Vanguard 360 Revision Knee System
Incorporating SSK and DA
Over 1 million times per year, Biomet helps one surgeon provide personalized care to one patient.

The science and art of medical care is to provide the right solution for each individual patient. This requires clinical mastery, a human connection between the surgeon and the patient, and the right tools for each situation.

At Biomet, we strive to view our work through the eyes of one surgeon and one patient. We treat every solution we provide as if it's meant for a family member.

Our approach to innovation creates real solutions that assist each surgeon in the delivery of durable personalized care to each patient, whether that solution requires a minimally invasive surgical technique, advanced biomaterials or a patient-matched implant.

When one surgeon connects with one patient to provide personalized care, the promise of medicine is fulfilled.
Vanguard 360 Revision Knee System

The Vanguard 360 Revision Knee System delivers customizable implant combinations due to independent fit of each component and comprehensive instrumentation to aid surgeons in addressing diverse, often challenging procedures while choosing a personalized patient approach to revision knee surgery.
Vanguard 360 Revision Knee System

Femoral Construct

The Vanguard 360 Revision Knee System incorporates key Vanguard Complete Knee Systems femoral design features including ten femoral sizes and complete tibial/femoral interchangeability for an individualized patient fit.

The Vanguard 360 femoral component accepts a variety of stem options and offset adapters allowing for precise component positioning.
1. Stem Extensions
   Smooth, grit-blasted and splined stems are available in 40, 80, 100, 160 and 200 mm lengths and a wide range of diameters to provide for component fixation.

2. Femoral Component
   Sizes increase on average by 2.4 mm anterior/posterior and 2.6 mm medial/lateral for all ten sizes.
Femoral Component
Sizes increase on average by 2.4 mm anterior/posterior and 2.6 mm medial/lateral for all ten sizes.

Offset Stem Adapter
Available in 2.5, 5 and 7.5 mm offset magnitudes, the offset stem adapter rotates 360 degrees for precise positioning and is universal to both the femoral and tibial components.

Stem Extensions
Smooth, grit-blasted and splined stems are available in 40, 80, 100, 160 and 200 mm lengths and a wide range of diameters to provide for component fixation.
**Flexibility**

The Vanguard 360 Revision Knee System offers ultimate intraoperative flexibility by providing independent sizing of femoral and tibial components and the capability to position universal femoral and tibial stem offsets in a full 360 degree range. This flexibility provides options to effectively address bone loss, all of which provide personalized patient care.

1. **Stem Extensions**
   Smooth, grit-blasted and splined stems are available in 40, 80, 100, 160 and 200 mm lengths and a wide range of diameters to provide for component fixation.

2. **Offset Stem Adapter**
   Available in 2.5, 5 and 7.5 mm offset magnitudes, the offset stem adapter rotates 360 degrees for precise positioning and is universal to both the femoral and tibial components.

3. **Femoral Component**
   Sizes increase on average by 2.4 mm anterior/posterior and 2.6 mm medial/lateral for all ten sizes.

4. **Independent Distal and Posterior Augments**
   Individual distal (available in 5, 10 and 15 mm thicknesses) and posterior (available in 5 and 10 mm thicknesses) femoral augments provide a solution to address bone loss.
The Vanguard 360 Revision Knee System tibial design incorporates nine sizes and the same symmetrical shape from the Vanguard Complete Knee System as well as the clinically proven polyethylene bearing locking mechanism.¹

The Vanguard 360 tibial component accepts a variety of stem options and offset adapters allowing for precise component positioning.
**Stem Extensions**

Smooth, grit-blasted and splined stems are available in 40, 80, 120, 160 and 200 mm lengths and a wide range of diameters to provide for component fixation.

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1. **Bearing**
   - 360 PS Bearing: Deeper anterior cutout, 15 degrees internal/external rotation, no varus/valgus constraint
   - ArCom Polyethylene is clinically proven to be resistant to wear, delamination and oxidation
   - Provides deep anterior relief to accommodate the patella tendon during high flexion

2. **Tray**
   - Symmetrical tibial tray design available in nine sizes for optimal tibial coverage
   - Compressive Locking Mechanism is clinically proven to minimize micromotion and backside wear

3. **Stem Extensions**
   - Smooth, grit-blasted and splined stems are available in 40, 80, 120, 160 and 200 mm lengths and a wide range of diameters to provide for component fixation
Stem Extensions
Smooth, grit-blasted and splined stems are available in 40, 80, 120, 160 and 200 mm lengths and a wide range of diameters to provide for component fixation.

