

Aesculap[®] Excia[®] 12/14

Hip Endoprosthesis System



Aesculap Orthopaedics

Excia®

Excellence in Arthroplasty



The Excia® Hip System is based on many years of experience with straight stem implants in France, where the first Excia® was implanted in April 2000.

Today, the Excia® system is used successfully throughout Europe, the US and Japan.

The Excia® system concept of using one instrument set for implantation with or without bone cement is time tested and has been subject to ongoing enhancements.

Excia® is one of the most important products in the Aesculap hip endoprosthesis range.



More than 10 Years of Excia®

| 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|----------------------------|-----------------------------|--------------------------------|-------------------------------|---------------------|-------------------|
| Start Excia® Implantations | Excia® Caspar Implantations | Excia® Experience Meeting Lyon | Excia® OrthoPilot® Navigation | FDA Approval in USA | 1st Excia® in USA |



2006

Excia® L 8/10
High Offset

2007

Excia® 12/14

2008

Excia® Curved
MIS Wingprofler

2009

MHLW Approval
in Japan

2010

Excia® 10 Years

2011

Excia® Hip Platform

Excia[®]

Excellence in Arthroplasty

Distinguished by

- ... design
- ... technique
- ... surface

The prosthesis design, implantation technique and implant surface form the foundation for success in primary hip replacement surgery. Excia[®] is implanted using a newly designed rasp that works for both the cementless stem and the cemented stem with a distal centralizer. The lateral offset of the Excia[®] stem increases with stem size, further enhancing the stability of the joint. Excia[®] can be implanted with computer navigation and supports less invasive surgical techniques, thus making it well-equipped for the needs of advanced hip replacement surgery.



Excia®

Excellence in Arthroplasty

Distinguished by ... design



The Excia® straight stem is designed for implant longevity with or without bone cement – with standard or high offset.



Cementless design

Stem design with distal fit and proximal flanges for mechanical stability. Proximal fixation with the Plasmapore® coating.

Cemented design

Wingless stem design preserves bone near the trochanter. Flanges ensure a good proximal fit within the cement mantle.

Perfect stem alignment with the distal centralizer.

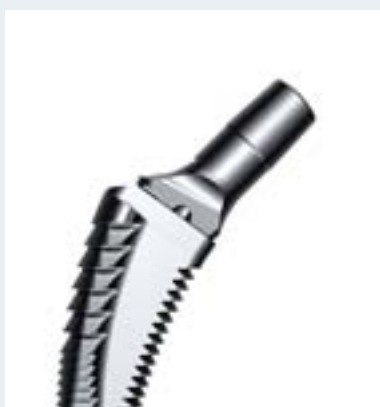


Two design options for implantation
with or without bone cement
with standard or high offset

Excia[®]

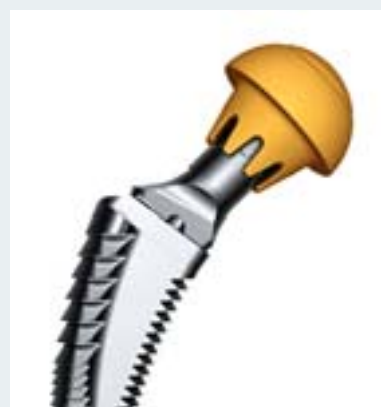
Excellence in Arthroplasty

Distinguished by ... technique



Lateral wing

Cementless and cemented Excia[®] stems differ by material, surface and especially by the lateral wing.

