

Flexion/Extension Gap Balancing



LEGION[◇] Total Knee System

Knee Balancer Surgical Technique

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Nota Bene

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Balancer components

Balancer Shaft and Handle



Balancer Body



Balancer Tibial Paddle



Tibial Paddle assembled onto the body



Shaft assembled into the body and tibial paddle



Femoral Paddle



Balancer with the Femoral Paddle



LEGION® Primary Sizing Guide and Stylus



Introduction

This Flexion/Extension Gap Balancer offers the orthopedic surgeon a method to assess and balance the flexion and extension spaces during total knee arthroplasty. This surgical technique follows the philosophy of making your resections based off anatomic references only and then releasing ligamentous structures to balance the medial-lateral compartments of the knee joint.

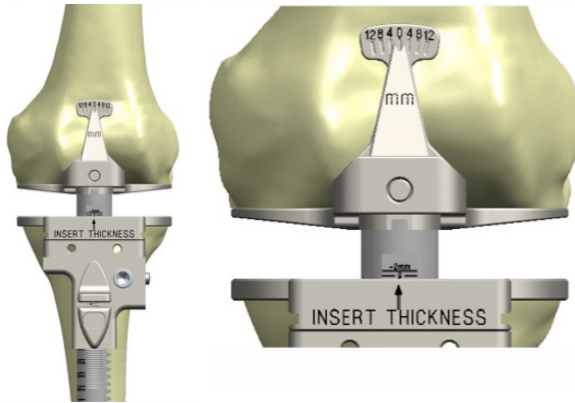
There are two goals to this technique and should be performed in this order:

- 1 Balance the joint space
- 2 Size the femur

Surgical technique

Flexion-space balancing

Make the standard distal femoral and proximal tibial cuts. Tense the joint in extension. If the knee is not balanced in extension (indicated by “0” setting on guide), perform any necessary medial or lateral release at this time. Record the insert thickness and the force if the torque wrench is used.



Remove femoral paddle and add sizing guide, making sure it is set on zero. Put the joint into flexion. Tense the joint using the same amount of force as in extension. If the insert thickness is the same as in extension, measure the A/P size (Size 4). If the insert thickness is not the same as it was in extension it will need to be adjusted.



Please see additional sections explaining what to do when the flexion gap is larger or smaller than the extension gap.

If the A/P size is exact, proceed as shown below. If the indicated size is in-between sizes, the surgeon can choose between two options:

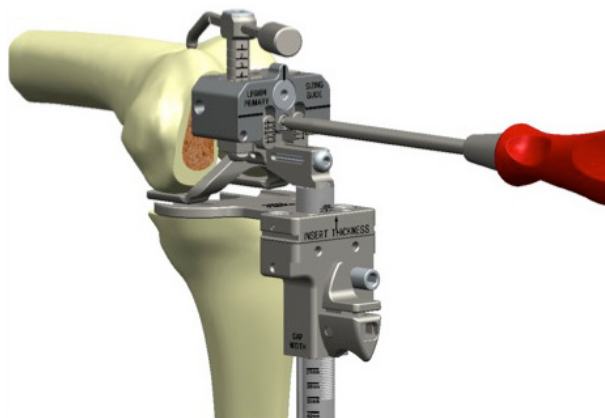
Option 1 – Larger size chosen

This choice has the potential to overstuff the patello-femoral space.

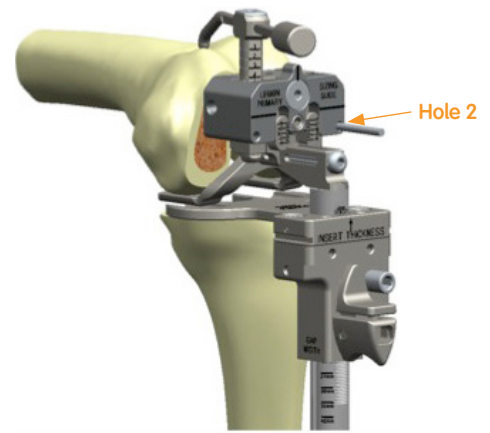
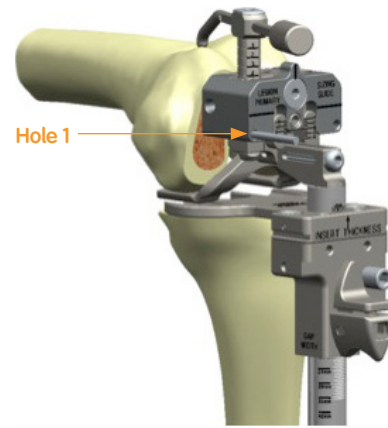
Option 2 – Smaller size chosen

