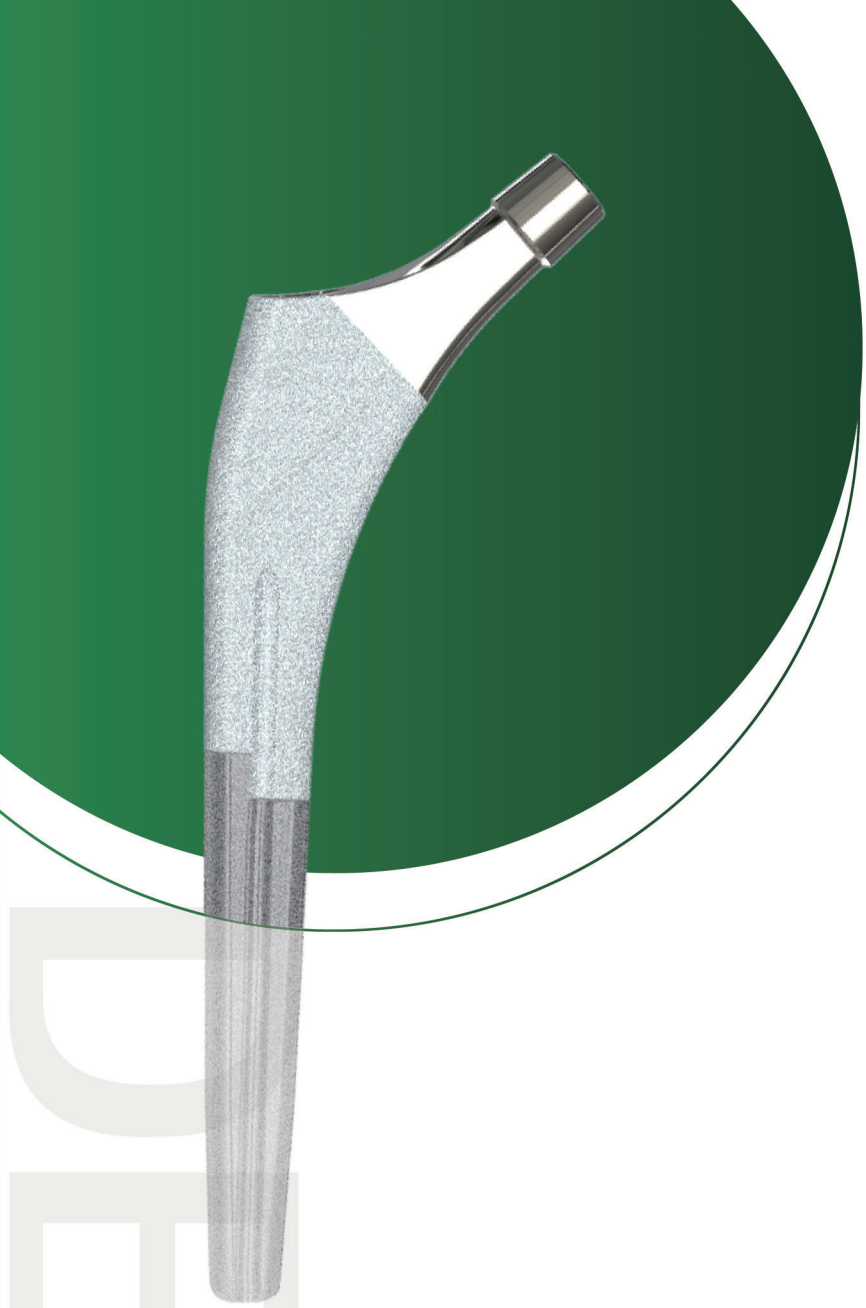
JUST®
MEDICAL



DELTA

DELTA™ Rectangular Stem

Surgical technique

Stability overrides everything

JUST®
MEDICAL

HIP PRODUCTS FOR ALL-RO

Dynamic fatigue tests of femoral stem's head-neck conjunction and body after 10 million
Dynamic wear tests after 5 million cycles in the international E

HARMONY™ ACETABULAR CUP SYSTEM

SEE 3D PR
TRABECULAR ACETAB

ACETABULAR CUP


HARMONY Cup
(Ti+HA, DDH)


HARMONY Cup
(Ti+HA)


