



# AESCULAP® Excia® T

## Hip Endoprosthesis System

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Excia® T

Excellence in  
Arthroplasty





Minimally invasive, conical,  
trochanter-preserving shoulder.

# AESCULAP® Excia® T

Concept



Excia® T  
Cementless

## Excia® T Cementless Design

The distally slim implant design and the standardized implantation technique allow the implant to be used in different femoral anatomies.

Essential design characteristics of the proximally fixating implant are the trochanter-preserving rounded shoulder and the reduced stem length. These features support minimally invasive surgical techniques, especially the direct anterior approach.

The Excia® T double taper design as well as the proximal bilateral flanges provide a high primary stability.

The 12/14 taper with a distally reduced neck diameter increases the range of motion.

Excia® T is available as standard and a high-offset implant which supports an individual offset reconstruction.

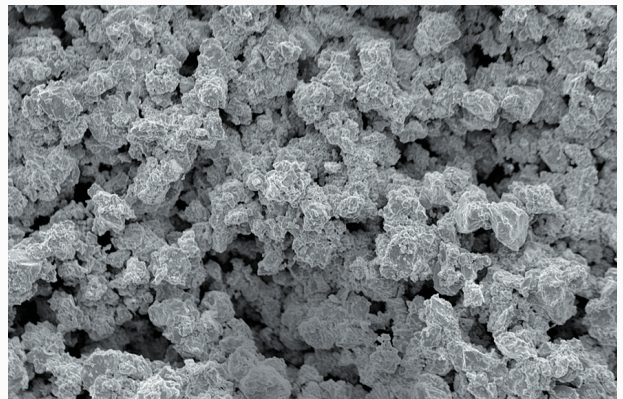
## OrthoPilot® Navigation

Excia® T can be implanted using the OrthoPilot® navigation system. Stem navigation tools allow intra-operative control and documentation of leg length and offset changes. OrthoPilot® navigation also supports minimally invasive surgical techniques.

## PLASMAPORE® Coating

For osseous integration into the proximal bone structure the cementless Excia® T stem, which is made of titanium alloy, is coated with the proven microporous PLASMAPORE® titanium spray.

During the PLASMAPORE® coating process pure titanium powder with a thickness of 0.35 mm and a microporosity up to 40% is sprayed on the proximal anchoring area of the implant. The very rough PLASMAPORE® structure also supports the implant's primary stability.



# AESCULAP® Excia® T

Concept



Excia® T  
Cemented

## Excia® T Cemented Design

The tapered implant design with the trochanter-preserving shoulder geometry has also been adopted for the cemented Excia® T stem.

The bilateral flanges in the trochanter area support the proximal fit of the implant in the cement mantle.

The geometry of the cemented Excia® T is parametric to the cementless Excia® T stem. The stem design is 6 mm shorter for all sizes and has been radially reduced by 1 mm along the complete stem. This design supports a constant cement mantle for all implant sizes.

The balancing between rasp design and cemented implant allows an influence of the desired nominal cement mantle thickness when choosing the stem size based on the last rasp size used. The distal stem alignment in the cement can be achieved with a centralizer.

The cemented Excia® T implant is also available as standard and lateralized version which supports individual offset reconstruction.

## CoCr Material

The cemented Excia® T differs from the cementless version in its implant material, cobalt chrome alloy. The implant surface is not coated.

