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2019 Revision

CardioBay Super-Slide, CAB Super-Slide, IMA Super-Slide, AVR Super-Slide, Pro-Retractor, Quick Lock Scope & Instrument Holder, Swift, UniTrack and Dynamic Clover are trademarks of Koros USA, Inc.

# *Bipolar & Monopolar Electro Forceps*

*"Non-magnetic" Titanium & Stainless Steel Units*



# Stainless Steel and Titanium Bipolar Electro Forceps

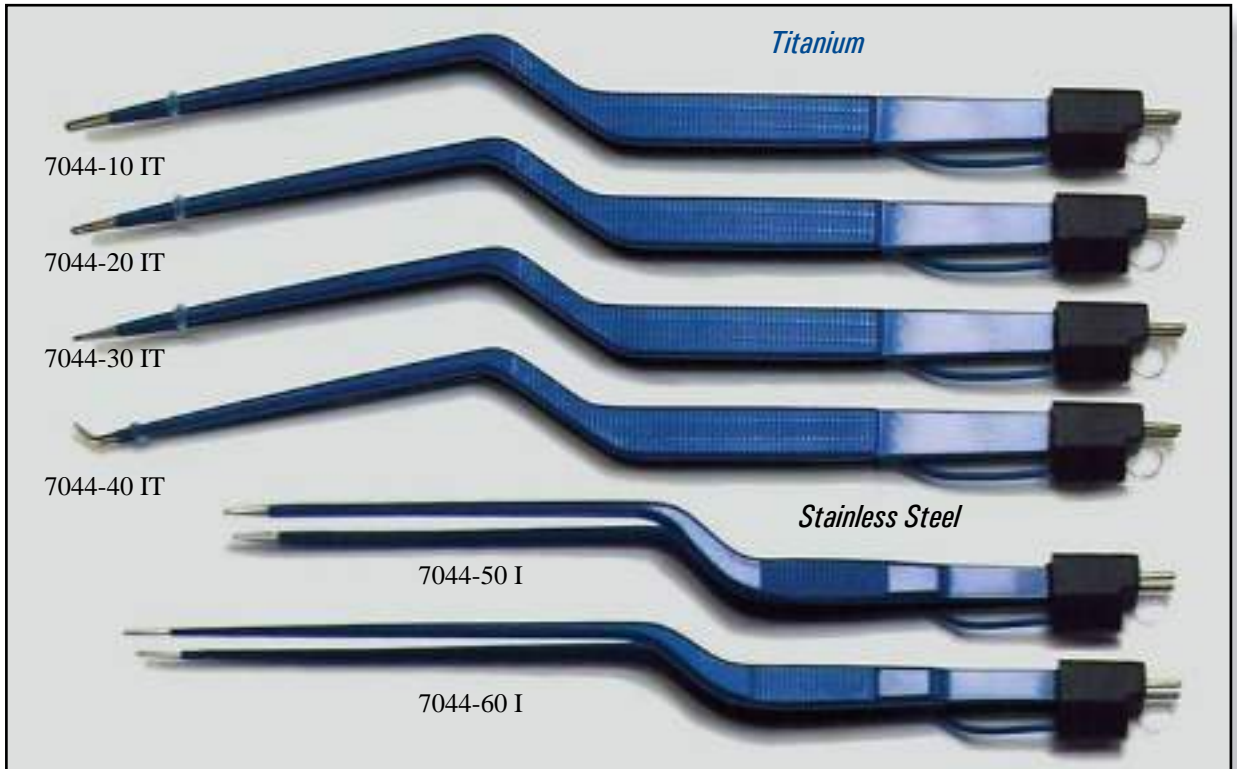
## Insulated & Irrigating Bipolar Forceps in Titanium and Stainless Steel

### Titanium, Insulated & Irrigating

7044-10 IT	22.2 cm, 8 3/4 "	Bayonet, Straight	1.5 mm Tip	Insulated
7044-20 IT	22.2 cm, 8 3/4 "	Bayonet, Straight	1.0 mm Tip	Insulated
7044-30 IT	22.2 cm, 8 3/4 "	Bayonet, Straight	0.5 mm Tip	Insulated
7044-40 IT	22.2 cm, 8 3/4 "	Bayonet, Angled	0.5 mm Tip	Insulated

### Stainless Steel, Insulated & Irrigating

7044-50 I	17.5 cm, 7 "	Cushing-Scoville Bayonet	1.5 mm Tip	Insulated
7044-60 I	20.5 cm, 8 "	Hardy Type Bayonet	0.5 mm Tip	Insulated



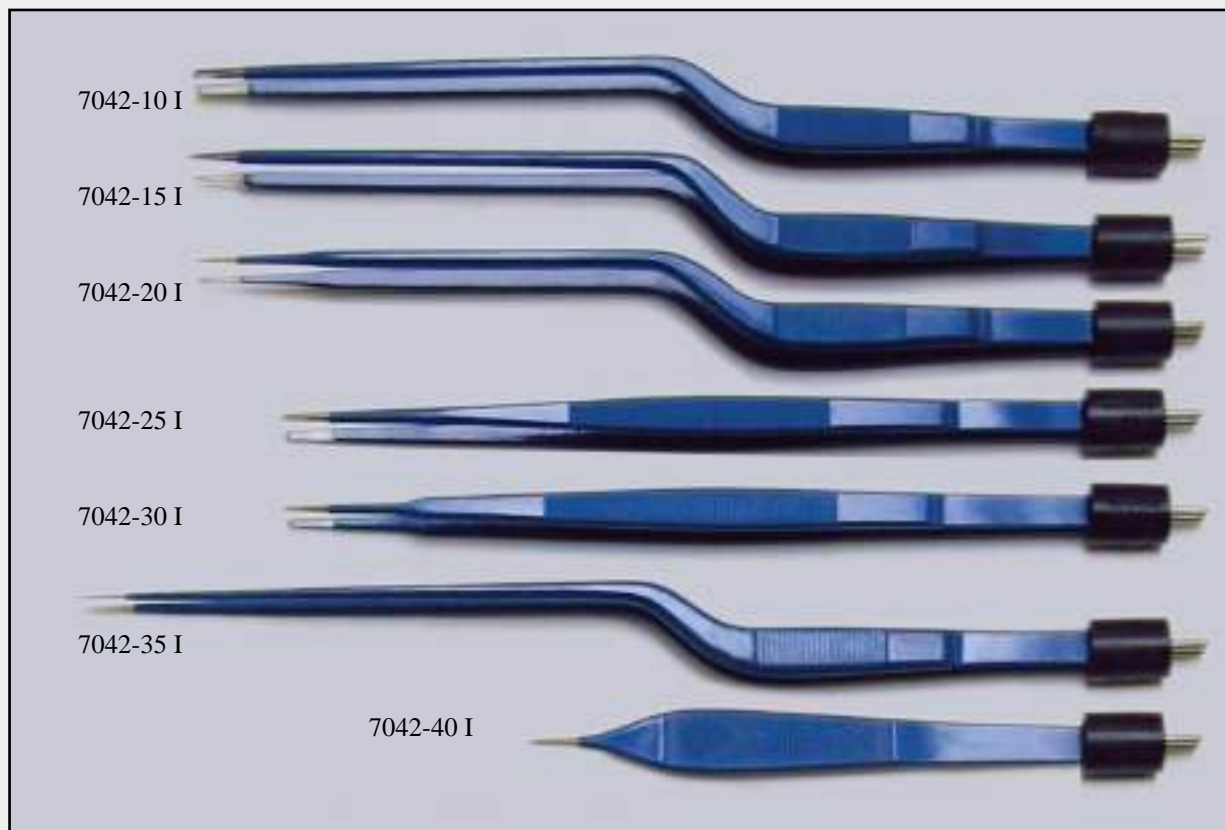
## Monopolar Forceps

### Stainless Steel, Insulated

7045-10	17.8 cm, 7 "	Monopolar Bayonet Forceps	1.8 mm Tip	Insulated
7045-20	20.5 cm, 8 "	Monopolar Bayonet Forceps	1.8 mm Tip	Insulated
7045-45	10 ft.	Monopolar Cable		



# Stainless Steel Bipolar Forceps



## Insulated Stainless Steel

7042-10 I	18.6 cm, 7 3/8"	Cushing-Scoville	2 mm	Tip
7042-15 I	18.6 cm, 7 3/8"	Cushing-Scoville	1 mm	Tip
7042-20 I	18.6 cm, 7 3/8"	Cushing-Scoville	0.5 mm	Tip
7042-25 I	17 cm, 6 3/4"	Cushing Straight	1.5 mm	Tip
7042-30 I	17 cm, 6 3/4"	Gerald Straight	1 mm	Tip
7042-35 I	22 cm, 8 3/4"	Hardy Bayonet	0.5 mm	Tip
7042-40 I	10.3 cm, 4"	Adson Delicate	1 mm	Tip

# Titanium Bipolar Forceps

## Insulated Titanium

## Non-Insulated

Model	Length	Handle Type	Tip Size	Tip Type	Non-Insulated Model
7042-10 IT	22.4 cm, 8 3/4"	Bayonet	1.5 mm	Tip	7042-10 T
7042-15 IT	22.4 cm, 8 3/4"	Bayonet	1 mm	Tip	7042-15 T
7042-20 IT	22.4 cm, 8 3/4"	Bayonet	0.5 mm	Tip	7042-20 T
7042-30 IT	22.4 cm, 8 3/4"	Bayonet	0.5 mm	Angled Tip	7042-30 T
7042-40 IT	17 cm, 6 1/2"	Micro Round Handle	0.3 mm	Fine Tip	7042-40 T
7042-45 IT	20 cm, 7 3/4"	Micro Round Handle	0.3 mm	Fine Tip	7042-45 T
7044-50 IT	18 cm, 7"	Gerald Delicate	0.8 mm	Fine Tip	7044-50 T
7042-60 IT	15 cm, 6"	Micro Straight	0.25 mm	Tip	7042-60 T
7042-65 IT	15 cm, 6"	Micro Straight	0.5 mm	Tip	7042-65 T
7042-70 IT	17.5 cm, 7"	Micro Straight	0.25 mm	Tip	7042-70 T
7042-75 IT	17.5 cm, 7"	Micro Straight	0.5 mm	Tip	7042-75 T
7042-80 IT	10.3 cm, 4"	Jewelers	0.4 mm	Tip	7042-80 T
7042-90	10 ft.	Bipolar Cord			



# Micro Tungsten Grip Cushing and Round Handle Forceps



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## Cushing Forceps

Micro Tungsten Grip:

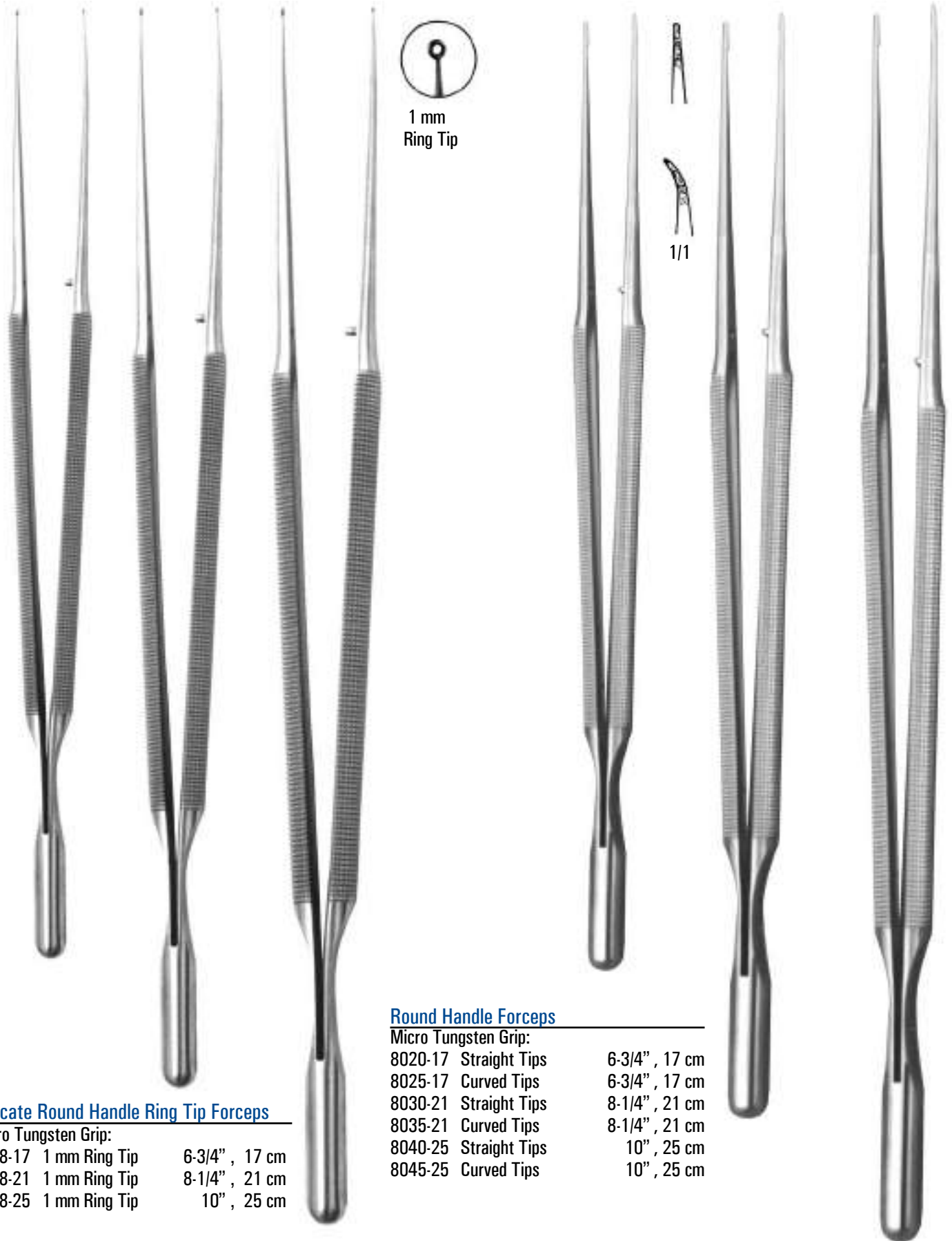
8005-17	Straight Tip	6-3/4", 17 cm
8010-17	Angled Tip	6-3/4", 17 cm

Tungsten Carbide Inserted:

8011-17	Straight Tip	6-3/4", 17 cm
8012-17	Angled Tip	6-3/4", 17 cm

## Delicate DeBakey Round Handle Forceps

8014-17	Round Handle 1.2 mm Wide Tip	17 cm
8014-21	Round Handle 1.2 mm Wide Tip	21 cm
8014-25	Round Handle 1.2 mm Wide Tip	25 cm



### Delicate Round Handle Ring Tip Forceps

Micro Tungsten Grip:		
8018-17	1 mm Ring Tip	6-3/4" , 17 cm
8018-21	1 mm Ring Tip	8-1/4" , 21 cm
8018-25	1 mm Ring Tip	10" , 25 cm

### Round Handle Forceps

Micro Tungsten Grip:		
8020-17	Straight Tips	6-3/4" , 17 cm
8025-17	Curved Tips	6-3/4" , 17 cm
8030-21	Straight Tips	8-1/4" , 21 cm
8035-21	Curved Tips	8-1/4" , 21 cm
8040-25	Straight Tips	10" , 25 cm
8045-25	Curved Tips	10" , 25 cm

# Titanium *Micro Tissue Forceps & Needle Holders*

"Non-magnetic"



- ▶ *Handcrafted, counter balanced, superior precision instruments.*
- ▶ *Designed for delicate, fine tissue and suture control.*
- ▶ *Computer-oriented manufacturing for selective, fine quality product.*
- ▶ *Accuracy prevents trauma of vessels and tissues.*
- ▶ *Recommended suture 6.0 or smaller.*
- ▶ *Modification or Custom instruments are available.*

**Titanium Round Handle Delicate DeBakey Micro Forceps**

8014-15 T	15.5 cm, 6"	1 mm DeBakey Tips	8014-16 T	15.5 cm, 6"	1 mm Angled DeBakey Tips
8014-17 T	17.5 cm, 6 7/8"	1 mm DeBakey Tips	8014-18 T	17.5 cm, 6 7/8"	1 mm Angled DeBakey Tips
8014-21 T	21 cm, 8 7/8"	1 mm DeBakey Tips			



**Titanium Round Handle Ring Tip Micro Forceps Micro Tungsten Grip Platform**

8018-15 T	15.5 cm, 6"	1 mm Ring platform
8018-17 T	17.5 cm, 6 7/8"	1 mm Ring platform
8018-21 T	21 cm, 8 7/8"	1 mm Ring platform
8019-18 T	17.5 cm, 6 7/8"	2 mm Ring platform
8019-21 T	21 cm, 8 7/8"	2 mm Ring platform



**Titanium Round Handle Micro Forceps Micro Tungsten Grip Platform**

8020-15 T	15.5 cm, 6"	Straight platform
8025-15 T	15.5 cm, 6"	Curved platform
8020-17 T	17.6 cm, 6 7/8"	Straight platform
8025-17 T	17.6 cm, 6 7/8"	Curved platform
8030-21 T	21 cm, 8 7/8"	Straight platform
8035-21 T	21 cm, 8 7/8"	Curved platform



**Titanium Gerard DeBakey Platform Delicate Micro Forceps Flat Handle**

8031-17 T	18 cm, 7"	1 mm Delicate DeBakey platform, Micro serration
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**Titanium Gerard Micro Forceps Flat Handle, Micro Tungsten Grip Platform**

8031-18 T	18 cm, 7"	1 mm Straight platform
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**Titanium BeBakey Micro Forceps** Flat Handle, Micro Tungsten Grip Platform



8032-15 T 15 cm, 6" 1 mm Flat Handle DeBakey platform  
 8032-19 T 19 cm, 6 7/8" 1 mm Flat Handle DeBakey platform  
 8032-24 T 24 cm, 8 7/8" 1 mm Flat Handle DeBakey platform



8033-15 T 15 cm, 6" 1.8 mm Flat Handle DeBakey platform



8033-19 T 19 cm, 6 7/8" 1.8 mm Flat Handle DeBakey platform

8033-24 T 24 cm, 8 7/8" 1.8 mm Flat Handle DeBakey platform



8036-15 T 15 cm, 6" 1.8 mm Flat Handle Angled DeBakey platform

8036-19 T 19 cm, 6 7/8" 1.8 mm Flat Handle Angled DeBakey platform

8036-24 T 24 cm, 8 7/8" 1.8 mm Flat Handle Angled DeBakey platform



**Titanium Micro Straight and Bayonet Forceps** Micro Tungsten Grip Platform



8046-15 T 15 cm, 6" 0.4 mm Straight platform Micro Forceps

8046-18 T 17.5 cm, 7" 0.4 mm Straight platform Micro Forceps



8047-21 T 20.5 cm, 8 1/2" 0.4 mm Straight platform Bayonet Forceps

8048-21 T 20.5 cm, 8 1/2" 1.1 mm DeBakey platform Bayonet Forceps

8049-21 T 20.5 cm, 8 1/2" Ring Tip platform Bayonet Forceps

8049-22 T 20.5 cm, 8 1/2" Angled platform Bayonet Forceps

**Instruments with Lock**

8135-15 T	15 cm, 6"	Straight jaws,	w/lock
8137-15 T	15 cm, 6"	Curved jaws,	w/lock
8135-19 T	18.7 cm, 7 1/2"	Straight jaws,	w/lock
8137-19 T	18.7 cm, 7 1/2"	Curved jaws,	w/lock
8135-21 T	21.4 cm, 8 1/2"	Straight jaws,	w/lock
8137-21 T	21.4 cm, 8 1/2"	Curved jaws,	w/lock
8135-23 T	23.5 cm, 9 1/4"	Straight jaws,	w/lock
8137-23 T	23.5 cm, 9 1/4"	Curved jaws,	w/lock

**Instruments without Lock**

8135-15 TN	15 cm, 6"	Straight jaws,	no lock
8137-15 TN	15 cm, 6"	Curved jaws,	no lock
8135-19 TN	18.7 cm, 7 1/2"	Straight jaws,	no lock
8137-19 TN	18.7 cm, 7 1/2"	Curved jaws,	no lock
8135-21 TN	21.4 cm, 8 1/2"	Straight jaws,	no lock
8137-21 TN	21.4 cm, 8 1/2"	Curved jaws,	no lock
8135-23 TN	23.5 cm, 9 1/4"	Straight jaws,	no lock
8137-23 TN	23.5 cm, 9 1/4"	Curved jaws,	no lock



**Titanium Castroviejo Needle Holders** Micro Tungsten Grip Jaws

8140-15 T	15 cm, 6"	Straight jaws,	w/lock	8140-15 TN	15 cm, 6"	Straight jaws,	no lock
8145-15 T	15 cm, 6"	Curved jaws,	w/lock	8145-15 TN	15 cm, 6"	Curved jaws,	no lock
8140-18 T	18 cm, 7"	Straight jaws,	w/lock	8140-18 TN	18 cm, 7"	Straight jaws,	no lock
8145-18 T	18 cm, 7"	Curved jaws,	w/lock	8145-18 TN	18 cm, 7"	Curved jaws,	no lock
8140-19 T	19.5 cm, 7 5/8"	Straight jaws,	w/lock	8140-19 TN	19.5 cm, 7 5/8"	Straight jaws,	no lock
8145-19 T	19.5 cm, 7 5/8"	Curved jaws,	w/lock	8145-19 TN	19.5 cm, 7 5/8"	Curved jaws,	no lock
8150-21 T	21 cm, 8 1/4"	Straight jaws,	w/lock	8150-21 TN	21 cm, 8 1/4"	Straight jaws,	no lock
8155-21 T	21 cm, 8 1/4"	Curved jaws,	w/lock	8155-21 TN	21 cm, 8 1/4"	Curved jaws,	no lock
8150-23 T	23.5 cm, 9 1/4"	Straight jaws,	w/lock	8150-23 TN	23.5 cm, 9 1/4"	Straight jaws,	no lock
8155-23 T	23.5 cm, 9 1/4"	Curved jaws,	w/lock	8155-23 TN	23.5 cm, 9 1/4"	Curved jaws,	no lock



# Extra Long Forceps



8014-26

8018-25

8040-25  
8045-25

## Delicate DeBakey Round Handle Forceps

8014-26 1.2 mm Wide Tip 10", 25 cm

## Delicate Round Handle Ring Tip Forceps

Micro Tungsten Grip  
8018-25 I.M.A. Forceps 10", 25 cm

## Round Handle Forceps

Micro Tungsten Grip  
8040-25 Straight Tip 10", 25 cm  
8045-25 Curved Tip 10", 25 cm



## Delicate Tip Forcep

8018-26 Long Nose, Micro Tip, jeweler type forcep, 4 inches long

8018-27 Long Nose, Micro Tip, jeweler type forcep, 5 1/2" inches long



**Koros Bayonet Forceps**

Micro Tungsten Grip:

8034-19 Straight Tips 7-1/2", 19 cm

8035-19 40 Degree Tips 7-1/2", 19 cm

**Pediatric Vascular Forcep**

8045-18 Pediatric Vascular Forcep 7", 18 cm



**Wide Tip DeBakey Tissue Forceps**

8050-21 Fine Serration 4.2 mm Tip  
8", 20.5 cm

8050-24 Fine Serration 4.2 mm Tip  
9-1/2", 24 cm



**Modified Reul Type Coronary Forcep**

8070-21 Tungsten Carbide Insert Tip  
1.6 mm wide 8-1/2", 21 cm

# Micro Needle Holders



## STAINLESS STEEL Micro Tungsten Grip Needle Holders

8101-15	Straight Jaws	6" , 15 cm
8102-15	Curved Jaws	6" , 15 cm
8104-17	Straight Jaws	6-3/4" , 17 cm
8105-17	Curved Jaws	6-3/4" , 17 cm
8106-20	Straight Jaws	8" , 20 cm
8107-20	Curved Jaws	8" , 20 cm
8108-23	Straight Jaws	9" , 23 cm
8109-23	Curved Jaws	9" , 23 cm
8110-26	Straight Jaws	10" , 26 cm
8111-26	Curved Jaws	10" , 26 cm

## TITANIUM Micro Tungsten Grip Needle Holders

8101-15T	Straight Jaws	6" , 15 cm
8102-15T	Curved Jaws	6" , 15 cm
8104-17T	Straight Jaws	6-3/4" , 17 cm
8105-17T	Curved Jaws	6-3/4" , 17 cm
8106-20T	Straight Jaws	8" , 20 cm
8107-20T	Curved Jaws	8" , 20 cm
8108-23T	Straight Jaws	9" , 23 cm
8109-23T	Curved Jaws	9" , 23 cm



**Tapered Jaw Needle Holders**

Micro Tungsten Grip:  
8130-23 Vascular, Straight Tapered Jaws 9", 23 cm

**Ryder Tungsten Grip Needle Holders**

8115-15	6", 15 cm
8115-17	6-3/4", 17 cm
8115-20	8", 20 cm
8115-23	9", 23 cm

# Micro Needle Holders



## Micro Vascular Needle Holders

8120-23	Straight Tungsten Carbide Insert	9", 23 cm
8121-23	Straight Micro Tungsten Grip Jaw	9", 23 cm



## Micro Tungsten Grip™ Jaws

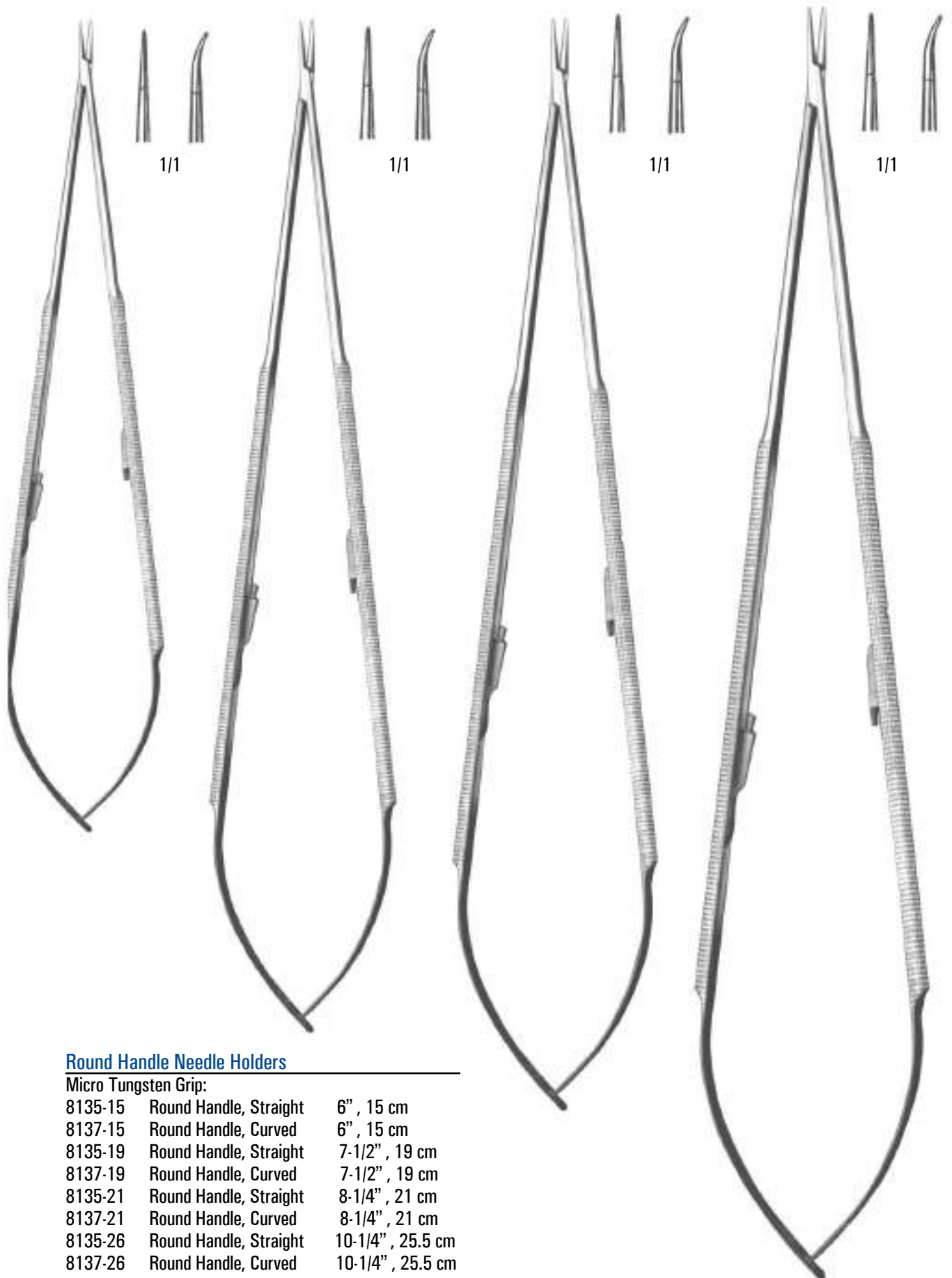
- Jaws open by utilizing the unique handle mechanism.
- Compliments continuous suturing technique.
- Specifically designed for 7-0, 8-0, and 9-0 sutures.
- Tension adjusting nut allows surgeon to vary the clamping pressure of the jaws.

Design elements are patent pending in the U.S.A. and other countries.

Tension adjusting nut.

## Reverse Action Micro Needle Holders

8136-21	Straight Tip	8-1/4", 21 cm
8138-21	Curved Tip	8-1/4", 21 cm



**Round Handle Needle Holders**

**Micro Tungsten Grip:**

8135-15	Round Handle, Straight	6" , 15 cm
8137-15	Round Handle, Curved	6" , 15 cm
8135-19	Round Handle, Straight	7-1/2" , 19 cm
8137-19	Round Handle, Curved	7-1/2" , 19 cm
8135-21	Round Handle, Straight	8-1/4" , 21 cm
8137-21	Round Handle, Curved	8-1/4" , 21 cm
8135-26	Round Handle, Straight	10-1/4" , 25.5 cm
8137-26	Round Handle, Curved	10-1/4" , 25.5 cm



## Castroviejo Type Needle Holders

### Micro Tungsten Grip:

8140-17	Straight Jaws	7-3/4" , 17 cm
8145-17	Curved Jaws	7-3/4" , 17 cm
8140-19	Straight Jaws	7-1/2" , 19.5 cm
8145-19	Curved Jaws	7-1/2" , 19.5 cm
8150-21	Straight Jaws	8-1/4" , 21 cm
8150-23	Straight Jaws	9" , 23 cm
8155-21	Curved Jaws	8-1/4" , 21 cm
8156-25	Straight Jaws	10" , 25.5 cm
8158-25	Curved Jaws	10" , 25.5 cm



**Castroviejo I type  
Needle Holder**

8159-25 Straight Tip Jaws Only  
10", 25.5 cm  
(Heavy Tungsten Carbide Tip  
for Valve Procedure)



**Round Handle Needle Holders**

Micro Tungsten Grip:  
8135-26 Round Handle, Straight 10-1/4", 25.5 cm  
8137-26 Round Handle, Curved 10-1/4", 25.5 cm

# Micro Needle Holders



## Jacobson Type Needle Holders

Micro Tungsten Grip:

8160-19 Straight Jaws 7-3/4", 19.5 cm

8165-19 Curved Jaws 7-3/4", 19.5 cm



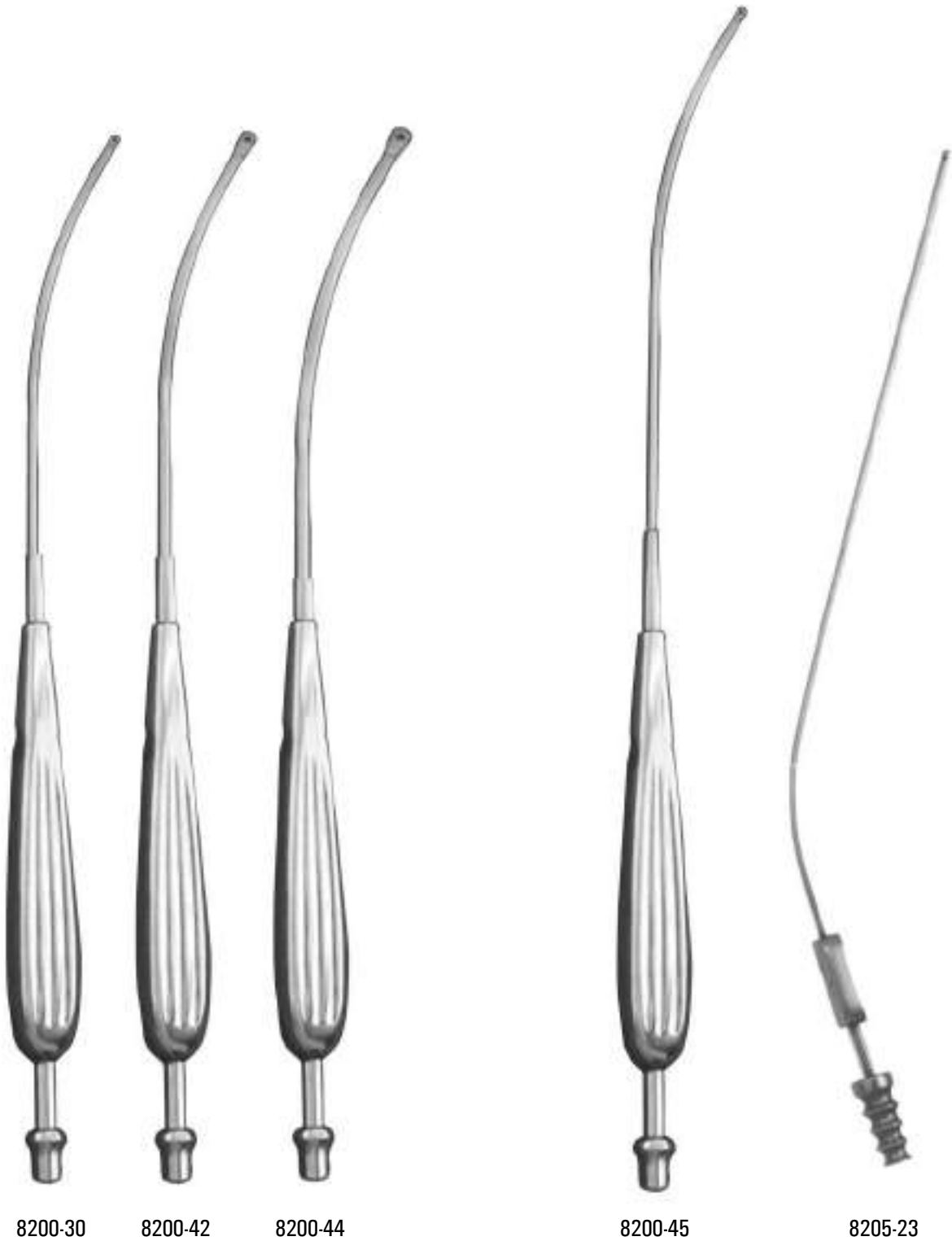
## Jacobson Type Needle Holders

Micro Tungsten Grip:

8170-21 Straight Jaws 8-1/4", 21 cm

8175-21 Curved Jaws 8-1/4", 21 cm

# Vascular Suction Cannulas



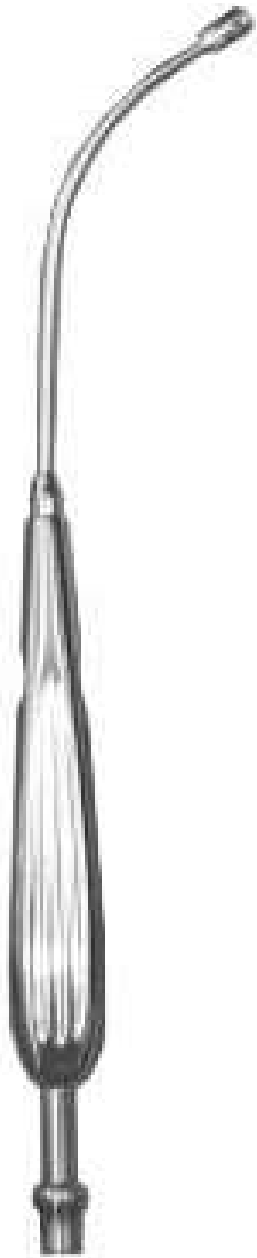
## Suction Cannulas

8200-30	Small Tip (3.0 mm)	9-1/2", 24 cm
8200-42	Small Tip (4.2 mm)	9-1/2", 24 cm
8200-44	Medium Tip (4.6 mm)	9-1/2", 24 cm

## Suction Cannulas

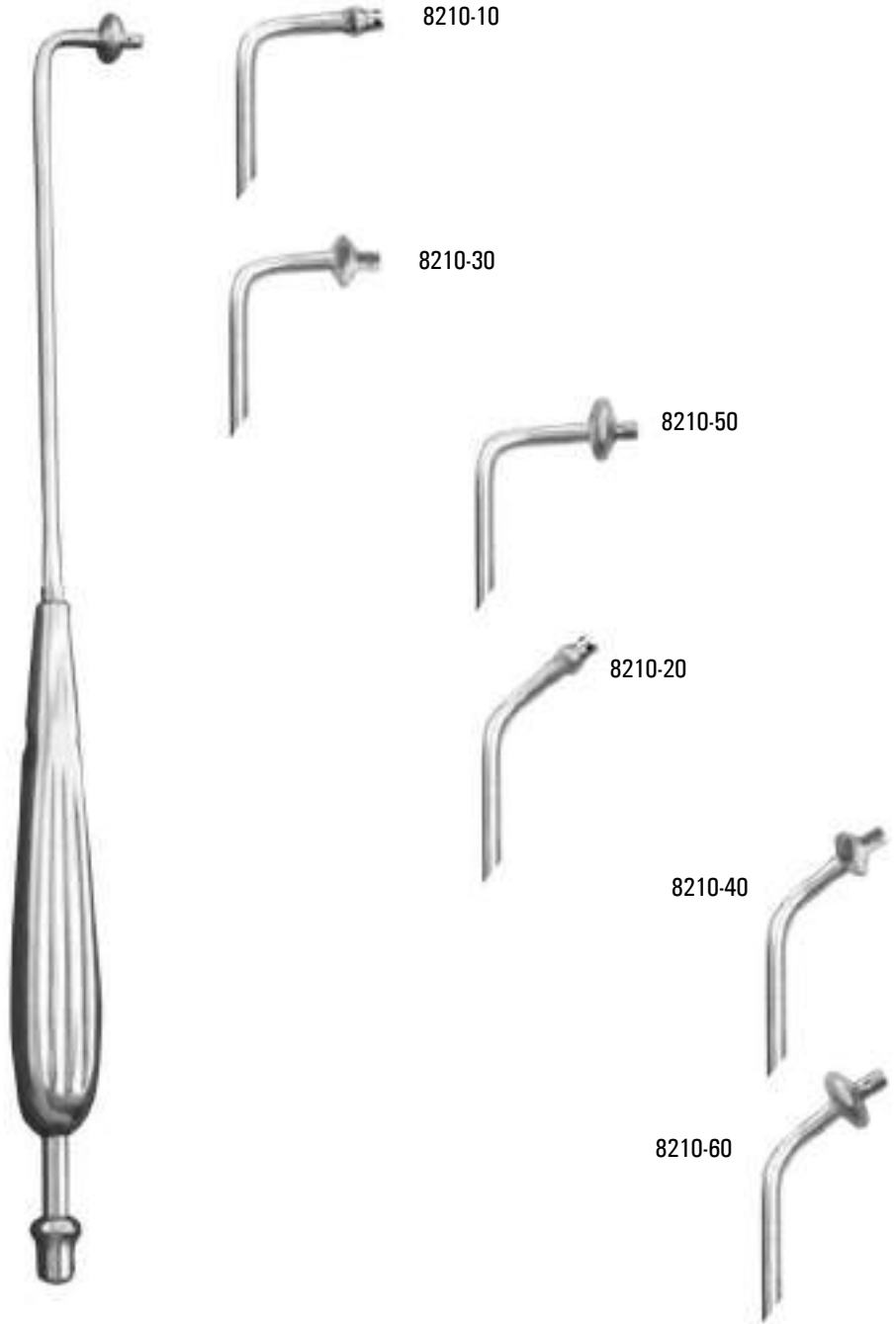
8200-45	I.M.A. Small Tip (3.0 mm)	12", 30 cm
8205-23	Anastomosis Thumb Control, 7FR	9", 23 cm

# Suction Cannula



## Andrews Suction

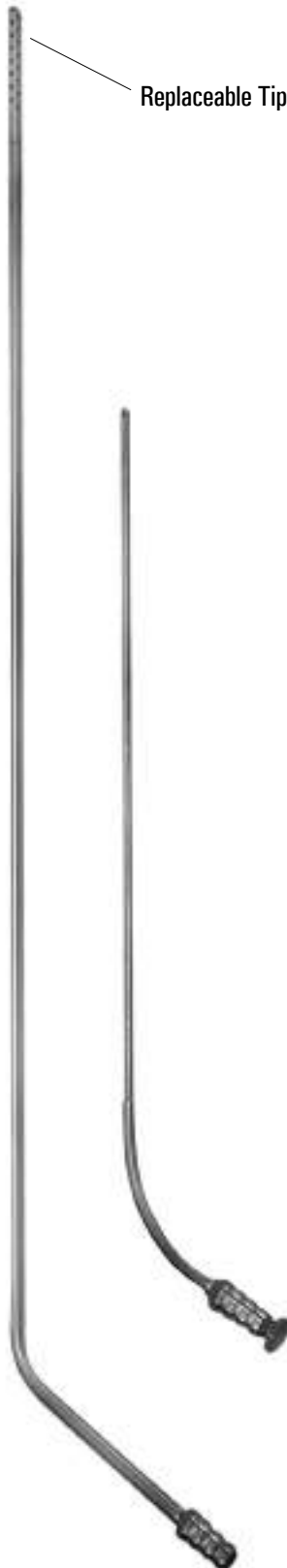
8200-65 Curved Tip, 6.5 mm tip,  
9-1/2", 24 cm



