b>Asmed 17550-09</b>	27mmx27mm	20mmx24mm

complete with      Lateral blades      Center blade

## Abdominal retractors

## Surgery



**Balfour**

<b>x=180mm</b>		
<b>Asmed17570-18</b>	35mmx70mm	45mmx80mm

complete with    *Lateral blades*    *Center blade*

<b>x=250 mm</b>		
<b>Asmed17560-25</b>	35mmx100mm	70mmx85mm

complete with    *Lateral blades*    *Center blade*

<b>45mmx80 mm</b>	<b>Asmed17571-80</b>
<b>70mmx85 mm</b>	<b>Asmed17572-85</b>
<b>80mmx90 mm</b>	<b>Asmed17573-90</b>

*Center blades, only*

**Abdominal retractors****Surgery**

Asmed 17618-00	60mmx80mm	55mmx70mm
complete with	Lateral blades	Center blade



Asmed 17610-00	45mmx90mm	70mmx100mm
complete with	Lateral blades	Center blades

Asmed 17620-00	70mmx85mm	80mmx90mm
complete with	Lateral blades	Center blade

## Abdominal retractors

## Surgery



Kirschner, oval

	240mmx300mm	50mmx65mm	80mmx90mm	50mmx98mm	35mmx105mm
	<b>Asmed 17625-01</b>	<b>Asmed 17640-02</b>	<b>Asmed 17640-06</b>	<b>Asmed 17640-07</b>	<b>Asmed 17640-08</b>

1 Frame

3 Blades

1 Blade

1 Blade

1 Blade

Asmed 17625-00

x

x

x

x

x

Set

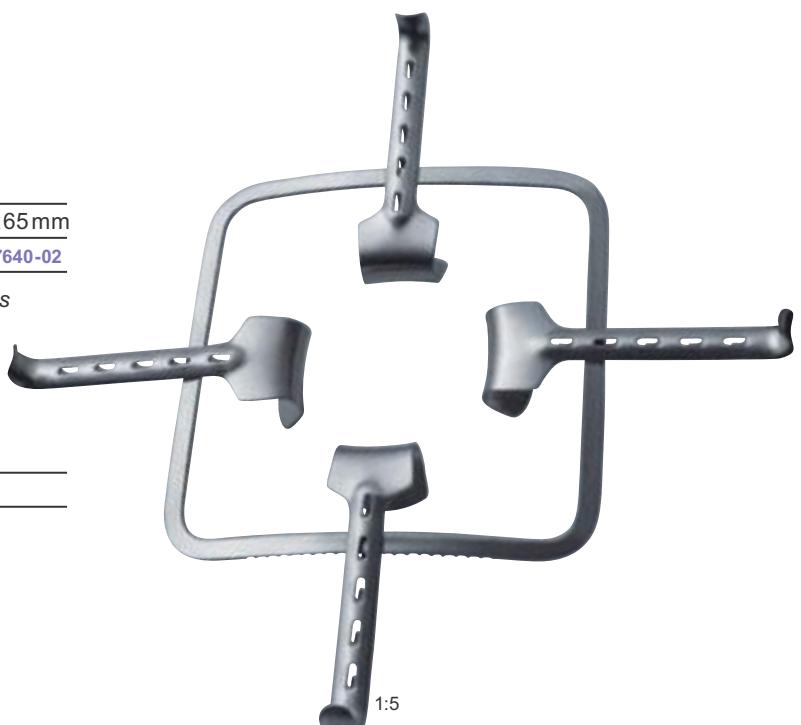
Kirschner

	240mmx240mm	40mmx55mm	50mmx65mm
	<b>Asmed 17630-01</b>	<b>Asmed 17640-01</b>	<b>Asmed 17640-02</b>

1 Frame, rigid

2 Blades

2 Blades



Asmed 17630-00

x

x

x

Set

## Abdominal retractors

## Surgery



Franz

	300mmx300mm	40mmx60mm	45mmx80mm	50mmx65mm	60mmx85mm
	<b>Asmed 17645-01</b>	<b>Asmed 17632-06</b>	<b>Asmed 17632-08</b>	<b>Asmed 17640-02</b>	<b>Asmed 17640-03</b>

