



ORTHOPAEDIC
SURGERY

AESCULAP[®] univation[®] X

MORE THAN HALF A KNEE

AESCULAP® univation® X

BEARING SURFACE TECHNOLOGY ACCORDING TO MODERN STANDARDS

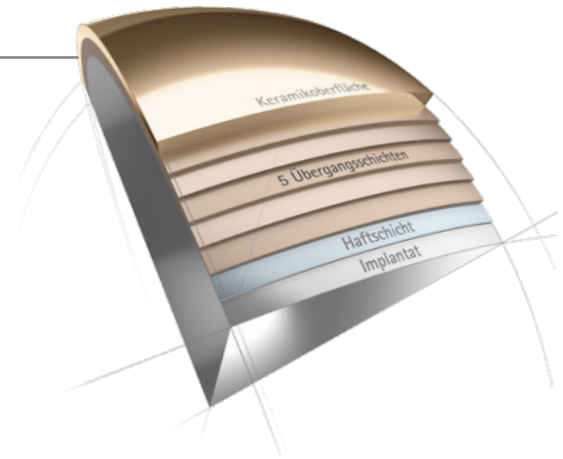


(1) Affatato S, Spinelli M, Lopomo N, Grupp TM, Marcacci M, Toni A. Can the method of fixation influence the wear behaviour of ZrN coated unicompartmental mobile knee prostheses? Clin Biomech (Bristol, Avon). 2011 Feb;26(2):152-8.

(2) Reich J, Hovy L, Lindenmaier HL, Zeller R, Schwiesau J, Thomas P, Grupp TM. Präklinische Ergebnisse beschichteter Knieimplantate für Allergiker. Orthopäde. 2010 Mai;39(5):495-502.

(3) Thomas P, Weik T, Roeder G, Summer B, Thomsen M. Influence of Surface Coating on Metal Ion Release: Evaluation in Patients With Metal Allergy. Orthopedics. 2016;39:24-30.

MATERIAL FOR DURABILITY



AS ADVANCED SURFACE TECHNOLOGY

- The ceramic surface reduces polyethylene wear and increases scratch resistance (1, 2).
- The established advanced surface technology combines the approved CoCr alloy with a hard ceramic surface that in addition enables allergy prevention (2, 3).
- In combination with the beta sterilised gliding surface the system offers state of the art bearing technologies.

CERAMIC SURFACE FOR DURABILITY

- Wear reduced by 65% combined with a very hard ceramic surface (1, 2).

FIVE INTERMEDIATE LAYERS TO PROVIDE ALLERGY PREVENTION AND STABILITY

- Release of metal ions significantly reduced (2).
- Protection against mechanical ablation (2).

ADHESIVE LAYER FOR RELIABILITY

- Adhesive layer for a stable bonding of the subsequent layers (2).

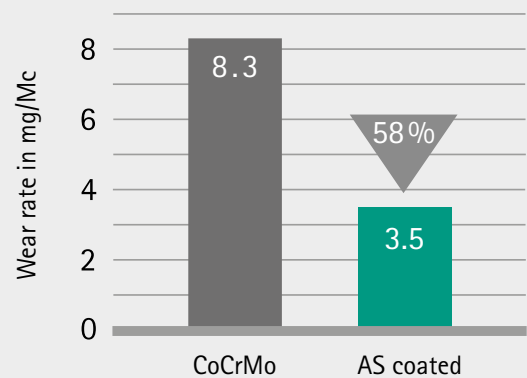


Fig.1: Wear reduction with Columbus® CR with Beta-PE after 5 Mio cycles with and without coating according to ISO standard 14243-1/3 (2).

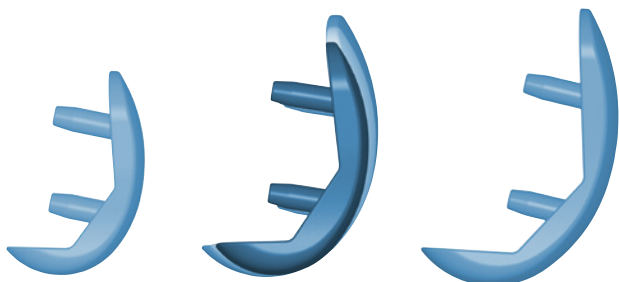
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FREEDOM OF CHOICE



FEMUR SIZE SELECTION

Same femoral cuts for sizes 2/3/4 and therefore interchangeable.



