

13

Micro – Neurosurgery  
Mikro – Neurochirurgie  
Micro – Neurocirugía  
Micro – Neurochirurgie  
Micro – Neurochirurgia

Cervical traction tongs  
 Schädelhalter  
 Pinzas de tracción cranial  
 Pinces de traction crânienne  
 Pinze trazione cervicale

**surgimax™**  
 saving lives



Crutchfield  
 13-700-00



13-701-00  
 3.5 mmØ



13-702-00  
 5.0 mmØ



Crutchfield  
 13-703-00



Cervical Tong  
 13-704-00

large type, cervical traction tongs – pins adjustable no drilling to be done  
 grosses Modell, für Extension der Halswirbel – kein Vorbohren erforderlich – Dorne verstellbar  
 modelo grande, distractor cervical – espigas ajustables sin necesidad de trepanar  
 modèle large, distracteur cervicale – poinçons ajustables pas de perçage nécessaire  
 modello grande, distrattore cervicale, pin aadjustabili, non necessita di perforare, regolabili

13-705-00

Spare pin  
 Ersatzdorn  
 Pivote de cambio  
 Goupille de rechange  
 Punta di ricambio



Wrench  
 13-706-00

Wrench, double-ended  
 Gabelschlüssel, doppelendig  
 Llave de tuercas  
 Clé de fixation,  
 Chiave



Drill Handle  
13-707-27 27 cm - 10 3/4"



13-708-27

Extension piece  
Verlängerungsstück  
Pieza de prolongación  
Pièce d'extension  
Pezzo di prolungazione



13-709-01

Fig.1  
9 mm Ø



13-710-02

Fig.2  
14 mm Ø



13-711-03

Fig.3  
16 mm Ø



13-712-04

Fig.4  
22 mm Ø



Cushing  
13-713-04

Fig.5  
14 mm Ø



McKenzie  
13-714-04

Fig.6  
13 mm Ø

Hudson

13-707-01 Complete set consisting:

13-707-27 Drill handle

4 twist drills (Fig. 1 to Fig. 4)

Hudson

13-707-02 Complete set consisting:

13-707-27 Drill handle

6 twist drills (Fig. 1 to Fig. 6)

1 extension piece



De Martel

13-717-33  
 33 cm - 13"



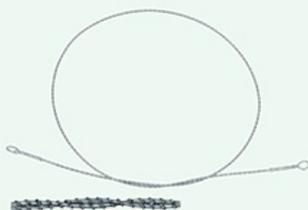
Adson

13-715-15 15 cm - 6"



De Vibiss

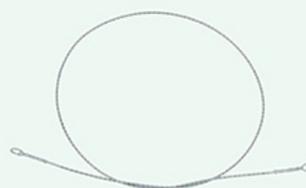
13-716-21 21 cm - 8 1/4"



Olivecrona

13-718-30	30 cm - 12"
13-718-40	40 cm - 16"
13-718-50	50 cm - 20"
13-718-60	60 cm - 23 1/2"
13-718-70	70 cm - 27 1/2"

6 wires twisted  
 6-teilig  
 6 alambres torcidos  
 6 fils tordus  
 6 fili attorcigliati



Gigli

13-719-30	30 cm - 12"
13-719-40	40 cm - 16"
13-719-50	50 cm - 20"

6 wires twisted  
 6-teilig  
 6 alambres torcidos  
 6 fils tordus  
 6 fili attorcigliati



Gigli

13-720-00



#### Leyla

13-721-00

Brain retractor self-retaining, with 1 flexible arm, complete, consisting of: fixation base for 1 flexible arm, flexible arm only, support for flat brain spatulas

Selbsthaltender Hirnretraktor, flexibel mit 1 Spannarm, komplett, bestehend aus: Fixierungsvorrichtung für 1 Spannarm, Spannarm und Spatelhalter für flache Spatel

Separador cerebral autostatico, 1 brazo flexible con soporte, completo con brazo y soporte para spatulas llanas

Retracteur cérébrale autostatique, flexible avec 1 tendeur, complét avec support pour 1 tendeur, tendeur et porte-spatule pour spatules plates

Retratore celebrale autostatico, flessibile Completo, contente: supporto di fissaggio per un braccio, 1 braccio flessibile con supporto di fissaggio per spatole piatte

#### Leyla

13-722-00

Brain retractor self-retaining, with 2 flexible arms, complete, consisting of: fixation base for 2 flexible arms, 2 flexible arms, 2 supports for flat brain spatulas

Selbsthaltender Hirnretraktor, flexibel mit 2 Spannarmen, komplett, bestehend aus: Fixierungsvorrichtung für 2 Spannarme, 2 Spannarme und 2 Spatelhalter für flache Spatel

Separador cerebral autostatico, 2 brazos flexibles con soporte, completo con brazos y soporte para 2 spatulas llanas

Retracteur cérébrale autostatique, flexible avec 2 tendeurs, complét avec supports pour 2 tendeurs, 2 tendeurs et 2 portes-spatule pour spatules plates

Retratore celebrale autostatico, flessibile con 2 bracci completi, contiene: supporto di fissaggio per bracci per 2 spatole piatte



### Leyla

13-723-00

Fixation base only, holding 2 flexible arms  
Fixierungsvorrichtung allein, für 2 Spannarme  
Soporte solo para 2 brazos de separador  
Support seul pour 2 tendeurs  
Supporto di fissaggio per 2 bracci, solo

13-724-00

Fixation base only, holding 1 flexible arm  
Fixierungsvorrichtung allein, für 1 Spannarm  
Soporte solo para 1 brazo de separador  
Support seul pour 1 tendeur  
Supporto di fissaggio per 1 braccio, solo

13-725-00

Support only, for flat brain spatulas  
Spatelhalter allein, für Flachspatel  
Soporte solo, para spatulas planas  
Porte-spatule seul, pour spatules plates  
Supporto solo, per fissaggio di spatole piatte

13-726-00

Support only, for brain spatulas with round shaft  
of 4mm and 5mm Ø to fix on the flexible arm  
Spatelhalter allein, für Spatel mit Rundschaft  
von 4mm und 5mm Ø, zum Befestigen am Spannarm  
Soporte solo para la fijación de spatulas  
de 4mm y 5mm Ø al brazo  
Porte-spatule seul pour la fixation des spatules  
de 4mm et 5mm Ø diam  
Supporto solo per spatole con asta tonda  
di Ø 4mm e 5mm

13-727-00

Flexible arm only – for attaching coupling heads and  
for fixation bases  
Spannarm allein – zum Aufstecken auf Kupplungsköpfe  
und Fixierungsvorrichtungen  
Brazo flejible solo para montar sobre soportes  
Tendeur flexible seul – pour le montage sur supports  
et accouplements  
Braccio flessibile solo – per il montaggio sul supporto  
di fissaggio

Leyla

13-428-00

Brain Retractor, flexible, for one flat spatula complete, consisting of:

- Fixation Base for one flexible arm
- Flexible Arm
- Support for flat brain spatulas



Leyla

13-429-00

Brain Retractor, flexible, for two flat spatulas complete, consisting of:

- Fixation Base for two flexible arms
- 2 Flexible Arms
- 2 Support for flat brain spatulas



13-430-0

Flexible Arm

13-431-00

Spare Part

13-432-00

Wire Cable, only



Leyla  
Fig. 1

13-433-00

Fixation Base for skull mounting,  
holding one flexible arm



Leyla  
Fig. 2

13-434-00

Fixation Base for skull mounting,  
holding two flexible arms



Leyla  
Fig. 3

13-435-00

Support, only, for flat brain spatulas,  
for fixation at the flexible arm



Leyla  
Fig. 4

13-436-00

Support, only, for brain spatulas with round shaft  
up to 5.5 mm diam., for fixation at the flexible arm



Leyla  
Fig. 5

13-437-00

Fixation Base for mounting on bars up to Ø 16 mm  
for one flexible arm



Leyla

Fig. 1

13-438-00

Self-Retaining Retractor for fixation to the operation table, complete, consisting of:

- Ball and Socket Joint
- Holding Arm
- Coupling Head
- 2 Flexible Arms
- 2 Supports for flat spatulas
- Brain Spatula
- Brain Spatula



Leyla

Fig. 2

13-439-00

Self-Retaining Retractor for fixation to the operation table, without support, consisting of:

- Ball and Socket Joint
- Holding Arm
- Coupling Head, laterally open, to hold one flexible arm
- Flexible Arm



13-440-00

Holding Arm, detachable, for fixation in ball and socket joint for holding one of the coupling heads



13-441-00

Ball and Socket Joint for fixation at the operating for holding arm table



13-442-00

Flexible Arm

13-443-00

Spare Part

13-444-00

Wire Cable, only



13-445-00

Coupling Head, laterally open, to hold one flexible arm



13-446-00

Coupling Head, rotatable, to hold one flexible arm



13-447-00

Coupling Head, to hold max. five flexible arms



**Ammy**

13-448-12	20 cm - 8"	12 mm
13-448-17	20 cm - 8"	17 mm
13-448-20	20 cm - 8"	20 mm
13-448-25	20 cm - 8"	25 mm
13-448-25	25 cm - 10"	25 mm

malleable



**Heifetz**

13-452-08	8 mm
13-452-11	11 mm
13-452-14	14 mm
13-452-17	17 mm

15.5 cm - 6"  
malleable



**Mod. Aachen**

13-457-07	7+8 mm
13-457-10	10+11mm
13-457-13	13+14 mm
13-457-16	16+17 mm
13-457-19	19+20 mm
13-457-22	22+25 mm

20 cm - 8"  
malleable



**Davis**

13-458-06	6 mm
13-458-10	10 mm
13-458-14	14 mm
13-458-16	16 mm
13-458-19	19 mm
13-458-25	25 mm
13-458-32	32 mm
13-458-38	38 mm

18 cm - 7"  
malleable



**Scoville**

13-459-10	10+13 mm
13-459-16	16+17 mm

20 cm - 8"  
malleable



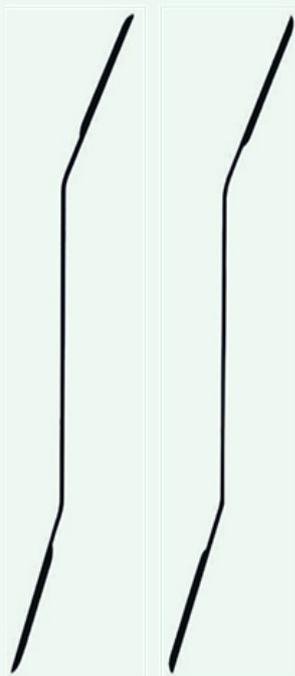
Cushing

13-728-07	7 mm x 9 mm
13-728-11	11 mm x 13 mm
13-728-15	15 mm x 18 mm
13-728-18	18 mm x 22 mm
18 cm - 7"	



Olivecrona

13-729-07	13-730-07	7 mm x 9 mm
13-729-11	13-730-11	11 mm x 13 mm
13-729-15	13-730-15	15 mm x 18 mm
13-729-18	13-730-18	18 mm x 22 mm
18 cm - 7"		18 cm - 7"
convex		concave
konvex		konkav
convexa		cóncava
convexe		concave
convessa		concava



Heifetz

13-731-08	x = 8 mm
13-731-11	x = 11 mm
13-731-14	x = 14 mm
13-731-17	x = 17 mm
13-731-20	x = 20 mm
20 cm - 8"	
malleable	
biegsam	
maleable	
malléable	
flessibile	



Casper

13-227-04	x=4 mm
13-227-06	x=6 mm
13-227-08	x=8 mm
13-227-10	x=10 mm
247 cm - 9½"	



McKenzie

13-732-15	13-733-15	15 cm - 6"
13-732-19	13-733-19	19 cm - 7 ½"

Clip applying forceps  
Zangen zum Anlegen der Klammern  
Pinzas para poner grapas  
Pinces pour poser des agrafes  
Pinze per mettere le agrafes



McKenzie

13-734-14 14.8 cm x 4 cm x 6 mm - 5 ¾" x 1 ½" x ½"

Brain clip-rack for 20 clips  
Klammerblock für 20 Klammern  
Porta-grapas para 20 grapas  
Porte-agrafes pour 20 agrafes  
Supporto port'agrafes per 20 agrafes



13-735-00

100 Brain clips in plastic box  
100 Klammern im Plastikbehälter  
100 grapas en tubo de plástico  
100 agrafes dans un tube de plastique  
100 agrafes nella scatola di plastica



Olivecrona-Toennis  
 (Scoville)

13-736-14  
 x = 14 cm - 5 1/2"



Raney  
 13-737-15  
 15 cm - 6"



Clip  
 Fig. 1  
 13-738-15

Scalp clip "Raney"  
 Kopfhautklammer "Raney"  
 Grapa para cuero cabelludo "Raney"  
 Agrafes pour le cuir chevelu «Raney»  
 Agraffes per il cuoio capelluto „Raney“

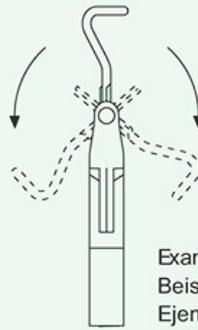


Clip  
 Fig. 2  
 13-739-15

Scalp clip "Köln"  
 Kopfhautklammer „Köln“  
 Grapa para cuero cabelludo "Köln"  
 Agrafes pour le cuir chevelu «Köln»  
 Agraffes per il cuoio capelluto „Köln“



malleable  
biegsam  
maleable  
malléable  
flessibile



Example for rotation  
Beispiel für Drehmechanismus  
Ejemplo la rotación por  
Exemple pour la rotation  
Esempio per la rotazione



Mini  
13-740-07  
13-740-09  
13-740-11

Standard  
13-741-07  
13-741-09  
13-741-11

non rotating  
nicht drehbar  
non rotatorio  
non rotatif  
non rotativo

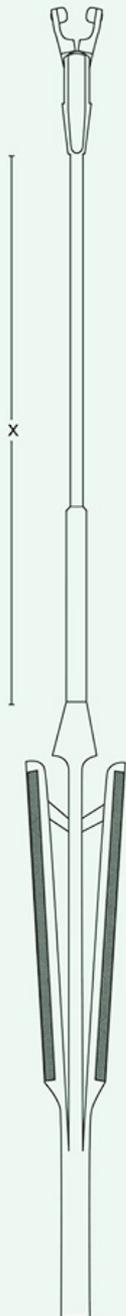


Mini  
13-742-07  
13-742-09  
13-742-11

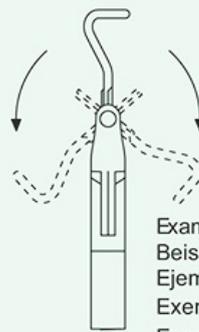
Standard  
13-743-07  
13-743-09  
13-743-11

rotating  
drehbar  
rotatorio  
rotatif  
rotativo

x = 7 cm - 2 3/4"  
x = 9 cm - 3 1/2"  
x = 11 cm - 4 1/4"



starr  
 rigid  
 rigide  
 rigido  
 rigido



Example for rotation  
 Beispiel für Drehmechanismus  
 Ejemplo la rotación por  
 Exemple pour la rotation  
 Esempio per la rotazione



Mini

13-744-07

13-744-09

13-744-11

Standard

13-745-07

13-745-09

13-745-11



Mini

13-746-07

13-746-09

13-746-11

Standard

13-747-07

13-747-09

13-747-11

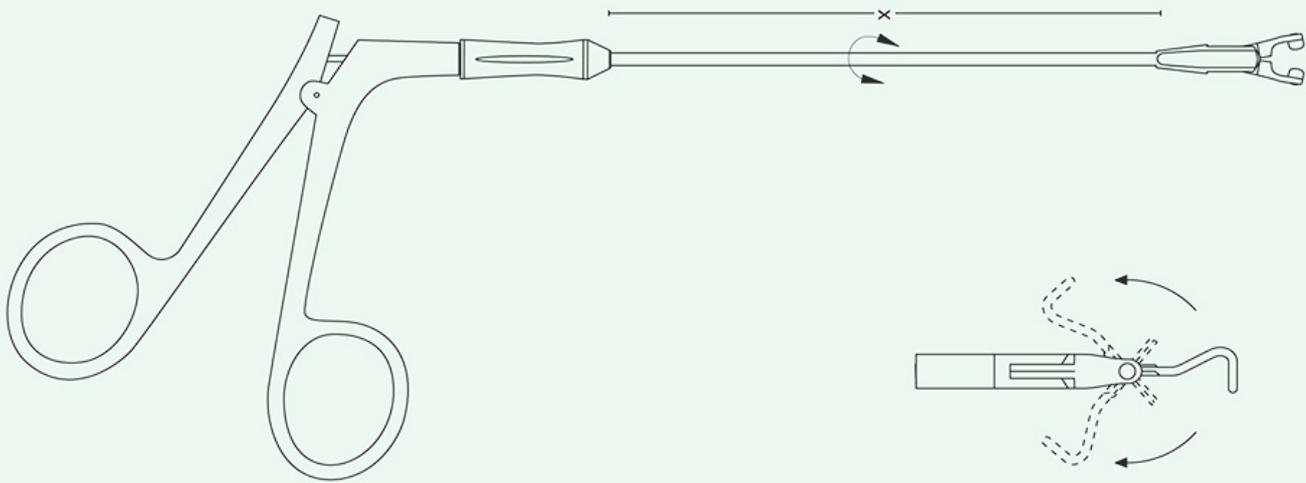
x = 7 cm - 2 ¼"

x = 9 cm - 3 ½"

x = 11 cm - 4 ¼"

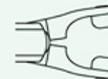
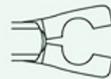
non rotating  
 nicht drehbar  
 non rotatorio  
 non rotatif  
 non rotativo

rotating  
 drehbar  
 rotatorio  
 rotatif  
 rotativo



Shank rotatable  
Schaft drehbar  
Vaina giratoria  
Tige rotatif  
Asta girevole

Example for rotation  
Beispiel für Drehmechanismus  
Ejemplo la rotación por  
Exemple pour la rotation  
Esempio per la rotazione



Mini	Standard	Mini	Standard	
13-748-07	13-749-07	13-750-07	13-751-07	x = 7 cm - 2 3/4"
13-748-09	13-749-09	13-750-09	13-751-09	x = 9 cm - 3 1/2"
13-748-11	13-749-11	13-750-11	13-751-11	x = 11 cm - 4 1/4"
13-748-13	13-749-13	13-750-13	13-751-13	x = 13 cm - 5"

non rotating  
nicht drehbar  
non rotatorio  
non rotatif  
non rotativo

rotating  
drehbar  
rotatorio  
rotatif  
rotativo

Applying forceps for Yasargil clips  
 Anlegezangen für Yasargil Clips  
 Aplicadora para clips Yasargil  
 Pince à poser pour des clips Yasargil  
 L'applicazione di forcipe per i clip YASARGIL

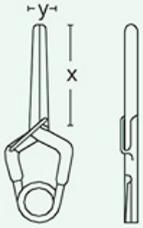


Mini	Standard
13-752-07	13-753-07
13-752-08	13-753-08
13-752-09	13-753-09
13-752-10	13-756-10

straight, with ratchet  
 gerade, mit Sperre  
 recta, con cierre  
 droit, avec verrou  
 retta, con cremagliera

Mini	Standard	
13-754-07	13-755-07	1.7 cm - 6 ¾"
13-754-08	13-755-08	1.8 cm - 7"
13-754-09	13-755-09	2.1 cm - 8 ¼"
13-754-10	13-755-10	2.3 cm - 9"

bayonett shaped, with ratchet  
 bayonett-förmig, mit Sperre  
 forma bayoneta, con cierre  
 en baionette, avec verrou  
 forma baionetta, con cremagliera



x = Jaw length  
x = Maullänge  
x = Longitud de la boca  
x = Longueur du mors  
x = Lunghezza del morso

y = max. opening  
y = max. Maulöffnung  
y = Apertura max. de la boca  
y = Ouverture max. du mors  
y = Apertura mass. del morso

gms = Pressure  
gms = Schließkraft  
gms = Presión  
gms = Force de fermeture  
gms = Sforza della chiusura

For titanium clips, please add a "T" to the reference number.

Bei Bestellung von Titan Clips, bitte der Artikelnummer ein „T“ hinzufügen.

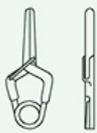
Para clips de titanio, por favor añadir und "T" a la referencia.

Pour des clips en titane, veuillez ajouter un «T» à la référence.

Per clips in titanio, per favore aggiungete al numero d'articolo un "T".

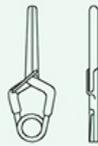
### Yasargil-Standard

for permanent closure, in high quality implant steel, antimagnetic  
für permanenten Verschluss, aus hochwertigem Implantatstahl, antimagnetisch  
para oclusión permanente, acero de alta calidad, antimagnetico  
pour fermeture permanente, acier de haute qualité, anti-magnétique  
per chiusura permanente, acciaio di alta qualità, antimagnetico



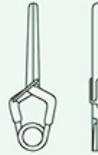
13-756-00

x = 7.0 mm  
y = 6.2 mm  
gms = 150



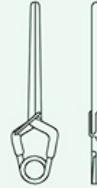
13-757-00

x = 9.0 mm  
y = 7.0 mm  
gms = 180



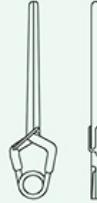
13-758-00

x = 11.0 mm  
y = 7.8 mm  
gms = 180



13-759-00

x = 15.0 mm  
y = 9.2 mm  
gms = 200



13-760-00

x = 17.0 mm  
y = 10.6 mm  
gms = 200



13-761-00

x = 20.0 mm  
y = 11.4 mm  
gms = 200



13-762-00

x = 25.0 mm  
y = 13.3 mm  
gms = 200



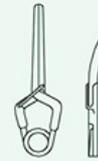
13-763-00

x = 7.0 mm  
y = 6.0 mm  
gms = 150



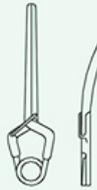
13-764-00

x = 9.0 mm  
y = 6.8 mm  
gms = 180



13-765-00

x = 11.0 mm  
y = 7.5 mm  
gms = 180



13-766-00

x = 15.0 mm  
y = 8.7 mm  
gms = 200



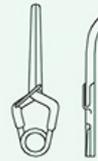
13-767-00

x = 7.0 mm  
y = 5.5 mm  
gms = 150



13-768-00

x = 9.0 mm  
y = 6.1 mm  
gms = 180



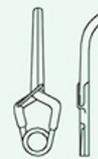
13-769-00

x = 11.0 mm  
y = 6.5 mm  
gms = 180



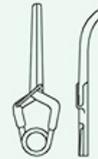
13-770-00

x = 15.0 mm  
y = 7.4 mm  
gms = 200



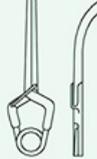
13-771-00

x = 7.0 mm  
y = 5.4 mm  
gms = 180



13-772-00

x = 9.0 mm  
y = 5.8 mm  
gms = 180



13-773-00

x = 11.0 mm  
y = 6.2 mm  
gms = 180



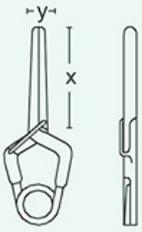
13-774-00

x = 7.0 mm  
y = 7.9 mm  
gms = 200



13-775-00

x = 9.0 mm  
y = 8.7 mm  
gms = 200



x = Jaw length  
 x = Maullänge  
 x = Longitud de la boca  
 x = Longueur du mors  
 x = Lunghezza del morso

y = max. opening  
 y = max. Maulöffnung  
 y = Apertura max. de la boca  
 y = Ouverture max. du mors  
 y = Apertura mass. del morso

gms = Pressure  
 gms = Schließkraft  
 gms = Presión  
 gms = Force de fermeture  
 gms = Sforza della chiusura

For titanium clips, please add a "T" to the reference number.

Bei Bestellung von Titan Clips, bitte der Artikelnummer ein „T“ hinzufügen.

Para clips de titanio, por favor añadir und "T" a la referencia.

Pour des clips en titane, veuillez ajouter un «T» à la référence.

Per clips in titanio, per favore aggiungete al numero d'articolo un "T".

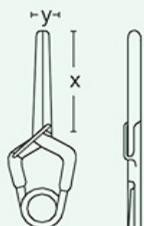
**Yasargil-Standard**

for permanent closure, in high quality implant steel, antimagnetic  
 für permanenten Verschluss, aus hochwertigem Implantatstahl, antimagnetisch  
 para oclusión permanente, acero de alta calidad, antimagnetico  
 pour fermeture permanente, acier de haute qualité, anti-magnétique  
 per chiusura permanente, acciaio di alta qualità, antimagnetico

<b>13-776-00</b>	<b>13-777-00</b>	<b>13-778-00</b>	<b>13-779-00</b>	<b>13-780-00</b>	<b>13-781-00</b>	<b>13-782-00</b>
x = 12.0 mm	x = 17.0 mm	x = 20.0 mm	x = 5.0 mm	x = 7.0 mm	x = 9.0 mm	x = 11.0 mm
y = 10.2 mm	y = 11.9 mm	y = 13.0 mm	y = 6.2 mm	y = 6.5 mm	y = 7.8 mm	y = 8.4 mm
gms = 200	gms = 180	gms = 180	gms = 200	gms = 200	gms = 200	gms = 200

<b>13-783-00</b>	<b>13-784-00</b>	<b>13-785-00</b>	<b>13-786-00</b>	<b>13-787-00</b>	<b>13-788-00</b>
x = 5.0 mm	x = 7.0 mm	x = 10.0 mm	x = 8.0 mm	x = 10.0 mm	x = 5.0 mm
y = 5.6 mm	y = 5.6 mm	y = 5.6 mm	y = 5.4 mm	y = 5.6 mm	y = 7.2 mm
gms = 200					

<b>13-789-00</b>	<b>13-790-00</b>	<b>13-791-00</b>	<b>13-792-00</b>	<b>13-793-00</b>
x = 9.0 mm	x = 11.0 mm	x = 7.0 mm	x = 11.0 mm	x = 9.0 mm
y = 7.2 mm	y = 8.2 mm	y = 5.7 mm	y = 8.0 mm	y = 7.0 mm
gms = 200				



x = Jaw length	y = max. opening	gms = Pressure
x = Maullänge	y = max. Maulöffnung	gms = Schließkraft
x = Longitud de la boca	y = Apertura max. de la boca	gms = Presión
x = Longueur du mors	y = Ouverture max. du mors	gms = Force de fermeture
x = Lunghezza del morso	y = Apertura mass. del morso	gms = Sforza della chiusura

For titanium clips, please add a "T" to the reference number.

