



**T.E.S.S.**  
Shoulder System  
Surgical Technique

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Anatomic

# T.E.S.S. Shoulder System

## Anatomic – Humerus

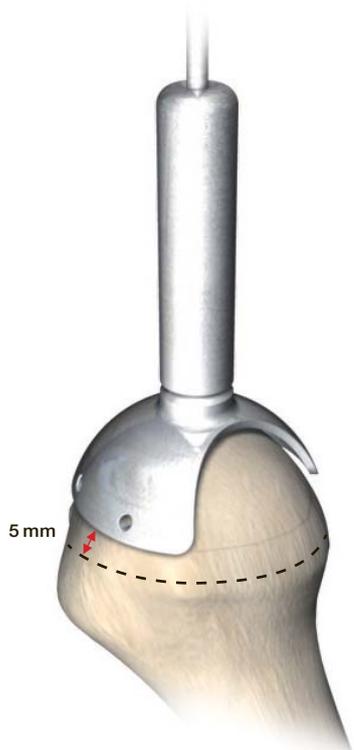


Figure 1



Figure 2

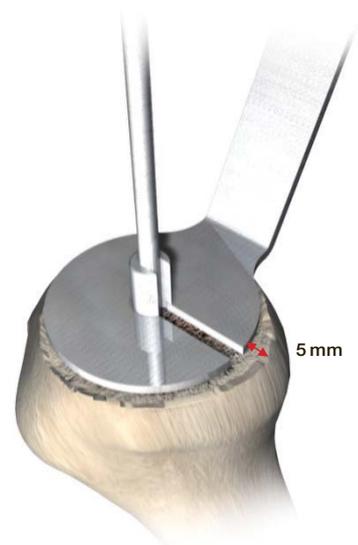


Figure 3

### Humeral cut

Remove the osteophytes.

Locate the centre of the head and the anatomic neck.

Place the humeral head guide onto the centre of the humeral head (A1700068/69/70/71/72/73) and parallel to the anatomic neck to determine the size of the head (Figure 1) (5mm to the anatomical neck).

Insert the pin (A1700350) through the centre of the humeral head guide.

Cut above the anatomic neck using an oscillating saw (Figure 2) parallel to the free edge of the guide.

Remove the pin and the humeral head guide.

The cut can then be completed.



A1700068/69/70/71/72/73



A1700350

### Corolla size determination

Choose the size of the definitive corolla using a humeral template (A1700092/08/09/10).

The most appropriate size is the one which gives maximum coverage of the cancellous bone at 5mm from the rim of cortical bone (Figure 3).

#### BE CAREFUL

**If the anatomy is intermediate between 2 sizes always choose the smaller.**

Insert the pin Ø 3.2mm L 100mm (A1700350) in the centre of the humeral template.

Remove the template leaving the pin in place.



A1700092/08/09/10



A1700350

## Anatomic – Humerus



Figure 4



Figure 5



Figure 6

Pass the drill bit Ø 12mm (A1700242) over the pin (Figure 4). Screw the humeral punch corresponding to the defined size (A1700270/72/74/76) onto the impactor/extractor (A1700278).

### BE CAREFUL

**The punch is then impacted into the bone over the guide pin with a blade positioned at 12 'clock (TOP) (Figure 5).**

Unscrew the handle and remove.

Remove the pin.

The punch can remain in place as a trial and to protect the cut surface.

If the procedure is a Hemi-arthroplasty, proceed to the chapter entitled “anatomic humeral implants” (page 11).

When implanting a glenoid prosthesis, it is important to use a protector of the appropriate size (A1700262/64/66/68) on the humeral punch (Figure 6).

Beforehand, confirm the size of the head by using selected trial centered or eccentric heads.



A1700242



A1700270/72/74/76



A1700262/64/66/68



A1700278

# T.E.S.S. Shoulder System

## Anatomic – Glenoid



Figure 7



Figure 8

## Glenoid size determination

The glenoid is exposed with a complete periglenoid capsulotomy.

The osteophytes are removed.

The size of the glenoid is determined with the glenoid templates (A1700094/104/106/108) attached to the handle (A1700174). The ends of the 3 branches of the template must be positioned at the periphery of the glenoid anatomy.

The pin Ø 3.2mm L 160mm (A1700352) is inserted in the centre of the chosen template (Figure 7).

Remove the template leaving the pin in place.



Set the drill stop (A1700448) on the 7.7 cannulated drill bit (A1700430) at the chosen level (Figure 8):

- ① STD: if implantation of a cemented glenoid or a cementless glenoid in primary or with a central screw
- ② +5: if implantation of a metal-back glenoid with a 5mm extension keel
- ③ +10: if implantation of a metal-back glenoid with a 10mm extension keel.