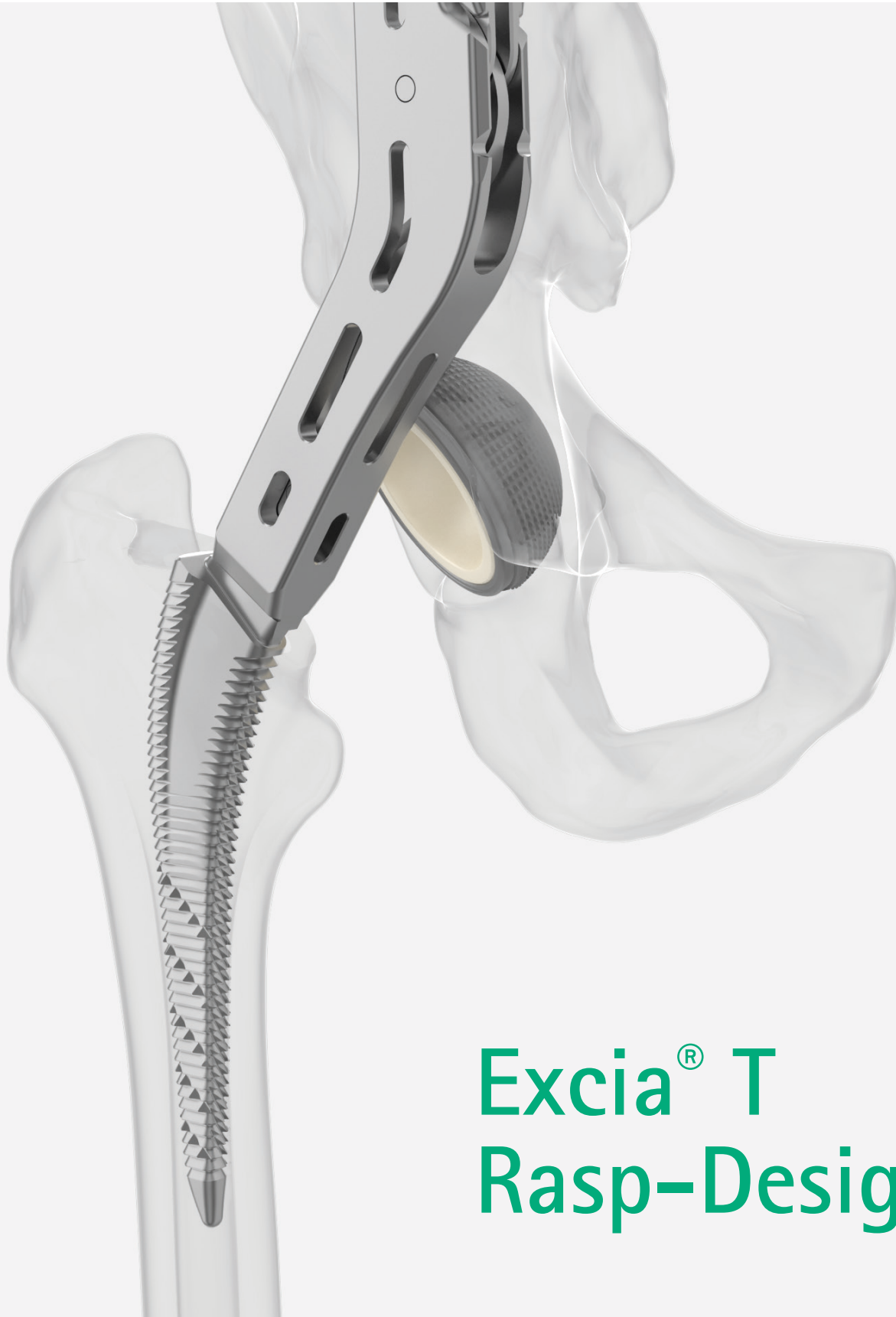
## OrthoPilot® Navigation

The cemented Excia® T can also be implanted using the OrthoPilot® navigation system. To navigate the cemented stems the recommended implant size is displayed according to the last used rasp size.



# AESCULAP® Excia® T

Concept



## Excia® T Rasp-Design

## Excia® T Rasp Design

The design of the rasps allows for a smooth preparation of the implant bed. Proximal compression planes of the rasps support a compaction of the cancellous bone in anterior and posterior direction and herewith the preservation of bone material.

The rasping is supported by chip flutes in the distal part of the broaches. The flutes also facilitate the cleaning of the broaches from blood and bone material.

The asymmetrical tip of the implant and the rasp prevent a distal-lateral load transmission and provide an intramedullary guidance of the rasp during the implantation.

The Excia® T rasps are manufactured in a way that a trial reposition with trial neck and trial head allow for a precise evaluation of the joint function. Standard as well as lateralized modular trial necks are available to check the offset situation and simulate the expectable joint stability.

## Excia® T System Approach

The essential benefit of the Excia® T instruments can be found in the system approach. Excia® T supports the implantation with or without bone cement for all surgical approaches with one single set of instruments. Excia® T herewith provides a great intraoperative flexibility.

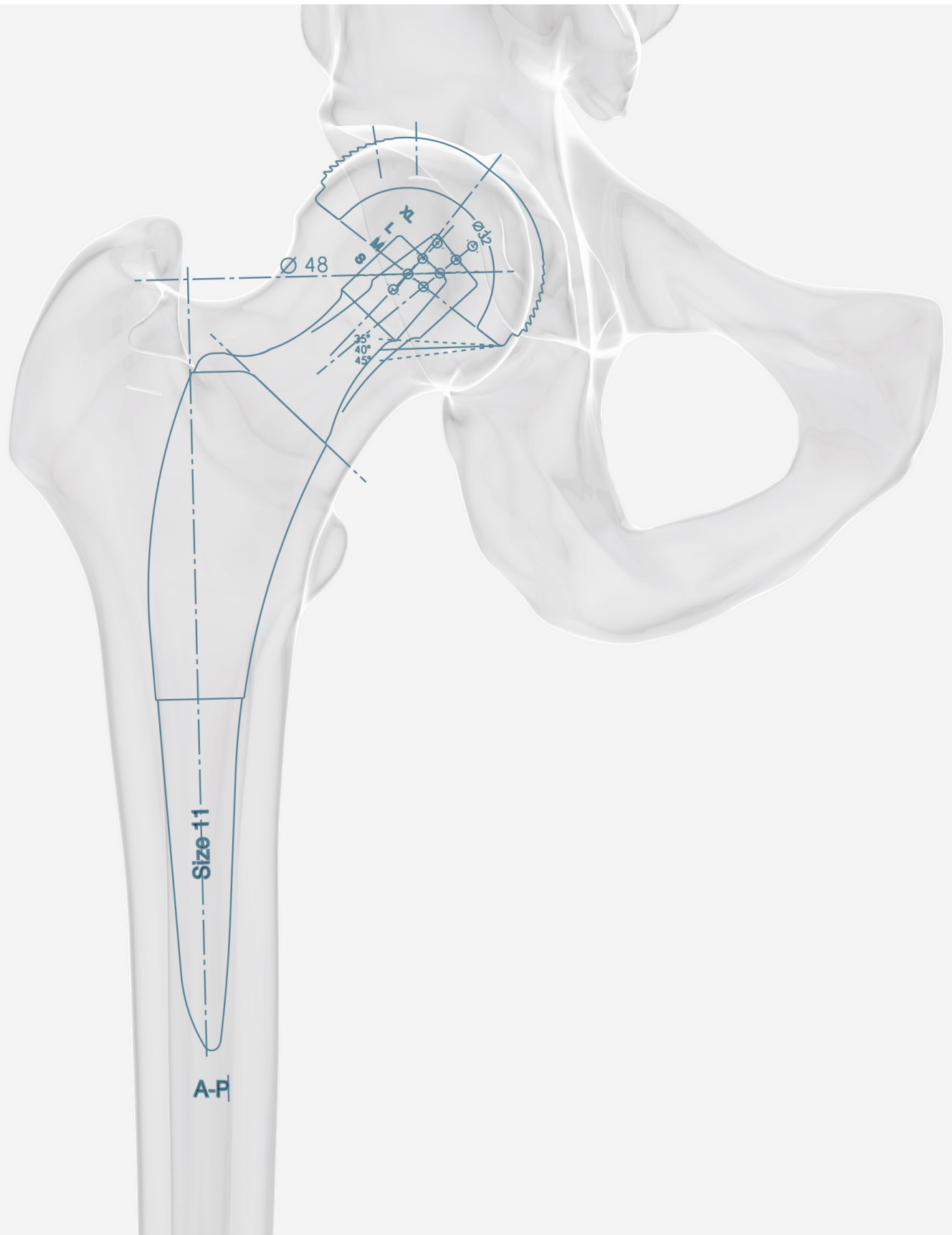
The Excia® T approach of using one instrument system for cementless and cemented implantations furthermore reduces the intra-operatively necessary number of instruments. The combination of a reduced number of instruments and a single AESCULAP® OrthoTray® storage enables that all Excia® T instruments fit into one tray. Hence the AESCULAP® OrthoTray® needs low storage capacity and reduces the costs for instrument processing and sterilization.

