

# We bring your design to life

Contract manufacturing  
by an award winning  
orthopaedic implant supplier

FORGED IN  
GERMANY



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 **ARISTOTECH**<sup>®</sup>  
Medical Forgings and Services

# We bring your design to life

AristoTech **Medical Forgings** and Services specialises in **contract manufacturing** of **orthopaedic devices** and medical products, implants and instruments worldwide.

Based near Berlin, Germany, the company **supplies OEM companies** with standard and customized medical devices that meet **ISO guidelines** for safety, quality and efficiency.

AristoTech Industries offers expertise from **design and development, engineering and product testing** through **finished goods** manufacturing to **logistical services** as cost effective solutions.

This distinctive expertise allows the company to realise **innovative projects** beyond the standards; products can be designed according to individual customer requests in order to support **quick and efficient market entry**. Whether tooling or finished parts each item undergoes continuous rigorously intensive inspection in AristoTech's **in house laboratory**. To guarantee the best possible quality, the highest standards of measurement and inspection are applied according to **ISO 13485** standards

—  
all **Made in Germany.**



## Standard generic product designs

- ✓ Cemented Stems
- ✓ Uncemented Stems
- ✓ CoCr / Titanium / Stainless Steel Stems
- ✓ Short Stems
- ✓ Revision Stems
- ✓ Dual Mobility Cups
- ✓ PressFit Cups
- ✓ Femoral plates
- ✓ Surface treatment

## Major Markets:

To assure best class  
quality products  
“Made in Germany”  
we are servicing  
exclusively the medical  
device industry

## Services Offered:

Contract manufacturing for medical devices

- ✓ Forged or any other semi-finished parts in any condition
- ✓ Sterile packed and sterilized products
- ✓ Implants and Instruments
- ✓ Logistics
- ✓ Material / Product testing
- ✓ Project management
- ✓ Worldwide servicing





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Generic **HIP STEM****Series 150 Cementless**

Based on principles described by  
Prof. Dr. Karl Zweymüller and other authors

The Series 150 stem is a cementless double tapered hip endoprosthesis made of forged titanium alloy TiAl6V4 with rectangular profile. The design of this hip stem is based on the biological cortical anchorage principles described by Prof. Dr. K. Zweymüller and other authors in numerous publications associated with excellent long-term results over the last 25 years.

The Series 150 stem is available in 12 Sizes with  
2 different CCD angles ( $131^\circ$  = Std. and  $123^\circ$ ).  
Taper: 12/14

**Biological Cortical Anchorage**

by large-area cortical force transmission

**Excellent Rotational Stability**

by double tapered straight stem with rectangular profile and proximal lateral trochanter wing

**Secondary Stability**

by biological integration of the hip stem into the bone structure (osseo-integration) due to the rough-textured surface

This stem was designed to provide secure initial and long-term fixation with mechanical stability within the femur. This is being achieved by a combination of shape, surface features, implant material and choice of biological material.



## Generic HIP STEM

# Series 400 Cementless

This well-known femoral stem design has been implanted first in 1986 in France, proven by many publications.

In markets all over the world, it is considered the standard stem for primary total hip replacement when compared with other hip stems.

Clinically proven design features and over 20 years of clinical heritage, it has most extensive experience of any (hydroxyapatite coated) femoral stem.





## Generic HIP STEM

# Series 300 / 350 Cemented

## Müller Type Straight

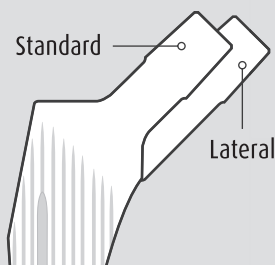
The Series 300 / Series 350 Müller type cemented hip stem is to be inserted without trochanteric osteotomy. The straight, conical shape guides the stem into a neutral femoral position. Due to its flat design, this hip stem suits nearly all femur anatomies either side. The prostheses can be used for primary implantation as well as revisions. The Series 350 is available in 10 sizes, as a standard and lateral version and the Series 300 is available in 11 sizes, as a standard version. The Series 300 / Series 350 Müller Straight stem have two different kinds of grooves. The deep grooves provide reliable stability to the stem. The small grooves create a bigger surface for an optimal mechanical fixation with the cement.



Series 350

The proximal indicated collar prevents a drop of the stem after implantation and compresses the bone cement. The prosthesis consists of a conical design with a doubled elliptical cross section.