HARMONY Cup
(Ti-Porous)


HARMONY Cup
(Ti+HA, Revision)


SEE Trabecular Cup
(Titanium, DDH)


SEE Trabe
(Titan

LINER


22/32Standard
（UHMWPE）


28/32 10°
（UHMWPE）


28/10°
（HPE）


32/10°
（HPE）


36/10° 内衬
（HPE）

FEMORAL HEAD


Φ22 (0/+3.5)


Φ24（+0/3.5/7）


Φ28


Φ28（±3.5）


Φ28（+7）


Φ32


Φ32（±

FEMORAL STEM


MINI™
Minimally Invasive Stem


DELTA
CLASSIC Rectangular Stem

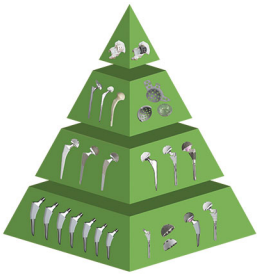

HARMONY
Tapered Stem (Ti-porous)


DELTA
Rectangular Stem (Ti-porous)


TAICH®
Cemented Stem

–MINIMAL INVASIVE–

PRIMARY



OUND SURGICAL SOLUTIONS

cycles in the international CNAS laboratory shows excellent results and no risk of fracture.
Endolab® laboratory in Germany shows excellent wear resistance.

RINTING
BULAR CUP SYSTEM®

cular Cup
ium)

SEE Trabecular Cup
(Titanium, Revision)

CAGE AND MESH SYSTEM

AOS Cage (Revision)

AOS Ring (Revision)

Acetabular Mesh (Revision)

CEMENTED ACETABULAR CUP

Cemented Acetabular Cup

28 Constrained
(UHMWPE)

32 Constrained
(UHMWPE)

28 Cemented liners
(HPE)

32 Cemented liners
(HPE)

36 Cemented liners
(HPE)

Bone model restoration

3.5)

Φ32 (+7)

Bipolar Head

Φ28 (S/M/L)
BIOLOX®delta Ceramic

Φ32 (S/M/L/XL)
BIOLOX® delta Ceramic

Φ36 (S/M/L/XL)
BIOLOX®delta Ceramic

Customized prosthesis design

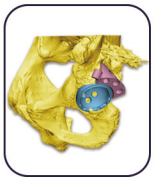
ASM®
Modular Stem

SEE® 3D Printing
Trabecular Modular Stem

Hip Spacer

TAICH® LONG
Cemented Revision Stem

RSL®
Revision Stem



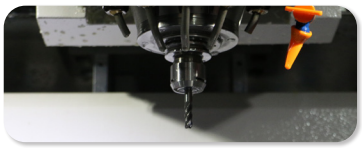
Customized product
simulated implantation

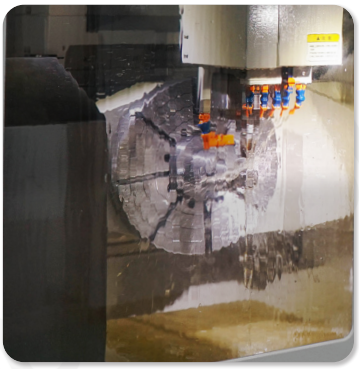
COMPLEX PRIMARY — **REVISION** — **CUSTOMIZED**

Imported Raw Material

All raw material of UHMWPE inserts were manufactured in Germany, meeting the technical requirements in ISO 5834 part 2 and ASTM F648.