## AESCULAP® Instrument Platform

Platform profiler handles allow an implantation of all AESCULAP® hip stems with the same handles. Herewith not only the number of necessary instruments is reduced but also the effort when different implant systems are in use. Depending on the surgical approach and patient position, either supine or lateral, different profiler handle versions are available.

# AESCULAP® Excia® T

## Preoperative Planning



## Aims of Preoperative Planning

Based on the indication preoperative planning considers the position and size selection of the implant components. Anatomical circumstances are evaluated with an AP view of the complete pelvis as well as the view of the contralateral side to the indicated hip joint.

On the basis of the preoperative planning it is possible to already identify intraoperative challenges in the forefront of the surgery. According to bone quality and shape preoperative planning indicates the possible fixation of the stem component, position of the rotation center, offset and leg length as well as the position of the femoral osteotomy.

## Procedure of Preoperative Planning

- 1 Drawing in of the pelvis base line and the reference to the trochanter minor.
- 2 Determination of the femoral hip center.
- 3 Position of the cup component, which indicates the rotation center.
- 4 Selection of the appropriate stem implant depending on the following requirements:
  - Proximal medial fit of the stem.
  - Distal axial stem position.
  - Without oversizing of the distal part of the implant.
- 5 Adjustment of offset and leg length via the rotation center of the stem component in relation to the cup component.
- 6 Marking the 45° osteotomy line for the intra-operative orientation with 10–15 mm reference to the trochanter minor.

## Excia® T Stem Implants

The broad size range as well as a precisely adjusted size growth for Excia® T cementless and cemented implants allow an individual selection of the implant size.

Offset versions of the standard stem with 135° CCD angle and the lateralized stem with 128° CCD angle and 6 mm offset increase support the reconstruction of the femoral offset.

## Possibilities of Preoperative Planning

Excia® T x-ray templates with a scale of 1.15:1 are available for manual planning. Furthermore Excia® T is integrated into several digital planning systems.

## X-Ray Images

For the planning of Excia® T a deeply regulated pelvis overview and an image of the lateral view of the indicated hip should be available.

# AESCULAP® Excia® T

## Surgical Technique



### Approaches

Generally Excia® T supports all common approaches also in minimally invasive technique.

Due to the trochanter preserving proximal rounded design of the implant Excia® T is especially well suitable for the direct anterior approach.

### Landmark Determination

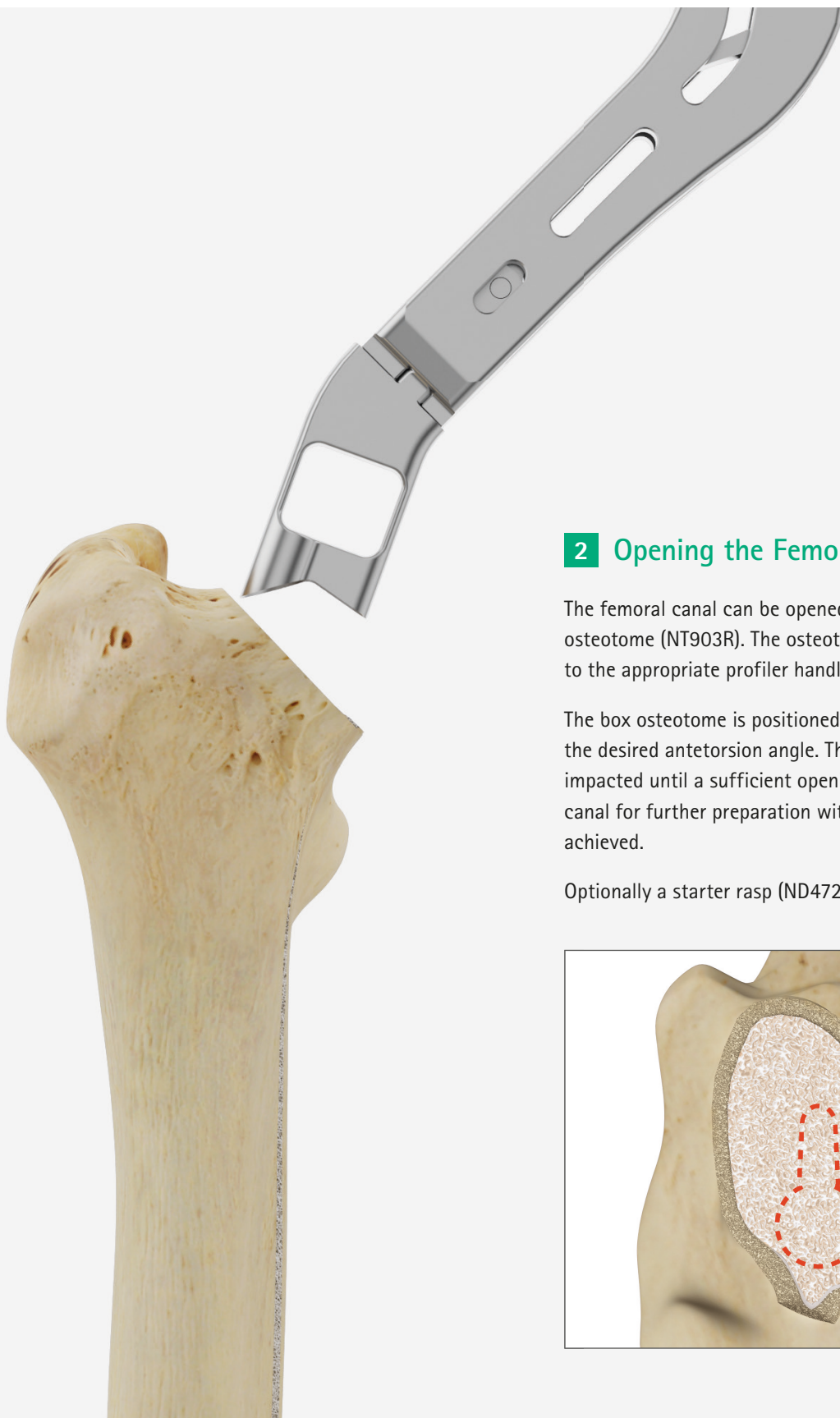
Bony landmarks at the trochanter need to be defined before luxation and resection of the femoral head. According to preoperative and intraoperative measurements of these landmarks leg length changes can be followed. The aim is to achieve the leg length situation that has been determined during the preoperative planning.

