

Scorpio® Knee TS

Single Axis Revision Knee System



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Patented Design. Uncompromising Stability.

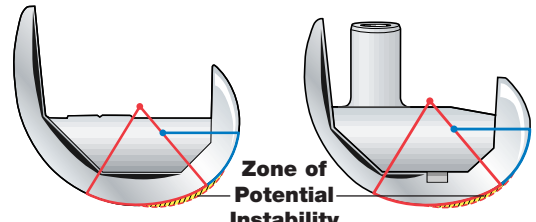
Improved Ligament Stability

Scorpio® TS is designed to maintain a constant center of rotation throughout the range of motion. This provides uniform ligament tension during the transition from full extension to deep flexion.

By preserving ligament isometry, Scorpio® TS eliminates mid-flexion instability, which is a common concern in revision knee surgery.



Scorpio® TS
has a single FE axis



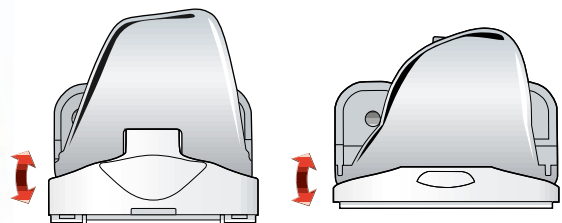
Competitive designs have multiple FE axes

Varus/Valgus Stability

The Scorpio® TS eminence is designed to provide $\pm 2^\circ$ of varus/valgus constraint.



Scorpio® TS
achieves $\pm 2^\circ$
varus/valgus constraint



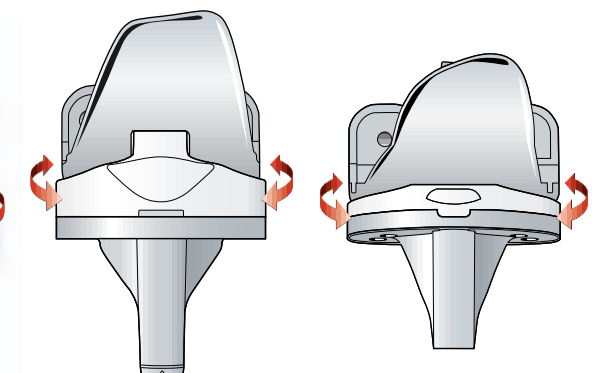
Competitive designs also
allow $\pm 2^\circ$ of varus/valgus constraint

Rotational Stability

The Scorpio® TS System is designed to allow up to 10° of internal/external rotation. This allows for stability without constraint.