## Suction Cannulas

8210-10	90 Degree Angle Sm Tip	4.7 mm, 9-1/2", 24 cm
8210-20	45 Degree Angle Sm Tip	4.7 mm, 9-1/2", 24 cm
8210-30	90 Degree Angle Med Tip	6.7 mm, 9-1/2", 24 cm
8210-40	45 Degree Angle Med Tip	6.7 mm, 9-1/2", 24 cm
8210-50	90 Degree Angle Lg Tip	8.3 mm, 9-1/2", 24 cm
8210-60	45 Degree Angle Lg Tip	8.3 mm, 9-1/2", 24 cm

# Thoracotomy and Cooley-Medoff Type Suction Cannulas



## Mini Thoracotomy Suction Cannula

8210-62 16-1/2" long Mini Thoracotomy Suction Cannula  
(42 cm), 4.75 mm tube diameter

## Pediatric Mini Thoracotomy Suction Cannula

8210-64 10-1/4" long Pediatric Mini Thoracotomy Suction Cannula  
(26 cm), 2.4 mm tube diameter



## De Bakey Suction Cannula

8210-70 11-1/4" (28.5 cm),  
7 mm Removable Tip,  
40 degree angulation



## Cooley-Medoff Type Pediatric Suction Cannula

8210-75 7 1/4" long Cooley-Medoff Type  
Pediatric Suction Cannula (18 cm),  
3 mm tip diameter, 40 degree angulation

8210-80 9" long Cooley-Medoff Type Pediatric  
Suction Cannula (23 cm), 4.6 mm tip  
diameter, 40 degree angulation

# Suction Cannulas



## Harley Suction Cannula

8215-05 13", 32cm long,  
10 mm removable tip



## Cooley-Medoff Suction Cannula

- 8215-10 Pediatric Set w/2 Tips  
10", 26 cm
- 8215-12 Pediatric Replacement Tip, Small  
1-1/2", 4 cm x 4.2 mm
- 8215-14 Pediatric Replacement Tip, Large  
1-1/2", 4 cm x 6.5 mm



1/1



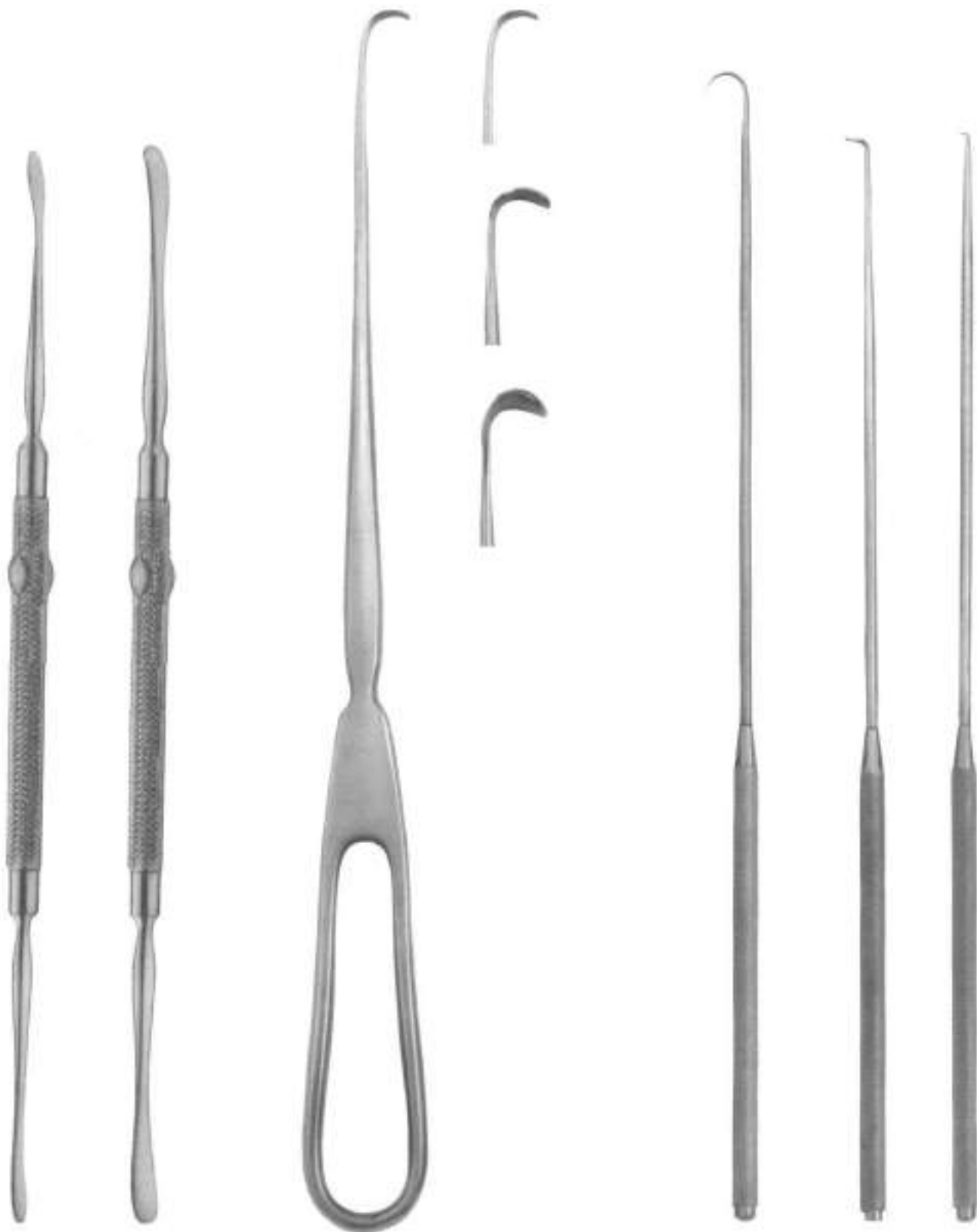
## Cooley-Medoff Suction Cannula

- 8215-20 Adult Set w/2 Tips  
12", 30.5 cm
- 8215-22 Replacement Tip Small  
2-1/4", 6 cm x 8.5 mm
- 8215-24 Replacement Tip Large  
2-1/4", 6 cm x 10.5 mm



1/1

## Dissectors, Vein Retractors and Hooks



### Dissectors

8220-18	Double-Ended, Delicate, 2 mm Tip
	7", 18 cm
8222-18	Double-Ended, 4 mm Tip
	7", 18cm

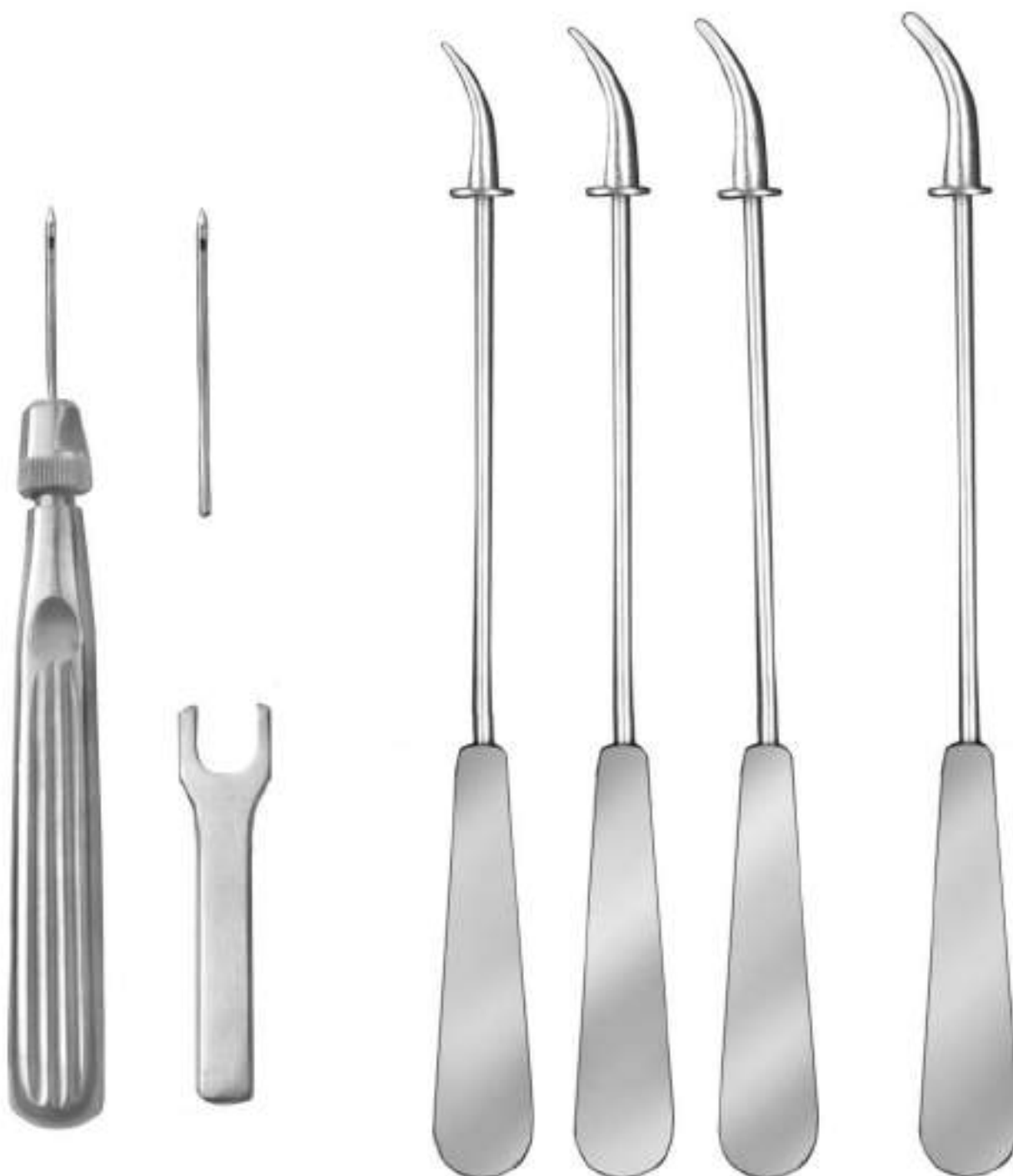
### Vein Retractors

8230-04	4 mm Blade	9", 23cm
8231-07	7 mm Blade	9", 23cm
8232-13	13 mm Blade	9", 23cm

### Hooks

8240-22	7.5 mm Round Tip	8-3/4", 22 cm
8242-20	90 Degree 4 mm Tip, Dull	8", 20 cm
8244-20	90 Degree 2 mm Tip, Sharp	8", 20 cm

## Sternum Perforating Awl & Dilators



### Sternum Perforating Awl

- 8260-00 Sternum Perforating Awl 7", 18 cm with one Needle and Lock Key
- 8260-10 Awl Handle Only
- 8260-11 Awl Collet Nut Only
- 8260-12 Lock Key Only
- 8260-13 Package of 10 Replacement Needles

### Dilators

- 8" long
- 8260-15 Pediatric 1.5 mm Tip
- 8260-20 Pediatric 2.0 mm Tip
- 8260-25 Pediatric 2.5 mm Tip
- 8260-60 Pediatric Dilator Set (3)

### Adult Dilator

- 8" long
- 8260-30 Adult 3 mm Tip

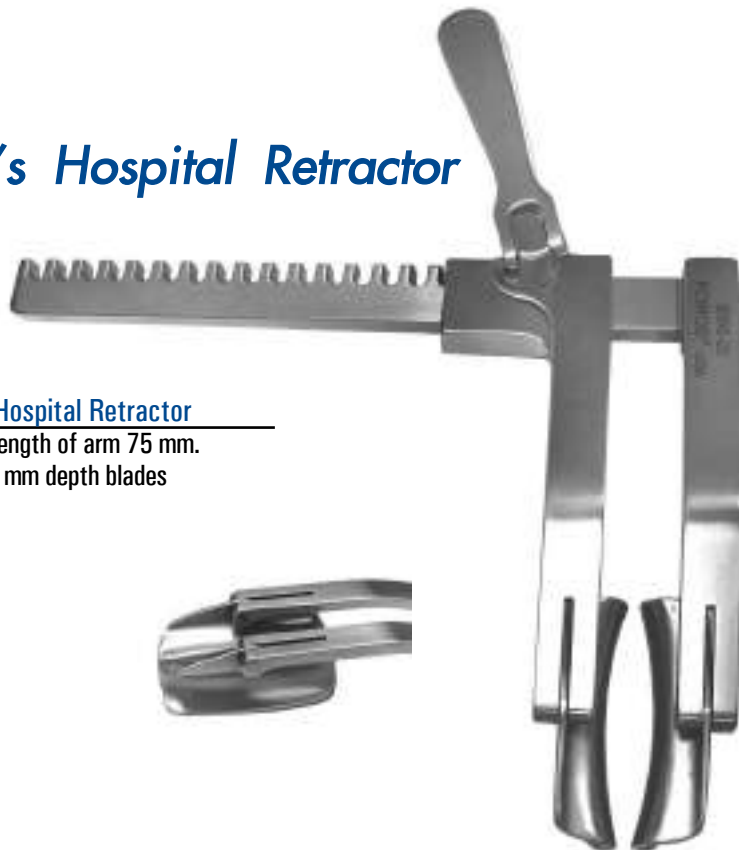


## Arterial Dilators

Length 21 cm

Cat #	Tip Size		
8270-01	.87 mm	8270-11	2.37 mm
8270-02	1.00 mm	8270-12	2.50 mm
8270-03	1.25 mm	8270-13	2.65 mm
8270-04	1.34 mm	8270-14	2.75 mm
8270-05	1.50 mm	8270-15	3.00 mm
8270-06	1.64 mm	8270-16	3.25 mm
8270-07	1.75 mm	8270-17	3.50 mm
8270-08	1.87 mm	8270-18	3.75 mm
8270-09	2.00 mm	8270-19	4.00 mm
8270-10	2.25 mm	8270-20	4.25 mm
		8270-99	Set of 20 sizes
		8270-80	Probe Holder

## Custom Boston Children's Hospital Retractor



### Custom Boston Children's Hospital Retractor

Maximum opening 106 mm. Length of arm 75 mm.

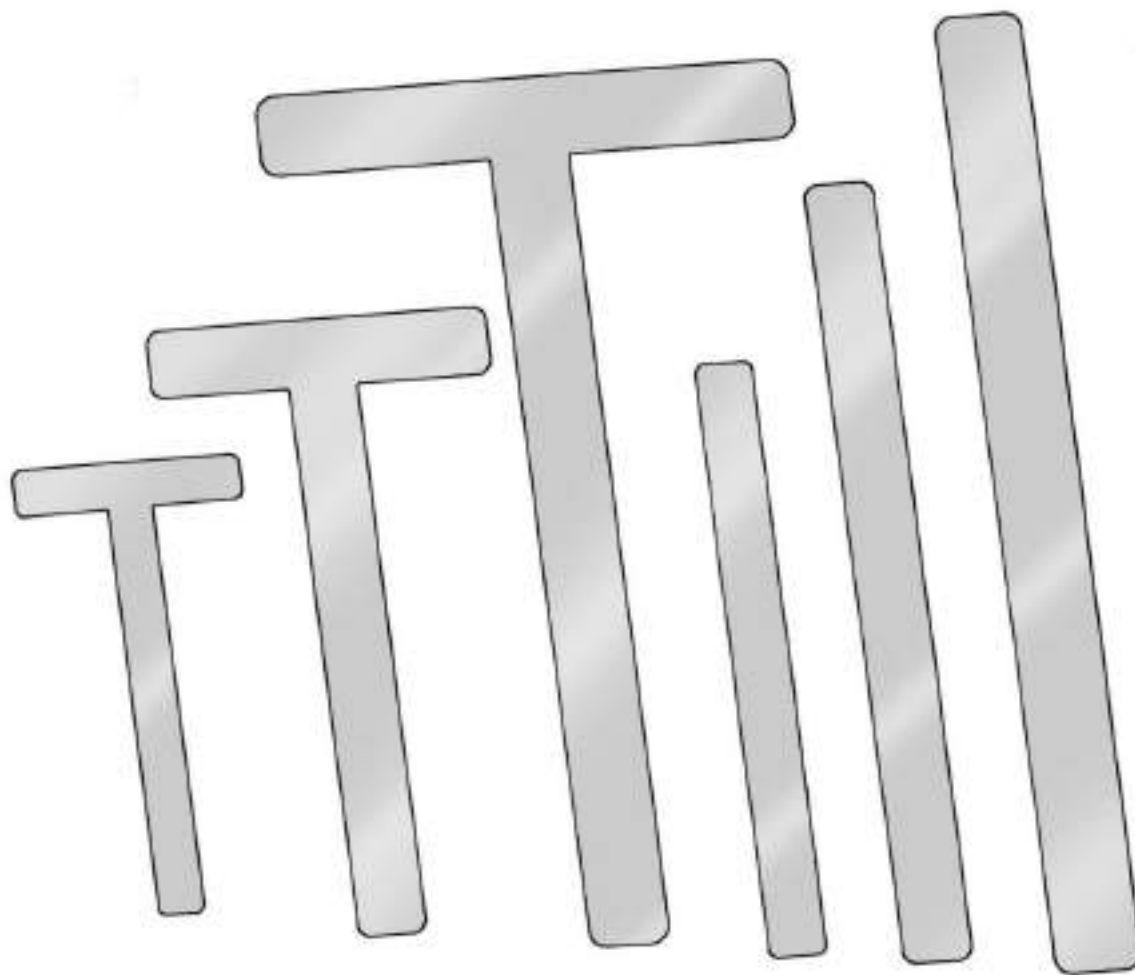
8270-85 44 mm length, 12 mm depth blades

# Epicardial Spring Retractors, Malleable Lung Retractors



## Epicardial Spring Retractors

8300-05	Up Loop
8300-10	Down Loop



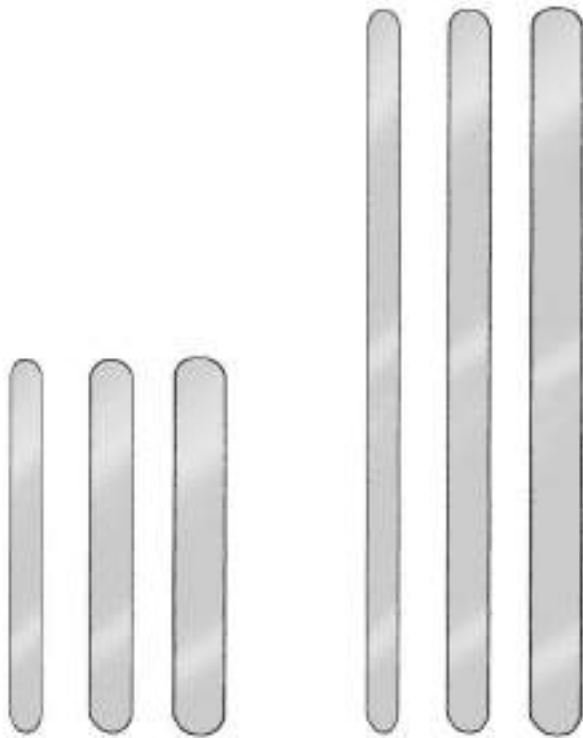
## Malleable T-Shape Lung Retractors

8310-13	T-Shape, Pediatric,	64 x 130 mm
8320-17	T-Shape, Pediatric,	92 x 178 mm
8330-25	T-Shape, Adult,	152 x 257 mm

## Malleable Straight Lung Retractors

8340-17	Length	170 mm
8350-22	Length	220 mm
8360-27	Length	275 mm
8360-90	Set of 6 Malleable Retractors	

## PDA Malleable Retractors, Kirkin Type Retractors



### PDA Malleable Retractors

		<u>Dimensions:</u>
8370-06	Size 6	6 x 75 mm
8370-08	Size 8	8 x 75 mm
8370-10	Size 10	10 x 75 mm
8380-06	Size 6 long	6 x 152 mm
8380-08	Size 8 long	8 x 152 mm
8380-10	Size 10 long	10 x 152 mm
8370-00	Set of all 6 sizes.	



### Malleable T-Shape Retractors, Aluminum

		<u>Dimensions:</u>
8370-21	Size 1	36 x 6 x 16 mm
8370-22	Size 2	38 x 10 x 16.5 mm
8370-23	Size 3	45 x 16 x 17 mm
8370-24	Size 4	50 x 20 x 17.5 mm
8370-25	Size 5	60 x 25 x 18 mm
8370-20	Set of all 5 sizes.	



### Kirkin Type Retractors

		<u>Tip Width:</u>
8380-11	Kirkin Type Retractor	5 mm
8380-12	Kirkin Type Retractor	7 mm
8380-13	Kirkin Type Retractor	10 mm

## Hemostats, CardioMark Anastomosis Marker Rings

### Hemostats

8405-10	Straight Vascular	10 cm
8410-15	Curved, Extra Delicate	15 cm
8430-18	Curved, Delicate with 1x2 Teeth	17.5 cm



## CardioMark™ Anastomosis Marker Rings

The Anastomosis Marker Rings are radiopaque, implantable, 316L special grade surgical stainless steel. They can be used as a radiographic point of reference allowing the cardiologist and surgeon to visualize the distal anastomosis sites. The Anastomosis Marker Ring simplifies determining the graft and location of the coronary artery stenoses.



### CardioMark™ Anastomosis Marker Rings

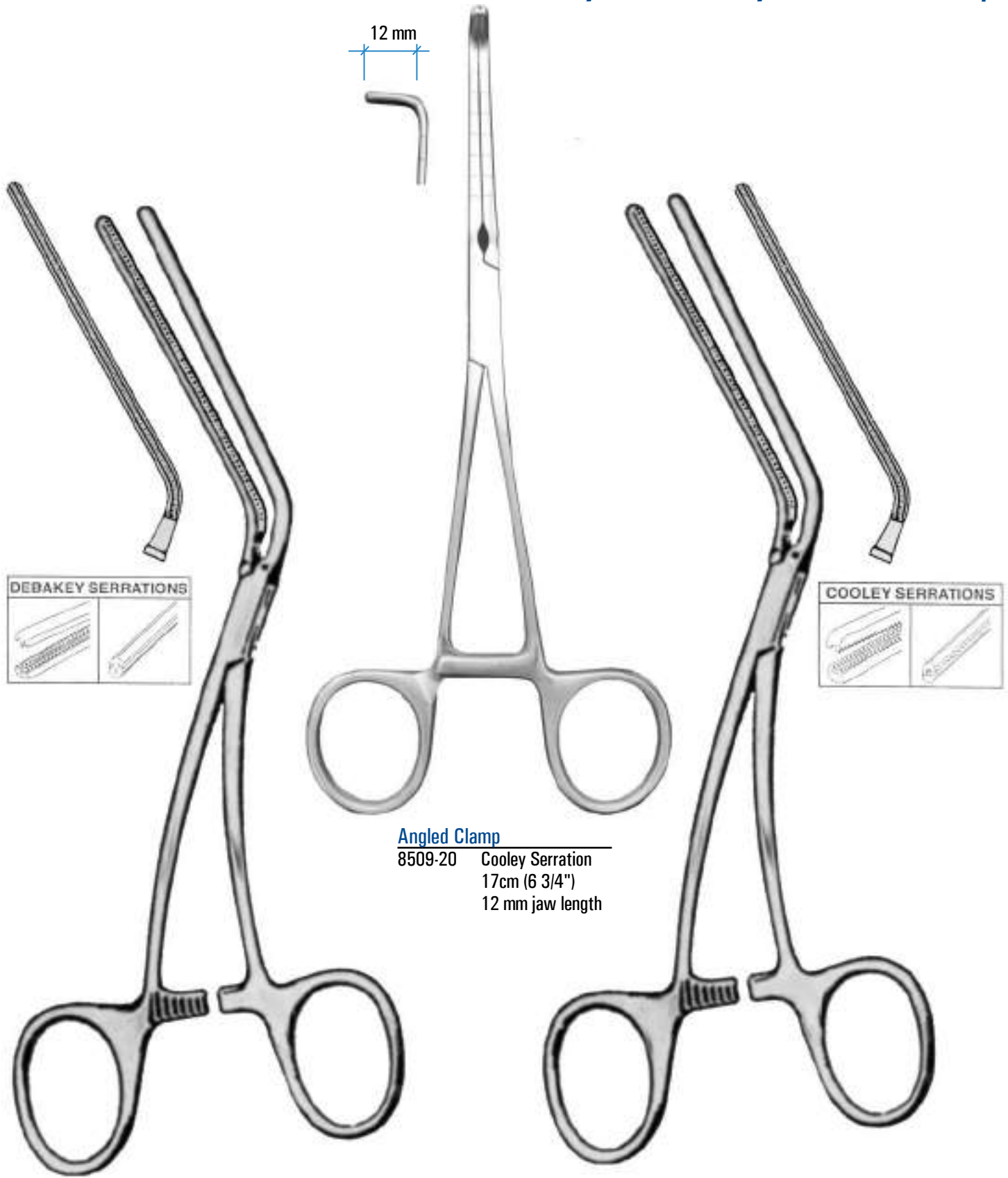
8400-10 Anastomosis Marker Ring, None-Sterile  
Non-Sterile Package of 100 Rings  
3 mm OD x 1.5 mm ID x .6 mm thickness

### CardioMark™ Anastomosis Marker Rings

8400-00 Anastomosis Marker Ring, Large  
Non-Sterile Package of 50 Rings  
(1/4" OD X 1/8" ID X .03 thickness)  
6.2 mm OD x 3.2 mm ID x .8 mm thickness

8400-01 Anastomosis Marker Ring, Large  
Non-Sterile Package of 100 Rings  
(1/4" OD X 1/8" ID X .03 thickness)  
6.2 mm OD x 3.2 mm ID x .8 mm thickness

# Debakey and Cooley Vascular Clamps



## Angled Clamp

8509-20 Cooley Serration  
17cm (6 3/4")  
12 mm jaw length

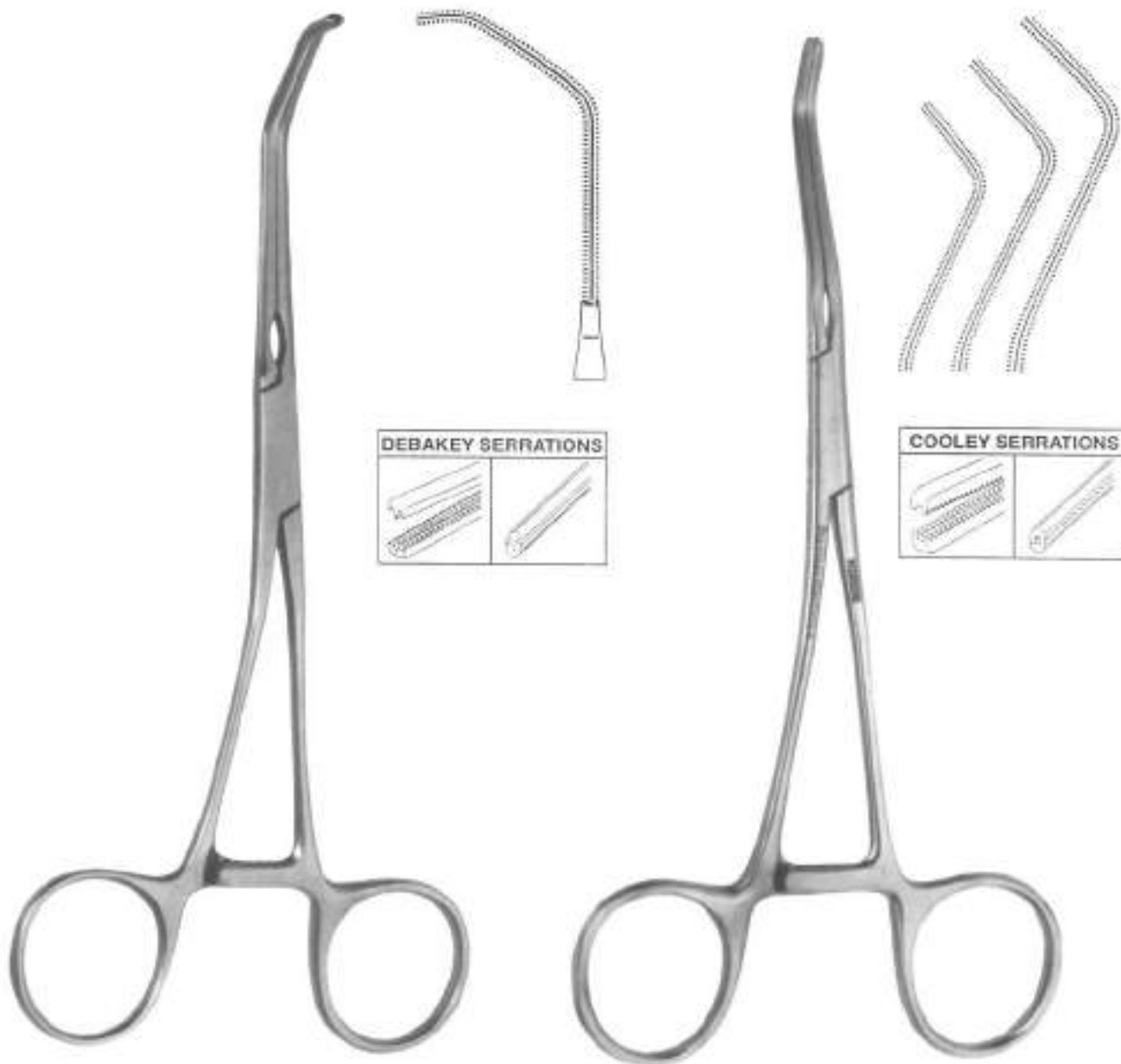
## Debakey Vascular Clamp

8509-18 Angular straight jaw, 18 cm (7 in), jaw length 6.5 cm

## Cooley Vascular Clamp

8509-19 Angular straight jaw, 18 cm (7 in), jaw length 6.5 cm

# Vascular Clamps



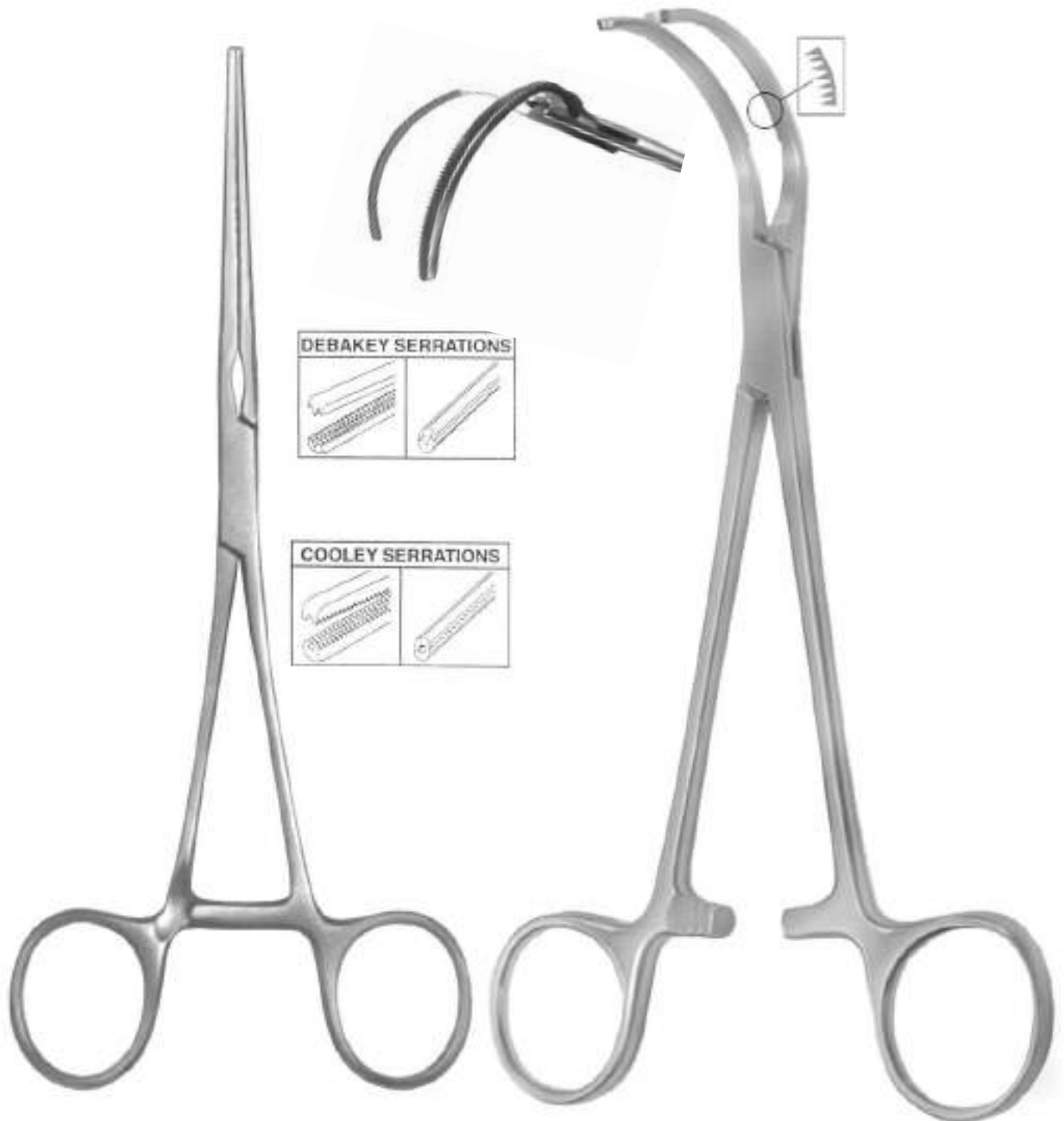
## Reynolds Type Vascular Clamp

8510-17 Delicate Reynold Type, 48 Degree 17.2 cm

## Snake Head Vascular Clamps

8520-15	Fine Snake Head, Size #1	17 cm
8530-16	Snake Head, Size #2	18 cm
8540-17	Snake Head, Size #3	19 cm

## Long Jaw Cardiovascular and Glover Type Clamps



### Long Jaw Cardiovascular Clamps

8550-18	Straight Jaw, DeBaKey Serrations	7", 18 cm
8560-18	Straight Jaw, Cooley Serrations	7", 18 cm

### Glover Type C Clamps

8560-50	Curved Jaw with sharp teeth	7", 18 cm
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# Aortic Cross Clamps



Short handle design allows chin clearance.



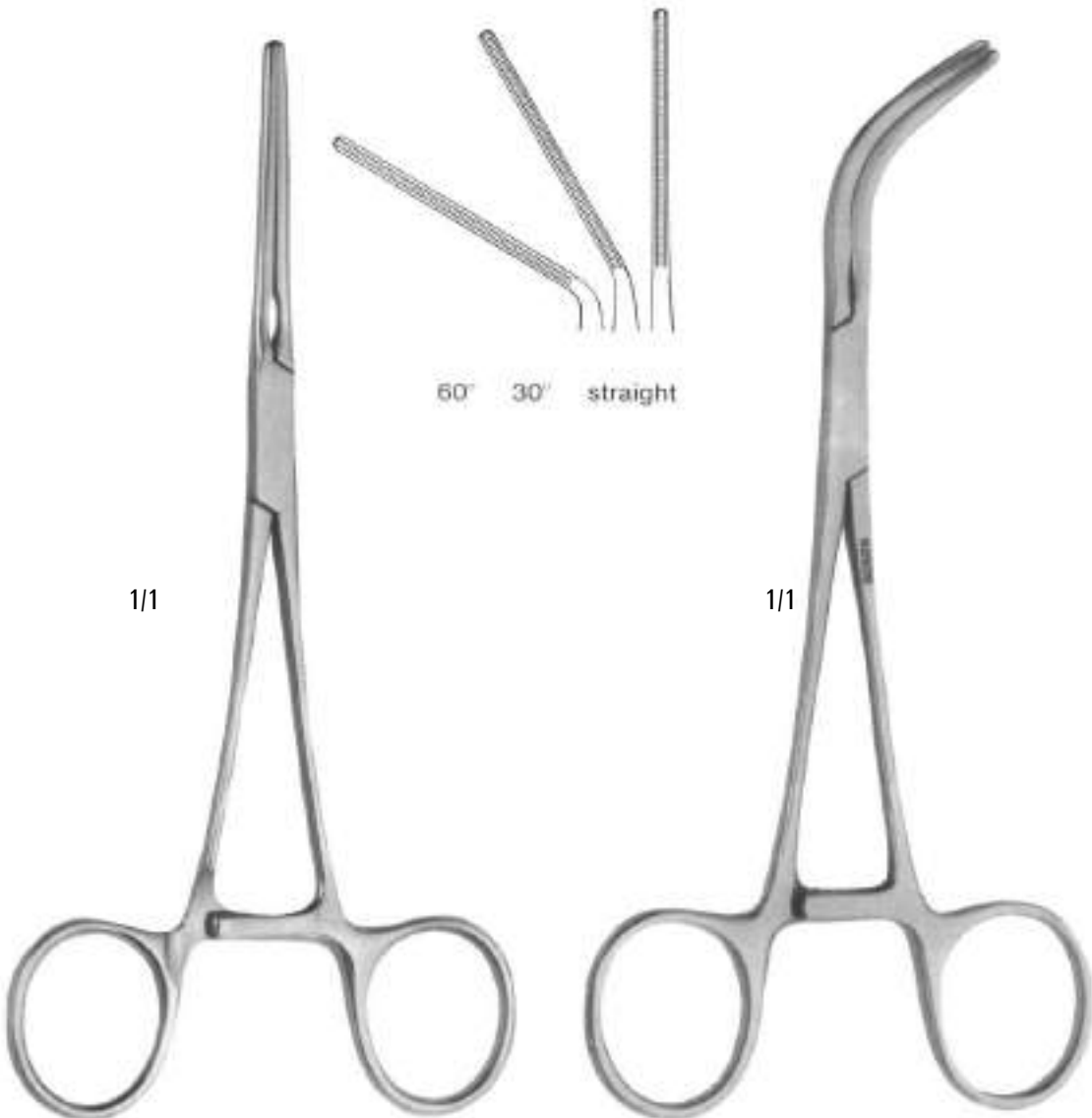
## Aortic Cross Clamps (Atraumax Inserts)

8560-60	90 Degree Angle	accepts 61 cm insert
8560-80	90 Degree Angle	accepts 84 cm insert

## Aortic Cross Clamps (Atraumax Inserts)

8565-60	Aortic Aneurism	accepts 61 cm insert, 10-1/2"
8565-80	Aortic Aneurism	accepts 84 cm insert, 11-1/4"

# Pediatric Aortic Clamps



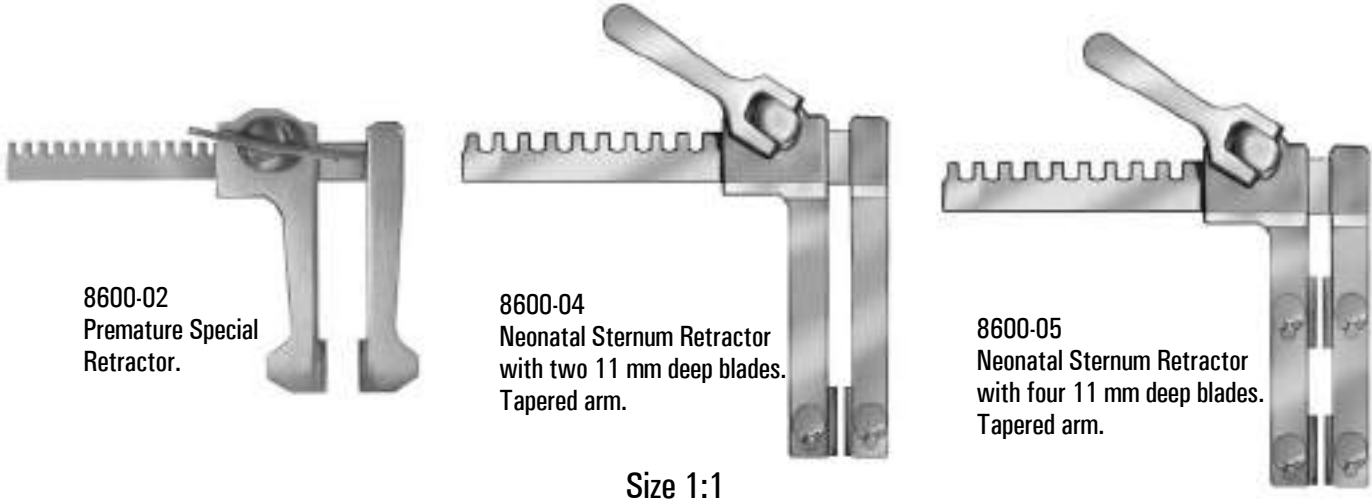
**Aortic Cross Clamps**

8570-16	DeBakey Serrations, Straight	16 cm, 6-1/4"
8570-30	DeBakey Serrations, 30 Degree	16 cm, 6-1/4"
8570-60	DeBakey Serrations, 60 Degree	16 cm, 6-1/4"

**Aortic Cross Clamps**

8580-16	Double Angle Vascular Clamp, Cooley Serrations	16 cm, 6-1/4"
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# Neonatal Sternum Retractors



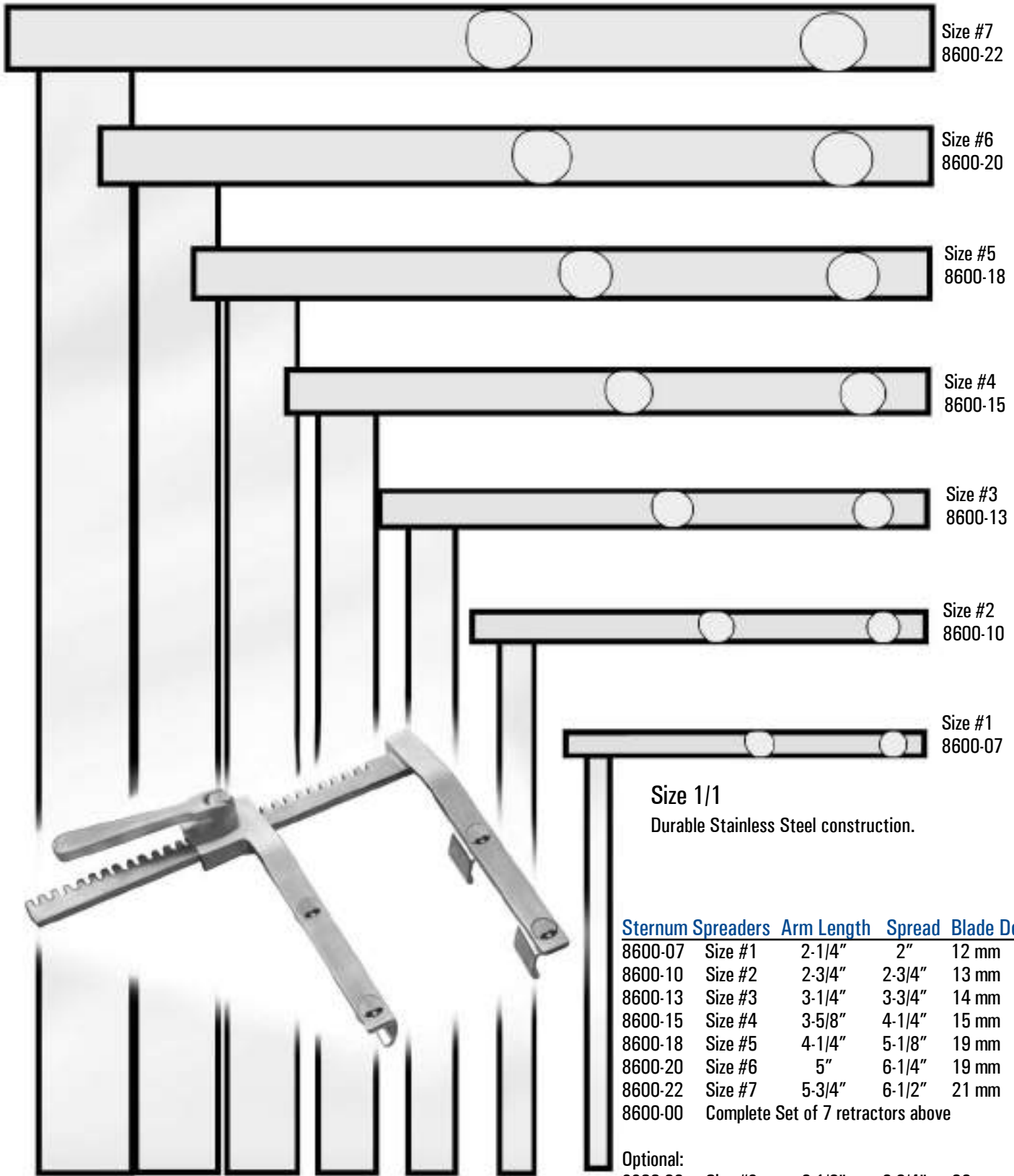
8600-02  
Premature Special  
Retractor.