### 1 Osteotomy

The exact position of the osteotomy is determined by the preoperative planning. The resection is done approximately 10-15 mm above the trochanter minor.

The osteotomy angle is 45° to the femoral axis. All markings on the instruments and implants are aligned with 45°.

To verify the osteotomy angle a resection guide with 45° reference (ND054R) is available.

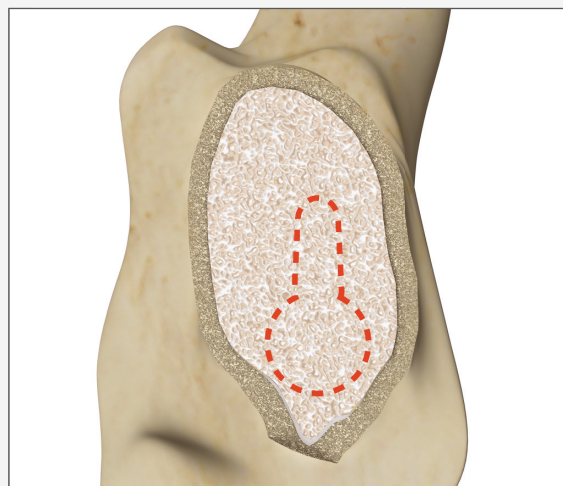


## 2 Opening the Femoral Canal

The femoral canal can be opened with a box osteotome (NT903R). The osteotome can be attached to the appropriate profiler handle.

The box osteotome is positioned postero-lateral with the desired antetorsion angle. The box osteotome is impacted until a sufficient opening of the femoral canal for further preparation with the broaches is achieved.

Optionally a starter rasp (ND472R) can also be used.