Bei Bestellung von Titan Clips, bitte der Artikelnummer ein „T“ hinzufügen.

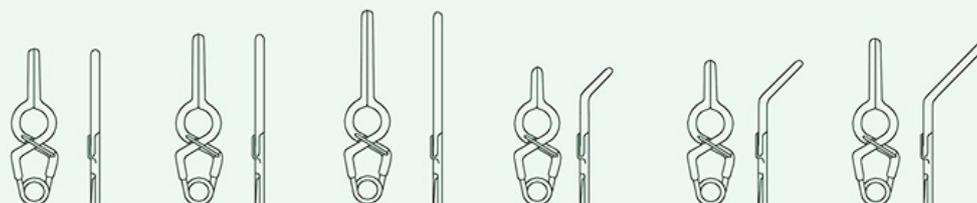
Para clips de titanio, por favor añadir und "T" a la referencia.

Pour des clips en titane, veuillez ajouter un «T» à la référence.

Per clips in titanio, per favore aggiungete al numero d'articolo un "T".

### Yasargil-Standard

for permanent closure, with window 3,5 mm, in high quality implant steel, antimagnetic  
für permanenten Verschluss, mit Fenster 3,5 mm, aus hochwertigem Implantatstahl, antimagnetisch  
para oclusión permanente, con ventana de 3,5 mm, acero de alta calidad, antimagnetico  
pour fermeture permanente, avec fenestra 3,5 mm, acier de haute qualité, anti-magnétique  
per chiusura permanente, con finestra di 3,5 mm, acciaio di alta qualita, antimagnetico



13-794-00

x = 7.0 mm  
y = 7.4 mm  
gms = 150

13-795-00

x = 9.0 mm  
y = 8.4 mm  
gms = 150

13-796-00

x = 12.0 mm  
y = 9.6 mm  
gms = 180

13-797-00

x = 5.0 mm  
y = 5.8 mm  
gms = 150

13-798-00

x = 7.0 mm  
y = 6.5 mm  
gms = 150

13-799-00

x = 11.0 mm  
y = 7.2 mm  
gms = 180



13-800-00

x = 5.0 mm  
y = 4.9 mm  
gms = 150



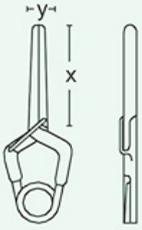
13-801-00

x = 7.0 mm  
y = 4.9 mm  
gms = 150



13-802-00

x = 11.0 mm  
y = 4.9 mm  
gms = 180



x = Jaw length	y = max. opening	gms = Pressure
x = Maullänge	y = max. Maulöffnung	gms = Schließkraft
x = Longitud de la boca	y = Apertura max. de la boca	gms = Presión
x = Longueur du mors	y = Ouverture max. du mors	gms = Force de fermeture
x = Lunghezza del morso	y = Apertura mass. del morso	gms = Sforza della chiusura

For titanium clips, please add a "T" to the reference number.

Bei Bestellung von Titan Clips, bitte der Artikelnummer ein „T“ hinzufügen.

Para clips de titanio, por favor añadir und "T" a la referencia.

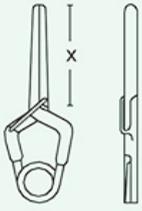
Pour des clips en titane, veuillez ajouter un «T» à la référence.

Per clips in titanio, per favore aggiuntete al numero d'articolo un "T".

**Yasargil-Standard**

for permanent closure, with window 3,5 mm, in high quality implant steel, antimagnetic  
 für permanenten Verschluss, mit Fenster 3,5 mm, aus hochwertigem Implantatstahl, antimagnetisch  
 para oclusión permanente, con finestra de 3,5 mm, acero de alta calidad, antimagnetico  
 pour fermeture permanente, avec fenestra 3,5 mm, acier de haute qualité, anti-magnétique  
 per chiusura permanente, con finestra di 3,5 mm, acciaio di alta qualità, antimagnetico

<b>13-803-00</b>	<b>13-804-00</b>	<b>13-805-00</b>	<b>13-806-00</b>	<b>13-807-00</b>	<b>13-808-00</b>
x = 7.0 mm	x = 9.0 mm	x = 12.0 mm	x = 5.0 mm	x = 7.0 mm	x = 11.0 mm
y = 7.9 mm	y = 9.1 mm	y = 10.3 mm	y = 6.5 mm	y = 7.2 mm	y = 7.8 mm
gms = 150	gms = 150	gms = 180	gms = 150	gms = 150	gms = 180
<b>13-809-00</b>	<b>13-810-00</b>	<b>13-811-00</b>	<b>13-812-00</b>	<b>13-813-00</b>	<b>13-814-00</b>
x = 5.0 mm	x = 7.0 mm	x = 11.0 mm	x = 5.0 mm	x = 7.0 mm	x = 11.0 mm
y = 5.5 mm	y = 5.5 mm	y = 5.5 mm	y = 7.9 mm	y = 8.8 mm	y = 10.0 mm
gms = 150	gms = 150	gms = 180	gms = 150	gms = 150	gms = 180



x = Jaw length  
x = Maullänge  
x = Longitud de la boca  
x = Longueur du mors  
x = Lunghezza del morso

y = max. opening  
y = max. Maulöffnung  
y = Apertura max. de la boca  
y = Ouverture max. du mors  
y = Apertura mass. del morso

gms = Pressure  
gms = Schließkraft  
gms = Presión  
gms = Force de fermeture  
gms = Sforza della chiusura

For titanium clips, please add a "T" to the reference number.

Bei Bestellung von Titan Clips, bitte der Artikelnummer ein „T“ hinzufügen.

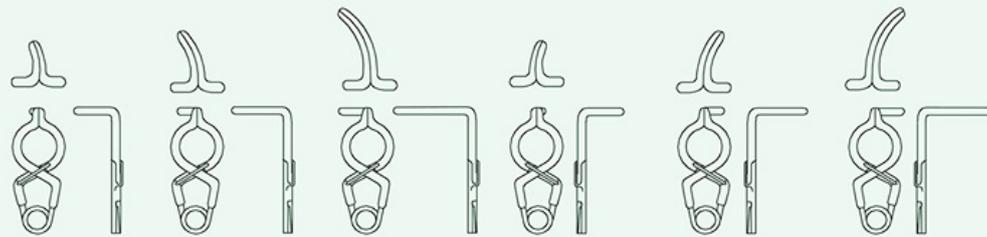
Para clips de titanio, por favor añadir und "T" a la referencia.

Pour des clips en titane, veuillez ajouter un «T» à la référence.

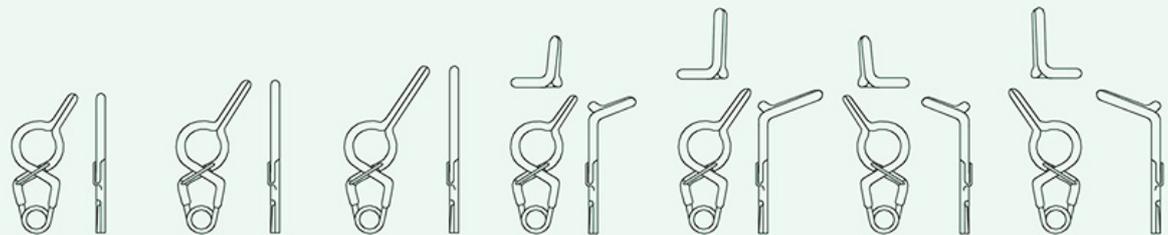
Per clips in titanio, per favore aggiungete al numero d'articolo un "T".

### Yasargil-Standard

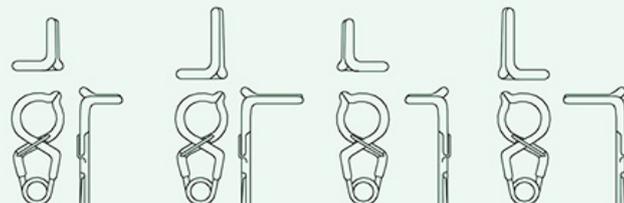
for permanent closure, with window 5.0 mm, in high quality implant steel, antimagnetic  
für permanenten Verschluss, mit Fenster 5.0 mm, aus hochwertigem Implantatstahl, antimagnetisch  
para oclusión permanente, con ventana de 5.0 mm, acero de alta calidad, antimagnetico  
pour fermeture permanente, avec fenestra 5.0 mm, acier de haute qualité, anti-magnétique  
per chiusura permanente, con finestra di 5.0 mm, acciaio di alta qualita, antimagnetico



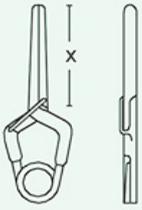
<b>13-815-00</b> x = 5.0 mm y = 5.8 mm gms = 150	<b>13-816-00</b> x = 7.0 mm y = 5.8 mm gms = 150	<b>13-817-00</b> x = 10.0 mm y = 5.8 mm gms = 150	<b>13-818-00</b> x = 5.0 mm y = 5.8 mm gms = 150	<b>13-819-00</b> x = 7.0 mm y = 5.8 mm gms = 150	<b>13-820-00</b> x = 10.0 mm y = 5.8 mm gms = 150
-----------------------------------------------------------	-----------------------------------------------------------	------------------------------------------------------------	-----------------------------------------------------------	-----------------------------------------------------------	------------------------------------------------------------



<b>13-821-00</b> x = 5.0 mm y = 7.0 mm gms = 150	<b>13-822-00</b> x = 7.0 mm y = 7.8 mm gms = 150	<b>13-823-00</b> x = 10.0 mm y = 8.8 mm gms = 150	<b>13-824-00</b> x = 5.0 mm y = 5.8 mm gms = 150	<b>13-825-00</b> x = 7.0 mm y = 6.2 mm gms = 150	<b>13-826-00</b> x = 5.0 mm y = 5.8 mm gms = 150	<b>13-827-00</b> x = 7.0 mm y = 6.2 mm gms = 150
-----------------------------------------------------------	-----------------------------------------------------------	------------------------------------------------------------	-----------------------------------------------------------	-----------------------------------------------------------	-----------------------------------------------------------	-----------------------------------------------------------



<b>13-828-00</b> x = 5.0 mm y = 5.6 mm gms = 150	<b>13-829-00</b> x = 7.0 mm y = 5.6 mm gms = 150	<b>13-830-00</b> x = 5.0 mm y = 5.6 mm gms = 150	<b>13-831-00</b> x = 7.0 mm y = 5.6 mm gms = 150
-----------------------------------------------------------	-----------------------------------------------------------	-----------------------------------------------------------	-----------------------------------------------------------



x = Jaw length	y = max. opening	gms = Pressure
x = Maullänge	y = max. Maulöffnung	gms = Schließkraft
x = Longitud de la boca	y = Apertura max. de la boca	gms = Presión
x = Longueur du mors	y = Ouverture max. du mors	gms = Force de fermeture
x = Lunghezza del morso	y = Apertura mass. del morso	gms = Sforza della chiusura

For titanium clips, please add a "T" to the reference number.

Bei Bestellung von Titan Clips, bitte der Artikelnummer ein „T“ hinzufügen.

Para clips de titanio, por favor añadir und "T" a la referencia.

Pour des clips en titane, veuillez ajouter un «T» à la référence.

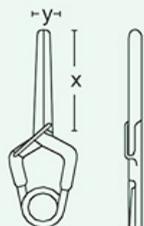
Per clips in titanio, per favore aggiungete al numero d'articolo un "T".

**Yasargil-Standard**

for permanent closure, in high quality implant steel, antimagnetic  
 für permanenten Verschluss, aus hochwertigem Implantatstahl, antimagnetisch  
 para oclusión permanente, acero de alta calidad, antimagnetico  
 pour fermeture permanente, acier de haute qualité, anti-magnétique  
 per chiusura permanente, acciaio di alta qualità, antimagnetico

<b>13-832-00</b>	<b>13-833-00</b>	<b>13-834-00</b>	<b>13-835-00</b>	<b>13-836-00</b>	<b>13-837-00</b>	<b>13-838-00</b>
x = 9.0 mm	x = 9.0 mm	x = 9.0 mm	x = 15.0 mm	x = 15.0 mm	x = 15.0 mm	x = 9.0 mm
y = 7.0 mm	y = 6.8 mm	y = 6.1 mm	y = 9.2 mm	y = 8.7 mm	y = 7.4 mm	y = 6.2 mm
gms = 90	gms = 90	gms = 110	gms = 90	gms = 110	gms = 110	gms = 110

<b>13-839-00</b>	<b>13-840-00</b>	<b>13-841-00</b>	<b>13-842-00</b>
x = 20.0 mm	x = 20.0 mm	x = 17.0 mm	x = 13.0 mm
y = 11.4 mm	y = 11.0 mm	y = 9.9 mm	y = 7.5 mm
gms = 110	gms = 90	gms = 90	gms = 90



x = Jaw length

x = Maullänge

x = Longitud de la boca

x = Longueur du mors

x = Lunghezza del morso

y = max. opening

y = max. Maulöffnung

y = Apertura max. de la boca

y = Ouverture max. du mors

y = Apertura mass. del morso

gms = Pressure

gms = Schließkraft

gms = Presión

gms = Force de fermeture

gms = Sforza della chiusura

For titanium clips, please add a "T" to the reference number.

Bei Bestellung von Titan Clips, bitte der Artikelnummer ein „T“ hinzufügen.

Para clips de titanio, por favor añadir und "T" a la referencia.

Pour des clips en titane, veuillez ajouter un «T» à la référence.

Per clips in titanio, per favore aggiungete al numero d'articolo un "T".

### Yasargil-Mini

for permanent closure, in high quality implant steel, antimagnetic  
für permanenten Verschluss, aus hochwertigem Implantatstahl, antimagnetisch  
para oclusión permanente, acero de alta calidad, antimagnetico  
pour fermeture permanente, acier de haute qualité, anti-magnétique  
per chiusura permanente, acciaio di alta qualita, antimagnetico



13-843-00

x = 3.0 mm  
y = 3.3 mm  
gms = 110



13-844-00

x = 5.0 mm  
y = 4.0 mm  
gms = 110



13-845-00

x = 3.0 mm  
y = 3.3 mm  
gms = 110



13-846-00

x = 5.0 mm  
y = 4.0 mm  
gms = 110



13-847-00

x = 7.0 mm  
y = 4.6 mm  
gms = 110



13-848-00

x = 3.0 mm  
y = 3.2 mm  
gms = 110



13-849-00

x = 4.0 mm  
y = 3.8 mm  
gms = 110



13-850-00

x = 4.0 mm  
y = 3.6 mm  
gms = 110



13-851-00

x = 5.0 mm  
y = 3.8 mm  
gms = 110



13-852-00

x = 4.0 mm  
y = 3.6 mm  
gms = 110



13-853-00

x = 5.0 mm  
y = 4.0 mm  
gms = 110



13-854-00

x = 7.0 mm  
y = 4.4 mm  
gms = 110



13-855-00

x = 4.0 mm  
y = 3.6 mm  
gms = 110



13-856-00

x = 4.0 mm  
y = 3.5 mm  
gms = 110



13-857-00

x = 5.0 mm  
y = 4.0 mm  
gms = 110



13-858-00

x = 5.0 mm  
y = 3.5 mm  
gms = 130



13-859-00

x = 6.0 mm  
y = 6.0 mm  
gms = 130



13-860-00

x = 4.0 mm  
y = 7.0 mm  
gms = 130



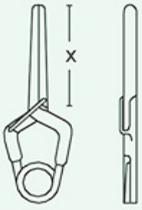
13-861-00

x = 7.0 mm  
y = 5.7 mm  
gms = 130 gms



13-862-00

x = 7.0 mm  
y = 4.5 mm  
gms = 130



x = Jaw length	y = max. opening	gms = Pressure
x = Maullänge	y = max. Maulöffnung	gms = Schließkraft
x = Longitud de la boca	y = Apertura max. de la boca	gms = Presión
x = Longueur du mors	y = Ouverture max. du mors	gms = Force de fermeture
x = Lunghezza del morso	y = Apertura mass. del morso	gms = Sforza della chiusura

For titanium clips, please add a "T" to the reference number.

Bei Bestellung von Titan Clips, bitte der Artikelnummer ein „T“ hinzufügen.

Para clips de titanio, por favor añadir und "T" a la referencia.

Pour des clips en titane, veuillez ajouter un «T» à la référence.

Per clips in titanio, per favore aggiungete al numero d'articolo un "T".

### Yasargil-Mini

for temporary closure, in high quality implant steel, antimagnetic  
 für temporären Verschluss, aus hochwertigem Implantatstahl, antimagnetisch  
 para oclusión temporal, acero de alta calidad, antimagnetico  
 pour fermeture temporaire, acier de haute qualité, anti-magnétique  
 per chiusura temporanea, acciaio di alta qualita, antimagnetico



**13-863-00**

x = 3.0 mm  
 y = 3.3 mm  
 gms = 90



**13-864-00**

x = 5.0 mm  
 y = 4.0 mm  
 gms = 70



**13-865-00**

x = 4.0 mm  
 y = 3.8 mm  
 gms = 70



**13-866-00**

x = 7.0 mm  
 y = 4.6 mm  
 gms = 70



**13-867-01**

x = 7.0 mm  
 y = 4.4 mm  
 gms = 70



**13-868-00**

x = 5.0 mm  
 y = 4.0 mm  
 gms = 70



Scoville  
13-869-23  
23 cm - 9"  
x = 8 mm



Holsher  
13-870-24  
24 cm - 9 1/2"  
x = 7 mm



Scoville  
13-871-20  
20 cm - 8"  
x = 7 mm

Martin  
13-872-21  
21 cm - 8 1/4"  
x = 7 mm



Toennis

13-873-01

15 cm - 6"



13-874-02

19 cm - 7 ½"



Halle

13-875-20

20 cm - 8"



Smithwick

13-876-17 17 cm - 6 ¾"

13-876-21 21 cm - 8 ¼"



Hoen

13-877-22

22 cm - 8 ¾"



Cushing

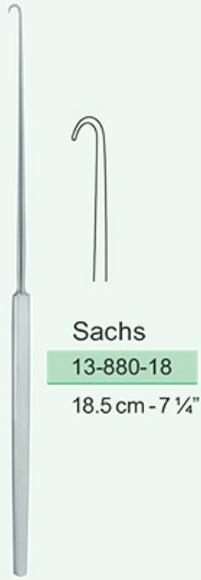
13-878-19

13-878-28

13-879-19 19 cm - 7 ½"

13-879-28 28 cm - 11"





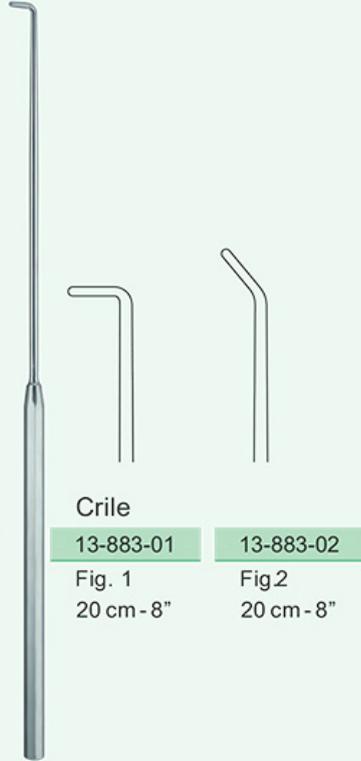
**Sachs**  
13-880-18  
18.5 cm - 7 ¼"



**Graham**  
13-881-18  
18.5 cm - 7 ¼"



**Frazier**  
13-882-17  
17 cm - 6 ¾"



**Crile**  
13-883-01  
Fig. 1  
20 cm - 8"

13-883-02  
Fig. 2  
20 cm - 8"



**Toennis**  
13-885-15  
15 cm - 6"



**Dandy**  
13-886-20  
Fig. 1  
20 cm - 8"



13-887-20  
Fig. 2  
20 cm - 8"



13-888-20  
Fig. 3  
20 cm - 8"



**Adson**  
13-889-20  
Fig. 1

13-890-20  
Fig. 2  
20 cm - 8"

Nerve hooks – Dura hooks  
 Nervenhooken – Durahaken  
 Ganchos para nervios – Ganchos para duramadre  
 Crochets à nerfs – Crochets pour duremère  
 Ganci Nerve - ganci Dura



Love

13-891-19	13-892-19	13-893-19	19 cm - 7 1/2"
-----------	-----------	-----------	----------------

Fig. 1

Fig. 2

Fig. 3



Yasargil

13-894-31	31 cm - 12 1/4"
13-894-41	41 cm - 16 1/4"

Galea retractor  
 Galeahaken  
 Retractor de Galea  
 Retracteur Galea  
 Rettrotore di Galea



Cushing

13-895-14	14 cm - 5 1/2"
-----------	----------------



Frazier

13-896-13	13-897-13	13 cm - 5"
13-896-18	13-897-18	18 cm - 7"

sharp  
 spitz  
 agudo  
 pointu  
 acuto

blunt  
 stumpf  
 romos  
 mousse  
 smusso



Lahey

13-898-01	13 cm - 5"
-----------	------------



Zöllner

90°

13-899-01

Roundknife, angledup  
Rundschnittmesser, nach oben gebogen  
Cuchillo redondo, angulado arriba  
Coureau rond, coudé en haut  
Coltello rotondo, angolato in alto



90°

13-900-00

Roundknife, angleddown  
Rundschnittmesser, nach unten gebogen  
Cuchillo redondo, angulado a bajo  
Coureau rond, coudé en bas  
Coltello rotondo, angolato in basso



13-901-00

Sickleknife, angledup  
Sichelmesser, nach oben gebogen  
Cuchillo de hoz, angulado arriba  
Coureau faucille, courbe vers le haut  
Coltello a forma di falce, angolato in alto



13-902-00

Sickleknife, angleddown  
Sichelmesser, nach unten gebogen  
Cuchillo de hoz, angulado a bajo  
Coureau faucille, courbe vers le bas  
Coltello a forma di falce, curvato in basso



13-903-00

Lancetknife, curved to left  
Lanzenmesser, links gebogen  
Cuchillo lanceolado, angulado a la izquierda  
Coureau lancéolaire, courbe à gauche  
Coltello lanceolato, curvato a sinistra



13-904-00

Lancetknife, curved to right  
Lanzenmesser, rechts gebogen  
Cuchillo lanceolado, angulado a la derecha  
Coureau lancéolaire, courbe à droite  
Coltello lanceolato, curvato a destra



13-905-01

Raspatory, curved to left  
Raspatorium, links gebogen  
Raspatorio, angulado a la izquierda  
Décolleur, courbe à gauche  
Raspatorio, curvato a sinistra



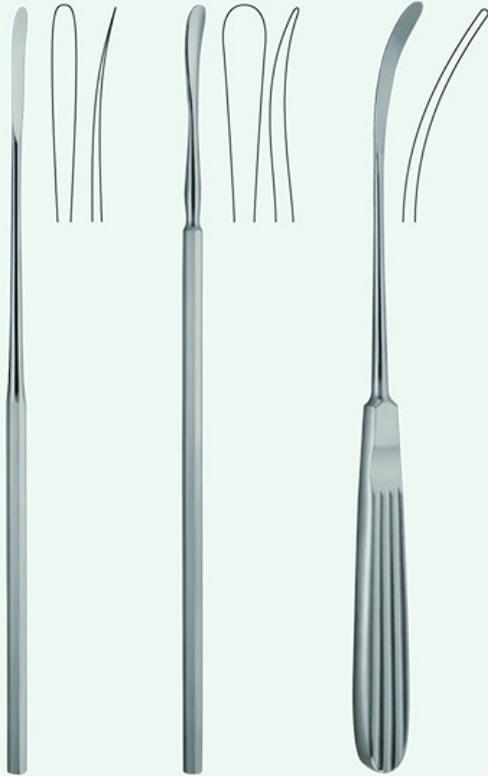
13-906-01

Raspatory, curved to right  
Raspatorium, rechts gebogen  
Raspatorio, angulado a la derecha  
Décolleur, courbe à droite  
Raspatorio, curvato a destra



13-907-01

Wireguide  
Führungsgabel  
Tenedor guía  
Fourchette d'introduction  
Forchetta guida



Sachs

13-908-21

13-909-21

13-910-21

21cm - 8 ¼"



Horsley

13-911-20

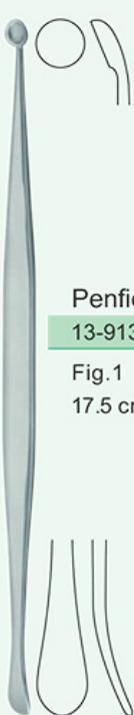
20 cm - 8"



Smithwick

13-912-29

29 cm - 11 ½"

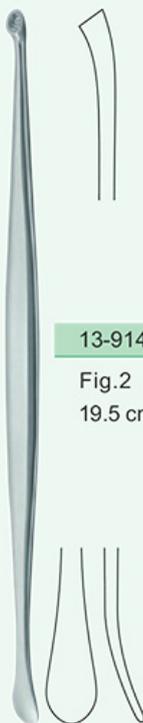


Penfield

13-913-17

Fig.1

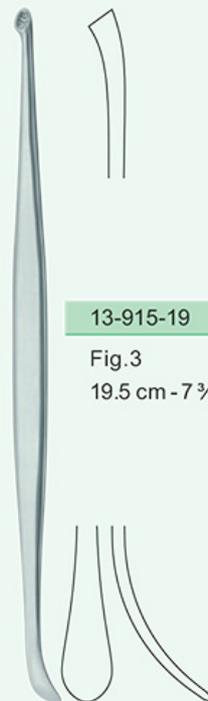
17.5 cm - 7"



13-914-19

Fig.2

19.5 cm - 7 ¾"



13-915-19

Fig.3

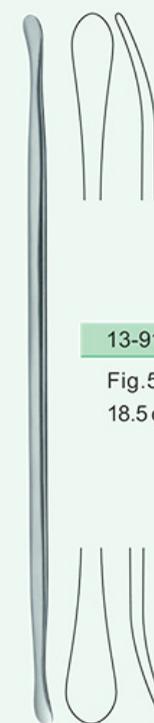
19.5 cm - 7 ¾"



13-916-21

Fig.4

21.5 cm - 8 ½"



13-917-18

Fig.5

18.5 cm - 7 ¼"



