B BRAUN
SHARING EXPERTISE

ORTHOPAEDIC
JOINT REPLACEMENT

AESCULAP® Centrament®

HIP SYSTEM

AESCULAP® Centrament®

PRODUCT CHARACTERISTICS

FEATURES

CONCEPT

There are a wide range of requirements for cemented hip systems today.
With the Centrament stem concept, an implant has been developed that compliments both the improved cementing techniques and the accepted long term results of different cemented prostheses.

DESIGN

The Centrament stem is of a rounded design, this ensures a cohesive cement mantle. The distal guide (centralizer), and the specially designed lateral profile assist with the accurate centering of the Centrament prosthesis stem in the cement bed. Centrament stems are produced from forged CoCr-alloy ISODUR.

SURGERY

The Centrament system is complemented by modular instrumentation, that helps to to achieve a closed cement mantle around the implant.
Combined with the Centrament implants are a range of modular heads and acetabular components, enabling the system to cover a wide range of indications: Total cemented hip replacement, bipolar and hybrid hip arthroplasty.

PRODUCT CHARACTERISTICS

CEMENTED

BIPOLAR

HYBRID

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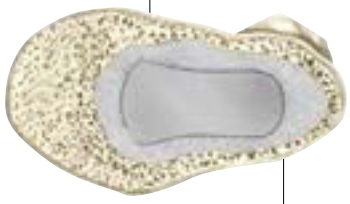
MODULAR INSTRUMENTATION

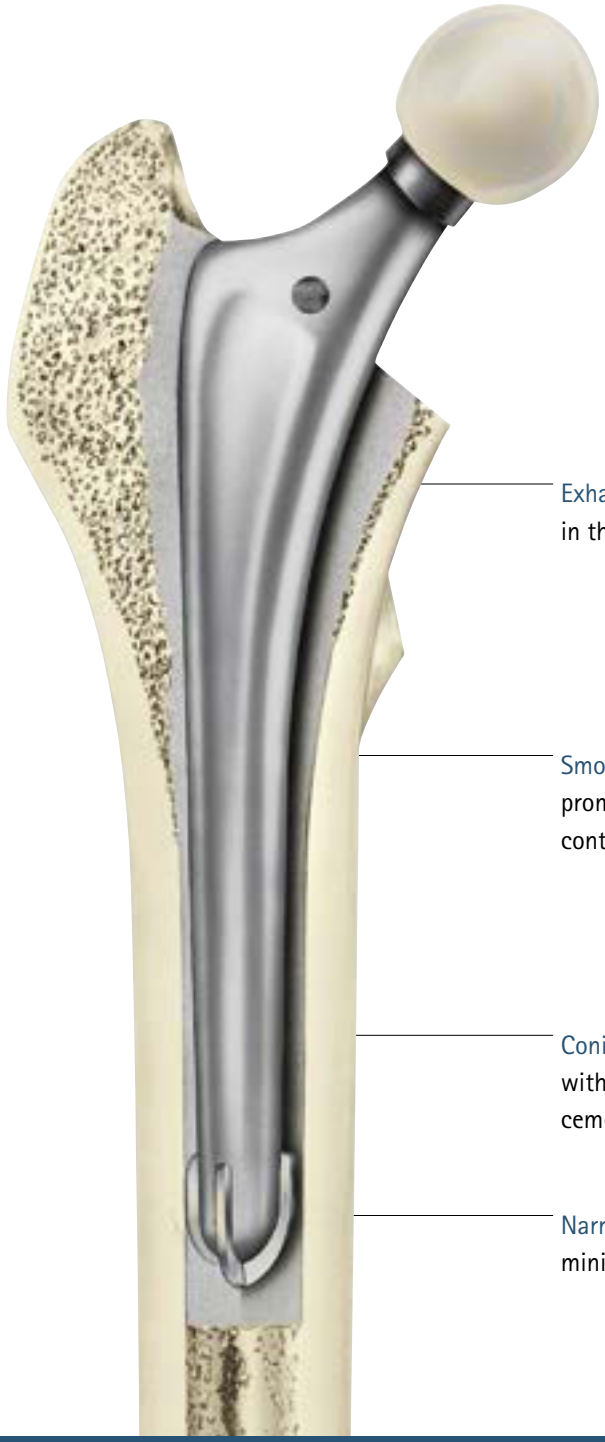
Centrament reamer cement + Centrament rasp + Centrament stem + bone

Lateral wing profile to support stem introduction and load transfer



Rounded surface area reduces cement loading

Distal stem-cross-section provides high rotational stability within the cement mantle