This choice has the potential to notch the anterior cortex of the femur.

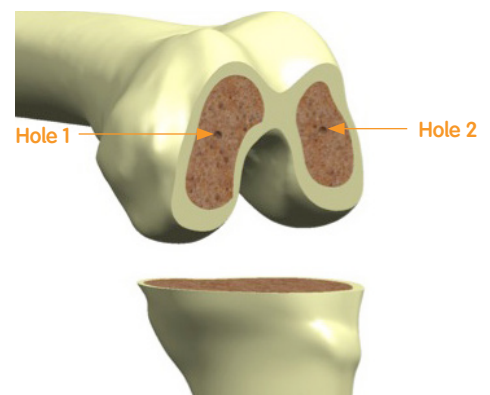
Lock the Sizing Guide.



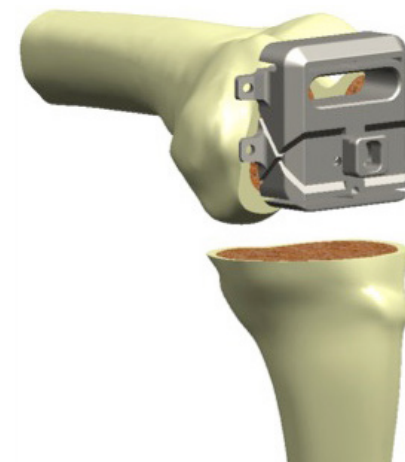
Drill the two holes for the DCF cutting block.



Femur with the Cutting Block holes in place.

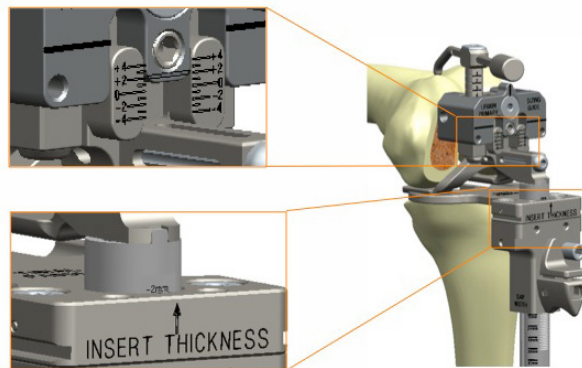


Place the Cutting Block spikes into the holes and proceed with standard distal-cut first technique.



Flexion gap smaller than the extension gap

The Sizing Guide adjusts anterior, up to 4mm, to increase the flexion gap.



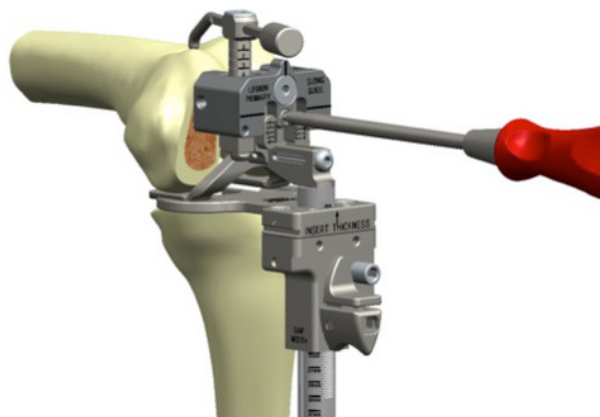
If the desired flexion gap has been reached lock the guide into position. If the decreased A/P dimension is an exact size, proceed with the technique and use the indicated size. If the A/P dimension is in-between two sizes there are two options outlined below.