Yasargil

13-918-19

straight  
gerade  
recta  
droit  
rette



13-919-19



13-920-19



13-921-19



13-922-19

19 cm - 7 1/2"

13-923-19

13-924-19

13-925-19

13-926-19

13-927-19

19 cm - 7 1/2"

bayonet  
bajonett  
bayoneta  
baionette  
baionetta



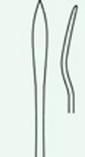
Yasargil

13-928-19

straight  
gerade  
recta  
droit  
rette



13-929-19



13-930-19



13-931-19

19 cm - 7 1/2"

01-932-22

01-933-22

01-934-22

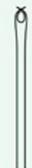
01-935-22

19 cm - 7 1/2"

bayonet  
bajonett  
bayoneta  
baionette  
baionetta



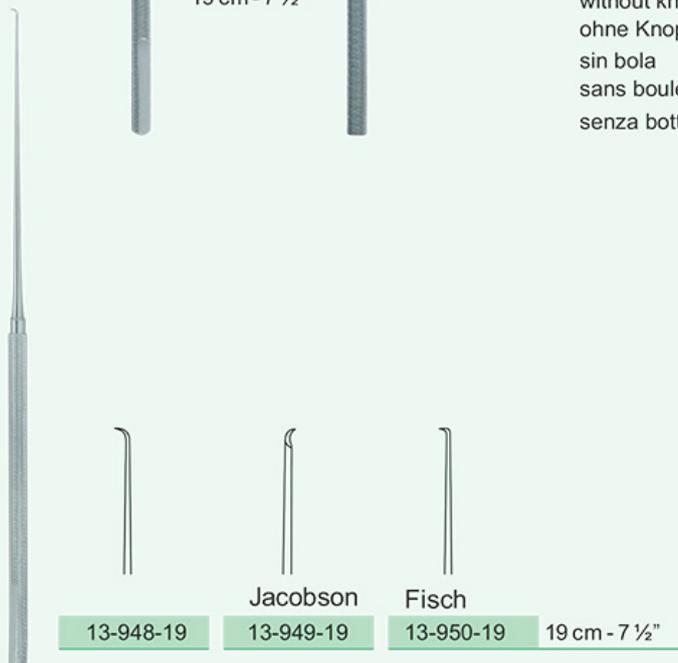
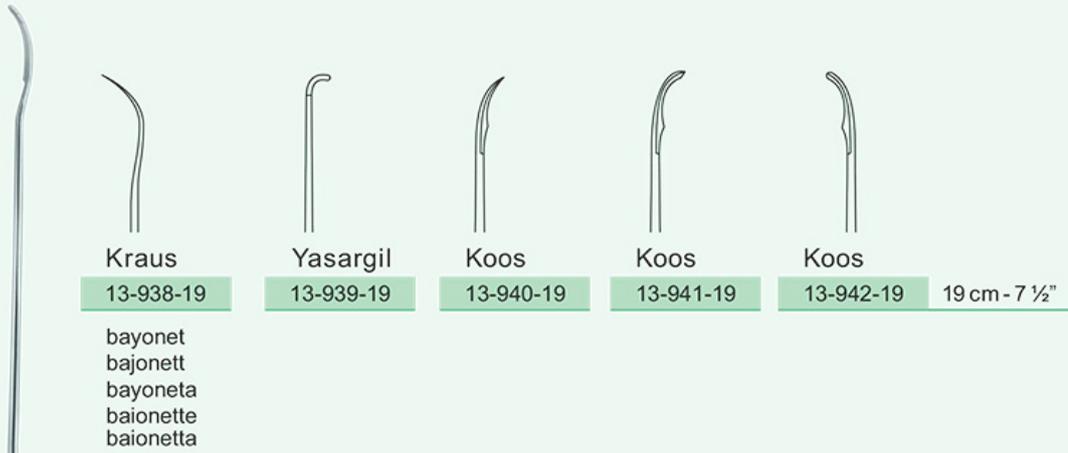
01-936-22

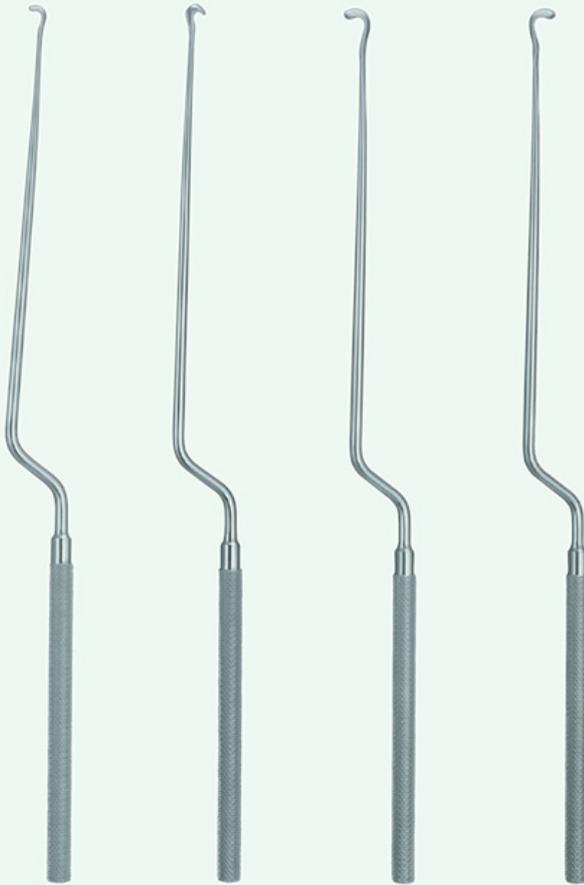


01-937-22

19 cm - 7 1/2"

straight, with Twist-fixationhook  
gerade, mit Dreh-Fixierhaken  
recta, con gancho de fijación  
droit, avec crochet de fixation  
rette, con uncino di fissaggio "Twist"





Hardy

13-951-25

25 cm - 9 3/4"

13-952-25

25 cm - 9 3/4"

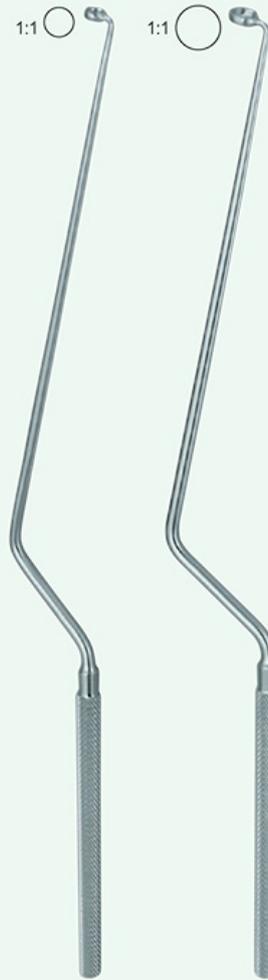
13-953-25

25 cm - 9 3/4"

13-954-25

25 cm - 9 3/4"

bayonet, sharp inner edge  
bajonett, innen scharf  
bayoneta, cortante al interno  
baionette, tranchant à l'interno  
baionetta, acuto all'interno



Hardy

13-955-27

4 mmØ

13-956-27

6 mmØ

27 cm - 10 3/4"

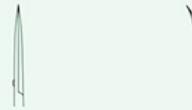
bayonet, malleable  
bajonett, biegsam  
bayoneta, maleable  
baionette, malléable  
baionetta, flessibile



**Vannas**

13-957-08    13-958-08    8 cm - 3 1/4"

Vannas-Schneide  
 Vannas-blade  
 Lame de Vannas  
 Hoja de Vannas  
 Lama Vannas



**Welsh**

13-959-12    13-960-12    12 cm - 4 3/4"

straight	curved	Blade 10mm, sharp
gerade	gebogen	Schneide 10mm, spitz
recta	curva	Hoja 10mm, agudas
droite	courbe	Lame 10mm, pointu
retta	curva	Lama 10mm, acuta



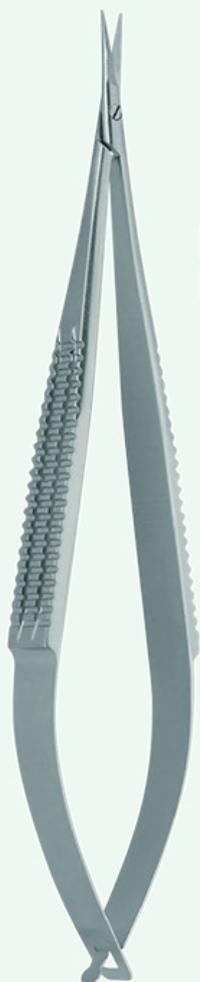
13-961-12    13-962-12    13-963-12    12 cm - 4 3/4"

straight	curved	angled up	Vannas-blade
gerade	gebogen	aufgewinkelt	Vannas-Schneide
recta	curva	acodada	Hoja de Vannas
droite	courbe	angulaire	Lama de Vannas
retta	curva	angolata	Vannas-lama



13-964-12    12 cm - 4 3/4"

straight	Vein-blade (Biemer)
gerade	Venen-Schneide (Biemer)
recta	Hoja para venas (Biemer)
droite	Lame pour vènes (Biemer)
retta	Lama per vene (Biemer)



Welsh

13-965-15

13-965-18

straight, short blades  
gerade, kurze Schneide  
recta, hojas cortas  
droites, lames courtes  
retta, lama corta



13-966-15

13-966-18

curved, short blades  
gebogen, kurze Schneide  
curva, hojas cortas  
courbes, lames courtes  
curva, lama corta



13-967-15

13-967-18

straight, long blades  
gerade, lange Schneide  
recta, hojas largas  
droites, lames longues  
retta, lama lunga



13-968-15

13-968-18

curved, long blades  
gebogen, lange Schneide  
curva, hojas largas  
courbes, lames longues  
curva, lama lunga



13-969-15

13-969-18

straight, saw edge  
gerade, gezahnt  
recta, dentadas  
droites, dentelés  
retta, dentata



13-970-15

13-970-18

curved, saw edge  
gebogen, gezahnt  
curva, dentadas  
courbes, dentelés  
curva, dentata



13-971-15 15 cm - 6"

13-971-18 18 cm - 7"

angled on flat, 45°  
kniegebogen, 45°  
acodada, 45°  
angulaires, 45°  
angolata, 45°



Yasargil

13-972-18

straight  
gerade  
recta  
droits  
retta



13-973-18

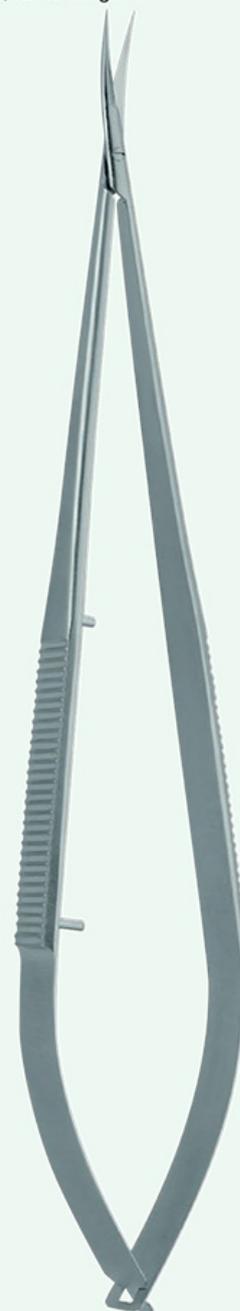
curved  
gebogen  
curva  
courbes  
curva



13-974-18

angled on flat  
kniegebogen  
acodada  
angulaires  
angolata

18.5 cm - 7 1/4"





Welsh

13-975-12

straight  
 gerade  
 recta  
 droites  
 retta



13-976-12 12 cm - 4 3/4"

curved  
 gebogen  
 curva  
 courbes  
 curva  
 Long blades 14 mm, smooth, sharp  
 Lange Schneide 14 mm, glatt, spitz  
 Hojas largas 14 mm, lisas, agudas  
 Lama lunga 14 mm, liscia, acuta  
 Lames longues 14 mm, lisses, pointues



13-977-12

straight, saw edge  
 gerade, gezahnt  
 recta, dentadas  
 droites, dentelés  
 retta, dentata



13-978-12 12 cm - 4 3/4"

curved, saw edge  
 gebogen, gezahnt  
 curva, dentadas  
 courbes, dentelés  
 curva, dentata  
 Long blades 14 mm, sharp  
 Lange Schneide 14 mm, spitz  
 Hojas largas 14 mm, agudas  
 Lames longues 14 mm, pointues  
 Lama lunga 14 mm, acuta



13-979-14

straight  
 gerade  
 recta  
 droits  
 retta



13-980-14 14.5 cm - 5 3/4"

curved  
 gebogen  
 curva  
 courbes  
 curva  
 Vannas-blades, smooth, sharp  
 Vannas-Schneide, glatt, spitz  
 Hojas de Vannas, lisas, agudas  
 Lames de Vannas, lisses, pointues  
 Vannas-lama, liscia, acuta



Yasargil

13-981-17

25°

with ball  
mit Knopf  
con botón  
avec bouton  
con bottone



13-982-17

45°



13-983-17

60°



13-984-17

90°



13-985-17

125°

17 cm - 6 3/4"



Yasargil

13-986-17

25°

without ball  
mit ohne Knopf  
sin bola botón  
sans boule bouton  
con senza bottone



13-987-17

45°



13-988-17

60°



13-989-17

90°



13-990-17

125°

17 cm - 6 3/4"



**Irwan**

13-991-14

13-991-18

straight, sharp  
 gerade, spitz  
 rectas, agudas  
 droites, pointues  
 retta, acuta



13-992-14

13-992-18

curved, sharp  
 gebogen, spitz  
 curvas, agudas  
 courbes, pointues  
 curva, acuta



13-993-14

13-993-18

straight, blunt  
 gerade, stumpf  
 rectas, romas  
 droites, mousses  
 retta, smussa



13-994-14

13-994-18

curved, blunt  
 gebogen, stumpf  
 curvas, romas  
 courbes, mousses  
 curva, smussa

14.5 cm 5 3/4"

18 cm - 7"

short blades 8 mm, smooth  
 kurze Schneide 8 mm, glatt  
 hojas cortas 8 mm, lisos  
 lames courtes 8 mm, lisses  
 lama corta 8 mm, liscia



13-995-14

13-995-18

straight, sharp  
 gerade, spitz  
 rectas, agudas  
 droites, pointues  
 retta, acuta



13-996-14

13-996-18

curved, sharp  
 gebogen, spitz  
 curvas, agudas  
 courbes, pointues  
 curva, acuta



13-997-14

13-997-18

straight, blunt  
 gerade, stumpf  
 rectas, romas  
 droites, mousses  
 retta, smussa



13-998-14

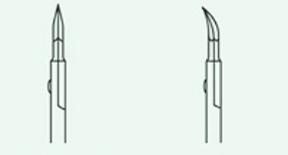
13-998-18

curved, blunt  
 gebogen, stumpf  
 curvas, romas  
 courbes, mousses  
 curva, smussa

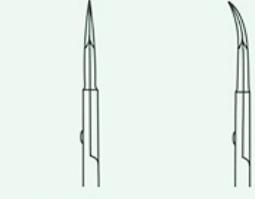
14.5 cm 5 3/4"

18 cm - 7"

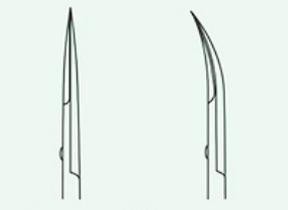
long blades 14 mm, smooth  
 lange Schneide 14 mm, glatt  
 hojas largas 14 mm, lisos  
 lames longues 14 mm, lisses  
 lama lunga 14 mm, liscia



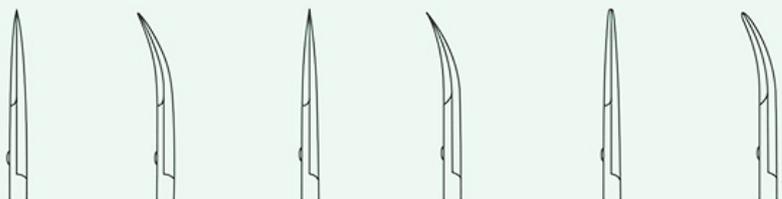
**Vannas**  
13-999-12 13-100-12  
12 cm - 5" 12 cm - 5"  
7 mm Ø 7 mm Ø



**Vannas**  
13-101-15 13-102-15  
15 cm - 6" 15 cm - 6"  
8 mm Ø 8 mm Ø



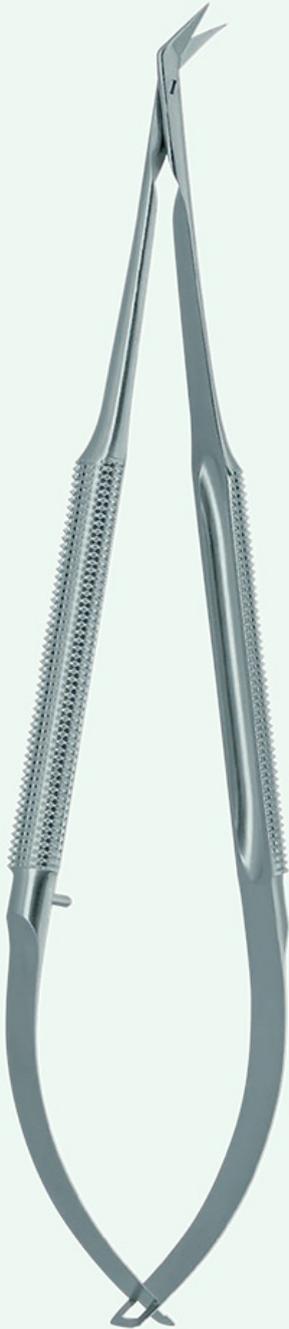
**Castroviejo**  
13-103-15 13-104-15 15 cm - 6"  
8 mm Ø 8 mm Ø



**Irwan**

13-105-08	13-106-08	13-107-08	13-108-08	13-109-08	13-110-08	8 mm Ø
13-105-10	13-106-10	13-107-18	13-108-18	13-109-18	13-110-18	10 mm Ø
18 cm - 7"	18 cm - 7"	18 cm - 7"	18 cm - 7"	18 cm - 7"	18 cm - 7"	
sharp/sharp		sharp/blunt		blunt/blunt		

Micro scissors with round handle  
 Mikroscheren mit Rundgriff  
 Micro tijeras con mango redondo  
 Micro ciseaux avec manche ronde  
 Micro forbici con manico rotondo



**Irwan Pro**

13-111-17	13-112-17	13-113-17	13-114-17	13-115-17	17 cm - 6 3/4"
25°	45°	60°	90°	125°	8 mmØ

Blade 10 mm, with ball, sharp  
 Schneide 10 mm, mit Knopf, spitz  
 Hojas 10 mm, con botón, agudas  
 Lames 10 mm, avec bouton, pointues  
 Lama 10 mm, con bottone, acuta



13-116-18	13-117-18	13-118-18	13-119-18	13-120-18	18 cm - 7"
25°	45°	60°	90°	125°	8 mmØ

Blade 10 mm, without ball, sharp  
 Schneide 10 mm, ohne Knopf, spitz  
 Hojas 10 mm, sin botón, agudas  
 Lames 10 mm, sans bouton, pointues  
 Lama 10 mm, senza bottone, acuta



**Irwan Pro**

**13-121-18**

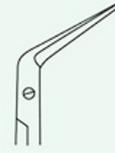
25°

with ball  
mit Knopf  
con botón  
avec bouton  
con bottone



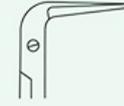
**13-122-18**

45°



**13-123-18**

60°



**13-124-18**

90°



**13-125-18**

125°

18 cm 7"

8 mmØ



**13-126-18**

25°

without ball  
ohne Knopf  
sin botón  
sans bouton  
senza bottone



**13-127-18**

45°



**13-128-18**

60°



**13-129-18**

90°



**13-130-18**

125°

18 cm 7"

8 mmØ



**Dylex**

**13-131-15**

9 mmØ



**13-132-15**

9 mmØ

15 cm - 6"



Jacobson

13-133-16

13-133-18

straight  
gerade

recta  
droits  
retta



13-134-16

13-134-18

curved  
gebogen

curva  
courbes  
curva



13-135-16

13-135-18

angled, 45°  
abgewinkelt, 45°

acodada, 45°  
angulaires, 45°  
angolata, 45°

16 cm - 6 ¼"

18 cm - 7"



13-136-16

13-136-18

Vannas blade  
 Vannas Schneide  
 Hoja de Vannas  
 Lame de Vannas  
 Lama Vannas



13-137-16

13-137-18

13-138-16

13-138-18

16 cm - 6 ¼"

18 cm - 7"



Yasargil-mod.

13-139-18

13-139-22



13-140-18

13-140-22

18 cm - 7"

22.5 cm - 8 ¾"



13-141-22



13-142-22

22.5 cm - 8 ¾"

Vannas blade  
 Vannas Schneide  
 Hoja de Vannas  
 Lame de Vannas  
 Lama Vannas





Yasargil

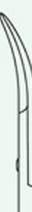
13-143-20	13-144-20	13-145-20	13-146-20	20 cm - 8"
13-143-22	13-144-22	13-145-22	13-146-22	22. cm - 8 3/4"

straight gerade recta droits retta	curved gebogen curva courbes curva	straight, saw edge gerade, gezahnt recta, dentadas droits, dentelées retta, dentata	curved, saw edge gebogen, gezahnt curva, dentadas courbes, dentelées curva, dentata	Blade smooth, sharp Schneide glatt, spitz Hojas lisas, agudas Lames lisses, pointues Lama liscia, acuta
------------------------------------------------	------------------------------------------------	-------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------



13-147-20	13-148-20	20 cm - 8"
13-147-22	13-148-22	22. cm - 8 3/4"

Vannas blade  
Vannas Schneide  
Hoja de Vannas  
Lame de Vannas  
Lama Vannas



13-149-20	13-150-20	20 cm - 8"
13-149-22	13-150-22	22. cm - 8 3/4"

Dissector blade, blunt  
Präparier-Schneide, stumpf  
Hojas de disección, roma  
Lames de dissection, moussé  
Lama da dissezione, smussa



Pierse

13-156-12	12 cm - 4 ¾"
13-156-13	13.5 cm - 5 ¼"



Sholm

13-157-11	13-158-11	11 cm - 4 ¼"
x = 0.2 mm	x = 0.3 mm	
very fine		
sehr fein		
muy fino		
très fin		
molto fino		



**Lazar**  
13-159-15  
15.5 cm - 6"  
0.5 mm



13-160-15  
15.5 cm - 6"  
0.8 mm



9 mm Ø  
**Lester**

13-161-18



9 mm Ø

13-162-18



9 mm Ø

13-163-18  
1x2



9 mm Ø

13-164-18 18 cm - 7"  
1x2

Tying platform 6.0 mm x 0.4 mm, smooth  
Fadenplatte 6,0 mm x 0,4 mm, glatt  
Plataforma 6.0 mm x 0.4 mm, lisa  
Plate-forme 6.0 mm x 0.4 mm, lisse  
Piano per sutura 6.0 mm x 0.4 mm, liscio

9 mm Ø

13-165-18

9 mm Ø

13-166-18

9 mm Ø

13-167-18

9 mm Ø

13-168-18 18 cm - 7"  
1x2

Tying platform 6.0 mm x 0.4 mm, diamond coated  
Fadenplatte 6,0 mm x 0,4 mm, diamantiert  
Plataforma 6.0 mm x 0.4 mm, diamantada  
Plate-forme 6.0 mm x 0.4 mm, diamanté  
Piano per sutura 6.0 mm x 0.4 mm, diamantata



9 mm Ø

13-169-18



9 mm Ø

13-170-18



9 mm Ø

13-171-18



9 mm Ø

13-172-18 18 cm - 7"  
1x2

Tying platform 6.0 mm x 0.8 mm, smooth  
Fadenplatte 6,0 mm x 0,8 mm, glatt  
Plataforma 6.0 mm x 0.8 mm, lisa  
Plate-forme 6.0 mm x 0.8 mm, lisse  
Piano per sutura 6.0 mm x 0.8 mm, liscio

9 mm Ø

13-173-18

9 mm Ø

13-174-18

9 mm Ø

13-175-18

9 mm Ø

13-176-18 18 cm - 7"  
1x2

Tying platform 6.0 mm x 0.8 mm, diamond coated  
Fadenplatte 6,0 mm x 0,8 mm, diamantiert  
Plataforma 6.0 mm x 0.8 mm, diamantada  
Plate-forme 6.0 mm x 0.8 mm, diamanté  
Piano per sutura 6.0 mm x 0.8 mm, diamantata



Lester

13-177-15	13-178-15	13-179-15	13-180-15	15 cm - 6"
13-177-18	13-178-18	13-179-18	13-180-18	18 cm - 7"
13-177-21	13-178-21	13-179-21	13-180-21	21 cm - 8 1/4"
13-177-23	13-178-23	13-179-23	13-180-23	23 cm - 9"
0.3 mm	0.3 mm	0.7 mm	0.7 mm	8 mmØ

Jaw smooth  
Maul glatt  
Boca lisa  
Mors lisse  
Morso liscio



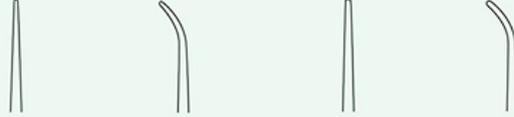
13-181-15	13-182-15	13-183-15	13-184-15	15 cm - 6"
13-181-18	13-182-18	13-183-18	13-184-18	18 cm - 7"
13-181-21	13-182-21	13-183-21	13-184-21	21 cm - 8 1/4"
13-181-23	13-182-23	13-183-23	13-184-23	23 cm - 9"
0.3 mm	0.3 mm	0.7 mm	0.7 mm	8 mmØ

Tying platform 6.0 mm x 0.3mm, smooth  
Fadenplatte 6,0 mm x 0,3mm, glatt  
Plataforma 6.0 mm x 0.3mm, lisa  
Plate-forme 6.0mm x 0.3mm, lisse  
Piano per sutura 6.0 mm x 0.3mm, liscio



13-185-15	13-186-15	13-187-15	13-188-15	15 cm - 6"
13-185-18	13-186-18	13-187-18	13-188-18	18 cm - 7"
13-185-21	13-186-21	13-187-21	13-188-21	21 cm - 8 1/4"
13-185-23	13-186-23	13-187-23	13-188-23	23 cm - 9"
0.3 mm	0.3 mm	0.7 mm 1x2	0.7 mm 1x2	8 mmØ

