

## Micro Scissors



### Round Handle Scissors

|         |          |                 |
|---------|----------|-----------------|
| 7010-10 | Straight | 7-1/4", 18.5 cm |
| 7010-20 | Curved   | 7-1/4", 18.5 cm |
| 7010-30 | Angular  | 7-1/4", 18.5 cm |



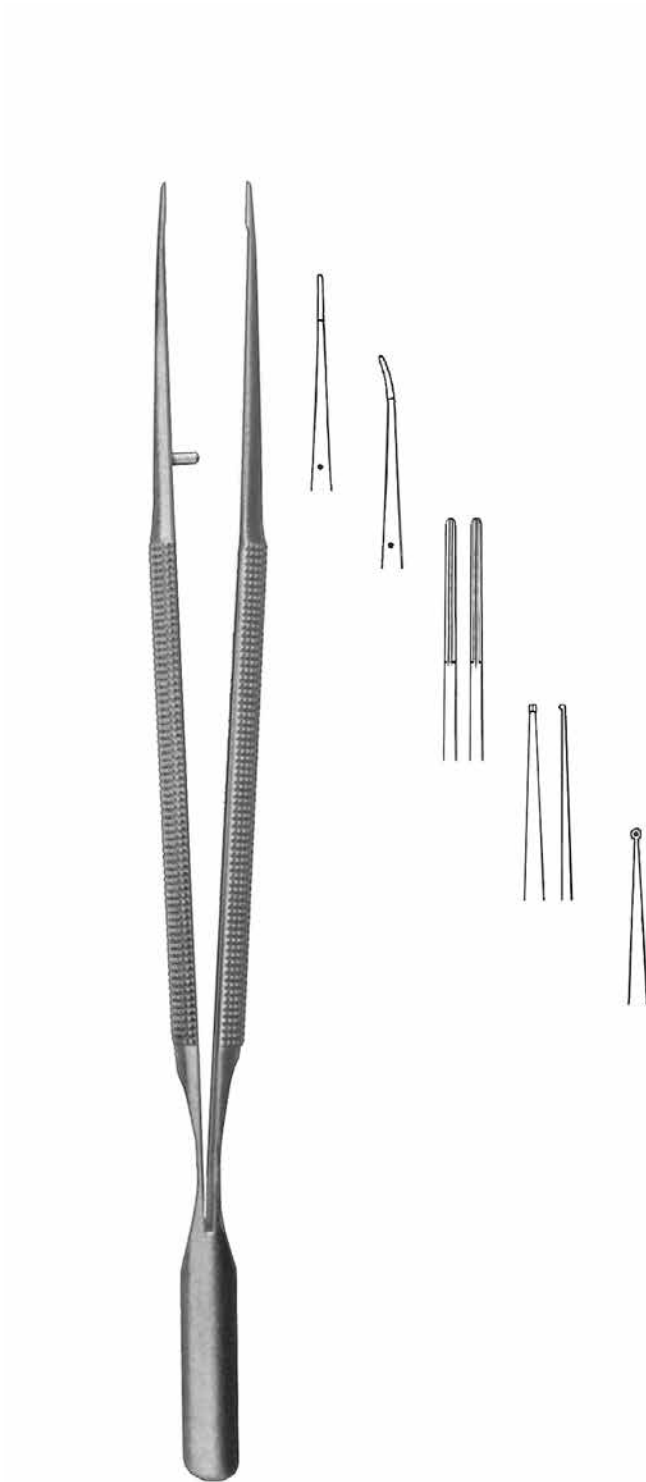
### Flat Handle Scissors

|         |          |                 |
|---------|----------|-----------------|
| 7012-10 | Straight | 7-1/4", 18.5 cm |
| 7012-20 | Curved   | 7-1/4", 18.5 cm |
| 7012-30 | Angular  | 7-1/4", 18.5 cm |



### Yasargil Bayonet Scissors

|         |                |             |
|---------|----------------|-------------|
| 7014-10 | Straight       | 9", 22.5 cm |
| 7014-20 | Curved         | 9", 22.5 cm |
| 7014-30 | Micro Straight | 9", 22.5 cm |
| 7014-40 | Micro Curved   | 9", 22.5 cm |



## Round Handle Micro Forceps

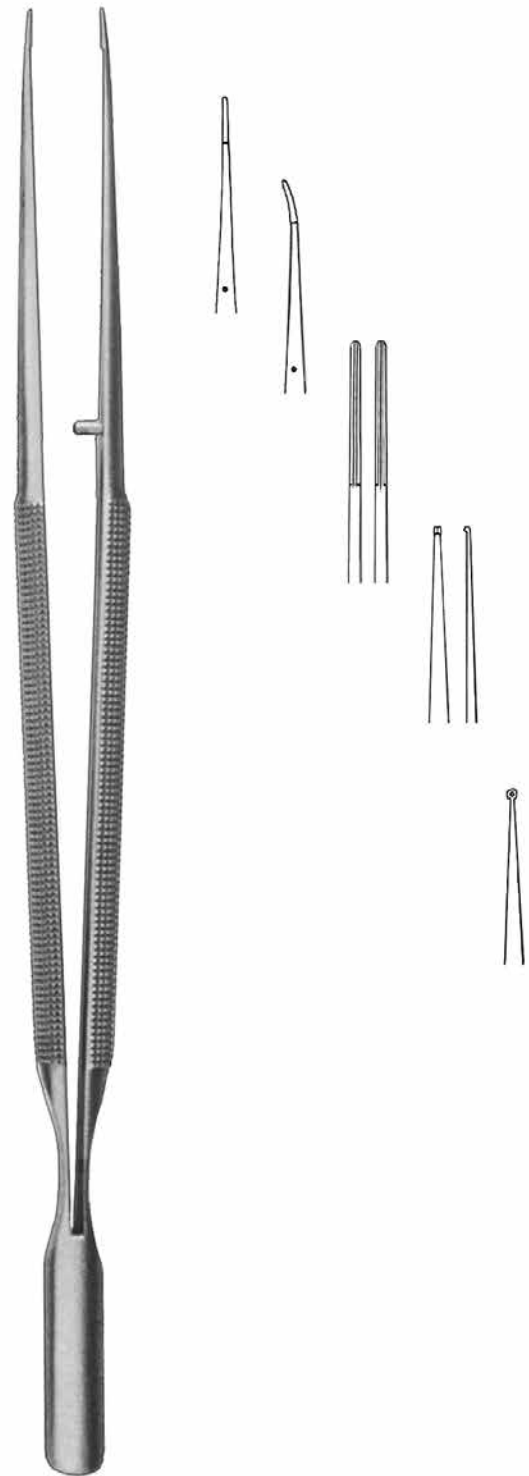
|         |                                |               |
|---------|--------------------------------|---------------|
| 7030-10 | Micro Tungsten Grip, Straight, | 7", 17.5 cm   |
| 7030-20 | Micro Tungsten Grip, Curved    | 7", 17.5 cm   |
| 7030-60 | Micro Tungsten Grip, Straight  | 8-1/4", 21 cm |
| 7030-70 | Micro Tungsten Grip, Curved    | 8-1/4", 21 cm |

## 0.3 mm x 1x2 Teeth Micro Forceps

|         |          |             |
|---------|----------|-------------|
| 7030-40 | Straight | 7", 17.5 cm |
|---------|----------|-------------|

## Ring Tip Micro Forceps

|         |                     |             |
|---------|---------------------|-------------|
| 7030-50 | Micro Tungsten Grip | 7", 17.5 cm |
|---------|---------------------|-------------|



## Delicate Micro DeBakey Forceps

|         |                           |               |
|---------|---------------------------|---------------|
| 7030-80 | 1.2 mm wide tip, Straight | 8-1/4", 21 cm |
| 7030-30 | 1.2 mm wide tip           | 7", 17.5 cm   |

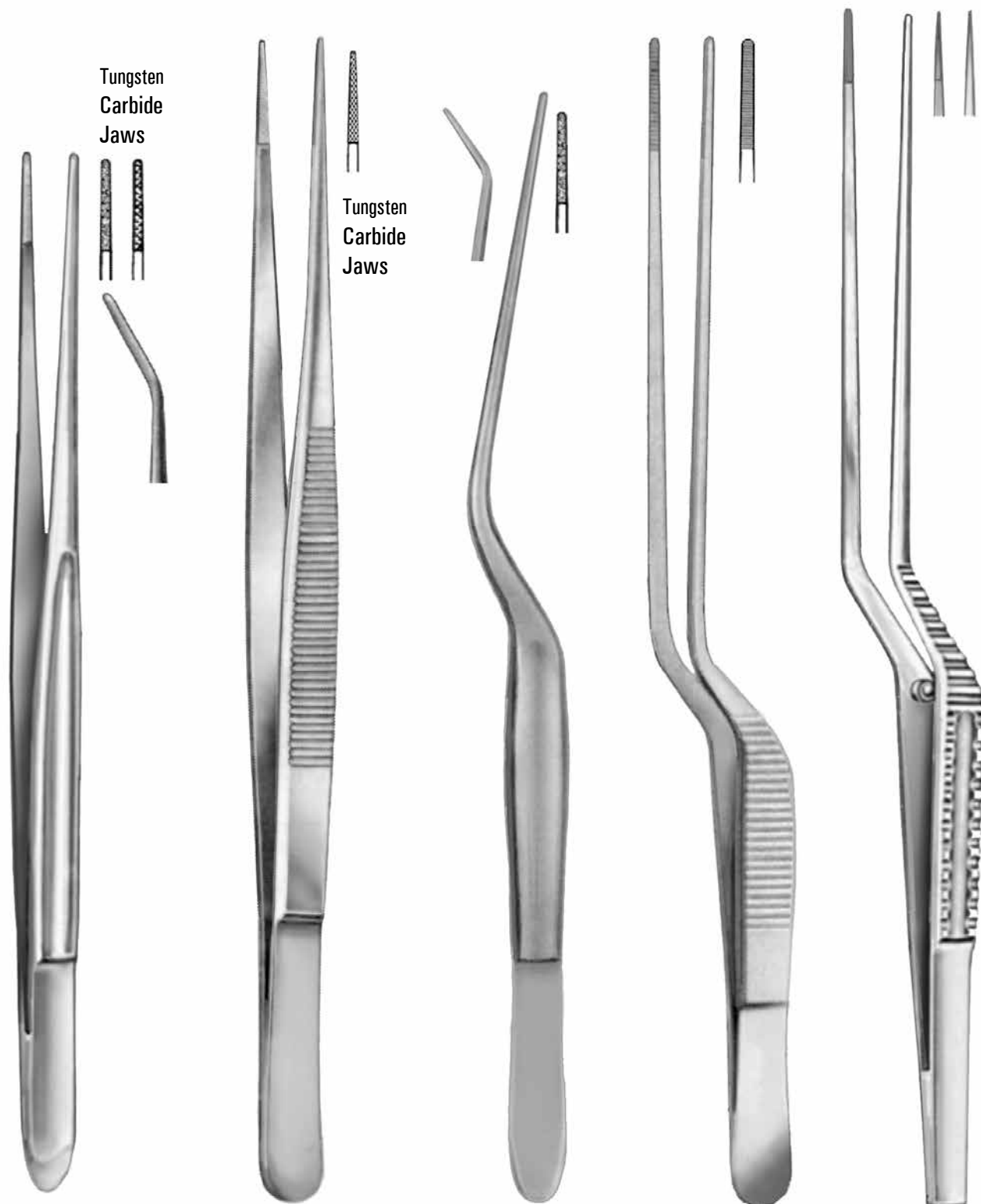
## 0.3 mm x 1x2 Teeth Micro Forceps

|         |          |               |
|---------|----------|---------------|
| 7030-90 | Straight | 8-1/4", 21 cm |
|---------|----------|---------------|

## Ring Tip Micro Forceps

|         |                     |               |
|---------|---------------------|---------------|
| 7030-95 | Micro Tungsten Grip | 8-1/4", 21 cm |
|---------|---------------------|---------------|

# Tissue Forceps



## Cushing Forceps

### Micro Tungsten Grip Jaws

|         |            |         |
|---------|------------|---------|
| 7035-05 | Straight   | 17.5 cm |
| 7035-10 | Angled Tip |         |

### Tungsten Carbide Jaws

|         |            |         |
|---------|------------|---------|
| 7035-15 | Straight   | 17.5 cm |
| 7035-20 | Angled Tip |         |

## Reul Type Forceps

### Micro TC Jaws

|         |              |         |
|---------|--------------|---------|
| 7035-25 | 1.6 mm wide, | 20.5 cm |
|---------|--------------|---------|

## Bayonet Forceps

### Micro Tungsten Grip Jaws

|         |          |       |
|---------|----------|-------|
| 7035-30 | Straight | 19 cm |
| 7035-35 | 40deg    | 19 cm |

## Jensen Forceps

|         |        |       |
|---------|--------|-------|
| 7035-40 | Length | 18 cm |
| 7035-45 | Length | 21 cm |

## Yasargil Forceps

|         |       |         |
|---------|-------|---------|
| 7035-50 | Blunt | 22.5 cm |
| 7035-55 | Sharp | 22.5 cm |

# Stainless Steel & Titanium Bipolar Electro Forceps

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

### **Insulated & Irrigating Titanium**

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

### **Insulated & Irrigating Stainless Steel**

|                  |             |                          |            |           |
|------------------|-------------|--------------------------|------------|-----------|
| <b>7044-50 I</b> | 17.5 cm 7 " | Cushing-Scoville Bayonet | 1.5 mm Tip | Insulated |
| <b>7044-60 I</b> | 20.5 cm 8 " | Hardy Type Bayonet       | 0.5 mm Tip | Insulated |



### Bipolar Forceps, Insulated, Stainless Steel

|          |        |                                |            |
|----------|--------|--------------------------------|------------|
| 7042-42I | 30 cm, | Colibri Bipolar Electro Forcep | 1.8 mm Tip |
|----------|--------|--------------------------------|------------|

## **Monopolar Forceps**

### **Insulated Stainless Steel**

|                |             |                           |           |           |
|----------------|-------------|---------------------------|-----------|-----------|
| <b>7045-10</b> | 17.8 cm 7 " | Monopolar Bayonet Forceps | 1.8mm Tip | Insulated |
| <b>7045-20</b> | 20.5 cm 8 " | Monopolar Bayonet Forceps | 1.8mm Tip | Insulated |
| <b>7045-45</b> | 10 ft       | Monopolar Cable           |           |           |



# Bipolar Forceps, Stainless Steel

## Stainless Steel Bipolar Forceps

| Insulated |         |         |                      |        |                | Non-Insulated |  |
|-----------|---------|---------|----------------------|--------|----------------|---------------|--|
| 7042-10 I | 18.6 cm | 7 3/8 " | Cushing-Scoville     | 2.0 mm | Tip            |               |  |
| 7042-15 I | 18.6 cm | 7 3/8 " | Cushing-Scoville     | 1.0 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     | 1.0 mm | Tip            |               |  |
| 7042-35 I | 22 cm   | 8 3/4 " | Hardy Bayonet        | 0.5 mm | Tip            |               |  |
| 7044-40 I | 10.3 cm | 4 "     | Adson Delicate       | 1.0 mm | Tip            |               |  |
| 7042-45 I | 18 cm   | 7 1/4 " | Wide Handle Yasargil | 0.8 mm | Tip            | 7042-45       |  |
| 7042-50 I | 20.5 cm | 8 1/4 " | Wide Handle Yasargil | 0.8 mm | Tip            | 7042-50       |  |
| 7042-55 I | 20.5 cm | 8 1/4 " | Yasargil Bayonet     | Micro  | Fine Blunt Tip | 7042-55       |  |
| 7042-60 I | 20.5 cm | 8 1/4 " | Yasargil Bayonet     | Micro  | Sharp Tip      | 7042-60       |  |



## Titanium Bipolar Forceps

| Insulated  |         |         |                    |         |            | Non-Insulated |  |
|------------|---------|---------|--------------------|---------|------------|---------------|--|
| 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            | 1.0 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 "     | Delicate Gerald    | 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 Needle Holders



## Micro Needle Holders

### Micro Tungsten Grip Jaws- MTG

|         |               |         |
|---------|---------------|---------|
| 7050-05 | Straight Jaws | 14 cm   |
| 7050-10 | Straight Jaws | 15.5 cm |
| 7050-20 | Straight Jaws | 17.5 cm |
| 7050-30 | Straight Jaws | 20 cm   |
| 7050-35 | Straight Jaws | 23 cm   |
| 7050-40 | Straight Jaws | 26 cm   |
| 7050-45 | Curved Jaws   | 14 cm   |
| 7050-50 | Curved Jaws   | 15.5 cm |
| 7050-60 | Curved Jaws   | 17.5 cm |
| 7050-70 | Curved Jaws   | 20 cm   |
| 7050-75 | Curved Jaws   | 23 cm   |
| 7050-80 | Curved Jaws   | 26 cm   |
| 7050-90 | Tapered Jaws  | 23 cm   |



## Ryder Needle Holders

### Micro Tungsten Grip Jaws-MTG

|         |               |       |
|---------|---------------|-------|
| 7055-10 | Straight Jaws | 15 cm |
| 7055-20 | Straight Jaws | 17 cm |
| 7055-30 | Straight Jaws | 20 cm |

## Titanium Ryder Needle Holders

### Micro Tungsten Grip Jaws- MTG

|          |               |       |
|----------|---------------|-------|
| 7055-10T | Straight Jaws | 15 cm |
|----------|---------------|-------|



## Round Handle Needle Holders

### Micro Tungsten Grip Jaws-MTG

|         |          |       |
|---------|----------|-------|
| 7060-10 | Straight | 15 cm |
| 7060-20 | Curved   | 15 cm |
| 7060-30 | Straight | 19 cm |
| 7060-40 | Curved   | 19 cm |
| 7060-50 | Straight | 21 cm |
| 7060-60 | Curved   | 21 cm |
| 7060-70 | Straight | 24 cm |
| 7060-80 | Curved   | 24 cm |



## Castroviejo Type Needle Holders

### Micro Tungsten Grip Jaws- MTG

|         |          |         |
|---------|----------|---------|
| 7062-06 | Straight | 18 cm   |
| 7062-08 | Curved   | 18 cm   |
| 7062-10 | Straight | 19.5 cm |
| 7062-20 | Curved   | 19.5 cm |
| 7062-30 | Straight | 21 cm   |
| 7062-40 | Curved   | 21 cm   |
| 7062-50 | Straight | 23.5 cm |
| 7062-55 | Curved   | 23.5 cm |
| 7062-60 | Curved   | 25.5 cm |
| 7062-65 | Straight | 25.5 cm |



## Jacobson Type Needle Holder

Micro Tungsten Grip

|         |          |                 |
|---------|----------|-----------------|
| 7064-10 | Straight | 7-3/4", 19.5 cm |
| 7064-20 | Curved   | 7-3/4", 19.5 cm |
| 7064-30 | Straight | 8-1/4", 21 cm   |
| 7064-40 | Curved   | 8-1/4", 21 cm   |



## Yasargil Type Needle Holder

Micro Tungsten Grip

|         |          |                 |
|---------|----------|-----------------|
| 7066-10 | Straight | 8-3/4", 22.5 cm |
| 7066-20 | Curved   | 8-3/4", 22.5 cm |



## Reverse Action Micro Needle Holder

Micro Tungsten Grip Jaws

|         |          |               |
|---------|----------|---------------|
| 7068-10 | Straight | 8-1/4", 21 cm |
| 7068-20 | Curved   | 8-1/4", 21 cm |

## Scissors & Needle Holders



**Mayo Scissors TC**

|         |          |         |
|---------|----------|---------|
| 7080-10 | Straight | 15.5 cm |
| 7080-20 | Curved   | 15.5 cm |
| 7080-30 | Straight | 17 cm   |
| 7080-40 | Curved   | 17 cm   |
| 7080-50 | Straight | 23 cm   |
| 7080-60 | Curved   | 23 cm   |



**Metzenbaum Scissors TC**

|         |          |       |
|---------|----------|-------|
| 7082-10 | Straight | 14 cm |
| 7082-20 | Curved   | 14 cm |
| 7082-30 | Straight | 18 cm |
| 7082-40 | Curved   | 18 cm |
| 7082-50 | Straight | 23 cm |
| 7082-60 | Curved   | 23 cm |



**Super-Sharp Scissors**

|         |       |
|---------|-------|
| 7084-18 | 18 cm |
| 7084-23 | 23 cm |
| 7084-26 | 26 cm |



**Mayo-Hegar Needle Holders**

Tungsten Carbide Jaws

|         |          |         |
|---------|----------|---------|
| 7090-15 | Straight | 15.5 cm |
| 7090-18 | Straight | 18 cm   |
| 7090-20 | Straight | 20.5 cm |
| 7090-23 | Straight | 23 cm   |



**Crile-Wood Needle Holders**

TC Jaws

|         |          |         |
|---------|----------|---------|
| 7092-15 | Straight | 15.5 cm |
| 7092-18 | Straight | 18 cm   |
| 7092-20 | Straight | 20.5 cm |
| 7092-23 | Straight | 23 cm   |



**DeBakey Needle Holders**

TC Jaws

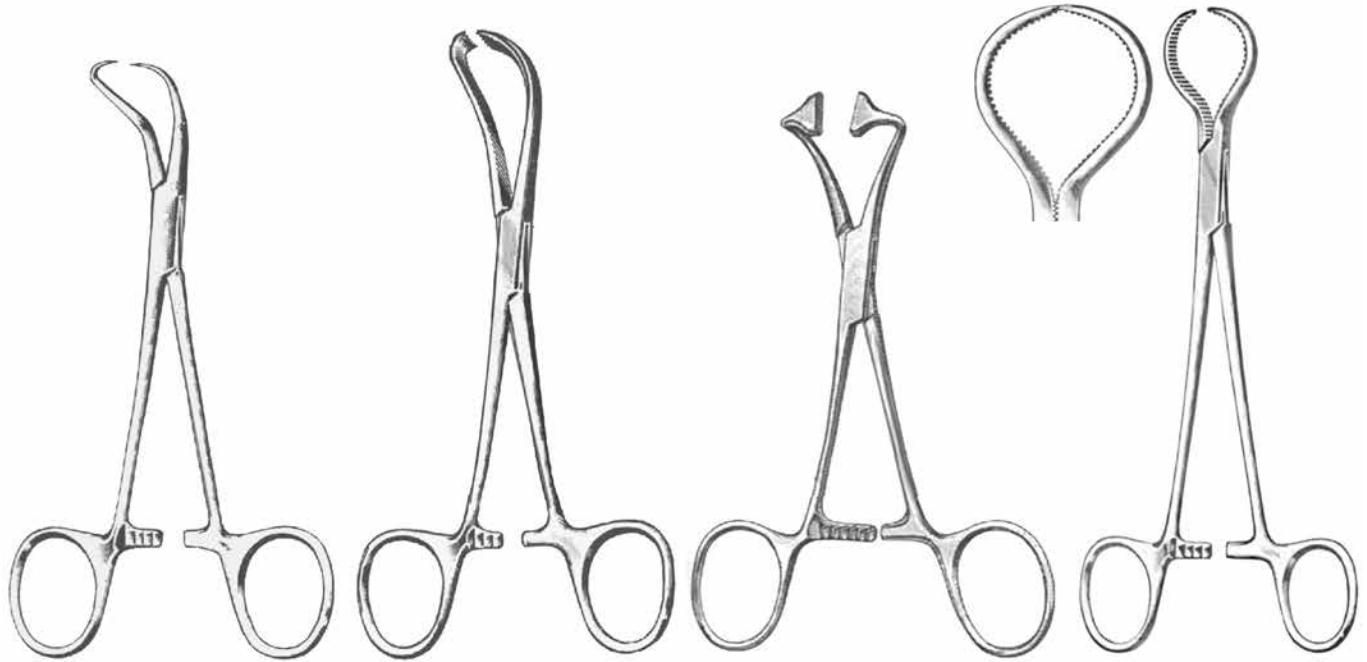
|         |          |         |
|---------|----------|---------|
| 7094-15 | Straight | 15.5 cm |
| 7094-18 | Straight | 18 cm   |
| 7094-20 | Straight | 20.5 cm |
| 7094-23 | Straight | 23 cm   |



**Ryder Needle Holders**

TC Jaws

|         |          |         |
|---------|----------|---------|
| 7096-15 | Straight | 15.5 cm |
| 7096-18 | Straight | 18 cm   |
| 7096-20 | Straight | 20.5 cm |
| 7096-23 | Straight | 23 cm   |



## Backhaus Towel Forceps

|         |         |      |
|---------|---------|------|
| 7200-10 | 8.75 cm | long |
| 7200-20 | 13.5 cm | long |

## Edna Towel Forceps

|         |       |      |
|---------|-------|------|
| 7200-30 | 10 cm | long |
| 7200-40 | 14 cm | long |

## Towel Forceps

|         |         |      |
|---------|---------|------|
| 7200-50 | 10 cm   | long |
| 7200-60 | 13.5 cm | long |

## Lewin Bone Clamp

|         |       |
|---------|-------|
| 7202-10 | 18 cm |
|---------|-------|



## Babcock Tissue Forceps

|         |           |         |
|---------|-----------|---------|
| 7205-05 | Small Tip | 13.5 cm |
| 7205-10 | Med Tip   | 15.5 cm |
| 7205-15 | Med Tip   | 18.5 cm |
| 7205-20 | Med Tip   | 20 cm   |
| 7205-25 | Med Tip   | 24 cm   |

## Halsted Mosquito Forceps

|         |          |       |
|---------|----------|-------|
| 7205-30 | Straight | 13 cm |
| 7205-35 | Curved   | 13 cm |

## Kelly Forceps

|         |          |       |
|---------|----------|-------|
| 7205-40 | Straight | 14 cm |
| 7205-45 | Curved   | 14 cm |

## Allis Tissue Forceps

|         |           |       |
|---------|-----------|-------|
| 7205-50 | 4x5 teeth | 15 cm |
| 7205-55 | 5x6 teeth | 15 cm |
| 7205-60 | 5x6 teeth | 19 cm |

## Crile Forceps

|         |          |         |
|---------|----------|---------|
| 7205-65 | Straight | 14 cm   |
| 7205-70 | Curved   | 14 cm   |
| 7205-75 | Straight | 15.5 cm |
| 7205-80 | Curved   | 15.5 cm |

## Forceps & Suctions



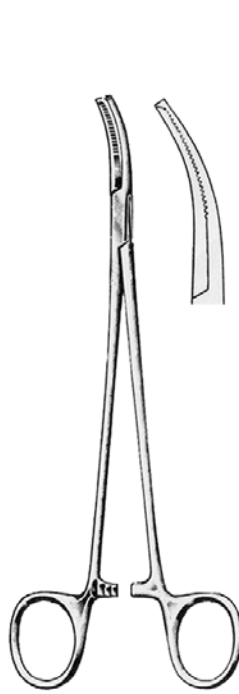
### **Oshner Forceps**

|         |          |         |
|---------|----------|---------|
| 7210-05 | Straight | 15.5 cm |
| 7210-15 | Straight | 18.5 cm |



### **Bridge Forceps**

|         |          |       |
|---------|----------|-------|
| 7210-25 | Straight | 18 cm |
| 7210-30 | Curved   | 18 cm |



### **Preston Flavum Forceps**

|         |        |       |
|---------|--------|-------|
| 7210-35 | Length | 18 cm |
|---------|--------|-------|



### **Mixer Forceps**

|         |         |      |
|---------|---------|------|
| 7210-40 | 16.5 cm | long |
| 7210-45 | 18 cm   | long |
| 7210-50 | 21 cm   | long |
| 7210-55 | 23 cm   | long |



### **Baron Suction Tube**

|                 |          |
|-----------------|----------|
| Working Length: | 10 cm    |
| 7215-03         | 3 French |
| 7215-05         | 5 French |



### **Suction Cannula**

|         |             |
|---------|-------------|
| 7215-25 | 3 mm Tip,   |
|         | 24 cm       |
| 7215-30 | 4.2 mm Tip, |
|         | 24 cm       |



### **Suction Tube**

|                    |                |
|--------------------|----------------|
| With Thumb Control |                |
| 7215-16            | 6 French 18 cm |
| 7215-20            | 7 French 18 cm |
| 7215-35            | 7 French 23 cm |



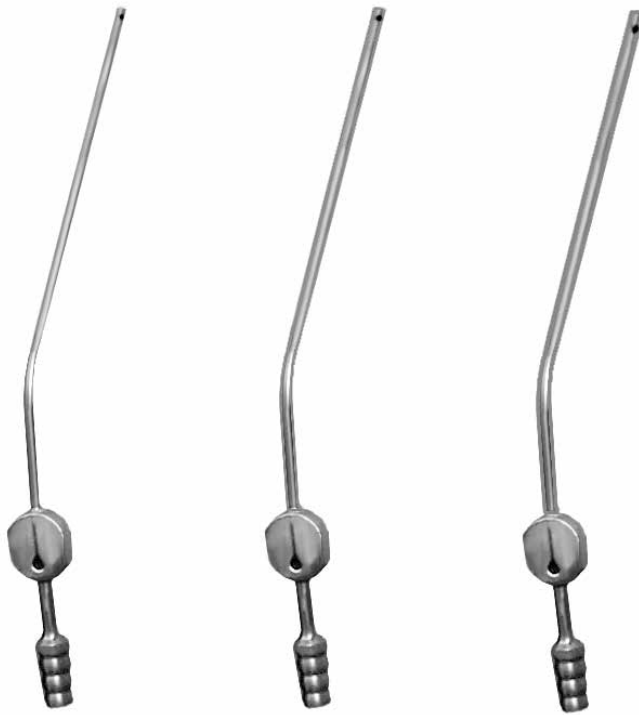
### **Adson Suction Tube**

|                    |                  |
|--------------------|------------------|
| With Thumb Control |                  |
| 7215-40            | 4 mm tube, 13 cm |
| 7215-45            | 5 mm tube, 20 cm |



### **Ferguson-Frazier Suction**

|                           |           |
|---------------------------|-----------|
| With Thumb Control, 18 cm |           |
| 7215-50                   | 8 French  |
| 7215-55                   | 9 French  |
| 7215-60                   | 10 French |
| 7215-65                   | 12 French |
| 7215-70                   | 14 French |



## Tear Drop Control Suction Tube

21 cm full length, two cross relief holes located at tip, tear drop adjustable control.

|         |           |         |
|---------|-----------|---------|
| 7216-05 | 5 French  | Suction |
| 7216-07 | 7 French  | Suction |
| 7216-09 | 9 French  | Suction |
| 7216-12 | 12 French | Suction |



## Modified Deep Frasier Suction Tube

23.5 cm, 9" overall length

|         |           |              |
|---------|-----------|--------------|
| 7217-19 | 7 French  | Suction Tube |
| 7217-20 | 8 French  | Suction Tube |
| 7217-22 | 9 French  | Suction Tube |
| 7217-24 | 10 French | Suction Tube |
| 7217-26 | 12 French | Suction Tube |
| 7217-28 | 14 French | Suction Tube |



## Suctions 14 Fr

|         |                         | Length         |
|---------|-------------------------|----------------|
| 7218-18 | Black Tear Drop Suction | 24 cm, 9 1/2 " |
| 7218-20 | Clear Tear Drop Suction | 24 cm, 9 1/2 " |

## Guarded Suction



### Guarded Cervical Suction Tube with Cleaning Stylette

24.5 cm, 9 3/4" overall length

|         |                                     |                            |
|---------|-------------------------------------|----------------------------|
| 7218-30 | Cervical Suction Tube 4.5 mm width, | 16.5 cm depth with cleaner |
| 7218-40 | Cervical Suction Tube 8 mm width,   | 16.5 cm depth with cleaner |



### Guarded Lumbar Suction Tube with Cleaning Stylette

32 cm, 13" overall length

|         |                                     |                         |
|---------|-------------------------------------|-------------------------|
| 7218-50 | Lumbar Suction Tube 4.5 mm width,   | 22cm depth with cleaner |
| 7218-60 | Lumbar Suction Tube Tip 8 mm width, | 22cm depth with cleaner |

## Fukushima-Type Tapered Suction



### Fukushima Type Tip:

|                | Small   | Medium  | Large   | X-Large |
|----------------|---------|---------|---------|---------|
| Working Length |         | 115mm   | 140mm   | 165mm   |
| Total Length   | 165mm   | 180mm   | 205mm   | 230mm   |
| 3 Fr           | 7219-01 | 7219-09 | 7219-17 | 7219-25 |
| 4 Fr           | 7219-02 | 7219-10 | 7219-18 | 7219-26 |
| 5 Fr           | 7219-03 | 7219-11 | 7219-19 | 7219-27 |
| 6 Fr           | 7219-04 | 7219-12 | 7219-20 | 7219-28 |
| 7 Fr           | 7219-05 | 7219-13 | 7219-21 | 7219-29 |
| 8 Fr           | 7219-06 | 7219-14 | 7219-22 | 7219-30 |
| 9 Fr           | 7219-07 | 7219-15 | 7219-23 | 7219-31 |
| 12 Fr          | 219-08  | 7219-16 | 7219-24 | 7219-32 |

## Nerve Root & Hand Retractors

### 7220-40 Spondylophyte Impaction Set

Consists of 1 each of the following:

|         |                                          |           |
|---------|------------------------------------------|-----------|
| 7220-05 | Bayonet Suction Retractor                | 10 mm tip |
| 7220-30 | 90 deg Suction Retractor                 | 8 mm tip  |
| 7222-05 | 90 deg T Impactor                        | 6x12 mm   |
| 7222-10 | 90 deg L Offset Impactor                 | 6x12 mm   |
| 7222-30 | Dissector Perforator                     | 13 mm     |
| 7220-50 | Sterilizing Case for up to 5 instruments |           |



#### Hand Retractor

|         |                       | Handle | Blade Length | Blade Width |
|---------|-----------------------|--------|--------------|-------------|
| 7233-60 | Ti blade Retractor 1  | 10 cm  | 13 cm        | 13 mm       |
| 7233-62 | Ti blade Retractor 2  | 14 cm  | 17 cm        | 9 mm        |
| 7233-64 | Ti blade Retractors 3 | 14 cm  | 17 cm        | 13 mm       |
| 7233-66 | Ti blade Retractors 4 | 14 cm  | 17 cm        | 18 mm       |



#### Nerve Root Retractor

|         |                      | Tip    | Length |
|---------|----------------------|--------|--------|
| 7233-54 | Nerve Root Retractor | 6.5 mm | 18 cm  |
| 7233-56 | Nerve Root Retractor | 11 mm  | 18 cm  |

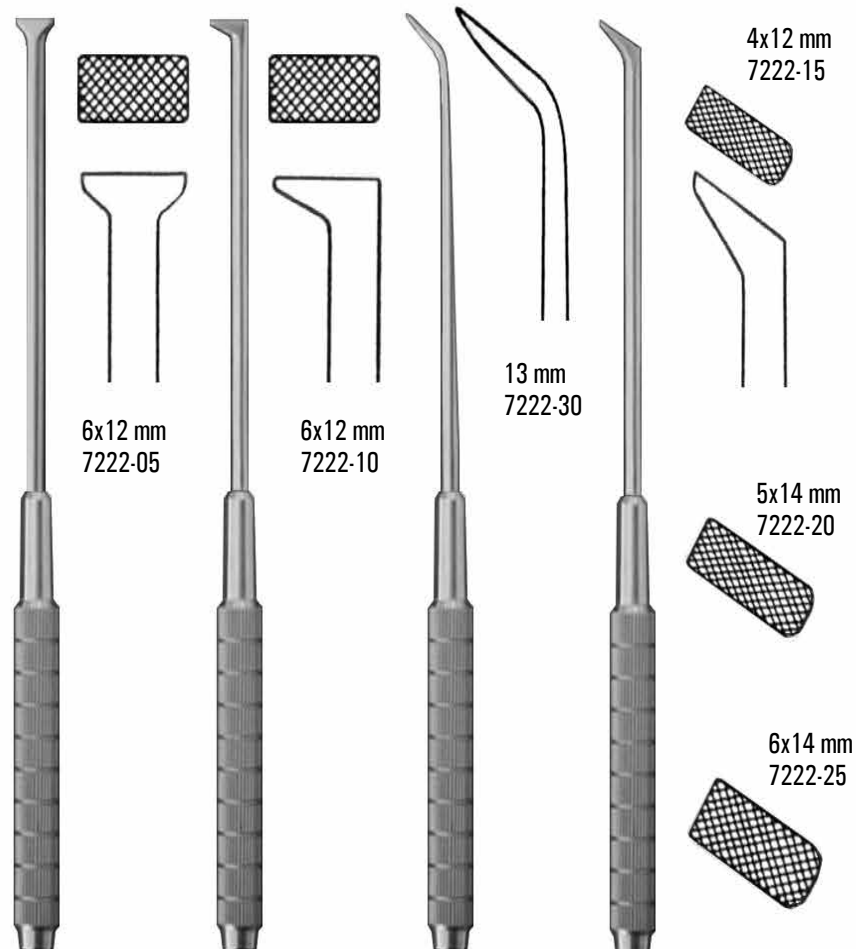
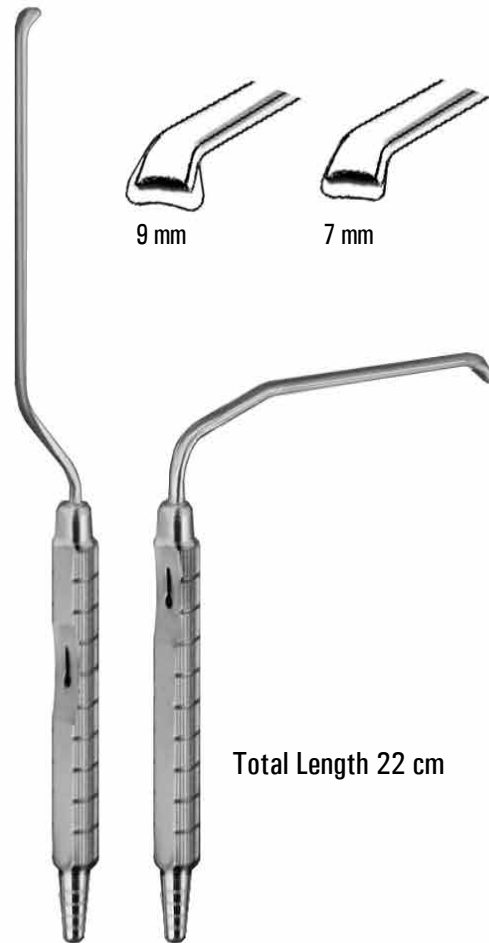
## Suction Retractors, Bone Graft Drivers

### Lumbar & Cervical Suction Retractors

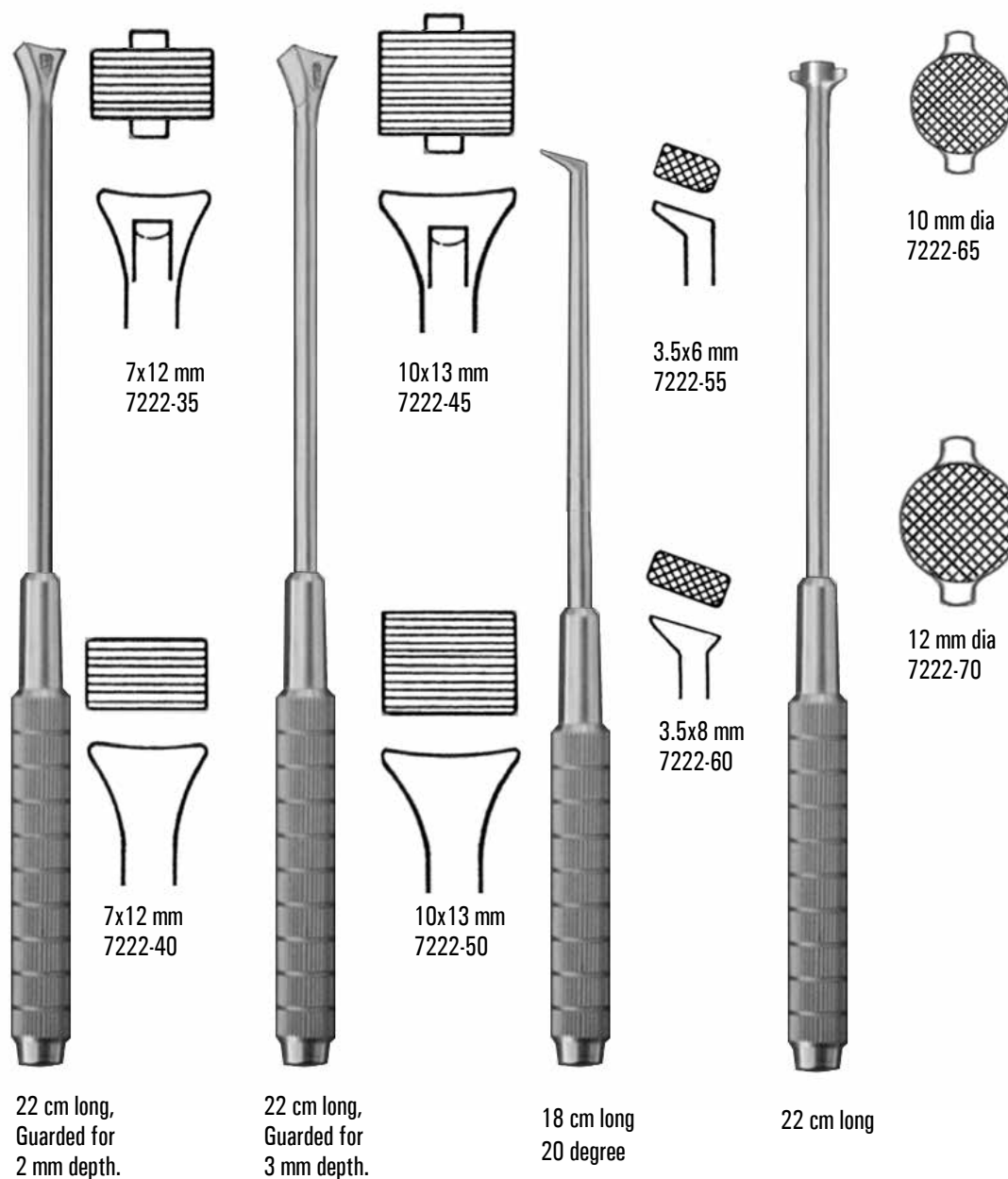
|         |                                 | Tip  | Working Length |
|---------|---------------------------------|------|----------------|
| 7220-05 | Bayonet Suction Retractor       | 9 mm | 12 cm          |
| 7220-10 | Bayonet Suction Retractor       | 7 mm | 12 cm          |
| 7220-15 | 90 deg Suction                  | 9 mm | 12 cm          |
| 7220-20 | 90 deg Suction                  | 7 mm | 12 cm          |
| 7220-25 | 90 deg Suction                  | 9 mm | 15 cm          |
| 7220-30 | 90 deg Suction                  | 7 mm | 15 cm          |
| 7220-35 | Suction Retractor Cleaning Wire |      |                |

### Impactors

|         |                          |         |
|---------|--------------------------|---------|
| 7222-05 | 90 deg T Impactor        | 6x12 mm |
| 7222-10 | 90 deg L Offset Impactor | 6x12 mm |
| 7222-15 | 30 deg Offset Impactor   | 4x12 mm |
| 7222-20 | 30 deg Offset Impactor   | 5x14 mm |
| 7222-25 | 30 deg Offset Impactor   | 6x14 mm |
| 7222-30 | Dissector Perforator     | 6x14 mm |



## Graft Drivers, Impactors



### Cervical and Lumbar Bone Graft Drivers

#### Micro Impactors

|         |                                  |          |
|---------|----------------------------------|----------|
| 7222-35 | Cervical Graft Driver, Guarded   | 7x12 mm  |
| 7222-40 | Cervical Graft Driver, Unguarded | 7x12 mm  |
| 7222-45 | Lumbar Graft Driver, Guarded     | 10x13 mm |
| 7222-50 | Lumbar Graft Driver, Unguarded   | 10x13 mm |

|         |                                |          |
|---------|--------------------------------|----------|
| 7222-55 | Cervical Micro Angled Impactor | 3.5x6 mm |
| 7222-60 | Cervical Micro Impactor        | 3.5x8 mm |
| 7222-65 | Bone Graft Driver, Guarded     | 10 mm    |
| 7222-70 | Bone Graft Driver, Guarded     | 12 mm    |

## Graft Drivers, Impactors

### Comfort Plus Bone Graft Drivers

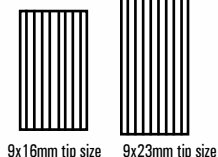
|               |                        |
|---------------|------------------------|
| Length        | 11", 28 cm             |
| Handle Length | 15 cm, 2.4 cm diameter |

|         |                  |                 |
|---------|------------------|-----------------|
| 7223-10 | Impactor, Small  | 3.5x8 mm tip    |
| 7223-20 | Impactor, Medium | 4.6x10 mm tip   |
| 7223-30 | Impactor, Large  | 4.8x12.5 mm tip |
| 7223-40 | Offset Impactor  | 8x15 mm tip     |
| 7223-50 | Round Impactor   | 4.5 mm tip      |
| 7223-60 | Round Impactor   | 12.5 mm tip     |

7223-10 7223-20 7223-30 7223-40 7223-50 7223-60

10x14

15x19.5



### Bone Impactors

| Length  | Tip Size            |
|---------|---------------------|
| 7224-10 | 5 x 11.5 mm 10-1/4" |
| 7224-20 | 6 x 12 mm 10-1/4"   |
| 7224-30 | 9 x 12 mm 10-1/4"   |

### 7224-50 Round Bone Impactor Set

| Length 10" | Tip Size |
|------------|----------|
|------------|----------|

Consists of 1 each of the following items:

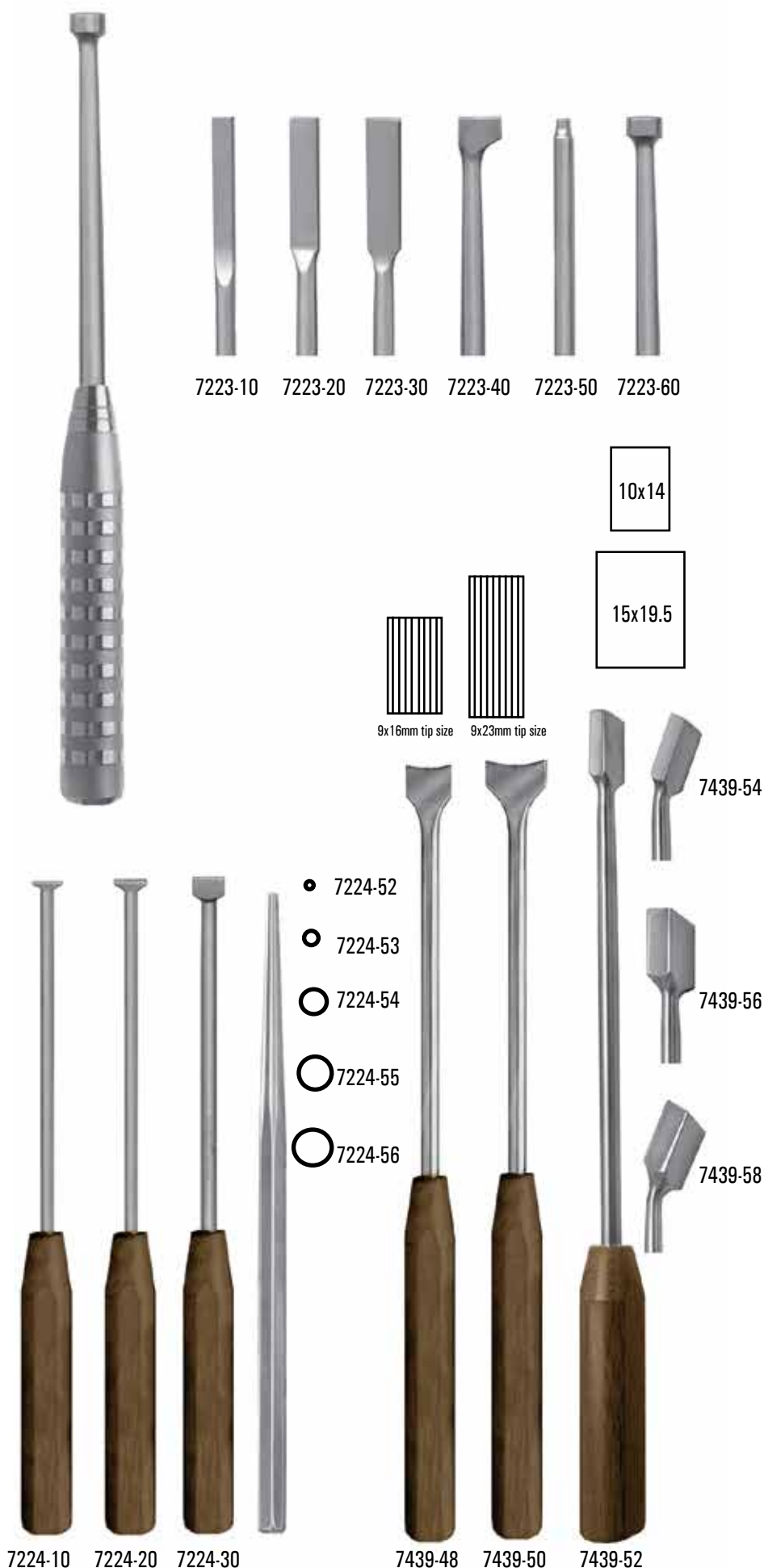
|         |                     |        |
|---------|---------------------|--------|
| 7224-52 | Round Bone Impactor | 2 mm   |
| 7224-53 | Round Bone Impactor | 3 mm   |
| 7224-54 | Round Bone Impactor | 4.5 mm |
| 7224-55 | Round Bone Impactor | 6 mm   |
| 7224-56 | Round Bone Impactor | 7.5 mm |

### Anterior Bone Impactor

| Length  | Tip Size               |
|---------|------------------------|
| 7439-48 | 9x16 mm 13-1/2", 34 cm |
| 7439-50 | 9x23 mm 13-1/2", 34 cm |

### Anterior Bone Impactor

| Length  | Tip Size                              |
|---------|---------------------------------------|
| 7439-52 | 10 x 14 mm, Straight 14-1/2", 37 cm   |
| 7439-54 | 10 x 14 mm, Angled 14-1/2", 37 cm     |
| 7439-56 | 15 x 19.5 mm, Straight 14-1/2", 37 cm |
| 7439-58 | 15 x 19.5 mm, Angled 14-1/2", 37 cm   |



# Nerve Hooks



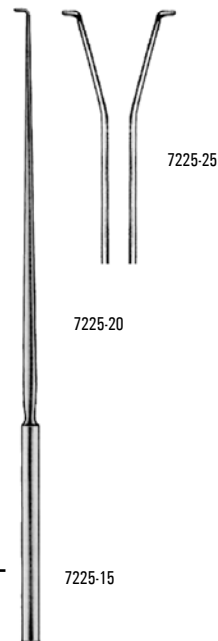
## Spinal Rasp

7224-80 Curved 22 cm



## Hoehn Nerve Hooks

|         |          |       |
|---------|----------|-------|
| 7225-05 | Straight | 22 cm |
| 7225-10 | Angled   | 22 cm |



## Dandy Nerve Hooks

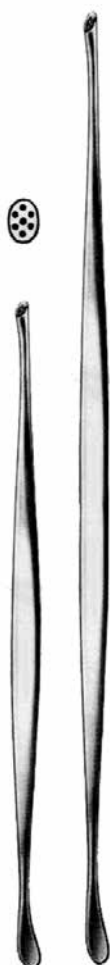
|         |          |       |
|---------|----------|-------|
| 7225-15 | Straight | 20 cm |
| 7225-20 | Left     | 20 cm |
| 7225-25 | Right    | 20 cm |



## Penfield Dissector 1

Sharp, round spoon and broad, curved dissector.

|          |                |
|----------|----------------|
| 7225-51  | length 17.5 cm |
| 7225-51L | length 29 cm   |



## Penfield Dissector 2

Slightly curved dissector and wax packer.

|          |                |
|----------|----------------|
| 7225-52  | length 18.5 cm |
| 7225-52L | length 29 cm   |



## Penfield Dissector 3

Fully curved dissector and wax packer.

|          |                |
|----------|----------------|
| 7225-53  | length 18.5 cm |
| 7225-53L | length 29 cm   |

## Long Penfields & Dissectors

7225-54



7225-54B



### **Penfield Dissector 4**

Light dissector, slightly curved.

7225-54 length 21.5 cm  
stainless

7225-54L length 29 cm  
stainless

7225-54B length 29 cm  
black color



### **Penfield Dissector 5**

Blunt, slightly curved.

7225-55 length 29 cm  
stainless

7225-55L length 29 cm  
stainless



7230-55

Double Ended Davis, stainless steel

Length

7260-56

Double Ended Davis, stainless steel

24.5 cm

7260-57

Teardrop Elevator, stainless steel

28 cm



# Elevators, Probes, Separators

## Sach Nerve Separator

7230-05 length 7 3/4", 20 cm  
7230-06 length 9 1/2", 25.5 cm

25.5 cm

20 cm

## Hoen Dura Separator

7230-10 45 deg 6", 15 cm  
7230-15 45 deg 8-1/4", 21 cm

1/1

## Right Angle Probe

7230-02 25.5 cm, 9 3/4"  
4.5 mm tip

## Ball Probe

7230-08 26.5 cm, 10.5"  
2mm ball probe

## Delicate Cottle-Type Elevator

7230-18 45 deg 8 3/4", 22 cm  
4 mm width x 6 mm long tip

## Slim Jim Separator

7230-44 45 deg 13 " long



7230-25



7230-30



7230-35



7230-20



**Ortho Woodson**

Length  
7230-43 10-1/2", 26 cm



**Smithwick Nerve Hook**

Length  
7230-45 11-1/2" 29 cm



**Scoville Nerve Hook and Dissector**

Length  
7230-50 11-3/4" 30 cm

## **Adson Periosteal Elevators**

|         |                      |
|---------|----------------------|
| Length: | 17 cm                |
| 7230-20 | Chisel Edge          |
| 7230-25 | Curved, Blunt        |
| 7230-30 | Straight, Semi-sharp |
| 7230-35 | Curved, Semi-sharp   |

## **Woodson Elevator Spatula**

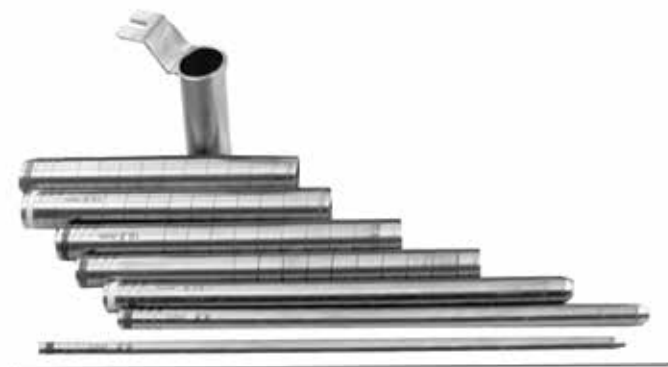
|         |                  |
|---------|------------------|
| Length  |                  |
| 7230-40 | 10-1/2", 26 cm   |
| 7230-42 | 14-1/4", 36.5 cm |

# Tube Dilators

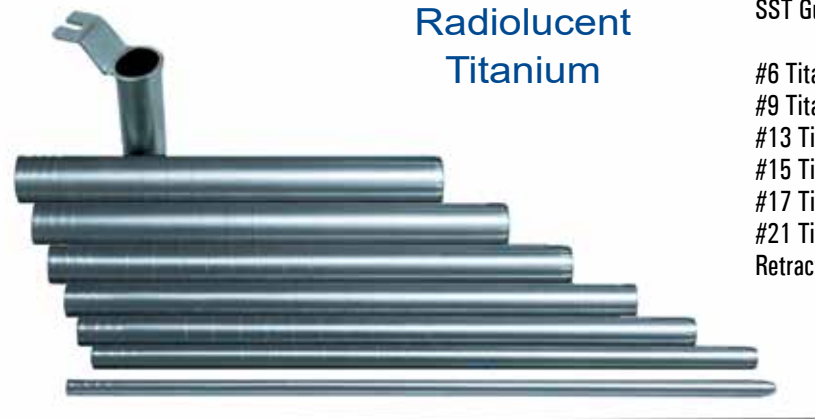
Flat or Round holder



Sold Only As A Set



Radiolucent  
Titanium



## 7730-00

## Dia 21mm x 90 mm Tube Dilator Set

|                                         |                        |              |         |
|-----------------------------------------|------------------------|--------------|---------|
| SST Guide Wire                          | Dia 1.6 mm x 34cm long |              |         |
|                                         | Outside Diam:          | Inside Diam: | Length: |
| #6 Dilator Tube                         | 6                      | 1.8          | 150 mm  |
| #9 Dilator Tube                         | 8.8                    | 5.4          | 140 mm  |
| #13 Dilator Tube                        | 12.8                   | 9            | 130 mm  |
| #15 Dilator Tube                        | 14.8                   | 13           | 120 mm  |
| #17 Dilator Tube                        | 16.8                   | 15           | 110 mm  |
| #19 Dilator Tube                        | 18.8                   | 17           | 100 mm  |
| #21 Dilator Tube                        | 20.8                   | 19           | 90 mm   |
| Retractor Tube flat or round connection | 23                     | 21           | 60 mm   |

## 7730-0021

## Dia 21mm x 130 mm Tube Dilator Set

|                       |                        |              |         |
|-----------------------|------------------------|--------------|---------|
| SST Guide Wire        | Dia 1.6 mm x 34cm long |              |         |
|                       | Outside Diam:          | Inside Diam: | Length: |
| #6 Dilator Tube       | 6                      | 1.8          | 220 mm  |
| #9 Dilator Tube       | 8.8                    | 5.4          | 200 mm  |
| #13 Dilator Tube      | 12.8                   | 9            | 185 mm  |
| #15 Dilator Tube      | 14.8                   | 13           | 170 mm  |
| #17 Dilator Tube      | 16.8                   | 15           | 155 mm  |
| #19 Dilator Tube      | 18.8                   | 17           | 140 mm  |
| #21 Dilator Tube      | 20.8                   | 19           | 130 mm  |
| Retractor Tube holder | 23                     | 21           | 115 mm  |

## 7731-00 Titanium 21 mm x 18.5cm Lateral Tube Dilators Set

|                           |                 |      |        |
|---------------------------|-----------------|------|--------|
| SST Guide Wire            | 1.6 mm Diameter |      |        |
|                           | O.D.            | I.D. | Length |
| #6 Titanium Dilator Tube  | 5.8             | 1.8  | 265 mm |
| #9 Titanium Dilator Tube  | 9.5             | 6    | 245 mm |
| #13 Titanium Dilator Tube | 12.8            | 10   | 230 mm |
| #15 Titanium Dilator Tube | 15              | 13   | 215 mm |
| #17 Titanium Dilator Tube | 18              | 15   | 200 mm |
| #21 Titanium Dilator Tube | 20.8            | 18   | 185 mm |
| Retractor Tube holder     | 23              | 21   | 165 mm |



### Tube Retractor Holder

- 7399-80 Universal Scope and Instrument Holder
- 7399-84 Tube Holder Connector
- 7399-87 Table Clamp



### Hooks

|         |                         |               |
|---------|-------------------------|---------------|
| 7232-05 | 7.5 mm Round Tip, Sharp | 8-3/4", 22 cm |
| 7232-10 | 90 deg 4 mm Tip, Blunt  | 8", 20 cm     |
| 7232-15 | 90 deg 2 mm Tip, Sharp  | 8", 20 cm     |

### Freer Dissectors

|         |                  |           |
|---------|------------------|-----------|
| 7232-20 | 2 mm Sharp/Blunt | 7", 18 cm |
| 7232-25 | 4 mm Sharp/Blunt | 7", 18 cm |
| 7232-26 | 5 mm Sharp/Blunt | 7", 18 cm |



## Watson Chain Type Dissector/Elevator

7232-28 2.5 mm tip  
9", 23 cm

## Vein Retractors

7232-30 4 mm Blade  
9", 23 cm  
7232-35 7 mm Blade  
9", 23 cm  
7232-40 13 mm Blade  
9", 23 cm

## D'errico Root Retractor

7233-58 2.5 mm tip  
9", 23 cm

## Angled Ball Probes, Cloward Hand Retractors



7333-08 7333-09 7335-02 7335-04 7335-05 7335-06

7335-07



7233-70 7233-72 7233-74 7233-76 7233-78

### Cloward Hand Retractors

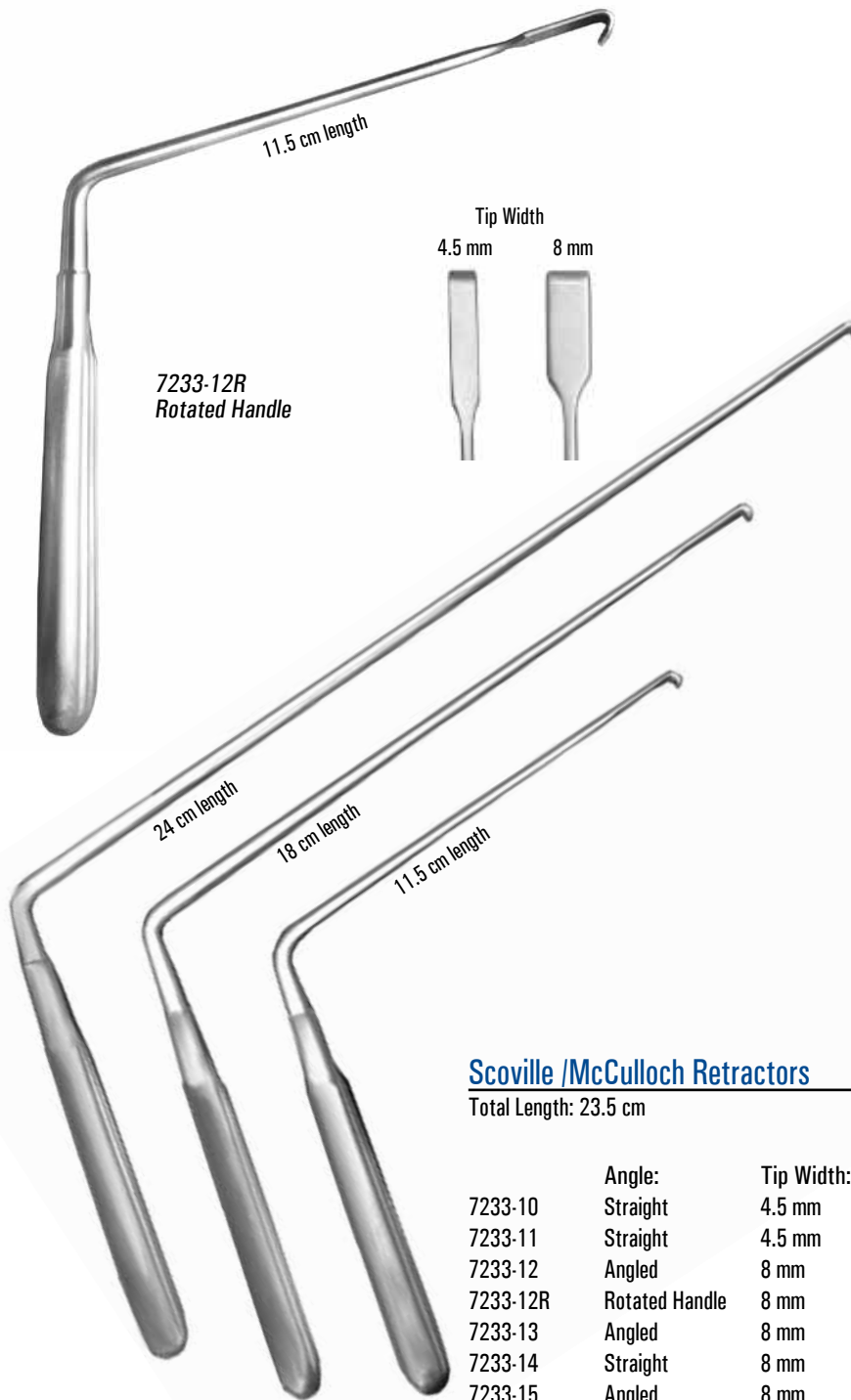
|         | Total Length    | Width | Blade Depth |
|---------|-----------------|-------|-------------|
| 7233-70 | 7 1/4", 18.5 cm | 18 mm | 3"          |
| 7233-72 | 7 1/4", 18.5 cm | 20 mm | 3"          |
| 7233-74 | 7 1/2", 19 cm   | 18 mm | 3 1/4"      |
| 7233-76 | 7 1/2", 19 cm   | 20 mm | 3 1/4"      |
| 7233-78 | 7 1/2", 19 cm   | 23 mm | 3 1/4"      |

### McCulloch Style Ball Probes

|         |                                          |
|---------|------------------------------------------|
| 7333-08 | Angled probe, 4 mm, 9 3/4", 24.5 cm long |
| 7333-09 | Angled probe, 8 mm, 9 3/4", 24.5 cm long |

|         |                                                                |
|---------|----------------------------------------------------------------|
| 7335-02 | 2.4 mm Angled 90 deg Ball Probe, 8 mm tip, 8 1/4", 21 cm long  |
| 7335-04 | 2.4 mm Angled 90 deg Ball Probe, 4 mm tip, 9 1/2", 24 cm long  |
| 7335-05 | 2.4 mm Angled 90 deg Ball Probe, 8 mm tip, 9 3/4", 25 cm long  |
| 7335-06 | 2.4 mm Angled 90 deg Ball Probe, 8 mm tip, 11", 28 cm long     |
| 7335-07 | 2.4 mm Angled 90 deg Ball Probe, 8 mm tip, 12 1/2", 32 cm long |

# Scoville/ McCulloch Retractors



## Scoville /McCulloch Retractors

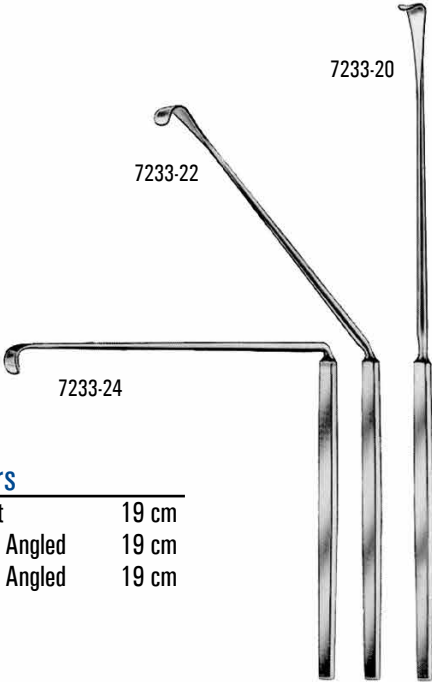
Total Length: 23.5 cm

|          | Angle:         | Tip Width: | Shaft Length: |
|----------|----------------|------------|---------------|
| 7233-10  | Straight       | 4.5 mm     | 23.5 cm       |
| 7233-11  | Straight       | 4.5 mm     | 30 cm         |
| 7233-12  | Angled         | 8 mm       | 11.5 cm       |
| 7233-12R | Rotated Handle | 8 mm       | 11.5 cm       |
| 7233-13  | Angled         | 8 mm       | 18 cm         |
| 7233-14  | Straight       | 8 mm       | 23.5 cm       |
| 7233-15  | Angled         | 8 mm       | 24 cm         |
| 7233-16  | Angled         | 4.5 mm     | 11.5 cm       |
| 7233-17  | Angled         | 4.5 mm     | 18 cm         |
| 7233-18  | Angled         | 4.5 mm     | 24 cm         |
| 7233-19  | Straight       | 8 mm       | 30 cm         |



7233-10 23.5cm 7233-14 23.5cm 7233-11 30cm 7233-19 30cm

# Nerve Retractors

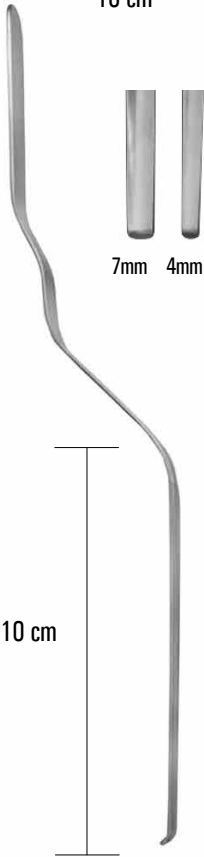


## Love Retractors

|         |                |       |
|---------|----------------|-------|
| 7233-20 | Straight       | 19 cm |
| 7233-22 | 45 deg, Angled | 19 cm |
| 7233-24 | 90 deg, Angled | 19 cm |

## Root Retractor

| Total Length 24 cm | Blade Depth | Tip Width |
|--------------------|-------------|-----------|
| 7233-08            | 10 cm       | 4 mm      |
| 7233-09            | 10 cm       | 7 mm      |



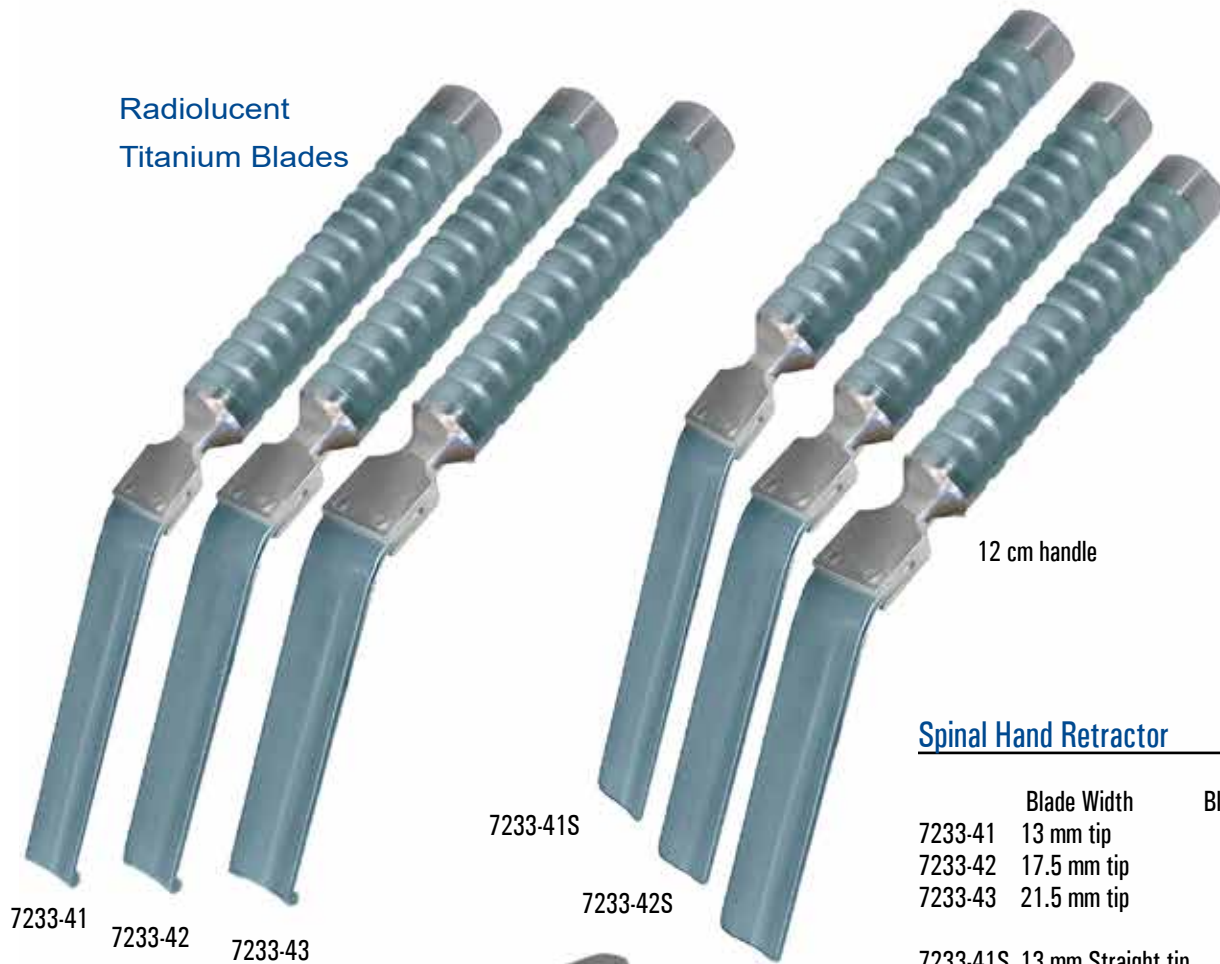
## Root Retractors

| 14 cm deep, 12 cm handle length |        |            |
|---------------------------------|--------|------------|
| 7233-30                         | Small  | 8 x 34mm   |
| 7233-32                         | Medium | 11 x 34 mm |
| 7233-33                         | Small  | 8 x 34 mm  |
| 7233-35                         | Medium | 11 x 34 mm |
| 7233-37                         | Small  | 8 x 34 mm  |
| 7233-39                         | Medium | 11 x 34 mm |



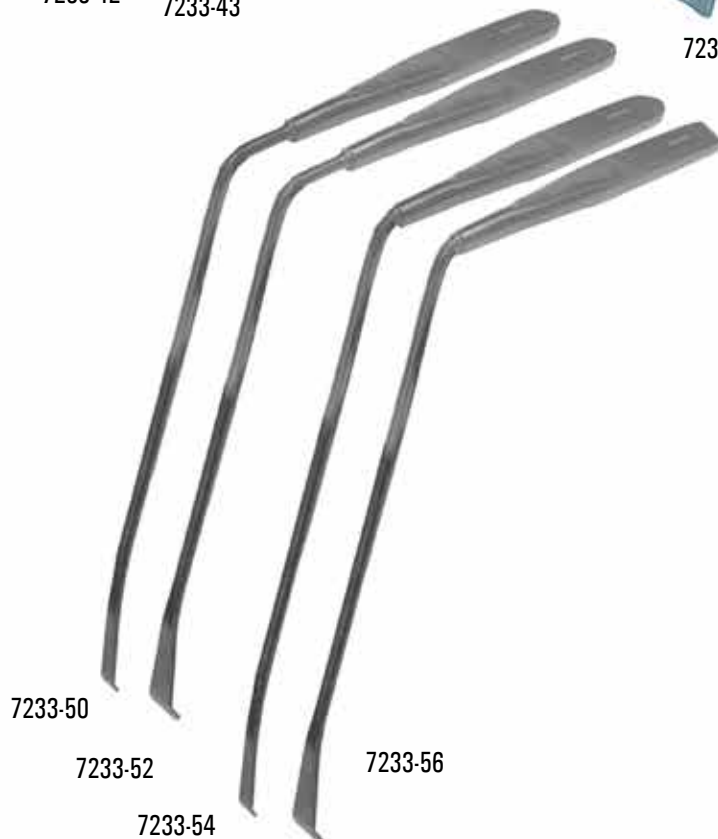
# Hand Retractors & Nerve Retractors

Radiolucent  
Titanium Blades



## Spinal Hand Retractor

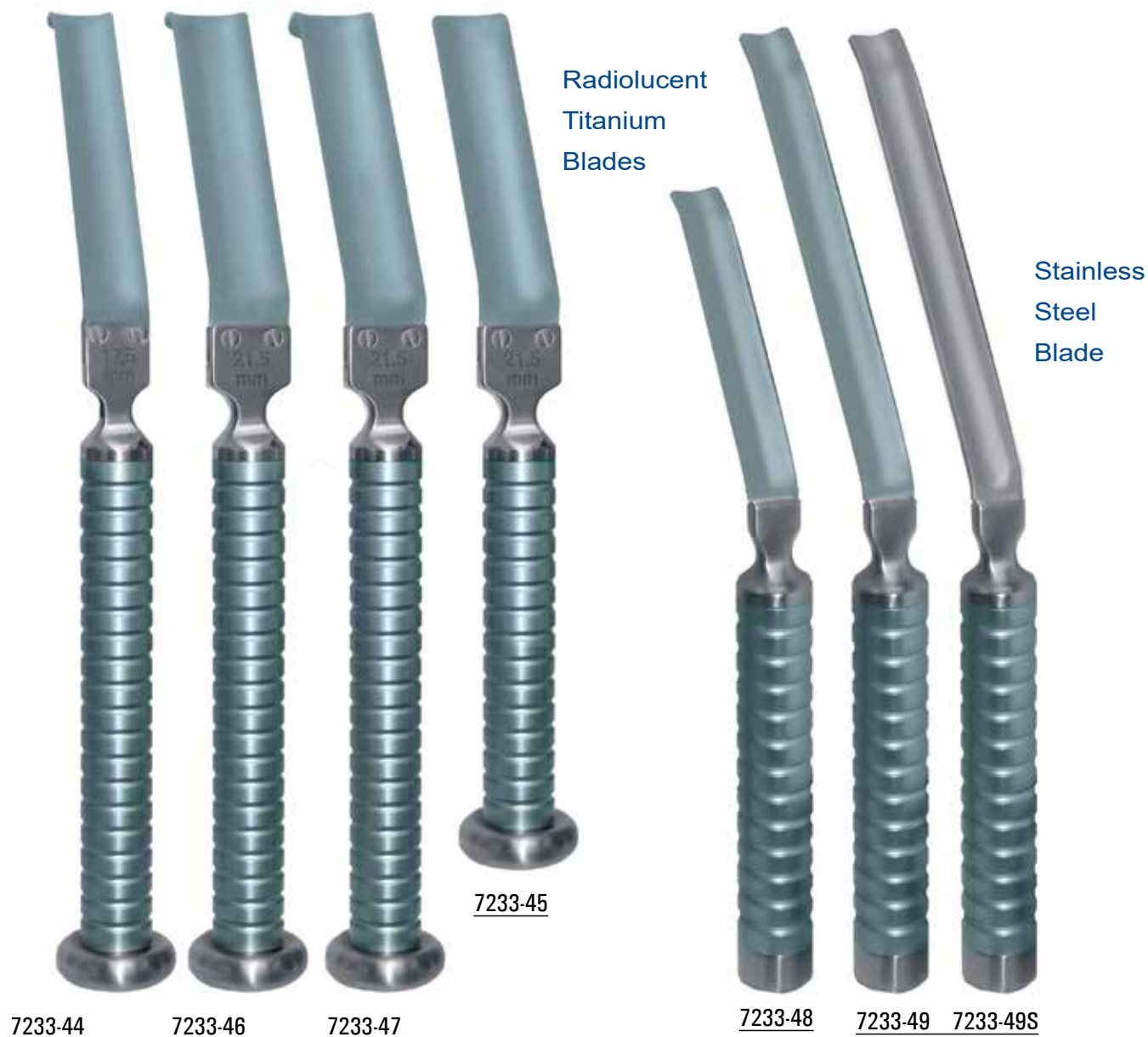
|          | Blade Width          | Blade Length | Depth |
|----------|----------------------|--------------|-------|
| 7233-41  | 13 mm tip            | 77 mm        | 3"    |
| 7233-42  | 17.5 mm tip          | 77 mm        | 3"    |
| 7233-43  | 21.5 mm tip          | 77 mm        | 3"    |
| 7233-41S | 13 mm Straight tip   | 77 mm        | 3"    |
| 7233-42S | 17.5 mm Straight tip | 77 mm        | 3"    |
| 7233-43S | 21.5 mm Straight tip | 77 mm        | 3"    |



## Weary/Scoville Type Nerve Root Retractors

|         |            | Depth         |
|---------|------------|---------------|
| 7233-50 | 6.5 mm tip | 6 1/4", 16 cm |
| 7233-52 | 11 mm tip  | 6 1/4", 16 cm |
| 7233-54 | 6.5 mm tip | 7", 18 cm     |
| 7233-56 | 11 mm tip  | 7", 18 cm     |

## Hand Retractors



### **Spinal Hand Retractors**

| <u>Depth</u> |                                  | Handle Length | Lip Size   | Blade Width x |
|--------------|----------------------------------|---------------|------------|---------------|
| 7233-44      | Titanium Blade With Lip          | 15 cm         | 5 mm       | 15 x 76 mm    |
| 7233-46      | Titanium Blade Wide w/ Lip       | 15 cm         | 5 mm       | 20 x 76 mm    |
| 7233-47      | Titanium Blade Wide w/ Heavy Lip | 15 cm         | 7 mm 90deg | 20 x 76 mm    |
| 7233-45      | Titanium Blade Wide w/ No Lip    | 12cm          | ---        | 20 x 76 mm    |
| 7233-48      | Narrow Titanium Blade            | 12 cm         | 10x5 mm    | 12 x 90 mm    |
| 7233-49S     | Titanium Deep Blade              | 12 cm         | 10x5 mm    | 12 x 120 mm   |
| 7233-49S     | Stainless Steel Deep Blade       | 12 cm         | 10x5 mm    | 12 x 120 mm   |

Hand Retractors

|               |                           |       |
|---------------|---------------------------|-------|
| Handle Length | 15 cm                     |       |
| Blade Width   | 2.7 cm                    |       |
|               | <u>Blade Depth</u>        |       |
| 7332-90       | TI Hand Retractor, Small  | 10 cm |
| 7332-92       | TI Hand Retractor, Medium | 15 cm |
| 7332-94       | TI Hand Retractor, Large  | 21 cm |



7449-10 Sculpture Mallet 9.5 oz, 20 cm  
Steam Sterilizable Plastic  
Head diameter 5.5 cm



Radiolucent  
Titanium  
Blades



U. S. Army Retractors

|         |        |               |
|---------|--------|---------------|
| 7234-30 | Length | 8-1/4", 21 cm |
|         |        | (set of two)  |

Custom Sizes  
Available



Meyerding Retractor

|         |                        |
|---------|------------------------|
| 7234-40 | 5/8" x 2" x 20 cm long |
| 7234-50 | 1" x 3" x 23 cm long   |
| 7234-60 | 2" x 3.5" x 24 cm long |

Extra Deep Meyerding Retractor

|         |                        |
|---------|------------------------|
| 7234-70 | 1" x 6" x 24.5 cm long |
| 7234-80 | 1" x 7" x 24.5 cm long |

# Hand Retractors

## Blade Retractors

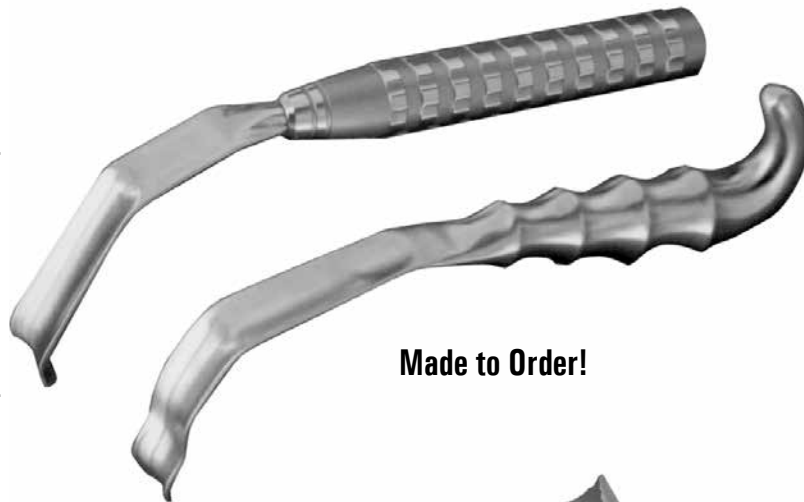
|         |              |       |
|---------|--------------|-------|
|         | Blade Length | 7 cm  |
| 7236-10 | Width        | 18 mm |
| 7236-20 | Width        | 21 mm |
| 7236-30 | Width        | 24 mm |

## Clifford Offset Blade Retractor

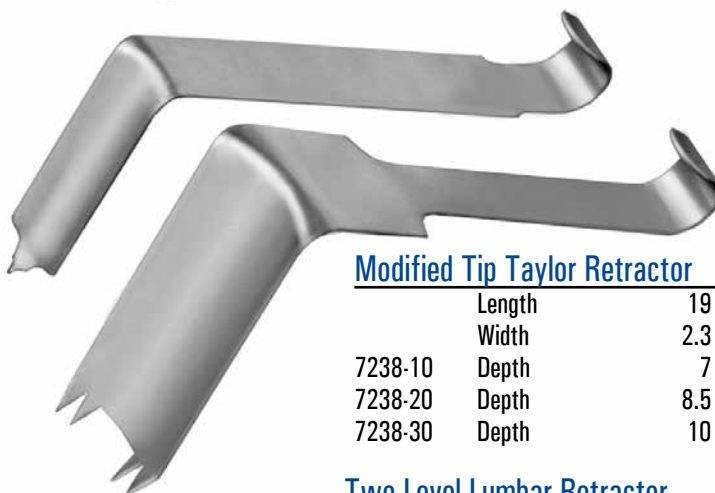
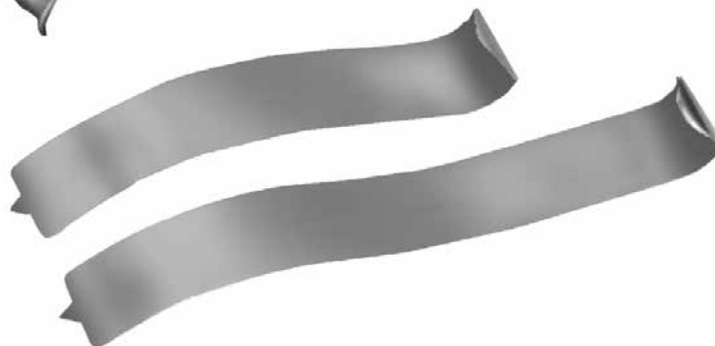
|         |        |       |
|---------|--------|-------|
|         | Length | 22 cm |
| 7236-40 | Width  | 18 mm |
| 7236-50 | Width  | 20 mm |
| 7236-60 | Width  | 24 mm |
| 7236-70 | Width  | 30 mm |

## Cutter Retractor

|         |                |              |
|---------|----------------|--------------|
| 7237-10 | Width x Length | 1 x 6 inches |
| 7237-20 | Width x Length | 1 x 8 inches |



**Made to Order!**



## Modified Tip Taylor Retractor

|         |        |        |
|---------|--------|--------|
|         | Length | 19 cm  |
|         | Width  | 2.3 cm |
| 7238-10 | Depth  | 7 cm   |
| 7238-20 | Depth  | 8.5 cm |
| 7238-30 | Depth  | 10 cm  |

## Two Level Lumbar Retractor

|         |        |        |
|---------|--------|--------|
|         | Length | 19 cm  |
|         | Width  | 5 cm   |
| 7238-40 | Depth  | 7.5 cm |
| 7238-50 | Depth  | 8.5 cm |
| 7238-60 | Depth  | 10 cm  |

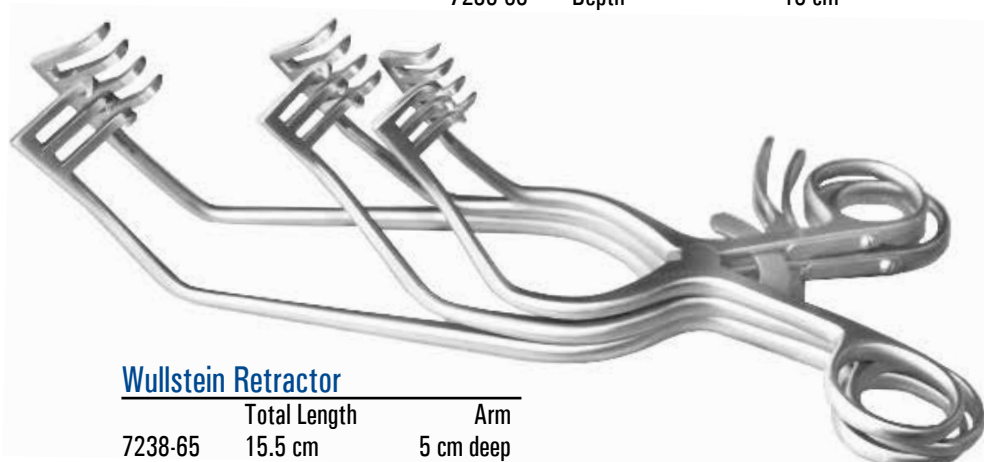


## Shelby Type Lateral Retractor

7239-20 2 teeth, 1" (24 mm) wide  
3" deep

## Wide Modified Taylor Type Retractor

7239-10 1 tooth, 1 1/8" (30 mm) wide  
5" deep



## Wullstein Retractor

|         |              |           |
|---------|--------------|-----------|
|         | Total Length | Arm       |
| 7238-65 | 15.5 cm      | 5 cm deep |
| 7238-66 | 19 cm        | 6 cm deep |
| 7238-67 | 26 cm        | 6 cm deep |

## Stainless Steel Retractors



### Scalp Contour Retractors

14 cm long

7240-05 3 x 4 Blunt prongs

7240-10 3 x 4 Sharp prongs



### Cloward Contour Retractors

14 cm long

7240-15 3 x 3 Blunt prongs

7240-20 3 x 3 Sharp prongs

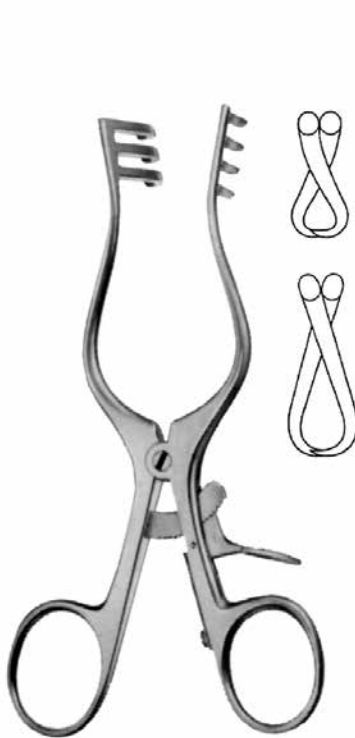


### Cloward Contour Retractors

14 cm long

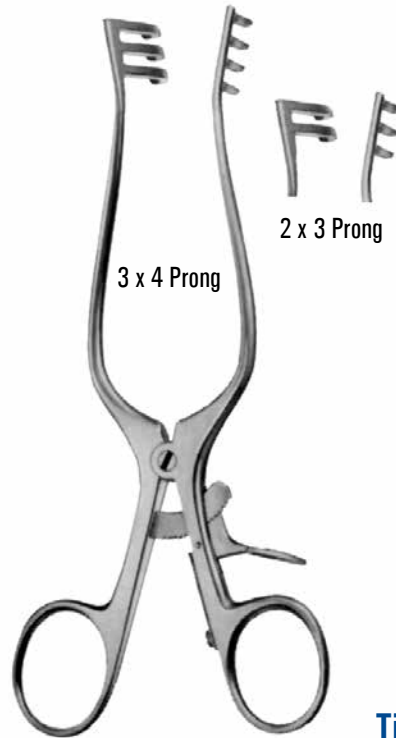
7240-25 Blunt prongs

7240-30 Sharp prongs



### Weitlaner Retractors

|         | Depth   | Type  | Length |
|---------|---------|-------|--------|
| 7242-05 | 13.5 mm | Blunt | 14 cm  |
| 7242-10 | 13.5 mm | Sharp | 14 cm  |
| 7242-15 | 21 mm   | Blunt | 14 cm  |
| 7242-20 | 21 mm   | Sharp | 14 cm  |



### Weitlaner Retractors Stainless Steel

|         | Type  | Length  | Prong |
|---------|-------|---------|-------|
| 7242-21 | Blunt | 16.5 cm | 2x3   |
| 7242-22 | Sharp | 16.5 cm | 2x3   |
| 7242-23 | Blunt | 19.5 cm | 2x3   |
| 7242-24 | Sharp | 19.5 cm | 2x3   |
| 7242-25 | Blunt | 16.5 cm | 3x4   |
| 7242-30 | Sharp | 16.5 cm | 3x4   |
| 7242-31 | Blunt | 19.5 cm | 3x4   |
| 7242-32 | Sharp | 19.5 cm | 3x4   |



### Titanium Weitlaner Retractors

7242-34T  
Blunt prongs  
20 cm

### Cone (Adson-Baby) Retractors

|         | Type  | Length |
|---------|-------|--------|
| 7242-35 | Blunt | 14 cm  |
| 7242-40 | Sharp | 14 cm  |
| 7242-45 | Blunt | 16 cm  |
| 7242-50 | Sharp | 16 cm  |

## Self-Retaining Retractors

### Malis Retractor Set

7244-10 Retractor Set with attachments

#### Set Includes:

- 7244-15 1 ea Retractor Body
- 7244-20 1 ea Tower Attachments:
- 7244-25 1 ea Swivel Clamp
- 7244-30 1 ea 9 cm Arm Bar
- 7244-35 1 ea 12 cm Arm Bar
- 7244-40 1 ea 15 cm Arm Bar

#### Blades:

- 7244-45 1 ea 9x70 mm
- 7244-50 1 ea 14x70 mm
- 7244-55 1 ea 16x70 mm
- 7244-60 1 ea 19x70 mm
- 7244-65 1 ea 25x70 mm
- 7244-70 Sterilizing Case for Set



### Self-Retaining Retractors

7246-50 90 degree Gelpi Retractor Set

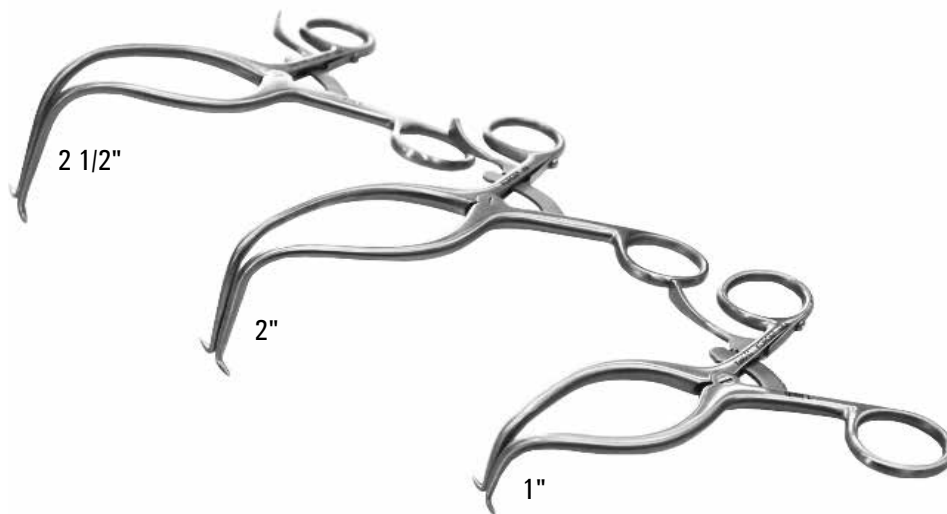
Length is incremental from 11 cm to 15 cm.