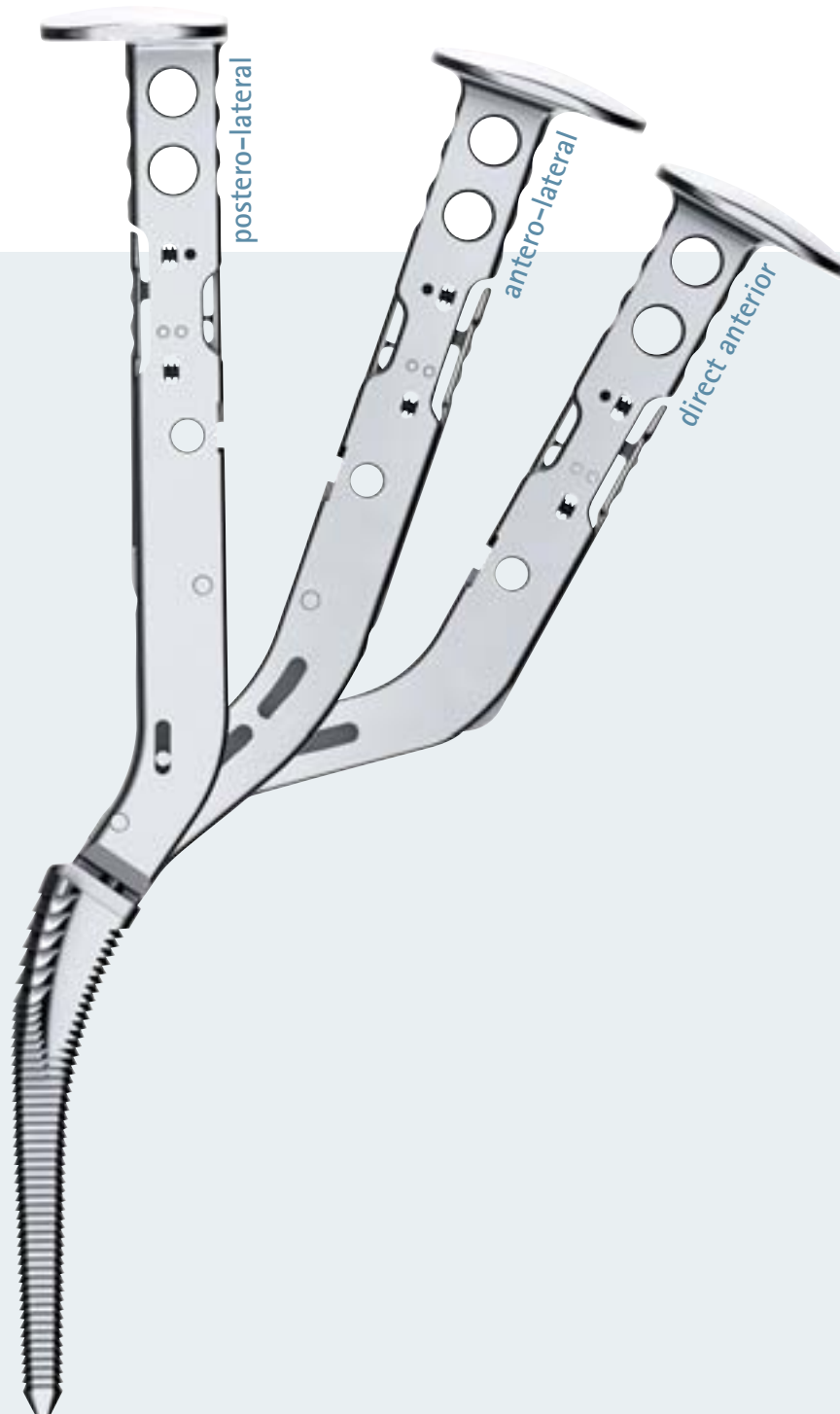


Rasps

The wing rasp is only used in the final step of the cementless implantation.

The modular trial necks with standard or high offset offer the possibility to simulate an optimal soft tissue reconstruction.

The stem rasps are so precisely machined that the trial reduction mimics the final implant accurately.

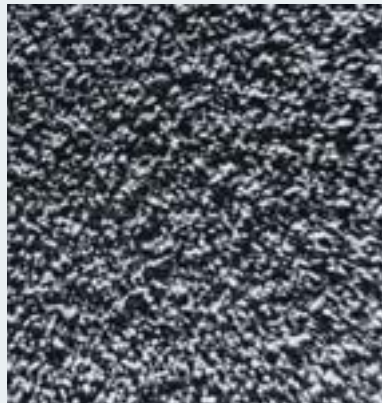
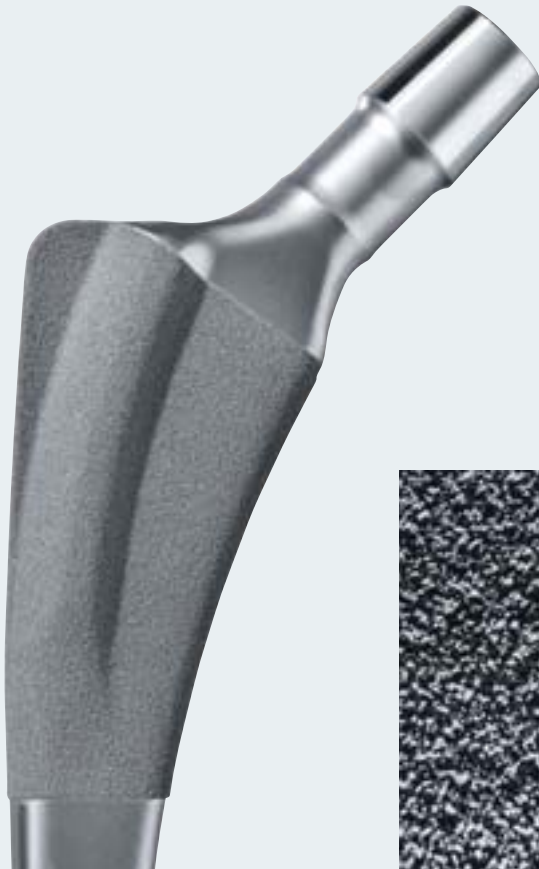


