



LEGION[◇] Male-Male Offset Coupler

Surgical Technique

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Nota Bene

The technique description herein is made available to the healthcare professional to illustrate the author's suggested treatment for the uncomplicated procedure. In the final analysis, the preferred treatment is that which addresses the needs of the specific patient. The following technique is for informational and educational purposes only. It is not intended to serve as medical advice. It is the responsibility of treating physicians to determine and utilize the appropriate products and techniques according to their own clinical judgment for each of their patients. For more information on the product, including its indications for use, contraindications, and product safety information, please refer to the product's label and the Instructions for Use (IFU).

Tibial preparation

Follow the standard surgical technique for either LEGION[®] RK or LEGION HK through the tibial reaming (Figure 3), proximal resection (Figure 4), tibial sizing and offset placement (Figure 5) and the tibial tray counterbore (Figure 6) step noting stem/reamer size, length, offset amount and clocking orientation.

Note: Long stems are offered in 100 and 150mm.

Note: The cutting flutes on the press-fit stems are 1mm larger in diameter than the reamers.

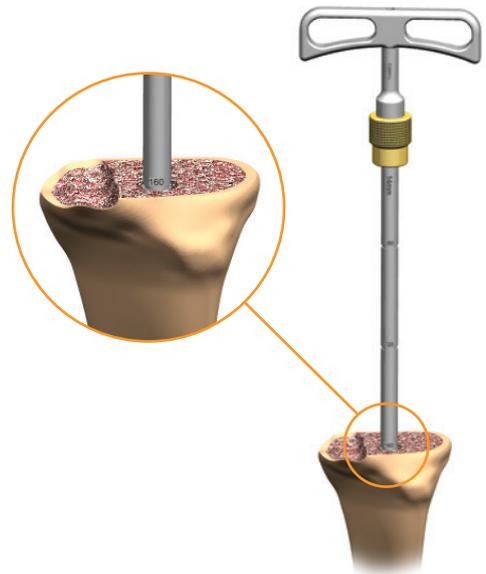


Figure 3 – Ream

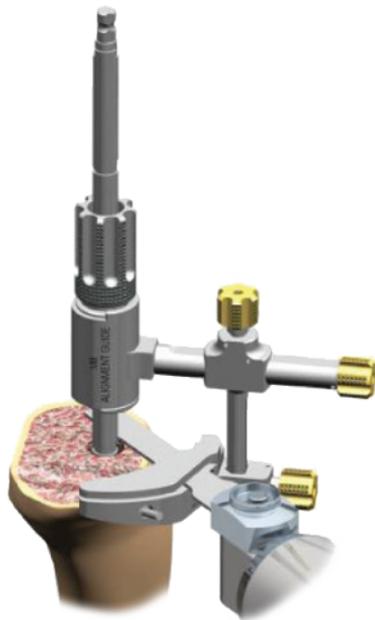


Figure 4 – Proximal tibia resection



Figure 5 – Size and offset position

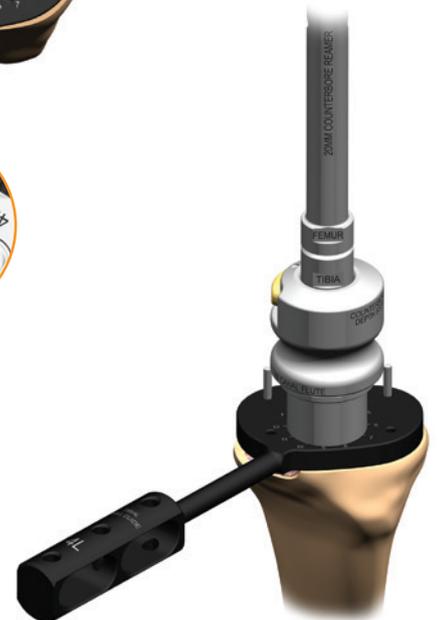


Figure 6 – Tray Counterbore

Preparation of the Coupler Taper Counterbore

If a 14mm or larger Reamer is used for the initial reaming of the intramedullary canal, skip this step and proceed to the Tibial Trial Preparation.