1 Frame, foldable

2 Blades

2 Blades

2 Blades

2 Blades

<b>Asmed 17645-00</b>	x	x		x	
<b>Asmed 17650-00</b>	x	x	x	x	x

Set



Frame foldable

## Abdominal retractors

## Surgery



Blades for Kirschner- and Franz-frames

 1:3	 1:3	 1:3	 1:3
40mm x 60mm <a href="#">Asmed 17632-06</a>	45mm x 80mm <a href="#">Asmed 17632-08</a>	40mm x 55mm <a href="#">Asmed 17640-01</a>	50mm x 65mm <a href="#">Asmed 17640-02</a>

 1:3	 1:3	 1:3	 1:3
60mm x 85mm <a href="#">Asmed 17640-03</a>	80mm x 90mm <a href="#">Asmed 17640-06</a>	50mm x 98mm <a href="#">Asmed 17640-07</a>	35mm x 105mm <a href="#">Asmed 17640-08</a>

## Abdominal spatulas

## Surgery



	30 mm	40 mm	50 mm
330mm - 13"	<a href="#">Asmed 17882-30</a>	<a href="#">Asmed 17882-40</a>	<a href="#">Asmed 17882-50</a>

*malleable*

## Martin

200mm - 8"	200mm - 8"	250mm - 9 3/4"
12 mm	17 mm	25 mm
<a href="#">Asmed 17884-12</a>	<a href="#">Asmed 17884-17</a>	<a href="#">Asmed 17884-25</a>

*soft*

	6,5 mm	9,5 mm	13 mm	16 mm	19 mm	25 mm
200mm - 8"	<a href="#">Asmed 17880-06</a>	<a href="#">Asmed 17880-09</a>	<a href="#">Asmed 17880-13</a>	<a href="#">Asmed 17880-16</a>	<a href="#">Asmed 17880-19</a>	<a href="#">Asmed 17880-25</a>

*malleable, very soft*

## Abdominal spatulas

## Surgery



Haberer

200mm - 8"	280mm - 11"	300mm - 12"
17mm/25mm	25mm/30mm	37mm/45mm
Asmed 17886-25	Asmed 17886-30	Asmed 17886-45

