



**MILLENNIUM
SURGICAL**

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UNMATCHED SERVICE · UNLIMITED INSTRUMENTS

822 Montgomery Ave #205
Narberth, PA 19072
(800) 600-0428

Abramsohn Retractor

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.



30mm 3mm

3mm - 30mm calibration marks are on bottom side of ratchet.

40.3150 5 1/2", cross-serrated ends, calibrate



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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.

Product #	Size	Length	Pads	Open Width
101-1850	Small	Length: 7"	Pads: 23x12mm	Opens to 39mm
101-185001	Small w/ Coated Pads	Length: 7"	Pads: 18x15mm	Opens to 39mm
101-1855	Medium	Length: 10"	Pads: 23x14mm	Opens to 50mm
101-1860	Large	Length: 12"	Pads: 25x16mm	Opens to 65mm
101-1865	Small w/ Round Pad	Length: 7"	Pads: 25x25mm	Opens to 39mm
101-1866	Medium w/ Round Pads	Length: 10"	Pads: 25x25mm	Opens to 50mm



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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



40.1010



40.1016

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



40.1020



40.1026



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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"





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Lamina Spreaders

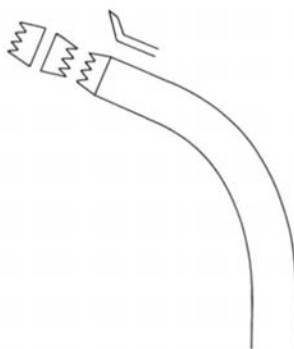
40.2414

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

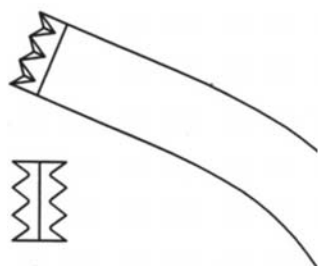


40.3170 with teeth
40.3180 w/o teeth

Inge Retractor
6 1/2"

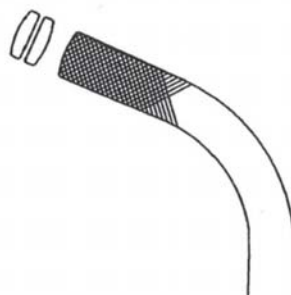


Ratchet is calibrated in mm
and measures size of
opening. Useful in many
procedures to accurately
assess bone graft needs.



40.3300 10"

Inge Retractor
with teeth



40.3190 6 1/2"

Saxena-Style Retractor
serrated outside blades
calibrated ratchet





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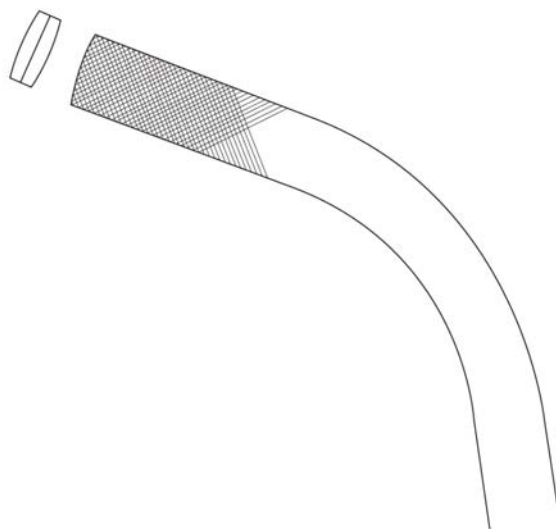
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Lamina Spreaders

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





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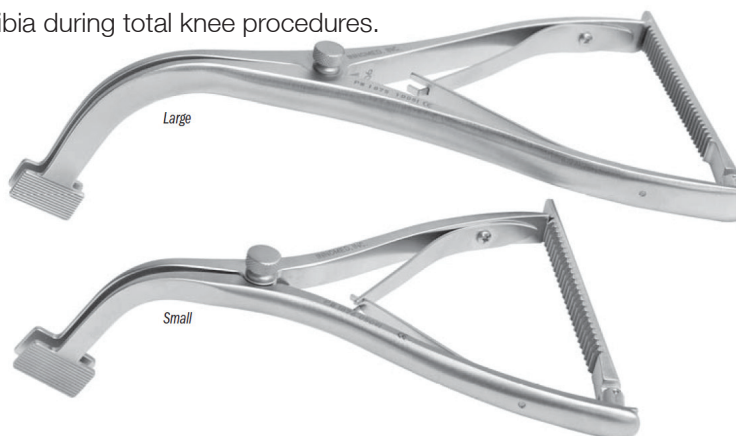
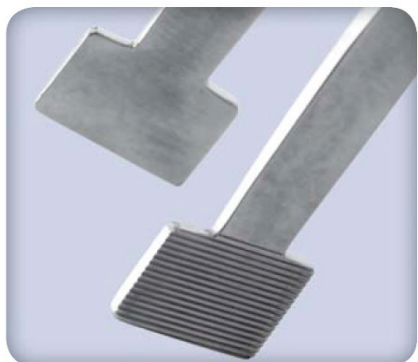
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Tibial Spreaders