## Standard / lateral version



finished Series 300



## Generic HIP STEM

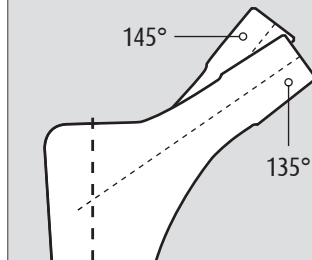
## Series 100 Cementless

Based on principles described by  
Prof. Dr. Lorenzo Spotorno and other authors

The Series 100 Stem is a modular hip joint implant for cementless proximal anchoring. The tapered wedge stem design, which has been used successfully for many years now, follows the natural geometry of the proximal femoral canal. The wedge shape ensures primary stability by way of annular tension produced in the corticalis over the entire proximal profile of the prosthesis. Together with the rib structures, this proximal, metaphyseal annular tension ensures a continuous exertion of tension on the bone by the prosthesis. This metaphyseal transfer of tension also minimizes stress shielding to provide long-term preservation of physiological bone biology.

*forging blanc*

2 CCD angles: 135°/145°



*finished*

The Series 100 Stem is available in two different CCD angles (135° and 145°). This ensures optimized anatomical adaptation. The stem is manufactured of high quality titanium alloy (Ti6AlV4).

Generic **HIP STEM**

# Series 200 Cementless / 250 Cemented

Tapered Intralocking Hip System

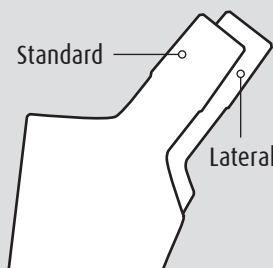
With the Series 200 / Series 250 hip stem system, the cementless and cemented application is available with use of one instrument set. Titanium alloy (TiAl6V4) is used for the cementless version of the stem and CrNi-Mo-Alloy is used for the cemented version of the stem. To optimize the bone growth to the implant and to activate osteoblasts, the cementless stems are coated with a Titanium porous coating in the proximal area of the hip stem.

*Series 250*

To increase the variability the cementless and also the cemented stems are available as standard and lateral version. The CCD-Angle equals 135 degrees for the standard as well as for the lateral version.

*finished Series 200*

## Standard / lateral version





Generic **HIP STEM** Revision

# Series 500 Cementless

Based on principles described by  
Prof. Dr. Heinz Wagner\*

This femoral stem has been developed and implanted for the first time in 1990. The prosthetic stem has a conical fixation, which is derived from the positive experience of over 15 years. Its cone angle corresponds to the natural morphology of the proximal femur. Eight longitudinal ribs ensure a high degree of rotational stability.

The stem is been designed for non-cemented fixation and for difficult bone conditions at the proximal end of the femur but can also be used in routine cases.

\* Reference: Wagner (1989) Revisionsprothese für das Hüftgelenk, Orthopäde 18:438-453

The cone prosthesis has certain degree taper angle for press fit fixation. It is been made from titanium alloy with a rough blasted surface to stimulate osseointegration. The tapered design provides primary stability while eight longitudinal ribs ensure a high degree of rotational stability.

*finished*

*forging blank*

Generic **HIP STEM****Series 600**

Anatomic Cementless / Cemented

The cementless version of the anatomic hip stem is offered in eight sizes for each side, left and right.

This cemented stem is produced with a tapered distal tip. The bone bed is prepared with the same rasps as the ones used for the cementless stems. The cemented version of the stem is available in four sizes for each side, left and right.

*forging blanc**finished**rasp*



The modular solution for maximum joint stability  
Dislocation is one of the most common complications following primary or revision arthroplasty. Dual-mobility implants improve prosthetic stability and increase range of motion substantially.

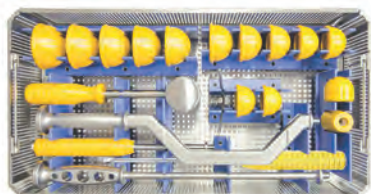
The result is a great deal of minimal dislocation risk to give the patients maximum mobility support.

Increased range of motion (ROM) thus effectively lowering dislocation risks.