Scorpio® TS
allows up to $\pm 10^\circ$ of
internal/external
rotation



Competitive designs
allow only $\pm 4^\circ$ of internal/external
rotation

• **Femoral stem extension**

• **Femoral/Tibial offset adaptor**

• **Raised anterior flange**

• **Femoral component**

• **Posterior femoral bone augmentation block**

• **Stabilizer post**

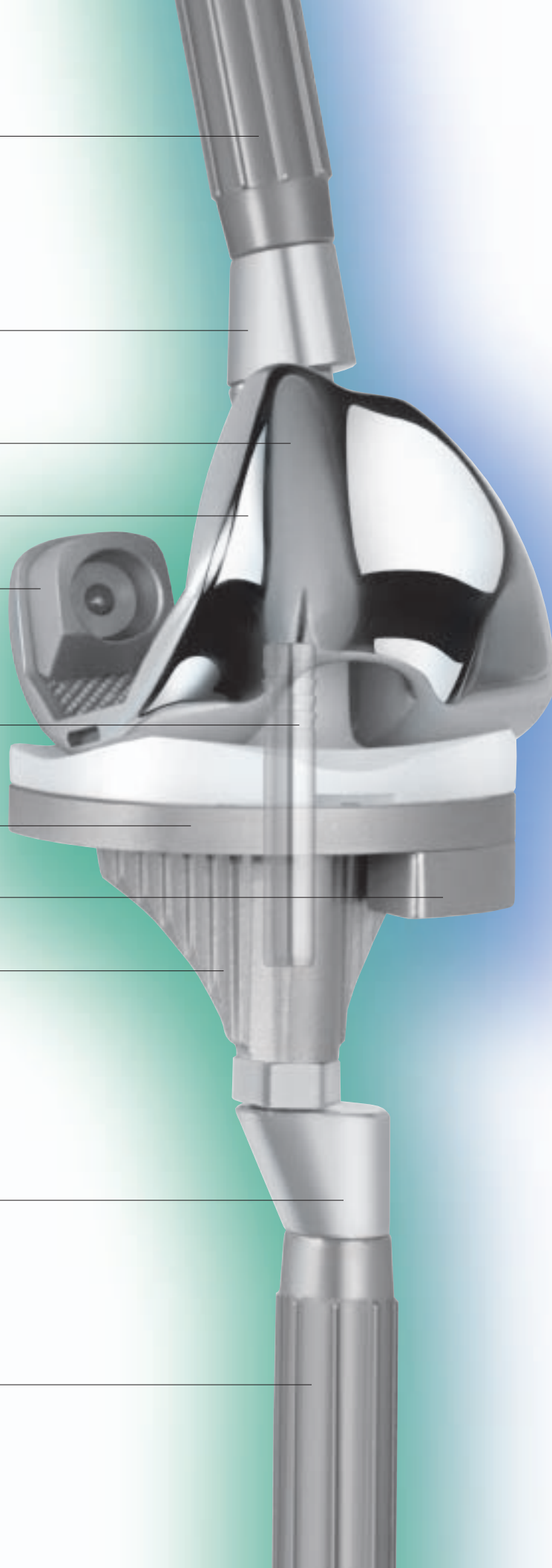
• **Tibial tray**

• **Tibial bone augmentation block**

• **Deltafit Keel**

• **Femoral/Tibial offset adaptor**

• **Tibial stem extension**



Maximized Contact Area. Minimized Polyethylene Wear.

Scorpio® TS tibial and femoral components are conforming in both the M/L and A/P planes, and remain conforming throughout the range of motion due to single axis rotation, maximizing contact area and reducing the potential for polyethylene wear.

Modular Femoral Component Design

- Cobalt Chromium Alloy with LFIT™ Surface Treatment to reduce the potential for polyethylene wear
- Single medial/lateral radius* between femoral and tibial articulating surfaces to maximize contact area and reduce polyethylene stresses, decreasing the potential for polyethylene wear
- Compatible with both PS and TS Inserts for intraoperative flexibility
- Left and right femoral components with raised lateral flange to improve patella tracking

Femoral Bone Augmentation Design

- Distal and posterior femoral augmentation are mechanically attached to femur
- **Augmentation Options:**
 - Distal Femoral Bone Augmentation Blocks, 5mm, 10mm, and 15mm
 - Posterior Femoral Bone Augmentation Blocks, 5mm and 10mm

Modular Tibial Tray Design

- Cobalt Chromium Alloy provides superior wear characteristics at the modular junction
- Deltafit Keel** achieves fixation in the best quality bone available
- Increased projected area and normalizations increase load-carrying capability

Tibial Bone Augmentation Design

- Bone augmentation blocks are mechanically attached to tibial tray
- **Augmentation Options:**
 - Tibial Bone Augmentation Blocks, 5mm and 10mm
 - 10mm Full Augmentation Block
 - 5° Full Augmentation Wedge

Tibial Bearing Inserts – UHMWPE

- TS Insert provides posterior stabilization, varus/valgus and rotational stability
- Available in 10mm-24mm thicknesses

Offset Adaptors

- 4mm, 6mm, and 8mm offset adaptors allow tibial tray to be positioned radially about the stem extender, allowing optimal bone coverage for tibial applications
- Offsetting capabilities minimize tibial tray overhang that may occur when utilizing stem extenders
- 2mm and 4mm offset adaptors can be positioned radially, allowing for optimal placement of femoral component relative to canal

Stem Extension Design

- Cobalt-chromium Cemented and Titanium Fluted Press-Fit Stem Extender options address all approaches to IM fixation
- Stem interchangeability minimizes O.R. inventory; one set works for both femoral and tibial components
- Press-fit stem lengths for femoral and tibial components: 80mm and 155mm
 - Twelve Cobalt Chromium diameters (10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, and 23mm)
 - Twelve Titanium Fluted diameters (10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, and 23mm)

* US Patent No. 5,387,240

** US Patent No. 5,356,414

The Advantages of Advanced, Single Axis Design

Longer Moment Arm Increases Performance

Traditional multiple axis knee designs have a relatively short patello-femoral moment arm which gets shorter as it moves anteriorly and proximally with the changing center of rotation. This decreases leverage on the quadriceps muscle, forcing the patient to work harder to achieve full extension. In comparison, the center of rotation of the Scorpio® TS femoral component is fixed at the trans-epicondylar axis. This increases the length of the patello-femoral moment arm, which maximizes quadriceps efficiency and allows the patient to achieve full extension with less effort.¹

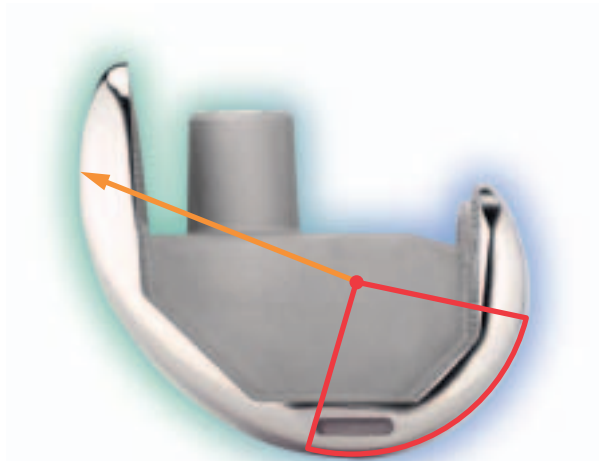
Longer Moment Arm Decreases Potential for Pain

