

# BMS - Biotech Modular Shoulder System



**BIOTECH**

**“Movement is Life”**

**BMS Polyethylene Glenoid Component****UHMWPE DIN EN ISO 5834-2**

BMS Polyethylene Glenoid	S - 3 mm	090-3300-1003
BMS Polyethylene Glenoid	S - 4 mm	090-3300-1004
BMS Polyethylene Glenoid	S - 5 mm	090-3300-1005
BMS Polyethylene Glenoid	M - 3 mm	090-3300-2003
BMS Polyethylene Glenoid	M - 4 mm	090-3300-2004
BMS Polyethylene Glenoid	M - 5 mm	090-3300-2005
BMS Polyethylene Glenoid	L - 3 mm	090-3300-3003
BMS Polyethylene Glenoid	L - 4 mm	090-3300-3004
BMS Polyethylene Glenoid	L - 5 mm	090-3300-3005

**BMS Glenoid Insert****UHMWPE DIN EN ISO 5834-2**

BMS Glenoid Tray Insert	S - 3 mm	090-5300-0003
BMS Glenoid Tray Insert	S - 4 mm	090-5300-0004
BMS Glenoid Tray Insert	S - 5 mm	090-5300-0005
BMS Glenoid Tray Insert	M - 3 mm	090-5300-1003
BMS Glenoid Tray Insert	M - 4 mm	090-5300-1004
BMS Glenoid Tray Insert	M - 5 mm	090-5300-1005
BMS Glenoid Tray Insert	L - 3 mm	090-5300-2003
BMS Glenoid Tray Insert	L - 4 mm	090-5300-2004
BMS Glenoid Tray Insert	L - 5 mm	090-5300-2005

**BMS Glenoid Tray****TiAl6V4 DIN EN ISO 5832-3**

BMS Glenoid Tray	S	090-4220-0000
BMS Glenoid Tray	M	090-4220-0001
BMS Glenoid Tray	L	090-4220-0002

**BMS Modular Humeral Head****Stainless Steel DIN EN ISO 5832-9**

BMS Modular Humeral Head	40 x 15 mm	090-2100-4015
BMS Modular Humeral Head	48 x 17 mm	090-2100-4817
BMS Modular Humeral Head	48 x 20 mm	090-2100-4820
BMS Modular Humeral Head	48 x 22 mm	090-2100-4822
BMS Modular Humeral Head	48 x 25 mm	090-2100-4825
BMS Modular Humeral Head	48 x 28 mm	090-2100-4828

**BMS Glenoid Tray Fixation Screw****TiAl6V4 DIN EN ISO 5832-3**

BMS Glenoid Tray Fixation Screw	5 x 15 mm	090-0200-5015
BMS Glenoid Tray Fixation Screw	5 x 20 mm	090-0200-5020
BMS Glenoid Tray Fixation Screw	5 x 25 mm	090-0200-5025
BMS Glenoid Tray Fixation Screw	5 x 30 mm	090-0200-5030
BMS Glenoid Tray Fixation Screw	5 x 35 mm	090-0200-5035
BMS Glenoid Tray Fixation Screw	5 x 40 mm	090-0200-5040

**BMS Modular Humeral Stem Cemented****TiAl6V4 DIN EN ISO 5832-3**

BMS Modular Humeral Stem	6 mm	090-1210-0006
BMS Modular Humeral Stem	8 mm	090-1210-0008
BMS Modular Humeral Stem	10 mm	090-1210-0010
BMS Modular Humeral Stem	12 mm	090-1210-0012

**BMS Modular Revision Humeral Stem Cemented****TiAl6V4 DIN EN ISO 5832-3**

BMS Modular Revision Humeral Stem	6 x 190 mm, cemented	091-1030-0006
BMS Modular Revision Humeral Stem	8 x 190 mm, cemented	091-1030-0008
BMS Modular Revision Humeral Stem	10 x 190 mm, cemented	091-1030-0010
BMS Modular Revision Humeral Stem	12 x 190 mm, cemented	091-1030-0012