Tying platform 6.0 mm x 0.7mm, smooth  
Fadenplatte 6,0 mm x 0,7 mm, glatt  
Plataforma 6.0 mm x 0.7mm, lisa  
Plate-forme 6.0 mm x 0.7 mm, lisse  
Piano per sutura 6.0 mm x 0.7 mm, liscio



Lester

13-189-15	13-190-15	13-191-15	13-192-15	15 cm - 6"
13-189-18	13-190-18	13-191-18	13-192-18	18 cm - 7"
13-189-21	13-190-21	13-191-21	13-192-21	21 cm - 8 1/4"
13-189-23	13-190-23	13-191-23	13-192-23	23 cm - 9"

0.3 mm      0.3 mm      0.7 mm      0.7 mm      8 mmØ

diamond coated  
diamantiert  
diamantada  
diamanté  
diamantata



13-193-15	13-194-15	13-195-15	13-196-15	15 cm - 6"
13-193-18	13-194-18	13-195-18	13-196-18	18 cm - 7"
13-193-21	13-194-21	13-195-21	13-196-21	21 cm - 8 1/4"
13-193-23	13-194-23	13-195-23	13-196-23	23 cm - 9"

0.3 mm      0.3 mm      0.7 mm      0.7 mm      8 mmØ

1x2      1x2

Tying platform 6.0 mm x 0.3 mm, diamond coated  
Fadenplatte 6,0 mm x 0,3 mm, diamantiert  
Plataforma 6.0 mm x 0.3 mm, diamantada  
Plate-forme 6.0 mm x 0.3 mm, diamanté  
Piano per sutura 6.0 mm x 0.3 mm, diamantata



13-197-15	13-198-15	13-199-15	13-200-15	15 cm - 6"
13-197-18	13-198-18	13-199-18	13-200-18	18 cm - 7"
13-197-21	13-198-21	13-199-21	13-200-21	21 cm - 8 1/4"
13-197-23	13-198-23	13-199-23	13-200-23	23 cm - 9"

0.3 mm      0.3 mm      0.7 mm      0.7 mm      8 mmØ

1x2      1x2

Tying platform 6.0 mm x 0.7 mm, diamond coated  
Fadenplatte 6,0 mm x 0,7 mm, diamantiert  
Plataforma 6.0 mm x 0.7 mm, diamantada  
Plate-forme 6.0 mm x 0.7 mm, diamanté  
Piano per sutura 6.0 mm x 0.7 mm, diamantata



Jacobson

13-201-16

13-201-18

straight, sharp  
gerade, spitz  
recta, aguda  
droit, pointue  
retta, acuta

13-205-16

13-205-18

straight, sharp  
gerade, spitz  
recta, aguda  
droit, pointue  
retta, acuta

diamond coated  
diamantiert  
diamantada  
diamanté  
diamantata



13-202-16

13-202-18

straight, blunt  
gerade, stumpf  
recta, roma  
droit, mousse  
retta, smussa

13-206-16

13-206-18

straight, blunt  
gerade, stumpf  
recta, roma  
droit, mousse  
retta, smussa



13-203-16

13-203-18

angled, sharp  
abgewinkelt, spitz  
acodada, aguda  
angulaire, pointue  
angolata, acuta

13-207-16

13-207-18

angled, sharp  
abgewinkelt, spitz  
acodada, aguda  
angulaire, pointue  
angolata, acuta



13-204-16

13-204-18

angled, blunt  
abgewinkelt, stumpf  
acodada, roma  
angulaire, mousse  
angolata, smussa

13-208-16

13-208-18

angled, blunt  
abgewinkelt, stumpf  
acodada, roma  
angulaire, mousse  
angolata, smussa



Yasargil

13-209-22

13-209-22

22.5 cm - 8 3/4"

spoon form  
löffelförmig  
forma de cuchara  
forme de cuillère  
forma di cucchiaio



13-210-22

13-210-22

22.5 cm - 8 3/4"

plan toothed  
flach gezahnt  
dentada  
dentelé  
dentato



13-211-22

13-211-22

22.5 cm - 8 3/4"

curette form  
kürettenförmig  
forma de cureta  
forme de curette  
forma di curetta

3.0 mm

5.0 mm



Yasagil

13-212-20

13-212-22

straight, sharp  
gerade, spitz  
recta, aguda  
droit, pointue  
retta, acuta

diamond coated  
diamantiert  
diamantado  
diamanté  
diamantato



13-213-20

13-213-22

straight, blunt  
gerade, stumpf  
recta, roma  
droit, mousse  
retta, smussa

13-214-20

13-214-22

angled, sharp  
abgewinkelt, spitz  
acodada, aguda  
angulaire, pointue  
angolata, acuta

13-215-20

20 cm - 8"

13-215-22

22.5 cm - 8 ¾"

angled, blunt  
abgewinkelt, stumpf  
acodada, roma  
angulaire, mousse  
angolata, smussa

13-216-22

straight, sharp  
gerade, spitz  
recta, aguda  
droit, pointue  
retta, acuta

Titanium

13-217-22

22.5 cm - 8 ¾"

straight, blunt  
gerade, stumpf  
recta, roma  
droit, mousse  
retta, smussa

13-218-20

13-218-22

angled, sharp  
abgewinkelt, spitz  
acodada, aguda  
angulaire, pointue  
angolata, acuta

13-219-20

13-219-22

20 cm - 8"

22.5 cm - 8 ¾"

angled, blunt  
abgewinkelt, stumpf  
acodada, roma  
angulaire, mousse  
angolata, smussa

Micro-forceps with round handle  
 Mikropinzetten mit Rundgriff  
 Pinzas micro con mango redondo  
 Micro-pince avec manche ronde  
 Micro-pinza con manico rotondo

**surgimax™**  
 saving lives



Wolf

9 mmØ

13-220-21

13-220-23

straight, sharp  
 gerade, spitz  
 recta, aguda  
 droit, pointue  
 retta, acuta



9 mmØ

13-221-21

13-221-23

straight, blunt  
 gerade, stumpf  
 recta, roma  
 droit, mousse  
 retta, smussa



9 mmØ

13-222-21

13-222-23

angled, sharp  
 abgewinkelt, spitz  
 acodada, aguda  
 angulaire, pointue  
 angolata, acuta



9 mmØ

13-223-21 21 cm - 8 ¼"

13-223-23 23 cm - 9"

angled, blunt  
 abgewinkelt, stumpf  
 acodada, roma  
 angulaire, mousse  
 angolata, smussa

9 mmØ

13-224-21

13-224-23

straight, sharp  
 gerade, spitz  
 recta, aguda  
 droit, pointue  
 retta, acuta

9 mmØ

13-225-21

13-225-23

straight, blunt  
 gerade, stumpf  
 recta, roma  
 droit, mousse  
 retta, smussa

9 mmØ

13-226-21

13-226-23

angled, sharp  
 abgewinkelt, spitz  
 acodada, aguda  
 angulaire, pointue  
 angolata, acuta

9 mmØ

13-227-21 21 cm - 8 ¼"

13-227-23 23 cm - 9"

angled, blunt  
 abgewinkelt, stumpf  
 acodada, roma  
 angulaire, mousse  
 angolata, smussa

diamond coated  
 diamantiert  
 diamantado  
 diamanté  
 diamantato



<b>Herman</b>						
13-228-15	13-229-15	13-230-15	13-231-15	13-232-15	13-233-15	15 cm - 6"
13-228-18	13-229-18	13-230-18	13-231-18	13-232-18	13-233-18	18 cm - 7"
13-228-21	13-229-21	13-230-21	13-231-21	13-232-21	13-233-21	21 cm - 8 1/4"
13-228-23	13-229-23	13-230-23	13-231-23	13-232-23	13-233-23	23 cm - 9"
1.0 x 0.5 mm	1.0 x 0.5 mm	2.0 x 1.0 mm	2.0 x 1.0 mm	1.0 x 0.5 mm	2.0 x 1.0 mm	9 mmØ
smooth	slightly serrated	smooth	slightly serrated	diamond coated	diamond coated	
glatt	fein gerieft	glatt	fein gerieft	diamantiert	diamantiert	
lisa	lig. estriada	lisa	lig. estriada	diamantada	diamantada	
lisse	légèrement strié	lisse	légèrement strié	diamanté	diamanté	
liscia	fina zigrinata	liscia	fina zigrinata	diamantata	diamantata	
13-234-15	13-235-15	13-236-15	13-237-15	13-238-15	13-239-15	15 cm - 6"
13-234-18	13-235-18	13-236-18	13-237-18	13-238-18	13-239-18	18 cm - 7"
13-234-21	13-235-21	13-236-21	13-237-21	13-238-21	13-239-21	21 cm - 8 1/4"
13-234-23	13-235-23	13-236-23	13-237-23	13-238-23	13-239-23	23 cm - 9"
1.0 x 0.5 mm	1.0 x 0.5 mm	2.0 x 1.0 mm	2.0 x 1.0 mm	1.0 x 0.5 mm	2.0 x 1.0 mm	9 mmØ
smooth	slightly serrated	smooth	slightly serrated	diamond coated	diamond coated	
glatt	fein gerieft	glatt	fein gerieft	diamantiert	diamantiert	
lisa	lig. estriada	lisa	lig. estriada	diamantada	diamantada	
lisse	légèrement strié	lisse	légèrement strié	diamanté	diamanté	
liscia	fina zigrinata	liscia	fina zigrinata	diamantata	diamantata	
<b>Titanium</b>						



Herman

13-240-21

13-240-23

1.0 mm x 0.5 mm

smooth

glatt

liso

lisse

liscia



13-241-21

13-241-23

1.0 mm x 0.5 mm

serrated

gerieft

estriada

strié

zigrinata



13-242-21

13-242-23

2.0 mm x 1.0 mm

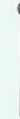
smooth

glatt

liso

lisse

liscia



13-243-21

13-243-23

2.0 mm x 1.0 mm

serrated

gerieft

estriada

strié

zigrinata

21 cm - 8 ¼"

23 cm - 9"

9 mmØ



13-244-21

13-244-23

1.0 mm x 0.5 mm

diamond coated

diamantiert

diamantada

diamanté

diamantata



13-245-21

13-245-23

2.0 mm x 1.0 mm

diamond coated

diamantiert

diamantada

diamanté

diamantata

21 cm - 8 ¼"

23 cm - 9"

9 mmØ



**Stenberg**

13-246-15	13-247-15	13-248-15	13-249-15	15 cm - 6"
13-246-18	13-247-18	13-248-18	13-249-18	18 cm - 7"
13-246-21	13-247-21	13-248-21	13-249-21	21 cm - 8 1/4"
13-246-23	13-247-23	13-248-23	13-249-23	23 cm - 9"
x = 1.2 mm	x = 2.0 mm	x = 1.2 mm	x = 2.0 mm	
straight	straight	angled	angled	
gerade	gerade	abgewinkelt	abgewinkelt	
recta	recta	acodada	acodada	
droit	droit	angulaire	angulaire	
retta	retta	angolata	angolata	



**Castroviejo**

13-250-14	13-251-14	13-252-14	13-253-14	14 cm - 5 1/2"
-----------	-----------	-----------	-----------	----------------

x = 11.0 mm x 0.75 mm

straight	curved	straight, diamond coated	curved, diamond coated
gerade	gebogen	gerade, diamantiert	gebogen, diamantiert
recta	curva	recta, diamantada	curva, diamantada
droit	courbe	droit, diamanté	courbe, diamanté
retto	curvo	retto, diamantato	curvo, diamantato

without ratchet, fine jaws  
 ohne Sperre, feines Maul  
 sin cremallera, boca fina  
 sans crémaillère, mors fine  
 senza cremagliera, morso fino

13-254-14	13-255-14	13-256-14	13-257-14	14 cm - 5 1/2"
-----------	-----------	-----------	-----------	----------------

x = 11.0 mm x 0.75 mm

straight	curved	straight, diamond coated	curved, diamond coated
gerade	gebogen	gerade, diamantiert	gebogen, diamantiert
recta	curva	recta, diamantada	curva, diamantada
droit	courbe	droit, diamanté	courbe, diamanté
retto	curvo	retto, diamantato	curvo, diamantato

with ratchet, fine jaws  
 mit Sperre, feines Maul  
 con cremallera, boca fina  
 avec crémaillère, mors fine  
 con cremagliera, morso fino



Jacobson

13-258-18

x = 1 mm

straight

gerade

recta

droit

retto

without ratchet

ohne Sperre

sin cremallera

sans crémaillère

senza cremagliera

13-259-18

x = 1 mm

curved

gebogen

curva

courbe

curvo

13-260-18

x = 1 mm

straight, diamond coated

gerade, diamantiert

recta, diamantada

droit, diamanté

retto, diamantato

13-261-18

18 cm - 7"

x = 1 mm

curved, diamond coated

gebogen, diamantiert

curva, diamantada

courbe, diamanté

curvo, diamantato

13-262-18

x = 1 mm

straight

gerade

recta

droit

retto

with ratchet

mit Sperre

con cremallera

avec crémaillère

con cremagliera

13-263-18

x = 1 mm

curved

gebogen

curva

courbe

curvo

13-264-18

x = 1 mm

straight, diamond coated

gerade, diamantiert

recta, diamantada

droit, diamanté

retto, diamantato

13-265-18

18 cm - 7"

x = 1 mm

curved, diamond coated

gebogen, diamantiert

curva, diamantada

courbe, diamanté

curvo, diamantato



13-266-18

x = 1 mm

straight, smooth

gerade, glatt

recta, liso

droit, lisse

retto, liscio

without ratchet

ohne Sperre

sin cremallera

sans crémaillère

senza cremagliera

13-267-18

x = 1 mm

curved, smooth

gebogen, glatt

curva, lisa

courbe, lisse

curvo, liscio

13-268-18

x = 1 mm

straight, serrated

gerade, gerieft

recta, estriada

droit, strié

retto, zigrinato

13-269-18

18 cm - 7"

x = 1 mm

1 mm

curved, serrated

gebogen, gerieft

curva, estriada

courbe, strié

curvo, zigrinato

13-270-18

x = 1 mm

straight, smooth

gerade, glatt

recta, liso

droit, lisse

retto, liscio

with ratchet

mit Sperre

con cremallera

avec crémaillère

con cremagliera

13-271-18

x = 1 mm

curved, smooth

gebogen, glatt

curva, lisa

courbe, lisse

curvo, liscio

13-272-18

x = 1 mm

straight, serrated

gerade, gerieft

recta, estriada

droit, strié

retto, zigrinato

13-273-18

18 cm - 7"

x = 1 mm

1 mm

curved, serrated

gebogen, gerieft

curva, estriada

courbe, strié

curvo, zigrinato



Yasargil

13-274-18	13-275-18	13-276-18	13-277-18	18 cm - 7"
13-274-20	13-275-20	13-276-20	13-277-20	20 cm - 8"
straight	curved	straight, diamond coated	curved, diamond coated	
gerade	gebogen	gerade, diamantiert	gebogen, diamantiert	
recta	curva	recta, diamantada	curva, diamantada	
droit	courbe	droit, diamanté	courbe, diamanté	
retto	curvo	retto, diamantato	curvo, diamantato	

without ratchet  
 ohne Sperre  
 sin cremallera  
 sans crémaillère  
 senza cremagliera

13-278-18	13-279-18	13-280-18	13-281-18	18 cm - 7"
13-278-20	13-279-20	13-280-20	13-281-20	20 cm - 8"
straight	curved	straight, diamond coated	curved, diamond coated	
gerade	gebogen	gerade, diamantiert	gebogen, diamantiert	
recta	curva	recta, diamantada	curva, diamantada	
droit	courbe	droit, diamanté	courbe, diamanté	
retto	curvo	retto, diamantato	curvo, diamantato	

with ratchet  
 mit Sperre  
 con cremallera  
 avec crémaillère  
 con cremagliera



Jacobson

13-282-21

x = 1 mm  
straight  
gerade  
recta  
droit  
retto

13-283-21

x = 1 mm  
curved  
gebogen  
curva  
courbe  
curvo

13-284-21

x = 1 mm  
straight, diamond coated  
gerade, diamantiert  
recta, diamantada  
droit, diamanté  
retto, diamantato

13-285-21 21 cm - 8 1/4"

x = 1 mm  
curved, diamond coated  
gebogen, diamantiert  
curva, diamantada  
courbe, diamanté  
curvo, diamantato

without ratchet  
ohne Sperre  
sin cremallera  
sans crémaillère  
senza cremagliera

13-286-21

x = 1 mm  
straight  
gerade  
recta  
droit  
retto

13-287-21

x = 1 mm  
curved  
gebogen  
curva  
courbe  
curvo

13-288-21

x = 1 mm  
straight, diamond coated  
gerade, diamantiert  
recta, diamantada  
droit, diamanté  
retto, diamantato

13-289-21 21 cm - 8 1/4"

x = 1 mm  
curved, diamond coated  
gebogen, diamantiert  
curva, diamantada  
courbe, diamanté  
curvo, diamantato

with ratchet  
mit Sperre  
con cremallera  
avec crémaillère  
con cremagliera



13-290-21

x = 1 mm  
straight, smooth  
gerade, glatt  
recta, liso  
droit, lisse  
retto, liscio

13-291-21

x = 1 mm  
curved, smooth  
gebogen, glatt  
curva, lisa  
courbe, lisse  
curvo, liscio

13-292-21

x = 1 mm  
straight, serrated  
gerade, gerieft  
recta, estriada  
droit, strié  
retto, zigrinato

13-293-21 21 cm - 8 1/4"

x = 1 mm  
curved, serrated  
gebogen, gerieft  
curva, estriada  
courbe, strié  
curvo, zigrinato

without ratchet  
ohne Sperre  
sin cremallera  
sans crémaillère  
senza cremagliera

13-295-21

x = 1 mm  
straight, smooth  
gerade, glatt  
recta, liso  
droit, lisse  
retto, liscio

13-296-21

x = 1 mm  
curved, smooth  
gebogen, glatt  
curva, lisa  
courbe, lisse  
curvo, liscio

13-297-21

x = 1 mm  
straight, serrated  
gerade, gerieft  
recta, estriada  
droit, strié  
retto, zigrinato

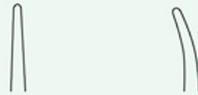
13-298-21 21 cm - 8 1/4"

x = 1 mm  
curved, serrated  
gebogen, gerieft  
curva, estriada  
courbe, strié  
curvo, zigrinato

with ratchet  
mit Sperre  
con cremallera  
avec crémaillère  
con cremagliera



Micro needle holders with round handle  
 Mikronadelhalter mit Rundgriff  
 Micro porta agujas con mango redondo  
 Micro porte aiguilles avec manche ronde  
 Porta Micro aghi con manico rotondo



Hubson

13-299-01	13-300-01	11 cm - 4 1/4"	8 mmØ
13-299-02	13-300-02	12.5 cm - 5"	7 mmØ
13-299-03	13-300-03	13 cm - 5"	8 mmØ
13-299-04	13-300-04	13 cm - 5"	10 mmØ
13-299-05	13-300-05	15 cm - 6"	8 mmØ
13-299-06	13-300-06	18 cm - 7"	8 mmØ
13-299-07	13-300-07	18 cm - 7"	10 mmØ

straight  
 gerade  
 recta  
 droit  
 retto

curved  
 gebogen  
 curva  
 courbe  
 curvo

without ratchet  
 ohne Sperre  
 sin cremallera  
 sans crémaillère  
 senza cremagliera

13-301-01	13-302-01	11 cm - 4 1/4"	8 mmØ
13-301-02	13-302-02	12.5 cm - 5"	7 mmØ
13-301-03	13-302-03	13 cm - 5"	8 mmØ
13-301-04	13-302-04	13 cm - 5"	10 mmØ
13-301-05	13-302-05	15 cm - 6"	8 mmØ
13-301-06	13-302-06	18 cm - 7"	8 mmØ
13-301-07	13-302-07	18 cm - 7"	10 mmØ

straight  
 gerade  
 recta  
 droit  
 retto

curved  
 gebogen  
 curva  
 courbe  
 curvo

with ratchet  
 mit Sperre  
 con cremallera  
 avec crémaillère  
 con cremagliera



**Barraquer**

13-303-14

straight  
gerade  
recta  
droit  
retto

13-304-14

curved  
gebogen  
curva  
courbe  
curvo

13-305-14

straight, diamond coated  
gerade, diamantiert  
recta, diamantada  
droit, diamanté  
retto, diamantato

13-306-14

curved, diamond coated  
gebogen, diamantiert  
curva, diamantada  
courbe, diamanté  
curvo, diamantato

14 cm - 5 1/2"

8 mmØ

without ratchet, extra delicate jaws  
ohne Sperre, sehr feines Maul  
sin cremallera, boca muy fina  
sans crémaillère, mors très fine  
senza cremagliera, morso molto fino

13-307-14

straight  
gerade  
recta  
droit  
retto

13-308-14

curved  
gebogen  
curva  
courbe  
curvo

13-309-14

straight, diamond coated  
gerade, diamantiert  
recta, diamantada  
droit, diamanté  
retto, diamantato

13-310-14

curved, diamond coated  
gebogen, diamantiert  
curva, diamantada  
courbe, diamanté  
curvo, diamantato

14 cm - 5 1/2"

8 mmØ

with ratchet, extra delicate jaws  
mit Sperre, sehr feines Maul  
con cremallera, boca muy fina  
avec crémaillère, mors très fine  
con cremagliera, morso molto fino



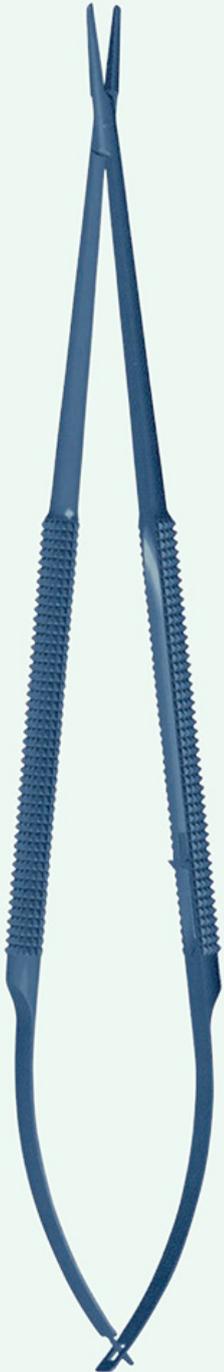
**Dylex Hegar**

13-311-15

15 cm - 6"  
9 mm Ø

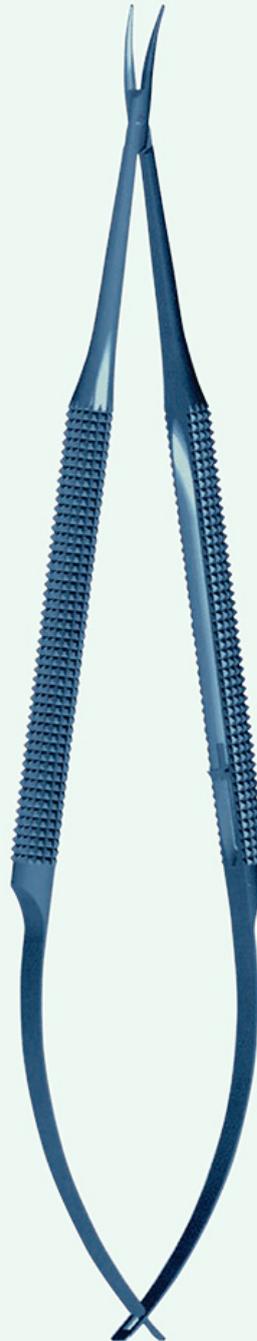
without ratchet, curved  
ohne Sperre, gebogen  
sin cremallera, curvo  
sans crémaillère, courbe  
senza cremagliera, curvo





	
<b>Luke</b>	
<b>13-312-18</b>	<b>13-313-18</b>
18.5 cm - 7 1/4"	18.5 cm - 7 1/4"
0.8 mm x 0.8 mm	0.8 mm x 0.8 mm

Titanium, with ratchet  
 Titan, mit Sperre  
 Titano, con cremallera  
 Titane, avec crémaillère  
 Titanio, con cremagliera



	
<b>Luke Modified</b>	
<b>13-314-18</b>	<b>13-315-18</b>
18 cm - 7"	18 cm - 7"
0.3 mm x 0.4 mm	0.3 mm x 0.4 mm

Titanium, with ratchet  
 Titan, mit Sperre  
 Titano, con cremallera  
 Titane, avec crémaillère  
 Titanio, con cremagliera



**York**

**13-320-20**

20 cm - 8"

0.5 mm x 0.8 mm

**13-321-20**

20 cm - 8"

0.5 mm x 0.8 mm

Titanium, with ratchet  
Titan, mit Sperre  
Titano, con cremallera  
Titane, avec crémaillère  
Titanio, con cremagliera



**Zeff**

**13-316-20**

0.4 x 0.6 mm

**13-317-20**

0.4 x 0.6 mm

**13-318-20**

0.6 x 0.6 mm

**13-319-20**

0.6 x 0.6 mm

20 cm - 8"

Titanium, with ratchet  
Titan, mit Sperre  
Titano, con cremallera  
Titane, avec crémaillère  
Titanio, con cremagliera



Carlson  
13-322-01



13-323-01 22.5 cm - 8 3/4"

13-322-02

13-323-02 22.5 cm - 8 3/4"

without ratchet  
ohne Sperre  
sin cremallera  
sans crémaillère  
senza cremagliera

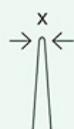
Titanium  
Titan  
Titano  
Titane  
Titanio

13-324-22

13-325-22 22.5 cm - 8 3/4"

with ratchet  
mit Sperre  
con cremallera  
avec crémaillère  
con cremagliera

Titanium  
Titan  
Titano  
Titane  
Titanio



Yasargil

13-326-20
13-326-22
13-326-24

x = 0.4 mm

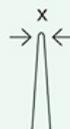
straight  
gerade  
recta  
droit  
retto



13-327-20
13-327-22
13-327-24

x = 0.4 mm

curved  
gebogen  
curva  
courbe  
curvo



13-328-20
13-328-22
13-328-24

x = 0.9 mm

straight  
gerade  
recta  
droit  
retto



13-329-20	20 cm - 8"
13-329-22	22.5 cm - 8 ¾"
13-329-24	24 cm - 9 ½"

x = 0.9 mm

curved  
gebogen  
curva  
courbe  
curvo

without ratchet  
ohne Sperre  
sin cremallera  
sans crémaillère  
senza cremagliera