Exhanced cement mantle in the area of load transfer

Smooth prothesis surface promotes uniform cement contact

Conical stem design with proximal increased cement mantle thickness

Narrow cross-sectioncentralizer minimises cement disruption

Centrament = CENTRALIZED IMPLANT POSITION

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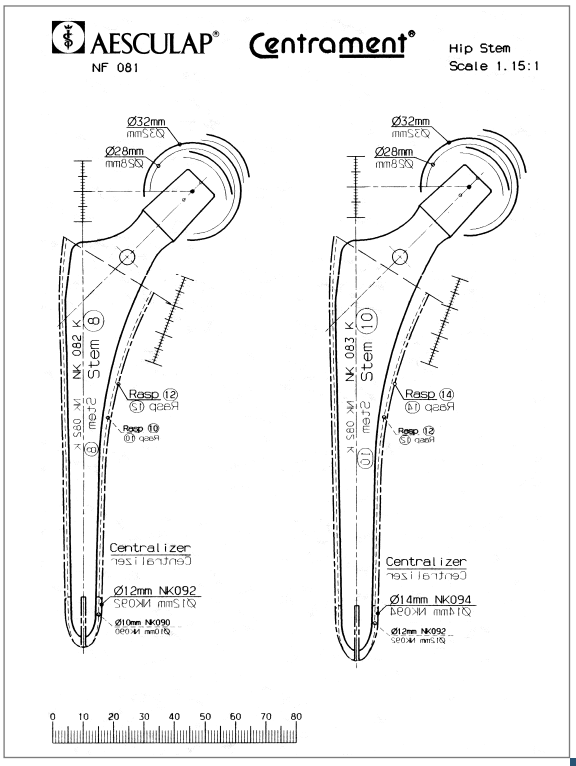
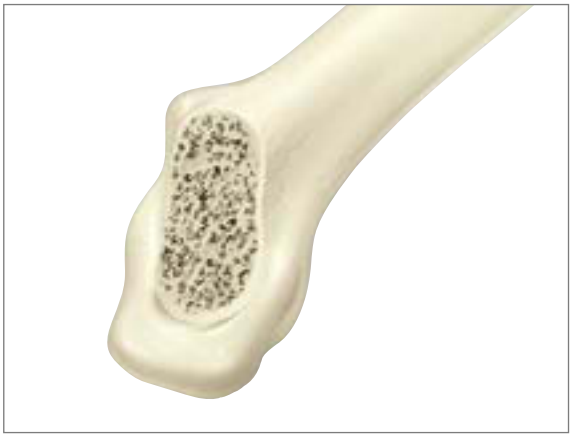
SURGICAL PROCEDURE

For preoperative planning, the likely size of the Centrament prosthesis stem and the size of the centralizer should be determined using X-ray templates. In addition to the contour of the prosthesis stem, the templates also contain the outlines of the cement sheath required for anchoring. The outlines correspond to the rasps which must be used to prepare the prosthesis bed.





PREOPERATIVE PLANNING

The standard resection plane is 58° to the shaft axis. As an exception, the resection plane of the Centrament stem 6S is 45°, because it is designed for deformation in dysplasia cases. For intraoperative orientation, implants and instruments are provided with appropriate marks which must conform to the resection plane according to the preoperative plan. The templates contain scales for orientation in the region of the greater torchanter and for planning the resection with orientation relative to the minor trochanter.

Centrament IMPLANTATION

SURGICAL PROCEDURE

Centrament REAMER

The conical reamers are used for preparation of the distal medullary space and are used in ascending order. The reamer 8 is designed for narrow medullary spaces while reamers 10-16 are designed for average ones. The nominal diameter of the largest reamers used corresponds to the distal centralizer to be used.

Centrament CENTRALIZERS

The centralizers consist of PMMA and fit all Centrament stems. The standard size chosen corresponds to the last reamer used. In cases of larger distal medullary space the centralizer can be chosen 2 mm larger.

Centrament RASPS

The rasps are teethed only in their upper part and are used for proximal preparation of the cement-implant-bed. The rasp is centred in the medullary space via the smooth distal part. Trial heads for trial positioning can be mounted on the modular rasp connector.

Centrament STEM SELECTION

The selection of the Centrament stem depends on the last rasp used. The Centrament stems are designed so that, with smaller nominal dimensions than that of the rasp, a cohesive cement mantle is always ensured. The minimum cement thickness on the tip of the prosthesis stem is equivalent to half the difference in nominal diameter from the last rasp used. The cement mantle increases progressively in proximal direction.

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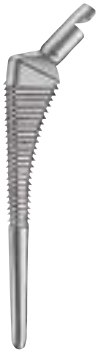
INSTRUMENTS AND IMPLANTS

narrow medullary canal	normal medullary canal				long stem
Ø 8 mm	Ø 10 mm	Ø 12 mm	Ø 14 mm	Ø 16 mm	Ø 14 mm
					
NF491R	NF492R	NF493R	NF494R	NF495R	NF494R
8S	10	12	14	16	14
					
NF481R	NF482R	NF483R	NF484R	NF485R	NF484R
6S	8	10	12	14	12L
					
NK081K	NK082K	NK083K	NK084K	NK086K	NK085K
					
NK088	NK090	NK092	NK094	NK096	NK094
Ø 8 mm	Ø 10 mm	Ø 12 mm	Ø 14 mm	Ø 16 mm	Ø 14 mm