One instrument set for implantation
with or without bone cement
for all surgical approaches

Excia[®]

Excellence in Arthroplasty

Distinguished by ... surface



Implant surface

The cementless Excia[®] features a proximal rough Plasmapore[®] porous coating.

Plasmapore[®]

The rough 0.35 mm microporous pure titanium coating leads to direct bone apposition in the proximal part of the implant.

Results

This is confirmed by long-term clinical experience with various cup and stem implants coated with Plasmapore[®] since 1987.

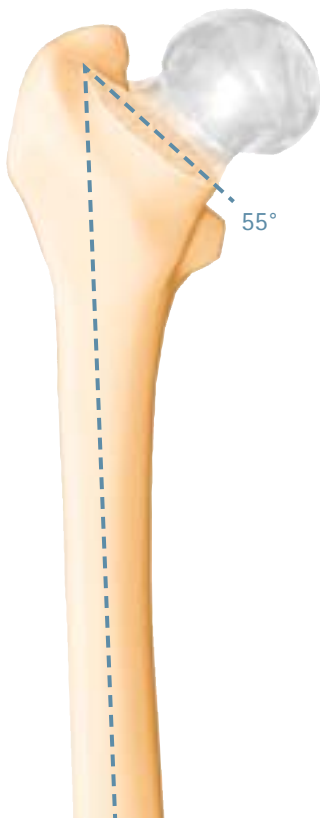


Plasmapore® -

Aesculap's leading surface coating technology
with 20 years of clinical experience

Excia[®]

Surgical Technique



Osteotomy

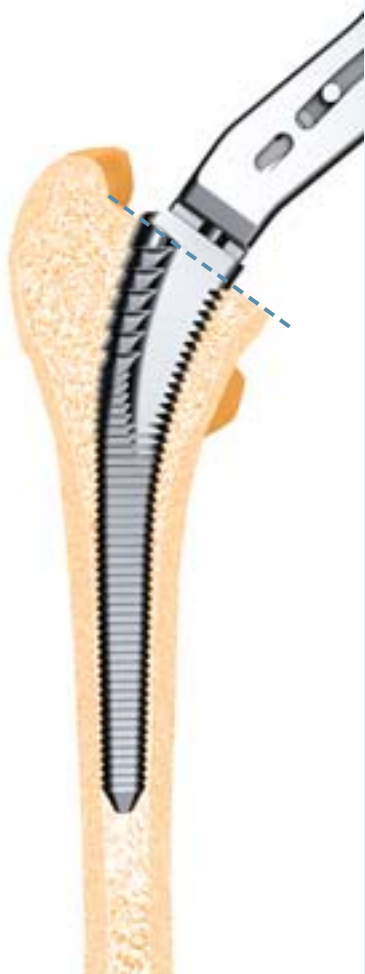
The osteotomy angle is 55 degrees. All markings on the instruments and implants are in 55° reference to this plane.

Opening the medullary canal

The medullary canal is opened with a box osteotome, which is inserted posterolaterally and determines the femoral anteversion angle of the implant.