8600-04  
Neonatal Sternum Retractor  
with two 11 mm deep blades.  
Tapered arm.

8600-05  
Neonatal Sternum Retractor  
with four 11 mm deep blades.  
Tapered arm.

Size 1:1

# Sternum Spreaders (Infant, Pediatric and Adolescent Sizes)



\* A larger variety of sizes provides for exact fitting in any pediatric case.

## Fraser Bailey Type Sternum Spreaders



### Fraser Bailey Type Sternum Spreaders

8600-24  
8600-26

### Arm Length

6 inches  
6 inches

### Blade Depth

24 mm  
26 mm

### Spread

6 3/4 inches  
6 3/4 inches

# Rib Spreaders (Infant, Pediatric and Adolescent Sizes)



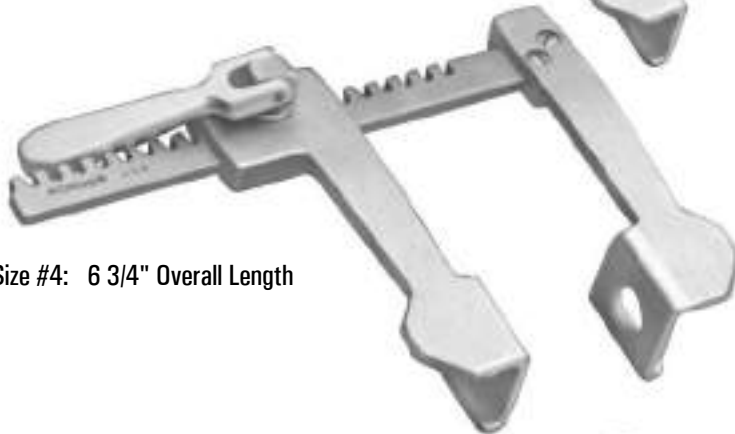
Size #1: 4 1/4" Overall Length



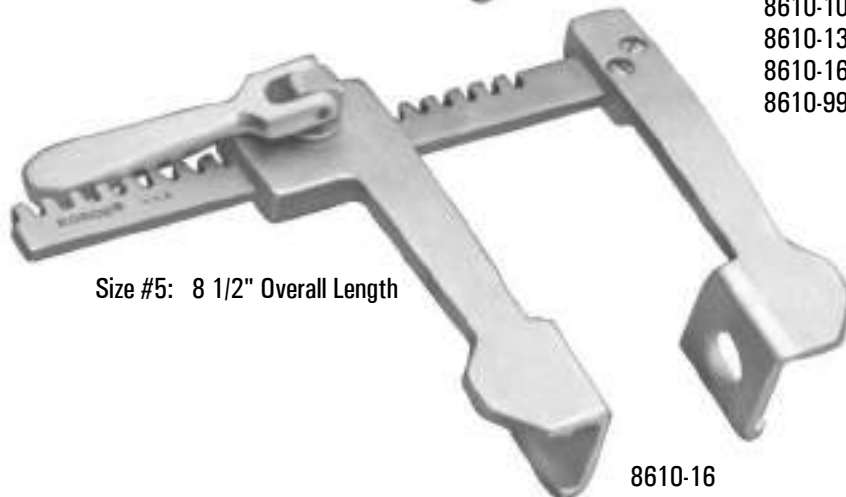
Size #2: 5 1/2 " Overall Length



Size #3: 6" Overall Length



Size #4: 6 3/4" Overall Length



Size #5: 8 1/2" Overall Length

- Various sizes provide for definitive fitting in any pediatric case.
- Gently-rounded blade edges provide atraumatic retraction.
- Durable Stainless Steel and Aluminum construction.

Rib Spreaders	Arm Length	Spread
8610-07 Size #1	2-1/4"	2-3/8"
8610-08 Size #2	2-1/2"	2-7/8"
8610-10 Size #3	3-1/8"	3-3/4"
8610-13 Size #4	3-3/4"	4-1/2"
8610-16 Size #5	4-3/4"	5-1/4"
8610-99 Complete Set of 5		

8610-16

## Pediatric and Adult Sterna-Form Spreaders



Size #1



Size #2

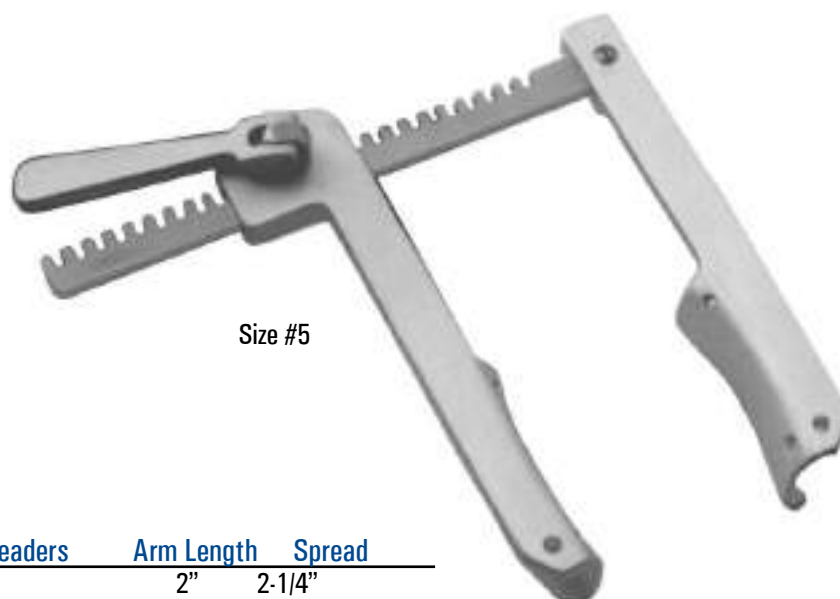


Size #3



Size #4

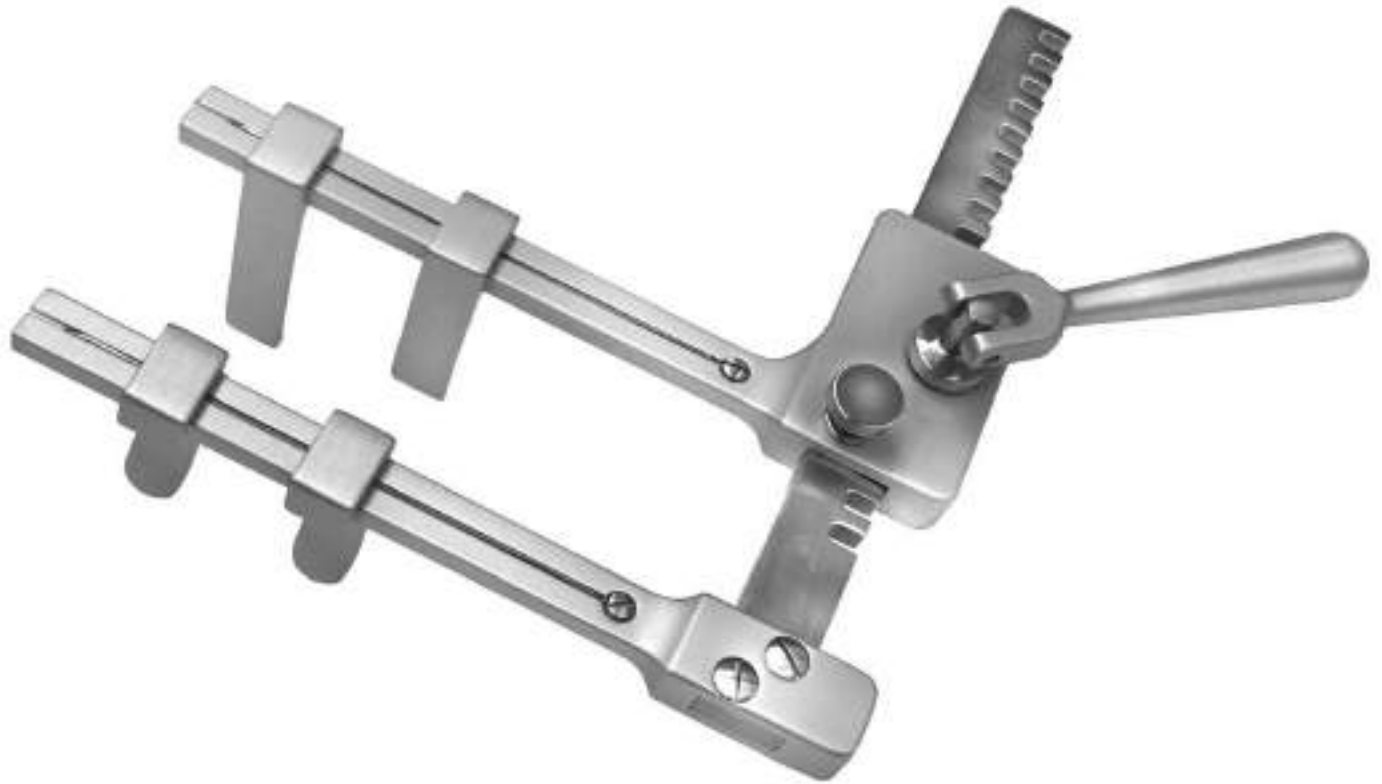
Durable Stainless Steel Racks and Aluminum Arm Construction.



Size #5

Sterna Form Spreaders		Arm Length	Spread
8650-60	Size #1	2"	2-1/4"
8650-75	Size #2	2-3/4"	2-1/2"
8650-95	Size #3	3-1/4"	2-3/4"
8651-35	Size #4	5"	4"
8651-70	Size #5 Adult	6"	5"
8650-00	Complete Set of 5		

## Pediatric Sternum Spreader with Interchangeable Blades



### Pediatric Sternum Spreader with Interchangeable Blades

Aluminum construction. Maximum spread 130 mm. Arm depth 130 mm.

- 8620-00 Retractor
- 8620-01 40 mm depth, 12 mm wide blade
- 8620-02 50 mm depth, 12 mm wide blade
- 8620-03 60 mm depth, 12 mm wide blade

# Shang Hai Type Sternum Retractors Pediatric



Special Feature: Retractor Arms are able to flip over and out of the way to insert drainage tubes.

## Shang Hai Type Sternum Retractors

- 8660-06 Shang Hai Type Infant Retractor  
Retractor arm length 32 mm  
Blades are 16 x 7 mm deep, maximum opening 30 mm
- 8660-07 Shang Hai Type Infant Retractor  
Retractor arm length 42 mm  
Blades are 21 x 8 mm deep, maximum opening 40 mm
- 8660-10 Shang Hai Type Infant Retractor  
Retractor arm length 65 mm  
Blades are 28 x 10 mm deep, maximum opening 72 mm
- 8660-20 Shang Hai Type Pediatric Retractor  
Retractor arm length 80 mm  
Blades are 35 x 12 mm deep, maximum opening 105 mm
- 8660-25 Shang Hai Type Pediatric Retractor  
Retractor arm length 93 mm  
Blades are 55 x 14 mm deep, maximum opening 110 mm



Now Available: **CUSTOM MADE**  
extra wide blades for 8660-20  
Retractor! Please inquire.

Custom Wide Blade for 8660-20

# Shen Type Retractor Set



8665-00		Shen Retractor Set		Blade Size W x D	Arm Opening
Consisting of:					
(1)	8665-10	1 ea	Infant	Size 1 Shen Retractor	11.5x13mm 8cm
(2)	8665-20	1 ea	Child	Size 2 Shen Retractor	12.5x16.5mm 10cm
(3)	8665-30	1 ea	Pediatric	Size 3 Shen Retractor	21 x 20mm 12cm
(4)	8665-40	1 ea	Adult	Size 4 Shen Retractor	25x28mm 16cm

## Rib/Sternum Retractor Set & Retractor for Octopus Stabilizers



Arm Length: 11 cm  
Blade Opening: 12 cm



### 8670-00 Rib / Sternum Retractor Set

Consisting of:

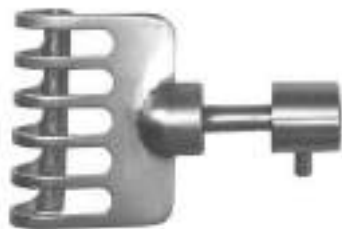
8670-10	1 ea	Retractor frame
8670-20	2 ea	28 x 25 mm deep blades
8670-30	2 ea	28 x 34 mm deep blades



### 8690-00 Retractor for Octopus Stabilizers

Retractor Arm Length	6 3/4 inches
Blade Opening	7 inches
Blade Depth	24 mm

## Custom Claw Retractor



### 8695-00 Custom Claw Retractor Set

Retractor arm length 140 mm.

Maximum rack opening 190 mm.

Includes three blade sizes:

	width:	x	depth:
2 ea	38 mm	x	14 mm
2 ea	44 mm	x	21 mm
2 ea	65 mm	x	30 mm

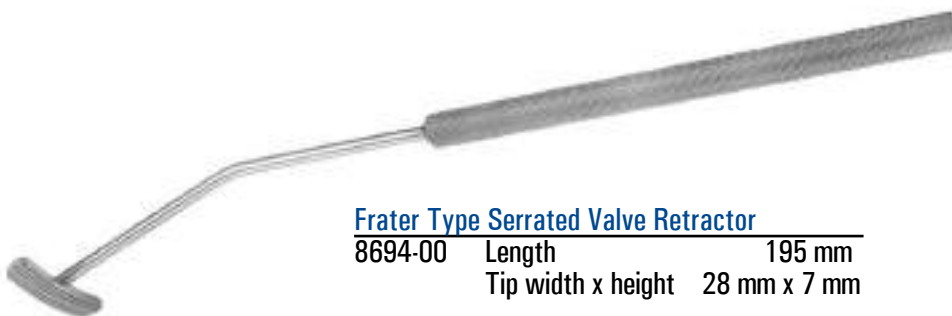


## 7740-70 Renal Type Aortic Hand Retractor Set

Set Includes 1 each of the following retractors:

		Length:	Width of Blades:
7740-71	Size 1	3", 7.5 cm	20-21 mm
7740-72	Size 2	3-1/2", 9 cm	20-21 mm
7740-73	Size 3	4", 11 cm	20-21 mm
7740-74	Size 4	5", 12.7 cm	23 mm
7740-75	Size 5	6", 15.3 cm	23 mm
7740-76	Size 6	7", 17.8 cm	23 mm
7740-77	Size 7	8", 20.3 cm	23 mm

All Hand Retractors are 8" long from blade to end of handle tip.



## Frater Type Serrated Valve Retractor

8694-00	Length	195 mm
	Tip width x height	28 mm x 7 mm

## Tube Holders



### Tube Holder 6 slots

8696-00    Size                      1 x 1 3/4 x 6 "  
Holds 1 each of 3/8", 1 each of 1/2" and 1 each  
of 3/16", 3 each of 1/4" diameter tubes.  
Aluminum construction.

### Tube Holder 7 slots

8696-07    Size                      1 x 1 3/4 x 6-3/4 "  
Holds 2 each of 3/8", 1 each of 1/2", 3 each of  
1/4" and 1 each of 3/16" inside diameter tubes.  
Aluminum construction.

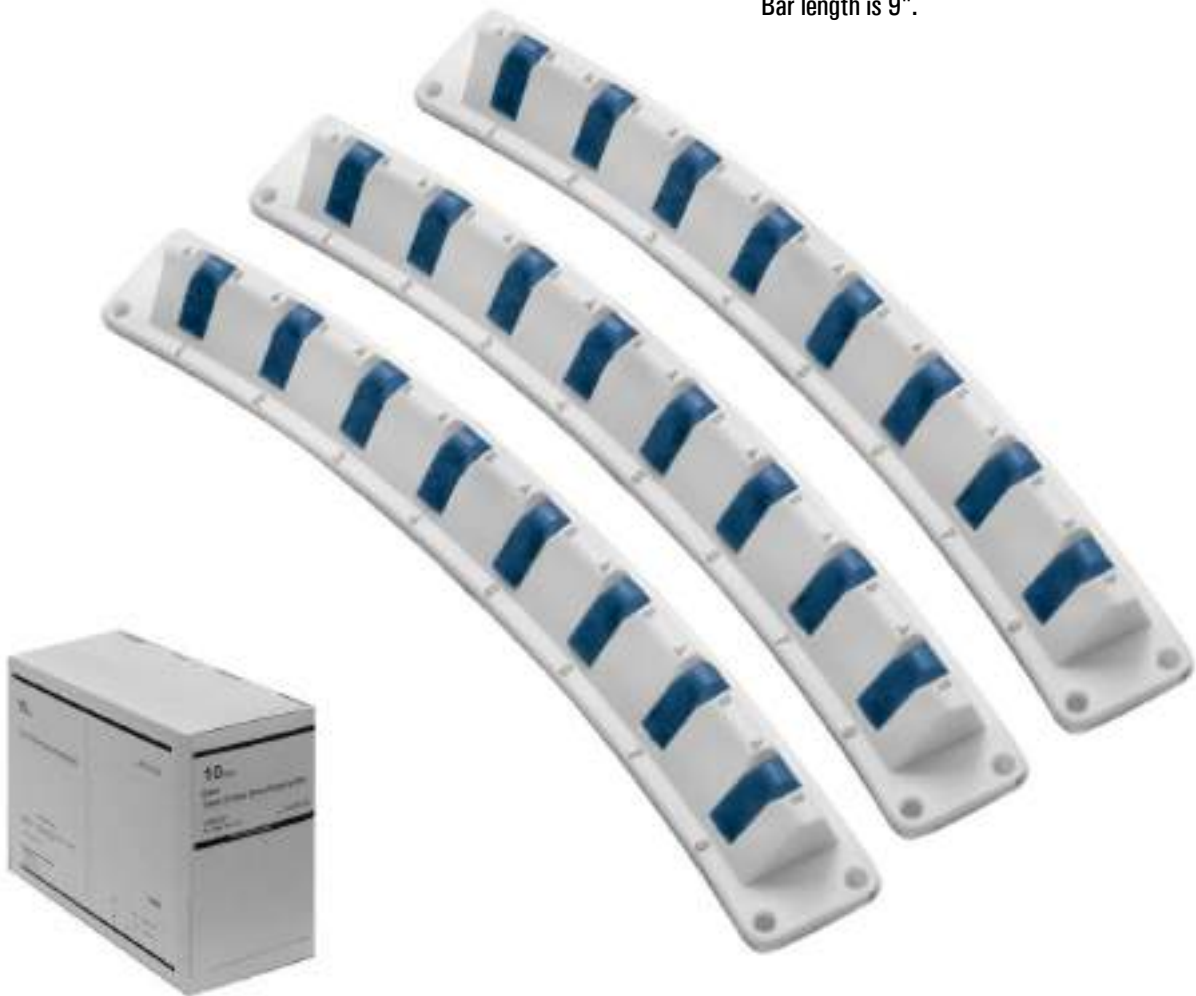
### Tube Holder 5

8696-05    Size                      1 1/2 x 4 1/2 x 7 "  
Holds 2 each of 14 mm and 3 each of 9 mm  
diameter tubes.  
Stainless Steel construction.

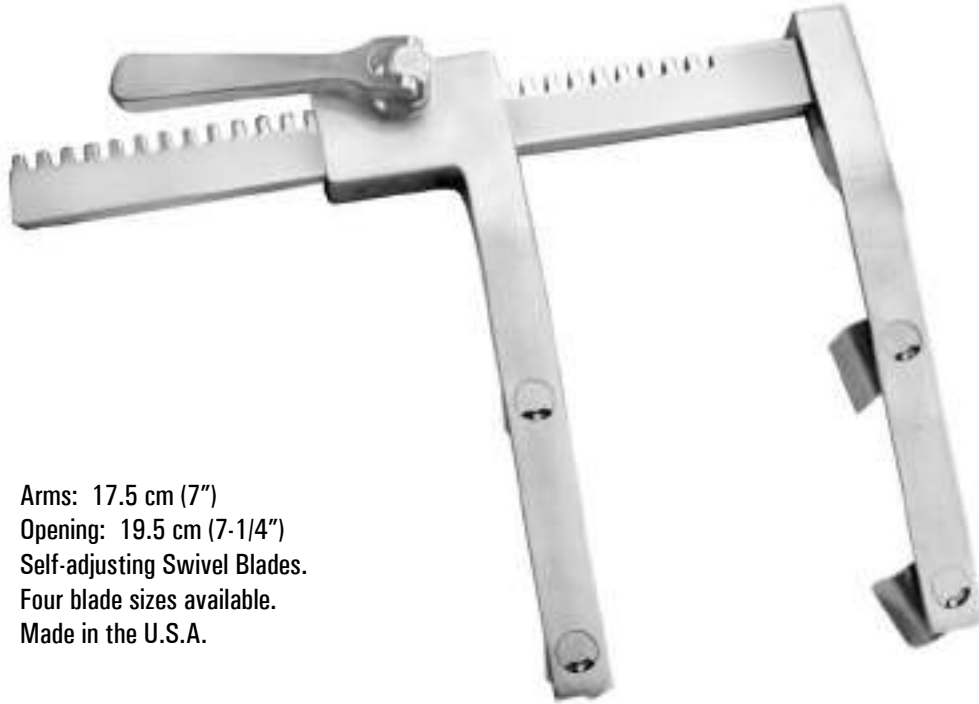
# Suture Retaining Bar

## Suture Retaining Bar, Single Use

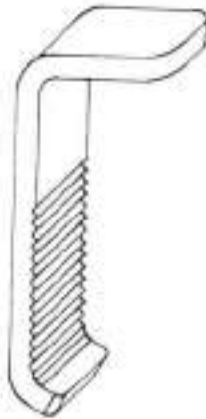
8782-00 Suture Retaining Bars in Dispenser Box.  
Each Box Contains:  
(10) packages of (3) Suture Retaining Bars.  
Single use sterile product.  
Each bar can hold 8 pairs of valve sutures.  
Bar length is 9".



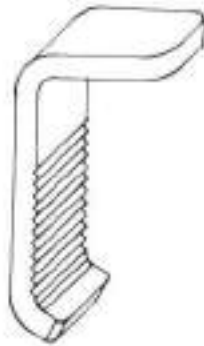
# Sternum Spreader with Double Blades



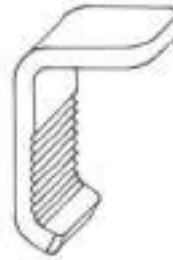
Arms: 17.5 cm (7")  
Opening: 19.5 cm (7-1/4")  
Self-adjusting Swivel Blades.  
Four blade sizes available.  
Made in the U.S.A.



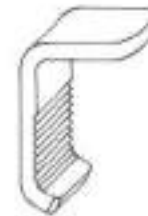
44 mm  
Serrated



34 mm  
Serrated



28 mm  
Serrated



22 mm  
Serrated

## Sternum Spreaders

- 8700-22 Adult, 22 mm Deep Blades, Serrated
- 8700-28 Adult, 28 mm Deep Blades, Serrated (standard size)
- 8700-34 Adult, 34 mm Deep Blades, Serrated
- 8700-44 Adult, 44 mm Deep Blades, Serrated

# Universal Sternum and Internal Mammary Retractor



Arms: 17.5 cm (7")  
Opening: 19.5 cm (7-1/4")  
Blades: Serrated, 22 mm deep with teeth.

Non-glare Finish.  
Stainless Steel.

Made in the U.S.A.

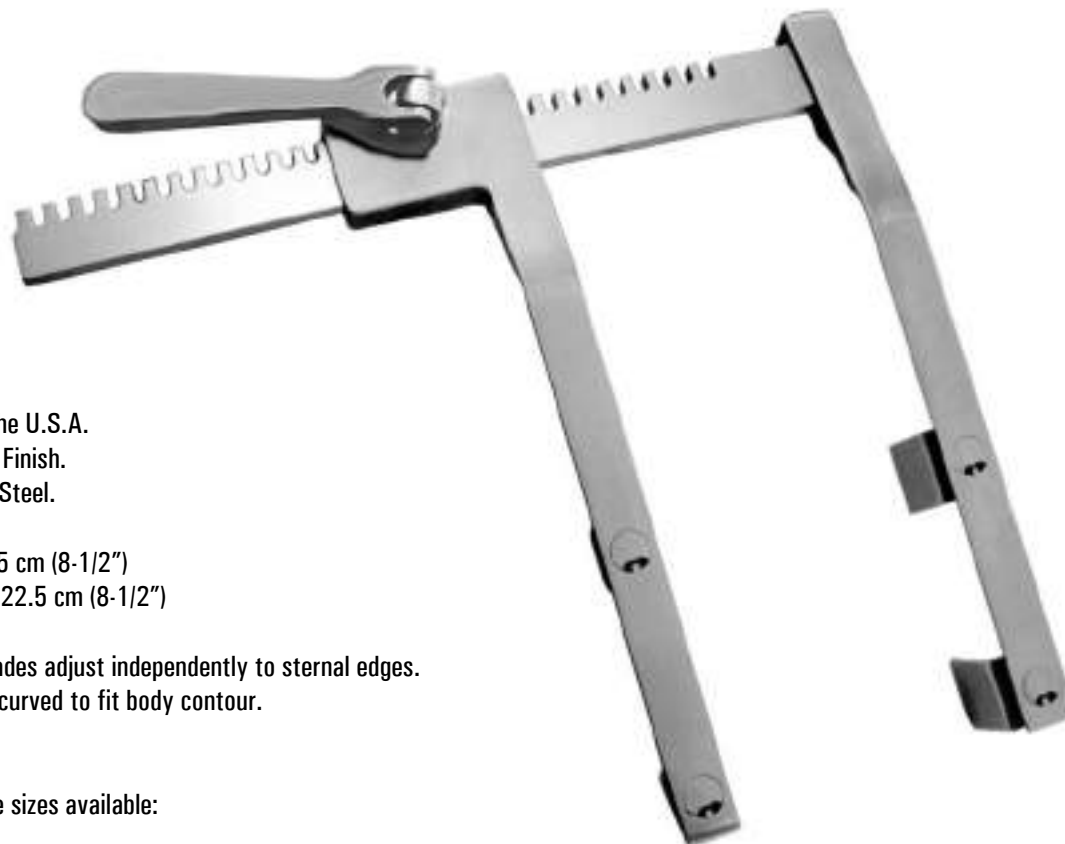


## Sternum Spreader and I.M.A. Retractor

8720-22 17.5 cm Arm Length, 19.5 cm Opening  
22 cm deep, Serrated Blades

This innovative and versatile retractor is designed for both routine midline sternotomy exposure and elevation of the chest wall for internal mammary artery dissection/grafting. Can be used bilaterally. Eliminates table-mounted instrumentation. Arms are curved to fit body contour, swivel blades adjust independently to sternal edges.

## Extra Long Arm Sternum Spreader

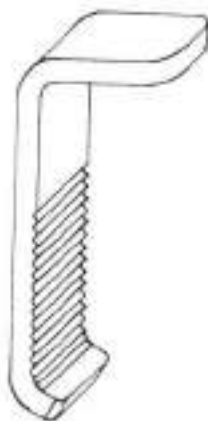


Made in the U.S.A.  
Non-glare Finish.  
Stainless Steel.

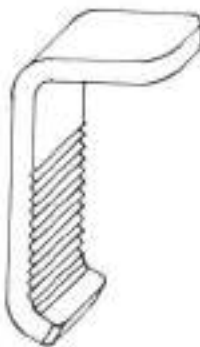
Arm: 22.5 cm (8-1/2")  
Opening: 22.5 cm (8-1/2")

Swivel blades adjust independently to sternal edges.  
Arms are curved to fit body contour.

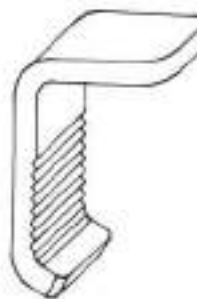
Four blade sizes available:



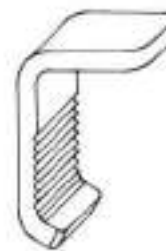
44 mm  
Serrated



34 mm  
Serrated



28 mm  
Serrated

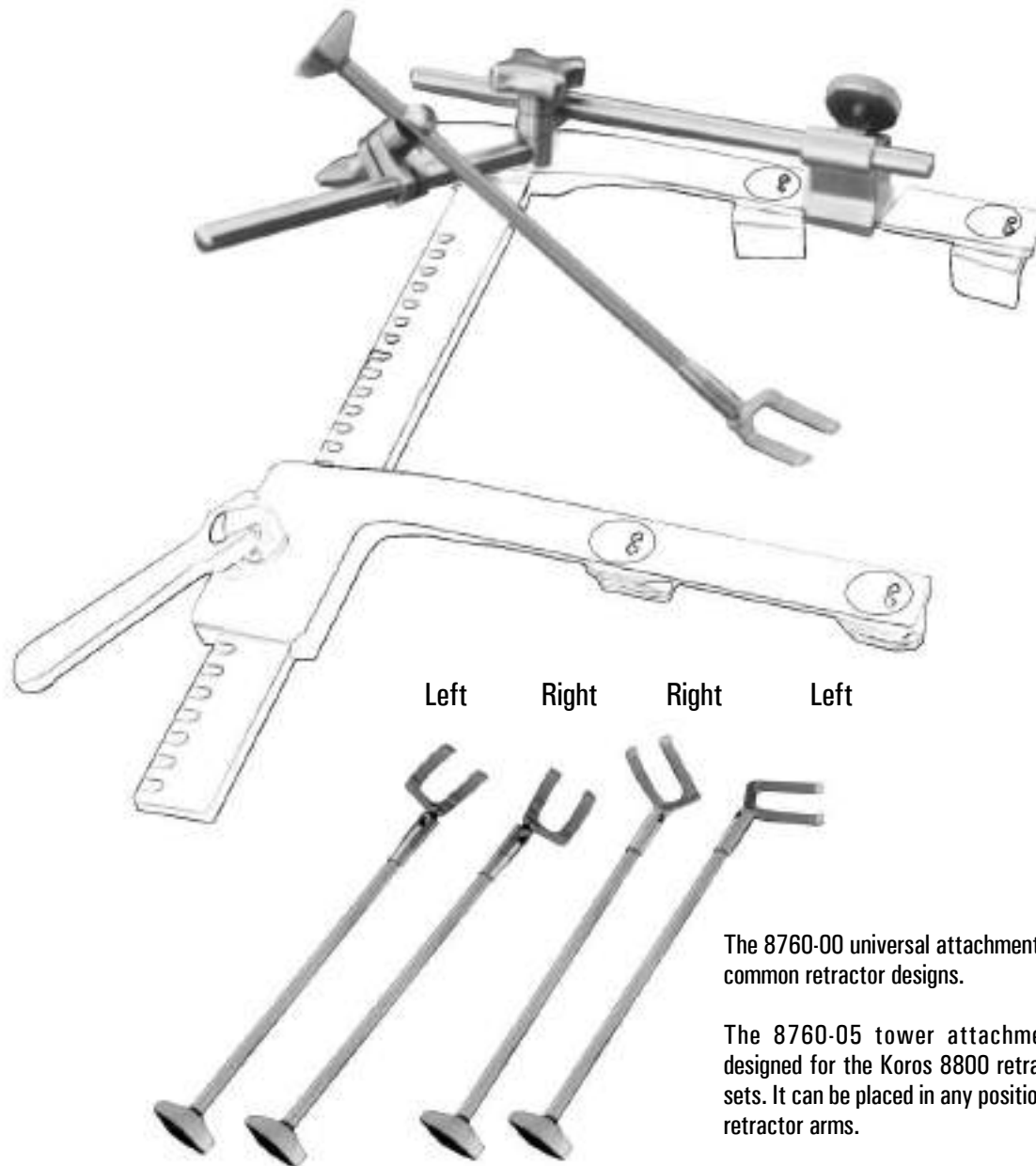


22 mm  
Serrated

### Extra Long Sternum Spreaders

8750-22	Extra Long Arms, 22 mm Deep Blades, Serrated
8750-28	Extra Long Arms, 28 mm Deep Blades, Serrated (standard size)
8750-34	Extra Long Arms, 34 mm Deep Blades, Serrated
8750-44	Extra Long Arms, 44 mm Deep Blades, Serrated

# Beating Heart Stabilizer Tower Attachment



The 8760-00 universal attachment set fits *all* common retractor designs.

The 8760-05 tower attachment set is designed for the Koros 8800 retractor series sets. It can be placed in any position along the retractor arms.

## 8760-00 Universal Stabilizer Tower Attachment Set

Consisting of:

- 8760-10 Universal Tower Unit
- 8760-15 Arm Bar
- 8760-20 Cross Bar with Clamp Assembly
- 8760-25 Stabilizer Clamp
- 8780-30 Stabilizer, Left
- 8780-35 Stabilizer, Right
- 8780-40 Stabilizer, Circumflex Left
- 8780-45 Stabilizer, Circumflex Right

## 8760-05 Stabilizer Tower Attachment Set for Koros 8800 Series Retractors only

Consisting of:

- 8760-12 8800 Tower Unit
- 8760-15 Arm Bar
- 8760-20 Cross Bar with Clamp Assembly
- 8760-25 Stabilizer Clamp
- 8780-30 Stabilizer, Left
- 8780-35 Stabilizer, Right
- 8780-40 Stabilizer, Circumflex Left
- 8780-45 Stabilizer, Circumflex Right

# Beating Heart Stabilizer Arm Attachment



## 8780-00 Universal Stabilizer Arm Attachment Set

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Consisting of:

- 8780-10 Universal Tower Arm Unit, Left
- 8780-15 Universal Tower Arm Unit, Right
- 8780-30 Stabilizer, Left
- 8780-35 Stabilizer, Right
- 8780-40 Stabilizer, Circumflex Left
- 8780-45 Stabilizer, Circumflex Right

The 8780-00 universal arm attachment set fits all the common retractors designs.

The 8780-05 arm attachment set designed to fits precisely to any of the 8800 Koros retractors, in any position along the retractor arm.

## 8780-05 Stabilizer Arm Attachment Set for Koros 8800 Series Retractors Only

---

Consisting of:

- 8780-20 8800 Series Tower Arm Unit, Left
- 8780-25 8800 Series Tower Arm Unit, Right
- 8780-30 Stabilizer, Left
- 8780-35 Stabilizer, Right
- 8780-40 Stabilizer, Circumflex Left
- 8780-45 Stabilizer, Circumflex Right



**S**

Superior Dome Approach

**TS**

Transeptal Approach

**IAG**

Inter Atrial Groove Approach



Vector™ Mitral Valve Retractors have distinct and superior advantages for mitral valve exposure.

# Vector-TS **Mitral Valve Retractor for Transeptal Approach**



- The Vector Transeptal obviates the use of multiple hand held retractors. It is particularly suitable for limited sternotomy, providing superb exposure of the valve and it's apparatus.



# Vector-S Mitral Valve Retractor for Superior Dome Approach



- The retraction vectors are perpendicular to each other and parallel to the valve such that the exposure aperture can be positioned opposite the valve with minimal adjustments.

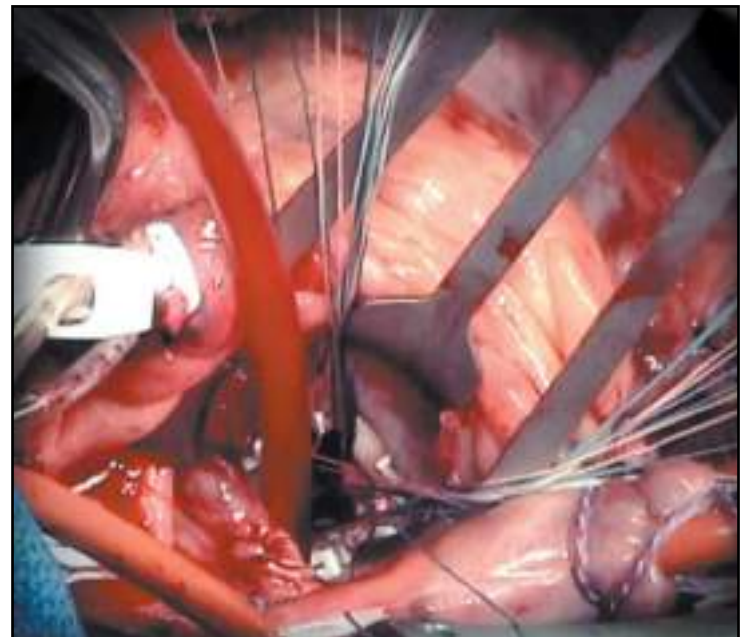
- Easily applies to the Superior Dome approach affording the surgeon excellent exposure to the mitral valve.

The VECTOR blades move together or independently at right angles to each other providing an adjustable round opening which parallels the mitral valve.



## Quick and Easy Setup

1. Place the Tower Unit on the sternum spreader.
2. After the entry incision is made, position the Vector-S or Vector-IAG Valve Retractor Unit by hooking the blades on the atrial wall.
3. Secure retractor in place and apply retraction by rotating the lower control knob clockwise. The lower control knob opens the side and vertical blades simultaneously. To increase vertical retraction, rotate the upper control knob clockwise. The upper knob provides independent adjustments of the vertical retractor blade.
4. Engage the tower connecting bar disk portion to the back of retractor housing. Place the bar into the multi-position clamp on the tower unit. Lock by turning the quick lever handle. The valve is now widely exposed and enabling repair or replacement.
5. Dismantle by reversing the above process.



The unit can be used in any valve approach.

# Vector-IAG Mitral Valve Retractor for Inter Atrial Groove Approach



- The Tower Attachment features a quick-lever lock for securing the unit to the sternum spreader arm/rack and attaching the support bar to the tower unit.

- Tower Attachment is compatible with the majority of existing sternum spreaders, as well as the KONA Retractor Platform and all Koros adult sternum retractors.



- The unit is designed to be "dropped" into the surgical field via standard or small incision.

- Instrument design elements are patented in the U.S.A. and other countries.

The single anchoring point and the unique blade mechanism make the Vector Valve Retractor the best tool for valve exposure.



8790-52



8790-54



8790-56



8790-60

**8790-52** **Vector-S Valve Retractors**  
 Mitral Valve Retractor for Superior Approach  
 (Reusable unit, requires 8790-60 Tower Attachment unit)

**8790-54** **Vector-TS Valve Retractors**  
 Mitral Valve Retractor for Transeptal Approach  
 (Reusable unit, requires 8790-60 Tower Attachment unit)

**8790-56** **Vector-IAG Valve Retractors**  
 Mitral Valve Retractor for Inter Atrial Groove Approach  
 (Reusable unit, requires 8790-60 Tower Attachment unit)

**8790-60** **Vector Universal Tower Attachment**  
 (Reusable unit, works with arm or rack dimensions  
 0.18-0.31x1.06 inches)

**8800-91** **Vector-Ankeney Retractor Adaptor**



8800-91

# Thoracotomy and Rib Retractors



## 8792-00 Mini-Thoracotomy Retractor

Arm Length 105 mm  
 Max Opening 70 mm  
 Blade Size 30 x 42 mm deep

## 8792-05 Mini-Thoracotomy Retractor

Arm Length 105 mm  
 Max Opening 70 mm  
 Blade Size 40 x 42 mm deep

Option:

Tower Attachment Base on stationary arm.