Lombardi Femoral Tibial Spreader

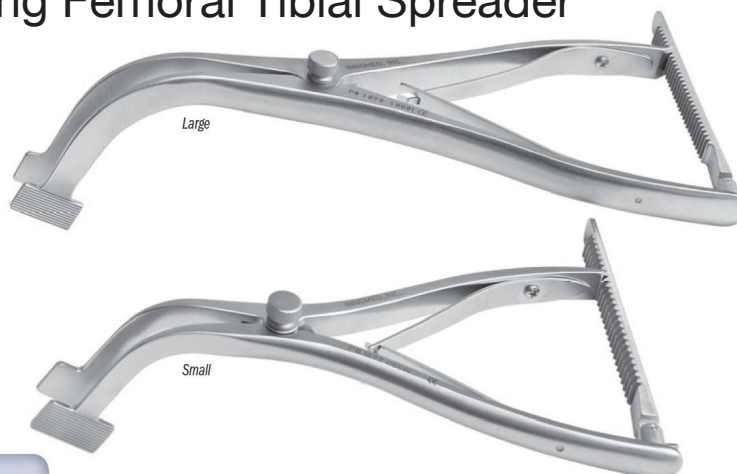
Thin pads help to separate the femur and tibia during total knee procedures.



Product Number	Length	Pads	Opens to
1875: Large: Horizontal Grooved Pads	9.25"	22mm x 13mm	50mm
1876: Small: Horizontal Grooved Pads	7"	22mm x 13mm	35mm
1875D: Large: Diamond Cut Pads	9.25"	22mm x 13mm	50mm
1976D: Small: Diamond Cut Pads	7"	22mm x 13mm	35mm

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



The calibrated handle of the spreader helps to accurately gauge the gap, and makes it possible for two spreaders to be used to assist in balancing ligaments.

Product Number	Length	Pads	Opens to
1878: Large: Horizontal Grooved Pads	9.25"	22mm x 13mm	50mm
1877: Small: Horizontal Grooved Pads	7"	22mm x 13mm	35mm
1878D: Large: Diamond Cut Pads	9.25"	22mm x 13mm	50mm
1977D: Small: Diamond Cut Pads	7"	22mm x 13mm	35mm



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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).



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

Product Number	Length	Pads	Opens to
1995: Narrow Fixed Pads	7"	7mm Blade Width	40mm
1996: Wide Fixed Pads <small>(modification designed by Raymond H. Kim, MD)</small>	7"	22mm x 13mm	40mm
1997: Wide Block Pads	7"	23mm x 12mm	40mm
1998: Round Pads	7"	25mm Pad Diameter	40mm



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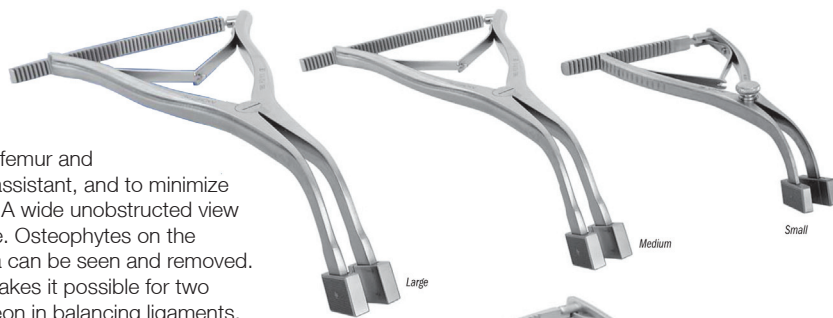
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Tibial Spreaders

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.



1850: Small

Length: 7"
Pads: 23x12mm
Opens to 39mm

1850-01: Small w/ coated pads

Length: 7"
Pads: 18x15mm
Opens to 39mm

1855: Medium

Length: 10"
Pads: 23x14mm
Opens to 50mm

1860: Large

Length: 12"
Pads: 25x16mm
Opens to 65mm

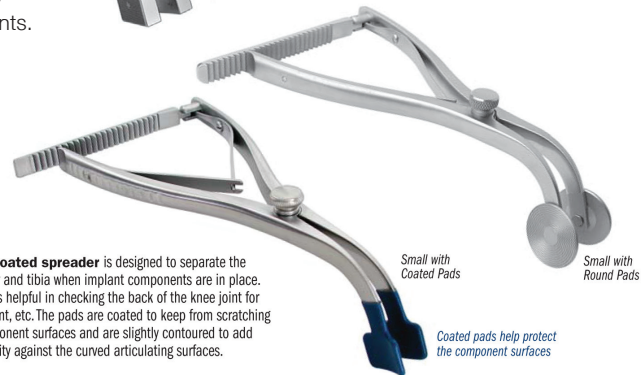
1865: Small w/ round pads

Length: 7"
Pads: 25x25mm
Opens to 39mm

1866: Medium w/ round pads

Length: 10"
Pads: 25x25mm
Opens to 50mm

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.



Small with Coated Pads

Small with Round Pads

Coated pads help protect the component surfaces