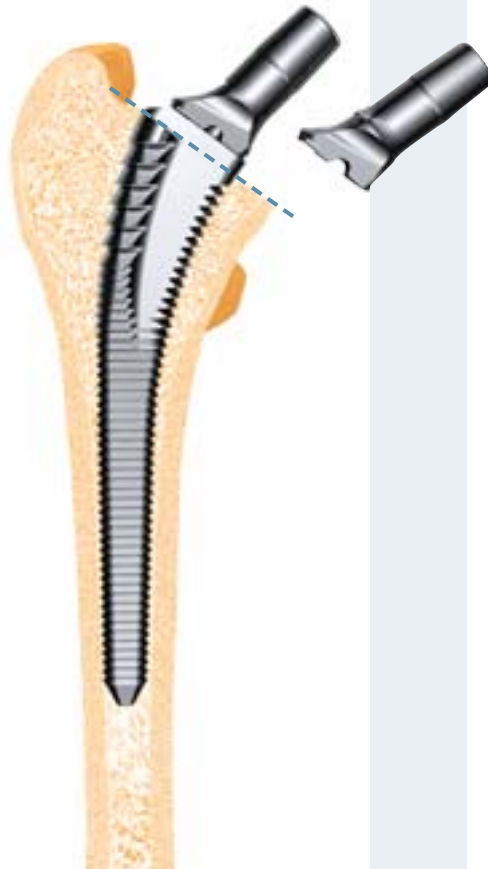
Starter rasp

The starter rasp is an optional instrument which is used manually without any force to check the intramedullary situation. There is no need to use a hammer.



Rasp

The medullary canal is prepared with increasing sized rasps until the desired depth and stability are achieved.



Trial Reduction

In combination with the Excia® rasp the two modular trial necks with standard (135°) or high offset (128°, + 6 mm) simulate exactly the Excia® implant geometry.



The appropriate trial heads enable finally trial reduction and joint inspection with the Excia® rasp.

Excia®

Surgical Technique



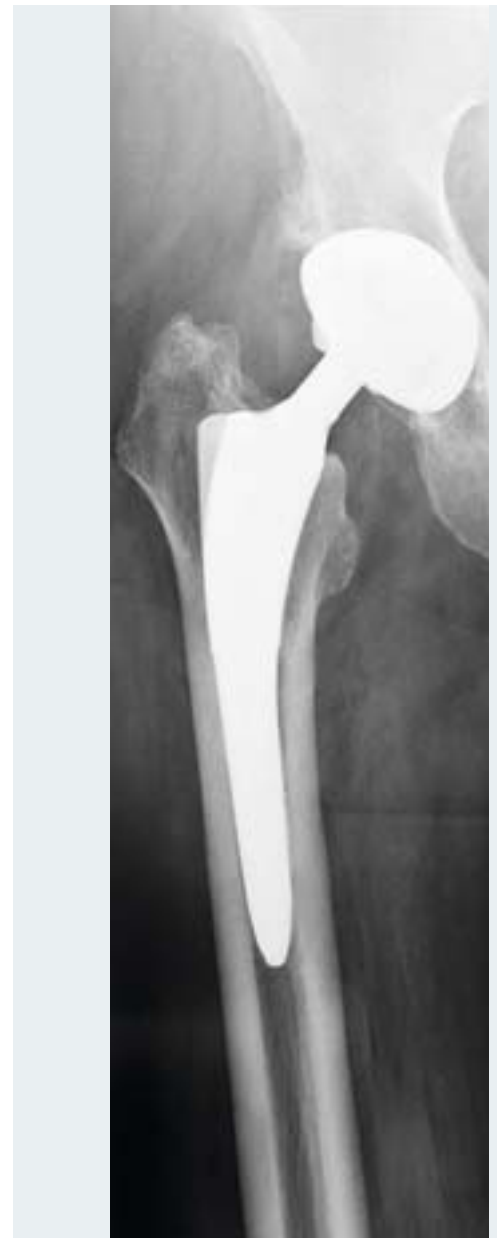
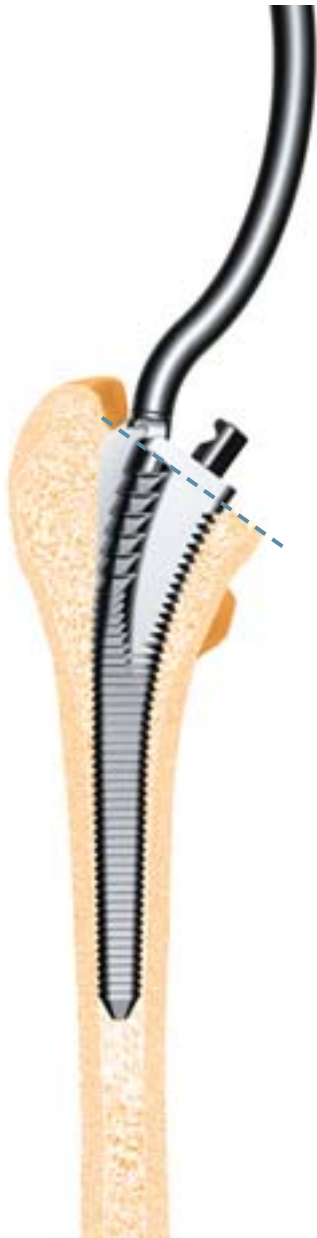
| Cement mantle thickness | Rasp size | Excia® stem size | Distal centralizer size |
|-------------------------|-----------|------------------|-------------------------|
| 1.0 mm | 12 | 12 | 12 |
| 1.5 mm | 12 | 11 | 12 |
| 2.0 mm | 12 | 10 | 12 |