13-330-20
13-330-22
13-330-24

x = 0.4 mm

straight  
gerade  
recta  
droit  
retto

13-331-20
13-331-22
13-331-24

x = 0.4 mm

curved  
gebogen  
curva  
courbe  
curvo

13-332-20
13-332-22
13-332-24

x = 0.9 mm

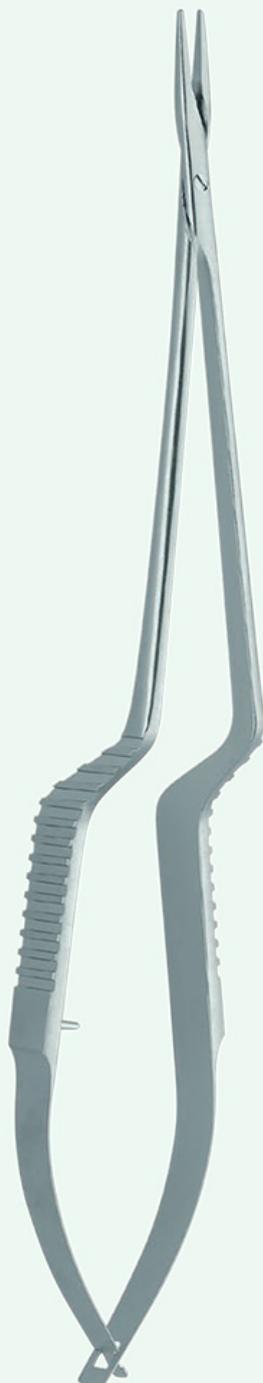
straight  
gerade  
recta  
droit  
retto

13-333-20	20 cm - 8"
13-333-22	22.5 cm - 8 ¾"
13-333-24	24 cm - 9 ½"

x = 0.9 mm

curved  
gebogen  
curva  
courbe  
curvo

without ratchet, diamond coated  
ohne Sperre, diamantiert  
sin cremallera, diamantada  
sans crémaillère, diamanté  
senza cremagliera, diamantato



Jacobson

13-334-18

straight  
 gerade  
 recta  
 droit  
 retto



13-335-18

curved  
 gebogen  
 curva  
 courbe  
 curvo



13-336-18

straight, diamond coated  
 gerade, diamantiert  
 recta, diamantada  
 droit, diamanté  
 retto, diamantato



13-337-18

curved, diamond coated  
 gebogen, diamantiert  
 curva, diamantada  
 courbe, diamanté  
 curvo, diamantato

18 cm - 7"

without ratchet  
 ohne Sperre  
 sin cremallera  
 sans crémaillère  
 senza cremagliera

13-338-18

straight  
 gerade  
 recta  
 droit  
 retto

13-339-18

curved  
 gebogen  
 curva  
 courbe  
 curvo

13-340-18

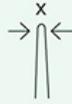
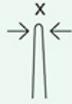
straight, diamond coated  
 gerade, diamantiert  
 recta, diamantada  
 droit, diamanté  
 retto, diamantato

13-341-18

curved, diamond coated  
 gebogen, diamantiert  
 curva, diamantada  
 courbe, diamanté  
 curvo, diamantato

18 cm - 7"

with ratchet  
 mit Sperre  
 con cremallera  
 avec crémaillère  
 con cremagliera



Range

13-342-23

x = 1.0 mm  
straight  
gerade  
recta  
droit  
retto

13-343-23

x = 1.0 mm  
curved  
gebogen  
curva  
courbe  
curvo

13-344-23

x = 1.0 mm  
straight, diamond coated  
gerade, diamantiert  
recta, diamantada  
droit, diamanté  
retto, diamantato

13-345-23

x = 1.0 mm  
curved, diamond coated  
gebogen, diamantiert  
curva, diamantada  
courbe, diamanté  
curvo, diamantato

23 cm - 9"

9 mmØ

without ratchet  
ohne Sperre  
sin cremallera  
sans crémaillère  
senza cremagliera

13-346-23

x = 1.0 mm  
straight  
gerade  
recta  
droit  
retto

13-347-23

x = 1.0 mm  
curved  
gebogen  
curva  
courbe  
curvo

13-348-23

x = 1.0 mm  
straight, diamond coated  
gerade, diamantiert  
recta, diamantada  
droit, diamanté  
retto, diamantato

13-349-23

x = 1.0 mm  
curved, diamond coated  
gebogen, diamantiert  
curva, diamantada  
courbe, diamanté  
curvo, diamantato

23 cm - 9"

9 mmØ

with ratchet  
mit Sperre  
con cremallera  
avec crémaillère  
con cremagliera



13-350-23

straight, smooth  
gerade, glatt  
recta, liso  
droit, lisse  
retto, liscio

13-351-23

curved, smooth  
gebogen, glatt  
curva, lisa  
courbe, lisse  
curvo, liscio

13-352-23

straight, serrated  
gerade, gerieft  
recta, estriada  
droit, strié  
retto, zigrinato

13-353-23

curved, serrated  
gebogen, gerieft  
curva, estriada  
courbe, strié  
curvo, zigrinato

23 cm - 9"

9 mmØ

without ratchet  
ohne Sperre  
sin cremallera  
sans crémaillère  
senza cremagliera

13-354-23

straight, smooth  
gerade, glatt  
recta, liso  
droit, lisse  
retto, liscio

13-355-23

curved, smooth  
gebogen, glatt  
curva, lisa  
courbe, lisse  
curvo, liscio

13-356-23

straight, serrated  
gerade, gerieft  
recta, estriada  
droit, strié  
retto, zigrinato

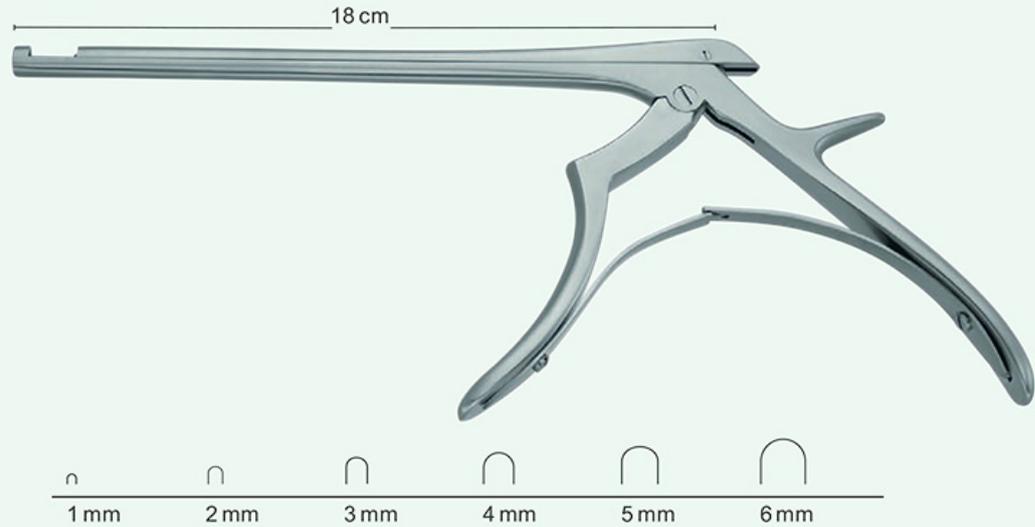
13-357-23

curved, serrated  
gebogen, gerieft  
curva, estriada  
courbe, strié  
curvo, zigrinato

23 cm - 9"

9 mmØ

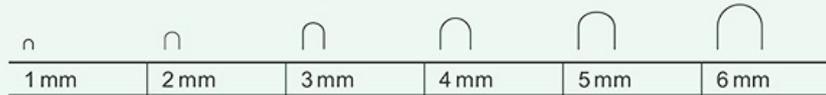
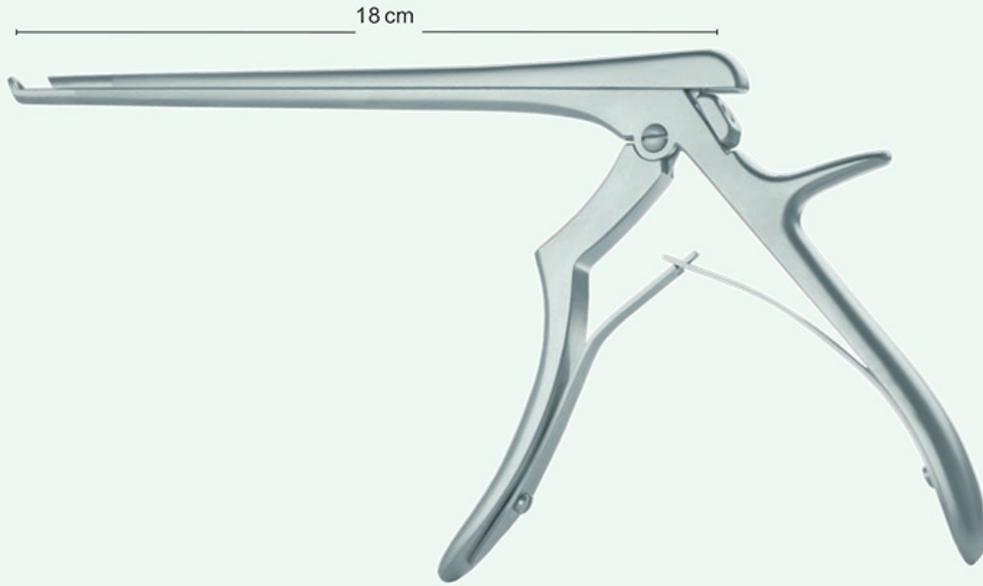
with ratchet  
mit Sperre  
con cremallera  
avec crémaillère  
con cremagliera



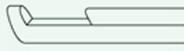
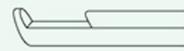
Ferris- Smith-Kerrison

	13-358-01	13-359-01	13-360-01	13-361-01	1 mm
	13-358-02	13-359-02	13-360-02	13-361-02	2 mm
	13-358-03	13-359-03	13-360-03	13-361-03	3 mm
	13-358-04	13-359-04	13-360-04	13-361-04	4 mm
	13-358-05	13-359-05	13-360-05	13-361-05	5 mm
	13-358-06	13-359-06	13-360-06	13-361-06	6 mm
	13-362-07	13-363-07	13-364-07	13-365-07	1 mm
	13-362-08	13-363-08	13-364-08	13-365-08	2 mm
	13-362-09	13-363-09	13-364-09	13-365-09	3 mm
	13-362-10	13-363-10	13-364-10	13-365-10	4 mm
	13-362-11	13-363-11	13-364-11	13-365-11	5 mm
	13-362-12	13-363-12	13-364-12	13-365-12	6 mm
	13-366-13	13-367-13	13-368-13	13-369-13	1 mm
	13-366-14	13-367-14	13-368-14	13-369-14	2 mm
	13-366-15	13-367-15	13-368-15	13-369-15	3 mm
	13-366-16	13-367-16	13-368-16	13-369-16	4 mm
	13-366-17	13-367-17	13-368-17	13-369-17	5 mm
	13-366-18	13-367-18	13-368-18	13-369-19	6 mm
20 cm Thin footplate	13-369-20	13-370-19	13-371-11	13-371-01	1 mm
	13-369-21	13-370-20	13-371-22	13-371-02	2 mm
	13-369-22	13-370-21	13-371-33	13-371-03	3 mm
	13-369-23	13-370-22	13-371-44	13-371-04	4 mm
	13-369-24	13-370-23	13-371-55	13-371-05	5 mm
	13-369-25	13-370-24	13-371-66	13-371-06	6 mm
	x = 15 cm - 6"	x = 18 cm - 7"	x = 20 cm - 8"	x = 23 cm - 9"	

add "B" with catalogue part number if required in black TiN coating  
 add "E" with catalogue part number if required with ejector

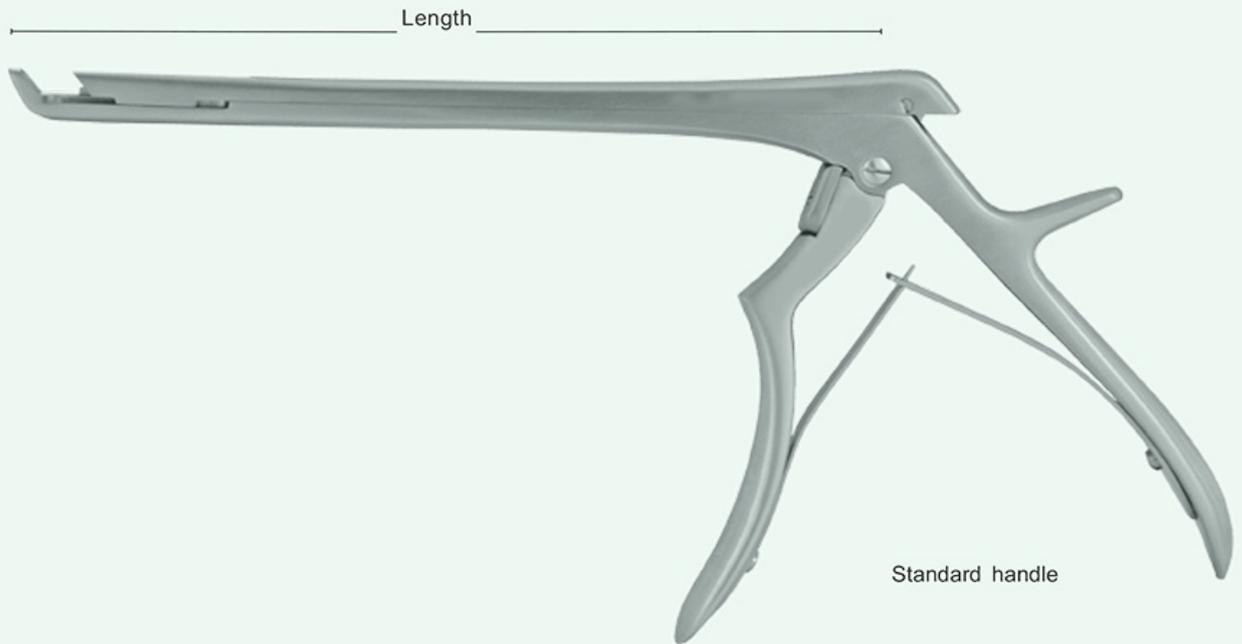


Ferris- Smith-Kerrison (Detachable)

	13-372-01	13-372-07	13-373-01	1 mm
	13-372-02	13-372-08	13-373-02	2 mm
	13-372-03	13-372-09	13-373-03	3 mm
	13-372-04	13-372-10	13-373-04	4 mm
	13-372-05	13-372-11	13-373-05	5 mm
	13-372-06	13-372-12	13-373-06	6 mm
	13-374-01	13-374-07	13-375-01	1 mm
	13-374-02	13-374-08	13-375-02	2 mm
	13-374-03	13-374-09	13-375-03	3 mm
	13-374-04	13-374-10	13-375-04	4 mm
	13-374-05	13-374-11	13-375-05	5 mm
	13-374-06	13-374-12	13-375-06	6 mm
	13-376-01	13-376-13	13-377-01	1 mm
	13-376-02	13-376-14	13-377-02	2 mm
	13-376-03	13-376-15	13-377-03	3 mm
	13-376-04	13-376-16	13-377-04	4 mm
	13-376-05	13-376-17	13-377-05	5 mm
	13-376-06	13-376-18	13-377-06	6 mm
	13-376-07	13-376-19	13-377-11	1 mm
	13-376-08	13-376-20	13-377-12	2 mm
	13-376-09	13-376-21	13-377-07	3 mm
	13-376-10	13-376-22	13-377-08	4 mm
	13-376-11	13-376-23	13-377-09	5 mm
	13-376-12	13-376-24	13-377-10	6 mm
	x = 18 cm - 7"	x = 20 cm - 8"	x = 23 cm - 9"	

Thin footplate  
Dünne Fußplatte  
Lámina de punzonar estrecha  
Plaque de coupe étroite  
Battente sottile

 add "B" with catalogue part number if required in black TiN coating  
add "E" with catalogue part number if required with ejector



**Ferris- Smith-Kerrison**

Fig. 1

13-677-01
13-678-01
13-677-02
13-678-02
13-677-03
13-678-03
13-677-04
13-678-04
13-677-05
13-678-05
13-677-06
13-678-06

Upwards cutting 40°

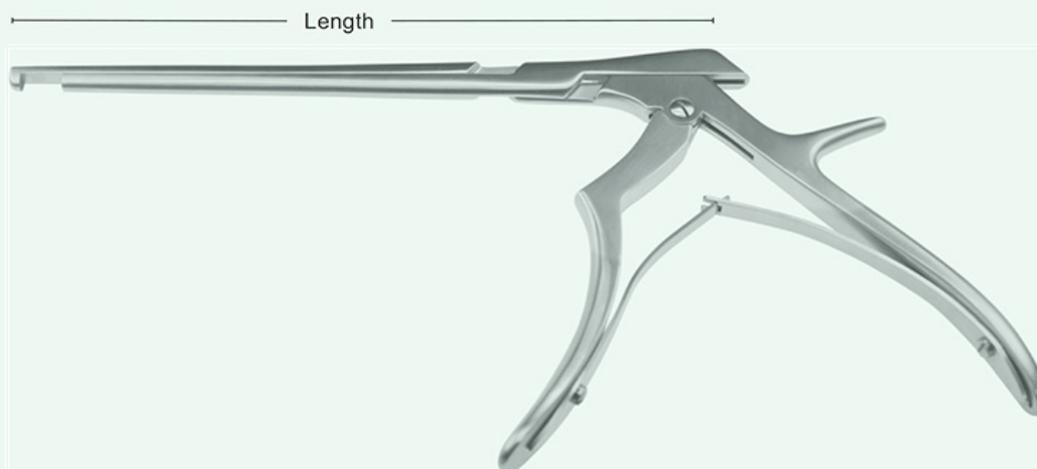
Fig. 2

	Length
13-679-01	1 mm 18 cm / 7"
13-680-01	1 mm 23 cm / 9"
13-679-02	2 mm 18 cm / 7"
13-680-02	2 mm 23 cm / 9"
13-679-03	3 mm 18 cm / 7"
13-680-03	3 mm 23 cm / 9"
13-679-04	4 mm 18 cm / 7"
13-680-04	4 mm 23 cm / 9"
13-679-05	5 mm 18 cm / 7"
13-680-05	5 mm 23 cm / 9"
13-679-06	6 mm 18 cm / 7"
13-680-06	6 mm 23 cm / 9"

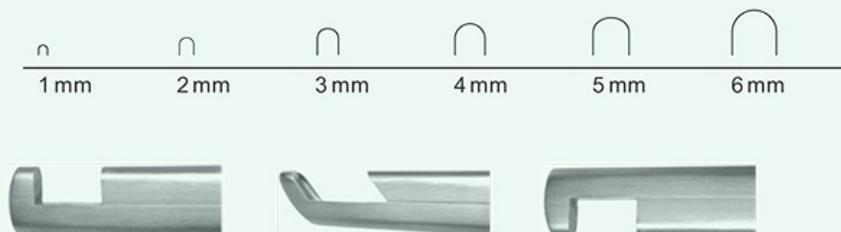
Upwards cutting 90°



add "B" with catalogue part number if required in black TiN coating  
 add "E" with catalogue part number if required with ejector



Standard handle



Love - Kerrison

Fig. 1

13-681-01
13-681-02
13-681-03
13-681-04
13-681-05
13-681-06
13-682-01
13-682-02
13-682-03
13-682-04
13-682-05
13-682-06

Upwards cutting 90°

Fig. 2

13-683-01
13-683-02
13-683-03
13-683-04
13-683-05
13-683-06
13-684-01
13-684-02
13-684-03
13-684-04
13-684-05
13-684-06

Upwards cutting 40°

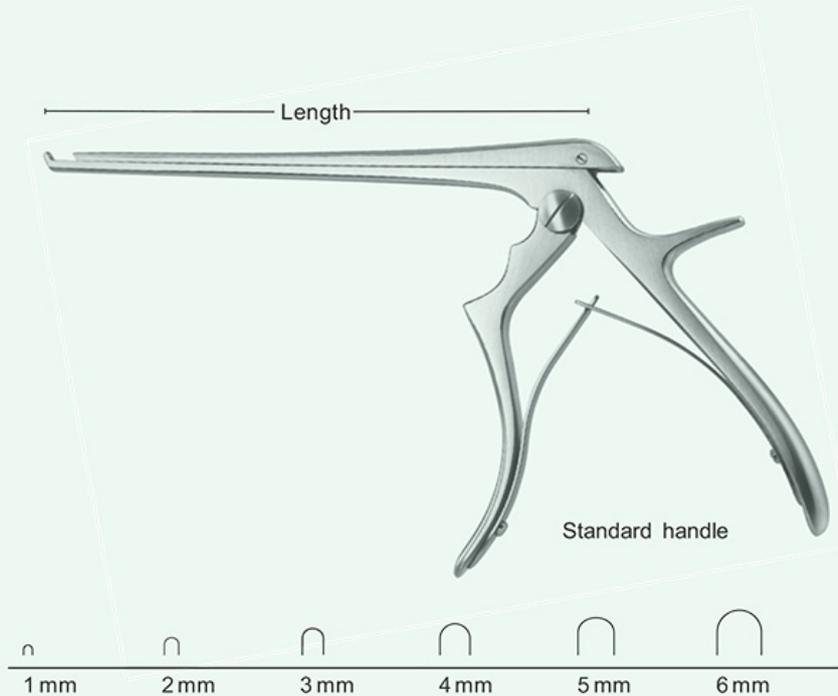
Fig. 3

	Length
13-685-01	1 mm 18 cm / 7"
13-685-02	2 mm 18 cm / 7"
13-685-02	3 mm 18 cm / 7"
13-685-04	4 mm 18 cm / 7"
13-685-05	5 mm 18 cm / 7"
13-685-06	6 mm 18 cm / 7"
13-686-01	1 mm 20 cm / 8"
13-686-02	2 mm 20 cm / 8"
13-686-03	3 mm 20 cm / 8"
13-686-04	4 mm 20 cm / 8"
13-686-05	5 mm 20 cm / 8"
13-686-06	6 mm 20 cm / 8"

Upwards cutting 90°



add "B" with catalogue part number if required in black TiN coating  
add "E" with catalogue part number if required with ejector



**Kerrison**

Fig. 1	Fig. 2	Fig. 3	Fig. 4	Length
13-723-02	13-727-02	13-731-02	13-002-02	2 mm 15 cm / 6"
13-723-03	13-727-03	13-731-03	13-002-03	3 mm 15 cm / 6"
13-723-04	13-727-04	13-731-04	13-002-04	4 mm 15 cm / 6"
13-723-05	13-727-05	13-731-05	13-002-05	5 mm 15 cm / 6"
13-724-01	13-728-01	13-732-01	13-734-01	1 mm 18 cm / 7"
13-724-02	13-728-02	13-732-02	13-734-02	2 mm 18 cm / 7"
13-724-03	13-728-03	13-732-03	13-734-03	3 mm 18 cm / 7"
13-724-04	13-728-04	13-732-04	13-734-04	4 mm 18 cm / 7"
13-724-05	13-728-05	13-732-05	13-734-05	5 mm 18 cm / 7"
13-725-02	13-729-02	13-733-02	13-003-02	2 mm 20 cm / 8"
13-725-03	13-729-03	13-733-03	13-003-03	3 mm 20 cm / 8"
13-725-04	13-729-04	13-733-04	13-003-04	4 mm 20 cm / 8"
13-725-05	13-729-05	13-733-05	13-003-05	5 mm 20 cm / 8"
13-726-02	13-730-02	13-001-02	13-004-02	2 mm 23 cm / 9"
13-726-03	13-730-03	13-001-03	13-004-03	3 mm 23 cm / 9"
13-726-04	13-730-04	13-001-04	13-004-04	4 mm 23 cm / 9"
13-726-05	13-730-05	13-001-05	13-004-05	5 mm 23 cm / 9"
Upwards cutting 90° Thin footplate	Upwards cutting 40° Thin footplate	Downwards cutting 90° Thin footplate	Downwards cutting 40° Thin footplate	

**i** add "B" with catalogue part number if required in black TiN coating  
 add "E" with catalogue part number if required with ejector

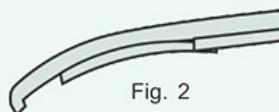
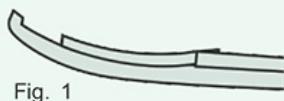
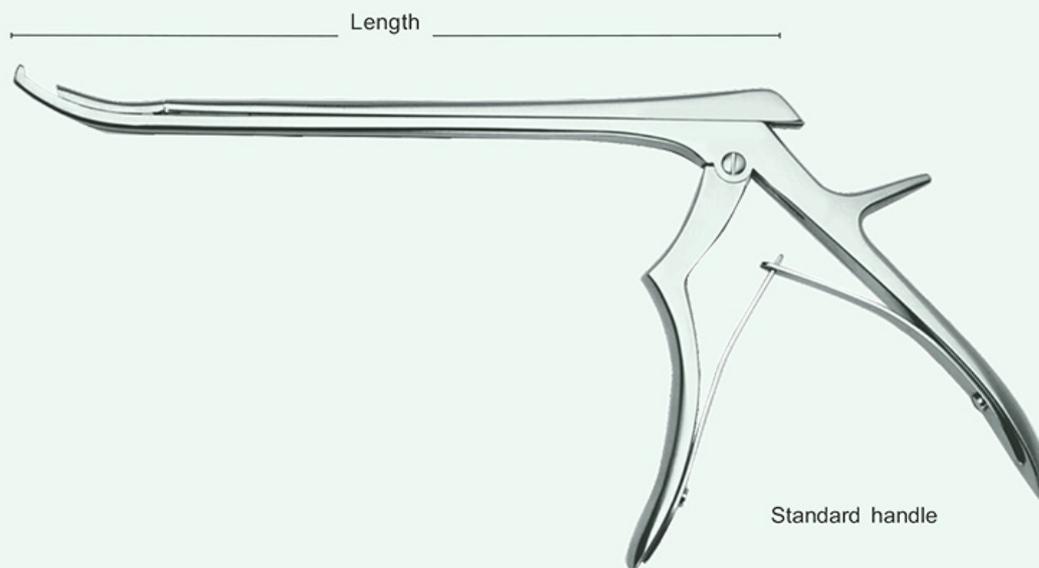


