

Aesculap Orthopaedics Centrament[®]

Hip System



Centrament® features

Centrament® 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.

Centrament® Design

The Centrament® stem is of a rounded design, this guarantees 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.

Centrament® Surgery

The Centrament® system is complimented by modular instrumentation, achieving 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.





Modular implant components

- cemented
- Bipolar
- hybrid

Modular Instrumentation



Centrament® reamer -
cement

+



Centrament® -
rasp

+

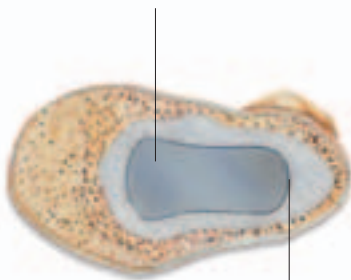


Centrament® -
stem

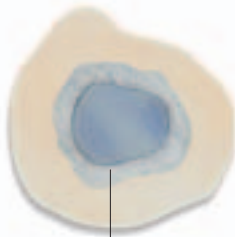
+

bone

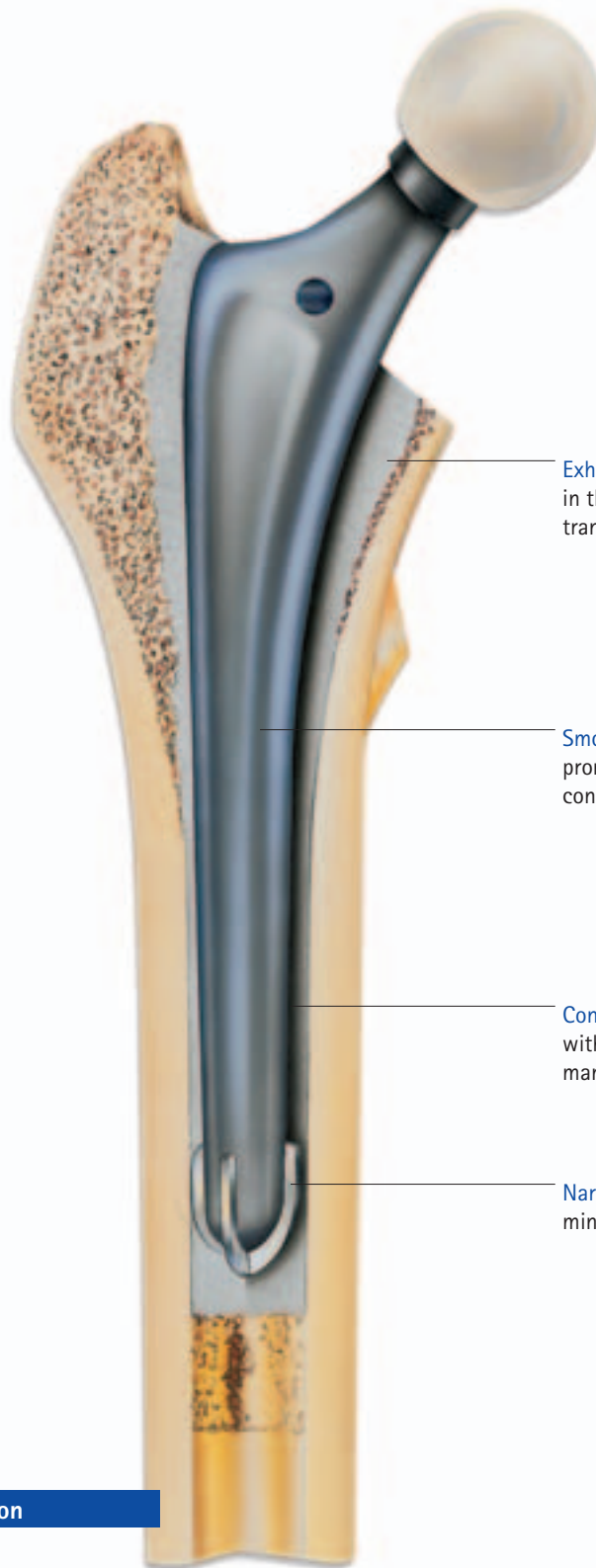
Lateral wing profile to support stem introduction and load transfer



Rounded surface area reduces cement loading



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



Enhanced cement mantle in the area of maximum load transfer

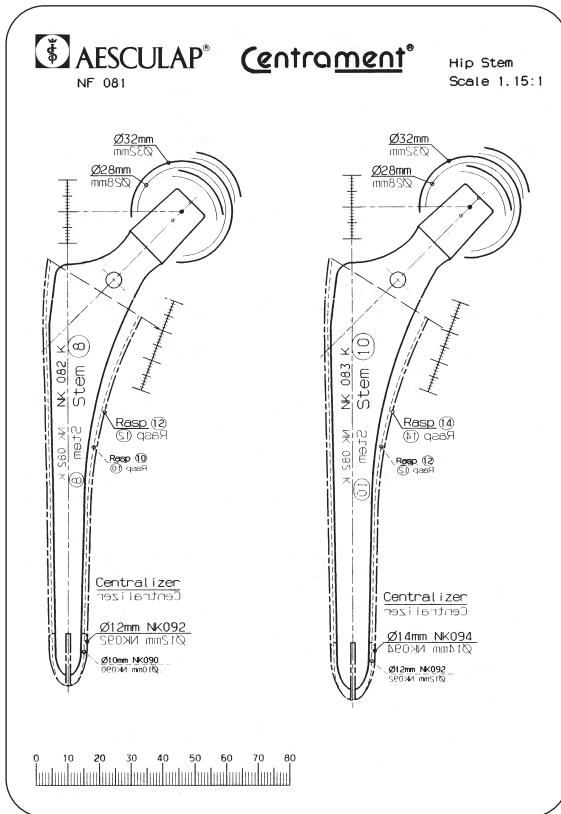
Smooth prosthesis surface promotes uniform cement contact