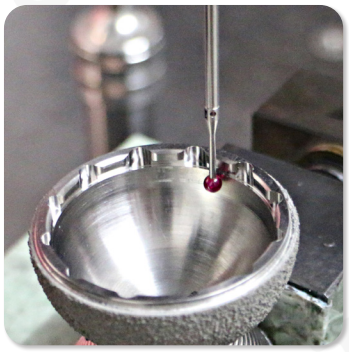
Precise Processing

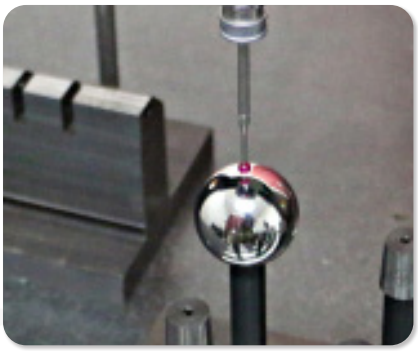




Strict Inspection

JUST MEDICAL Inspection Center



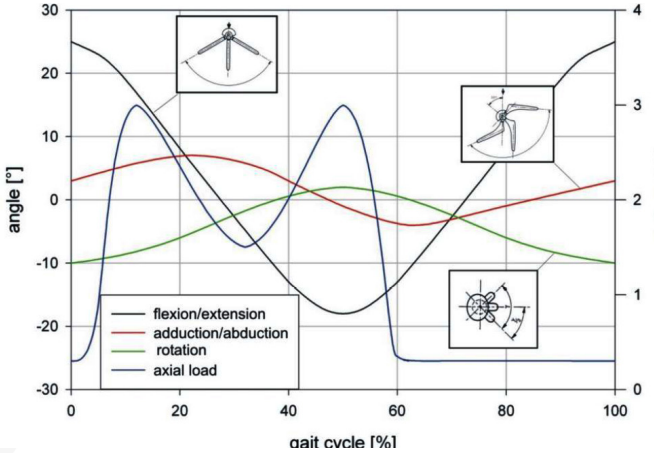


Wear Test in EndoLab®

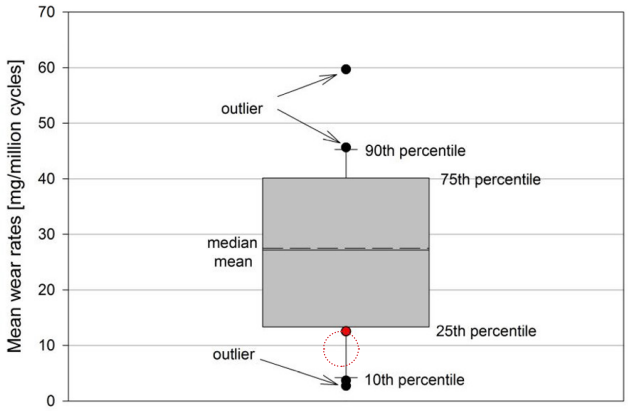
EndoLab® GmbH offers a variety of technological implant testingservices to develop and certify medical products.

EndoLab® is an accredited (DAkkS O-PL-18838-02-00) and certified (ZLG-P-944.98.07) test laboratory according to DIN EN ISO/IEC 17025 and 93/42/EWG.

The company is a spin-off from the Technical University of Munich and is closely connected to several national and international research departments.



Kinematics and load profile of the ISO 14242-1 EndoLab hip simulator



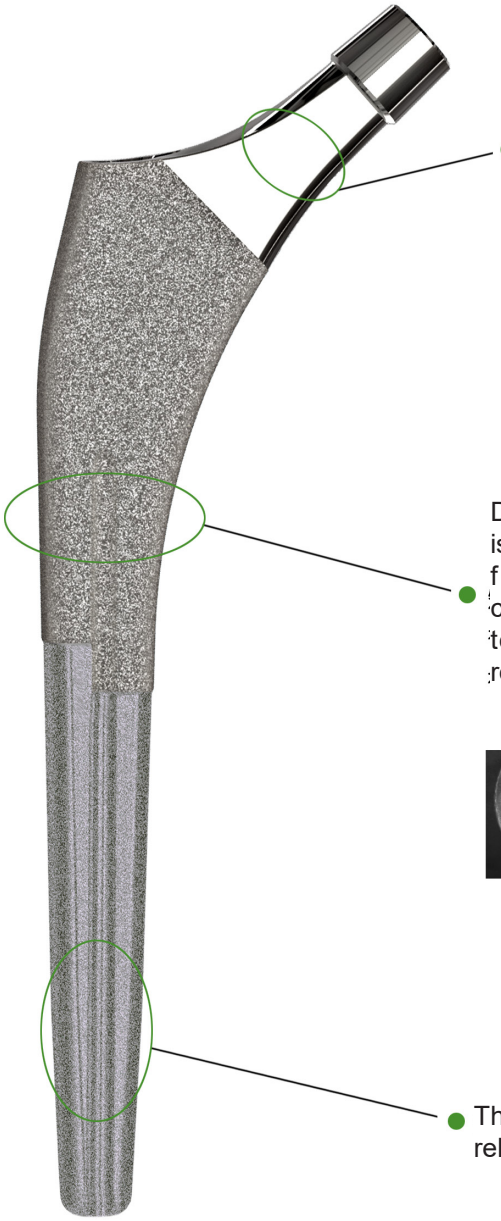
The value established for the inserts of the JS THR system is indicated by a red dot.