malleable



Reverdin

280mm - 11"
46mmx60mm
Asmed 17887-28

## Retractors

## Surgery

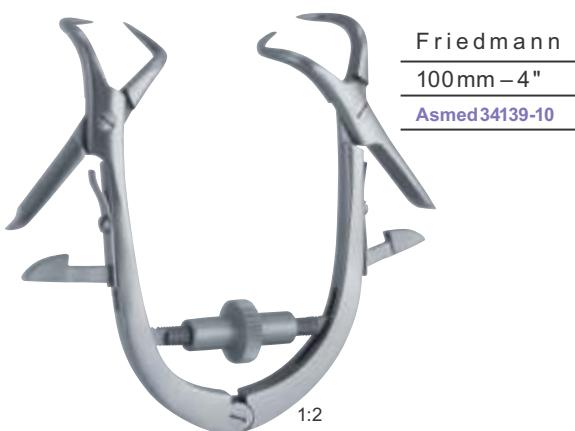


O'Sullivan-O'Connor



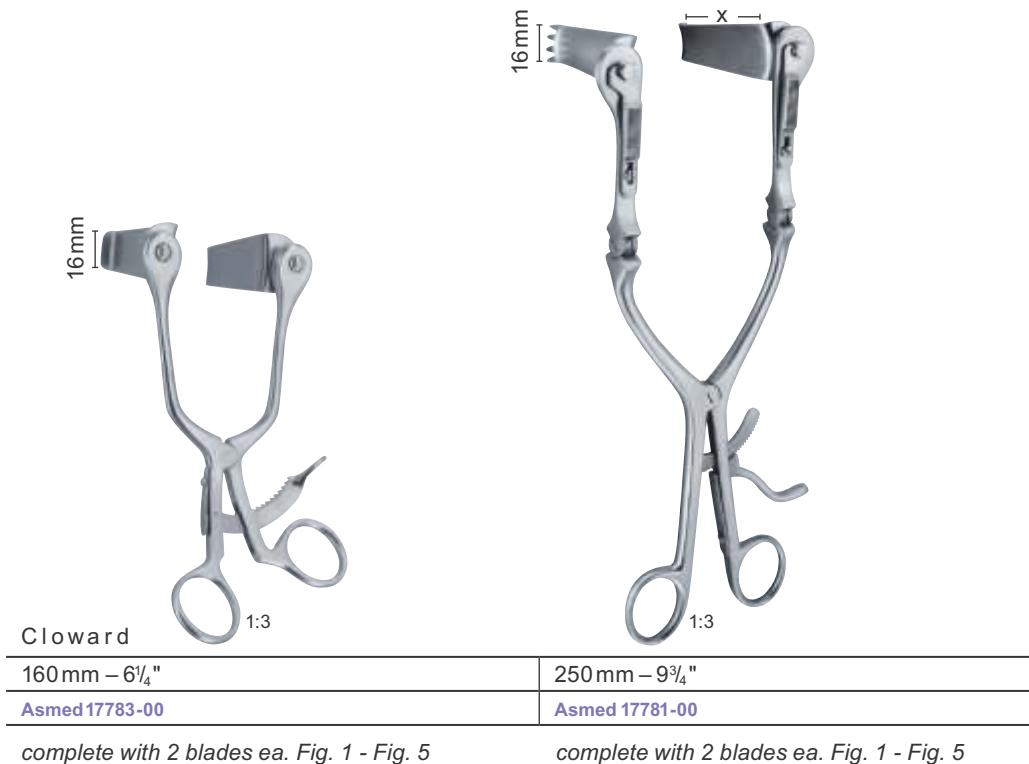
	Fig. 1	Fig. 2	Fig. 3
	45mmx17mm	90mmx37mm	90mmx45mm
	Asmed34138-03	Asmed34138-04	Asmed34138-05
Asmed34138-00	x	x	x