# AESCULAP® Excia® T

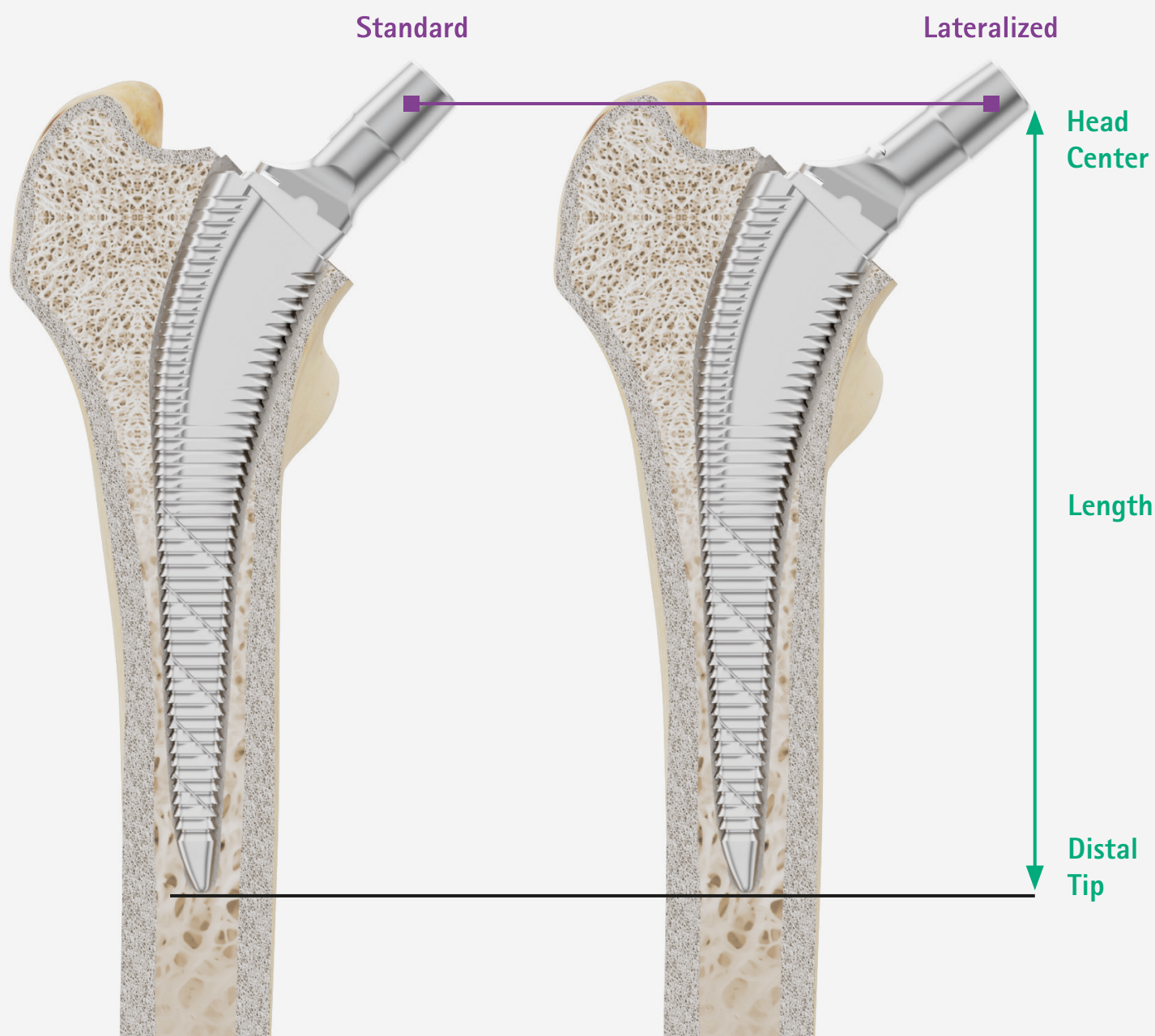
## Surgical Technique

### 3 Femoral Preparation

The femoral canal is prepared with rasps in ascending order until a good stability and an impacting depth of the rasp up to the resection line is achieved.

#### Note:

In order not to change the antetorsion angle of the femur and not to open the implant bed too widely in the proximal area, checking the stability by rotating the rasp needs to be avoided.





## 4 Trial Reposition

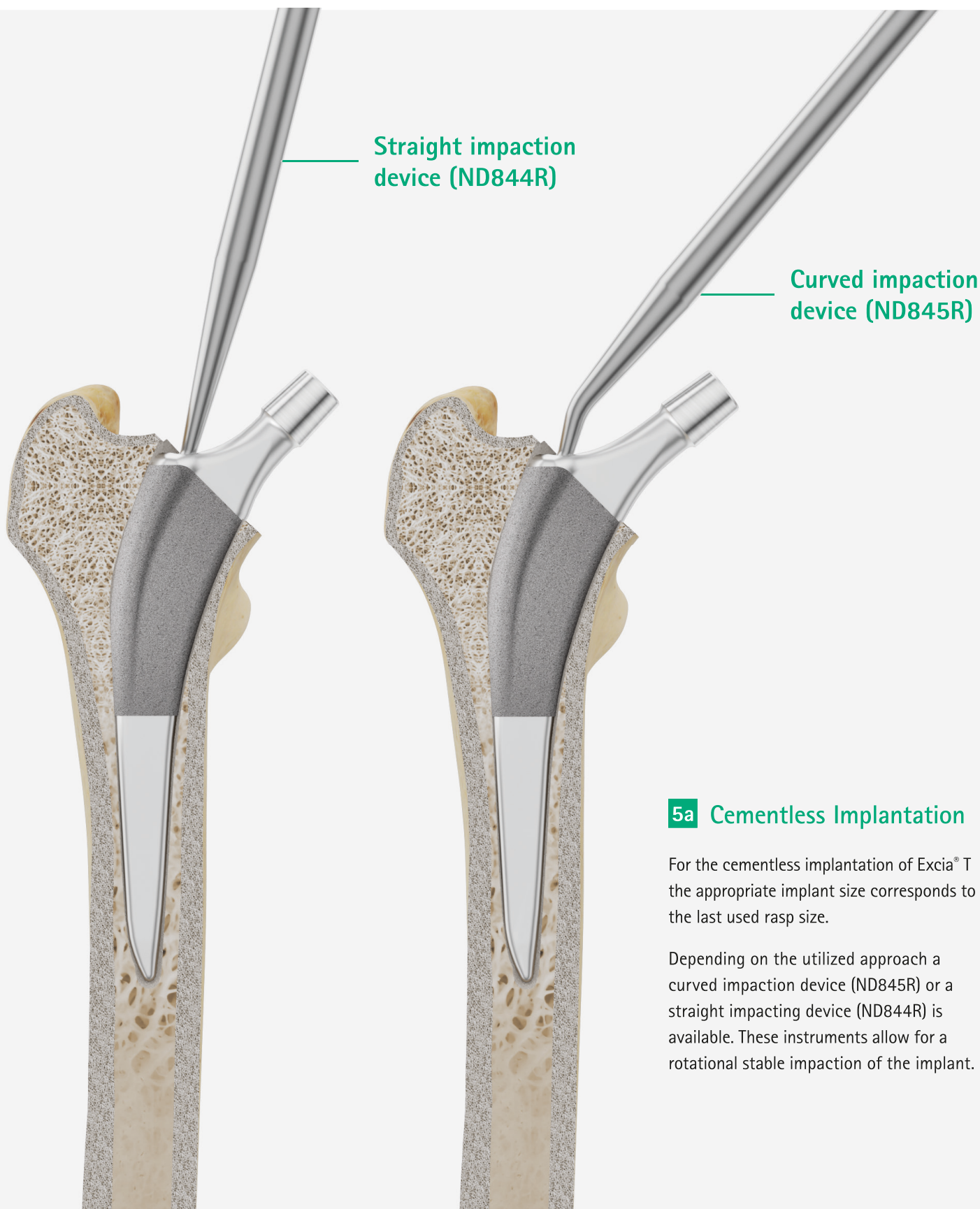
The trial reposition is done with trial neck adapters with standard offset (CCD 135°) or high offset of plus 6 mm (CCD 128°), which are connected to the inserted Excia® T rasp. Trial heads with a neck length from S to XXL allow for a precise simulation of the implant geometry.