Cemented implantation

For a cemented implantation the Excia® stem and centralizer sizes are selected according to the table above.

The distal centralizer size always corresponds to the size of the last rasp used.

The required thickness of the cement mantle can be adjusted from 1 to 2 mm, depending on the size of the final implanted stem.



Cementless implantation

For a cementless implantation, a groove for Excia's lateral wing is incised with the wing profiler, which is guided down a slot in the final stem rasp. The cementless Excia stem can be implanted after the trial reduction.

The size of the cementless Excia stem corresponds directly to the final stem rasp for a proper press-fit. The stem impactor controls the rotational alignment during implantation.

Biomechanical concept

Primary stability is achieved by a precise fit of the distal stem and rotational stability in the proximal area. Secondary stability results from bony ingrowth into the Plasmapore coating.

Excia[®]

Cup Implants

Plasmacup[®] SC



Plasmacup[®] SC Polyethylene Inserts



Plasmacup[®] SC Ceramic Inserts



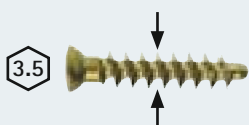
| Size | | symmetrical | | posterior wall | | asymmetrical | | symmetrical | | |
|-------|--------|-------------|---------|----------------|---------|--------------|---------|-------------|---------|---------|
| | | Ø 28 mm | Ø 32 mm | Ø 28 mm | Ø 32 mm | Ø 28 mm | Ø 32 mm | Ø 28 mm | Ø 32 mm | Ø 36 mm |
| 44 mm | NH044T | NH191 | – | NH401 | – | NH471 | – | NH091D | – | – |
| 46 mm | NH046T | | | | | | | | | |
| 48 mm | NH048T | NH192 | NH202 | NH402 | – | NH472 | – | – | NH102D | – |
| 50 mm | NH050T | | | | | | | | | |
| 52 mm | NH052T | NH193 | NH203 | NH403 | NH413 | NH473 | NH323 | – | NH103D | – |
| 54 mm | NH054T | | | | | | | | | |
| 56 mm | NH056T | NH194 | NH204 | NH404 | NH414 | NH474 | NH324 | – | NH104D | NH109D |
| 58 mm | NH058T | | | | | | | | | |
| 60 mm | NH060T | NH195 | NH205 | NH405 | NH415 | NH475 | NH325 | – | NH105D | NH110D |
| 62 mm | NH062T | | | | | | | | | |
| 64 mm | NH064T | NH196 | NH206 | NH406 | NH416 | NH476 | NH326 | – | NH106D | NH111D |
| 66 mm | NH066T | | | | | | | | | |
| 68 mm | NH068T | | | | | | | | | |

ISOTAN[®] F
Plasmapore[®]

UHMWPE

BioloX[®] delta

Plasmacup[®] screws 6.5 mm



ISOTAN[®] F

| Length | 16 mm | 20 mm | 24 mm | 28 mm | 32 mm | 36 mm | 40 mm | 44 mm |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | NA766T | NA770T | NA774T | NA778T | NA782T | NA786T | NA790T | NA794T |

Plasmacup[®] delta



| Insert | | |
|--------|--------|----------------------|
| 44 mm | NH644D | Ø 32 mm semi-modular |
| 46 mm | NH646D | Ø 32 mm semi-modular |
| 48 mm | NH648D | Ø 36 mm semi-modular |
| 50 mm | NH650D | Ø 36 mm semi-modular |
| 52 mm | NH652D | Ø 36 mm modular |
| 54 mm | NH654D | Ø 36 mm modular |

ISOTAN[®] F

Plasmacup[®] delta implants complete the Plasmacup[®] SC program with 36 and 32 mm ceramic inserts. These inserts **can not be combined** with Plasmacup[®] SC components and are only supplied together with the BioloX[®] delta cup component. Special PE inserts with shoulder and special ceramic inserts are available for revision operations.