Length 105 mm  
 Maximum Opening 45 mm



8794-40  
 Optional Item

## 8794-00 Small Incision Rib Retractor Set with Interchangeable Blades.

Consisting of:

1 ea	8794-10	Rib Retractor only
2 ea	8794-20	Blades, Size: 40 x 37 mm deep
2 ea	8794.30	Wide Blades, Size: 62 x 40 mm deep

Optional Item:

8794-40 Blade with heavy 12 mm lip,  
 Size: 62 x 40 mm deep

## CM Type Double Hinged Retractor Systems



### 8796-00 CM Type Double Hinged Retractor System

Set includes the following items:

8796-10	1 ea	Double Hinged Retractor Frame Only
8796-20	2 ea	Blade, size 10 mm x 38 mm deep
8796-30	2 ea	Blade, size 20 mm x 38 mm deep
8796-40	2 ea	Blade, size 30 mm x 38 mm deep
8796-50	2 ea	Blade, size 30 mm x 48 mm deep
8796-60	2 ea	Wide Blade, Size: 40 mm x 32 mm deep
8796-70	2 ea	Wide Blade, Size: 40 mm x 38 mm deep
8796-90	1 ea	Instrument Case for CM Retractor System



### Optional Items:

8796-12	1 ea	Single Hinged Retractor Frame Only
8796-14	1 ea	Ring Handle Retractor Frame Only



Optional 8796-14  
Ring Handle Retractor Frame

Optional 8796-12  
Single Hinged Retractor Frame



## Mini Thoracotomy Retractor Set



### 8797-00 Mini Thoracotomy Retractor Set

Set includes the following items:

8797-10	1 ea	Quick Change Retractor Frame Only
8797-20	2 ea	Blade, size 22 mm x 22 mm deep
8797-30	2 ea	Blade, size 35 mm x 30 mm deep
8797-90	1 ea	Instrument Case for Mini Thoracotomy Retractor Set

# Mini-Access™ Retractor Set & Mini-Access™ Stabilizer Retractor System



## 8798-00 Mini-Access™ Valve Retractor System

Set includes the following items:

8798-11	1 ea	Quick Change Retractor Frame with Tower Base
8798-19	1 ea	Tower Attachment with Cross Bar
8798-30	1 ea	Valve Retractor size: Small
8798-32	1 ea	Valve Retractor size: Medium
8797-20	2 ea	Blade, size 22 mm x 22 mm deep
8797-30	2 ea	Blade, size 35 mm x 30 mm deep
8796-60	2 ea	Wide Blade, size: 40 mm x 32 mm deep
8796-70	2 ea	Wide Blade, size: 40 mm x 38 mm deep
8798-90	1 ea	Instrument Case for Mini-Access™ Valve Retractor System

### Optional Items:

8798-31	1 ea	Valve Retractor size: Large
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## 8799-00 Mini-Access™ Stabilizer Retractor System

Set includes the following items:

8798-10	1 ea	Quick Change Retractor Frame with Tower Base
8798-20	1 ea	Tower Attachment with Cross Bar
8798-33	1 ea	Stabilizer, Right
8798-35	1 ea	Stabilizer, Left
8797-20	2 ea	Blade, size 22 mm x 22 mm deep
8797-30	2 ea	Blade, size 35 mm x 30 mm deep
8796-60	2 ea	Wide Blade, Size: 40 mm x 32 mm deep
8796-70	2 ea	Wide Blade, Size: 40 mm x 38 mm deep
8798-90	1 ea	Instrument Case for Mini-Access™ Stabilizer Retractor System

### Optional Items:

8798-34	1 ea	Stabilizer Circumflex, Right
8798-36	1 ea	Stabilizer Circumflex, Left



# Semi Malleable Valve Retractors & Valve Retractor Positioner

## Semi Malleable Valve Retractors

8810-01	4 mm wide, 4 mm lip depth
8810-02	6 mm wide, 4 mm lip depth
8810-03	8 mm wide, 4 mm lip depth
8810-04	10 mm wide, 4 mm lip depth
8810-05	12 mm wide, 5 mm lip depth
8810-06	16 mm wide, 5 mm lip depth
8810-07	20 mm wide, 5 mm lip depth (not pictured)



FRONT



BACK



## 8820-00 Valve Retractor Positioner

Consisting of:

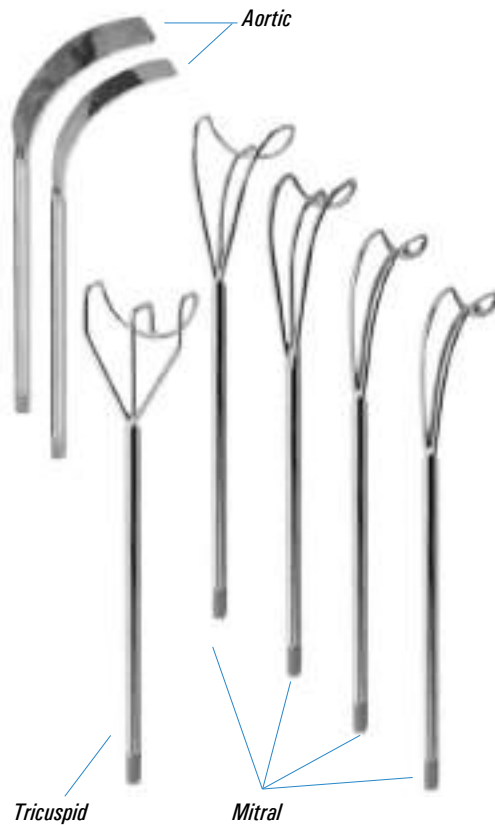
8820-10	Detachable Clamp Bar
8820-20	Positioner Handle

## Extra Deep Valve Retractor & Valve Retractor Set



### Minimal Invasive Extra Deep Mitral Valve Retractor

8692-00	Length	30 cm
	Tip depth x width	12.5 cm x 3 cm
8692-02	Length	30 cm
	Tip depth x width	18 cm x 3cm



### Hand Retractors for Positioner:

#### 8800-560 Valve Retractor Set

Consisting of:

- 8800-505 2 ea Mitral Valve Retractor (20 x 48 mm)
- 8800-506 Medium Valve Retractor (28 x 39 mm)
- 8800-507 Large Valve Retractor (38 x 37 mm)
- 8800-508 Low Profile Valve Retractor (17 x 43 mm)
- 8800-509 Aortic Valve Retractor Narrow (16 mm)
- 8800-510 Aortic Valve Retractor Wide (23 mm)

# Mitral Valve Retractor Systems

## 8800-50 Valve Retractor/Sternum Spreader

Consisting of:

8750-28	Sternum Spreader, long arm with 28 mm deep swivel blades Arm Length: 8 <sup>1</sup> / <sub>2</sub> " Opening: 8 <sup>1</sup> / <sub>2</sub> "
8800-550	Tower Attachment Set (with side arm and 2 clamps)
8800-560	Valve Retractor Set (7 each)
8800-570	Suture Boot Set (3 sizes)
Options:	Sternum Spreader with 22 mm, 34 mm, or 44 mm deep swivel blades (instead of 28 mm standard size).

Optional: 8782-00 Suture Boot Retaining Bar, Single Use, Sterile product. 10 packages of 3 each suture retaining bars. Each bar holds 8 pairs of valve sutures. 9 inches in length.



Blade Sizes:  
44, 34, 28 and 22 mm.  
(Size 44 and 34 not pictured.)



*Tower attachment secures to either arm of spreader during intracardiac portion of procedure. Precision machined universal joints assure steady retraction and permit effortless adjustment of valve retractor blades.*

- Available in six popular style sternal spreaders.
- Universal holding bar can be placed after cannulation, without disrupting the position of the venous cannulae.
- Three sizes of retractor blades to choose from for any mitral valve procedure.
- Low profile retractor for exposure of the tricuspid valve via a right atriotomy.
- Two sizes of malleable blades for exposure of the aortic valve. Provides direct visualization of the right and left coronary ostia for the administration of antegrade cardioplegia.
- The universal bar has easy access for placement of the retractor attachments after the retractor blade is positioned.
- The retractor attachment clamps are always open to allow for the introduction of the retractor arm in any position.
- The swivel arm can be rotated for optimum position to achieve versatile lateral retraction.



## 8800-80 Tilting Swivel Blade Mitral Valve Retractor Set

Consisting of:

8730-34	Sternum Spreader (Mod. Collins Type) Arm Length: 9" Opening: 8"
8800-578	Standard Blade Size: 25 x 34mm deep, 116 mm wide
8800-552	Tower Attachment Set (with side arm and 2 clamps)
8800-560	Valve Retractor Set (7 each)
8800-572	Suture Boot Set

*Adjustable arm length . Swivel arm and blade automatically adjust to elevation of chest wall. Superior, constant exposure eliminates manual retractor adjustment.*

8800-580

8800-582

8800-584

8800-586



Optional Items:

8800-580	Solid Blade 31 x 43 mm deep, 116 mm wide
8800-582	Small Solid Blade 25 x 41mm deep, 75 mm wide
8800-584	Small Swivel Blade 25 x 33 mm deep, 45 mm wide
8800-586	Mini Swivel Blade 16 x 33 mm deep, 45 mm wide
8800-511	Short Suture Boot (not pictured)

## 8800-90 Suture Retention Valve Retractor Set

Consisting of:

8740-35	Sternum Spreader (Mod. Ankeney Type) Arm Length: 11" Opening: 7 1/2" Blade Size: 35 x 35 mm
8800-550	Tower Attachment Set (with side arm and 2 clamps)
8800-560	Valve Retractor Set (7 each)

Optional Items:

8740-36	Deep Blade, size 35 x 45 mm deep
8740-37	Deep Blade, size 35 x 35 mm deep
8800-91	Vector-Ankeney Retractor Adaptor



8800-91



## 8800-20 Sterna-Form/ Mitral Valve Retractor Set

Consisting of:

8720-38	Sternum Spreader (Mod. Cooley Type) Arm Length: $8\frac{1}{4}''$ Opening: $7\frac{1}{2}''$ Stainless Steel construction
8800-550	Tower Attachment Set (with side arm and 2 clamps)
8800-560	Valve Retractor Set (7 each)
8800-570	Suture Boot Set



## 8800-30 Aortic/Mitral Valve Retractor Set

Consisting of:

8700-28	Sternum Spreader (standard frame) Arm Length: $7''$ Opening: $7\frac{1}{4}''$
8800-550	Tower Attachment Set (with side arm and 2 clamps)
8800-560	Valve Retractor Set (7 each)
8800-570	Suture Boot Set, Reusable

Options: Sternum spreader with 22 mm, 34 mm, or 44 mm deep swivel blades (instead of 28 mm standard size).

Optional: 8782-00 Suture Boot Retaining Bar, Single Use, Sterile product. 10 packages of 3 each suture retaining bars. Each bar holds 8 pairs of valve sutures. 9 inches in length.



## 8800-40 Sterna-Form/ Mitral Valve Retractor Set

Consisting of:

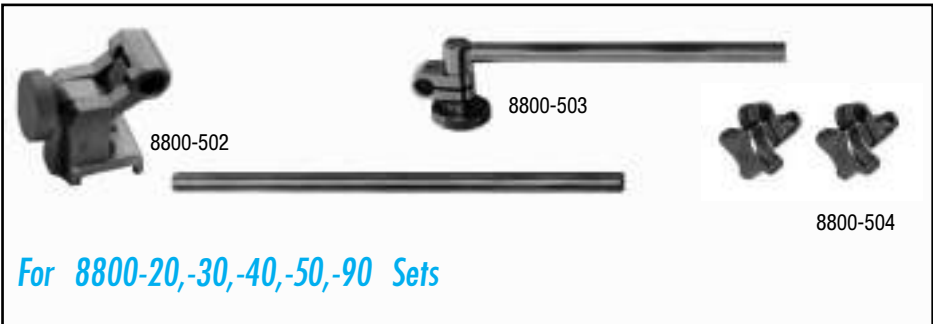
8651-70	Sterna-Form Sternum Spreader Arm Length: $5\frac{1}{4}''$ Opening: $6\frac{1}{2}''$ Light weight aluminum construction.
8800-550	Tower Attachment Set (with side arm and 2 clamps)
8800-560	Valve Retractor Set (7 each)
8800-570	Suture Boot Set



## Parts and Accessories:

### 8800-550 Tower Attachment Set

- Consisting of:
- 8800-502 Universal Holding Bar (with clamp)
  - 8800-503 Swivel Arm (with clamp)
  - 8800-504 2 ea Retractor Attachment Clamp

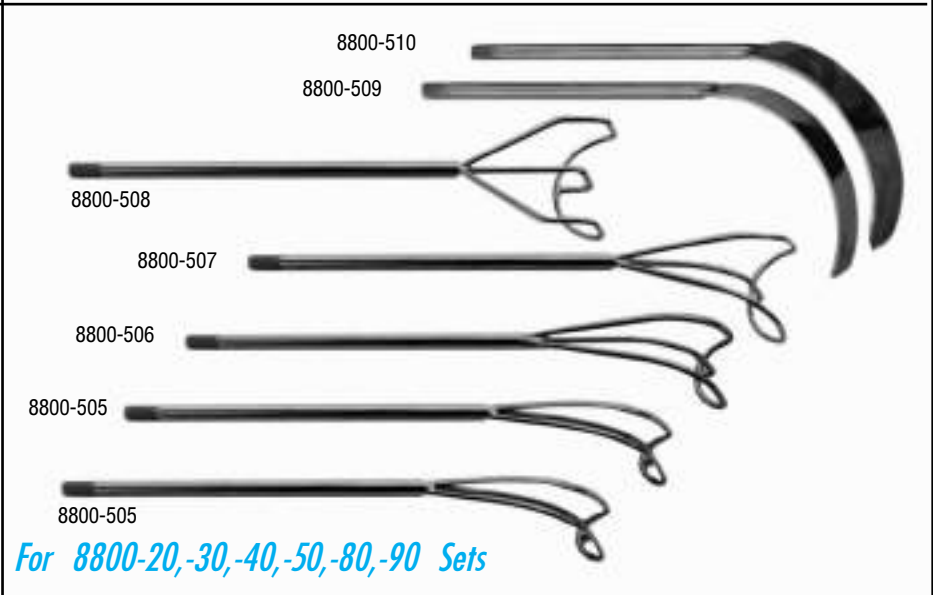


### 8800-560 Valve Retractor Set

- Consisting of:
- 8800-505 2 ea Mitral Valve Retractor (20 x 48 mm)
  - 8800-506 Medium Valve Retractor (30 x 42 mm)
  - 8800-507 Large Valve Retractor (38 x 42 mm)
  - 8800-508 Low Contour Valve Retractor (16 x 45 mm)
  - 8800-509 Aortic Valve Retractor Narrow (12 mm)
  - 8800-510 Aortic Valve Retractor Wide (18 mm)

#### Optional Blades : (not shown)

- 8800-562 Optional Aortic Valve Retractor 16 mm Wide
- 8800-564 Optional Aortic Valve Retractor 23 mm Wide



### 8800-570 Suture Boot Set

- Consisting of:
- 8800-511 Short Suture Boot (3<sup>1</sup>/<sub>2</sub> inch long)
  - 8800-512 Medium Suture Boot (6 inch long)
  - 8800-513 Long Suture Boot (7<sup>1</sup>/<sub>4</sub> inch long)

*For 8800-20,-30,-40,-50 Sets*



### 8800-552 Tower Attachment Set (for 8800-80 set only)

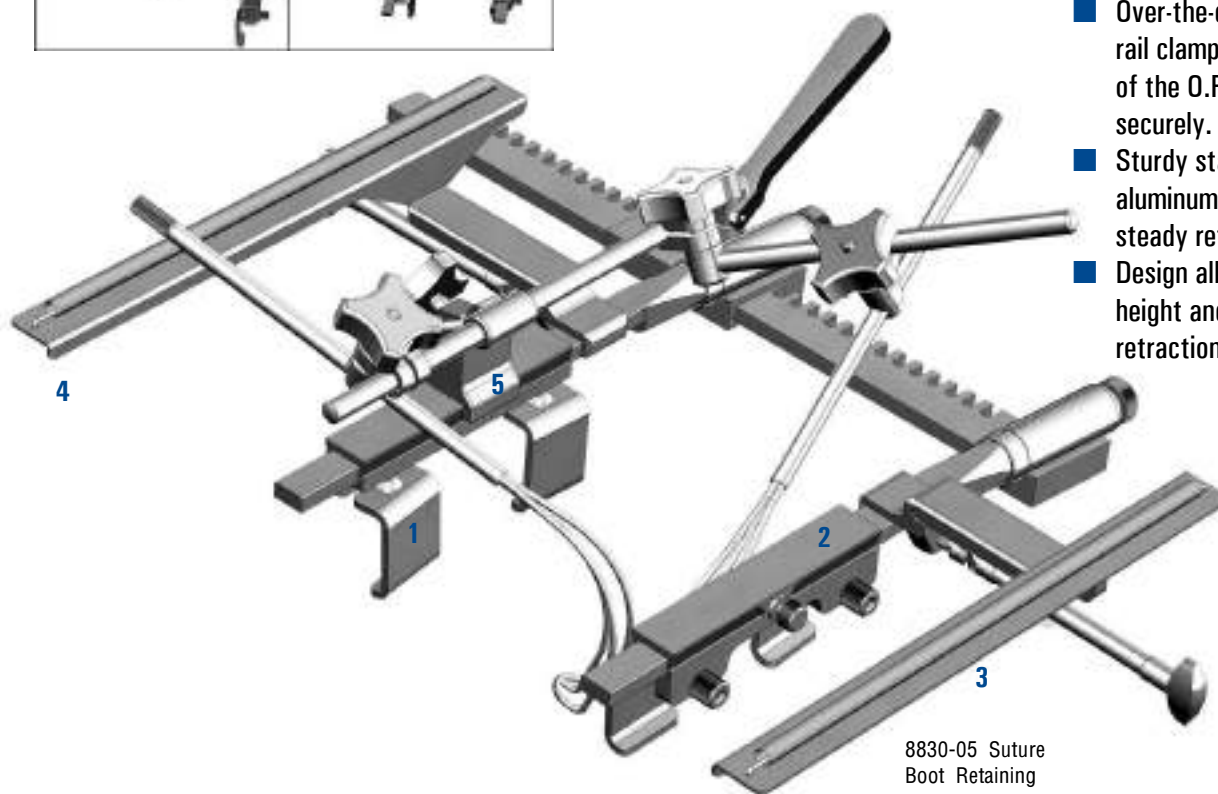
- Consisting of:
- 8800-522 Universal Holding Bar (with clamp)
  - 8800-503 Swivel Arm (with clamp)
  - 8800-504 2 ea Retractor Attachment Clamp
  - 8800-572 2 ea Suture Boots
  - 8800-511 Short Suture Boot

*For 8800-80 Set Only*



The Koros Valve Retractor System provides a surgeon with a choice of sternal retractors. It offers the most user friendly parts to help expedite the placement of the blades during this time sensitive period of cross clamp time. It provides the surgeon with the best possible exposure during any valve procedure.

## Rotating Arm Valve/IMA Retractor Set Chaux Type



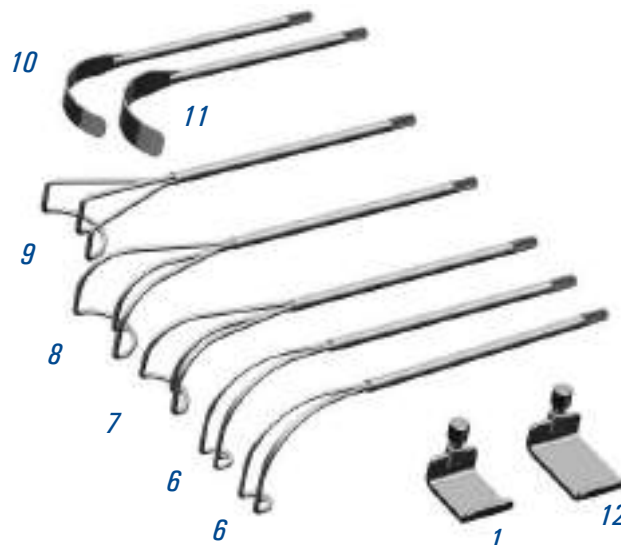
8830-05 Suture  
Boot Retaining  
Bar Right

- Excellent, continuous exposure for internal mammary artery dissection while reducing the need for surgical assistance.
- Over-the-drape, non-perforating rail clamps attach to either side of the O.R. table quickly and securely.
- Sturdy stainless steel and aluminum construction maintains steady retraction.
- Design allows adjustments of height and degree of lateral retraction.

### 8830-00 Rotating Arm Valve Retractor Set

Consisting of:

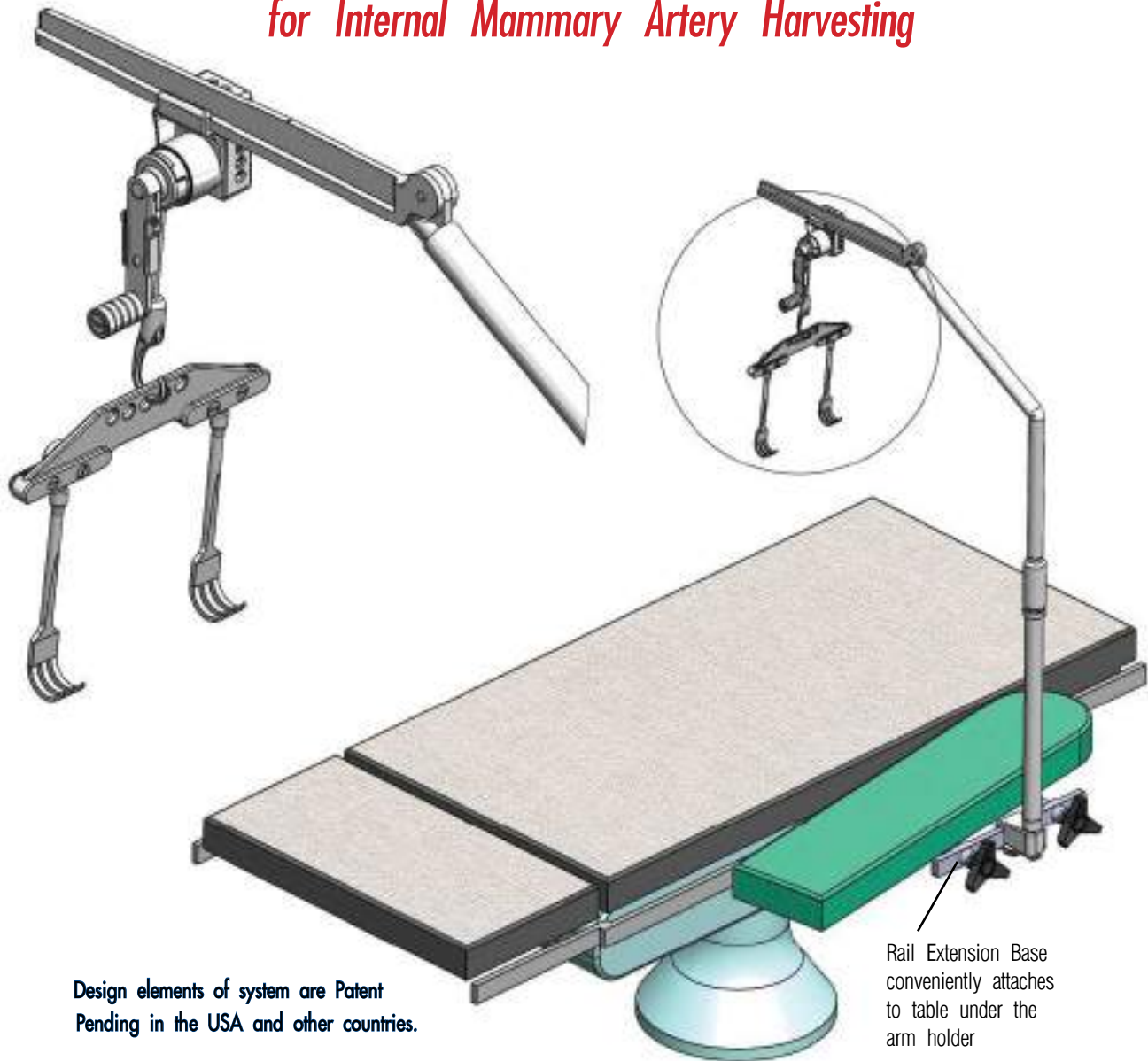
- |         |          |   |
|---------|----------|---|
| 8830-01 | 1 ea     | Rotating Arm Sternum Spreader<br>Arm Length: 8 inches, Opening: 9-1/2 inches  |
| 1       | 8830-02  | 4 ea 30 mm deep blades  |
| 2       | 8830-04  | 2 ea Sliding Blade Retaining Bars   |
| 3       | 8800-05  | 1 ea Suture Retaining Bar Right   |
| 4       | 8800-06  | 1 ea Suture Retaining Bar Left  |
| 5       | 8800-550 | 1 ea Tower Attachment Set Including:<br>8800-502 Universal Holding Bar with<br>clamp, 8800-503 Swivel Arm with clamp<br>and Two 8800-504 Retractor Attachment<br>clamps |
| 6       | 8800-505 | 2 ea Mitral Valve Retractor, 20 x 48 mm   |
| 7       | 8800-506 | 1 ea Medium Valve Retractor, 30 x 42 mm   |
| 8       | 8800-507 | 1 ea Large Valve Retractor, 38 x 42 mm  |
| 9       | 8800-508 | 1 ea Low Contour Valve Retractor, 16 x 45 mm  |
| 10      | 8800-509 | 1 ea Aortic Valve Retractor Narrow, 12 mm   |
| 11      | 8800-510 | 1 ea Aortic Valve Retractor Wide, 18 mm   |



### Optional Item:

- |    |         |                       |
|----|---------|-----------------------|
| 12 | 8830-03 | 1 ea 42 mm deep blade |
|----|---------|-----------------------|

# Koros IMA Tower Retractor for Internal Mammary Artery Harvesting



8930-00  
Right Sided  
Rack



8930-02  
Left Sided  
Rack



Mini IMA/ Rib Spreader Right Sided Rack

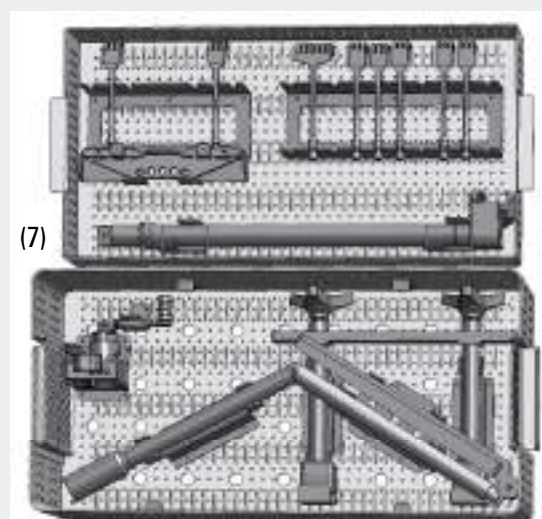
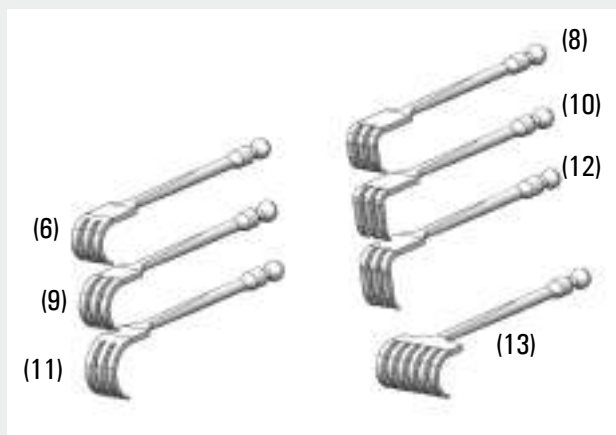
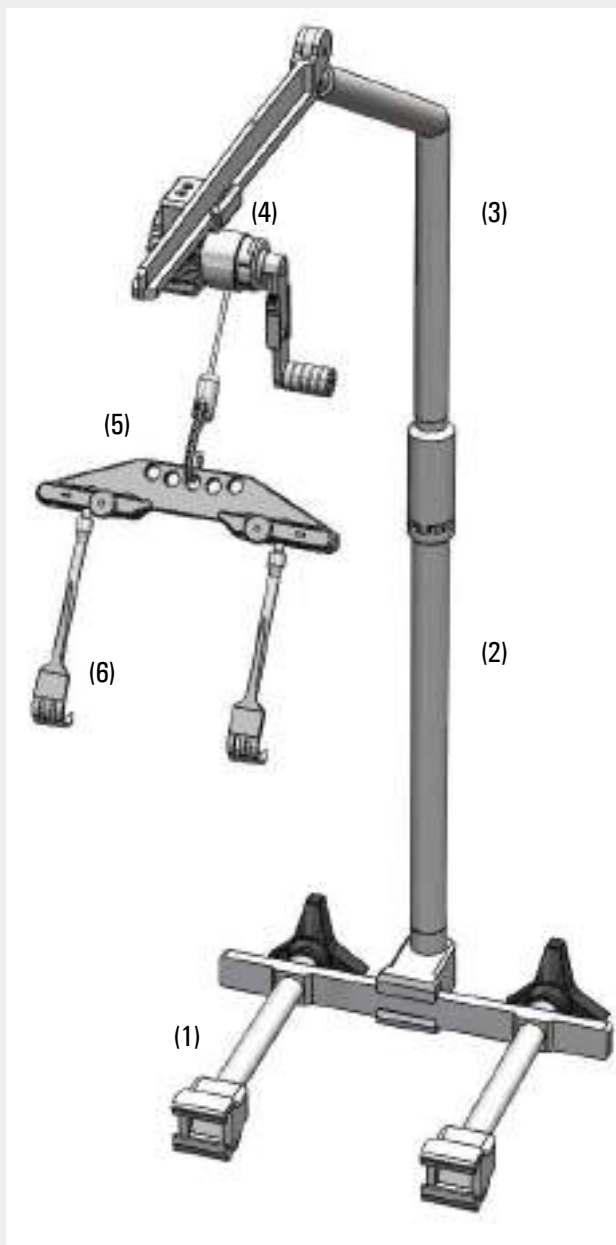
8930-00 Blade Size 50 mm wide x 40 mm deep

Mini IMA/ Rib Spreader Left Sided Rack

8930-02 Blade Size 50 mm wide x 40 mm deep

## Koros IMA Tower Retractor Set

- Experience the freedom of retraction angles, fluid adjustability.
- Rigid construction. Quick mounting for US and European Surgery Tables.
- Rail Extension Base mounts to table with arm rest for convenience.
- The Koros IMA Tower Retractor utilizes wire mechanism for self aligning retraction.



### Optional Items:

Cat#	Wide x Deep	Package Qty
6	8897-52 21x19 mm Curve Retractor, Sharp	1 ea
8	8897-54 21x19 mm 90° Rake Retractor, Sharp	1 ea
9	8897-56 24x19 mm Curve Retractor, Sharp	1 ea
10	8897-58 24x19 mm 90° Rake Retractor, Sharp	1 ea
11	8897-60 30x19 mm Curve Retractor, Sharp	1 ea
12	8897-62 30x19 mm 90° Rake Retractor, Sharp	1 ea
13	8897-64 42 x 22 mm Curve Retractor, Sharp	1 ea
	8897-66 Xiphoid Retractor Adaptor Ring	1 ea
6	8897-52B 21x19 mm Curve Retractor, Blunt	1 ea
8	8897-54B 21x19 mm 90° Rake Retractor, Blunt	1 ea
9	8897-56B 24x19 mm Curve Retractor, Blunt	1 ea
10	8897-58B 24x19 mm 90° Rake Retractor, Blunt	1 ea
11	8897-60B 30x19 mm Curve Retractor, Blunt	1 ea
12	8897-62B 30x19 mm 90° Rake Retractor, Blunt	1 ea
13	8897-64B 42 x 22 mm Curve Retractor, Blunt	1 ea

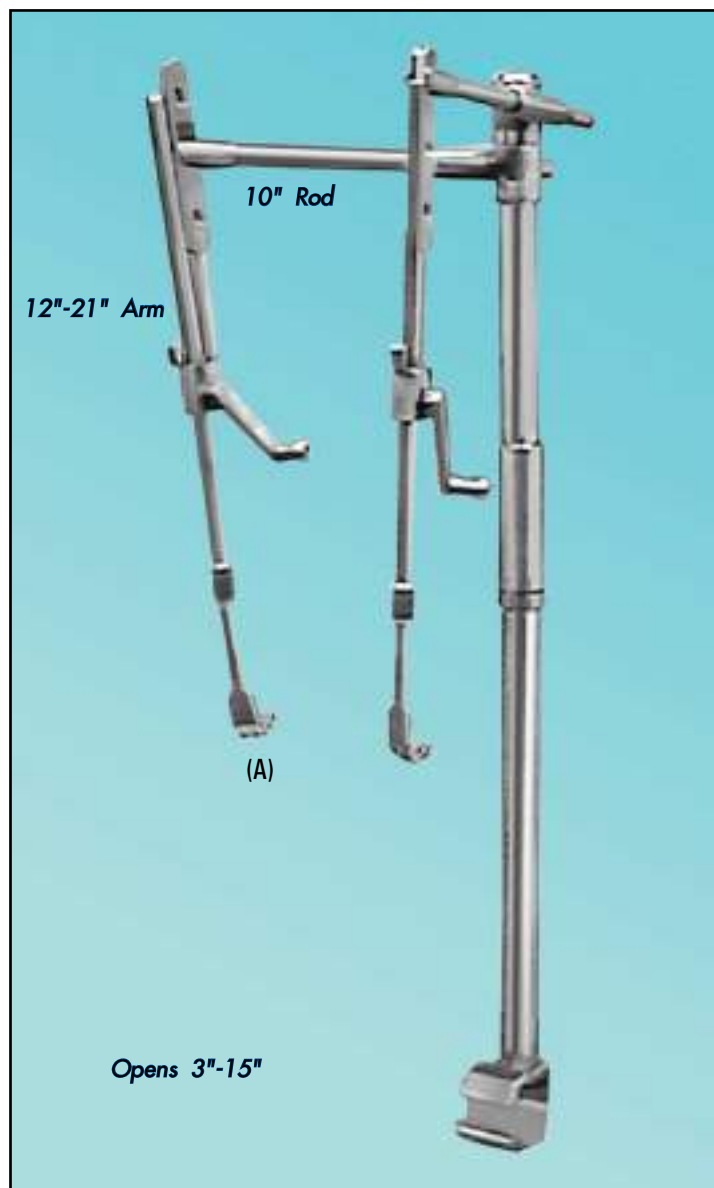
### 8897-00 Koros Advanced IMA Tower Retractor

Cat#	Description	Qty
1	8897-05 Rail Extension Base	1 ea
2	8897-10 IMA Table Post	1 ea
3	8897-20 Upper Frame	1 ea
4	8897-30 Crank Assembly	1 ea
5	8897-44 Blade Holder Plate	1 ea
6	8897-54 21x19 mm Curve Retractor, Sharp	2 ea
7	8897-90 Koros IMA Crane Retractor Tray	1 ea

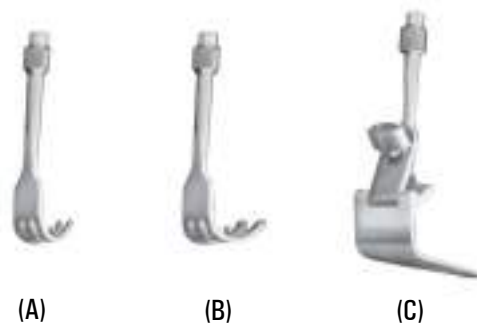
### 8897-02 Koros IMA Tower Retractor Basic Set

Cat#	Description	Qty
2	8897-10 IMA Table Post	1 ea
3	8897-22 SHORT Upper Frame	1 ea
4	8897-30 Crank Assembly	1 ea
5	8897-44 Blade Holder Plate	1 ea
6	8897-54 21x19 mm Rake Retractor, Sharp	2 ea
7	8897-90 Koros IMA Crane Retractor Tray	1 ea

# UniTrack™ Retractor for Internal Mammary Artery Harvesting



- The UniTrack™ IMA Retractor is the FIRST instrument designed for independent adjustments of IMA blade retractor angles and forces. The direction of vector forces applied towards the sternum edges can be easily and quickly set to optimal angles.
- Freely moving retractor tower arms position either laterally or longitudinally to the sternal edge. Tower Arms are self locking in any position.
- The Blade Elevating Racks offer fine ratchet mechanism for precise retraction.
- Lock for table post is always in the sterile field.
- Freedom of retraction angles, fluid adjustability, rigid construction, quick mounting and remounting (less than 35 seconds to move from left side of table to right side) makes the UniTrack™ Retractor the best choice for IMA retraction.



## 8899-00 UniTrack™ IMA Retractor Set

Consisting of:

- |             |      |                              |
|-------------|------|------------------------------|
| 8899-10     | 1 ea | UniTrack Table Post          |
| 8899-20     | 1 ea | UniTrack Tower               |
| 8899-30     | 2 ea | Tower Arms                   |
| 8899-40     | 2 ea | Blade Elevating Rack         |
| (A) 8899-50 | 2 ea | Detachable IMA Hooks, Medium |
| 8899-90     | 1 ea | Custom Instrument Case       |

Optional Items:

- |             |      |                             |
|-------------|------|-----------------------------|
| (B) 8899-60 | 2 ea | Detachable IMA Hooks, Large |
| (C) 8899-70 | 1 ea | Tilting IMA Blade           |



8840-05

Kruhana Type IMA Hand Retractor

8840-05      20 cm long



8895-20  
Self-Retaining IMA Retractors  
Screw Arm Style

8898-20  
Self-Retaining IMA Retractors  
Rack and Pinion Arm Style

- Excellent, continuous exposure for internal mammary artery dissection while reducing the need for surgical assistance.
- Over-the-drape, non-perforating rail clamps attach to either side of the O.R. table quickly and securely.
- Sturdy stainless steel and aluminum construction maintains steady retraction.
- Design allows adjustments of height and degree of lateral retraction.

## Small Incision Retractor System

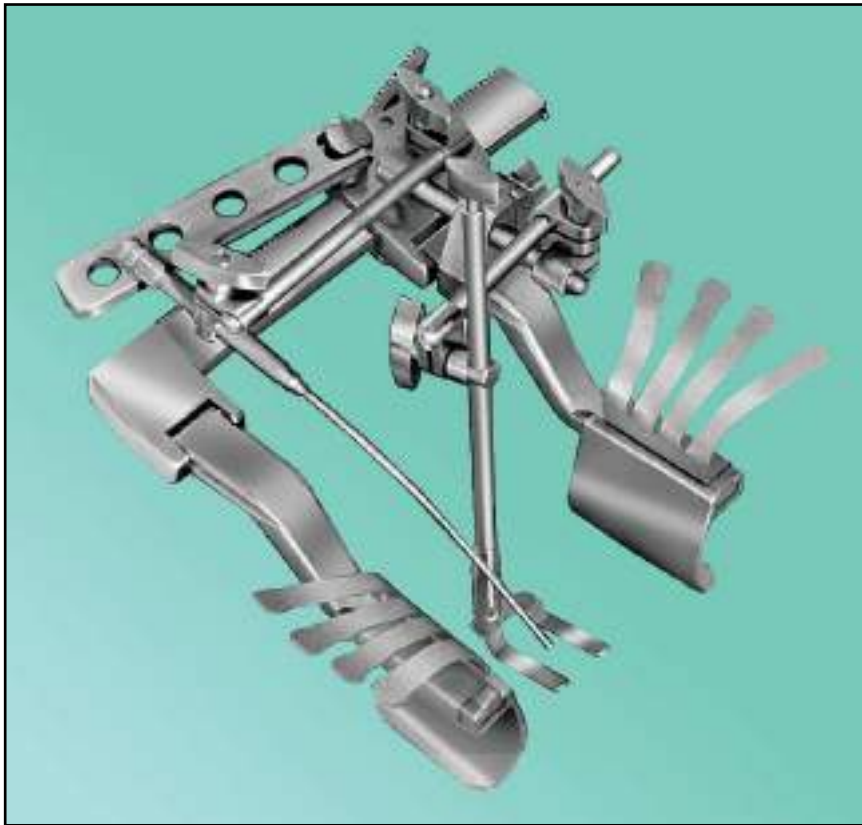


### Small Incision Retractor System

8900-00 Set Includes the following items:

8900-10	Self-Retaining Retractor Frame (Arm Length 9 cm, Opening 6 cm)	1 ea
8900-20	Solid Blade 10 x 25 mm	2 ea
8900-30	Solid Blade 10 x 35 mm	2 ea
8900-40	Solid Blade 15 x 35 mm	2 ea
8900-50	Solid Blade 28 x 25 mm	2 ea
8900-60	Solid Blade 28 x 35 mm	2 ea
8900-70	Instrument Case 9 x 6 x 1.5	1 ea

\*Customized blades are available upon request.



## Coronary Artery Bypass

-Rigid arms and frame design with super fine crank adjustment.

-Anti-friction bearing for long instrument life and ease of use.

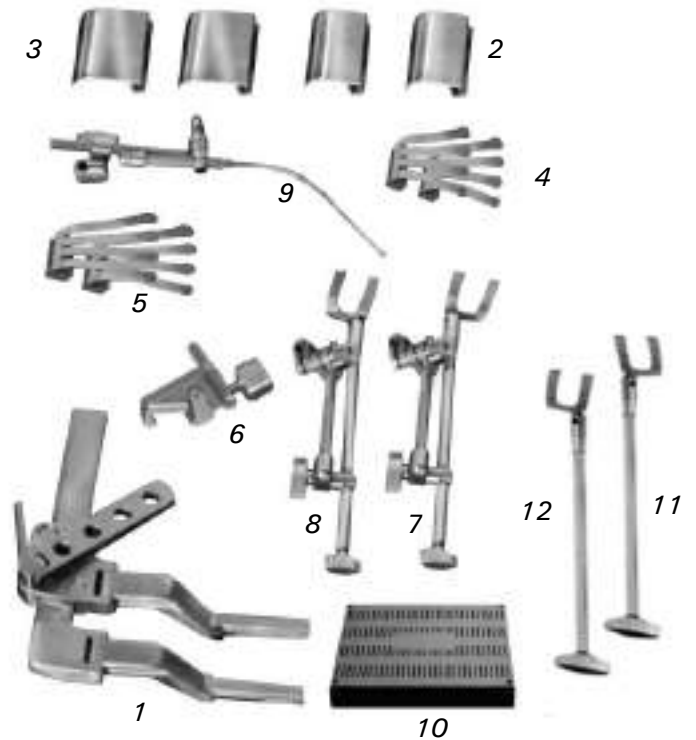
-Detachable blades come in two sizes and can be extended with soft tissue blade extensions.