**BMS BIOTAN Modular Humeral Stem Uncemented****TiAl6V4 DIN EN ISO 5832-3**

BMS BIOTAN Modular Humeral Stem	6 mm	090-1030-0006
BMS BIOTAN Modular Humeral Stem	8 mm	090-1030-0008
BMS BIOTAN Modular Humeral Stem	10 mm	090-1030-0010
BMS BIOTAN Modular Humeral Stem	12 mm	090-1030-0012

**BMS BIOTAN Modular Revision Humeral Stem Uncemented****TiAl6V4 DIN EN ISO 5832-3**

BMS BIOTAN Modular Revision Humeral Stem	6 x 190 mm, uncemented	091-1040-0006
BMS BIOTAN Modular Revision Humeral Stem	8 x 190 mm, uncemented	091-1040-0008
BMS BIOTAN Modular Revision Humeral Stem	10 x 190 mm, uncemented	091-1040-0010
BMS BIOTAN Modular Revision Humeral Stem	12 x 190 mm, uncemented	091-1040-0012

\* - optional

The Biotech BMS Shoulder System has been designed to take into account the latest advances in the evolution of prosthetic systems for shoulder replacement; primary, revision, total or hemiarthroplasty and trauma prosthesis. The fenestration of the stem allows better healing of the tubercular fragments and hereby provides the appropriate function of the rotator cuff. The Biotech BMS Shoulder System is modular and incorporates a comprehensive range of implants, it offers the unique feature of a posterior offset head which can be indexed to achieve maximal coverage of the cut humeral head surface and a large joint surface area- These choices allow better restoration of normal humeral head shape and size, factors which are important in the tensioning of the soft tissues, providing maximum possible function.

The System Comprises:

- 4 Humeral Stem sizes (6, 8, 10, 12 mm) and 4 Revision Stems (6, 8, 10, 12 x 190 mm) for use with and without cement
- Modular Heads of a 40 x 15 mm and of 48 mm spherical diameter in 5 head heights (17, 20, 22, 25 & 28 mm)
- Cementless and Cemented Glenoid components

The Biotech Shoulder System has been designed for implantation entirely without cement using a low profile screw anchored porous coated shell with the option of a 3 mm liner.

**HUMERAL STEMS**

The Biotech BMS Shoulder Arthroplasty System incorporates a range of 4 humeral stems, which have been used in clinical trials over a five-year period. The sizes have been selected for their suitability as uncemented components but also incorporate design features, which make them equally suitable for use with methylmethacrylate bone cement. The reverse morse taper provides the surgeon optimal access to the surgical field after the humeral component has been implanted. The proximal porous coating allows biological fixation as a result of bone ingrowth and cement should not normally be applied to this area. The smooth distal stem with 3 anti-rotation flutes provides good fixation with cement. The morse taper includes a unique indexing system to allow for an adjustable posterior offset. The fenestration of the stem allows better healing of the tubercular fragments and hereby provides appropriate function of the rotator cuff. The cortico-spongiosa bone-block taken from the head serves the healing of the tubercles with the by-pass fixation through the stem fenestration.

**MODULAR OFFSET HEAD**

Each head comprises a hollow cobalt chrome alloy design providing lightness and a durable articulating surface. The unique to index the head allows the surgeon to adjust the degree of posterior and superior displacement +/- 5 mm, +/- 3 mm or 0 mm of posterior offset depending on the anatomy of each patient. The range of 6 head heights allow accurate balancing and tensioning of the rotator cuff muscles.

**THE UNCEMENTED GLENOID**

Having a 1,5 mm thick base-plate it incorporates a porous ingrowth surface to maximise the bone ingrowth. 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. The base-plate has a central peg to provide primary stability under large surface area for ingrowth. Two holes - superior and inferior for low - profile screws to provide additional primary stability. A standard polyethylene high conformity bearing surface with a minimum thickness of 3 mm.

# “Movement is Life”

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