## Excia® T Geometry

Size	Length	Standard		Lateralized	
		CCD	Offset	CCD	Offset
8	131.4 mm	135°	37.7 mm	128°	43.7 mm
9	135.9 mm	135°	38.9 mm	128°	44.9 mm
10	140.4 mm	135°	40.1 mm	128°	46.1 mm
11	144.9 mm	135°	41.3 mm	128°	47.3 mm
12	149.4 mm	135°	42.5 mm	128°	48.5 mm
13	153.9 mm	135°	43.7 mm	128°	49.7 mm
14	158.4 mm	135°	44.9 mm	128°	50.9 mm
15	162.9 mm	135°	46.1 mm	128°	52.1 mm
16	167.4 mm	135°	47.3 mm	128°	53.3 mm
17	171.9 mm	135°	48.5 mm	128°	54.5 mm
18	176.4 mm	135°	49.7 mm	128°	55.7 mm
19	180.9 mm	135°	50.9 mm	128°	56.9 mm
20	185.4 mm	135°	52.1 mm	128°	58.1 mm

# AESCULAP® Excia® T

## Surgical Technique



## 5b Cemented Implantation

For the implantation with bone cement the implant size is selected in relation to the last utilized rasp as well as the desired nominal thickness of the cement mantle. On the packaging of each Excia® T cemented implant the size of the corresponding centralizer is stated.

In case of distally widened femoral canals and after measuring the canal width it is also possible to use a bigger centralizer in order to achieve a distal canal fitting.

Rasp size	10	11	12	13	14	15	16	17	18	19	20
Excia® T cemented	10		12		14		16		18		20
Centralizer ø mm	8		9		10		11		12		13
Cement mantle mm	1	1.5	1	1.5	1	1.5	1	1.5	1	1.5	1

**Standard**



**Lateralized**



# AESCULAP® Excia® T

## Implant Overview



### Excia® T Cementless

Size	Standard T	Lateral TL
8	NU208T	NU228T
9	NU209T	NU229T
10	NU210T	NU230T
11	NU211T	NU231T
12	NU212T	NU232T
13	NU213T	NU233T
14	NU214T	NU234T
15	NU215T	NU235T
16	NU216T	NU236T
17	NU217T	NU237T
18	NU218T	NU238T
19	NU219T	NU239T
20	NU220T	NU240T

Ti6Al4V



### Excia® T Cemented

Size	Standard T	Lateral TL
10	NU270K	NU290K
12	NU272K	NU292K
14	NU274K	NU294K
16	NU276K	NU296K
18	NU278K	NU298K
20	NU280K	NU300K

CoCr

### Distal Centralizer



mm	Centralizer
8	NK088
9	NK089
10	NK090
11	NK091
12	NK092
13	NK093
14	NK094
15	NK095
16	NK096
17	NK097
18	NK098

PMMA

### Inset Plug



mm	Plug
8	NK908
10	NK910
12	NK912
14	NK914
16	NK916
18	NK918

#### Composition:

Gelatine (porcine based), approx. 57%  
Glycerol (glycerin), approx. 37%  
Water (purified), approx. 6%  
Methylparahydroxybenzoate, approx. 0.2%

#### Implant materials:

PLASMAPORE® Pure titanium (Ti/ISO 5832-2)  
Ti6Al4V Titanium forged alloy (Ti6Al4V/ISO 5832-3)  
CoCr Cobalt-chromium forged alloy (CoCrMo/ISO 5832-12)  
PMMA Polymethylmethacrylate

## BIOLOX® Delta Ceramic Head



12/14

Size	28 mm	32 mm	36 mm	40 mm
S	NK460D	NK560D	NK650D	NK750D
M	NK461D	NK561D	NK651D	NK751D
L	NK462D	NK562D	NK652D	NK752D
XL	–	NK563D	NK653D	NK753D

## Isocer® Ceramic Head



12/14

Size	28 mm	32 mm	36 mm
S	NK324	NK424	NK524
M	NK325	NK425	NK525
L	NK326	NK426	NK526
XL	–	NK427	NK527

## Metal Head



12/14

Size	28 mm	32 mm	36 mm	40 mm
S	NK429K	NK529K	NK669K	NK769K
M	NK430K	NK530K	NK670K	NK770K
L	NK431K	NK531K	NK671K	NK771K
XL	NK432K	NK532K	NK672K	NK772K
XXL	NK433K	NK533K	NK673K	NK773K

Relative values for modular heads with cone 12/14

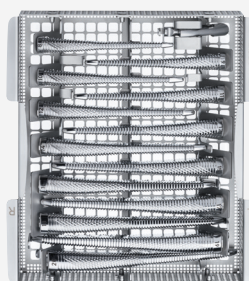
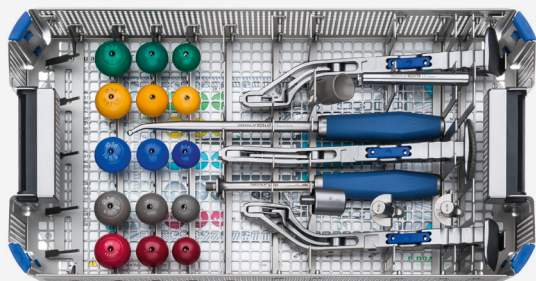
28 mm	≥ 32 mm
– 3.5 mm	– 4.0 mm
± 0 mm	± 0 mm
+ 3.5 mm	+ 4.0 mm
+ 7.0 mm	+ 8.0 mm
+ 10.5 mm	+ 12.0 mm

Implant materials:

Isocer®	Zirconia-toughened alumina ceramic ( $\text{Al}_2\text{O}_3/\text{ZrO}_2$ /ISO 6474-2)
BIOLOX® delta	Aluminium oxide matrix ceramic ( $\text{Al}_2\text{O}_3/\text{ZrO}_2$ /ISO 6474-2)
CoCr	Cobalt-chromium forged alloy (CoCrMo/ISO 5832-12)

# AESCULAP® Excia® T

## Instruments / Set Overview NT900



### Note:

Please be sure to use only consistent rasp generation lines in one instrument set, either NT908R-NT920R (NT900) or NT928R-NT940R (NT902).

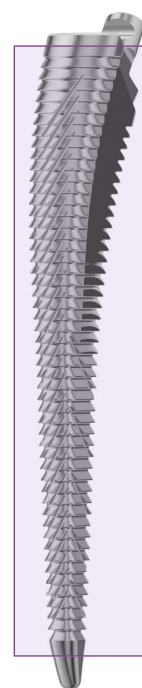
NT900 is the standard Excia® T instrument set.