Fig. 1

Fig. 2

Kerrison  
Fig. 1

	Fig. 2	Length
13-735-01	13-738-01 1 mm	18 cm / 7"
13-736-01	13-739-01 1 mm	20 cm / 8"
13-737-01	13-740-01 1 mm	23 cm / 9"
13-735-02	13-738-02 2 mm	18 cm / 7"
13-736-02	13-739-02 2 mm	20 cm / 8"
13-737-02	13-740-02 2 mm	23 cm / 9"
13-735-03	13-738-03 3 mm	18 cm / 7"
13-736-03	13-739-03 3 mm	20 cm / 8"
13-737-03	13-740-03 3 mm	23 cm / 9"
13-735-04	13-738-04 4 mm	18 cm / 7"
13-736-04	13-739-04 4 mm	20 cm / 8"
13-737-04	13-740-04 4 mm	23 cm / 9"
13-735-05	13-738-05 5 mm	18 cm / 7"
13-736-05	13-739-05 5 mm	20 cm / 8"
13-737-05	13-740-05 5 mm	23 cm / 9"
13-735-06	13-738-06 6 mm	18 cm / 7"
13-736-06	13-739-06 6 mm	20 cm / 8"
13-737-06	13-740-06 6 mm	23 cm / 9"

Upwards cutting 40°

Fig. 2

Kerrison Fig. 1	Fig. 2	Length
13-741-01	13-744-01 1 mm	18 cm / 7"
13-742-01	13-745-01 1 mm	20 cm / 8"
13-743-01	13-746-01 1 mm	23 cm / 9"
13-741-02	13-744-02 2 mm	18 cm / 7"
13-742-02	13-745-02 2 mm	20 cm / 8"
13-743-02	13-746-02 2 mm	23 cm / 9"
13-741-03	13-744-03 3 mm	18 cm / 7"
13-742-03	13-745-03 3 mm	20 cm / 8"
13-743-03	13-746-03 3 mm	23 cm / 9"
13-741-04	13-744-04 4 mm	18 cm / 7"
13-742-04	13-745-04 4 mm	20 cm / 8"
13-743-04	13-746-04 4 mm	23 cm / 9"
13-741-05	13-744-05 5 mm	18 cm / 7"
13-742-05	13-745-05 5 mm	20 cm / 8"
13-743-05	13-746-05 5 mm	23 cm / 9"
13-741-06	13-744-06 6 mm	18 cm / 7"
13-742-06	13-745-06 6 mm	20 cm / 8"
13-743-06	13-746-06 6 mm	23 cm / 9"

Downwards cutting 40°

Kerrison  
Fig. 1

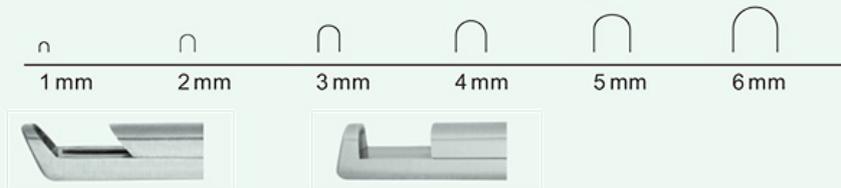
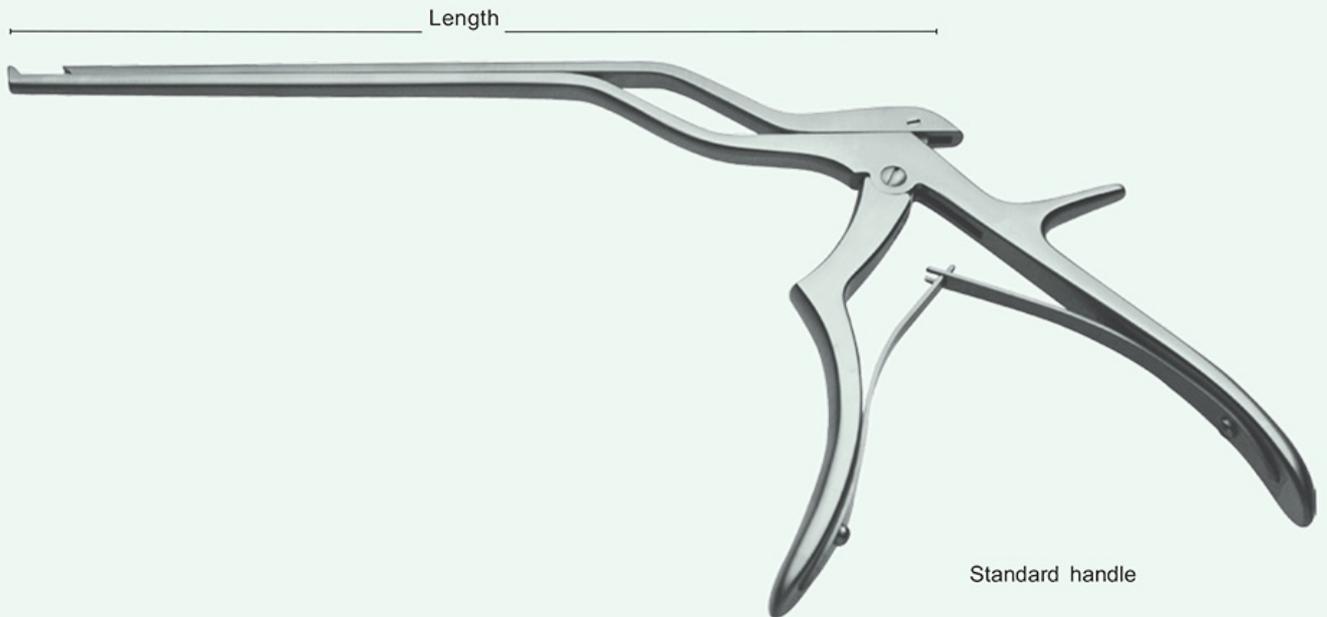
Kerrison Fig. 1	Fig. 2	Length
13-741-01	13-744-01 1 mm	18 cm / 7"
13-742-01	13-745-01 1 mm	20 cm / 8"
13-743-01	13-746-01 1 mm	23 cm / 9"
13-741-02	13-744-02 2 mm	18 cm / 7"
13-742-02	13-745-02 2 mm	20 cm / 8"
13-743-02	13-746-02 2 mm	23 cm / 9"
13-741-03	13-744-03 3 mm	18 cm / 7"
13-742-03	13-745-03 3 mm	20 cm / 8"
13-743-03	13-746-03 3 mm	23 cm / 9"
13-741-04	13-744-04 4 mm	18 cm / 7"
13-742-04	13-745-04 4 mm	20 cm / 8"
13-743-04	13-746-04 4 mm	23 cm / 9"
13-741-05	13-744-05 5 mm	18 cm / 7"
13-742-05	13-745-05 5 mm	20 cm / 8"
13-743-05	13-746-05 5 mm	23 cm / 9"
13-741-06	13-744-06 6 mm	18 cm / 7"
13-742-06	13-745-06 6 mm	20 cm / 8"
13-743-06	13-746-06 6 mm	23 cm / 9"

Upwards cutting 40°  
Bayonet

Downwards cutting 40°  
Bayonet



add "B" with catalogue part number if required in black TiN coating  
add "E" with catalogue part number if required with ejector



**Kerrison**  
 Fig. 1

13-747-01
13-748-01
13-749-01
13-747-02
13-748-02
13-749-02
13-747-03
13-748-03
13-749-03
13-747-04
13-748-04
13-749-04
13-747-05
13-748-05
13-749-05
13-747-06
13-748-06
13-749-06

Upwards cutting 40°

Fig. 2

	Length
13-750-01	1 mm 11 cm / 4¼"
13-751-01	1 mm 15 cm / 6"
13-752-01	1 mm 18 cm / 7"
13-750-02	2 mm 11 cm / 4¼"
13-751-02	2 mm 15 cm / 6"
13-752-02	2 mm 18 cm / 7"
13-750-03	3 mm 11 cm / 4¼"
13-751-03	3 mm 15 cm / 6"
13-752-03	3 mm 18 cm / 7"
13-750-04	4 mm 11 cm / 4¼"
13-751-04	4 mm 15 cm / 6"
13-752-04	4 mm 18 cm / 7"
13-750-05	5 mm 11 cm / 4¼"
13-751-05	5 mm 15 cm / 6"
13-752-05	5 mm 18 cm / 7"
13-750-06	6 mm 11 cm / 4¼"
13-751-06	6 mm 15 cm / 6"
13-752-06	6 mm 18 cm / 7"

Upwards cutting 90°

**i** add "B" with catalogue part number if required in black TiN coating  
 add "E" with catalogue part number if required with ejector



**Kerrison**

Fig. 1

13-753-01
13-754-01
13-755-01
13-753-02
13-754-02
13-755-02
13-753-03
13-754-03
13-755-03
13-753-04
13-754-04
13-755-04
13-753-05
13-754-05
13-755-05
13-753-06
13-754-06
13-755-06

Upwards cutting 40°

Bayonet left

Fig. 2

13-756-01
13-757-01
13-758-01
13-756-02
13-757-02
13-758-02
13-756-03
13-757-03
13-758-03
13-756-04
13-757-04
13-758-04
13-756-05
13-757-05
13-758-05
13-756-06
13-757-06
13-758-06

Upwards cutting 90°

Bayonet left

Fig. 3

13-759-01
13-760-01
13-761-01
13-759-02
13-760-02
13-761-02
13-759-03
13-760-03
13-761-03
13-759-04
13-760-04
13-761-04
13-759-05
13-760-05
13-761-05
13-759-06
13-760-06
13-761-06

Upwards cutting 40°

Bayonet right

Fig. 4

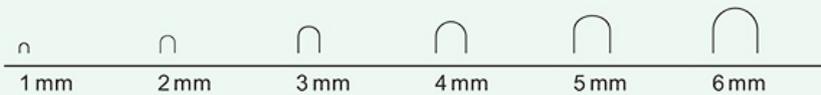
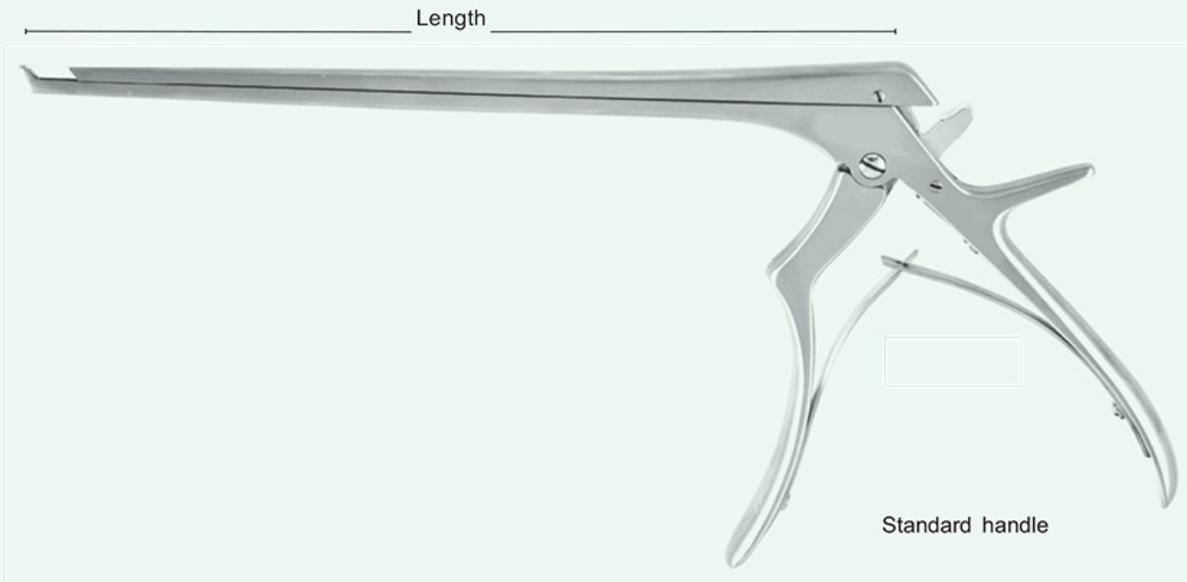
	Length
13-762-01	1 mm 11 cm / 4¼"
13-763-01	1 mm 15 cm / 6"
13-764-01	1 mm 18 cm / 7"
13-762-02	2 mm 11 cm / 4¼"
13-763-02	2 mm 15 cm / 6"
13-764-02	2 mm 18 cm / 7"
13-762-03	3 mm 11 cm / 4¼"
13-763-03	3 mm 15 cm / 6"
13-764-03	3 mm 18 cm / 7"
13-762-04	4 mm 11 cm / 4¼"
13-763-04	4 mm 15 cm / 6"
13-764-04	4 mm 18 cm / 7"
13-762-05	5 mm 11 cm / 4¼"
13-763-05	5 mm 15 cm / 6"
13-764-05	5 mm 18 cm / 7"
13-762-06	6 mm 11 cm / 4¼"
13-763-06	6 mm 15 cm / 6"
13-764-06	6 mm 18 cm / 7"

Upwards cutting 90°

Bayonet right



add "B" with catalogue part number if required in black TiN coating  
add "E" with catalogue part number if required with ejector



**Kerrison Detachable**

Fig. 1

13-765-01
13-766-01
13-765-02
13-766-02
13-765-03
13-766-03
13-765-04
13-766-04
13-765-05
13-766-05
13-765-06
13-766-06

Upwards cutting 40°

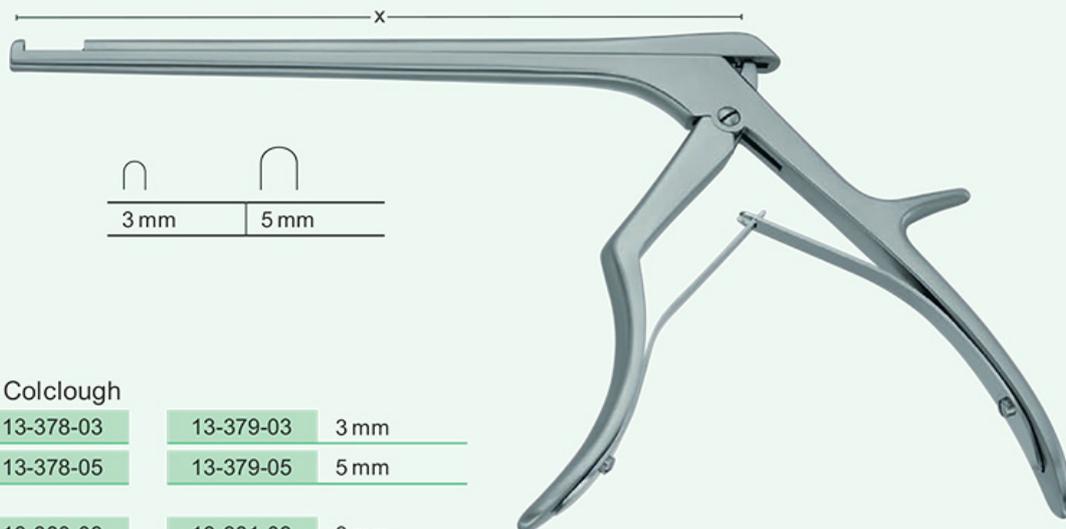
Fig. 2

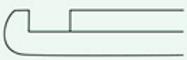
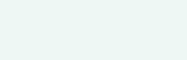
	Length
13-667-01	1 mm 18 cm / 7"
13-668-01	1 mm 23 cm / 9"
13-667-02	2 mm 18 cm / 7"
13-668-02	2 mm 23 cm / 9"
13-667-03	3 mm 18 cm / 7"
13-668-03	3 mm 23 cm / 9"
13-667-04	4 mm 18 cm / 7"
13-668-04	4 mm 23 cm / 9"
13-667-05	5 mm 18 cm / 7"
13-668-05	5 mm 23 cm / 9"
13-667-06	6 mm 18 cm / 7"
13-668-06	6 mm 23 cm / 9"

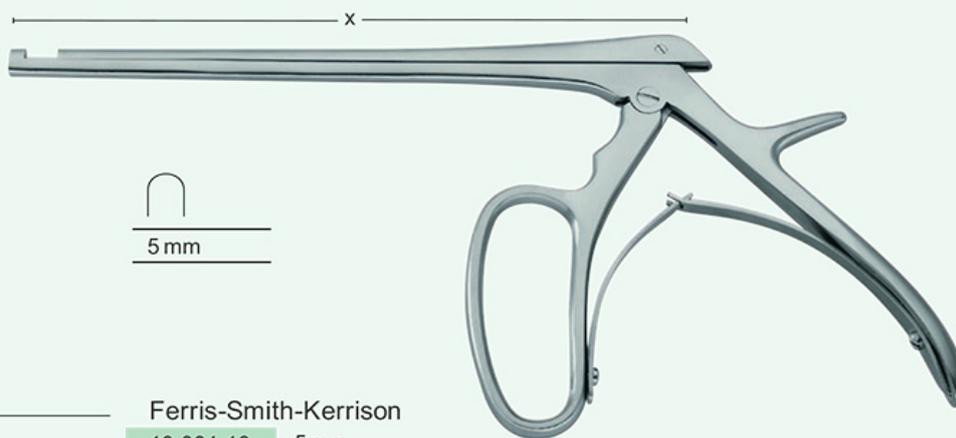
Upwards cutting 90°



add "B" with catalogue part number if required in black TiN coating  
 add "E" with catalogue part number if required with ejector

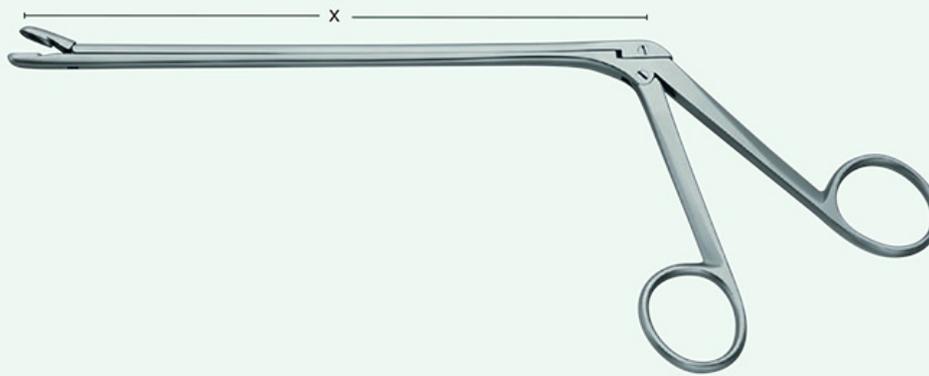


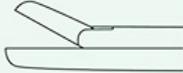
Colclough			
	13-378-03	13-379-03	3 mm
	13-378-05	13-379-05	5 mm
	13-380-03	13-381-03	3 mm
	13-380-05	13-381-05	5 mm
	13-382-03	13-383-03	3 mm
	13-382-05	13-383-05	5 mm
	x = 15 cm - 6"	x = 20 cm - 8"	

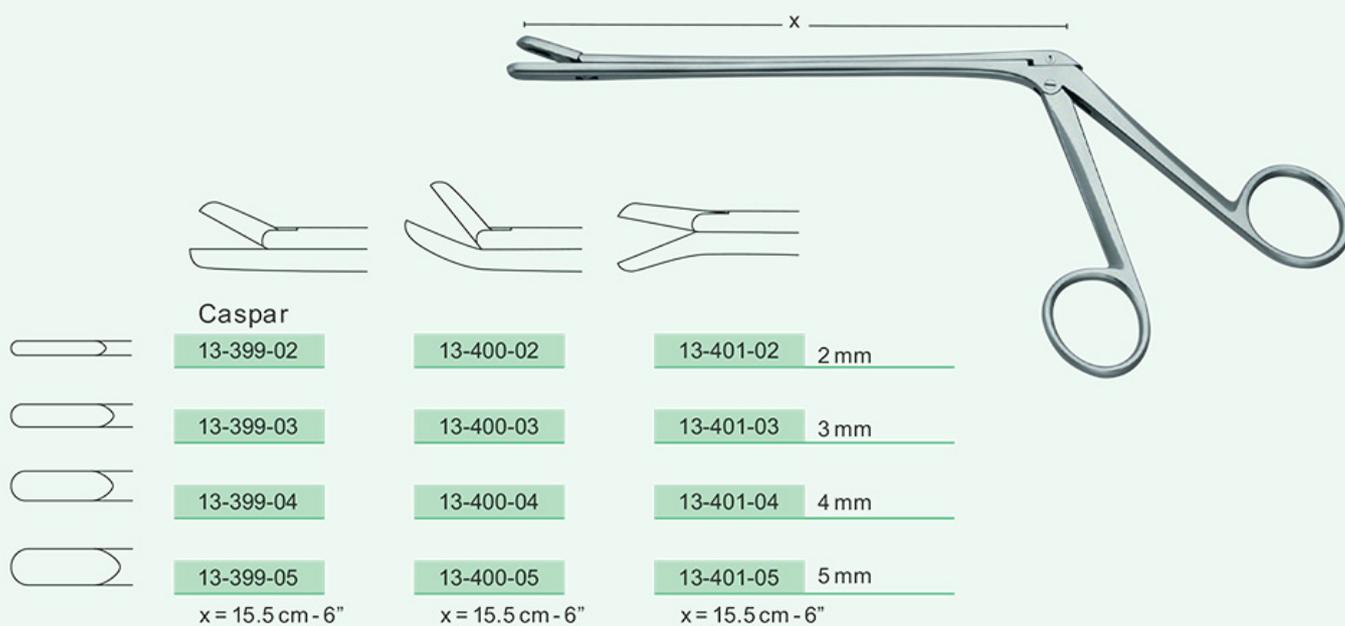
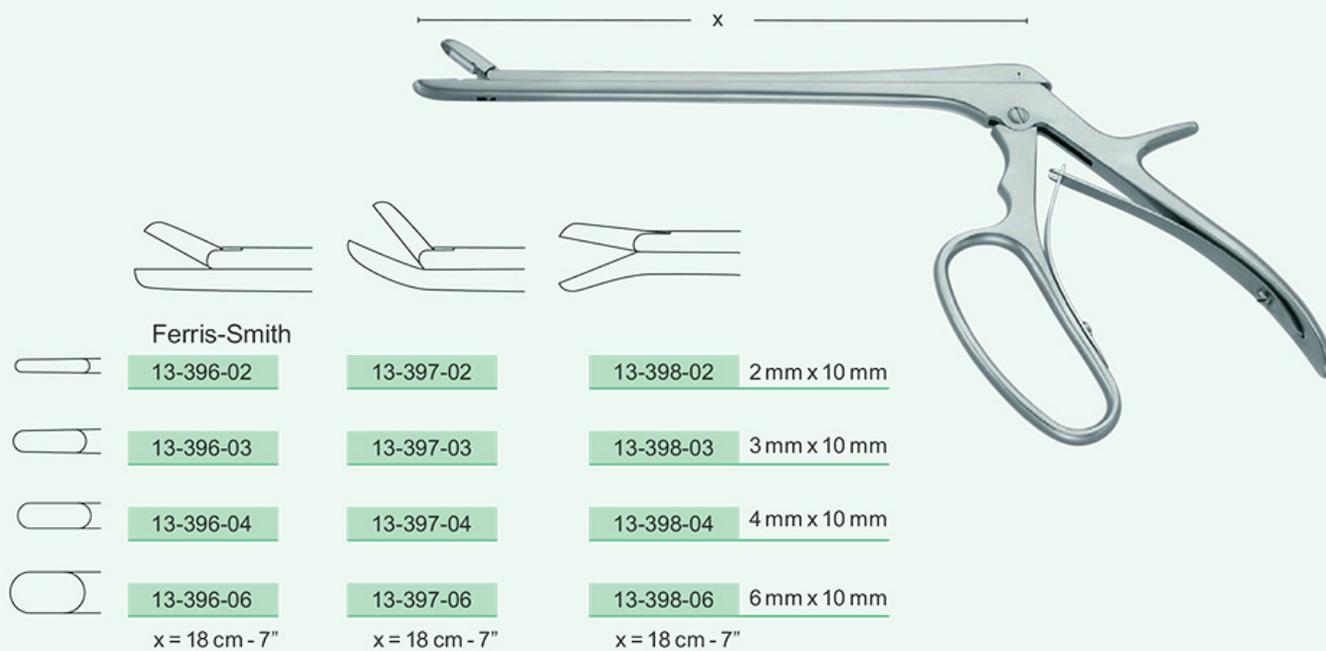


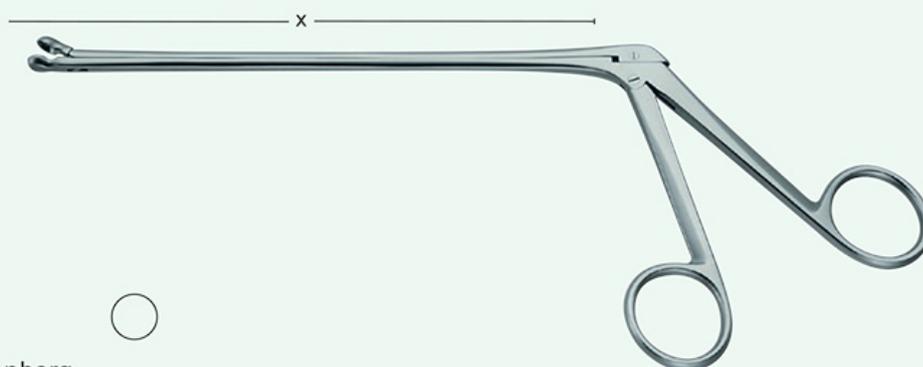
	Ferris-Smith-Kerrison	
	13-384-18	5 mm
	13-385-18	5 mm
	x = 18 cm - 7"	

 add "B" with catalogue part number if required in black TiN coating  
add "E" with catalogue part number if required with ejector