The UHMWPE inserts shows a mean wear rate of 12.53mg per million cycles(SD 1.47) after 5 million cycles.

The mean UHMWPE insert wear rate of the JS THR system is below the mean value of comparative THR systems tested at EndoLab®, so far.

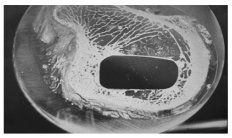
To date, EndoLab has tested n=21 comparative THR systems with a CoCrMo femoral head articulating against a conventional UHMWPE insert (not-aged). A mean wear rate of 27.49 mg per million cycles (SD 16.03 mg per million cycles) was found. The lowest wear rate measured was 2.71 mg per million cycles, the highest wear rate was 59.69 mg per million cycles and the median was 27.16 mg per million cycles.

- Rectangular design effectively prevent rotation;
- Reliable initial stability;
- Effective and long-term biological fixation;
- Simple surgical procedure and adaption of a variety of medullary canal morphology.



Optimized tapered neck geometry increase range of motion.

Dual-tapered stem geometry is designed to provide primary fixation, and rectangular cross-section is designed to conserve bone and offer rotational stability.



The design of pressure relief groove.

Preoperative planning enables the surgeon to prepare for the case and anticipate situations that may arise during surgery. A through preoperative plan incorporates elements from the patient's history, physical examination and radiographic analysis.

1. Access acetabular component size and placement;
2. Determine preoperative leg length discrepancy;
3. Determine femoral component size, position and fit.

Radiographs

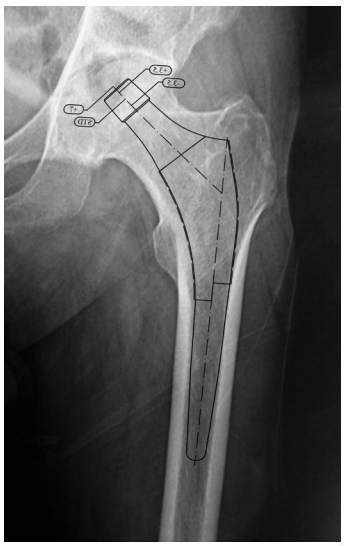
The first step in accurate templating is obtaining high-quality radiographys using a standardized protocol with known magnification. Use magnification markers attached to the patient's leg at the level of the greater trochanter to verify magnification.

Determination of Leg Length Discrepancy

To determine existing preoperative leg length, perform a clinical evaluation in conjunction with a radiographic analysis. Use both to determine intraoperative leg length management.

As an estimate of leg length discrepancy radiographically, draw a reference line through the bottom of the obturator foramina measure the distance from the lesser trochanter landmark to the reference line on each side. The difference between the two is the radiographic leg length discrepancy.

The tip of the greater trochanter may be used as an alternative reference mark in cojunction with the lines through the obturator foramina.



DELTA Hip Prosthesis Selection

Femoral components: Select the femoral component template size that will fit the proximal femur and equalize leg lengths. The tapered geometry of the tapered hip system femoral component does not require distal canal fill. The level of neck osteotomy depends on the stem size and the desired leg length, Verify that the stem size chosen in the A/P plane also fit in the lateral plane. Acetabular component: Select the prosthesis size to fit the acetabulum.

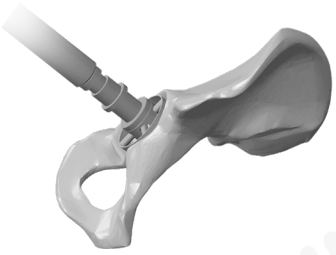
Offset Requirements

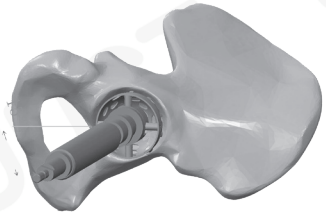
The DELTA tapered hip system is available with standard and high offset options for all stem body sizes. Through templating and intraoperative trialing, determine which option restores proper offset by matching the cup’s center of rotation with the desired head center of rotation.