complete



## Laminectomy retractors

## Surgery

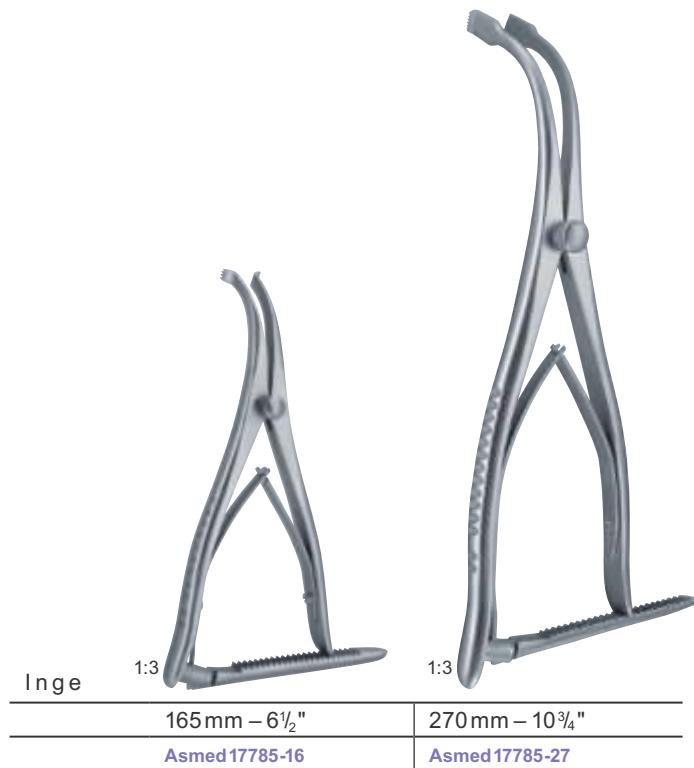


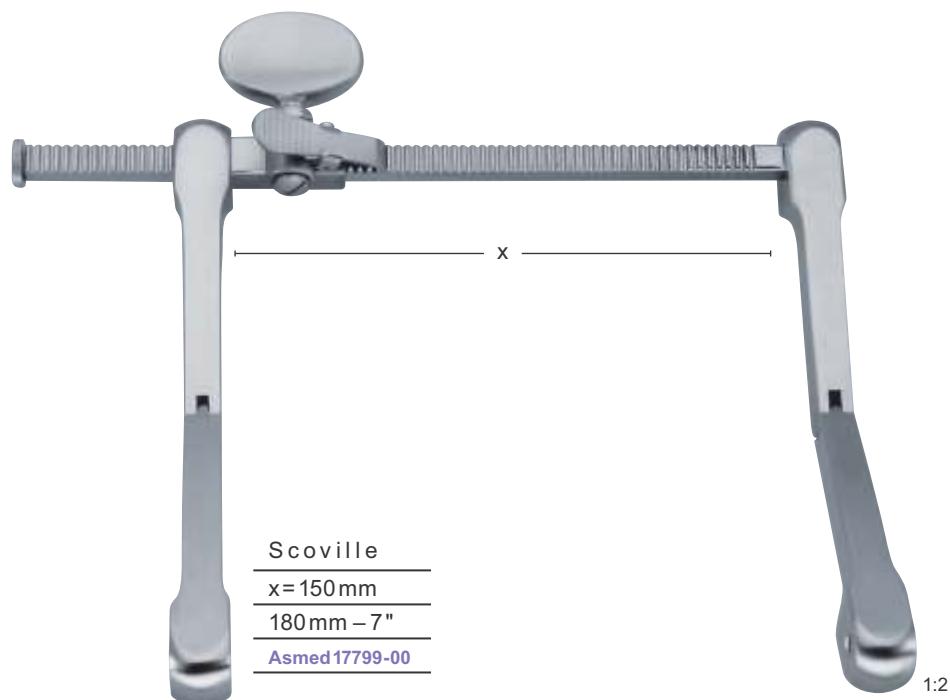
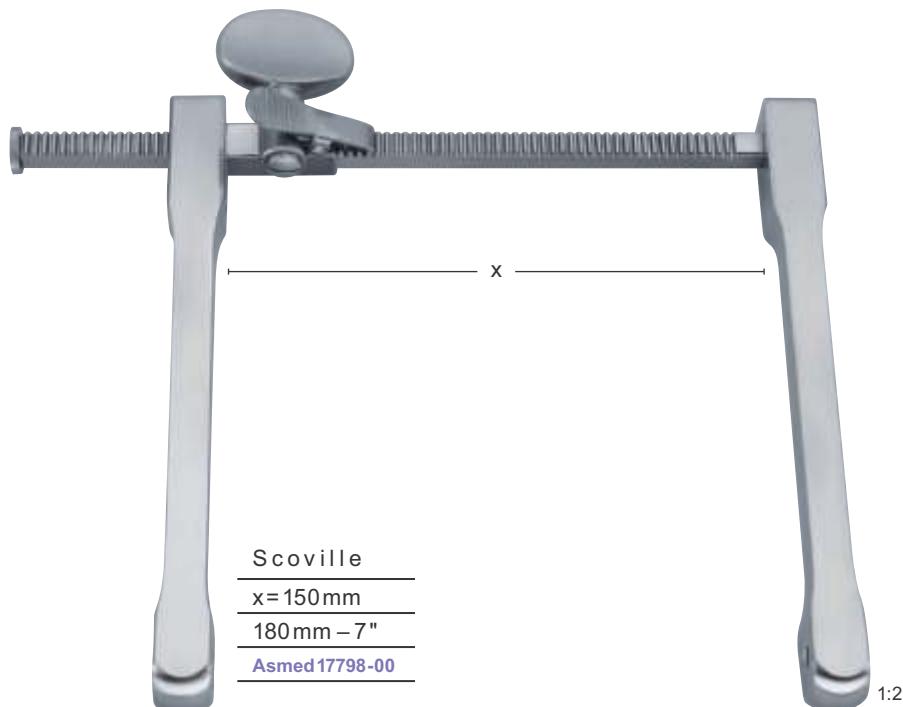
Asmed 17782-00	Asmed 17780-00
Retractor without blades	Retractor without blades