Using a scale, follow the intramedullary canal with progressive reamers up to a 14mm Reamer to a depth of 55mm (5.5cm) from the end of the reamer's cutting flutes to the resected bone (Figure 7).

For a LEGION® HK Hinge Tibial Base, ream to 40mm (4cm) (Figure 8).

Note: When measuring from a wedge resection, add the wedge thickness to the reamer depth. For example, a 10mm wedge resection would result in a 65mm (55mm + 10mm) reamer depth for a LEGION® Revision Tibia Tray or a 50mm (40mm +10mm) reamer depth for a LEGION HK Hinge Tibia Tray.

Return to the Tibial Trial step of the LEGION RK or LEGION HK Surgical Technique. Trial assembly using the Male-Male coupler trials are shown on the next page.

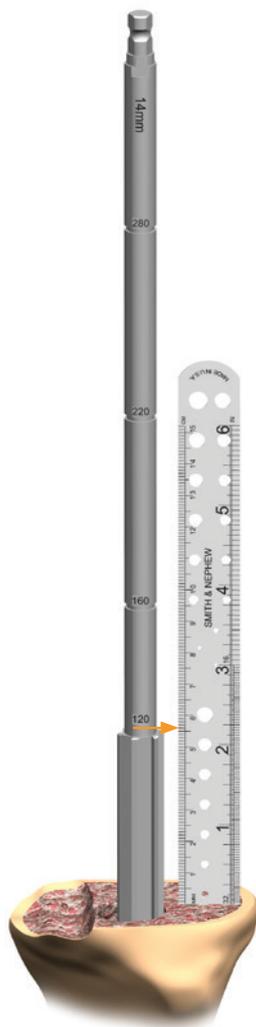


Figure 7

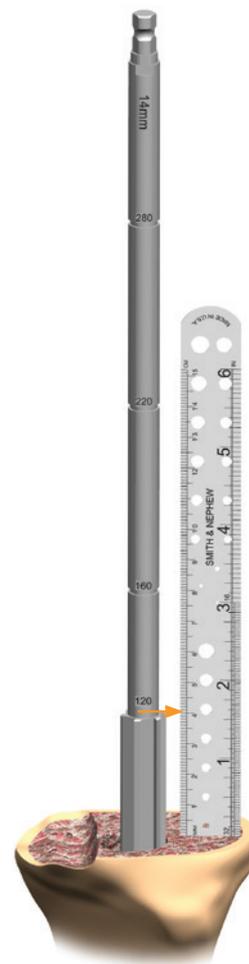


Figure 8



Stainless Steel Scale

Cat. No. 29-0081

Tibial trial preparation

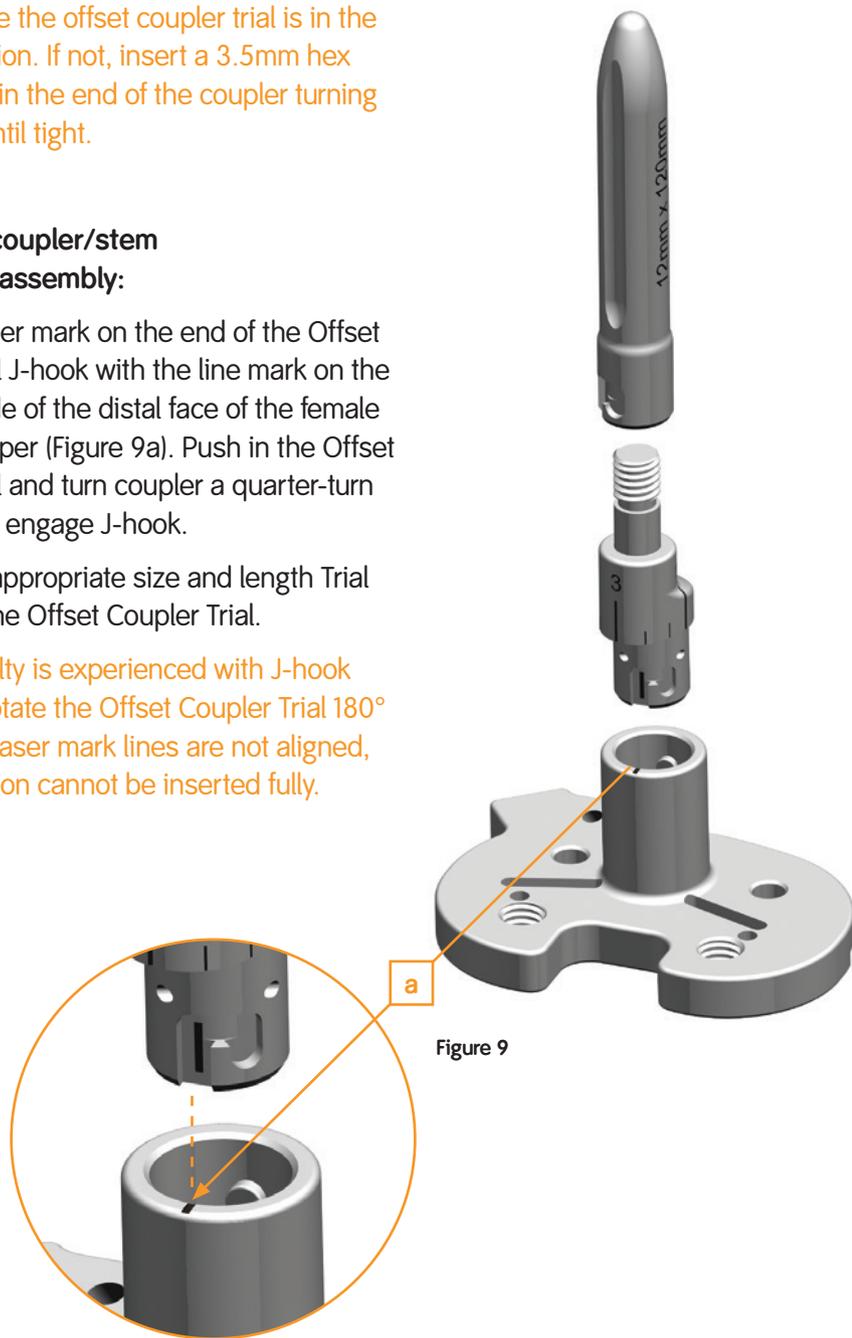
Note: Ensure the offset coupler trial is in the locked position. If not, insert a 3.5mm hex screwdriver in the end of the coupler turning clockwise until tight.

Tibial trial/coupler/stem instrument assembly:

Align the laser mark on the end of the Offset Coupler Trial J-hook with the line mark on the posterior side of the distal face of the female Tibial Trial taper (Figure 9a). Push in the Offset Coupler Trial and turn coupler a quarter-turn clockwise to engage J-hook.

Thread the appropriate size and length Trial Stem onto the Offset Coupler Trial.

Tip: If difficulty is experienced with J-hook assembly, rotate the Offset Coupler Trial 180° and retry. If laser mark lines are not aligned, the connection cannot be inserted fully.



Insert the 3.5mm Hex Screwdriver into the proximal end of the Tibial Trial until the screwdriver is engaged with the hex connection of the Offset Coupler Trial (Figure 10). Unlock the Offset Coupler Trial by turning the hex screwdriver counterclockwise.

Adjust the Offset Coupler Trial to the predetermined position (obtained previously in the Sizing and Placement section) by aligning the correct clock position on the Offset Coupler Trial to the line marking on the Tibial Trial (Figure 11). (In this case, 5 o'clock position is used.)