Set consisting of one (1) each:

- | Item    | Description                           |
|---------|---------------------------------------|
| 7246-51 | 1" deep 90 degree Gelpi Retractor     |
| 7246-53 | 2" deep 90 degree Gelpi Retractor     |
| 7246-54 | 2 1/2" deep 90 degree Gelpi Retractor |

#### Custom Made Items:

- 7246-52 1 1/2 " deep 90 degree Gelpi Retractor
- 7246-55 3" deep 90 degree Gelpi Retractor



**Gelpi Perineal Retractor**

7246-10 Length 18 cm



**Seletz-Gelpi Deep Retractor**

7246-20 Deep Blades 16 cm



**Adson Cerebellar Retractor**

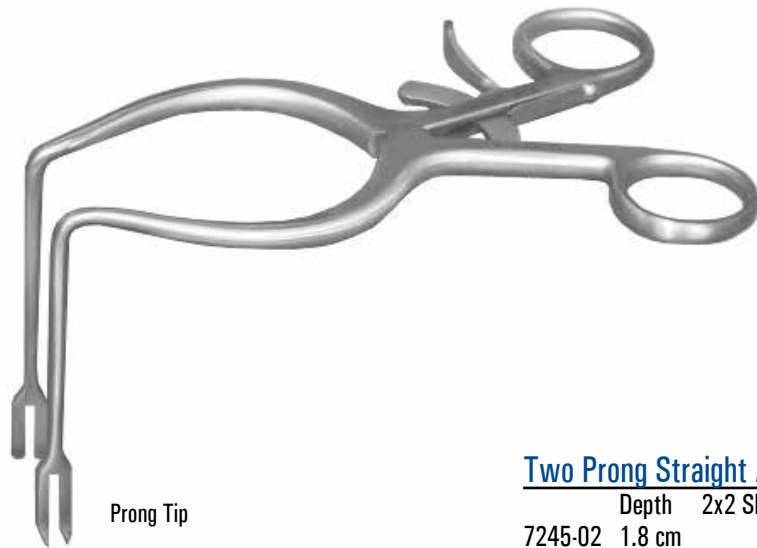
7246-30 Straight Arms 20 cm



**Adson Cerebellar Retractor**

7246-40 Angled Arms 19.5 cm

## Minimally Invasive Retractors



### Two Prong Retractors

|         | Depth  | 2x2 Sharp prongs |
|---------|--------|------------------|
| 7245-04 | 4 cm   | 2 x1 cm          |
| 7245-06 | 5.5 cm | 2 x1 cm          |
| 7245-08 | 7.5 cm | 2 x1 cm          |
| 7245-09 | 9 cm   | 2 x1 cm          |
| 7245-11 | 11 cm  | 2 x1 cm          |

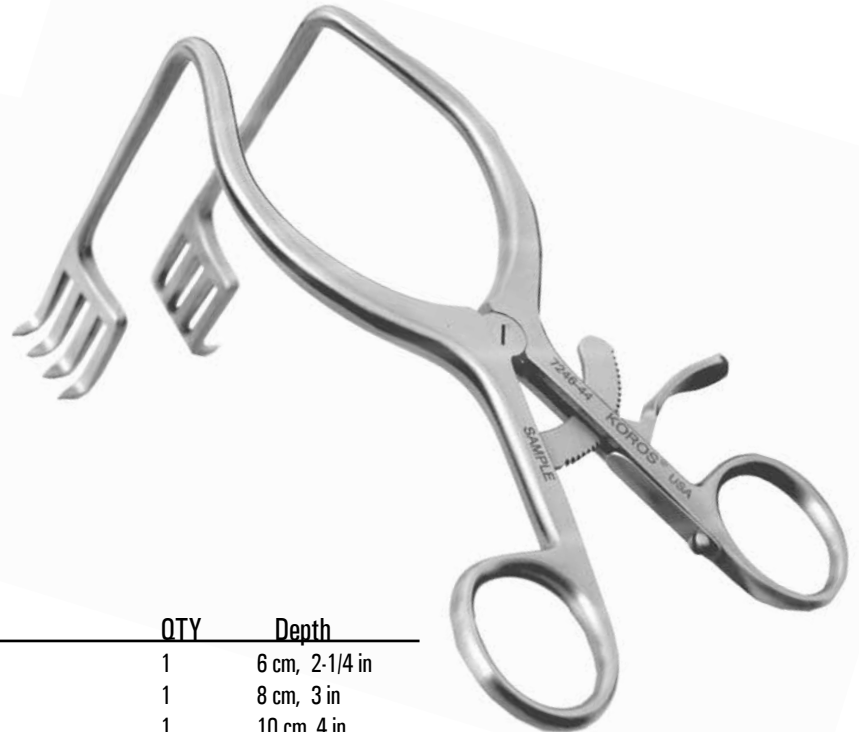
### Two Prong Straight Arm Retractor

|         | Depth  | 2x2 Sharp prongs |
|---------|--------|------------------|
| 7245-02 | 1.8 cm | 2 x1 cm          |



## Modified Cerebellar 4 x 4 Prong Retractors

Body length 15.4 mm, (6 in.) 4x4 Sharp prongs



### Modified Cerebellar Retractors

|                                                    | QTY | Depth             |
|----------------------------------------------------|-----|-------------------|
| 7246-41 Modified Cerebellar Retractor, 4 x 4 prong | 1   | 6 cm, 2-1/4 in    |
| 7246-42 Modified Cerebellar Retractor, 4 x 4 prong | 1   | 8 cm, 3 in        |
| 7246-44 Modified Cerebellar Retractor, 4 x 4 prong | 1   | 10 cm, 4 in       |
| 7246-46 Modified Cerebellar Retractor, 4 x 4 prong | 1   | 11.5 cm, 4-1/2 in |

## Self-Retaining & Microdiscectomy Retractors



### Hinged Self-Retaining Retractor

2x2 Sharp prongs, 21.5 cm long  
7248-01 7 cm deep, 2 x 1 cm blades



### Miskimon Retractor

7x7 Sharp prongs, 19 cm long  
7248-05 3.5 x 3.5 cm blades



### Beckman-Adson Retractors

|         |                |            |
|---------|----------------|------------|
|         | depth          | 31 cm long |
| 7248-10 | 2.5 cm blades, | sharp      |
| 7248-15 | 2.5 cm blades, | blunt      |
| 7248-20 | 4 cm blades,   | sharp      |
| 7248-25 | 4 cm blades,   | blunt      |



### Beckman-Eaton Retractors

|         |              |       |
|---------|--------------|-------|
| 7248-30 | Sharp prongs | 32 cm |
| 7248-35 | Blunt prongs | 32 cm |



### Bagley Retractor

7250-10 Opening 6-1/2", 16.5 cm  
4 prong blades, 5 x 4.3 cm



### Tuffier Retractor

7250-20 Opening 6-1/2", 16.5 cm  
Solid blades 5 x 4.3 cm

**Now Available  
CUSTOM Retractor**  
4.75 cm hook  
6.5 cm blade  
Right or Left  
Please inquire!

## Microdiscectomy Retractors

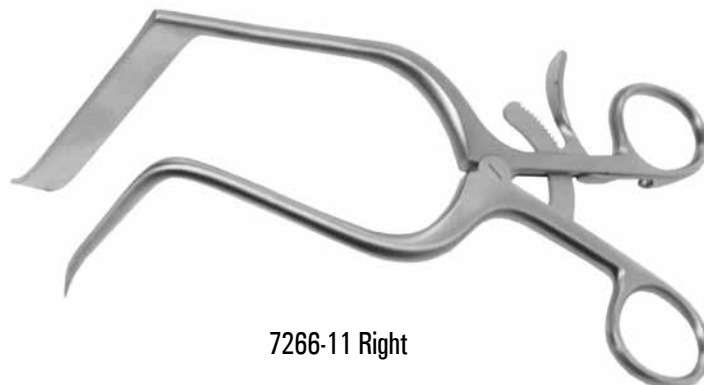
### Microdiscectomy Retractors\*

|                          | QTY | Blade Side | Blade Length     | Blade Width | Hook Length   |
|--------------------------|-----|------------|------------------|-------------|---------------|
| 7266-10 Retractor, Left  | 1   | Left       | 11 cm, 4-1/4 in. | 1/2 in      | 7.5 cm, 3 in. |
| 7266-11 Retractor, Right | 1   | Right      | 11 cm, 4-1/4 in. | 1/2 in      | 7.5 cm, 3 in. |

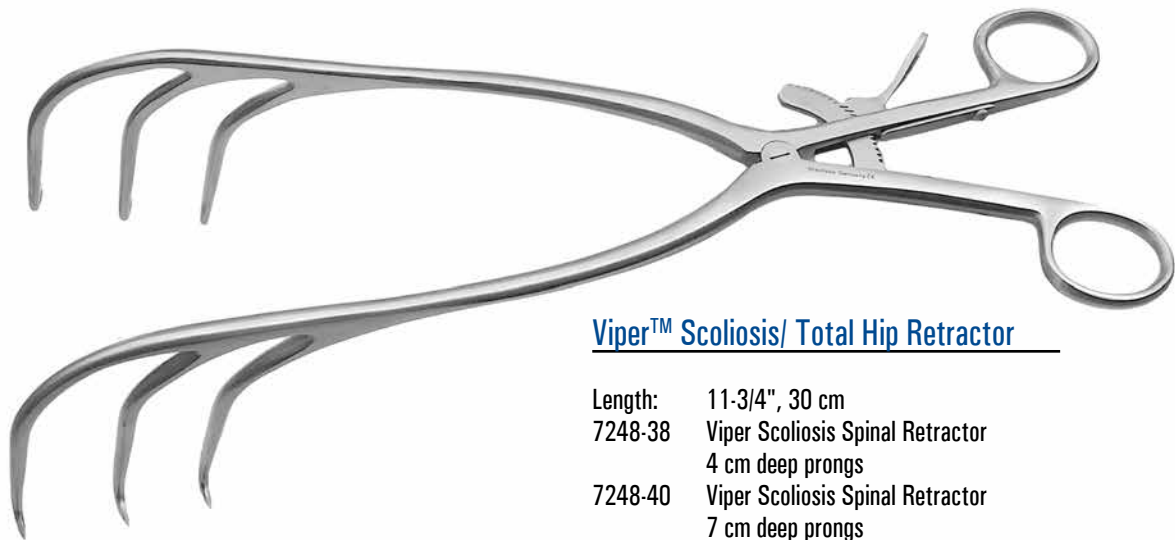
**\* Made to Order  
Item**



7266-10 Left

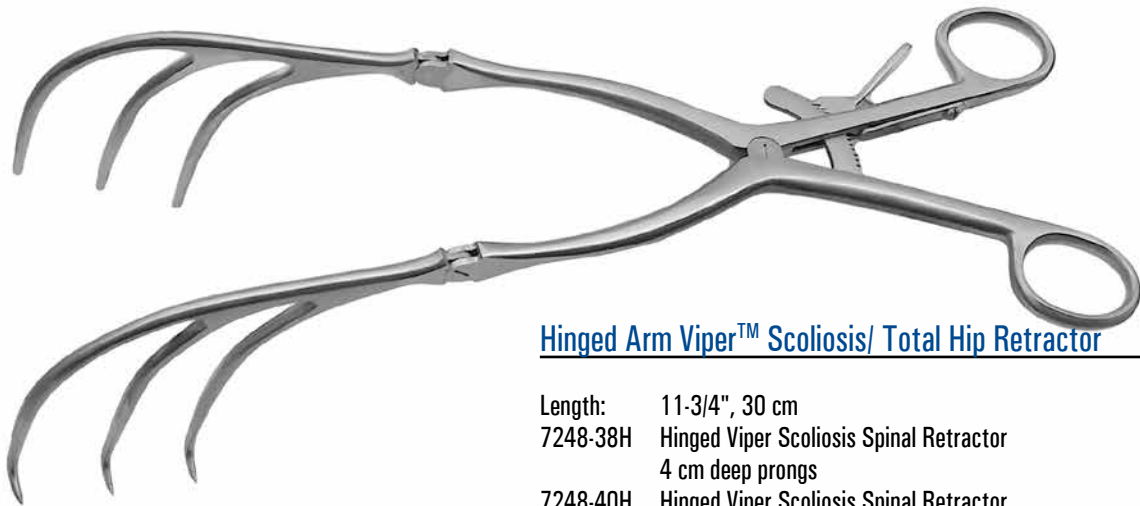


7266-11 Right



## Viper™ Scoliosis/ Total Hip Retractor

|         |                                                       |
|---------|-------------------------------------------------------|
| Length: | 11-3/4", 30 cm                                        |
| 7248-38 | Viper Scoliosis Spinal Retractor<br>4 cm deep prongs  |
| 7248-40 | Viper Scoliosis Spinal Retractor<br>7 cm deep prongs  |
| 7248-50 | Viper Scoliosis Spinal Retractor<br>10 cm deep prongs |

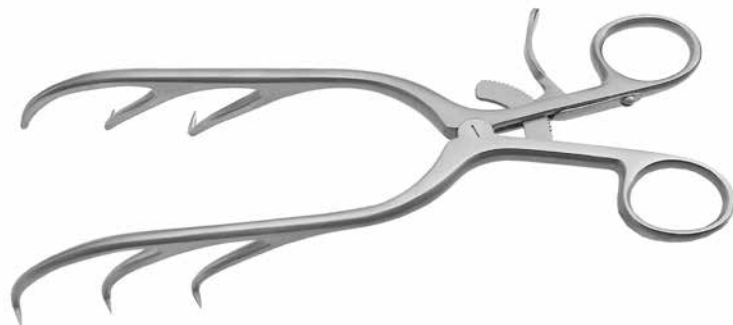


## Hinged Arm Viper™ Scoliosis/ Total Hip Retractor

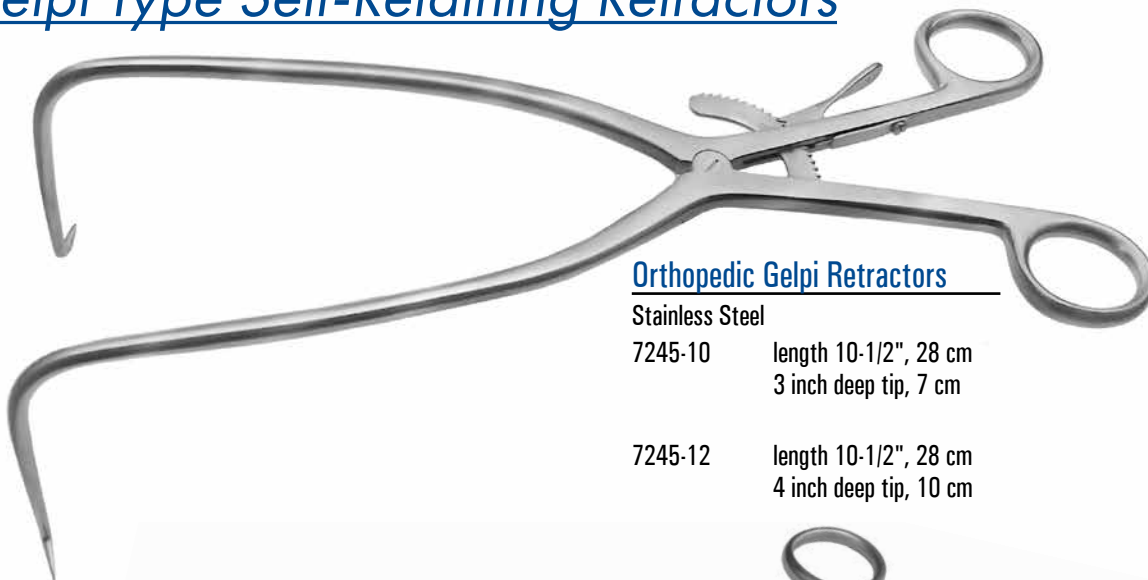
|          |                                                              |
|----------|--------------------------------------------------------------|
| Length:  | 11-3/4", 30 cm                                               |
| 7248-38H | Hinged Viper Scoliosis Spinal Retractor<br>4 cm deep prongs  |
| 7248-40H | Hinged Viper Scoliosis Spinal Retractor<br>7 cm deep prongs  |
| 7248-50H | Hinged Viper Scoliosis Spinal Retractor<br>10 cm deep prongs |

## Small Viper™ Scoliosis/ Total Hip Retractor

|         |                  |
|---------|------------------|
| Length: | 8", 20.5 cm,     |
| 7248-36 | 4 cm deep prongs |



# Gelpi Type Self-Retaining Retractors

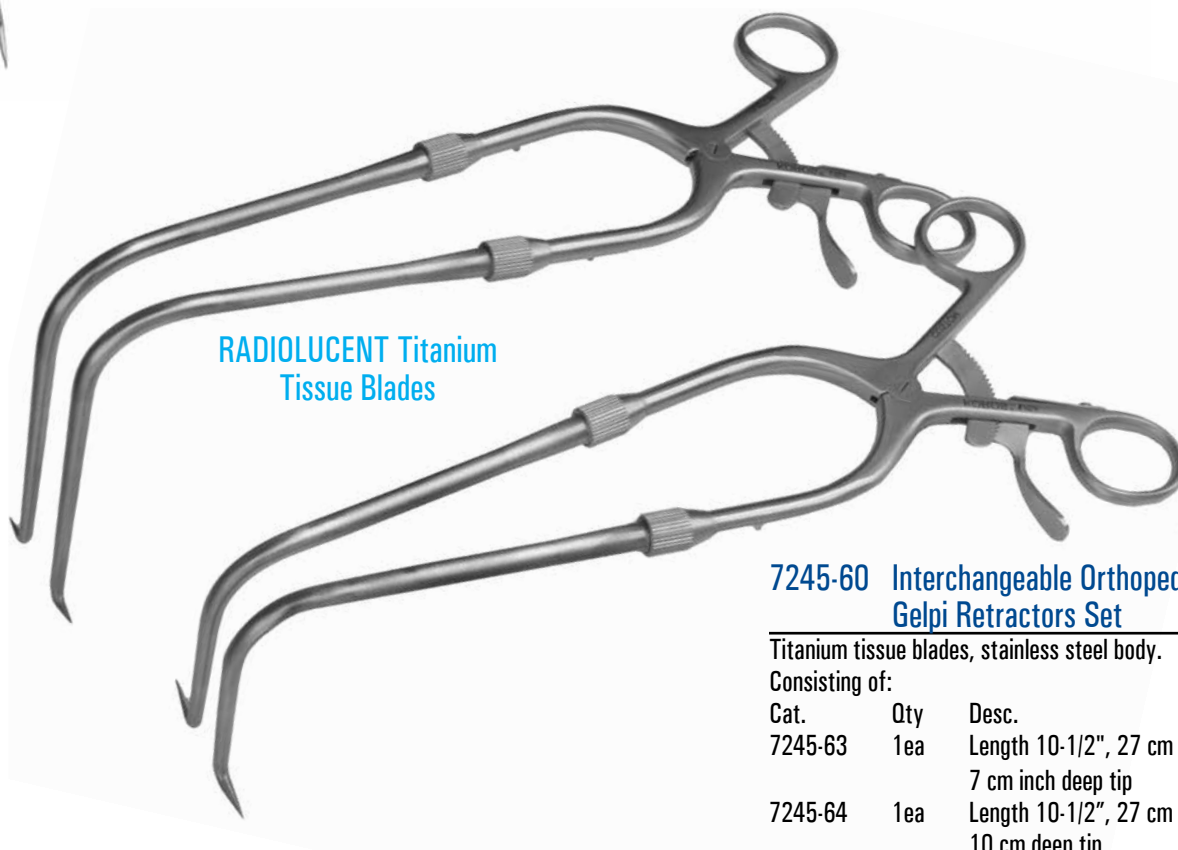


## Orthopedic Gelpi Retractors

Stainless Steel

7245-10 length 10-1/2", 28 cm  
3 inch deep tip, 7 cm

7245-12 length 10-1/2", 28 cm  
4 inch deep tip, 10 cm



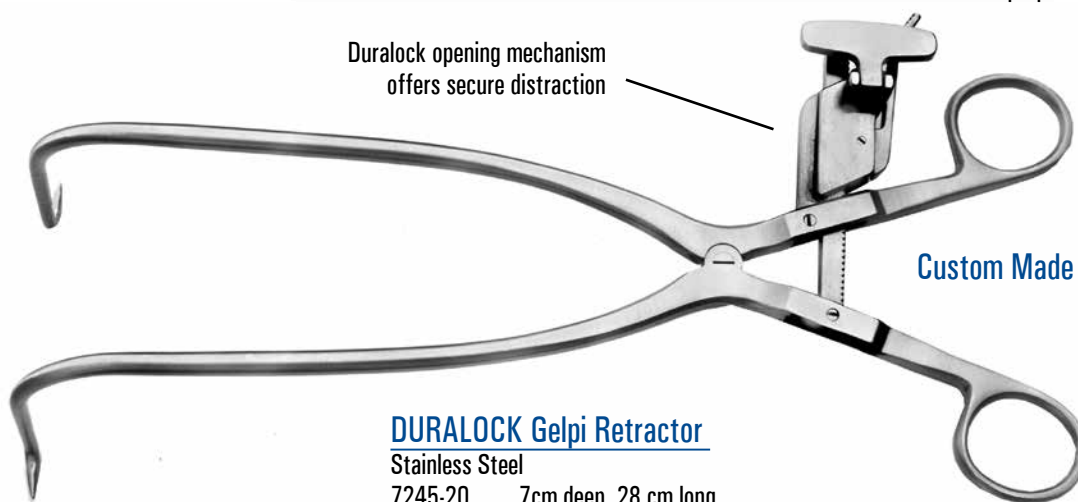
RADIOLUCENT Titanium  
Tissue Blades

## 7245-60 Interchangeable Orthopedic Gelpi Retractors Set

Titanium tissue blades, stainless steel body.

Consisting of:

| Cat.    | Qty | Desc.                                             |
|---------|-----|---------------------------------------------------|
| 7245-63 | 1ea | Length 10-1/2", 27 cm long,<br>7 cm inch deep tip |
| 7245-64 | 1ea | Length 10-1/2", 27 cm long,<br>10 cm deep tip     |



Duralock opening mechanism  
offers secure distraction

Custom Made

## DURALOCK Gelpi Retractor

Stainless Steel

7245-20 7cm deep, 28 cm long

## Self-Retaining Retractors



### Modified Cloward Longitudinal Retractor Set

|         | 6", 15 cm long                             |
|---------|--------------------------------------------|
| 7254-10 | Retractor with blades listed below (1 ea): |
| 7254-40 | 15x40 mm blunt blade                       |
| 7254-45 | 15x45 mm blunt blade                       |
| 7254-50 | 15x50 mm blunt blade                       |
| 7254-55 | 15x55 mm blunt blade                       |
| 7254-60 | 15x60 mm blunt blade                       |
| 7254-20 | Retractor Frame Only                       |



### Modified Cloward Transverse Retractor Set

|         | 8", 20 cm long                             |
|---------|--------------------------------------------|
| 7256-10 | Retractor with blades listed below (1 ea): |
| 7256-40 | 15x40 mm pronged blade                     |
| 7256-45 | 15x45 mm pronged blade                     |
| 7256-50 | 15x50 mm pronged blade                     |
| 7256-55 | 15x55 mm pronged blade                     |
| 7256-60 | 15x60 mm pronged blade                     |
| 7256-20 | Retractor Frame Only                       |



### 7254-00 Complete Modified Cloward Retractor Set with Case

Consists of 1 ea of the following:

|         |                                                                              |
|---------|------------------------------------------------------------------------------|
| 7254-10 | Modified Cloward Longitudinal Retractor Set with five pairs of blunt blades. |
| 7256-10 | Modified Cloward Longitudinal Retractor Set with five pairs of blunt blades. |
| 7254-25 | Cloward Instrument Case                                                      |



### Hoen Hemi-Laminectomy Retractor

|         |                                |        |
|---------|--------------------------------|--------|
| 7258-10 | Spreader with 2 sets of blades | 27 cm  |
| 7258-15 | Narrow Hemi Blades             | 1 pair |
| 7258-20 | Wide Hemi Blades               | 1 pair |



### Koros Modular Discectomy Retractor Set

7265-00 Retractor set consists of one retractor body, five blades, four spikes and an instrument case.

|         |                      |                 |
|---------|----------------------|-----------------|
| 7265-10 | Retractor Body Only  | 7", 18 cm       |
| 7265-20 | 10x55 mm             | blade           |
| 7265-30 | 10x70 mm             | blade           |
| 7265-40 | 15x55 mm             | blade           |
| 7265-50 | 15x70 mm             | blade           |
| 7265-60 | 28x70 mm             | blade           |
| 7265-70 | Spike with Cross Bar | 10 x 50 mm deep |
| 7265-80 | Spike                | 50 mm deep      |
| 7265-72 | Spike with Cross Bar | 10 x 65 mm deep |
| 7265-82 | Spike                | 65 mm deep      |
| 7265-90 | Instrument Case      |                 |

# Caspar Type Microdissectomy Specula Retractors

## 7271-00 Lumbar Caspar Type Specula Retractor Set

Set includes:

|         |      |                                                                         |
|---------|------|-------------------------------------------------------------------------|
| 7270-10 | 1set | Set of five sizes of Specula Retractors<br>(40, 45, 50, 55, 60 mm deep) |
| 7272-20 | 1ea  | Cross Retractor for Microdissectomy Specula                             |
| 7272-10 | 1set | Set of six blades (40, 45, 50, 55, 60, 65 mm deep)                      |
| 7268-80 | 1ea  | Blade Ejector                                                           |

## Microdissectomy Specula Retractors

Inside diameter: 13 mm, Outside diameter: 16.5 mm

|         |                   |            |
|---------|-------------------|------------|
| 7270-40 | Specula Retractor | 40 mm deep |
| 7270-45 | Specula Retractor | 45 mm deep |
| 7270-50 | Specula Retractor | 50 mm deep |
| 7270-55 | Specula Retractor | 55 mm deep |
| 7270-60 | Specula Retractor | 60 mm deep |

### Optional Specula Retractors:

|         |                   |             |
|---------|-------------------|-------------|
| 7270-65 | Specula Retractor | 65 mm deep  |
| 7270-75 | Specula Retractor | 75 mm deep  |
| 7270-85 | Specula Retractor | 85 mm deep  |
| 7270-95 | Specula Retractor | 95 mm deep  |
| 7270-99 | Specula Retractor | 105 mm deep |

## Microdissectomy Specula Cross Retractor

|         |                            |       |
|---------|----------------------------|-------|
| 7272-20 | Cross Retractor Frame Only | 17 cm |
| 7272-40 | 40 mm deep                 | blade |
| 7272-45 | 45 mm deep                 | blade |
| 7272-50 | 50 mm deep                 | blade |
| 7272-55 | 55 mm deep                 | blade |
| 7272-60 | 60 mm deep                 | blade |
| 7272-65 | 65 mm deep                 | blade |

### Optional Blades:

|         |                   |
|---------|-------------------|
| 7272-35 | 35 mm deep blade  |
| 7272-70 | 70 mm deep blade  |
| 7272-75 | 75 mm deep blade  |
| 7272-85 | 85 mm deep blade  |
| 7272-95 | 100 mm deep blade |
| 7272-99 | 110 mm deep blade |

## Blade Ejector

|         |                    |
|---------|--------------------|
| 7268-80 | 4 3/4", 12 cm long |
|---------|--------------------|



## Caspar Type Titanium Blade Set

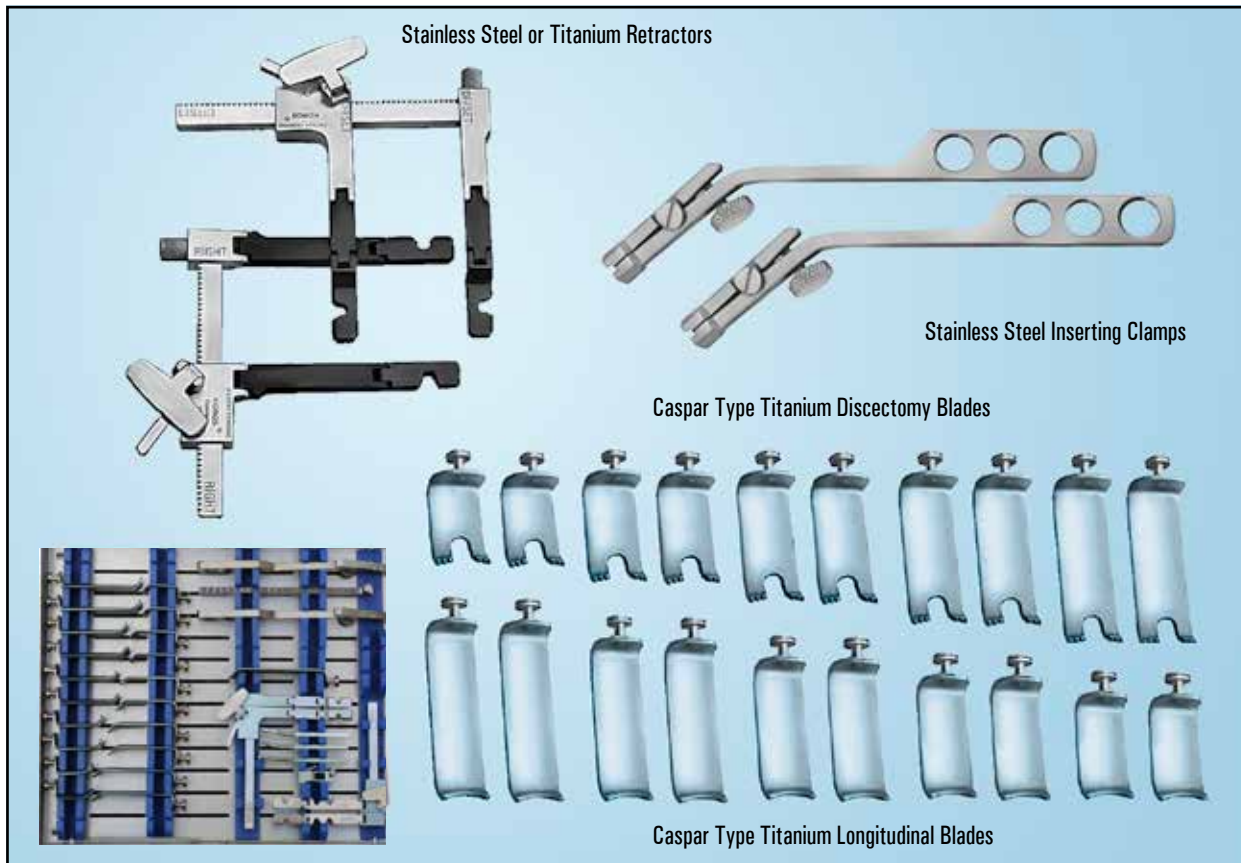


## ClearView™ Microdiscectomy Retractors

- Features original Koros retractor frames with articulating, self-engaging arms and spring loaded, folding crank handles.
- Low reflection, colored titanium retractor blades are radiolucent.
- The genuine, self-engaging retractor blade heads quickly engage and disengage the retractor arms.
- Dual blade configurations are available for lateral and longitudinal retraction.
- Available with full Titanium or Stainless Steel.

*Patent Pending in the U.S.A. and foreign countries.*

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## ClearView™ Anterior Cervical Retraction System

### 85 mm Deep Titanium Radiolucent Blades

Arm Length: 8 cm  
Maximum Opening: 6.5 cm

### 7273-00 ClearView™ Anterior Cervical Retraction System

Set includes:

|         |      |                                         |
|---------|------|-----------------------------------------|
| 7273-10 | 1 ea | Right Retractor Frame, Stainless Steel  |
| 7273-12 | 1 ea | Offset Retractor Frame, Stainless Steel |
| 7273-15 | 2 ea | Blade Inserting Clamp (18 cm long)      |
| 7273-23 | 2 ea | Ti Discectomy Blade, 23x30 mm           |
| 7273-24 | 2 ea | Ti Discectomy Blade, 23x40 mm           |
| 7273-25 | 2 ea | Ti Discectomy Blade, 23x50 mm           |
| 7273-26 | 2 ea | Ti Discectomy Blade, 23x60 mm           |
| 7273-27 | 2 ea | Ti Discectomy Blade, 23x70 mm           |
| 7273-33 | 2 ea | Ti Longitudinal Blade, 20x30 mm         |
| 7273-34 | 2 ea | Ti Longitudinal Blade, 20x40 mm         |
| 7273-35 | 2 ea | Ti Longitudinal Blade, 20x50 mm         |
| 7273-36 | 2 ea | Ti Longitudinal Blade, 20x60 mm         |
| 7273-37 | 2 ea | Ti Longitudinal Blade, 20x70 mm         |
| 7319-90 | 1 ea | Metal Tray, 13 x 10 x 2 with silicon    |

## PICOLO Mini Incision Retractor Set

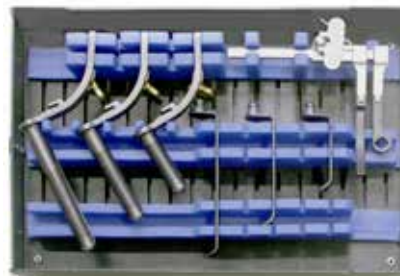


- 12mm Inside Diameter
- Black color Stainless steel construction for low reflection
- 3rd blade retraction option using Cross Retractor



**Picolo 12mm Inside Diameter Specula Retractors for Mini Incision Surgeries. 50 mm, 75 mm and 100 mm deep blade sizes.**

**Custom Order Item:**  
**7268-15      60 mm deep Specula**



### 7268-00 Picolo Mini Incision Specula Retractor Set

Set includes one (1) each of the following items:

- 7268-10 Specula Retractor 50mm
- 7268-20 Specula Retractor 75mm
- 7268-30 Specula Retractor 100mm
- 7268-40 Cross Retractor
- 7268-50 Cross Retractor Blade 50mm
- 7268-60 Cross Retractor Blade 75mm
- 7268-70 Cross Retractor Blade 100mm
- 7268-80 Blade Ejector, 4 3/4", 12 cm long
- 7268-90 Sterilizable Instrument Case

Optional:  
7268-15 Specula Retractor 60mm



## Titanium Radiolucent Blades

Arm Length: 6 cm

Maximum Opening: 6.5 cm

\*Design elements of instrument are Patented

### 7274-00 UltraSlim™ Microdissection Retractor Set

#### Set Includes:

|         |      |                                                                                 |
|---------|------|---------------------------------------------------------------------------------|
| 7274-10 | 1 ea | UltraSlim™ Retractor Frame only                                                 |
| 7274-15 | 2 ea | Blade Inserting Clamp                                                           |
| 7274-30 | 2 ea | Ti Slim Blade, 10x30 mm                                                         |
| 7274-40 | 2 ea | Ti Slim Blade, 10x40 mm                                                         |
| 7274-50 | 2 ea | Ti Slim Blade, 10x50 mm                                                         |
| 7274-60 | 2 ea | Ti Slim Blade, 10x60 mm                                                         |
| 7274-70 | 2 ea | Ti Slim Blade, 10x70 mm                                                         |
| 7276-90 | 1 ea | Sterilizing Case for UltraSlim™ Microdissection Retractor Set size 9 x 6 x 1.5" |



## Microdissection Retractor with Caspar Style Blades

### Stainless Steel Blades

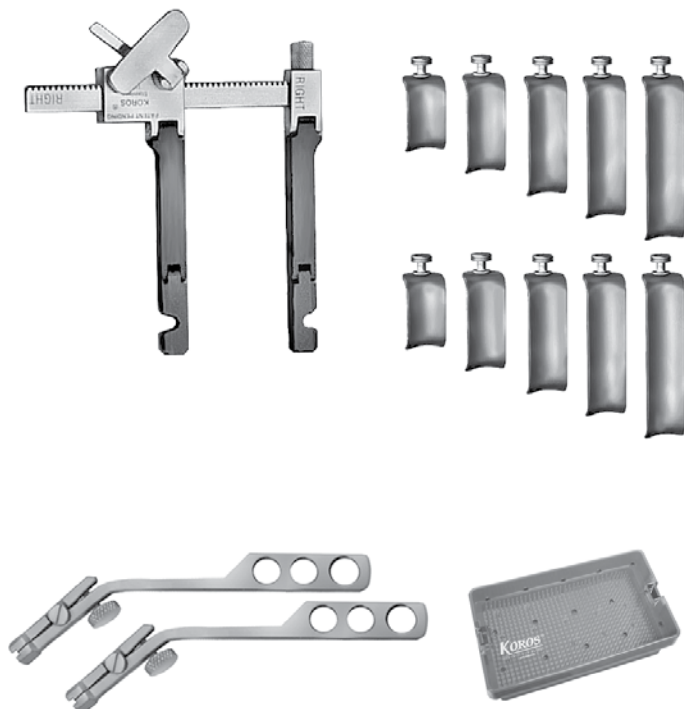
Arm Length: 8 cm

Maximum Opening: 6.5 cm

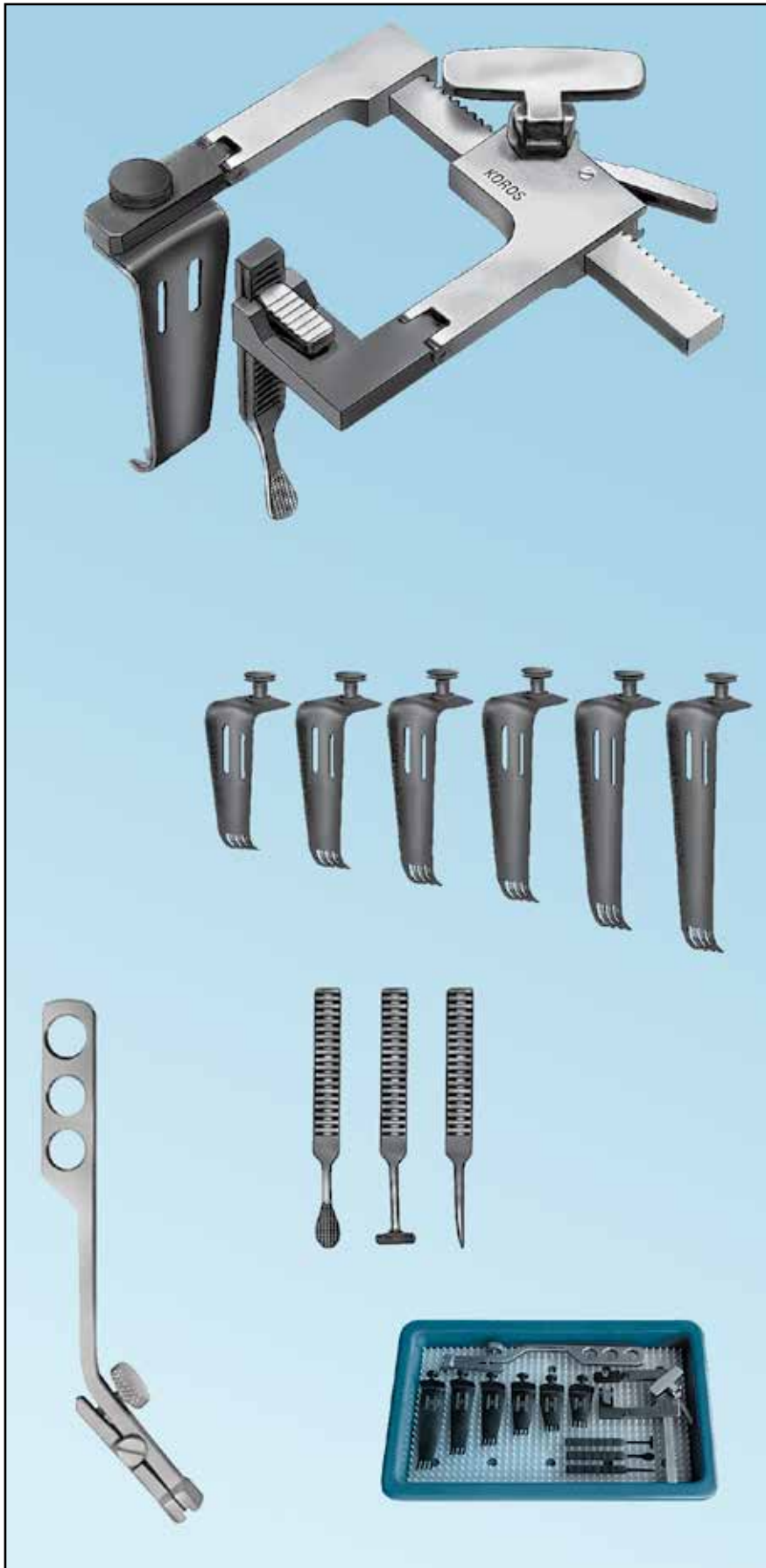
### 7275-00 Microdissection Retractor Set with Caspar Style Blades

#### Set Includes:

|         |      |                                                                                  |
|---------|------|----------------------------------------------------------------------------------|
| 7275-10 | 1 ea | Micro Retractor Frame only                                                       |
| 7275-15 | 2 ea | Blade Inserting Clamp (18 cm long)                                               |
| 7275-30 | 2 ea | Caspar Type Blade, 23x30 mm                                                      |
| 7275-40 | 2 ea | Caspar Type Blade, 23x40 mm                                                      |
| 7275-50 | 2 ea | Caspar Type Blade, 23x50 mm                                                      |
| 7275-60 | 2 ea | Caspar Type Blade, 23x60 mm                                                      |
| 7275-70 | 2 ea | Caspar Type Blade, 23x70 mm                                                      |
| 7275-90 | 1 ea | Sterilizing Case for Caspar Type Microdissection Retractor Set size 9 x 6 x 1.5" |



## Black Belt™ Microdiscectomy Retractor Set



### **7276-00 Black Belt™ Microdiscectomy Retractor Set**

#### **Set Includes:**

|         |      |                                                                   |              |
|---------|------|-------------------------------------------------------------------|--------------|
| 7276-10 | 1 ea | Retractor Frame Only                                              | <sup>A</sup> |
| 7276-15 | 1 ea | Blade Inserting Clamp                                             |              |
|         |      | (18 cm long)                                                      |              |
| 7276-20 | 1 ea | Spike Blade, 70 mm                                                |              |
| 7276-30 | 1 ea | T-Shape Blade, 70 mm                                              |              |
| 7276-35 | 1 ea | Inner Spine Ligament<br>Blade, 70 mm                              |              |
| 7276-40 | 1 ea | Pronged Blade, 22x40 mm                                           |              |
| 7276-45 | 1 ea | Pronged Blade, 22x45 mm                                           |              |
| 7276-50 | 1 ea | Pronged Blade, 22x50 mm                                           |              |
| 7276-60 | 1 ea | Pronged Blade, 22x60 mm                                           |              |
| 7276-70 | 1 ea | Pronged Blade, 22x70 mm                                           |              |
| 7276-85 | 1 ea | Pronged Blade, 22x85 mm                                           |              |
| 7276-90 | 1 ea | Sterilizing Case for Black<br>Belt™ Microdiscectomy Retractor Set |              |

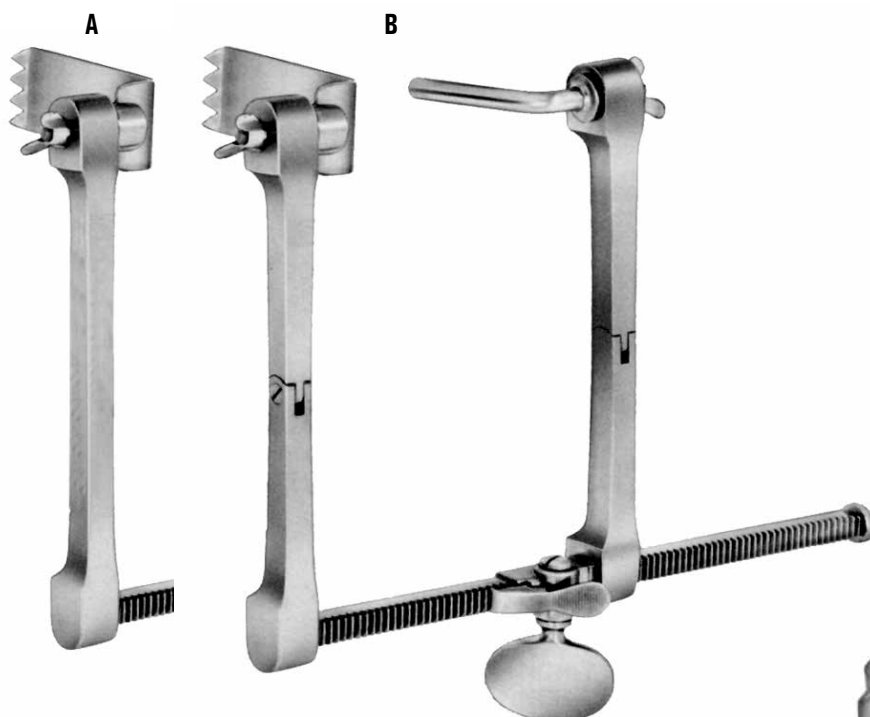
\*Black Belt Retractor Set blades are compatible  
with this retractor set .

Custom size blades are available.

Arm Length: 6 cm

Maximum Opening: 5 cm

Design elements of instrument are  
Patented in the U.S.A. and other  
countries.



## Scoville Retractor (A)

- 7280-00 Scoville Self-Retaining Hemilaminectomy Retractor with straight arms includes:  
 1 ea 7281-10 50 mm deep hook  
 1 ea 7282-10 25x64 mm blade  
 7280-10 Retractor Frame Only (15 cm arm length)

## Scoville-Haverfield Retractor (B)

- 7280-02 Scoville-Haverfield Hemilaminectomy Retractor with hinged arms includes:  
 1 ea 7281-10 50 mm deep hook  
 1 ea 7282-10 25x64 mm blade  
 7280-20 Retractor Frame Only (15 cm arm length)

## Single Tooth Taylor

|         | Width x Depth |
|---------|---------------|
| 7286-10 | 32x76 mm      |
| 7286-20 | 32x102 mm     |

## Meyerding Blades

|         | Width x Depth |
|---------|---------------|
| 7287-10 | 25x57 mm      |
| 7287-20 | 25x76 mm      |
| 7287-30 | 51x89 mm      |

# Scoville Retractor Blades & Transverse Retraction Retractor

## Optional Blades:



## Scoville Hooks

|                     | Depth |
|---------------------|-------|
| 7281-10             | 50 mm |
| 7281-20             | 75 mm |
| 7281-30 w/cross bar | 50 mm |
| 7281-40 w/cross bar | 70 mm |



## Scoville Blades

|         | Width x Depth |
|---------|---------------|
| 7282-10 | 25x64 mm      |
| 7282-20 | 51x64 mm      |
| 7282-30 | 32x67 mm      |
| 7282-40 | 25x89 mm      |



## Taylor Blades

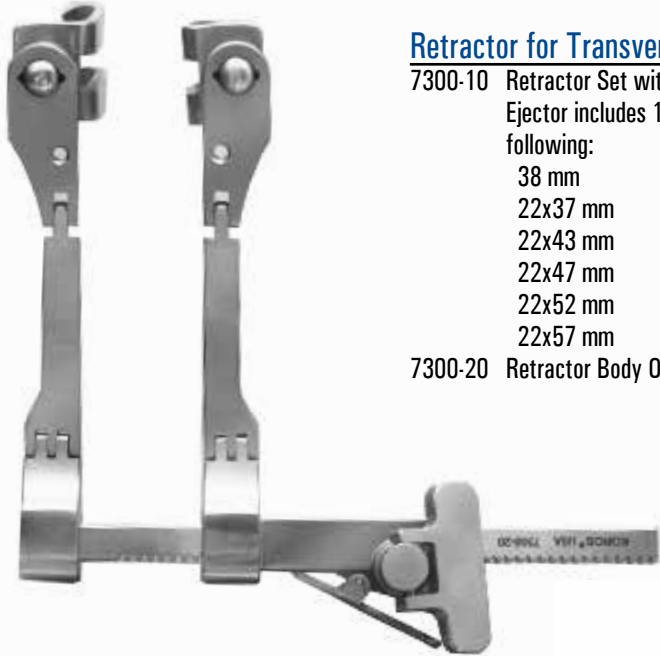
|         | Width x Depth |
|---------|---------------|
| 7283-10 | 38x41 mm      |
| 7283-20 | 48x67 mm      |
| 7283-30 | 51x48 mm      |
| 7283-40 | 64 x 64 mm    |
| 7283-50 | 57x79 mm      |



## Hibbs Blades

|         | Width x Depth |
|---------|---------------|
| 7284-10 | 25x51 mm      |
| 7284-20 | 51x51 mm      |
| 7284-30 | 25x64 mm      |
| 7284-40 | 38x64 mm      |
| 7284-50 | 25x76 mm      |
| 7284-60 | 38x76 mm      |
| 7284-70 | 51x76 mm      |
| 7284-80 | 25x102 mm     |
| 7284-90 | 51x102 mm     |

Quatro™ Laminectomy Retractor Set



Retractor for Transverse Retraction

- 7300-10 Retractor Set with Blade  
Ejector includes 1 ea of the following:
- |          |       |
|----------|-------|
| 38 mm    | hook  |
| 22x37 mm | blade |
| 22x43 mm | blade |
| 22x47 mm | blade |
| 22x52 mm | blade |
| 22x57 mm | blade |
- 7300-20 Retractor Body Only 15 cm



Hooks

|         | Depth |
|---------|-------|
| 7301-38 | 38 mm |
| 7301-58 | 58 mm |

2 Prong Blades

|         | Width x Depth |
|---------|---------------|
| 7302-37 | 22x37 mm      |
| 7302-43 | 22x43 mm      |
| 7302-47 | 22x47 mm      |
| 7302-52 | 22x52 mm      |
| 7302-57 | 22x57 mm      |
| 7302-67 | 22x67 mm      |

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7305-00 Quatro™ Laminectomy Retractor Set

| Consists of:                      | Width x Depth  |
|-----------------------------------|----------------|
| 7305-10 1 ea Retractor Frame Only |                |
| 7305-20 2 ea 4 Prong Blades       | 2 x 2 3/4"     |
| 7305-30 2 ea 5 Prong Blades       | 2 1/4 x 3 1/2" |
| 7305-40 2 ea 7 Prong Blades       | 2 1/4 x 3 1/2" |



4 Prong Quatro Blade

|         | Width x Depth |
|---------|---------------|
| 7305-20 | 2 x 2 3/4"    |



5 Prong Quatro Blade

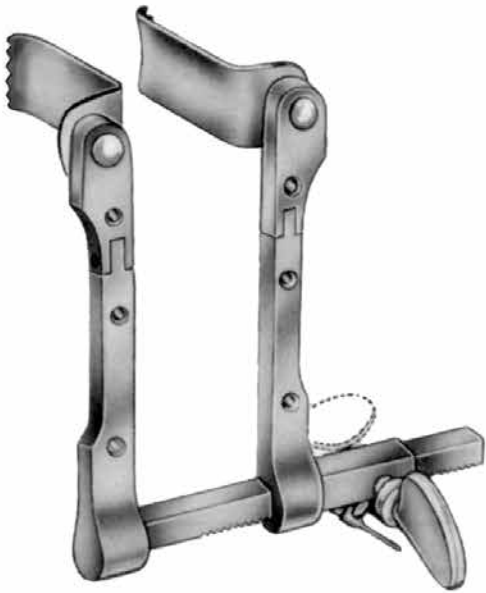
|         | Width x Depth  |
|---------|----------------|
| 7305-30 | 2 1/4 x 3 1/2" |



7 Prong Quatro Blade

|         | Width x Depth  |
|---------|----------------|
| 7305-40 | 2 1/4 x 3 1/2" |

## Caspar Type Cervical Retractors



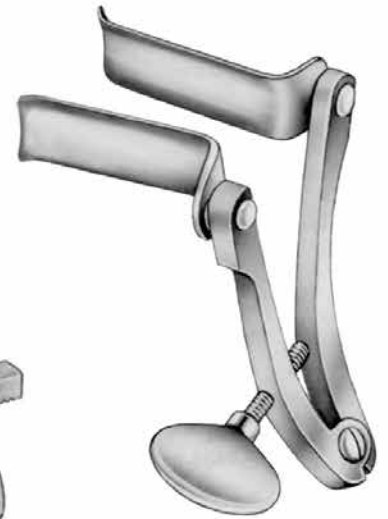
### Transverse Retractor

7290-10 Retractor Set with five medial  
blades sizes 40-45-50-55-60 mm  
7290-20 Retractor Frame Only  
4-3/4", 12 cm



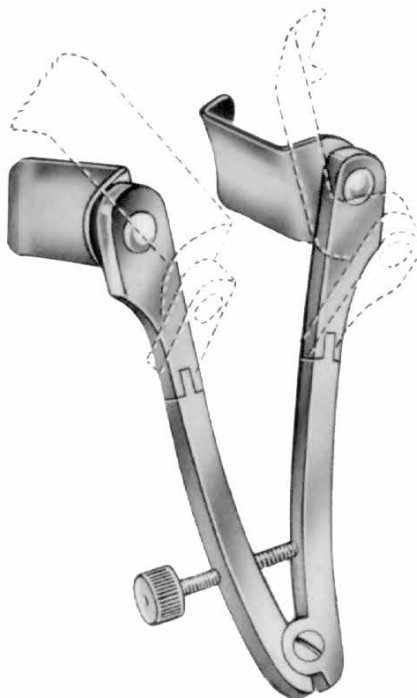
### Double Hinged Transverse Retractor

7290-30 Retractor Frame Only  
4-3/4", 12 cm



### V-Type Retractor

7310-10 Retractor Set with 5 blunt blades  
sizes 40-45-50-55-60 mm  
7310-20 Retractor Frame Only  
4-1/2", 11 cm



### V-Type Hinged Retractor

7313-10 Retractor Set with five blunt  
blades sizes 40-45-50-55-60 mm  
7313-20 Longitudinal Retractor Frame Only  
Length 4 1/2", 11 cm



### Swivel Arm Retractor

7312-10 Retractor Set with five blunt  
blades sizes 40-45-50-55-60 mm  
7312-20 Retractor Frame Only 6 1/2", 17 cm

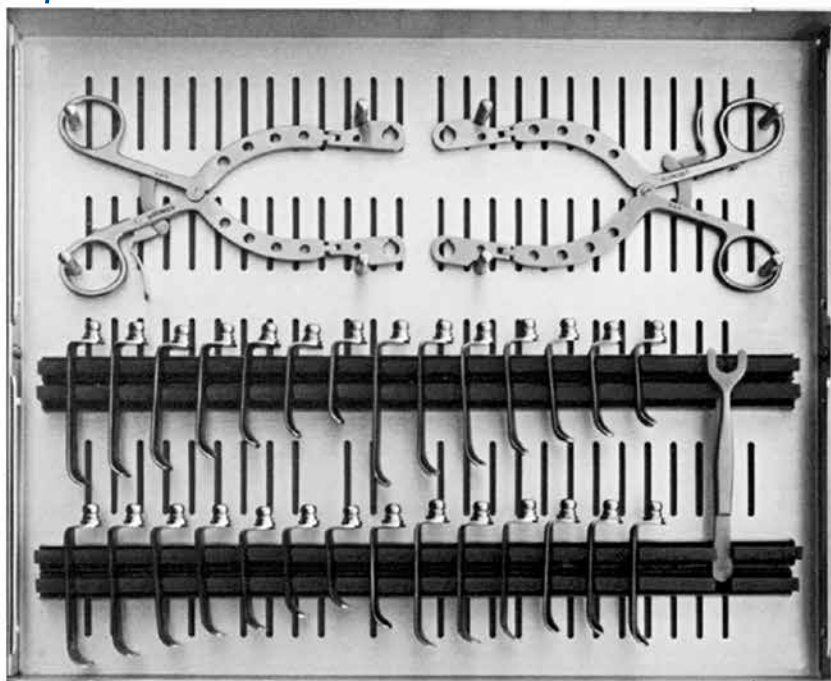
## Quick-Change™ Spinal Retractor Set

### 7314-10 Quick-Change™ Spinal Retractor Set

Consists of:

- 2 ea Retractor Frames
- 1 ea Medial Blade (7 total)  
sizes 40, 45, 50, 55, 60, 65, 70 mm
- 1 ea Lateral Blade (7 total)  
sizes 40, 45, 50, 55, 60, 65, 70 mm
- 1 ea Blunt Blade (7 total)  
sizes 40, 45, 50, 55, 60, 65, 70 mm
- 1 ea Blade Ejector
- 1 ea Instrument Case

7314-25 Instrument Case only  
for Quick-Change™ Retractor Set



### Quick-Change™ Retractor Frame

7314-20 Retractor Frame Only  
7", 18 cm long



#### Blade Ejector

7268-80 4-3/4", 12 cm long

## Caspar Type Blades



#### Medial Blades

23 mm Width

|         | Depth: |
|---------|--------|
| 7292-40 | 40 mm  |
| 7292-45 | 45 mm  |
| 7292-50 | 50 mm  |
| 7292-55 | 55 mm  |
| 7292-60 | 60 mm  |
| 7292-65 | 65 mm  |
| 7292-70 | 70 mm  |



#### Lateral Blades

23 mm Width

|         | Depth: |
|---------|--------|
| 7294-40 | 40 mm  |
| 7294-45 | 45 mm  |
| 7294-50 | 50 mm  |
| 7294-55 | 55 mm  |
| 7294-60 | 60 mm  |
| 7294-65 | 65 mm  |
| 7294-70 | 70 mm  |



#### Blunt Blades

23 mm Width

|         | Depth: |
|---------|--------|
| 7316-40 | 40 mm  |
| 7316-45 | 45 mm  |
| 7316-50 | 50 mm  |
| 7316-55 | 55 mm  |
| 7316-60 | 60 mm  |
| 7316-65 | 65 mm  |
| 7316-70 | 70 mm  |



#### Titanium Discectomy Blades

23 mm Width

|         | Depth: |
|---------|--------|
| 7314-30 | 30 mm  |
| 7314-40 | 40 mm  |
| 7314-50 | 50 mm  |
| 7314-60 | 60 mm  |
| 7314-70 | 70 mm  |

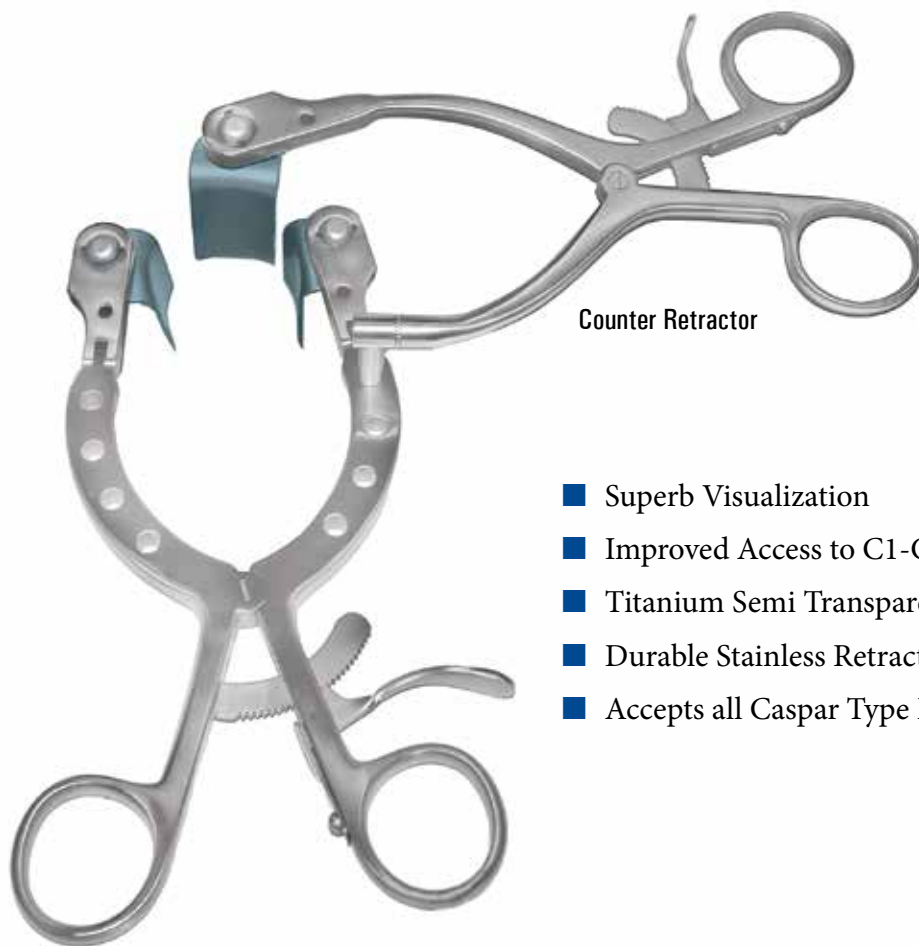


#### Titanium Longitudinal Blades

20 mm Width

|         | Depth: |
|---------|--------|
| 7315-30 | 30 mm  |
| 7315-40 | 40 mm  |
| 7315-50 | 50 mm  |
| 7315-60 | 60 mm  |
| 7315-70 | 70 mm  |

## Apfelbaum Caspar Type Odontoid Retractor Set



Counter Retractor

- Superb Visualization
- Improved Access to C1-C2 inner space
- Titanium Semi Transparent Blades
- Durable Stainless Retractor Construction
- Accepts all Caspar Type Blades

### 7316-72 Apfelbaum Caspar Type Odontoid Anterior Cervical Fusion Retractor Set- Stainless Steel

|                                    |      |                                  |               |
|------------------------------------|------|----------------------------------|---------------|
| 7316-73                            | 1 ea | Caspar Type Retractor Frame      | 15 cm         |
| 7316-74                            | 1 ea | Apfelbaum Type Counter Retractor |               |
| 7316-75                            | 1 ea | Blade Ejector                    | 12 cm         |
| 7316-76                            | 2 ea | Caspar Blades                    | 35x23 mm      |
| 7316-77                            | 2 ea | Caspar Blades                    | 40x23 mm      |
| 7316-78                            | 2 ea | Caspar Blades                    | 45x23 mm      |
| 7316-79                            | 2 ea | Caspar Blades                    | 50x23 mm      |
| 7316-80                            | 2 ea | Caspar Blades                    | 55x23 mm      |
| 7316-81                            | 2 ea | Caspar Blades                    | 60x23 mm      |
| 7316-82                            | 2 ea | Caspar Blades                    | 65x23 mm      |
| 7316-83                            | 2 ea | Caspar Blades                    | 70x23 mm      |
| <u>Lower Length x Upper Length</u> |      |                                  |               |
| 7316-84                            | 1 ea | Counter Blades                   | 37 mm x 38 mm |
| 7316-85                            | 1 ea | Counter Blades                   | 77 mm x 38 mm |
| 7316-86                            | 1 ea | Counter Blades                   | 67 mm x 30 mm |
| 7316-87                            | 1 ea | Counter Blades                   | 77 mm x 30 mm |
| 7316-88                            | 1 ea | Counter Blades                   | 67 mm x 56 mm |
| 7316-89                            | 1 ea | Counter Blades                   | 77 mm x 56 mm |
| 7316-90                            | 1 ea | Odontoid Instrument Tray         |               |

### 7316-72T Apfelbaum Caspar Type Odontoid Anterior Cervical Fusion Retractor Set-Titanium

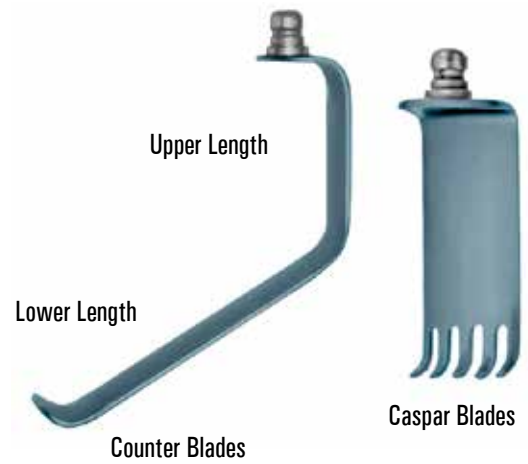
|                                    |      |                                  |               |
|------------------------------------|------|----------------------------------|---------------|
| 7316-73                            | 1 ea | Caspar Type Retractor Frame      | 15 cm         |
| 7316-74                            | 1 ea | Apfelbaum Type Counter Retractor |               |
| 7316-75                            | 1 ea | Blade Ejector                    | 12 cm         |
| 7316-76T                           | 2 ea | Titanium Caspar Blades           | 35x23 mm      |
| 7316-77T                           | 2 ea | Titanium Caspar Blades           | 40x23 mm      |
| 7316-78T                           | 2 ea | Titanium Caspar Blades           | 45x23 mm      |
| 7316-79T                           | 2 ea | Titanium Caspar Blades           | 50x23 mm      |
| 7316-80T                           | 2 ea | Titanium Caspar Blades           | 55x23 mm      |
| 7316-81T                           | 2 ea | Titanium Caspar Blades           | 60x23 mm      |
| 7316-82T                           | 2 ea | Titanium Caspar Blades           | 65x23 mm      |
| 7316-83T                           | 2 ea | Titanium Caspar Blades           | 70x23 mm      |
| <u>Lower Length x Upper Length</u> |      |                                  |               |
| 7316-84T                           | 1 ea | Titanium Counter Blades          | 37 mm x 38 mm |
| 7316-85T                           | 1 ea | Titanium Counter Blades          | 77 mm x 38 mm |
| 7316-86T                           | 1 ea | Titanium Counter Blades          | 67 mm x 30 mm |
| 7316-87T                           | 1 ea | Titanium Counter Blades          | 77 mm x 30 mm |
| 7316-88T                           | 1 ea | Titanium Counter Blades          | 67 mm x 56 mm |
| 7316-89T                           | 1 ea | Titanium Counter Blades          | 77 mm x 56 mm |
| 7316-90                            | 1 ea | Odontoid Instrument Tray         |               |

**\*Items are custom made.**

## Odontoid Retractor Set



7316-90 Odontoid Instrument Tray



### Titanium Counter Blades

| 23 mm Wide | Lower x Upper |
|------------|---------------|
| 7316-84T   | 67x30 mm      |
| 7316-85T   | 77x30 mm      |
| 7316-86T   | 67x38 mm      |
| 7316-87T   | 77x38 mm      |
| 7316-88T   | 67x56 mm      |
| 7316-89T   | 77x56 mm      |

### Titanium Caspar Type Blades

| 23 mm Wide | Depth |
|------------|-------|
| 7316-35T   | 35 mm |
| 7316-40T   | 40 mm |
| 7316-45T   | 45 mm |
| 7316-50T   | 50 mm |
| 7316-55T   | 55 mm |
| 7316-60T   | 60 mm |
| 7316-65T   | 65 mm |
| 7316-70T   | 70 mm |

### Optional Blades



#### Stainless Steel Medial Blades

| 23 mm Width | Depth |
|-------------|-------|
| 7292-40     | 40 mm |
| 7292-45     | 45 mm |
| 7292-50     | 50 mm |
| 7292-55     | 55 mm |
| 7292-60     | 60 mm |
| 7292-65     | 65 mm |
| 7292-70     | 70 mm |



#### Stainless Steel Lateral Blades

| 23 mm Width | Depth |
|-------------|-------|
| 7294-40     | 40 mm |
| 7294-45     | 45 mm |
| 7294-50     | 50 mm |
| 7294-55     | 55 mm |
| 7294-60     | 60 mm |
| 7294-65     | 65 mm |
| 7294-70     | 70 mm |



#### Stainless Steel Blunt Blades

| 23 mm Width | Depth |
|-------------|-------|
| 7316-40     | 40 mm |
| 7316-45     | 45 mm |
| 7316-50     | 50 mm |
| 7316-55     | 55 mm |
| 7316-60     | 60 mm |
| 7316-65     | 65 mm |
| 7316-70     | 70 mm |



#### Titanium Discectomy Blades

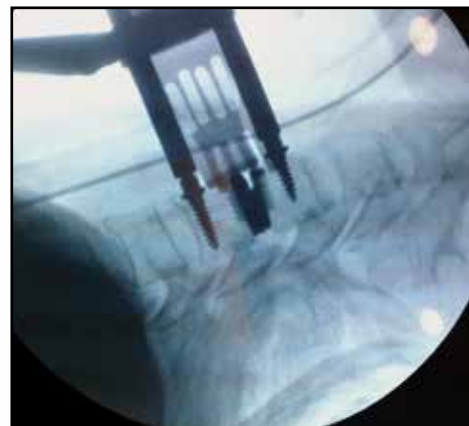
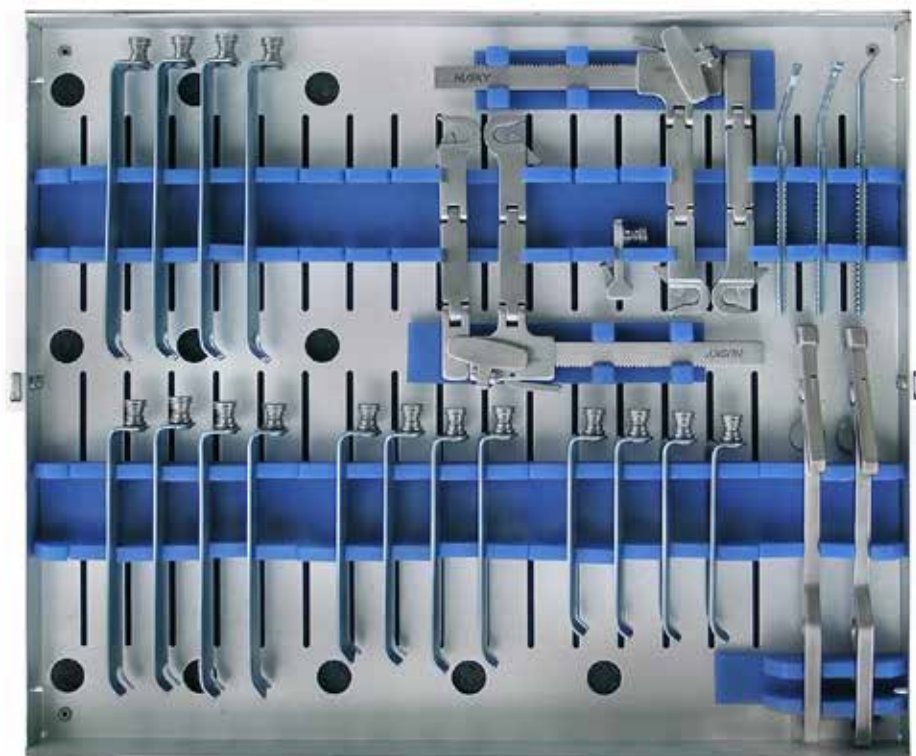
| 23 mm Width | Depth |
|-------------|-------|
| 7314-30     | 30 mm |
| 7314-40     | 40 mm |
| 7314-50     | 50 mm |
| 7314-60     | 60 mm |
| 7314-70     | 70 mm |



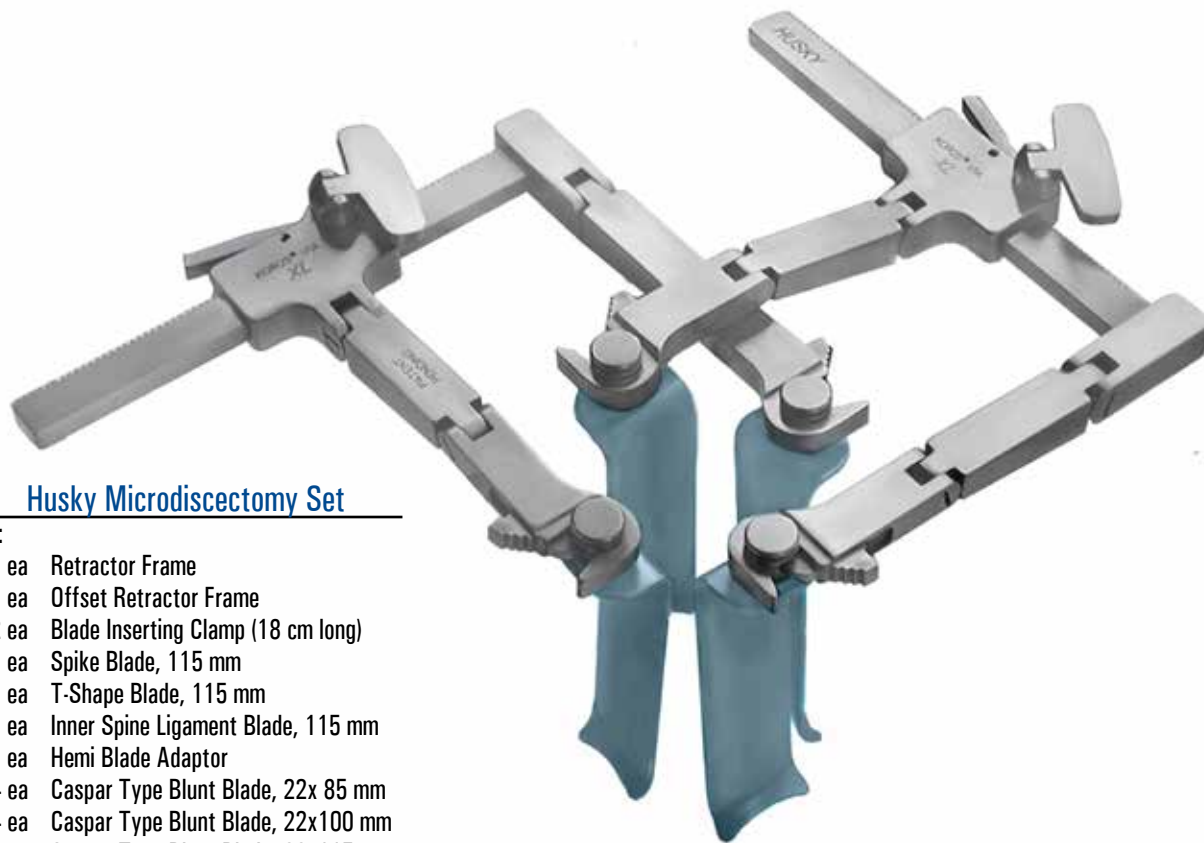
#### Titanium Longitudinal Blades

| 20 mm Width | Depth |
|-------------|-------|
| 7315-30     | 30 mm |
| 7315-40     | 40 mm |
| 7315-50     | 50 mm |
| 7315-60     | 60 mm |
| 7315-70     | 70 mm |

# Husky Microdiscectomy Retractor Set



*Advanced  
Titanium  
Blade  
Construction*



## 7317-00 Husky Microdiscectomy Set

### Set Includes:

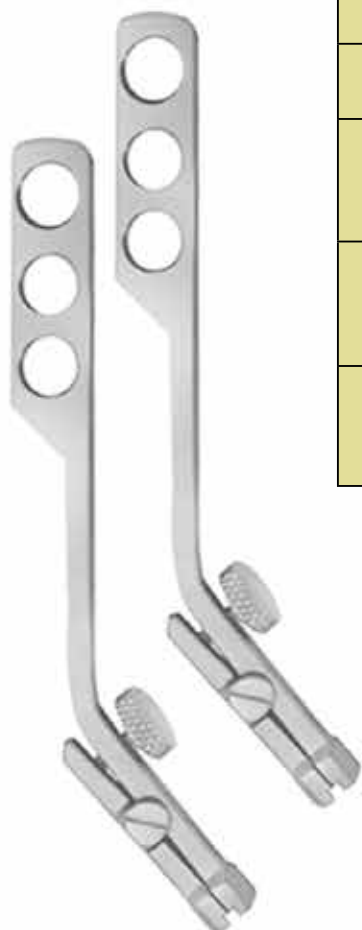
- |         |      |                                    |
|---------|------|------------------------------------|
| 7317-10 | 1 ea | Retractor Frame                    |
| 7317-12 | 1 ea | Offset Retractor Frame             |
| 7317-15 | 2 ea | Blade Inserting Clamp (18 cm long) |
| 7317-20 | 1 ea | Spike Blade, 115 mm                |
| 7317-22 | 1 ea | T-Shape Blade, 115 mm              |
| 7317-24 | 1 ea | Inner Spine Ligament Blade, 115 mm |
| 7317-26 | 1 ea | Hemi Blade Adaptor                 |
| 7317-46 | 4 ea | Caspar Type Blunt Blade, 22x 85 mm |
| 7317-47 | 4 ea | Caspar Type Blunt Blade, 22x100 mm |
| 7317-48 | 4 ea | Caspar Type Blunt Blade, 22x115 mm |
| 7317-49 | 4 ea | Caspar Type Blunt Blade, 22x130 mm |
| 7317-95 | 1 ea | Discectomy Sterilizing Case        |

# Husky Microdiscectomy Retractor Set Optional Blades



Optional Blades for Husky Microdiscectomy Retractor Set

|         | Discectomy Sharp | Caspar Type Blunt | Tapered Sharp    | Tapered Blunt    | Wide Off-set Sharp | Wide off-set Blunt |         |
|---------|------------------|-------------------|------------------|------------------|--------------------|--------------------|---------|
| Size mm | Width 23mm       | Width 23mm        | Width 14 to 23mm | Width 14 to 23mm | Width 23 to 27mm   | Width 23 to 27mm   | Size mm |
| 40      | -                | -                 | 7317-50          | 7317-60          | 7317-70            | 7318-80            | 40      |
| 45      | 7317-30          | 7317-40           | 7317-51          | 7317-61          | -                  | -                  | 45      |
| 47      | -                | -                 | -                | -                | 7317-71            | 7317-81            | 47      |
| 50      | 7317-31          | 7317-41           | 7317-52          | 7317-62          | -                  | -                  | 50      |
| 55      | 7317-32          | 7317-42           | 7317-53          | 7317-63          | 7317-72            | 7317-82            | 55      |
| 60      | 7317-33          | 7317-43           | 7317-54          | 7317-64          | -                  | -                  | 60      |
| 65      | 7317-34          | 7317-44           | -                | -                | 7317-73            | 7317-83            | 65      |
| 70      | 7317-35          | 7317-45           | 7317-55          | 7317-65          | 7317-74            | 7317-84            | 70      |
| 75      | -                | -                 | -                | -                | 7317-75            | 7317-85            | 75      |
| 85      | 7317-36          | 7317-46           | 7317-56          | 7317-66          | 7317-76            | 7317-86            | 85      |
| 90      | -                | -                 | 7317-57          | 7317-67          | 7317-77            | 7317-87            | 90      |
| 95      | -                | -                 | 7317-58          | 7317-68          | 7317-78            | 7317-88            | 95      |
| 100     | 7317-37          | 7317-47           | 7317-59          | 7317-69          | 7317-79            | 7317-89            | 100     |
| 115     | 7317-38          | 7317-48           | -                | -                | -                  | -                  | 115     |
| 130     | 7317-39          | 7317-49           | -                | -                | -                  | -                  | 130     |



Blade Holders

7317-15 Blade Holder Clamp



Hemi Blades

Length 115 mm  
 7317-20 Spike Blade  
 7317-22 T-Shape Blade  
 7317-24 Inner Spine Ligament



Hemi Blades Adaptor

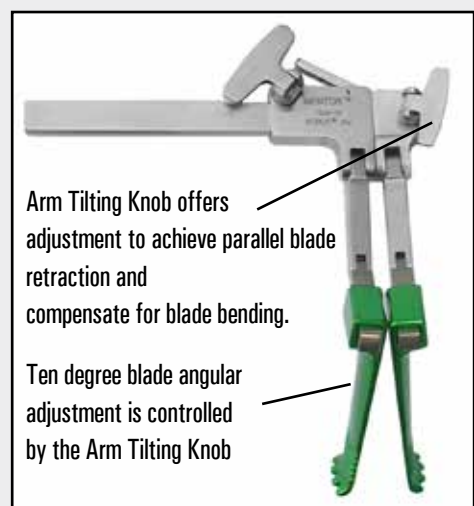
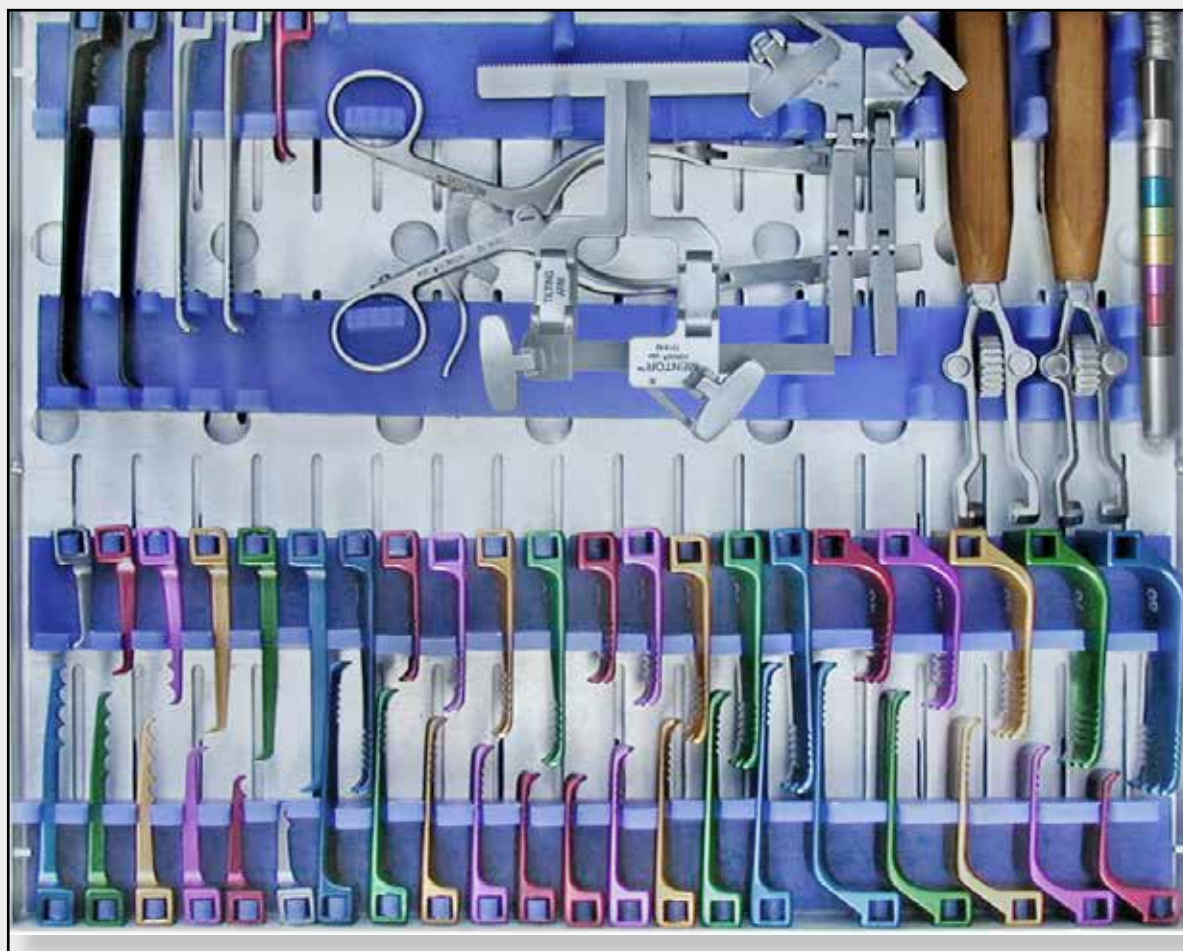
7317-26 Hemi Blade Adaptor

M

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T



- Largest selection of color coded blades for excellent exposure.
- Mentor™ Markham-Meyerding type retractor comes with interchangeable blades for hemilaminectomy use.
- Radiolucent blades offer improved visualization of pedicle screw placement.
- Blades are engineered to prevent free sliding on arms for increased safety.
- Minimally invasive, transparent blades are interchangeable with similar style systems.

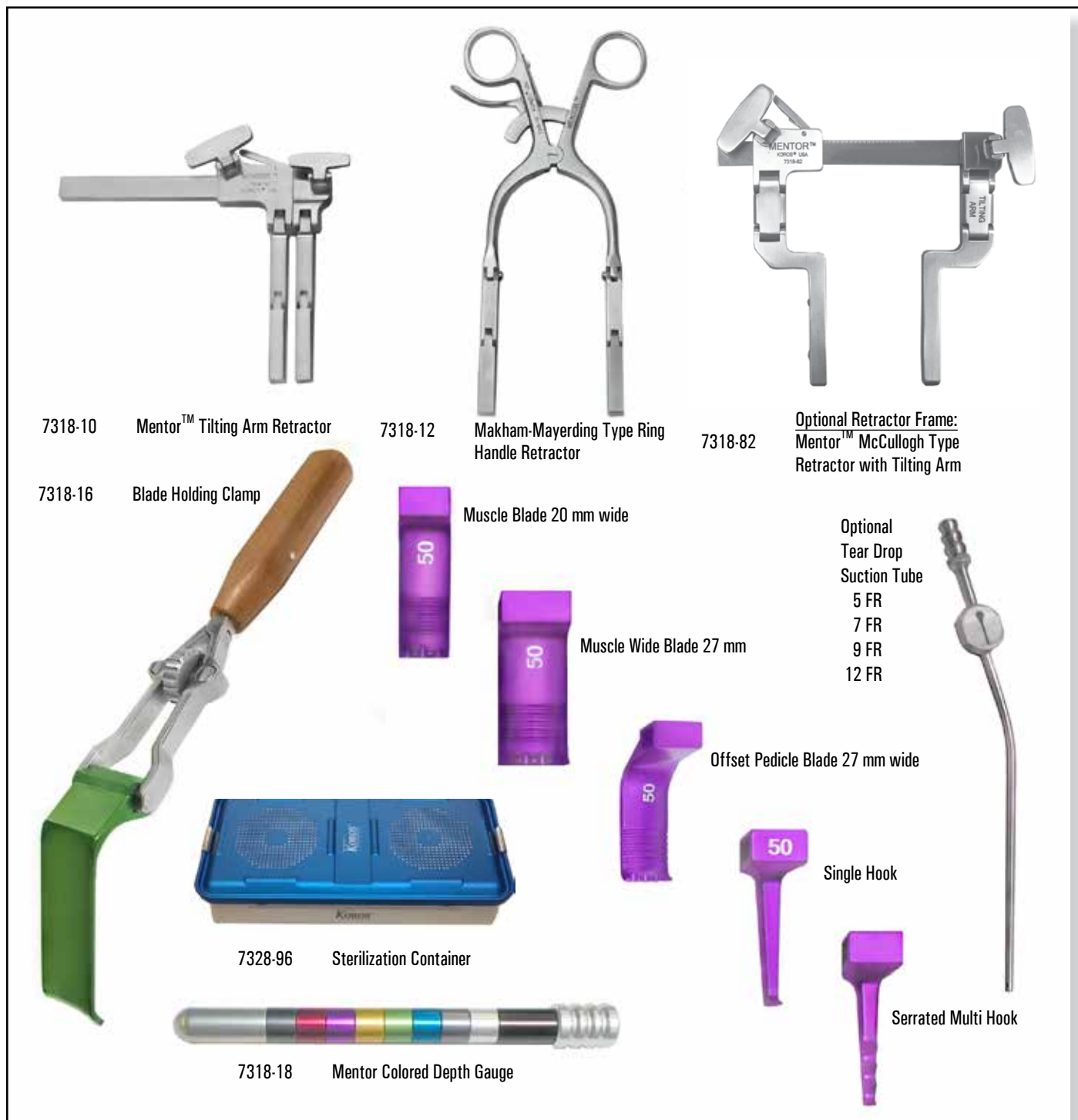


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**Transverse and Offset Retractors are available with patented tilting arm to prevent blade migration from incision. US patent number 6,139,493**

# Mentor™ Cervical and Lumbar Retractor Systems



## COLOR CODED RADIOLOGENT BLADES

## MENTOR™ Cervical and Lumbar Retractor Sets

7318-02    Mentor™ Improved Retractor **STANDARD SET**  
 7318-04    Mentor™ Improved Retractor **EXTENDED SET**

| Set Components: |                                                   |             |        |                                                                                     | Standard Set | Extended Set |
|-----------------|---------------------------------------------------|-------------|--------|-------------------------------------------------------------------------------------|--------------|--------------|
| 7318-10         | Mentor™ Tilting Arm Retractor                     |             |        |                                                                                     | 1            | 1            |
| 7318-12         | Makham-Mayerding Type Ring Handle Retractor       |             |        |                                                                                     | 1            | 1            |
| 7318-82         | Mentor™ McCulloch Type Retractor with Tilting Arm |             |        |                                                                                     | -            | 1            |
| 7318-16         | Blade Holding Clamps                              |             |        |                                                                                     | 2            | 2            |
| 7318-18         | Colored Depth Gauge                               |             |        |                                                                                     | 1            | 1            |
| 7318-20         | Sterilizing Instrument Case                       |             |        |                                                                                     | 1            | 1            |
| CODE            |                                                   |             |        |                                                                                     |              |              |
| 7318-21         | Muscle Blade                                      | 20 x 40 mm  | red    |    | 2            | 2            |
| 7318-22         | Muscle Blade                                      | 20 x 50 mm  | purple |    | 2            | 2            |
| 7318-23         | Muscle Blade                                      | 20 x 60 mm  | gold   |    | 2            | 2            |
| 7318-24         | Muscle Blade                                      | 20 x 70 mm  | green  |    | 2            | 2            |
| 7318-25         | Muscle Blade                                      | 20 x 80 mm  | blue   |    | 2            | 2            |
| 7318-27         | Muscle Blade                                      | 20 x 100 mm | clear  |    | -            | 2            |
| 7318-28         | Muscle Blade                                      | 20 x 120 mm | black  |    | -            | 2            |
| 7318-31         | Muscle Wide Blade                                 | 27 x 40 mm  | red    |    | 2            | 2            |
| 7318-32         | Muscle Wide Blade                                 | 27 x 50 mm  | purple |    | 2            | 2            |
| 7318-33         | Muscle Wide Blade                                 | 27 x 60 mm  | gold   |    | 2            | 2            |
| 7318-34         | Muscle Wide Blade                                 | 27 x 70 mm  | green  |    | -            | 2            |
| 7318-35         | Muscle Wide Blade                                 | 27 x 80 mm  | blue   |   | -            | 2            |
| 7318-41         | Offset Pedicle Blade                              | 27 x 40 mm  | red    |  | 2            | 2            |
| 7318-42         | Offset Pedicle Blade                              | 27 x 50 mm  | purple |  | 2            | 2            |
| 7318-43         | Offset Pedicle Blade                              | 27 x 60 mm  | gold   |  | 2            | 2            |
| 7318-44         | Offset Pedicle Blade                              | 27 x 70 mm  | green  |  | -            | 2            |
| 7318-45         | Offset Pedicle Blade                              | 27 x 80 mm  | blue   |  | -            | 2            |
| 7318-51         | Single Hook                                       | 30 mm       | gray   |  | 1            | 1            |
| 7318-52         | Single Hook                                       | 40 mm       | red    |  | 1            | 1            |
| 7318-53         | Single Hook                                       | 50 mm       | purple |  | 1            | 1            |
| 7318-54         | Single Hook                                       | 60 mm       | gold   |  | 1            | 1            |
| 7318-55         | Single Hook                                       | 70 mm       | green  |  | -            | 1            |
| 7318-56         | Single Hook                                       | 80 mm       | blue   |  | -            | 1            |
| 7318-61         | Serrated Multi Hook                               | 30 mm       | gray   |  | 1            | 1            |
| 7318-62         | Serrated Multi Hook                               | 40 mm       | red    |  | 1            | 1            |
| 7318-63         | Serrated Multi Hook                               | 50 mm       | purple |  | 1            | 1            |
| 7318-64         | Serrated Multi Hook                               | 60 mm       | gold   |  | 1            | 1            |
| 7318-65         | Serrated Multi Hook                               | 70 mm       | green  |  | -            | 1            |
| 7318-66         | Serrated Multi Hook                               | 80 mm       | blue   |  | -            | 1            |

### OPTIONAL ITEMS:

|         |                                                                |             |       |                                                                                     |       |  |
|---------|----------------------------------------------------------------|-------------|-------|-------------------------------------------------------------------------------------|-------|--|
| 7318-30 | Muscle Blade                                                   | 27 x 30 mm  | gray  |  |       |  |
| 7318-26 | Muscle Blade                                                   | 20 x 90 mm  | gray  |  |       |  |
| 7318-36 | Muscle Blade                                                   | 27 x 90 mm  | gray  |  |       |  |
| 7318-37 | Muscle Blade                                                   | 27 x 100 mm | clear |  |       |  |
| 7318-38 | Muscle Blade                                                   | 27 x 120 mm | black |  |       |  |
| 7318-82 | Mentor™ McCulloch Type Retractor with Tilting Arm ( see p. 55) |             |       |                                                                                     |       |  |
| 7318-91 | Tear Drop Suction Tube                                         |             |       |                                                                                     | 5 FR  |  |
| 7318-92 | Tear Drop Suction Tube                                         |             |       |                                                                                     | 7 FR  |  |
| 7318-93 | Tear Drop Suction Tube                                         |             |       |                                                                                     | 9 FR  |  |
| 7318-94 | Tear Drop Suction Tube                                         |             |       |                                                                                     | 12 FR |  |

Custom size blades are available.

