#### **Order information**

#### **Cemented (high N stainless steel)**

BET Stem cemented size 0 005-2112-0000
BET Stem cemented size 01 005-2112-0100
BET Stem cemented size 1 005-2112-0001
BET Stem cemented size 2 005-2112-0002
BET Stem cemented size 3 005-2112-0003
BET Stem cemented size 4 005-2112-0004
BET Stem cemented size 5 005-2112-0005
BET Stem cemented size 6 005-2112-0006

#### Metal Modular heads – CoCr DIN EN ISO 5832-4 (12/14)

diameter: 22,2mm

M	016-1112-2225
L	016-1113-2225
XL *	016-1114-2225
XXL *	016-1115-2225

diameter: 26mm \*

S	016-1111-2600
M	016-1112-2600
L	016-1113-2600
XL	016-1114-2600
XXL	016-1115-2600

## Ceramic Modular heads \* - Al2O3 (12/14)

diameter: 28mm

S	016-1311-2800
M	016-1312-2800
L	016-1313-2800

<sup>\* -</sup> optional

#### **Uncemented (TiAL6V4)**

BET Stem uncen	nented size	0	005-1111-0000
BET Stem uncen	nented size	01	005-1111-0100
BET Stem uncen	nented size	1	005-1111-0001
BET Stem uncen	nented size	2	005-1111-0002
BET Stem uncen	nented size	3	005-1111-0003
BET Stem uncen	nented size	4	005-1111-0004
BET Stem uncen	nented size	5	005-1111-0005
BET Stem uncen	nented size	6	005-1111-0006

diameter: 28mm	
S	016-1111-2800
M	016-1112-2800
L	016-1113-2800
XL	016-1114-2800
XXL	016-1115-2800
XXXL *	016-1116-2800
XXXXL *	016-1117-2800

diameter: 32mm \*

S	016-1111-3200
M	016-1112-3200
LAS	016-1113-3200
XL	016-1114-3200
XXL	016-1115-3200

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### **BET Stems and Modular Heads**





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#### **BET Stem Design**

The BET stem design is double tapered and collarless. The cemented version has high polished surface, whereas the uncemented type is titanium porous coated. The stems have a neck with 12/14 cone for attachment of Biotech modular head system in CoCr and ceramic as well.

The BET stem is available in 8 sizes in both, cement and uncemented version.

#### **Materials**

The cemented BET stem is made of a High N stainless steel alloy and the uncemented version is made of Titanium alloy (TiAl6V4), providing superior mechanical strength combined with excellent corrosion resistance, which are critical properties required for hip implants.

#### **Cemented Stems**

The polished double tapered cemented BET stem creates radial compressive loading as the predominant force, while the non-tapered stem types with non-polished surface create greater shear force by distal migration of the stem. The descending of the collarless, tapered and polished BET stem within the cement is compressing the interfaces and enables them to resist better to the shear forces on the femoral head.

#### **Lasting Fixation – Uncemented Stems**

Long term survival of uncemented components depends not only on implant material and geometry, but also on the coating used for a biological fixation. For this reason, BioTech ™ has chosen the well-proven process of applying a circumferential plasma-sprayed porous titanium coating. This type of "closed-pore" coating has no inter-connective spaces, a pore size ranging between 75-350 micron, thickness of 500 micron and approximately 30% porosity. By sealing off the femur for transport of fluids and debris particles, known for its negative effect on implant survival due to osteolysis, long term fixation concern has been addressed. Since only the titanium powder is heated during the spraying process, the high mechanical properties of the forged implant itself are maintained. The excellent biocompatibility of titanium will generate a strong bone response, resulting in a proper implant fixation. The controlled oversize provides excellent initial stability (scratch fit), allowing for rapid full weight bearing post-operatively.

#### **Indications**

Advanced wear of the joint due to degenerative, posttraumatic or rheumatic diseases Fractures

Vascular necrosis

Status following earlier operations, such as joint reconstruction (osteotomy), arthrodesis, hemiarthroplasty of total hip replacement

#### Compatibilty

The BET cemented and uncemented stems are fully compatible with the Biotech modular head and cemented and uncemented acetabular cup systems.



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