### 8910-00 CAB Super-Slide™ Retractor Set

Consisting of:			Item #
8910-10	1 ea	CAB Super-Slide Retractor Frame	1
8910-12	2 ea	Standard Blade, 23 mm	2
8910-14	2 ea	Deep Blade, 30 mm	3
8910-18	2 ea	Soft Tissue Blade Extension, Small	4
	2 ea	Soft Tissue Blade Extension, Large	5
8910-20	1 ea	Stabilizer Tower	6
8910-30	1 ea	Multi Position Stabilizer-Right Offset with connecting arm and tower clamp	7
8910-32	1 ea	Multi Position Stabilizer- Left Offset with connecting arm and tower clamp	8
8910-40	1 ea	CO <sub>2</sub> Blower with connecting arm and tower clamp	9
8910-50	1 ea	CAB Custom Instrument Case	10

### Optional Items:

8910-34	1 ea	Stabilizer Circumflex, Right	11
8910-36	1 ea	Stabilizer Circumflex, Left	12



# IMA Super-Slide Retractor

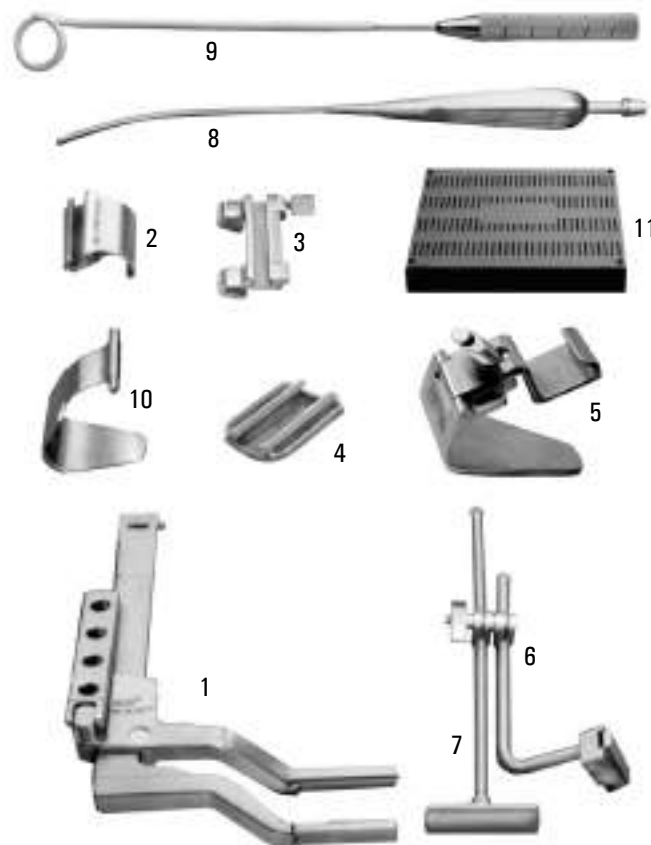
- Rigid arms and frame design with super fine crank adjustment.
- Anti-friction bearings for long instrument life and ease of use.
- Two upper blades sizes (2 and 3 inch depth).
- Support tower allows precise angle of retraction.



## 8920-00 IMA Super-Slide™ Retractor Set

Consisting of:			Item #
8920-10	1 ea	IMA Super-Slide Retractor Frame	1
8920-12	1 ea	Lower Blade	2
8920-14	1 ea	Lifter Blade Receiver	3
8920-22	1 ea	Lifter Blade 2" deep	4
8920-23	1 ea	Lifter Blade 3" deep	5
8920-30	1 ea	Support Tower with Connecting Clamp	6
8920-32	1 ea	Support Bar	7
8920-40	1 ea	Long Suction, 3 mm x 28 cm	8
8920-42	1 ea	IMA Manipulator	9
8920-45	1 ea	Silicone Pad for Support Tower	10
8920-50	1 ea	IMA Custom Instrument Case	11

Optional Item:  
8920-25 4" Deep IMA Lifter Blade Similar to item 5



## Super-Slide Components and Mini IMA Retractor



8910-60 Hand Held CO<sub>2</sub> Blower  
9-1/4", 24 cm



8930-01 Stainless Sky Hook  
2 x 1 inch



8920-42 IMA Manipulator  
2", 28 cm



8930-02 Mini IMA Retractor,  
Blade 40 x 50 mm, Right Sided Rack



8930-02 Mini IMA Retractor,  
Blade 40 x 50 mm, Left Sided Rack

# AVR Super-Slide Retractor

## Aortic/Mitral Valve Repair/ Replacement



-Rigid arms and frame design feature super fine crank adjustment for access to surgical incision.

-Left and right arms provide optimal angle positioning of aortic and mitral valve retractors.

-Detachable blades come in three sizes, small, medium and deep to accommodate various sternum sizes.

-Anti-friction bearing for long instrument life and ease of use.

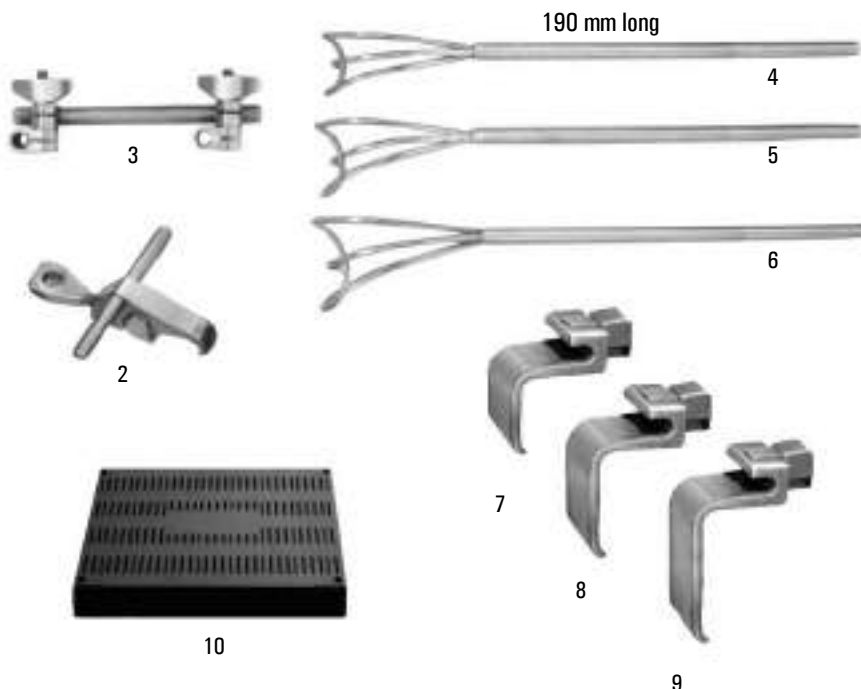
Arm Length: 4 1/2"  
Blade Opening: 4"

### 8950-00 AVR SuperSlide™ Retractor Set

Consisting of:

#	Item:	Quantity	Description
1	8950-10	1 ea	AVR Super-Slide Retractor Frame
2	8950-15	1 ea	AVR Tower
3	8950-20	2 ea	Arm with Connecting Clamps
4	8950-22	1 ea	Mitral Valve Retractor, Small, 20 mm wide
5	8950-24	1 ea	Mitral Valve Retractor, Medium, 22.5 mm wide
6	8950-26	1 ea	Mitral Valve Retractor, Large, 28 mm wide
7	8950-27	2 ea	Quick Blade Small, 27 mm
8	8950-35	4 ea	Quick Blade Med, 35 mm
9	8950-45	2 ea	Quick Blade Deep, 45 mm
10	8950-50	1 ea	AVR Custom Instrument Case

*Blades are adjustable for smaller or larger incisions.*



### Optional Items

8950-75	Tower Attachment Set (One AVR Tower, Two Arms with Connecting Clamps and 3 Sizes of Mitral Blades)
8950-80	Tricuspid Valve Retractor (Low Profile) (16 x 45 mm)
8950-85	Large Adult Mitral Valve Retractor (38 x 42 mm)
8950-90	Aortic Valve Retractor, Small
8950-95	Aortic Valve Retractor, Medium

# InterChange™ Retractor System

Frame is compatible with Mitral Valve Retractor Accessories 8800-550 to 8800-564.

- Self Adjusting Swivel Blades
- Stainless Steel Construction
- Non Glare Finish

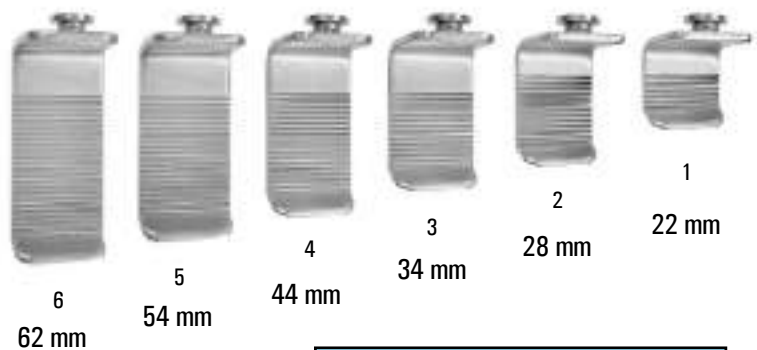
Blades and components are sold separately.  
Add your preferred blade selection to your set!

**8955-00 InterChange™ Short Arm Retractor Frame Only (requires four blades)**

**8955-10 InterChange™ Long Arm Retractor Frame Only (requires four blades)**

- 1 8955-22 22 mm Deep InterChange Blade (1 ea)
- 2 8955-28 28 mm Deep InterChange Blade (1 ea)
- 3 8955-34 34 mm Deep InterChange Blade (1 ea)
- 4 8955-44 44 mm Deep InterChange Blade (1 ea)
- 5 8955-54 54 mm Deep InterChange Blade (1 ea)
- 6 8955-62 62 mm Deep InterChange Blade (1 ea)

- 7 8956-10 Flexible Fiberoptic Illuminator Tip
- 8 8956-20 Illuminator Tip Clamp
- 9 8956-30 Fiberoptic Cable (not shown)



Retractor arms are equipped with a unique Quick Release Blade Lock.

# EXCEL™ Retractor System for Cardiothoracic Procedures



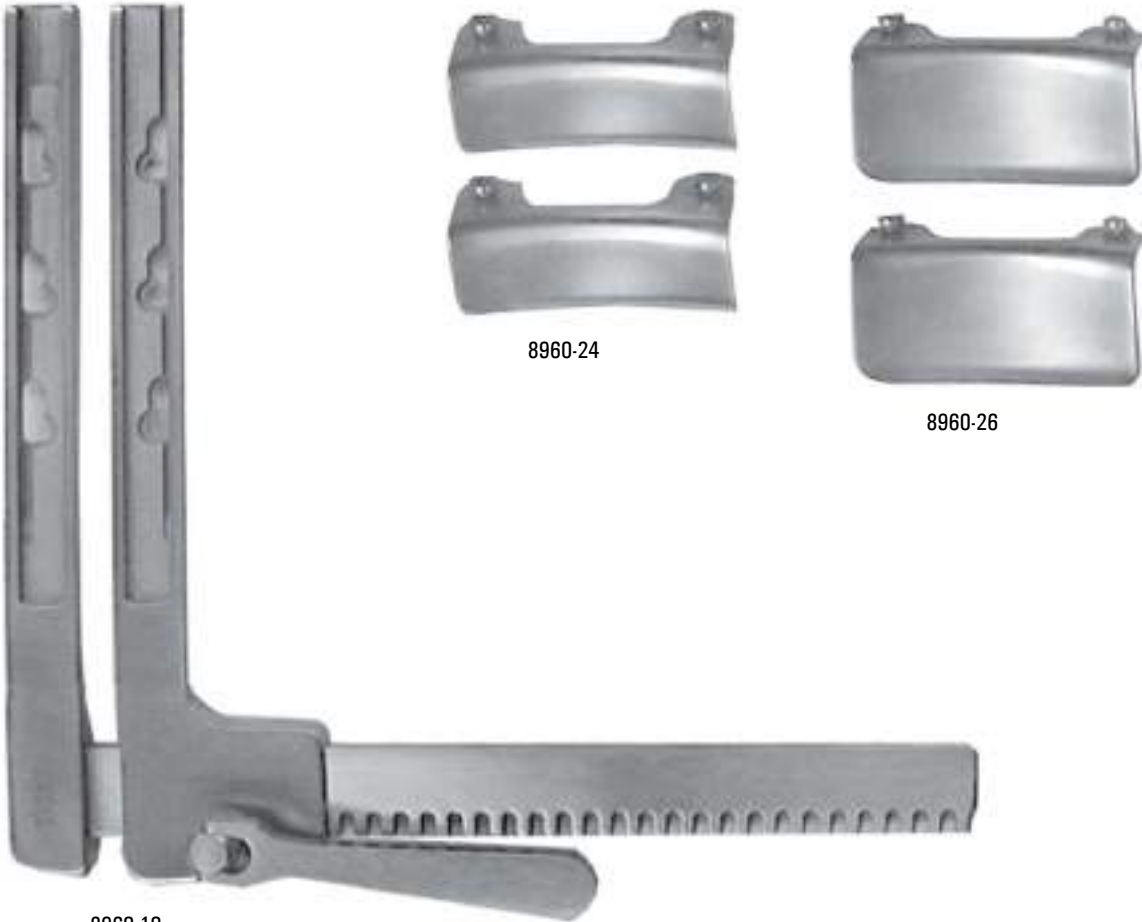
- Quick change blade system offers multiple blade styles.
- Ample mounting area for tower unit to hold a variety of attachments.
- Low profile, reusable suture holding inserts.
- Ideal platform for the Vector Mitral Valve Retractors and Stabilizer devices.

## 8960-05 Excel™ Cooley Retractor System

Consisting of:

8960-10	1 ea	Excel Retractor Frame
8960-24	2 ea	Cooley Swivel Blade, 34 mm deep
8960-26	2 ea	Cooley Swivel Blade, 44 mm deep
8960-30	1 ea	Excel Tower Unit
8960-40	2 ea	Suture Bars
8960-42	3 ea	Valve Suture Bars
8960-48	1 ea	Arm Extension Cross Bar
8960-50	1 ea	Stabilizer Arm, Straight
8960-52	1 ea	Stabilizer Arm, Curved
8960-60	1 ea	U-Shaped Stabilizer Platform, Right
8960-61	1 ea	U-Shaped Stabilizer Platform, Left
8960-62	1 ea	Circumflex Stabilizer Platform, Right
8960-63	1 ea	Circumflex Stabilizer Platform, Left

Cooley Blades



8960-10

8960-24

8960-26



8960-20

Morse Blades

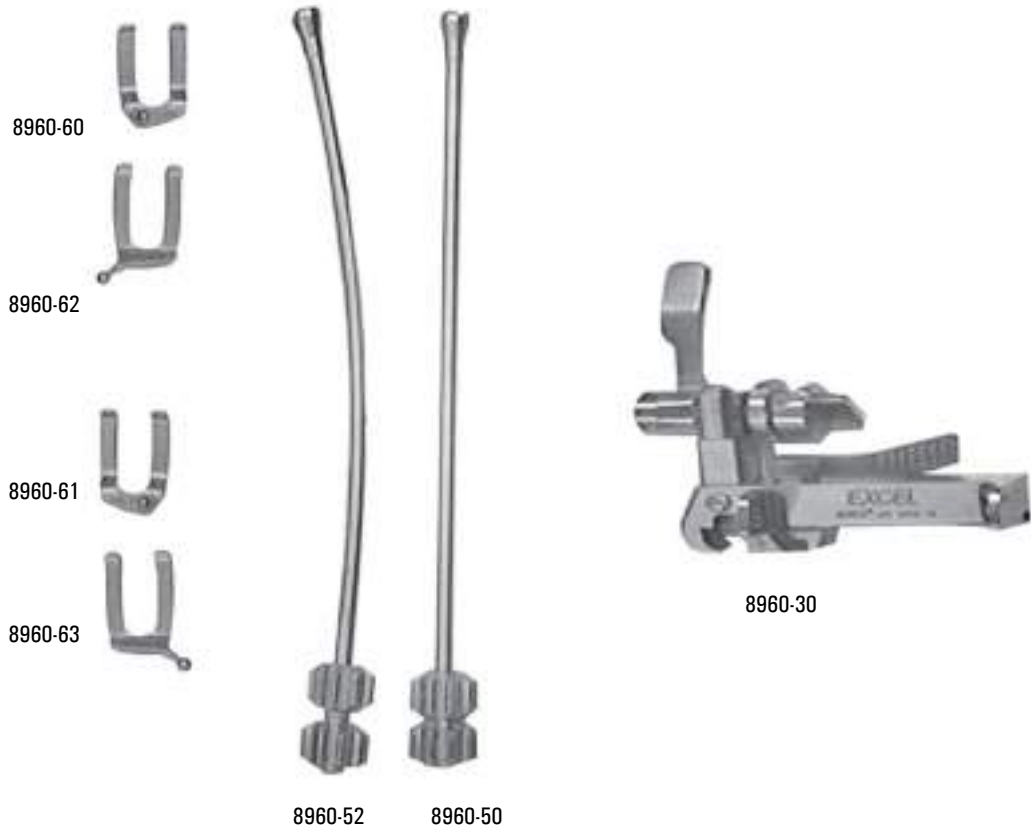


8960-22

**Part List**

- 8960-10 Excel Retractor Frame
- 8960-20 Morse Swivel Blade, 34 mm deep
- 8960-22 Morse Swivel Blade, 44 mm deep
- 8960-24 Cooley Swivel Blade, 34 mm deep
- 8960-26 Cooley Swivel Blade, 44 mm deep

# Excel™ Retractor System



**Optional Items:**

- 8960-30 Excel Tower Unit
- 8960-40 Suture Bars
- 8960-42 Valve Suture Bars
- 8960-48 Arm Extension Cross Bar
- 8960-50 Stabilizer Arm, Straight
- 8960-52 Stabilizer Arm, Curved
- 8960-60 U-Shaped Stabilizer Platform, Right
- 8960-61 U-Shaped Stabilizer Platform, Left
- 8960-62 Circumflex Stabilizer Platform, Right
- 8960-63 Circumflex Stabilizer Platform, Left

**Flexible Retractor System for  
Median Sternotomy Procedures**



**8960-00 Excel™ Morse Retractor System**

Consisting of:

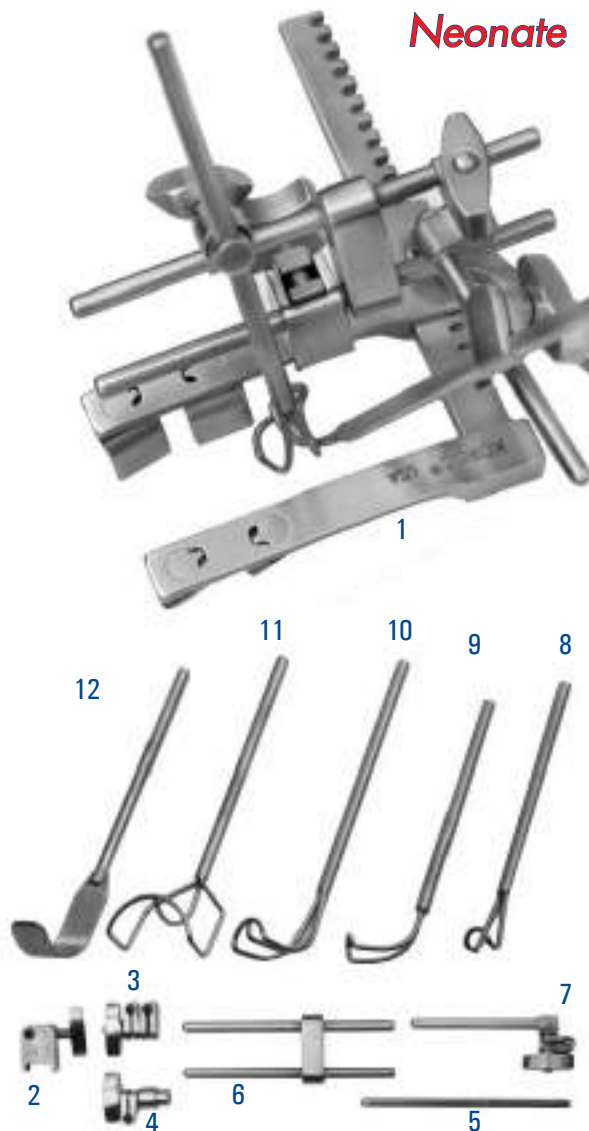
8960-10	1 ea	Excel Retractor Frame
8960-20	4 ea	Morse Swivel Blade, 34 mm deep
8960-22	4 ea	Morse Swivel Blade, 44 mm deep
8960-30	1 ea	Excel Tower Unit
8960-40	2 ea	Suture Bars
8960-42	3 ea	Valve Suture Bars
8960-48	1 ea	Arm Extension Cross Bar
8960-50	1 ea	Stabilizer Arm, Straight
8960-52	1 ea	Stabilizer Arm, Curved
8960-60	1 ea	U-Shaped Stabilizer Platform, Right
8960-61	1 ea	U-Shaped Stabilizer Platform, Left
8960-62	1 ea	Circumflex Stabilizer Platform, Right
8960-63	1 ea	Circumflex Stabilizer Platform, Left

# Neonate and Pediatric Valve Retractors



## Neonate Valve Retractor Size 1

Arm Length: 35 mm  
 Opening: 43 mm  
 Blade Size: 10 x 12 mm deep

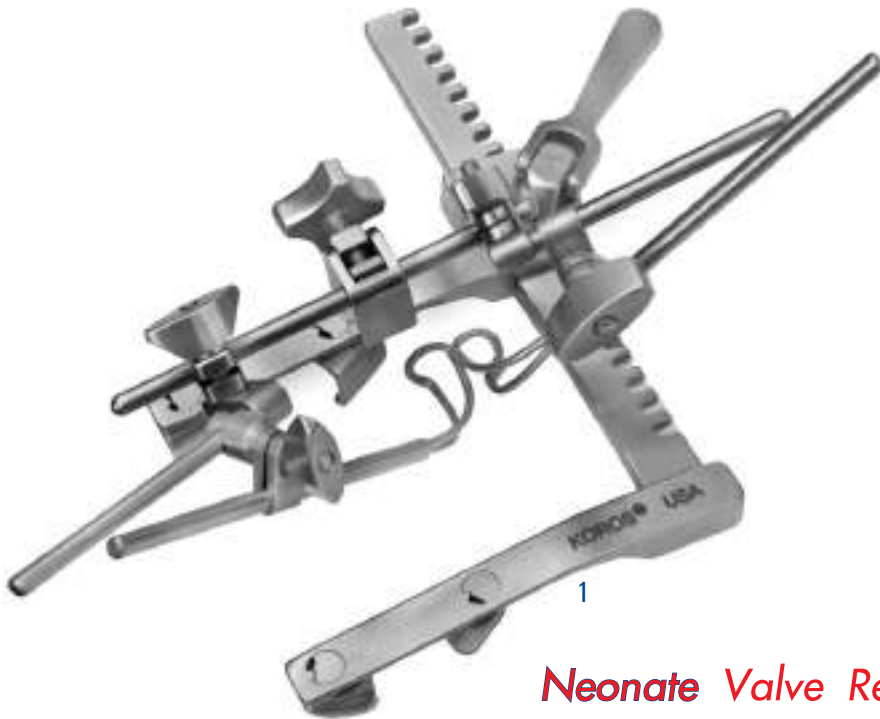


### 8859-30 Neonate Valve Retractor System Size 1

Consisting of:

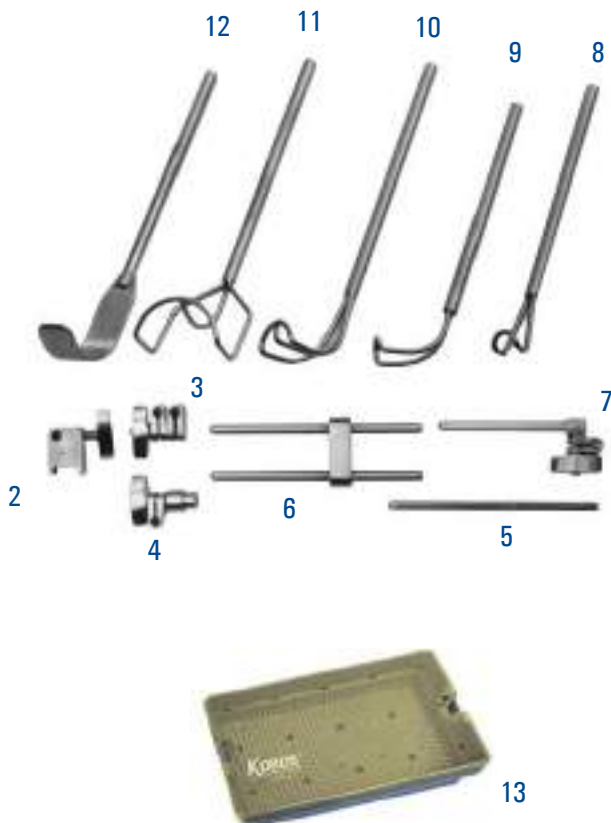
- |    |         |      |   |
|----|---------|------|---|
| 1  | 8859-31 | 1 ea | Neonate Retractor Frame Size 1                |
| 2  | 8860-32 | 1 ea | Tower Attachment                              |
| 3  | 8860-33 | 2 ea | Paralell Clamps, 65 mm long                   |
| 4  | 8860-34 | 1 ea | Spring Loaded Clamp                           |
| 5  | 8860-36 | 1 ea | Tower Bar, 65 mm long                         |
| 6  | 8860-37 | 1 ea | Tower H Bar, 65 mm long                       |
| 7  | 8860-38 | 1 ea | Side Extension with Clamp, 50 mm long         |
| 8  | 8860-41 | 2 ea | Retractor Small, 7 x 10 mm deep               |
| 9  | 8860-42 | 1 ea | Retractor Medium, 8 x 14 mm deep              |
| 10 | 8860-43 | 1 ea | Retractor Large, 12 x 15 mm deep              |
| 11 | 8860-45 | 1 ea | Tricuspid Valve Retractor, 22 mm wide         |
| 12 | 8860-46 | 1 ea | Aortic Valve Retractor, 9 mm wide             |
| 13 | 8860-90 | 1 ea | Plastic Instrument Case,<br>9 x 6 x 1.5" size |

## Neonate Valve Retractor Size 2



### Neonate Valve Retractor Size 2

Arm Length: 43 mm  
 Opening: 49 mm  
 Blade Size: 9 x 10 mm deep

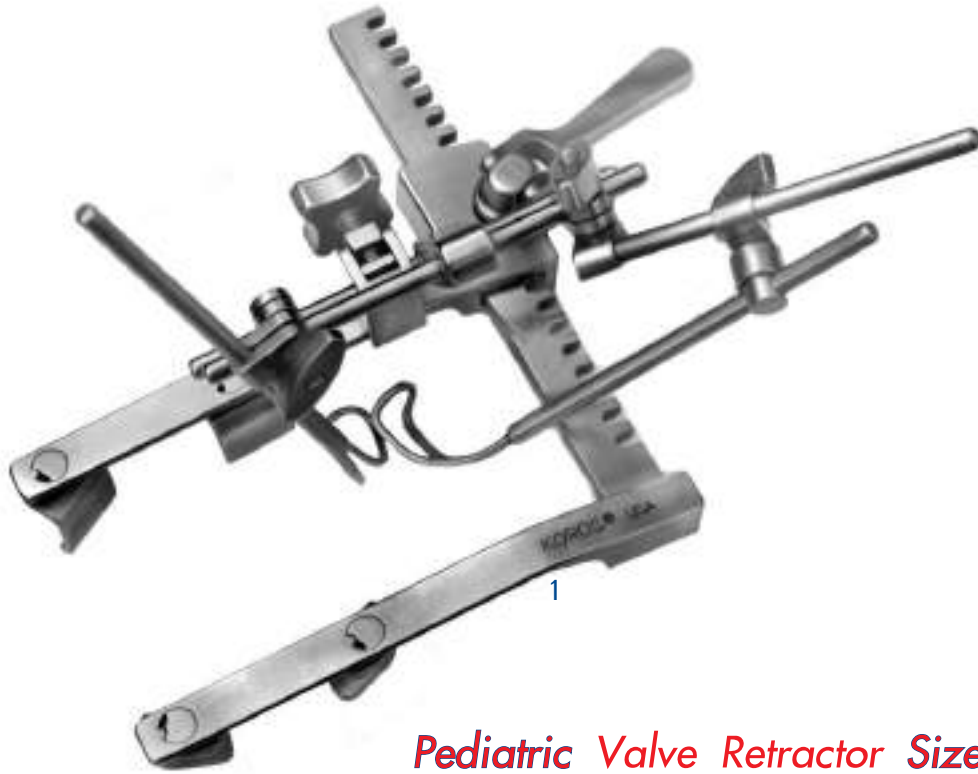


#### 8860-30 Neonate Valve Retractor System Size 2

##### Consisting of:

- |    |         |      |   |
|----|---------|------|---|
| 1  | 8860-31 | 1 ea | Neonate Retractor Frame Size 2                |
| 2  | 8860-32 | 1 ea | Tower Attachment                              |
| 3  | 8860-33 | 2 ea | Paralell Clamps, 65 mm long                   |
| 4  | 8860-34 | 1 ea | Spring Loaded Clamp                           |
| 5  | 8860-36 | 1 ea | Tower Bar, 65 mm long                         |
| 6  | 8860-37 | 1 ea | Tower H Bar, 65 mm long                       |
| 7  | 8860-38 | 1 ea | Side Extension with Clamp, 50 mm long         |
| 8  | 8860-41 | 2 ea | Retractor Small, 7 x 10 mm deep               |
| 9  | 8860-42 | 1 ea | Retractor Medium, 8 x 14 mm deep              |
| 10 | 8860-43 | 1 ea | Retractor Large, 12 x 15 mm deep              |
| 11 | 8860-45 | 1 ea | Tricuspid Valve Retractor, 22 mm wide         |
| 12 | 8860-46 | 1 ea | Aortic Valve Retractor, 9 mm wide             |
| 13 | 8860-90 | 1 ea | Plastic Instrument Case,<br>9 x 6 x 1.5" size |

## Pediatric Valve Retractor Size 3



## Pediatric Valve Retractor Size 3

Arm Length: 70 mm  
 Opening: 70 mm  
 Blade Size: 11 x 10.5 mm deep

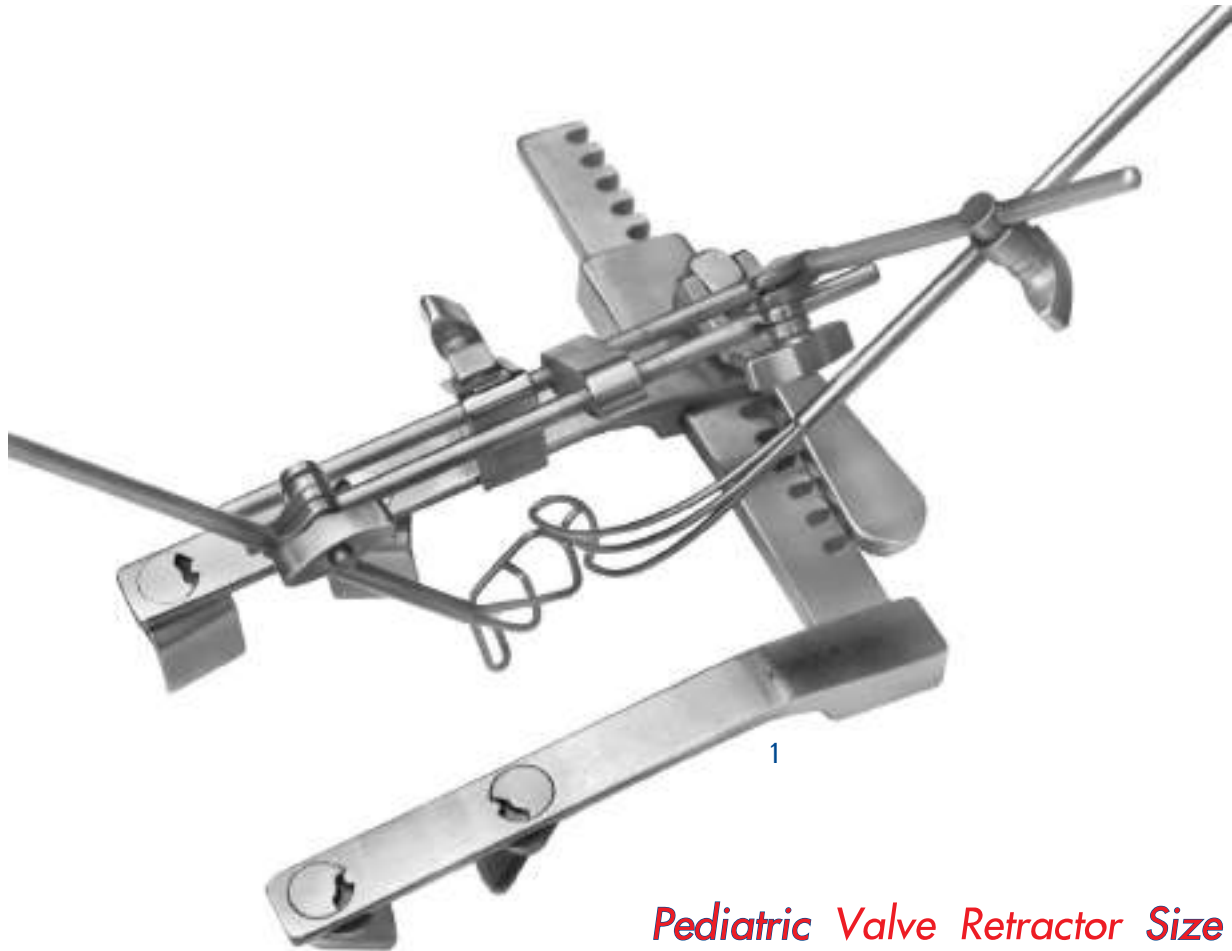


### 8861-50 Pediatric Mitral Valve Retractor System Size 3

#### Consisting of:

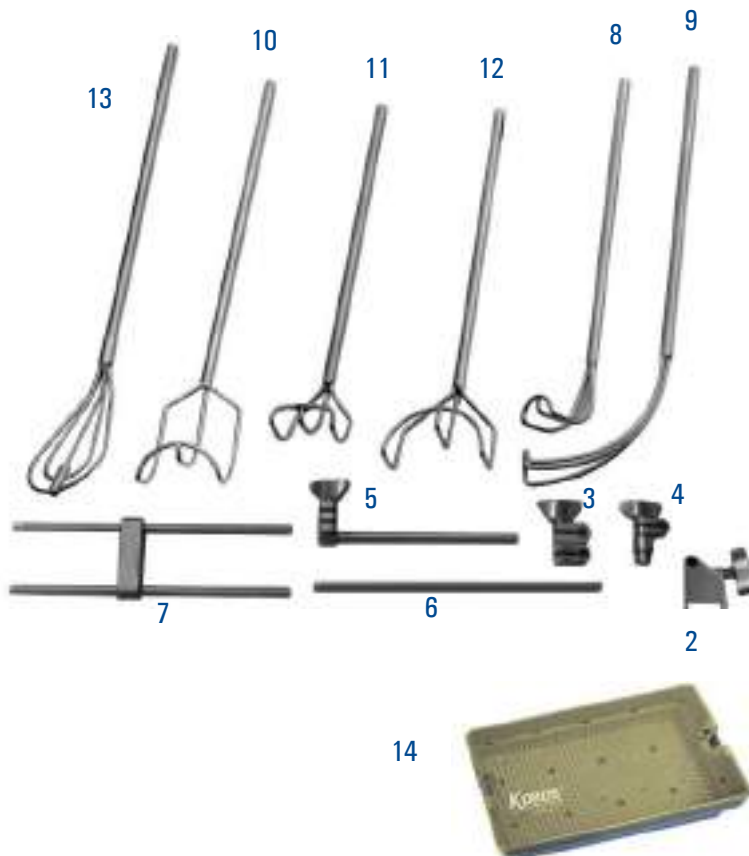
- |    |         |      |   |
|----|---------|------|---|
| 1  | 8861-51 | 1 ea | Pediatric Retractor Frame Size 3              |
| 2  | 8860-32 | 1 ea | Tower Attachment                              |
| 3  | 8860-33 | 2 ea | Paralell Clamps, 65 mm long                   |
| 4  | 8860-34 | 1 ea | Spring Loaded Clamp                           |
| 5  | 8860-36 | 1 ea | Tower Bar, 65 mm long                         |
| 6  | 8860-37 | 1 ea | Tower H Bar, 65 mm long                       |
| 7  | 8860-38 | 1 ea | Side Extension with Clamp, 50 mm long         |
| 8  | 8860-41 | 2 ea | Retractor Small, 7 x 10 mm deep               |
| 9  | 8860-42 | 1 ea | Retractor Medium, 8 x 14 mm deep              |
| 10 | 8860-43 | 1 ea | Retractor Large, 12 x 15 mm deep              |
| 11 | 8860-45 | 1 ea | Tricuspid Valve Retractor, 22 mm wide         |
| 12 | 8860-46 | 1 ea | Aortic Valve Retractor, 9 mm wide             |
| 13 | 8860-90 | 1 ea | Plastic Instrument Case,<br>9 x 6 x 1.5" size |

## Pediatric Valve Retractor Size 4



## Pediatric Valve Retractor Size 4

Arm Length: 80 mm  
 Opening: 84 mm  
 Blade Size: 12 x 16 mm deep

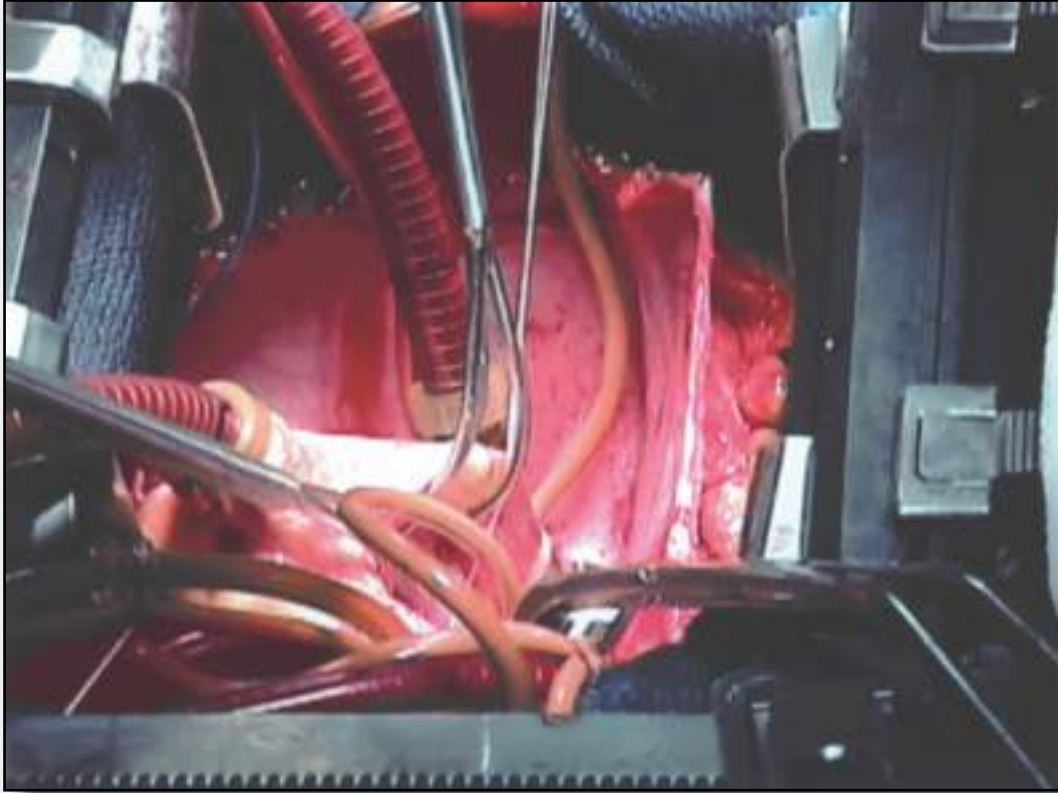


### 8862-50 Pediatric Mitral Valve Retractor System Size 4

#### Consisting of:

- |    |         |      |   |
|----|---------|------|---|
| 1  | 8862-51 | 1 ea | Pediatric Retractor Frame Size 4              |
| 2  | 8862-32 | 1 ea | Tower Attachment                              |
| 3  | 8862-33 | 2 ea | Paralell Clamps                               |
| 4  | 8862-34 | 1 ea | Spring Loaded Clamp                           |
| 5  | 8862-55 | 1 ea | Side Extension with Clamp, 50 mm long         |
| 6  | 8862-36 | 1 ea | Tower Bar, 90 mm long                         |
| 7  | 8862-37 | 1 ea | Tower H Bar, 90 mm long                       |
| 8  | 8862-41 | 2 ea | Retractor Small, 11 x 16 mm deep              |
| 9  | 8862-42 | 2 ea | Retractor Medium, 12 x 30 mm deep             |
| 10 | 8862-43 | 1 ea | Retractor Large, 21 x 30 mm deep              |
| 11 | 8862-64 | 1 ea | Retractor Low Profile, 17 x 17 mm deep        |
| 12 | 8862-65 | 1 ea | Retractor Low Profile Wide, 27x10 mm deep     |
| 13 | 8862-66 | 1ea  | Fan Retractor, 23 x 40 mm deep                |
| 14 | 8860-90 | 1 ea | Plastic Instrument Case,<br>9 x 6 x 1.5" size |