## McCullogh Spinal Instruments



7233-12

### McCullogh Suction Tubes

### Size

|         |                                |            |    |
|---------|--------------------------------|------------|----|
| 7315-11 | Suction Tube, fenestrated tip  | 2 mm dia   | 6  |
| 7315-13 | Suction Tube, fenestrated tip  | 2.3 mm dia | 7  |
| 7315-15 | Suction Tube, fenestrated tip  | 3 mm dia   | 9  |
| 7315-17 | Suction Tube, fenestrated tip, | 4 mm dia   | 12 |

### McCullogh Spinal Instruments

|         |                                   | Tip   | length  |
|---------|-----------------------------------|-------|---------|
| 7315-21 | Hockey Stick Chisel curved left   | 5 mm  | 22 cm   |
| 7315-23 | Hockey Stick Chisel, curved right | 5 mm  | 22 cm   |
| 7315-27 | Cobb Spinal Elevator              | 12 mm | 25 cm   |
| 7315-29 | Cobb Spinal Elevator              | 19 mm | 26.5 cm |
| 7233-14 | Scoville Mcculloch Hand Retractor | 4 mm  | 11.5 cm |
| 7260-56 | Double Ended Davis                |       | 28 cm   |
| 7333-08 | Angled probe,                     | 4 mm  | 24.5 cm |
| 7333-09 | Angled probe,                     | 8 mm  | 24.5 cm |
| 7335-04 | 3 mm angled Ball Probe            | 4 mm  | 21 cm   |
| 7335-06 | 2.4 mm Angled Ball Probe          | 8 mm  | 25 cm   |



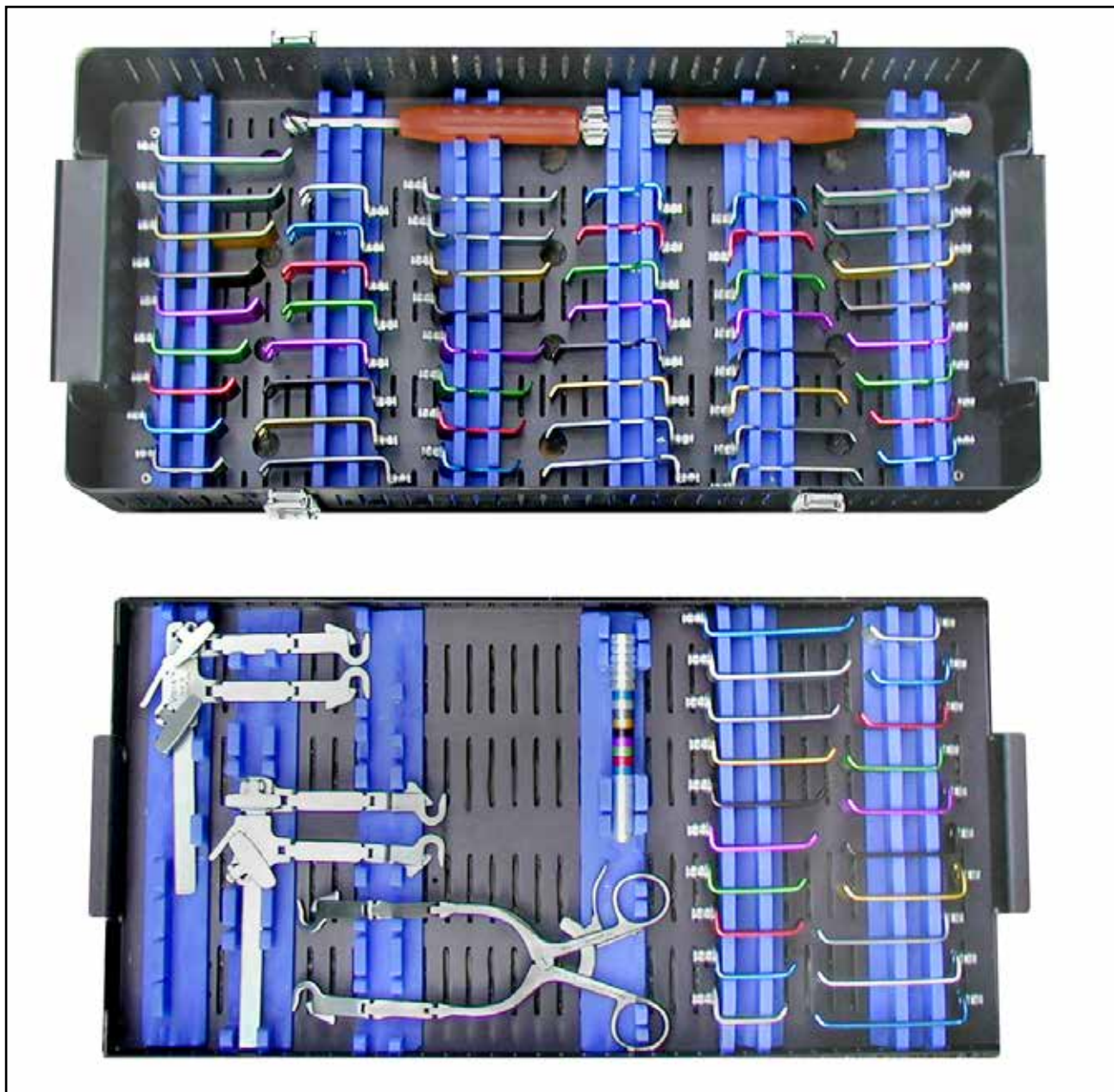
7233-14      7260-56      7315-21      7315-23      7315-27      7315-29      7333-08      7333-09      7335-04      7335-06

## Vista Cervical ACF & Mini Lumbar Retractor System



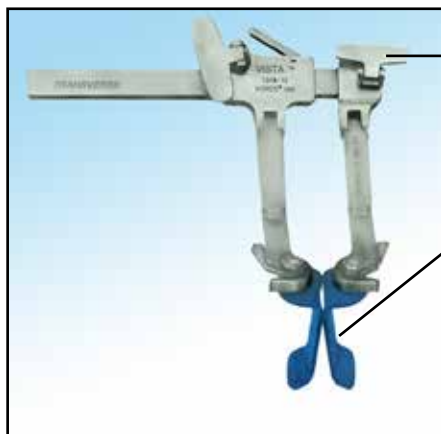
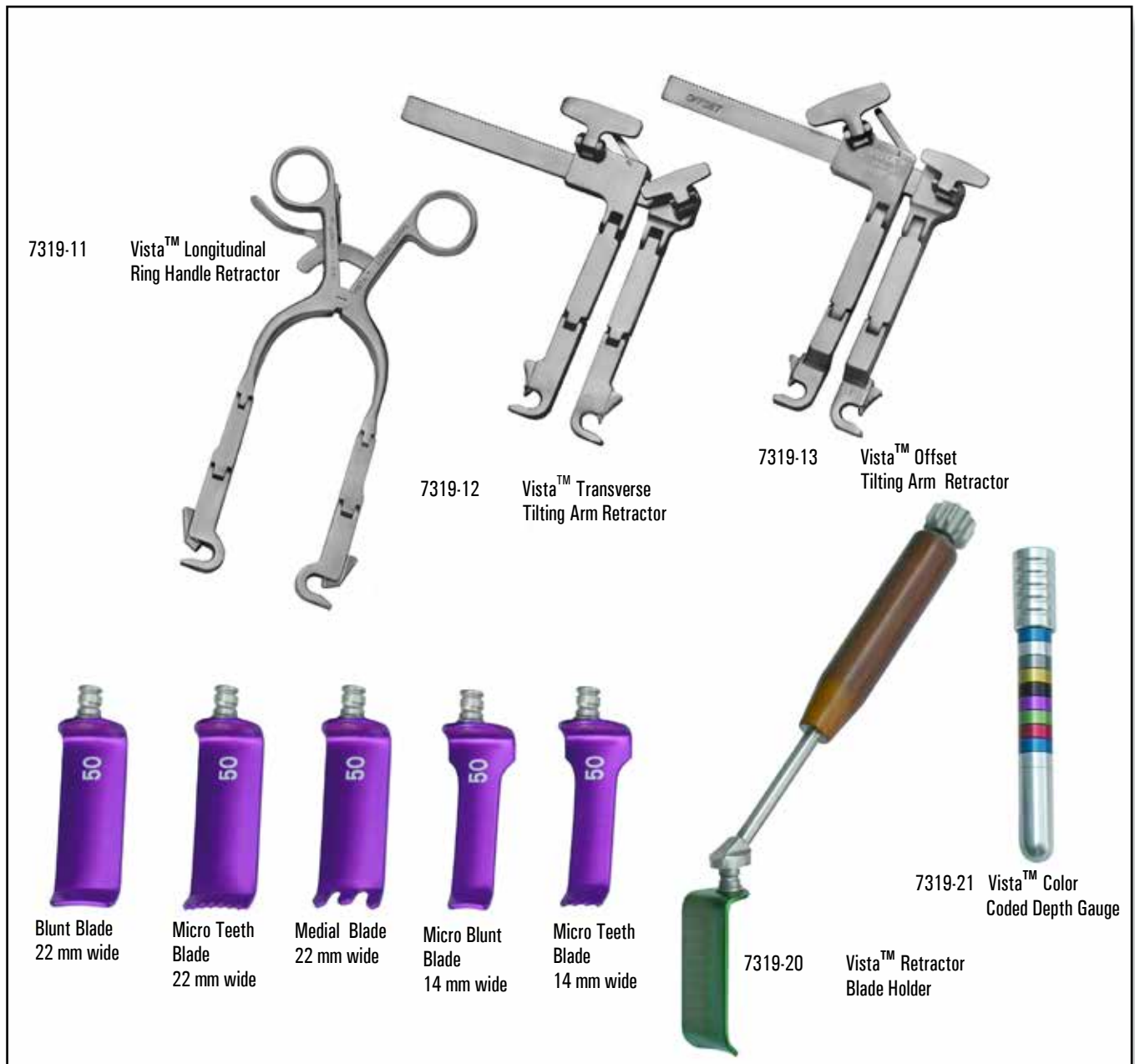
## COLOR CODED RADIOLOGUENT BLADES

## Vista Cervical ACF & Mini Lumbar Retractor System



- The most complete, color coded, radiolucent blade selection available.
- Single and Multi-level retraction with hand held blade inserts.
- Tilting action arm offers micro lateral adjustment.
- Designed specifically for Minimally Invasive and Microsurgical procedures.
- Retractor design satisfies all distraction needs, both left and right approach.
- Offset, step-down and low profile retractor design.
- Custom blades are available.

## Vista Cervical ACF & Mini Lumbar Retractor System



Tilting Knob Arm offers adjustment to achieve parallel blade retraction and compensate for blade bending under pressure.

Ten degree blade angular adjustment controlled by Tilting Knob Arm.

**Transverse and Offset Retractors are available with patented tilting arm to prevent blade migration from incision.**  
*US patent number 6,139,493.*

# Vista Cervical ACF & Mini Lumbar Retractor Sets

## Vista™ Improved ACF Retractor Systems

| 7319-00                        | Vista™ Improved Retractor Standard Set         |            |        |                                                                                      |          |          |
|--------------------------------|------------------------------------------------|------------|--------|--------------------------------------------------------------------------------------|----------|----------|
| 7319-02                        | Vista™ Improved Retractor Extended Set         |            |        |                                                                                      |          |          |
|                                |                                                |            |        |                                                                                      | Standard | Extended |
| Components and Optional Items: |                                                |            |        |                                                                                      | Set      | Set      |
| 7319-11                        | Vista™ Longitudinal Ring Handle Retractor only |            |        |                                                                                      | 1        | 1        |
| 7319-12                        | Vista™ Transverse Tilting Arm Retractor        |            |        |                                                                                      | -        | 1        |
| 7319-13                        | Vista™ Offset Tilting Arm Retractor            |            |        |                                                                                      | 1        | 1        |
| 7319-20                        | Vista™ Retractor Blade Holder                  |            |        |                                                                                      | 2        | 2        |
| 7319-21                        | Vista™ Color Coded Depth Gauge                 |            |        |                                                                                      | 1        | 1        |
| 7319-22                        | Vista™ Sterilization Case                      |            |        |                                                                                      | 1        | 1        |
|                                |                                                |            |        | Code                                                                                 |          |          |
| 7319-30                        | Blunt Blade                                    | 22 x 30 mm | silver |    | 2        | 2        |
| 7319-31                        | Blunt Blade                                    | 22 x 35 mm | blue   |    | 2        | 2        |
| 7319-32                        | Blunt Blade                                    | 22 x 40 mm | red    |    | 2        | 2        |
| 7319-33                        | Blunt Blade                                    | 22 x 45 mm | green  |    | 2        | 2        |
| 7319-34                        | Blunt Blade                                    | 22 x 50 mm | purple |    | 2        | 2        |
| 7319-35                        | Blunt Blade                                    | 22 x 55 mm | black  |    | 2        | 2        |
| 7319-36                        | Blunt Blade                                    | 22 x 60 mm | gold   |    | 2        | 2        |
| 7319-37                        | Blunt Blade                                    | 22 x 65 mm | gray   |    | 2        | 2        |
| 7319-38                        | Blunt Blade                                    | 22 x 70 mm | silver |    | 2        | 2        |
| 7319-39                        | Blunt Blade                                    | 22 x 75 mm | blue   |    | 2        | 2        |
| 7319-40                        | Micro Teeth Blade                              | 22 x 30 mm | silver |    | 1        | 1        |
| 7319-41                        | Micro Teeth Blade                              | 22 x 35 mm | blue   |    | 1        | 1        |
| 7319-42                        | Micro Teeth Blade                              | 22 x 40 mm | red    |    | 1        | 1        |
| 7319-43                        | Micro Teeth Blade                              | 22 x 45 mm | green  |    | 1        | 1        |
| 7319-44                        | Micro Teeth Blade                              | 22 x 50 mm | purple |    | 1        | 1        |
| 7319-45                        | Micro Teeth Blade                              | 22 x 55 mm | black  |  | 1        | 1        |
| 7319-46                        | Micro Teeth Blade                              | 22 x 60 mm | gold   |  | 1        | 1        |
| 7319-47                        | Micro Teeth Blade                              | 22 x 65 mm | gray   |  | 1        | 1        |
| 7319-48                        | Micro Teeth Blade                              | 22 x 70 mm | silver |  | 1        | 1        |
| 7319-50                        | Medial Blade                                   | 22 x 30 mm | silver |  | -        | 1        |
| 7319-51                        | Medial Blade                                   | 22 x 35 mm | blue   |  | -        | 1        |
| 7319-52                        | Medial Blade                                   | 22 x 40 mm | red    |  | -        | 1        |
| 7319-53                        | Medial Blade                                   | 22 x 45 mm | green  |  | -        | 1        |
| 7319-54                        | Medial Blade                                   | 22 x 50 mm | purple |  | -        | 1        |
| 7319-55                        | Medial Blade                                   | 22 x 55 mm | black  |  | -        | 1        |
| 7319-56                        | Medial Blade                                   | 22 x 60 mm | gold   |  | -        | 1        |
| 7319-57                        | Medial Blade                                   | 22 x 65 mm | gray   |  | -        | 1        |
| 7319-58                        | Medial Blade                                   | 22 x 70 mm | silver |  | -        | 1        |
| 7319-60                        | Micro Blunt Blade                              | 14 x 35 mm | blue   |  | 2        | 2        |
| 7319-61                        | Micro Blunt Blade                              | 14 x 40 mm | red    |  | 2        | 2        |
| 7319-62                        | Micro Blunt Blade                              | 14 x 45 mm | green  |  | 2        | 2        |
| 7319-63                        | Micro Blunt Blade                              | 14 x 50 mm | purple |  | 2        | 2        |
| 7319-64                        | Micro Blunt Blade                              | 14 x 55 mm | black  |  | 2        | 2        |
| 7319-65                        | Micro Blunt Blade                              | 14 x 60 mm | gold   |  | 2        | 2        |
| 7319-66                        | Micro Blunt Blade                              | 14 x 65 mm | gray   |  | 2        | 2        |
| 7319-67                        | Micro Blunt Blade                              | 14 x 70 mm | silver |  | 2        | 2        |
| 7319-70                        | Micro Teeth Blade                              | 14 x 35 mm | blue   |  | 2        | 2        |
| 7319-71                        | Micro Teeth Blade                              | 14 x 40 mm | red    |  | 2        | 2        |
| 7319-72                        | Micro Teeth Blade                              | 14 x 45 mm | green  |  | 2        | 2        |
| 7319-73                        | Micro Teeth Blade                              | 14 x 50 mm | purple |  | 2        | 2        |
| 7319-74                        | Micro Teeth Blade                              | 14 x 55 mm | black  |  | 2        | 2        |
| 7319-75                        | Micro Teeth Blade                              | 14 x 60 mm | gold   |  | 2        | 2        |
| 7319-76                        | Micro Teeth Blade                              | 14 x 65mm  | gray   |  | 2        | 2        |
| 7319-77                        | Micro Teeth Blade                              | 14 x 70mm  | silver |  | 2        | 2        |

# Black Belt™ - Advanced Cervical Retractor System

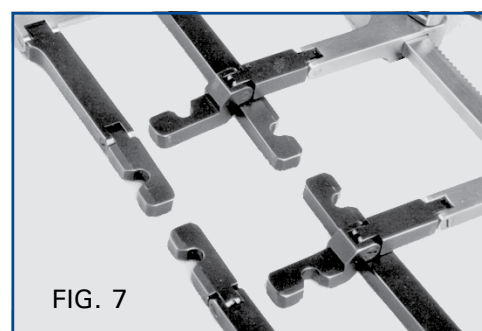
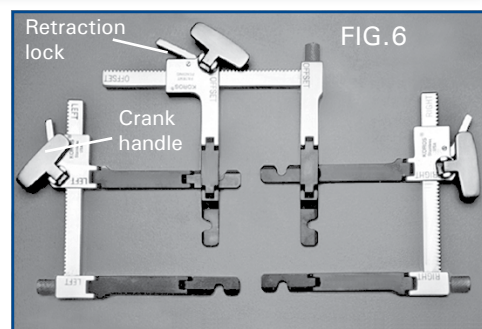
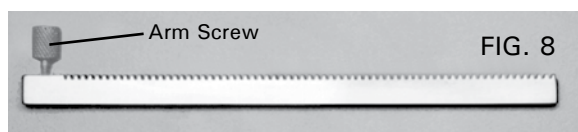
*Patented For Superior Single and Multi-Level Retraction*



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## **The Frames:**

- Double hinged frame arms are fully articulating to match the contours of the patient.
- The tension of the retracted tissue securely holds the side-loading blades in the retractor arm notch.
- A left, right and offset frame is included in both the standard and the extended set. Two frames are used in standard procedures. The third is used for multi-level exposure.
- The low profile crank handle folds down and out of the surgeon's way.
- Non-reflective stainless steel frame arms and blades are black-coated to prevent glare created by overhead surgical lights.
- The extended set includes an extra long retractor rack which gives the additional 1-1/2" of retraction that may be needed for long, multi-level exposures & mini-lumbar procedures.



# Black Belt™ Advanced Cervical Retractor System

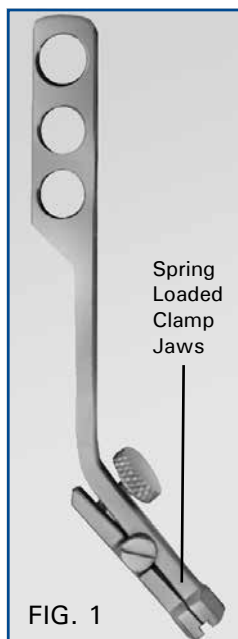


FIG. 1

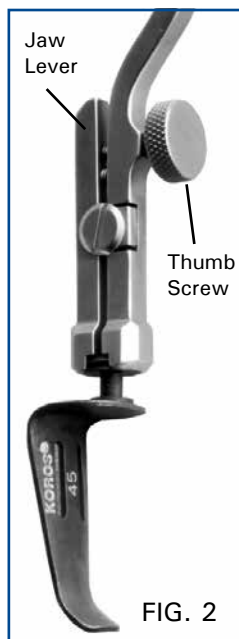


FIG. 2

## The Blade Inserter Clamps...

- Features spring-loaded, clamping jaws for easy blade engagement.
- Clamp handles create minimal visual obstruction.
- Blade/clamp assembly may be used for hand retraction.
- Clamps are quickly and easily removed after retractor arms have securely engaged the blades.



FIG. 3

Blunt Blade      Pronged Blade



FIG. 4

22 mm Wide Blade      27 mm Wide Two-Level Blade

## The Blades...

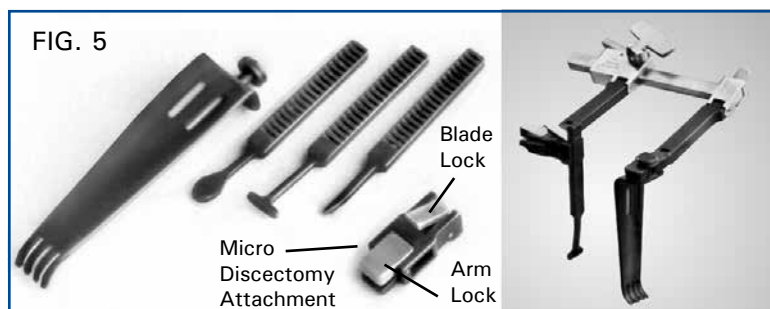
- Each set includes a wide range of blade sizes to satisfy anatomical requirements from adolescents to adult patients.
- There are 46 individual blades in the standard set, organized in pairs. Blades are offered in 22 mm and 27 mm width, with blunt and pronged tips.
- Blade depths are 34, 40, 45, 50, 55, 60, 70 mm on standard blades and 40, 47, 55 mm on the two-level blades.
- The 27 mm wide blades are useful for multi-level exposure.
- Blade tip design ensures that each blade will hold firmly in retracted tissue.
- Optional two level blunt and pronged blades are 65 and 70 mm deep. Optional 22 mm wide, pronged blades are 85, 95, and 100 mm deep. Custom made blades are also available.

## The Lumbar Microdiscectomy Attachments...

- Enable the Black Belt Cervical Retractor to be used effectively in lumbar micro-discectomy procedures (Fig.5).
- The supplementary pieces may be used in conjunction with components that already exist in the cervical retractor set.

## The Sterilization Instrument Case...

- Silicone inserts firmly secure all retractor blades and components in place.
- Components are easily identifiable during surgery.
- Hard anodized, heavy-gauge, aluminum case has a scratch resistant finish.
- Light weight and cools quickly after sterilization.
- Stackable for safety and convenience.



85 mm Blade, Ligament Blade, T-Shape Blade, Spike Blade & Micro Discectomy Attachment

## *Surgical Technique for* **BLACK BELT™ ADVANCED CERVICAL RETRACTOR SYSTEM**

Left and Right lateral tissue retractor frames and an Offset cephalad-caudad (longitudinal) retractor frame are offered in both the standard and extended sets. (Fig. 6) For single and two-level procedures, the offset frame and either a left or a right frame are usually used.

Forty-Six (46) individual blades are offered in the standard set. Blade tip designs are blunt & pronged and two-level blunt & pronged (Figs. 3 & 4). Blade depths range from 34 mm to 70 mm. Blunt & pronged blades are 22 mm wide, and the two-level blunt & pronged blades are 27 mm wide, both measured at the widest point. All blades are tapered. Optional 65 and 70 mm Two-Level Blunt and Pronged and extra deep 85 mm, 95 mm and 100 mm blades are available as well.

Retraction is attained as follows:

1. The blades are attached to the spring-loaded blade inserter clamps by slightly backing out the thumb-screw and pressing the clamp jaw lever while inserting the desired blade. The thumb-screw is gently tightened by hand to secure blade lock. (Fig. 2).

2. The two inserter clamps with blades attached are then placed into the surgical site and held parallel, slightly retracting the lateral tissue.

3. Either a left or right retractor frame is chosen according to patient position. Retractor frame arms are then placed between the blades with the rack pointing away from surgeon and the notch adjacent to the blade heads. The retractor is opened until the two side-loading notches on the frame arms make contact with the exposed blade head shaft. The crank handle on the frame is turned until the proper retraction is attained. Blade inserting clamps are removed for the rest of the case duration. Double-hinged retractor arms are adjusted to articulate the patient's contour and the crank-handle is folded down out of the surgeon's way. The tension of the retracted tissue on the blades holds them into the frame arm notches and automatically holds in place. The blade shape is designed to resist climbing out of the surgical site and the wide two-level blades have an extra bend which follow the contour of the vertebrae to create superior visualization.

4. Steps 1 through 3 are then repeated using the offset frame to gain the desired retraction in the cephalad-caudad direction. Two blunt blades are usually used for this orientation. The offset frame is placed directly opposite the surgeon and should ride over the arms of the left or right frame near a 90 degree angle. (Fig. 6 & 7) This ensures the blades enter the wound from an exact plane and the surgeon can accurately determine blade depth. (Fig 6 & Fig. 7).

For multi-level fusion or plating procedures where longer cephalad-caudad exposure is required, the second lateral frame and the wider blades may be used. (Fig. 4 and Fig. 6). The offset frame can be extended an additional 1-1/2" using the extra long retractor rack included in the Black Belt Extended Set. To change the rack, press the retraction lock and pull the sliding arm off the end. Remove the stationary arm from the rack by removing the arm screw. Reassemble the unit in the same way using the extra long rack. (Fig. 8)

With the Lumbar Microdiscectomy Attachment Set (included in the extended set) the standard cervical retractor becomes a lumbar microdiscectomy retractor unit. The attachment set consists of three adjustable depth blades, one attachment unit and one 85 mm blade.

The microdiscectomy unilateral exposure is created by utilizing either the Spike blade, the T-Shape blade or the Interspinous Ligament (Oval) blade. The tissue of the opposing side of the surgical site is retracted with one of the standard blades

from the set or the optional 85 mm deep blade. A curette or burr is used to create a small divot in the base of the spinous process. The Spike blade tip is then inserted into the divot for retraction. The rough surface of the T-Shape blade is placed against the spinous process. The oval blade is usually placed against the interspinous ligament. (Fig. 5)

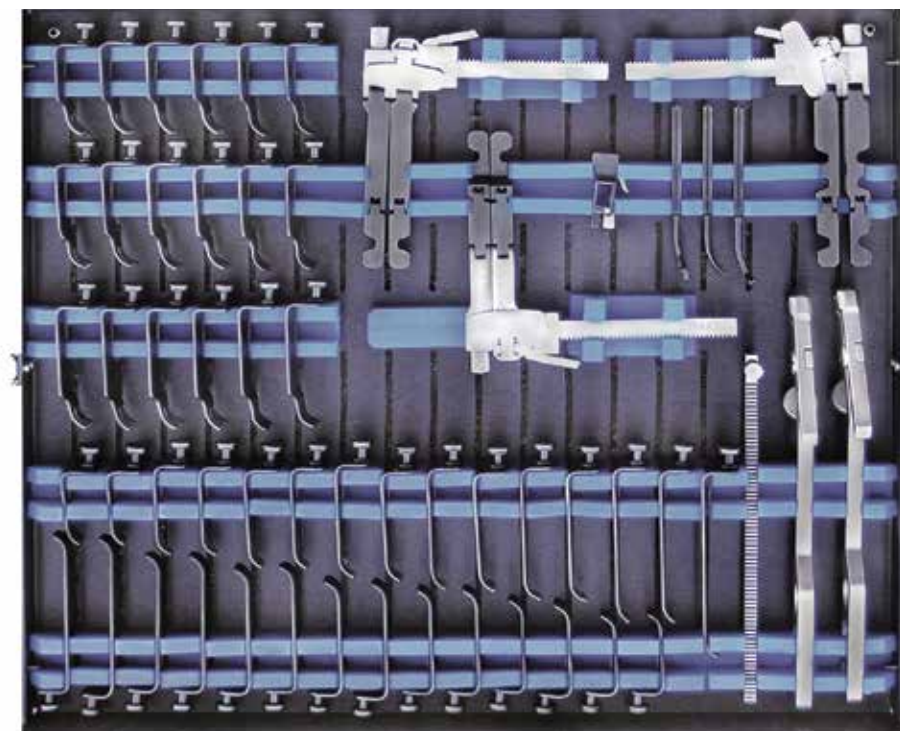
The Micro Discectomy Attachment mounts on the left or right cervical retractor frame arm as follows:

- A. After choosing one of the three adjustable blades locate the two locks on top of the attachment unit, the arm lock (larger) and the blade lock (smaller). Press the smaller blade lock and slide the blade into it's track from the bottom up. The blade tip must be pointing down. Adjust up or down as needed using the blade lock. (Fig. 5)

- B. Open the retractor about 3/4" to 1" to accommodate the blades. While pressing the arm lock (larger lever) on the attachment, slide the unit onto the retractor arm so that the adjustable blade is between the two retractor arms and blade tip is pointing down. The microdiscectomy unit will engage into the arm notch and lock preventing sliding.

- C. The opposing blade will be chosen from the standard cervical retractor set, usually the 55 mm, 60 mm, 70 mm or the optional 85 mm deep blade. The blade is attached to the frame arm using the blade inserting clamps in the same fashion as explained in steps 1 through 3.

# Black Belt™ Cervical Retractor System



- Easy blade insertion using spring loaded blade holding clamps.
- Windowed, swiveling, self-engaging blades.
- Blunt, Pronged and Offset Blades for single or multi-level retraction.
- Non-flexing blade retraction achieved with rigid swivel-arm retractor frames.
- Low-profile, spring loaded, swiveling retractor crank knobs.
- Limited rotation retractor arm joins for easy blade engagement and disengagement.

Black, non-reflecting surface finish.  
*Design elements of instruments are Patented.*

See our NEW Black Belt II  
Upgraded Retractor Versions  
on pg 74-75

## BASIC Black Belt™ Retractor System

7320-00 Black Belt™ Retractor System  
(black finish stainless steel frames and blades)

Consists of:

|                 |      |                                                 |            |
|-----------------|------|-------------------------------------------------|------------|
| 7320-22         | 1 ea | Korpectomy Retractor frame                      | Right      |
| 7320-20         | 1 ea | Retractor frame                                 | Left       |
| 7320-30         | 1 ea | Retractor frame                                 | Offset     |
| 7320-40         | 2 ea | Blade Inserting Clamps                          |            |
| 7322-34 thru 70 | 2 ea | Pronged Blades                                  | (14 total) |
| 7324-34 thru 70 | 2 ea | Blunt Blades                                    | (14 total) |
| 7326-40,-47,-55 | 4 ea | Two-Level Blades, Pronged                       |            |
| 7328-40,-47,-55 | 2 ea | Two-Level Blades, Blunt                         |            |
| 7320-90         | 1 ea | Sterilizing Instrument Case with silicone pads. |            |

See our NEW Upgraded  
Retractor Versions on pg 74-75

## EXTENDED Black Belt™ Retractor System

7320-05 Black Belt™ Retractor System  
(black finish stainless steel frames and blades)

Consists of:

|                 |      |                                                 |            |
|-----------------|------|-------------------------------------------------|------------|
| 7320-22         | 1 ea | Korpectomy Retractor frame                      | Right      |
| 7320-20         | 1 ea | Retractor frame                                 | Left       |
| 7320-30         | 1 ea | Retractor frame                                 | Offset     |
| 7320-40         | 2 ea | Blade Inserting Clamps                          |            |
| 7321-10         | 1 ea | Micro Discectomy Adaptor                        |            |
| 7321-20         | 1 ea | Spike Blade                                     | 70 mm      |
| 7321-30         | 1 ea | T-Shape Blade                                   | 70 mm      |
| 7321-40         | 1 ea | Inner Spine Ligament Blade                      | 70 mm      |
| 7322-34 thru 70 | 2 ea | Pronged Blades                                  | (14 total) |
| 7324-34 thru 70 | 2 ea | Blunt Blades                                    | (14 total) |
| 7326-40,-47,-55 | 4 ea | Two-Level Blades, Pronged                       |            |
| 7328-40,-47,-55 | 2 ea | Two-Level Blades, Blunt                         |            |
| 7322-85         | 1 ea | Pronged Blade                                   | 22x85 mm   |
| 7322-75         | 1 ea | 15 cm long Retractor Rack                       |            |
| 7320-90         | 1 ea | Sterilizing Instrument Case with silicone pads. |            |

## Black Belt™ Advanced Cervical Retractor System Components



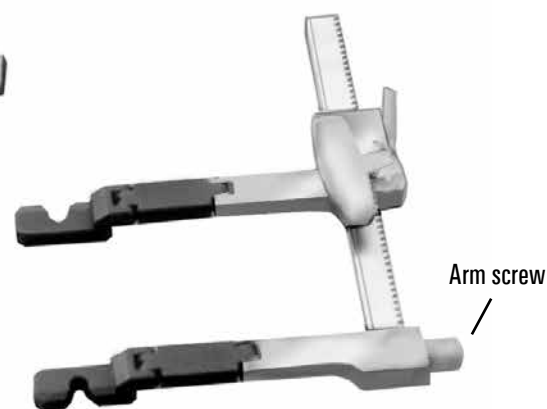
### Retractor Frame Right

|                         |        |
|-------------------------|--------|
| Maximum Opening         | 6.5 cm |
| Arm Length              | 8 cm   |
| 7320-22 Retractor Frame | Right  |
| Stainless Steel         |        |



### Retractor Frame Left

|                         |        |
|-------------------------|--------|
| Maximum Opening         | 6.5 cm |
| Arm Length              | 8 cm   |
| 7320-20 Retractor Frame | Left   |
| Stainless Steel         |        |



### Retractor Frame Offset

|                         |        |
|-------------------------|--------|
| Maximum Opening         | 8 cm   |
| Arm Length              | 8 cm   |
| 7320-30 Retractor Frame | Offset |
| Stainless Steel         |        |



### Blade Inserting Clamp

7320-40 (18 cm)



### Pronged Blades, Stainless Steel

| 22 mm Width |        |
|-------------|--------|
|             | Depth: |
| 7322-34     | 34 mm  |
| 7322-40     | 40 mm  |
| 7322-45     | 45 mm  |
| 7322-50     | 50 mm  |
| 7322-55     | 55 mm  |
| 7322-60     | 60 mm  |
| 7322-70     | 70 mm  |



### Blunt Blades, Stainless Steel

| 22 mm Width |        |
|-------------|--------|
|             | Depth: |
| 7324-34     | 34 mm  |
| 7324-40     | 40 mm  |
| 7324-45     | 45 mm  |
| 7324-50     | 50 mm  |
| 7324-55     | 55 mm  |
| 7324-60     | 60 mm  |
| 7324-70     | 70 mm  |



### Two-Level Pronged Blades, Stainless Steel

| 27 mm Width | Depth:        |
|-------------|---------------|
| 7326-40     | 40 mm pronged |
| 7326-47     | 47 mm pronged |
| 7326-55     | 55 mm pronged |



### Two-Level Blunt Blades, Stainless Steel

| 27 mm Width | Depth:       |
|-------------|--------------|
| 7328-40     | 40 mm, blunt |
| 7328-47     | 47 mm, blunt |
| 7328-55     | 55 mm, blunt |

## 7321-00

## Microdiscectomy Attachment Set for Black Belt™ Cervical Retractor System

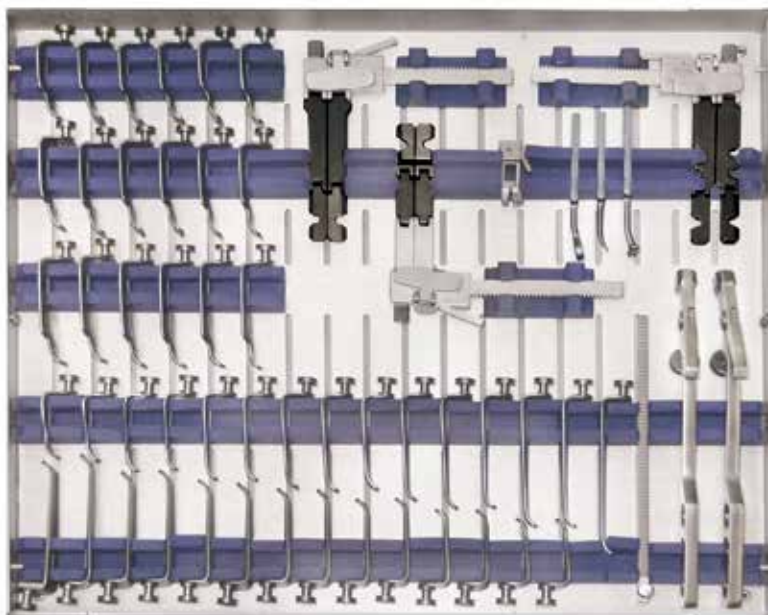
Consists of:

|         |                                   |
|---------|-----------------------------------|
| 7321-10 | Microdiscectomy Adaptor           |
| 7321-20 | Spike Blade, 70 mm                |
| 7321-30 | T-Shape Blade, 70 mm              |
| 7321-40 | Inner Spine Ligament Blade, 70 mm |
| 7322-85 | Pronged Blade, 22x85 mm           |

Above items are included in 7320-05 Extended Black-Belt Cervical Retractor Set.



# Clear View Black Belt™ Cervical Retractor System with Titanium Blades



Radiolucent Titanium  
Blades for X-ray

Stainless Steel Retractor  
Frame & Blade Inserters

## 7320-00T

### Clear View Black Belt™ Basic Retractor System

Set consists of:

|   |                    |      |                                                       |
|---|--------------------|------|-------------------------------------------------------|
| 1 | 7320-22T           | 1 ea | Korpectomy Retractor Right                            |
| 2 | 7320-20T           | 1 ea | Retractor Frame, Left                                 |
| 3 | 7320-30T           | 1 ea | Retractor Frame, Offset                               |
| 4 | 7320-40T           | 2 ea | Blade Inserting Clamps                                |
| 5 | 7322-34T thru 70T  | 2 ea | Ti Blades, Pronged(14 total)                          |
| 6 | 7324-34T thru 70T  | 2 ea | Ti Blades, Blunt (14 total)                           |
| 7 | 7326-40T,-47T,-55T | 4 ea | Two-Level Ti Blades, Pronged                          |
| 8 | 7328-40T,-47T,-55T | 2 ea | Two-Level Ti Blades, Blunt                            |
| 9 | 7320-90T           | 1 ea | Sterilizing Instrument Case<br>with silicone inserts. |

See our NEW Black Belt II  
Upgraded Retractor Versions  
on pg 74-75

## 7320-05T

### Clear View Black Belt™ Extended Retractor System

Set consists of:

|    |                    |      |                                                       |
|----|--------------------|------|-------------------------------------------------------|
| 1  | 7320-22T           | 1 ea | Korpectomy Retractor Frame, Right                     |
| 2  | 7320-20T           | 1 ea | Retractor Frame, Left                                 |
| 3  | 7320-30T           | 1 ea | Retractor Frame, Offset                               |
| 4  | 7320-40T           | 2 ea | Blade Inserting Clamps                                |
| 5  | 7322-34T thru 70T  | 2 ea | Pronged Ti Blades (14 total)                          |
| 6  | 7324-34T thru 70T  | 2 ea | Blunt Ti Blades (14 total)                            |
| 7  | 7326-40T,-47T,-55T | 4 ea | Two-Level Ti Blades, Pronged                          |
| 8  | 7328-40T,-47T,-55T | 2 ea | Two-Level Ti Blades, Blunt                            |
| 9  | 7320-90T           | 1 ea | Sterilizing Instrument Case<br>with silicone inserts. |
| 10 | 7321-10M           | 1 ea | Microdiscectomy Adaptor                               |
| 11 | 7321-20T           | 1 ea | Spike Blade, 70 mm                                    |
| 12 | 7321-30T           | 1 ea | T-Shape Blade, 70 mm                                  |
| 13 | 7321-40T           | 1 ea | Inner Spine Ligament Blade, 70 mm                     |
| 14 | 7322-85T           | 1 ea | Pronged Ti Blade, 22x85 mm                            |
| 15 | 7322-75T           | 1 ea | 15 cm long Retractor Rack                             |

# ***Titanium Black Belt™ Cervical Retractor System***

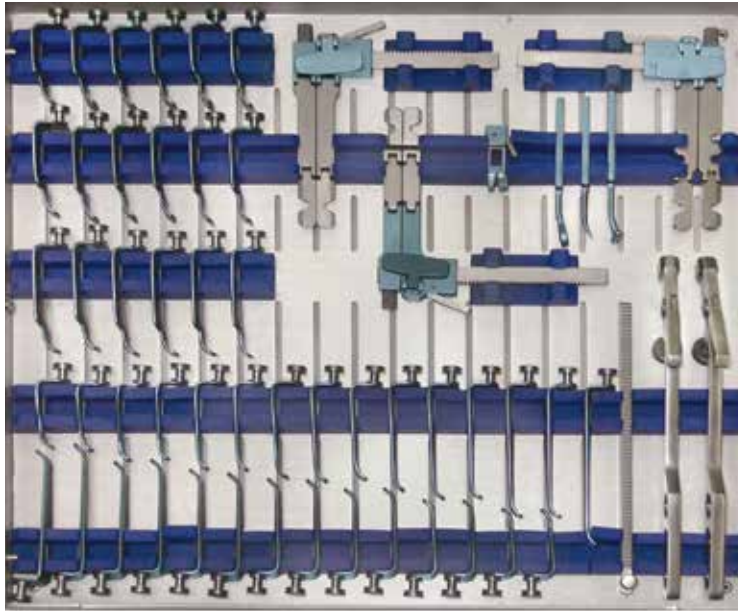


## **Variety of Radiolucent Blades & Retractors**

- Double hinged frame arms are fully articulating to match the contour of the patient.
- The tension of the retracted tissue holds the side-loading blades securely in the retractor arm notch.
- A left, right and offset frame is included in both the standard and the extended set. Two frames are used in standard procedures and the third for multi-level exposure.
- The low profile, crank handle folds down and out of the surgeon's way for visibility.
- Non-reflective frame arms and blades are black and blue coated to prevent glare created by powerful, overhead surgical lights.
- Extended set includes an extra long retractor rack which gives the additional 1-1/2" of retraction that may be needed for long, multi-level exposure or mini-lumbar procedures.

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# Black Belt TI™ All Titanium Cervical Retractor System



Radiolucent Titanium Retractors, Blades and Blade Holders

■ All Titanium construction is advantageous when used with Navigation, X-ray and Fluoroscopic Systems.



Advanced Titanium Clear View Blade Construction

The **Black Belt** Transverse and Offset Retractors are available with a patented tilting arm to prevent blade migration from incision.  
*Patented in the USA*

See our **NEW Black Belt II Upgraded Retractor Versions** on pg 74-75

## 7320-00M Black Belt TI™ All Titanium Basic Retractor System

Set consisting of:

|   |                    |      |                                                    |
|---|--------------------|------|----------------------------------------------------|
| 1 | 7320-22M           | 1 ea | Korpectomy Retractor Frame, Right                  |
| 2 | 7320-20M           | 1 ea | Retractor Frame, Left                              |
| 3 | 7320-30M           | 1 ea | Retractor Frame, Offset                            |
| 4 | 7320-40M           | 2 ea | Blade Inserting Clamps                             |
| 5 | 7322-34M -70M      | 2 ea | Pronged Ti Blades (14 total)                       |
| 6 | 7324-34M -70M      | 2 ea | Blunt Ti Blades (14 total)                         |
| 7 | 7326-40M,-47M,-55M | 4 ea | Two-Level Ti Blades, Pronged                       |
| 8 | 7328-40M,-47M,-55M | 2 ea | Two-Level Ti Blades, Blunt                         |
| 9 | 7320-90M           | 1 ea | Sterilizing Instrument Case with silicone inserts. |

## 7320-05M Black Belt TI™ All Titanium Extended Retractor System

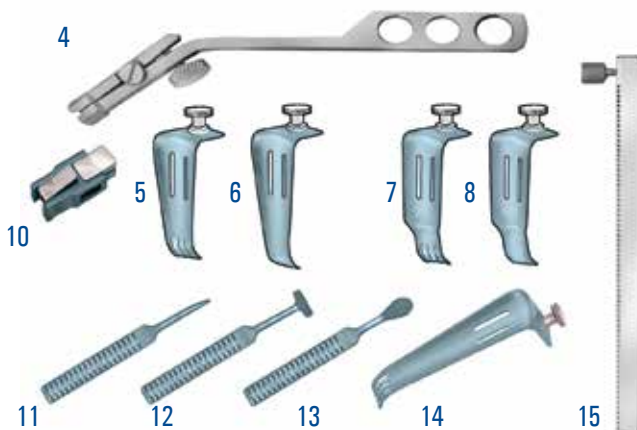
Set consisting of:

|    |                    |      |                                                    |
|----|--------------------|------|----------------------------------------------------|
| 1  | 7320-22M           | 1 ea | Korpectomy Retractor Frame, Right                  |
| 2  | 7320-20M           | 1 ea | Retractor Frame, Left                              |
| 3  | 7320-30M           | 1 ea | Retractor Frame, Offset                            |
| 4  | 7320-40M           | 2 ea | Blade Inserting Clamps                             |
| 5  | 7322-34M thru70M   | 2 ea | Pronged Ti Blades (14 total)                       |
| 6  | 7324-34M thru70M   | 2 ea | Blunt Ti Blades (14 total)                         |
| 7  | 7326-40M,-47M,-55M | 4 ea | Two-Level Ti Blades Pronged                        |
| 8  | 7328-40M,-47M,-55M | 2 ea | Two-Level Ti Blades, Blunt                         |
| 9  | 7320-90M           | 1 ea | Sterilizing Instrument Case with silicone inserts. |
| 10 | 7321-10M           | 1 ea | Microdiscectomy Adaptor                            |
| 11 | 7321-20M           | 1 ea | Spike Blade, 70 mm                                 |
| 12 | 7321-30M           | 1 ea | T-Shape Blade, 70mm                                |
| 13 | 7321-40M           | 1 ea | Inner Spine Ligament Blade, 70mm                   |
| 14 | 7322-85M           | 1 ea | Pronged Ti Blade, 22x85mm                          |
| 15 | 7322-75M           | 1 ea | 15cm long Retractor Rack                           |

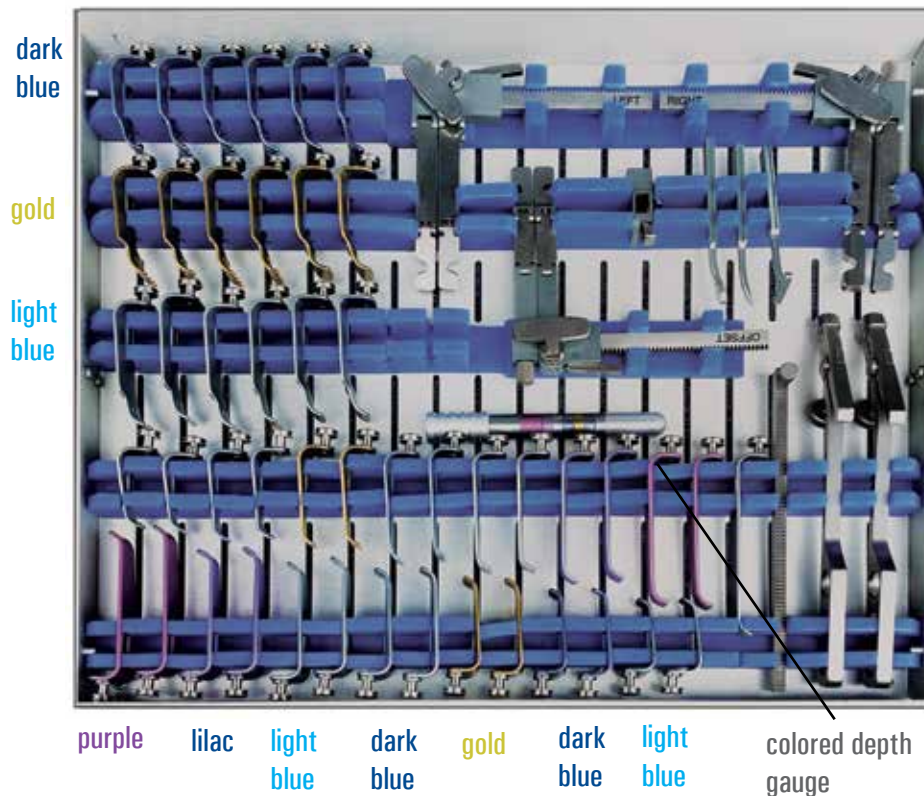
## Black Belt Titanium Microdiscectomy Attachment Set

7321-00T Set includes one (1) each of the following:

|    |                                  |
|----|----------------------------------|
| 11 | Spike Blade, 70 mm               |
| 12 | T-Shape Blade, 70mm              |
| 13 | Inner Spine Ligament Blade, 70mm |
| 14 | Pronged Ti Blade, 22x85mm        |
| 15 | Long Retractor Rack              |



# Black Belt TI™ All Titanium *Color* Extended Retractor System



MRI Compatible  
RADIOLUCENT  
all TITANIUM  
Retractor Set

See our NEW Black Belt II  
Upgraded Retractor Versions  
on pg 74-75

7320-05MC

NEW Black Belt TI™ All Titanium  
COLOR Extended Retractor System

Consists of all Titanium blue retractor frames and all Titanium *color* blades.

Extended set includes:

The Black Belt TI All Titanium  
Color Extended Retractor Sys-  
tem includes:  
All components of the Black Belt  
TI All Titanium Extended System  
(7320-05M) plus a Colored Black  
Belt Depth Gauge (7320-06MC)  
and color coded retractor blades  
for easy size identification.

|                       |      |
|-----------------------|------|
| 7320-22M              | 1 ea |
| 7320-20M              | 1 ea |
| 7320-30M              | 1 ea |
| 7320-40M              | 2 ea |
| 7322-34MC thru 70MC   | 2 ea |
| 7324-34MC thru 70MC   | 2 ea |
| 7326-40MC,-47MC,-55MC | 4 ea |
| 7328-40MC,-47MC,-55MC | 2 ea |
| 7321-10MC             | 1 ea |
| 7321-20MC             | 1 ea |
| 7321-30MC             | 1 ea |
| 7321-40MC             | 1 ea |
| 7322-85MC             | 1 ea |
| 7322-75MC             | 1 ea |
| 7320-06MC             | 1 ea |
| 7320-90MC             | 1 ea |

|                                      |
|--------------------------------------|
| Ti Korpectomy Retractor frame-Right  |
| Ti Retractor frame -Left             |
| Ti Retractor frame -Offset           |
| Ti Blade Inserting Clamps            |
| Pronged Ti Blades (14 total)         |
| Blunt Ti Blades (14 total)           |
| Two-Level Ti Blades, Pronged         |
| Two-Level Ti Blades, Blunt           |
| Ti Microdiscectomy Adaptor           |
| Ti Spike Blade, 70 mm                |
| Ti T-Shape Blade, 70 mm              |
| Ti Inner Spine Ligament Blade, 70 mm |
| Pronged Ti Blade, 22x85 mm           |
| Ti 15 cm long Retractor Rack         |
| Ti Colored Black Belt Depth Gauge    |
| Sterilizing Instrument Case          |

# Black Belt™ Advanced Cervical Retractor Optional Blades

Custom Items: *(Not included in the basic retractor set.)*

## 22 mm Wide Extra Deep Blades, Stainless Steel

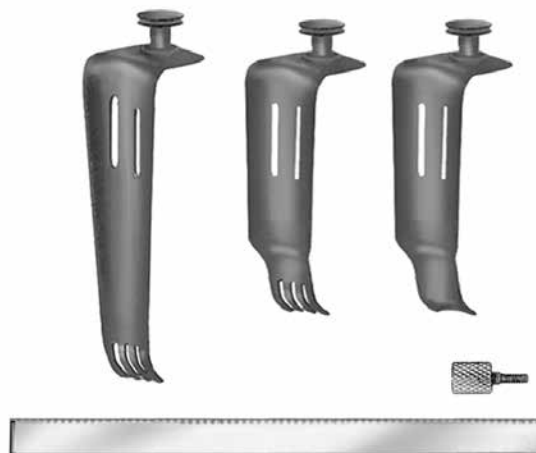
|         |                            |
|---------|----------------------------|
| 7322-85 | 85 mm deep, pronged blade  |
| 7322-95 | 95 mm deep, pronged blade  |
| 7322-99 | 100 mm deep, pronged blade |

## Two-Level Extra Deep Blades, Stainless Steel

|         |                                      |
|---------|--------------------------------------|
| Width   | 27 mm                                |
| 7326-65 | 65 mm deep, two-level, pronged blade |
| 7326-70 | 70 mm deep, two-level, pronged blade |
| 7326-75 | 75 mm deep, two-level, pronged blade |
| 7328-65 | 65 mm deep, two-level, blunt blade   |
| 7328-70 | 70 mm deep, two-level, blunt blade   |
| 7328-75 | 75 mm deep, two-level, blunt blade   |

## Replacement Parts

|         |                                    |
|---------|------------------------------------|
| 7320-45 | Replacement Arm Screws ( pkg of 2) |
| 7322-75 | 15 cm long Retractor Rack          |



## Bea Style Blue Titanium Wide Cervical Blades

### Pronged Blades

|         |       |
|---------|-------|
| 7325-33 | 30 mm |
| 7325-34 | 40 mm |
| 7325-35 | 50 mm |
| 7325-36 | 60 mm |
| 7325-37 | 70 mm |

### Blunt Blades

|         |       |
|---------|-------|
| 7325-43 | 30 mm |
| 7325-44 | 40 mm |
| 7325-45 | 50 mm |
| 7325-46 | 60 mm |
| 7325-47 | 70 mm |



Radiolucent  
Titanium

23.5 mm wide blades

## Maroon Style Narrow Black Stainless Steel Cervical Blades

### Pronged Blades

|         |       |
|---------|-------|
| 7325-14 | 40 mm |
| 7325-15 | 45 mm |
| 7325-16 | 50 mm |
| 7325-17 | 55 mm |
| 7325-18 | 60 mm |

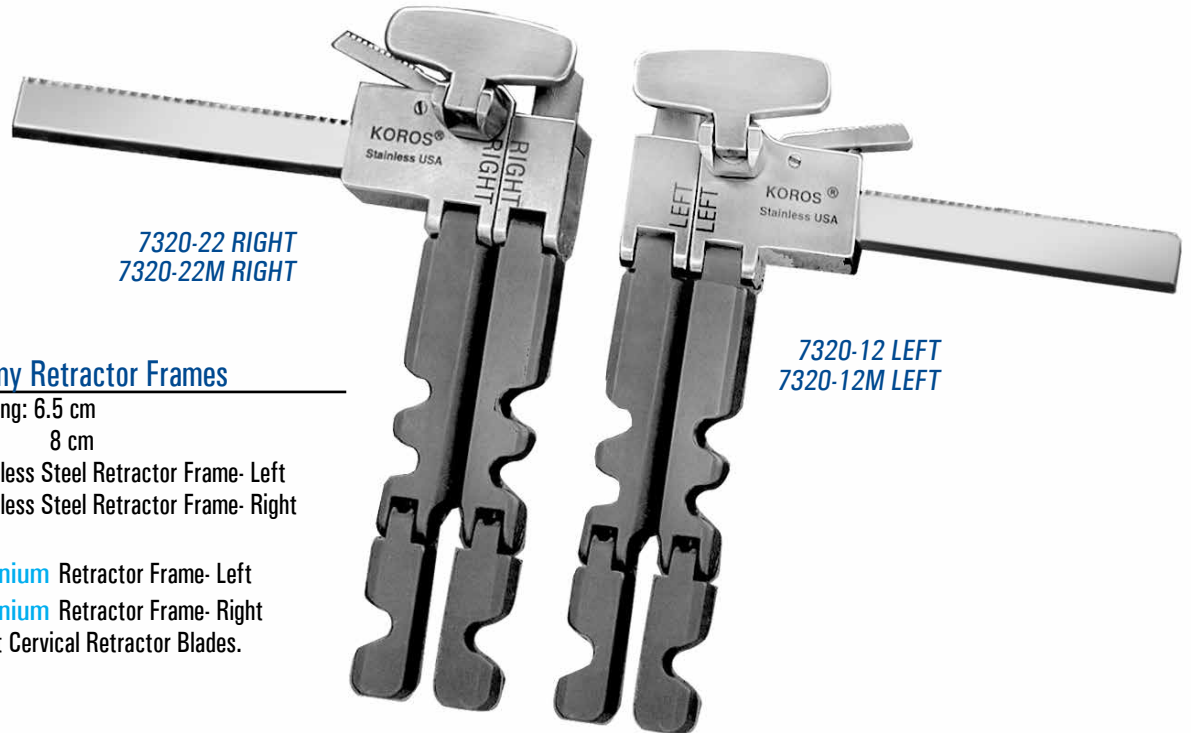
### Blunt Blades

|         |       |
|---------|-------|
| 7325-24 | 40 mm |
| 7325-25 | 45 mm |
| 7325-26 | 50 mm |
| 7325-27 | 55 mm |
| 7325-28 | 60 mm |



Stainless Steel

17 mm x 10 mm wide blades



## Black Belt Korpectomy Retractor Frames

Maximum Opening: 6.5 cm

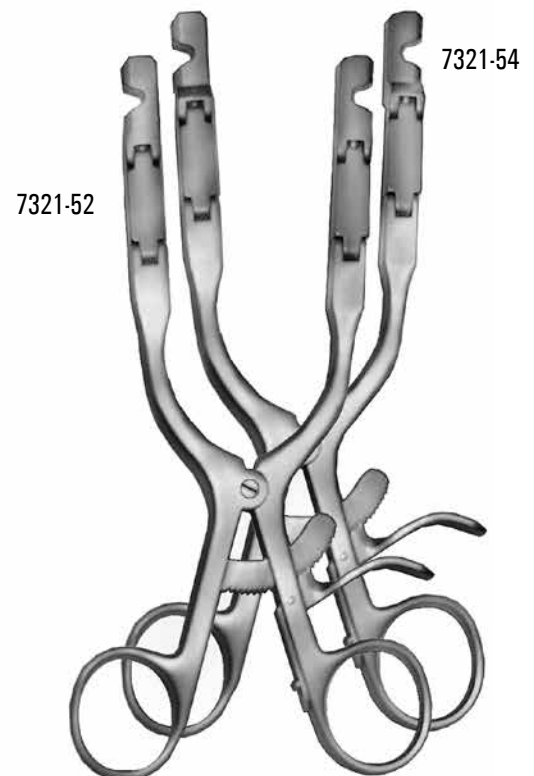
Arm Length: 8 cm

7320-12 Stainless Steel Retractor Frame- Left  
7320-22 Stainless Steel Retractor Frame- Right

7320-12M **Titanium** Retractor Frame- Left

7320-22M **Titanium** Retractor Frame- Right

\*Retractors use Black Belt Cervical Retractor Blades.



## Black Belt Longitudinal Retractor

|         |                                       | Length  |
|---------|---------------------------------------|---------|
| 7321-50 | Retractor Frame Only                  | 16.5 cm |
| 7321-51 | Offset Retractor Frame Only           | 16.5 cm |
| 7321-52 | Double Hinged Retractor Frame         | 18.5 cm |
| 7321-54 | Offset, Double Hinged Retractor Frame | 18.5 cm |

\*Retractors Use Black Belt Cervical Retractor Blades.

*Black Belt™* Cervical Retractor **STARTER SETS**



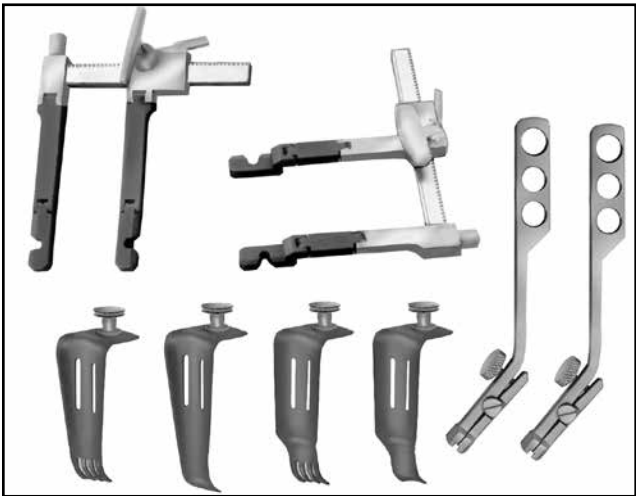
- Easy blade insertion using spring loaded blade holding clamps.
- Windowed, swiveling, self aligning blades.
- Blunt, Pronged and Offset Blades for single or multi-level retraction.
- Non-flexing blade retraction is achieved using rigid, swivel-arm retractor frames.
- Low-profile, spring loaded, swiveling retractor crank knobs.
- Limited rotation retractor arm joins for easy blade engagement.
- Black Stainless Steel or Blue Titanium non-reflecting surface finish.

**7319-98 Black Belt™ Retractor  
STARTER SET**

Consists of black finish **Stainless Steel Retractor Frames and Blades**. Set includes:

|         |      |                               |        |
|---------|------|-------------------------------|--------|
| 7320-22 | 1 ea | Retractor frame               | Right  |
| 7320-30 | 1 ea | Retractor frame               | Offset |
| 7320-40 | 2 ea | Blade Inserting Angled Clamps |        |
| <hr/>   |      |                               |        |
| 7322-34 | 2 ea | Pronged Blades                | 34 mm  |
| 7322-40 | 2 ea | Pronged Blade,                | 40 mm  |
| 7322-45 | 2 ea | Pronged Blades                | 45 mm  |
| 7322-50 | 2 ea | Pronged Blades                | 50 mm  |
| 7322-55 | 2 ea | Pronged Blades                | 55 mm  |
| 7322-60 | 2 ea | Pronged Blades                | 60 mm  |
| <hr/>   |      |                               |        |
| 7324-34 | 2 ea | Blunt Blades                  | 34 mm  |
| 7324-40 | 2 ea | Blunt Blades                  | 40 mm  |
| 7324-45 | 2 ea | Blunt Blades                  | 45 mm  |
| 7324-50 | 2 ea | Blunt Blades                  | 50 mm  |
| 7324-55 | 2 ea | Blunt Blades                  | 55 mm  |
| 7324-60 | 2 ea | Blunt Blades                  | 60 mm  |

7319-90 1 ea Sterilizing Instrument Case, 1.5 x 11 x 13



## 7319-98T Clear View Black Belt™ Retractor STARTER SET

Consists of black finish Stainless Steel Retractor Frames and blue finish Titanium Blades. Set includes:

|          |      |                               |        |
|----------|------|-------------------------------|--------|
| 7320-22T | 1 ea | Retractor frame               | Right  |
| 7320-30T | 1 ea | Retractor frame               | Offset |
| 7320-40T | 2 ea | Blade Inserting Angled Clamps |        |

|          |      |                    |       |
|----------|------|--------------------|-------|
| 7322-34T | 2 ea | Pronged Blades, Ti | 34 mm |
| 7322-40T | 2 ea | Pronged Blades, Ti | 40 mm |
| 7322-45T | 2 ea | Pronged Blades, Ti | 45 mm |
| 7322-50T | 2 ea | Pronged Blades, Ti | 50 mm |
| 7322-55T | 2 ea | Pronged Blades, Ti | 55 mm |
| 7322-60T | 2 ea | Pronged Blades, Ti | 60 mm |

|          |      |                  |       |
|----------|------|------------------|-------|
| 7324-34T | 2 ea | Blunt Blades, Ti | 34 mm |
| 7324-40T | 2 ea | Blunt Blades, Ti | 40 mm |
| 7324-45T | 2 ea | Blunt Blades, Ti | 45 mm |
| 7324-50T | 2 ea | Blunt Blades, Ti | 50 mm |
| 7324-55T | 2 ea | Blunt Blades, Ti | 55 mm |
| 7324-60T | 2 ea | Blunt Blades, Ti | 60 mm |

|          |      |                                            |  |
|----------|------|--------------------------------------------|--|
| 7319-90T | 1 ea | Sterilizing Instrument Case, 1.5 x 11 x 13 |  |
|----------|------|--------------------------------------------|--|



## 7273-00TA ClearView™ Micro Discectomy Retraction System

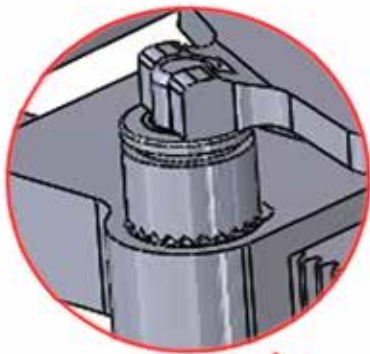
Stainless Steel Retractor Frames and blue Titanium blades

Set includes:

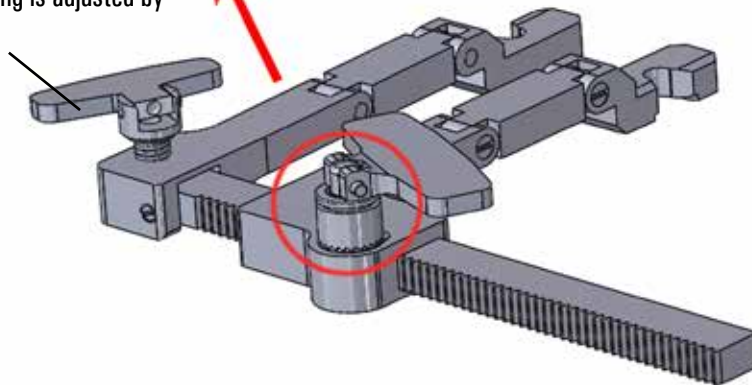
|          |      |                                         |
|----------|------|-----------------------------------------|
| 7273-22A | 1 ea | Right Tilting Arm Retractor Frame       |
| 7273-12A | 1 ea | Offset Tilting Arm Retractor Frame      |
| 7273-15  | 2 ea | Blade Inserting Clamp (18 cm long)      |
| 7273-23  | 2 ea | Ti Discectomy Blade, 23x30 mm           |
| 7273-24  | 2 ea | Ti Discectomy Blade, 23x40 mm           |
| 7273-25  | 2 ea | Ti Discectomy Blade, 23x50 mm           |
| 7273-26  | 2 ea | Ti Discectomy Blade, 23x60 mm           |
| 7273-27  | 2 ea | Ti Discectomy Blade, 23x70 mm           |
| 7273-33  | 2 ea | Ti Longitudinal Blade, 20x30 mm         |
| 7273-34  | 2 ea | Ti Longitudinal Blade, 20x40 mm         |
| 7273-35  | 2 ea | Ti Longitudinal Blade, 20x50 mm         |
| 7273-36  | 2 ea | Ti Longitudinal Blade, 20x60 mm         |
| 7273-37  | 2 ea | Ti Longitudinal Blade, 20x70mm          |
| 7319-90  | 1 ea | Sterilizing Instrument Case 1.5 x11x13" |

## Black Belt™ II Tilting Arm Retractors

**Patented** the Folding Handle Lock Secures and Release arm movement by moving gear handle into horizontal or vertical position



Ten degree blade tilting is adjusted by Arm Tilting Handle



Ten degree angular blade adjustment is controlled by Arm Tilting Handle

Blade can be tilted ten degrees during preparation and retraction

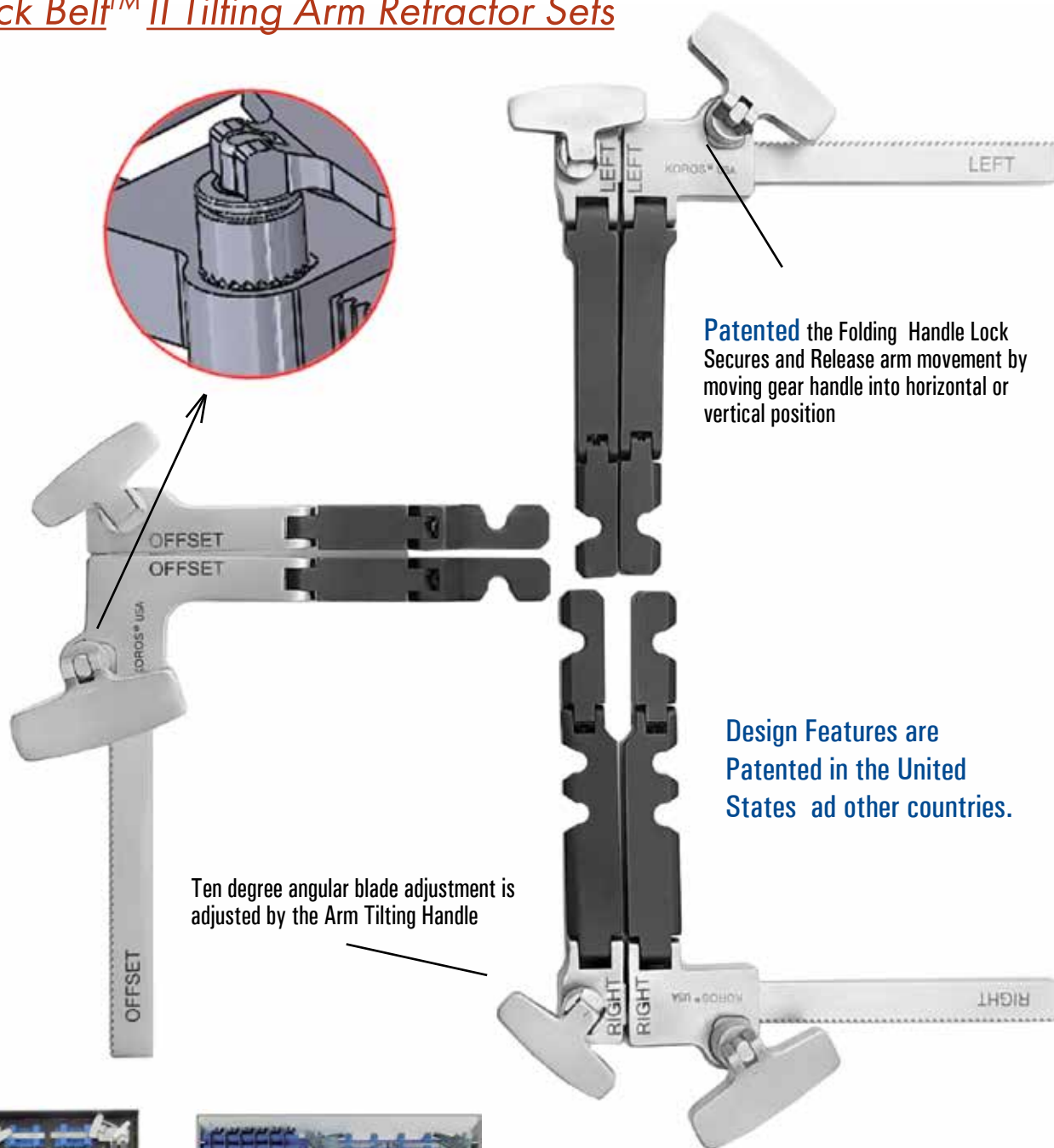
Design Features are Patented in the United States and other countries.

### **Black Belt™ II Tilting Arm Retractors**

|          |                |                           |        |
|----------|----------------|---------------------------|--------|
| 7320-10U | Black Belt™ II | SST Tilting Arm Retractor | Left   |
| 7320-20U | Black Belt™ II | SST Tilting Arm Retractor | Right  |
| 7320-30U | Black Belt™ II | SST Tilting Arm Retractor | Offset |

|           |                |                          |        |
|-----------|----------------|--------------------------|--------|
| 7320-10TU | Black Belt™ II | Ti Tilting Arm Retractor | Left   |
| 7320-20TU | Black Belt™ II | Ti Tilting Arm Retractor | Right  |
| 7320-30TU | Black Belt™ II | Ti Tilting Arm Retractor | Offset |

## Black Belt™ II Tilting Arm Retractor Sets



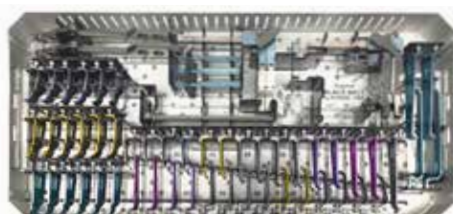
7320-05A



7320-05MCA



7320-05MA

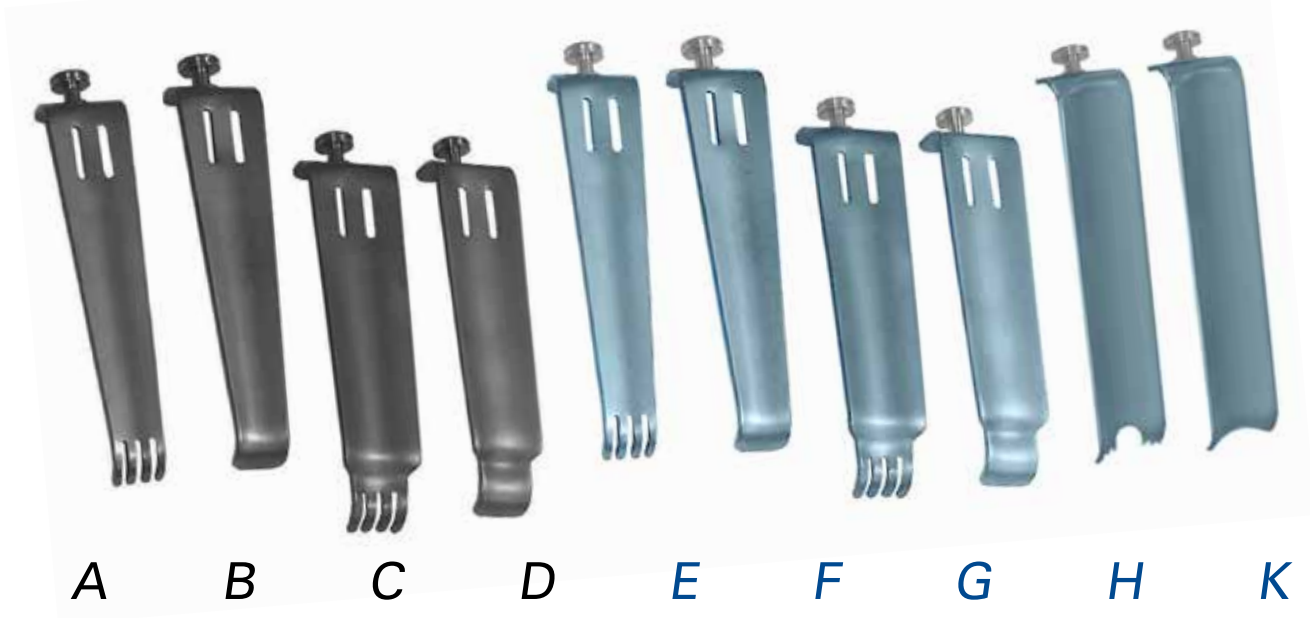


7320-05MCA shown with container tray

### Black Belt™ II Tilting Arm Retractor Set

|            |                                                                               |
|------------|-------------------------------------------------------------------------------|
| 7320-00U   | Basic Black Belt™ II Retractor Set                                            |
| 7320-05U   | Extended Black Belt™ II Retractor Set                                         |
| 7320-00TU  | Clear View Black Belt™ II Ti Basic Retractor Set with Stainless retractors    |
| 7320-05TU  | Clear View Black Belt™ II Ti Extended Retractor Set with Stainless retractors |
| 7320-00MU  | Black Belt™ II Basic Ti Retractor Set                                         |
| 7320-05MU  | Black Belt™ II Extended Ti Retractor Set                                      |
| 7320-05MCU | Black Belt™ II Ti Colored Extended Retractor Set                              |

## Custom Size Black Belt Blades



### 7320xxx Custom Black Belt Blades

|                               |          |                          | Blade Depth in MM |     |     |     |     |     |     |     |
|-------------------------------|----------|--------------------------|-------------------|-----|-----|-----|-----|-----|-----|-----|
| <b>Stainless Steel Blades</b> |          |                          |                   |     |     |     |     |     |     |     |
| <b>A</b>                      | 7320-Axx | SST 22mm Pronged Blade   | 65                | 75  | 80  | 85  | 90  | 95  | 100 |     |
| <b>B</b>                      | 7320-Bxx | SST 22mm Blunt Blade     | 65                | 75  | 80  | 85  | 90  | 95  | 100 |     |
| <b>C</b>                      | 7320-Cxx | SST 27mm Pronged Blade   | 70                | 75  | 80  | 85  | 90  | 95  | 100 |     |
| <b>D</b>                      | 7320-Dxx | SST 27mm Blunt Blade     | 70                | 75  | 80  | 85  | 90  | 95  | 100 |     |
| <b>Titanium Blades</b>        |          |                          |                   |     |     |     |     |     |     |     |
| <b>E</b>                      | 7320-Exx | TI 22mm Pronged Blade    | 75                | 80  | 90  | 100 | 105 | 110 | 115 | 120 |
| <b>F</b>                      | 7320-Fxx | TI 22mm Blunt Blade      | 95                | 100 | 110 |     |     |     |     |     |
| <b>G</b>                      | 7320-Gxx | TI 27mm Pronged Blade    | 70                | 75  | 80  | 85  | 90  | 95  | 100 |     |
| <b>H</b>                      | 7320-Hxx | TI 27mm Blunt Blade      | 70                | 75  | 80  | 85  | 90  | 95  | 100 |     |
| <b>K</b>                      | 7320-Kxx | TI 22mm Discectomy Blade | 70                | 85  | 100 | 115 | 130 |     |     |     |
| <b>L</b>                      | 7320-Lxx | TI 22mm Blunt Blade      | 70                | 85  | 100 | 115 | 130 |     |     |     |

Additional Custom Blade sizes are available. Please enquire for availability.

CATALOG NUMBERS are generated as they listed above, Replace "xx" digits by blade depth.

## Sterilization Container & Container Trays



Carrying  
Handles



Replacement  
Filters



### Sterilization Container with Cover

7328-96 Sterilization Container  
21.5 x 10.5 x 3 inches

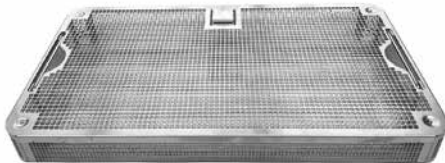
Fits:

Basket Mesh Tray with Cover

Black Belt Container Tray with Cover &

Super Slide Container Tray with Cover

7328-97 Filter



### Mesh Tray with Cover

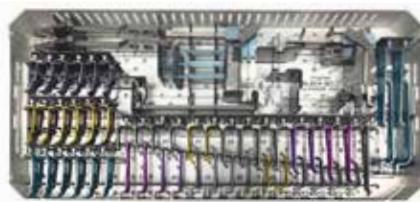
7328-98 Stainless steel construction with handles  
19" x 10" x 2"

7328-99 Stainless steel construction with handles  
21.25" x 10" x 2.75"



### Black Belt Container Tray with Cover

7320-95 Stainless steel construction with handles  
21.25" x 10" x 2.75"

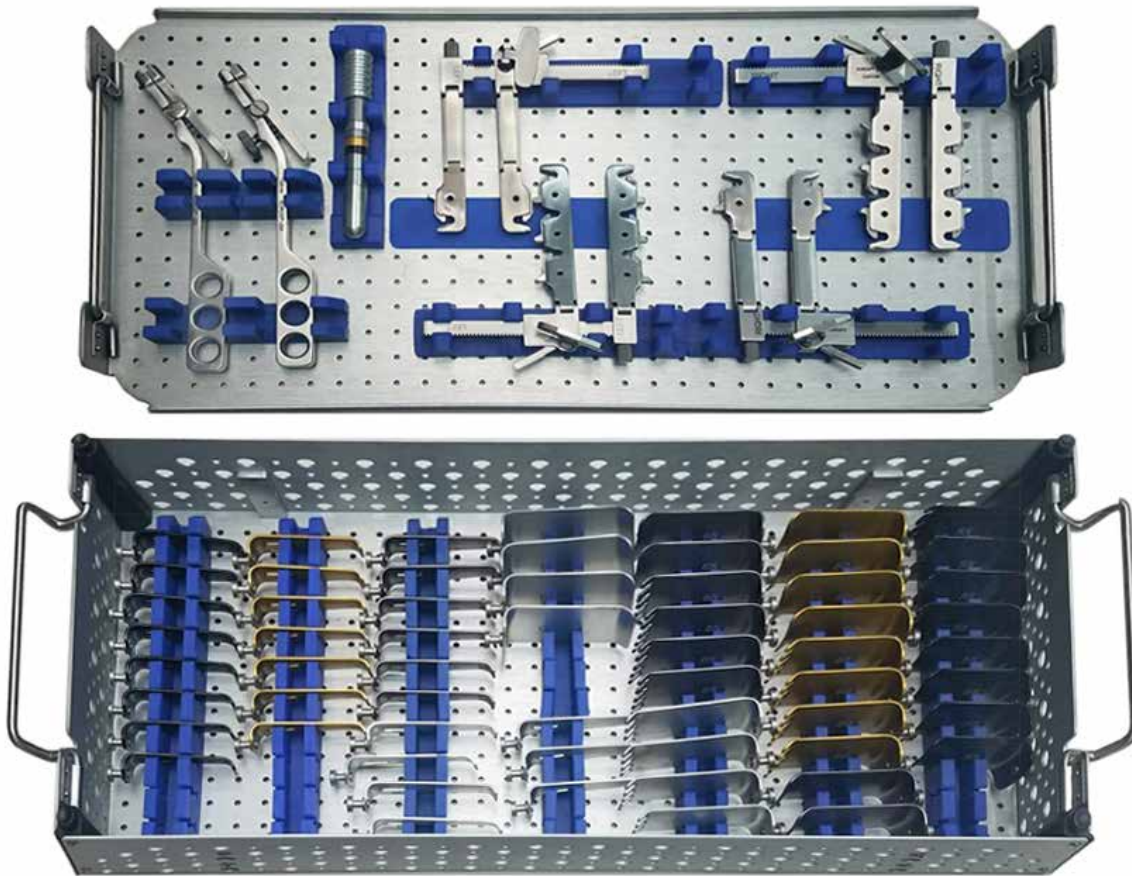


### Super Slide Container Tray with Cover

7329-95 Stainless steel construction with handles  
21.25" x 10" x 2.75"



## Multi Level Black Belt™

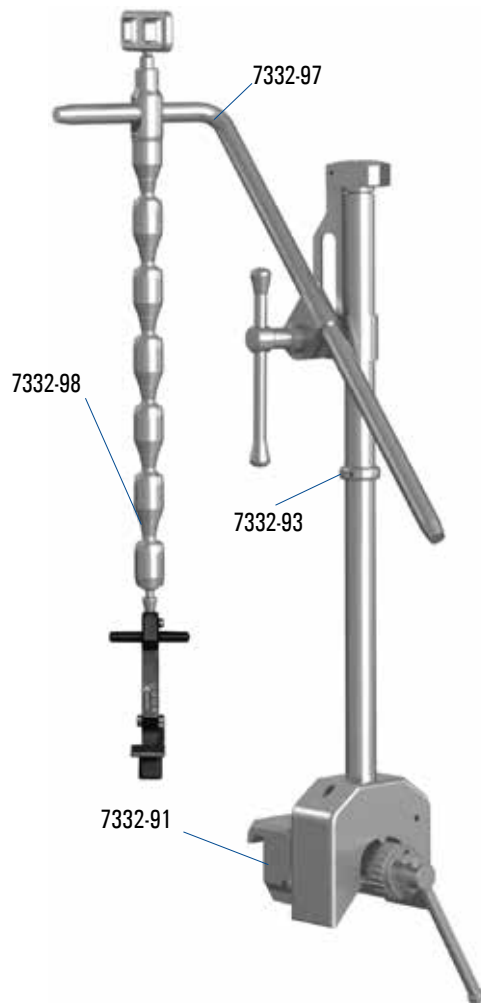
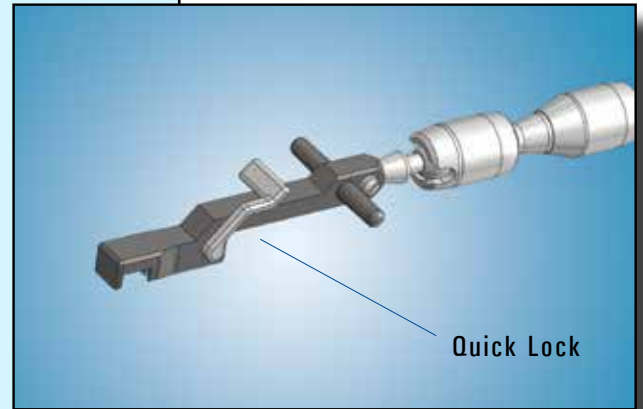
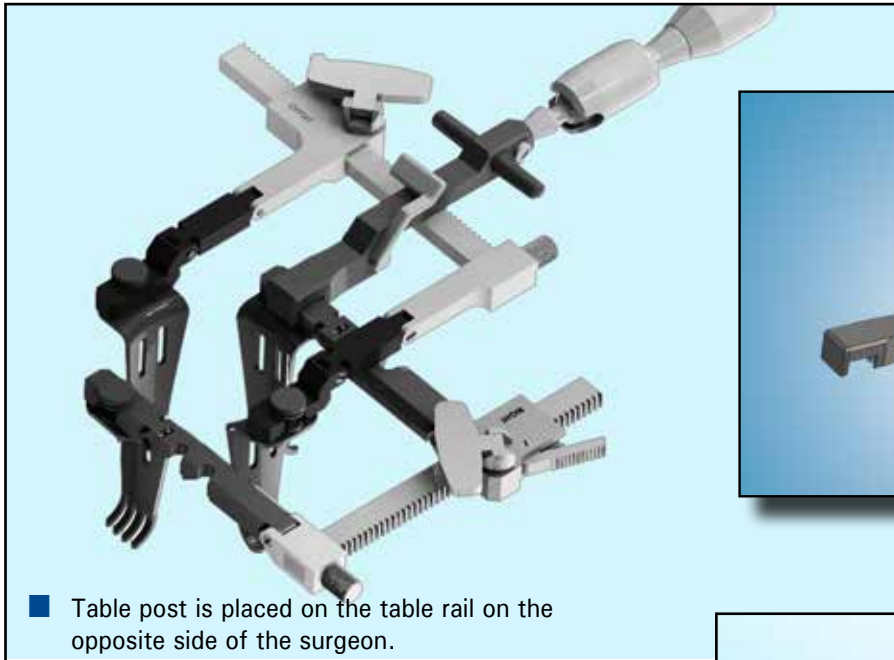


### 7325-50 Multi Level Black Belt Set\*

Set includes:

| QTY | Description                     |                       |          |
|-----|---------------------------------|-----------------------|----------|
| 1   | Retractor,                      | Right                 |          |
| 1   | Retractor,                      | Left                  |          |
| 1   | Triple Blade Retractor          | Right for wide blades |          |
| 1   | Triple Blade Retractor          | Left for wide blades  |          |
| 4   | 55 mm standard width            | blunt blade           | blue     |
| 4   | 60 mm standard width            | blunt blade           | anodized |
| 4   | 65 mm standard width            | blunt blade           | anodized |
| 4   | 70 mm standard width            | blunt blade           | anodized |
| 4   | 55 mm standard width            | prong blade           | anodized |
| 4   | 60 mm standard width            | prong blade           | anodized |
| 4   | 65 mm standard width            | prong blade           | anodized |
| 4   | 70 mm standard width            | prong blade           | anodized |
| 4   | 55 mm x 40 mm wide              | blunt blade           | anodized |
| 4   | 60 mm x 40 mm wide              | blunt blade           | anodized |
| 4   | 65 mm x 40 mm wide              | blunt blade           | anodized |
| 4   | 70 mm x 40 mm wide              | blunt blade           | anodized |
| 4   | 55 mm x 40 mm wide              | prong blade           | anodized |
| 4   | 60 mm x 40 mm wide              | prong blade,          | anodized |
| 4   | 65 mm x 40 mm wide              | prong blade           | anodized |
| 4   | 70 mm x 40 mm wide              | prong blade           | anodized |
| 2   | Black Belt Blade Inserter Clamp |                       |          |
| 1   | Instrument Tray                 |                       |          |

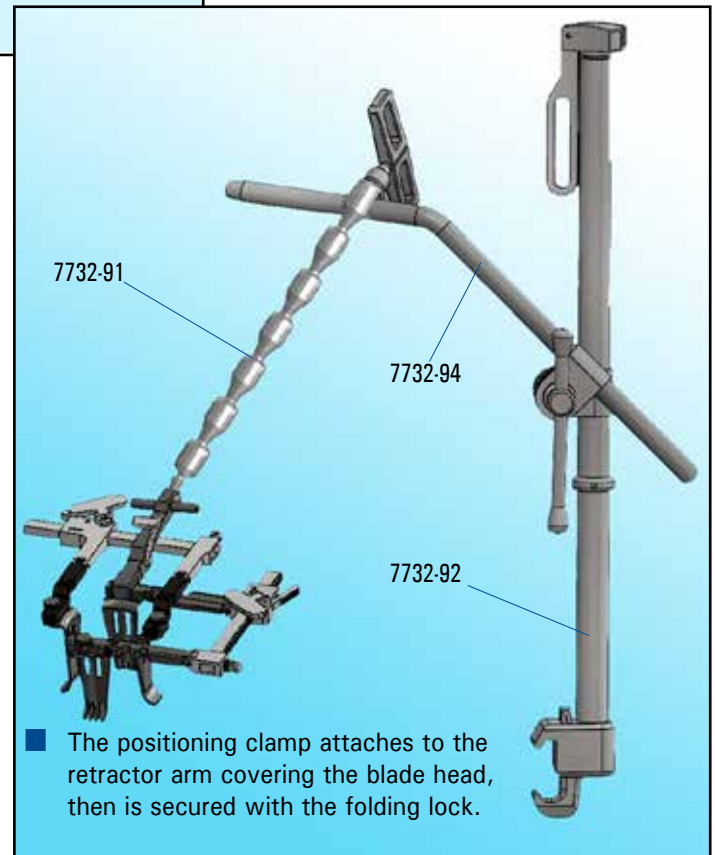
# Black Belt™ Assist Cervical Positioning System



## **7328-91 Flex Arm Adjustable Angle Retractor Holder Post**

Set includes one each of the following items

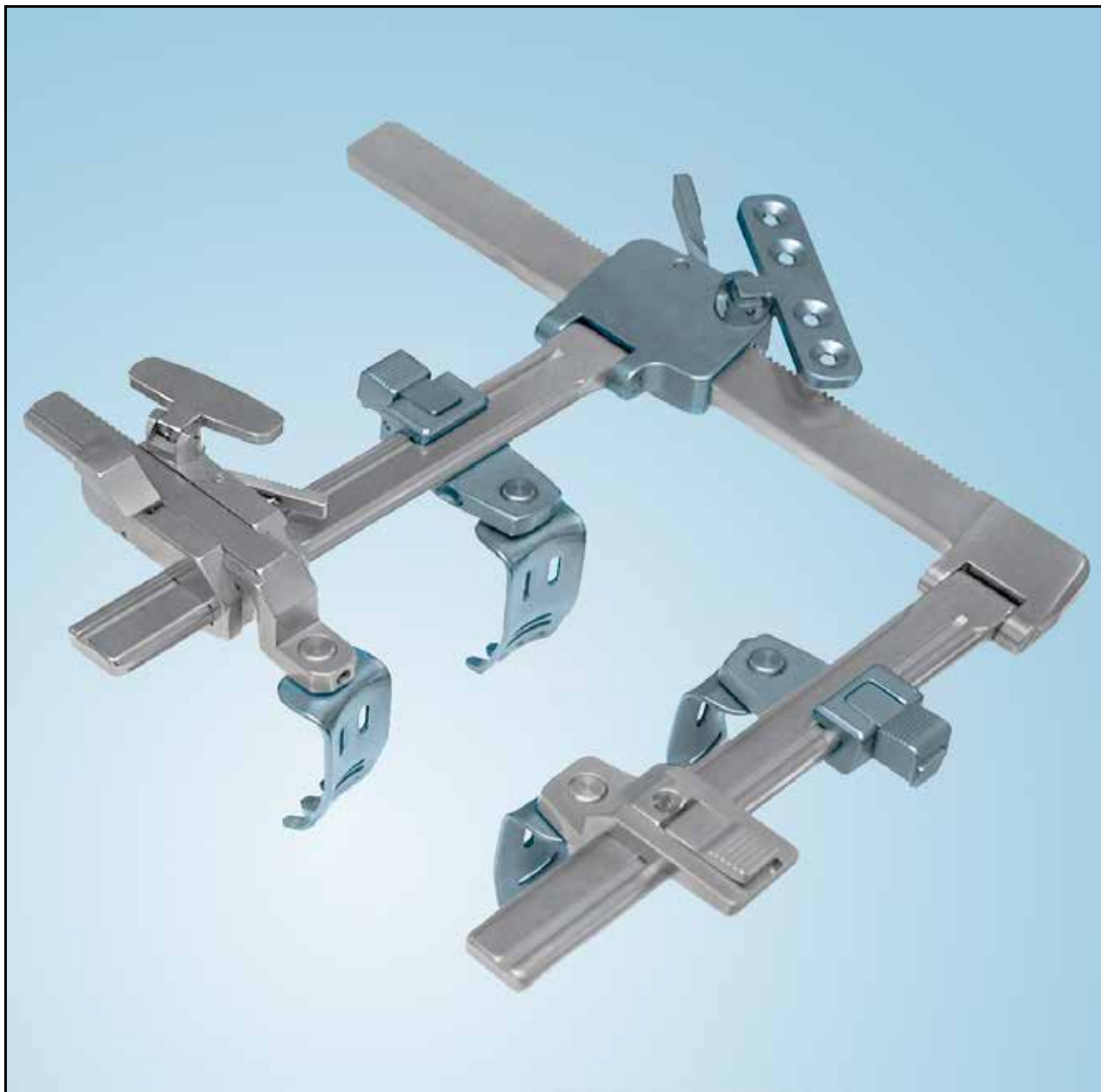
- 7332-91 Adjustable Star Table Clamp
- 7332-93 Adjustable Post with Clamp
- 7332-97 Offset Extension Bar
- 7332-91 Black Belt Assist Flex Arm with Clamp



## **7328-90 Black Belt™ Assist Cervical Positioning System**

Set includes one each of the following items:

- 7732-91 Black Belt Assist Flex Arm with Clamp
- 7732-92 Table Post with Jackson Table Clamp
- 7732-94 Angled Cross Bar



### All Titanium Construction

(Excluding Trays, Blade Holder and Side Loading Blade Head Holder)

- All Titanium construction is advantageous when used with Navigation, X-Ray and Fluoroscopic systems.
- A wide variety of Titanium blade sizes and blade attachment options are available.
- Blade head options are side loading, self engaging and adjustable.
- MRI Compatibility.