Figure 10



Figure 11

Femoral preparation

Follow the standard surgical technique for either LEGION® RK or LEGION HK through the femoral reaming (Figure 12), distal resection (Figure 13), femoral sizing, offset placement (Figure 14) and resection (Figure 15), and the femoral taper counterbore (Figure 16) steps noting stem/reamer size, length, offset amount and clocking orientation.

Note: the Offset Coupler adds 30mm to the stem length; therefore, an additional 30mm depth is needed when using an Offset Coupler.

Note: Long stems are offered in 100 and 150mm

Note: The cutting flutes on the press-fit stems are 1mm larger in diameter than the reamers.

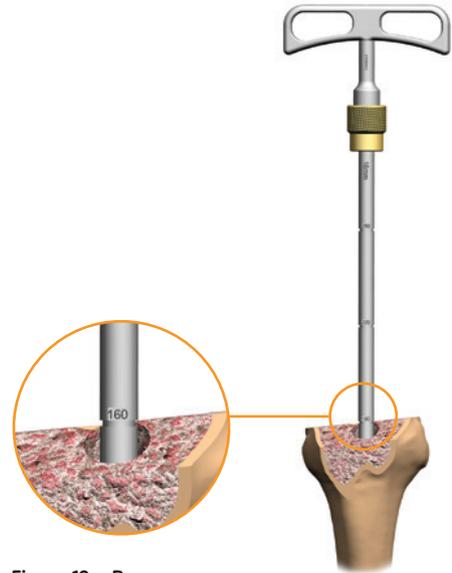


Figure 12 – Ream



Figure 13 – Distal femoral resection

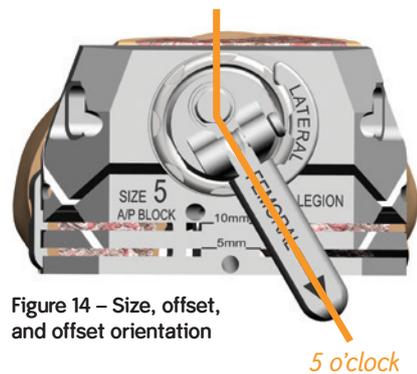


Figure 14 – Size, offset, and offset orientation

5 o'clock

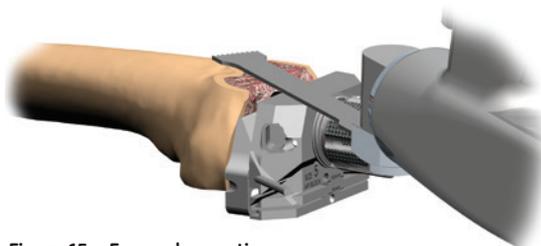


Figure 15 – Femoral resections

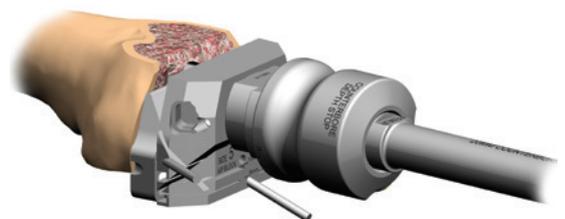


Figure 16 – Femoral Taper Counterbore

Preparation of the Offset Coupler Taper Counterbore

If a 14mm or larger Reamer is used for the initial reaming of the intramedullary canal, skip this step and proceed to the Femoral trial preparation.

Using a scale, follow the intramedullary canal with progressive reamers up to a 14mm Reamer to a depth of 40mm (4.0cm) from the end of the reamer's cutting flutes to the resected bone (Figure 17).

Note: When measuring from a wedge resection, add the wedge thickness to the reamer depth. For example, a 10mm wedge resection would result in a 50mm (40mm + 10mm) reamer depth.

Return to the Femoral Trial step of the LEGION[®] RK or LEGION HK Surgical Technique. Trial assembly using the Male-Male coupler trials are shown on the next page.