NT902 will be available for a dedicated transition phase, afterwards via the used pool only.

### Excia® T NT900 Instrument Set

Excia® T tray with small tray for rasps	NT901R
Graphic template for NT901R	TF171
Lid for AESCULAP® OrthoTray®	JA455R
Excia® T extraction adapter	NT904R
Excia® T trial neck 12 / 14	NT905R
Excia® TL trial neck 12 / 14	NT906R
Head impactor	ND060
Cross bar for profiler handles	ND017R
Trial prosthesis head, S, 28 mm	NT356
Trial prosthesis head, M, 28 mm	NT357
Trial prosthesis head, L, 28 mm	NT358
Trial prosthesis head, XL, 28 mm	NT359
Trial prosthesis head, XXL, 28 mm	NT360
Trial prosthesis head, S, 32 mm	NT366
Trial prosthesis head, M, 32 mm	NT367
Trial prosthesis head, L, 32 mm	NT368
Trial prosthesis head, XL, 32 mm	NT369
Trial prosthesis head, XXL, 32 mm	NT370
Trial prosthesis head, S, 36 mm	NT376
Trial prosthesis head, M, 36 mm	NT377
Trial prosthesis head, L, 36 mm	NT378
Trial prosthesis head, XL, 36 mm	NT379
Trial prosthesis head, XXL, 36 mm	NT380

Rasp size 8	NT908R
Rasp size 9	NT909R
Rasp size 10	NT910R
Rasp size 11	NT911R
Rasp size 12	NT912R
Rasp size 13	NT913R
Rasp size 14	NT914R
Rasp size 15	NT915R
Rasp size 16	NT916R
Rasp size 17	NT917R
Rasp size 18	NT918R
Rasp size 19	NT919R
Rasp size 20	NT920R
Excia® T modular box osteotome	NT903R



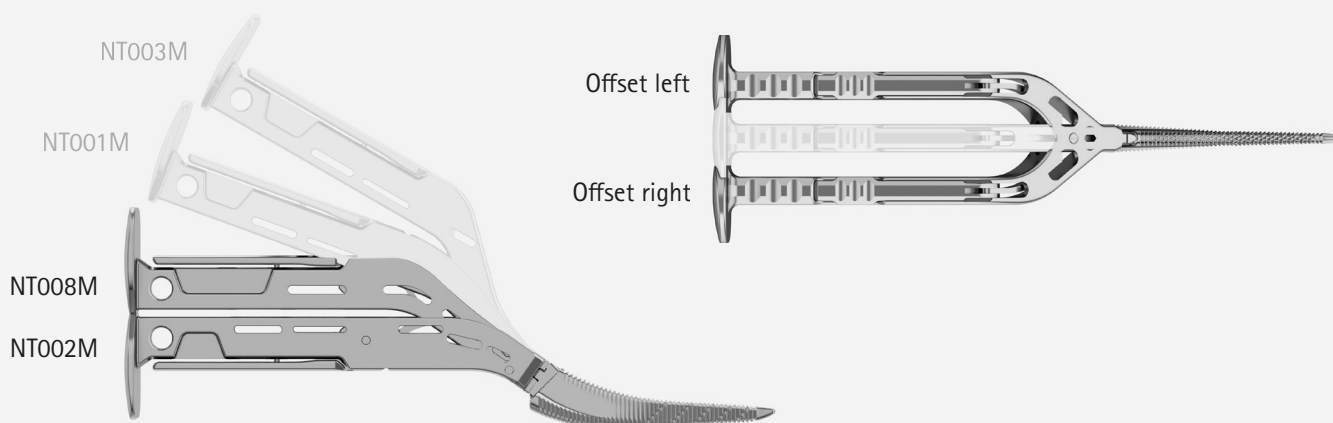
### NT908R – NT920R

**Cross tothing** in the medial and lateral aspect on the **PROXIMAL** and **DISTAL** part of the rasp.

### Note:

The recommended container for Excia® T Basic Set is AESCULAP® basic container 592 x 285 x 153 mm.

Please order separately



## Rasp Handles

**Note:** Up to three rasp handles can be stored in the tray.

Patient Position	Surgical Approach	Straight	Offset	
			Left	Right
Supine	Direct anterior   Antero-lateral   Lateral	NT008M	NT009M	NT010M
	Antero-lateral   Lateral	NT001M	NT004M	NT005M
	Direct anterior	NT003M	NT006M	NT007M
Lateral	Posterior	NT002M	NT010M	NT009M
	Antero-lateral   Lateral	NT008M	NT009M	NT010M
	Antero-lateral   Lateral	NT001M	NT004M	NT005M

## General Instruments

Straight insertion instrument	ND844R
Curved insertion instrument	ND845R
Femoral head saw guide 45°	ND054R
Starter rasp	ND472R

## Trials Heads

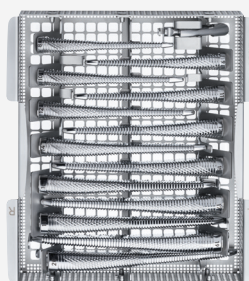
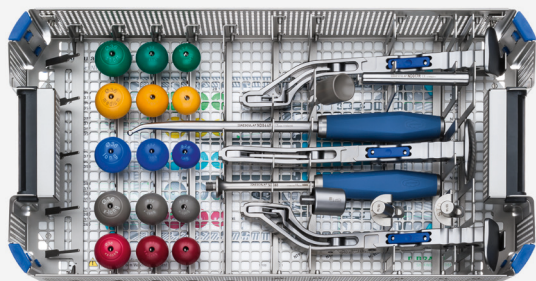
Trial prosthesis head, S, 40 mm	NT386
Trial prosthesis head, M, 40 mm	NT387
Trial prosthesis head, L, 40 mm	NT388
Trial prosthesis head, XL, 40 mm	NT389
Trial prosthesis head, XXL, 40 mm	NT390

## X-Ray Templates

Excia® T cemented X-ray templates scale 1.15:1	NT922
Excia® T cementless X-ray templates scale 1.15:1	NT923

# AESCULAP® Excia® T

## Instruments / Set Overview **NT902**



### Note:

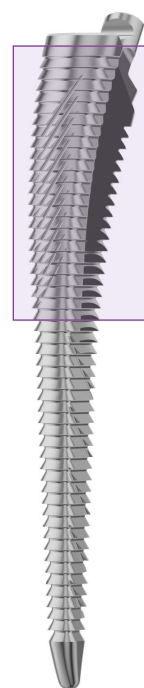
Please be sure to use only consistent rasp generation lines in one instrument set, either NT908R-NT920R (NT900) or NT928R-NT940R (NT902).