# Blue Boy™ Advanced Titanium Lumbar Spine Retractor System- Basic



Radiolucent  
Titanium  
Blades

New and improved  
silicone inserts display  
components clearly and  
hold components safe for  
storage.

All Titanium Construction  
and components.

## 7327-00

### BlueBoy™ Basic Retractor System

Set consists of the following items:

|    |         |      |                                |
|----|---------|------|--------------------------------|
| 1  | 7327-10 | 1 ea | BlueBoy Retractor Frame        |
| 2  | 7327-12 | 1 ea | BlueBoy Hinged Retractor Frame |
| 3  | 7327-14 | 4 ea | Standard Blade Head            |
| 4  | 7327-16 | 2 ea | Side Loading Blade Head        |
| 6  | 7327-20 | 2 ea | Hemi Blade Head                |
| 7  | 7327-22 | 1 ea | Spike Blade, 70 mm             |
| 8  | 7327-24 | 1 ea | T-Shape Blade, 70 mm           |
| 9  | 7327-26 | 1 ea | Retractor Blade Holder         |
| 10 | 7327-28 | 1 ea | Side Loading Blade Head Holder |

#### Width x Depth (mm) x Angle

|    |         |      |            |                       |
|----|---------|------|------------|-----------------------|
| 11 | 7327-30 | 4 ea | 23 x 35 x  | 15 deg blades w/teeth |
| 11 | 7327-32 | 4 ea | 23 x 45 x  | 15 deg blades w/teeth |
| 11 | 7327-34 | 4 ea | 23 x 55 x  | 15 deg blades w/teeth |
| 11 | 7327-36 | 4 ea | 23 x 65 x  | 15 deg blades w/teeth |
| 11 | 7327-38 | 4 ea | 23 x 75 x  | 15 deg blades w/teeth |
| 11 | 7327-40 | 4 ea | 23 x 85 x  | 15 deg blades w/teeth |
| 11 | 7327-42 | 4 ea | 23 x 100 x | 15 deg blades w/teeth |
| 11 | 7327-44 | 4 ea | 23 x 120 x | 15 deg blades w/teeth |

|    |         |      |            |                              |
|----|---------|------|------------|------------------------------|
| 12 | 7327-50 | 2 ea | 45 x 50 x  | 15 deg blades w/teeth        |
| 12 | 7327-52 | 2 ea | 45 x 60 x  | 15 deg blades w/teeth        |
| 12 | 7327-54 | 2 ea | 45 x 70 x  | 15 deg blades w/teeth        |
| 12 | 7327-56 | 2 ea | 45 x 80 x  | 15 deg blades w/teeth        |
| 13 | 7327-60 | 2 ea | 60 x 50 x  | 15 deg blades w/teeth        |
| 13 | 7327-62 | 2 ea | 60 x 60 x  | 15 deg blades w/teeth        |
| 13 | 7327-64 | 2 ea | 60 x 70 x  | 15 deg blades w/teeth        |
| 13 | 7327-66 | 2 ea | 60 x 80 x  | 15 deg blades w/teeth        |
| 13 | 7327-68 | 2 ea | 60 x 100 x | 15 deg blades w/teeth        |
| 13 | 7327-69 | 2 ea | 60 x 120 x | 15 deg blades w/teeth        |
| 14 | 7327-70 | 1 ea | 30 x 40    | Sacral blades w/teeth, right |
| 15 | 7327-72 | 1 ea | 30 x 40    | Sacral blades w/teeth, left  |
| 16 | 7327-74 | 1 ea | 60 x 45    | Sacral blades w/teeth, right |
| 17 | 7327-76 | 1 ea | 60 x 45    | Sacral blades w/teeth, left  |

|    |         |      |                                                  |
|----|---------|------|--------------------------------------------------|
| 18 | 7327-78 | 1 ea | Retractor Sterilizing Tray<br>2 3/4 x 10 x 22"   |
| 19 | 7327-80 | 1 ea | Retractor Blade Sterilizing Tray<br>5 x 10 x 22" |

\*Custom Blades are available upon request.

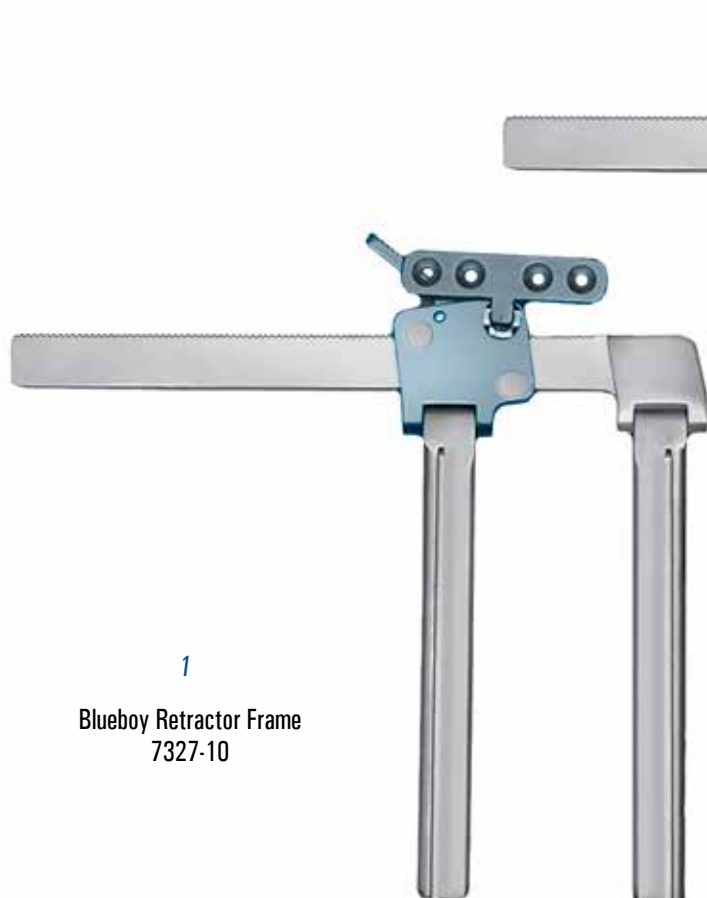
# Blue Boy™ Advanced Titanium Lumbar Spine Retractor System- Extended

## 7327-05 BlueBoy™ Extended Retractor System

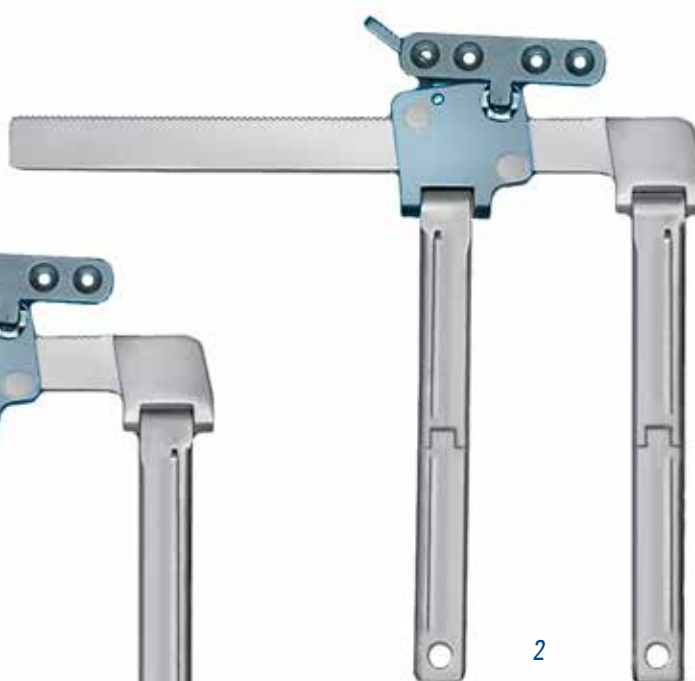
All Titanium construction.

Consists of the following items:

|                            |         |      |                                                  |                              |  |  |
|----------------------------|---------|------|--------------------------------------------------|------------------------------|--|--|
| 1                          | 7327-10 | 1 ea | BlueBoy Retractor Frame                          |                              |  |  |
| 2                          | 7327-12 | 1 ea | BlueBoy Hinged Retractor Frame                   |                              |  |  |
| 3                          | 7327-14 | 4 ea | Standard Blade Head                              |                              |  |  |
| 4                          | 7327-16 | 2 ea | Side Loading Blade Head                          |                              |  |  |
| 5                          | 7327-18 | 4 ea | Adjustable Side Loading Blade Head               |                              |  |  |
| 6                          | 7327-20 | 2 ea | Hemi Blade Head                                  |                              |  |  |
| 7                          | 7327-22 | 1 ea | Spike Blade, 70 mm                               |                              |  |  |
| 8                          | 7327-24 | 1 ea | T-Shape Blade, 70 mm                             |                              |  |  |
| 9                          | 7327-26 | 1 ea | Retractor Blade Holder                           |                              |  |  |
| 10                         | 7327-28 | 1 ea | Side Loading Blade Head Holder                   |                              |  |  |
| Width x Depth (mm) x Angle |         |      |                                                  |                              |  |  |
| 11                         | 7327-30 | 4 ea | 23 x 35 x                                        | 15 deg blades w/teeth        |  |  |
| 11                         | 7327-32 | 4 ea | 23 x 45 x                                        | 15 deg blades w/teeth        |  |  |
| 11                         | 7327-34 | 4 ea | 23 x 55 x                                        | 15 deg blades w/teeth        |  |  |
| 11                         | 7327-36 | 4 ea | 23 x 65 x                                        | 15 deg blades w/teeth        |  |  |
| 11                         | 7327-38 | 4 ea | 23 x 75 x                                        | 15 deg blades w/teeth        |  |  |
| 11                         | 7327-40 | 4 ea | 23 x 85 x                                        | 15 deg blades w/teeth        |  |  |
| 11                         | 7327-42 | 4 ea | 23 x 100 x                                       | 15 deg blades w/teeth        |  |  |
| 11                         | 7327-44 | 4 ea | 23 x 120 x                                       | 15 deg blades w/teeth        |  |  |
| 12                         | 7327-50 | 2 ea | 45 x 50 x                                        | 15 deg blades w/teeth        |  |  |
| 12                         | 7327-52 | 2 ea | 45 x 60 x                                        | 15 deg blades w/teeth        |  |  |
| 12                         | 7327-54 | 2 ea | 45 x 70 x                                        | 15 deg blades w/teeth        |  |  |
| 12                         | 7327-56 | 2 ea | 45 x 80 x                                        | 15 deg blades w/teeth        |  |  |
| 13                         | 7327-60 | 2 ea | 60 x 50 x                                        | 15 deg blades w/teeth        |  |  |
| 13                         | 7327-62 | 2 ea | 60 x 60 x                                        | 15 deg blades w/teeth        |  |  |
| 13                         | 7327-64 | 2 ea | 60 x 70 x                                        | 15 deg blades w/teeth        |  |  |
| 13                         | 7327-66 | 2 ea | 60 x 80 x                                        | 15 deg blades w/teeth        |  |  |
| 13                         | 7327-68 | 2 ea | 60 x 100 x                                       | 15 deg blades w/teeth        |  |  |
| 13                         | 7327-69 | 2 ea | 60 x 120 x                                       | 15 deg blades w/teeth        |  |  |
| 14                         | 7327-70 | 1 ea | 30 x 40                                          | sacral blades w/teeth, right |  |  |
| 15                         | 7327-72 | 1 ea | 30 x 40                                          | sacral blades w/teeth, left  |  |  |
| 16                         | 7327-74 | 1 ea | 60 x 45                                          | sacral blades w/teeth, right |  |  |
| 17                         | 7327-76 | 1 ea | 60 x 45                                          | sacral blades w/teeth, left  |  |  |
| 18                         | 7327-78 | 1 ea | Retractor Sterilizing Tray<br>2 3/4 x 10 x 22"   |                              |  |  |
| 19                         | 7327-80 | 1 ea | Retractor Blade Sterilizing Tray<br>5 x 10 x 22" |                              |  |  |



1  
Blueboy Retractor Frame  
7327-10



2  
Blueboy Hinged Retractor Frame  
7327-12

# BlueBoy™ Titanium Retractor System Components



3 7327-14 Standard Blade Head



4 7327-16 Side Loading Blade Head



5 7327-18 Adjustable Side Loading Blade Head



9 7327-26 Blade Holding Arm (Stainless Steel Component)

10 7327-28 Side Loading Blade Head Arm (Stainless Steel Component)



11

23 mm wide Blades



12

45 mm wide Blades



13

60 mm wide Blades



16 7327-74 Right Blade



17 7327-76 Left Blade

60 mm wide Sacral Blade



14 7327-70 Right Blade



15 7327-72 Left Blade

30 mm wide Sacral Blade



6 7327-20 Hemi Blade Head

7 7327-22 Spike Blade



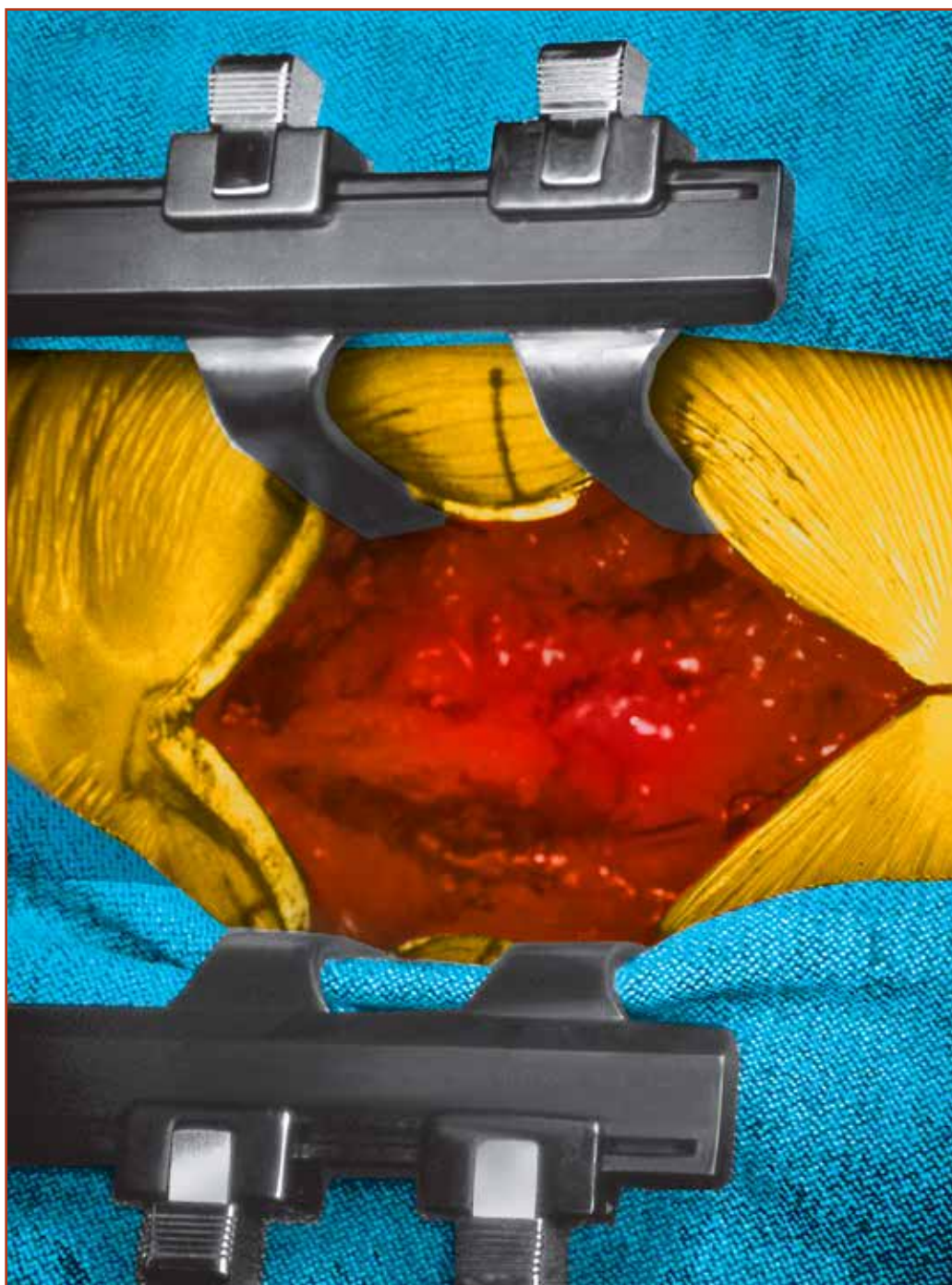
6 7327-20 Hemi Blade Head

8 7327-24 T-Shape Blade

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# *Super-Slide II™ Laminectomy Retractor*

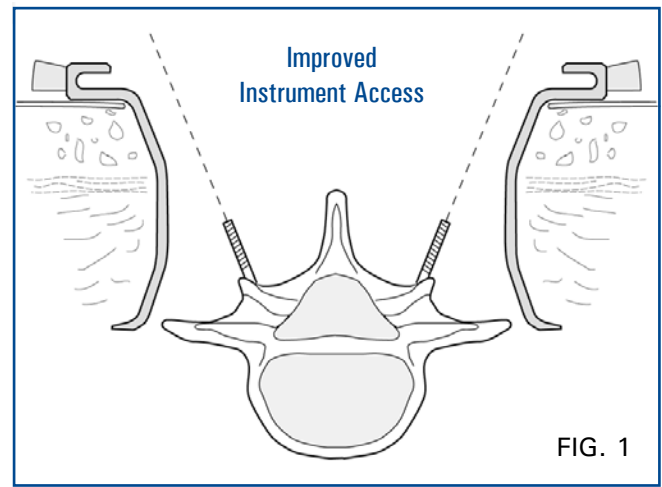
*The Most Advanced Design for Lumbar Laminectomy  
and Pedicle Screw Fixation*



# Super-Slide II<sup>TM</sup> Lumbar Retractor System *Patented*

*The Retractor Specially Designed for Lumbar Laminectomy and Pedicle Screw Fixation*

- Our second generation Lumbar Retractor offers advanced blade shape and low profile design.
- Allows greater access to the spine for preparation and accurate placement of pedicle screws. (See fig. 1)



## The Frame, Blades and Construction...

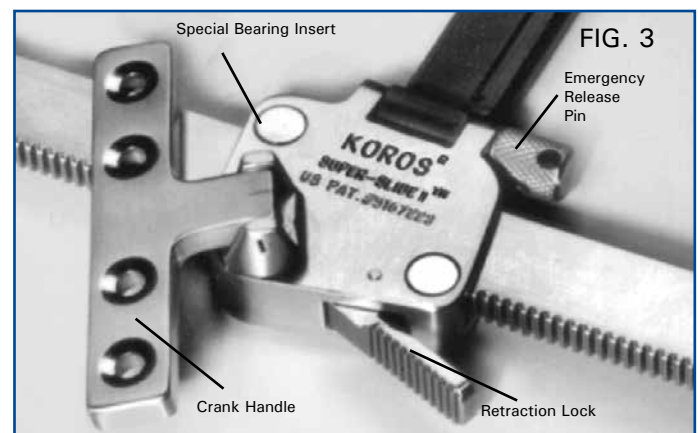
- Beveled edges on medial side of retractor arms further enhance access with surgical instruments.
- Blades may be easily removed and repositioned during surgery, especially when x-rays are needed.
- Non-reflective black surface coating eliminates distracting glare created by overhead surgical lights.

## Special Bearing Inserts...

- Require minimal force to open retractor arms.
- Prevent bending of components even under heavy loads.

## Spring-loaded Crank Handle...

- Folds down and out of the surgeon's way for less interference during surgery.
- Is permanently attached and cannot be misplaced.



# Super-Slide II Lumbar Retractor System *Patented*

*The Retractor Specially Designed for Lumbar Laminectomy and Pedicle Screw Fixation*

## Arm Locks...

- Are self locking and feature a disengaging capability.
- Blades lock into any chosen position along the retractor arms and may be changed at any time during surgery.
- Arm locks allow the surgeon the choice of either attaching the blades to the retractor arms, then placing the unit into the wound, or placing the blades into the wound, then engaging the frame arms.
- Arm locks may be engaged or disengaged during surgery, depending on the surgeon's preference.

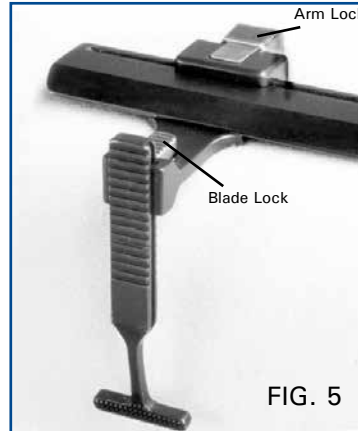


FIG. 5

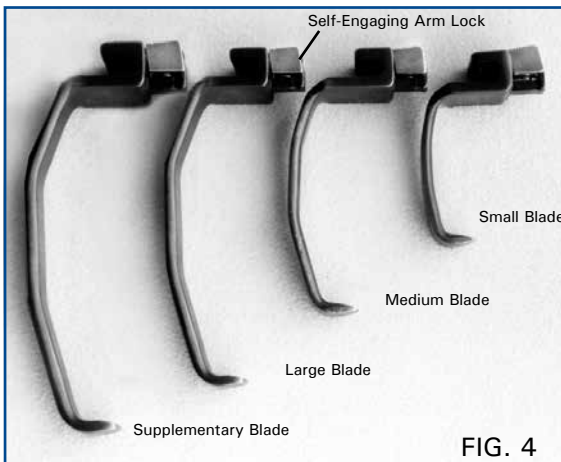


FIG. 4

## The Blades...

- Blade shape ensures firm hold and better access to the surgical site.
- Will not slip out of wound during surgery.
- Narrow blade design minimizes potential of tissue necrosis at blade and tissue contact points.
- Two to eight blades can be placed on the retractor arms, allowing for optimal blade placement.
- Interference with blades is reduced for better instrument access.
- A full array of blades are offered to meet any surgical requirement.
- Four (each) of the 2", 3" and 4" blades are included in the standard set.
- The extended set offers four extra-deep 4<sup>3/4</sup>" blades for large patients and two unilateral (Hemi) T-blade sets.

## The Sterilization Case...

- Silicone inserts firmly secure the retractor frame.
- Stainless steel blade racks hold blades in place making blade sizes easy to identify.
- Light weight, hard anodized, heavy gauge aluminum case cools faster than steel.
- Trays are stackable for safety and convenience.

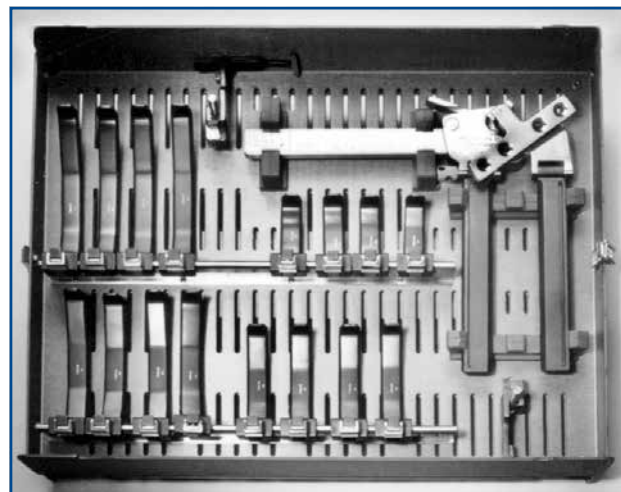


FIG. 6

# Surgical Technique for SUPER-SLIDE II™ LAMINECTOMY RETRACTOR SYSTEM

1. Blades are chosen according to patient requirement. After a standard mid-line incision is made, the blades are placed into the wound until the retractor frame is introduced. A four blade set-up is common but blade configuration can vary with one or more blades to gain the desired surgical exposure. The blade arms will hold at least four blades on each side.

2. The fully closed retractor arms are then placed between the blade heads so that as the retractor is cranked open, the blades become engaged. The retractor is opened further until the desired position is attained. The blades will self-engage and self-lock. The special blade lock design of the Super-Slide II Retractor allows the blades to be unlocked, disengaged and repositioned at any time during surgery. To disengage the arm lock, press and slide it downward until it stops. (Fig. 5)

Warning: It is recommended that the retractor be released occasionally and the wound irrigated to reduce any possible trauma to the retracted tissue. This is especially important during long surgeries.

3. To obtain unilateral exposure use the

unilateral (Hemi) T-blade contained in the Super-Slide Extended Set (Fig. 5-6). The surgeon

determines the depth needed to attain firm purchase on the spinous process. The unilateral (Hemi) T-blade is attached to the blade head and then attached to the retractor arm. The blade lock allows the unilateral T-blade to slide up or down as needed. (Fig. 5)

The Extended Set also includes four extra

deep blades (4-3/4") for deeper surgical sites.

4. To close the retractor, press the retraction lock located near the crank handle. The retraction lock must be held down while closing the arms. (Fig. 3)

If the retraction lock does not release under normal thumb pressure, open the retractor slightly using the crank handle while simultaneously pressing the retractor lock. The lock will then release freely.

5. To remove the retractor, disengage arm locks then close and remove the retractor frame. Remove blades individually.

The retractor may be temporarily removed with the blades attached. This is especially useful when x-rays are required. The retractor may be easily re-inserted into the wound with the blades still engaged and opened to the same position previously achieved.



## OPTIONAL Super-Slide Blades

7329-83M 2 1/2 inch Titanium Blade

7329-85M 3 1/2 inch Titanium Blade

### Super-Slide Optional Blades

|         |                         |             |
|---------|-------------------------|-------------|
| 7329-15 | Short Blade             | 1 1/4" deep |
| 7329-25 | Small, Plus Half Size,  | 2 1/2" deep |
| 7329-35 | Medium, Plus Half Size, | 3 1/2" deep |

### Clear View Super-Slide Optional Blades

|          |                                  |             |
|----------|----------------------------------|-------------|
| 7329-16T | Titanium, Medium, Size 3.5 Blade | 1 1/2" deep |
| 7329-25T | Titanium, Small, Size 2.5 Blade  | 2 1/2" deep |
| 7329-35T | Titanium, Medium, Size 3.5 Blade | 3 1/2" deep |

# Super-Slide II™ Laminectomy Retractor

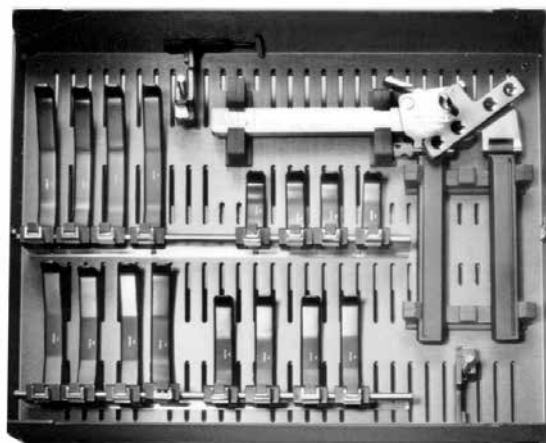


**Stainless Steel**

## 7329-00 Super-Slide II™ Self-Retaining Retractor, Basic Set

Stainless Steel construction. Consists of the following items:

|         |      |                             |         |
|---------|------|-----------------------------|---------|
| 7329-10 | 1 ea | Retractor Frame Only        |         |
| 7329-20 | 4 ea | Small Blades                | 2" deep |
| 7329-30 | 4 ea | Medium Blades               | 3" deep |
| 7329-40 | 4 ea | Large Blade                 | 4" deep |
| 7329-50 | 1 ea | Super-Slide Instrument Case |         |



## Optional Items:

|         |                                                  |             |
|---------|--------------------------------------------------|-------------|
| 7329-60 | Unilateral Blade Holder                          |             |
| 7329-62 | Unilateral (Hemi) T-Blade Only                   | 2 1/2" deep |
| 7329-64 | Unilateral Head and T-Blade (7329-60 & -62)      |             |
| 7329-68 | Unilateral Blade Holding Post (not illustrated). |             |
| 7329-50 | Super-Slide™ Instrument Case                     |             |
| 7329-70 | Replacement Arm Screw                            |             |

- Special bearing inserts prevent bending of components and minimize the force required to open and close arms.
- Self-engaging blades feature a convenient quick-release locking mechanism allowing blades to be securely locked or unlocked. The locking mechanism can be used in various positions along the length of both retractor arms.
- A unique, spring-loaded handle folds down for a low profile.

Arm Length: 6 1/2 inch, (16 cm)  
Arm Opening: 6 3/4 inch, (17 cm).  
Blade Width: 15 mm

Design elements of instrument are patented.

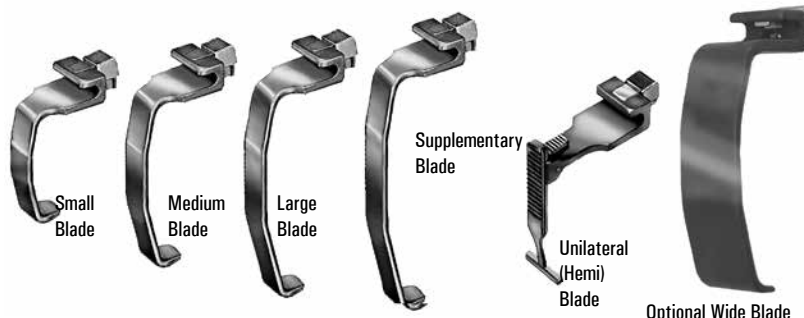
## 7329-05 Super-Slide II™ Self-Retaining Retractor, Extended Set

Stainless Steel construction. Consists of the following items:

|         |      |                                |                                                                   |
|---------|------|--------------------------------|-------------------------------------------------------------------|
| 7329-10 | 1 ea | Retractor Frame Only           |                                                                   |
| 7329-20 | 4 ea | Small Blades                   | 2" deep                                                           |
| 7329-30 | 4 ea | Medium Blades                  | 3" deep                                                           |
| 7329-40 | 4 ea | Large Blade                    | 4" deep                                                           |
| 7329-47 | 4 ea | Supplementary Blade            | 4 3/4" deep                                                       |
| 7329-60 | 2 ea | Unilateral Blade Heads         |                                                                   |
| 7329-62 | 2 ea | Unilateral T-Blades            | 2 1/2" deep                                                       |
| 7329-68 | 2 ea | Unilateral Blade Holding Posts | Used for storing unilateral blades in instrument case- not shown. |
| 7329-50 | 1 ea | Super-Slide Instrument Case    |                                                                   |

## Optional Half Size Blades, Stainless Steel:

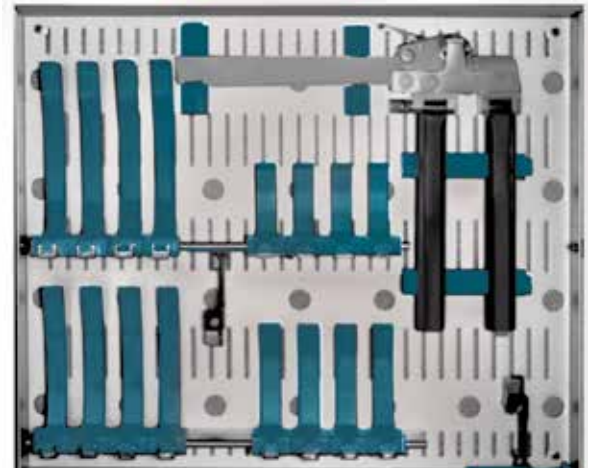
|          |                         |             |
|----------|-------------------------|-------------|
| 7329-15  | Short Blade             | 1 1/4" deep |
| 7329-25  | Small, Plus Half Size,  | 2 1/2" deep |
| 7329-35  | Medium, Plus Half Size, | 3 1/2" deep |
| 7329-70  | Replacement Arm Screw   |             |
| 7329-152 | Medium, Plus Half Size, | 5 1/4" deep |
| 7329-160 | Large Blade             | 6" deep     |



# Titanium Blade Super-Slide II™ Laminectomy Retractor



*Radiolucent,  
Titanium Blades  
with a  
Stainless Steel  
Retractor Frame*



## 7329-06 Titanium Super-Slide II™ Self-Retaining Retractor, **BASIC SET**

Blue Titanium Blades with Stainless Steel Retractor Frame. Set consists of:

|         |      |                             |         |
|---------|------|-----------------------------|---------|
| 7329-10 | 1 ea | Retractor Frame Only        |         |
| 7329-82 | 4 ea | Solid TI Small Blades       | 2" deep |
| 7329-84 | 4 ea | Solid TI Medium Blades      | 3" deep |
| 7329-86 | 4 ea | Solid TI Large Blade        | 4" deep |
| 7329-90 | 1 ea | Super-Slide Instrument Case |         |

### OPTIONAL ITEMS:

|          |                           |                   |
|----------|---------------------------|-------------------|
| 7329-70  | Replacement Arm Screw     |                   |
| 7329-83  | 2 1/2" TI Blade, Titanium |                   |
| 7329-85  | 3 1/2" TI Blade, Titanium |                   |
| 7329-352 | Titanium 1" Wide Blade    | 1 x 5 1/4" 133 mm |
| 7329-360 | Titanium 1" Wide Blade    | 1 x 6" 150 mm     |

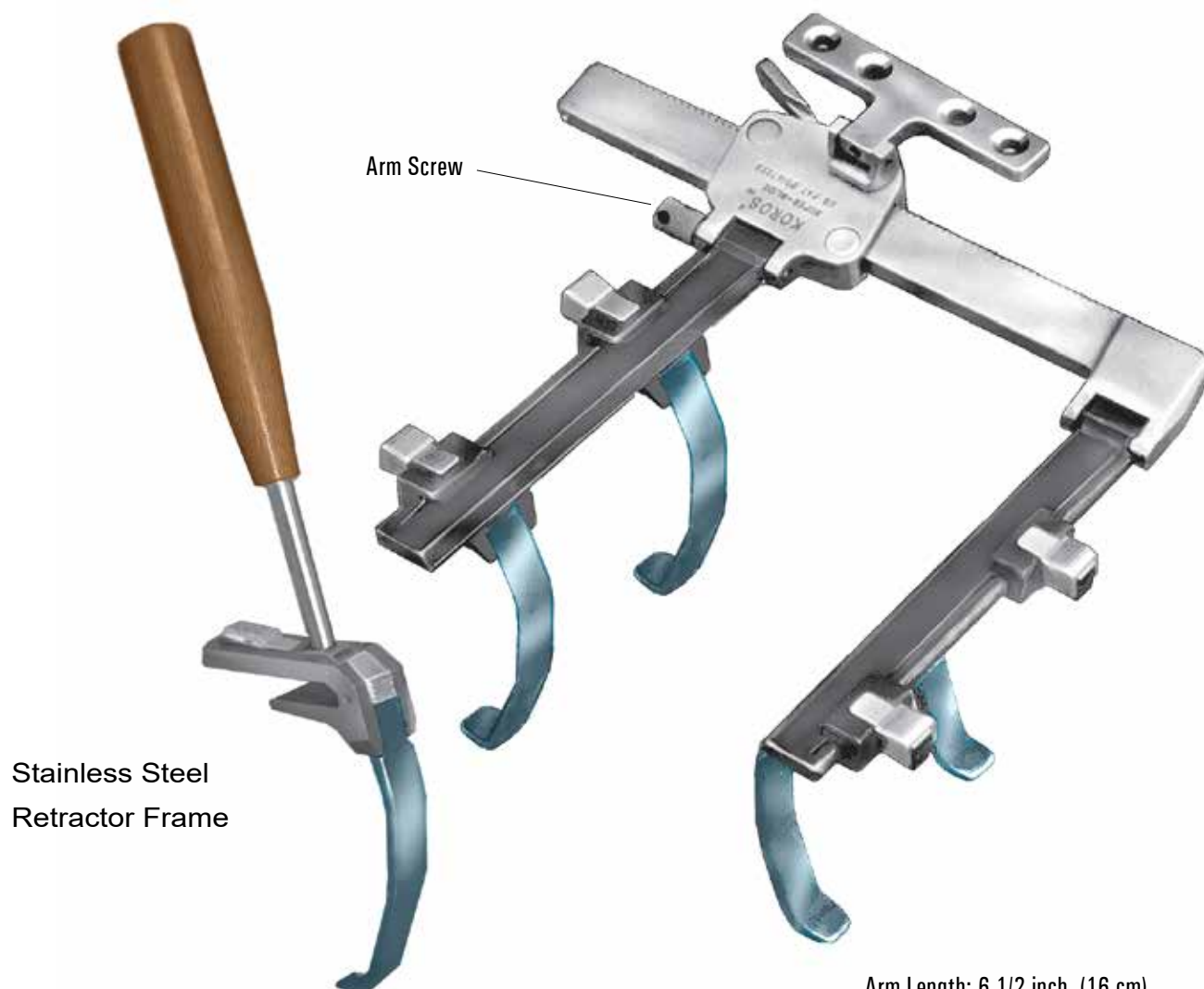
## 7329-09 Titanium Super-Slide II™ Self-Retaining Retractor, **EXTENDED SET**

Blue Titanium Blades with Stainless Steel Retractor Frame. Set consists of:

|         |      |                                                                   |             |
|---------|------|-------------------------------------------------------------------|-------------|
| 7329-10 | 1 ea | Retractor Frame Only                                              |             |
| 7329-82 | 4 ea | Solid TI Small Blades                                             | 2" deep     |
| 7329-84 | 4 ea | Solid TI Medium Blades                                            | 3" deep     |
| 7329-86 | 4 ea | Solid TI Large Blade                                              | 4" deep     |
| 7329-87 | 4 ea | Solid TI Supplementary Blade                                      | 4 3/4" deep |
| 7329-60 | 2 ea | Unilateral Blade Heads                                            |             |
| 7329-62 | 2 ea | Unilateral T-Blades                                               | 2 1/2" deep |
| 7329-68 | 2 ea | Unilateral Blade Holding Posts                                    |             |
|         |      | Used for storing unilateral blades in instrument case. Not shown. |             |
| 7329-90 | 1 ea | Super-Slide Instrument Case                                       |             |



## Clear View Super-Slide Lumbar Retractor System



Stainless Steel  
Retractor Frame

NEW Front Loading Blade Heads engage and disengage on retractor arms during surgery without having to close the retractor frame!

Arm Length: 6 1/2 inch, (16 cm)  
Arm Opening: 6 3/4 inch, (17 cm)

### **7329-00T Clear View Super-Slide Lumbar Retractor, Basic Set**

Stainless Steel Retractor Frame with blue Titanium Blades.

Consists of:

|          |      |                                        |         |
|----------|------|----------------------------------------|---------|
| 7329-10T | 1 ea | Retractor Frame Only                   |         |
| 7329-20T | 4 ea | Titanium, Small Blades                 | 2" deep |
| 7329-30T | 4 ea | Titanium, Medium Blades                | 3" deep |
| 7329-40T | 4 ea | Titanium, Large Blade                  | 4" deep |
| 7329-48T | 6 ea | Blade Heads                            |         |
| 7329-80T | 1 ea | Clear View Super-Slide Instrument Case |         |

Replacement Part:

|         |      |                       |
|---------|------|-----------------------|
| 7329-70 | 1 ea | Replacement Arm Screw |
|---------|------|-----------------------|

### **7329-05T Clear View Super-Slide Lumbar Retractor, Extended Set**

Stainless Steel Retractor Frame with blue Titanium Blades.

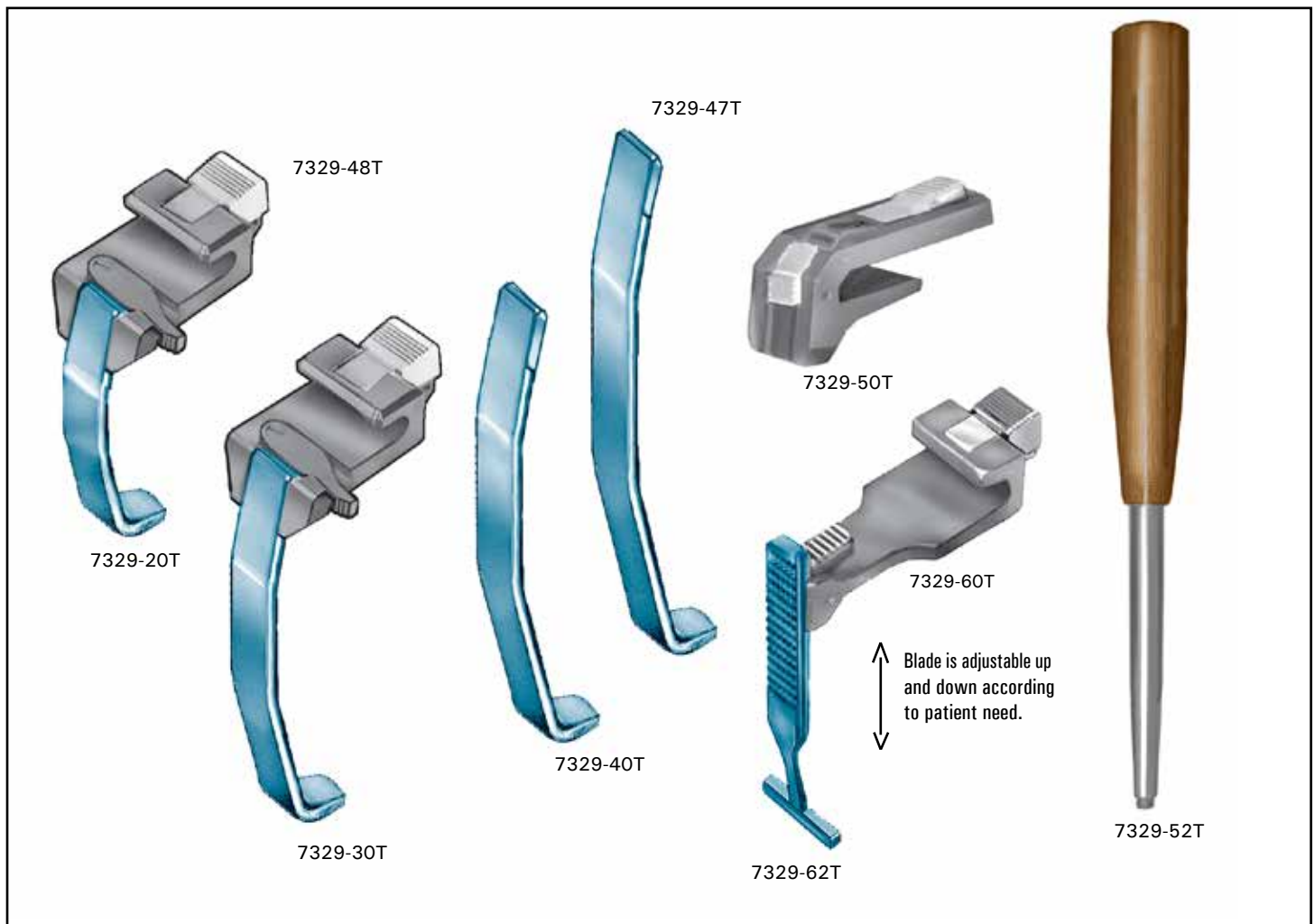
Consists of:

|          |      |                                                                      |             |
|----------|------|----------------------------------------------------------------------|-------------|
| 7329-10T | 1 ea | Retractor Frame Only                                                 |             |
| 7329-20T | 4 ea | Titanium, Small Blades                                               | 2" deep     |
| 7329-30T | 4 ea | Titanium, Medium Blades                                              | 3" deep     |
| 7329-40T | 4 ea | Titanium, Large Blade                                                | 4" deep     |
| 7329-47T | 4 ea | Titanium Supplementary Blade                                         | 4 3/4" deep |
| 7329-48T | 6 ea | Blade Heads                                                          |             |
| 7329-50T | 2 ea | Front Loading Blade Heads                                            |             |
| 7329-60T | 2 ea | Unilateral Blade Heads                                               |             |
| 7329-62T | 2 ea | Unilateral T-Blades                                                  | 2 1/2" deep |
| 7329-68T | 2 ea | Unilateral Blade Holding Posts<br>(Used to store unilateral blades.) |             |
| 7329-80T | 1 ea | Clear View Super-Slide Instrument Case                               |             |

#### **OPTIONAL ITEMS:**

|          |                                   |
|----------|-----------------------------------|
| 7329-52T | Front Loading Head Inserter       |
| 7329-25T | 2 1/2" Clear View Blade, Titanium |
| 7329-35T | 3 1/2" Clear View Blade, Titanium |

# Clear View Super-Slide Lumbar Retractor System



## Titanium Super-Slide Retractor Blades

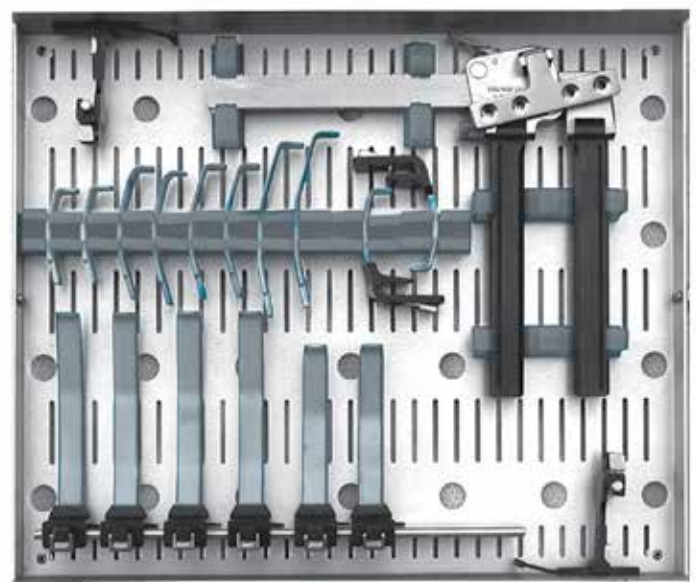
|          |                              | Width: 15 mm                         |
|----------|------------------------------|--------------------------------------|
| 7329-20T | Titanium, Small Blade        | 2" deep                              |
| 7329-30T | Titanium, Medium Blade       | 3" deep                              |
| 7329-40T | Titanium, Large Blade        | 4" deep                              |
| 7329-47T | Titanium Supplementary Blade | 4 <sup>3</sup> / <sub>4</sub> " deep |
| 7329-48T | Blade Head                   |                                      |
| 7329-50T | Front Loading Blade Head     |                                      |

## Optional Items:

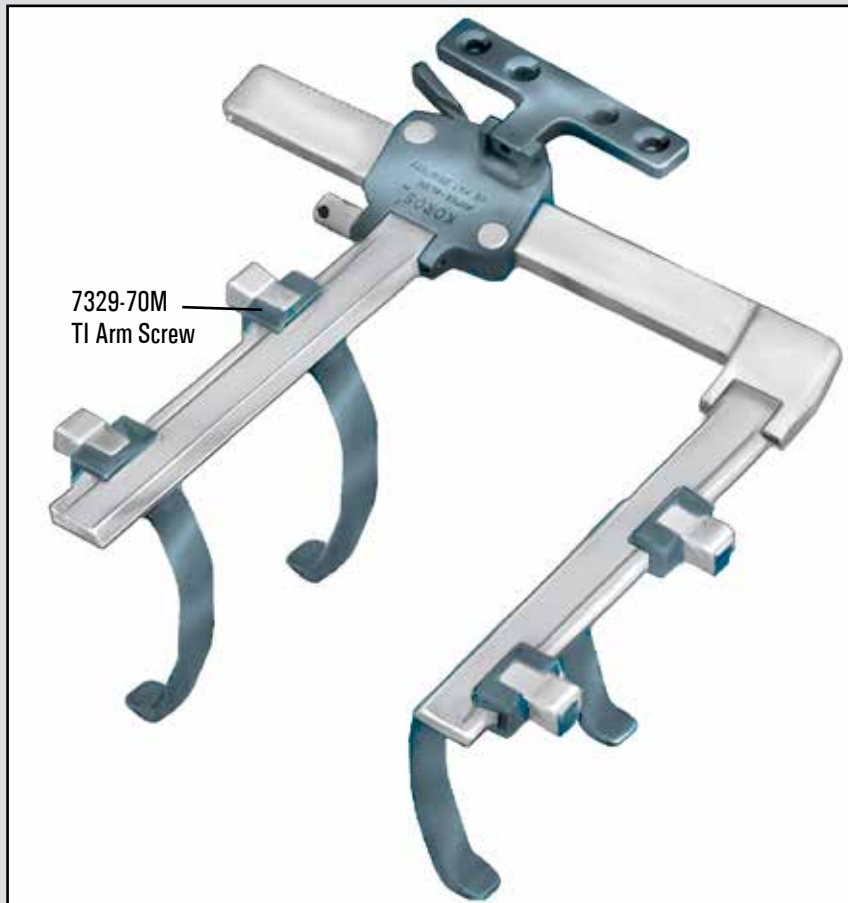
|          |                                  |                                      |
|----------|----------------------------------|--------------------------------------|
| 7329-52T | Front Loading Blade Head Holder  |                                      |
| 7329-25T | Titanium, Small, Size 2.5 Blade  | 2 <sup>1</sup> / <sub>2</sub> " deep |
|          | Not shown.                       |                                      |
| 7329-35T | Titanium, Medium, Size 3.5 Blade | 3 <sup>1</sup> / <sub>2</sub> " deep |
|          | Not shown.                       |                                      |

## Unilateral Adjustable Blades, Case

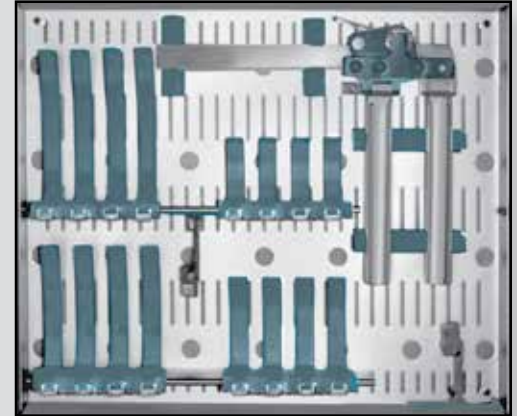
|          |                                                 |                                      |
|----------|-------------------------------------------------|--------------------------------------|
| 7329-60T | Unilateral Blade Head only                      |                                      |
| 7329-62T | Unilateral Hemi T-Blade only                    | 2 <sup>1</sup> / <sub>2</sub> " deep |
| 7329-64T | Unilateral Head and T-Blade (7329-60T & -62T)   |                                      |
| 7329-68T | Unilateral Blade Holding Post (not illustrated) |                                      |
| 7329-70  | Replacement Arm Screw                           |                                      |
| 7329-80T | Clear View Super-Slide™ Instrument Case         |                                      |



# Super-Slide III™ All Titanium Laminectomy Retractor



- Titanium construction is advantageous when used with Navigation, X-ray, MRI and Fluoroscopic Systems.



Radiolucent All Titanium Frame and Blades for X-Ray, Fluoroscope, MRI & Navigation Systems

## 7329-00M All Titanium Super-Slide III™ Self-Retaining Retractor, Basic Set

All Titanium construction. Set consists of:

|          |      |                                 |         |
|----------|------|---------------------------------|---------|
| 7329-10M | 1 ea | Titanium Retractor Frame Only   |         |
| 7329-82M | 4 ea | Solid TI, Small Blades          | 2" deep |
| 7329-84M | 4 ea | Solid TI, Medium Blades         | 3" deep |
| 7329-86M | 4 ea | Solid TI, Large Blade           | 4" deep |
| 7329-90M | 1 ea | Super-Slide III Instrument Case |         |

### Optional Items:

|          |                            |
|----------|----------------------------|
| 7329-70M | Titanium Replacement Screw |
| 7329-83M | 2 1/2" TI Blade, Titanium  |
| 7329-85M | 3 1/2" TI Blade, Titanium  |

## 7329-05M All Titanium Super-Slide III™ Self-Retaining Retractor, Extended Set

All Titanium construction. Set consists of:

|          |      |                                                                                              |             |
|----------|------|----------------------------------------------------------------------------------------------|-------------|
| 7329-10M | 1 ea | Titanium Retractor Frame Only                                                                |             |
| 7329-82M | 4 ea | Solid TI, Small Blades                                                                       | 2" deep     |
| 7329-84M | 4 ea | Solid TI, Medium Blades                                                                      | 3" deep     |
| 7329-86M | 4 ea | Solid TI, Large Blade                                                                        | 4" deep     |
| 7329-87M | 4 ea | Solid TI Supplementary Blade                                                                 | 4 3/4" deep |
| 7329-60M | 2 ea | TI Unilateral Blade Heads                                                                    |             |
| 7329-62M | 2 ea | TI Unilateral T-Blades                                                                       | 2 1/2" deep |
| 7329-68M | 2 ea | Unilateral Blade Holding Posts (for storing unilateral blades in instrument case- not shown) |             |
| 7329-90M | 1 ea | Super-Slide III Instrument Case                                                              |             |

- Special patented bearing inserts prevent binding of components and minimize force required to open and close arms.
- Unique spring-loaded retractor handle folds down for a low profile.

- Patented self-engaging blades feature convenient quick-release locking mechanism, allowing them to be securely locked or unlocked when used in various positions along the length of both retractor arms.

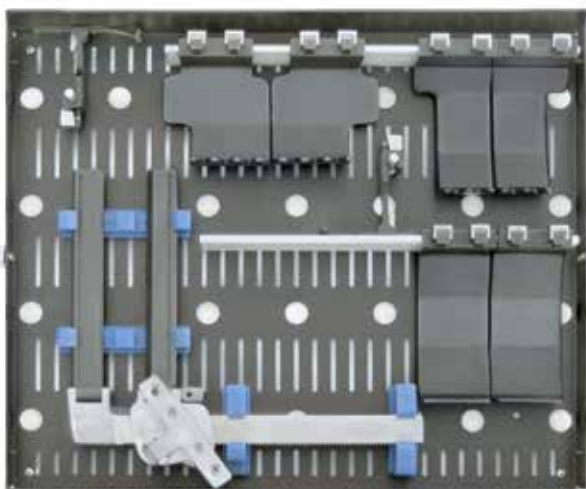
# Wide Blade Super-Slide™ Lumbar Retractor Sets

7329-400

## Wide Blade Super-Slide™ Stainless Steel Retractor Set

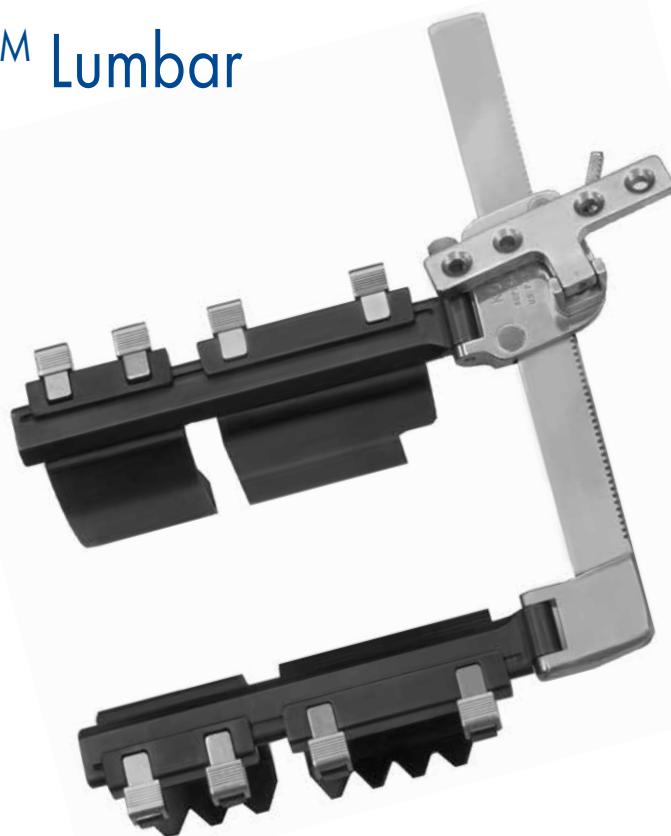
Stainless steel construction. Set consists of the following items:

|          |      |                            | Width x Depth  |
|----------|------|----------------------------|----------------|
| 7329-410 | 1 ea | Wide Blade Retractor Frame |                |
| 7329-420 | 2 ea | Wide Blunt Blade           | 2 x 2 1/8"     |
| 7329-422 | 2 ea | Wide Blunt Blade           | 2 x 3 1/8"     |
| 7329-424 | 2 ea | Wide Blunt Blade           | 2 x 4 1/8"     |
| 7329-430 | 2 ea | Wide Blade w/teeth         | 2 x 4 1/8"     |
| 7329-432 | 2 ea | Wide Blade w/teeth         | 1 3/4 x 4 3/4" |
| 7329-434 | 2 ea | Wide Blade w/teeth         | 2 1/2 x 5 1/2" |
| 7329-440 | 1 ea | Sacral Blade, Left         | 2 x 3 1/2"     |
| 7329-442 | 1 ea | Sacral Blade, Right        | 2 x 3 1/2"     |
| 7329-444 | 1 ea | Sacral Blade, Left         | 2 3/4 x 2 1/2" |
| 7329-446 | 1 ea | Sacral Blade, Right        | 2 3/4 x 2 1/2" |
| 7329-448 | 1 ea | Sacral Blade, Left         | 3 x 3 "        |
| 7329-450 | 1 ea | Sacral Blade, Right        | 3 x 3 "        |
| 7329-460 | 2 ea | Unilateral Blade Heads     |                |
| 7329-462 | 2 ea | Unilateral T-Blades        | 2 1/2"         |
| 7329-470 | 1 ea | Wide Blade Retractor Case  |                |



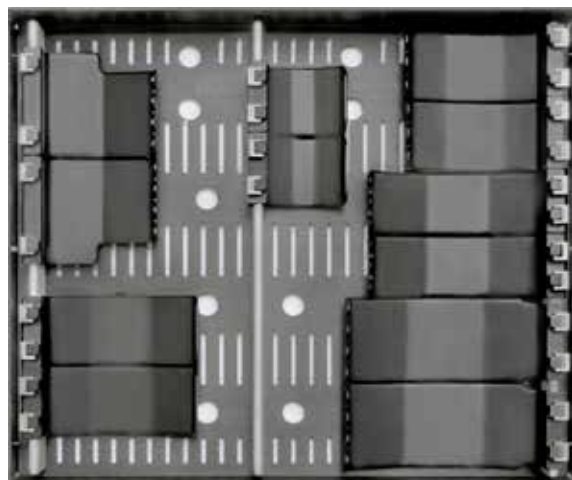
7329-470 Wide Blade Retractor Case

Additional and Modified Blades are available



## Optional Items:

|          |                              | Width x Depth inch/ mm |
|----------|------------------------------|------------------------|
| 7329-120 | 1" Wide Blade                | 1 x 2" 50              |
| 7329-130 | 1" Wide Blade                | 1 x 3" 75              |
| 7329-135 | 1" Wide Blade                | 1 x 3 1/2" 88          |
| 7329-140 | 1" Wide Blade                | 1 x 4" 102             |
| 7329-147 | 1" Wide Blade                | 1 x 4 3/4" 120         |
| 7329-125 | 1" Wide Blade                | 1 x 2 1/2" 68          |
| 7329-152 | 1" Wide Blade                | 1 x 5 1/4" 133         |
| 7329-160 | 1" Wide Blade                | 1 x 6" 150             |
| 7329-490 | Titanium Long Spike blade    | 4 1/2" 115             |
| 7329-492 | Titanium Long T-Shape blade  | 4 1/2" 115             |
| 7329-494 | Titanium Long Ligament blade | 4 1/2" 115             |
| 7329-472 | Wide Blade Sterilizing Case  |                        |



7329-472 Wide Blade Sterilizing Case

## Wide Stainless Steel Blunt Blades



|          |                  | Width x Depth inch/ mm |          |
|----------|------------------|------------------------|----------|
| 7329-420 | Wide Blunt Blade | 2 x 2 1/8"             | 50 x 55  |
| 7329-422 | Wide Blunt Blade | 2 x 3 1/8"             | 50 x 80  |
| 7329-424 | Wide Blunt Blade | 2 x 4 1/8"             | 50 x 105 |
| 7329-426 | Wide Blunt Blade | 1 3/4 x 4 3/4"         | 45 x 120 |

## Stainless Steel Wide Blades with Teeth

To avoid necrosis we recommend irrigating frequently!



|          |                       | Width x Depth inch/ mm |          |
|----------|-----------------------|------------------------|----------|
| 7329-430 | Wide Blade with teeth | 2 x 4 1/8"             | 50 x 105 |
| 7329-432 | Wide Blade with teeth | 1 3/4 x 4 3/4"         | 45 x 120 |
| 7329-434 | Wide Blade with teeth | 2 1/2 x 5 1/2"         | 60 x 140 |
| 7329-436 | Wide Blade with teeth | 2 x 3 1/8"             | 50 x 80  |

## Titanium Long Hemi Blades

|          |                                    | Depth inch/ mm |     |
|----------|------------------------------------|----------------|-----|
| 7329-162 | Stainless Steel Unilateral T-Blade | 2 1/2"         | 66  |
| 7329-490 | Titanium Long Spike blade          | 4 1/2"         | 115 |
| 7329-492 | Titanium Long T-Shape blade        | 4 1/2"         | 115 |
| 7329-494 | Titanium Long Ligament blade       | 4 1/2"         | 115 |
| 7329-460 | Unilateral Blade Head              |                |     |



## Stainless Steel Sacral Blades with Teeth



Left

Right

|          |                     | Width x Depth inch/ mm |
|----------|---------------------|------------------------|
| 7329-440 | Sacral Blade, Left  | 2 x 3 1/2" 50 x 95     |
| 7329-442 | Sacral Blade, Right | 2 x 3 1/2" 50 x 95     |



Left

Right

|          |                     | Width x Depth inch/ mm |
|----------|---------------------|------------------------|
| 7329-444 | Sacral Blade, Left  | 3 x 2 1/2" 75 x 65     |
| 7329-446 | Sacral Blade, Right | 3 x 2 1/2" 75 x 65     |



Left

Right

|          |                     | Width x Depth inch/ mm |
|----------|---------------------|------------------------|
| 7329-448 | Sacral Blade, Left  | 3 x 3 " 75 x 75        |
| 7329-450 | Sacral Blade, Right | 3 x 3 " 75 x 75        |



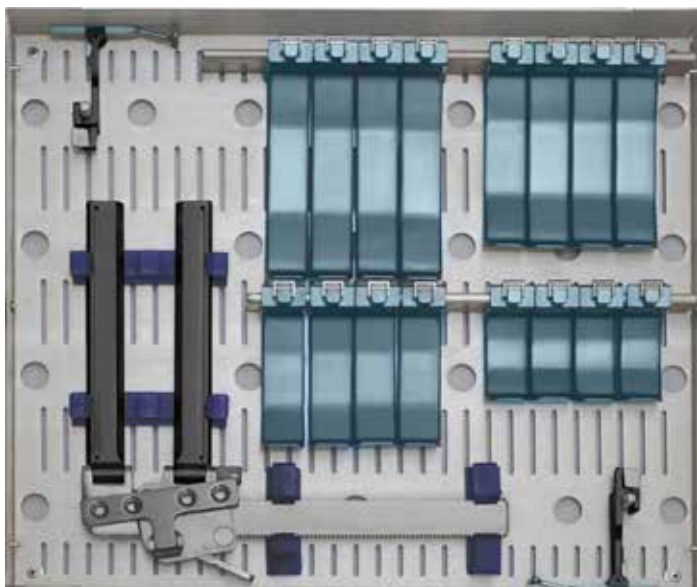
### 7329-100 1" Wide Blade Stainless Steel Super-Slide™ Retractor Set

| Consisting of the following items: |                                  | Width x Depth |
|------------------------------------|----------------------------------|---------------|
| 7329-110                           | 1 ea Wide Blade Retractor Frame  |               |
| 7329-120                           | 4 ea 1" Wide Blade               | 1 x 2"        |
| 7329-130                           | 4 ea 1" Wide Blade               | 1 x 3"        |
| 7329-140                           | 4 ea 1" Wide Blade               | 1 x 4"        |
| 7329-147                           | 4 ea 1" Wide Blade               | 1 x 4 3/4"    |
| 7329-460                           | 2 ea Unilateral Blade Heads      |               |
| 7329-462                           | 2 ea Unilateral T-Blades         | 2 1/2" deep   |
| 7329-470                           | 1 ea Super-Slide Instrument Case |               |

#### Optional Items:

|          |                              |            |
|----------|------------------------------|------------|
| 7329-125 | 1" Wide Blade                | 1 x 2 1/2" |
| 7329-135 | 1" Wide Blade                | 1 x 3 1/2" |
| 7329-152 | 1" Wide Blade                | 1 x 5 1/4" |
| 7329-160 | 1" Wide Blade                | 1 x 6"     |
| 7329-490 | Titanium Deep Spike blade    | 4 1/2"     |
| 7329-492 | Titanium Deep T-Shape blade  | 4 1/2"     |
| 7329-494 | Titanium Deep Ligament blade | 4 1/2"     |

## Super-Slide Radiolucent Retractor Sets



7329-200

### 1" Wide Blade Titanium Super-Slide™ Radiolucent Retractor Set

Stainless Steel Retractor Frame with blue Titanium blades.

Set consists of the following items: Width x Depth inch/ mm

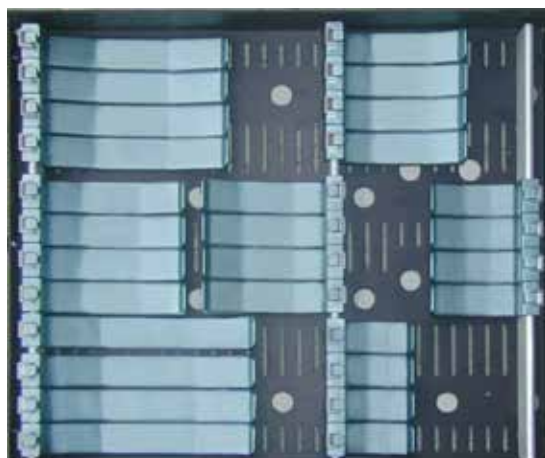
|          |      |                              |                        |     |
|----------|------|------------------------------|------------------------|-----|
| 7329-110 | 1 ea | Wide Blade Retractor Frame   |                        |     |
| 7329-320 | 4 ea | Titanium 1" Wide Blade       | 1 x 2"                 | 50  |
| 7329-330 | 4 ea | Titanium 1" Wide Blade       | 1 x 3"                 | 75  |
| 7329-340 | 4 ea | Titanium 1" Wide Blade       | 1 x 4"                 | 102 |
| 7329-347 | 4 ea | Titanium 1" Wide Blade       | 1 x 4 <sup>3/4</sup> " | 120 |
| 7329-460 | 2 ea | Unilateral Blade Heads       |                        |     |
| 7329-462 | 2 ea | Unilateral T-Blades          | 2 1/2"                 | 66  |
| 7329-370 | 1 ea | Ti Wide Blade Retractor Case |                        |     |

#### Optional Items:

|          |                              |            |     |
|----------|------------------------------|------------|-----|
| 7329-325 | Titanium 1" Wide Blade       | 1 x 2 1/2" | 68  |
| 7329-335 | Titanium 1" Wide Blade       | 1 x 3 1/2" | 88  |
| 7329-352 | Titanium 1" Wide Blade       | 1 x 5 1/4" | 133 |
| 7329-360 | Titanium 1" Wide Blade       | 1 x 6"     | 150 |
| 7329-490 | Titanium Long Spike Blade    | 4 1/2"     | 115 |
| 7329-492 | Titanium Long T-Shape Blade  | 4 1/2"     | 115 |
| 7329-494 | Titanium Long Ligament Blade | 4 1/2"     | 115 |
| 7329-472 | Wide Blade Sterilizing Case  |            |     |



Radiolucent  
Titanium  
Blades



7329-472 Wide Blade Sterilizing Case

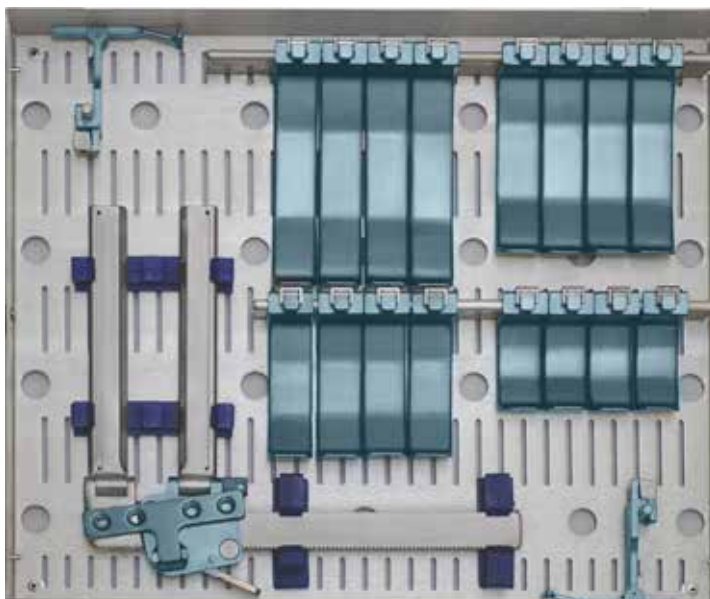
### 7329-300 1" Wide Blade All Titanium Super-Slide™ Radiolucent Retractor Set

Consisting of the following items: Width x Depth inch/ mm

|          |      |                                     |                        |     |
|----------|------|-------------------------------------|------------------------|-----|
| 7329-315 | 1 ea | Titanium Wide Blade Retractor Frame |                        |     |
| 7329-320 | 4 ea | Titanium 1" Wide Blades             | 1 x 2"                 | 50  |
| 7329-330 | 4 ea | Titanium 1" Wide Blade              | 1 x 3"                 | 75  |
| 7329-340 | 4 ea | Titanium 1" Wide Blade              | 1 x 4"                 | 102 |
| 7329-347 | 4 ea | Titanium 1" Wide Blade              | 1 x 4 <sup>3/4</sup> " | 120 |
| 7329-461 | 2 ea | Titanium Unilateral Blade Heads     |                        |     |
| 7329-463 | 2 ea | Ti Unilateral T-Blades              | 2 1/2"                 | 66  |
| 7329-370 | 1 ea | Ti Wide Blade Retractor Case        |                        |     |

#### Optional Items:

|          |                              |            |     |
|----------|------------------------------|------------|-----|
| 7329-325 | Titanium 1" Wide Blade       | 1 x 2 1/2" | 68  |
| 7329-335 | Titanium 1" Wide Blade       | 1 x 3 1/2" | 88  |
| 7329-352 | Titanium 1" Wide Blade       | 1 x 5 1/4" | 133 |
| 7329-360 | Titanium 1" Wide Blade       | 1 x 6"     | 150 |
| 7329-490 | Titanium Long Spike Blade    | 4 1/2"     | 115 |
| 7329-492 | Titanium Long T-Shape Blade  | 4 1/2"     | 115 |
| 7329-494 | Titanium Long Ligament Blade | 4 1/2"     | 115 |
| 7329-472 | Wide Blade Sterilizing Case  |            |     |



**MRI COMPATIBLE ALL TITANIUM SET**

# Super Slide Container Tray & Double Crank Spinal Retractor

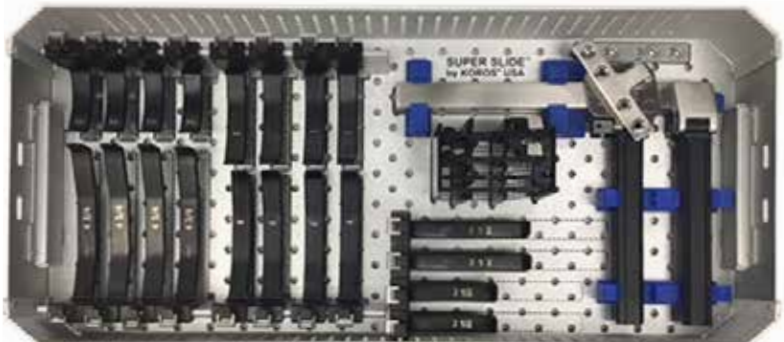
## Super Slide Container Tray

7329-95 21.25" x 10" x 2.75"

7328-96 Sterilization Container

21.5" x 10.5" x 3"

7328-97 Filter



## Double Crank Spinal Retractor

McElroy Stainless Steel Ebonized

7329-55 Retractor Set with Blades

7329-56 Retractor Frame

Size:

7329-57 1 3/4" (44 mm) wide, 1 1/2" (38 mm) deep

7329-58 1 3/4" (44 mm) wide, 2 3/4" (70 mm) deep

Quantity:

1

2

2

**Custom Size Blades Available**

# Cervical Vertebral Body Distraction Instrument Set



## Cervical Vertebral Body Distractor Set

7330-00 Cervical Vertebral Body Distraction Set

Consists of the following items:

|         |                                                |                                    |
|---------|------------------------------------------------|------------------------------------|
| 1 ea    | 7330-10                                        | Distraction Retractor, Right       |
| 1 ea    | 7330-20                                        | Drill Guide, Right                 |
| 1 ea    | 7330-30                                        | Screwdriver                        |
| 1 ea    | 7330-40                                        | Distraction Screw Pre-Drill        |
| 1pkg    | 12,14 or 16 mm                                 | Distraction Screws                 |
| 1 ea    | 7330-70                                        | Instrument Case 9 1/2 x 10 x 2 1/2 |
| 7330-10 | Distraction Retractor Only (9 cm max. opening) |                                    |
| 7330-70 | Distraction Retractor Set Instrument Case Only |                                    |

## Drill Guide

Made for parallel positioning of distraction screws, with use of distraction retractor.

7330-20 Drill Guide, Right



## Optional Item:

|         |                             |
|---------|-----------------------------|
| 7330-12 | Distraction Retractor, Left |
| 7330-22 | Drill Guide, Left           |

## Distraction Screws

For single level, 2 screws are required.

For two level, 3 screws are required.

7 cm post length.

|         |                     |       |
|---------|---------------------|-------|
| 7330-45 | package of 3 screws | 12 mm |
| 7330-50 | package of 3 screws | 14 mm |
| 7330-60 | package of 3 screws | 16 mm |

## Distraction Screw Pre-Drill

For pre-drilling distraction screw holes, 8 mm long, 2 mm diameter.

7330-40 Distraction Screw Pre-Drill

## Screwdriver

For tightening distraction screws (fits inside drill guide).

7330-30 Screwdriver

# Cervical Distraction and Compression Systems

## Tilting Arm Cervical Vertebral Body Distractor Set for Lordosys Correction



- Tilting Arm Retractor allows rotation of screws prior to distraction.

### 7330-80 Tilting Arm Cervical Vertebral Body Distractor Set

Consists of the following items:

|         |       |                                |
|---------|-------|--------------------------------|
| 7330-81 | 1 ea  | Distraction Retractor, Right   |
| 7330-83 | 1 ea  | Screwdriver                    |
| 7330-84 | 1 ea  | Distraction Screw Pre-Drill    |
| 7330-50 | 1 pkg | 14 mm Distraction Screws       |
| 7330-85 | 1 ea  | Instrument Case 6 x 9 x 1 1/2" |

## Cervical Distraction/Compression Screws



Caspar Type Screws

### Straight Distraction or Compression Screws

5 cm post length.

|         |   |                                |       |
|---------|---|--------------------------------|-------|
| 7330-45 | 1 | Straight Screws (package of 3) | 12 mm |
| 7330-50 | 1 | Straight Screws (package of 3) | 14 mm |
| 7330-60 | 1 | Straight Screws (package of 3) | 16 mm |

Note: Screws are Single Use Only.

## Koros Black Belt Velox™ Offset Cervical Distraction Screws



### NEW OFFSET SCREWS

- Offset screw and post design provide improved access to the surgical site during the cervical spinal distraction.
- Available in two offset screw sizes and three screw length sizes to offer the best performance possible.

Patent Pending in the USA and other countries.

### Black Belt Velox™ Distraction Screws

3.5 cm post length.

|         |   |                                   | Screw<br>Offset x Length |
|---------|---|-----------------------------------|--------------------------|
| 7330-46 | 1 | Offset Screws (package of 3)      | 8 x 12 mm                |
| 7330-52 | 1 | Offset Screws (package of 3)      | 8 x 14 mm                |
| 7330-62 | 1 | Offset Screws (package of 3)      | 8 x 16 mm                |
| 7330-48 | 1 | Wide Offset Screws (package of 3) | 13 x 12 mm               |
| 7330-54 | 1 | Wide Offset Screws (package of 3) | 13 x 14 mm               |
| 7330-64 | 1 | Wide Offset Screws (package of 3) | 13 x 16 mm               |

Note: Screws are Single Use Only.

# Velox™ Cervical Distraction/Compression System Axial Rotational Adjustment for Lordosys and Kyphosys Correction



## NEW Distraction or Compression System

### 7330-90 Velox™ Cervical Distraction / Compression System

Consists of the following items:

| Part No.              | QTY | Description                                  |
|-----------------------|-----|----------------------------------------------|
| 7330-91               | 1   | Velox™ Retractor Frame Only                  |
| 7330-92               | 1   | Pre-drill, Power or hand drive               |
| 7330-93               | 1   | Hex Screw Driver                             |
| 7330-94               | 1   | Velox™ Retractor Case 6 x 9 x 1 1/2"         |
| <u>Offset x Depth</u> |     |                                              |
| 7330-45               | 1   | Straight Screws (package of 3) 12 mm         |
| 7330-46               | 1   | Offset Screws (package of 3) 8 x 12 mm       |
| 7330-48               | 1   | Wide Offset Screws (package of 3) 13 x 12 mm |

#### Optional Items:

|         |   |                                   |            |
|---------|---|-----------------------------------|------------|
| 7330-50 | 1 | Straight Screws (package of 3)    | 14 mm      |
| 7330-60 | 1 | Straight Screws (package of 3)    | 16 mm      |
| 7330-52 | 1 | Offset Screws (package of 3)      | 8 x 14 mm  |
| 7330-62 | 1 | Offset Screws (package of 3)      | 8 x 16 mm  |
| 7330-54 | 1 | Wide Offset Screws (package of 3) | 13 x 14 mm |
| 7330-64 | 1 | Wide Offset Screws (package of 3) | 13 x 16 mm |

- The Velox™ Distraction / Compression System offers fine-adjustment and flexibility for optimal surgical access. Designed for use with either straight or Velox™ offset distraction screws.
- System controls both the angular and linear placement of cervical vertebra using Straight or Offset screws. This is the only system that offers vertebral compression and angular adjustment.
- Dual retractor housing design eliminates the need for left or right sided retractors.
- Velox™ Offset Screws offer the surgeon a choice to gain additional access to the surgical site.
- **Warning:** Only straight screws can be used for compression!

**CUSTOM MADE, EXTRA DEEP SETS  
AVAILABLE!**

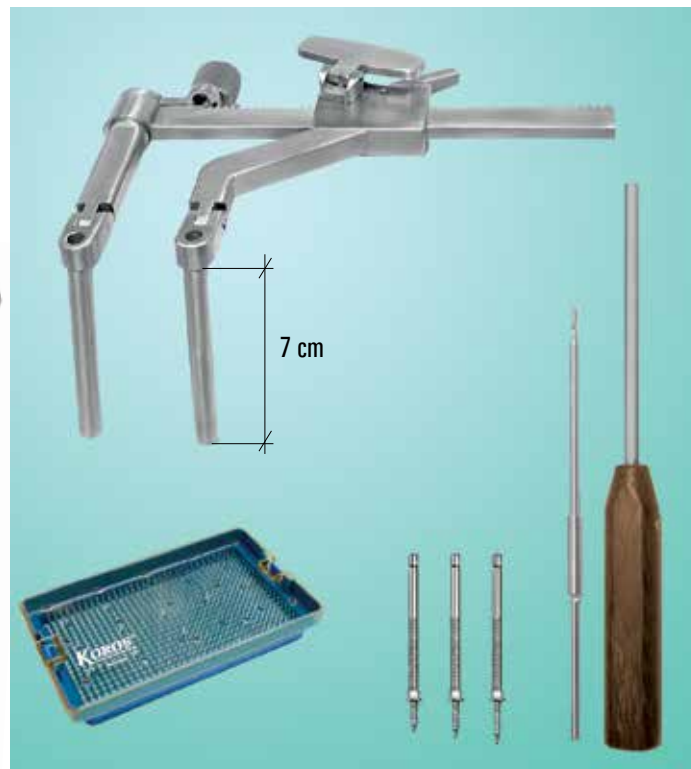
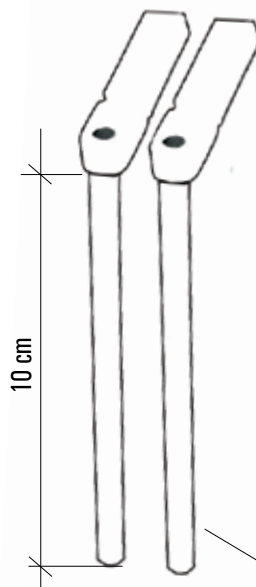
## Tilting Arm Cervical Vertebral Body Distractor Set

- Tilting Arm Retractor allows rotation of screws prior to distraction.

### 7330-80 7 cm deep Tilting Arm Cervical Vertebral Body Distractor Set

Consists of the following items:

|         |       |                                        |
|---------|-------|----------------------------------------|
| 7330-81 | 1 ea  | <b>7 cm deep</b> Distraction Retractor |
| 7330-30 | 1 ea  | Screwdriver                            |
| 7330-40 | 1 ea  | Distraction Screw Pre-Drill            |
| 7330-50 | 1 pkg | 14 mm Distraction Screws               |
| 7330-85 | 1 ea  | Instrument Case 6 x 9 x 1 1/2          |



### 7330-86 10 cm deep Tilting Arm Cervical Vertebral Body Distractor Set

Consists of the following items:

|         |       |                                         |
|---------|-------|-----------------------------------------|
| 7330-87 | 1 ea  | <b>10 cm deep</b> Distraction Retractor |
| 7330-30 | 1 ea  | Screwdriver                             |
| 7330-35 | 1 ea  | Distraction Screw Pre-Drill             |
| 7330-50 | 1 pkg | 14 mm Distraction Screws                |
| 7330-85 | 1 ea  | Instrument Case 6 x 9 x 1 1/2           |

7330-87 10 cm deep

### 7330-88 Multi Level Cervical Vertebral Body Distractor Set

Consists of the following items:

|         |       |                                    |
|---------|-------|------------------------------------|
| 7330-89 | 1 ea  | 3 Arm Distraction Retractor        |
| 7330-25 | 1 ea  | Drill Guide                        |
| 7330-30 | 1 ea  | Screwdriver                        |
| 7330-40 | 1 ea  | Distraction Screw Pre-Drill        |
| 7330-50 | 1 pkg | 14 mm Distraction Screws           |
| 7330-70 | 1 ea  | Instrument Case 9 1/2 x 10 x 2 1/2 |



# Anterior Lumbar Vertebral Body Distraction Instrument Set

## 7331-00 Anterior Vertebral Body Distraction Set

Consists of:

|       |         |                                                                       |
|-------|---------|-----------------------------------------------------------------------|
| 1 ea  | 7331-10 | Distraction Retractor Frame<br>(14 cm max. opening, 19 cm arm length) |
| 1 ea  | 7331-20 | Drill Guide                                                           |
| 1 ea  | 7331-22 | Drill Guide Handle                                                    |
| 1 ea  | 7331-30 | Screwdriver                                                           |
| 1 ea  | 7331-40 | Distraction Screw Pre-Drill                                           |
| 1 pkg | 7331-50 | 18 mm Distraction Screws (3)                                          |
| 1 pkg | 7331-60 | 24 mm Distraction Screws (3)                                          |
| 1 pkg | 7331-70 | 30 mm Distraction Screws (3)                                          |
| 1 ea  | 7331-90 | Distractor Instrument Case                                            |

## Anterior Distraction Screws

For single level, 2 screws are required.

For two level, 3 screws are required.

**4.5 mm thread diameter, 7 cm post length.**

7331-50 package of 3 18 mm long

7331-60 package of 3 24 mm long

7331-70 package of 3 30 mm long

**3.5 mm thread diameter pediatric size.**

7331-45 package of 3 30 mm long

## Drill Guide and Handle

For parallel positioning of the distraction screws.

7331-20 Drill Guide

7331-22 Drill Guide Handle

## Screwdriver

For tightening distraction screws. Fits inside drill guide.

7331-30 Screwdriver

## Distraction Screw Pre-Drill

7331-39 Distraction Screw Pre-Drill for 3.5 mm screws.  
(Handle and drill tip.)

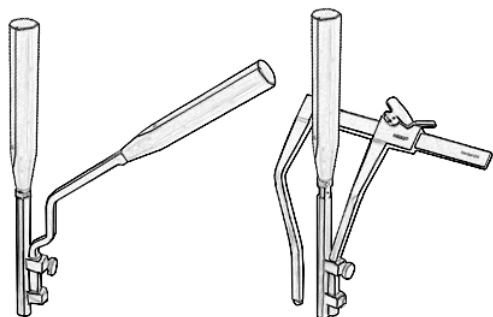
7331-40 Distraction Screw Pre-Drill for 4.5 mm screws.  
(Handle and drill tip.)

7331-41 3.5 mm Screw Replacement Drill Tip only

7331-42 4.5 mm Screw Replacement Drill Tip only

## Instrument Case

7331-90 Anterior Distractor Instrument Case



Drill guide for preparing first and second distraction screw holes.

## Optional Item

7346-10 Lumbar Anterior Lamina Spreader- length 11", 27 cm



7331-50



7331-60



7331-90



7331-20



7331-22



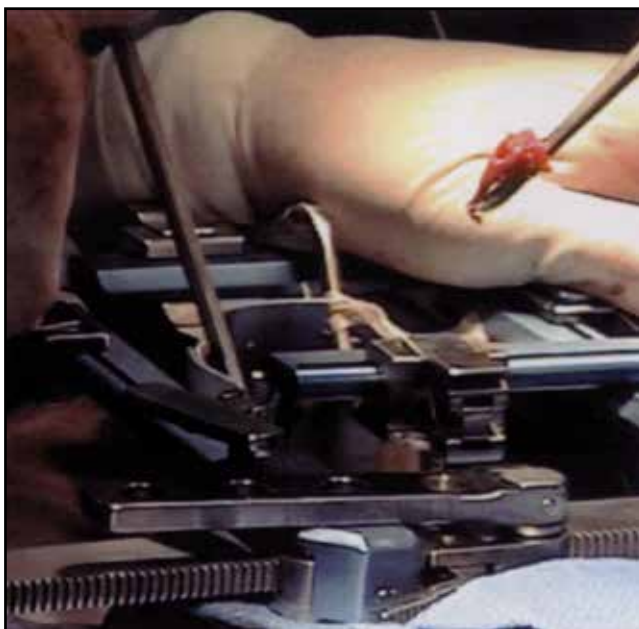
7331-30

7331-40



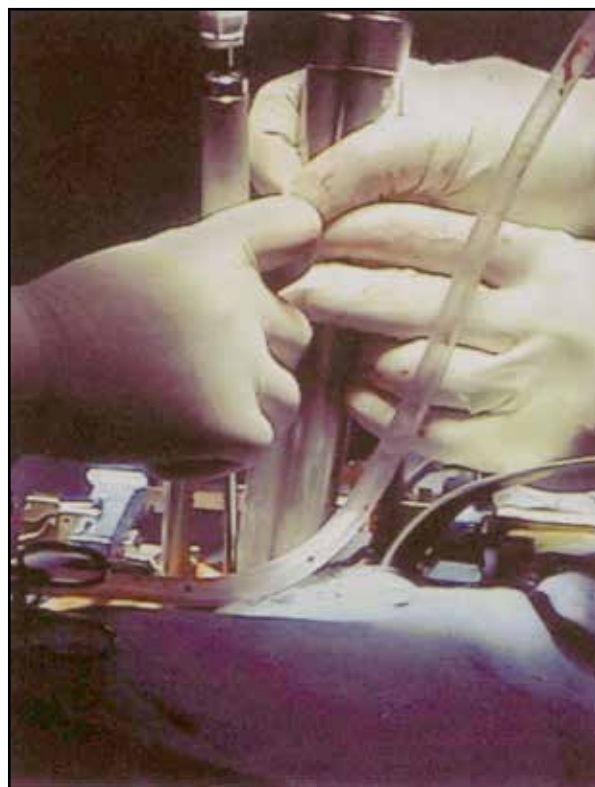
7346-10  
(Optional Item)

# ALIF Polaris™ Direct Vision Lumbar Fusion Retractor/Distractor System



## The Most Advanced Instrument for:

- Mono or Bisegmented Anterior
- Interbody Fusion
- Allograft, Autograft, Homograft
- Femoral Rings, Fusion Cages
- Anterior/Lateral/Transperitoneal Approach
- Spondylitis, Degenerative Disc Disease
- Tumors, Fracture Stabilization
- Isthmic Spondylolisthesis
- Failed Back Surgery Syndrome
- Cage Placement



## Premium Illumination

Ten foot long fiber optic cable with dual end, item 7332-60. Two 9 cm and two 16 cm deep light ports, 7332-62 and 7332-64. Light ports easily attach to distraction blades for stable and constant illumination.

## Soft Tissue Retraction

---

The initial anterior mini-laparotomy incision is made. Hand retractors are used to prepare the wound for lateral retraction. The aorta and vena cava are carefully mobilized and retracted.

The retractor is either placed laterally, sagittally or midline coronally. The arms distract cephalad-caudad. Blades are parallel at insertion, then adjusted for maximum visibility and prevention of sliding at the wound site.



## Anterior Vertebral Body Distraction/Compression

---

Assemble and adjust the distraction blade and receiver length to the patient's anatomy. With the blades in parallel position, place the retractor into the wound and set gently against the vertebra.

A pre-drill is used through blade guiding tracks to drill the vertebra for distraction screws. Single use distraction screws are advanced into the vertebral bodies through the distraction blade guiding tracks. Each screw has marked rings located on the upper end of the shaft indicating 18mm, 24mm or 30mm thread advancement in the vertebra. Two, three or four screws may be applied. Distraction is applied by opening the retractor frame and/or tilting the retractor arms.

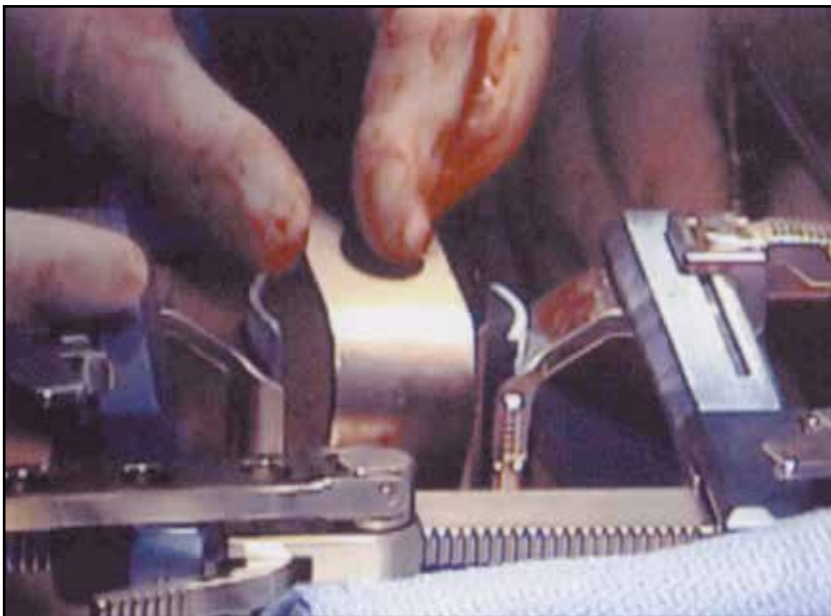
Once blades have been set to the desired opening, insert the fiberoptic light ports into any unoccupied guiding tracks. Before removing the distractor, return the blades back to parallel position using the crank handle and tilting knobs. Remove all distraction screws.



## ALIF Polaris Lumbar Fusion Retractor / Distractor System



- Blade length is adjustable by sliding blades into the receiver. Position is secured through blade locking mechanism.
- Adjustable depth (9.5-27.5cm), interchangeable blades and low profile design give greater access to the spine for preparation and accurate placement of spinal fusion devices.
- Rotating retractor arms are adjustable to obtain maximum visibility of the operating site through small incision.
- Tilted, lateral blades prevent the retractor from sliding out of the wound. Swivel blade receiver head allows for self alignment.
- Distractor blades are adjustable to control distraction angle. Blades provide ample stability for retraction screws, light source, irrigation or suction instruments.
- Radiolucent titanium lower blade components improve fluoroscopic artifact.
- Single or multi-level capability.