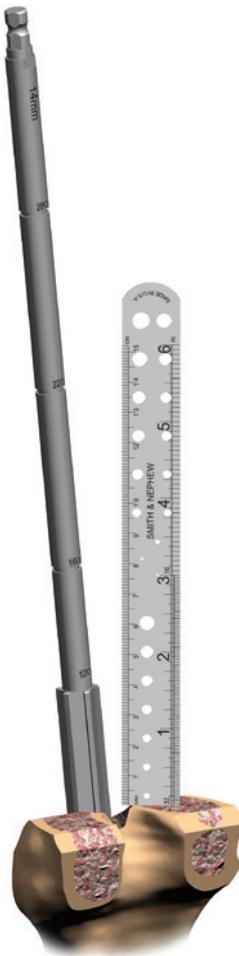


Figure 17



Stainless Steel Scale

Cat. No. 29-0081

Femoral trial preparation

Femoral trial assembly:

Align the laser mark on the male end of the Offset Coupler Trial J-hook with the laser mark on the taper of the Femoral Trial (Figure 18). Push in the Offset Coupler Trial and turn the coupler a quarter-turn clockwise to engage J-hook.

Thread the appropriate size and length Trial Stem onto the Offset Coupler Trial (Figure 19).

Note: Ensure the Offset Coupler Trial is in the locked position by inserting a 3.5mm Hex Screwdriver in the male end of the coupler, turning clockwise until tight.

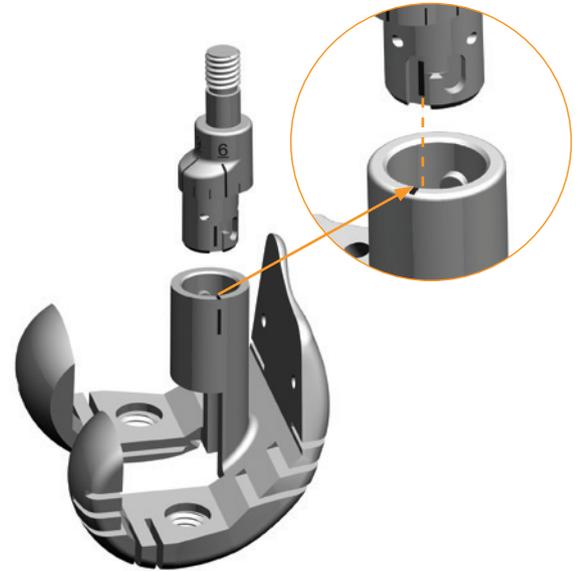


Figure 18

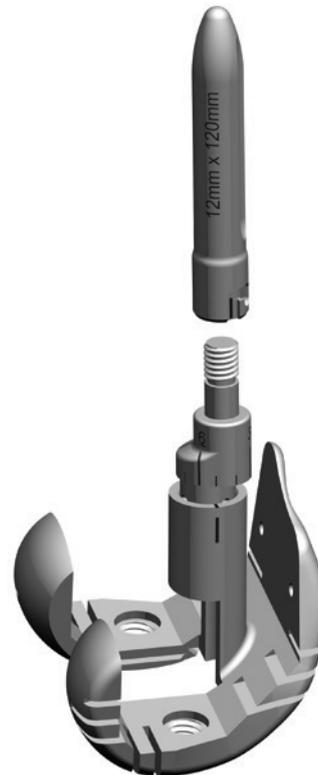


Figure 19

Offset Coupler trial orientation:

Insert the 3.5mm Hex Screwdriver into the distal end of the Femoral Trial until the screwdriver is engaged with the hex connection of the Offset Coupler Trial (Figure 20). Unlock the coupler trial by turning the hex screwdriver counterclockwise.

Adjust the coupler trial to the predetermined position (obtained previously in the Offset Sizing and Placement section), by aligning the correct clock position on the Offset Coupler Trial to the line marking on the Femoral Trial (Figure 20). (In this surgical technique, a 5 o'clock position is used.)

Once positioned, turn the hex screwdriver clockwise to lock the predetermined offset into position.