Tray
- Symmetrical tibial tray design available in nine sizes for optimal tibial coverage
- Compressive Locking Mechanism is clinically proven to minimize micromotion and backside wear

Bearing
- 360 PS Constrained (PSC) Bearing:
  - Deeper anterior cutout, 0.5 degrees internal/external rotation, 1 degree varus/valgus constraint
- ArCom Polyethylene is clinically proven to be resistant to wear, delamination and oxidation
- Provides deep anterior relief to accommodate the patella tendon during high flexion
1. **Bearing**
   - 360 PS Constrained (PSC) Bearing:
     - Deeper anterior cutout, 0.5 degrees internal/external rotation, 1 degree varus/valgus constraint
   - ArCom Polyethylene is clinically proven to be resistant to wear, delamination and oxidation
   - Provides deep anterior relief to accommodate the patella tendon during high flexion

2. **Tray**
   - Symmetrical tibial tray available in nine sizes, incorporating a unique rotating tibial bearing which has a bi-helical articulation
   - Allows dissipation of torsional forces through the femur as it rotates and mimics the natural ‘screw home’ mechanism of the normal knee

3. **Stem Extensions**
   Smooth, grit-blasted and splined stems are available in 40, 80, 120, 160 and 200 mm lengths and a wide range of diameters to provide for component fixation
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Smooth, grit-blasted and splined stems are available in 40, 80, 120, 160 and 200 mm lengths and a wide range of diameters to provide for component fixation

Offset Stem Adapter
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1 Bearing
2 Tray
3 Offset Stem Adapter
4 Stem Extensions
1. **Bearing**
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     - Deeper anterior cutout, 0.5 degrees internal/external rotation, 1 degree varus/valgus constraint
     - ArCom Polyethylene is clinically proven to be resistant to wear, delamination and oxidation
   - Provides deep anterior relief to accommodate the patella tendon during high flexion

2. **Tray**
   - Symmetrical tibial tray design available in nine sizes for optimal tibial coverage
   - Compressive Locking Mechanism is clinically proven to minimize micromotion and backside wear

3. **Cruciate Wing Augment**
   - Modular small and large cruciate wing augments provide extra rotational stability and can be used with block augments, offset stem adapters and all stem options

4. **Offset Stem Adapter**
   - Available in 2.5, 5 and 7.5 mm offset magnitudes, the offset stem adapter rotates 360 degrees for precise positioning and is universal to both the femoral and tibial components

5. **Stem Extensions**
   - Smooth, grit-blasted and splined stems are available in 40, 80, 120, 160 and 200 mm lengths and a wide range of diameters to provide for component fixation
Stability

The Vanguard 360 Revision Knee System offers the optimal constraint to return stability for patients with ligament deficiencies.

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     - Deeper anterior cutout, 0.5 degrees internal/external rotation, 1 degree varus/valgus constraint
   - ArCom Polyethylene is clinically proven to be resistant to wear, delamination and oxidation
   - Provides deep anterior relief to accommodate the patella tendon during high flexion

2. **Tray**
   - Symmetrical tibial tray design available in nine sizes for optimal tibial coverage
   - Compressive Locking Mechanism is clinically proven to minimize micromotion and backside wear

3. **Block Augment**
   - Available in 5, 10 and 15 mm thicknesses, block augments provide a solution to address bone loss

4. **Cruciate Wing Augment**
   - Modular small and large cruciate wing augments provide extra rotational stability and can be used with block augments, offset stem adapters and all stem options

5. **Offset Stem Adapter**
   - Available in 2.5, 5 and 7.5 mm offset magnitudes, the offset stem adapter rotates 360 degrees for precise positioning and is universal to both the femoral and tibial components

6. **Stem Extensions**
   - Smooth, grit-blasted and splined stems are available in 40, 80, 120, 160 and 200 mm lengths and a wide range of diameters to provide for component fixation

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**Swept Back Tibial Post**

Design provides stability and constraint in deep flexion.

**Increased Post/box Contact**

At 90 degrees of flexion, 17mm of the tibial post remains in the box.
The Vanguard 360 Revision Knee System delivers a comprehensive instrumentation platform to accurately size and position implants to the patient. The innovative cut-through femoral trials provide surgeons with the flexibility to choose their preferred surgical approach to maximize efficiency.
Efficiency

Offering a seamless transition from a Vanguard Primary Knee, the Vanguard 360 Revision Knee System features precise, intuitive instrumentation to allow surgeons to achieve optimal component position through early trialing, establishing balance and appropriate tension while efficiently addressing unique patient anatomies.

Early trialing technique can help:

- preserve bone by allowing for evaluation of component sizing and position prior to committing to any bone resections
- decrease O.R. time by reducing the amount of instrumentation needed
References