	1:3		1:3		
Fig. 1	x=60mm	Asmed 17783-01	Fig. 1	x=60mm	Asmed 17781-01
Fig. 2	x=55mm	Asmed 17783-02	Fig. 2	x=55mm	Asmed 17781-02
Fig. 3	x=50mm	Asmed 17783-03	Fig. 3	x=50mm	Asmed 17781-03
Fig. 4	x=45mm	Asmed 17783-04	Fig. 4	x=45mm	Asmed 17781-04
Fig. 5	x=40mm	Asmed 17783-05	Fig. 5	x=40mm	Asmed 17781-05

blunt

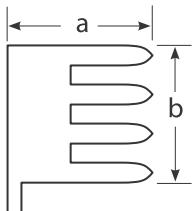
toothed

**Laminectomy retractors****Surgery**

Laminectomy retractors**Surgery**

## Laminectomy retractors

## Surgery



Scoville

50mm - 2"	<a href="#">Asmed17800-05</a>	<a href="#">Asmed17801-05</a>
70mm - 2 3/4"	<a href="#">Asmed17800-07</a>	<a href="#">Asmed17801-07</a>

blunt

sharp



Taylor

$a=48\text{ mm} - b=50\text{ mm} - 2'' \times 2''$	<a href="#">Asmed17802-05</a>
$a=63\text{ mm} - b=50\text{ mm} - 2\frac{1}{2}'' \times 2''$	<a href="#">Asmed17802-06</a>
$a=64\text{ mm} - b=64\text{ mm} - 3\frac{1}{4}'' \times 2\frac{1}{4}''$	<a href="#">Asmed17802-08</a>



Scoville

$a=40\text{ mm} - b=37\text{ mm} - 1\frac{1}{2}'' \times 1\frac{1}{2}''$	<a href="#">Asmed17803-04</a>
$a=65\text{ mm} - b=44\text{ mm} - 2\frac{1}{2}'' \times 1\frac{3}{4}''$	<a href="#">Asmed17803-06</a>

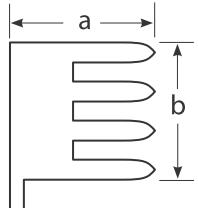


Taylor

$a=100\text{ mm} - b=42\text{ mm} - 4'' \times 1\frac{6}{8}''$	<a href="#">Asmed17804-02</a>
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## Laminectomy retractors

## Surgery



Meyerding

a=57mm - b=25mm - 2 $\frac{1}{4}$ "x1"	<a href="#">Asmed17805-01</a>
a=76mm - b=25mm - 3 $\frac{1}{2}$ "x1"	<a href="#">Asmed17805-02</a>
a=88mm - b=51mm - 3 $\frac{1}{2}$ "x2"	<a href="#">Asmed17805-03</a>



Scoville

a=57mm - b=25mm - 2 $\frac{1}{4}$ "x1"	<a href="#">Asmed17806-01</a>
a=57mm - b=38mm - 2 $\frac{1}{4}$ "x1 $\frac{1}{2}$ "	<a href="#">Asmed17806-02</a>
a=64mm - b=50mm - 2 $\frac{1}{2}$ "x2"	<a href="#">Asmed17806-03</a>
a=75mm - b=25mm - 3"x1"	<a href="#">Asmed17806-04</a>