Wear rates tested and confirmed in an accredited testing laboratory (ISO 14242-1:2012)

Generic **HIP CUP**

# Dual Mobility



This system contains of

- ✓ High-N stainless steel (cemented or cementless with TPS / HAcoating)
- ✓ UHMWPE-Inlay (cross-linked)
- ✓ DELTA™ Ceramic femoral head (Ø 28 mm) or a metal femoral head

Generic **HIP CUP**

# PressFit "AF"

*forging blanc*



This cup is been developed in the early '90s and implanted now over 300,000 times.

It copies the original shape of the acetabulum as near as possible with its high modularity, which makes it very bone saving and achieved extraordinary primary stability.

The cup is suitable for both primary and Revision-surgeries.

*finished*

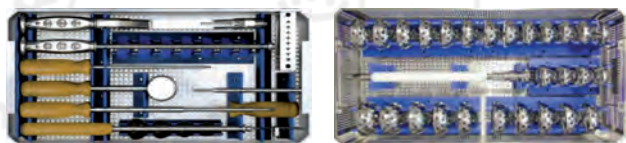




This PressFit Cup is a modular, cementless acetabular implant. The implant's PressFit geometry provides primary stability. A titanium plasma spray (TPS) coating surface supports osteointegration and secondary stability. Its modular design enables surgeons to adapt to individual patient situations both before and during the operation. The cup system acetabular implant is available either without holes, or with seven holes for locking screw connections.

The acetabular cup can be combined with cross-linked standard- or high-wall UHMWPE inlays (XPE) or with BIOLOX® delta1 ceramic inlays.

A snap-in mechanism anchors XPE inlays securely into the acetabular cup. Multiple anti-twist locks around the circumference of the PE inlay ensure the rotational stability of the UHMWPE inlay / acetabular cup connection.



Generic **HIP CUP**

## PressFit “MCII”



Up to seven fixed-angle screws can be used optionally to provide secure anchoring during revision operations.

- ✓ advanced wear of the proximal femur due to degenerative, post-traumatic or rheumatic diseases and advanced avascular necrosis of the femoral head, which cannot be treated by conservative or joint-preserving surgical procedures
- ✓ revisions of previous surgeries (rejection of total hip endoprosthesis, hemiarthroplasty or osteosynthetic treatment of a fracture near the femoral head and osteotomies near the hip joint)

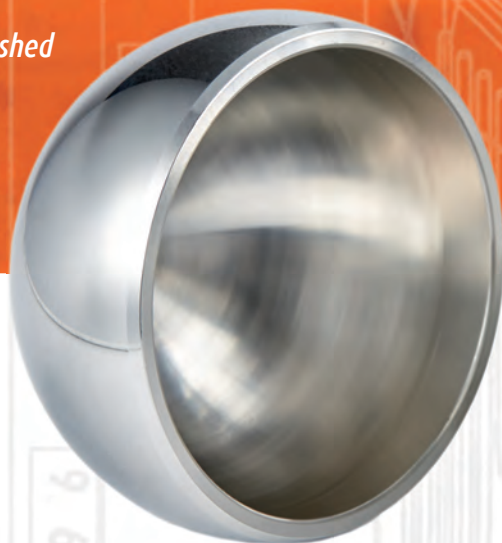
Generic **HIP CUP**

# BiPolar Cup

BiPolar femoral heads are to be used in combination with a hip stem and are seated in the natural acetabulum.

The BiPolar Cup and the Ceramic BiPolar system are bipolar femoral heads where a PE locking ring for Ø 28 mm is included.

*semi-finished*



*finished*





The Screw Cup is a cementless system with a conical shape and a flattened polar cap.

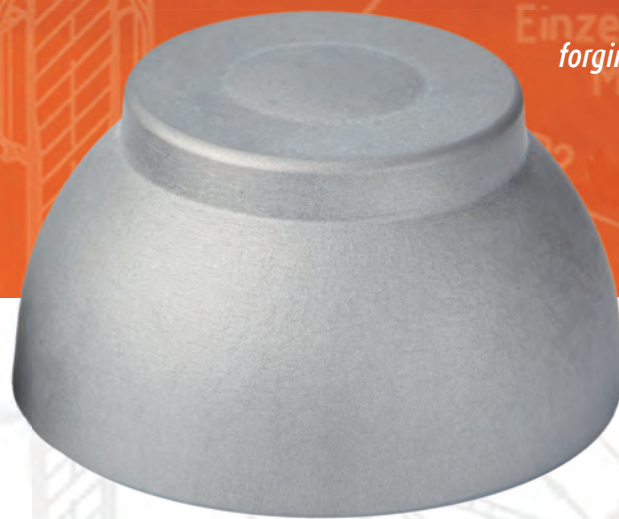
The conical principle provides exceptionally favorable conditions for a very high primary stability and secondly for a osteointegration in cementless cup anchoring.