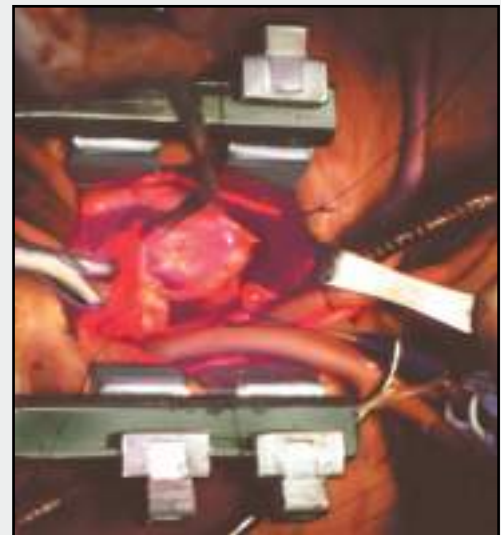
# Cardio-Bay™ Super-Slide Cardio Retractor System



- Beating Heart or Conventional Revascularization
- Direct Visualization of Mitral and Aortic Valve Repair or Replacements
- Minimally Invasive or Standard Size Midline Incision



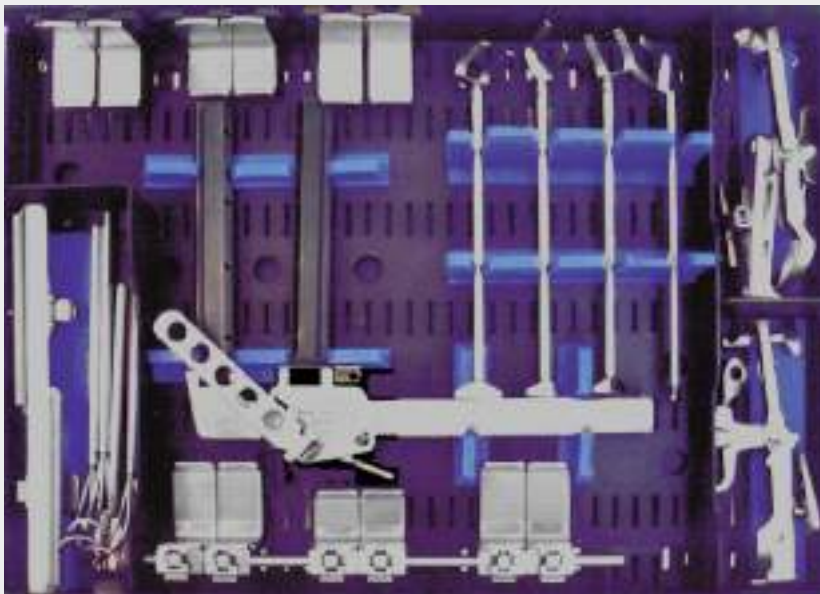
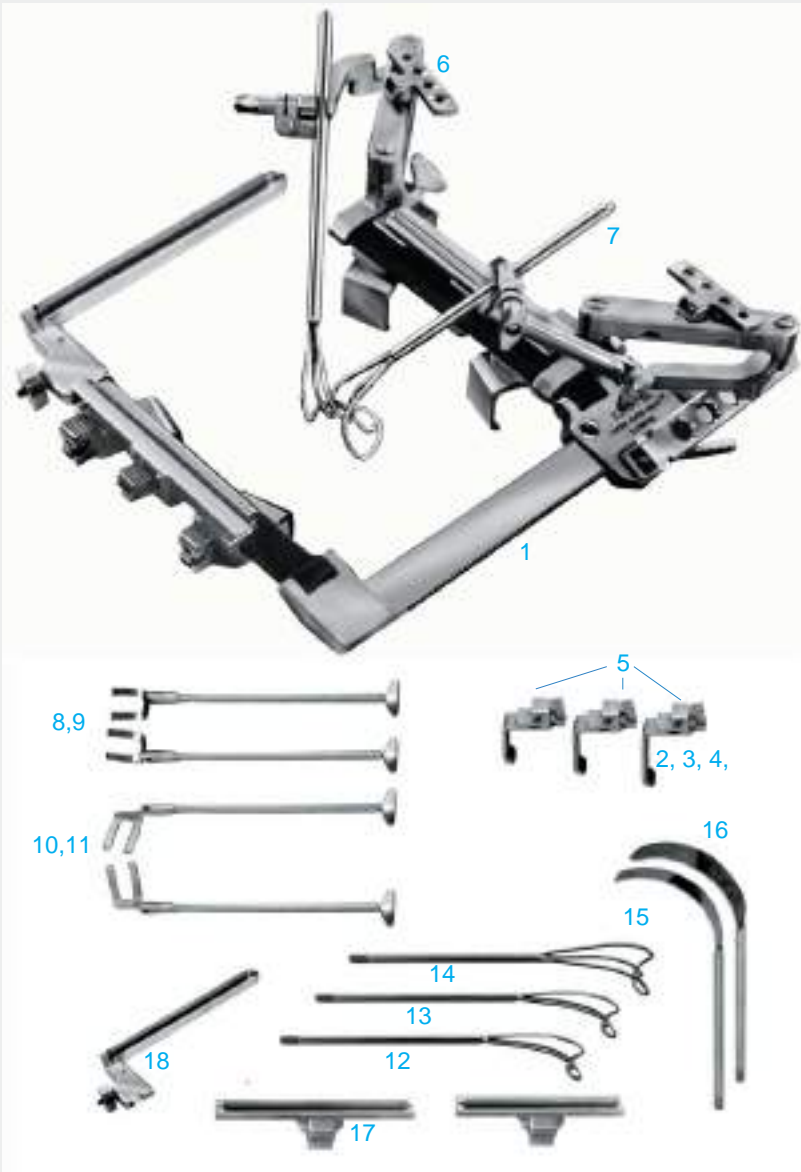
*"All-In-One"*



## 8980-00 Cardio-Bay™ Super-Slide Retractor System

Set Includes:

1	8980-10	1 ea	Retractor Frame, 9" wide x 8" long, opens 6 1/2"
2	8980-20	4 ea	Small Interchangeable Blades
3	8980-25	4 ea	Medium Interchangeable Blades
4	8980-30	4 ea	Large Interchangeable Blades
5	8980-40	8 ea	Blade Heads
6	8980-50	1 ea	Adjustable Universal Arm, Left
7	8980-52	1 ea	Adjustable Universal Arm, Right
8	8980-60	1 ea	Stabilizer Left
9	8980-62	1 ea	Stabilizer Right
10	8980-64	1 ea	Stabilizer Circumf, Left
11	8980-66	1 ea	Stabilizer Circumf, Right
12	8980-70	1 ea	Mitral Retractor, Small
13	8980-72	1 ea	Mitral Retractor, Medium
14	8980-74	1 ea	Mitral Retractor, Large
15	8980-76	1 ea	Aortic Retractor, Small (Semi Malleable)
16	8980-78	1 ea	Aortic Retractor, Medium (Semi Malleable)
17	8980-80	2 ea	Suture Boots, Side Clip-On
18	8980-82	1 ea	Suture Boot, Lock Type
19	8980-90	1 ea	Custom Instrument Case



■ The Cardio-Bay™ Super-Slide Retractor System is designed to meet the unique requirements of both patient and surgeon. It is superior for a full range of minimally invasive and conventional surgeries. Various adjustment capabilities, adaptability and ease of use allow optimal surgical access for the surgical team.

■ Durable Stainless Steel Construction. Made in the U.S.A.

# Cardio-Bay™ THE Retractor for all Cardio Thoracic Procedures



Coronary Artery Bypass Graft Procedure



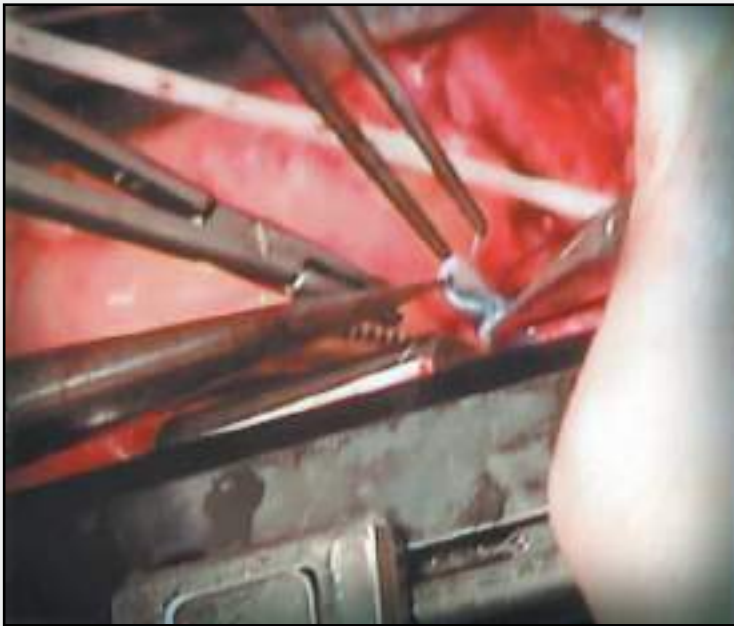
## Valve Procedures

- The retractor set facilitates both Aortic and Mitral valve procedures using the valve retractor attachments.
- Left and right universal arms provide optimal placement and positioning of retractor attachments. Tower arms easily and quickly accept aortic or mitral valve retractors and provide stable, accurate retraction for visibility.
- The suture boots clip on retractor arms in a variety of positions.
- Economical, superior solution to disposable systems in cardiac care.

## Multi-vessel Coronary Grafting without Cardiopulmonary Bypass

- The Cardio-Bay™ Super-Slide Retractor System represents the best technological advancement for total revascularization of the beating heart.
- The unique retractor arms are black in color to reduce glare and has multiple holes for the anchoring of pericardial sutures.
- Three sets of different depth retractor blades are easily attached to the retractor arms and may be placed for either standard or small incision procedures.
- Blades consist of two-part swiveling construction allowing free conformation to sternum edges.
- Left and right adjustable universal arms assure rigid, accurate placement of stabilizers or valve retractors. With multiple adjustment abilities the arms stay out of the way while the attachments are placed exactly where needed for full visibility.
- Stabilizers conform to any surface requirements and are quickly and easily attached to universal arms. Low contour design, fold down handles and cranks.

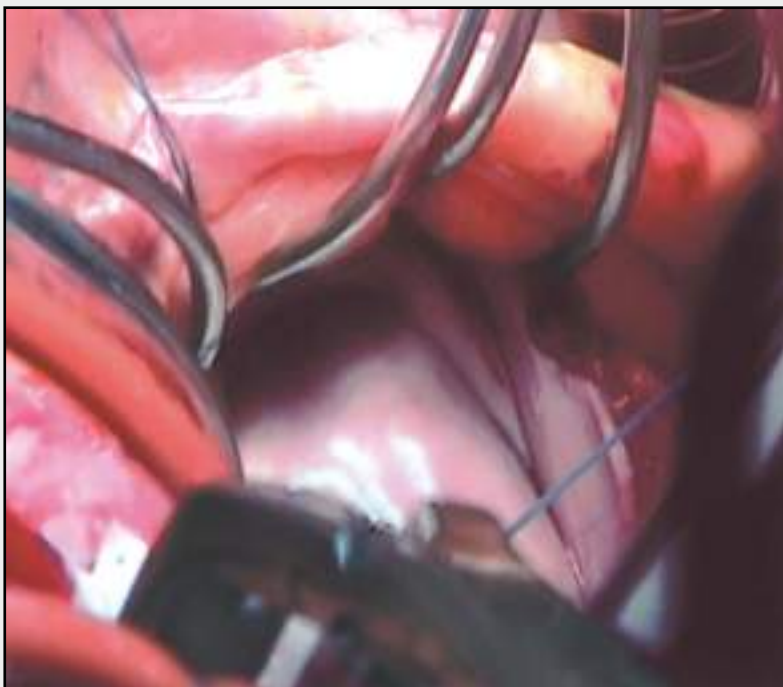




- Coronary anastomosis on the beating heart.

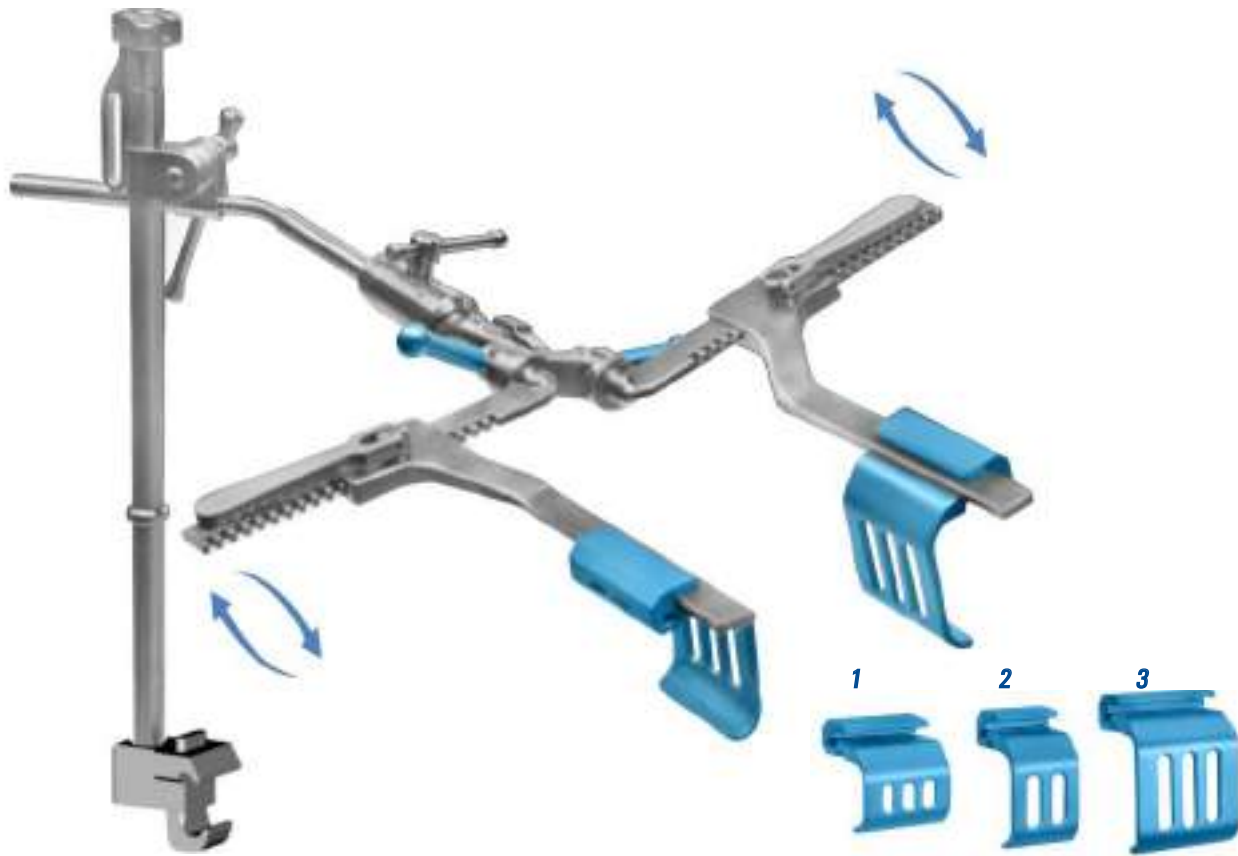


- Positioning and stabilization for revascularization.



- Right arthrotomy, placement of valve retractors.
- Excellent, full exposure.

# Thoracic Rib/Sternum Spreader System



-Special design offers independent control over rotation of both arms of the retractor.

-Offers ample control to obtain the best exposure during lobectomy procedures.

-Retractor frame quickly attaches to the table post providing stable retraction.

## 8995-00 Thoracic Rib/Sternum Spreader System

Consisting of:

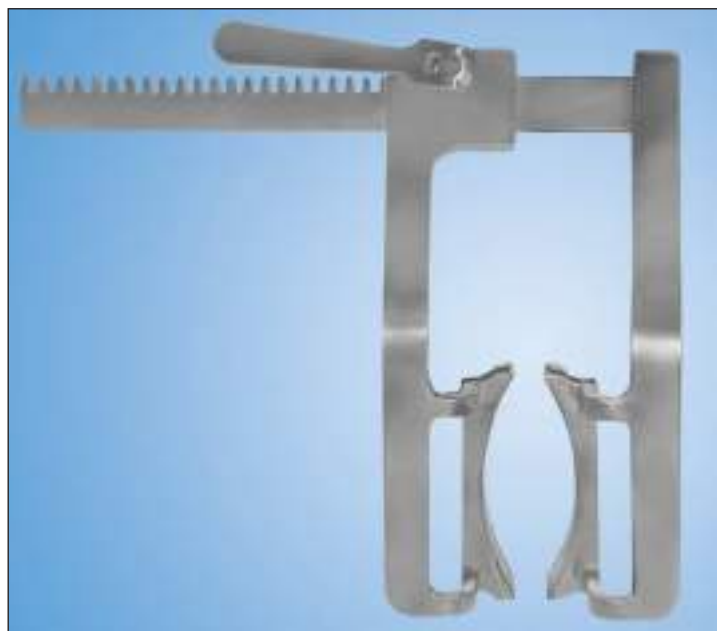
8995-10	1 ea	Detachable Retractor Frame
8995-20	1 ea	Cross Bar with Clamp
8995-30	1 ea	Table Post with Cross Clamp
<b>1</b> 8995-40	2 ea	Small Blades, 1.5 x 2" wide
<b>2</b> 8995-50	2 ea	Medium Blades, 2.5 x 1.5" wide
<b>3</b> 8995-60	2 ea	Large Blades, 2.5 x 2.5" wide

## Gerbode Type Retractor

### 8990-00 Gerbode Style Sternum Spreader

Stainless Steel Construction

Arm:	9"	23 cm
Opening:	9"	23 cm
Blade Depth:	1"	2.8 cm
Blade Width:	4-3/4"	11.5 cm



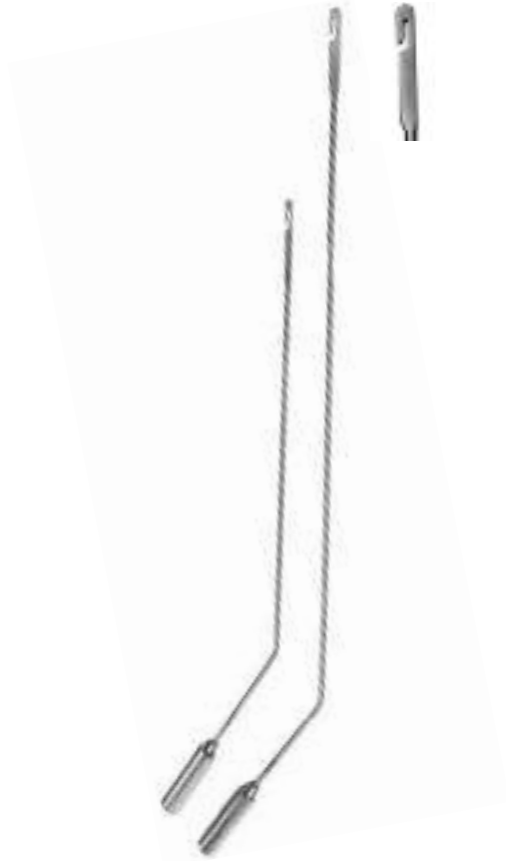
# Wire Scissors and Cutters



Wire Suture Scissors TC Blades  
 9830-04 Serrated Blades 4-3/4", 12 cm



Wire Scissors Long  
 9000-17 Serrated Tungsten Carbide Blades 6", 15 cm



Rumel Obturator Tourniquet Stylet  
 9850-12 Adult, 11-1/4", 28.5 cm  
 9850-13 Child, 8-1/2", 22 cm

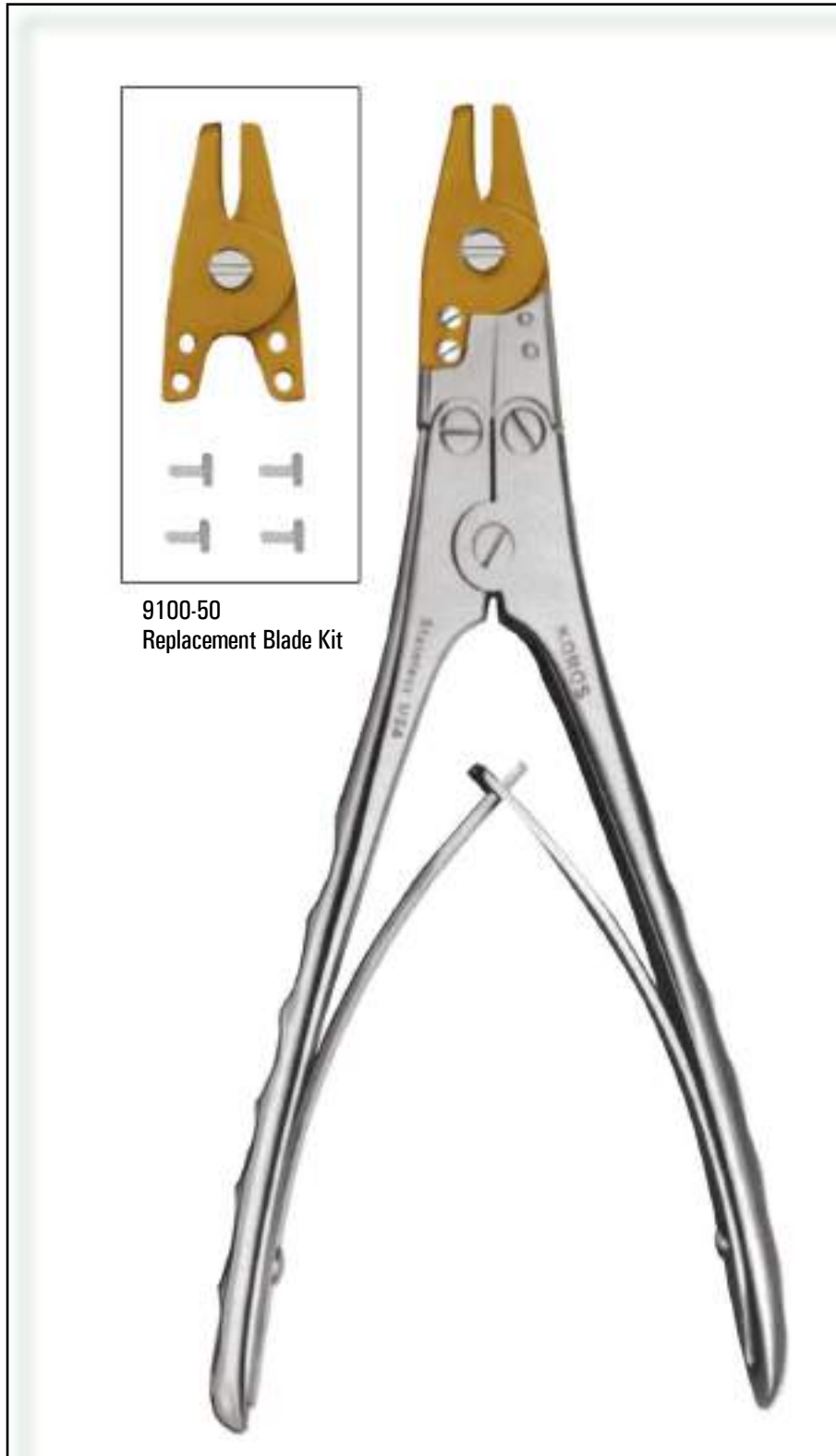


Single-Action Wire/Pin Cutter  
 9840-08 Tungsten Carbide Blades 8", 20 cm



Wire/Pin Cutter  
 Max Wire Diameter 2 mm  
 7358-05 length 6 1/2", 17 cm

## Wire Cutter



9100-50  
Replacement Blade Kit

### Double Action Sternal Wire Cutter

9100-18 With Replaceable Blades 7", 18 cm

9100-50 Replacement Blade Kit  
(includes 1 Blade and 4 Screws)



**Flush End & Side Wire Cutter**

Length		6 3/4", 17 cm
9106-00	length	7.5 mm Jaw



**Double Action Wire/Pin Cutter**

		with Tungsten Carbide Cutting Edge
Max Wire Diameter		2.8 mm
9107-00	length	9 1/4", 24 cm



**Double Action Wire/Pin Cutter**

		with Tungsten Carbide Cutting Edge
Max Wire Diameter		1.7 mm
9108-00	length	7 1/4", 18.5 cm



**Double Action Wire/Pin Cutter**

		with Tungsten Carbide Cutting Edge
Max Wire Diameter		2.5 mm
9109-00	length	8 3/4", 22 cm

## Specialty Scissors



### Mayo Scissors, Tungsten Carbide Blades

9110-06	Straight	6", 15 cm
9115-06	Curved	6", 15 cm
9110-07	Straight	6-3/4", 17 cm
9115-07	Curved	6-3/4", 17 cm
9110-09	Straight	9", 23 cm
9115-09	Curved	9", 23 cm



### Metzenbaum Scissors, Delicate Tungsten Carbide Blades

9120-05	Straight	5-1/2", 14 cm
9125-05	Curved	5-1/2", 14 cm
9120-07	Straight	7", 18 cm
9125-07	Curved	7", 18 cm
9120-09	Straight	9", 23 cm
9125-09	Curved	9", 23 cm
9120-10	Straight	10", 26 cm
9125-10	Curved	10", 26 cm
9120-11	Straight	11", 28 cm
9125-11	Curved	11", 28 cm



### DeBakey Endarterectomy Scissor

9135-07	7", 18 cm
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### Potts-Smith Scissors

9140-25	25 Degree Angle	7", 18 cm
9140-45	45 Degree Angle	7", 18 cm
9140-60	60 Degree Angle	7", 18 cm



### Diethrich Coronary Artery Scissors

9150-25	25 Degree Angle	7", 18 cm
9150-45	45 Degree Angle	7", 18 cm
9150-60	60 Degree Angle	7", 18 cm
9150-90	90 Degree Angle	7", 18 cm



### Circumflex Artery Scissors, 130 Degree

9160-07	Straight Shanks	7", 18 cm
9165-07	Curved Shanks	7", 18 cm



**Supersharp Cardiovascular Scissors**

9170-07	Curved	7" , 18 cm
9170-09	Curved	9" , 23 cm
9170-10	"Kay" Valve Re-Do, Curved	10" , 25.5 cm



**Minimally Invasive Diethrich Type Artery Scissor**

9180-40	40 Degree Angle	8-3/4" , 22 cm
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**Custom Sternum Type Artery Scissor**

9190-07	Curved	7-1/4" , 18.5 cm
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# Thoracic Forceps and Clamps



## Kantrowitz Thoracic Clamps

9210-07	7-1/2", 19 cm
9210-09	9-1/2", 24 cm
9210-11	11", 28 cm



## Crafoord Thoracic Forceps, Delicate

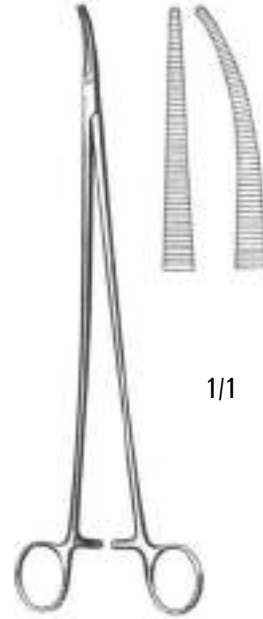
9220-07	7", 18 cm
9220-09	9-1/2", 24 cm



1/1

## Mixer Forceps

9230-05	5", 12.5 cm
9230-06	6-1/4", 15.5 cm
9230-07	7", 18 cm
9230-08	8", 20.5 cm
9230-09	9", 23 cm
9230-10	10", 26 cm
9230-11	11", 28 cm



1/1

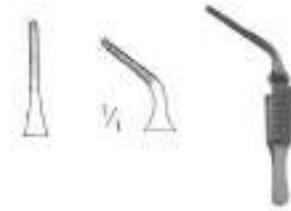
## Bridge Forceps

9240-07	Straight	7", 18 cm
9245-07	Curved	7", 18 cm
9240-11	Straight	11", 28 cm
9245-11	Curved	11", 28 cm



## Glover Bulldog Clamps

9310-05	Straight, 5 cm	Jaw Length	1.8 cm
9315-05	Curved, 5 cm	Jaw Length	1.8 cm
9310-06	Straight, 6.5 cm	Jaw Length	2.7 cm
9315-06	Curved, 6.5 cm	Jaw Length	2.7 cm
9310-09	Straight, 9 cm	Jaw Length	4 cm
9315-09	Curved, 9 cm	Jaw Length	4 cm
9310-12	Straight, 12 cm	Jaw Length	6 cm
9315-12	Curved, 12 cm	Jaw Length	6 cm



## Diethrich Micro Coronary Bulldog Clamps

9320-08	Straight Jaws	8 mm
9325-08	Angled Jaws	8 mm
9320-12	Straight Jaws	12 mm
9325-12	Angled Jaws	12 mm
9320-20	Straight Jaws	20 mm
9325-20	Angled Jaws	20 mm



## Jacobson Micro Coronary Bulldog Clamps

9330-21	Straight Jaws	21 mm
9335-21	Curved Jaws	21 mm



## DeBakey Bulldog Clamps

9340-07	Straight, 2 cm	Jaw Length	7.5 cm
9345-07	Curved, 2 cm	Jaw Length	7.5 cm
9340-08	Straight, 3 cm	Jaw Length	8.5 cm
9345-08	Curved, 3 cm	Jaw Length	8.5 cm
9340-10	Straight, 4.5 cm	Jaw Length	10.5 cm
9345-10	Curved, 4.5 cm	Jaw Length	10.5 cm
9340-12	Straight, 6.5 cm	Jaw Length	12 cm
9345-12	Curved, 6.5 cm	Jaw Length	12 cm

# Cardiovascular Forceps



1.5 mm tip



2 mm tip



2.8 mm tip

## DeBakey-Diethrich Coronary Artery Forceps

9410-06	6", 15.5 cm
9410-07	7-3/4", 20 cm
9410-09	9-1/2", 24 cm

## DeBakey Vascular Tissue Forceps

9420-06	6", 15.5 cm
9420-07	7-3/4", 20 cm
9420-09	9-1/2", 24 cm

## DeBakey Thoracic Tissue Forceps

9430-06	6", 15.5 cm
9430-07	7-3/4", 20 cm
9430-09	9-1/2", 24 cm
9430-12	12", 30.5 cm



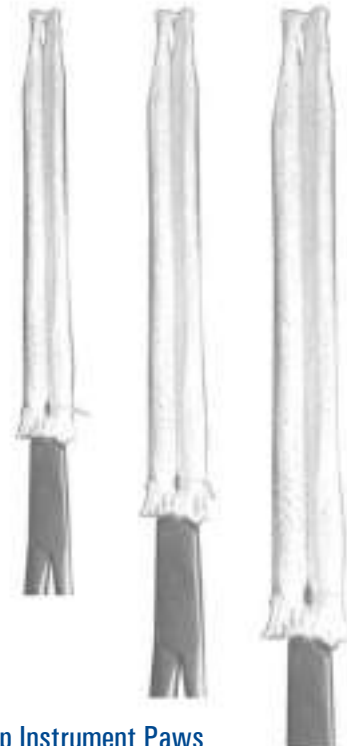
## Cushing Wire Forceps

Tungsten Carbide Jaws	
9440-07 Delicate	7", 18 cm



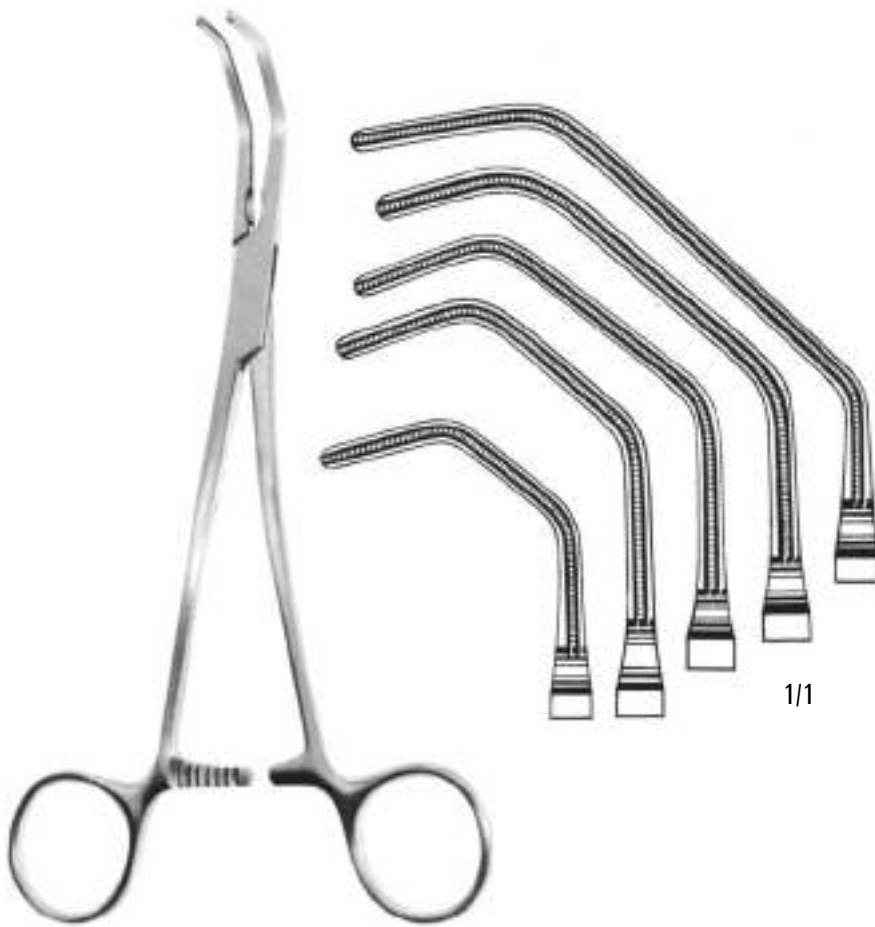
## Modified Reul Type Coronary Forcep

8070-21	Tungsten Carbide Insert
	Tip 1.6 mm wide 8-1/2", 21 cm



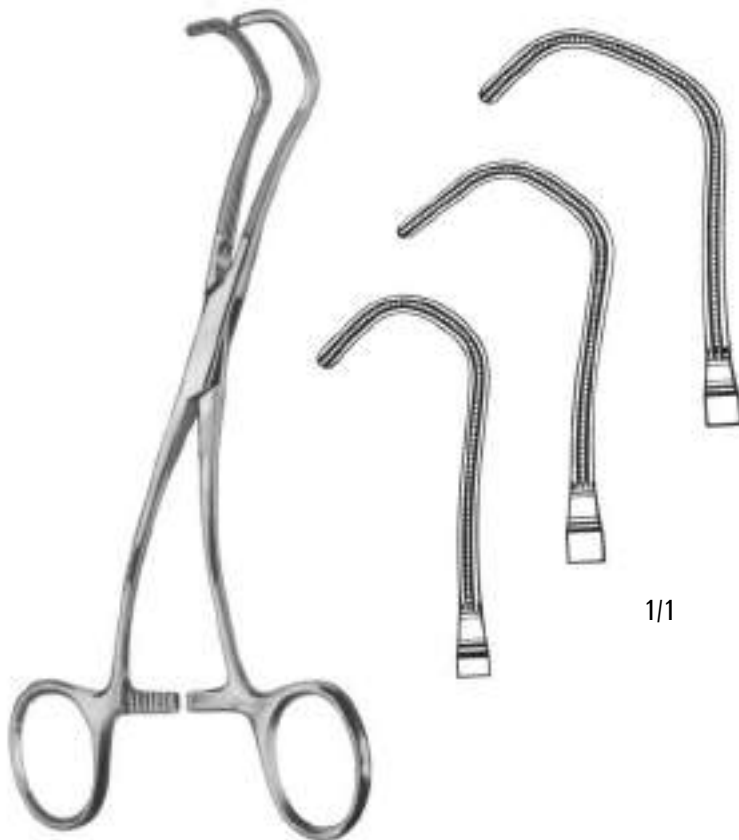
## Soft-Clamp Instrument Paws

Single Use Cotton Jaw Inserts		
9500-01	Short	3-1/2", 9 cm
9500-02	Medium	4", 10.5 cm
9500-03	Long	5", 12.5 cm



## DeBakey Tangential Occlusion Clamps

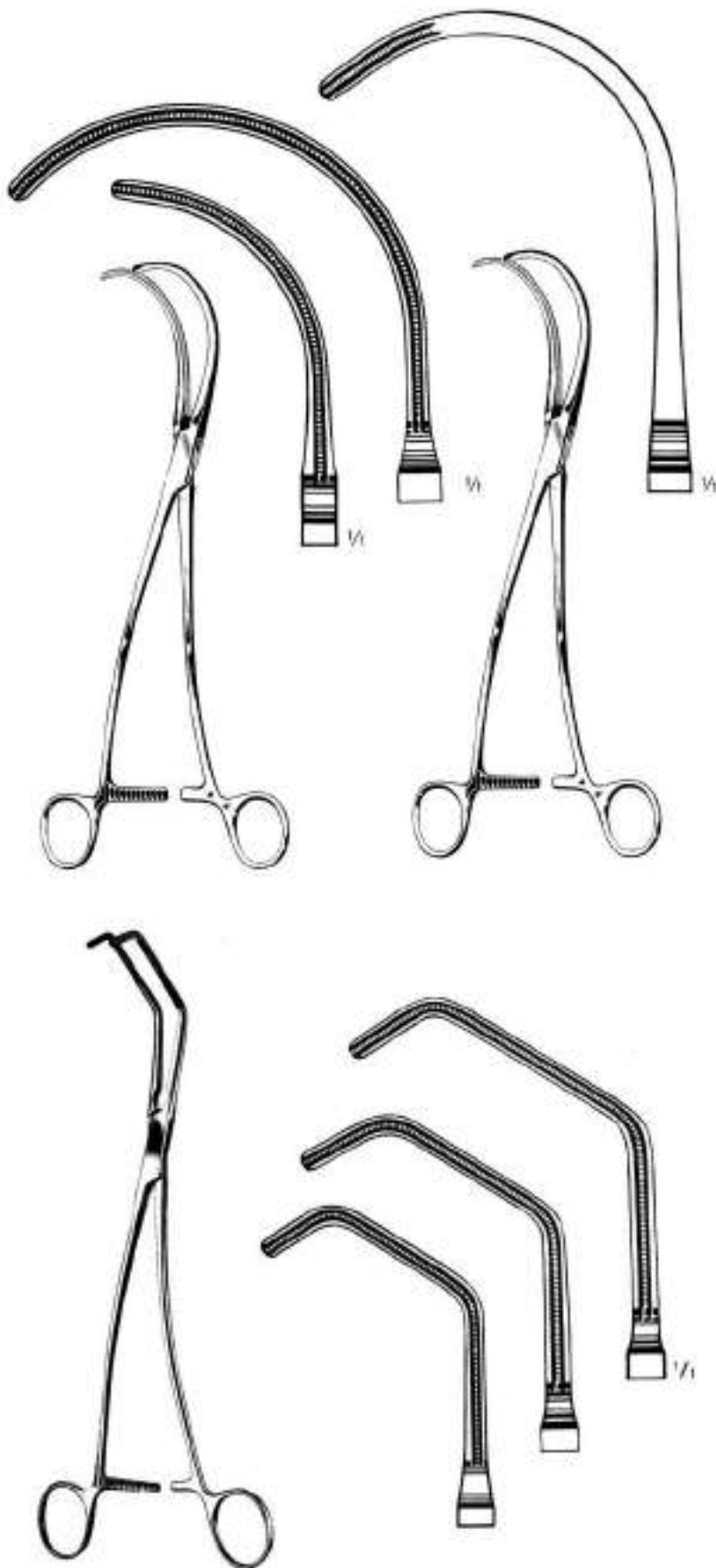
9505-01	Size #1 Jaws	7-3/4", 20 cm
9505-02	Size #2 Jaws	9-3/4", 25 cm
9505-03	Size #3 Jaws	10", 25 cm
9505-04	Size #4 Jaws	10-1/2", 27 cm
9505-05	Size #5 Jaws	11", 28 cm



## DeBakey Derra Anastomosis Clamps

9510-01	Small	6-1/2", 16.5 cm
9510-02	Medium	6-1/2", 16.5 cm
9510-03	Large	6-1/2", 16.5 cm

# Cardiovascular Clamps



## DeBakey Vascular Clamps

9515-05 Accutely Curved	9-1/2", 24 cm
9515-10 Accutely Curved 9 cm Jaws 10"	25.5 cm

## DeBakey-Semb Ligature Carrier

9515-15	10", 25.5 cm
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## DeBakey Satinski Vena Cava Clamps

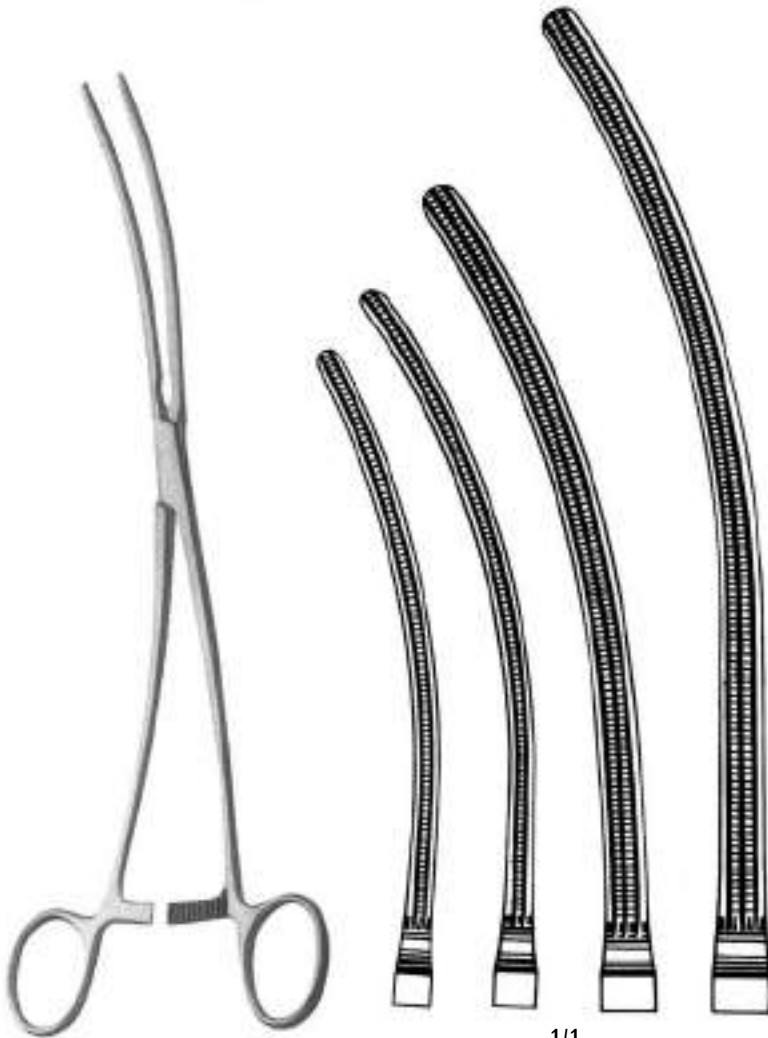
9520-01 Small Jaw, 3.2 cm	9-1/2", 24 cm
9520-02 Medium Jaw, 4 cm	9-1/2", 24 cm
9520-03 Large Jaw, 5 cm	9-1/2", 24 cm