Insert the Femoral Trial assembly into the femoral canal (Figure 21).

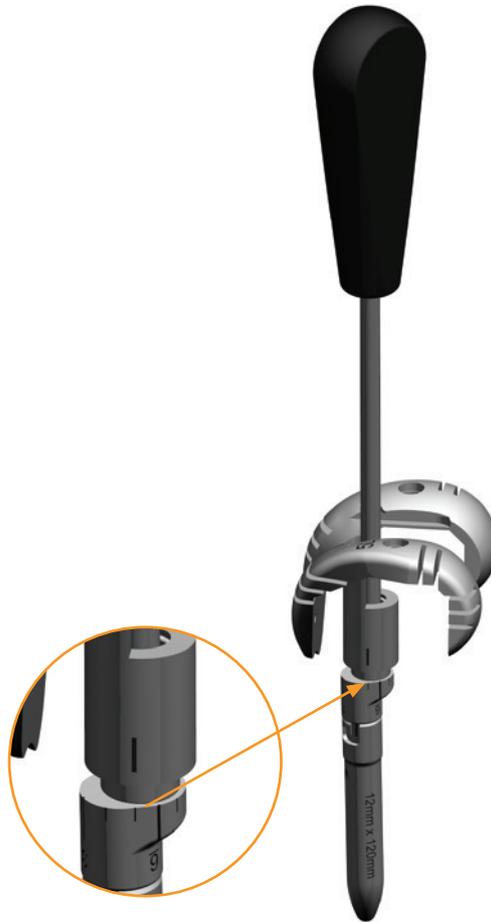


Figure 20



Figure 21

Implant assembly:

Select the appropriate sized offset coupler for the tibial or femoral component. Insert the larger taper end of the offset coupler into the femoral and/or tibial implant taper. Referencing the trial assembly, align the clock orientation lines to the appropriate setting (Figure 22 and 23).

Tip: Impact the offset coupler at least three times to ensure the taper lock is properly engaged.

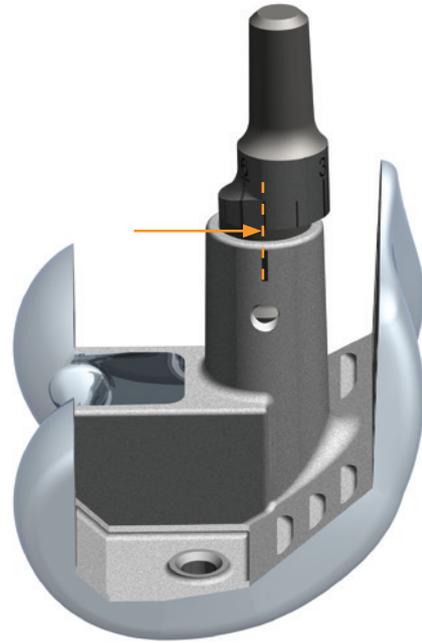


Figure 22

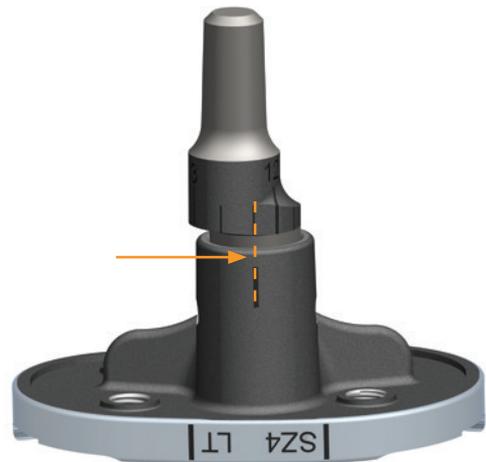


Figure 23

Select the appropriate stem.

For cemented stems: To protect the stem tip upon impaction, place the appropriate sized plastic LEGION® stem impactor over the tip of the cemented stem. Insert the taper end of the stem into the Offset Coupler taper. Using a stable surface, impact the stem at least three times to ensure the taper lock is properly engaged.

