Gain exposure with our new self-retaining retractor.

- Helps to expose the bone for better access.
- Useful in facilitating a lateral release during a bunionectomy procedure.
- 3mm-30mm calibrations marked on bottom side of ratchet help to measure and assess the width needed for the lateral portion of the bone graft.
- Useful in many types of procedures to assess the amount of bone graft needed, such as for fusions and non-unions.
- Rounded, cross-serrated outside working ends.
- Grooved handles help to provide a sure grip and prevent slippage.
- Made from German stainless steel.

40.3150 5 1/2", cross-serrated ends, calibrate
Calibrated Femoral Tibial Spreaders

Designed to remain in position, with the femur and tibia separated, without the need of an assistant, and to minimize crushing the bone, even if osteoporotic. A wide, unobstructed view of the posterior compartment is possible. Osteophytes on the posterior condyles of the femur and tibia can be seen and removed. The calibrated handle of the spreader makes it possible for two spreaders to be used to assist the surgeon in balancing ligaments.

The coated spreader is designed to separate the femur and tibia when implant components are in place. This is helpful in checking the back of the knee joint for cement, etc. The pads are coated to keep from scratching component surfaces and are slightly contoured to add stability against the curved articulating surfaces.

<table>
<thead>
<tr>
<th>Product #</th>
<th>Size</th>
<th>Length</th>
<th>Pads</th>
<th>Open Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>101-1850</td>
<td>Small</td>
<td>Length: 7”</td>
<td>Pads: 23x12mm</td>
<td>Opens to 39mm</td>
</tr>
<tr>
<td>101-185001</td>
<td>Small w/ Coated Pads</td>
<td>Length: 7”</td>
<td>Pads: 18x15mm</td>
<td>Opens to 39mm</td>
</tr>
<tr>
<td>101-1855</td>
<td>Medium</td>
<td>Length: 10”</td>
<td>Pads: 23x14mm</td>
<td>Opens to 50mm</td>
</tr>
<tr>
<td>101-1860</td>
<td>Large</td>
<td>Length: 12”</td>
<td>Pads: 25x16mm</td>
<td>Opens to 65mm</td>
</tr>
<tr>
<td>101-1865</td>
<td>Small w/ Round Pad</td>
<td>Length: 7”</td>
<td>Pads: 25x25mm</td>
<td>Opens to 39mm</td>
</tr>
<tr>
<td>101-1866</td>
<td>Medium w/ Round Pads</td>
<td>Length: 10”</td>
<td>Pads: 25x25mm</td>
<td>Opens to 50mm</td>
</tr>
</tbody>
</table>
Lamina Spreaders

Drill guide for parallel positioning of the distraction screws.

For right side approach.

40.1010 right body 2 1/2" spread
40.1012 right body 3 1/4" spread, long bar
40.1016 right drill guide

Caspar Distractor Right

Drill guide for parallel positioning of the distraction screws.

For left side approach.

40.1020 left body 2 1/2" spread
40.1022 left body 3 1/4" spread, long bar
40.1026 left drill guide

Caspar Distractor Left
Lamina Spreaders

40.2590  5"
Vertebra Spreader
#1 with ratchet
(Cloward Style) 3/4" spread

40.3120  6 1/2"
Cervical Spreader
angled
with teeth

40.2410
Lumbar Lamina Spreader
arm length: 3 1/2"
spread: 1 1/2"

40.2412
Lumbar Lamina Spreader
arm length 2 3/4"
spread 3 1/8"
Lamina Spreaders

40.2414
Lumbar Lamina Spreader
arm length 4"
spread 2 3/4"

40.3170
with teeth
40.3180
w/o teeth

Inge Retractor
6 1/2"

Ratchet is calibrated in mm and measures size of opening. Useful in many procedures to accurately assess bone graft needs.

40.3300
10"
Inge Retractor
with teeth

40.3190
6 1/2"
Saxena-Style Retractor
serrated outside blades
calibrated ratchet
Lamina Spreaders

Ratchet is calibrated in mm and measures size of opening. Useful in many procedures to accurately assess bone graft needs.

**40.3195 10”**

Saxena-Style Retractor
serrated outside blades
calibrated ratchet

**40.3260 10 1/2”**

Lamina Spreader
flat blades
with teeth

**40.3270 10 1/2”**

Lamina Spreader
concave blades
with teeth
**Tibial Spreaders**

**Lombardi Femoral Tibial Spreader**

Thin pads help to separate the femur and tibia during total knee procedures.