Conical stem design with proximal increased cement mantle thickness

Narrow cross-section centralizer minimises cement disruption

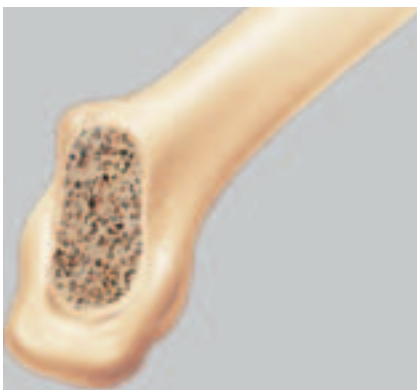
Centrament® = centralized implant position

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 6 S 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 trochanter and for planning the resection with orientation relative to the minor trochanter.



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® Rasp

The rasps are teathed 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.

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.

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	
8 S	10	12	14	16	14	
 NF481R	 NF482R	 NF483R	 NF484R	 NF485R	 NF484R	
6 S	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

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

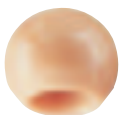
Centralizers



PMMA

8 mm	NK088
10 mm	NK090
12 mm	NK092
14 mm	NK094
16 mm	NK096
18 mm	NK098

Modular heads



12/14

BioloX® forte

	28 mm	32 mm
kurz	NK460	NK560
mittel	NK461	NK561
lang	NK462	NK562



12/14

Isodur® F

	22.2 mm	28 mm	32 mm
kurz	—	NK429K	NK529K
mittel	NK330K	NK430K	NK530K
lang	NK331K	NK431K	NK531K
x-lang	—	NK432K	NK532K
xx-lang	—	NK433K	NK533K

Implant materials:

Isodur® F forged CoCr29Mo alloy / ISO 5832-12

BioloX® forte Al₂O₃ / ISO 6474

PMMA polymethyl methacrylate

Instrument sets



NF 500 Centrament®-rasps consisting of:

1	Centrament rasp 8 S	NF481R
1	Centrament rasp 10	NF482R
1	Centrament rasp 12	NF483R
1	Centrament rasp 14	NF484R
1	Centrament rasp 16	NF485R
2	modular rasp handles	NG115R
1	basket with supports, 76 mm, DBGM	NF499R
1	wrapping cloth	JF511
1	identification plate	JG645B

Please order separately:

1	trial head, medium, diam. 22,2 mm 12/14 mm cone, modular	NF327
1	trial head, long, diam. 22,2 mm 12/14 mm cone, modular	NF328
1	trial head, short, diam. 28 mm 12/14 mm cone, modular	NF336
1	trial head, short, diam. 28 mm 12/14 mm cone, modular	NF337
1	trial head, short, diam. 28 mm 12/14 mm cone, modular	NF338
1	trial head, x-long, diam. 28 mm 12/14 mm cone, modular	NF339
1	trial head, xx-long, diam. 28 mm 12/14 mm cone, modular	NF343
1	trial head, short, diam. 32 mm 12/14 mm cone, modular	NF346
1	trial head, medium, diam. 32 mm 12/14 mm cone, modular	NF347
1	trial head, long, diam. 32 mm 12/14 mm cone, modular	NF348
1	trial head, x-long, diam. 32 mm 12/14 mm cone, modular	NF349
1	trial head, xx-long, diam. 32 mm 12/14 mm cone, modular	NF353

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

X-Ray-Templates (please order separately):

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



NF 502 Centrament® -instruments consisting of:

1 Centrament-reamer, diam. 8 mm	NF491R
1 Centrament-reamer, diam. 10 mm	NF492R
1 Centrament-reamer, diam. 12 mm	NF493R
1 Centrament-reamer, diam. 14 mm	NF494R
1 Centrament-reamer, diam. 16 mm	NF495R
1 T-handle, HARRIS connection	ND144R
1 starting drill, diam. 8 mm	ND359R
1 stem impactor	ND360R
1 CENTRAMENT guide handle	ND362R
1 basket with supports, diam. 56 mm	NF501R
1 wrapping cloth	JF511
1 identification plate	JG645B

Please order separately:

1 insertion instrument for medullary bone plug	NG702R
1 intermedullary bone plug trephine diam. 8-10 mm	ND185R
1 intermedullary bone plug trephine diam. 10-12.5 mm	ND186R
1 intermedullary bone plug trephine diam. 12.5-15 mm	ND187R
1 intermedullary bone plug trephine diam. 15-18 mm	ND189R



AESCULAP®

All it takes to operate.

B | BRAUN
SHARING EXPERTISE

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