Epstein

a=56mm - b=25mm - 2 $\frac{1}{4}$ "x1"	<a href="#">Asmed17807-01</a>
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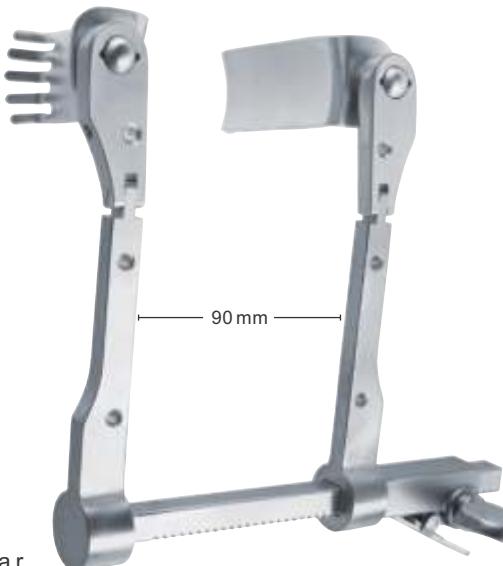


Hibbs

a= 50mm - b=20mm - 2"x $\frac{3}{4}$ "	<a href="#">Asmed17808-01</a>
a= 50mm - b=25mm - 2"x1"	<a href="#">Asmed17808-02</a>
a= 50mm - b=50mm - 2"x2"	<a href="#">Asmed17808-03</a>
a= 63mm - b=25mm - 2 $\frac{1}{2}$ "x1"	<a href="#">Asmed17808-04</a>
a= 63mm - b=37mm - 2 $\frac{1}{2}$ "x1 $\frac{1}{2}$ "	<a href="#">Asmed17808-05</a>
a= 76mm - b=25mm - 3"x1"	<a href="#">Asmed17808-06</a>
a= 76mm - b=38mm - 3"x1 $\frac{1}{2}$ "	<a href="#">Asmed17808-07</a>
a= 76mm - b=50mm - 3"x2"	<a href="#">Asmed17808-08</a>
a= 76mm - b=63mm - 3"x2 $\frac{1}{2}$ "	<a href="#">Asmed17808-09</a>
a= 90mm - b=25mm - 3 $\frac{1}{2}$ "x1"	<a href="#">Asmed17808-10</a>
a= 90mm - b=37mm - 3 $\frac{1}{2}$ "x1 $\frac{1}{2}$ "	<a href="#">Asmed17808-11</a>
a= 102mm - b=25mm - 4"x1"	<a href="#">Asmed17808-12</a>
a= 102mm - b=50mm - 4"x2"	<a href="#">Asmed17808-13</a>

## Laminectomy retractors

## Surgery



Caspar

Asmed 17829-00



Asmed 17823-00

complete with 5 medial blades Asmed 17826-01 - Asmed 17826-05 complete with 5 blades Asmed 17824-01 - Asmed 17824-05

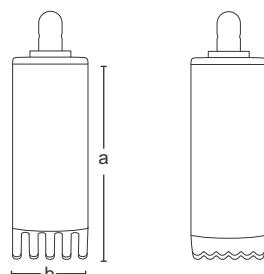
e con 5 valve laterali Asmed 17827-01 - Asmed 17827-05

Asmed 17829-01

Retractor without blades

Asmed 17823-01

Retractor without blades



Caspar

	medial	lateral
a= 40mm - b=23mm	Asmed 17826-01	Asmed 17827-01
a= 45mm - b=23mm	Asmed 17826-02	Asmed 17827-02
a= 50mm - b=23mm	Asmed 17826-03	Asmed 17827-03
a= 55mm - b=23mm	Asmed 17826-04	Asmed 17827-04
a= 60mm - b=23mm	Asmed 17826-05	Asmed 17827-05

Caspar

a= 45mm - b=23mm	Asmed 17824-01
a= 50mm - b=23mm	Asmed 17824-02
a= 55mm - b=23mm	Asmed 17824-03
a= 60mm - b=23mm	Asmed 17824-04
a= 65mm - b=23mm	Asmed 17824-05

blunt

**Laminectomy retractors****Surgery**

Caspar

Asmed 17828-00



Asmed 17830-00

complete with 6 blades Asmed 17831-01 and Asmed 17832-02 - 06 complete with 5 blades Asmed 17824-01 - Asmed 17824-05