Centrament stems

12 / 14

ISODUR$_F$

6S	NK081K	140 mm
8	NK082K	150 mm
10	NK083K	155 mm
12	NK084K	160 mm
12L	NK085K	220 mm
14	NK086K	165 mm

Centralizers

PMMA

8 mm	NK088
10 mm	NK090
12 mm	NK092
14 mm	NK094
16 mm	NK096

Modular heads

12 / 14
ISODUR$_F$

Ø	22.2 mm	28 mm	32 mm
S	–	NK429K	NK529K
M	NK330K	NK430K	NK530K
L	NK331K	NK431K	NK531K
XL	–	NK432K	NK532K
XXL	–	NK433K	NK533K

12 / 14
Biolox delta

Ø	22.2 mm	28 mm	32 mm
S	–	NK460D	NK560D
M	–	NK461D	NK561D
L	–	NK462D	NK562D
XL	–	–	NK563D

Biolox delta

Implant materials:
- ISODUR$_F$
  Cobald-chromium forged alloy
  (CoCrMo / ISO 5832-12)
- Biolox delta
  Aluminiumoxyd–Matrix-Ceramic
  (Al_2O_3 / ZiO_2 / ISO 6474-2)
- PMMA
  Polymethylmethacrylate

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INSTRUMENT SETS

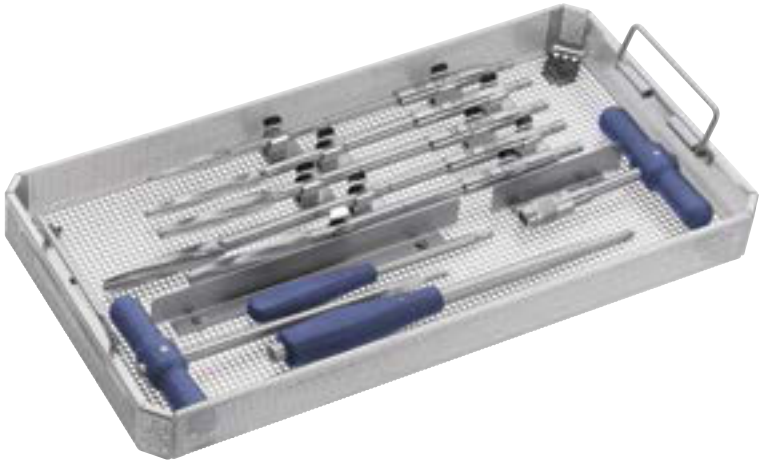
NF 500 Centrament rasps consisting of:		
1	Centrament rasp 8S	NF481R
1	Centrament rasp 10	NF482R
1	Centrament rasp 12	NF483R
1	Centrament rasp 14	NF484R
1	Centrament rasp 16	NF485R
2	Modular rasp handle	NG115R
1	Tray for form rasps	NF499R
1	Wrapping cloth	JF511
1	Identification plate	JG645B

Please order separately:		
1	Trial prosthesis head 12/14 22.2 mm M	NF327
1	Trial prosthesis head 12/14 22.2 mm L	NF328
1	Trial prosthesis head 12/14 28 mm S	NF336
1	Trial prosthesis head 12/14 28 mm M	NF337
1	Trial prosthesis head 12/14 28 mm L	NF338
1	Trial prosthesis head 12/14 28 mm XL	NF339
1	Trial prosthesis head 12/14 28 mm XXL	NF343
1	Trial prosthesis head 12/14 32 mm S	NF346
1	Trial prosthesis head 12/14 32 mm M	NF347
1	Trial prosthesis head 12/14 32 mm L	NF348
1	Trial prosthesis head 12/14 32 mm XL	NF349
1	Trial prosthesis head 12/14 32 mm XXL	NF353

Recommended container for NF500 and NF502 Aesculap basic container 592 x 285 x 153 mm

X-ray-templates (please order separately):

Centrament size 8+10	NF081
Centrament size 12+14	NF082
Centrament 6S	NF083
Centrament 12L	NF085



NF 502 Centrament instruments consisting of:		
1	Centrament form reamer size 8S Harris	NF491R
1	Centrament form reamer size 10 Harris	NF492R
1	Centrament form reamer size 12 Harris	NF493R
1	Centrament form reamer size 14 Harris	NF494R
1	Centrament form reamer size 16 Harris	NF495R
1	T-handle L 125 mm w/Harris chuck	ND144R
1	Preparation reamer D 8.0 mm w/T-handle	ND359R
1	Stem impactor	ND830R
1	Centrament insertion handle	ND824R
1	Centrament tray instruments/ form reamers	NF501R
1	Wrapping cloth	JF511
1	Identification plate	JG645B

Please order separately:		
1	Insertion instrument for medullary bone plugs	NG702R
1	Intermedullary bone plug trephine diam. 8-10 mm Harris	ND185R
1	Intermedullary bone plug trephine diam. 10-12.5 mm Harris	ND186R
1	Intermedullary bone plug trephine diam. 12.5-15 mm Harris	ND187R
1	Intermedullary bone plug trephine diam. 15-18 mm Harris	ND189R

AESCULAP® – a B. Braun brand

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