Size 1

Size 2/3/4

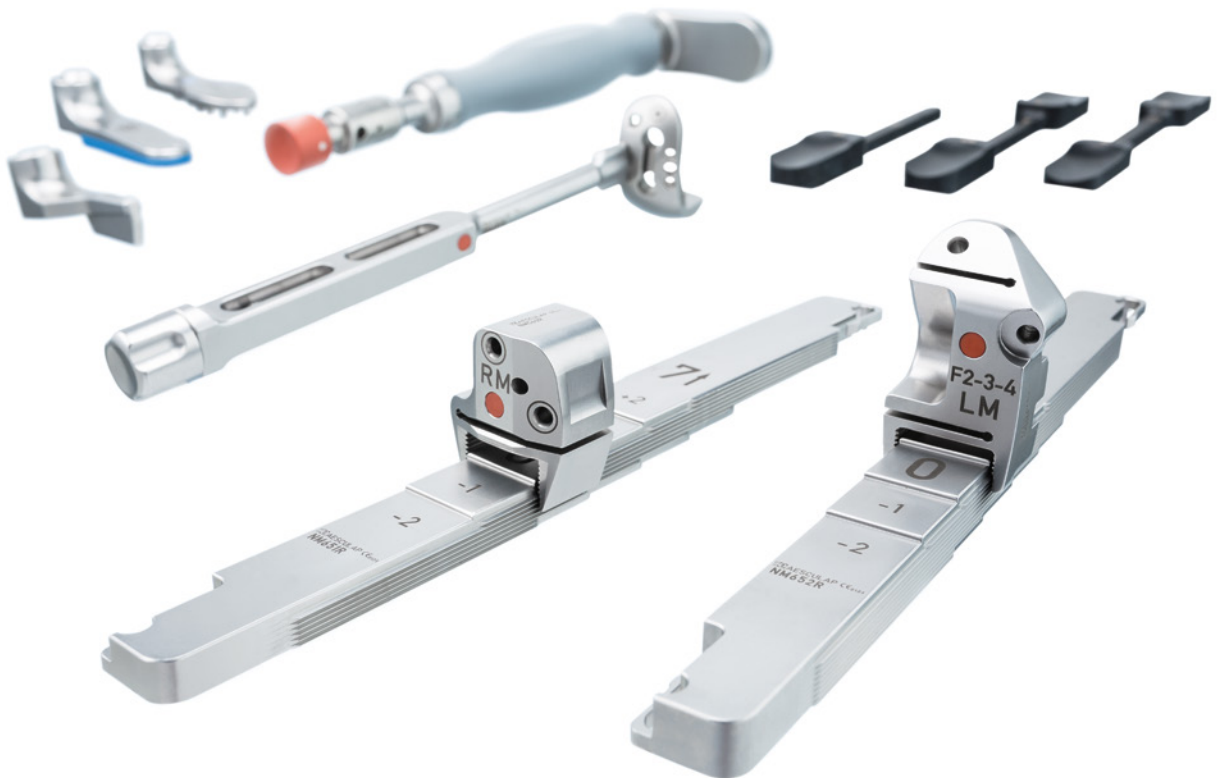
Size 5

ADJUSTABLE MEDIO-LATERAL POSITIONING

The femur component can be shifted medio laterally, for central tibial loading.



SIMPLICITY FOR RELIABILITY



SIMPLICITY

Six-step operating procedure.

INNOVATION

Gap management with millimetric adjustment of flexion and extension gaps.

CLEARLY ARRANGED

Just two instrument trays in basic configuration.

PRECISION

The precise instruments support the exact co-alignment of the implants.

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PRECISION FOR SATISFACTION





- Reproducible precision with the OrthoPilot® (4, 5).
- Excellent implant alignment (4, 5).
- Controlled implantation even with minimally invasive approaches.
- The OrthoPilot® guides the operating team through the operating procedure.



- (4) Jenny JY. Navigated unicompartmental knee replacement. *Sports Med Arthrosc.* 2008 Jun;16(2):103-7.
- (5) Weber P, Crispin A, Schmidutz F, Utzschneider S, Pietschmann MF, Jansson V, Müller PE. Improved accuracy in computer-assisted unicompartmental knee arthroplasty: a meta-analysis. *Knee Surg Sports Traumatol Arthrosc.* 2013 Nov;21(11):2453-61.

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INNOVATION FOR COST EFFECTIVENESS





IQ INSTRUMENTS
PRECISE – CLEAR – ERGONOMIC

A reduced number of trays, colour-coded instruments and trays simplify the operating procedure. The IQ (Intuitive and Quick) instrument set convinces its users with its modern and convenient instruments.

