

# ANATOMIC<sup>®</sup>

Fixed Bearing Total Knee System  
Posterior Stabilised version  
Cemented or cementless options



 AMPLITUDE<sup>®</sup>

# ANATOMIC<sup>®</sup>

- Anatomic femoral component<sup>1</sup> design based on a study of 420 knees digitised using the AMPLIVISION<sup>®</sup> CAS system
- Mediolateral coverage matches bone morphology, resulting in no overhang: 2 mm increments from Sizes 0 to 4 and 3.2 mm increments for Sizes 4 to 8
- Only 2.6 mm difference in anteroposterior height between sizes
- Lateralised trochlear groove better reproduces natural anatomy<sup>2</sup>



- Centred cage is proportionately scaled, thereby preserving bone stock
- Posterior stabilisation cam ensures stability during flexion while allowing adequate rotational movements

- Single radius of curvature from 0° to 100° flexion. Radius of curvature then decreases at posterior aspect of condyles to allow for high flexion
- 6° anterior cut preserves the cortex
- Material: Cobalt-chrome



1 - Are Gender-Specific Femoral Implants for Total Knee Arthroplasty Necessary? PIRIOU, P. M.D. Ph.D.; MABIT, C. M.D. Ph.D. ; BONNEVIALLE, P. M.D. Ph.D. ; PERONNE, E. M.D. ; VERSIER, G. M.D.

2 - Rotational Alignment of the Femoral Component Using Trochlear Navigation During Total Knee Arthroplasty: A Dual-Center Study of 145 Cases PIRIOU, P. M.D. Ph.D. ; PERONNE, E. M.D. ; OUANEZAR, H. M.D.

# ANATOMIC<sup>®</sup> Posterior-stabilized total knee replacement

- Posterior-stabilised, fixed bearing, primary total knee replacement
- Mediolateral implant coverage matches bone morphology
- Quasi-anatomic patellar-femoral joint
- Stability and range of motion are ensured:
  - in extension by congruent anterior rim
  - in deep flexion by delayed contact between post/cam stabilisation mechanism
- Nine femoral and tibial component sizes (Sizes 0 and 8 optional)
- Six insert heights (10 to 20 mm)
- Cemented and cementless versions: Plasma-sprayed Titanium (80 µm) and HA (80 µm)



- Insert has curved anterior lip to ensure joint stability throughout range of motion. Posterior stabilisation (PS) mechanism engages when knee is flexed more than 90°
- Planar surface (large radius) posteriorly allows lateral compartment to roll
- Polyethylene insert is thicker in posteroinferior part of post where it makes contact with PS cam
- Material: Machined ultra-high molecular weight polyethylene (UHMWPE)



- Highly-polished contact surface reduces backside wear<sup>3</sup>
- Insert clips into anterior edge of baseplate
- Grooves on lateral edges and around notch guide insert placement
- Material: Cobalt-chrome (CoCr)

- Patellar component:
  - Dome-shaped contact area
  - Material: Ultra-high molecular weight polyethylene (UHMWPE)





# ANATOMIC<sup>®</sup> kinematics

- Contact between PS cam and post beyond 90° flexion and posterior displacement of femoral component allow for deep flexion while ensuring stability
- Up to 10° recurvatum possible



- Middle of PS cam is rounded to allow condyles to rotate around post
- Asymmetrical femur-insert contact surfaces, stemming from the anatomy
- PE insert is thickest posteriorly to support posterior aspect of condyles
- Femoral component and insert can either be matched size-for-size or combined with implant one size above or below



# References

## ANATOMIC® implants



ANATOMIC® posterior stabilized Femoral Component - cementless HA coated - Size 1 to 7 RIGHT	1-0204301 to 1-0204307
ANATOMIC® posterior stabilized Femoral Component - cementless HA coated - Size 1 to 7 LEFT	1-0204401 to 1-0204407
ANATOMIC® posterior stabilized Femoral Component cemented - Size 1 to 7 RIGHT	1-0204501 to 1-0204507
ANATOMIC® posterior stabilized Femoral Component cemented - Size 1 to 7 LEFT	1-0204601 to 1-0204607
ANATOMIC® Tibial Base plate for fixed bearing insert - cementless HA coated - Size 1 to 7	1-0204801 to 1-0204807
ANATOMIC® Tibial Base plate for fixed bearing insert - cemented - Size 1 to 7	1-0204901 to 1-0204907
ANATOMIC® Fixed Bearing Insert - Size 1 Thickness 10 to 16	1-0204710 to 1-0204715
ANATOMIC® Fixed Bearing Insert - Size 2 Thickness 10 to 16	1-0204720 to 1-0204723
ANATOMIC® Fixed Bearing Insert - Size 3 Thickness 10 to 16	1-0204730 to 1-0204733
ANATOMIC® Fixed Bearing Insert - Size 4 Thickness 10 to 16	1-0204740 to 1-0204743
ANATOMIC® Fixed Bearing Insert - Size 5 Thickness 10 to 16	1-0204750 to 1-0204753
ANATOMIC® Fixed Bearing Insert - Size 6 Thickness 10 to 16	1-0204760 to 1-0204763
ANATOMIC® Fixed Bearing Insert - Size 7 Thickness 10 to 16	1-0204770 to 1-0204773
Resurfacing patella - cemented - Ø 30 mm	1-0200830
Resurfacing patella - cemented - Ø 33 mm	1-0200833
Resurfacing patella - cemented - Ø 36 mm	1-0200836

## Optional

ANATOMIC® Fixed Bearing Insert - Sizes 1 to 7 - Thickness 16	1-0204714 to 1-0204774
ANATOMIC® Fixed Bearing Insert - Sizes 1 to 7 - Thickness 20	1-0204715 to 1-0204775
ANATOMIC® Posterior Stabilized Femoral Component - cementless HA coated - Size 0 & 8 RIGHT	1-0204300 & 1-0204308
ANATOMIC® Posterior Stabilized Femoral Component - cementless HA coated - Size 0 & 8 LEFT	1-0204400 & 1-0204408
ANATOMIC® Posterior Stabilized Femoral Component - cemented - Size 0 & 8 RIGHT	1-0204500 & 1-0204508
ANATOMIC® Posterior Stabilized Femoral Component - cemented - Size 0 & 8 LEFT	1-0204600 & 1-0204608
ANATOMIC® Fixed Bearing Insert - Size 0 Thickness 10 to 20	1-0204701 to 1-0204706
ANATOMIC® Fixed Bearing Insert - Size 8 Thickness 10 to 20	1-0204780 to 1-0204785
ANATOMIC® Tibial Base plate for fixed bearing insert - cementless HA coated - Size 0 & 8	1-0204800 & 1-0204808
ANATOMIC® Tibial Base plate for fixed bearing insert - cemented - Size 0 & 8	1-0204900 & 1-0204908
Tibial Extension Stems	
Tibial Half-Blocks	