Option 1 – Larger size chosen

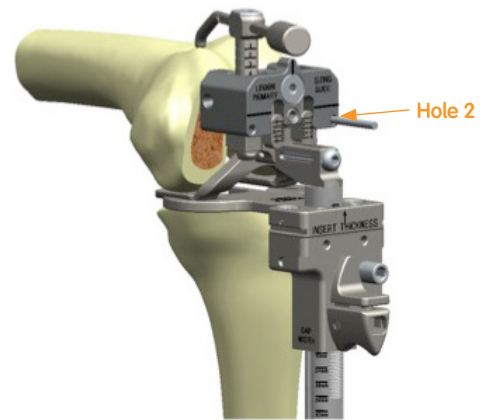
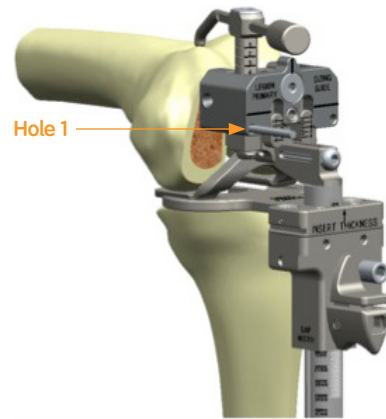
This choice has the potential to overstuff the patello-femoral space.

Option 2 – Smaller size chosen

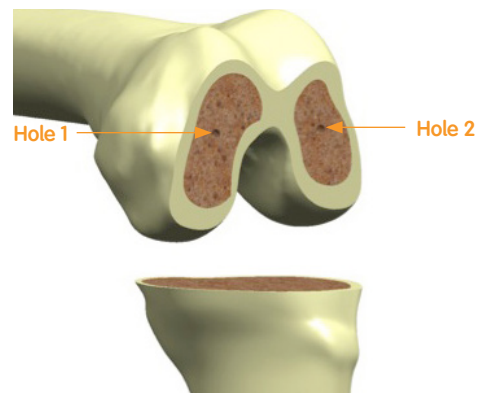
This choice has the potential to notch the anterior cortex of the femur.



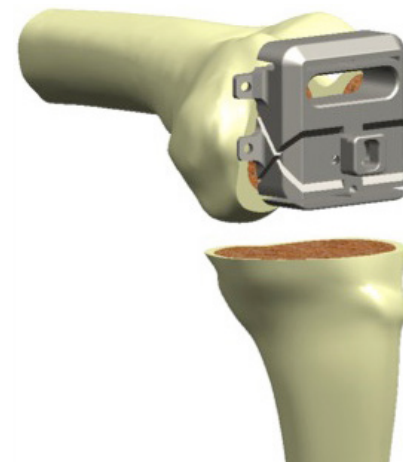
Drill the two holes through the guide for the spikes on the DCF cutting blocks.



Femur with the Cutting Block holes in place.

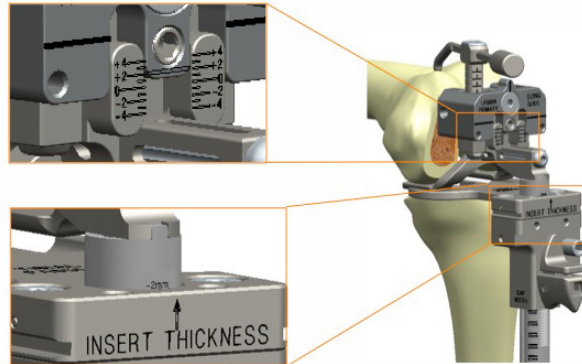


Place the Cutting Block spikes into the holes and proceed with standard distal-cut first technique.



Flexion gap larger than the extension gap

The Sizing Guide adjusts posterior, up to 4mm, to reduce the flexion gap.