			
	<b>Cushing</b>		
	13-386-13	13-387-13	13-388-13 x = 13 cm - 5"
	13-386-18	13-387-18	13-388-18 x = 18 cm - 7"
	13-386-22	13-387-22	13-388-22 x = 22 cm - 8 3/4"
	2 mm x 10 mm	2 mm x 10 mm	2 mm x 10 mm
	<b>Love-Gruenwald</b>		
	13-389-13	13-390-13	13-391-13 x = 13 cm - 5"
	13-389-18	13-390-18	13-391-18 x = 18 cm - 7"
	13-389-22	13-390-22	13-391-22 x = 22 cm - 8 3/4"
	3 mm x 10 mm	3 mm x 10 mm	3 mm x 10 mm
	<b>Spurling</b>		
	13-392-13	13-393-13	13-394-13 x = 13 cm - 5"
	13-392-18	13-393-18	13-394-18 x = 18 cm - 7"
	13-392-22	13-393-22	13-394-22 x = 22 cm - 8 3/4"
	4 mm x 10 mm	4 mm x 10 mm	4 mm x 10 mm
	<b>Cloward</b>		
	13-395-18	x = 18 cm - 7"	
	6 mm x 10 mm		



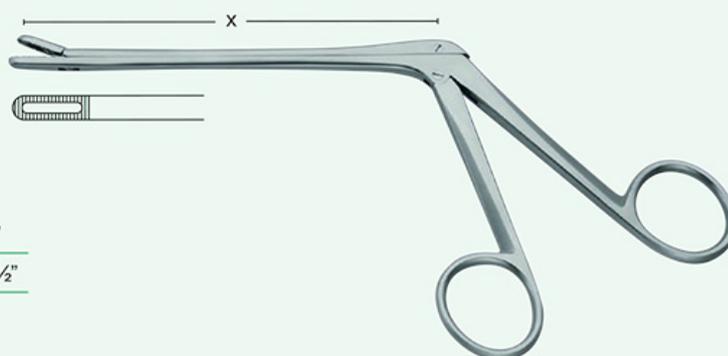


**Oldenberg**

13-402-17	13-403-17	17 cm - 6 3/4"
-----------	-----------	----------------

3.5 mm Ø	6.0 mm Ø
----------	----------

x = 180 mm - 7"	x = 180 mm - 7"
-----------------	-----------------



**Schlesinger**

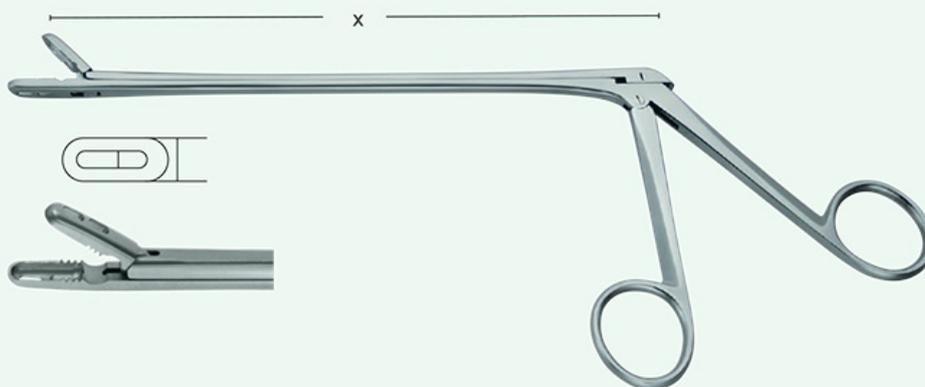
13-404-19	19 cm - 7 1/2"
-----------	----------------

13-404-21	21.5 cm - 8 1/2"
-----------	------------------

3 mm x 10 mm

x = 125 mm - 5"

saw edge  
 gezahnt  
 dentada  
 dentelé  
 dentata



Caspar

13-405-02	13-406-02	13-407-02	2 mm x 12 mm
13-405-03	13-406-03	13-407-03	3 mm x 12 mm
13-405-04	13-406-04	13-407-04	4 mm x 14 mm
13-405-05	13-406-05	13-407-05	5 mm x 14 mm
13-405-06	13-406-06	13-407-06	6 mm x 16 mm
x = 14 cm - 5 ½"	x = 16 cm - 6 ¼"	x = 18.5 cm - 7 ¼"	



13-408-02	13-409-02	13-410-02	2 mm x 12 mm
13-408-04	13-409-04	13-410-04	4 mm x 14 mm
13-408-05	13-409-05	13-410-05	5 mm x 14 mm
13-408-06	13-409-06	13-410-06	6 mm x 16 mm
x = 14 cm - 5 ½"	x = 16 cm - 6 ¼"	x = 18.5 cm - 7 ¼"	



13-411-05	13-412-05	13-413-05	5 mm x 14 mm
13-411-06	13-412-06	13-413-06	6 mm x 16 mm
x = 14 cm - 5 ½"	x = 16 cm - 6 ¼"	x = 18.5 cm - 7 ¼"	

Jaw fenestrated and serrated  
Maul gefenstert und gezahnt  
Boca con orificio y dentada  
Mors fenêtré et dentelé  
Morso finestrato e dentellato



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5

**Weil-Blakesley**



0°

18-288-12

a = 3.0mm

18-289-12

a = 3.5mm

18-290-12

a = 4.5mm

18-291-12

a = 5.0mm

18-292-12

a = 5.5mm

x = 12 cm - 4 3/4"



45°

18-293-00

a = 3.0mm

18-294-00

a = 3.5mm

18-295-00

a = 4.5mm

18-296-00

a = 5.0mm



90°

18-297-00

a = 3.0mm

18-298-00

a = 3.5mm

18-299-00

a = 4.5mm



45°

Fig. 1

18-300-18

a = 3.0mm

Fig. 2

18-301-18

a = 3.5mm

Fig. 3

18-302-18

a = 4.5mm

Fig. 4

18-303-18

a = 5.0mm

Fig. 5

18-304-18

a = 5.5mm

x = 18 cm - 7"



90°

18-305-18

a = 3.0mm

18-306-18

a = 3.5mm

18-307-18

a = 4.5mm

18-308-18

a = 5.0mm

x = 18 cm - 7"



Cloward

08-160-16	Retractor only	16 cm - 6 1/4"
08-160-00	Complete set consisting of:	
	1 Retractor	
	1 pair of blades 08-164-01 to 08-164-05	



08-161-25	Retractor only	25 cm - 9 3/4"
08-161-00	Complete set consisting of:	
	1 Retractor	
	1 pair of blades 08-164-01 to 08-164-05	



08-164-01	Fig.1	x = 60 mm
08-164-02	Fig.2	x = 55 mm
08-164-03	Fig.3	x = 50 mm
08-164-04	Fig.4	x = 45 mm
08-164-05	Fig.5	x = 40 mm

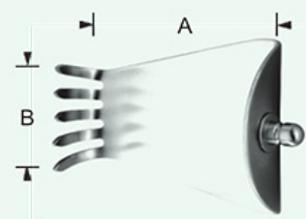
Non toothed  
Nicht gezahnt  
No dentada  
Non denté  
Non dentato



08-165-01	Fig.1	x = 60 mm
08-165-02	Fig.2	x = 55 mm
08-165-03	Fig.3	x = 50 mm
08-165-04	Fig.4	x = 45 mm
08-165-05	Fig.5	x = 40 mm

Toothed  
Gezahnt  
Dentada  
Dentelée  
Dentata

Laminectomy retractors  
 Laminektomiesperrer  
 Separadores para laminectomia  
 Ecarteurs pour laminectomie  
 divaricatori per laminectomia



Cloward - Hoen

13-867-25	Retractor only	25 cm - 10"
13-867-00	Complete set consisting of:	
13-867-25	1 Retractor	
	1 pair of blades 13-858-50 to 13-868-64	

Cloward - Hoen

	A	B
13-868-50	50x31mm	
13-868-64	64x31mm	



Caspar  
Fig. 1

13-878-01	Retractor only
13-878-00	Complete set consisting of:
13-878-01	1 Retractor
	1 pair of blades 13-888-45 to 13-888-65



Caspar  
Fig. 2

13-879-01	Retractor only
13-879-00	Complete set consisting of:
13-879-01	1 Retractor
	1 pair of blades 13-888-45 to 13-888-65



Caspar  
Fig. 3

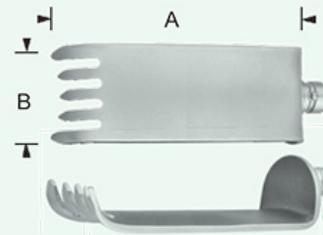
13-880-03	Retractor only
13-880-00	Complete set consisting of:
13-880-03	1 Retractor
	1 pair of blades 13-884-40 to 13-884-60
	1 pair of blades 13-885-40 to 13-885-60



**Blade Opener**  
13-881-11  
11.5 cm - 4 1/2"  
Forceps for changing  
the blades

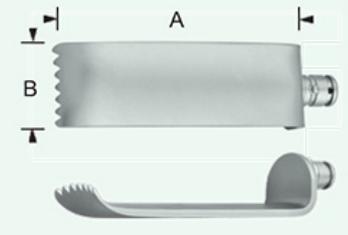


**Blade Inserter**  
13-882-20  
20 cm - 8"  
Ferozell handle  
13-883-20  
20 cm - 8"  
Propylux handle



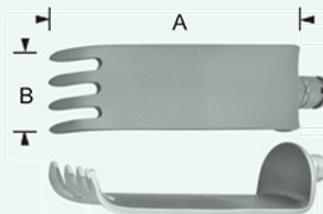
5 Prongs Blade	A	B
13-884-40	40	23 mm
13-884-45	45	23 mm
13-884-50	50	23 mm
13-884-55	55	23 mm
13-884-60	60	23 mm
13-884-65	65	23 mm
13-884-75	75	23 mm

Medial

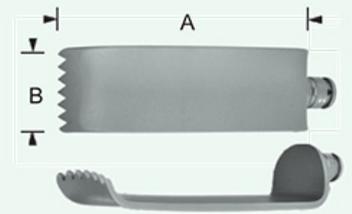


Toothed Blade	A	B
13-885-40	40	23 mm
13-885-45	45	23 mm
13-885-50	50	23 mm
13-885-55	55	23 mm
13-885-60	60	23 mm
13-885-65	65	23 mm
13-885-75	75	23 mm

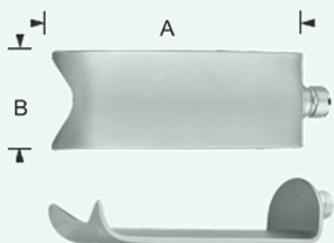
Lateral



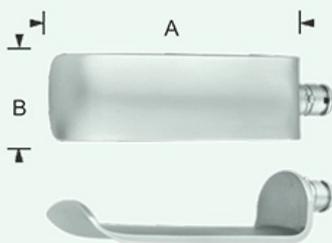
4 Prongs Blade	A	B
13-886-40	40	23 mm
13-886-45	45	23 mm
13-886-50	50	23 mm
13-886-55	55	23 mm
13-886-60	60	23 mm
13-886-65	65	23 mm



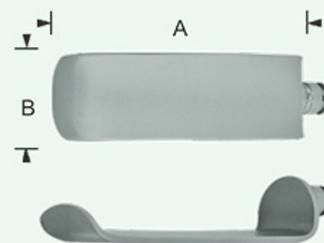
Toothed Blade	A	B
13-887-40	40	23 mm
13-887-45	45	23 mm
13-887-50	50	23 mm
13-887-55	55	23 mm
13-887-60	60	23 mm
13-887-65	65	23 mm



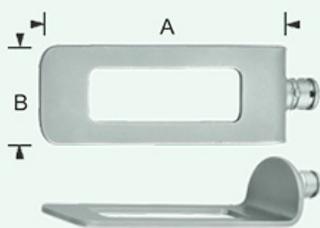
Concave Blade	A	B
13-888-40	40 x 23 mm	
13-888-45	45 x 23 mm	
13-888-50	50 x 23 mm	
13-888-55	55 x 23 mm	
13-888-60	60 x 23 mm	
13-888-65	65 x 23 mm	
13-888-70	70 x 23 mm	
13-888-75	75 x 23 mm	



Blunt Blade	A	B
13-889-40	40 x 23 mm	
13-889-45	45 x 23 mm	
13-889-50	50 x 23 mm	
13-889-55	55 x 23 mm	
13-889-60	60 x 23 mm	
13-889-65	65 x 23 mm	

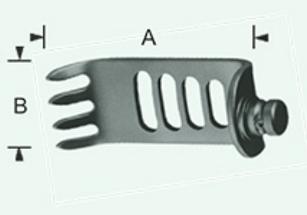


Blunt Blade	A	B
13-890-30	30 x 20 mm	
13-890-35	35 x 20 mm	
13-890-40	40 x 20 mm	
13-890-45	45 x 20 mm	
13-890-50	50 x 20 mm	
13-890-55	55 x 20 mm	
13-890-60	60 x 20 mm	
13-890-65	65 x 20 mm	
13-890-70	70 x 20 mm	
13-890-75	75 x 20 mm	



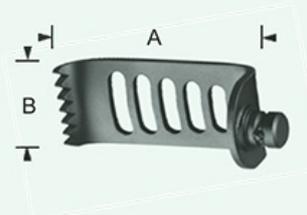
Blunt Blade	A	B
13-891-50	50 x 25 mm	
13-891-60	60 x 25 mm	

Blades for harvesting of the fusion graft from the iliac crest, blunt



Fenestrated Blade Fig. 1	A	B
13-892-25	25 x 20 mm	
13-892-30	30 x 20 mm	
13-892-35	35 x 20 mm	
13-892-40	40 x 20 mm	
13-892-45	45 x 20 mm	
13-892-50	50 x 20 mm	
13-892-55	55 x 20 mm	
13-892-60	60 x 20 mm	
13-892-65	65 x 20 mm	
13-892-70	70 x 20 mm	

Medial



Fenestrated Blade Fig. 2	A	B
13-893-25	25 x 20 mm	
13-893-30	30 x 20 mm	
13-893-35	35 x 20 mm	
13-893-40	40 x 20 mm	
13-893-45	45 x 20 mm	
13-893-50	50 x 20 mm	
13-893-55	55 x 20 mm	
13-893-60	60 x 20 mm	
13-893-65	65 x 20 mm	
13-893-70	70 x 20 mm	

Lateral



Cervical Spin  
 Fig. 1

13-894-13	Retractor only	13.5 cm - 5 1/4"
13-894-00	Complete set consisting of:	
13-894-13	1 Retractor	
	1 pair of blades 13-884-40 to 13-884-60	
	1 pair of blades 13-885-40 to 13-885-60	

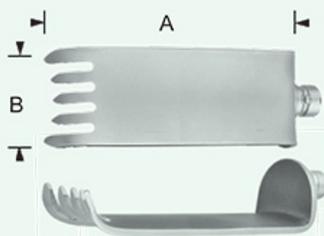
Transverse retractor, double hinged



Cervical Spin  
 Fig. 2

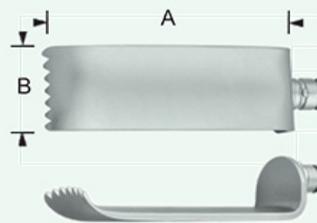
13-895-20	Retractor only	20 cm - 8"
13-895-00	Complete set consisting of:	
13-895-20	1 Retractor	
	1 pair of blades 13-884-40 to 13-884-60	
	1 pair of blades 13-885-40 to 13-885-60	

Transverse retractor, double hinged



5 Prongs Blade	A	B
13-884-40	40 x 23 mm	
13-884-45	45 x 23 mm	
13-884-50	50 x 23 mm	
13-884-55	55 x 23 mm	
13-884-60	60 x 23 mm	
13-884-65	65 x 23 mm	
13-884-75	75 x 23 mm	

Medial



Toothed Blade	A	B
13-885-40	40 x 23 mm	
13-885-45	45 x 23 mm	
13-885-50	50 x 23 mm	
13-885-55	55 x 23 mm	
13-885-60	60 x 23 mm	
13-885-65	65 x 23 mm	
13-885-75	75 x 23 mm	

Lateral

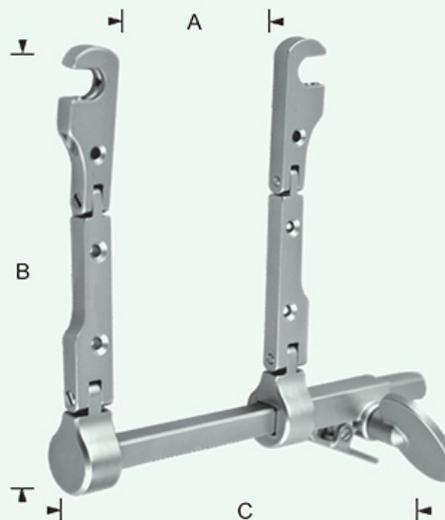


Cervical Spin

Fig. 3

		A	
13-896-17	Retractor only	90mm	17 cm - 6 3/4"
13-896-00	Complete set consisting of:		
13-896-17	1 Retractor		
	1 pair of blades	13-884-40 to 13-884-60	
	1 pair of blades	13-885-40 to 13-885-60	

Retractor, double hinged, open blade reception

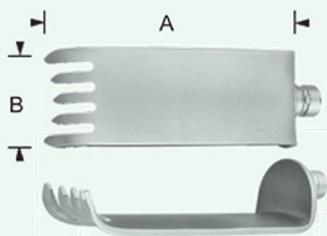


Cervical Spin

Fig. 4

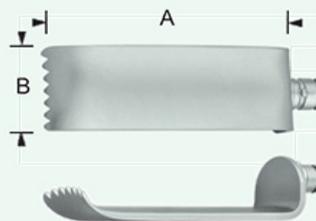
		A	B	C	
13-897-11	Retractor only	90mm	115mm	130mm	11.5 cm - 4 1/2"
13-897-00	Complete set consisting of:				
13-897-11	1 Retractor				
	1 pair of blades	13-884-40 to 13-884-60			
	1 pair of blades	13-885-40 to 13-885-60			

Retractor, double hinged, open blade reception



5 Prongs Blade	A	B
13-884-40	40 x 23 mm	
13-884-45	45 x 23 mm	
13-884-50	50 x 23 mm	
13-884-55	55 x 23 mm	
13-884-60	60 x 23 mm	
13-884-65	65 x 23 mm	
13-884-75	75 x 23 mm	

Medial



Toothed Blade	A	B
13-885-40	40 x 23 mm	
13-885-45	45 x 23 mm	
13-885-50	50 x 23 mm	
13-885-55	55 x 23 mm	
13-885-60	60 x 23 mm	
13-885-65	65 x 23 mm	
13-885-75	75 x 23 mm	

Lateral



Cervical Spin  
 Fig. 5

13-898-13	Retractor only	13.5 cm - 5 1/4"
13-898-00	Complete set consisting of:	
13-898-13	1 Retractor	
	1 pair of blades 13-900-40 to 13-900-60	
	1 pair of blades 13-901-40 to 13-901-60	
	1 pair of blades 13-902-40 to 13-902-60	

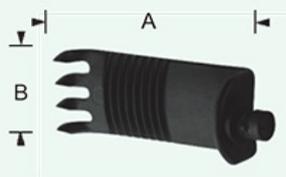
Transverse retractor, double hinged



Cervical Spin  
 Fig. 6

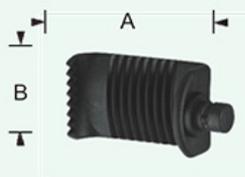
13-899-20	Retractor only	20 cm - 8"
13-899-00	Complete set consisting of:	
13-899-20	1 Retractor	
	1 pair of blades 13-900-40 to 13-900-60	
	1 pair of blades 13-901-40 to 13-901-60	
	1 pair of blades 13-902-40 to 13-902-60	

Transverse retractor, double hinged



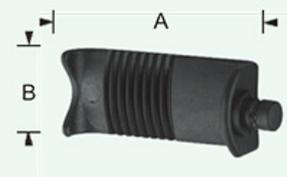
	A	B
13-900-40	40 x 23 mm	
13-900-45	45 x 23 mm	
13-900-50	50 x 23 mm	
13-900-55	55 x 23 mm	
13-900-60	60 x 23 mm	
13-900-65	65 x 23 mm	
13-900-70	70 x 23 mm	
13-900-75	75 x 23 mm	

Blades, medial



	A	B
13-901-40	40 x 23 mm	
13-901-45	45 x 23 mm	
13-901-50	50 x 23 mm	
13-901-55	55 x 23 mm	
13-901-60	60 x 23 mm	
13-901-65	65 x 23 mm	
13-901-70	70 x 23 mm	
13-901-75	75 x 23 mm	

Blades, lateral



	A	B
13-902-40	40 x 23 mm	
13-902-45	45 x 23 mm	
13-902-50	50 x 23 mm	
13-902-55	55 x 23 mm	
13-902-60	60 x 23 mm	
13-902-65	65 x 23 mm	
13-902-70	70 x 23 mm	
13-902-75	75 x 23 mm	

Blades, blunt



Mc Culloch

13-903-01

Rigid



Mc Culloch

13-904-01 Retractor only

13-904-00 Complete set consisting of:

13-904-01 1 Retractor

1 pair of blades 13-905-40 to 13-905-60

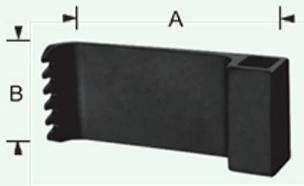
1 pair of blades 13-906-40 to 13-906-60

1 pair of blades 13-907-40 to 13-907-60

21-545-03 1 Wire basket 540 x 255 x 70mm

21-627-04 2 Silicone mats 380 x 230 mm

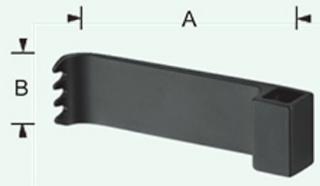
Hinged



A B

13-905-30	30 x 23 mm	1 piece
13-905-40	40 x 23 mm	1 piece
13-905-50	50 x 23 mm	1 piece
13-905-60	60 x 23 mm	1 piece
13-905-70	70 x 23 mm	1 piece
13-905-80	80 x 23 mm	1 piece
13-905-00	Set	1 pair each

Muscle blades, wide

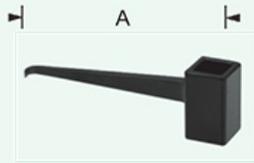


A B

13-906-30	30 x 20 mm	1 piece
13-906-40	40 x 20 mm	1 piece
13-906-50	50 x 20 mm	1 piece
13-906-60	60 x 20 mm	1 piece
13-906-70	70 x 20 mm	1 piece
13-906-80	80 x 20 mm	1 piece
13-906-00	Set	1 pair each

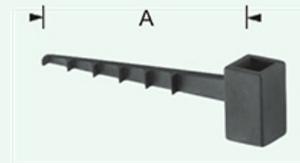
Muscle blades, narrow

**i** add "C" with catalogue part number if required in black ceramic coating



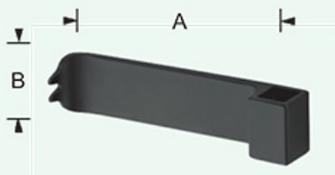
	A	
13-907-20	20 mm	1 piece
13-907-30	30 mm	1 piece
13-907-40	40 mm	1 piece
13-907-50	50 mm	1 piece
13-907-60	60 mm	1 piece
13-907-70	70 mm	1 piece
13-907-00	Set	1 pair each

Hook blades



	A	
13-908-20	20 mm	1 piece
13-908-30	30 mm	1 piece
13-908-40	40 mm	1 piece
13-908-50	50 mm	1 piece
13-908-60	60 mm	1 piece
13-908-70	70 mm	1 piece
13-908-00	Set	1 pair each

Hook blades



	A B	
13-909-30	30 x 17 mm	1 piece
13-909-40	40 x 17 mm	1 piece
13-909-50	50 x 17 mm	1 piece
13-909-60	60 x 17 mm	1 piece
13-909-70	70 x 17 mm	1 piece
13-909-80	80 x 17 mm	1 piece
13-909-00	Set	1 pair each

Thin muscle blades



	A B	
13-910-50	50 x 20 mm	1 piece
13-910-60	60 x 20 mm	1 piece
13-910-70	70 x 20 mm	1 piece
13-910-00	Set	1 pair each

Cervical blades

**i** add "C" with catalogue part number if required in black ceramic coating



Caspar	Blade length
13-911-40	40 mm
13-911-45	45 mm
13-911-50	50 mm
13-911-55	55 mm
13-911-60	60 mm
13-911-65	65 mm
13-911-70	70 mm
13-911-75	75 mm
13-911-85	85 mm

Specula



Caspar  
13-912-00  
Counter retractor frame



	A B
13-913-35	35 x 15 mm
13-913-40	40 x 15 mm
13-913-45	45 x 15 mm
13-913-50	50 x 15 mm
13-913-55	55 x 15 mm
13-913-60	60 x 15 mm
13-913-65	65 x 15 mm
13-913-70	70 x 15 mm
13-913-75	75 x 15 mm
13-913-85	85 x 15 mm

Blades, lateral



	A B
13-914-40	40 x 15 mm
13-914-45	45 x 15 mm
13-914-50	50 x 15 mm
13-914-55	55 x 15 mm
13-914-60	60 x 15 mm
13-914-65	65 x 15 mm
13-914-70	70 x 15 mm

Blades, medial

**i** Vertebral body distractor, for use in surgical procedures from the left approach for C5 through T1/2 and from the right approach for the upper cervical spine.



**Cervical Body Distractor, Left**  
 13-915-00

Vertebral body distractor left only with standard prolonged toothed bar (length 113 mm)



**Drill Guide, Left**  
 13-916-00

Drill guide, for parallel positioning of the distraction screws, to be used with distractor 13-915-00

**i** Vertebral body distractor, for use in surgical procedures from the right approach for C5 through T1/2 and from the left approach for the upper cervical spine.