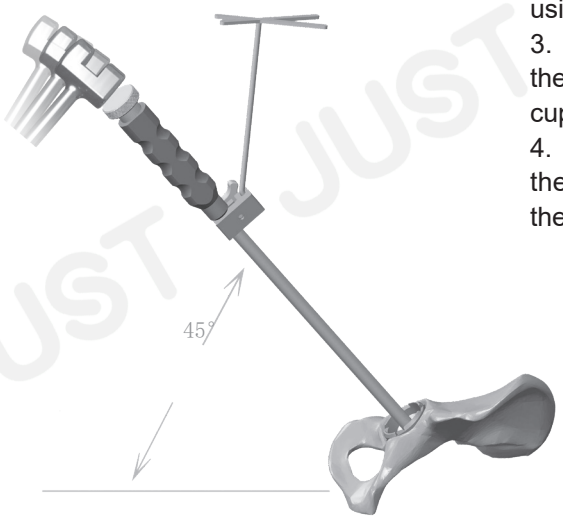
Femoral Neck Cutting

Evaluate the proximal femur and align the neck resection guide down the long axis of the femur. Determine the resection level by aligning the top of the guide with the tip of the greater trochanter or by referencing a measured resection level above the lesser trochanter. Mark the resection line using electrocautery or methylene blue. Resect the femoral head.

If desired, make a conservative neck resection initially. The calcar rasp may be later to adjust the neck out.

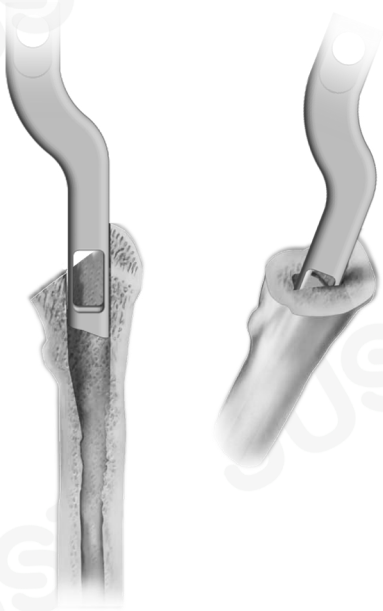






Acetabular Preparation

1. Make sure the acetabular is fully exposed and remove soft tissue from acetabular rim.
2. Progressively ream the acetabular until healthy subhondral bone is reached and a hemisoherical dome is achieved. Using the trial acetabular cup handle, place a trial acetabular cup sizer into the reamed acetabulum and assess its position and cortical bone contact. The inferior rim of the trial cup should be level with the bottom of the teardrop. The trial cup angle of orientation should match that recorded during preoperative templating, which are normally 45 degrees of lateral opening (abduction) and 15-30 degrees of anteversion. Confirm this using the acetabular cup impactor-2.
3. Implant the acetabular cup (note: ensure the patient still in the right position before the cup is implanted).
4. Remove the acetabular cup impactor from the trial cup and place the desired liner into the cup .



Opening Medullary Canal

Use the opener to enter the medullary canal at the junction of the femoral neck and the greater trochanter.

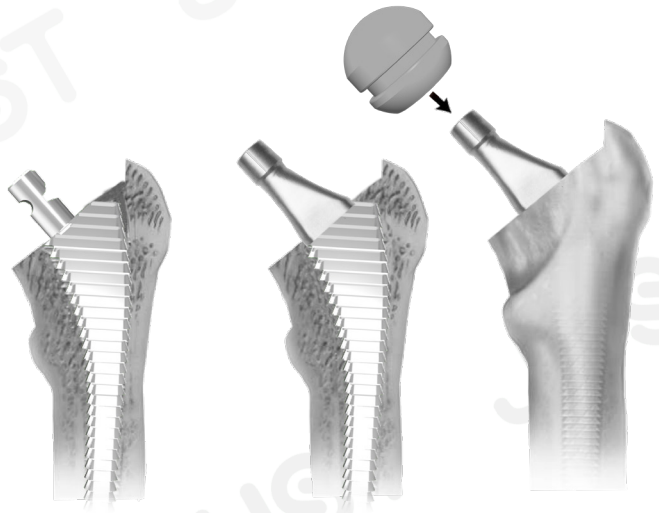
Proximal Femoral Broaching

Proximal femoral Broaching is based on pre-operatively templated measurement. Beginning with the smallest compaction broach, progressively enlarge the metaphyseal cavity by compacting and shaping the cancellous bone until the level of the neck resection is reached.