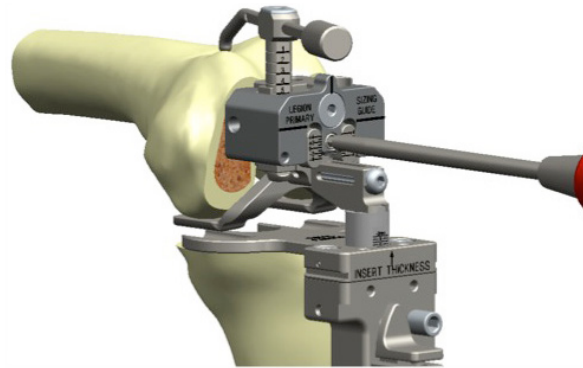
If the desired flexion gap has been reached lock the guide into position. If the increased A/P dimension is an exact size, proceed with the technique and use the indicated size. If the A/P dimension is in-between two sizes there are two options outlined below.

Option 1 – Larger size chosen

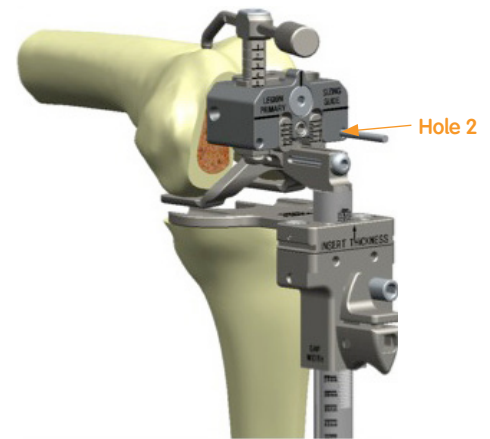
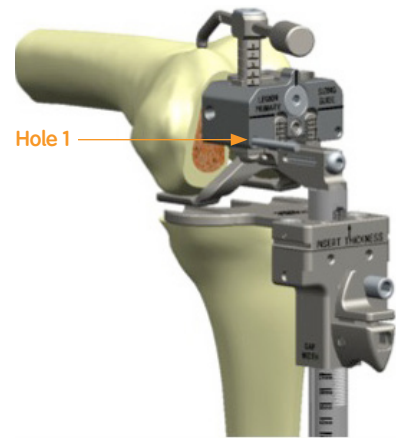
This choice has the potential to overstuff the patello-femoral space.

Option 2 – Smaller size chosen

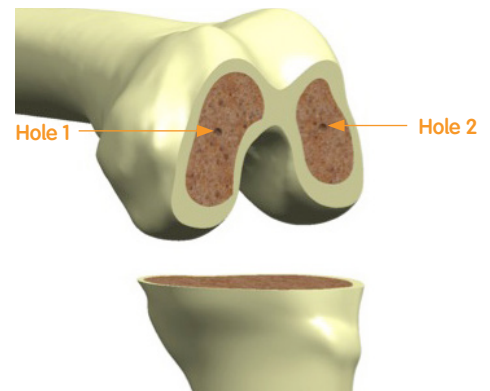
This choice has the potential to notch the anterior cortex of the femur.



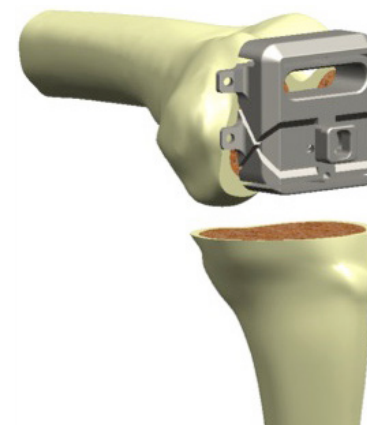
Drill the two holes through the guide for the spikes on the DCF cutting blocks.



Femur with the Cutting Block holes in place.



Place the Cutting Block spikes into the holes and proceed with standard distal-cut first technique.



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Smith & Nephew, Inc.
7135 Goodlett Farms Pkwy
Cordova, TN 38016
USA

www.smith-nephew.com

Telephone: 1-901-396-2121
Information: 1-800-821-5700
Orders/Inquiries: 1-800-238-7538

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