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ORTHOPAEDICS



SYNTHESIS

Femoral Stem

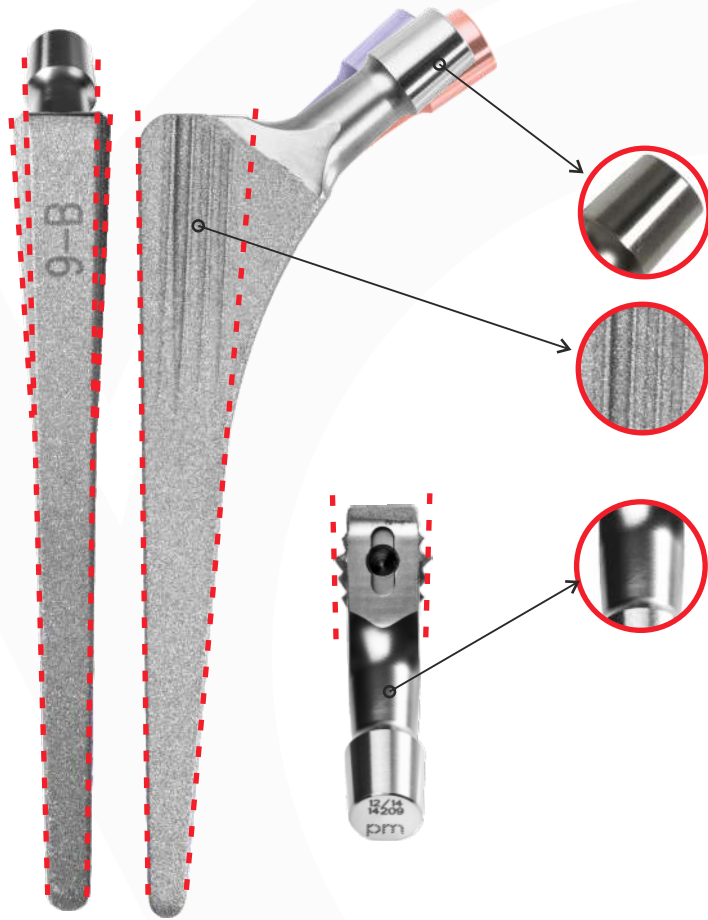
**PRODUCT
INFORMATION**



0426

SYNTHESIS

Cementless Stem



SYNTHESIS is a femoral stem combining a well proven anchoring concept (three-dimensional conical design and rectangular cross-section) with a range of stems designed to allow the best reproducibility of joint geometry thanks to different offsets.

Taper

12/14 (top angle 5°42'30") BIOLOX approved

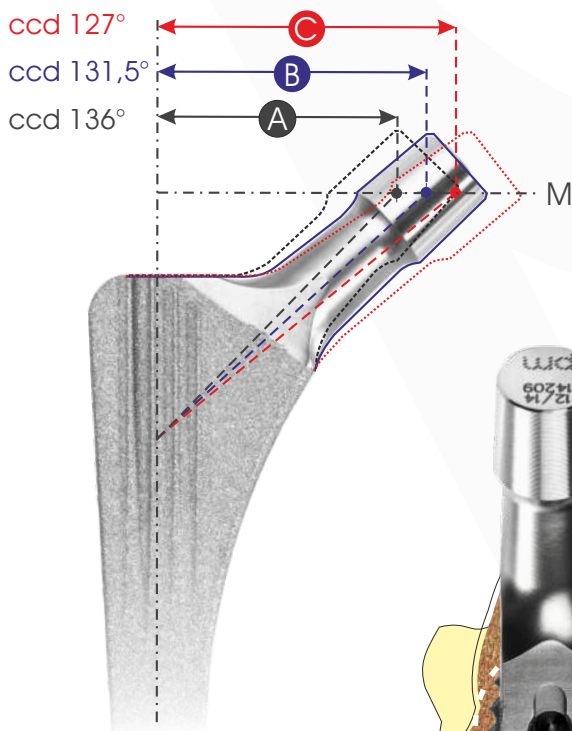
Titanium sandblasted surface

The optimized roughness of the microstructured surface and the well proven biocompatibility features of TiAlNb alloy promote osseointegration.