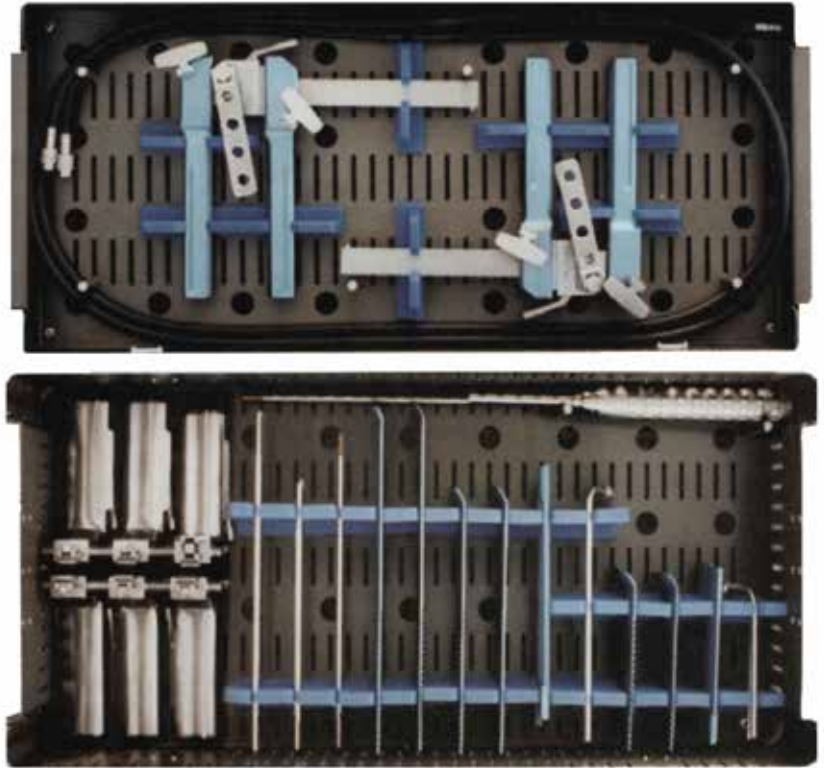


Adjustable  
Radiolucent  
Titanium Blades

# ALIF Polaris Lumbar Fusion Retractor / Distractor System

## 7332-00 ALIF Polaris™ Lumbar Fusion Retractor/ Distractor System

|         |      |                                                  |
|---------|------|--------------------------------------------------|
| 7332-10 | 2 ea | Retractor Frames Only                            |
| 7332-20 | 4 ea | Lateral Blade Heads                              |
| 7332-22 | 4 ea | Lateral Blade Receivers                          |
| 7332-24 | 4 ea | Lateral Short Blades, 9.5-16.5 cm, Titanium      |
| 7332-26 | 4 ea | Lateral Deep Blades, 15-22.5 cm, Titanium        |
| 7332-28 | 4 ea | Lateral Extra Deep Blades, 19-27.5 cm, Titanium  |
| 7332-30 | 2 ea | Distractor Blade Receivers                       |
| 7332-32 | 2 ea | Distractor Short Blades, 10-17.5 cm, Titanium    |
| 7332-34 | 2 ea | Distractor Deep Blades, 14.5-22.5 cm, Titanium   |
| 7332-40 | 1 ea | Medium Distractor Screw Set of four (single use) |
| 7332-42 | 1 ea | Long Distractor Screw Set of four (single use)   |
| 7332-50 | 1 ea | Screwdriver                                      |
| 7332-52 | 1 ea | Drill Bit (Pre-Drill)                            |
| 7332-54 | 1 ea | Drill with Handle (Pre-Drill)                    |
| 7332-60 | 1 ea | Fiber Optic Dual End Cable                       |
| 7332-62 | 2 ea | Fiber Optic Light ports, 9 cm                    |
| 7332-64 | 2 ea | Deep Fiber Optic Light ports, 16 cm              |
| 7332-09 | 1 ea | Custom Instrument Case                           |

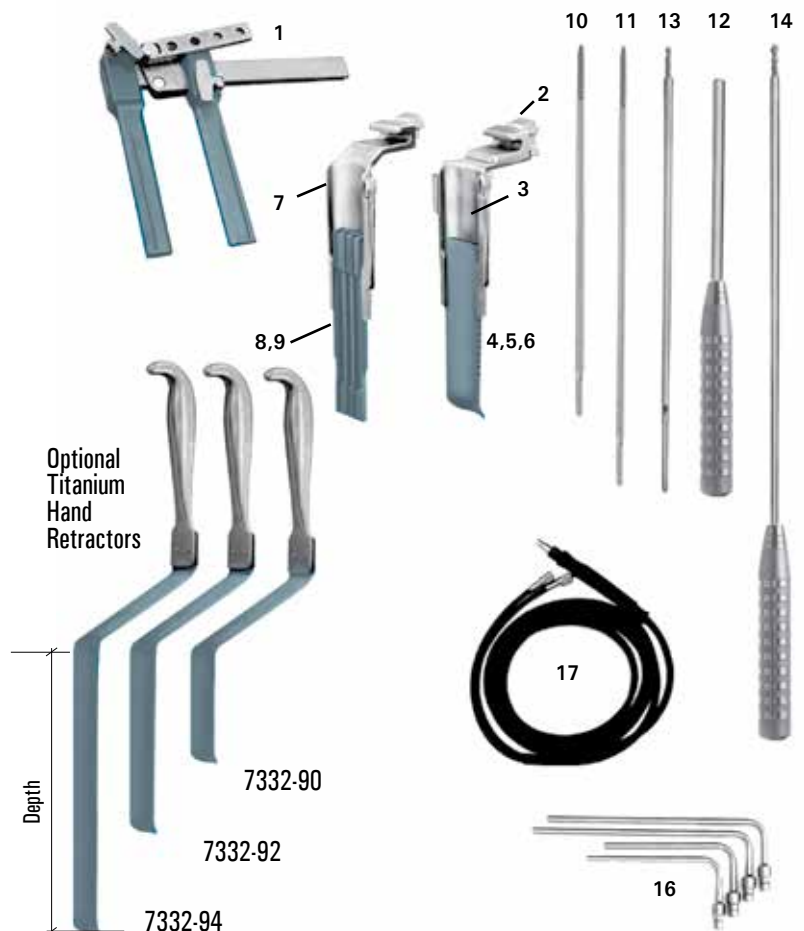


### PARTS:

|    |         |                                     |
|----|---------|-------------------------------------|
| 1  | 7332-10 | Retractor Frame Only                |
| 2  | 7332-20 | Lateral Blade Heads                 |
| 3  | 7332-22 | Lateral Blade Receivers             |
| 4  | 7332-24 | Lateral Short Blades, Titanium      |
| 5  | 7332-26 | Lateral Medium Blades, Titanium     |
| 6  | 7332-28 | Lateral Deep Blades, Titanium       |
| 7  | 7332-30 | Distractor Blade Receivers          |
| 8  | 7332-32 | Distractor Short Blades, Titanium   |
| 9  | 7332-34 | Distractor Deep Blades, Titanium    |
| 10 | 7332-40 | Medium Distractor Screw             |
| 11 | 7332-42 | Long Distractor Screw               |
| 12 | 7332-50 | Screwdriver                         |
| 13 | 7332-52 | Drill Bit (Pre-Drill)               |
| 14 | 7332-54 | Drill with Handle (Pre-Drill)       |
| 15 | 7332-60 | Fiber Optic Dual End Cable          |
| 16 | 7332-62 | Fiber Optic Lighports, 9 cm         |
| 17 | 7332-64 | Deep Fiber Optic Light ports, 16 cm |

### Optional Items:

|         |                                                    |
|---------|----------------------------------------------------|
| 7332-90 | Hand Retractor, Small, 10 cm deep, T1              |
| 7332-92 | Hand Retractor, Medium, 15 cm deep, T1             |
| 7332-94 | Hand Retractor, Large, 21cm deep, T1               |
| 7399-85 | "C" Clamp Type Instrument Holder<br>(See page 157) |



C

L

O

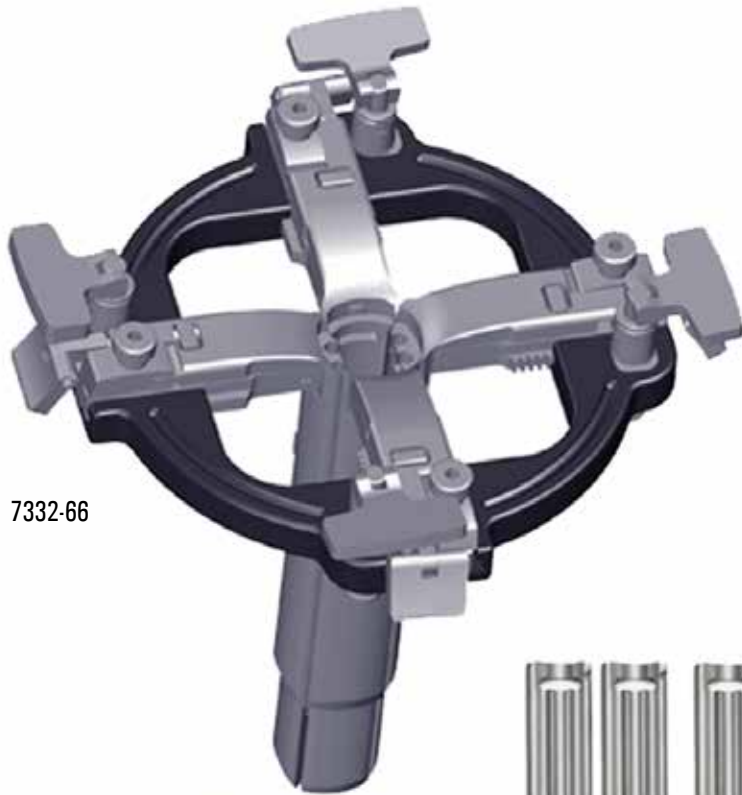
V

E

R

# *Clover<sup>TM</sup>* *Spinal Retractor System*





7332-66



7332-71

7332-72



7332-68



7332-87



7332-83

Design elements of the instrument are Patented and Patent Pending in th U.S.A. and other countries.

### 7332-65 Clover Lateral Retractor Set

|                               | QTY | Length   |
|-------------------------------|-----|----------|
| 7332-66 Retractor Frame       | 1   |          |
| 7332-68 Fluted Blade          | 4   | 16.5 cm  |
| 7332-71 Light Pipe            | 2   | 3 mm Dia |
| 7332-72 Double End Light Cord | 1   | 3 meters |
| 7332-83 Shim                  | 1   | 16.5 cm  |
| 7332-87 Shim Holder           | 1   | 15 cm    |

**For a full list of the items included in the Clover Lateral Retractor Set please inquire.**

Clover Retractor Accessories



|         |                       | QTY | Size           |
|---------|-----------------------|-----|----------------|
| 7332-78 | Dilator Holding Clamp | 1   | 12 3/4", 32 cm |
| 7332-79 | Anchor Screw          | 2   | 3 mm Dia       |
| 7332-81 | Anchor Screw Driver   | 2   | 3 mm           |
| 7332-82 | Hex Driver            | 2   | 3 mm           |
| 7332-84 | Blade Adjustor        | 2   | 19 cm          |

## Single Use Dilator Tube Set, Distractors



### 7332-99D Dilator Tube Set, Single Use, Sterile Qty Size

The dilators in the Dilator Tube Set can be used for **both dilation and neuromonitoring**.

Set includes one (1) each of the following:

|          |                                |   |          |
|----------|--------------------------------|---|----------|
| 7332-73D | K-Wire                         | 1 | 1.5 mm   |
| 7332-74D | Small Dilator Tube             | 1 | 5 mm     |
| 7332-75D | Medium Dilator Tube            | 1 | 9 mm     |
| 7332-76D | Large Dilator Tube             | 1 | 16 mm    |
| 7332-89D | Neuromonitoring Wire with Clip | 1 | 3 m long |
| 7332-86D | Nerve Stimulator Probe         | 1 | 160 mm   |

### Sterile, Single Use Items, Sold Individually

The disposable XL Dilator can be used for **both dilation and neuromonitoring**. It can be purchased as an optional item for use with the Dilator Tube Set.

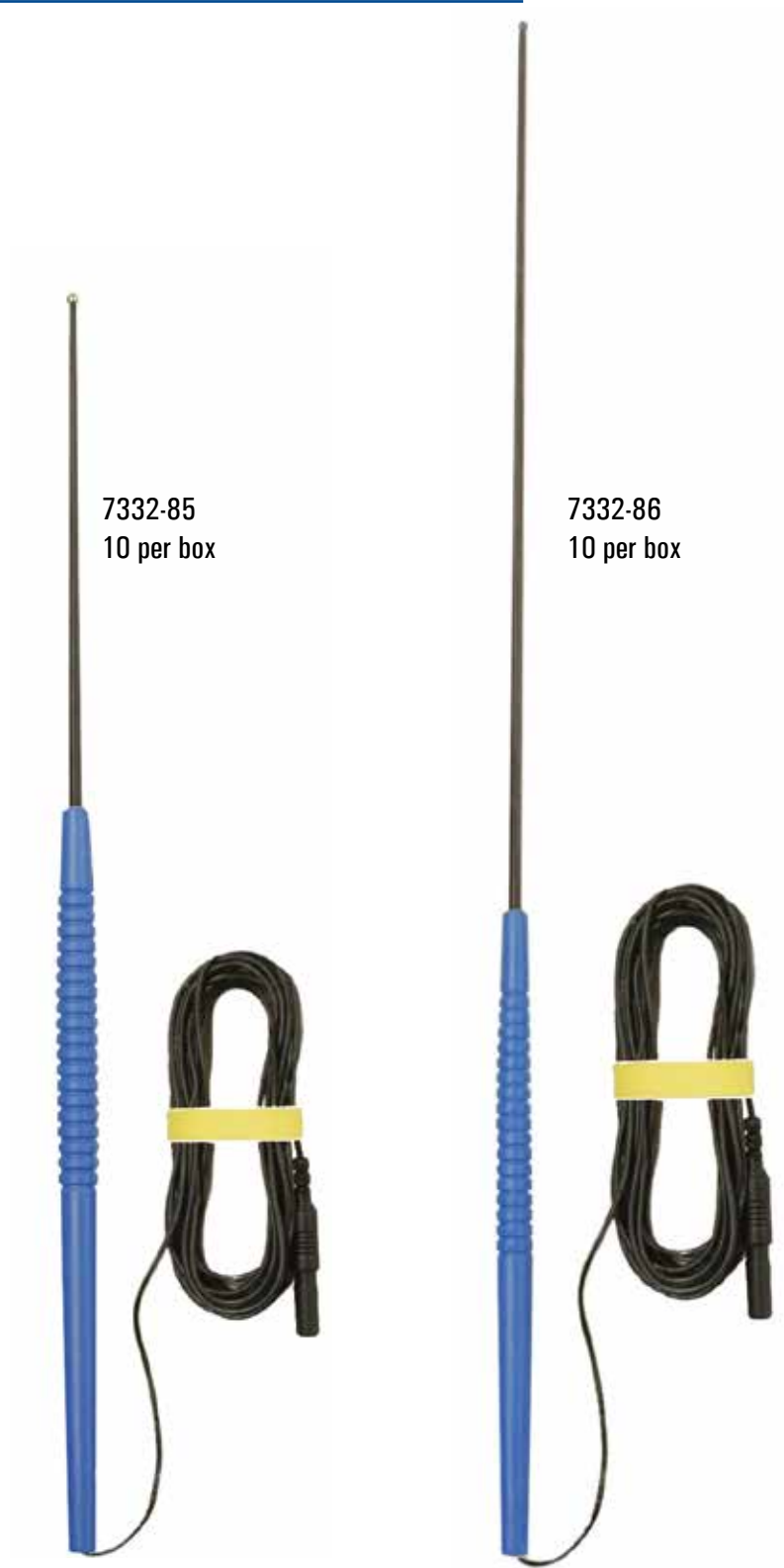
Item is sold gamma sterilized in a peel pack.

|                          | Qty | Size  |
|--------------------------|-----|-------|
| 7332-77S XL Dilator Tube | 1   | 23 mm |



| <u>Blade Tip Disc Distractor</u>           | Tip | Length |
|--------------------------------------------|-----|--------|
| 7346-30 Retractor BladeTip Disc Distractor | 7mm | 40cm   |

Single Use Nerve Stimulator Probes

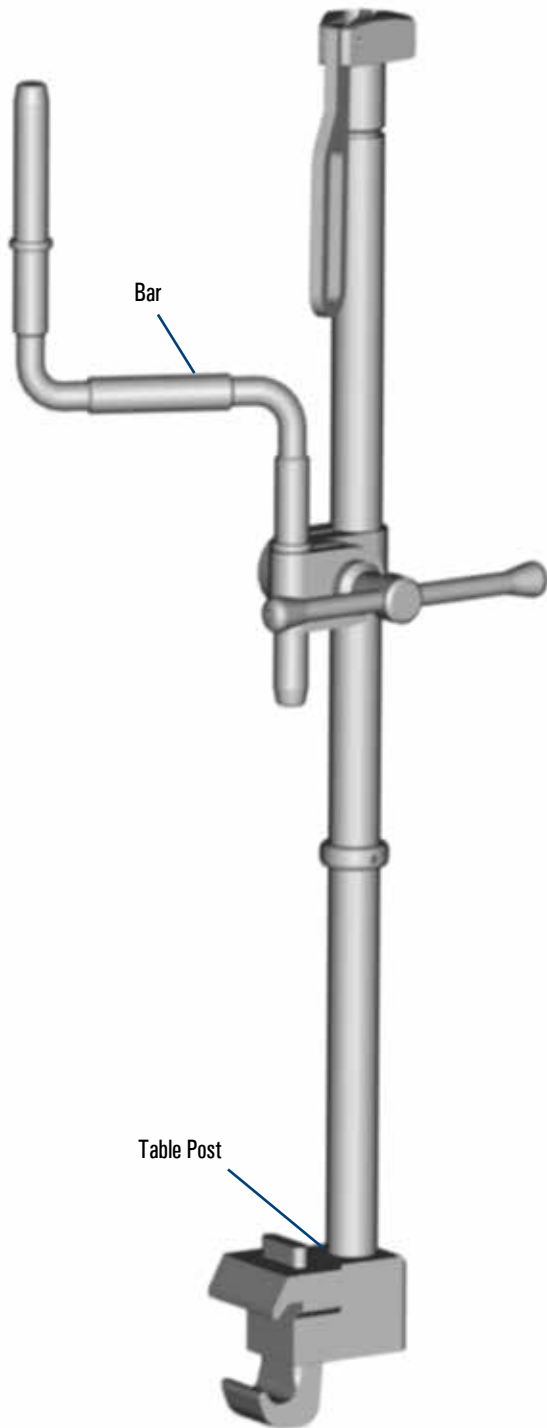


7332-85  
10 per box

7332-86  
10 per box

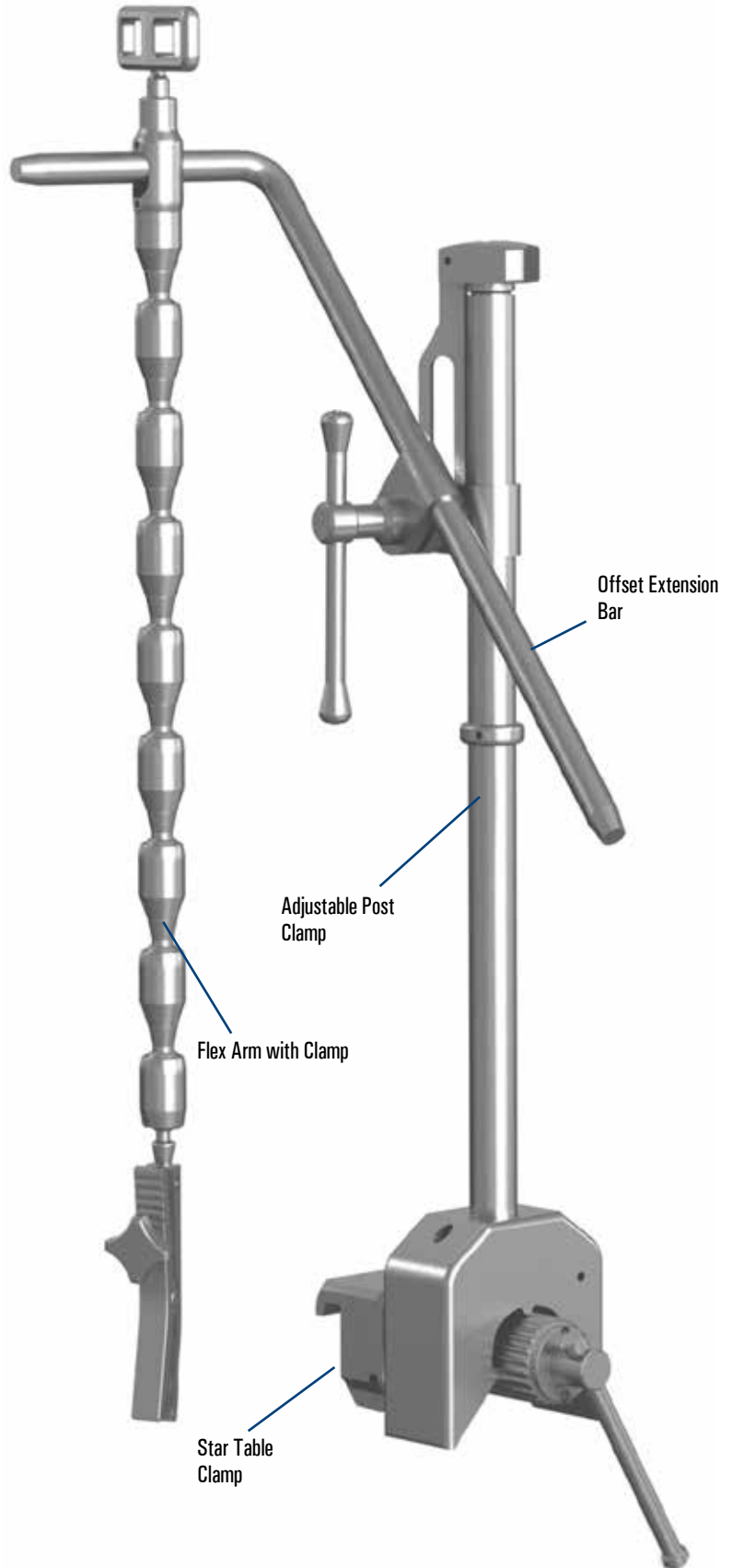
| Single Use Insulated Nerve Stimulator Probe |                                  | QTY   | Size   |
|---------------------------------------------|----------------------------------|-------|--------|
| 7332-85                                     | Posterior Nerve Stimulator Probe | 1 box | 90 mm  |
| 7332-86                                     | Anterior Nerve Stimulator Probe  | 1 box | 160 mm |

## Jackson Table Post & Dynamic Flex Arm



### **7332-96 Jackson Table Post**

7332-96 Jackson Table Post with Rail Clamp



### **7332-95 Dynamic Flex Arm Retractor Holder Post**

7332-93 Adjustable Post Clamp

7332-97 Offset Extension Bar

7332-98 Flex Arm with Clamp

7332-91 Adjustable Star Table Clamp

## Bayoneted Instruments



7338-05



8005-25



7042-42I



7230-60

7230-62

7230-64



7449-12

|                                         | Tip    | Length |
|-----------------------------------------|--------|--------|
| 7338-05 Bayonet Knife Handle            | 2.5 cm | 25 cm  |
| 8005-25 Closing Forcep                  | 2.5 mm | 25 cm  |
| 7042-42I Colibri Bipolar Electro Forcep | 2 mm   | 30 cm  |

|                                    | Shaft Length |
|------------------------------------|--------------|
| 7230-60 Bayonet Angled Tip Woodson | 19 cm        |
| 7230-62 Bayonet Dissector Down     | 19 cm        |
| 7230-64 Bayonet Dissector Up       | 19 cm        |
| Total Length 32 cm                 |              |
| 7449-12 Sculpture Mallet 14 oz.    | 25.5 cm      |
| Steam Sterilizable Plastic,        |              |
| 5.5 x 5.5 cm head size             |              |

Available with Single or Double Posts



# Anterior/Lateral Retractor System

## 7333-20 Standard Anterior/ Lateral Retractor Set

Includes the following items:

|         |                         | <u>width x depth</u> | <u>Qty</u> |
|---------|-------------------------|----------------------|------------|
| 7333-25 | Tiltable Ring           | 32 x 32 cm           | 1 ea       |
| 7333-28 | Ring Clamps             |                      | 6 ea       |
| 7333-30 | Blade Holders           |                      | 6 ea       |
| 7333-31 | Hex Driver              |                      | 1 ea       |
| 7333-32 | Ring Connecting Bar     |                      | 1 ea       |
| 7333-34 | Angled Bar              |                      | 1 ea       |
| 7333-36 | Bar Clamp               |                      | 1 ea       |
| 7333-38 | Table Post              |                      | 1 ea       |
| 7333-39 | Anterior Blades         | 23 x 80 mm           | 4 ea       |
| 7333-40 | Anterior Blades         | 23 x 100 mm          | 4 ea       |
| 7333-42 | Anterior Blades         | 23 x 120 mm          | 4 ea       |
| 7333-44 | Anterior Blades         | 23 x 140 mm          | 4 ea       |
| 7333-46 | Anterior Blades         | 23 x 160 mm          | 4 ea       |
| 7333-48 | Anterior Blades         | 23 x 180 mm          | 4 ea       |
| 7333-50 | Anterior Blades         | 23 x 200 mm          | 4 ea       |
| 7333-90 | Retractor Case          |                      | 1 ea       |
| 7333-92 | Single Level Blade Case | 23 mm                | 1 ea       |
| 7333-93 | Flexible Light Tube     |                      | 1 ea       |



**7333-30 Blade Holders**

**7333-25 Tiltable Ring**



**7333-28 Ring Clamps**

## 7333-22 Extended Anterior/ Lateral Retractor Set

Includes the following items:

|         |                              | <u>width x depth</u> | <u>Qty</u> |
|---------|------------------------------|----------------------|------------|
| 7333-25 | Tiltable Ring                | 32 x 32 cm           | 1 ea       |
| 7333-28 | Ring Clamps                  |                      | 6 ea       |
| 7333-30 | Blade Holders                |                      | 6 ea       |
| 7333-31 | Hex Driver                   |                      | 1 ea       |
| 7333-32 | Ring Connecting Bar          |                      | 1 ea       |
| 7333-34 | Angled Bar                   |                      | 1 ea       |
| 7333-36 | Bar Clamp                    |                      | 1 ea       |
| 7333-38 | Table Post                   |                      | 1 ea       |
| 7333-39 | Anterior Blades              | 23 x 80 mm           | 4 ea       |
| 7333-40 | Anterior Blades              | 23 x 100 mm          | 4 ea       |
| 7333-42 | Anterior Blades              | 23 x 120 mm          | 4 ea       |
| 7333-44 | Anterior Blades              | 23 x 140 mm          | 4 ea       |
| 7333-46 | Anterior Blades              | 23 x 160 mm          | 4 ea       |
| 7333-48 | Anterior Blades              | 23 x 180 mm          | 4 ea       |
| 7333-50 | Anterior Blades              | 23 x 200 mm          | 4 ea       |
| 7333-81 | Wide Blade                   | 50 x 80 mm           | 2 ea       |
| 7333-82 | Wide Blade                   | 50 x 100 mm          | 2 ea       |
| 7333-83 | Wide Blade                   | 50 x 120 mm          | 2 ea       |
| 7333-84 | Wide Blade                   | 50 x 140 mm          | 2 ea       |
| 7333-85 | Wide Blade                   | 50 x 160 mm          | 2 ea       |
| 7333-86 | Wide Blade                   | 50 x 180 mm          | 2 ea       |
| 7333-87 | Wide Blade                   | 50 x 200 mm          | 2 ea       |
| 7333-90 | Retractor Case               |                      | 1 ea       |
| 7333-93 | Flexible Light Tube          |                      | 1 ea       |
| 7333-96 | Double Level Blade Case Wide |                      | 1 ea       |

\*holds 23 mm and 50 mm.



**7333-90 Retractor Case**  
**7333-92 Single Level Blade Case (23 mm)**  
**7333-96 Double Level Blade Case Wide (50mm)**

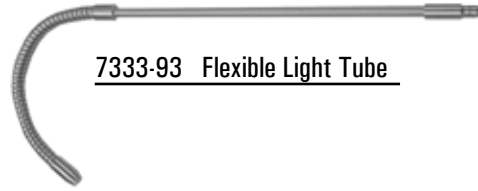


**7333-31 Hex Driver**

## Anterior/Lateral Retractor System



7333-32 Ring Connecting Bar



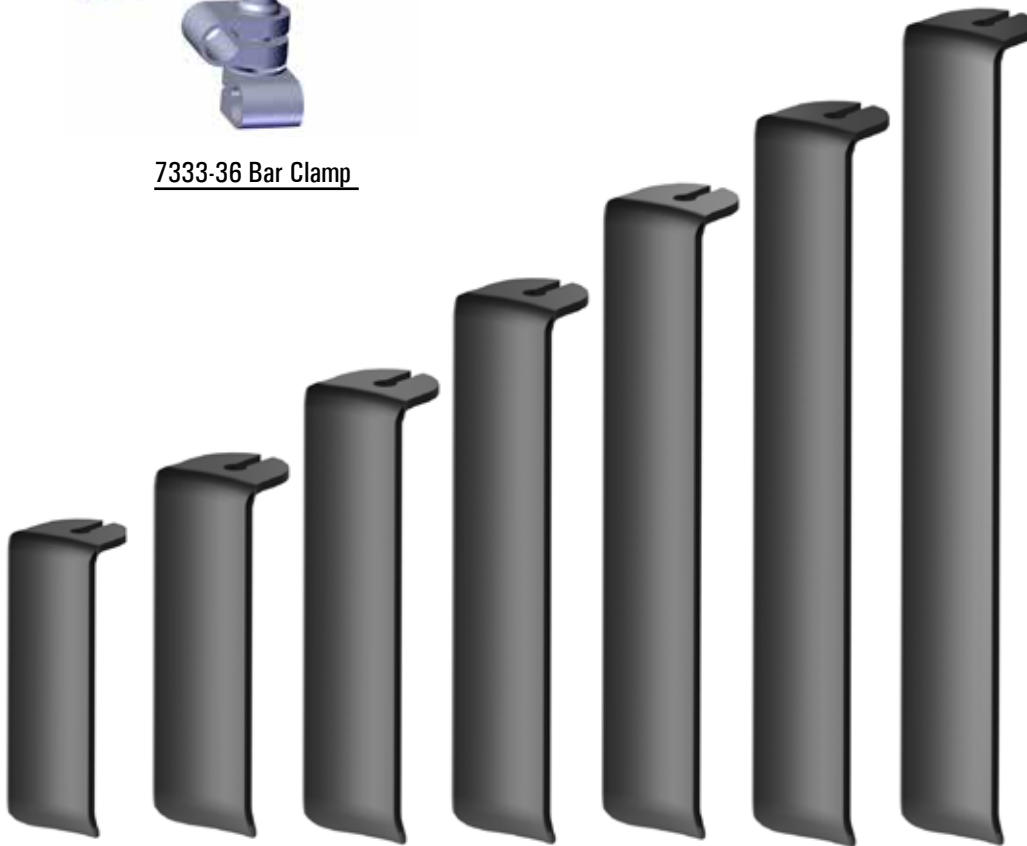
7333-93 Flexible Light Tube



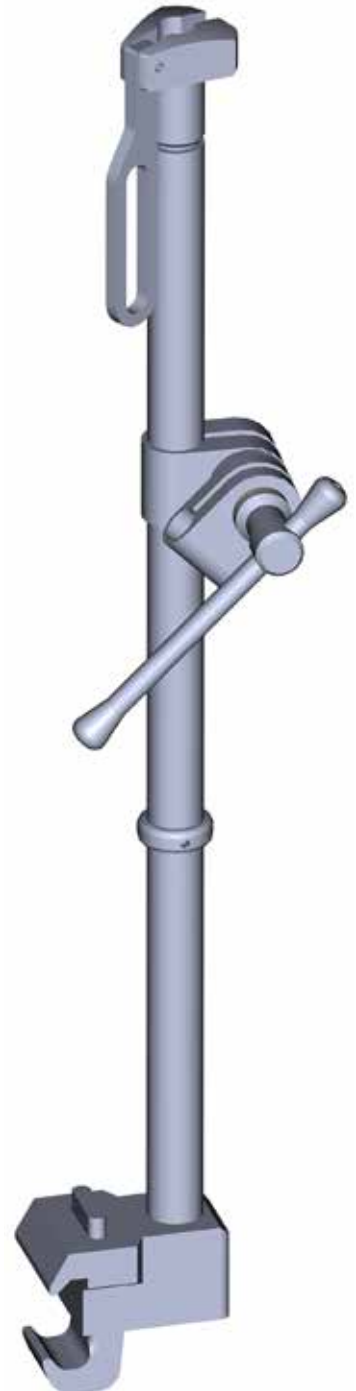
7333-34 Angled Post Bar



7333-36 Bar Clamp



23 mm Wide Anterior Blades



7333-38 Table Post

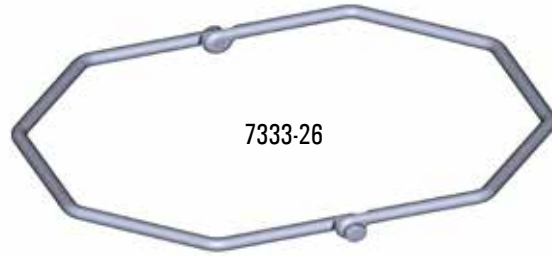
# Anterior/Lateral Retractor Optional Items

## Optional Items:

7333-26      Large Ring  
32 x 40 cm

7333-27      Large Half Ring  
32 x 20 cm

7333-62      Fiber Optic Cable  
8 ft



7333-26



7333-27



Fiber Optic Cable



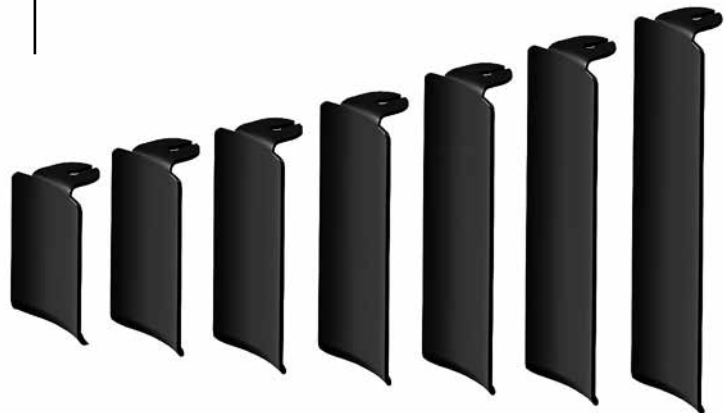
23 mm Wide Cervical Blades

## NARROW BLADES

| Optional: |                | <u>Cervical Blades</u> |            |
|-----------|----------------|------------------------|------------|
|           |                | <u>width x depth</u>   | <u>Qty</u> |
| 7333-63   | Serrated Blade | 23 x 30 mm             | 2 ea       |
| 7333-64   | Serrated Blade | 23 x 40 mm             | 2 ea       |
| 7333-65   | Serrated Blade | 23 x 50 mm             | 2 ea       |
| 7333-66   | Serrated Blade | 23 x 60 mm             | 2 ea       |
| 7333-67   | Serrated Blade | 23 x 70 mm             | 2 ea       |
| 7333-73   | Blunt Blade    | 23 x 30 mm             | 2 ea       |
| 7333-74   | Blunt Blade    | 23 x 40 mm             | 2 ea       |
| 7333-75   | Blunt Blade    | 23 x 50 mm             | 2 ea       |
| 7333-76   | Blunt Blade    | 23 x 60 mm             | 2 ea       |
| 7333-77   | Blunt Blade    | 23 x 70 mm             | 2 ea       |

## WIDE BLADES

| Optional : |            | <u>Wide Blades</u>   |            |
|------------|------------|----------------------|------------|
|            |            | <u>width x depth</u> | <u>Qty</u> |
| 7333-81    | Wide Blade | 50 x 80 mm           | 2 ea       |
| 7333-82    | Wide Blade | 50 x 100 mm          | 2 ea       |
| 7333-83    | Wide Blade | 50 x 120 mm          | 2 ea       |
| 7333-84    | Wide Blade | 50 x 140 mm          | 2 ea       |
| 7333-85    | Wide Blade | 50 x 160 mm          | 2 ea       |
| 7333-86    | Wide Blade | 50 x 180 mm          | 2 ea       |
| 7333-87    | Wide Blade | 50 x 200 mm          | 2 ea       |



50 mm Wide Blades

# Exploration Probes, Measuring Devices

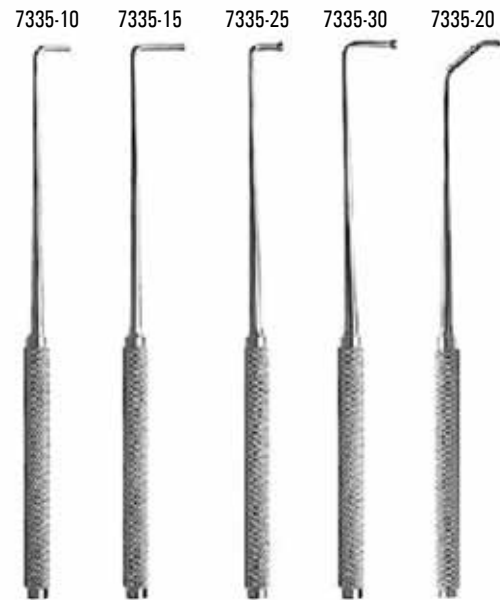
## Direct Reading Depth Gauge

Length 23 cm  
Range: 0.5-40 mm  
7333-10 Depth Gauge



## Bone Caliper

Length 20.5 cm, 8"  
Range: 15 cm  
7334-19 Pointed bone caliper



## Direct Reading Measuring Stylus

Range: 3 to 25 mm  
Length 17 cm  
7334-10 Measuring Stylus

## Measuring Gauge

Length 25 cm  
Range: 23 cm  
7334-20 4 mm tip width

## Spinal Exploration Probes

|         |                         |       |
|---------|-------------------------|-------|
| 7335-50 | Set of five probes:     | 18 cm |
|         | 7335-10,-15,-20,-25,-30 |       |
| 7335-10 | 2x12 mm                 | probe |
| 7335-15 | 2x18 mm                 | probe |
| 7335-20 | 45 deg x 20 mm          | probe |
| 7335-25 | 3.2x12 mm               | probe |
| 7335-30 | 3.2x18 mm               | probe |



## Murphy Probes

|         |                        |         |
|---------|------------------------|---------|
| 2.5 mm  | Ball Diameter          |         |
| 7335-55 | 40 degree Murphy Probe | 23 cm   |
| 7335-60 | 90 deg Murphy Probe    | 21.5 cm |

## Exploration Probe

|                                             |                       |
|---------------------------------------------|-----------------------|
| Length                                      | 10", 25 cm            |
| Tip Diameter                                | 2.5 mm                |
| 7335-00                                     | Exploration Probe Set |
| Consists of one (1 ea) of following probes: |                       |
| 7335-40                                     | Straight Probe        |
| 7335-42                                     | 90° x 9 mm Probe      |
| 7335-44                                     | 90° x 12 mm Probe     |
| 7335-46                                     | 90° x 15 mm Probe     |

## Probe

|         |                                            |
|---------|--------------------------------------------|
| 7230-08 | Straight Ball Probe, 2 mm, 26.5 cm length  |
| 7335-48 | Probe 1.3 x 3 mm tip, 9 1/4", 23 cm length |

## Cervical & Lumbar Gage Set, Calipers

### Cervical and Lumbar Gage Set

7336-00 Set consists of eight (8) sizes of gauges with storage case.

Length: 20 cm

Individual Gauges:

7336-06 size 5-6 mm gauge

7336-08 size 7-8 mm gauge

7336-10 size 9-10 mm gauge

7336-12 size 11-12 mm gauge

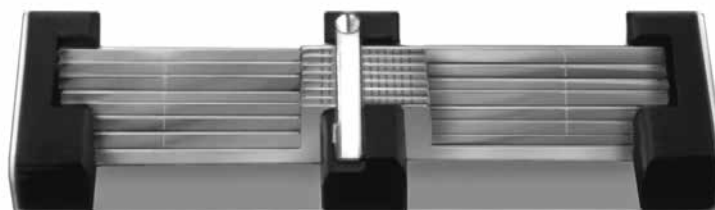
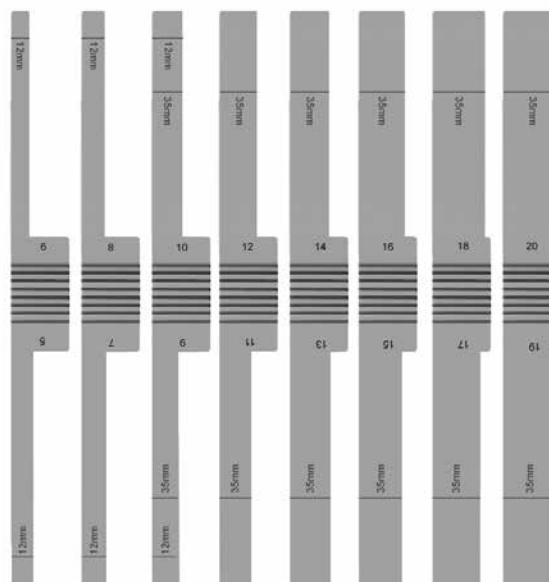
7336-14 size 13-14 mm gauge

7336-16 size 16-16 mm gauge

7336-18 size 17-18 mm gauge

7336-20 size 19-20 mm gauge

7336-50 Custom Instrument Case

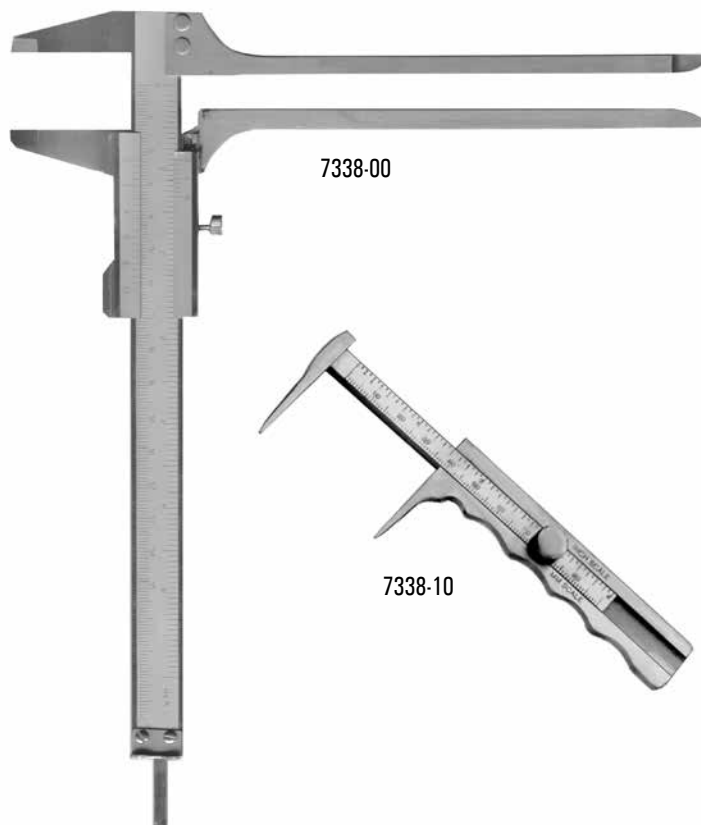


## Surgical Calipers

### Orthopedic Surgical Caliper

Measuring Range: 6 inches or 15 cm.

7338-00 Orthopedic Surgical Caliper  
6 Inch Deep Jaws



### Surgical Caliper

Measuring Range: 8 cm

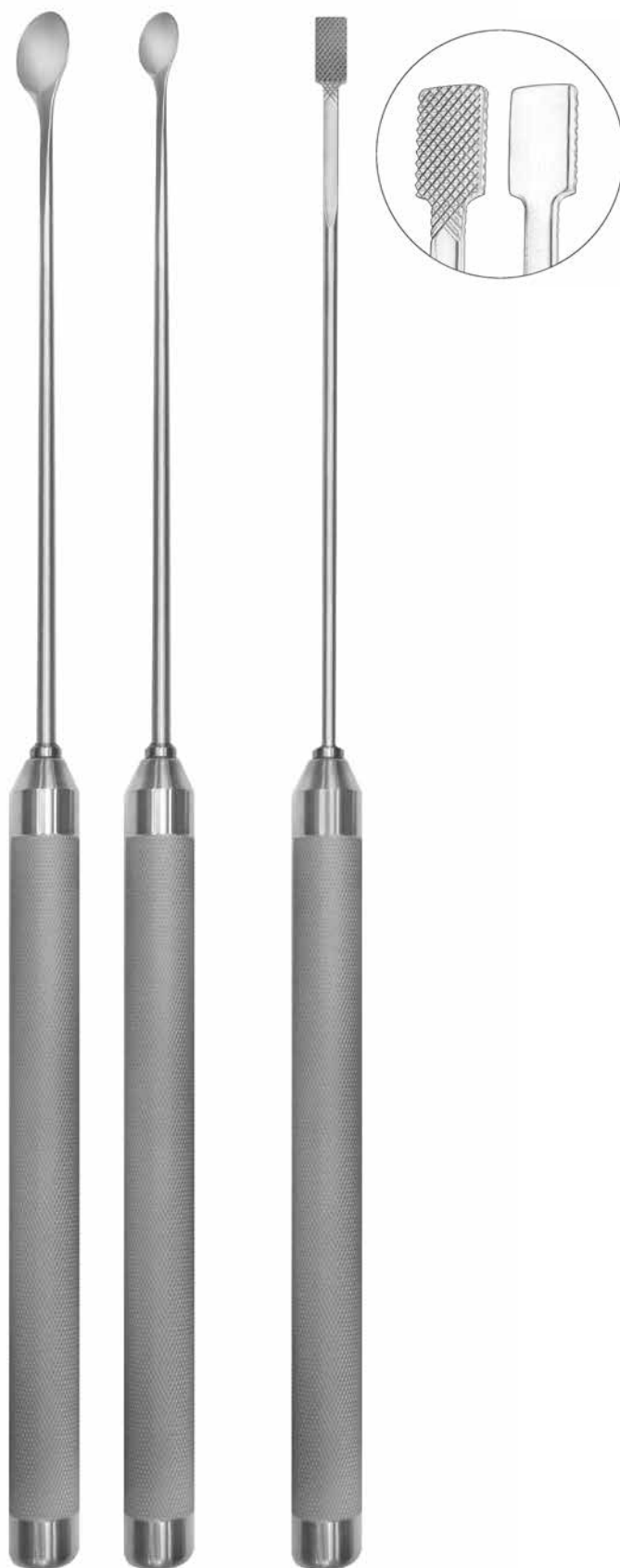
7338-10 Surgical Caliper

## Adson Hypophyseal Forceps & Anterior Rasps



### Adson Hypophyseal Forceps

|         | Tip Diameter | Total Length |
|---------|--------------|--------------|
| 7344-13 | 4 mm         | 9", 23 cm    |
| 7344-14 | 5.5 mm       | 9", 23 cm    |
| 7344-15 | 7 mm         | 9", 23 cm    |



### Anterior Rasps

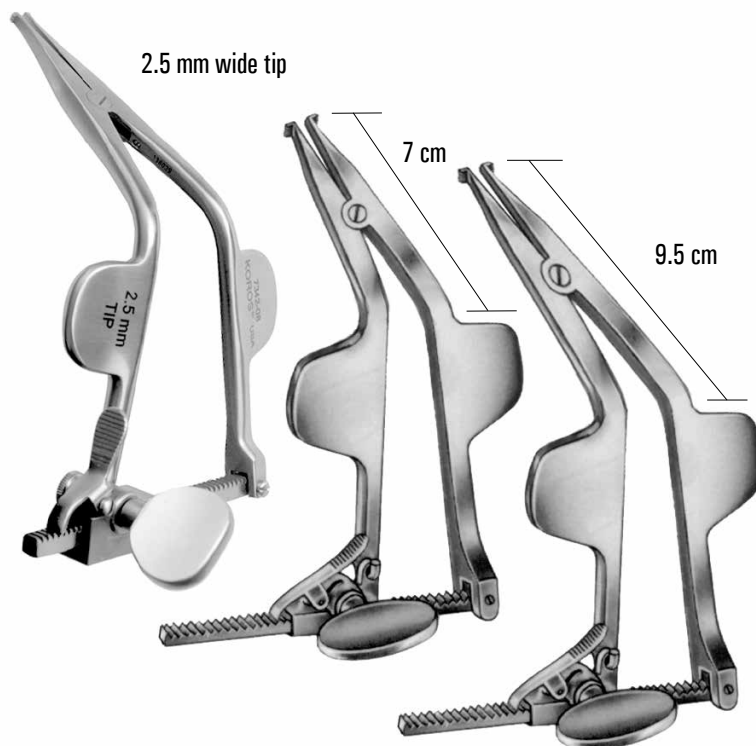
7571-91 End Plate Elevator Sharp, 17" long 20 mm, 3/4" tip  
7571-92 End Plate Elevator Sharp, 17" long 25 mm, 1" tip  
7571-93 Aggressive Rasp Single Sided, 13x21 mm 3.5 mm plate  
7571-94 Aggressive Double Sided Rasp, 13x21 mm 3 mm

## Cervical/Lamina Spreaders



### Cervical Lamina Spreader

|         |                                                          |
|---------|----------------------------------------------------------|
| 7340-08 | Cloward Type 2.5 mm wide tip, 6-1/4", 16 cm total length |
| 7340-10 | 4 mm wide tip, 6-1/4", 16 cm total length                |
| 7340-11 | 3 mm wide tip, 65 mm depth, 2 3/4", 16 cm total length   |



### Cervical Lamina Spreader

|         |                                     |
|---------|-------------------------------------|
| 7342-07 | Delicate 7 cm deep, 2.5 mm wide tip |
| 7342-08 | 7 cm deep, 3 mm wide tip            |
| 7342-10 | 7 cm deep, 4 mm wide tip            |
| 7342-18 | 9.5 cm deep, 3 mm wide tip          |
| 7342-20 | 9.5 cm deep, 4 mm wide tip          |



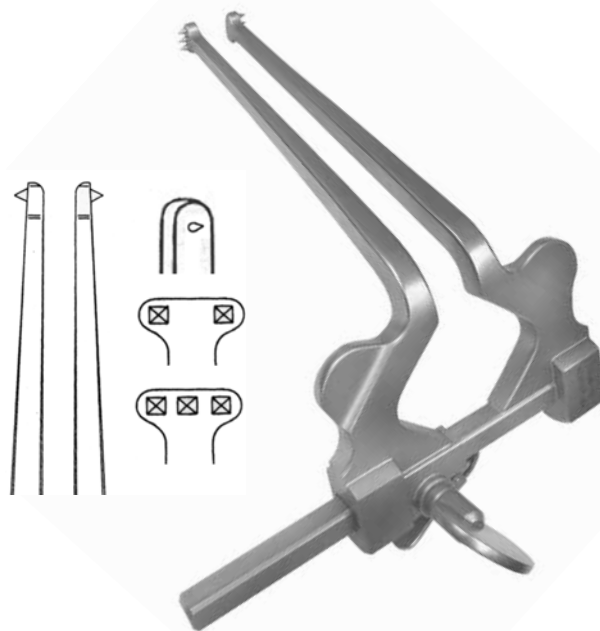
### Cervical Spreader

|         |                                              |
|---------|----------------------------------------------|
| 7340-07 | Cervical Spreader, stainless steel, modified |
|---------|----------------------------------------------|



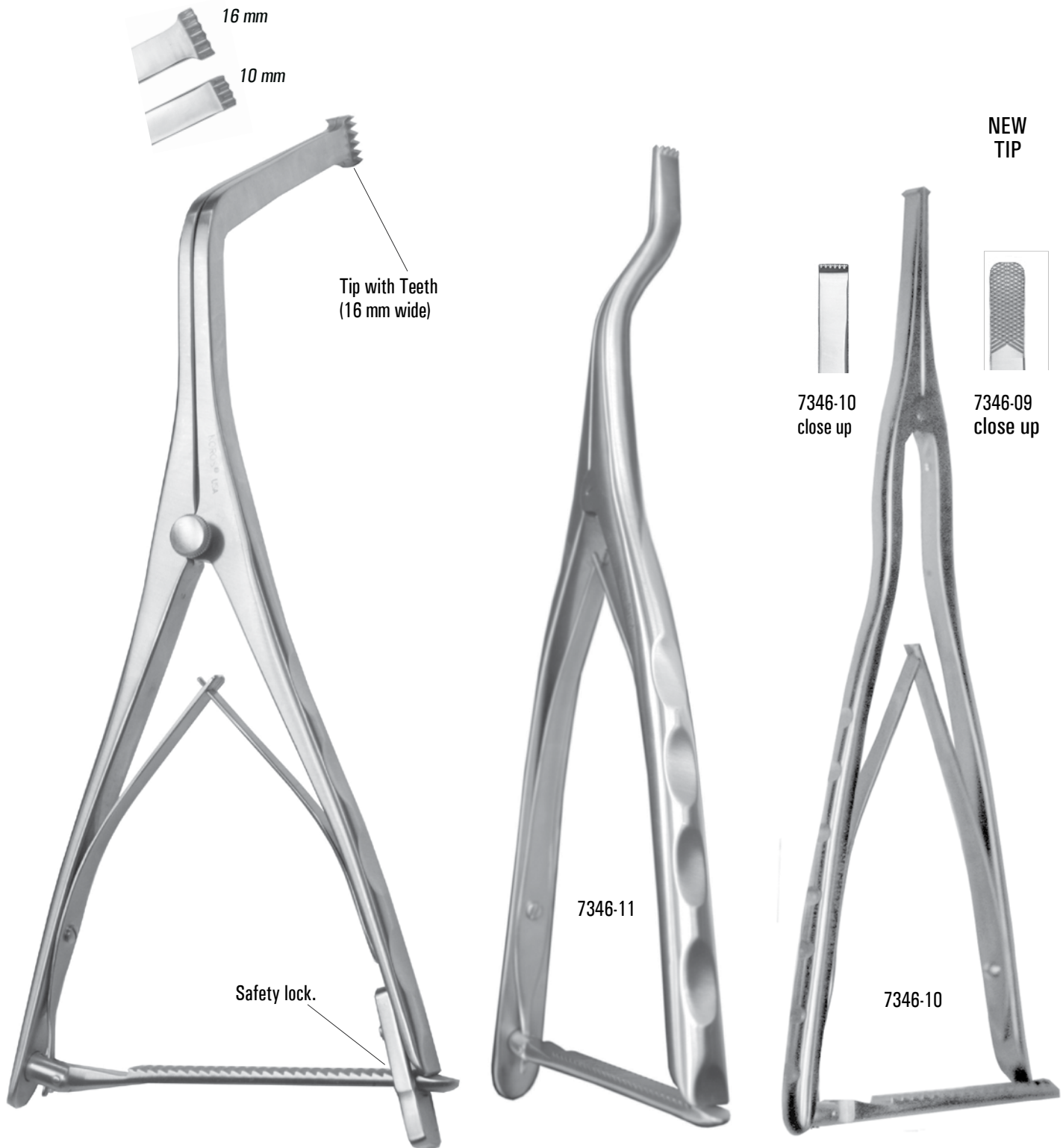
### Vertebra Spreader

|         |                            |
|---------|----------------------------|
| 7342-22 | 9.5 cm deep, 3 mm wide tip |
| 7342-24 | 9.5 cm deep, 4 mm wide tip |



### Lumbar Lamina Spreader

| Opening: 7 cm | Arm Length:         |
|---------------|---------------------|
| 7348-09       | 1 Prong Tip, 70 mm  |
| 7348-12       | 1 Prong Tip, 100 mm |
| 7348-13       | 2 Prong Tip, 100 mm |
| 7348-15       | 3 Prong Tip, 120 mm |



## PLIF Angled Lamina Spreader with Teeth

7346-12 Angled Spreader, 12", 31 cm long, 12.5 cm deep, tip with 4 teeth, 10 mm wide, safety lock

7346-13 Angled Spreader, 12", 31 cm long, 12.5 cm deep, tip with 6 teeth, 16 mm wide, safety lock

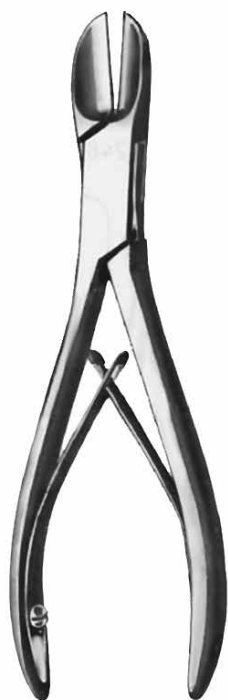
## Lumbar Anterior Lamina Spreader

7346-09 11 1/4", 29 cm long, 8 x 21 mm serrated tip

7346-10 11", 28 cm long, 6 teeth, 8 mm wide tip

7346-11 11 1/2", 28.5 cm long, tip offset 20 mm, 4 teeth, 8 mm wide tip

## Bone Cutters & Rongeurs



**Liston Bone Cutter**

|         |         |
|---------|---------|
| 7350-05 | 16.5 cm |
| 7350-10 | 19 cm   |



**Ruskin-Liston Bone Cutter**

|         |          |         |
|---------|----------|---------|
| 7350-20 | Straight | 18.5 cm |
| 7350-25 | Angled   | 18.5 cm |



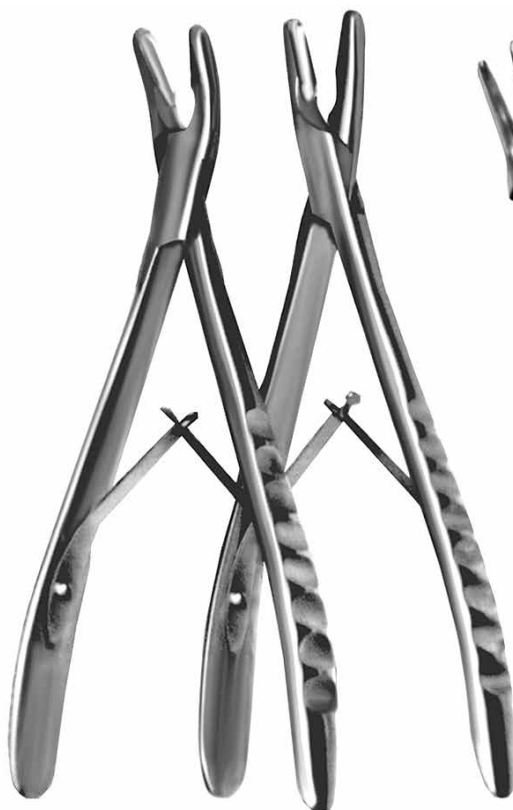
**Lempert**

|                  |        |
|------------------|--------|
| Length:          | 19 cm  |
| 7350-30 Straight | 2.6 mm |
| 7350-35 Angled   | 2.6 mm |



**Hartman Luer**

|                  |        |
|------------------|--------|
| Length:          | 15 cm  |
| 7350-40 Straight | 4.5 mm |
| 7350-45 Curved   | 4.5 mm |



**Adson Rongeur**

|                            |
|----------------------------|
| 7 x 18 mm Tip Size         |
| 7350-50 Straight Tip 21 cm |
| 7350-52 Angled Tip 21 cm   |



**Modified Zielke Type**

|                                     |
|-------------------------------------|
| 25 degree Tip Angle                 |
| 7350-54 3 x 15 mm tip, 19.5 cm long |
| 7350-56 4 x 22 mm tip, 20.5 cm long |



**Delicate Nose Ruskin**

|                          |
|--------------------------|
| 7350-60 Straight 18.5 cm |
| 7350-65 Curved 18.5 cm   |

Mazur Concave Tip



**Concave Double Action Rongeur**

7350-66 8 mm tip, Length 24 cm

Serrated Tip



**D.A. Hoag Rongeur**

7350-68 Straight, 7x15 mm bite, Serrated Cup, Length 24 cm



**Smith-Peterson**

7352-10 4x15 mm jaw Length 24 cm



**Rottgen-Ruskin**

7352-30 Length 24 cm

Flattened Tip



**Baby Leksell**

7352-35 3 mm, 17.5 cm



**Leksell**

7352-40 3 mm jaw, 23.5 cm length  
7352-42 5 mm jaw, 23.5 cm length  
7352-45 8 mm jaw, 23.5 cm length



**Echlin**

7352-52 2 mm jaw, 23 cm length  
7352-53 3 mm jaw, 23 cm length  
7352-54 4 mm jaw, 23 cm length

Flat Nose



**Stille-Luer**

7352-64 4 mm jaw, 23 cm length  
7352-65 6 mm jaw, 23 cm length  
7352-68 8 mm jaw, 23 cm length

# Bone Rongeurs and Bone Graft Cutters

Flattened  
Tip —



## Deep Anterior Double Action Rongeur

7352-70 6.5 mm jaw, 12", 30cm long  
7352-75 8 mm jaw, 12", 30cm long



## Modified Extra Deep Adson Rongeurs

10", 26 cm long  
7352-78 7x18 mm jaw Straight  
7352-79 7x18 mm jaw Angled

## Sypert Type Bone Rongeur with Teeth

7352-80 8 mm jaw,  
14", 35 cm long



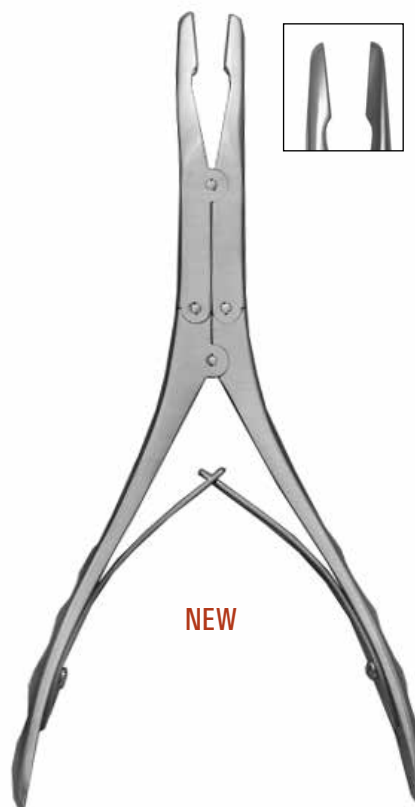
## Bone Graft Cutter with Depth Control

7354-07 7 mm wide tip 8-3/4", 22 cm long  
7354-10 10 mm wide tip 8-3/4", 22 cm long



## Double Action Bone Rongeur

7354-06 10 mm wide tip 10-1/4", 26 cm long

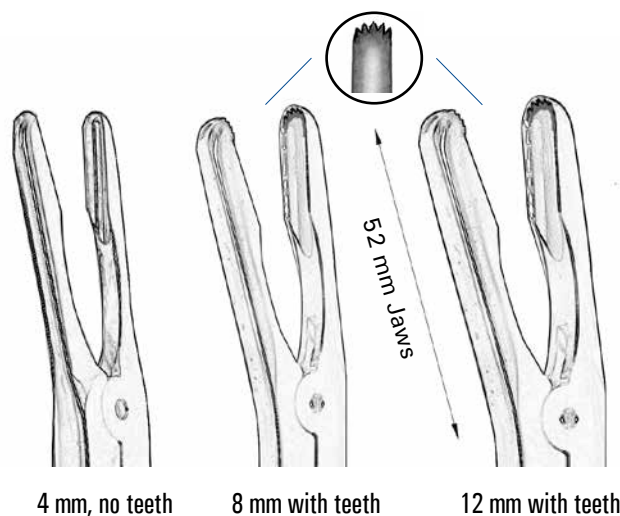


## Delicate DA Power Bone Rongeur

7354-12 2.7 mm wide 10-1/4", 26 cm long

## Double Action Rongeurs

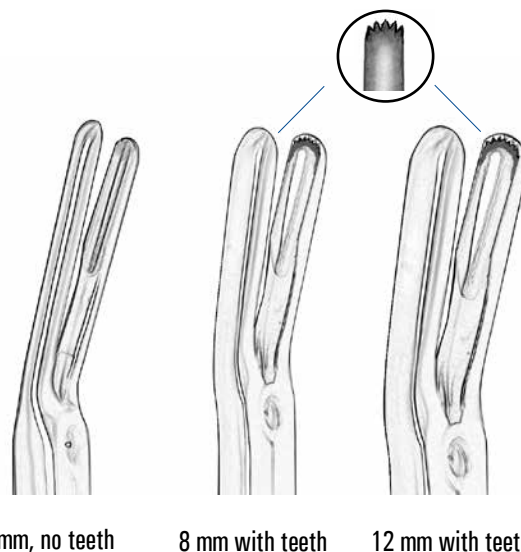
*Unique, Small Incision, Deep Nose  
Jaws with Interlocking Teeth*



### Long Straight DA Anterior Rongeurs

Total Length: 15 inches, (38 cm)

|         |                    |                            |
|---------|--------------------|----------------------------|
| 7353-04 | 4 mm tip, no teeth | Long, Straight, DA Rongeur |
| 7353-08 | 8 mm tip, w/teeth  | Long, Straight, DA Rongeur |
| 7353-12 | 12 mm tip, w/teeth | Long, Straight, DA Rongeur |



### Long Angled (L5-S1) DA Anterior Rongeurs

Total Length 15 inches, (38 cm)

|         |                    |                          |
|---------|--------------------|--------------------------|
| 7353-24 | 4 mm tip, no teeth | Long, Angled, DA Rongeur |
| 7353-28 | 8 mm tip, w/teeth  | Long, Angled, DA Rongeur |
| 7353-32 | 12 mm tip, w/teeth | Long, Angled, DA Rongeur |

## Lamina Spreader, Distractor, Wire & Pin Cutters



**Inge Lamina Spreader**

7344-10 6-3/4", 17 cm



**Moreland Type Distractor**

7344-20 6-1/2", 16 cm



**Wire/Pin Cutter**

|                   |               |
|-------------------|---------------|
| Max Wire Diameter | 2 mm          |
| 7358-05 Length    | 6 1/2", 17 cm |



7358-20



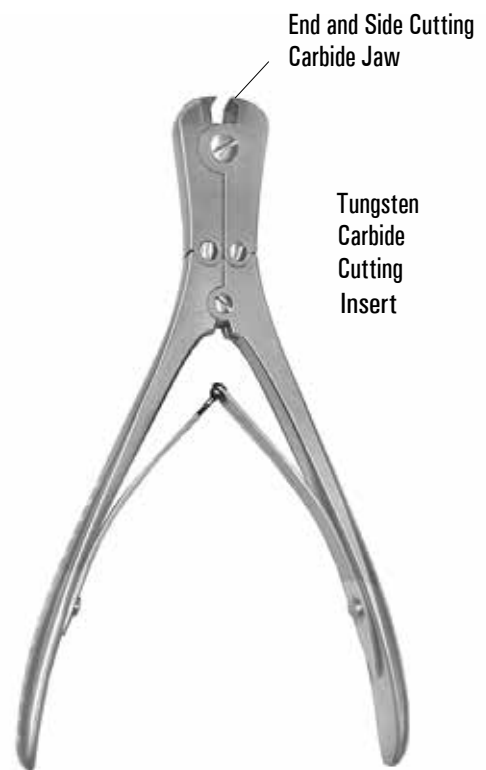
**Double Action Wire/Pin Cutter**

|                                                      |             |
|------------------------------------------------------|-------------|
| Max Wire Diameter                                    | 1.6 mm      |
| 7358-10 Length ( with cutting blade)                 | 7", 17.5 cm |
| 7358-20 Replacement Blade with 1 blade and 4 screws. |             |



**Wire Scissors**

Serrated TC Blades  
7356-10 length 6-1/4",  
16 cm



End and Side Cutting  
Carbide Jaw

Tungsten  
Carbide  
Cutting  
Insert

**Flush End & Side Wire Cutter**

|                |               |
|----------------|---------------|
| Length         | 6 3/4", 17 cm |
| 7358-30 Length | 7.5 mm Jaw    |



Tungsten  
Carbide  
Cutting  
Insert

## Single Action Wire/Pin Cutter

TC Insert  
7358-50 Length 7-1/4", 18.5 cm



Tungsten  
Carbide  
Cutting  
Insert

## Double Action Wire/Pin Cutter

With TC Cutting Insert  
Max Wire Diameter 1.6 mm  
7358-60 Length 7 1/4", 18.5 cm



Tungsten  
Carbide  
Cutting  
Insert

## Double Action Wire/Pin Cutter

With TC Cutting Insert  
Max Wire Diameter 2.4 mm  
7358-70 Length 8 3/4", 22 cm



Tungsten  
Carbide  
Cutting  
Insert

## Double Action Wire/Pin Cutter

With TC Cutting Insert  
Max Wire Diameter 2.5 mm  
7358-80 Length 9 1/4", 24 cm



Stainless Steel

## Stainless Steel Plier

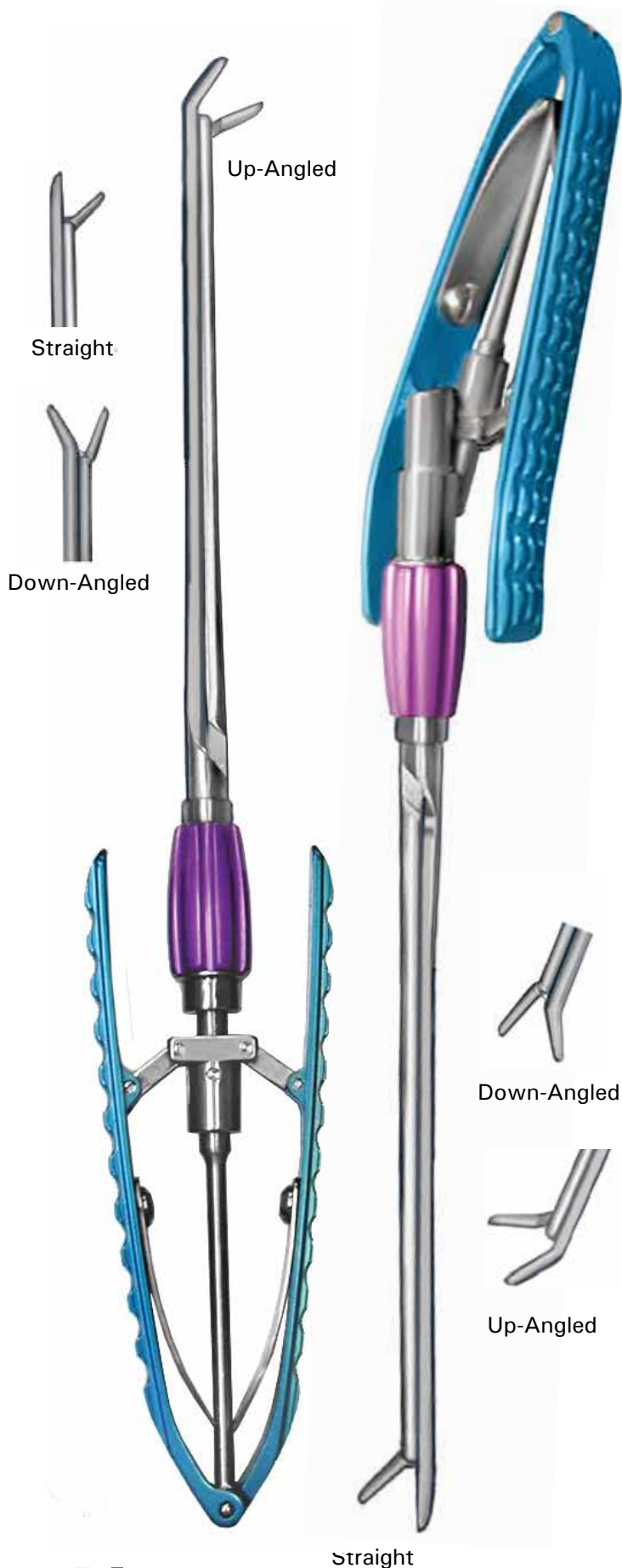
Length  
7359-05 7 1/2", 19 cm



## Jet Stainless Steel Wire Twister

Length  
7359-10 10 1/2", 26.5 cm

# RAPTOR™ Straight & Bayonet Handle Disc Rongeur



## 4 1/2 " Bayonet Raptor Rongeurs

color code Shaft length 11.5 cm, total length 22 cm,  
10 mm cup length

|        | Straight | Up-Angled | Down-Angled |
|--------|----------|-----------|-------------|
| 1.5 mm | 7359-18  | 7359-25   | 7359-29     |
| 2.1 mm | 7359-22  | 7359-26   | 7359-30     |
| 3 mm   | 7359-23  | 7359-27   | 7359-31     |

## 6 " Bayonet Raptor Rongeurs

Shaft length 15.5 cm, total length 26 cm,  
10 mm cup length

|        | Straight | Up-Angled | Down-Angled |
|--------|----------|-----------|-------------|
| 1.5 mm | 7359-81  | 7359-85   | 7359-89     |
| 2.1 mm | 7359-82  | 7359-86   | 7359-90     |
| 3 mm   | 7359-83  | 7359-87   | 7359-91     |

- ▶ 360 degree rotatable shaft for multi-angled capability.
  - ▶ Ergonomic design and superior craftsmanship.
  - ▶ Lightweight, counter balanced, ultra precise, accurate cutting tip.
  - ▶ Color-coded for simple size identification.
  - ▶ Patented in the U.S.A. and other countries.
- \*Made to Order.**

## 4 1/2 " Straight Raptor Rongeurs

color code Shaft length 11.5 cm, total length 22 cm,  
10 mm cup length

|        | Straight | Up-Angled | Down-Angled |
|--------|----------|-----------|-------------|
| 1.5 mm | 7359-11  | 7359-15   | 7359-19     |
| 2.1 mm | 7359-12  | 7359-16   | 7359-20     |
| 3 mm   | 7359-13  | 7359-17   | 7359-21     |

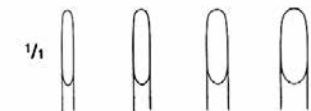
## 6" Straight Raptor Rongeurs

Shaft length 15.5 cm, total length 26 cm,  
10 mm cup length

|        | Straight | Up-Angled | Down-Angled |
|--------|----------|-----------|-------------|
| 1.5 mm | 7359-41  | 7359-45   | 7359-49     |
| 2.1 mm | 7359-42  | 7359-46   | 7359-50     |
| 3 mm   | 7359-43  | 7359-47   | 7359-51     |

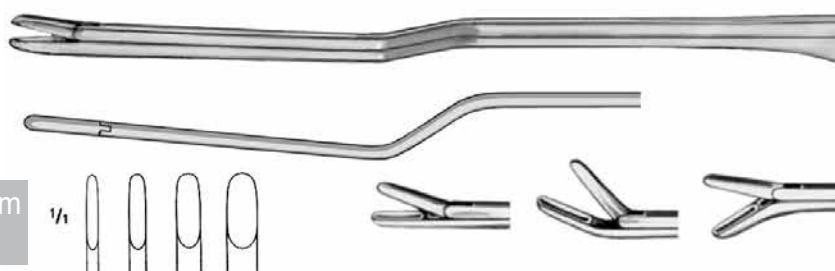
## Inter Vertebral Disc Rongeurs

1.5 mm  
size



### Peapod Forceps

| 5" long<br>(14 cm) | 7 1/4" long<br>(18 cm) | 8" long<br>(21 cm) | Up Angled<br>Cup Width |
|--------------------|------------------------|--------------------|------------------------|
| 7360-15            | 7360-38                |                    | 1.5 mm                 |
| 7360-20            | 7360-40                | 7361-20            | 2 mm                   |
| 7360-25            | 7360-41                |                    | 2.5 mm                 |
| 7360-32            | 7360-42                |                    | 3.2 mm                 |



1.5 mm  
size

### Offset Shaft Pituitary Rongeurs

10 mm Tip Length:

|                | Tip Width | Straight | 7" long, 170 mm<br>Up-<br>Angled | Down-<br>Angled |
|----------------|-----------|----------|----------------------------------|-----------------|
| Cushing        | 1.5 mm    | 7364-15  | 7366-15                          | 7368-15         |
| Cushing        | 2 mm      | 7364-20  | 7366-20                          | 7368-20         |
| Love-Gruenwald | 3 mm      | 7364-30  | 7366-30                          | 7368-30         |
| Spurling       | 4 mm      | 7364-40  | 7366-40                          | 7368-40         |

*Custom Made*

## Serrated Jaw Inter Vertebral Disc Rongeur



### Serrated Jaw Inter Vertebral Disc Rongeurs

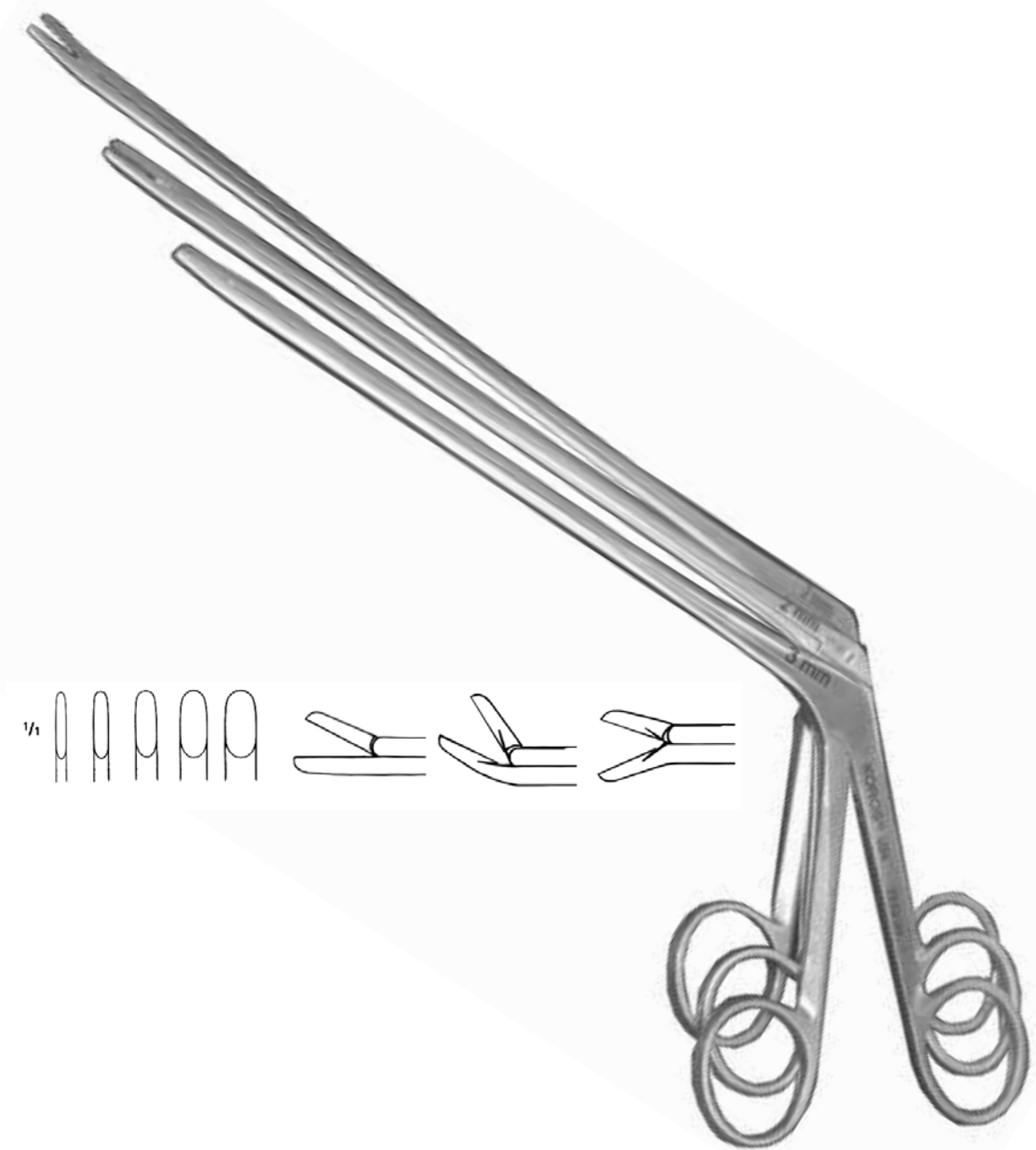
7 1/4", 17.5 cm long

8 1/4", 21 cm long

| Tip Width      |        | Straight | Up Angled | Down Angled | Straight | Up Angled | Down Angled |
|----------------|--------|----------|-----------|-------------|----------|-----------|-------------|
| Cushing        | 1.5 mm | 7370-15S | 7372-15S  | 7374-15S    | 7376-15S | 7377-15S  | 7378-15S    |
| Cushing        | 2 mm   | 7370-20S | 7372-20S  | 7374-20S    | 7376-20S | 7377-20S  | 7378-20S    |
| Love-Gruenwald | 3 mm   | 7370-30S | 7372-30S  | 7374-30S    | 7376-30S | 7377-30S  | 7378-30S    |
| Spurling       | 4 mm   | 7370-40S | 7372-40S  | 7374-40S    | 7376-40S | 7377-40S  | 7378-40S    |
| Spurling       | 5 mm   | 7370-50S | 7372-50S  | 7374-50S    | 7376-50S | 7377-50S  | 7378-50S    |

10 mm Tip Length

Cushing/ Love Gruenwald/ Spurling Pituitary Rongeurs



Inter Vertebral Disc Rongeurs

| TYPE           | TIP WIDTH | 7 1/4", 180 mm long |           |             | 8 ", 210 mm long |           |             | 9", 230 mm long |           |             |
|----------------|-----------|---------------------|-----------|-------------|------------------|-----------|-------------|-----------------|-----------|-------------|
|                |           | Straight            | Up-Angled | Down-Angled | Straight         | Up-Angled | Down-Angled | Straight        | Up-Angled | Down-Angled |
| Cushing        | 1.5 mm    | 7370-15             | 7372-15   | 7374-15     | 7376-16          | 7377-16   | 7378-16     | 7379-15         | 7379-16   | 7379-17     |
| Cushing        | 2 mm      | 7370-20             | 7372-20   | 7374-20     | 7376-20          | 7377-29   | 7378-29     | 7379-20         | 7379-22   | 7379-24     |
| Love-Gruenwald | 3 mm      | 7370-30             | 7372-30   | 7374-30     | 7376-30          | 7377-30   | 7378-30     | 7379-30         | 7379-32   | 7379-34     |
| Spurling       | 4 mm      | 7370-40             | 7372-40   | 7374-40     | 7376-40          | 7377-40   | 7378-40     | 7379-40         | 7379-42   | 7379-44     |
| Spurling       | 5 mm      | 7370-50             | 7372-50   | 7374-50     | 7376-50          | 7377-50   | 7378-50     | 7379-50         | 7379-52   | 7379-54     |

10 mm Tip Length

## Axis Pituitary Rongeurs

- Rotatable for Up, Side, or Down Biting Positions
- Easy to Take Apart for Cleaning



ADVANCED Axis™ Pituitary Rongeur is simple to open for cleaning and removal of bone build up debris from the instrument shaft, reducing the risk of infection.



### Axis Pituitary Rotating Rongeur

|         |                 |                                 |
|---------|-----------------|---------------------------------|
| 7373-15 | 1.5 mm Straight | Axis Pituitary Rotating Rongeur |
| 7373-16 | 1.5 mm Angled   | Axis Pituitary Rotating Rongeur |
| 7373-20 | 2 mm Straight   | Axis Pituitary Rotating Rongeur |
| 7373-21 | 2 mm Angled     | Axis Pituitary Rotating Rongeur |
| 7373-30 | 3 mm Straight   | Axis Pituitary Rotating Rongeur |
| 7373-31 | 3 mm Angled     | Axis Pituitary Rotating Rongeur |
| 7373-40 | 4 mm Straight   | Axis Pituitary Rotating Rongeur |
| 7373-41 | 4 mm Angled     | Axis Pituitary Rotating Rongeur |

# OSTEO PUNCH

## Smart 10° Negative Angle

- ▶ First of its type, CAD/CAM created.
- ▶ Results in improved view of the operative site in general and micro surgeries.
- ▶ Delivers the comfort of a more natural wrist and elbow position.

## Thin Profile & Super-Sharp Foot Plate

- ▶ Improves maneuverability in tight places.
- ▶ Results in maximum exposure of the operative site.
- ▶ Delivers a long lasting, precise cutting edge.
- ▶ Comes in five foot plate sizes with 40° or 90° angles.

## Exclusive Sentinel System™

- ▶ Delivers a unique, protective cushioning effect.
- ▶ Absorbs most types of over squeezing by the hand.
- ▶ Extends life of cutting elements.

## Ergonomically Shaped Handle

- ▶ Snugly fits the contour of the hand.
- ▶ Affords degrees of comfort and ease.
- ▶ Translates into superior instrument control and maneuverability.

## Contamination Control

- ▶ Easy disassembly results in maximum cleanliness.
- ▶ Offers complete removal of bone fragments and debris.



The versatility of the Koros Osteo Punch System grants the surgeon versatile instrument capability in one compact, modular system at the flip of a fingertip. The Rongeur's thin foot plate is also protected from structural damage by our exclusive Sentinel System.

# RONGEURS

## Unique Taper Lock™ System†

- ▶ Enables shaft a full 360° rotation.
- ▶ Affords the surgeon a variety of angles in one versatile instrument.
- ▶ Compliments a surgeon's technique.

## Exclusive Quick-Flip™

- ▶ Features an ambidextrous release system that allows shaft rotation.
- ▶ Permits activation from both sides of instrument.
- ▶ Accommodates both left or right handed surgeons.

## Quick Release Lever

- ▶ Instantly opens up blade holder chamber.
- ▶ Convenient shaft removal for cleaning or servicing.

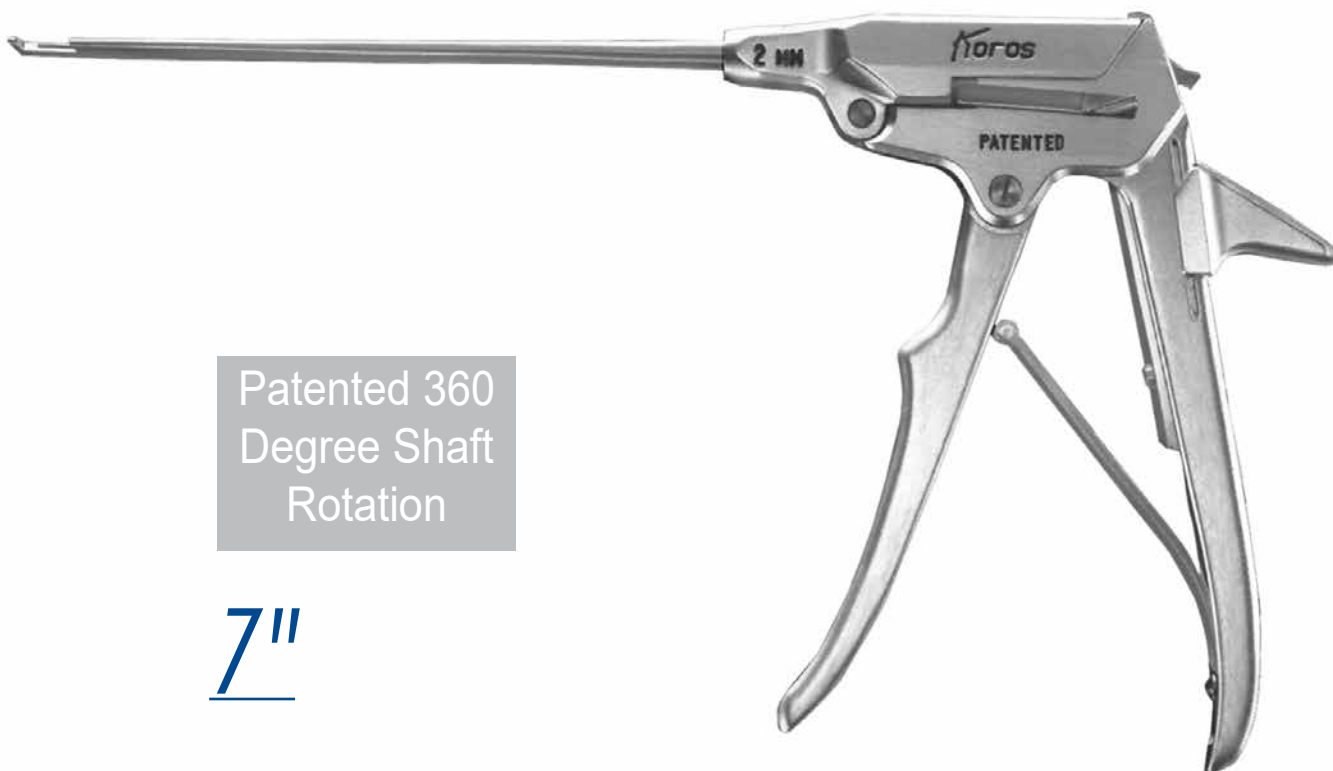
## Adjustable Spur

- ▶ Repositionable or removable.
- ▶ Provides maximum personal comfort.
- ▶ The most versatile, cutting edge Rongeur available today.



...The Versatile Modular System Surgeons Deserve.

## Osteo-Punch™ Rongeurs with 7" shaft shaft length



Patented 360  
Degree Shaft  
Rotation

7"

### Osteo Punch Rongeurs

7" shaft

Complete unit with 7" shaft length.

|         |                     |                 |
|---------|---------------------|-----------------|
| 7375-40 | Osteo Punch Rongeur | 0.6 mm x 40 tip |
| 7375-41 | Osteo Punch Rongeur | 1 mm x 40 tip   |
| 7375-42 | Osteo Punch Rongeur | 2 mm x 40 tip   |
| 7375-43 | Osteo Punch Rongeur | 3 mm x 40 tip   |
| 7375-44 | Osteo Punch Rongeur | 4 mm x 40 tip   |
| 7375-90 | Osteo Punch Rongeur | 0.6 mm x 90 tip |
| 7375-91 | Osteo Punch Rongeur | 1 mm x 90 tip   |
| 7375-92 | Osteo Punch Rongeur | 2 mm x 90 tip   |
| 7375-93 | Osteo Punch Rongeur | 3 mm x 90 tip   |
| 7375-94 | Osteo Punch Rongeur | 4 mm x 90 tip   |
| 7375-99 | Spur Screwdriver    |                 |

- Thin profile and super-sharp foot plate improves maneuverability in tight places.
- Ergonomically shaped handle snugly fits the contours of the hand with a more natural wrist position.
- Exclusive Sentinel System™ absorbs most types of over squeezing by the hand.
- Unique Taper Lock System™ enables shaft to rotate a full 360 degrees.
- Quick Release Lever instantly opens blade holding chamber for shaft removal for cleaning or servicing.
- Adjustable spur is repositionable or removable.
- 11 mm tip opening.

### **IMPORTANT:**

**Osteo-Punch cutting blades and handles are NOT interchangeable with other sizes.**

*Koros Osteo-Punch Rongeur is a technical innovation in bone surgery instrumentation. Each rongeur is precision machined, carefully inspected for quality workmanship and tested repeatedly for optimum performance.*

## Osteo-Punch™ Rongeurs with 8 1/4" shaft length



8"

### Long Shaft Osteo Punch Rongeurs    **8 1/4" shaft**

Complete unit with 8 1/4" shaft length.

|         |                        |                 |
|---------|------------------------|-----------------|
| 7376-39 | LS Osteo Punch Rongeur | 0.6 mm x 40 tip |
| 7376-41 | LS Osteo Punch Rongeur | 1 mm x 40 tip   |
| 7376-42 | LS Osteo Punch Rongeur | 2 mm x 40 tip   |
| 7376-43 | LS Osteo Punch Rongeur | 3 mm x 40 tip   |
| 7376-44 | LS Osteo Punch Rongeur | 4 mm x 40 tip   |
| 7376-45 | LS Osteo Punch Rongeur | 5 mm x 40 tip   |

|         |                        |               |
|---------|------------------------|---------------|
| 7376-91 | LS Osteo Punch Rongeur | 1 mm x 90 tip |
| 7376-92 | LS Osteo Punch Rongeur | 2 mm x 90 tip |
| 7376-93 | LS Osteo Punch Rongeur | 3 mm x 90 tip |
| 7376-94 | LS Osteo Punch Rongeur | 4 mm x 90 tip |

### Osteo Punch Universal Instrument Racks

Lightweight instrument holder and sterilization rack protects cutting edges and extends instrument life.

|         |                                                                        |
|---------|------------------------------------------------------------------------|
| 7384-80 | Rongeur Instrument Holder Rack #8<br>(holds a maximum of 8 rongeurs)   |
| 7384-90 | Rongeur Instrument Holder Rack #14<br>(holds a maximum of 14 rongeurs) |



7384-80

## Osteo-Punch™ Rongeurs with 9" shaft length



9"

### Long Shaft Osteo Punch Rongeurs      **9" shaft**

Complete unit with 9" shaft length.

|          |                        |               |
|----------|------------------------|---------------|
| 7376-141 | LS Osteo Punch Rongeur | 1 mm x 40 tip |
| 7376-142 | LS Osteo Punch Rongeur | 2 mm x 40 tip |
| 7376-143 | LS Osteo Punch Rongeur | 3 mm x 40 tip |
| 7376-144 | LS Osteo Punch Rongeur | 4 mm x 40 tip |

## Ejector Tip Osteo-Punch™ Rongeurs with 7" shaft shaft length



Ejector Tip design removes bone chips from the moving jaw each time the sliding shaft pulls back to resting position.