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## Cooley Vascular Clamps

9525-10	Small, 60 Degree	6-1/2" , 16.5 cm
9525-20	Large, 60 Degree	6-1/2" , 16.5 cm

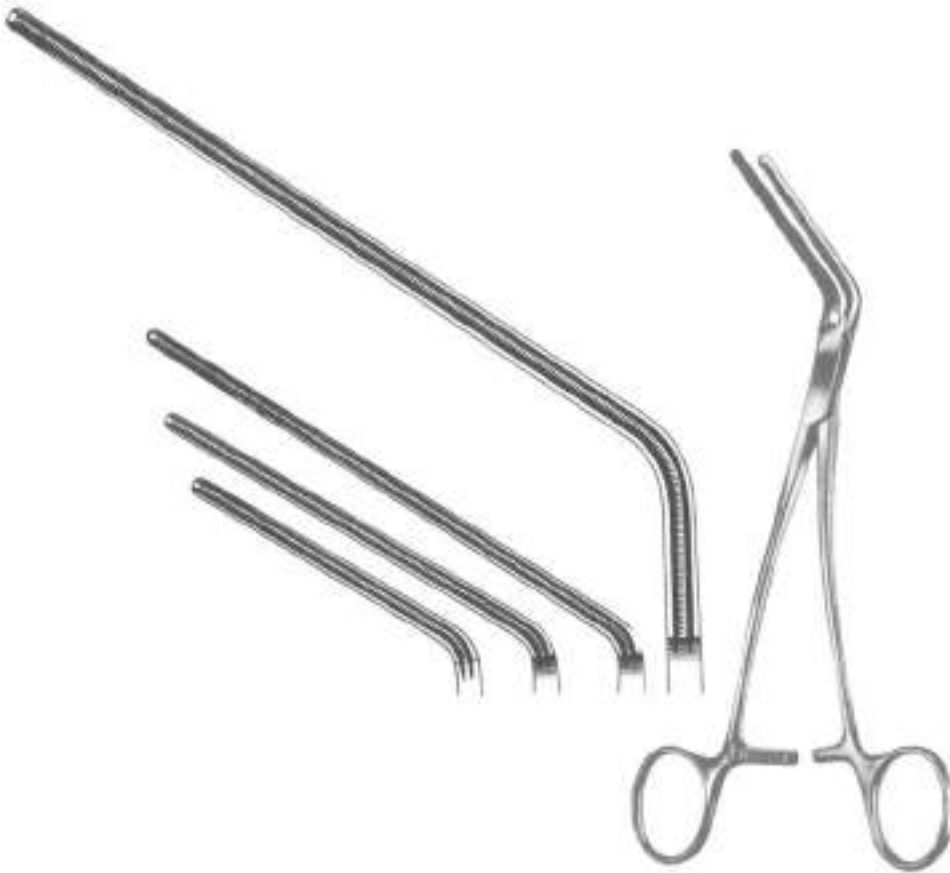


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## DeBakey Aortic Aneurysm Clamps

9530-09		9-1/2" , 24 cm
9530-10		10-1/2" , 26.5 cm
9530-12		12" , 30.5 cm
9530-13		13-1/2" , 34 cm

## Cardiovascular Clamps



### DeBakey Vascular Clamps 60 Degree Angle

9535-01	4 cm Jaw Length	8-1/4", 21 cm
9535-02	5 cm Jaw Length	9-1/4", 23.5 cm
9535-03	6.5 cm Jaw Length	9-1/2", 24 cm
9535-04	10 cm Jaw Length	12", 30.5 cm



### Harken Auricle Clamps Cross Serrated

9540-01	No. 1 Curve	9-1/2", 24 cm
9540-02	No. 2 Curve	9-1/2", 24 cm
9540-03	No. 3 Curve	9-1/2", 24 cm



# Cardiovascular Needle Holders



**Crile-Wood Needle Holders- TC Jaws**  
Tungsten Carbide Jaws

9610-06	6", 15 cm
9610-07	7", 18 cm
9610-08	8", 21 cm
9610-09	9", 23 cm
9610-10	10-1/4", 26 cm
9610-12	12", 30.5 cm



**Mayo Hegar Needle Holders- TC Jaws**

9620-06	6", 15 cm
9620-07	7", 18 cm
9620-08	8", 21 cm
9620-09	9", 23 cm
9620-10	10-1/4", 26 cm
9620-12	12", 30.5 cm



**Sarot Needle Holders- TC Jaws**

9630-07	7", 18 cm
9630-10	10-1/2", 26.5 cm



**Titanium Mayo Hegar Needle Holders**

9620-07T	Micro Tungsten Grip- MTG
	7-1/2", 19 cm



**Ryder Needle Holders- TC Jaws**

9640-06	6", 15 cm
9640-07	7", 18 cm
9640-08	8", 21 cm
9640-09	9", 23 cm
9640-10	10", 25.5 cm
9641-06	Micro Jaws 6", 15 cm
9641-07	Micro Jaws 7", 18 cm
9641-09	Micro Jaws 9", 23 cm

**Titanium Ryder Needle Holders**

9640-06T	Micro Tungsten Grip- MTG
	6", 15 cm

**DeBakey Needle Holders- TC Jaws**

9650-06	6", 15 cm
9650-07	7", 18 cm
9650-08	8", 21 cm
9650-09	9", 23 cm
9650-10	10.25", 26.5 cm

## Cardiovascular Needle Holders



**Sternum Wire Twister Needle Holder**

9660-05 5", 13 cm  
9660-07 6-3/4", 17.5 cm



**Sternum Wire Needle Holder**

9660-10 Heavy Jaw 7-1/2", 19 cm

## Hand Retractors and Tube Clamps



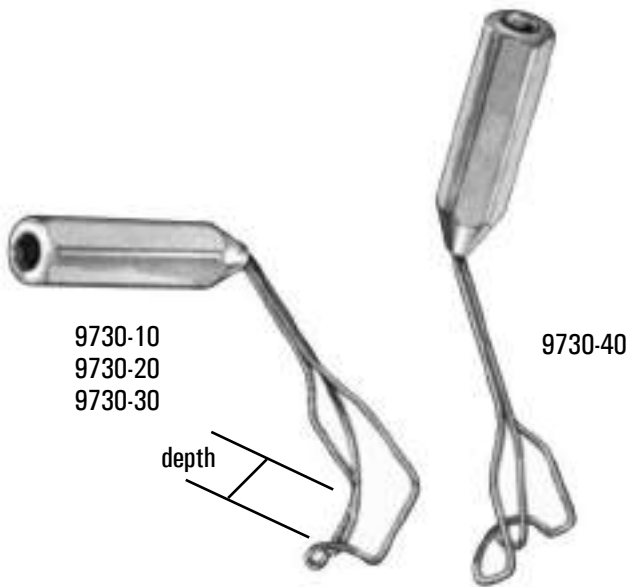
### Volkman Rake Retractors

9710-03	3-Prong Sharp	8-3/4", 22 cm
9710-04	4-Prong Sharp	8-3/4", 22 cm



### Weitlaner Cerebellar Retractors

9720-05	Sharp Tips	5-1/2", 14 cm
9720-06	Sharp Tips	6-1/4", 16 cm
9720-07	Sharp Tips	7-1/2", 19 cm



9730-10  
9730-20  
9730-30

9730-40

depth

### Cooley Atrial Valve Retractors

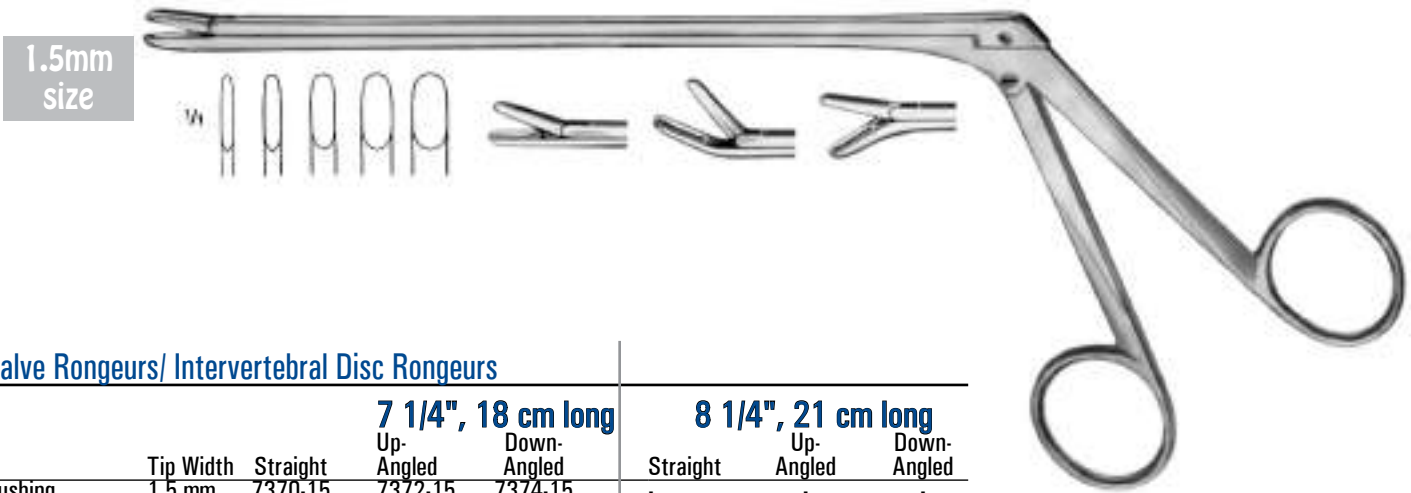
		Width:	Depth:
9730-10	Right, Small Blade	25 mm	20 mm
9730-20	Right, Medium Blade	40 mm	25 mm
9730-30	Right, Large Blade	50 mm	30 mm
9730-40	Left	50 mm	10 mm



### Tube Occlusion Clamps

9730-05	With Guard	5-1/2", 14 cm
9730-07	With Guard	7-1/4", 18.5 cm
9740-08	With Guard	8", 21 cm
9735-05	Without Guard	5-1/2", 14 cm
9735-07	Without Guard	7-1/4", 18.5 cm
9745-08	Without Guard	8", 21 cm

# Valve Rongeurs, Blalock Pulmonary Vessel Clamps



## Valve Rongeurs/ Intervertebral Disc Rongeurs

	Tip Width	7 1/4", 18 cm long			8 1/4", 21 cm long		
		Straight	Up-Angled	Down-Angled	Straight	Up-Angled	Down-Angled
Cushing	1.5 mm	7370-15	7372-15	7374-15	-	-	-
Cushing	2 mm	7370-20	7372-20	7374-20	7376-20	7377-29	-
Love-Gruenwald	3 mm	7370-30	7372-30	7374-30	7376-30	7377-30	7378-30
Spurling	4 mm	7370-40	7372-40	7374-40	7376-40	7377-40	7378-40
Spurling	5 mm	7370-50	7372-50	7374-50	7376-50	7377-50	7378-50

10 mm Tip Length



## Blalock Pulmonary Vessel Clamps

	Jaw Size	Total Length
9872-10	2.5 x 15 mm	15 cm, 5-3.4 in
9872-20	3.5 x 20 mm	20 cm, 8 in
9872-30	3.5 x 30 mm	20 cm, 8 in

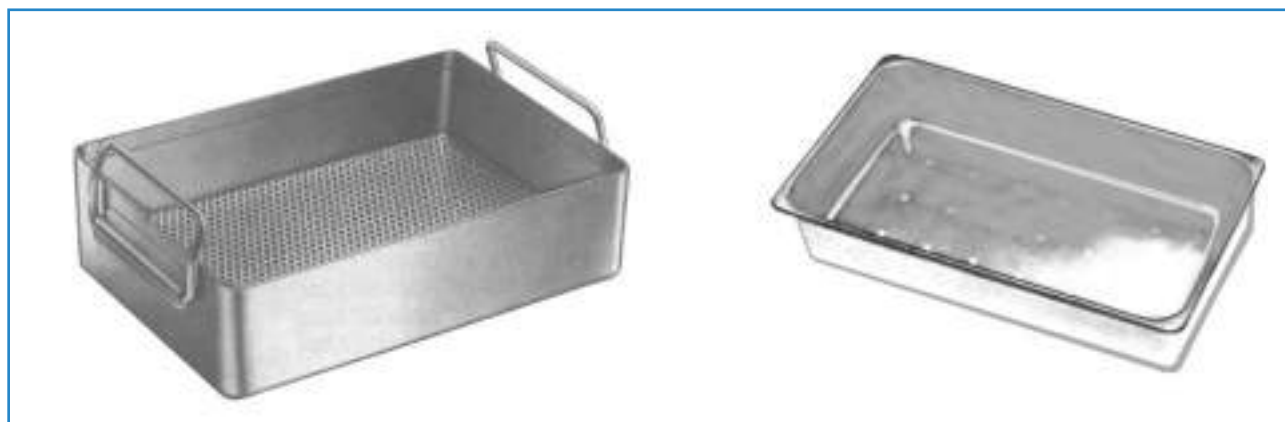
## Valve Rongeur Sterilizer/Organizer Case



### 7360-90 Valve Rongeur Sterilizer Case

- Instrument case can be sterilized.
- Holds 29 pituitary rongeurs, arthroscopy forceps, scissors or graspers.
- Offers clear visibility of instrument tips.
- Safely secures a majority of handle designs.
- Bottom tray is designed to hold various instruments and scopes. (Wrapped in towel pictured above).
- Conveniently fits into brief cases for easy portability.
- Made from light weight aluminum and stainless steel.
- Dimensions 16 x 11 x 5 inches.

## Instrument Pans



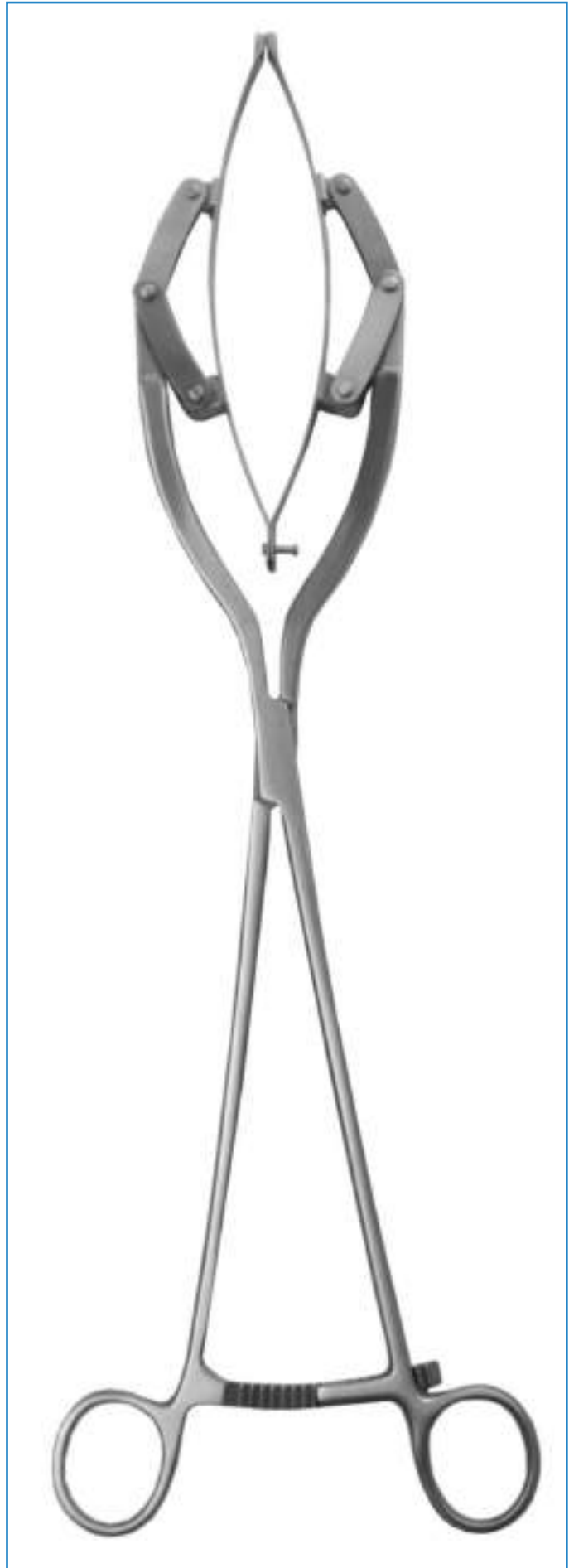
### Instrument Sterilizing Pans

9810-10	10-1/2 x 15 x 3-1/2"
9810-20	10-1/2 x 20 x 3-1/2"
9810-30	13 x 20-1/4 x 3-1/2"

### Perforated Instrument Pans

9820-10	12-1/4 x 7-3/4 x 2-1/2"
9820-20	12-3/4 x 10-1/2 x 2-1/2"
9820-30	16 x 10 x 2-1/2"
9820-40	20-3/4 x 12-3/4 x 2-1/2"

## Koufman Type Kidney Clamp



9874-10    Modified Koufman Type  
Kidney Clamp

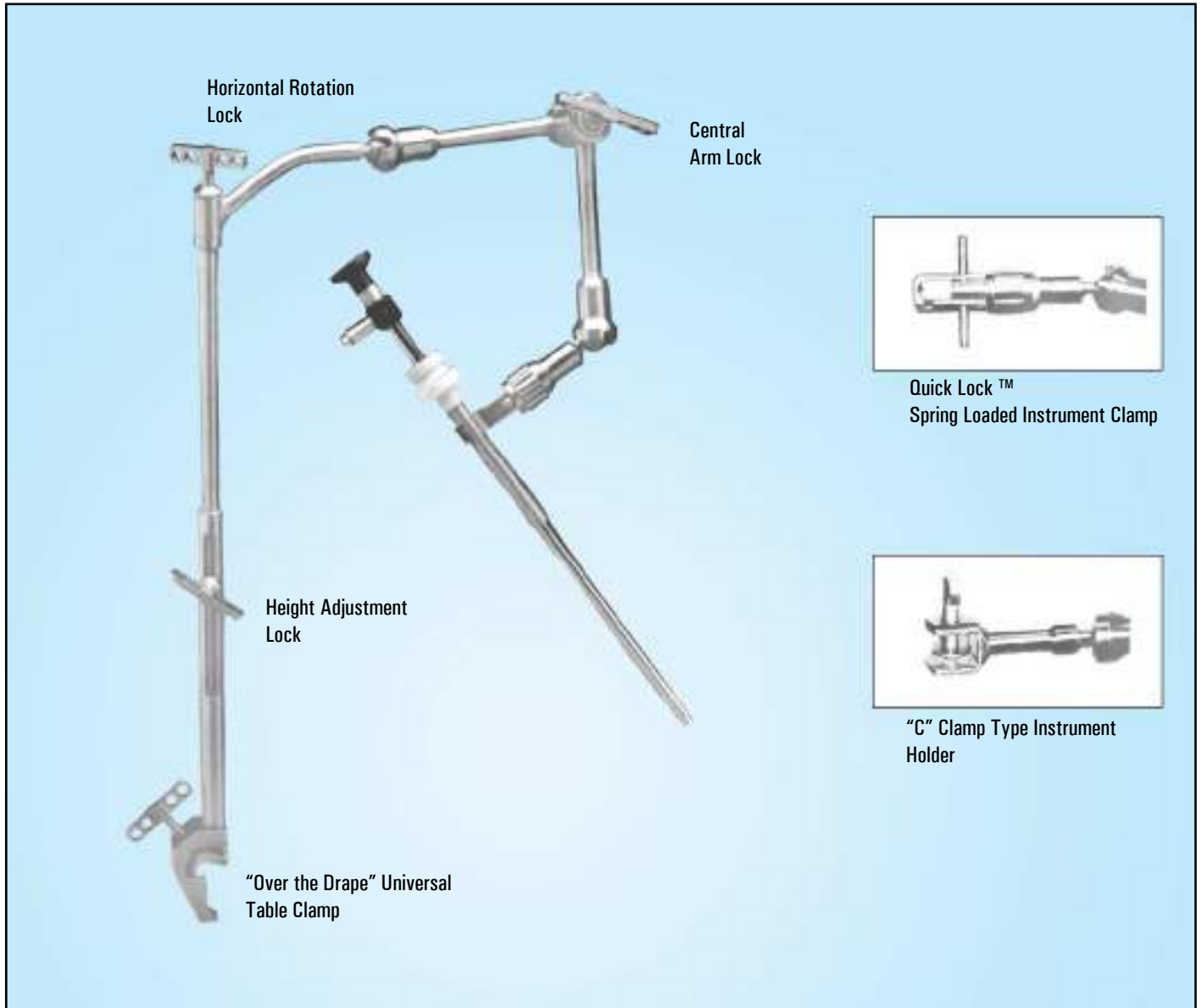
Jaw Length: 14 cm (5 1/2")  
Total Length: 39 cm (15 1/2")



### 9870-10 Anesthesiology Screen

- Easily attaches to surgery table.
- Height is adjustable to accommodate personal preference.
- Durable stainless steel construction.
- Can be used with standard surgery table clamps.
- Rotatable side arms allow for versatility and easy storage.
- Made in the U.S.A.

# Universal Quick Lock Scope and Instrument Holder

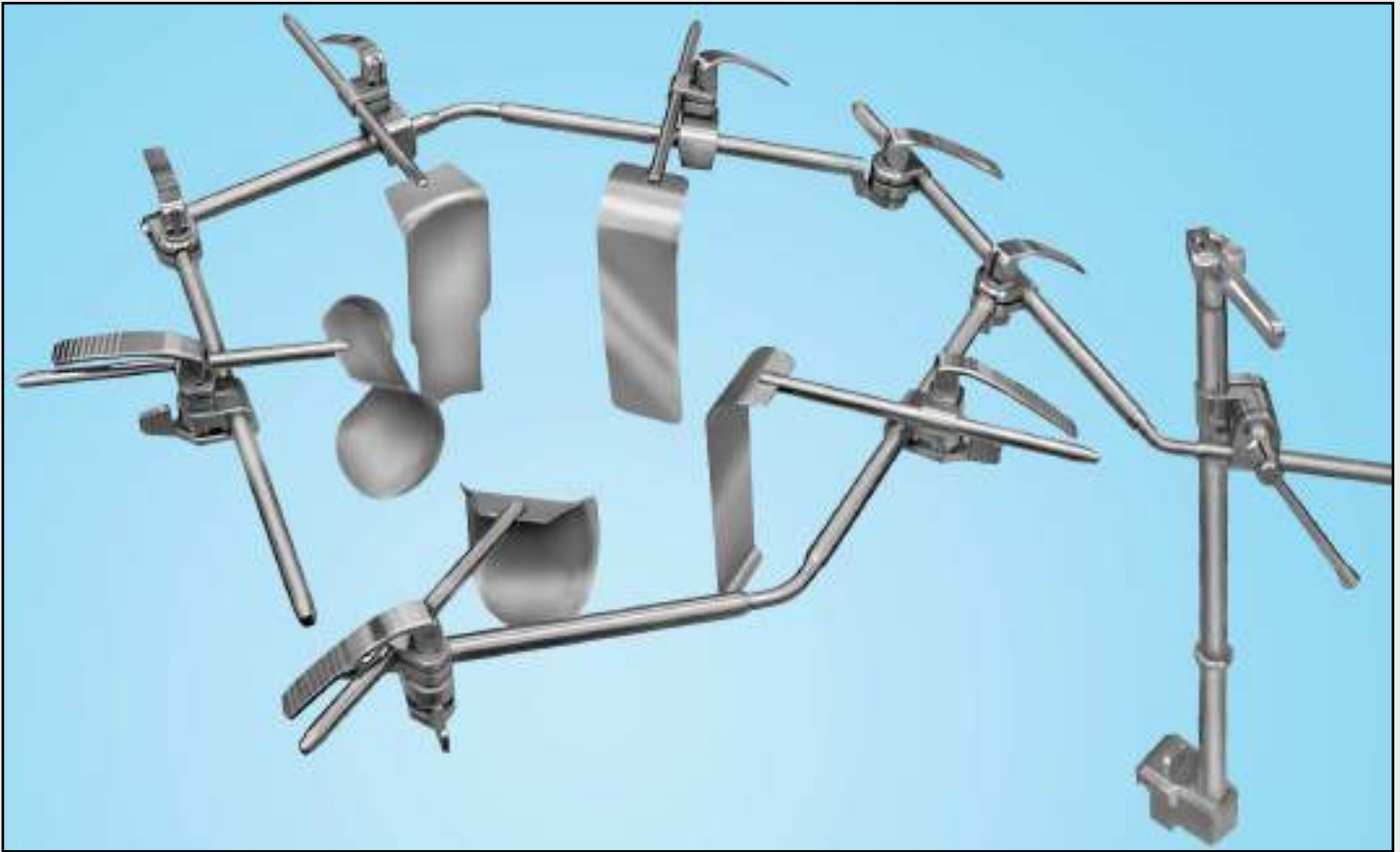


- Endoscopic Instrument Holder for scopes, graspers or retractors.
- Quick Lock™ Instrument Clamp enables surgeon to rapidly insert or remove instruments without assistance.
- Ball Joint Arm design allows adjustments with little effort.
- Central Arm Lock fixes all rotating arm joints simultaneously.
- Over the Drape Universal Table Clamp designed to fit all major brand O.R. table side rails.

## Instrument Holders

7880-00	Universal Quick Lock™ Scope and Instrument Holder
7880-20	"C" Clamp Type Scope and Instrument Holder

# SWIFT™ Universal Retractor System



- ❑ Radiolucent blade options.
- ❑ Advanced, easy, multi-directional adjustment of retractor blades.
- ❑ Easy to use, quick lock SWIFT™ Universal Clamps.
- ❑ High quality, rigid, stainless steel components.
- ❑ Swift Clamp locks anywhere on the frame without releasing other clamps.

9880-00 *SWIFT* General Retractor Set

9880-05 *SWIFT* General Extended Retractor Set

9880-10 *SWIFT* Vascular Retractor Set

9880-15 *SWIFT* Vascular Extended Retractor Set

9880-20 *SWIFT* Urology Retractor Set

9880-25 *SWIFT* Urology Extended Retractor Set

9880-00R *SWIFT* General Retractor Set w/radiolucent blades

9880-05R *SWIFT* General Extended Retractor Set w/radiolucent blades









9880-10R *SWIFT* Vascular Retractor Set w/radiolucent blades





9880-15R *SWIFT* Vascular Extended Retractor Set w/radiolucent blades

9880-20R *SWIFT* Urology Retractor Set w/radiolucent blades

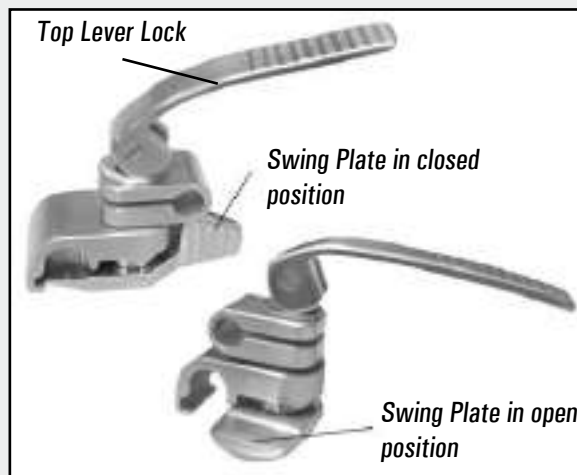
9880-25R *SWIFT* Urology Extended Retractor Set w/radiolucent blades

## Standard and Optional Components:

9881-10	SWIFT™ Sterile Field Table Post w/Cross Bar Clamp	
9881-12	Angled Cross Bar 20	
9881-20	Left Arm w/clamp 20	
9881-22	Right Arm w/clamp 20	
9881-24	Short Left Arm w/clamp 16	
9881-26	Short Right Arm w/clamp 16	
9881-50	Arm Extension with clamp	
9881-55	Hinged Arm Extension	

9881-70	SWIFT Universal Clamp	
9881-76	Standard Clamp 3/8 x 1/2	
9881-77	1/2 x 1/2	
9881-78	1/2 x 3/4	
9881-80	Flexible Fiberoptic Illuminator Tip	
9881-82	Fiberoptic Cable (8ft)	
9881-90	Case for Clamps & Frame 2 1/2 x 10 x 21 1/2	
9881-92	Case for Retractor Blades 3 x 10 x 21 1/2	

*Design elements of the instruments are Patent Pending in the U.S.A. and other foreign countries.*



*SWIFT™ Universal Clamp quickly attaches to any part of the Retractor Arms or Angled Cross Bar. Rotate the swing plate to open position, place clamp, then close swing plate. After the retractor blade is placed and correctly aligned, press on the Top Lever Lock to secure all components.*









**Cleaning:** *The instrument should be rinsed thoroughly with water after use to remove any accumulated debris. Ultrasonic cleaning is recommended. A steam permeable, water-soluble instrument lubricant should be applied prior to the sterilization process.*

# SWIFT™ Retractor Sets













			9880-00 General Basic	9880-05 General Extended	9880-10 Vascular Basic	9880-15 Vascular Extended	9880-20 Urology Basic	9880-25 Urology Extended	
9881-10		1-Sterile Field Table Post w/Clamp	1	1	1	1	1	1	
9881-12		2-Angled Cross Bar 20	1	1	1	1	1	1	
9881-20		3-Left Arm w/clamp 20	1	1	1	1			
9881-22		4-Right Arm w/clamp 20	1	1	1	1			
9881-24		5-Left Arm w/clamp, Sh 16					1	1	
9881-26		6-Right Arm w/clamp, Sh 16					1	1	
9881-50		7-Arm Extension w/clamp 10		1		1		1	
9881-70		8-Swift™ Universal Clamp	4	6	4	6	4	6	
9881-90		9-Clamp Tray 2 1/2 x 10 x 21 1/2	1	1	1	1	1	1	
9881-92		9-Blade Tray 3 x 10 x 21 1/2	1	1	1	1	1	1	
9882-10	R	Mayo-Balfour 2 x 2					2	2	
9882-14	R	Swivel Retractor 2-3/4 x 2	2	2	2	2	2	2	
9882-18	R	Swivel Retractor 3-1/2 x 2			1	1			
9882-30	R	Fence 4 x 5	1	1	1	1	1	1	
9882-32	R	Swivel Retractor 4 X 6	1	1	1	1	1	1	
9882-40	R	Splanchnic 1-1/2 x 4					1	1	
9882-44	R	Swivel Retractor 2 x 4-1/2	1	1	1	1	1	1	
9882-46	R	Swivel Retractor 2 x 6	1	1	1	1			
9882-60	R	Deaver 1-1/2 x 6					1	1	
9882-62	R	Swivel Retractor 2 x 4-1/2	1	1	1	1	1	1	
9882-72	R	Malleable Slotted 2 x 6-1/2	1	1	1	1	1	1	
9882-74	R	Swivel Retractor 3 x 6-1/2	1	1	1	1	1	1	
9883-12	R	Harrington Sweetheart 2 x 5	1	1	1	1	1	1	
9883-16	R	Swivel Retractor 2-1/2 x 7					1	1	
9883-28	R	Kelly 2 X 3			1	1			
9883-36	R	Swivel Retractor 3 x 2-1/2	1	1					
9883-38	R	Swivel Retractor 3 x 4	1	1					
9883-42	R	Renal Vein 1 x 6			1	1			
9883-44	R	Swivel Retractor 1 X 8				1			
9883-50	R	Malleable Bladder Swivel Retractor 3 x 6					1	1	

Radiolucent Blades have "R" Catalog Number Suffix

## Standard and Optional Blades:

9882-10	R		2 x 2	
9882-12			2-1/4x1-1/2	
9882-14	R	Mayo-Balfour	2-3/4 x 2	
9882-16		Swivel Retractors	3 x 2-3/4	
9882-18			3-1/2 x 2	
9882-20	R		3 x 3-1/2	
9882-22			4 x 4-1/2	
9882-30	R		4 x 5	
9882-32	R	Fence	4 x 6	
9882-34		Swivel Retractors	4 x 8	
9882-40			1-1/2 x 4	
9882-42	R	Splanchnic	1-1/2 x 6	
9882-44	R	Swivel Retractors	2 x 4-1/2	
9882-46	R		2 x 6	
9882-48			2 x 8	
9882-50			1/2 x 6	
9882-52			3/4 x 3	
9882-54			1 x 4	
9882-56		Deaver	1 x 4-1/2	
9882-58		Swivel Retractors	1-1/2x4-1/2	
9882-60	R		1-1/2 x 6	
9882-62	R		2 x 4-1/2	
9882-64			2-3/4x4-1/2	
9882-66			3 x 8	
9882-70			1-1/2 x 6	
9882-72	R	Malleable Slotted	2 x 6-1/2	
9882-74	R	Swivel Retractors	3 x 6-1/2	
9882-80			1-1/2x4-3/4	
9882-82			1-1/2x6-1/4	
9882-84			1-1/2 x 8	
9882-86		Malleable	2 x 4-3/4	
9882-88		Swivel Retractors	2 x 6-1/4	
9882-90			2 x 8	
9882-92			3 x 6-1/4	
9882-94			3 x 8	
9883-10			1-5/8 x 5	
9883-12	R	Harrington	2 x 5	
9883-14		Swivel Retractors	2-1/2 x 5	
9883-16	R		2-1/2 x 7	
9883-18			3 x 7	
9883-15		Harrington Liver	3-1/2 x 6	
		Swivel Retractor		

Radiolucent Blades have "R" Catalog Number Suffix

9883-20			1 x 1-1/2	
9883-22			1 x 2-1/2	
9883-24			2 x 2	
9883-26			2 x 2-1/2	
9883-28	R	Kelly	2 x 3	
9883-30		Swivel	2 x 4	
9883-32		Retractors	2 x 5	
9883-34			2 x 6	
9883-35			2 x 8-1/2	
9883-36	R		3 x 2-1/2	
9883-38	R		3 x 4	
9883-40		Renal Vein	1 x 4-1/2	
9883-42	R	Swivel Retractors	1 x 6	
9883-44	R		1 X 8	
9883-50		Malleable Bladder	3 x 6	
		Swivel Retractor		
9883-60		Malleable Bladder	2 X 6	
9883-62		Notched	2-1/2x6-3/4	
9883-64		Swivel Retractors	3 x 7-1/2	
9883-70			3/4 x 1	
9883-72			3/4 x 2	
9883-74		Richardson	1 x 1-1/2	
9883-76		Solid Retractors	1-1/8x1-1/4	
9883-78			1 x 2-1/2	
9883-80			1-1/2x1-1/2	
9883-82			1-5/8x2-1/2	
9883-90		Sternal	2 x 1-1/2	
9884-10		Gelpi Blade		
		Solid Retractor		
9884-20		Hill-Ferguson	Medium	
9884-22		Rectal Solid	Large	
9884-24		Retractors	X-Large	
9884-30		Young	1/2 x 2-1/8	
9884-32		Prosthetic	1-5/8x1-5/8	
9884-34		Solid Retractors	1-1/2 x2-1/2	
9884-40		St. Marks Pelvic	2-1/2 x 5	
9884-42		Solid Retractors	2-1/2 x 6	
9884-44			2-1/2 x 7	
9884-50		Eastman-Heaney		
		Hysterectomy	1-1/2X3 1/2	
		Solid Retractor		
9884-60		Weinberg		
		Vagotomy	3-1/2 x 6	
		Solid Retractor		

# SWIFT Bariatric™ Universal Retractor System





## 9880-30 *SWIFT Bariatric™ Retractor Set*

Set consists of:		width x depth	
9881-11	1 ea	Swift™ XL Table post with two clamps	
9881-12	2 ea	Angled Side Bars	
9881-58	1 ea	Angled, Hinged Cross Bar	
9881-70	6 ea	Swift™ Universal Clamps	
9882-16XL	2 ea	Mayo-Balfour Swivel Retractor	3 x 2 3/4 "
9882-22XL	2 ea	Mayo-Balfour Swivel Retractor	4 x 4 1/2 "
9882-34XL	1 ea	Fence Swivel Retractor	4 x 8"
9882-48XL	1 ea	Splanchnic Swivel Retractor	2 x 8 "
9882-66XL	1 ea	Deaver Swivel Retractor	3 x 8 "
9882-88XL	1 ea	Malleable Swivel Retractor	2 x 6 1/4 "
9882-90XL	1 ea	Malleable Swivel Retractor	2 x 8 "
9882-92XL	1 ea	Malleable Swivel Retractor	3 x 6 1/4 "
9882-94XL	1 ea	Malleable Swivel Retractor	3 x 8 "
9882-96XL	1 ea	Malleable Swivel Retractor	4 x 8 "
9883-15XL	1 ea	Harrington Liver Swivel Retractor	5 1/2 x 3 1/2 "
9883-44XL	1 ea	Renal Vein Swivel Retractor	1 x 8 "
9883-90XL	2 ea	Sternal Solid Retractors	2 x 1 1/2 "
<u>Optional Items:</u>			
9881-50	Arm Extension with Clamp	9 1/2 "	
9881-80	Flexible Fiber Optic Illuminator Tip		
9881-82	Fiber Optic Cable	8 ft	
9881-94	XL Clamp Tray	3 1/4 x 10 1/4 x 24 "	
9881-96	XL Retractor Tray	4 1/4 x 10 1/4 x 24 "	
9883-35XL	XL Kelly Swivel Retractor	2 x 8-1/2 "	

- Extended Table Post Length.
- Extended XL Retractor Blades and Shafts.
- Easy to use, Quick Lock™ SWIFT™ Universal Clamps.
- Precise, Rigid, Stainless Steel Components.
- Swift™ Clamp locks anywhere on the Frame without releasing other clamps.

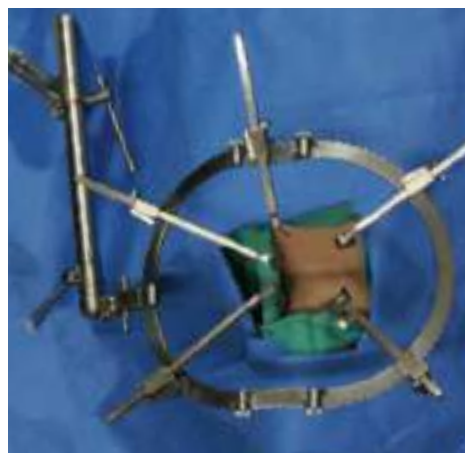
## Standard Components:

9881-11	Swift™ XL Table post with two clamps	
9881-12	Angled Side Bars	
9881-58	Angled, Hinged Cross Bar	
9881-70	Swift™ Universal Clamp	
9882-16XL	Mayo-Balfour Swivel Retractor 3 x 2 3/4 "	
9882-22XL	Mayo-Balfour Swivel Retractor 4 x 4 1/2 "	
9882-34XL	Fence Swivel Retractor 4 x 8"	
9882-48XL	Splanchnic Swivel Retractor 2 x 8 "	
9882-66XL	Deaver Swivel Retractor 3 x 8 "	
9882-88XL	Malleable Swivel Retr 2 x 6 1/4 "	
9882-90XL	Malleable Swivel Retr 2 x 8 "	
9882-92XL	Malleable Swivel Retr 3 x 6 1/4 "	
9882-94XL	Malleable Swivel Retr 3 x 8 "	
9882-96XL	Malleable Swivel Retr 4 x 8 "	
9883-44XL	Renal Vein Swivel Retractor 1 x 8 "	
9883-90L	Sternal Solid Retractors 2 x 1 1/2 "	

## Optional Components:

9881-50	Arm Extension with Clamp	
9881-76	Standard Clamp 3/8 x 1/2"	
9881-80	Flexible Fiber-optic Illuminator Tip	
9881-82	Fiberoptic Cable	
9881-94	XL Clamp Tray	
9881-96	XL Retractor Tray	
9883-35XL	Kelly Swivel Retractor 2 x 8-1/2"	

# Lahey Thyroid Retractor System



9900-25 Table Clamp with Vertical Post



9900-45 1" Post Clamp



9900-30 Horizontal Flex Bar

## 9900-90 Lahey Thyroid Retractor Set

Consisting of the following items:

	QTY	Width( inches)	Depth (inches)
9900-25 Table Clamp with Vertical Post	1	1" dia	
9900-30 Horizontal Flex Bar w/Universal Joint	1	1" dia	
9900-14 Segmented Ring, Small	1	8-1/2	12
9900-50 Tilting Blade Clamp	6		
9900-45 Post Clamp	1	1	
9900-80 Vein Retractor	1	1/2	1/2
9900-81 Thyroid Retractor, Small	1	1/4	1
9900-82 Thyroid Retractor, Medium	1	3/8	1-1/2
9900-83 Thyroid Retractor, Large	1	1/2	1-3/4
9900-84 Richardson Retractor, Wide	1	1-1/2	1-3/4
9900-85 Richardson Retractor, Narrow	1	3/4	2
9900-86 Richardson Retractor, Deep	1	1	1-1/2
9900-87 Green Ring Retractor	2	3/4	1-1/4
9900-88 Richardson Retractor, Small	2	3/4	1
9900-89 Richardson Retractor, Medium	2	1	2
9900-92 Sterilizing Tray	1		

\* Optional Item: 9900-55 Rotating Tilting Blade Clamp. Pictured at right.