Asmed 17828-10

Retractor without blades

Asmed 17823-01

Retractor only, with key

Asmed 17830-02

Key



## Laminectomy retractors

## Surgery



Caspar

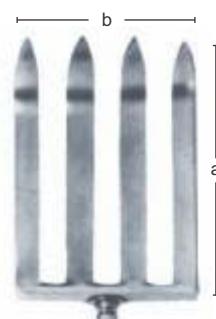
38mm	58mm
Asmed 17831-01	Asmed 17831-02



a= 35 mm - b=22 mm	Asmed 17832-01
a= 40 mm - b=22 mm	Asmed 17832-02
a= 45 mm - b=22 mm	Asmed 17832-03
a= 50 mm - b=22 mm	Asmed 17832-04
a= 55 mm - b=22 mm	Asmed 17832-05
a= 60 mm - b=22 mm	Asmed 17832-06
a= 65 mm - b=22 mm	Asmed 17832-07
a= 70 mm - b=22 mm	Asmed 17832-08



a= 35 mm - b=37 mm	Asmed 17833-01
a= 40 mm - b=37 mm	Asmed 17833-02
a= 45 mm - b=37 mm	Asmed 17833-03
a= 50 mm - b=37 mm	Asmed 17833-04
a= 55 mm - b=37 mm	Asmed 17833-05
a= 60 mm - b=37 mm	Asmed 17833-06
a= 65 mm - b=37 mm	Asmed 17833-07
a= 70 mm - b=37 mm	Asmed 17833-08



a= 35 mm - b=52 mm	Asmed 17834-01
a= 40 mm - b=52 mm	Asmed 17834-02
a= 45 mm - b=52 mm	Asmed 17834-03
a= 50 mm - b=52 mm	Asmed 17834-04
a= 55 mm - b=52 mm	Asmed 17834-05
a= 60 mm - b=52 mm	Asmed 17834-06
a= 65 mm - b=52 mm	Asmed 17834-07
a= 70 mm - b=52 mm	Asmed 17834-08

## Retractors for Micro-Lumbar Disectomy

## Surgery



With black finish

Caspar	
a=40mm	<a href="#">Asmed17836-01</a>
a=45mm	<a href="#">Asmed17836-02</a>
a=50mm	<a href="#">Asmed17836-03</a>
a=55mm	<a href="#">Asmed17836-04</a>
a=60mm	<a href="#">Asmed17836-05</a>
a=65mm	<a href="#">Asmed17836-06</a>
a=75mm	<a href="#">Asmed17836-07</a>
a=85mm	<a href="#">Asmed17836-08</a>



Caspar	
<a href="#">Asmed17837-00</a>	



With black finish

Caspar		
a=35mm	<a href="#">Asmed17837-01</a>	
a=40mm	<a href="#">Asmed17837-02</a>	<a href="#">Asmed17838-01</a>
a=45mm	<a href="#">Asmed17837-03</a>	<a href="#">Asmed17838-02</a>
a=50mm	<a href="#">Asmed17837-04</a>	<a href="#">Asmed17838-03</a>
a=55mm	<a href="#">Asmed17837-05</a>	<a href="#">Asmed17838-04</a>
a=60mm	<a href="#">Asmed17837-06</a>	<a href="#">Asmed17838-05</a>
a=65mm	<a href="#">Asmed17837-07</a>	<a href="#">Asmed17838-06</a>
a=70mm		<a href="#">Asmed17838-07</a>
a=75mm	<a href="#">Asmed17837-08</a>	
a=85mm	<a href="#">Asmed17837-09</a>	

**Speculum for hypophysectomy****Surgery***With black finish*

x = 70 mm	<a href="#">Asmed24927-70</a>
x = 90 mm	<a href="#">Asmed24927-90</a>
x = 110 mm	<a href="#">Asmed24928-10</a>

*Speculum for trans-sphenoidal hypophysectomy*

## Manufacturing Process

### Manufacturing Capabilities

All of our production departments are well equipped with the latest, machinery which is imported from Germany and England, and well staffed with the expert technicians.