7"

### Ejector Tip Osteo Punch Rongeurs

**7" shaft**

Complete unit with 7" shaft length.

|          |                                 |               |
|----------|---------------------------------|---------------|
| 7375-41E | Ejector Tip Osteo Punch Rongeur | 1 mm x 40 tip |
| 7375-42E | Ejector Tip Osteo Punch Rongeur | 2 mm x 40 tip |
| 7375-43E | Ejector Tip Osteo Punch Rongeur | 3 mm x 40 tip |
| 7375-44E | Ejector Tip Osteo Punch Rongeur | 4 mm x 40 tip |



7384-90

- Universal Instrument Holder and Sterilization Rack protects valuable instruments from structural damage.
- Holds up to 8 (7384-80) or 14 (7384-90) instruments.
- Efficiently displays instruments in surgery.
- Facilitates instrument identification by O.R. personnel or servicing.
- Adjustable spur is repositionable or removable.

## Ejector Tip Osteo-Punch™ Rongeurs with 8 1/4" shafts



### Ejector Tip Osteo Punch Rongeurs

**8" shaft**

Complete unit with 8" shaft length.

|          |                                 |               |
|----------|---------------------------------|---------------|
| 7376-41E | Ejector Tip Osteo Punch Rongeur | 1 mm x 40 tip |
| 7376-42E | Ejector Tip Osteo Punch Rongeur | 2 mm x 40 tip |
| 7376-43E | Ejector Tip Osteo Punch Rongeur | 3 mm x 40 tip |
| 7376-44E | Ejector Tip Osteo Punch Rongeur | 4 mm x 40 tip |

## Trigger Lock Osteo-Punch™ Rongeurs with 7" 8"d 9" shafts shaft



7,8,9"

### Trigger Lock Osteo Punch Rongeurs 7, 8, 9" shafts

Complete unit with 40 deg Tips 7" shaft length.

|            |                        |                 |
|------------|------------------------|-----------------|
| 7375-40 TL | TL Osteo Punch Rongeur | 0.6 mm x 40 tip |
| 7375-41 TL | TL Osteo Punch Rongeur | 1 mm x 40 tip   |
| 7375-42 TL | TL Osteo Punch Rongeur | 2 mm x 40 tip   |
| 7375-43 TL | TL Osteo Punch Rongeur | 3 mm x 40 tip   |
| 7375-44 TL | TL Osteo Punch Rongeur | 4 mm x 40 tip   |

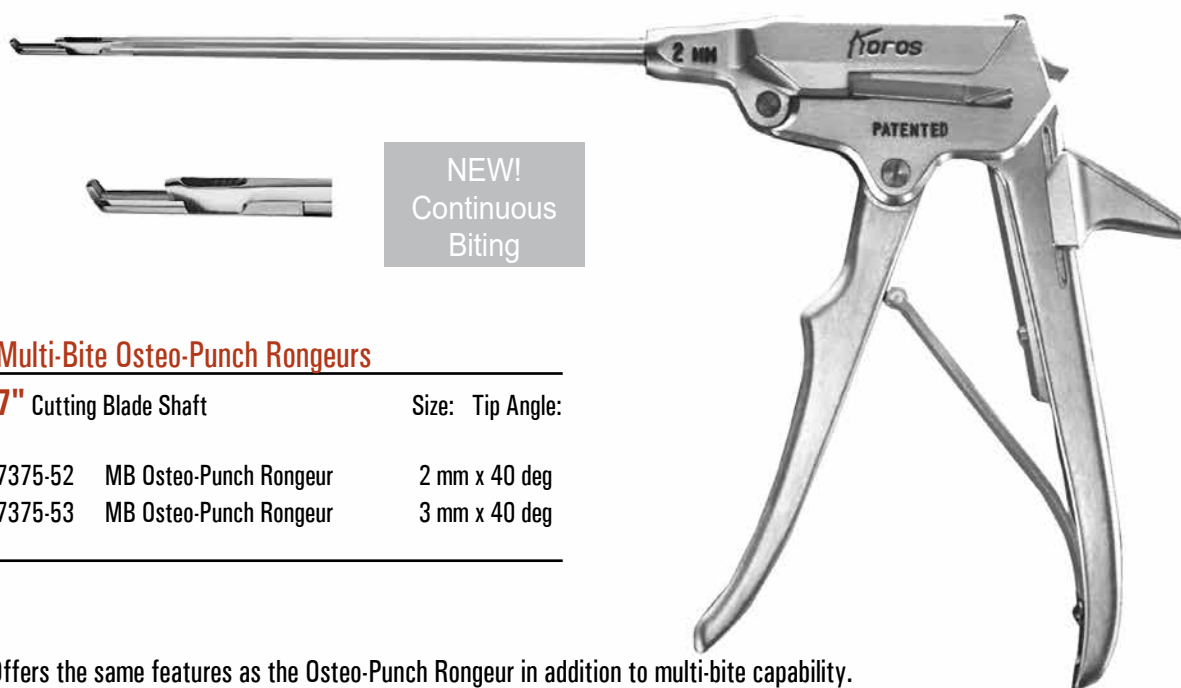
Complete unit with 40 deg Tips 8 1/4" shaft length.

|            |                           |               |
|------------|---------------------------|---------------|
| 7376-41 TL | TL LS Osteo Punch Rongeur | 1 mm x 40 tip |
| 7376-42 TL | TL LS Osteo Punch Rongeur | 2 mm x 40 tip |
| 7376-43 TL | TL LS Osteo Punch Rongeur | 3 mm x 40 tip |
| 7376-44 TL | TL LS Osteo Punch Rongeur | 4 mm x 40 tip |

Complete unit with 40 deg Tips 9" shaft length.

|             |                           |               |
|-------------|---------------------------|---------------|
| 7376-141 TL | TL LS Osteo Punch Rongeur | 1 mm x 40 tip |
| 7376-142 TL | TL LS Osteo Punch Rongeur | 2 mm x 40 tip |
| 7376-143 TL | TL LS Osteo Punch Rongeur | 3 mm x 40 tip |
| 7376-144 TL | TL LS Osteo Punch Rongeur | 4 mm x 40 tip |

## Multi-Bite Osteo-Punch™ Rongeur Rongeurs



NEW!  
Continuous  
Biting

### Multi-Bite Osteo-Punch Rongeurs

**7"** Cutting Blade Shaft

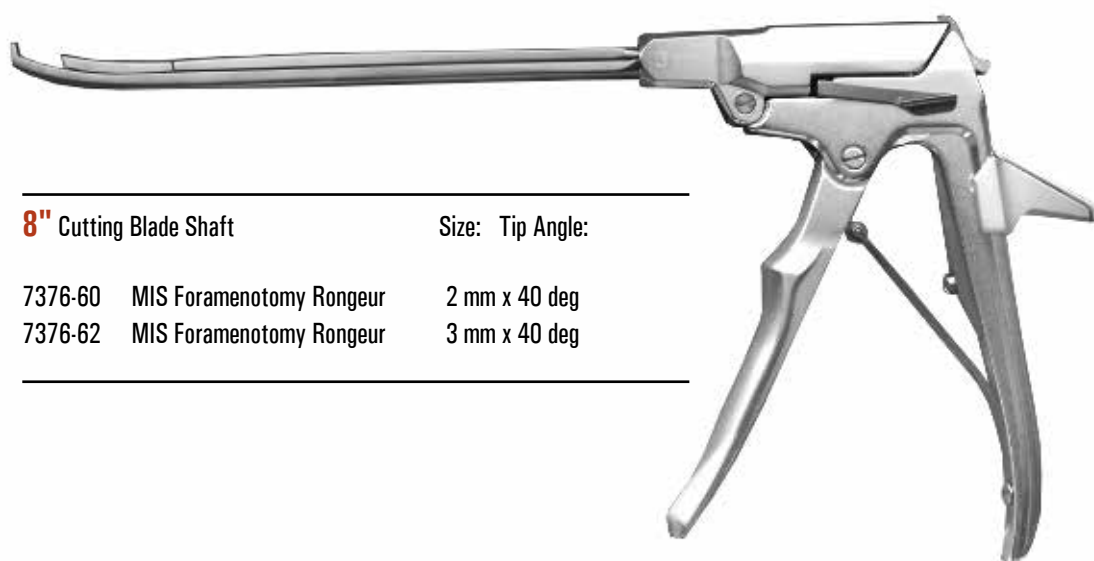
Size: Tip Angle:

|         |                        |               |
|---------|------------------------|---------------|
| 7375-52 | MB Osteo-Punch Rongeur | 2 mm x 40 deg |
| 7375-53 | MB Osteo-Punch Rongeur | 3 mm x 40 deg |

- Offers the same features as the Osteo-Punch Rongeur in addition to multi-bite capability.
- The unique tip design allows multiple cuts without repetitious cleaning of the collection chamber.
- 360 degree shaft rotation offered using Taper Lock System.™
- Quick Release Lever instantly opens blade holding chamber to remove shaft for cleaning or servicing.

*\*Osteo-Punch blades and handles are not interchangeable with other sizes.*

## MIS Foramenotomy Rongeurs 2mm & 3mm



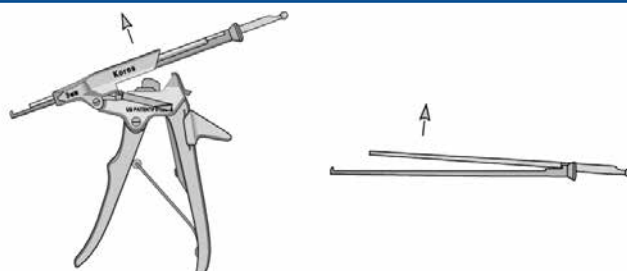
**8"** Cutting Blade Shaft

Size: Tip Angle:

|         |                          |               |
|---------|--------------------------|---------------|
| 7376-60 | MIS Foramenotomy Rongeur | 2 mm x 40 deg |
| 7376-62 | MIS Foramenotomy Rongeur | 3 mm x 40 deg |

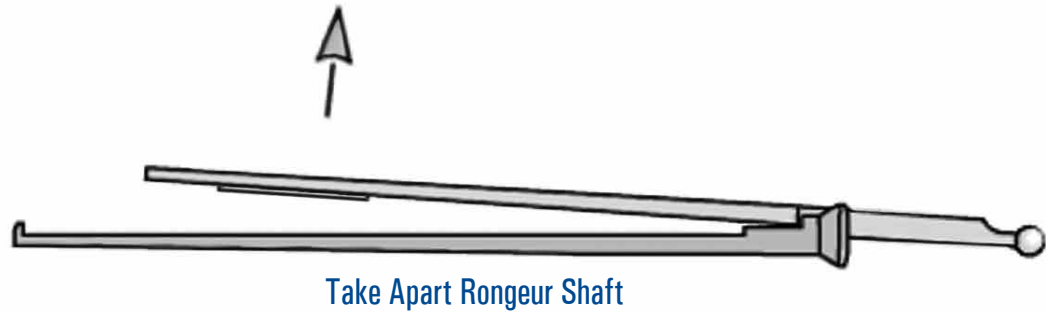


Fits inside a 15.5 mm diameter tube.



Removable cutting blade shaft easily slides apart for maximum cleanliness and complete removal of bone fragments.

# Osteo-Punch™ Rongeur Replacement Cutting Blades



## Osteo-Punch Rongeur Shafts

### 7" Cutting Blade Shafts

|         |                          |                 |
|---------|--------------------------|-----------------|
| 7377-10 | Cutting Blade Shaft only | 0.6 mm x 40 tip |
| 7377-11 | Cutting Blade Shaft only | 1 mm x 40 tip   |
| 7377-12 | Cutting Blade Shaft only | 2 mm x 40 tip   |
| 7377-13 | Cutting Blade Shaft only | 3 mm x 40 tip   |
| 7377-14 | Cutting Blade Shaft only | 4 mm x 40 tip   |

|         |                          |                 |
|---------|--------------------------|-----------------|
| 7377-20 | Cutting Blade Shaft only | 0.6 mm x 90 tip |
| 7377-21 | Cutting Blade Shaft only | 1 mm x 90 tip   |
| 7377-22 | Cutting Blade Shaft only | 2 mm x 90 tip   |
| 7377-23 | Cutting Blade Shaft only | 3 mm x 90 tip   |
| 7377-24 | Cutting Blade Shaft only | 4 mm x 90 tip   |

### Long 8 1/4" Cutting Blade Shafts

|         |                          |               |
|---------|--------------------------|---------------|
| 7377-41 | Cutting Blade Shaft only | 1 mm x 40 tip |
| 7377-42 | Cutting Blade Shaft only | 2 mm x 40 tip |
| 7377-43 | Cutting Blade Shaft only | 3 mm x 40 tip |
| 7377-44 | Cutting Blade Shaft only | 4 mm x 40 tip |
| 7377-45 | Cutting Blade Shaft only | 5 mm x 40 tip |
| 7377-51 | Cutting Blade Shaft only | 1 mm x 90 tip |
| 7377-52 | Cutting Blade Shaft only | 2 mm x 90 tip |
| 7377-53 | Cutting Blade Shaft only | 3 mm x 90 tip |
| 7377-54 | Cutting Blade Shaft only | 4 mm x 90 tip |

\*Now selling 5 mm width tip!

## Multi Bite Osteo-Punch Rongeur Shafts

|         |                             |               |
|---------|-----------------------------|---------------|
| 7377-32 | MB Cutting Blade Shaft only | 2 mm x 40 tip |
| 7377-33 | MB Cutting Blade Shaft only | 3 mm x 40 tip |



## Ejector Tip Rongeur Shafts

### 7" Cutting Blade Shafts

|          |                          |               |
|----------|--------------------------|---------------|
| 7377-11E | Cutting Blade Shaft only | 1 mm x 40 tip |
| 7377-12E | Cutting Blade Shaft only | 2 mm x 40 tip |
| 7377-13E | Cutting Blade Shaft only | 3 mm x 40 tip |
| 7377-14E | Cutting Blade Shaft only | 4 mm x 40 tip |
| 7377-22E | Cutting Blade Shaft only | 2 mm x 90 tip |

### 8 1/4" Cutting Blade Shafts

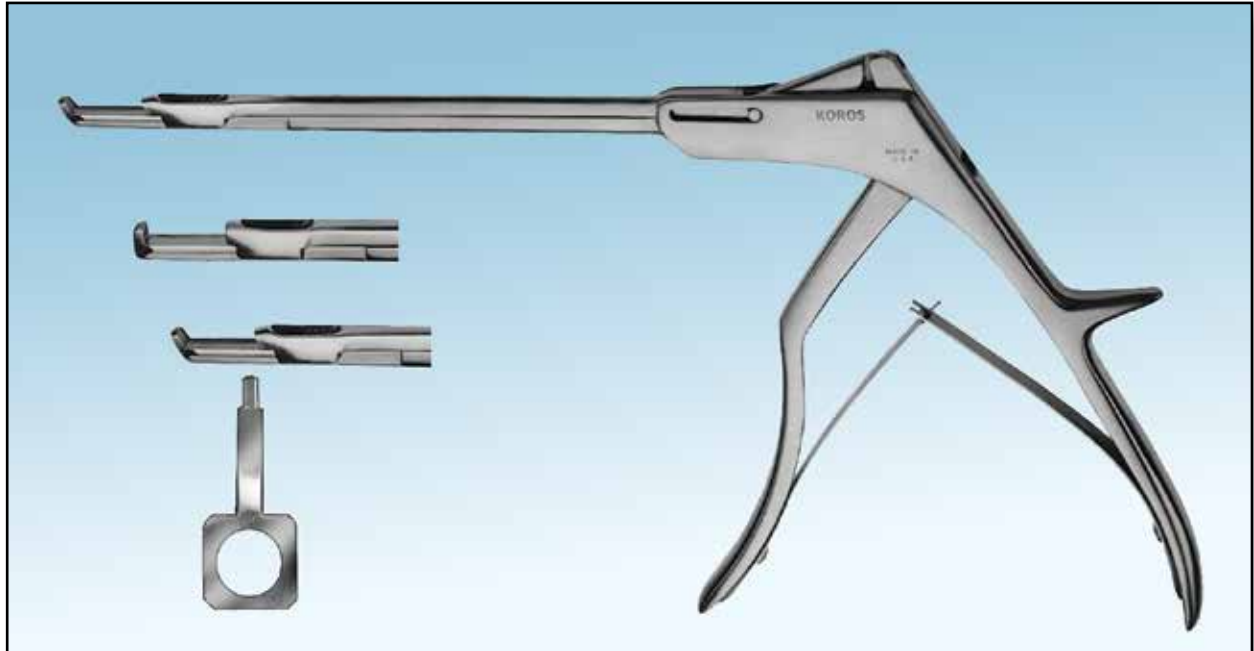
|          |                          |               |
|----------|--------------------------|---------------|
| 7378-11E | Cutting Blade Shaft only | 1 mm x 40 tip |
| 7378-12E | Cutting Blade Shaft only | 2 mm x 40 tip |
| 7378-13E | Cutting Blade Shaft only | 3 mm x 40 tip |
| 7378-14E | Cutting Blade Shaft only | 4 mm x 40 tip |

## Osteo-Punch Rongeur Handles

|         |                                        |
|---------|----------------------------------------|
| 7377-80 | .6 mm Osteo-Punch Handle w/spur only   |
| 7377-81 | 1 mm Osteo-Punch Handle w/spur only    |
| 7377-82 | 2 mm Osteo-Punch Handle w/spur only    |
| 7377-83 | 3 mm Osteo-Punch Handle w/spur only    |
| 7377-84 | 4 mm Osteo-Punch Handle w/spur only    |
| 7377-92 | MB 2 mm Osteo-Punch Handle w/spur only |
| 7377-93 | MB 3 mm Osteo-Punch Handle w/spur only |
| 7375-98 | Replacement Handle Spur                |
| 7375-99 | Spur Screwdriver                       |

## Double-Action Multi-Punch™ Rongeurs

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Continuous  
Biting

### Double-Action Multi-Punch Rongeur

|         |                     |         |
|---------|---------------------|---------|
| 7378-44 | 3.8 mm x 40 deg tip | 7" long |
| 7378-49 | 3.8 mm x 90 deg tip | 7" long |
| 7378-54 | 5 mm x 40 deg tip   | 7" long |
| 7378-59 | 5 mm x 90 deg tip   | 7" long |

7378-60 Cleaning Key  
Used to help bone removal from 3.8 and  
5 mm rongeurs shaft chamber sizes.

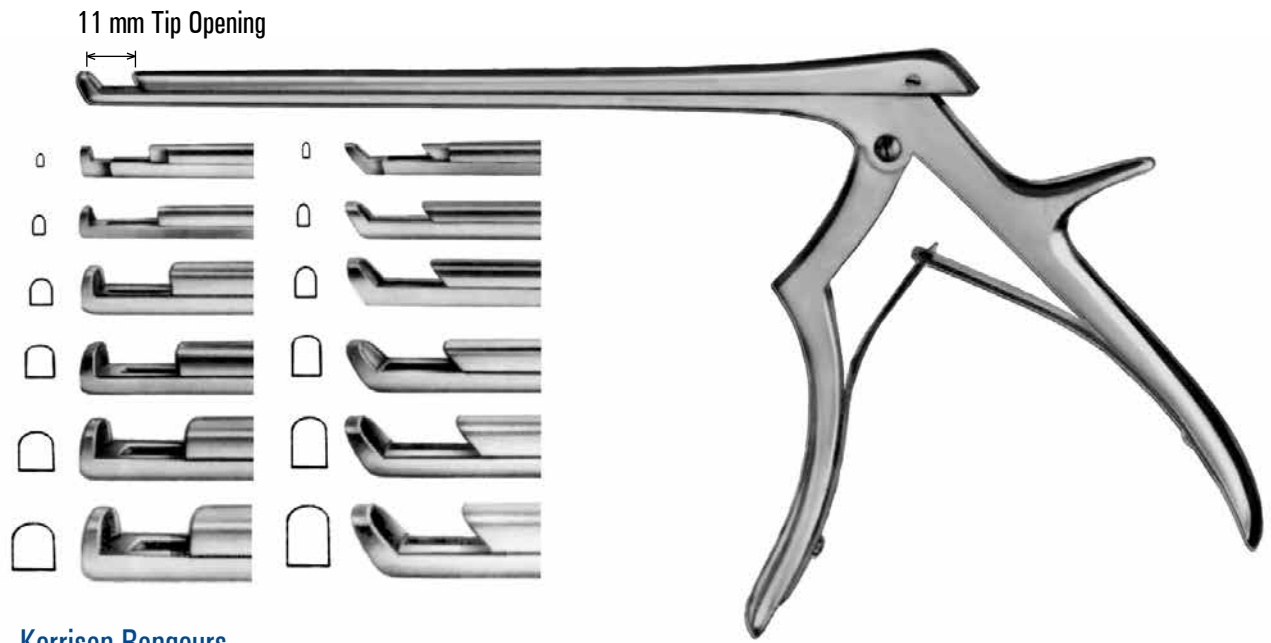
- Unique tip design allows multiple cuts without repetitious cleaning of collection chamber.
- 17 mm jaw opening to harvest bone fragments is the largest in it's class.
- Utilizes a dual action mechanism for extra power and efficient operation.
- Multi-Punch easily cuts hard cortical bone while the ergonomic handle design offers maximum comfort.

- Double exterior track on the shaft provides safe, precise performance under high load pressure.
- Easy to service shaft eliminates frequent instrument replacement.
- Crafted from superior stainless steel in the U.S.A.

Design elements of instrument are patented in the United States and other countries.

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## Long Kerrison & Love-Kerrison Rongeurs



### Kerrison Rongeurs

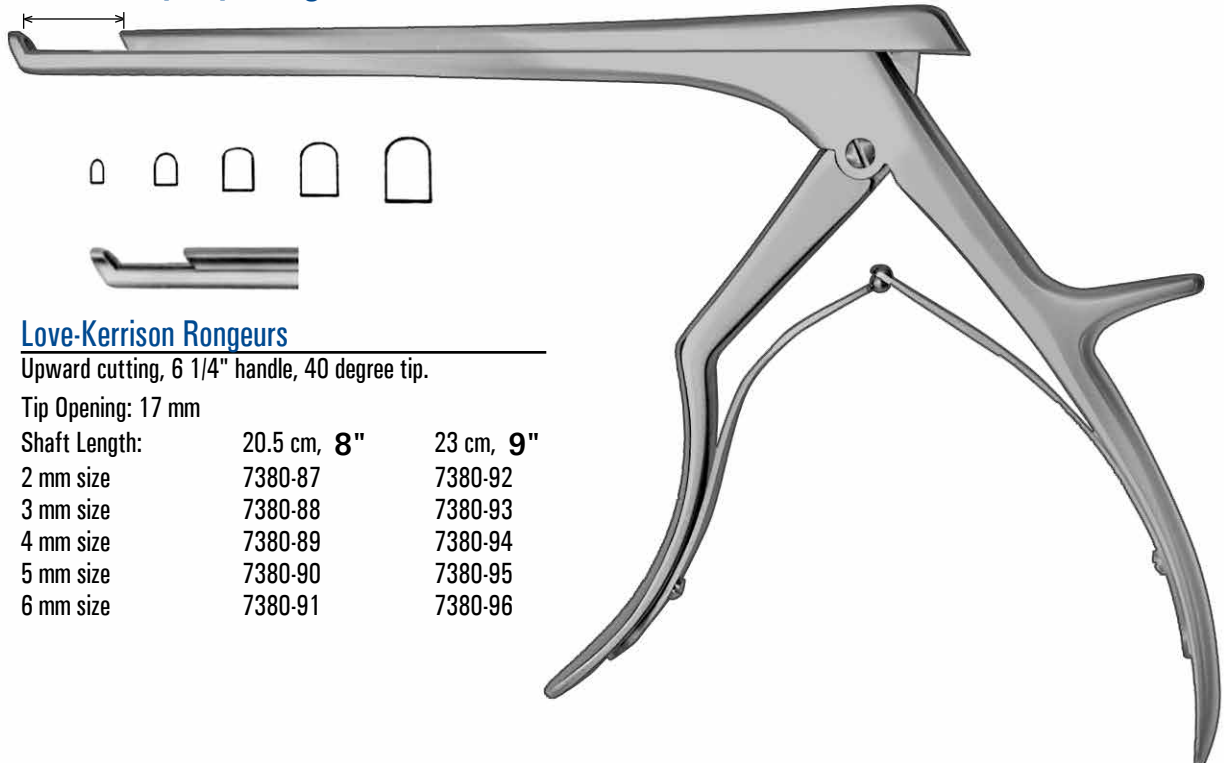
Upward cutting, 5" handle.

Tip Opening: 11 mm

|               |                  |                  |                    |                  |
|---------------|------------------|------------------|--------------------|------------------|
| Shaft Length: | 18 cm, <b>7"</b> | 18 cm, <b>7"</b> | 20.5 cm, <b>8"</b> | 23 cm, <b>9"</b> |
| Type:         | 90 deg tip       | 40 deg tip       | 40 deg tip         | 40 deg tip       |
| 1-1.3 mm size | 7380-10          | 7380-14          | 7380-71            | 7380-81          |
| 2 mm size     | 7380-20          | 7380-24          | 7380-72            | 7380-82          |
| 3 mm size     | 7380-30          | 7380-34          | 7380-73            | 7380-83          |
| 4 mm size     | 7380-40          | 7380-44          | 7380-74            | 7380-84          |
| 5 mm size     | 7380-50          | 7380-54          | 7380-75            | 7380-85          |
| 6 mm size     | 7380-60          | 7380-64          | 7380-76            | 7380-86          |

**7, 8 & 9 Inch  
Shaft Length**

### **17 mm Tip Opening**



### Love-Kerrison Rongeurs

Upward cutting, 6 1/4" handle, 40 degree tip.

Tip Opening: 17 mm

|               |                    |                  |
|---------------|--------------------|------------------|
| Shaft Length: | 20.5 cm, <b>8"</b> | 23 cm, <b>9"</b> |
| 2 mm size     | 7380-87            | 7380-92          |
| 3 mm size     | 7380-88            | 7380-93          |
| 4 mm size     | 7380-89            | 7380-94          |
| 5 mm size     | 7380-90            | 7380-95          |
| 6 mm size     | 7380-91            | 7380-96          |

# Long Kerrison & Pituitary Rongeurs

## Anterior Intervertebral Pituitary Rongeurs

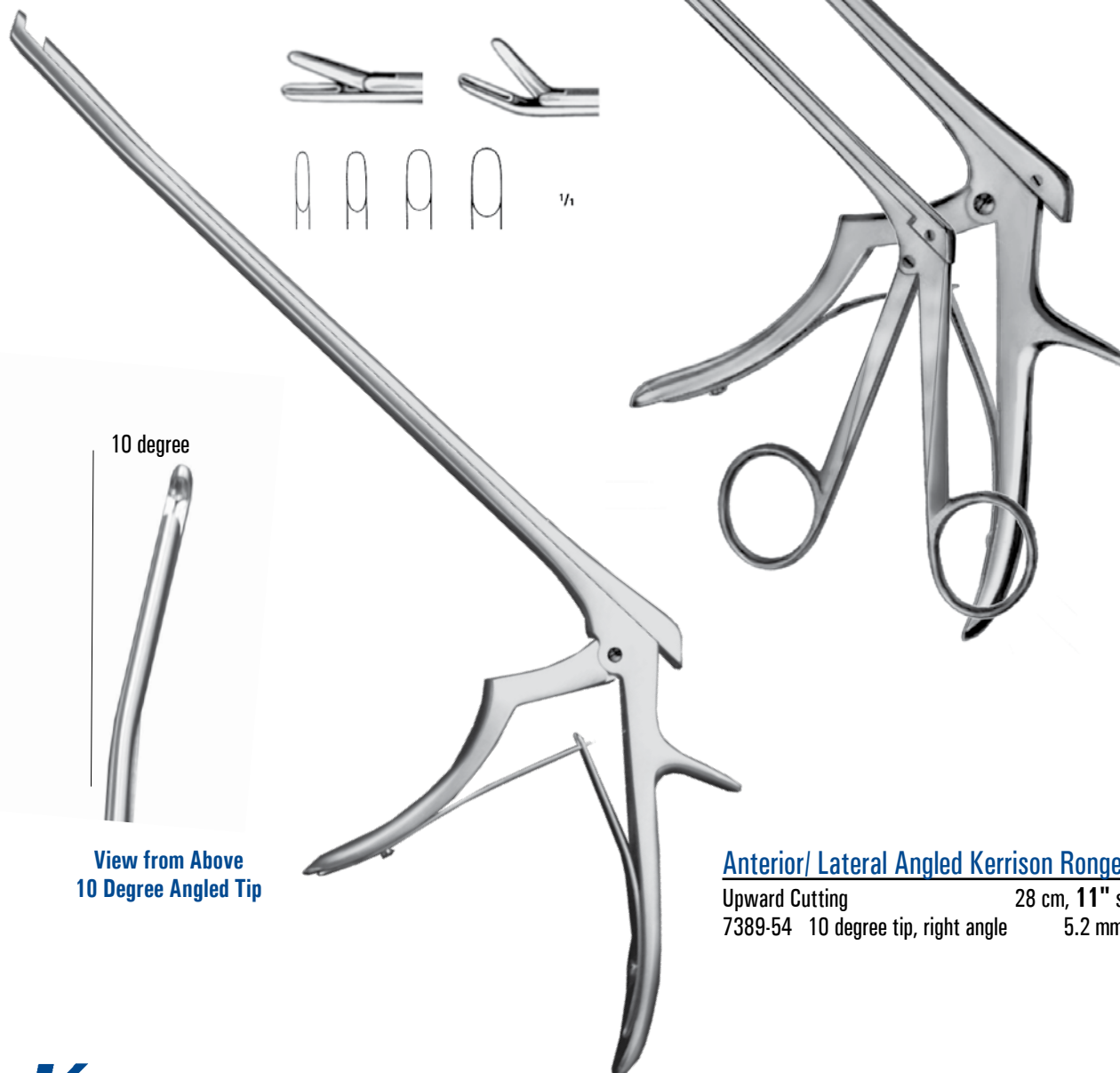
29.6 cm, 11 1/2" shaft length.

|         |              |           |
|---------|--------------|-----------|
| 7386-20 | Straight tip | 2 mm size |
| 7386-30 | Straight tip | 3 mm size |
| 7386-40 | Straight tip | 4 mm size |
| 7386-50 | Straight tip | 5 mm size |

|         |               |           |
|---------|---------------|-----------|
| 7388-20 | Up Angled tip | 2 mm size |
| 7388-30 | Up Angled tip | 3 mm size |
| 7388-40 | Up Angled tip | 4 mm size |
| 7388-50 | Up Angled tip | 5 mm size |

## Anterior Kerrison Rongeurs

| Upward Cutting | 28 cm, 11" shaft length.        |
|----------------|---------------------------------|
| 7389-20        | 40 degree angle 2 mm tip size   |
| 7389-30        | 40 degree angle 3 mm tip size   |
| 7389-40        | 40 degree angle 4 mm tip size   |
| 7389-52        | 40 degree angle 5.2 mm tip size |
| 7389-60        | 40 degree angle 6.2 mm tip size |



10 degree

View from Above  
10 Degree Angled Tip

## Anterior/ Lateral Angled Kerrison Rongeur

| Upward Cutting | 28 cm, 11" shaft length                    |
|----------------|--------------------------------------------|
| 7389-54        | 10 degree tip, right angle 5.2 mm tip size |

## Standard Ejector Punch™ and Power Punch™ Rongeurs

*Shaft Swings Opens for Cleaning*



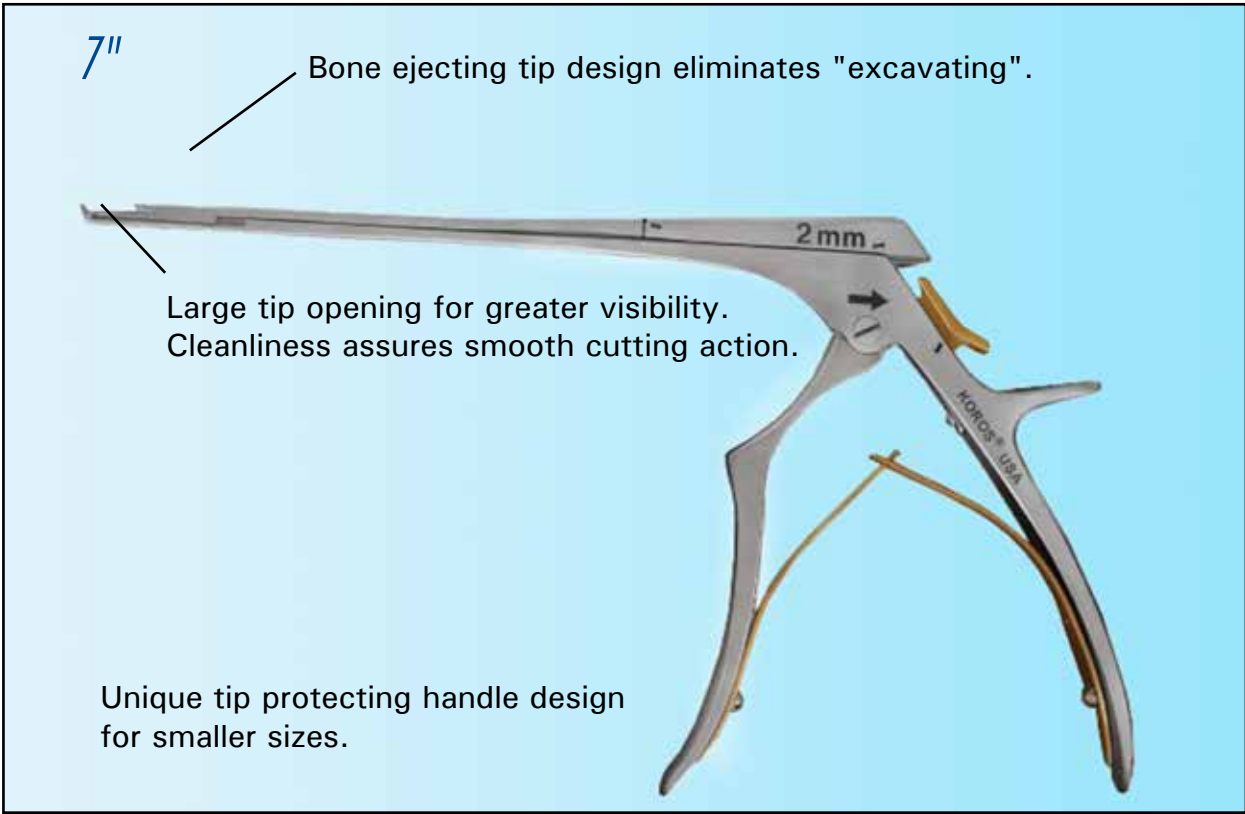
*Cervical, Laminectomy, Discectomy and Orthopedic Procedures  
Specifically designed for Surgeons*



- ☐ *Sharp, Delicate Foot Plate*
- ☐ *Bone Ejecting Tip Design*
- ☐ *Easy Shaft Opening*
- ☐ *Exclusive, Superior Quality*
- ☐ *Affordable Pricing*

Unlike conventional rongeurs Ejector Punch™ Rongeur is simple to open for cleaning and removal of bone build up debris from the instrument shaft, reducing the risk of infection.

Standard Ejector Punch™ Rongeurs



7" (17.5cm) Shaft



| size |                                                                                     | 40 degree tip angle | 90 degree up bite |                       |
|------|-------------------------------------------------------------------------------------|---------------------|-------------------|-----------------------|
| 1mm  |  | 7381-41             | 7381-91           | Protecting Tip Handle |
| 2mm  |  | 7381-42             | 7381-92           | Protecting Tip Handle |
| 3mm  |  | 7381-43             | 7381-93           | Improved Handle       |
| 4mm  |  | 7381-44             | 7381-94           | Improved Handle       |
| 5mm  |  | 7381-45             | 7381-95           | Improved Handle       |
| 6mm  |  | 7381-46             | 7381-96           | Improved Handle       |

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

8" and 9"

*Shaft Swings Opens for Cleaning*



8" (20cm) Shaft



| size |                                                                                     | 40 degree tip angle | 90 degree up bite |                       |
|------|-------------------------------------------------------------------------------------|---------------------|-------------------|-----------------------|
| 1mm  |  | 7382-41             | 7382-91           | Protecting Tip Handle |
| 2mm  |  | 7382-42             | 7382-92           | Improved Handle       |
| 3mm  |  | 7382-43             | 7382-93           | Improved Handle       |
| 4mm  |  | 7382-44             | 7382-94           | Improved Handle       |
| 5mm  |  | 7382-45             | 7382-95           | Improved Handle       |
| 6mm  |  | 7382-46             | 7382-96           | Improved Handle       |

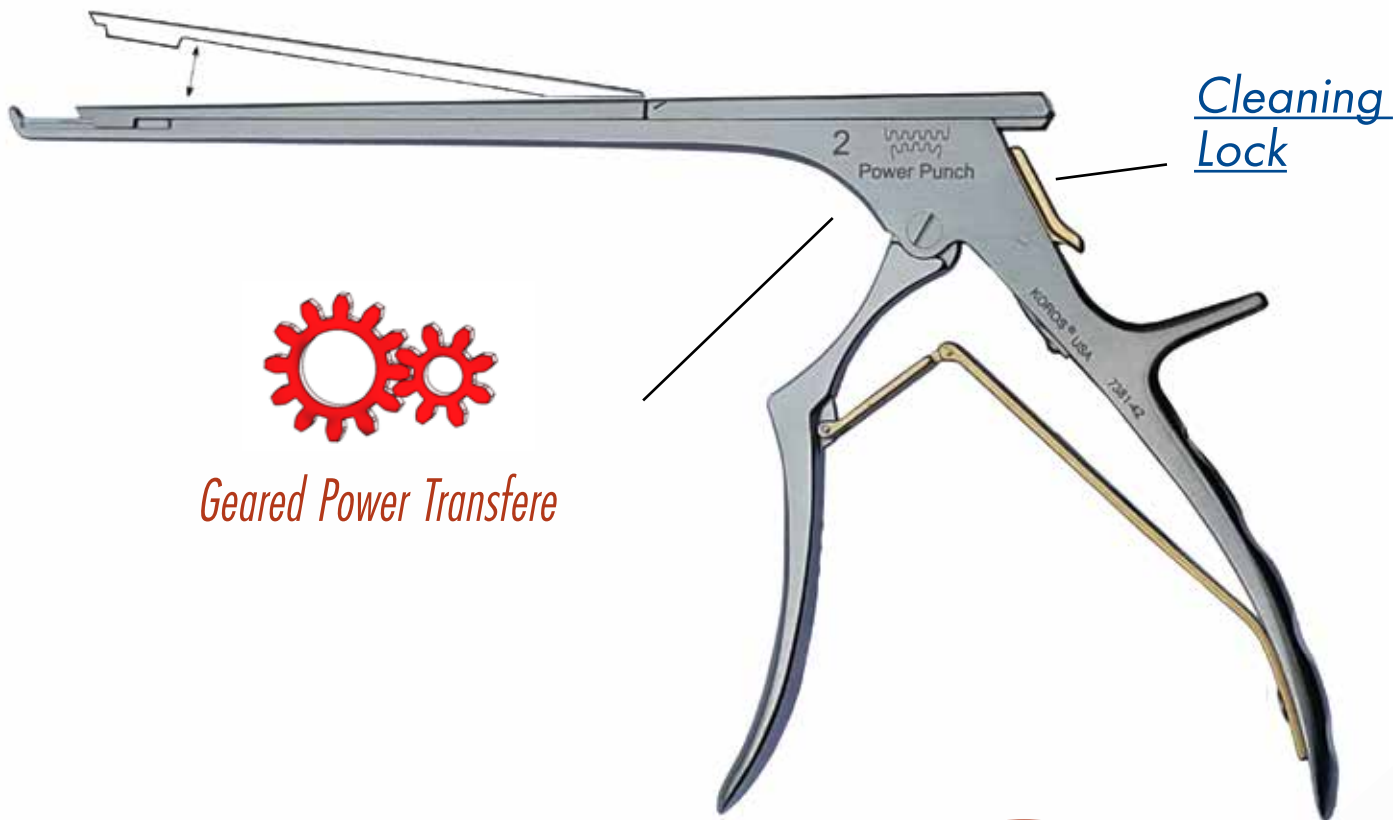
9" (22.5cm) Shaft



| size |                                                                                     | 40 degree tip angle |                       |
|------|-------------------------------------------------------------------------------------|---------------------|-----------------------|
| 1mm  |  | 7383-41             | Protecting Tip Handle |
| 2mm  |  | 7383-42             | Improved Handle       |
| 3mm  |  | 7383-43             | Improved Handle       |
| 4mm  |  | 7383-44             | Improved Handle       |
| 5mm  |  | 7383-45             | Improved Handle       |
| 6mm  |  | 7383-46             | Improved Handle       |

## POWER PUNCH

- Koros Power Punch Rongeurs designed for maximum cutting power
- Cuts easier than standard rongeurs using an optimized internal gear mechanism
- Extra sharp foot plate
- Easy Grip ergonomically shaped handle design
- Low profile moving shaft for better view
- Bone ejector tip design
- Swing shaft opening for cleaning



*Geared Power Transfere*

*7" (17.5cm) Shaft*



| size | 40 degree tip angle |
|------|---------------------|
| 1 mm | 7384-41             |
| 2 mm | 7384-42             |
| 3 mm | 7384-43             |
| 4 mm | 7384-44             |
| 5 mm | 7384-45             |
| 6 mm | 7384-46             |

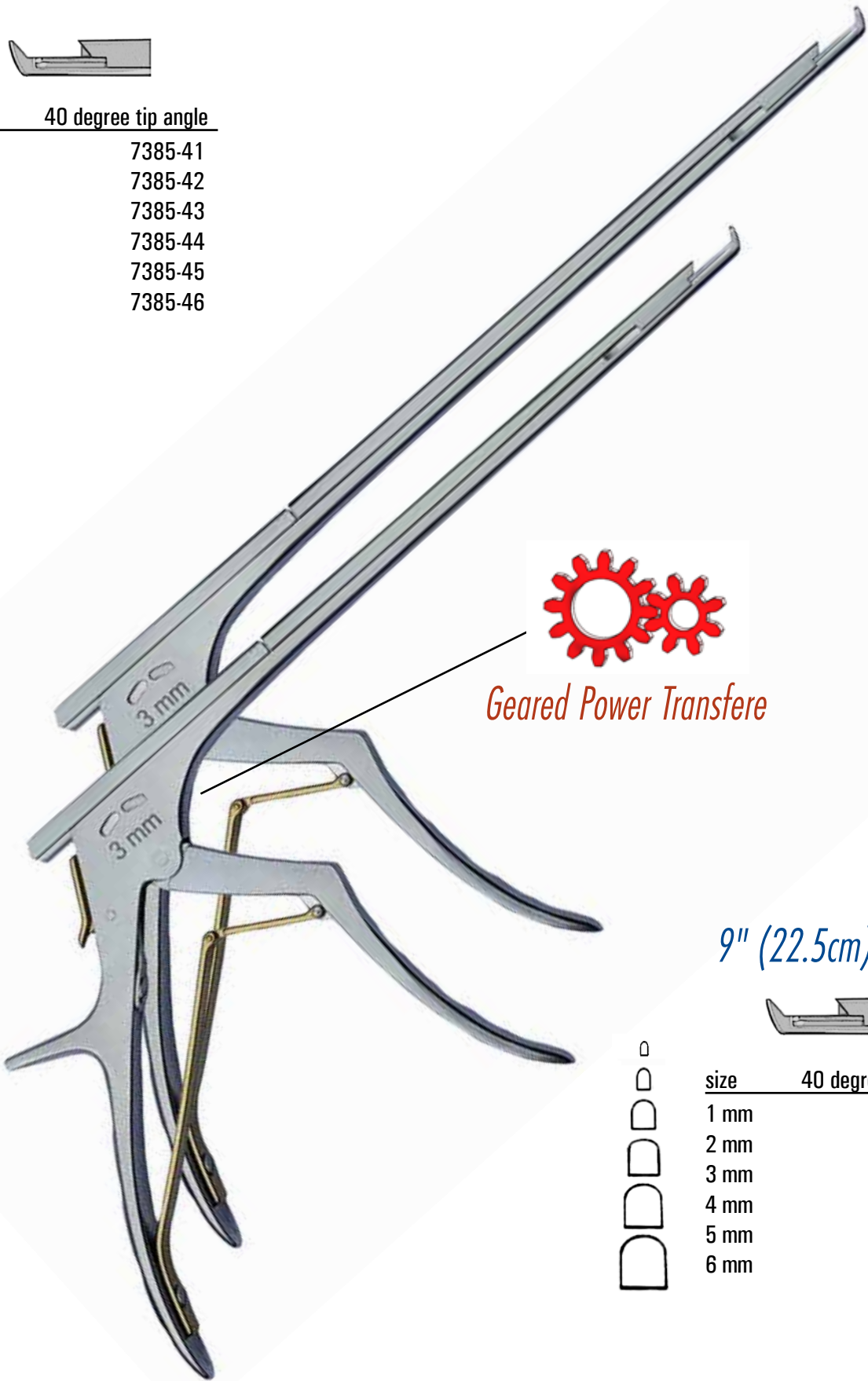


Unlike conventional rongeurs ADVANCED Power Punch Plus™ is simple to open for cleaning and removal of bone build up debris from the instrument shaft, reducing the risk of infection.

8" (20cm) Shaft



| size | 40 degree tip angle |
|------|---------------------|
| 1 mm | 7385-41             |
| 2 mm | 7385-42             |
| 3 mm | 7385-43             |
| 4 mm | 7385-44             |
| 5 mm | 7385-45             |
| 6 mm | 7385-46             |



Geared Power Transfere

9" (22.5cm) Shaft



| size | 40 degree tip angle |
|------|---------------------|
| 1 mm | 7386-41             |
| 2 mm | 7386-42             |
| 3 mm | 7386-43             |
| 4 mm | 7386-44             |
| 5 mm | 7386-45             |
| 6 mm | 7386-46             |

## Ejector Punch™ Rongeur Rack & Cleaning Instructions



### Universal Instrument Racks

Lightweight rack protects cutting edges and extends instrument life.

- 7384-80 Rongeur Rack #8  
(holds a maximum of 8 rongeurs)
- 7384-90 Rongeur Rack #14  
(holds a maximum of 14 rongeurs)

## Cleaning Instructions:

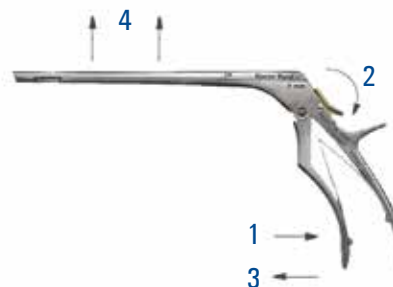
Use only hospital grade cleaner on disassembled instruments. Ultrasonic cleaning is recommended. Lubricate sliding and rotating surfaces with medical grade instrument lubricant.

### Sterilization of instruments:

Steam or gas is the preferred method of sterilization. Refer to the manufacturer's sterilizing equipment instructions and your institute's standard operating procedures.

### **OPEN** ----->

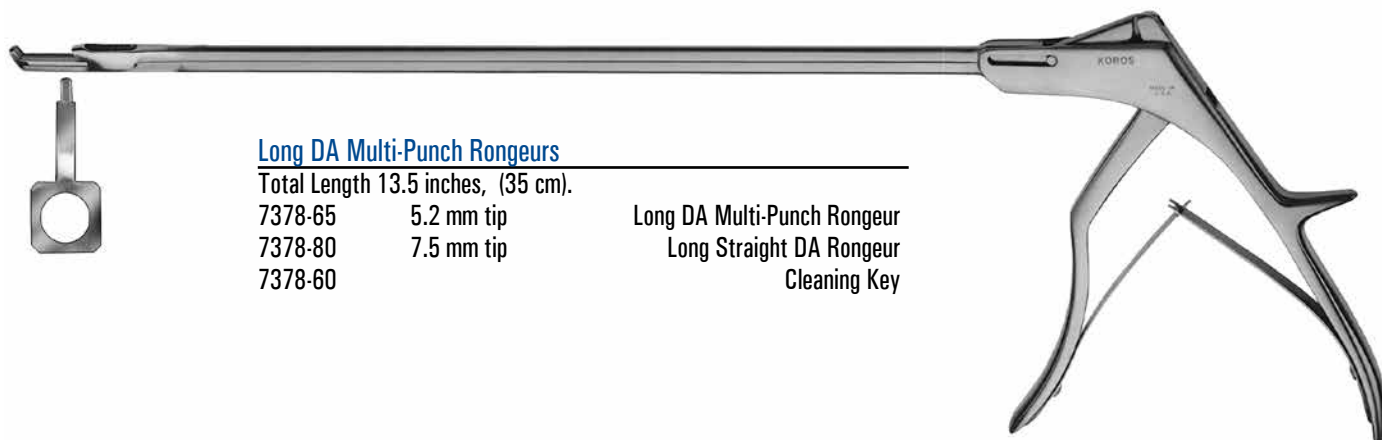
1. Squeeze handle so tip is closed.
2. Release lock backward.
3. Release trigger.
4. Lift upper slide shaft.



### **CLOSE** <-----

1. Engage the upper shaft pin into the bottom groove so the sliding shafts merge into the T slot.
2. Hold the shafts together and squeeze handle into the closed tip position.
3. Push lock forward.

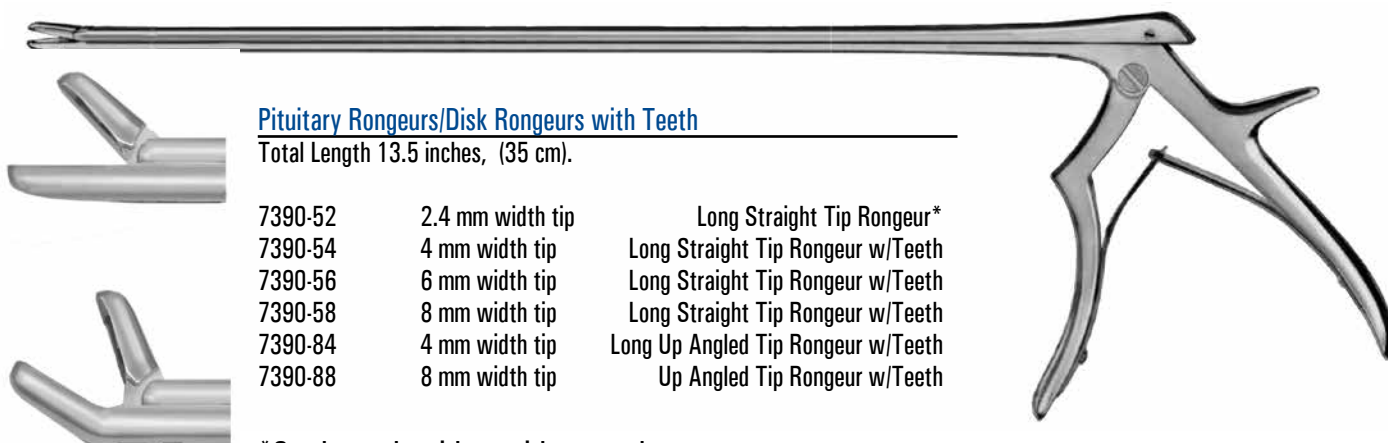




## Long DA Multi-Punch Rongeurs

Total Length 13.5 inches, (35 cm).

|         |            |                             |
|---------|------------|-----------------------------|
| 7378-65 | 5.2 mm tip | Long DA Multi-Punch Rongeur |
| 7378-80 | 7.5 mm tip | Long Straight DA Rongeur    |
| 7378-60 |            | Cleaning Key                |

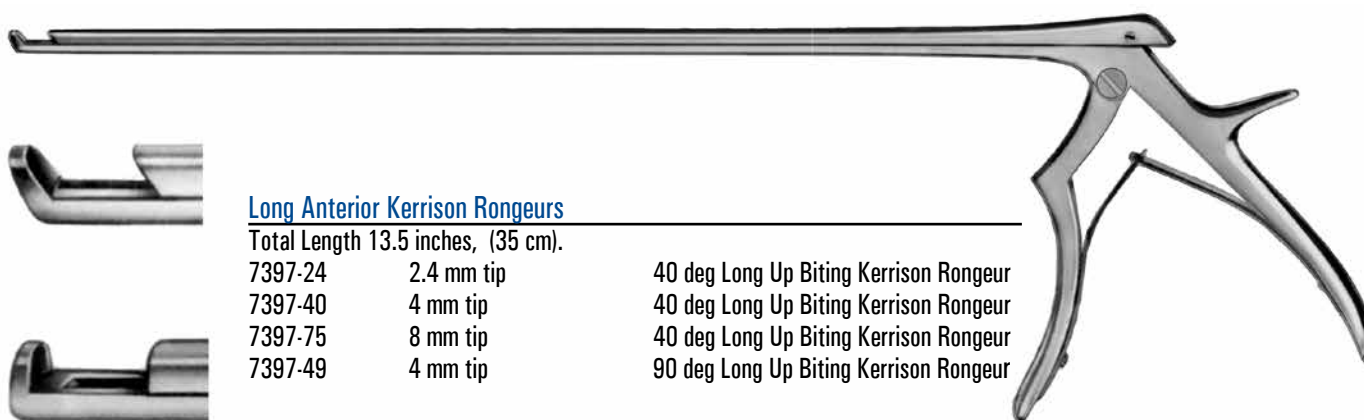


## Pituitary Rongeurs/Disk Rongeurs with Teeth

Total Length 13.5 inches, (35 cm).

|         |                  |                                    |
|---------|------------------|------------------------------------|
| 7390-52 | 2.4 mm width tip | Long Straight Tip Rongeur*         |
| 7390-54 | 4 mm width tip   | Long Straight Tip Rongeur w/Teeth  |
| 7390-56 | 6 mm width tip   | Long Straight Tip Rongeur w/Teeth  |
| 7390-58 | 8 mm width tip   | Long Straight Tip Rongeur w/Teeth  |
| 7390-84 | 4 mm width tip   | Long Up Angled Tip Rongeur w/Teeth |
| 7390-88 | 8 mm width tip   | Up Angled Tip Rongeur w/Teeth      |

\* Can be made with or without teeth.

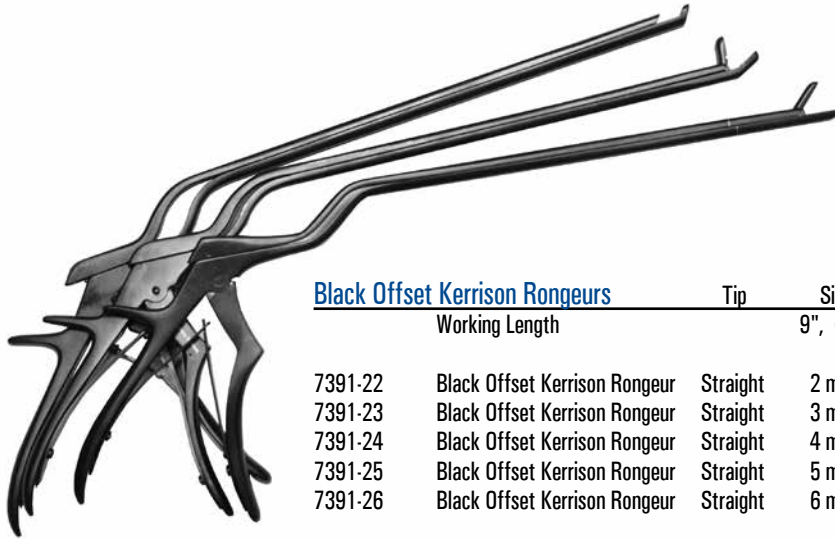


## Long Anterior Kerrison Rongeurs

Total Length 13.5 inches, (35 cm).

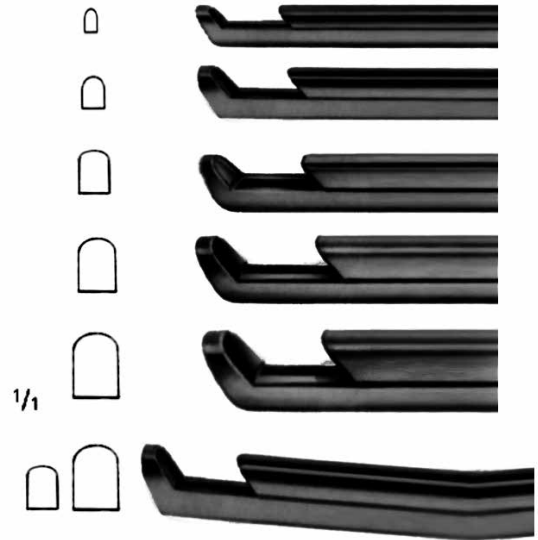
|         |            |                                        |
|---------|------------|----------------------------------------|
| 7397-24 | 2.4 mm tip | 40 deg Long Up Biting Kerrison Rongeur |
| 7397-40 | 4 mm tip   | 40 deg Long Up Biting Kerrison Rongeur |
| 7397-75 | 8 mm tip   | 40 deg Long Up Biting Kerrison Rongeur |
| 7397-49 | 4 mm tip   | 90 deg Long Up Biting Kerrison Rongeur |

# Lateral and Foramenotomy Offset Rongeurs



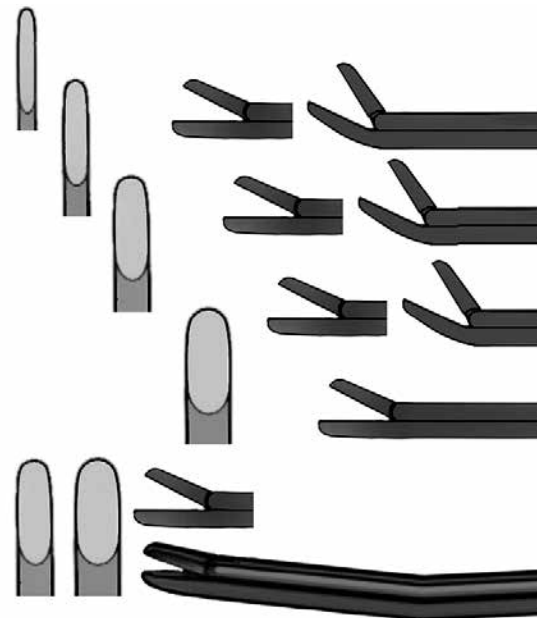
## Black Offset Kerrison Rongeurs

|         | Working Length                | Tip                                 | Size        |
|---------|-------------------------------|-------------------------------------|-------------|
|         |                               |                                     | 9", (23 cm) |
| 7391-22 | Black Offset Kerrison Rongeur | Straight                            | 2 mm        |
| 7391-23 | Black Offset Kerrison Rongeur | Straight                            | 3 mm        |
| 7391-24 | Black Offset Kerrison Rongeur | Straight                            | 4 mm        |
| 7391-25 | Black Offset Kerrison Rongeur | Straight                            | 5 mm        |
| 7391-26 | Black Offset Kerrison Rongeur | Straight                            | 6 mm        |
| 7391-28 | Black Offset Kerrison Rongeur | Straight<br>10 deg right angled tip | 4 mm        |
| 7391-30 | Black Offset Kerrison Rongeur | Straight<br>10 deg right angled tip | 6 mm        |



## Black Offset Pituitary Rongeurs

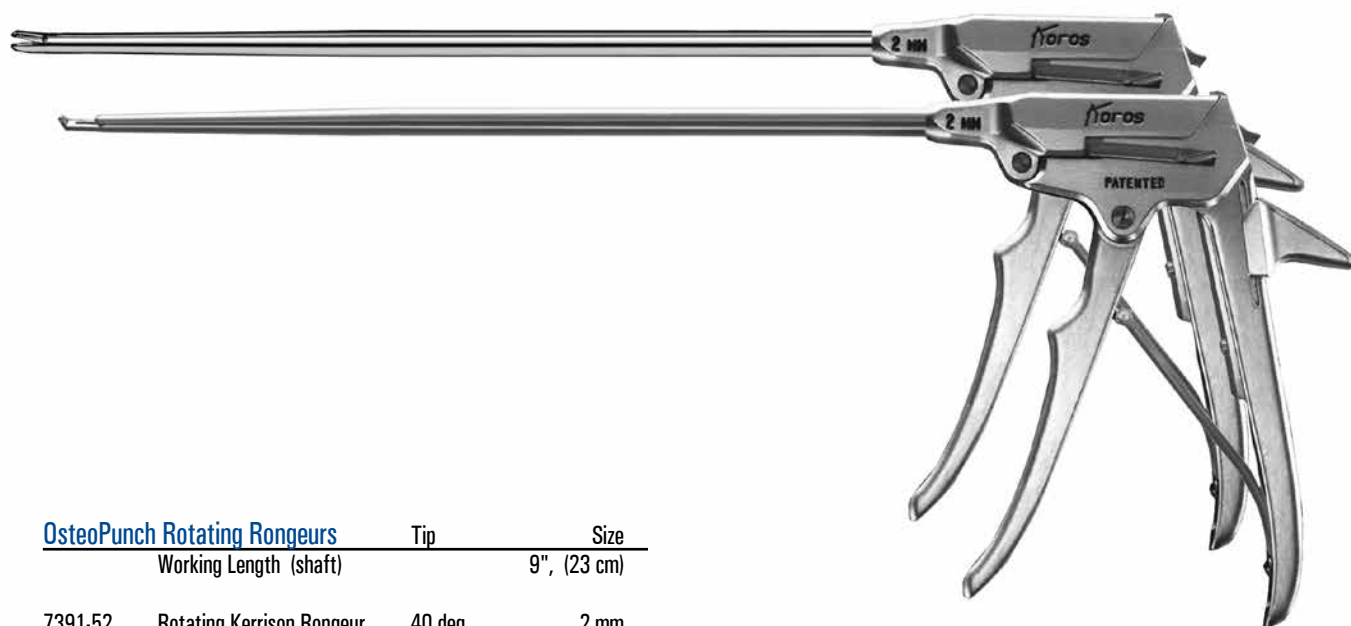
|         | Working Length                 | Tip                                 | Size        |
|---------|--------------------------------|-------------------------------------|-------------|
|         |                                |                                     | 9", (23 cm) |
| 7391-32 | Black Offset Pituitary Rongeur | Straight                            | 2 mm        |
| 7391-33 | Black Offset Pituitary Rongeur | Straight                            | 3 mm        |
| 7391-34 | Black Offset Pituitary Rongeur | Straight                            | 4 mm        |
| 7391-36 | Black Offset Pituitary Rongeur | Straight                            | 6 mm        |
| 7391-42 | Black Offset Pituitary Rongeur | Up Angled                           | 2 mm        |
| 7391-43 | Black Offset Pituitary Rongeur | Up Angled                           | 3 mm        |
| 7391-44 | Black Offset Pituitary Rongeur | Up Angled                           | 4 mm        |
| 7391-46 | Black Offset Pituitary Rongeur | Up Angled                           | 6 mm        |
| 7391-37 | Black Offset Pituitary Rongeur | Straight<br>10 deg right angled tip | 4 mm        |
| 7391-38 | Black Offset Pituitary Rongeur | Straight<br>10 deg right angled tip | 6 mm        |



## Black Offset Foramenotomy Rongeurs

|         | Working Length                    | Size          |
|---------|-----------------------------------|---------------|
|         |                                   | 9", (23 cm)   |
| 7391-39 | Black Offset Foramenotomy Rongeur | 2 mm x 40 deg |
| 7391-40 | Black Offset Foramenotomy Rongeur | 3 mm x 40 deg |
| 7391-41 | Black Offset Foramenotomy Rongeur | 4 mm x 40 deg |

# Lateral Osteo Punch™ Rotating Rongeurs

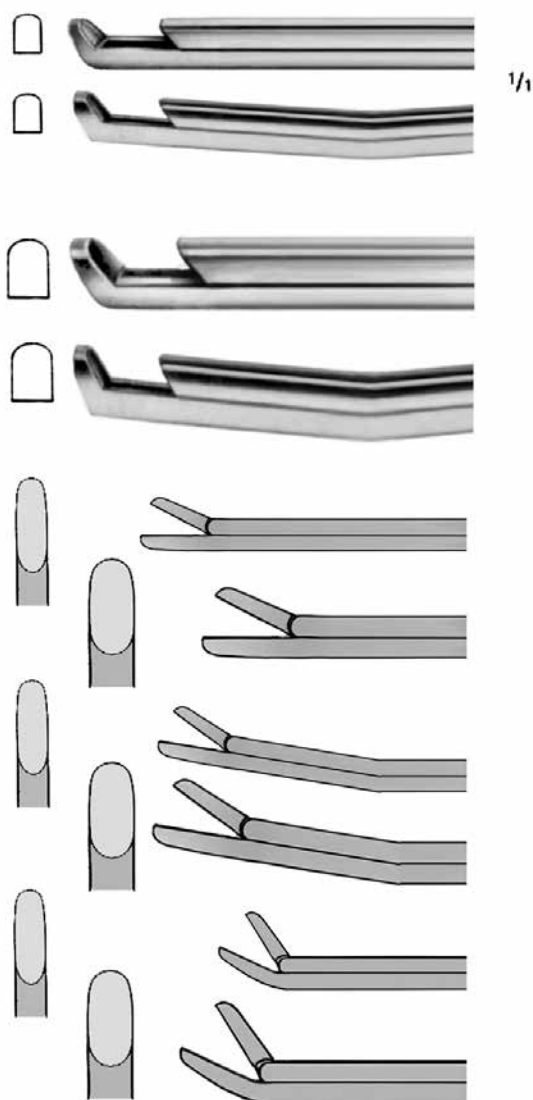


## OsteoPunch Rotating Rongeurs

|         |                           | Tip                               | Size        |
|---------|---------------------------|-----------------------------------|-------------|
|         | Working Length (shaft)    |                                   | 9", (23 cm) |
| 7391-52 | Rotating Kerrison Rongeur | 40 deg                            | 2 mm        |
| 7391-53 | Rotating Kerrison Rongeur | 40 deg                            | 3 mm        |
| 7391-54 | Rotating Kerrison Rongeur | 40 deg                            | 4 mm        |
| 7391-56 | Rotating Kerrison Rongeur | 40 deg                            | 6 mm        |
| 7391-58 | Rotating Kerrison Rongeur | 40 deg<br>Right Angled 10 deg tip | 4 mm        |
| 7391-59 | Rotating Kerrison Rongeur | 40 deg<br>Right Angled 10 deg tip | 6 mm        |

## Rotating Shaft Pituitary Rongeurs

|         |                             | Tip                                 | Size        |
|---------|-----------------------------|-------------------------------------|-------------|
|         | Working Length              |                                     | 9", (23 cm) |
| 7391-64 | Rotating Pituitary Rongeurs | Straight                            | 4 mm        |
| 7391-66 | Rotating Pituitary Rongeurs | Straight                            | 6 mm        |
| 7391-67 | Rotating Pituitary Rongeurs | Straight<br>Right Angled 10 deg tip | 4 mm        |
| 7391-68 | Rotating Pituitary Rongeurs | Straight<br>Right Angled 10 deg tip | 6 mm        |
| 7391-74 | Rotating Pituitary Rongeurs | Up Biting                           | 4 mm        |
| 7391-76 | Rotating Pituitary Rongeurs | Up Biting                           | 6 mm        |
| 7391-50 | Rongeur Instrument Rack     | Stores                              | 14 rongeurs |



## MIS Foramenotomy Rongeurs

All three sizes fit inside a 15.5 mm diameter tube.



**\*Made to Order!**

### Minimally Invasive Surgery Low Profile Foramenotomy Rongeurs\*

7 inches long

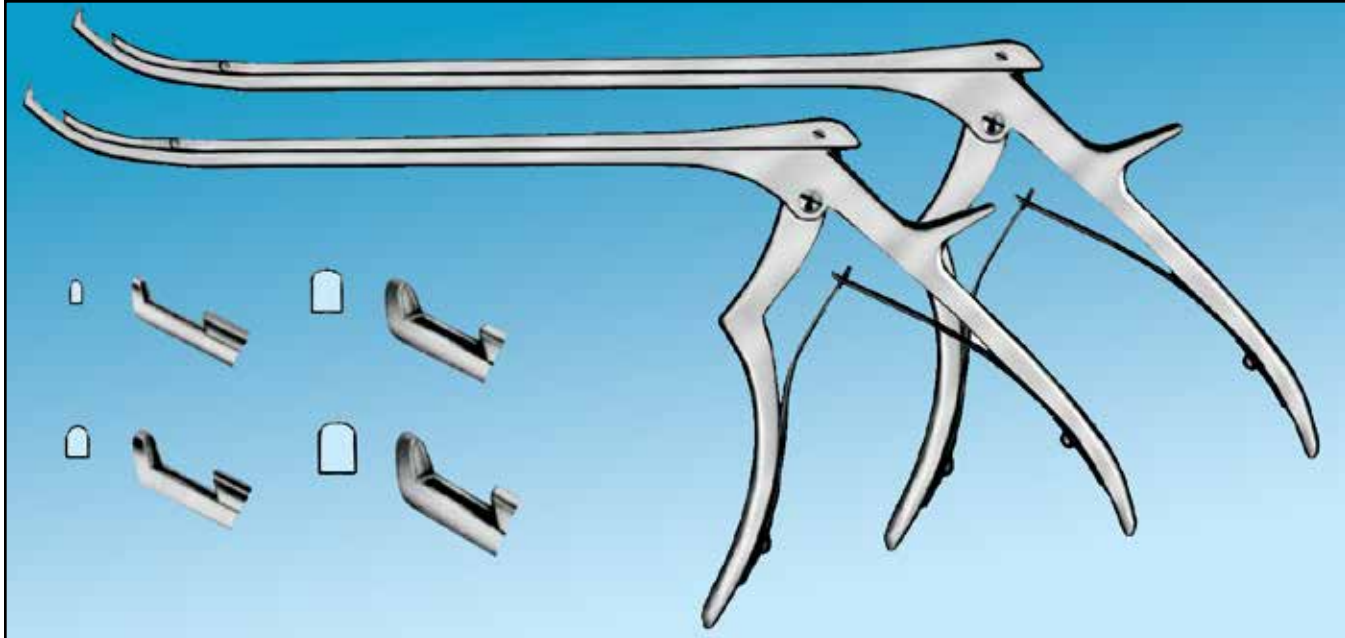
|         |                   |                |
|---------|-------------------|----------------|
| 7390-12 | 2 mm x 40 deg tip | 7", 18 cm long |
| 7390-13 | 3 mm x 40 deg tip | 7", 18 cm long |
| 7390-14 | 4 mm x 40 deg tip | 7", 18 cm long |

### Minimally Invasive Surgery Low Profile Foramenotomy Rongeurs\*

8 inches long

|         |                   |                  |
|---------|-------------------|------------------|
| 7390-15 | 2 mm x 40 deg tip | 8", 20.5 cm long |
| 7390-16 | 3 mm x 40 deg tip | 8", 20.5 cm long |
| 7390-17 | 4 mm x 40 deg tip | 8", 20.5 cm long |

## Foramenotomy Rongeurs



### Foramenotomy Rongeurs

7 inches long

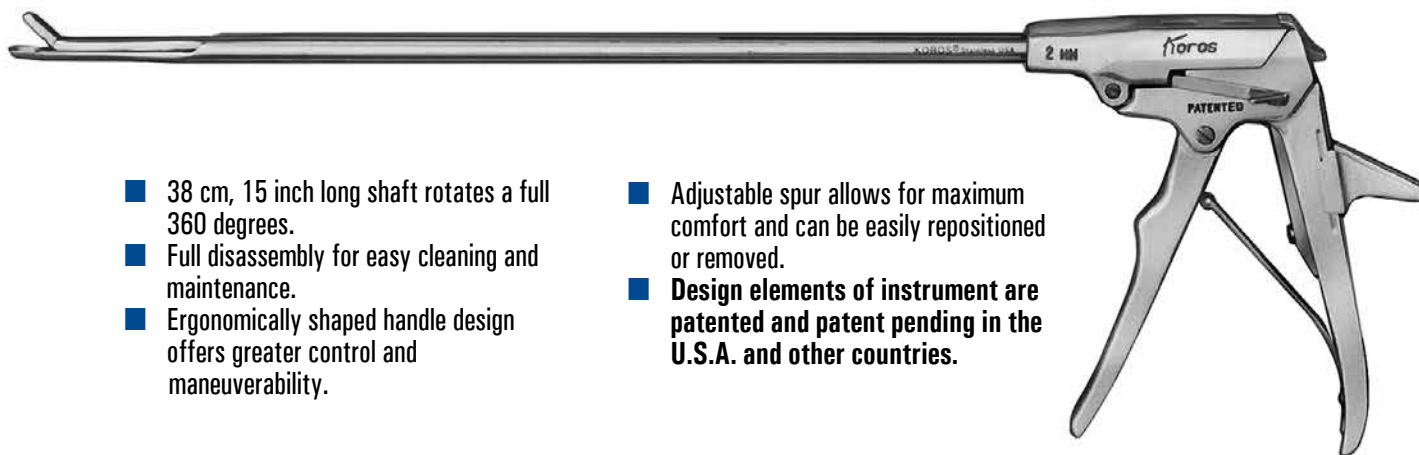
|         |                   |                |
|---------|-------------------|----------------|
| 7390-20 | 2 mm x 40 deg tip | 7", 18 cm long |
| 7390-30 | 3 mm x 40 deg tip | 7", 18 cm long |
| 7390-40 | 4 mm x 40 deg tip | 7", 18 cm long |
| 7390-45 | 5 mm x 40 deg tip | 7", 18 cm long |

### Foramenotomy Rongeurs

8 inches long

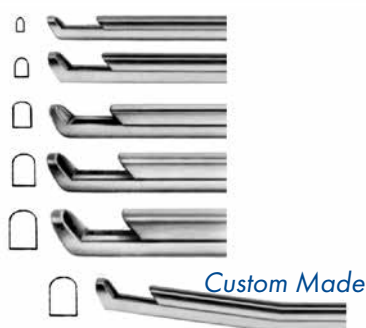
|         |                   |                  |
|---------|-------------------|------------------|
| 7390-50 | 2 mm x 40 deg tip | 8", 20.5 cm long |
| 7390-60 | 3 mm x 40 deg tip | 8", 20.5 cm long |
| 7390-70 | 4 mm x 40 deg tip | 8", 20.5 cm long |
| 7390-80 | 5 mm x 40 deg tip | 8", 20.5 cm long |

# Spinal-Pro™ Thoracic & Anterior Rongeurs



- 38 cm, 15 inch long shaft rotates a full 360 degrees.
- Full disassembly for easy cleaning and maintenance.
- Ergonomically shaped handle design offers greater control and maneuverability.

- Adjustable spur allows for maximum comfort and can be easily repositioned or removed.
- Design elements of instrument are patented and patent pending in the U.S.A. and other countries.



## Spinal-Pro™ Kerrison Rongeurs

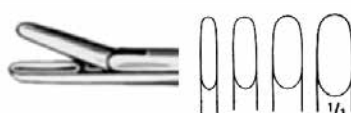
38 cm, 15" long shaft, 10 mm diameter.

|         |                        |
|---------|------------------------|
| 7395-44 | 4 mm x 40 deg tip size |
| 7395-49 | 4 mm x 90 deg tip size |
| 7395-54 | 5 mm x 40 deg tip size |
| 7395-59 | 5 mm x 90 deg tip size |

## Spinal-Pro™ Multi-Bite Kerrison Rongeurs

38 cm, 15" long shaft, 10 mm diameter.

|         |                          |
|---------|--------------------------|
| 7396-44 | 4 mm x 40 deg tip size   |
| 7396-49 | 4 mm x 90 deg tip size   |
| 7396-54 | 5.2 mm x 40 deg tip size |
| 7396-59 | 5.2 mm x 90 deg tip size |



Straight Shaft



Left Angled Shaft



Right Angled Shaft



Straight Up-Angled Shaft

## Spinal-Pro™ Pituitary Rongeurs

Straight Tip, 38 cm, 15" long shaft, 10 mm diameter.

### Straight Shaft:

|         |                     |
|---------|---------------------|
| 7392-20 | 2 mm size, straight |
| 7392-30 | 3 mm size, straight |
| 7392-40 | 4 mm size, straight |
| 7392-50 | 5 mm size, straight |
| 7392-60 | 6 mm size, straight |

### Left Angled Shaft:

|         |                        |
|---------|------------------------|
| 7393-20 | 2 mm size, left angled |
| 7393-30 | 3 mm size, left angled |
| 7393-40 | 4 mm size, left angled |
| 7393-50 | 5 mm size, left angled |
| 7393-60 | 6 mm size, left angled |

### Right Angled Shaft:

|         |                         |
|---------|-------------------------|
| 7394-20 | 2 mm size, right angled |
| 7394-30 | 3 mm size, right angled |
| 7394-40 | 4 mm size, right angled |
| 7394-50 | 5 mm size, right angled |
| 7394-60 | 6 mm size, right angled |

### Up-Angled tip

|         |                     |
|---------|---------------------|
| 7392-34 | 3 mm size, straight |
| 7392-44 | 4 mm size, straight |
| 7392-54 | 5 mm size, straight |
| 7392-64 | 6 mm size, straight |



## Instrument Case for Spinal-Pro™ Rongeurs

Light weight metal instrument case is autoclavable.

|         |                                                               |
|---------|---------------------------------------------------------------|
| 7397-00 | Instrument Case for Spinal Rongeurs<br>(Holds 10 instruments) |
|---------|---------------------------------------------------------------|

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Cervical, Anterior, Lateral & Discectomy Instruments

Microscope Handle Curettes

- 7391-79

Mini Angled Scraper, 10 deg,  
6 mm wide, 7 mm tip,  
32 cm total length
- 7391-80

Ring Curette, straight, 5 mm  
tip, 32 cm total length



7392-94 Instrument Case for 10 Microscope Instruments

Size: 13" wide x 18.5" tall, accomodates instruments 7392-81M through 7392-10M. See page 159 for tips.



Straight  
Handle

45 cm total length

Offset  
Handle

46 cm total length

Microscope  
Handle

32 cm total length

Total Length

Handle

Shaft

|                                     |        |                 |
|-------------------------------------|--------|-----------------|
| 45 cm Straight Handle, 17 1/2"      | 9 1/4" | 8.5", 21.5 cm   |
| 46 cm Offset Handle, 18"            | 9 1/4" | 8.5", 21.5 cm   |
| 32 cm Offset Microscope Handle, 15" | 5 1/2" | 9 1/4", 18.5 cm |

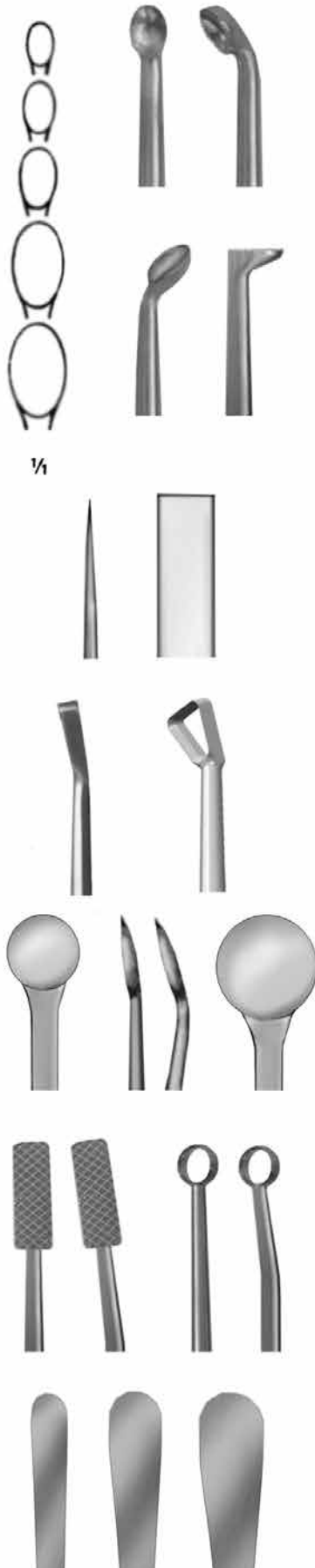
Please reference the following page (p. 159) for item numbers.



7392-95 Instrument Case for 10 Instruments

Size: 13" wide x 18.5" tall  
For Curettes, Rasps and Separators

# Curettes, Separators & Rasp Pedal Scrapers



| Straight Handle | Offset Handle | Microscope Handle | Type                | Tip                        | Size          |
|-----------------|---------------|-------------------|---------------------|----------------------------|---------------|
| 9"              | 8 1/2"        | 6"                |                     |                            |               |
| 7391-81         | 7391-81F      | 7392-81M          | Curette             | Straight                   | 1             |
| 7391-82         | 7391-82F      | 7392-82M          | Curette             | Straight                   | 2             |
| 7391-83         | 7391-83F      | 7392-83M          | Curette             | Straight                   | 3             |
| 7391-84         | 7391-84F      | 7392-84M          | Curette             | Straight                   | 4             |
| 7391-85         | 7391-85F      | 7392-85M          | Curette             | Forward Angled             | 1             |
| 7391-86         | 7391-86F      | 7392-86M          | Curette             | Forward Angled             | 2             |
| 7391-87         | 7391-87F      | 7392-87M          | Curette             | Forward Angled             | 3             |
| 7391-88         | 7391-88F      | 7392-88M          | Curette             | Forward Angled             | 4             |
| 7391-89         | 7391-89F      | 7392-89M          | Curette             | Forward Angled             | 5             |
| 7391-90         | 7391-90F      | 7392-90M          | Curette             | Down Pusher                | 1             |
| 7391-91         | 7391-91F      | 7392-91M          | Curette             | Down Pusher                | 2             |
| 7392-00         | 7392-00F      | 7392-00M          | Curette             | Down Pusher                | 4             |
| 7391-92         | 7391-92F      | 7392-92M          | Curette             | Epstein Down               | 3             |
| 7391-93         | 7391-93F      | 7391-93M          | Osteotome           | Straight                   | 10mm          |
| 7391-94         | 7391-94F      | 7392-94M          | Angled Scraper      | 7 deg                      | 11 mm         |
| 7391-95         | 7391-95F      | 7392-95M          | Angled Scraper      | 30 deg                     | 11 mm         |
| Synthes Type    |               |                   |                     |                            |               |
| 7391-96         | 7391-96F      | 7392-96M          | Anularamy Separator | Straight                   | 20 mm         |
| 7391-97         | 7391-97F      | 7392-97M          | Anularamy Separator | Straight                   | 25 mm         |
| 7391-98         | 7391-98F      | 7392-98M          | Anularamy Separator | Reverse Angle              | 20 mm         |
| 7391-99         | 7391-99F      | 7392-99M          | Anularamy Separator | Reverse Angle              | 25 mm         |
| 7392-01         | 7392-01F      | 7392-01M          | Rasp                | Double Sided<br>125 x20 mm | Straight      |
| 7392-02         | 7392-02F      | 7392-02M          | Rasp                | Double Sided<br>125 x20 mm | Angled 10 deg |
| 7392-03         | 7392-03F      | 7392-03M          | Ring Curette        | Straight                   | 9 mm          |
| 7392-04         | 7392-04F      | 7392-04M          | Ring Curette        | 10 degree Angled           | 9 mm          |
| 7392-05         | 7392-05F      | 7392-05M          | Pedal Scraper       | Straight                   | 13 mm         |
| 7392-06         | 7392-06F      | 7392-06M          | Pedal Scraper       | Straight                   | 16 mm         |
| 7392-07         | 7392-07F      | 7392-07M          | Pedal Scraper       | Straight                   | 19 mm         |
| 7392-08         | 7392-08F      | 7392-08M          | Pedal Scraper       | 10 degree Angled           | 13 mm         |
| 7392-09         | 7392-09F      | 7392-09M          | Pedal Scraper       | 10 degree Angled           | 16 mm         |
| 7392-10         | 7392-10F      | 7392-10M          | Pedal Scraper       | 10 degree Angled           | 19 mm         |

## Spinal Adjustable Length Instruments



- Modular telescopic instrument handle allows for working length adjustment from 26 cm to 42 cm.
- Light weight stainless steel and aluminum components make for manageable weight. Design elements of instruments are Patent Pending in the U.S.A. and other countries.

### Spinal Adjustable Length Instruments

|                |             |
|----------------|-------------|
| Length         | 26 to 42 cm |
| Shaft Diameter | 10 mm       |

|         |                                                               |
|---------|---------------------------------------------------------------|
| 7399-10 | 4 mm Probe                                                    |
| 7399-15 | 5 mm Penfield Dissector                                       |
| 7399-20 | 10 mm Modified Cobb Elevator                                  |
| 7399-90 | Instrument Case (Holds a maximum of 12 instruments.)          |
| 7399-95 | Length Adjusting Key for Spinal Adjustable Length Instruments |

### Spinal Delicate Osteotomes

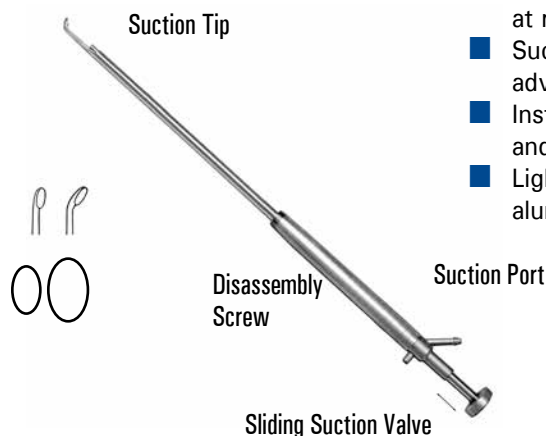
|                |       |
|----------------|-------|
| Length         | 32 cm |
| Shaft Diameter | 10 mm |

|                                              |                    |
|----------------------------------------------|--------------------|
| 7399-50                                      | 10 mm Straight Tip |
| 7399-52                                      | 10 mm Curved Tip   |
| *Curved Osteotomes require 12mm Trocar port. |                    |

### Spinal Adjustable Length Curettes

|                |                                                         |            |
|----------------|---------------------------------------------------------|------------|
| Length         | 26 to 42 cm                                             |            |
| Shaft Diameter | 10 mm                                                   |            |
| Cup            | Straight                                                | Forward    |
| Length         | Tip                                                     | Angled Tip |
| 4.8 mm         | 7398-03                                                 | 7398-43    |
| 6.5 mm         | 7398-04                                                 | 7398-44    |
| 11 mm          | 7398-06                                                 | 7398-46    |
| 13 mm          | 7398-08                                                 | 7398-48    |
| 7399-95        | Length Adjusting Key for Spinal Adjustable Instruments. |            |

## Spinal Suction Curettes



- Spring loaded suction valve keeps suction tip at retracted position.
- Suction is applied only when suction tip is advanced forward.
- Instrument easily disassembles for cleaning and maintenance.
- Light weight, hollow stainless steel and aluminum components.

### Spinal Suction Curettes

|                |          |            |  |
|----------------|----------|------------|--|
| Length         | 30 cm    |            |  |
| Shaft Diameter | 10 mm    |            |  |
| Cup            | Straight | Forward    |  |
| Length         | Tip      | Angled Tip |  |
| 6.5 mm         | 7399-04  | 7399-44    |  |
| 11 mm          | 7399-06  | 7399-46    |  |



Quick Lock™  
Spring Loaded  
Instrument Clamp

"C" Clamp Type  
Instrument Holder

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

### Scope and Instrument Holder

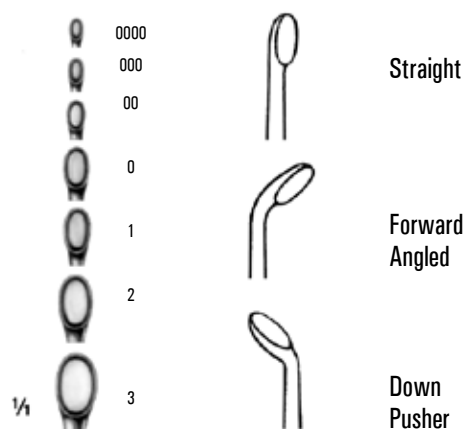
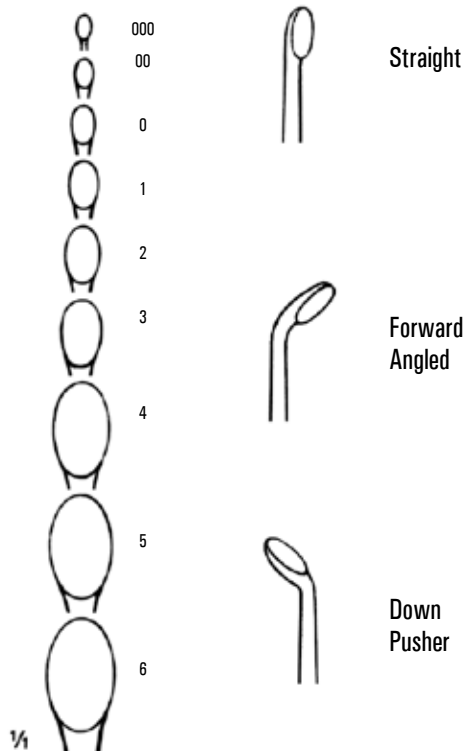
- 7399-96 Universal Quick Lock™ Scope and Instrument Holder  
 7399-97 "C" Clamp Type Instrument Holder  
 7399-98 Replacement Silicone Insert for Quick Lock™ Clamp



### Universal Scope and Instrument Holders

- 7399-80 Universal Scope and Instrument Holder  
 7399-82 Double Arm Universal Scope and Instrument Holder  
 7399-85 "C" Clamp Type Instrument Holder  
 7399-86 "C" Clamp Type Scope Holder  
 7399-87 Table Clamp

## Bone Cup & Long Micro Curettes



### Bone Cup Curettes

| 8-3/4," 22cm long |          |                |             |
|-------------------|----------|----------------|-------------|
| Size              | Straight | Forward Angled | Down Pusher |
| 5-0               | 7400-50  | 7402-50        | 7404-50     |
| 4-0               | 7400-40  | 7402-40        | 7404-40     |
| 000               | 7400-30  | 7402-30        | 7404-30     |
| 00                | 7400-20  | 7402-20        | 7404-20     |
| 0                 | 7400-10  | 7402-10        | 7404-10     |
| 1                 | 7400-01  | 7402-01        | 7404-01     |
| 2                 | 7400-02  | 7402-02        | 7404-02     |
| 3                 | 7400-03  | 7402-03        | 7404-03     |
| 4                 | 7400-04  | 7402-04        | 7404-04     |
| 5                 | 7400-05  | 7402-05        | 7404-05     |
| 6                 | 7400-06  | 7402-06        | 7404-06     |



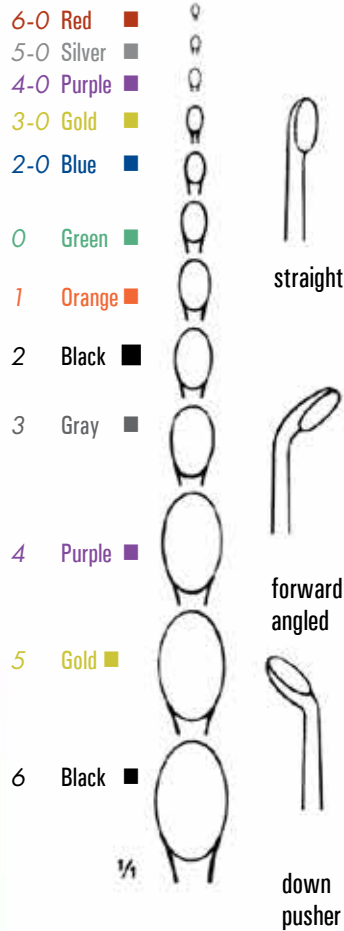
### Curette Instrument Holder

7405-00 Holds 12  
Instruments  
Stainless Steel  
6.4 x 16 x 28 cm

### Long Micro Curettes

| 10", 26 cm long |          |                |             |
|-----------------|----------|----------------|-------------|
| Size            | Straight | Forward Angled | Down Pusher |
| 0000            | 7410-40  | 7412-40        | 7414-40     |
| 000             | 7410-30  | 7412-30        | 7414-30     |
| 00              | 7410-20  | 7412-20        | 7414-20     |
| 0               | 7410-10  | 7412-10        | 7414-10     |
| 1               | 7410-01  | 7412-01        | 7414-01     |
| 2               | 7410-02  | 7412-02        | 7414-02     |
| 3               | 7410-03  | 7412-03        | 7414-03     |

# Light-Grip™ Cervical and Lumbar Curettes



7407-90 Light-Grip Lumbar Curette Tray  
Holds 12 Lumbar Curettes  
Size 2 1/2 x 8 1/4 x 15 1/2"

## Light-Grip Cervical Curettes

Total Length 10.25", 25 cm  
Handle length 5.25", 13 cm

| Size | Straight | Forward Angled | Down Pusher |
|------|----------|----------------|-------------|
| 6-0  | 7403-06  | 7405-06        | 7406-06     |
| 5-0  | 7403-05  | 7405-05        | 7406-05     |
| 4-0  | 7403-04  | 7405-04        | 7406-04     |
| 3-0  | 7403-03  | 7405-03        | 7406-03     |
| 2-0  | 7403-02  | 7405-02        | 7406-02     |
| 0    | 7403-01  | 7405-01        | 7406-01     |
| 1    | 7403-10  | 7405-10        | 7406-10     |
| 2    | 7403-20  | 7405-20        | 7406-20     |
| 3    | 7403-30  | 7405-30        | 7406-30     |
| 4    | 7403-40  | 7405-40        | 7406-40     |
| 5    | 7403-50  | 7405-50        | 7406-50     |
| 6    | 7403-60  | 7405-60        | 7406-60     |



7404-90 Light-Grip Cervical Curette Tray  
Holds 12 Cervical Curettes  
Size 2 1/2 x 8 1/4 x 12 1/4"

## Light-Grip Lumbar Curettes

Total Length 13.5", 34cm  
Handle length 8", 20cm

| Size | Straight | Forward Angled | Down Pusher |
|------|----------|----------------|-------------|
| 6-0  | 7407-06  | 7408-06        | 7409-06     |
| 5-0  | 7407-05  | 7408-05        | 7409-05     |
| 4-0  | 7407-04  | 7408-04        | 7409-04     |
| 3-0  | 7407-03  | 7408-03        | 7409-03     |
| 2-0  | 7407-02  | 7408-02        | 7409-02     |
| 0    | 7407-01  | 7408-01        | 7409-01     |
| 1    | 7407-10  | 7408-10        | 7409-10     |
| 2    | 7407-20  | 7408-20        | 7409-20     |
| 3    | 7407-30  | 7408-30        | 7409-30     |
| 4    | 7407-40  | 7408-40        | 7409-40     |
| 5    | 7407-50  | 7408-50        | 7409-50     |
| 6    | 7407-60  | 7408-60        | 7409-60     |

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## Light Grip Ring Curettes & Scrapers



### Custom Curettes

Custom 7" and 8" handles with 7" or 8" shafts.