For press fit stems: Insert the taper end of the stem onto the Offset Coupler taper.

Note: For the press-fit slotted stems, ensure that the rotational mark on the stem lines up with the rotational mark on the post of the femoral implant (slot orientated in the coronal plane – Figure 24) and/or tibial implant (slot orientated in a sagittal plane - Figure 25).

To protect the tip upon impaction, wrap or cover the tip of the press-fit stem. Using a stable surface, impact the stem at least three times to ensure the taper lock is properly engaged.



Figure 24



Figure 25

Attach the Stem Set Screws, included in the coupler packaging, by securing with a 2.5mm Hex Screwdriver on both sides of the femoral and/or tibial post(s) (Figures 26 and 27).

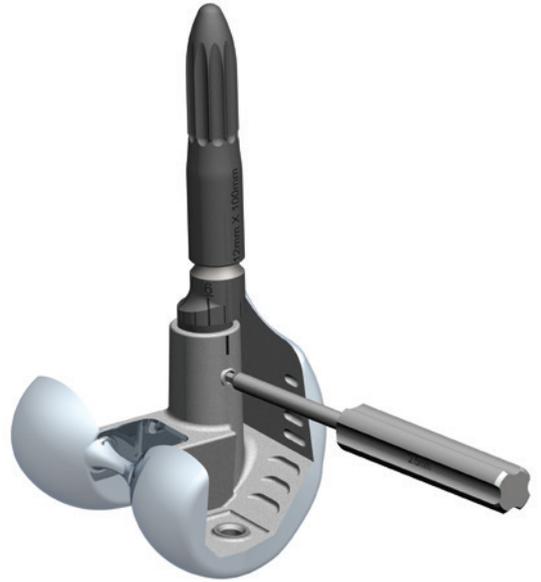


Figure 26



Figure 27

Catalog Information

LEGION® Revision Tibial Baseplates

Cat. No.	Description
71424001	LEGION Revision Tibial Baseplate Size 1 Left
71424002	LEGION Revision Tibial Baseplate Size 2 Left
71424003	LEGION Revision Tibial Baseplate Size 3 Left
71424004	LEGION Revision Tibial Baseplate Size 4 Left
71424005	LEGION Revision Tibial Baseplate Size 5 Left
71424006	LEGION Revision Tibial Baseplate Size 6 Left
71424007	LEGION Revision Tibial Baseplate Size 7 Left
71424008	LEGION Revision Tibial Baseplate Size 8 Left
71424011	LEGION Revision Tibial Baseplate Size 1 Right
71424012	LEGION Revision Tibial Baseplate Size 2 Right
71424013	LEGION Revision Tibial Baseplate Size 3 Right
71424014	LEGION Revision Tibial Baseplate Size 4 Right
71424015	LEGION Revision Tibial Baseplate Size 5 Right
71424016	LEGION Revision Tibial Baseplate Size 6 Right
71424017	LEGION Revision Tibial Baseplate Size 7 Right
71424018	LEGION Revision Tibial Baseplate Size 8 Right

LEGION Hinge Tibial Baseplates

Cat. No.	Description
71421302	LEGION Hinge Tibial Baseplate Size 2 Left
71421303	LEGION Hinge Tibial Baseplate Size 3 Left
71421304	LEGION Hinge Tibial Baseplate Size 4 Left
71421305	LEGION Hinge Tibial Baseplate Size 5 Left
71421307	LEGION Hinge Tibial Baseplate Size 7 Left
71421902	LEGION Hinge Tibial Baseplate Size 2 Right
71421903	LEGION Hinge Tibial Baseplate Size 3 Right
71421904	LEGION Hinge Tibial Baseplate Size 4 Right
71421905	LEGION Hinge Tibial Baseplate Size 5 Right
71421907	LEGION Hinge Tibial Baseplate Size 7 Right