Plasmacup[®] delta Revision Inserts

| Plasmacup [®] delta | PE cup inserts | Ceramic cup inserts |
|------------------------------|----------------|---------------------|
| 44 - 46 mm | NH407 (28 mm) | NH632D (32 mm) |
| 48 mm | NH417 (32 mm) | NH636D (36 mm) |
| 50 / 52 / 54 mm | NH418 (32 mm) | NH637D (36 mm) |

UHMWPE

BioloX[®] delta

Cemented PE Cup – Standard



low Profile

| Size | Ø 28 mm | Ø 32 mm |
|-------|---------|---------|
| 42 mm | NK842 | – |
| 44 mm | NK844 | – |
| 46 mm | NK846 | NK946 |
| 48 mm | NK848 | NK948 |
| 50 mm | NK850 | NK950 |
| 52 mm | NK852 | NK952 |
| 54 mm | NK854 | NK954 |
| 56 mm | NK856 | NK956 |
| 58 mm | NK858 | NK958 |
| 60 mm | NK860 | NK960 |
| 62 mm | NK862 | NK962 |
| 64 mm | NK864 | NK964 |

UHMWPE

Cemented PE Cup – Snap Fit



full Profile

| Size | Ø 28 mm | Ø 32 mm |
|-------|---------|---------|
| 42 mm | – | – |
| 44 mm | – | – |
| 46 mm | NH947 | – |
| 48 mm | NH949 | NH969 |
| 50 mm | NH951 | NH971 |
| 52 mm | NH953 | NH973 |
| 54 mm | NH955 | NH975 |
| 56 mm | NH957 | NH977 |
| 58 mm | NH959 | NH979 |
| 60 mm | NH961 | NH981 |
| 62 mm | NH963 | NH983 |
| 64 mm | – | – |

UHMWPE

Bipolar Cup



| Size | Ø 28 mm |
|-------|---------|
| 43 mm | NK043S |
| 44 mm | NK044S |
| 45 mm | NK045S |
| 46 mm | NK046S |
| 47 mm | NK047S |
| 48 mm | NK048S |
| 49 mm | NK049S |
| 50 mm | NK050S |
| 51 mm | NK051S |
| 52 mm | NK052S |
| 53 mm | NK053S |
| 54 mm | NK054S |
| 55 mm | NK055S |

UHMWPE

Implant materials:

| | |
|---------------|---|
| ISOTAN® F | Titanium forged alloy (Ti6Al4V / ISO 5832-3) |
| Plasmapore® | Pure titanium (Ti / ISO 5832-2) |
| ISODUR® F | Cobalt-chromium forged alloy (CoCrMo / ISO 5832-12) |
| BioloX® delta | Aluminium oxide matrix ceramic AL ₂ O ₃ |
| UHMWPE | Ultra high molecular weight polyethylene (ISO 5834-2) |

Excia®

Implants

Excia® 12/14 cementless



| Size | Standard | Lateralised* |
|-------|----------|--------------|
| 8 mm | NK198T | NK598T |
| 9 mm | NK199T | NK599T |
| 10 mm | NK200T | NK600T |
| 11 mm | NK201T | NK601T |
| 12 mm | NK202T | Nk602T |
| 13 mm | NK203T | Nk603T |
| 14 mm | NK204T | NK604T |
| 15 mm | NK205T | NK605T |
| 16 mm | NK206T | NK606T |
| 17 mm | NK207T | NK607T |
| 18 mm | Nk208T | NK608T |

ISOTAN® F

Excia® 12/14 cemented



| Size | Standard | Lateralised* |
|-------|----------|--------------|
| 9 mm | NK689K | — |
| 10 mm | NK690K | NK990K |
| 11 mm | NK691K | NK991K |
| 12 mm | NK692K | NK992K |
| 13 mm | NK693K | NK993K |
| 14 mm | NK694K | NK994K |
| 15 mm | NK695K | NK995K |
| 16 mm | NK696K | NK996K |
| 17 mm | NK697K | Nk997K |
| 18 mm | NK698K | NK998K |