NT900 is the standard Excia® T instrument set.

NT902 will be available for a dedicated transition phase, afterwards via the used pool only.

### Excia® T NT902 Instrument Set

Excia® T tray with small tray for rasps	NT901R	Rasp size 8	NT928R
Graphic template for NT901R	TF171	Rasp size 9	NT929R
Lid for AESCULAP® OrthoTray®	JA455R	Rasp size 10	NT930R
Excia® T extraction adapter	NT904R	Rasp size 11	NT931R
Excia® T trial neck 12 / 14	NT905R	Rasp size 12	NT932R
Excia® TL trial neck 12 / 14	NT906R	Rasp size 13	NT933R
Head impactor	ND060	Rasp size 14	NT934R
Cross bar for profiler handles	ND017R	Rasp size 15	NT935R
Trial prosthesis head, S, 28 mm	NT356	Rasp size 16	NT936R
Trial prosthesis head, M, 28 mm	NT357	Rasp size 17	NT937R
Trial prosthesis head, L, 28 mm	NT358	Rasp size 18	NT938R
Trial prosthesis head, XL, 28 mm	NT359	Rasp size 19	NT939R
Trial prosthesis head, XXL, 28 mm	NT360	Rasp size 20	NT940R
Trial prosthesis head, S, 32 mm	NT366	Excia® T modular box osteotome	NT903R
Trial prosthesis head, M, 32 mm	NT367		
Trial prosthesis head, L, 32 mm	NT368		
Trial prosthesis head, XL, 32 mm	NT369		
Trial prosthesis head, XXL, 32 mm	NT370		
Trial prosthesis head, S, 36 mm	NT376		
Trial prosthesis head, M, 36 mm	NT377		
Trial prosthesis head, L, 36 mm	NT378		
Trial prosthesis head, XL, 36 mm	NT379		
Trial prosthesis head, XXL, 36 mm	NT380		



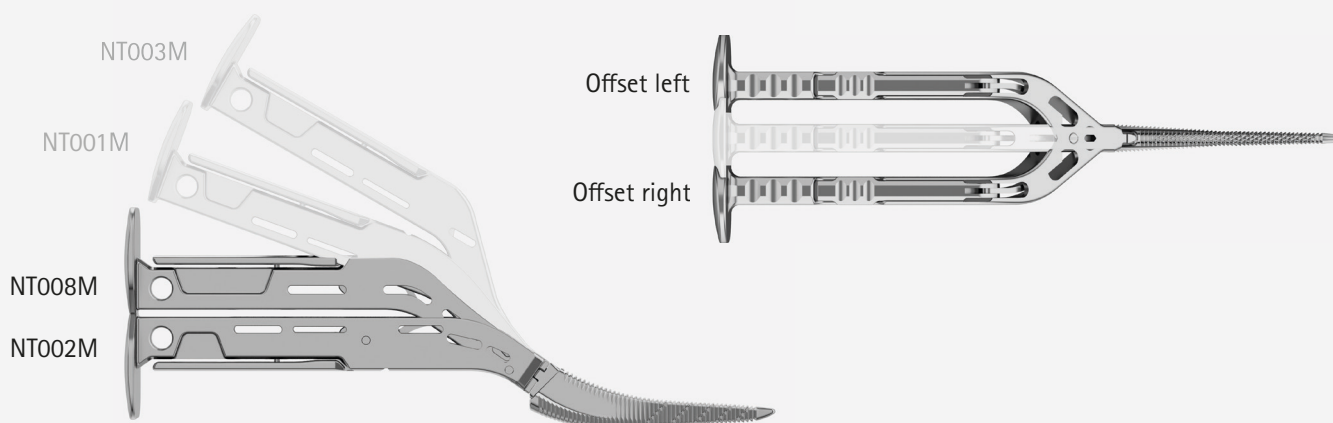
### NT928R – NT940R

**Cross tothing** in the medial and lateral aspect on the **PROXIMAL** part of the rasp.

### Note:

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Please order separately



## Rasp Handles

**Note:** Up to three rasp handles can be stored in the tray.

Patient Position	Surgical Approach	Straight	Offset	
			Left	Right
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	Antero-lateral   Lateral	NT001M	NT004M	NT005M
	Direct anterior	NT003M	NT006M	NT007M
Lateral	Posterior	NT002M	NT010M	NT009M
	Antero-lateral   Lateral	NT008M	NT009M	NT010M
	Antero-lateral   Lateral	NT001M	NT004M	NT005M

## General Instruments

Straight insertion instrument	ND844R
Curved insertion instrument	ND845R
Femoral head saw guide 45°	ND054R
Starter rasp	ND472R

## Trials Heads

Trial prosthesis head, S, 40 mm	NT386
Trial prosthesis head, M, 40 mm	NT387
Trial prosthesis head, L, 40 mm	NT388
Trial prosthesis head, XL, 40 mm	NT389
Trial prosthesis head, XXL, 40 mm	NT390

## X-Ray Templates

Excia® T cemented X-ray templates scale 1.15:1	NT922
Excia® T cementless X-ray templates scale 1.15:1	NT923

# AESCULAP® – a B. Braun brand

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