<table>
<thead>
<tr>
<th>Product Number</th>
<th>Length</th>
<th>Pads</th>
<th>Opens to</th>
</tr>
</thead>
<tbody>
<tr>
<td>1875: Large: Horizontal Grooved Pads</td>
<td>9.25&quot;</td>
<td>22mm x 13mm</td>
<td>50mm</td>
</tr>
<tr>
<td>1876: Small: Horizontal Grooved Pads</td>
<td>7&quot;</td>
<td>22mm x 13mm</td>
<td>35mm</td>
</tr>
<tr>
<td>1875D: Large: Diamond Cut Pads</td>
<td>9.25&quot;</td>
<td>22mm x 13mm</td>
<td>50mm</td>
</tr>
<tr>
<td>1876D: Small: Diamond Cut Pads</td>
<td>7&quot;</td>
<td>22mm x 13mm</td>
<td>35mm</td>
</tr>
</tbody>
</table>

**Lombardi Gap Balancing Femoral Tibial Spreader**

Designed to help separate the femur and tibia during total knee procedures, with the pads being parallel when measured at 20mm of separation.

<table>
<thead>
<tr>
<th>Product Number</th>
<th>Length</th>
<th>Pads</th>
<th>Opens to</th>
</tr>
</thead>
<tbody>
<tr>
<td>1878: Large: Horizontal Grooved Pads</td>
<td>9.25&quot;</td>
<td>22mm x 13mm</td>
<td>50mm</td>
</tr>
<tr>
<td>1877: Small: Horizontal Grooved Pads</td>
<td>7&quot;</td>
<td>22mm x 13mm</td>
<td>35mm</td>
</tr>
<tr>
<td>1878D: Large: Diamond Cut Pads</td>
<td>9.25&quot;</td>
<td>22mm x 13mm</td>
<td>50mm</td>
</tr>
<tr>
<td>1877D: Small: Diamond Cut Pads</td>
<td>7&quot;</td>
<td>22mm x 13mm</td>
<td>35mm</td>
</tr>
</tbody>
</table>
Scott Femoral Tibial Tensor/Spreaders

Used before determining femoral component rotation to help properly tense the medial and lateral ligaments and help assure a stable, balanced flexion gap. An important part of surgical technique during total knee arthroplasty is the establishment of a symmetric balanced flexion gap. This can be achieved by tensing the medial and lateral ligaments with laminar spreaders and rotating the femoral component until a rectangular space is formed. The calibrated Tensor/Spreader allows the surgeon to choose a reproducible amount of tension across the medial or lateral flexion space.

In the varus knee, any medial release necessary to balance the knee in extension is performed first. In the valgus knee, the flexion gap can be balanced before the extension gap if the lateral retinaculum (not the lateral collateral ligament) is all that needs releasing to correct the deformity.

The spreader can be used before or after tibial preparation and also during revision surgery after a well-aligned tibial platform has been established.

The knee is flexed 90 degrees. Any medial retractor is removed. The medial gap is tensed with a plain or calibrated laminar spreader that is opened until the medial collateral ligament is fully tensed. The calibrated tensor is applied laterally and opened to the desired tension on the indicator. The femoral component is rotated until a rectangular gap is formed based off the tibial cut or an external tibial alignment device (if the tibial resection has not yet been performed).

<table>
<thead>
<tr>
<th>Product Number</th>
<th>Length</th>
<th>Pads</th>
<th>Opens to</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995: Narrow Fixed Pads</td>
<td>7”</td>
<td>7mm Blade Width</td>
<td>40mm</td>
</tr>
<tr>
<td>1996: Wide Fixed Pads (modification designed by Raymond H. Kim, MD)</td>
<td>7”</td>
<td>22mm x 13mm</td>
<td>40mm</td>
</tr>
<tr>
<td>1997: Wide Block Pads</td>
<td>7”</td>
<td>23mm x 12mm</td>
<td>40mm</td>
</tr>
<tr>
<td>1998: Round Pads</td>
<td>7”</td>
<td>25mm Pad Diameter</td>
<td>40mm</td>
</tr>
</tbody>
</table>
Calibrated Femoral Tibial Spreaders

Helps separate the femur and tibia during total knee replacement surgery.

Designed to remain in position, with the femur and tibia separated, without the need of an assistant, and to minimize crushing the bone, even if osteoporotic. A wide unobstructed view of the posterior compartment is possible. Osteophytes on the posterior condyles of the femur and tibia can be seen and removed. The calibrated handle of the spreader makes it possible for two spreaders to be used to assist the surgeon in balancing ligaments.

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<th>Size</th>
<th>Length</th>
<th>Pads Size</th>
<th>Opening Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>1850: Small</td>
<td>7&quot;</td>
<td>23x12mm</td>
<td>39mm</td>
</tr>
<tr>
<td>1850-01: Small w/ coated pads</td>
<td>7&quot;</td>
<td>18x15mm</td>
<td>39mm</td>
</tr>
<tr>
<td>1855: Medium</td>
<td>10&quot;</td>
<td>23x14mm</td>
<td>50mm</td>
</tr>
<tr>
<td>1860: Large</td>
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<td>65mm</td>
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The coated spreader is designed to separate the femur and tibia when implant components are in place. This is helpful in checking the back of the knee joint for cement, etc. The pads are coated to keep from scratching component surfaces and are slightly contoured to add stability against the curved articulating surfaces.