Patello-femoral joint reaction force frequently contributes to anterior knee pain following total knee arthroplasty. Traditional knee designs with a short patello-femoral moment arm increase joint reaction force, and thus increase the potential for anterior knee pain. However, the Scorpio® TS design, with its longer patello-femoral moment arm, can be expected to decrease the potential for anterior knee pain. Patients will appreciate this advantage, especially when rising from a chair, climbing or descending stairs, or walking long distances.¹

Reliable Joint Line Restoration

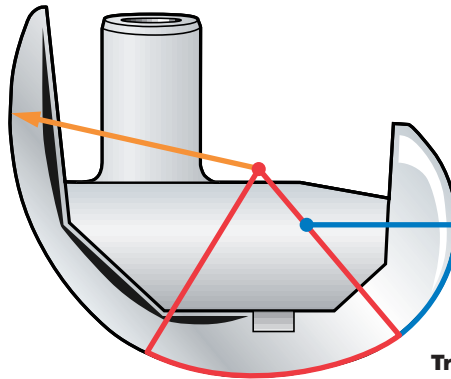
The Scorpio® TS System provides instrumentation and augmentation options to accurately restore the anatomical joint line. The system utilizes three reference points from which to base joint line restoration: medial epicondyle, inferior pole of the patella, and tibial tubercle.

¹ Mahoney O, McClung C, Phil M, Schmalzried T. Improved Extensor Mechanism Function with the Scorpio® Total Knee Replacement. Orthopedic Research Society annual meeting, 1999.



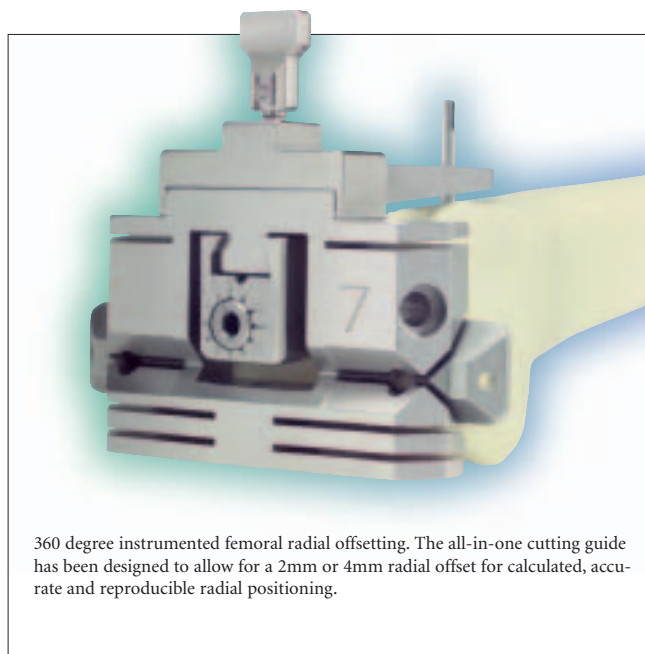
Scorpio® Knee Design

Single axis patello-femoral moment arm is longer than that of traditional designs and Scorpio® has a single distal/posterior radius, providing smooth rotation.



Traditional Design

Traditional multiple axis patello-femoral moment arm and multiple radius distal/posterior condyles has transition points in rotation.



360 degree instrumented femoral radial offsetting. The all-in-one cutting guide has been designed to allow for a 2mm or 4mm radial offset for calculated, accurate and reproducible radial positioning.

Scorpio[®] Knee TS

Single Axis Revision Knee System

Designed For Uncompromising Stability

- **Patented single axis design**
- **Improved ligament stability**
- **Varus/valgus stability**
- **Excellent rotational stability**

A Strong Commitment to Your Total Preparation

Stryker[®] understands the unexpected challenges facing the orthopaedic surgeon during revision knee surgery. That is why we are committed to providing the finest, most comprehensive system of implants and instruments available – a system uniquely designed to enable the orthopaedic surgeon to be prepared for any situation that may be encountered during complex revision knee surgery.

Scorpio[®] TS Instruments – Designed for Maximum Accuracy and Ease of Use

The Scorpio[®] TS System features IM-based instrumentation and intuitive design to ensure consistent and reproducible results. Instruments allow for radial offsetting for both the femur and tibia. (Radial offsetting is available with cutting blocks, trials, and implants.)



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