### Raw Material Department

Asmed Surgical always purchases best quality stainless steel raw material from steel manufacturers or import directly from Japan, France and Germany when need to do so.

Two kinds of series i.e. (304, 410 and 420) of stainless steel are used for production of Instruments. At Asmed Surgical, we believe that quality can only be achieved through quality raw material. As such, the best quality Raw-materials (Stainless Steel Strips, Round Bars, Stainless Steel Coils and Stainless Steel Tubes) are purchased and are subjected to composition and hardness testing through our in-house laboratory in order to ensure that only the best materials are passed from production departments.

### Forging Department

Asmed Surgical has its own forging section where forgings are made through Drop Hammer process by seasoned operators using dyes made of the best quality imported D-2 Steel.

Forging is done by keeping in mind that the geometry of this process is a starting point and does not on any way limit your design freedom.

### Milling Department

Milling is used in the instruments, defined as the process of cutting, shaping and finishing of an instrument. It is the process that includes turning, welding and fringing. At the Asmed Surgical we use the best milling technology which involve cutting away pieces of metal to create dovetails, threads, bevels, slots and ridges.

### Grinding (Filing & Setting)

In order to give a final shape to the instrument, our highly skilled craftsmen use filling and grinding processes which removes the material from the instrument by abrasion. Then the instrument is keenly observed and set to perform perfect.

### Hardness Test (Heat Treatment)

For surgical instruments, the term harness refers to the resistance to bending, scratching, abrasion or cutting. We have in-house Heat Treatment Department equipped with top quality Vacuum Furnace where qualified staff and engineers are engaged in treating the instruments in order to add strength to the steel and perfect the metallurgical composition for further processes.

### Polishing Department

The Polishing Department is manned by seasoned workmen using imported chemicals and best quality grinding wheels to ensure the best quality finish. In this department, the instruments are given final finish which includes mirror, satin or matt finishes. The finish is per customers requirements.

## Manufacturing Process

### Tungsten Carbide Department

Asmed Surgical tungsten carbide department is installed with the best quality imported machinery being manned by the exceptionally well trained experts using the German Technology. We use German tungsten carbide tips for our instruments.

### Coating Department

Our coating department is capable of providing gold plated instruments as well as powder coated instruments depending upon the requirements of the instruments or the customers. Best quality coating related raw materials are used so that no compromise can be made on quality. Furthermore, each coating is inspected for quality before any instrument is passed on to the next department.

### Passivation Department

We use high quality imported chemicals in our Passivation Department. Every instruments is boil test and passivate for 24 hours before packing. If need arises, the instruments are re-passivated so as to eliminate any chances of rusting or corrosion during the life of the instrument. Our instruments are rust-free for life though we give guarantee for five years.

### Sandblasting Department

For sandblasting our instruments, we use the machines as well as the best quality sandblasting material, which are operated by skilled & well trained operators.

### Stamping/Etching

We use permanent and long life high quality laser etching which produces a wide variety of text and graphic images including our customer's logo with very detailed and fine image quality.

### Quality Control

Our quality control department is involved at all of the processes of manufacturing but before the instrument goes to the packing department, its quality and function is thoroughly checked by our qualified engineers.

### Labeling and Packing

Each instrument is initially packed in a poly bag to prevent scratches and then packed in the middle box. Middle boxes are then packed in the carton. The middle boxes are labeled which includes the article number, types and sizes of instruments. We can also arrange packaging and labeling according to the customers demand.

### Warehouse

After the instruments are packed and labeled, cartons are then move to our in house warehouse where the complete record of shipments are maintained by our qualified warehouse management.