LEGION Hinge Femoral Assembly

Cat. No.	Description
71421363	LEGION Hinge Femoral Assembly Size 3 Right
71421364	LEGION Hinge Femoral Assembly Size 4 Right
71421365	LEGION Hinge Femoral Assembly Size 5 Right
71421367	LEGION Hinge Femoral Assembly Size 7 Right
71421373	LEGION Hinge Femoral Assembly Size 3 Left
71421374	LEGION Hinge Femoral Assembly Size 4 Left
71421375	LEGION Hinge Femoral Assembly Size 5 Left
71421377	LEGION Hinge Femoral Assembly Size 7 Left

LEGION OXINIUM® Constrained Femorals

Cat. No.	Description
71421162	LEGION OXINIUM Constrained Femoral 2 Left
71421163	LEGION OXINIUM Constrained Femoral 3 Left
71421164	LEGION OXINIUM Constrained Femoral 4 Left
71421165	LEGION OXINIUM Constrained Femoral 5 Left
71421166	LEGION OXINIUM Constrained Femoral 6 Left
71421167	LEGION OXINIUM Constrained Femoral 7 Left
71421168	LEGION OXINIUM Constrained Femoral 8 Left
71421172	LEGION OXINIUM Constrained Femoral 2 Right
71421173	LEGION OXINIUM Constrained Femoral 3 Right
71421174	LEGION OXINIUM Constrained Femoral 4 Right
71421175	LEGION OXINIUM Constrained Femoral 5 Right
71421176	LEGION OXINIUM Constrained Femoral 6 Right
71421177	LEGION OXINIUM Constrained Femoral 7 Right
71421178	LEGION OXINIUM Constrained Femoral 8 Right

LEGION CoCr Constrained Femorals

Cat. No.	Description
71425002	LEGION CoCr Constrained Femoral Size 2 Left
71425003	LEGION CoCr Constrained Femoral Size 3 Left
71425004	LEGION CoCr Constrained Femoral Size 4 Left
71425005	LEGION CoCr Constrained Femoral Size 5 Left
71425006	LEGION CoCr Constrained Femoral Size 6 Left
71425007	LEGION CoCr Constrained Femoral Size 7 Left
71425008	LEGION CoCr Constrained Femoral Size 8 Left
71426002	LEGION CoCr Constrained Femoral Size 2 Right
71426003	LEGION CoCr Constrained Femoral Size 3 Right
71426004	LEGION CoCr Constrained Femoral Size 4 Right
71426005	LEGION CoCr Constrained Femoral Size 5 Right
71426006	LEGION CoCr Constrained Femoral Size 6 Right
71426007	LEGION CoCr Constrained Femoral Size 7 Right
71426008	LEGION CoCr Constrained Femoral Size 8 Right

LEGION® Male to Male Mini Couplers

Cat. No.	Description
71933693	LEGION Male to Male Mini Coupler 2mm
71933694	LEGION Male to Male Mini Coupler 4mm
71933695	LEGION Male to Male Mini Coupler 6mm

GENESIS® II Long Stems

Cat. No.	Description
71420628	GENESIS II Long Stem 10mm x 100mm
71420630	GENESIS II Long Stem 12mm x 100mm
71420632	GENESIS II Long Stem 14mm x 100mm
71420634	GENESIS II Long Stem 16mm x 100mm
71420636	GENESIS II Long Stem 18mm x 100mm
71420638	GENESIS II Long Stem 20mm x 100mm
71420640	GENESIS II Long Stem 22mm x 100mm
71420642	GENESIS II Long Stem 24mm x 100mm
71420647	GENESIS II Long Stem 10mm x 150mm
71420648	GENESIS II Long Stem 14mm x 150mm
71420649	GENESIS II Long Stem 12mm x 150mm
71420650	GENESIS II Long Stem 16mm x 150mm

LEGION Locking Set Screw

Cat. No.	Description
71424228	LEGION Locking Set Screw

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