Fixed Bearing
BRINGING PATENTED TECHNOLOGIES TO A SEAMLESS SYSTEM, FROM PRIMARY THROUGH TO REVISION

The ATTUNE® Revision Fixed Bearing Knee System is a comprehensive system that is designed to enable you to effectively manage a broad range of complex primary and revision knee procedures.
Comprehensive range of solutions that are designed to address the main challenges presented in complex primary and revision surgery: fixation, instability, and OR efficiency.

ATTUNE Revision Fixed Bearing Knee System

The Revision Femoral Component is compatible with the ATTUNE Revision Fixed Bearing Tibial Insert and the ATTUNE Posterior Stabilized (PS) Fixed Bearing Insert.
ADDRESSING FIXATION AND PATIENT FIT
Rotational Freedom
The ATTUNE Revision Cam/Spine interface is designed to provide +/- 1.25° varus/valgus constraint while allowing +/- 4° of internal/external rotational freedom during the full range of motion.

Bone Defect Compensation
Femoral Metaphyseal Sleeves feature a proprietary stepped design to compensate for substantial bone defects, compressively load the bone and provide a solid foundation for implant fixation.

360° Offset Capability
Offset options of 2, 4, and 6 mm with orientation available from 0° to 360° are designed to increase patient fit in both femoral and tibial anatomical variations.

Improved Stem Geometry
The Press-Fit Stems provide rotational stability and create a balance between stiffness and flexibility designed to reduce stress associated with end-of-stem pain.³
Closing The Flexion Gap
The ATTUNE Revision Femoral Boss is designed to best fit a patient’s natural anatomy through optimal placement in terms of flexion gap balance, bone coverage and valgus angle. The ATTUNE Revision Femoral Component has 1 mm additional posterior thickness, the same as the ATTUNE PS Femoral Component, to help close the flexion gap.

REDUCING INSTABILITY THROUGH IMPROVED KINEMATICS

Femoral-to-Insert Size Matching
The LOGICLOCK™ Tibial Base enables the Femoral Component and Tibial Insert to match size-to-size every time, allowing for optimization of the tibiofemoral contact mechanics and stability throughout the range of motion. Additionally, it is designed to accommodate 2-up and 2-down sizing between the Tibial Insert and Tibial Base.4,5,6
Enhanced Tibiofemoral Conformity

ATTUNE GRADIUS™ Curve technology is designed to allow for enhanced tibiofemoral conformity where the gradually reducing femoral radius provides a smooth transition through the gait cycle.\textsuperscript{4,5,7}

Femoral Offset

360° offset capability with 2, 4, and 6 mm options on the Femoral Component developed to enable balancing the flexion gap while providing fixation and improved patient fit.

<table>
<thead>
<tr>
<th>Tibio-femoral Sagittal Conformity (Conformity Ratio - $R_{\text{femoral}}/R_{\text{insert}}$)\textsuperscript{7}</th>
<th>0°</th>
<th>30°</th>
<th>60°</th>
<th>90°</th>
<th>120°</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATTUNE Revision Femoral Component with ATTUNE Revision FB Tibial Insert</td>
<td>0.88</td>
<td>0.73</td>
<td>0.59</td>
<td>0.40</td>
<td>0.20</td>
</tr>
<tr>
<td>ATTUNE Revision Femoral Component with ATTUNE Primary PS FB Tibial Insert</td>
<td>0.88</td>
<td>0.73</td>
<td>0.59</td>
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<tr>
<td>ATTUNE Primary PS Femoral Component with ATTUNE Primary PS FB Insert</td>
<td>0.88</td>
<td>0.72</td>
<td>0.59</td>
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<td>0.20</td>
</tr>
<tr>
<td>SIGMA\textsuperscript{®} TC3 Femoral Component with TC3 FB Insert</td>
<td>0.75</td>
<td>0.75</td>
<td>0.47</td>
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<tr>
<td>SIGMA TC3 Femoral Component with PS FB Insert</td>
<td>0.75</td>
<td>0.75</td>
<td>0.47</td>
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<td>0.47</td>
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</table>
OR EFFICIENCY WITH STREAMLINED WORKFLOWS

Cut Through Trials
Cut Through Trials are designed to allow for setting rotation and balancing flexion and extension gaps in real-time. Cut Through Trials also have the ability to make Femoral Augment and Box resections and assemble the Augment and Box Trials without being removed.

Real-time Gap Assessment with Conventional Cut Guide
Conventional Cut Guides allow for assessing the anterior resection level, flexion gap, and M/L fit simultaneously by fine-tuning the femoral offset position in 360°. Additionally, Conventional Cut Guides replicate the distal thickness of the femoral implant, enabling assessment of extension gap before making bone resections.
360° Tibia Offset Workflow
The ATTUNE Revision Offset Tibial preparation allows for the Tibial Base to be positioned 360° around the Reamer to efficiently address anatomical variation.

Consistent Sleeve Preparation
Ream, broach, cut. Consistent Sleeve preparation promotes technique efficiency. Each Femoral Sleeve distalizes the joint line by 4 mm, matching the size increments of the Femoral Distal Augments.

Smart Kitting
Instrumentation kitted for streamlined surgical workflows while enabling management of a broad range of complex primary and revision knee procedures.
CONTINUING TO BALANCE THE PATIENT NEED FOR FREEDOM OF MOVEMENT AND JOINT STABILITY

The ATTUNE Knee System is designed to provide patients with STABILITY IN MOTION™, offering a comprehensive range of implant solutions that address overall patient satisfaction. In a large multi-center study, the ATTUNE Primary Knee System demonstrated improved outcomes across a broad range of Patient Reported Outcome Measures (PROMs) compared to certain existing knee brands at one year minimum follow-up. The same technologies that have helped deliver these outcomes in primary are also incorporated in the ATTUNE Revision System. These features are designed to help address the percentage of patients who are not satisfied after knee revision surgery, which ranges from 27% to 38%. 
The patented ATTUNE GRADIUS™ Curve is a gradually reducing femoral radius designed to provide a smooth transition from stability to rotational freedom through a patient’s range of motion.\textsuperscript{4,5,7}

The GLIDERIGHT™ Articulation encompasses a trochlear groove designed to accommodate patient variation and soft tissue interaction, and patella components designed to optimize patella tracking while maintaining bone coverage.\textsuperscript{9}

The Revision Tibial Inserts and Revision Femoral Component have taken into account the advantages of SOFCAM™ Contact while considering the requirements for constraint in the Revision Construct throughout the range of motion. The AP kinematics for the Revision Femoral Component on the Revision Fixed Bearing Insert are the same as the Revision Femoral Component on the Primary PS Insert.\textsuperscript{10} The controlled engagement of the Cam to the Insert Spine provides a smooth transition from condylar control to Cam and Spine control.

The LOGICLOCK™ Tibial Base has a patented central locking design that provides the architecture for the system to optimize kinematics, while reducing backside micromotion to the lowest reported levels in the industry.\textsuperscript{11}
References:

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