### Microscope Handle Scrapers

7391-77 Offset Mini Angled Scraper  
6 mm x 7 mm tip, 24 cm total length

7391-78 Offset Ring Curette  
8 mm tip, 24 cm total length



### Light Grip Ring Curettes

7402-35 Light Grip Straight Ring Curette  
4 mm tip, 25.5 cm long

7402-36 Light Grip Angled Ring Curette  
4 mm tip, 25.5 cm long

# Comfort Spinal Fusion Cervical & Lumbar Curettes

## Comfort Spinal Fusion Cervical and Lumbar Curettes

Total Length 10", 25.5 cm  
Handle Length 5.25", 13 cm x 11.5 mm diameter

| Size | Straight | Forward Angled | Down Pusher |
|------|----------|----------------|-------------|
| 6-0  | 7415-06  | 7416-06        | 7417-06     |
| 5-0  | 7415-05  | 7416-05        | 7417-05     |
| 4-0  | 7415-04  | 7416-04        | 7417-04     |
| 3-0  | 7415-03  | 7416-03        | 7417-03     |
| 2-0  | 7415-02  | 7416-02        | 7417-02     |
| 0    | 7415-01  | 7416-01        | 7417-01     |
| 1    | 7415-10  | 7416-10        | 7417-10     |
| 2    | 7415-20  | 7416-20        | 7417-20     |
| 3    | 7415-30  | 7416-30        | 7417-30     |
| 4    | 7415-40  | 7416-40        | 7417-40     |
| 5    | 7415-50  | 7416-50        | 7417-50     |
| 6    | 7415-60  | 7416-60        | 7417-60     |

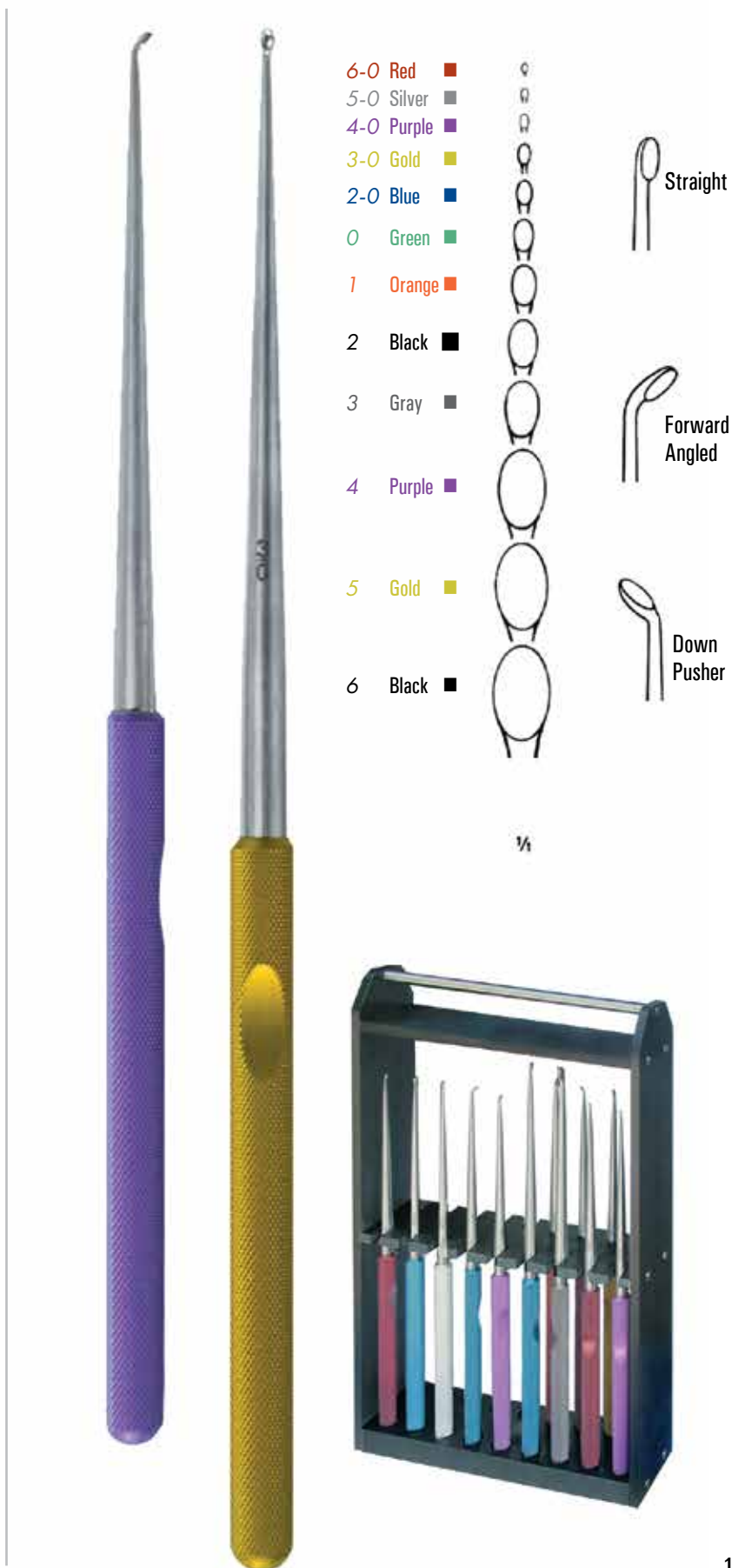
## Long Comfort Spinal Fusion Cervical and Lumbar Curettes

Total Length 10 7/8", 27.5 cm  
Handle Length 5.25", 13 cm x 11.5 mm diameter

| Size | Straight | Forward Angled | Down Pusher |
|------|----------|----------------|-------------|
| 6-0  | 7415-06L | 7416-06L       | 7417-06L    |
| 5-0  | 7415-05L | 7416-05L       | 7417-05L    |
| 4-0  | 7415-04L | 7416-04L       | 7417-04L    |
| 3-0  | 7415-03L | 7416-03L       | 7417-03L    |
| 2-0  | 7415-02L | 7416-02L       | 7417-02L    |
| 0    | 7415-01L | 7416-01L       | 7417-01L    |
| 1    | 7415-10L | 7416-10L       | 7417-10L    |
| 2    | 7415-20L | 7416-20L       | 7417-20L    |
| 3    | 7415-30L | 7416-30L       | 7417-30L    |
| 4    | 7415-40L | 7416-40L       | 7417-40L    |
| 5    | 7415-50L | 7416-50L       | 7417-50L    |
| 6    | 7415-60L | 7416-60L       | 7417-60L    |

## Curette Instrument Holder

7417-90 Holds 20 Instruments



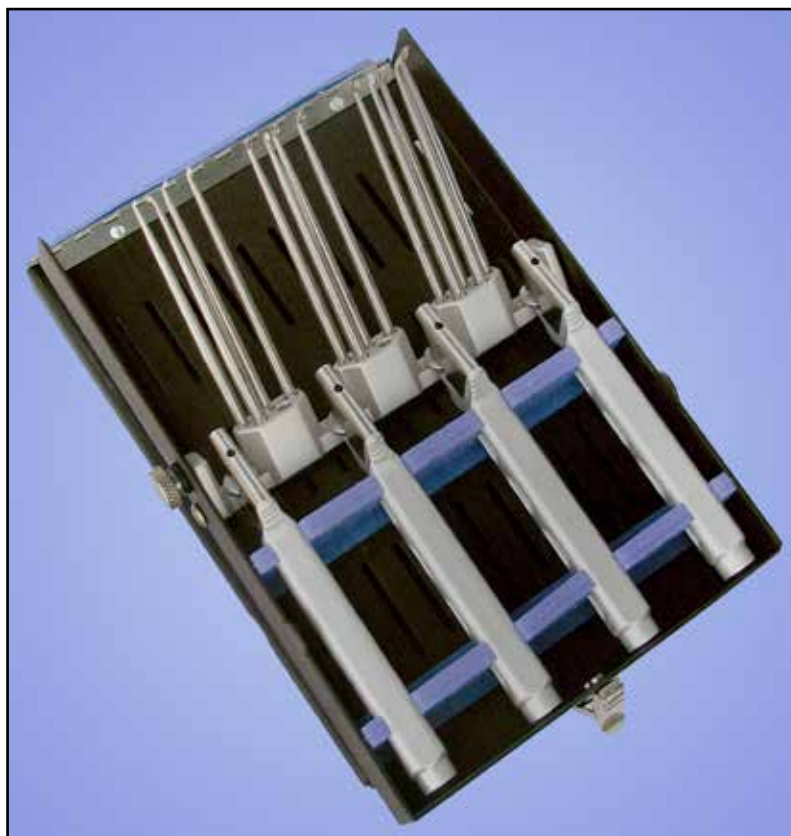
# SL5 Microdissectomy Offset Probes Currettes and Dissectors



- Bayonet handle design for increased visualization.
- Adjustable length and rotatable instrument shafts are interchangeable.
- Shaft length and tip angle are adjustable by releasing lock screw one turn, moving shaft and gently re-tightening the screw. (Up, down, left and right angle position choice.)
- The advanced, light weight and rapid cooling handle can store one curette shaft.

Design elements of the instrument are Patented.

Instrument Length Maximums:  
23 cm for standard currettes and  
26 cm for long currettes.



## 7420-00 Cervical SL5 Microdissectomy Curette Set

Consists of:

|      |         |                    |
|------|---------|--------------------|
| 4 ea | 7420-80 | SL5 Curette Handle |
| 1 ea | 7420-60 | Straight Shaft 6-0 |
| 1 ea | 7420-50 | Straight Shaft 5-0 |
| 1 ea | 7420-40 | Straight Shaft 4-0 |
| 1 ea | 7420-30 | Straight Shaft 3-0 |
| 1 ea | 7420-20 | Straight Shaft 2-0 |
| 1 ea | 7420-10 | Straight Shaft 0   |
| 1 ea | 7422-60 | FA Shaft 6-0       |
| 1 ea | 7422-50 | FA Shaft 5-0       |
| 1 ea | 7422-40 | FA Shaft 4-0       |
| 1 ea | 7422-30 | FA Shaft 3-0       |
| 1 ea | 7422-20 | FA Shaft 2-0       |
| 1 ea | 7422-10 | FA Shaft 0         |
| 1 ea | 7422-20 | DP Shaft 2-0       |
| 1 ea | 7424-10 | DP Shaft 0         |
| 1 ea | 7420-90 | Instrument Case    |

## 7430-50 Lumbar SL5 Microdissectomy Curette Set

Consists of:

|      |         |                    |
|------|---------|--------------------|
| 4 ea | 7420-80 | SL5 Curette Handle |
| 1 ea | 7430-10 | Straight Shaft 0   |
| 1 ea | 7430-01 | Straight Shaft 1   |
| 1 ea | 7430-02 | Straight Shaft 2   |

|      |         |                  |
|------|---------|------------------|
| 1 ea | 7430-03 | Straight Shaft 3 |
| 1 ea | 7432-10 | FA Shaft 0       |
| 1 ea | 7432-01 | FA Shaft 1       |
| 1 ea | 7432-02 | FA Shaft 2       |
| 1 ea | 7432-03 | FA Shaft 3       |
| 1 ea | 7434-10 | DP Shaft 0       |
| 1 ea | 7434-01 | DP Shaft 1       |
| 1 ea | 7434-02 | DP Shaft 2       |
| 1 ea | 7434-03 | DP Shaft 3       |
| 1 ea | 7420-90 | Instrument Case  |

## 7430-51 Long Lumbar SL5 Microdissectomy Curette Set

Consists of:

|      |         |                                  |
|------|---------|----------------------------------|
| 4 ea | 7420-80 | SL5 Curette Handle               |
| 1 ea | 7431-10 | Long ST Shaft 0                  |
| 1 ea | 7431-01 | Long ST Shaft 1                  |
| 1 ea | 7431-02 | Long ST Shaft 2                  |
| 1 ea | 7431-03 | Long ST Shaft 3                  |
| 1 ea | 7433-10 | Long FA Shaft 0                  |
| 1 ea | 7433-01 | Long FA Shaft 1                  |
| 1 ea | 7433-02 | Long FA Shaft 2                  |
| 1 ea | 7433-03 | Long FA Shaft 3                  |
| 1 ea | 7435-10 | Long DP Shaft 0                  |
| 1 ea | 7435-01 | Long DP Shaft 1                  |
| 1 ea | 7435-02 | Long DP Shaft 2                  |
| 1 ea | 7435-03 | Long DP Shaft 3                  |
| 1 ea | 7420-91 | Long Sterilizing Instrument Case |

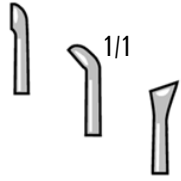
### 7420-80 SL5 Curette Handle

14 cm long

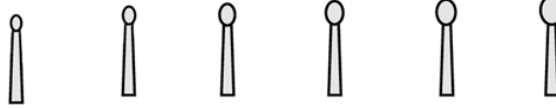
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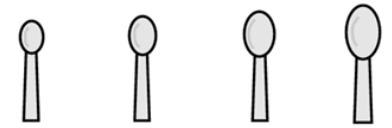
Cervical Shaft Length: 10 cm long, 5 mm diameter.  
Lumbar Shaft Length: 13 cm, 5 mm diameter.



## Cervical Curette Shafts



## Lumbar Curette Shafts



|                              | Straight | Forward Angle | Down Pushing | micro size 6-0 | size 5-0 | size 4-0 | size 3-0 | size 2-0 | size 0  | size 0  | size 1  | size 2  | size 3  |
|------------------------------|----------|---------------|--------------|----------------|----------|----------|----------|----------|---------|---------|---------|---------|---------|
| 23 cm Straight Tip           |          |               |              | 7420-60        | 7420-50  | 7420-40  | 7420-30  | 7420-20  | 7420-10 | 7430-10 | 7430-01 | 7430-02 | 7430-03 |
| 23 cm Forward Angle Tip      |          |               |              | 7422-60        | 7422-50  | 7422-40  | 7422-30  | 7422-20  | 7422-10 | 7432-10 | 7432-01 | 7432-02 | 7432-03 |
| 23 cm Down Pushing Tip       |          |               |              |                |          |          |          | 7424-20  | 7424-10 | 7434-10 | 7434-01 | 7434-02 | 7434-03 |
| 26 cm Long Straight Tip      |          |               |              |                |          |          |          |          |         | 7431-10 | 7431-01 | 7431-02 | 7431-03 |
| 26 cm Long Forward Angle Tip |          |               |              |                |          |          |          |          |         | 7433-10 | 7433-01 | 7433-02 | 7433-03 |
| 26 cm Long Down Pushing Tip  |          |               |              |                |          |          |          |          |         | 7435-10 | 7435-01 | 7435-02 | 7435-03 |

\* Longer lengths of 0 to 6-0 sizes are custom orders.

## Penfield Dissectors and Probes



| Length  | Small   | Medium  | Large   | Cervical Micro | Cervical Macro | Lumbar Micro | Lumbar Macro | Smithwick Probe |
|---------|---------|---------|---------|----------------|----------------|--------------|--------------|-----------------|
| Regular | 7436-10 | 7436-20 | 7436-30 | 7438-10        | 7438-20        | 7438-30      | 7438-40      | 7438-50         |
| Long    | 7437-10 | 7437-20 | 7437-30 | 7438-12        | 7438-22        | 7438-32      | 7438-42      | 7438-52         |



## Spinal Curettes

### Davis / Woodson Type Down Pusher Curettes

|         |                      |
|---------|----------------------|
| Length  | 10-3/4", 27 cm       |
| 7438-60 | 2.5 x 10 mm cup size |
| 7438-62 | 3.5 x 10 mm cup size |

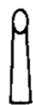
### Down Pusher Curette

|             |                      |
|-------------|----------------------|
| Length      | 11-1/2", 29 cm       |
| Handle Size | 2.8 x 16 cm          |
| 7438-70     | 7.5 x 16 mm cup size |

# Cervical Bayonet Style Microdissection Currettes



FS  
Forward  
Straight



0000

FA  
Forward  
Angled



000

BS  
Backward  
Straight



00

BA  
Backward  
Angled



0

BC  
Bone Cutter



■ Ergonomic Bayonet handle design for control and increased visualization.

■ Available as a set or as individual currettes.

Cervical Curette Length: 8 1/2 " 21.5 cm

Cervical Curette Shaft Length: 3 3/4 " 9.3 cm

## Cervical Microdissection Curette Sets

### 7418-00 Codman Style Curette Set

Set Consists of:

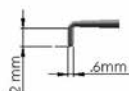
|      |         |                         |
|------|---------|-------------------------|
| 1 ea | 7418-10 | FS 0 Curette            |
| 1 ea | 7418-20 | FS 2-0 Curette          |
| 1 ea | 7418-30 | FS 3-0 Curette          |
| 1 ea | 7418-40 | FS 4-0 Curette          |
| 1 ea | 7418-80 | FS Bone Cutter          |
| 1 ea | 7418-12 | FA 0 Curette            |
| 1 ea | 7418-22 | FA 2-0 Curette          |
| 1 ea | 7418-32 | FA 3-0 Curette          |
| 1 ea | 7418-42 | FA 4-0 Curette          |
| 1 ea | 7418-82 | FA Bone Cutter          |
| 1 ea | 7418-14 | BS 0 Curette            |
| 1 ea | 7418-24 | BS 2-0 Curette          |
| 1 ea | 7418-34 | BS 3-0 Curette          |
| 1 ea | 7418-44 | BS 4-0 Curette          |
| 1 ea | 7418-84 | BS Bone Cutter          |
| 1 ea | 7418-16 | BA 0 Curette            |
| 1 ea | 7418-26 | BA 2-0 Curette          |
| 1 ea | 7418-36 | BA 3-0 Curette          |
| 1 ea | 7418-46 | BA 4-0 Curette          |
| 1 ea | 7418-86 | BA Bone Cutter          |
| 1 ea | 7418-91 | Micro Nerve Hook        |
| 1 ea | 7418-92 | Ultra Nerve Hook        |
| 1 ea | 7418-93 | Knife Handle            |
| 1 ea | 7418-94 | Cervical Waxer          |
| 2 ea | 7418-95 | Case for 12 Instruments |

### Optional Item:

7418-98 Case for 16 Instruments



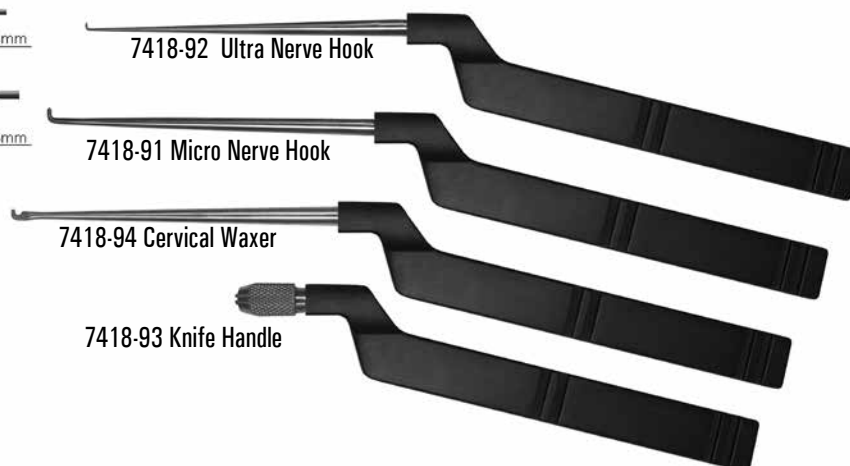
7418-92 Ultra Nerve Hook



7418-91 Micro Nerve Hook

7418-94 Cervical Waxer

7418-93 Knife Handle



# Long Cervical Bayonet Style Microdissection Currettes

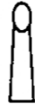


FS  
Forward  
Straight



0000

FA  
Forward  
Angled



000

BA  
Backward  
Straight



00

BA  
Backward  
Angled



0

BC  
Bone Cutter



- Ergonomic Bayonet handle design for control and increased visualization.
- Available as a set or as individual currettes.

Cervical Curette Length: 9 1/2 " 24 cm  
Cervical Curette Shaft Length: 4 3/4 " 12 cm

## Long Cervical Microdissection Curette Sets

### 7418-00L Codman Style Curette Set

Set Consists of:

|      |          |                         |
|------|----------|-------------------------|
| 1 ea | 7418-10L | FS 0 Curette            |
| 1 ea | 7418-20L | FS 2-0 Long Curette     |
| 1 ea | 7418-30L | FS 3-0 Long Curette     |
| 1 ea | 7418-40L | FS 4-0 Long Curette     |
| 1 ea | 7418-80L | FS Long Bone Cutter     |
| 1 ea | 7418-12L | FA 0 Long Curette       |
| 1 ea | 7418-22L | FA 2-0 Long Curette     |
| 1 ea | 7418-32L | FA 3-0 Long Curette     |
| 1 ea | 7418-42L | FA 4-0 Long Curette     |
| 1 ea | 7418-82L | FA Long Bone Cutter     |
| 1 ea | 7418-14L | BS 0 Long Curette       |
| 1 ea | 7418-24L | BS 2-0 Long Curette     |
| 1 ea | 7418-34L | BS 3-0 Long Curette     |
| 1 ea | 7418-44L | BS 4-0 Long Curette     |
| 1 ea | 7418-84L | BS Long Bone Cutter     |
| 1 ea | 7418-16L | BA 0 Long Curette       |
| 1 ea | 7418-26L | BA 2-0 Long Curette     |
| 1 ea | 7418-36L | BA 3-0 Long Curette     |
| 1 ea | 7418-46L | BA 4-0 Long Curette     |
| 1 ea | 7418-86L | BA Long Bone Cutter     |
| 1 ea | 7418-91L | Long Micro Nerve Hook   |
| 1 ea | 7418-92L | Long Ultra Nerve Hook   |
| 1 ea | 7418-93  | Knife Handle            |
| 1 ea | 7418-93L | Long Cervical Waxer     |
| 2 ea | 7418-95  | Case for 12 Instruments |

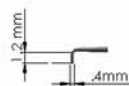
### Optional Item:

7418-98 Case for 16 Instruments

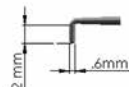


12 Instrument Case

(Optional 16)



7418-92L Long Ultra Nerve Hook



7418-91L Long Micro Nerve Hook

7418-93L Long Cervical Waxer

7418-93 Knife Handle

# Lumbar Bayonet Style Microdiscectomy Curettes

Codman Style Handle



■ Bayonet handle design for increased visualization.

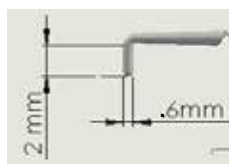
Lumbar Curette Length: 9 1/2 " 24 cm  
Lumbar Curette Shaft Length: 4 3/4 " 12 cm

## Lumbar Bayonet Style Microdiscectomy Curette Set

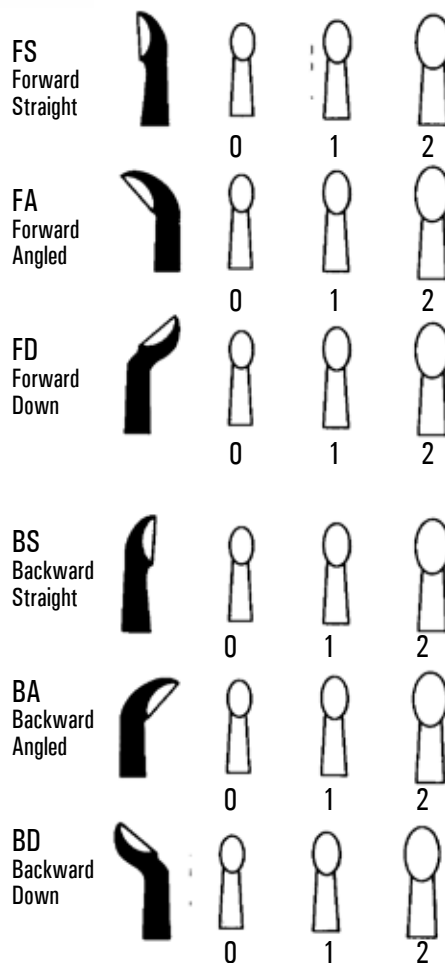
7419-00 Codman Style Lumbar Curette Set

Set Consists of:

|      |         |                         |
|------|---------|-------------------------|
| 1 ea | 7419-10 | FS 0 Curette            |
| 1 ea | 7419-11 | FS 1 Curette            |
| 1 ea | 7419-12 | FS 2 Curette            |
| 1 ea | 7419-20 | FA 0 Curette            |
| 1 ea | 7419-21 | FA 1 Curette            |
| 1 ea | 7419-22 | FA 2 Curette            |
| 1 ea | 7419-30 | FD 0 Curette            |
| 1 ea | 7419-31 | FD 1 Curette            |
| 1 ea | 7419-32 | FD 2 Curette            |
| 1 ea | 7419-40 | BS 0 Curette            |
| 1 ea | 7419-41 | BS 1 Curette            |
| 1 ea | 7419-42 | BS 2 Curette            |
| 1 ea | 7419-50 | BA 0 Curette            |
| 1 ea | 7419-51 | BA 1 Curette            |
| 1 ea | 7419-52 | BA 2 Curette            |
| 1 ea | 7419-60 | BD 0 Curette            |
| 1 ea | 7419-61 | BD 1 Curette            |
| 1 ea | 7419-62 | BD 2 Curette            |
| 1 ea | 7418-71 | Penfield #1             |
| 1 ea | 7418-72 | Penfield #2             |
| 1 ea | 7418-73 | Micro Nerve Hook        |
| 1 ea | 7418-74 | Penfield #4             |
| 1 ea | 7419-80 | Lumbar Waxer            |
| 1 ea | 7419-82 | Woodson Spine Probe     |
| 2 ea | 7419-95 | Case for 12 Instruments |

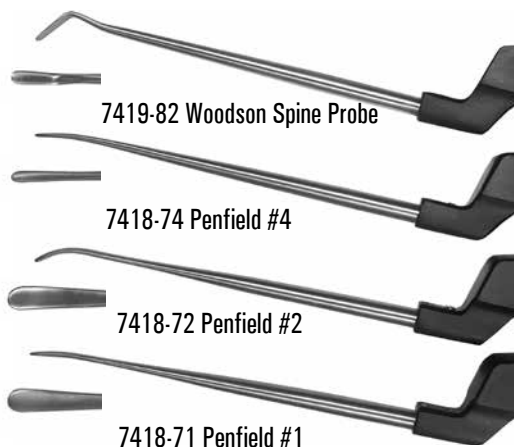


7418-73 Micro Nerve Hook



## Optional Item:

7419-98 Case for 16 Instruments



12 Instrument Case

(Optional 16)



7419-80 Lumbar Waxer



## **7421-00 Bray Type PARALLEL Offset Curette Set**

Length 26 cm

Set Includes 1 each of the following items:

|         |                                 |                |
|---------|---------------------------------|----------------|
| 7421-01 | Parallel Offset                 | 1F 1 mm wide   |
| 7421-02 | Parallel Offset                 | 1B 1 mm wide   |
| 7421-03 | Parallel Offset                 | 2F 1.6 mm wide |
| 7421-04 | Parallel Offset                 | 2B 1.6 mm wide |
| 7421-05 | Parallel Offset                 | 3F 2 mm wide   |
| 7421-06 | Parallel Offset                 | 3B 2 mm wide   |
| 7421-07 | Parallel Offset                 | 4F 2.5 mm wide |
| 7421-08 | Parallel Offset                 | 4B 2.5 mm wide |
| 7421-09 | Parallel Offset                 | 5F 2.9 mm wide |
| 7421-10 | Parallel Offset                 | 5B 2.9 mm wide |
| 7421-11 | Parallel Elevator               | Sharp, 3 mm    |
| 7421-12 | Parallel Elevator               | Sharp, 5 mm    |
| 7421-26 | Instrument Tray for 12 Curettes |                |



7421-26 Instrument Tray

## Coughlin Type Instrument Set



### 7449-15 Coughlin Type Instrument Set

Set Includes 1 each of the following items (16 total):

|         |                             | <u>Tip size, Length</u> |
|---------|-----------------------------|-------------------------|
| 7449-16 | Straight Coughlin Osteotome | 4 mm, 19.5 cm           |
| 7449-17 | Straight Coughlin Osteotome | 6 mm, 19.5 cm           |
| 7449-18 | Straight Coughlin Osteotome | 8 mm, 19.5 cm           |
| 7449-19 | Straight Coughlin Osteotome | 10 mm, 19.5 cm          |
| 7449-20 | Straight Coughlin Osteotome | 12 mm, 19.5 cm          |
| 7449-21 | Curved Coughlin Osteotome   | 4 mm, 19.5 cm           |
| 7449-22 | Curved Coughlin Osteotome   | 6 mm, 19.5 cm           |
| 7449-23 | Curved Coughlin Osteotome   | 8 mm, 19.5 cm           |
| 7449-24 | Curved Coughlin Osteotome   | 10 mm, 19.5 cm          |
| 7449-25 | Curved Coughlin Osteotome   | 12 mm, 19.5 cm          |
| 7449-26 | Coughlin Gouge              | 6.5 mm, 19.5 cm         |
| 7449-27 | Coughlin Gouge              | 9.5 mm, 19.5 cm         |
| 7449-28 | Coughlin Gouge              | 13 mm, 19.5 cm          |
| 7449-29 | Coughlin Curette            | Size 1, 19.5 cm         |
| 7449-30 | Coughlin Curette            | Size 3, 19.5 cm         |
| 7449-31 | Coughlin Curette            | Size 5, 19.5 cm         |
| 7449-32 | Instrument Tray             |                         |



Cougar Low Profile Gouges



Cougar Low Profile Gouges Short

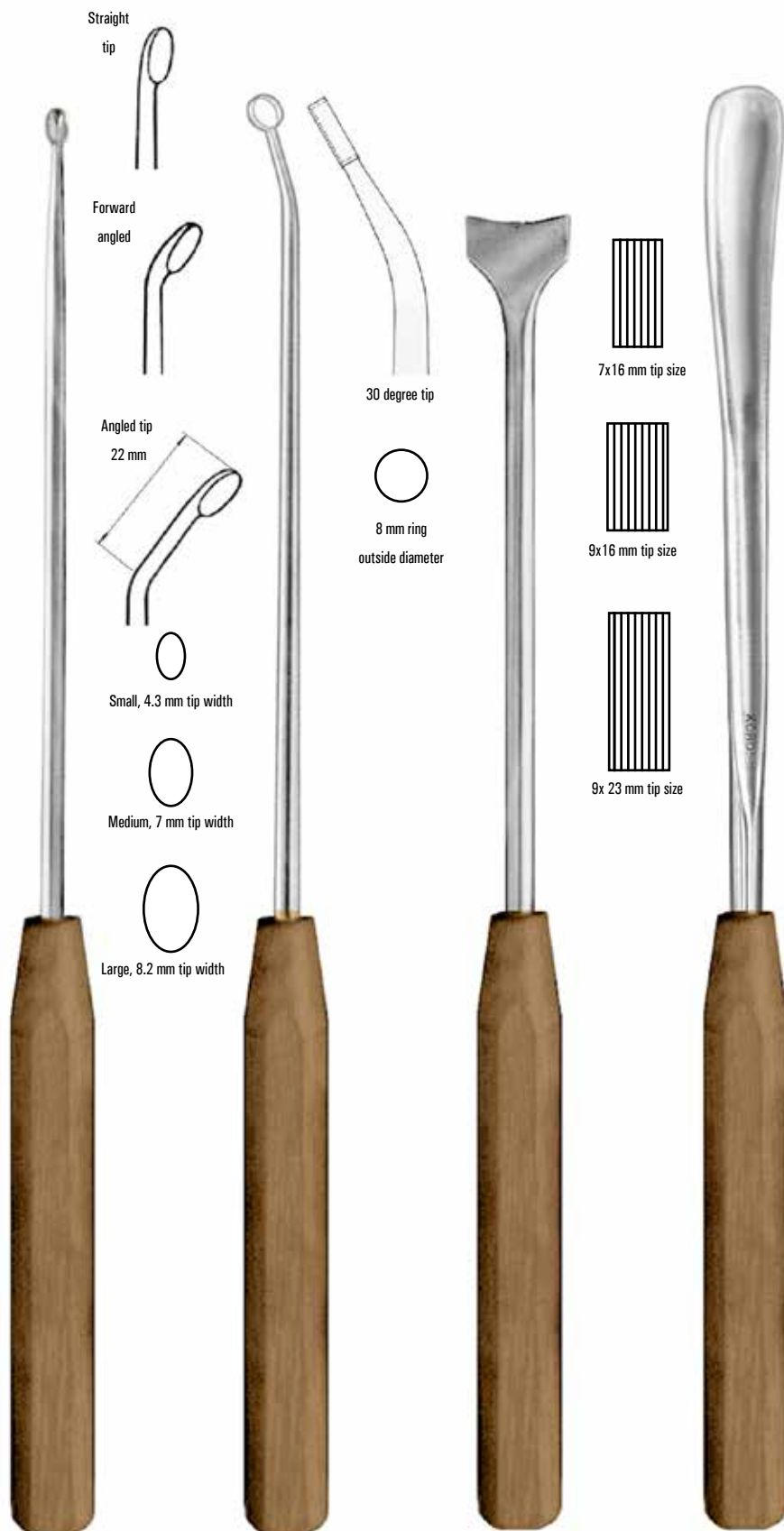
|              |        |             |            |
|--------------|--------|-------------|------------|
| Total Length |        | 17 cm, 6.5" |            |
|              |        | Tip Width   | Tip Height |
| 7439-41      | Size 1 | 8 mm        | 3 mm       |
| 7439-42      | Size 2 | 10 mm       | 3.5 mm     |
| 7439-44      | Size 3 | 12 mm       | 4 mm       |
| 7439-46      | Size 4 | 15 mm       | 5 mm       |

Cougar Low Profile Gouges Long

|              |        |             |            |
|--------------|--------|-------------|------------|
| Total Length |        | 20.5 cm, 8" |            |
|              |        | Tip Width   | Tip Height |
| 7439-61      | Size 1 | 8 mm        | 3 mm       |
| 7439-62      | Size 2 | 10 mm       | 3.5 mm     |
| 7439-64      | Size 3 | 12 mm       | 4 mm       |
| 7439-66      | Size 4 | 15 mm       | 5 mm       |



## Anterior Curettes, Elevators



### Anterior Deep Curettes

|                       |              |
|-----------------------|--------------|
| Length                | 15", 38 cm   |
| Straight Tip Cup Size |              |
| 7439-10               | 4.3 x 6.5 mm |
| 7439-20               | 7 x 11 mm    |
| 7439-30               | 8.2 x 13 mm  |
| Forward Angled Tip    | Cup Size     |
| 7439-12               | 4.3 x 6.5 mm |
| 7439-22               | 7 x 11 mm    |
| 7439-32               | 8.2 x 13 mm  |
| Angled Tip            | Cup Size     |
| 7439-34               | 4.3 x 6.5 mm |

### Anterior Ring Curette

|                  |                 |
|------------------|-----------------|
| 30 degree angled | 15", 38 cm long |
| 7439-40          | 8 mm ring size  |

### Anterior Bone Impactor

|         |                  |
|---------|------------------|
| Length  | 13-1/2", 34 cm   |
| 7439-47 | 7x16 mm tip size |
| 7439-48 | 9x16 mm tip size |
| 7439-50 | 9x23 mm tip size |

### Anterior Bone Skid

|         |                 |
|---------|-----------------|
| Length  | 14-1/2", 37 cm  |
| 7439-60 | 21 mm tip width |

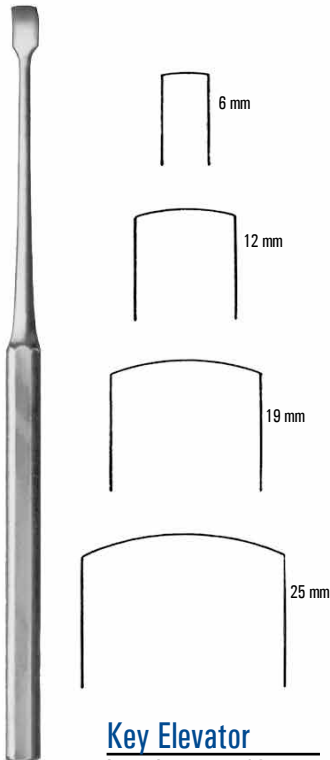
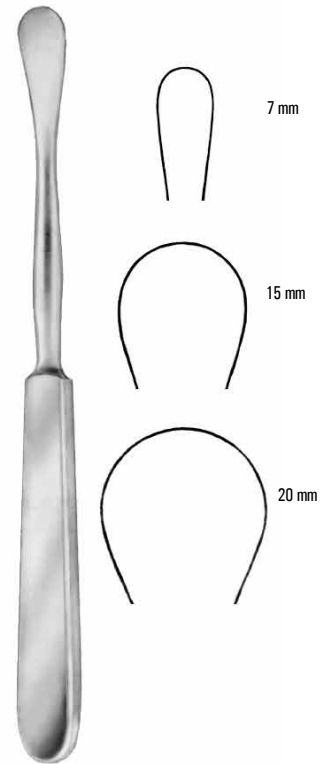
## Langenbeck Elevator

7440-10 19.5 cm



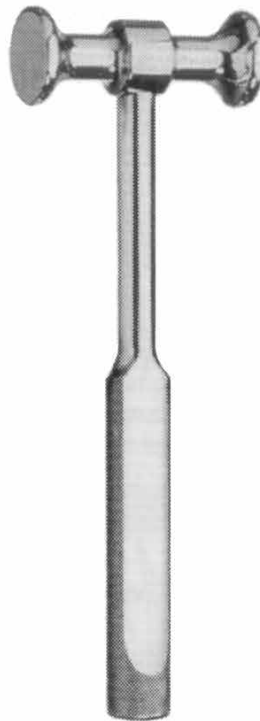
## Hoen Elevator

|         | Tip   | Length |
|---------|-------|--------|
| 7442-07 | 7 mm  | 16 cm  |
| 7442-15 | 15 mm | 18 cm  |
| 7442-20 | 20 mm | 19 cm  |



## Key Elevator

| Length  |       |
|---------|-------|
| 7444-06 | 6 mm  |
| 7444-12 | 12 mm |
| 7444-19 | 19 mm |
| 7444-25 | 25 mm |



## Mallet

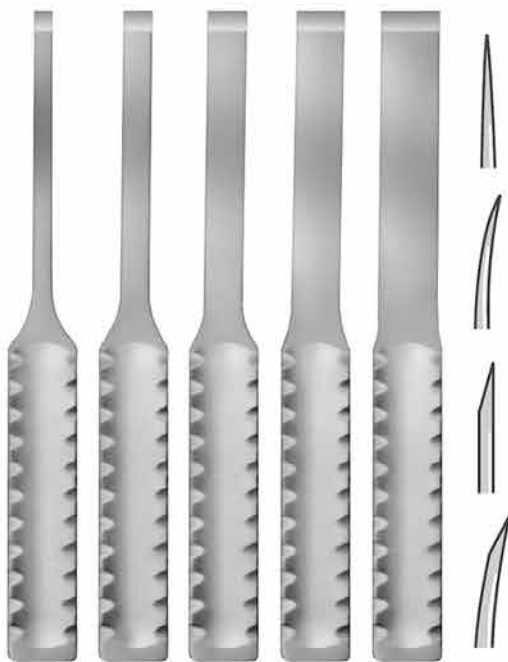
| Length  |                   |
|---------|-------------------|
| 7448-18 | 21 cm<br>1 1/2 lb |



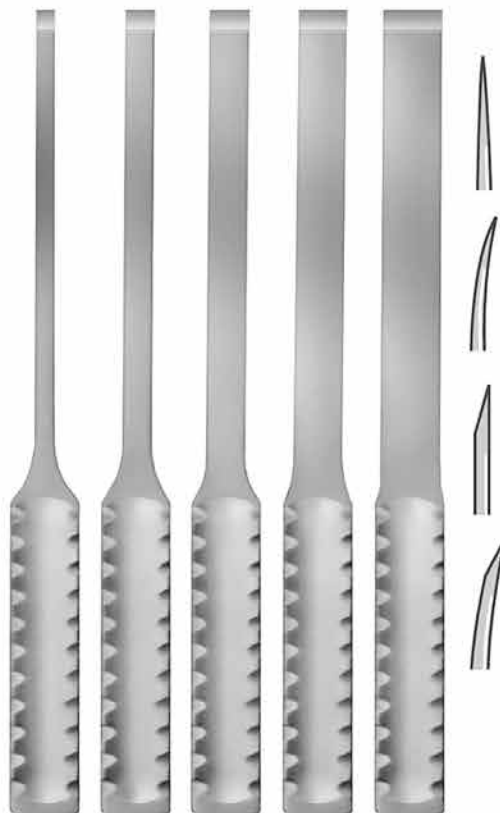
## Sculpture Mallet

| Length  |                                                                   |
|---------|-------------------------------------------------------------------|
| 7449-10 | 7 3/4 in.<br>2 1/4 in.<br>Steam Sterilizable Plastic<br>9 1/2 oz. |

# Koros-Scaglietti Osteotomes & Chisels



7450-50 Instrument Case Only  
7452-52 Long Instrument Case Only



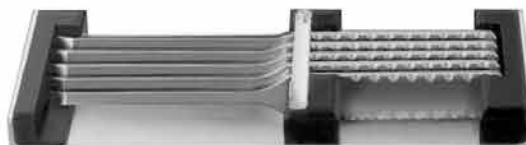
## Koros-Scaglietti Osteotomes

Length 8-1/2", 22 cm  
7450-00 Straight Osteotome Set consists of five sizes of straight osteotomes 7450-06 thru 7450-19 and an instrument case.

7455-00 Curved Osteotome Set consists of five sizes of curved osteotomes 7455-06 thru 7455-19 and an instrument case.

7450-50 Instrument case Only

| Osteotomes | Straight | Curved  |
|------------|----------|---------|
| 6 mm       | 7450-06  | 7455-06 |
| 9 mm       | 7450-09  | 7455-09 |
| 12 mm      | 7450-12  | 7455-12 |
| 16 mm      | 7450-16  | 7455-16 |
| 19 mm      | 7450-19  | 7455-19 |



## Koros-Scaglietti Chisels

Length 8-1/2", 22 cm  
7460-00 Straight Chisel Set consists of five sizes of straight chisels 7460-06 thru 7460-19 and an instrument case.

7465-00 Curved Chisel Set consists of five sizes of curved chisels 7465-06 thru 7465-19 and an instrument case.

| Chisels | Straight | Curved  |
|---------|----------|---------|
| 6 mm    | 7460-06  | 7465-06 |
| 9 mm    | 7460-09  | 7465-09 |
| 12 mm   | 7460-12  | 7465-12 |
| 16 mm   | 7460-16  | 7465-16 |
| 19 mm   | 7460-19  | 7465-19 |

## Koros-Scaglietti Long Osteotomes

Length 10-7/8", 27.5 cm  
7452-00 Long Straight Osteotome Set consists of five sizes of straight osteotomes 7452-06 thru 7452-19 and a long instrument case.

7457-00 Long Curved Osteotome Set consists of five sizes of curved osteotomes 7457-06 thru 7457-19 and a long instrument case.

|       | Straight | Curved  |
|-------|----------|---------|
| 6 mm  | 7452-06  | 7457-06 |
| 9 mm  | 7452-09  | 7457-09 |
| 12 mm | 7452-12  | 7457-12 |
| 16 mm | 7452-16  | 7457-16 |
| 19 mm | 7452-19  | 7457-19 |

## Koros-Scaglietti Long Chisels

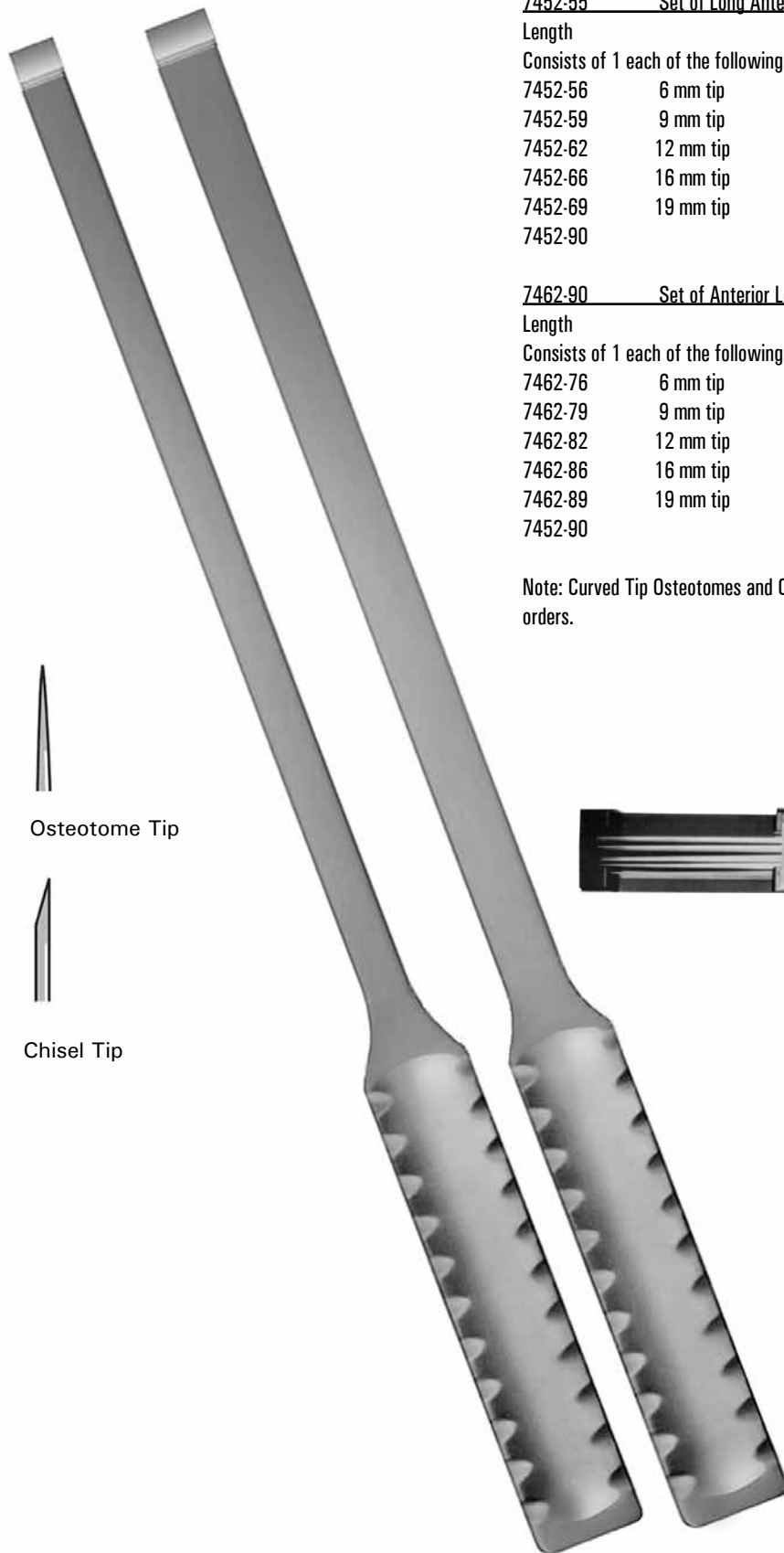
Length 10-7/8", 27.5 cm  
7462-00 Long Straight Chisel Set consists of five sizes of straight chisels 7462-06 thru 7462-19 and a long instrument case.

7467-00 Long Curved Chisel Set Consists of five sizes of curved chisels 7467-06 thru 7467-19 and a long instrument case.

|        | Straight |         |
|--------|----------|---------|
| Curved |          |         |
| 6 mm   | 7462-06  | 7467-06 |
| 9 mm   | 7462-09  | 7467-09 |
| 12 mm  | 7462-12  | 7467-12 |
| 16 mm  | 7462-16  | 7467-16 |
| 19 mm  | 7462-19  | 7467-19 |



## Long Anterior Osteotomes & Chisels



### 7452-55 Set of Long Anterior Straight Osteotomes

Length 43 cm, (17")

Consists of 1 each of the following:

|         |           |                               |
|---------|-----------|-------------------------------|
| 7452-56 | 6 mm tip  | Long Straight Osteotomes      |
| 7452-59 | 9 mm tip  | Long Straight Osteotomes      |
| 7452-62 | 12 mm tip | Long Straight Osteotomes      |
| 7452-66 | 16 mm tip | Long Straight Osteotomes      |
| 7452-69 | 19 mm tip | Long Straight Osteotomes      |
| 7452-90 |           | Anterior Long Instrument Case |

### 7462-90 Set of Anterior Long Straight Chisels

Length 43 cm, (17")

Consists of 1 each of the following:

|         |           |                               |
|---------|-----------|-------------------------------|
| 7462-76 | 6 mm tip  | Long Straight Chisel          |
| 7462-79 | 9 mm tip  | Long Straight Chisel          |
| 7462-82 | 12 mm tip | Long Straight Chisel          |
| 7462-86 | 16 mm tip | Long Straight Chisel          |
| 7462-89 | 19 mm tip | Long Straight Chisel          |
| 7452-90 |           | Anterior Long Instrument Case |

Note: Curved Tip Osteotomes and Chisels are available as custom orders.



Osteotome Tip



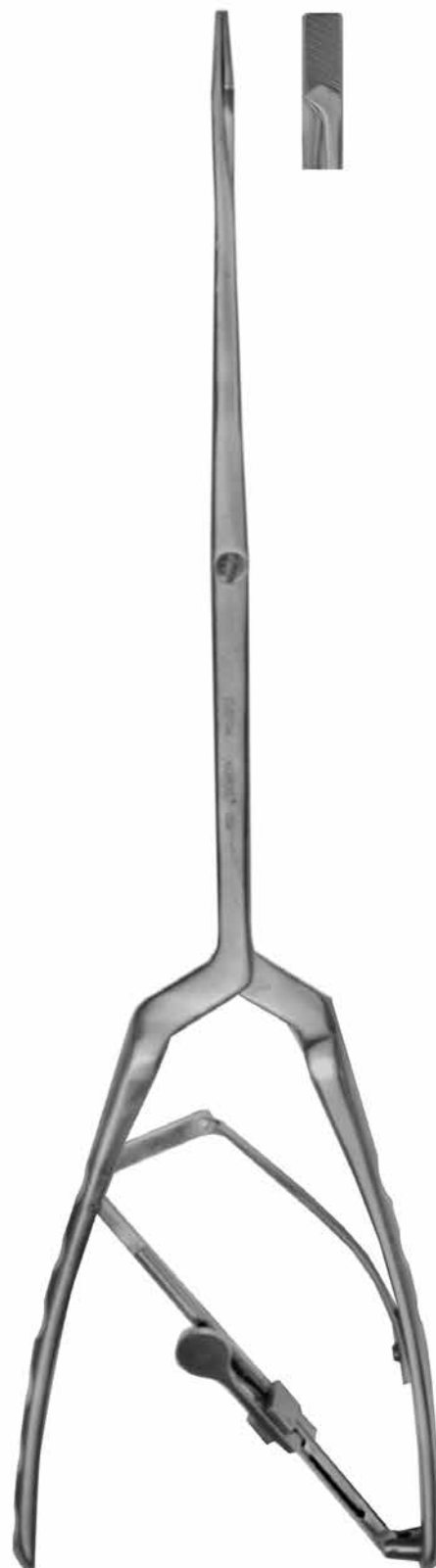
Chisel Tip



## Lumbar Distractors



|         |                               | Tip  | Length |
|---------|-------------------------------|------|--------|
| 7346-20 | Lumbar Distractor             | 7 mm | 33 cm  |
| 7346-21 | Rounded Tip Lumbar Distractor | 7 mm | 33 cm  |



|         |                      | Tip  | Length |
|---------|----------------------|------|--------|
| 7346-30 | XL Lumbar Distractor | 7 mm | 40 cm  |



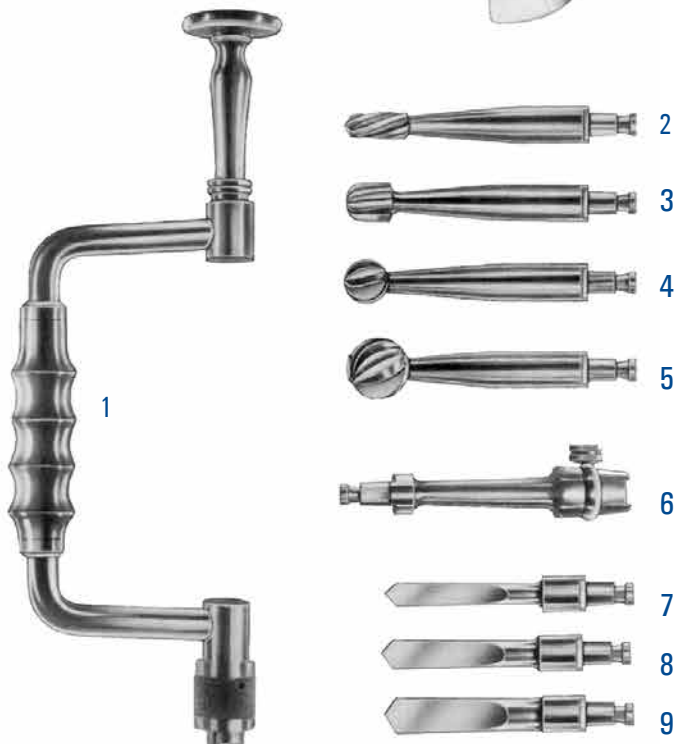
## Bunnel Drill

- 7470-10 Hand drill, longitudinal bore, 16 cm long with three-jaw chuck and key.  
Chuck opens up to 4 mm diameter.
- 7470-50 Replacement Chuck Key



## Ralk Drill

- 7472-10 Hand drill with light metal case, 16 cm long laterally angled handle and three-jaw chuck and key. Chuck opens up to 6.35 mm.
- 7472-50 Replacement Chuck Key

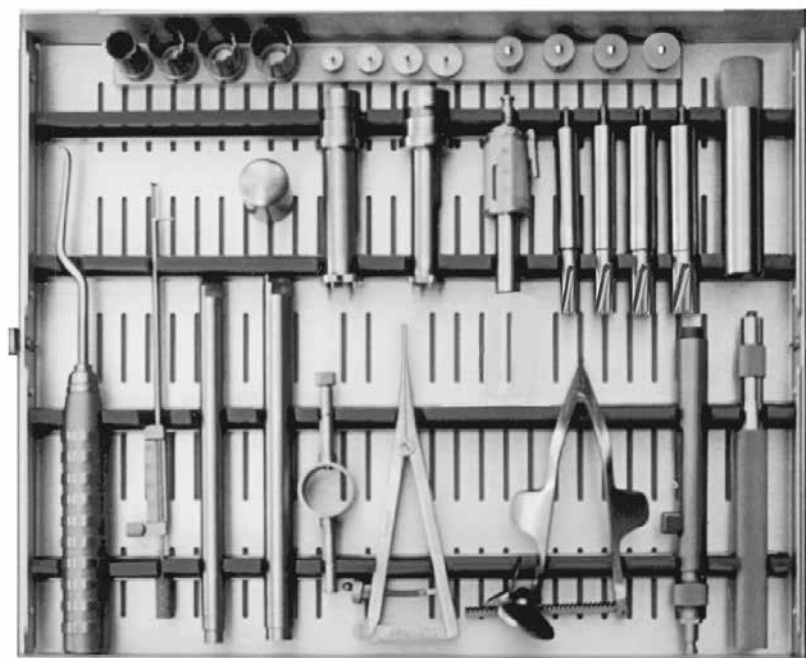


## Hudson Drill

- 7474-00 Hand drill set consists of trepanning brace, four burrs 7474-09 through 7474-22 and a cerebellar attachment.

- |   |         |                          |        |
|---|---------|--------------------------|--------|
| 1 | 7474-20 | Hudson Brace Only        |        |
| 2 | 7474-09 | Hudson Burr              | 9 mm   |
| 3 | 7474-14 | Hudson Burr              | 14 mm  |
| 4 | 7474-16 | Hudson Burr              | 16 mm  |
| 5 | 7474-22 | Hudson Burr              | 22 mm  |
| 6 | 7474-30 | Cerebellar Extension     |        |
| 7 | 7474-40 | Cushing Perforator Drill | 9.5 mm |
| 8 | 7474-43 | Cushing Perforator Drill | 13 mm  |
| 9 | 7474-48 | Cushing Perforator Drill | 16 mm  |

# Koros "ACF" Advanced Cervical Fusion Instrument Set



**\*Made to Order Instrument Set!**

- New Precise Calibrated Depth Stop Unit sets drilling depth from the top of the bone surface and shows dimensions on an incorporated measuring scale.
- Enlarged side window on drill guards for increased visualization.
- Depth Gauge with an integrated measuring scale.
- Measuring Stylus with built in scale.
- Quick Lock mechanism on plug holder for simple assembly or disassembly.

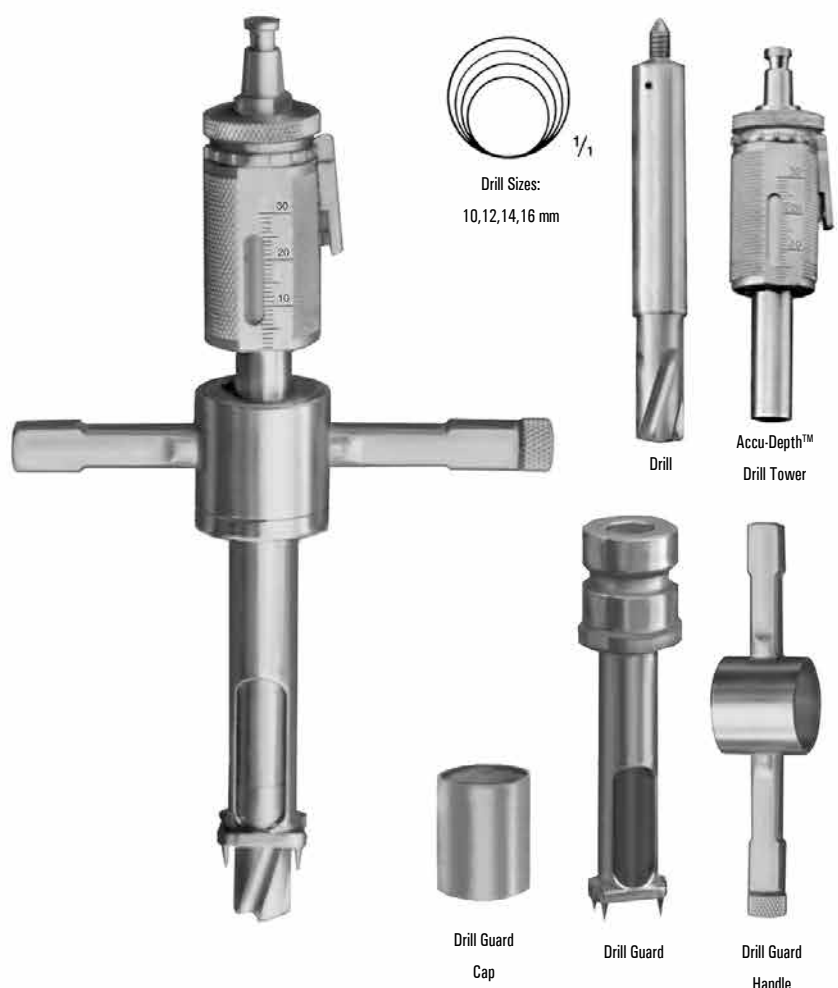
## 7480-50 Koros "ACF" Advanced Cervical Fusion Instrument Set

### Set Includes:

|         |      |                                  |
|---------|------|----------------------------------|
| 7482-00 | 1 ea | Accu-Depth™ Drill Set            |
|         |      | Consisting of:                   |
| 7482-13 | 1 ea | Drill Guard Small, 13 mm         |
| 7482-16 | 1 ea | Drill Guard Large, 16 mm         |
| 7482-20 | 1 ea | Drill Guard Handle               |
| 7482-30 | 1 ea | Drill Guard Cap                  |
|         | 4 ea | Drills                           |
|         |      | (1 of each size- 10,12,14,16 mm) |
| 7482-50 | 1 ea | Accu-Depth™ Drill Tower          |
| 7484-00 | 1 ea | Bone Plug Holder Set             |
|         |      | Consisting of:                   |
| 7484-10 | 1 ea | Handle                           |
|         | 4 ea | Bone Plug Holder Tips            |
|         |      | (1 of each size- 12,14,16,18 mm) |
| 7486-00 | 1 ea | Dowel Bone Cutter Set            |
|         |      | Consisting of:                   |
| 7486-10 | 1 ea | Dowel Cutter Shaft               |
|         | 4 ea | Dowel Cutter                     |
|         |      | (1 of ea size-12,14,16,18mm)     |
|         | 4 ea | Dowel Cutter Center Pin          |

|         |      |                                       |
|---------|------|---------------------------------------|
|         |      | (1 of each size- 12,14,16,18 mm)      |
| 7486-20 | 1 ea | Dowel Ejector Tube                    |
| 7488-10 | 1 ea | Drill Guard Positioner, Small 9.5 mm  |
| 7488-13 | 1 ea | Drill Guard Positioner, Large 13.0 mm |
| 7332-10 | 1 ea | Measuring Depth Gauge                 |
| 7334-10 | 1 ea | Measuring Stylus                      |
| 7342-10 | 1 ea | Lamina Spreader with Ratchet          |
| 7488-30 | 1 ea | Osteophyte Offset Elevator            |
| 7222-65 | 1 ea | 10mm Diameter Bone Graft Driver       |
| 7488-20 | 1 ea | Spanner Wrench                        |
| 7480-60 | 1 ea | Instrument Sterilizing Case           |

# Cervical Fusion Instrument Set Components



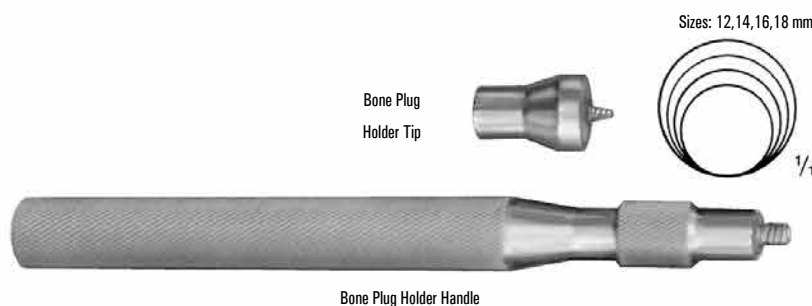
Precise and  
Calibrated  
Pre-Setting  
Depth

## 7482-00 Accu-Depth™ Drill Set

|         |                                         |       |
|---------|-----------------------------------------|-------|
| 7482-13 | Drill Guard Small                       | 13 mm |
| 7482-16 | Drill Guard Large                       | 16 mm |
| 7482-20 | Drill Guard Handle<br>(with lock screw) |       |
| 7482-30 | Drill Guard Cap                         |       |
| 7482-10 | Drill                                   | 10 mm |
| 7482-12 | Drill                                   | 12 mm |
| 7482-14 | Drill                                   | 14 mm |
| 7482-16 | Drill                                   | 16 mm |
| 7482-50 | Accu-Depth™ Drill Tower                 |       |

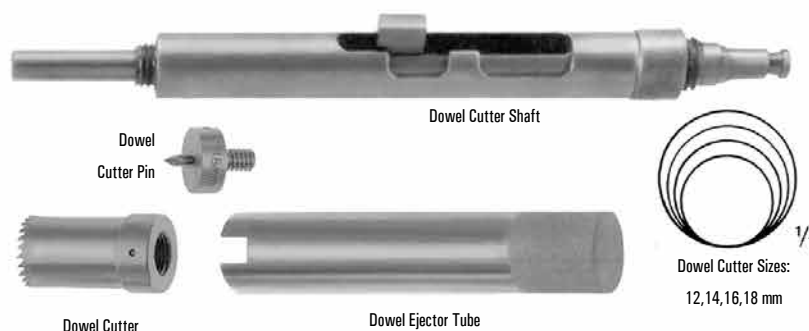
## 7484-00 Bone Plug Holder Set

|         |            |       |
|---------|------------|-------|
| 7484-10 | Handle     | 18 cm |
| 7484-12 | Handle Tip | 12 mm |
| 7484-14 | Handle Tip | 14 mm |
| 7484-16 | Handle Tip | 16 mm |
| 7484-18 | Handle Tip | 18 mm |



## 7486-00 Dowel Bone Cutter Set

|         |                    |         |
|---------|--------------------|---------|
| 7486-10 | Dowel Cutter Shaft | 16.5 cm |
| 7486-12 | Dowel Cutter       | 12 mm   |
| 7486-14 | Dowel Cutter       | 14 mm   |
| 7486-16 | Dowel Cutter       | 16 mm   |
| 7486-18 | Dowel Cutter       | 18 mm   |
| 7486-52 | Dowel Cutter Pin   | 12 mm   |
| 7486-54 | Dowel Cutter Pin   | 14 mm   |
| 7486-56 | Dowel Cutter Pin   | 16 mm   |
| 7486-58 | Dowel Cutter Pin   | 18 mm   |
| 7486-20 | Dowel Ejector Tube | 12 cm   |



### Drill Guard Positioners

|         |       |         |
|---------|-------|---------|
| Length  |       | 19 cm   |
| 7488-10 | Small | 9.5 mm  |
| 7488-13 | Large | 13.0 mm |

### Measuring Depth Gauge

|                 |             |           |
|-----------------|-------------|-----------|
| Length          |             | 23 cm     |
| Measuring Range |             | 0.5-40 mm |
| 7333-10         | Depth Gauge |           |

### Measuring Stylus

|                 |                  |         |
|-----------------|------------------|---------|
| Length          |                  | 7 cm    |
| Measuring Range |                  | 3-25 mm |
| 7334-10         | Measuring Stylus |         |

### Spanner Wrench

|         |                |  |
|---------|----------------|--|
| 7488-20 | Spanner Wrench |  |
|---------|----------------|--|

### Osteophyte Periosteal Offset Elevator

Used for separation of longitudinal ligaments.

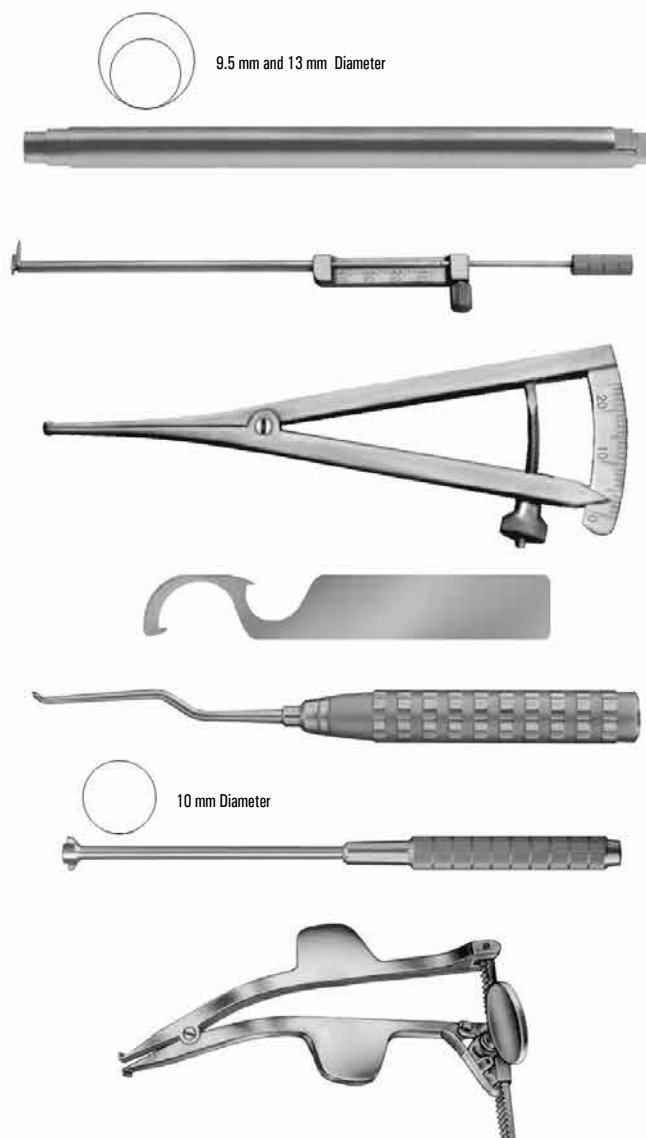
|          |                      |        |
|----------|----------------------|--------|
| Length   |                      | 26 cm  |
| Cup Size |                      | 3.5 mm |
| 7488-30  | O.P. Offset Elevator |        |

### Bone Graft Drivers

|         |                              |       |
|---------|------------------------------|-------|
| Length  |                              | 22 cm |
| 7222-65 | 10 mm dia. Bone Graft Driver |       |

### Lamina Spreader

|         |                              |  |
|---------|------------------------------|--|
| 7342-10 | Lamina Spreader with Ratchet |  |
|---------|------------------------------|--|



### Optional Items:

#### Bone Graft Drivers

|         |                                  |       |
|---------|----------------------------------|-------|
| Length  |                                  | 22 cm |
| 7222-70 | 12 mm diameter Bone Graft Driver |       |

#### Cervical Mallet

|         |        |        |
|---------|--------|--------|
| 7530-12 | Mallet | 12 oz. |
|---------|--------|--------|

#### Hudson Brace

|         |              |  |
|---------|--------------|--|
| 7474-20 | Hudson Brace |  |
|---------|--------------|--|

Burrs are listed on page 179.



## Comfort Plus™ Instrument Sets



Total Length of Standard Instruments: 11 inches  
 Total Length of Large Instruments: 12<sup>1/2</sup> inches  
 Medium Handle Size: 2.8 cm dia. x 16.5 cm  
 Large Handle Size: 2.8 cm dia. x 20 cm  
 Turner Type Gouge Shafts Length: 5.5 cm  
 Smith Type Gouge Shafts Length: 12.3 cm  
 Osteotome, Chisel Shafts Length: 12.3 cm  
 Cobb Elevators Shafts Length: 12.3 cm  
 Curettes: 12.3 cm  
 Small Mallet: 2.5 cm dia. x 12 oz  
 Medium Mallet: 3.2 cm dia. x 16 oz

- Precision balanced hollow handles.
  - Superior surgical grade stainless steel construction.
  - Ultracut™ instrument is cutting edge and offers maximum control and superior performance.
- Made in the U.S.A., Patented.

### Instrument Sets with 16.5 cm Handles

|         |                         |            |
|---------|-------------------------|------------|
| 7510-00 | Turner Type Gouge Set   | (4 ea)     |
| 7520-00 | Smith Type Gouge Set    | (6 ea)     |
| 7530-00 | Osteotome Set, Straight | (6 sizes)  |
| 7532-00 | Osteotome Set, Curved   | (6 sizes)  |
| 7540-00 | Chisel Set, Straight    | (6 sizes)  |
| 7542-00 | Chisel Set, Curved      | (6 sizes)  |
| 7550-00 | Cobb Elevator Set       | (6 sizes)  |
| 7560-00 | Curette Set             | (10 sizes) |

### Instrument Sets with 20 cm Handles

|         |                        |            |
|---------|------------------------|------------|
| 7511-00 | Turner Type Gouge Set  | (4 ea)     |
| 7521-00 | Smith Type Gouge Set   | (6 ea)     |
| 7531-00 | Osteotome Set Straight | (6 sizes)  |
| 7533-00 | Osteotome Set Curved   | (6 sizes)  |
| 7541-00 | Chisel Set, Straight   | (6 sizes)  |
| 7543-00 | Chisel Set, Curved     | (6 sizes)  |
| 7551-00 | Cobb Elevator Set      | (6 sizes)  |
| 7561-00 | Curette Set            | (10 sizes) |

### Comfort Plus Instrument Cases

|         |                                   |
|---------|-----------------------------------|
| 7510-20 | Case for 4 Turner Type Gouges     |
| 7520-25 | Universal Case for 6 Instruments  |
| 7520-30 | Universal Case for 10 Instruments |

### Comfort Plus Mallets

|         |                                           |
|---------|-------------------------------------------|
| 7530-12 | Small Bone Mallet, 18 oz.                 |
| 7530-16 | Medium Bone Mallet, 16 cm Handle 21 oz.   |
| 7534-20 | Medium Bone Mallet, 20 cm Handle 16.5 oz. |



Universal Instrument Case holds 10 and 6 instruments with 16.5 or 20 cm handles.

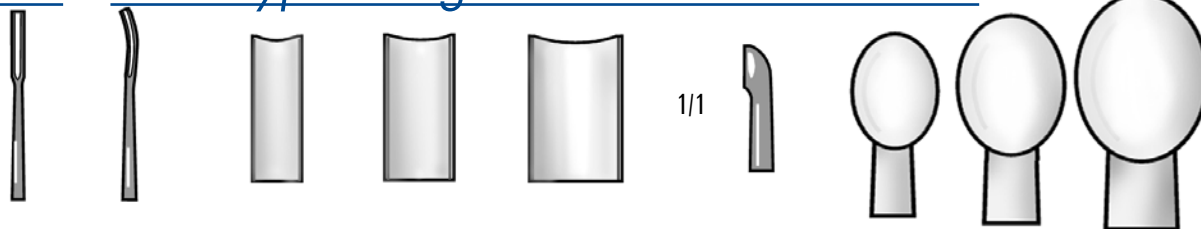
Small case can hold 4 Turner Type Gouges with 16.5 or 20 cm handles.

## Comfort Plus™ Turner Type Gouges

|                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |     |
|-----------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----|
|                 |  |  |  |  | 1/1 |
| 16.5 cm Handles | 7510-06                                                                             | 7510-08                                                                             | 7510-10                                                                             | 7510-12                                                                             |     |
| 20 cm Handles   | 7511-06                                                                             | 7511-08                                                                             | 7511-10                                                                             | 7511-12                                                                             |     |

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## Comfort Plus™ Smith Type Gouges & Acetabular Curettes



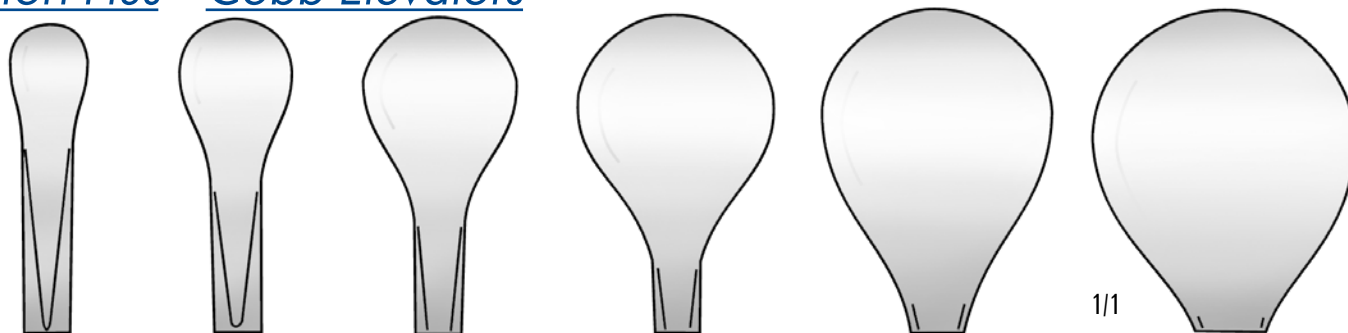
|                    | Straight | Curved | 6.5 mm  | 9 mm    | 12 mm   | Cup Size: | 12x15 mm | 15x19 mm | 16.5 x22.5 mm |
|--------------------|----------|--------|---------|---------|---------|-----------|----------|----------|---------------|
| 16.5 cm Handles    | Straight |        | 7520-07 | 7520-09 | 7520-12 |           | 7570-15  | 7570-19  | 7570-23       |
| Total Length 29 cm |          | Curved | 7522-07 | 7522-09 | 7522-12 |           |          |          |               |
| 20 cm Handles      | Straight |        | 7521-07 | 7521-09 | 7521-12 |           | 7572-15  | 7572-19  | 7572-23       |
| Total Length 32 cm |          | Curved | 7523-07 | 7523-09 | 7523-12 |           |          |          |               |

## Comfort Plus™ Osteotomes, Chisels



|                    | Straight Osteotome | Curved Osteotome | Straight Chisel | Curved Chisel | 6 mm    | 10 mm   | 15 mm   | 20 mm   | 25 mm   | 30 mm   |
|--------------------|--------------------|------------------|-----------------|---------------|---------|---------|---------|---------|---------|---------|
| 16.5 cm Handles    | Straight           | Curved           | Osteotomes      | Osteotomes    | 7530-06 | 7530-10 | 7530-15 | 7530-20 | 7530-25 | 7530-30 |
| Total Length 29 cm |                    |                  |                 |               | 7532-06 | 7532-10 | 7532-15 | 7532-20 | 7532-25 | 7532-30 |
| 20 cm Handles      | Straight           | Curved           | Chisels         | Chisels       | 7540-06 | 7540-10 | 7540-15 | 7540-20 | 7540-25 | 7540-30 |
| Total Length 32 cm |                    |                  |                 |               | 7542-06 | 7542-10 | 7542-15 | 7542-20 | 7542-25 | 7542-30 |
| 16.5 cm Handles    | Straight           | Curved           | Osteotomes      | Osteotomes    | 7531-06 | 7531-10 | 7531-15 | 7531-20 | 7531-25 | 7531-30 |
| Total Length 29 cm |                    |                  |                 |               | 7533-06 | 7533-10 | 7533-15 | 7533-20 | 7533-25 | 7533-30 |
| 20 cm Handles      | Straight           | Curved           | Chisels         | Chisels       | 7541-06 | 7541-10 | 7541-15 | 7541-20 | 7541-25 | 7541-30 |
| Total Length 32 cm |                    |                  |                 |               | 7543-06 | 7543-10 | 7543-15 | 7543-20 | 7543-25 | 7543-30 |

## Comfort Plus™ Cobb Elevators



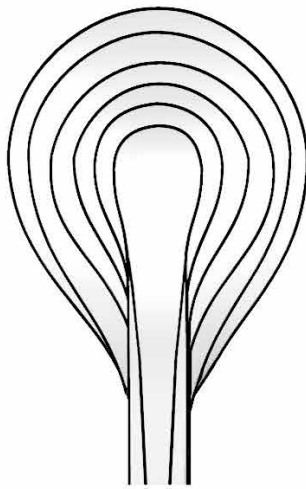
|                    | 10 mm   | 15 mm   | 20 mm   | 25 mm   | 30 mm   | 35 mm   |
|--------------------|---------|---------|---------|---------|---------|---------|
| 16.5 cm Handles    | 7550-10 | 7550-15 | 7550-20 | 7550-25 | 7550-30 | 7550-35 |
| Total Length 29 cm |         |         |         |         |         |         |
| 20 cm Handles      | 7551-10 | 7551-15 | 7551-20 | 7551-25 | 7551-30 | 7551-35 |
| Total Length 32 cm |         |         |         |         |         |         |

## Comfort Plus™ Curettes



|                    | Straight | Forward Angle | Down Pusher | 5 mm    | 6.5 mm  | 8.5 mm  | 11 mm   | 13 mm   | 15 mm   |
|--------------------|----------|---------------|-------------|---------|---------|---------|---------|---------|---------|
| 16.5 cm Handles    | Straight | Forward Angle | Curette     | 7556-05 | 7560-07 | 7560-09 | 7560-11 | 7560-13 | 7560-15 |
| Total Length 29 cm |          |               |             | 7557-05 | 7562-07 | 7562-09 | 7562-11 | 7562-13 | 7562-15 |
| 20 cm Handles      | Straight | Forward Angle | Curette     | 7558-05 | 7561-07 | 7561-09 | 7561-11 | 7561-13 | 7561-15 |
| Total Length 32 cm |          |               |             | 7559-05 | 7563-07 | 7563-09 | 7563-11 | 7563-13 | 7563-15 |
|                    |          | Down Pushing  | Curette     |         | 7564-07 | 7564-09 | -       | -       | -       |
|                    |          |               |             |         | 7565-07 | 7565-09 | -       | -       | -       |

## Long Anterior Cobb Elevators



Sizes:

10 mm  
15 mm  
20 mm  
25 mm  
30 mm  
35 mm

Total Length 18-1/2 inch, (47 cm)  
Shaft Length 10-3/4 inch  
Handle Length 7-3/4 inch, (21 cm)

### 7551-11 Long Cobb Elevator Set

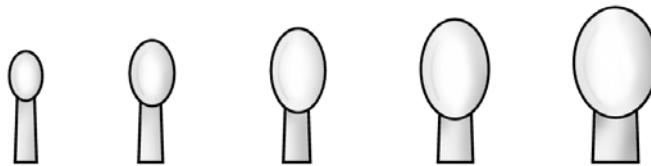
Consists of one each of the following:

|         |       |                    |
|---------|-------|--------------------|
| 7551-50 | 10 mm | Long Cobb Elevator |
| 7551-55 | 15 mm | Long Cobb Elevator |
| 7551-60 | 20 mm | Long Cobb Elevator |
| 7551-65 | 25 mm | Long Cobb Elevator |
| 7551-70 | 30 mm | Long Cobb Elevator |
| 7551-75 | 35 mm | Long Cobb Elevator |



7566-50  
Instrument Case for  
Long Curettes or Cobbs.  
Holds a maximum of 10 each.

## Anterior Long Curettes



| Cup Height:    | 6.5 mm  | 8.5 mm  | 11 mm   | 13 mm   | 15 mm   |
|----------------|---------|---------|---------|---------|---------|
| Straight       | 7566-07 | 7566-09 | 7566-11 | 7566-13 | 7566-15 |
| Forward Angled | 7566-17 | 7566-19 | 7566-21 | 7566-23 | 7566-25 |
| Down Pusher    | 7566-27 | 7566-29 |         |         |         |

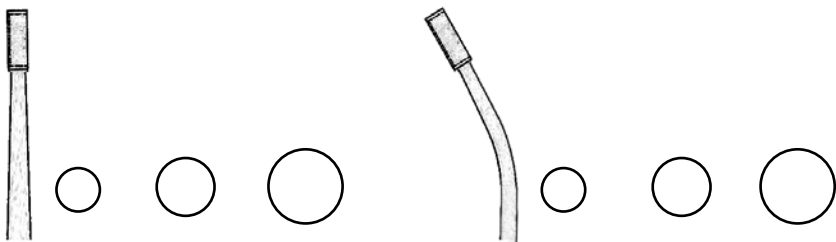
### 7566-10 Anterior Long Curettes Set

Consists (1 ea) of above listed Curette sizes and one 7566-50 Instrument Case.  
(Total of 10 each of Long Curettes.)

Total Length 18-1/2 inch, (47 cm)  
Handle Length 7-3/4 inch, (21 cm)  
Comfort Plus handle for  
anti-slippage.

Ring Curettes, Comfort Plus, Husky Plus & Slim Fit Instruments

Ring Curettes



| Handle Type  | Total Length   |                   | 6 mm<br>Straight | 8 mm<br>Straight | 10 mm<br>Straight | 6mm<br>Angled | 8mm<br>Angled | 10mm<br>Angled |
|--------------|----------------|-------------------|------------------|------------------|-------------------|---------------|---------------|----------------|
| Comfort Plus | 16.5 cm Handle | 28.3 cm / 11"     | 7564-10          | 7564-12          | 7564-14           | 7564-20       | 7564-22       | 7564-24        |
| Comfort Plus | 20 cm Handle   | 32.3 cm / 12 1/2" | 7565-10          | 7565-12          | 7565-14           | 7565-20       | 7565-22       | 7565-24        |
| Husky Plus   | 23 cm Handle   | 39 cm/ 15 1/4"    | 7584-10          | 7584-12          | 7584-14           | 7584-20       | 7584-22       | 7584-24        |
| Slim-Fit     | 15 cm Handle   | 27.5 cm/ 10 3/4"  | 7570-50          | 7570-52          | 7570-54           | 7570-60       | 7570-62       | 7570-64        |
| Slim-Fit     | 23 cm Handle   | 35.3 cm/ 13 3/4"  | 7570-70          | 7570-72          | 7570-74           | 7570-80       | 7570-82       | 7570-84        |

Comfort Plus Instruments

Total Standard Length            11 inch  
Total Length for Large Instrument 12<sup>1/2</sup> inch  
Medium Handle            2.8 cm dia.x16.5 cm  
Large Handle            2.8 cm dia. x 20 cm

Husky Plus Instruments

Total Length            15 inches, (39 cm)  
Handle            2.6 cm dia. x 23 cm

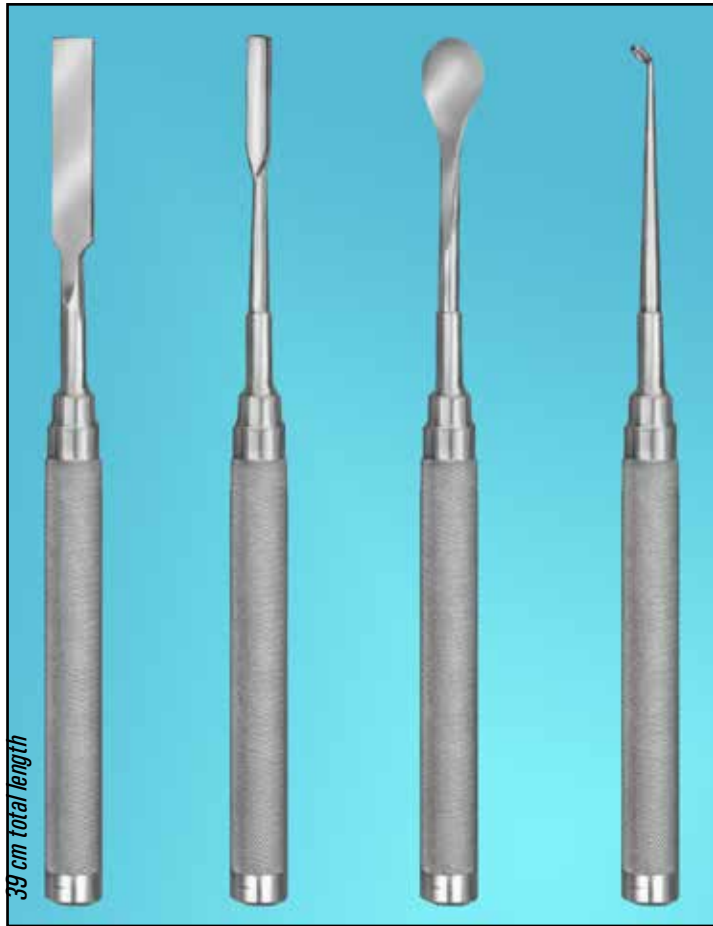
Slim-Fit Instruments

Small Handle:            6 inch (15 cm) long  
                                         1" diameter  
Large Handle:            9 inch (23 cm) long  
                                         1" diameter  
Shaft Length: 13.2 cm, 5"  
                         Tip angled at 50 mm from end.



16 cm            20 cm            26 cm            15 cm            23 cm  
Comfort Plus Handles            Husky Plus Handle            Slim-Fit Handles

## Husky Plus™ Smith Type Gouges



Husky Plus™ Osteotome, Gouge, Cobb Elevator and Curette.

- Precision balanced hollow handles.
- Superior surgical grade stainless steel construction.
- Ultracut™ instrument is cutting edge and offers maximum control and superior performance.
- Made in the U.S.A.

Total Length 15 inches, (39 cm)  
Handle 2.6 cm dia. x 23 cm

Instrument Shaft Length:

|                   |              |
|-------------------|--------------|
| Turner Type Gouge | 10.5 cm long |
| Smith Type Gouge  | 16 cm long   |
| Osteotome, Chisel | 16 cm long   |
| Cobb Elevators    | 16 cm long   |
| Curettes          | 16 cm long   |



7570-30 Universal Case for 10 Instruments.

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| Turner Type Gouges | 6 mm    | 8 mm    | 10 mm   | 12 mm   |
|--------------------|---------|---------|---------|---------|
|                    | 7572-06 | 7572-08 | 7572-10 | 7572-12 |
|                    |         |         |         |         |

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## Husky Plus™ Turner Type Gouges

| Smith Type Gouges | 6.5 mm  | 9 mm    | 12 mm   |
|-------------------|---------|---------|---------|
|                   | 7573-07 | 7573-09 | 7573-12 |
| Straight          | 7574-07 | 7574-09 | 7574-12 |
| Curved            |         |         |         |
|                   |         |         |         |

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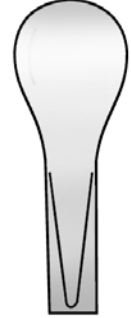
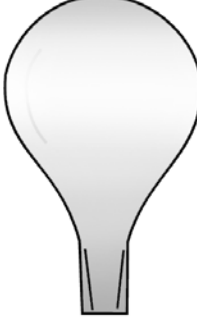
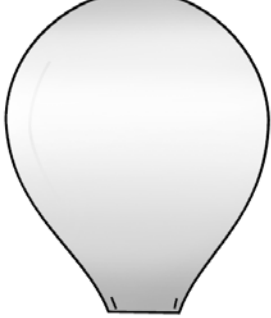
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Husky Plus™ Osteotomes, Chisels

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|                                                                                  |          |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
|----------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |          |  |  |  |  |  |  |
| Osteotomes                                                                       |          | 6 mm                                                                              | 10 mm                                                                             | 15 mm                                                                             | 20 mm                                                                              | 25 mm                                                                               | 30 mm                                                                               |
| Chisels                                                                          | Straight | 7575-06                                                                           | 7575-10                                                                           | 7575-15                                                                           | 7575-20                                                                            | 7575-25                                                                             | 7575-30                                                                             |
|                                                                                  | Curved   | 7576-06                                                                           | 7576-10                                                                           | 7576-15                                                                           | 7576-20                                                                            | 7576-25                                                                             | 7576-30                                                                             |
|                                                                                  | Straight | 7577-06                                                                           | 7577-10                                                                           | 7577-15                                                                           | 7577-20                                                                            | 7577-25                                                                             | 7577-30                                                                             |
|                                                                                  | Curved   | 7578-06                                                                           | 7578-10                                                                           | 7578-15                                                                           | 7578-20                                                                            | 7578-25                                                                             | 7578-30                                                                             |

Husky Plus™ Cobb Elevators

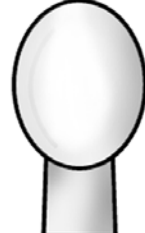
|                                                                                  |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |  |  |  |
| 10 mm                                                                            | 15 mm                                                                             | 20 mm                                                                             | 25 mm                                                                             | 30 mm                                                                              | 35 mm                                                                               |
| 7579-10                                                                          | 7579-15                                                                           | 7579-20                                                                           | 7579-25                                                                           | 7579-30                                                                            | 7579-35                                                                             |

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Husky Plus™ Curettes

|                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                      |                                                                                       |                                                                                       |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |  |  |  |  |  |  |
| Cup Height:                                                                        |                                                                                     |                                                                                     | 5 mm                                                                                | 6.5 mm                                                                              | 8.5 mm                                                                              | 11 mm                                                                                | 13 mm                                                                                 | 15 mm                                                                                 |
| Straight                                                                           |                                                                                     |                                                                                     | 7580-05                                                                             | 7580-07                                                                             | 7580-09                                                                             | 7580-11                                                                              | 7580-13                                                                               | 7580-15                                                                               |
| Forward Angle                                                                      |                                                                                     |                                                                                     | 7581-05                                                                             | 7581-07                                                                             | 7581-09                                                                             | 7581-11                                                                              | 7581-13                                                                               | 7581-15                                                                               |
| Down Pushing                                                                       |                                                                                     |                                                                                     |                                                                                     | 7582-07                                                                             | 7582-09                                                                             |                                                                                      |                                                                                       |                                                                                       |

|                                                                                     |                                                                                     |                                                                                      |                                                                                       |          |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|----------|
|  |  |  |  |          |
| Acetabular Curettes:                                                                | Cup Size:                                                                           | 12x15 mm                                                                             | 15x19 mm                                                                              | 18x23 mm |
|                                                                                     | Straight                                                                            | 7583-15                                                                              | 7583-19                                                                               | 7583-23  |

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## Capener Type Gouges

### Capener Type Gouges

|              |                    |           |
|--------------|--------------------|-----------|
| Total Length |                    | 9", 23 cm |
|              |                    | Tip Width |
| 7470-02      | Capener Type Gouge | 6 mm      |
| 7470-04      | Capener Type Gouge | 8 mm      |
| 7470-06      | Capener Type Gouge | 11 mm     |
| 7470-08      | Capener Type Gouge | 16 mm     |



## Slim-Fit Tronso Type XL Gouges



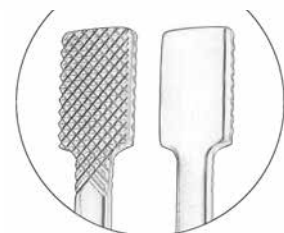
7571-90 Slim-Fit Sterilizing Instrument Tray. Holds 10 instruments.



| Part#   |       | Tip   | Handle | Shaft Length | Total Length |
|---------|-------|-------|--------|--------------|--------------|
| 7571-60 | Gouge | 17 mm | 6"     | 5"           | 11"          |
| 7571-62 | Gouge | 17 mm | 6"     | 7"           | 13"          |
| 7571-64 | Gouge | 17 mm | 9"     | 5"           | 14"          |
| 7571-66 | Gouge | 17 mm | 9"     | 7"           | 16"          |



|         |                             |                  |                |
|---------|-----------------------------|------------------|----------------|
| 7571-91 | Endplate Elevator           | 19 mm            | 3/4" sharp tip |
| 7571-92 | Endplate Elevator           | 25 mm            | 1" sharp tip   |
| 7571-93 | Agressive Single Sided Rasp | 3 mm             | 13x21 mm       |
| 7571-94 | Agressive Double Sided Rasp | 3.5 mm           | 13x21 mm       |
|         |                             | 17" Total Length |                |



# Slim-Fit™ Key/Langenbeck Type Elevators

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Slim-Fit Sharp Cobb Elevator/Dissectors



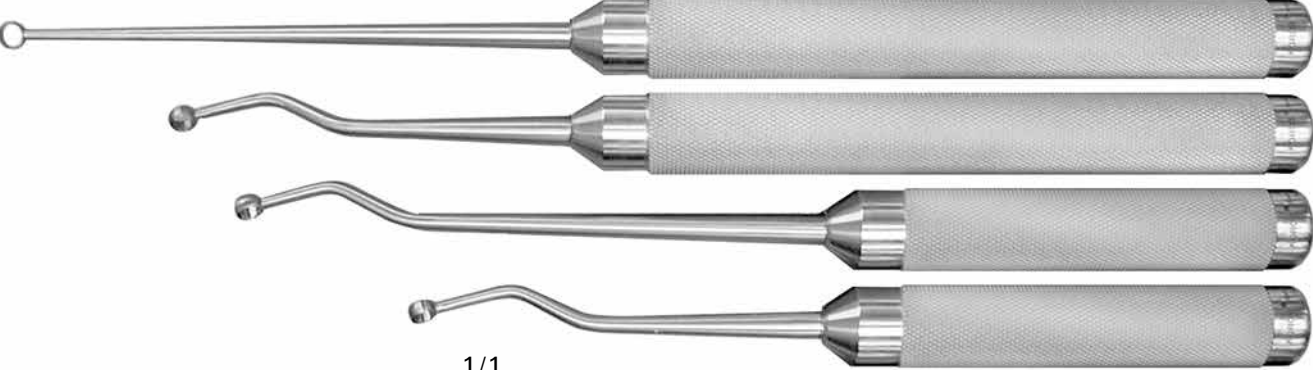
| Handle | Shaft | Total Length | 9 mm    | 11.5 mm | 13 mm   | 14.5 mm | 17.5 mm | 12 mm   |
|--------|-------|--------------|---------|---------|---------|---------|---------|---------|
| 6"     | 5"    | 11"          | 7571-10 | 7571-12 | 7571-14 | 7571-16 | 7571-18 | 7571-50 |
| 6"     | 7"    | 13"          | 7571-20 | 7571-22 | 7571-24 | 7571-26 | 7571-28 | 7571-52 |
| 9"     | 5"    | 14"          | 7571-30 | 7571-32 | 7571-34 | 7571-36 | 7571-38 | 7571-54 |
| 9"     | 7"    | 16"          | 7571-40 | 7571-42 | 7571-44 | 7571-46 | 7571-48 | 7571-56 |

# Slim-Fit™ Ring Curettes

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| Handle | Shaft | Total Length | Tip Diameter | Straight Shaft | Angled Shaft |
|--------|-------|--------------|--------------|----------------|--------------|
| 6"     | 5"    | 11"          | 9 mm         | 7571-70        | 7571-80      |
| 6"     | 7"    | 13"          | 9 mm         | 7571-72        | 7571-82      |
| 9"     | 5"    | 14"          | 9 mm         | 7571-74        | 7571-84      |
| 9"     | 7"    | 16"          | 9 mm         | 7571-76        | 7571-86      |

Tip angled at 28 mm from end.