This cup system has a wide range of combination options, an important feature of this implant is its high primary stability.

All these features provide a further option for surgeons who prefer cementless implantation.

Generic **HIP CUP**

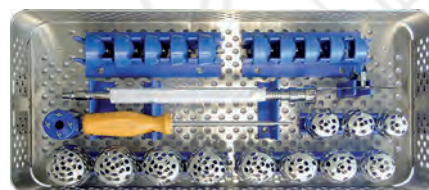
## Screw Cup



*forging blanc*



*finished*



## Generic FEMORAL HEADS

# Ceramic / Stainless Steel / CoCr

## CoCr / Stainless Steel

- ✓ for 12/14 mm Cone
- ✓ Head DIA 28, 32 and 36 mm
- ✓ Length S - 4XL

## Ceramic

- ✓ Head DIA 28, 32 and 36 mm
- ✓ Length S, M, L





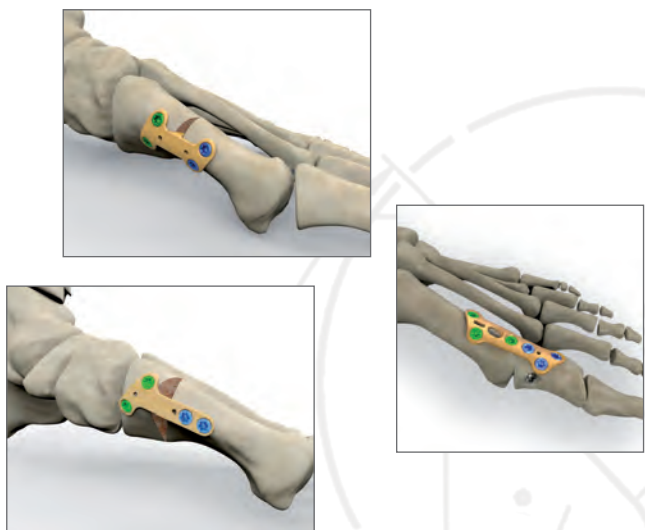
Generic Products

# Small Bone Plates

Different small bone plates for foot and ankle are available.

## Screws

A high variety of different screws is being offered. Finished or semi-finished.



Generic Products

# Bone Plates

A high variety of different bone plates is being offered. Finished or semi-finished.



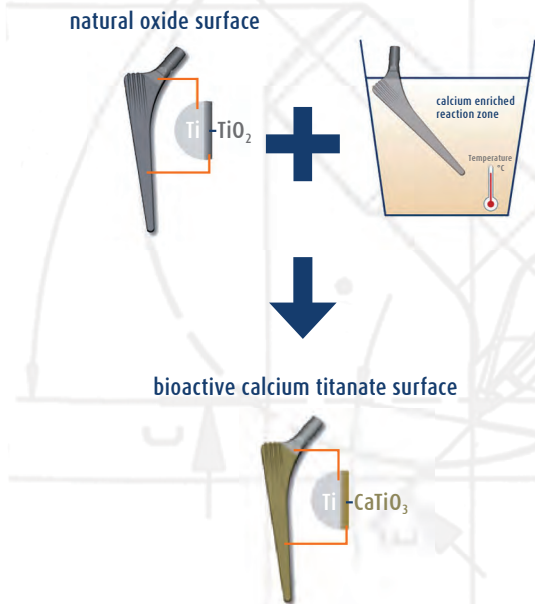
*forging blanc*



*finished*







## Innovative Surface Epical

Surface Treatment of Implants for optimal osseo-integration

This technology creates a bone friendly surface without changing dimensions or any danger of losing particles.

EPICAL™ is THE new procedure for the treatment of titanium implants, developed together with the BAM (Bundesanstalt für Materialforschung und -prüfung Berlin).

### Product characteristics:

- ✓ No coating, but a calcium enriched reaction zone
- ✓ Faster osseo-integration
- ✓ Higher stability of the implant at the bone
- ✓ Bioactive calcium rich surface



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