Reduced neck cross-section and short taper for optimized range of motion (ROM).

Three-dimensional conical design and rectangular cross-section guarantees optimal stability of the implant.

The wide metaphyseal section allows fitting on the calcar region; the longitudinal ribs penetrate the cancellous bone increasing primary stability.



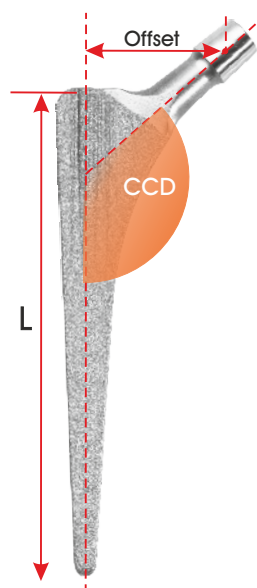
13 Implant sizes

3 Off-sets

3 offsets available for each stem size, with 5mm increments without affecting the leg length.

The ribs in the proximal region of the stem have a flat base design tapering proximally, thus allowing penetration into the cancellous bone of the metaphyseal region.

The elliptical geometry was designed to allow optimal fitting to the proximal femur cross-section.

SYNTHESIS - Cementless Femoral Stem

Size	L mm	Offset A CCD 136°		Offset B CCD 131,5°		Offset C CCD 127°	
		Offset mm	Reference	Offset mm	Reference	Offset mm	Reference
5	125,6	34,00	14105	39,00	14205	44,00	14305
6	129,2	34,25	14106	39,25	14206	44,25	14306
7	132,8	35,00	14107	40,00	14207	50,00	14307
8	136,4	35,75	14108	40,75	14208	50,75	14308
9	140,0	36,50	14109	41,50	14209	51,50	14309
10	143,6	37,25	14110	42,25	14210	52,25	14310
11,25	148,1	38,25	14111	43,25	14211	53,25	14311
12,5	152,6	39,25	14112	44,25	14212	54,25	14312
13,75	157,1	40,25	14113	45,25	14213	55,25	14313
15	161,6	41,25	14115	46,25	14215	56,25	14315
16,25	166,1	42,25	14116	47,25	14216	57,25	14316
17,5	170,6	43,25	14117	48,25	14217	58,25	14317
20	179,6	44,75	14120	49,75	14220	59,75	14320

Information**INTENDED PURPOSE:**

SYNTHESIS is a femoral stem intended for use in total or partial Hip Replacement procedures, combined with a femoral ball head (or a bi-articular head) and an acetabular cup. Indicated for primary hip arthroplasties in cases of serious joint degeneration, mainly due to arthrosis and post-traumatic degenerative factors, where cortical bone structure is suitable to guarantee a correct and enduring mechanical fixation by means of press-fit technique. Device fixation is obtained by means of primary cementless press-fit stabilization and long term biological integration.

MATERIALS:

Titanium Aluminium Niobium forged alloy (Ti6Al7Nb) ISO5832/11

SURFACE FINISHING:

microstructured sandblasted surface ($ra \pm 4-6\mu m$)

STERILIZATION:

Method: Irradiation (Beta or Gamma rays - nominal dose 25 kGy) or vaporized Hydrogen Peroxide (VH₂O₂).

Validity: 5 years (Beta) - 10 years (Gamma-VH₂O₂).

CLASSIFICATION:

Class III as reported in Directive 2005/50/CE (and related D.lgs 26 april 2007 n.65) concerning re-classification of Hip, Knee and Shoulder joint prostheses which modifies classification criteria of Annex IX of Directive 93/42/CEE and next integrations and amendements.



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