To ensure the correct intramedullary broach alignment, the broach close to the lateral and the greater trochanter. Make sure the upper lateral femoral neck residue is removed to avoid incorrect alignment. There is one broach for every implant size. Take care to ensure appropriate alignment within the femoral canal.

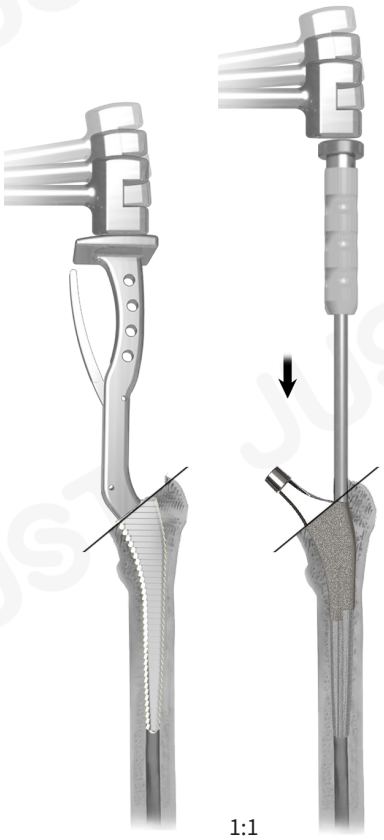
Calcar Planing

DELTA hip system is collarless design, therefore, calcar planning is optional.
Place the rasp over the medullary rasp face. Make certain the rasp is rotating before engaging the calcar. This will prevent the rasp from binding on the calcar. Calcar planning will help create a definitive landmark for stem insertion by milling a precise resection level.



Trial Reduction

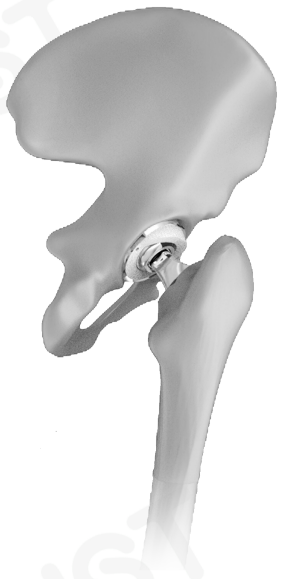
Trial neck segments and trial femoral heads are available to assess proper component position, joint stability, and range of motion and leg length.



Correspondence between femoral stem and broach

Implant Insertion

After the final acetabular cup is in place, introduce the femoral stem to the medullary canal. Rotate the stem into its proper orientation and advance the stem into the canal using slotted hammer. The implant should meet resistance 10-15 mm above the desired final seating position. Advance the stem into position with moderate blows from the slotted hammer. The implant is fully seated when the top of the proximal coating is at the level of the top of the broach teeth and the implant is stable. Excessive forces should not be needed to seat the stem.



Femoral Head Implantation

Clean and dry the taper. Manually introduce the appropriate femoral head by firmly pushing and twisting the femoral head into place on the taper. Using the femoral head impactor, engage the head with several slotted hammer taps.

Parameter

DELTA Rectangular Stem (Ti+HA)

REF No.	Specification	Stem length (mm)	Neck shaft angle
710433	09	130	132 °
710434	10	140	
710435	11	145	
710436	12	150	
710437	13	155	
710438	14	160	
710439	15	165	

DELTA Rectangular Stem (porous)

REF No.	Specification	Stem length (mm)	Neck shaft angle
710020	08	125	132 °
710021	09	130	
710022	10	140	
710023	11	145	
710024	12	150	
710025	13	155	
710026	14	160	
710027	15	165	

DELTA Femoral Head

REF No.	Specification	Stem length (mm)	Neck shaft angle
710037	09	130	132 °
710038	10	140	
710039	11	145	
710040	12	150	
710041	13	155	
710042	14	160	
710043	15	165	

X ray film

Preoperative

Postoperative

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Version：202112-21