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

3mm - 30mm calibration marks are on bottom side of ratchet.
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&quot;</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&quot;</td>
<td>Pads: 18x15mm</td>
<td>Opens to 39mm</td>
</tr>
<tr>
<td>101-1855</td>
<td>Medium</td>
<td>Length: 10&quot;</td>
<td>Pads: 23x14mm</td>
<td>Opens to 50mm</td>
</tr>
<tr>
<td>101-1860</td>
<td>Large</td>
<td>Length: 12&quot;</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&quot;</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&quot;</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
Lamina Spreaders

40.3500  11”

**Spreader**
bayoneted blades with teeth speedlock

WL = Working Length
Handle is knurled on front side and flat on back side.

| 3mm | 5mm |

40.3418  7”
40.3428  11”

**Vertebra Distractor**
straight with teeth

40.1200  14”, 20mm travel

**Parallel Distractor**
without modular working ends hinged handle, speedlock
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>1976D: 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>1977D: Small: Diamond Cut Pads</td>
<td>7&quot;</td>
<td>22mm x 13mm</td>
<td>35mm</td>
</tr>
</tbody>
</table>
Tibial Spreaders

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&quot;</td>
<td>7mm Blade Width 40mm</td>
<td></td>
</tr>
<tr>
<td>1996: Wide Fixed Pads (modification designed by Raymond H. Kim, MD)</td>
<td>7&quot;</td>
<td>22mm x 13mm 40mm</td>
<td></td>
</tr>
<tr>
<td>1997: Wide Block Pads</td>
<td>7&quot;</td>
<td>23mm x 12mm 40mm</td>
<td></td>
</tr>
<tr>
<td>1998: Round Pads</td>
<td>7&quot;</td>
<td>25mm Pad Diameter 40mm</td>
<td></td>
</tr>
</tbody>
</table>

Original with narrow pads, designed to be used before making the femoral and tibial cuts

Three new wide pad styles, designed for use after the cuts have been made
# Tibial Spreaders

**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.

<table>
<thead>
<tr>
<th>1850: Small</th>
<th>1850-01: Small w/ coated pads</th>
<th>1855: Medium</th>
<th>1860: Large</th>
<th>1865: Small w/ round pads</th>
<th>1866: Medium w/ round pads</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length: 7”</td>
<td>Length: 7”</td>
<td>Length: 10”</td>
<td>Length: 12”</td>
<td>Length: 7”</td>
<td>Length: 10”</td>
</tr>
<tr>
<td>Pads: 23x12mm</td>
<td>Pads: 18x15mm</td>
<td>Pads: 23x14mm</td>
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<td>Pads: 25x25mm</td>
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</tr>
<tr>
<td>Opens to 39mm</td>
<td>Opens to 39mm</td>
<td>Opens to 50mm</td>
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<td>Opens to 50mm</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.