ISODUR® F

* Excia® L (lateralised) implants have an increased offset of 6 mm compared with Excia® standard and a reduced CCD angle of 128°

Ceramic modular prosthesis heads



12/14

| Size | 28 mm | 32 mm | 36 mm |
|------|--------|--------|--------|
| S | NK460D | NK560D | NK560D |
| M | NK461D | NK561D | NK561D |
| L | NK462D | NK562D | NK562D |
| XL | — | NK563D | NK563D |

BioloX® delta

Distal centraliser



| Size | Code |
|-------|-------|
| 9 mm | NK089 |
| 10 mm | NK090 |
| 11 mm | NK091 |
| 12 mm | NK092 |
| 13 mm | NK093 |
| 14 mm | NK094 |
| 15 mm | NK095 |
| 16 mm | NK096 |
| 17 mm | NK097 |
| 18 mm | NK098 |

PMMA

Metal modular prosthesis heads



12/14

| Size | 28 mm | 32 mm |
|------|--------|--------|
| S | NK429K | NK529K |
| M | NK430K | NK530K |
| L | NK431K | NK531K |
| XL | NK432K | NK532K |
| XXL | NK433K | NK533K |

ISODUR® F

IMSET Cement plug



| Size | Code |
|-------|-------|
| 10 mm | NK910 |
| 12 mm | NK912 |
| 14 mm | NK914 |
| 16 mm | NK916 |
| 18 mm | NK918 |

Composition:

50 % gelatin (from pigs)
30 % glycerin
20 % water
0.2 % methylparahydroxybenzoate

Instruments

NT330 Excia® 12/14 Basic Set



In the tray NT329R three rasp handles can be stored. The small tray for the trial components fits on top.



Small tray with Excia® 12/14 trial components.

Recommended container only for Excia® Basic Set NT330
Aesculap basic container 592 x 285 x 153 mm

Consisting of:

| | |
|--------|--|
| NT329R | Tray with supports and small tray for trial components 489 x 253 x 106 mm |
| JH217R | Lid |
| TF004 | Grafic template |

Excia® rasps

| | |
|--------|--------------|
| NT308R | Rasp size 8 |
| NT309R | Rasp size 9 |
| NT310R | Rasp size 10 |
| NT311R | Rasp size 11 |
| NT312R | Rasp size 12 |
| NT313R | Rasp size 13 |
| NT314R | Rasp size 14 |
| NT315R | Rasp size 15 |
| NT316R | Rasp size 16 |
| NT317R | Rasp size 17 |
| NT318R | Rasp size 18 |

| | |
|---------|---------------------------|
| ND844R | Insertion instrument |
| ND820R | Extraction instrument |
| NT321R | Wing profiler |
| NT118R | Modular box osteotome |
| ND017R* | Cross bar for rasp handle |

Rasp handles

| | |
|---------|---------------------------------|
| NT001R* | Lateral approach, straight |
| NT002R* | Posterior approach, straight |
| NT003R* | Anterior approach, straight |
| NT004R* | Lateral approach, offset left |
| NT005R* | Lateral approach, offset right |
| NT006R* | Anterior approach, offset left |
| NT007R* | Anterior approach, offset right |

Excia® 12/14 trial heads

| Size | 28 mm | 32 mm | 36 mm |
|------|-------|-------|--------|
| S | NT356 | NT366 | NT376* |
| M | NT357 | NT367 | NT377* |
| L | NT358 | NT368 | NT378* |
| XL | NT359 | NT369 | NT379* |
| XXL | NT360 | NT370 | NT380* |

Excia® 12/14 trial necks

| | |
|--------|------------------------|
| NT303R | Trial neck standard |
| NT305R | Trial neck lateralised |

NT300 Excia® Set for optional instruments



Recommended container for NT330 and NT300
Aesculap basic container 592 x 285 x 265 mm

Consisting of:

| | |
|--------|---|
| NT301R | Tray with supports 489 x 253 x 76 mm |
| JH217 | Lid |
| TF003 | Grafic template |

Optional instruments

| | |
|---------|-----------------------------------|
| ND060* | Impactor for prosthesis heads |
| ND845R* | Curved insertion instrument |
| ND847R* | Locked insertion instrument |
| ND472R* | Starter rasp |
| NT323R* | Canal finder |
| NG922* | Excia® cemented X-ray templates |
| NG923* | Excia® cementless X-ray templates |

with * marked instruments please order separately