**Cervical Body Distractor, Right**  
 13-917-00

Vertebral body distractor right only with standard prolonged toothed bar (length 113 mm)



**Drill Guide, Right**  
 13-918-00

Drill guide, for parallel positioning of the distraction screws, to be used with distractor 13-917-00



Cervical Body Distractor, Left  
13-919-00

Spreading right, 110 mm wide,  
total opening 70 mm,  
depths of shank 60 mm



Cervical Body Distractor, Right  
13-920-00

Spreading left, 110 mm wide,  
total opening 70 mm,  
depths of shank 60 mm



**Distraction Screw**

13-921-12	12 mm
13-921-14	14 mm
13-921-16	16 mm
13-921-18	18 mm

7 cm - 2 3/4"

Distraction screws  
to be used with distractors  
13-915-00 and 13-917-00  
at least 2 each are required  
Packing unit of 2 pieces



**Distraction Screw Modified A**

13-922-12	90 mm	12 mm
13-922-14	92 mm	14 mm
13-922-16	94 mm	16 mm



**Twist Drill**

13-923-14

14.5 cm - 5 3/4"  
Ø 1.7 mm,  
for pre-drilling holes for  
distraction screws,  
Drilling depth: 8 mm,  
sheath Ø 2.35 mm



Screw Driver

13-924-01 20 cm - 8"

For distraction screws  
 Ferrozell handle

13-924-02 20 cm - 8"

For distraction screws  
 Propylux handle



Bone Graft Holder

13-925-01 22 cm - 8 3/4"

Insertion instrument  
 Ferrozell handle

13-925-02 22 cm - 8 3/4"

Insertion instrument  
 Propylux handle

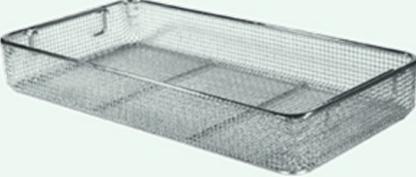
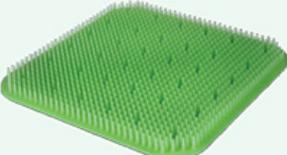


Dissector

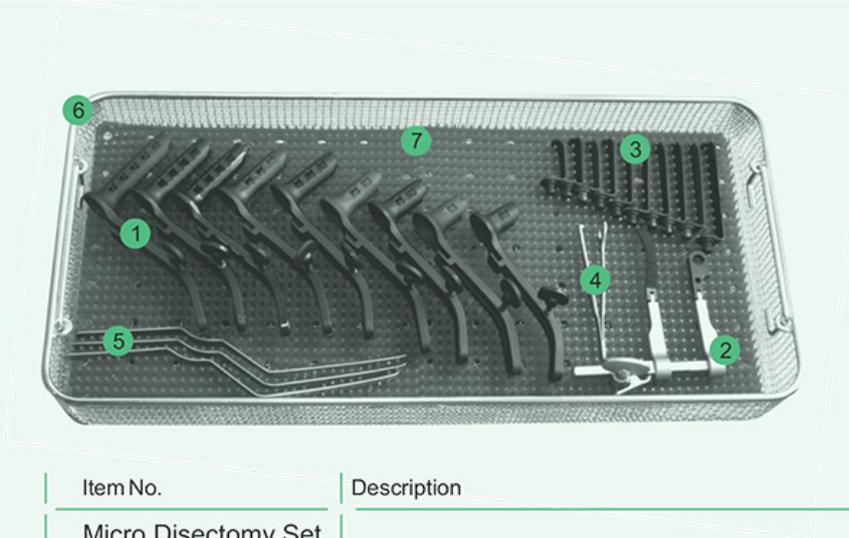
13-926-01 Fig. 1

13-926-02 Fig. 2

20.5 cm - 8"  
 Vertebral body dissectors  
 Ferrozell handle

	Item No.	Description
	Cervical Retractor Set 13-927-00	Set consisting of:
	13-878-01	1 Caspar Retractor Fig. 1
	13-879-02	1 Caspar Retractor Fig. 3
	13-880-03	2 Micro forceps straight 18 cm - 7"
	13-179-18	1 Micro forceps straight 18 cm - 7"
	13-892-25 to 13-892-70	1 pair of blades
	13-893-40 to 13-893-70	1 pair of blades
	13-890-30 to 13-890-75	1 pair of blades
	13-881-00	1 Forceps for changing the blades with ball snap closure
	21-545-03	1 Wire basket 540 x 255 x 70 mm
	21-627-04	2 Silicone mats 380 x 230 mm

Micro Lumbar Discectomy Retractor Set  
 Mikro-Lumbaldiskektomie Retraktor-Set  
 Juego de retractor de discectomía micro lumbar  
 Ensemble d'écarteur de discectomie micro lombaire  
 Set di divaricatori per discectomia micro-lombare



	Item No.	Description
	Micro Discectomy Set Fig. 1 13-928-00	Set consisting of:
1	13-911-40 to 13-911-85	1 pair of blades
2	13-912-00	1 Caspar Counter Retractor Frame
3	13-913-35 to 13-913-85	2 Micro forceps straight 18 cm - 7"
4	13-881-00	1 Forceps for changing the blades with ball snap closure
5	13-227-06 to 13-227-10	Caspar nerve root retractors
6	21-515-03	1 Wire basket 540 x 255 x 70 mm
7	21-627-04	2 Silicone mats 380 x 230 mm

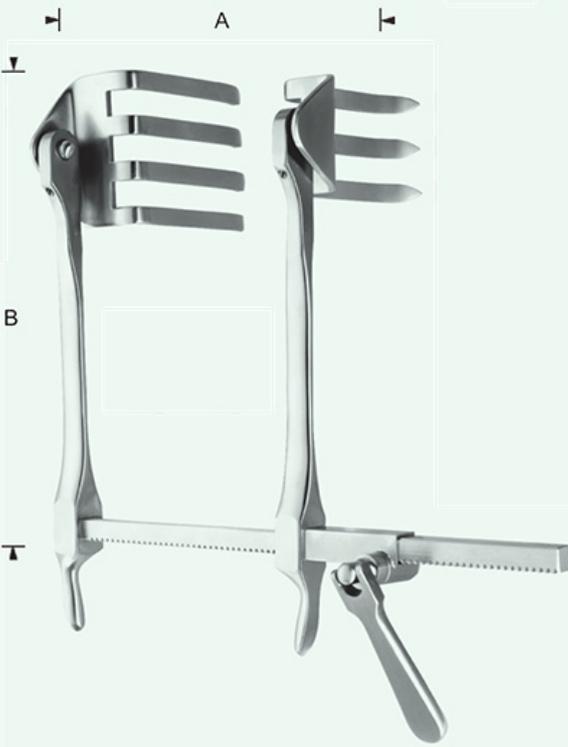
	Item No.	Description
	Micro Discectomy Set Fig. 2 13-929-00	Set consisting of:
1	13-911-40 to 13-911-85	1 pair of blades
2	13-912-00	1 Caspar Counter Retractor Frame
3	13-913-35 to 13-913-85	2 Micro forceps straight 18 cm - 7"
4	13-881-00	1 Forceps for changing the blades with ball snap closure
6	21-515-03	1 Wire basket 540 x 255 x 70 mm
7	21-627-04	2 Silicone mats 380 x 230 mm

	Item No.	Description
	Micro Disectomy Set Fig. 3 13-930-00	Set consisting of:
	13-917-00	1 Caspar Retractor Fig. 1
	13-918-00	1 Drill guide, right
	13-924-01	1 Screw driver
	13-923-14	1 Twist drill
	13-921-14	10 pcs Distraction screws

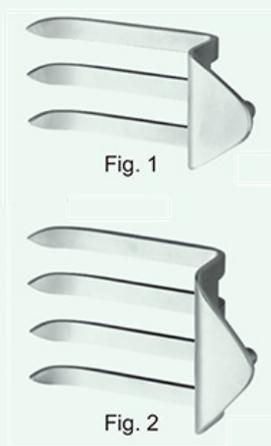
	Item No.	Description
	Micro Disectomy Set Fig. 4 13-931-00	Set consisting of:
	13-912-00	1 Caspar counter retractor frame
	13-911-40 to 13-911-85	1 pair of blades
	13-913-40 to 13-913-85	1 pair of blades
	13-881-00	1 Forceps for changing the blades with ball snap closure



Frazier	A	B
13-932-50	16.5 cm - 6 1/2"	13 cm - 5"



Scoville - Richter	A	B
13-933-01	14 cm - 5 1/2"	17 cm - 6 3/4"
13-933-00	Complete set consisting of:	
13-933-01	1 Retractor	17 cm - 6 3/4"
	13-934-01 to 13-934-02	
	1 pair of each	



Scoville - Richter		
13-934-01	Fig. 1	60 x 37 mm
13-934-02	Fig. 2	60 x 50 mm
	1 pair of blades	



Fig. 3

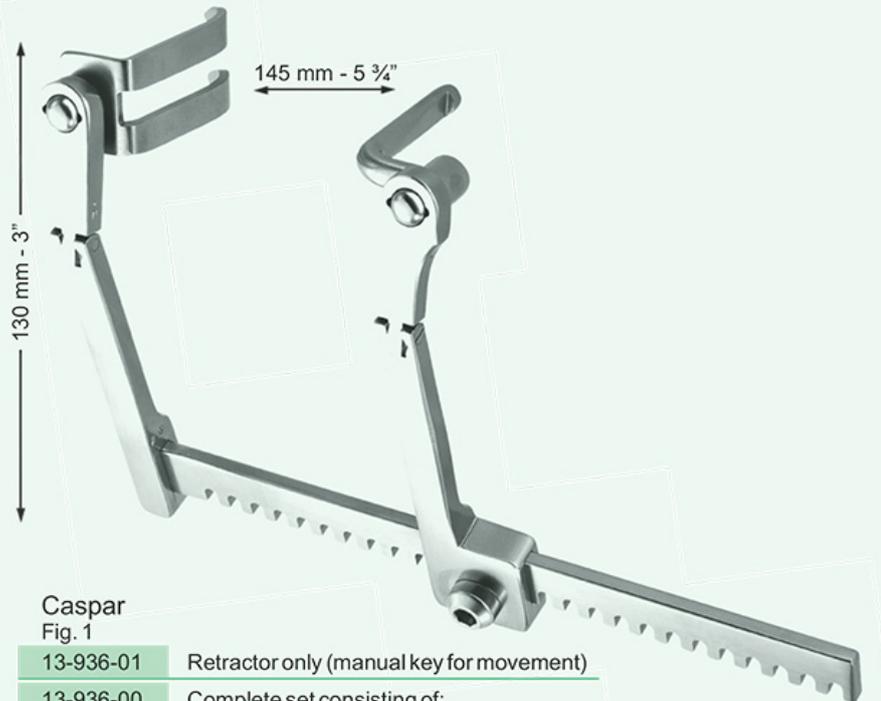


Fig. 4



Fig. 5

Scoville - Richter		
13-935-03	Fig. 3	48 x 50 mm
13-935-04	Fig. 4	28 x 40 mm
13-935-05	Fig. 5	38 x 62 mm
	1 pair of blades	



Caspar  
Fig. 1

13-936-01	Retractor only (manual key for movement)
13-936-00	Complete set consisting of:
13-936-01	1 Retractor
13-938-58	1 Hook 58 mm
13-937-00	Key for retractor movement
	1 pair of each, 13-940-37 and 13-941-41

Caspar  
Fig. 2

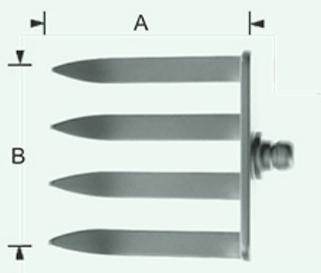
13-936-02	Retractor only (attached key for movement)
13-936-00	Complete set consisting of:
13-936-01	1 Retractor
13-938-38	1 Hook 38 mm
	1 pair of each, 13-941-37 to 13-941-57



Key  
13-937-00

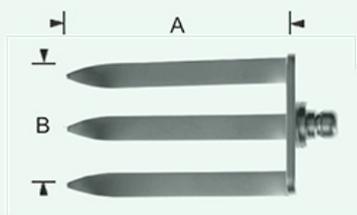


Hook  
13-938-38 38 mm  
13-938-58 58 mm



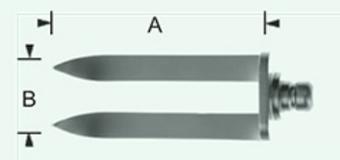
Blade  
Fig. 1

	A	B	
13-939-32	32 x 52 mm		1 piece
13-939-37	37 x 52 mm		1 piece
13-939-42	42 x 52 mm		1 piece
13-939-47	32 x 52 mm		1 piece
13-939-52	52 x 52 mm		1 piece
13-939-57	57 x 52 mm		1 piece
13-939-65	65 x 52 mm		1 piece
13-939-67	67 x 52 mm		1 piece



Blade  
Fig. 2

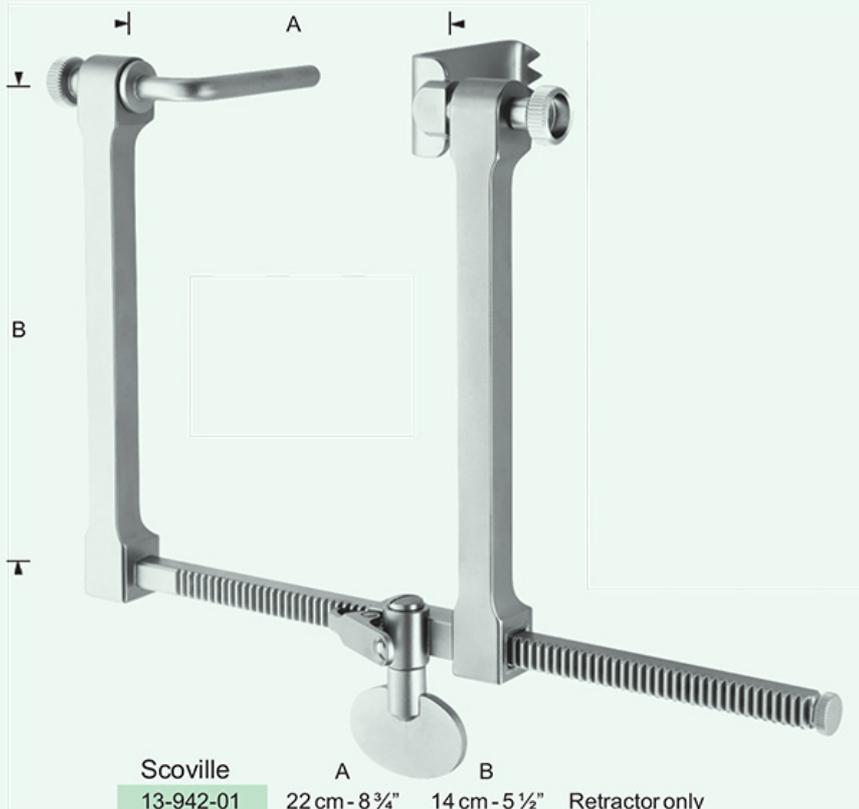
	A	B	
13-940-32	32 x 52 mm		1 piece
13-940-37	37 x 52 mm		1 piece
13-940-42	42 x 52 mm		1 piece
13-940-47	32 x 52 mm		1 piece
13-940-52	52 x 52 mm		1 piece
13-940-57	57 x 52 mm		1 piece
13-940-65	65 x 52 mm		1 piece
13-940-67	67 x 52 mm		1 piece



Blade  
Fig. 3

	A	B	
13-941-32	32 x 52 mm		1 piece
13-941-37	37 x 52 mm		1 piece
13-941-42	42 x 52 mm		1 piece
13-941-47	32 x 52 mm		1 piece
13-941-52	52 x 52 mm		1 piece
13-941-57	57 x 52 mm		1 piece
13-941-65	65 x 52 mm		1 piece
13-941-67	67 x 52 mm		1 piece

Laminectomy Retractors  
 Laminektomie-Reraktoren  
 Retractores de laminectomía  
 Écarteurs de laminectomie  
 Divaricatori per laminectomia



Scoville	A	B	
13-942-01	22 cm - 8 3/4"	14 cm - 5 1/2"	Retractor only
13-942-00	Complete set consisting of:		
13-942-01	1 Retractor		
	1 pair of each, 13-945-47 to 13-945-60		

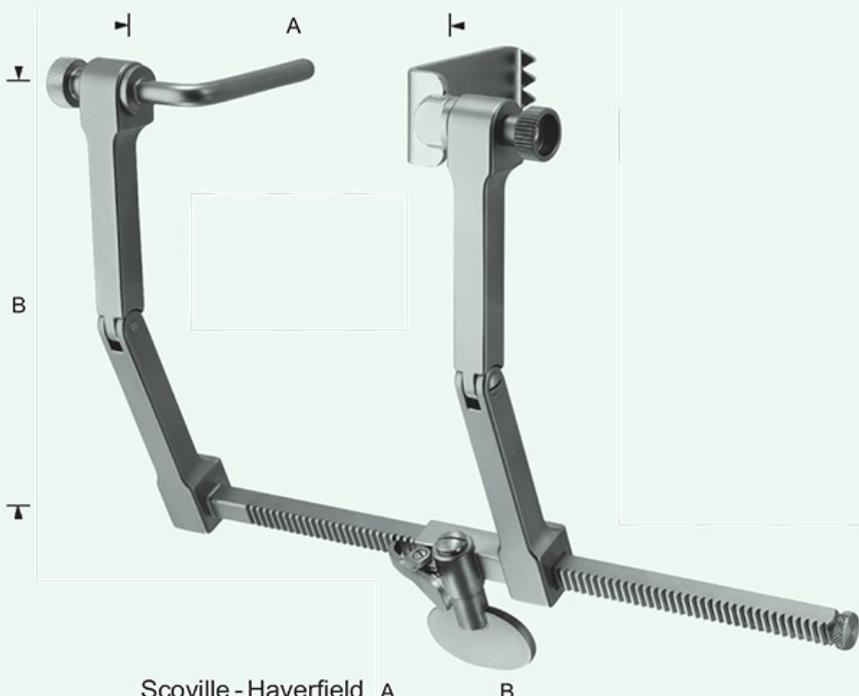


Fig. 1



Fig. 2

Scoville		
13-945-57	Fig. 1	57 mm
13-945-60	Fig. 2	60 x 25 mm
	1 pair of blades only	



Scoville - Haverfield	A	B	
13-943-01	22 cm - 8 3/4"	14 cm - 5 1/2"	Retractor only
13-943-00	Complete set consisting of:		
13-943-01	1 Retractor		
	1 pair of each, 13-945-57 to 13-945-60		



Scoville	A	B	
13-944-01	22 cm - 8 3/4"	14 cm - 5 1/2"	Retractor only
13-944-00	Complete set consisting of:		
13-944-01	1 Retractor		
	1 pair of each, 13-947-48 to 13-947-78		



Scoville	
13-947-48	48 mm
13-947-58	58 mm
13-947-78	78 mm



Meyerding	
13-956-48	48 x 25 mm
13-956-81	81 x 25 mm
13-956-90	90 x 50 mm



Scoville

13-945-57	57 mm
13-945-83	83 mm

Blunt, wide



Scoville

13-946-57	57 mm
13-946-71	71 mm

Sharp



Scoville

13-947-48	48 mm
13-947-58	58 mm
13-947-78	78 mm

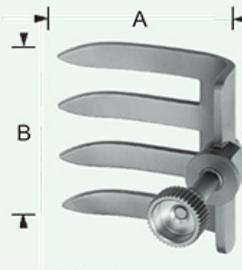
With crossbar



Taylor/  
 Scoville

	A	B
13-948-45	45	39 mm
13-948-50	50	35 mm

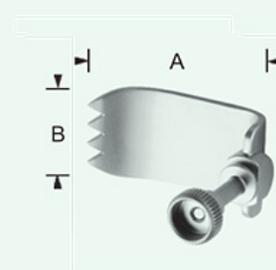
3 prongs



Taylor/  
 Scoville

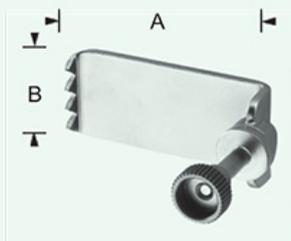
	A	B
13-949-70	70	46 mm
13-949-50	50	50 mm
13-949-62	62	57 mm
13-949-80	80	57 mm

4 prongs



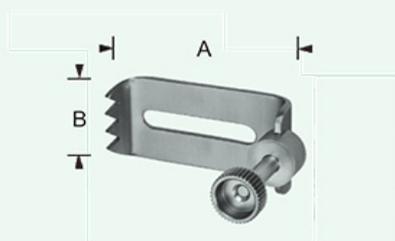
Hibbs

	A	B
13-950-48	48	19 mm
13-950-58	58	51 mm
13-950-51	51	26 mm
13-950-60	60	38 mm
13-950-65	65	26 mm
13-950-74	74	38 mm
13-951-74	74	64 mm
13-951-78	78	50 mm
13-951-80	80	26 mm
13-951-89	89	26 mm
13-951-90	92	39 mm
13-951-10	104	51 mm
13-952-10	105	26 mm



Scoville

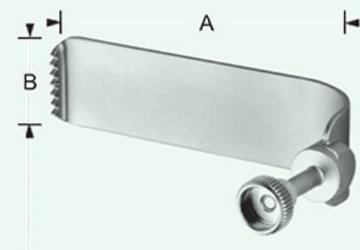
	A	B
13-953-60	60	25 mm
13-953-78	78	51 mm
13-954-78	78	29 mm
13-954-91	91	26 mm



Epstein

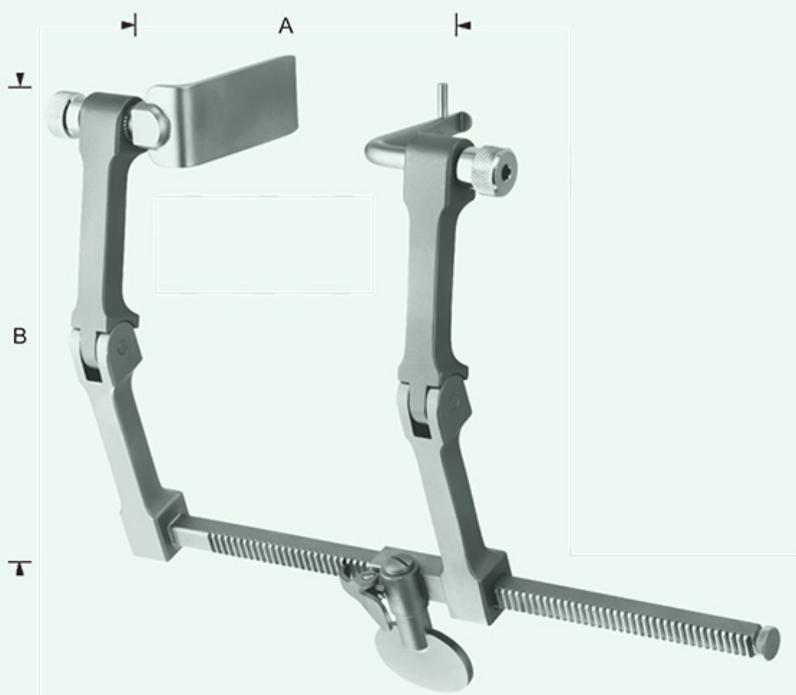
	A	B
13-955-70	57	26 mm

Fenestrated

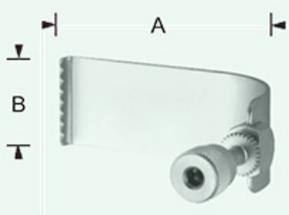


Meyerding

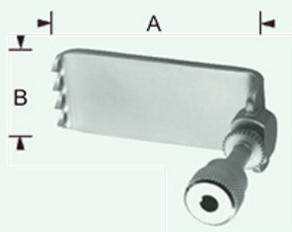
	A	B
13-956-48	48	25 mm
13-956-62	62	25 mm
13-956-70	70	25 mm
13-956-78	78	25 mm
13-956-81	81	25 mm
13-956-90	90	50 mm



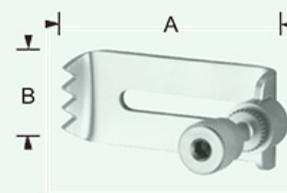
Scoville	A	B	
13-957-01	22 cm - 8 3/4"	14 cm - 5 1/2"	Retractor only
13-957-00	Complete set consisting of:		
13-957-01	1 Retractor		
13-959-60	1 blade		
13-959-58	1 blade		



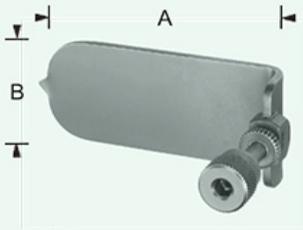
Meyerding	A	B
13-958-48	48 x 25 mm	
13-958-62	62 x 25 mm	
13-958-70	70 x 25 mm	
13-958-78	78 x 25 mm	
13-958-81	81 x 25 mm	
13-958-90	90 x 50 mm	



Scoville	A	B
13-959-60	60 x 25 mm	
13-959-78	78 x 29 mm	
13-959-78	78 x 51 mm	
13-959-91	91 x 26 mm	



Epstein	A	B
13-960-48	48 x 26 mm	
Fenestrated		



Taylor	A	B
13-961-80	80 x 31 mm	
13-961-10	105 x 42 mm	



Taylor	
13-962-60	60 mm
13-962-70	70 mm



Scoville	
13-963-57	57 mm
13-963-77	77 mm

Pointed



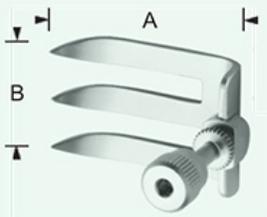
Scoville	
13-964-57	57 mm
13-964-83	83 mm

3 prongs



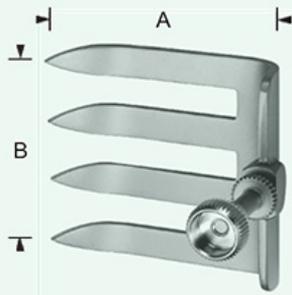
Scoville	
13-965-48	48 mm
13-965-58	58 mm
13-965-78	78 mm

With crossbar



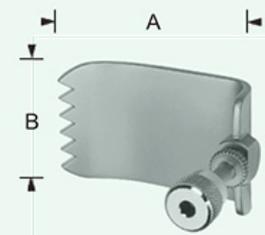
Scoville	A	B
13-966-50	50 x 35 mm	
13-966-45	45 x 39 mm	

3 prongs



Scoville	A	B
13-967-50	50 x 50 mm	
13-967-62	62 x 57 mm	
13-967-70	70 x 46 mm	
13-967-80	80 x 57 mm	

4 prongs



Hibbs	A	B
13-968-48	48 x 19 mm	
13-968-58	58 x 51 mm	
13-968-51	51 x 26 mm	
13-968-60	60 x 38 mm	
13-968-65	65 x 26 mm	
13-968-74	74 x 38 mm	
13-969-74	74 x 64 mm	
13-969-78	78 x 50 mm	
13-969-80	80 x 26 mm	
13-969-89	89 x 26 mm	
13-969-90	92 x 39 mm	
13-969-10	104 x 51 mm	
13-970-10	105 x 26 mm	