OrthoTray® WITH VALIDATED CLEANING TRAYS
TIME SAVING – EFFICIENT – COST EFFECTIVE

The instruments remain in their storage holder during cleaning, which saves considerable time and costs during reprocessing (6). This solution also reduces possible sources of error, as the set does not need to be repacked in the central sterilisation department.

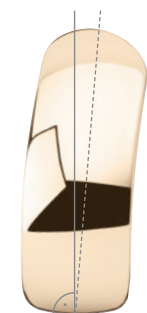
(6) Eiff W. Prozessoptimierung und Kostensenkung. HCM. 2016 Dec;7:34-7.

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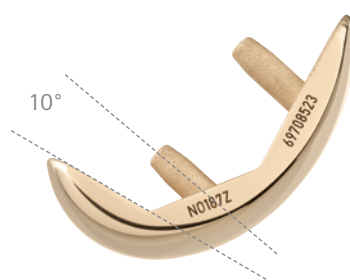
univation® XF



Established inclination of the femoral components for a good condylar fit (7).



10° angulation of the pegs for automatically pressing the posterior surface onto the posterior condyle on insertion.

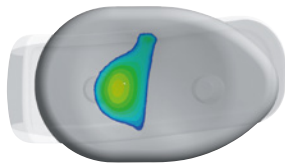


Left and right version of tibia for good bone coverage.



Patented "butterfly" design improves the load distribution in FEM analysis and provides greater tolerance to the femur rotational positioning (8).

Butterfly design:



Flat design:



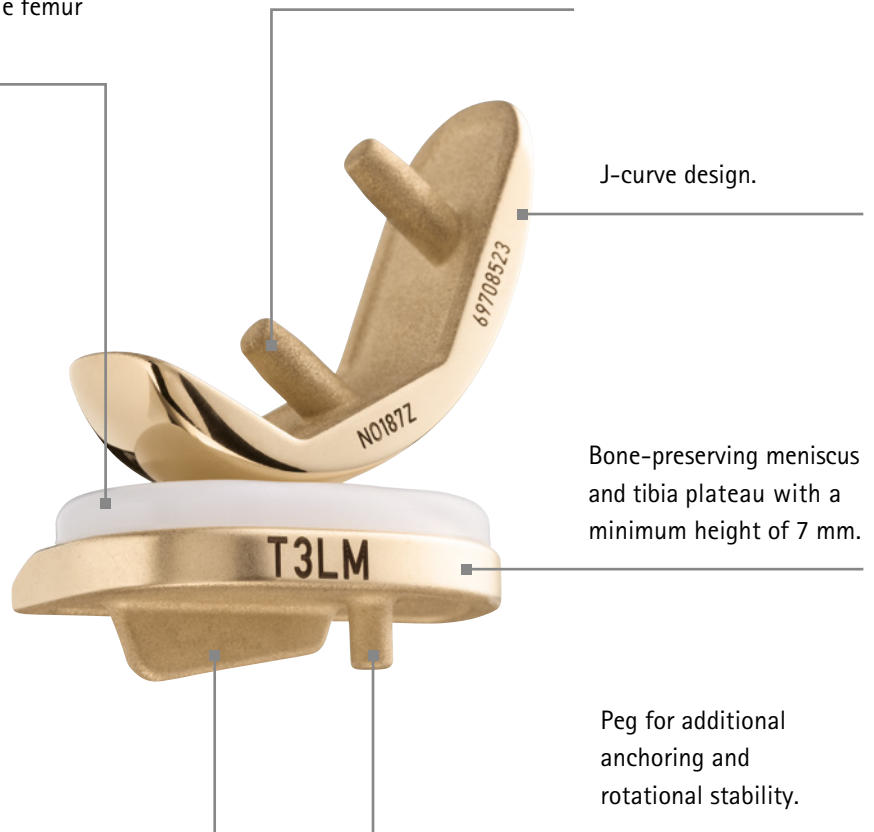
Shape of the fin mirrors the shape during processing with the reciprocating saw.

Two pegs for good primary and rotational stability.

J-curve design.

Bone-preserving meniscus and tibia plateau with a minimum height of 7 mm.

Peg for additional anchoring and rotational stability.



(7) Jenny J-Y, Ciobanu E, Boeri C. The rationale for navigated minimally invasive unicompartmental knee replacement. Clin Orthop Relat Res 2007;463:58-62.

(8) Internal testing.

* univation® XF is only available for the medial version.

AESCULAP® – a B. Braun brand

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