9900-55 Rotating Tilting Blade Clamp



Vein Retractor and  
Thyroid Retractors



Green Ring  
Retractors

Vein and Thyroid Retractors:

- 9900-80 Vein Retractor, 1/2 width x 1/2" depth
- 9900-81 Thyroid Retractor, 1/4 width x 1" depth
- 9900-82 Thyroid Retractor, 3/8 width x 1-1/2" depth
- 9900-83 Thyroid Retractor, 1/2 width x 1-3/4" depth

Green Ring Retractors:

- 9900-87 Green Ring Retractor  
3/4 width x  
1-1/4" depth



Richardson  
Retractors

<u>Optional Blades:</u>	<u>Width:</u>	<u>Depth:</u>
9900-91 Richardson Retractor	1	1-3/4"
9900-93 Richardson Retractor	1	2-1/2"
9900-94 Richardson Retractor	1	1-1/4"

<u>Richardson Retractors:</u>	<u>Width:</u>	<u>Depth:</u>
9900-84 Richardson Retractor	1-1/2	1-3/4"
9900-85 Richardson Retractor	3/4	2"
9900-86 Richardson Retractor	1	1-1/2"
9900-88 Richardson Retractor	3/4	1"
9900-89 Richardson Retractor	1	2"

# Pro-Retractor™ Systems

- The Pro-Retractor™ System has 360 degrees of retraction to offer the ultimate exposure during abdominal and other procedures. The system assembles easily and connects (over the drape) to all O.R. tables using the post clamp attachment.
- Three ring sizes, oval, round or segmented, offer conformation to a wide range of patient sizes. A wide variety of blade configurations are also available.



9900-01 Pro-Retractor™ Kit I, AAA



9900-02 Pro-Retractor™ Kit II, ABD

## 9900-03 Pro-Retractor™ IMA Set

Consisting of:

1ea	9900-20	Table Clamp with Vertical Post
1ea	9900-35	Horizontal Solid Bar
1ea	9900-45	Post Clamp
1ea	9920-10	IMA Cross Bar
2ea	9920-20	IMA Retractor & Clamp Assembly
1ea	9900-75	Pro-Retractor IMA Instrument Case

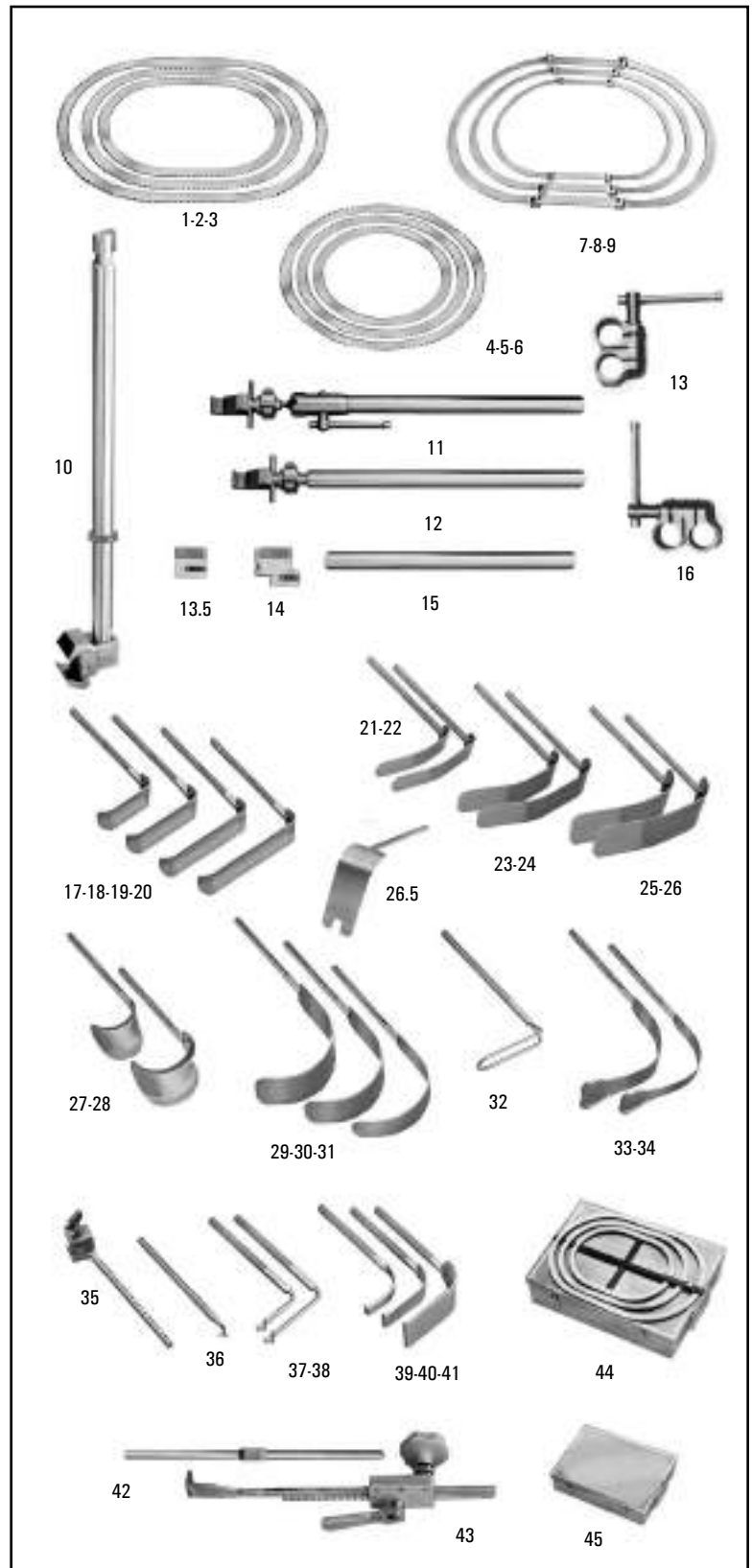


9900-03 Pro-Retractor™ IMA Set



9900-04 Pediatric- Small Incision Pro-Retractor™ Set

	9900-06	X Small Oval Ring	6 x 7 3/4"
1	9900-08	Small Oval Ring	8 1/2 x 12"
2	9900-10	Medium Oval Ring	10 1/2 x 15"
3	9900-12	Large Oval Ring	12 1/2 x 18 1/2"
4	9900-09	Small Round Ring	8 1/2"
5	9900-11	Medium Round Ring	10 1/2"
6	9900-13	Large Round Ring	12 1/2"
7	9900-14	Small Segmented Ring	8 1/2 x 12"
8	9900-15	Medium Segmented Ring	10 1/2 x 15"
9	9900-16	Large Segmented Ring	12 1/2 x 18 1/2"
10	9900-25	1" Table Clamp with Vertical Post	
11	9900-30	1" Horizontal Flex Bar w/ Universal Joint	
12	9900-35	1" Horizontal Solid Bar	
13	9900-45	1" Post Clamp	
13.5	9900-48	Standard Blade Clamp	
14	9900-50	Tilting Blade Clamp	
15	9900-32	1" Vertical Extension Bar (Fat bar)	
16	9900-33	1" Vertical Extension Bar Clamp	
17	9911-30	Small Kelly Retractor Blade	2 x 3"
18	9911-40	Medium Kelly Retractor Blade	2 x 4"
19	9911-50	Large Kelly Retractor Blade	2 x 5"
20	9911-60	XLarge Kelly Retractor Blade	2 x 6"
21	9912-16	Small Malleable Blade	1 1/2 x 6"
22	9912-18	Small Deep Malleable Blade	1 1/2 x 8"
23	9912-26	Medium Malleable Blade	2 x 6"
24	9912-28	Medium Deep Malleable Blade	2 x 8"
25	9912-36	Large Malleable Blade	3 x 6"
26	9912-38	Large Deep Malleable Blade	3 x 8"
26.5	9912-40	Notched Malleable Blade	2 x 6"
26.5	9912-42	Notched Malleable Blade	2 1/2 x 7"
27	9913-25	Small Balfour Blade	3 x 2 1/2"
28	9913-33	Large Balfour Blade	3 x 3 1/4"
29	9914-10	Deaver Retractor Blade	1 x 4 1/2"
30	9914-15	Deaver Retractor Blade	1 1/2 x 4 1/2"
31	9914-20	Deaver Retractor Blade	2 x 4 1/2"
32	9915-33	Balfour Lateral Blade	1 1/8 x 3 1/4"
33	9916-15	Harrington Blade, Small	1 1/2 x 5"
34	9916-25	Harrington Blade, Large	2 1/2 x 5"
35	9917-00	Hand Retractor Adaptor	
36	9917-50	Gelpi Retractor Blade	
37	9918-20	Scoville Hook	2" deep
38	9918-30	Deep Scoville Hook	3 1/4" deep
39	9919-10	Small Meyerding Blade	2 1/3 x 2 2/3"
40	9919-20	Medium Meyerding Blade	3 1/3 x 1"
41	9919-30	Large Meyerding Blade	3 3/4 x 2"
42	9920-10	IMA Cross Bar	
43	9920-20	IMA Retractor Blade & Clamp Assembly	
44	9900-70	Pro-Retractor Instrument Case	
45	9900-75	Pro-Retractor IMA Instrument Case	



New & Improved Rigid Table Clamp Design with Lock on top of vertical post!

# Pro-Retractor Kit I, AAA

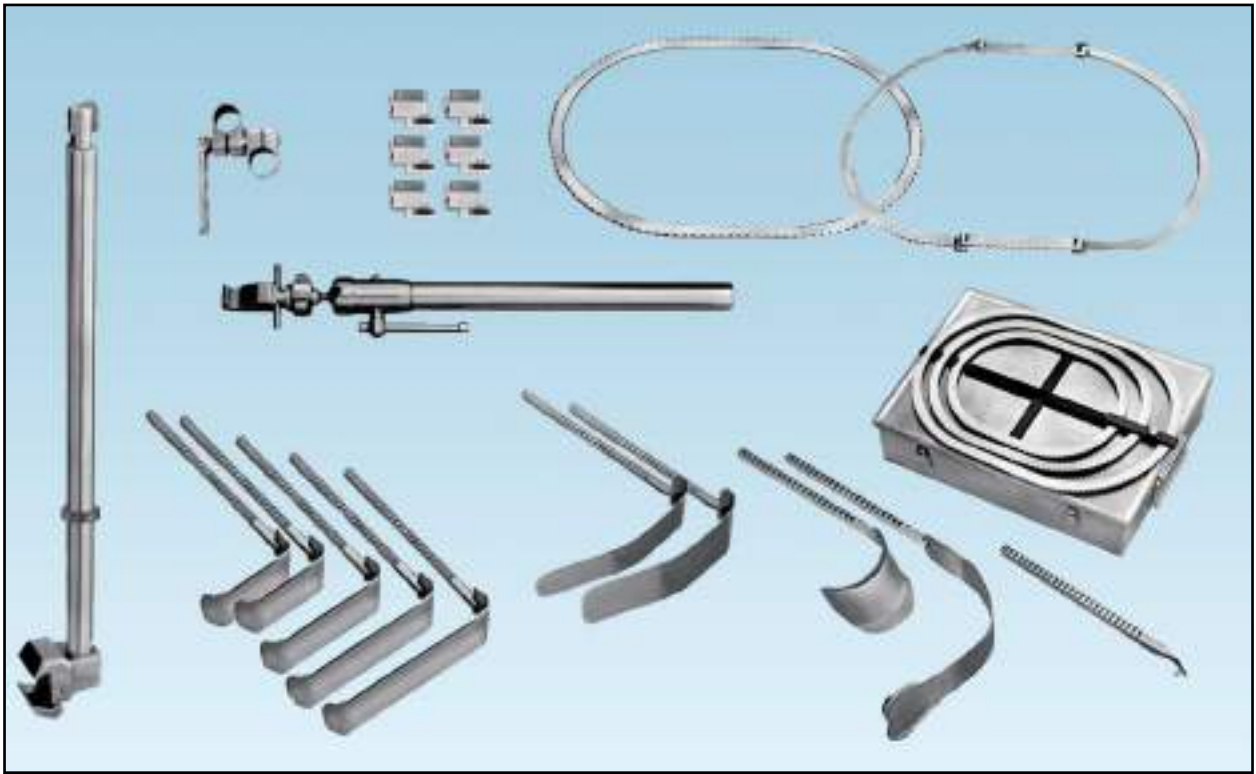


## 9900-01 Pro-Retractor™ Kit I, Abdominal Aortic Aneurysm Set

Includes the following items:

Item #:	Qty:	Description:	Size:
9900-08	1 ea	Small Oval Ring	8 <sup>1/2</sup> x15"
9900-10	1 ea	Medium Oval Ring	10 <sup>1/2</sup> x15"
9900-12	1 ea	Large Oval Ring	12 <sup>1/2</sup> x18 <sup>1/2</sup> "
9900-20	1 ea	Table Clamp with vertical post	(7/8" post diameter)
9900-30	1 ea	Horizontal Flex Bar	(with universal joint)
9900-45	1 ea	Post Clamp	
9900-50	4 ea	Tilting Blade Clamps	
9911-30	1 ea	Small Kelly Retractor Blade	2x3"
9911-40	1 ea	Medium Kelly Retractor Blade	2x4"
9912-26	1 ea	Medium Malleable Retractor Blade	2x6"
9912-28	1 ea	Medium Deep Malleable Retractor Blade	2x8"
9913-25	1 ea	Small Balfour Retractor Blade	3x2 <sup>1/2</sup> "
9900-70	1 ea	Pro-Retractor Instrument Case	Stainless Steel

# Pro-Retractor Kit II, ABD

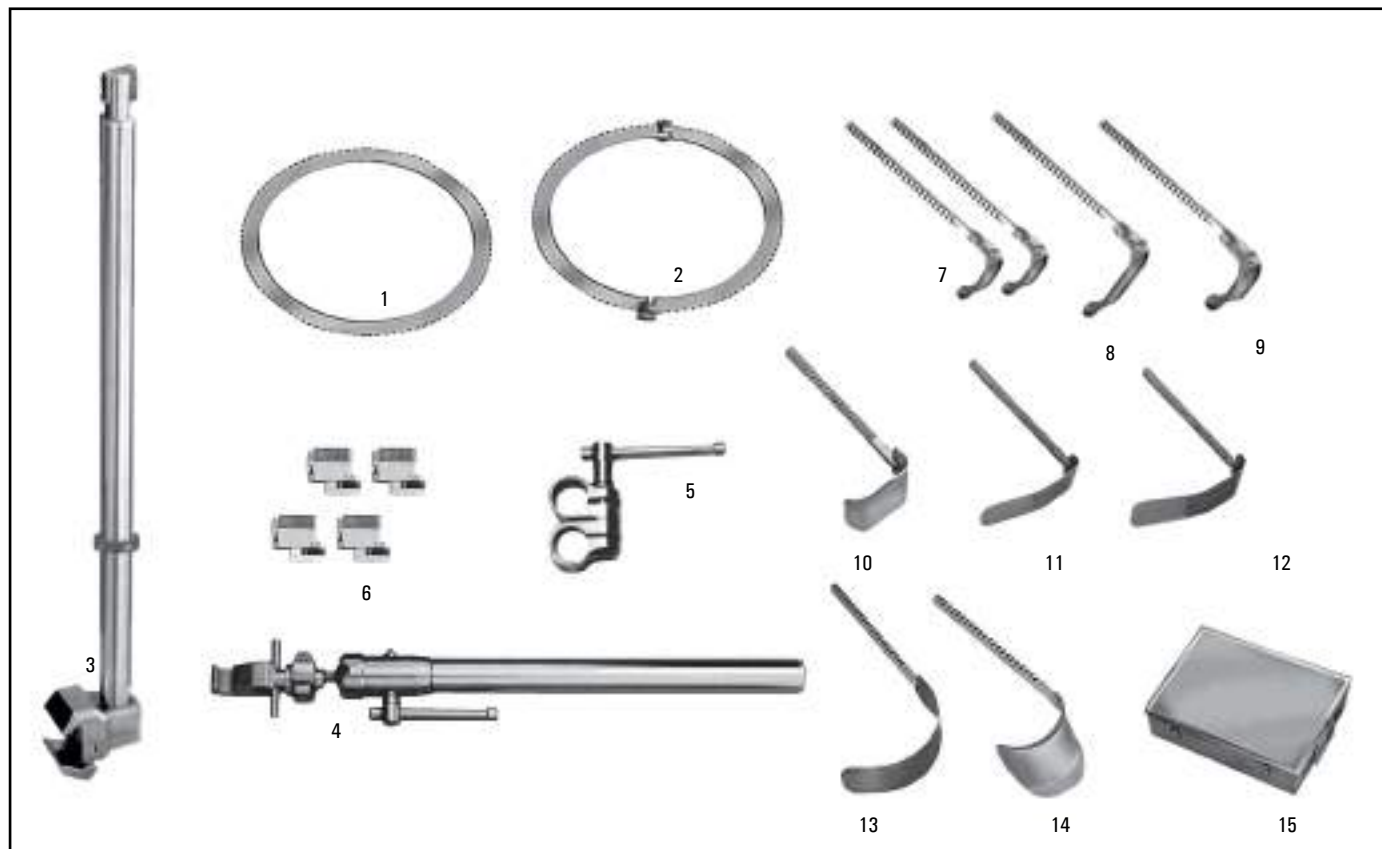


## 9900-02 Pro-Retractor™ Kit II, ABD (Abdominal) Set

Includes the following items:

Item #:	Qty:	Description:	Size:
9900-10	1 ea	Medium Oval Ring	10 <sup>1</sup> / <sub>2</sub> x15"
9900-15	1 ea	Medium Segmented Oval Ring	10 <sup>1</sup> / <sub>2</sub> x15"
9900-20	1 ea	Table Clamp with vertical post	(7/8" post diameter)
9900-30	1 ea	Horizontal Flex Bar	(with universal joint)
9900-45	1 ea	Post Clamp	
9900-50	6 ea	Tilting Blade Clamps	
9911-30	2 ea	Small Kelly Retractor Blade	2x3"
9911-40	1 ea	Medium Kelly Retractor Blade	2x4"
9911-50	1 ea	Large Kelly Retractor Blade	2x5"
9911-60	1 ea	XLarge Kelly Retractor Blade	2x6"
9912-16	1 ea	Small Malleable Retractor Blade	1 <sup>1</sup> / <sub>2</sub> x6"
9912-26	2 ea	Medium Malleable Retractor Blade	2x6"
9913-25	1 ea	Small Balfour Retractor Blade	3x2 <sup>1</sup> / <sub>2</sub> "
9916-25	1 ea	Large Harrington Blade	2 <sup>1</sup> / <sub>2</sub> x5"
9917-50	1 ea	Gelpi Retractor Blade	
9900-70	1 ea	Pro-Retractor Instrument Case	Stainless Steel

# Pediatric Pro-Retractor Set



*New! Improved Rigid Table Clamp Design with lock on top of vertical post!*

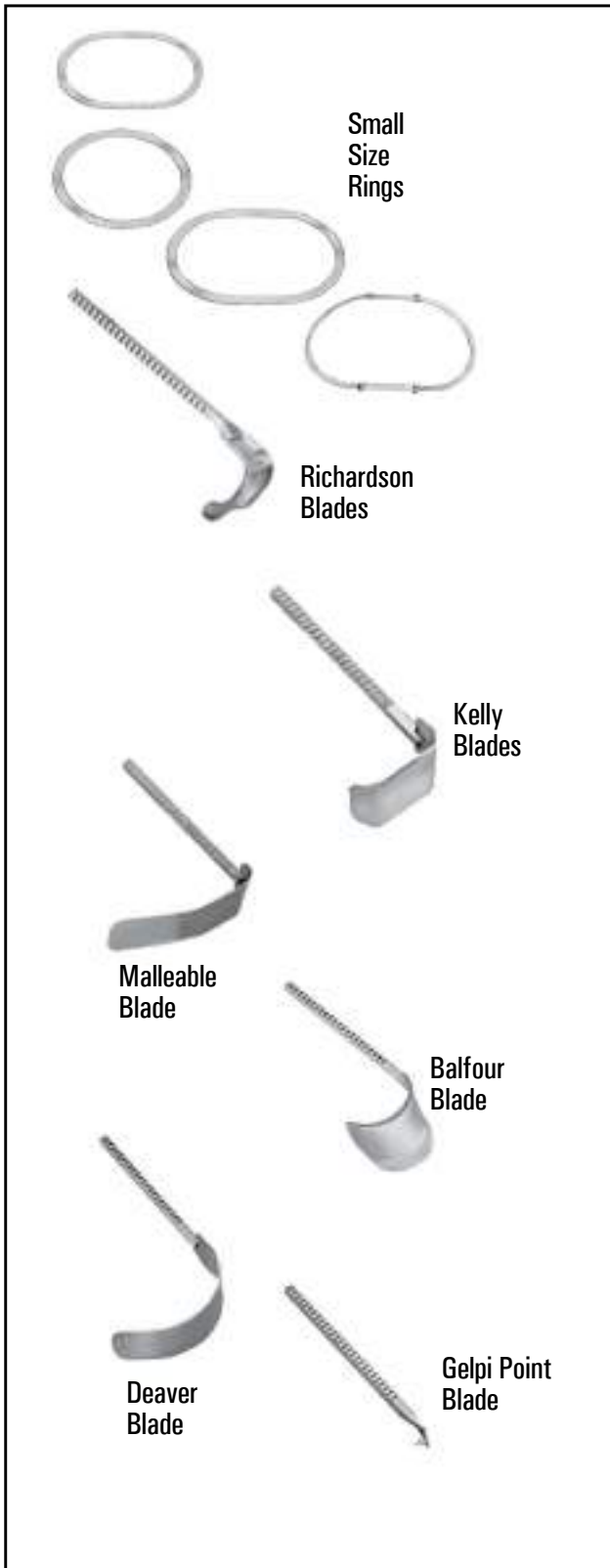
## 9900-04 Pediatric Pro-Retractor™ Set

Includes the following items:

1	9900-09	1 ea	8 1/2 ID Round Ring	8 1/2"
2	9900-18	1 ea	8 1/2 ID Round Segmented Ring	8 1/2"
3	9900-25	1 ea	1" Table Clamp with vertical post	(1" post diameter)
4	9900-30	1 ea	1" Horizontal Flex Bar	(with universal joint)
5	9900-45	1 ea	1" Post Clamp	
6	9900-50	4 ea	Tilting Blade Clamps	
7	9930-10	2 ea	Child Richardson Blade	3/4 x 1 "
8	9930-20	1 ea	Child Richardson Blade	3/4 x 2 "
9	9930-30	1 ea	Child Richardson Blade	1 x 1 1/2"
10	9932-20	1 ea	Child Kelly Blade	1 x 2 1/2"
11	9934-10	1 ea	Child Malleable Blade, Sm	1 1/2 x 4 3/4"
12	9934-15	1 ea	Child Malleable Blade, Lg	2 x 4 3/4"
13	9936-10	1 ea	Child Balfour Blade	2 1/4 x 1 1/2"
14	9938-10	1 ea	Child Deaver Blade, Sm	3/4 x 3 "
15	9900-92	1 ea	Pro-Retractor Stainless Steel Pediatric Instrument Case	

## Standard and Optional Accessories

\* Items printed black are included in the 9900-04 Set.



9900-06	Oval Ring, X Sml	6 x 7-3/4"
9900-07	7" ID Round Ring, X Sml	7"
9900-08	Small Oval Ring	8 1/2x12"
9900-14	Segmented Sm Oval Ring	8 1/2x12"

9930-10	Child Richardson Blade	3/4 x 1"
9930-20	Child Richardson Blade	3/4 x 2"
9930-30	Child Richardson Blade	1 x 1 1/2"
9930-40	Child Richardson Blade	1 1/8x1 1/4"
9930-50	Child Richardson Blade	1 x 2 1/2"
9930-60	Child Richardson Blade	1 1/2x1 1/2"
9930-70	Child Richardson Blade	1 5/8x2 1/2"

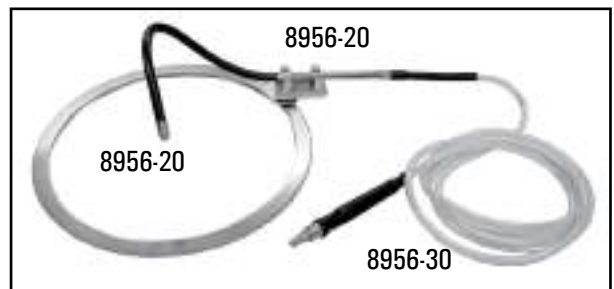
9932-10	Child Kelly Blade	1 x 1 1/2"
9932-20	Child Kelly Blade	1 x 2 1/2"
9932-30	Child Kelly Blade	2 x 2"
9932-40	Child Kelly Blade	2 x 2 1/2"
9932-50	Child Kelly Blade	2 x 3"
9932-60	Child Kelly Blade	2 x 4"

9934-10	Child Malleable Blade, Sm	1 1/2 x 4 3/4"
9934-15	Child Malleable Blade, Lg	2 x 4 3/4"

9936-10	Child Balfour Blade	2 1/4 x 1 1/2"
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9938-10	Child Deaver Blade, Sm	3/4 x 3"
9938-20	Child Deaver Blade, Lg	1 x 4"

9939-10	Child Gelpi Point Blade	
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### 8956-05 Fiber Optic Illumination Set

Consists of:

1 ea	8956-10	Flexible Fiber Optic Illumination Tip
1 ea	8956-20	Illuminator Ring Clamp
1 ea	8956-30	Fiber Optic Cable

*Koros Extra Long/Deep Instrument Set*



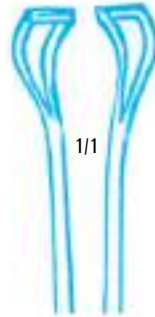


**9964-10**  
DeBakey Aneurysm Clamp



1/1

**9964-20**  
Babcock Tissue Forceps



**9964-30**  
Allis Tissue Forceps



1/1

**9964-40**  
Sponge Holding Forceps



**9950-00 Koros Extra Long/Deep Instrument Set**

Consisting of:

- 9952-10 1 ea Metzenbaum Scissors with TC Blades, 12"
- 9952-20 1 ea Mayo-Harrington Scissors with TC Blades, 11"
- 9952-30 1 ea Strong Curved Scissors, 11"
- 9952-40 1 ea Pott-DeBakey Scissors, 11", 25 degrees
- 9954-20 1 ea DeBakey Vascular Tissue Forceps, 12"
- 9954-10 1 ea Tissue Forceps, 12"
- 9956-10 2 ea Mayo Hegar Needle Holders with TC Inserts, Straight, 12"
- 9956-20 2 ea Heaney Needle Holders with TC Inserts, Curved, 12"
- 9958-10 2 ea Heaney-Ballentine Forceps, 12", Single Tooth, Straight
- 9958-20 3 ea Alexander-Heaney Forceps, 12", Single Tooth, Curved
- 9958-30 1 ea Alexander-Heaney Forceps, 12", Single Tooth, Strong Curved
- 9958-40 1 ea Alexander-Heaney Forceps, 12", Double Teeth, Curved
- 9958-50 1 ea Alexander-Heaney Forceps, 12", Double Teeth, Strong Curved
- 9960-10 2 ea Rochester Peon Forceps, Straight, 12"
- 9960-20 2 ea Rochester Peon Forceps, Curved, 12"
- 9960-30 2 ea Oshner/Kocher Forceps, Straight, 12"
- 9960-40 2 ea Oshner/Kocher Forceps, Curved, 12"
- 9960-50 2 ea Rochester-Calmart Forceps, Curved, 12"
- 9962-10 2 ea Kantrowitz Type Right Angle Forceps, 11"
- 9962-20 2 ea DeBakey Mixer, 11"
- 9964-10 1 ea DeBakey Aneurysm Clamp, 12"
- 9964-20 2 ea Babcock Tissue Forceps, 12"
- 9964-30 2 ea Allis Tissue Forceps, 12"
- 9964-40 2 ea Sponge Holding Forceps, 12"
- 9966-10 1 ea Koros Abdominal Suction Tube, 15"
- 9968-50 1 ea Instrument Sterilizing Tray 16x10x3 inches

**9966-10**  
Koros Abdominal  
Suction Tube



**9968-50**  
Instrument Sterilizing  
Tray  
16x10x3 inches





[9952-10](#)  
Metzenbaum Scissors  
with TC Blades, 12"



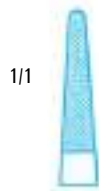
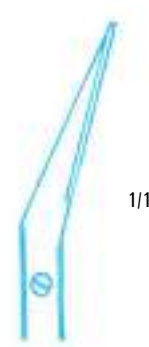
[9952-20](#)  
Mayo-Harrington Scissors  
with TC Blades, 11"



[9952-30](#)  
Strong Curved Scissors, 11"



[9952-40](#)  
Pott-DeBakey Scissors,  
11", 25 degrees



[9956-10](#)  
Mayo Hegar Needle Holders with TC  
Inserts, (Straight jaw) 12"



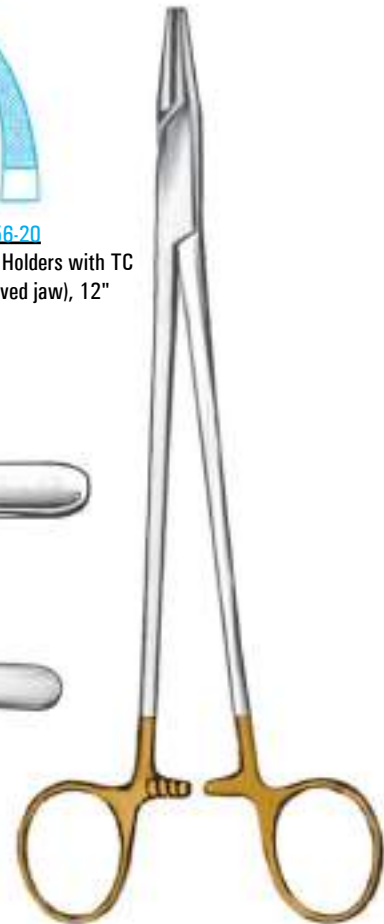
[9956-20](#)  
Heaney Needle Holders with TC  
Inserts, (Curved jaw), 12"



[9954-20](#)  
DeBakey Vascular Tissue  
Forceps, 12"



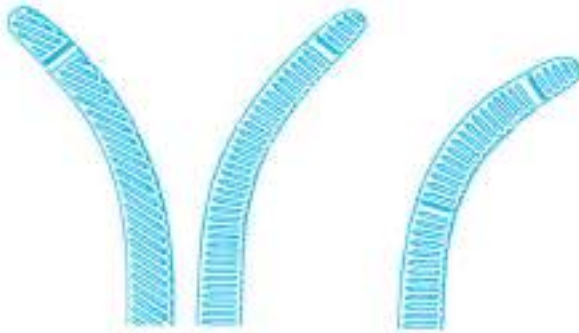
[9954-10](#)  
Tissue Forceps, 12"



1/1



[9958-10](#)  
Heaney-Ballentine Forceps,  
12", Single Tooth, Straight



0 deg right - 45 deg left  
side serration  
[9958-20](#)  
Alexander-Heaney Forceps,  
12", Single Tooth, Curved

[9958-30](#)  
Alexander-Heaney Forceps, 12",  
Single Tooth, Strong Curved

[9958-40](#)  
Alexander-Heaney Forceps,  
12", Double Teeth, Curved

[9958-50](#)  
Alexander-Heaney Forceps,  
12", Double Teeth,  
Strong Curved



1/1



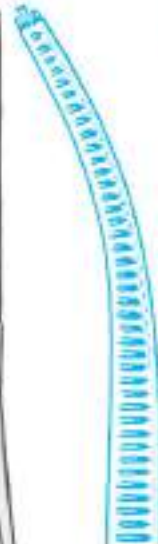
[9960-10](#)  
Rochester Peon  
Forceps, Straight,  
12"



[9960-20](#)  
Rochester Peon  
Forceps, Curved,  
12"

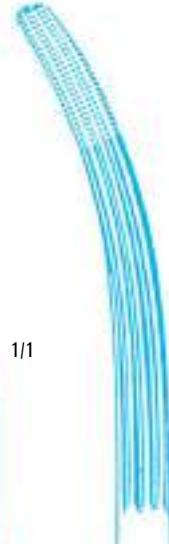


[9960-30](#)  
Oshner/Kocher  
Forceps, Straight,  
12"



[9960-40](#)  
Oshner/Kocher  
Forceps, Curved, 12"

1/1



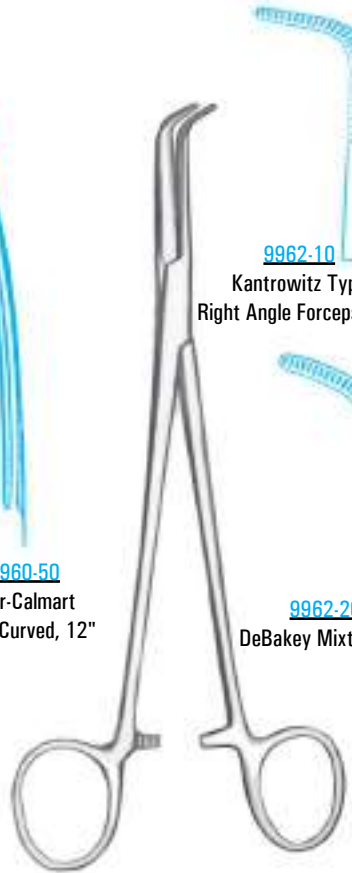
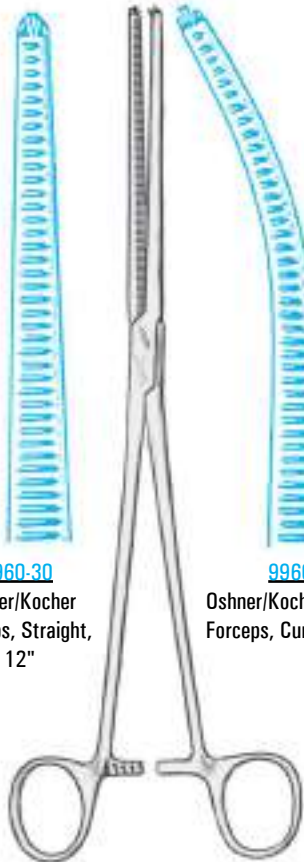
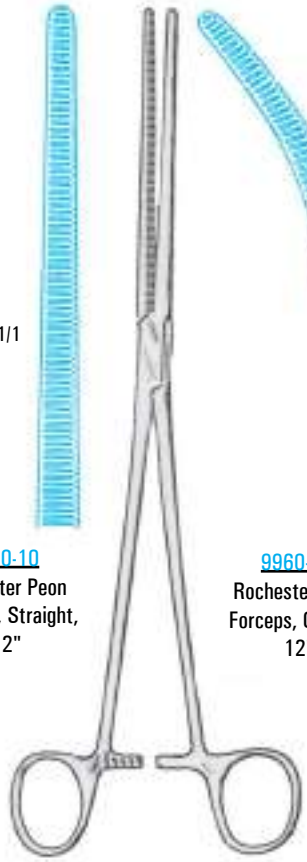
[9960-50](#)  
Rochester-Calmart  
Forceps, Curved, 12"



[9962-10](#)  
Kantrowitz Type  
Right Angle Forceps, 11"



[9962-20](#)  
DeBakey Mixer, 11"

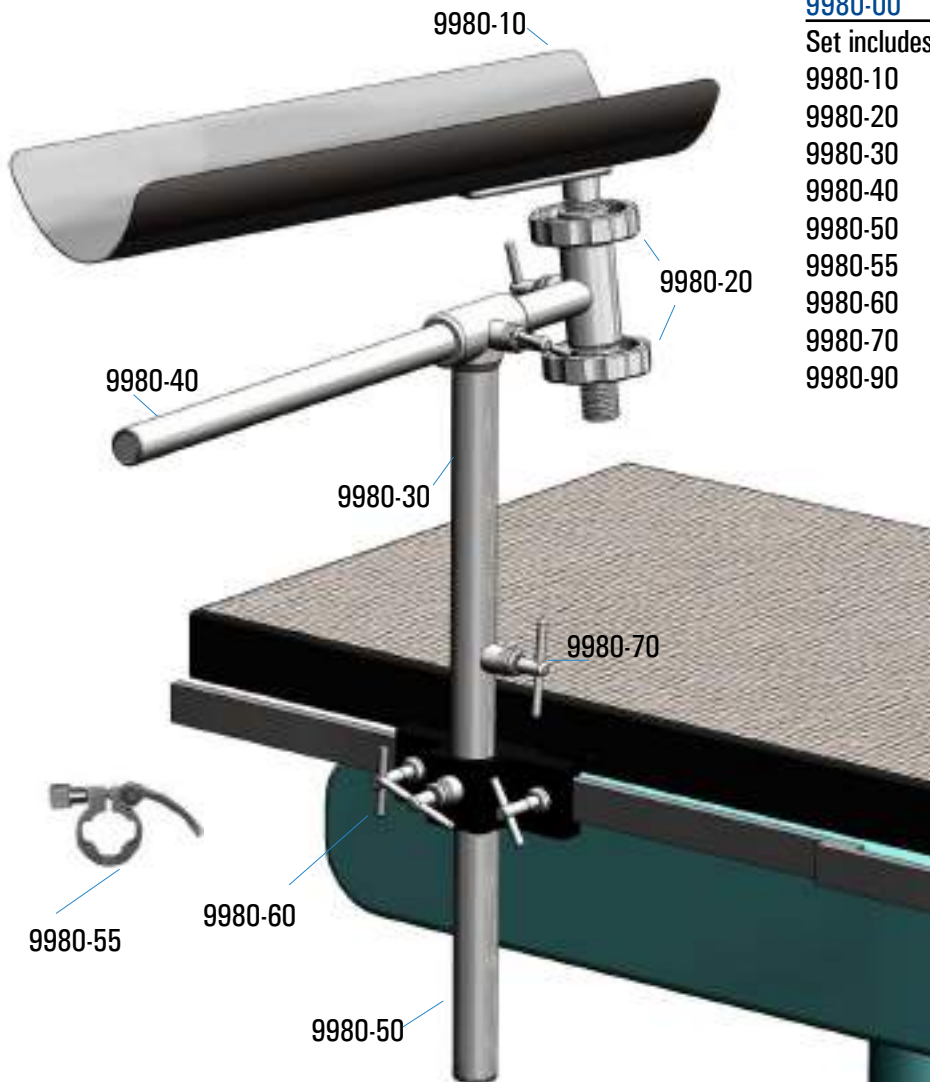


## *UC First Rib Machleder Type Arm Rest/Retractor for Transaxillary Procedure*



- Unique multi-positioning device can be mounted on either side of the surgery table.
- Position arm rest plate for Transaxillary procedures.
- Unit is Steam Sterilizable for convenience.

# UC First Rib Machleder Type Arm Rest/Retractor

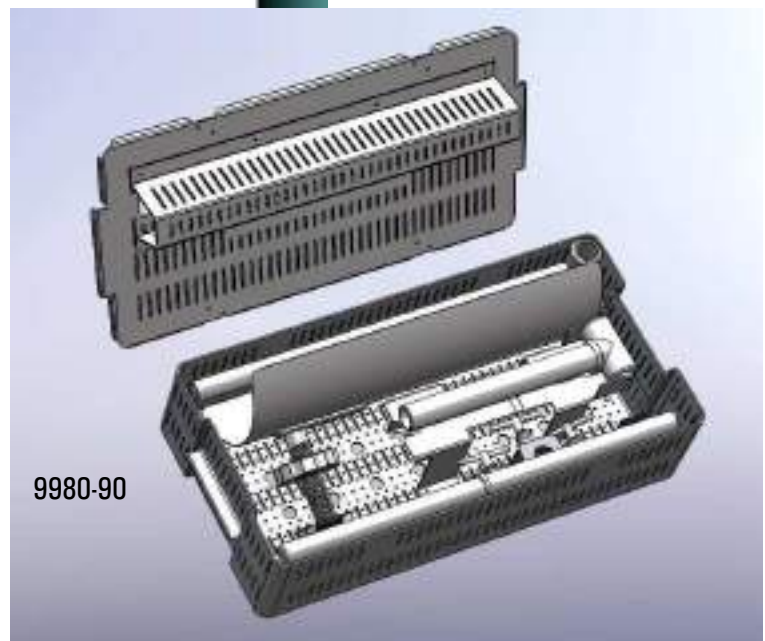


## 9980-00 Mackleder Style Retractor/Arm Rest

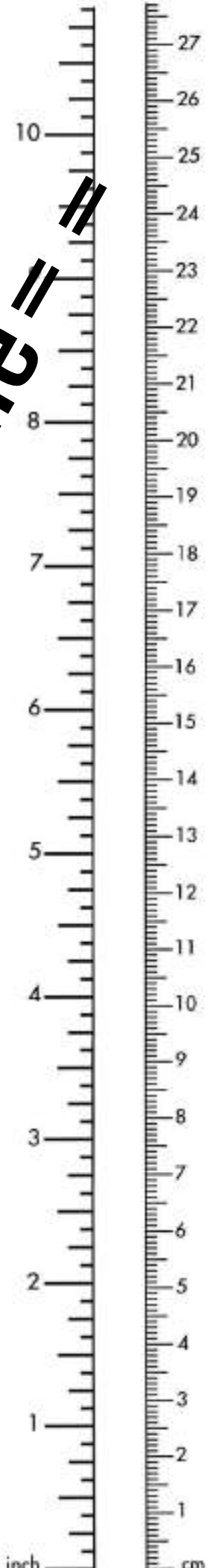
Set includes the following items:

9980-10	1 ea	Arm Rest
9980-20	2 ea	Positioning Rings
9980-30	1 ea	Vertical T-Bar
9980-40	1 ea	Horizontal T-Bar, 20"
9980-50	1 ea	Clamp Post, 20"
9980-55	1 ea	Table Ring Clamp
9980-60	1 ea	3 Lock Table Clamp
9980-70	6 ea	Tube T-Lock Bar (wing nut)
9980-90	1 ea	Sterilizable Instrument Case

Optional:  
 9980-70E 3 ea Replacement Tube T-Lock Bar  
 (wing nut)



== Separate COVER file ==





Separate COVER file

Koros USA, Inc.

610 Flinn Avenue  
Moorpark, California 93021

Phone: (805) 529-0825

Fax: (805) 529-2955