# Cervical Trial Gages, Rasps & Impactors



7585-02

## Made to Order Items



7585-44

7585-60

### 7585-00 12 mm Trial Gage Set

Total Length 21.5 cm

Tip Diameter 12 mm

Set consists of one each of the following items:

7585-02 ● Impactor 12 mm size

7585-05 ● Trial Gage 12 x 5 mm wide

7585-06 ● Trial Gage 12 x 6 mm wide

7585-07 ● Trial Gage 12 x 7 mm wide

7585-08 ● Trial Gage 12 x 8 mm wide

7585-09 ● Trial Gage 12 x 9 mm wide

7585-10 ● Trial Gage 12 x 10 mm wide

7585-15 ● 12 x 5 mm wide Rasp

7585-16 ● 12 x 6 mm wide Rasp

7585-17 ● 12 x 7 mm wide Rasp

7585-18 ● 12 x 8 mm wide Rasp

7585-19 ● 12 x 9 mm wide Rasp

7585-20 ● 12 x 10 mm wide Rasp

### 7585-40 14mm Fusion Gage Set

Total Length 21.5 cm

Tip Diameter 14 mm

Set consists of one each of the following items:

7585-44 ● Impactor 14 mm size

7585-45 ● Trial Gage 14 x 5 mm wide

7585-46 ● Trial Gage 14 x 6 mm wide

7585-47 ● Trial Gage 14 x 7 mm wide

7585-48 ● Trial Gage 14 x 8 mm wide

7585-49 ● Trial Gage 14 x 9 mm wide

7585-55 ● 14 x 5 mm wide Rasp

7585-56 ● 14 x 6 mm wide Rasp

7585-57 ● 14 x 7 mm wide Rasp

7585-58 ● 14 x 8 mm wide Rasp

7585-59 ● 14 x 9 mm wide Rasp

### 7585-60 Implant Holder

Total Length 23.5 cm

# T-LIF Serrated Cup Currettes & Fusion Instruments

## 7586-00

## Lumbar Fusion Set

|                          |            |
|--------------------------|------------|
| Total Length             | 14.5"      |
| Handle Length            | 7, 3/4"    |
| Left or Right Angled Tip | 18 mm long |

Set consists of the following items (1 each):

|         |                                       | Tip Size  |
|---------|---------------------------------------|-----------|
| 7586-10 | Large Serrated Cuprette, Angled       | 10 x 7 mm |
| 7586-12 | Serrated Cup Cuprette, Straight       | 9 x 6 mm  |
| 7586-14 | Serrated Cup Cuprette, Forward Angled | 9 x 6 mm  |
| 7586-16 | Serrated Cup Cuprette, Left Angled    | 9 x 6 mm  |
| 7586-18 | Serrated Cup Cuprette, Right Angled   | 9 x 6 mm  |
| 7586-20 | Serrated Cup Cuprette, Down Pusher    | 9 x 6 mm  |

|         |                                  |               |
|---------|----------------------------------|---------------|
| 7586-30 | Ring Cuprette, Straight          | 9 mm diameter |
| 7586-32 | Ring Cuprette, 45 degree, Angled | 9 mm diameter |
| 7586-34 | Ring Cuprette, Bayonette Tip     | 9 mm diameter |

|         |                       |                       |
|---------|-----------------------|-----------------------|
| 7586-40 | 45 degree Angled Rasp | 23 x 6.5 x 4 mm thick |
|---------|-----------------------|-----------------------|

|         |                                   |
|---------|-----------------------------------|
| 7585-90 | Lumbar Fusion Set Instrument Tray |
|---------|-----------------------------------|



7586-10



7586-12



7586-14



7586-16



7586-18



7586-20



7586-30



7586-32



7586-34



7586-40

# Anterior Spinal Instrument Tray



**7580-00**

## Anterior Spinal Instrument Tray

Includes one unit of all items listed on the Anterior Spinal Instrument Tray pages. Excludes optional items.

**7331-00**

## Anterior Vert. Body Distraction Set

Consists of:

|       |         |                        |
|-------|---------|------------------------|
| 1 ea  | 7331-10 | Distraction Retractor  |
| 1 ea  | 7331-20 | Drill Guide            |
| 1 ea  | 7331-22 | Drill Guide Handle     |
| 1 ea  | 7331-30 | Screwdriver            |
| 1 ea  | 7331-40 | Distr. Screw Pre-Drill |
| 1 pkg | 7331-50 | 18 mm Distr. Screw (3) |
| 1 pkg | 7331-60 | 24 mm Distr. Screw (3) |
| 1 pkg | 7331-70 | 30 mm Distr. Screw (3) |
| 1 ea  | 7331-90 | Instrument Case        |

## Anterior Intervertebral Pituitary Rongeur

Shaft Length: 27.5 cm

|         |               |           |
|---------|---------------|-----------|
| 7386-30 | Straight Tip  | 3 mm size |
| 7386-40 | Straight Tip  | 4 mm size |
| 7386-50 | Straight Tip  | 5 mm size |
| 7388-40 | Up Angled Tip | 4 mm size |
| 7388-50 | Up Angled Tip | 5 mm size |

## Anterior Kerrison Rongeur

Upward Cutting

Shaft Length: 27.5 cm

|         |                  |                 |
|---------|------------------|-----------------|
| 7389-20 | 40 degree angle, | 2 mm tip size   |
| 7389-30 | 40 degree angle, | 3 mm tip size   |
| 7389-40 | 40 degree angle, | 4 mm tip size   |
| 7389-52 | 40 degree angle, | 5.2 mm tip size |

## Koros-Scaglietti Long Osteotomes

Length 26 cm

7452-00 Long Straight Osteotome Set consisting of five sizes of straight osteotomes 7450-06 through 7450-19 and an instrument case. (6, 9, 12, 16, 19 mm tip sizes.)



# Anterior Spinal Instrument Tray

## Measuring Gauge

|         |                |
|---------|----------------|
| Length  | 25 cm          |
| 7334-20 | 4 mm tip width |

## Optional Anterior Lamina Spreader

|         |            |
|---------|------------|
| 7346-10 | 28 cm long |
|---------|------------|

## Lumbar Deep Anterior D.A. Rongeur

|         |            |            |
|---------|------------|------------|
| 7352-70 | 6.5 mm jaw | 30 cm long |
| 7352-75 | 8 mm jaw   | 30 cm long |

## Sypert Type Bone Rongeur

|         |          |            |
|---------|----------|------------|
| 7352-80 | 8 mm jaw | 35 cm long |
|---------|----------|------------|

## Anterior Deep Curettes

|              |        |          |
|--------------|--------|----------|
| Length       | 38 cm  |          |
| Straight Tip |        |          |
| 7439-10      | 4.3 mm | cup size |
| 7439-20      | 7 mm   | cup size |
| 7439-30      | 8.2 mm | cup size |

## Forward Angled Tip

|         |        |          |
|---------|--------|----------|
| 7439-12 | 4.3 mm | cup size |
| 7439-22 | 7 mm   | cup size |
| 7439-32 | 8.2 mm | cup size |

## Optional Anterior Ring Curette

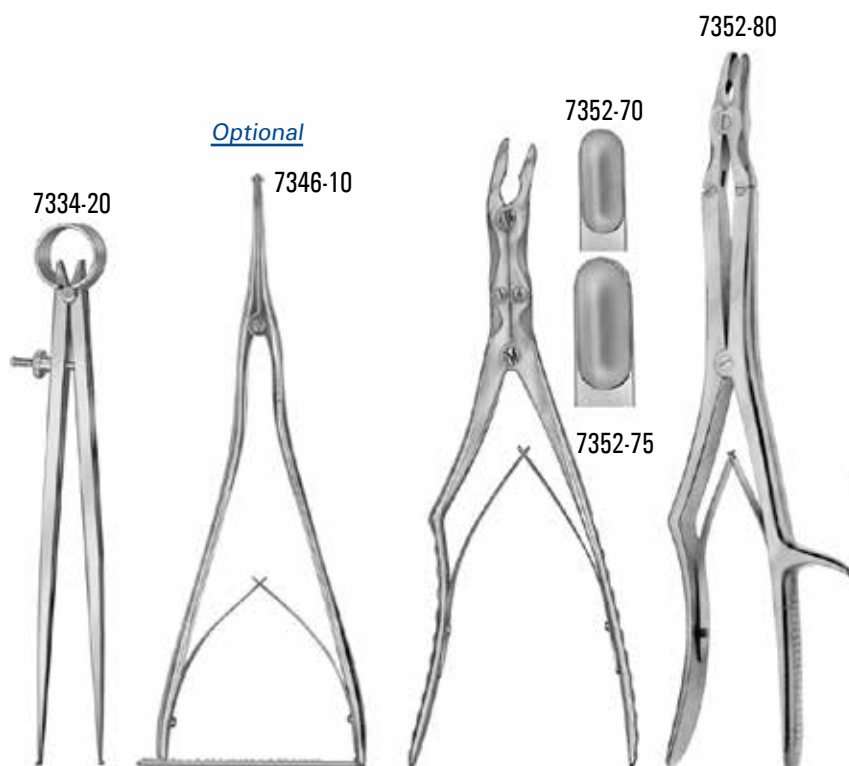
|                 |                |
|-----------------|----------------|
| 30 degree angle | 38 cm long     |
| 7439-40         | 8 mm ring size |

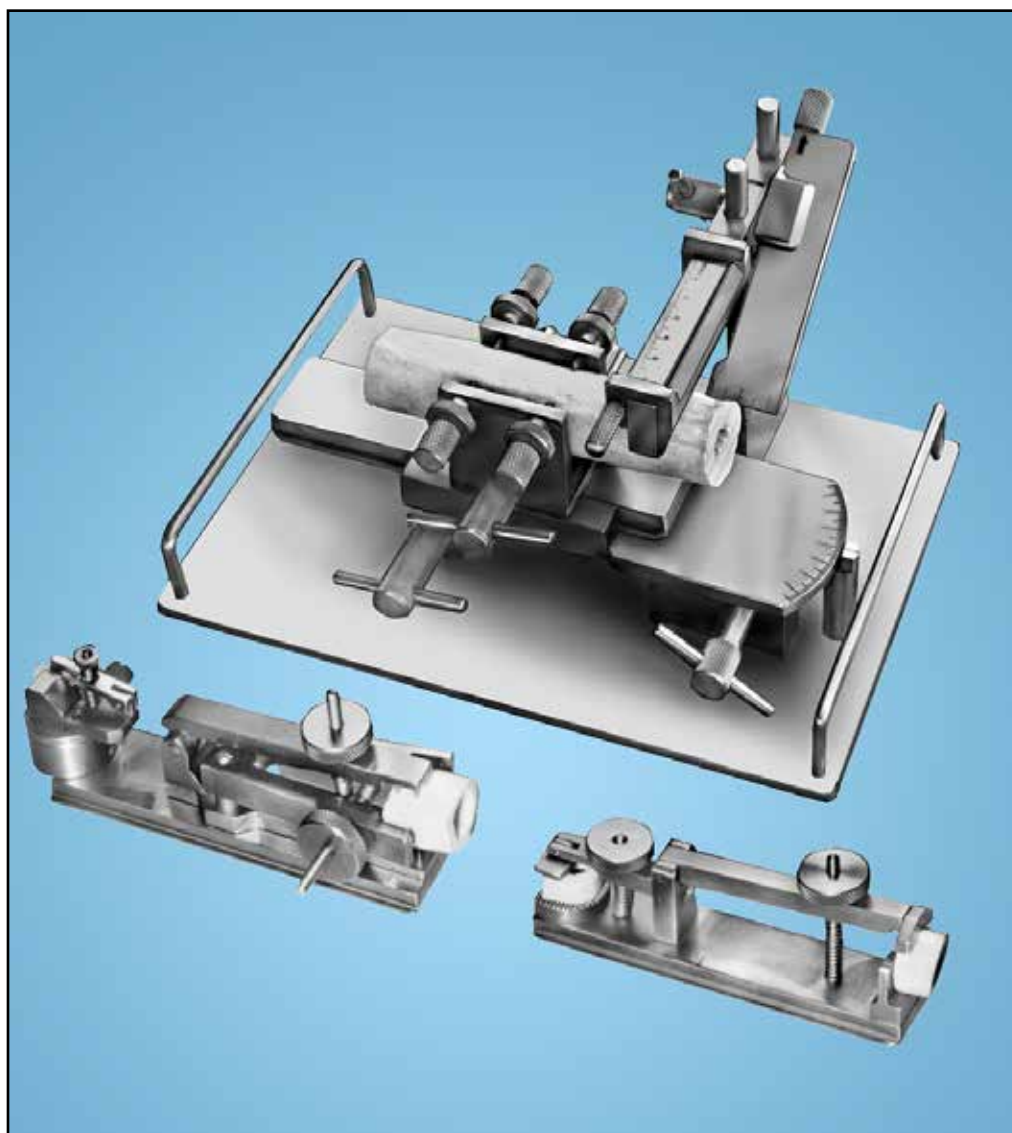
## Optional Anterior Bone Impactor

|         |         |          |
|---------|---------|----------|
| Length  | 34 cm   |          |
| 7439-48 | 9x16 mm | tip size |
| 7439-50 | 9x23 mm | tip size |

## Optional Anterior Bone Skid

|         |                 |
|---------|-----------------|
| Length  | 37 cm           |
| 7439-60 | 21 mm tip width |





- Designed for the precise shaping of bone plugs for spinal fusion procedures.
- Modular fixture to hold Iliac Crest and Tibial bones.
- Removable saw blade capture has dual fulcrum feature which ensures precise 90 degree cutting.
- Bone vise has gripping teeth on inside surfaces and four additional upper locking screws for complete bone stability.

- Floating measuring scale is easily accessible to and retractable from working field.
- Easy to sterilize stainless steel precision components.

Design elements of instrument are patent pending in the United States and other countries.

### **7590-00 Bone Cutting Jig\***

Set includes one (1) each of the following items:

- |         |                                                                                                       |
|---------|-------------------------------------------------------------------------------------------------------|
| 7590-20 | Fixture base with rotating table, saw blade guide, retractable measuring ruler and saw blade capture. |
| 7590-30 | Self-Centering Bone Vise                                                                              |
| 7590-40 | Horizontal/ Vertical Bone Holder                                                                      |
| 7590-50 | Collet-Vise Bone Holder                                                                               |

**\*This instrument is a Made to Order item!**

## Shoulder Retractor Set

- Retractor Set provides optimal exposure for shoulder operations.
- Blades are constructed from Titanium for better performance.
- Blade easily engages and releases from retractor arm.

Frame Dimensions:

Arm Length: 10 cm

Arm Opening: 10 cm max



### **7600-00      Shoulder Retractor Set**

Set includes the following items:

- |         |      |                                                |
|---------|------|------------------------------------------------|
| 7600-10 | 1 ea | Heavy Duty Quick Change Retractor Frame        |
| 7600-20 | 2 ea | 22 x 55 mm deep, 30 deg Angled Shoulder Blades |
| 7600-30 | 2 ea | 22 x 65 mm deep, 30 deg Angled Shoulder Blades |
| 7600-40 | 2 ea | Blade Inserter Clamps                          |
| 7600-50 | 1 ea | Instrument Tray<br>Size: 6 x 10 inch           |



## Hand Retractors

### Blade Retractors

|         |              |       |
|---------|--------------|-------|
|         | Blade Length | 7 cm  |
| 7732-10 | Width        | 18 mm |
| 7732-20 | Width        | 21 mm |
| 7732-30 | Width        | 24 mm |

### Clifford Offset Blade Retractor

|         |        |       |
|---------|--------|-------|
|         | Length | 22 cm |
| 7732-40 | Width  | 18 mm |
| 7732-50 | Width  | 20 mm |
| 7732-60 | Width  | 24 mm |
| 7732-70 | Width  | 30 mm |

### Cutter Retractor

|         |                |              |
|---------|----------------|--------------|
| 7733-10 | Width x Length | 1 x 6 inches |
| 7733-20 | Width x Length | 1 x 8 inches |

### Modified Tip Taylor Retractor

|         |        |        |
|---------|--------|--------|
|         | Length | 19 cm  |
|         | Width  | 2.3 cm |
| 7734-10 | Depth  | 7 cm   |
| 7734-20 | Depth  | 8.5 cm |
| 7734-30 | Depth  | 10 cm  |

### Two Level Lumbar Retractor

|         |        |        |
|---------|--------|--------|
|         | Length | 19 cm  |
|         | Width  | 5 cm   |
| 7734-40 | Depth  | 7.5 cm |
| 7734-50 | Depth  | 8.5 cm |
| 7734-60 | Depth  | 10 cm  |

### Wullstein Retractor

|         |              |           |
|---------|--------------|-----------|
|         | Total Length | Arm       |
| 7238-65 | 15.5 cm      | 5 cm deep |
| 7238-66 | 19 cm        | 6 cm deep |
| 7238-67 | 26 cm        | 6 cm deep |

## Orthopedic Hand Retractors



### 7740-10 T-Handle Retractor

32 mm wide x 10 cm deep blade, 9 inches long

### 7740-20 Titanium T-Handle Retractor

Plastic Handle Design

32 mm wide x 10 cm deep blade, 9 inches long

### 7740-30 Modified T-Handle Hand Retractor

32 mm wide x 10 cm deep blade, 9 inches long

\*slight curve at distal end of handle

### 7740-40\* Modified McElroy Type Hand Retractor

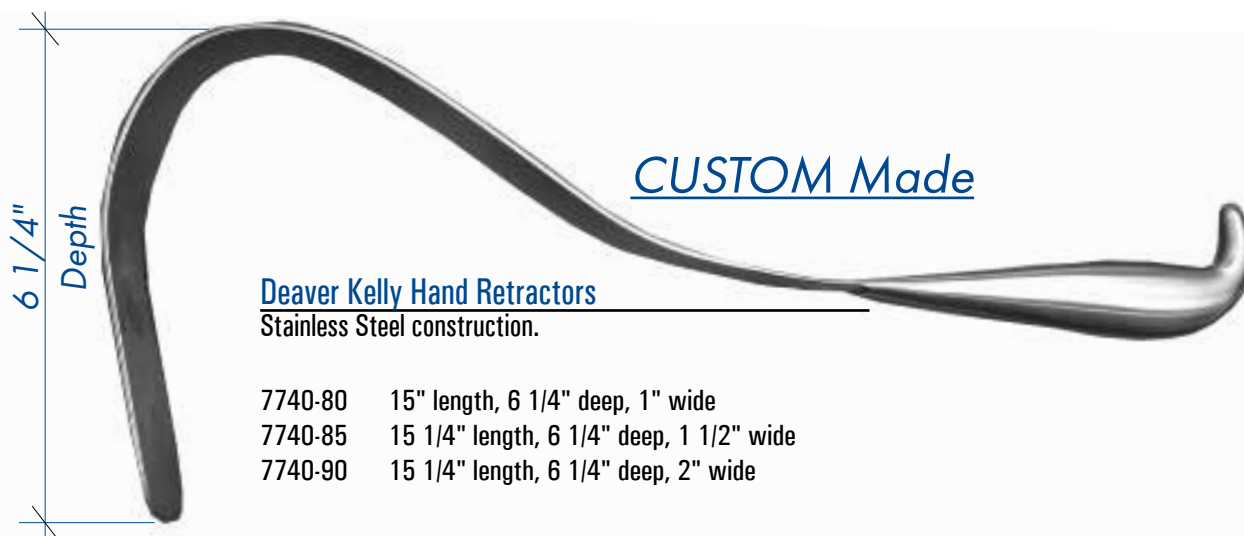
25 mm wide x 10 cm deep blade

### 7740-50\* Deep Modified McElroy Type Hand Retractor

25 mm wide x 15 cm deep blade

\* Items can be made custom length and depths.  
Please inquire!

## Deaver Kelly & Wylie Hand Retractors

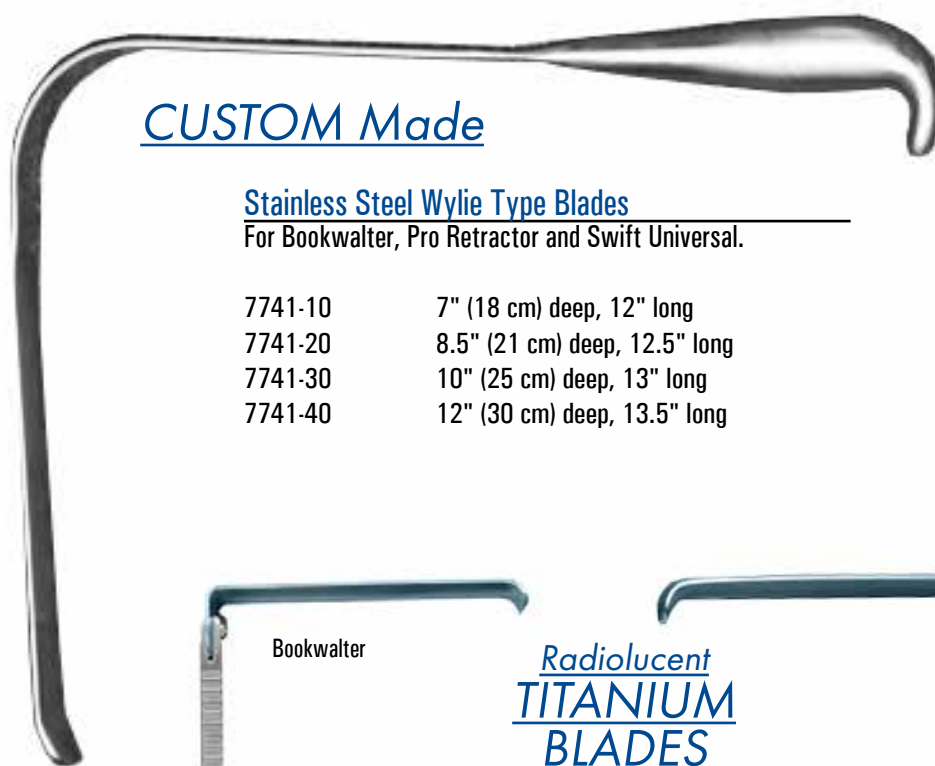


CUSTOM Made

### Deaver Kelly Hand Retractors

Stainless Steel construction.

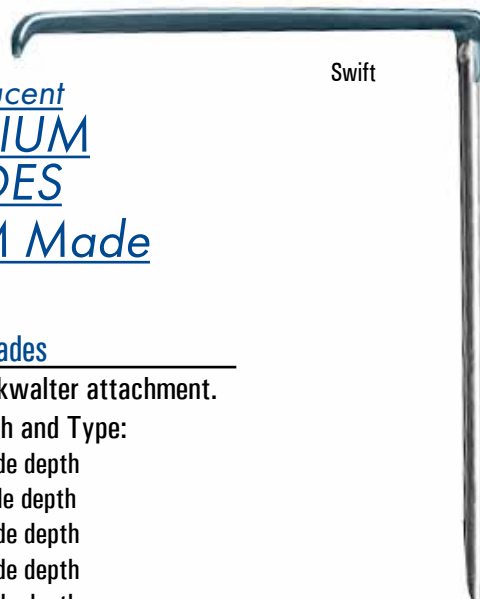
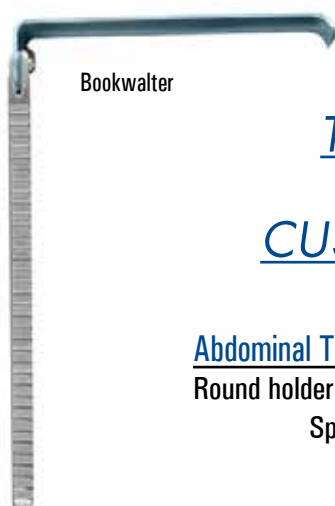
|         |                                          |
|---------|------------------------------------------|
| 7740-80 | 15" length, 6 1/4" deep, 1" wide         |
| 7740-85 | 15 1/4" length, 6 1/4" deep, 1 1/2" wide |
| 7740-90 | 15 1/4" length, 6 1/4" deep, 2" wide     |



### Stainless Steel Wylie Type Blades

For Bookwalter, Pro Retractor and Swift Universal.

|         |                               |
|---------|-------------------------------|
| 7741-10 | 7" (18 cm) deep, 12" long     |
| 7741-20 | 8.5" (21 cm) deep, 12.5" long |
| 7741-30 | 10" (25 cm) deep, 13" long    |
| 7741-40 | 12" (30 cm) deep, 13.5" long  |



Radiolucent  
TITANIUM  
BLADES  
CUSTOM Made

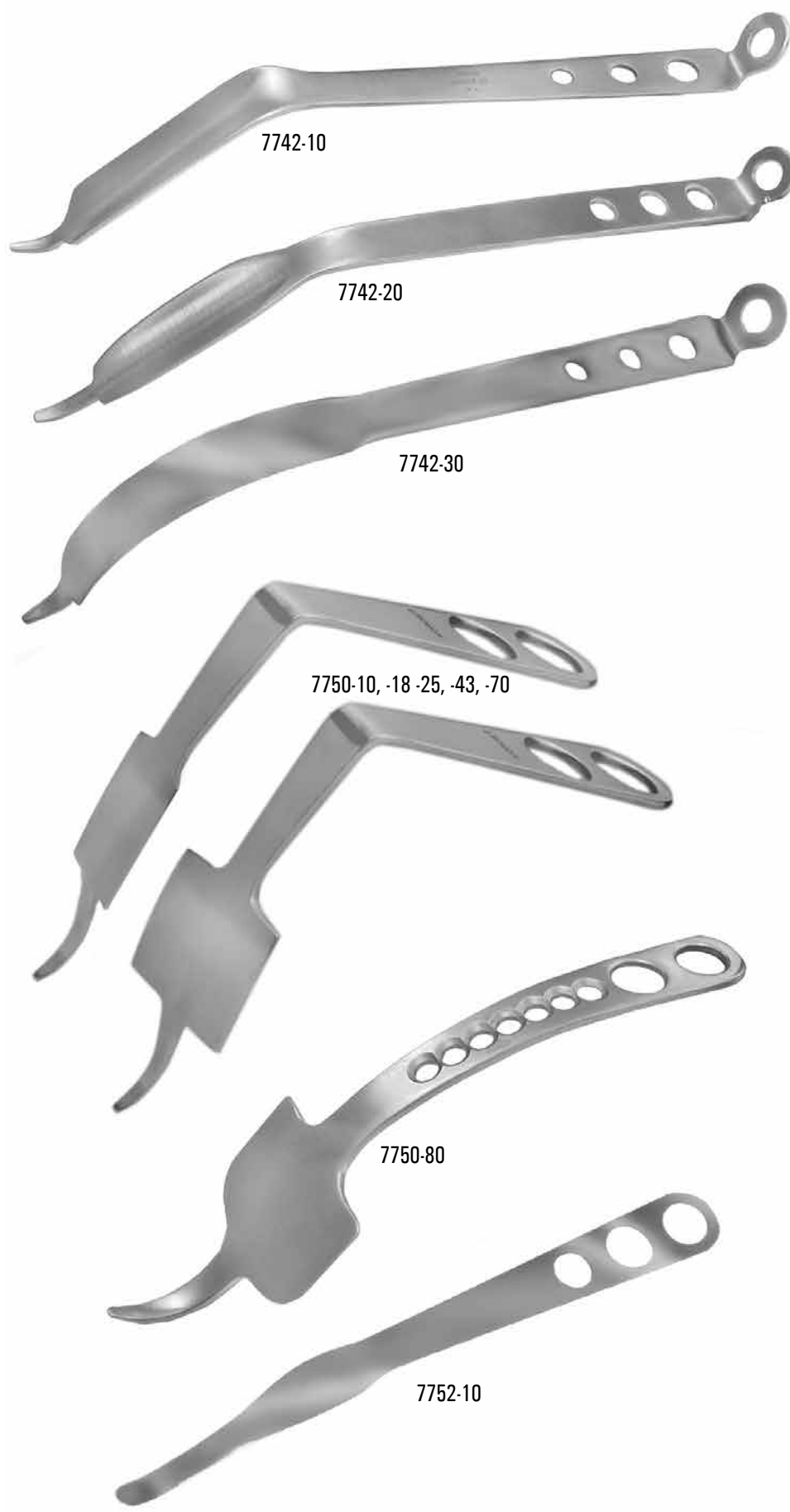
### Abdominal Titanium Blades

Round holders size. Bookwalter attachment.

Specific Depth and Type:

- 12 cm blade depth
- 14cm blade depth
- 16 cm blade depth
- 18 cm blade depth
- 20 cm blade depth

Orthopaedic Hand Retractors



|         |                                  |                 |                         |
|---------|----------------------------------|-----------------|-------------------------|
| 7742-10 | Modified Cobra Aufranc Retractor | 30 x 100 mm     | 13", 33 cm long blade   |
| 7742-20 | Modified Cobra Aufranc Retractor | 25 x 80 mm      | 13", 33 cm long blade   |
| 7742-30 | Modified Aufranc Retractor       | 22 x 80 mm      | 12.5", 32 cm long blade |
|         |                                  | Length          | Width                   |
| 7750-10 | Modified Hohman Type Retractor   | 10 mm           | 25 cm                   |
| 7750-18 | Modified Hohman Type Retractor   | 18 mm           | 25 cm                   |
| 7750-25 | Modified Hohman Type Retractor   | 25 mm           | 25 cm                   |
| 7750-43 | Modified Hohman Type Retractor   | 43 mm           | 25 cm                   |
| 7750-70 | Modified Hohman Type Retractor   | 70 mm           | 25 cm                   |
| 7750-80 | Wide Tissue Retractor            | 10", 26 cm long | 50 x 70 mm wide blade   |
| 7752-10 | Narrow Tissue Retractor          | 27 cm long      | 10 mm tip, 25 mm wide   |

7755-25 Shallow Bone Retractor, 25 cm long

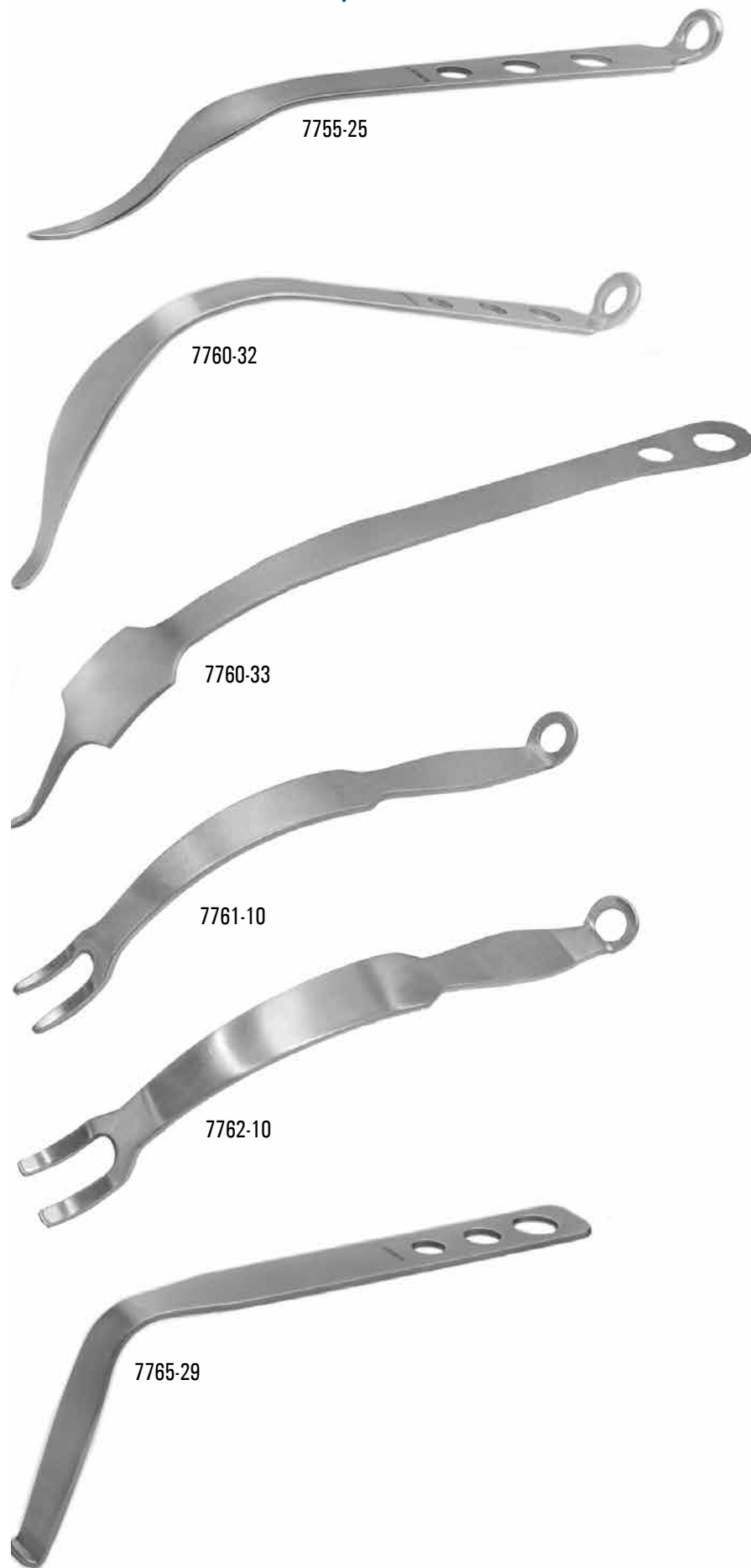
7760-32 Aufranc Type Hip Joint Retractor  
32 cm long  
Blade length 12-13 cm long

7760-33 Anterior Displacement Retractor  
37 cm long

7761-10 PCL Retractor, Standard.  
(Formed to straddle the  
cruciate ligament).  
10" long, 4.5 mm wide prongs  
21 mm wide tip

7762-10 Wide prong PCL Retractor.  
(Formed to straddle the  
cruciate ligament).  
10" long, 5.5 mm wide prongs  
23 mm wide tip

7765-29 U.S.C. Bone Retractor  
29 cm long



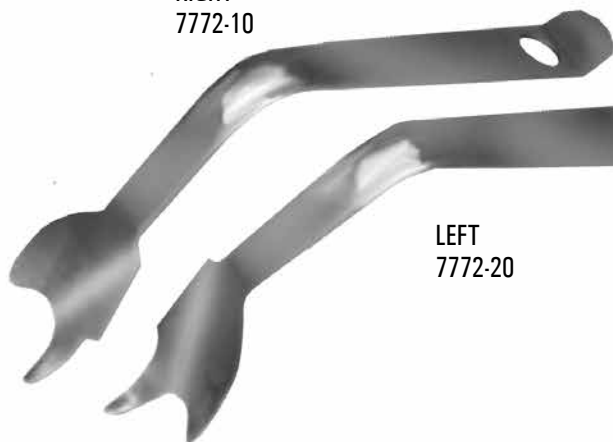
## Orthopaedic Hand Retractors

7770-40



7770-40 Anterior Acetabular Snake Head Retractor, 40 cm long

RIGHT  
7772-10



7772-10 Infero-Posterior Acetabular Capsule Retractor Right 14 inch length, 6 inch deep

LEFT  
7772-20



7772-20 Infero-Posterior Acetabular Capsule Retractor Left 14 inch length, 6 inch deep

7775-37



7775-37 Modified Moore Bone Retractor 37 cm long

7775-40



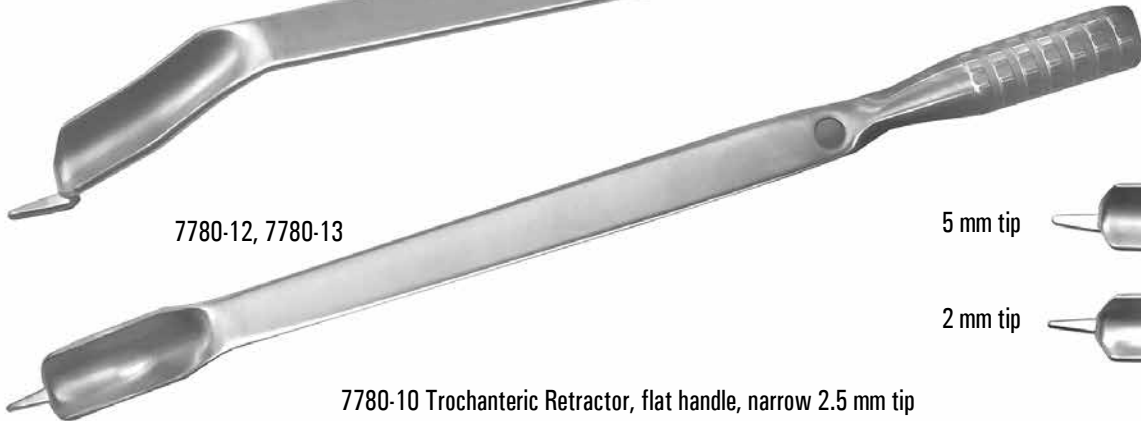
7775-40 Eisenhower Contour Femoral Elevator, 15.5"

# Matta Style Orthopaedic Hand Retractors

7780-10, 7780-11



7780-12, 7780-13



5 mm tip



2 mm tip



7780-10 Trochanteric Retractor, flat handle, narrow 2.5 mm tip

7780-11 Trochanteric Retractor, flat handle, wide 5 mm tip

7780-12 Trochanteric Retractor, long round handle, narrow 2.5 mm tip

7780-13 Trochanteric Retractor, long round handle, wide 5 mm tip

7780-14 Matta Hohman Retractor, 25 mm wide

7780-15 Round Extender, Handle Only

7780-16 Broach Handle

7780-17 Hip Skid Matta Style

7780-18 Pelvic Pliers

7780-19 Matta Hohman Retractor, 20 mm wide

7780-19



7780-14



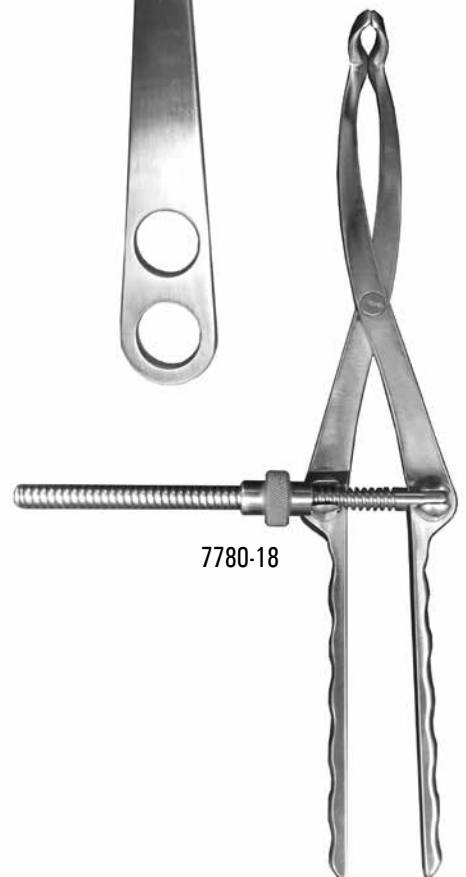
7780-15



7780-16

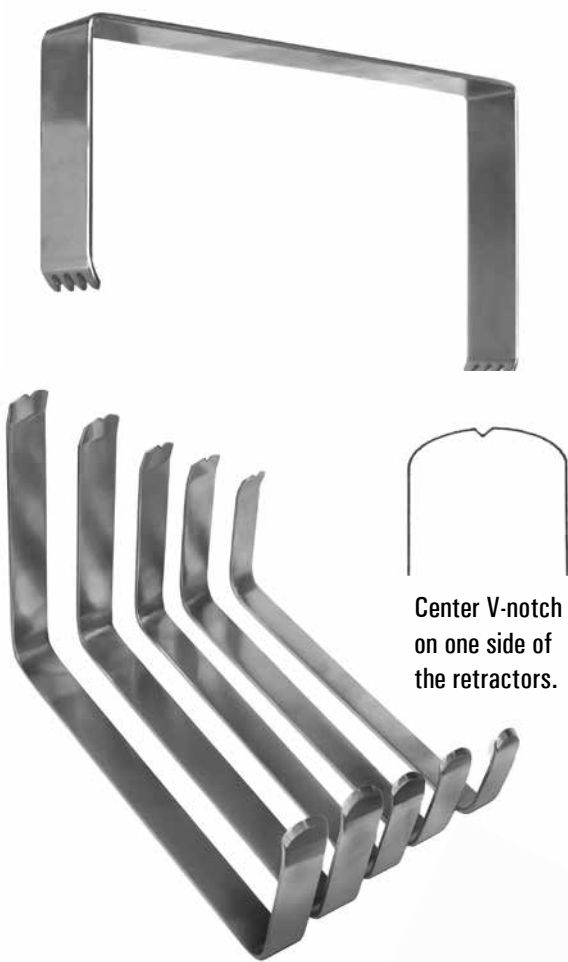


7780-17



7780-18

Hand Held Retractors



Center V-notch  
on one side of  
the retractors.

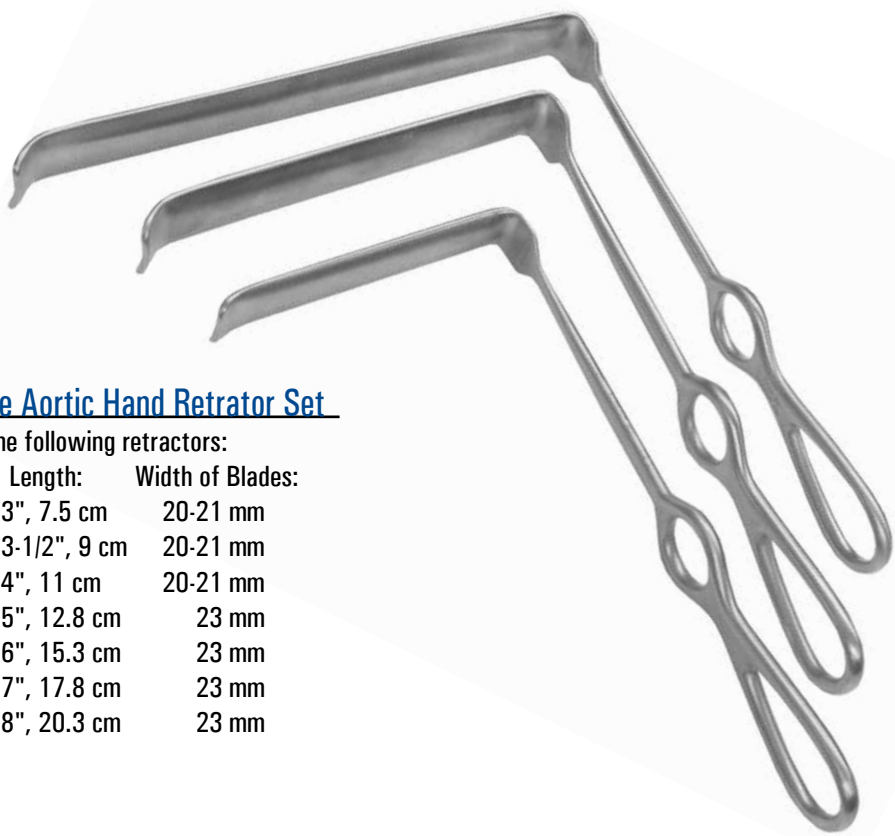
7740-59 Double Ended Hibbs Retractor  
8 cm/ 12 cm deep, 25 mm wide, 22 cm long

7740-60 Sofield Retractor Set\*

Set includes one each of the following retractors:

|         |        |              |
|---------|--------|--------------|
| 7740-61 | Size 1 | 1/2 x 2 3/4" |
| 7740-62 | Size 2 | 5/8 x 3"     |
| 7740-63 | Size 3 | 5/8 x 3 1/2" |
| 7740-64 | Size 4 | 3/4 x 4"     |
| 7740-65 | Size 5 | 3/4 x 4 1/2" |

**\*Sold as a set only.**



7740-70 Renal Type Aortic Hand Retractor Set

Set includes one 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", 12.8 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            |

## Hex Screw Drivers



| Part#   | Description                 | Size                      |
|---------|-----------------------------|---------------------------|
| 7780-20 | Small Hex Screw Driver      | 23 cm<br>2.3 mm hex tip   |
| 7780-22 | Hex Screw Driver            | 26.5 cm<br>3.4 mm hex tip |
| 7780-24 | Hex Screw Driver            | 39 cm<br>5 mm hex tip     |
| 7780-26 | Hex Screw Driver w/T Handle | 29 cm<br>5 mm hex tip     |
| 7780-28 | Hex Screw Driver Shaft Only | 11 cm<br>5 mm hex tip     |
| 7780-30 | Universal Ratcheting Handle | 12 cm                     |

## Rod Clamps and Pliers



| Part#   | Description                 | Size                                         |
|---------|-----------------------------|----------------------------------------------|
| 7780-32 | Rod Holder Clamp            | 19 cm<br>Holds 4.5, 5, 6, 6.5 mm rods 7 1/4" |
| 7780-34 | Rod Holder Plier            | 24 cm<br>Holds 4-8 mm rods 9 3/4"            |
| 7780-36 | Power Grip Rod Holder Plier | 23.5 cm<br>Holds 5-8 mm rods 9"              |

## Spinal Fusion Instruments

### Straight and Curved Implant Holders

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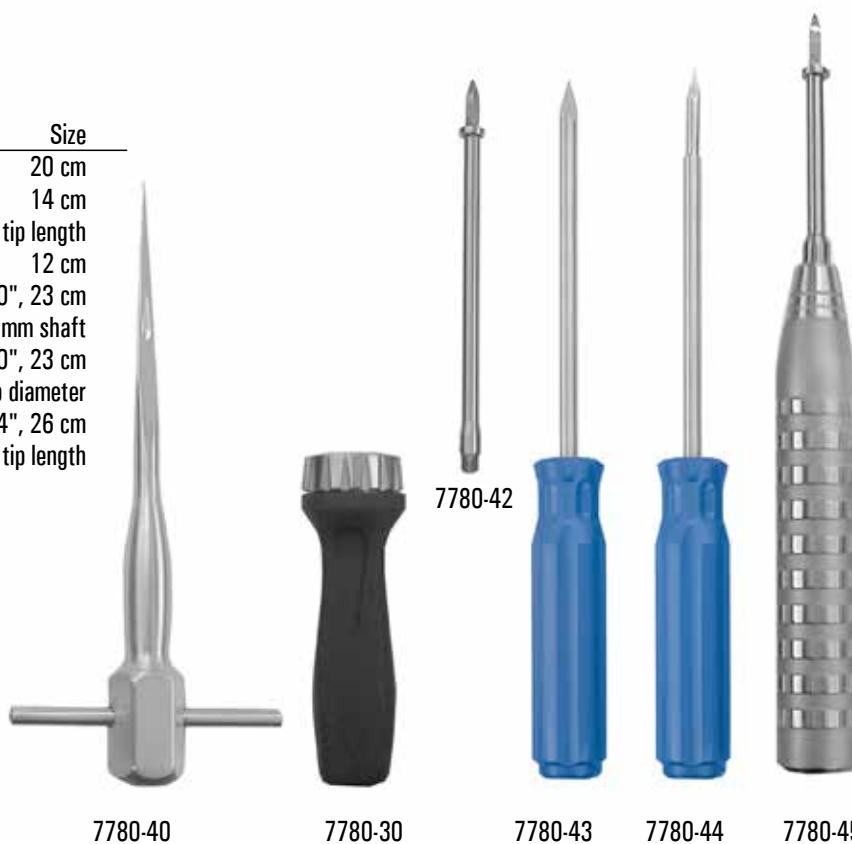


| Part#   | Description             | Size  |
|---------|-------------------------|-------|
| 7781-10 | Straight Implant Holder | 21 cm |
| 7781-12 | Curved Implant Holder   | 21 cm |
| 7781-14 | Plate Holder            | 21 cm |
| 7781-16 | Rocker Implant Holder   | 21 cm |

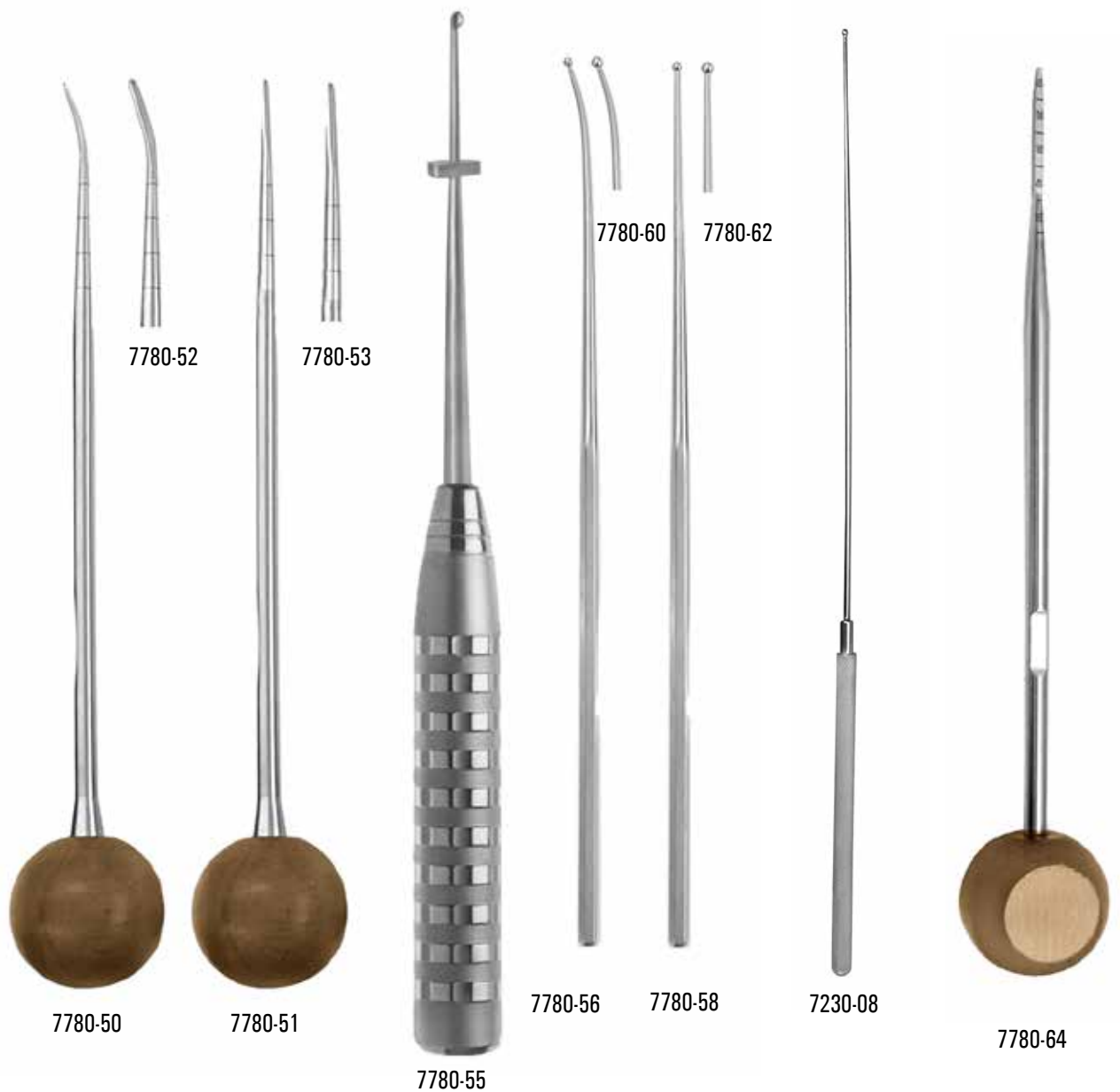
### Awls

---

| Part#   | Description                 | Size           |
|---------|-----------------------------|----------------|
| 7780-40 | Vampire Awl                 | 20 cm          |
| 7780-42 | Bone Awl Shaft Only         | 14 cm          |
|         | 20 mm tip length            |                |
| 7780-30 | Universal Ratcheting Handle | 12 cm          |
| 7780-43 | Bone Awl                    | 10", 23 cm     |
|         | 6.3 mm shaft                |                |
| 7780-44 | Delicate Bone Awl           | 10", 23 cm     |
|         | 4.7 mm tip diameter         |                |
| 7780-45 | Spinal Pedicle Awl          | 11 3/4", 26 cm |
|         | 16 mm tip length            |                |



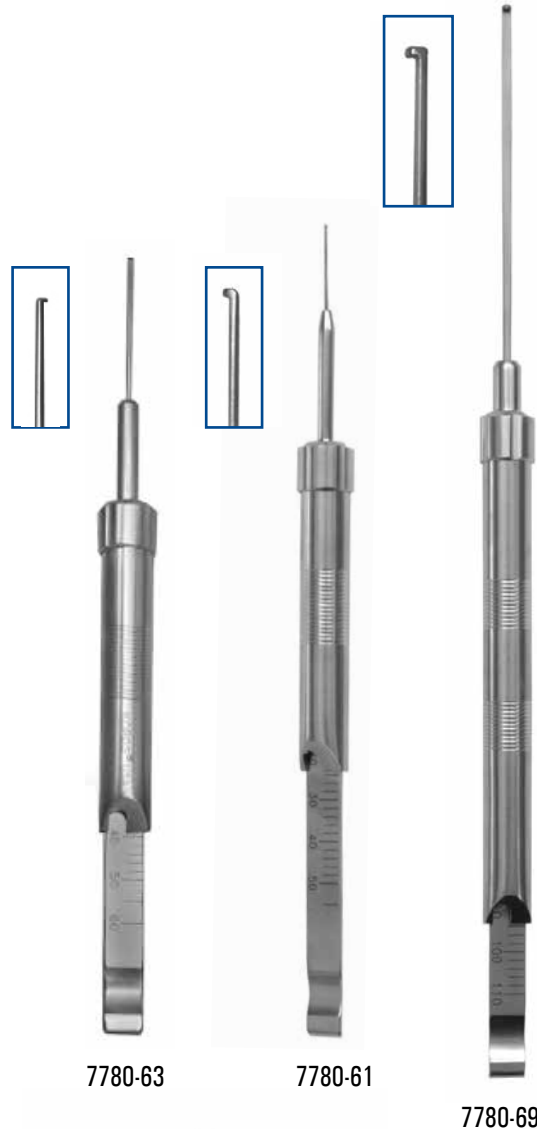
Pedicle Probes & Curette



| Part#   | Description                                                            | Size                  |
|---------|------------------------------------------------------------------------|-----------------------|
| 7780-50 | Curved Pedicle Probe                                                   | 24.5 cm<br>3 mm tip   |
| 7780-51 | Straight Pedicle Probe                                                 | 24.5 cm<br>3 mm tip   |
| 7780-52 | Curved Pedicle Probe                                                   | 24.5 cm<br>3.6 mm tip |
| 7780-53 | Straight Pedicle Probe                                                 | 24.5 cm<br>3.6 mm tip |
| 7780-55 | Pedicle Curette<br>4/0 Curette Tip, 16 cm Handle<br>40 mm Stopper Ring | 29 cm                 |
| 7780-56 | Curved Ball Tip Pedicle Finder<br>1.5 mm diameter tip                  | 24 cm                 |

|         |                                                                  |         |
|---------|------------------------------------------------------------------|---------|
| 7780-58 | Straight Ball Tip Pedicle Finder<br>1.5 mm diameter tip          | 24 cm   |
| 7230-08 | Ball Probe                                                       | 26.5 cm |
| 7780-60 | Curved Ball Tip Pedicle Finder<br>2 mm diameter tip              | 24 cm   |
| 7780-62 | Straight Ball Tip Pedicle Finder<br>2.7 mm diameter tip          | 24 cm   |
| 7780-64 | Angled Tip Pedicle Probe<br>2.7 mm diameter tip                  | 24 cm   |
| 7780-65 | Tapered Pedicle Marker Pin Set<br>1 ea 7780-66, 7780-67, 7780-68 |         |

## Spinal Fusion Instruments



| Part#   | Description                                                                                     |
|---------|-------------------------------------------------------------------------------------------------|
| 7780-63 | Screw Depth Gauge, 1.7 mm needle, 60 mm scale, total length 20 cm                               |
| 7780-69 | Screw Depth Gauge, 2.5 mm needle, 110mm scale, total length 26 cm                               |
| 7780-61 | Screw Depth Gauge, 1.7 mm needle, 50 mm scale, total length 20 cm. Complete set pictured above. |

|         |                                                                                 |
|---------|---------------------------------------------------------------------------------|
| 7780-65 | Tapered Pedicle Marker Pin Set<br>1 ea 7780-66, 7780-67, 7780-68, Not pictured. |
| 7780-66 | Miami Pedicle Marker Pin with<br>Ridges (5 ea) 2 mm x 6 cm long                 |
| 7780-67 | Tapered Miami Pedicle Marker Pin<br>with Ridges (5 ea) 2 mm x 6 cm long         |
| 7780-68 | Quick Change Handle                                                             |



## Compressors and Distractors



7780-70 Straight Distractor Plier 8 1/4", 21 cm



7780-72 Curved Distractor Plier 11", 28 cm

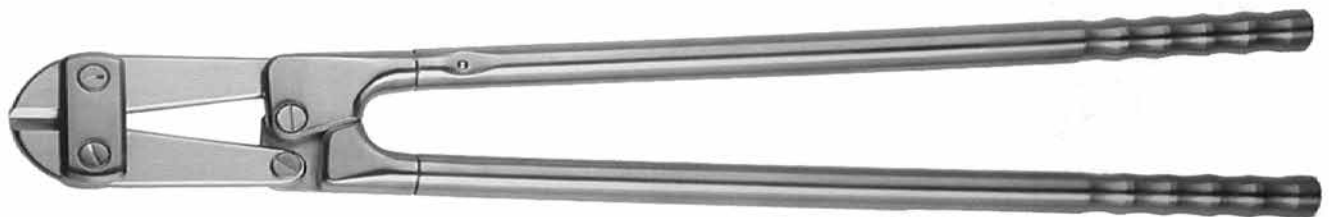


7780-74 Curved Compressor Plier 11", 28 cm



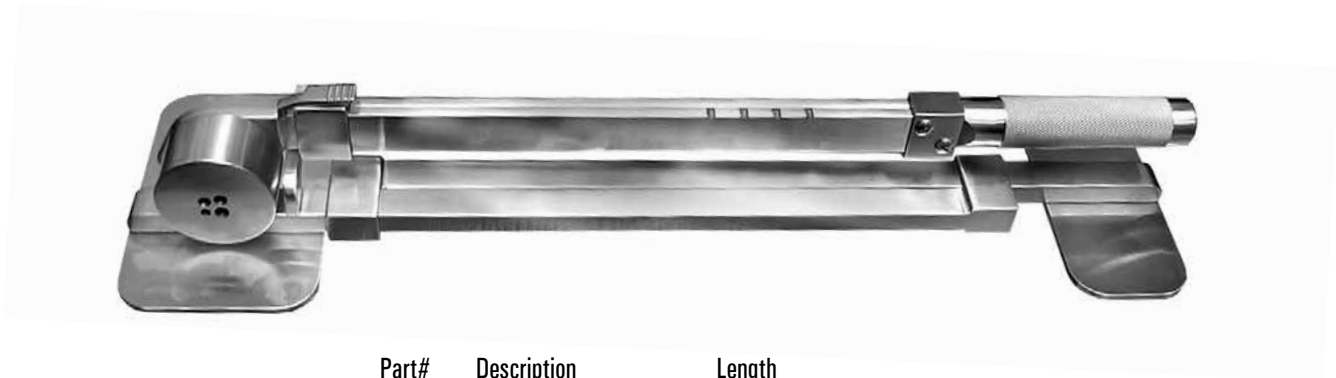
| Part#   | Description                                     | Length |
|---------|-------------------------------------------------|--------|
| 7780-90 | Separator / Skid<br>8 mm tip length             | 27 cm  |
| 7780-92 | Long Separator / Skid<br>45 cm, 8 mm tip length |        |
| 7780-94 | Rod Pusher<br>16 cm handle                      | 28 cm  |
| 7780-96 | Rod Pusher<br>20 cm handle<br>(not shown)       | 32 cm  |

| Part#   | Description                                                         | Length          |
|---------|---------------------------------------------------------------------|-----------------|
| 7780-98 | Pliable Trial Rod<br>51 cm<br>1 cm increment scale<br>5 mm diameter |                 |
| 7781-20 | French Bender<br>Adjustable for small,<br>medium and large bends.   | 28 cm           |
| 7781-18 | Cervical Rod Bender                                                 | 18.5 cm<br>4 mm |



7781-25 Implant Rod Cutter 57 cm  
Cuts up to 1/4", 6.3 mm rods  
Detachable Arms

Impact Rod Sheer, Elevator, Positioner



| Part#   | Description                                                                              | Length |
|---------|------------------------------------------------------------------------------------------|--------|
| 7781-30 | Implant Rod Sheer*<br>Cuts 4.8, 5.5 and 6.3 mm rods.<br>Arms extends for easy operation. | 51 cm  |

**\*This is a Made to Order Item.**



7780-31

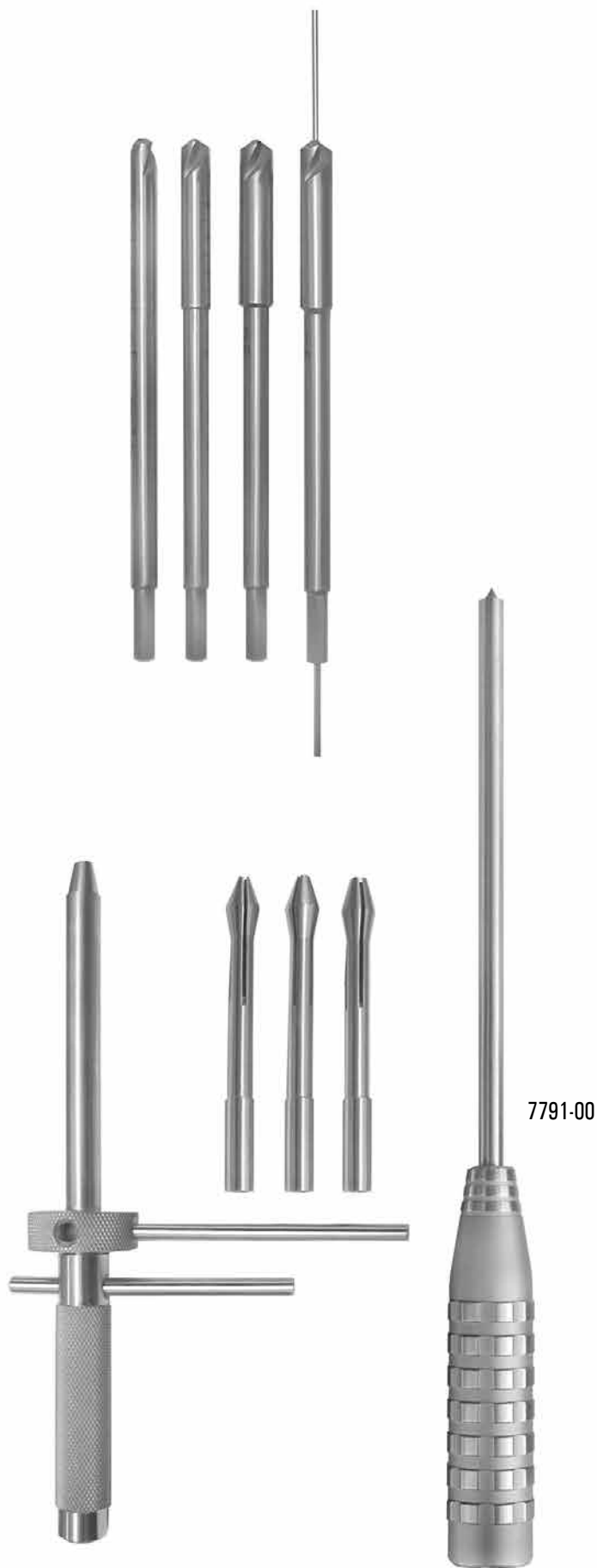


7780-31 Femoral Neck Elevator Retractor  
31cm long

7700-10 8 inch high Lateral Positioner  
3.5 inch wide x 8 inch high

7700-11 10 inch high Lateral Positioner  
3.5 inch wide x 10 inch high

## Cannulated Drill Set, Craig Pin Removal Set



### **7784-00 Cannulated Drill Set**

Length 6", 15 cm

Pin Hole Diameter 2.5 mm

Hardened Stainless Steel Construction

Set includes the following items:

|         |      |                                     |
|---------|------|-------------------------------------|
| 7784-08 | 1 ea | 8 mm diameter Cannulated Drill Bit  |
| 7784-09 | 1 ea | 9 mm diameter Cannulated Drill Bit  |
| 7784-10 | 1 ea | 10 mm diameter Cannulated Drill Bit |
| 7784-11 | 1 ea | 11 mm diameter Cannulated Drill Bit |

### **7790-00 Craig Pin Removal Set**

Consists of:

|         |      |                           |
|---------|------|---------------------------|
| 7790-10 | 1 ea | Craig Pin Removal Handle  |
| 7790-20 | 1 ea | Craig Collet Lock         |
| 7790-30 | 2 ea | Tomy Bar                  |
| 7790-40 | 1 ea | 1/16 inch diameter Collet |
| 7790-45 | 1 ea | 1/8 inch diameter Collet  |
| 7790-50 | 1 ea | 3/16 inch diameter Collet |
| 7790-55 | 1 ea | 1/4 inch diameter Collet  |

### **7791-00 Orthopedic Sharp Point Spike**

Length 12", 30 cm

Shaft Diameter 8 mm

Tip Size 4 mm long, tapers to 5 mm diameter

Handle Diameter 25 mm

Handle Length 4 3/4 "

## Bone Clamps



**Farabeuf-Lambotte Bone Clamp**

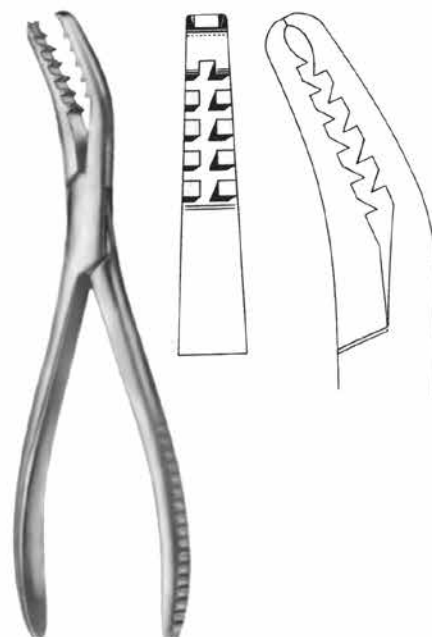
7791-20 Length 10", 25.5 cm



**Kern Type Bone Clamp**

7791-10 Length 5 1/2", 14 cm

7791-15 Length 10", 25.5 cm



**Semb Type Bone Clamp**

7791-30 Length 7 1/2", 19 cm



**Side Angled Bone Clamp**

7791-40 5 1/4", 15 cm long 3 mm wide jaw

7791-42 7 1/2", 19 cm long 7 mm wide jaw

7791-44 9 1/2", 24 cm long 10.5 mm wide jaw

7791-46 10 1/2", 25.5 cm long 11.5 mm wide jaw

7791-48 11 1/2", 28 cm long 11.5 mm wide jaw



**Lane Type Bone Clamp**

7790-51 Length 13", 33 cm with Ratchet

7790-52 Length 17", 43 cm with Ratchet



**Lambotte Type Bone Clamp**

7790-60 Length 8", 20.5 cm

7790-61 Length 10", 25.5 cm

7790-62 Length 12", 31 cm

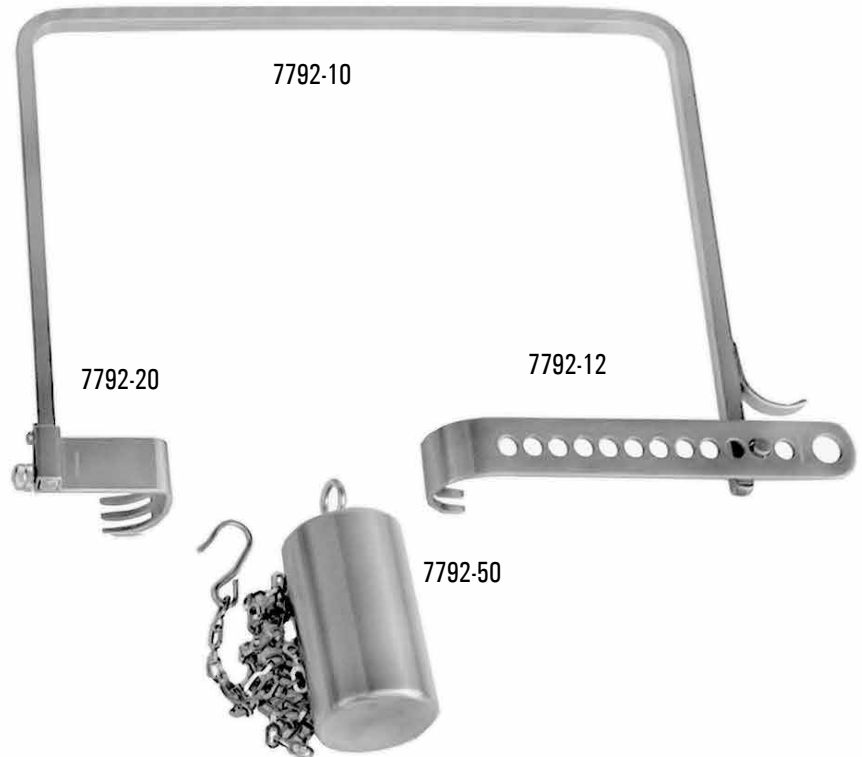
## Charly Type Hip Retractor

**7792-00**

### **Charly Type Hip Retractor Set**

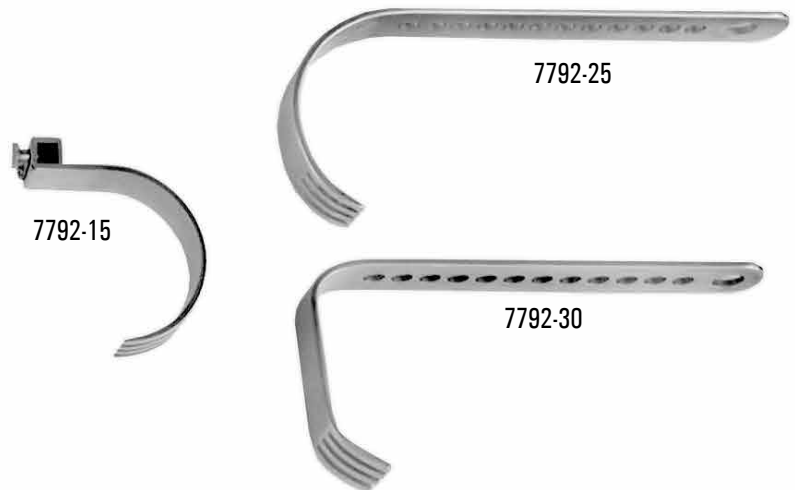
Consists of:

- |              |                                            |
|--------------|--------------------------------------------|
| 1 ea 7792-10 | Retractor Frame<br>size 9 x 12"            |
| 1 ea 7792-12 | Curved Adjustable Blade<br>size 1 x 1 1/2" |
| 1 ea 7792-20 | Angled Fixed Blade<br>size 1 x 1 1/4"      |
| 1 ea 7792-50 | Weight 4                                   |



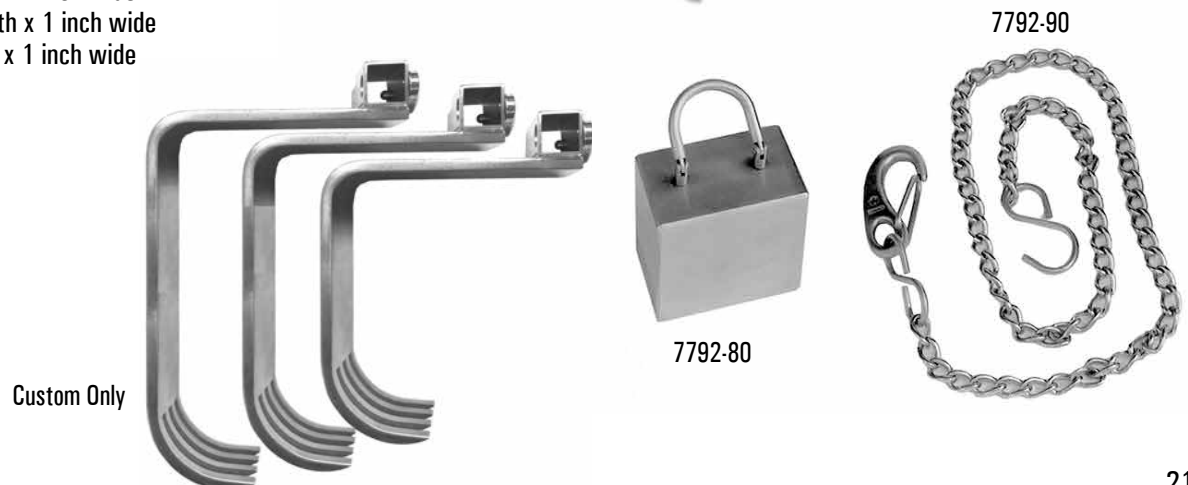
### Optional Items:

- |         |                                            |
|---------|--------------------------------------------|
| 7792-15 | Curved Fixed Blade<br>size 1 x 2-3/4"      |
| 7792-25 | Curved Adjustable Blade<br>size 1 x 2-3/4" |
| 7792-30 | Angled Adjustable Blade<br>size 1 x 3"     |
| 7792-80 | Custom, Weight 5 lbs.                      |
| 7792-90 | Chain with Safety Hook<br>40"              |

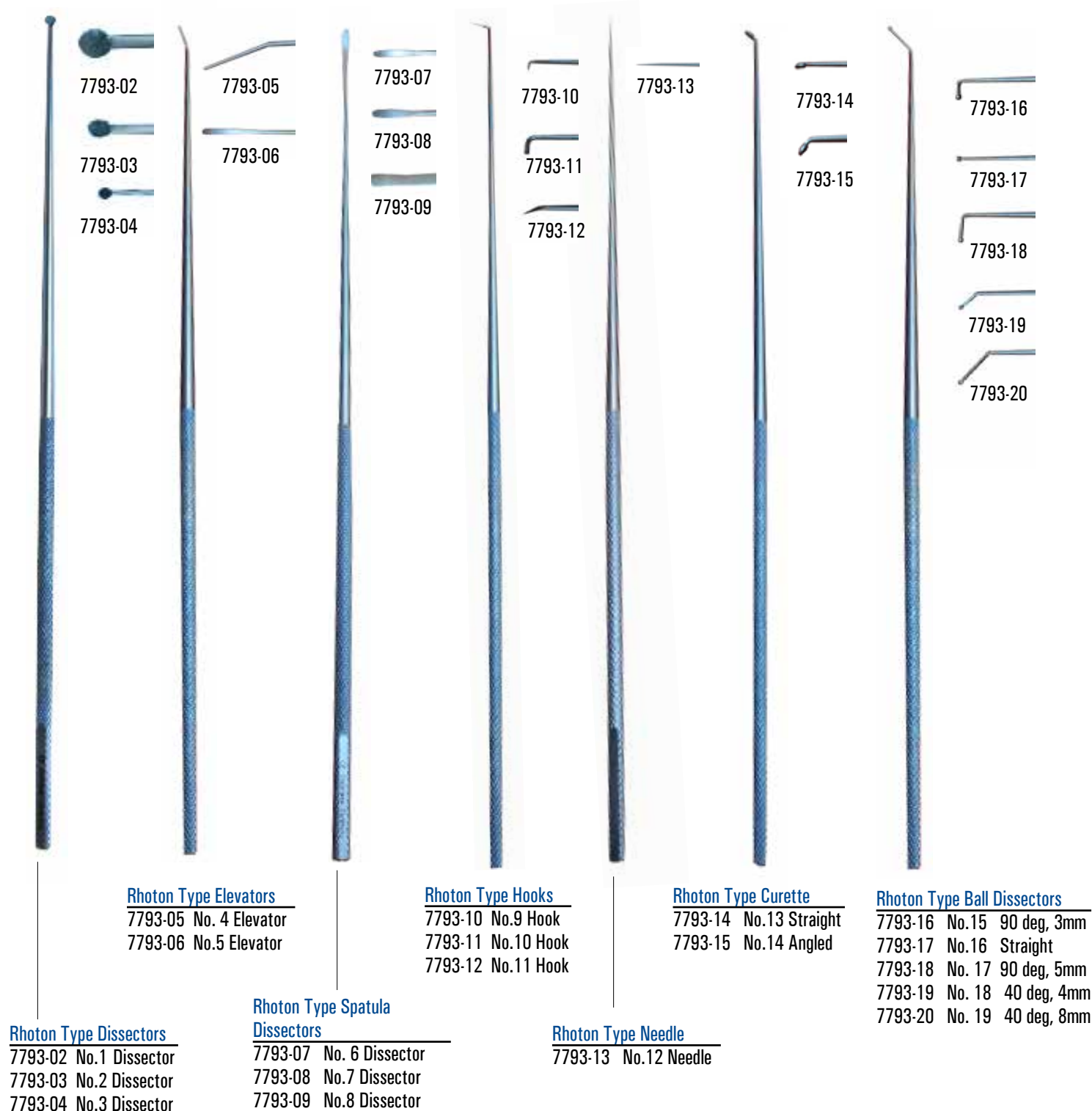


### Custom:

- 2 inch blade length x 1 inch wide
- 2.5 inch blade length x 1 inch wide
- 3 inch blade length x 1 inch wide



# Rhoton Type Titanium Instruments



# Rhoton Type & Spetzler Type Titanium Instruments



## Micro Set, Titanium

7793-00 Holds twenty (20) Rhoton type instruments and three (3) Spetzler Type instruments.



7793-01 Instrument Case Only



## Spetzler Type Instruments

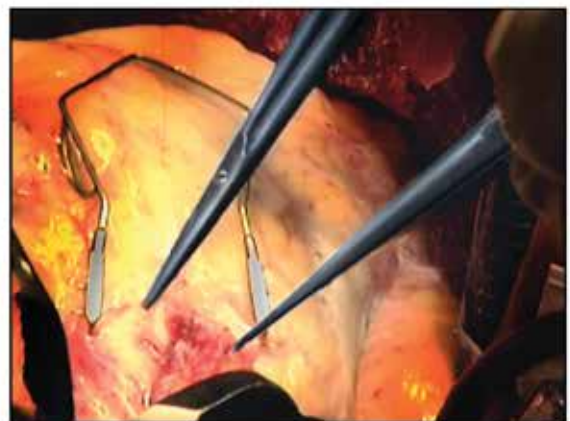
7793-21 90 deg Angled ball probe  
7793-22 40 deg Angled ball probe  
7793-23 Elevator

# 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.*
- ▶ *Modified or Custom instruments are available.*



## Titanium Round Handle Delicate DeBakey Micro Forceps

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



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

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



## Titanium Round Handle Micro Forceps Micro Tungsten Grip Platform

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



## Titanium Gerard DeBakey Platform Delicate Micro Forceps Flat Handle

|                  |       |     |                                                  |
|------------------|-------|-----|--------------------------------------------------|
| <b>8031-17 T</b> | 18 cm | 7 " | 1 mm Delicate DeBakey platform, Micro serration. |
|------------------|-------|-----|--------------------------------------------------|



## Titanium Gerard Micro Forceps Flat Handle , Micro Tungsten Grip Platform

|                  |       |     |                         |
|------------------|-------|-----|-------------------------|
| <b>8031-18 T</b> | 18 cm | 7 " | 1 mm Straight platform. |
|------------------|-------|-----|-------------------------|



## Titanium BeBakey Micro Forceps Flat Handle, Micro Tungsten Grip Platform

|                  |       |         |                                   |
|------------------|-------|---------|-----------------------------------|
| <b>8032-15 T</b> | 15 cm | 6 "     | 1 mm Flat Handle DeBakey platform |
| <b>8032-19 T</b> | 19 cm | 6 7/8 " | 1 mm Flat Handle DeBakey platform |
| <b>8032-24 T</b> | 24 cm | 8 7/8 " | 1 mm Flat Handle DeBakey platform |



|                  |       |         |                                     |
|------------------|-------|---------|-------------------------------------|
| <b>8033-15 T</b> | 15 cm | 6 "     | 1.8 mm Flat Handle DeBakey platform |
| <b>8033-19 T</b> | 19 cm | 6 7/8 " | 1.8 mm Flat Handle DeBakey platform |
| <b>8033-24 T</b> | 24 cm | 8 7/8 " | 1.8 mm Flat Handle DeBakey platform |



|                  |       |         |                                            |
|------------------|-------|---------|--------------------------------------------|
| <b>8036-15 T</b> | 15 cm | 6 "     | 1.8 mm Flat Handle Angled DeBakey platform |
| <b>8036-19 T</b> | 19 cm | 6 7/8 " | 1.8 mm Flat Handle Angled DeBakey platform |
| <b>8036-24 T</b> | 24 cm | 8 7/8 " | 1.8 mm Flat Handle Angled DeBakey platform |



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



|                  |         |     |                                        |
|------------------|---------|-----|----------------------------------------|
| <b>8046-15 T</b> | 15 cm   | 6 " | 0.4 mm Straight platform Micro Forceps |
| <b>8046-18 T</b> | 17.5 cm | 7 " | 0.4 mm Straight platform Micro Forceps |



|                  |         |         |                                          |
|------------------|---------|---------|------------------------------------------|
| <b>8047-21 T</b> | 20.5 cm | 8 1/2 " | 0.4 mm Straight platform Bayonet Forceps |
| <b>8048-21 T</b> | 20.5 cm | 8 1/2 " | 1.1 mm DeBakey platform Bayonet Forceps  |
| <b>8049-21 T</b> | 20.5 cm | 8 1/2 " | Ring Tip platform Bayonet Forceps        |

## ***Titanium Round Handle Jacobson Needle Holders. Micro Tungsten Grip Jaws.***

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

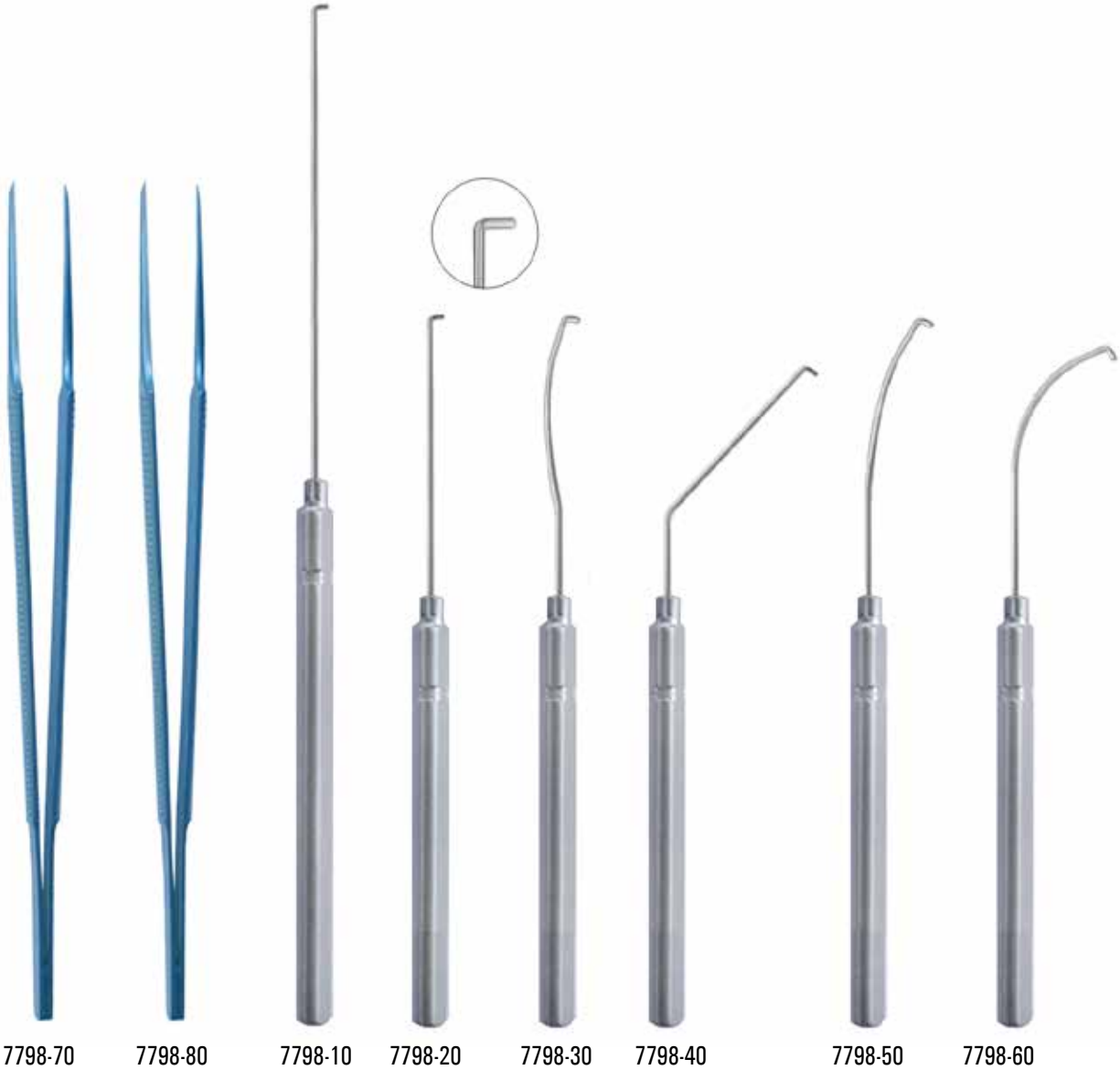


## ***Titanium Castroviejo Needle Holders. Micro Tungsten Grip Jaws.***

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



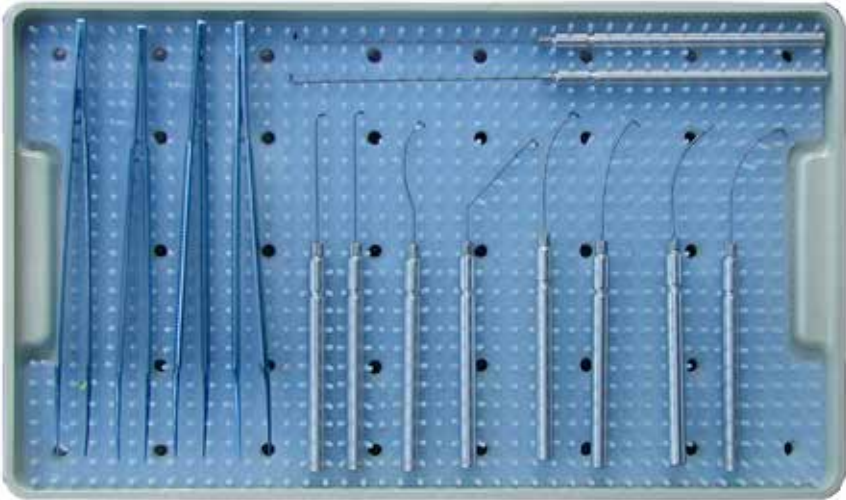
# Epilepsy Instrument Set

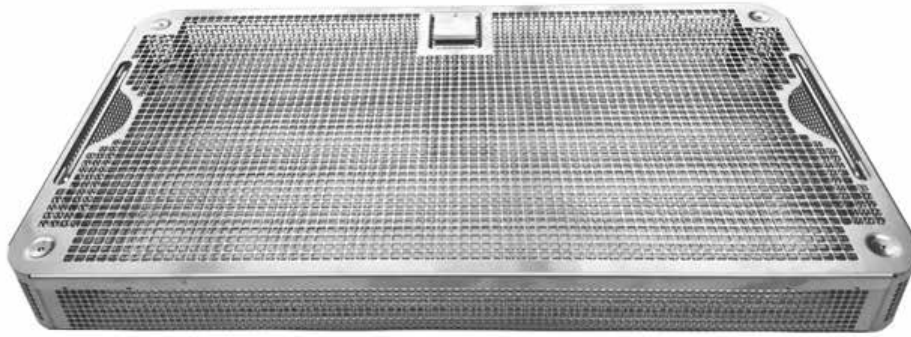


## 7798-00 Epilepsy Instrument Set

Set Includes:

|         |      |                                        | Length |
|---------|------|----------------------------------------|--------|
| 7798-10 | 2 ea | Straight Long Dissector                | 18 cm  |
| 7798-20 | 2 ea | Straight Dissector                     | 12 cm  |
| 7798-30 | 1 ea | Bowed Dissector                        | 12 cm  |
| 7798-40 | 1 ea | Angled Dissector                       | 12 cm  |
| 7798-50 | 2 ea | Curved Dissector                       | 12 cm  |
| 7798-60 | 2 ea | Heavy Curved Dissector                 | 12 cm  |
| 7798-70 | 2 ea | Titanium Sharp Forceps<br>0.5 mm tip   | 15 cm  |
| 7798-80 | 2 ea | Titanium Blunt Forceps<br>0.5 mm tip   | 15 cm  |
| 7798-90 | 1 ea | Sterilizing Case<br>6.5 x 11 x 1" size |        |





## Basket Mesh Tray with Cover

- |         |                                                                        |
|---------|------------------------------------------------------------------------|
| 7328-98 | Stainless steel construction with handles<br>19 x 10 x 2 inches.       |
| 7328-99 | Stainless steel construction with handles<br>21.25 x 10 x 2.75 inches. |



## Black Belt Container Tray with Cover

- |         |                                                                        |
|---------|------------------------------------------------------------------------|
| 7320-95 | Stainless steel construction with handles<br>21.25 x 10 x 2.75 inches. |
|---------|------------------------------------------------------------------------|



## Super Slide Container Tray with Cover

- |         |                                                                        |
|---------|------------------------------------------------------------------------|
| 7329-95 | Stainless steel construction with handles<br>21.25 x 10 x 2.75 inches. |
|---------|------------------------------------------------------------------------|