### BE CAREFUL

**Do not remove the spring and connector after cleaning.**



A1700094/104/106/108



A1700174



A1700352



A1700448



A1700430

# T.E.S.S. Shoulder System

## Anatomic – Glenoid

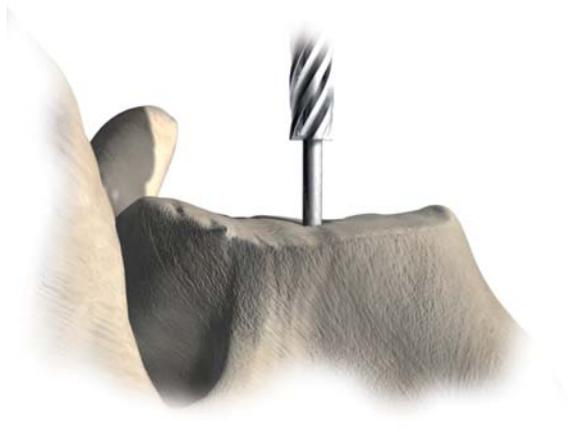


Figure 9

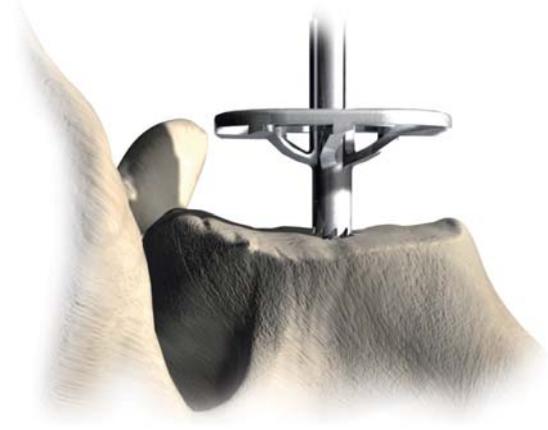


Figure 10

Pass the cannulated drill bit over the pin and drill until the stop (Figure 9).

Remove the drill bit leaving the pin in place.

### Glenoid reaming

Choose the glenoid rasp corresponding to the glenoid size:

- For the baseplates **sizes 0 and 1**, use rasp **size 0/1** (A1700432)
- For the baseplates **sizes 2 and 3**, use rasp **size 2/3** (A1700434)

The rasp is passed over the pin (Figure 10).

The glenoid is reamed gently to develop the central convex shape and the flat periphery minimizing bone resection and keeping subchondral bone.

Remove the rasp.

For a metal-back prosthesis, the pin needs to be removed for the further steps.



# T.E.S.S. Shoulder System

## Anatomic – Cemented Glenoid

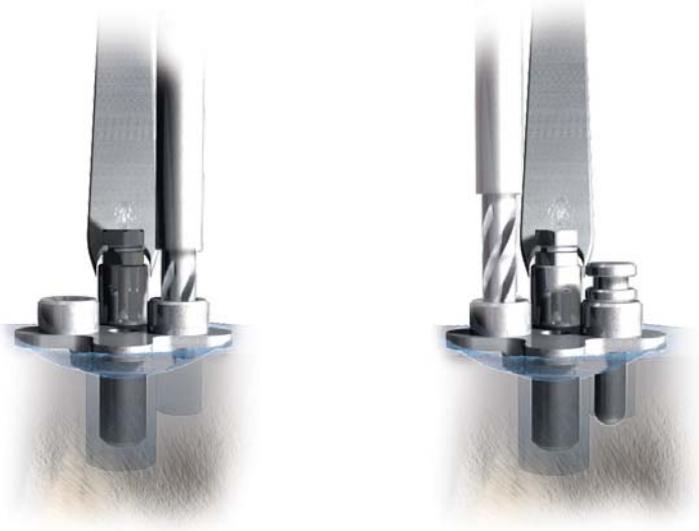


Figure 11



Figure 12

## Cemented glenoid preparation

The drill guide (A1700198) is mounted on the handle (A1700174) and then passed over the pin and placed into the central glenoid drill hole.

Using the 5mm drill bit (A1700244), drill through one of the two holes on the guide (Figure 11).

Drill the primary hole and fix the drill guide in place with the anti-rotational peg (A1700324).

Drill the second hole.

Remove all the instruments.

Resect the bone bridge between the 3 holes.

The keel punch (A1700258) is attached to the impaction handle (A1700282).

The keel punch is impacted into the glenoid using the centre hole as a positioning guide (Figure 12).



## Anatomic – Cemented Glenoid



Figure 13



Figure 14



### Trials

Place the trial glenoid (A1700450/52/54/56) onto the forceps (A1700077) (Figure 13).

The size of the glenoid is pre-determined by the validated humeral head size (see table page 40).

Impact the trial glenoid with the impactor (A1700294) mounted on the handle (A1700282) (Figure 14).

To perform the trial reduction, remove the humeral protector and attach the appropriate trial humeral head. Proceed to the chapter entitled “anatomic humeral implants” (page 11).

### Glenoid insertion

Remove the trial glenoid.

Clean off bone all surfaces to improve cement fixation.

Put cement only in the keel hole.

Impact the full PE glenoid with the impactor (A1700294) mounted on the handle (A1700282).

**Option9** before insertion of the implant, it is possible to pressurize the cement with the keel punch (A1700258).

With the impactor (A1700294) mounted on the handle (A1700282), keep the glenoid implant in compression until the cement is cured.



A1700450/52/54/56



A1700282



A1700077



A1700258



A1700294

# T.E.S.S. Shoulder System

## Anatomic – Cementless Glenoid



Figure 15

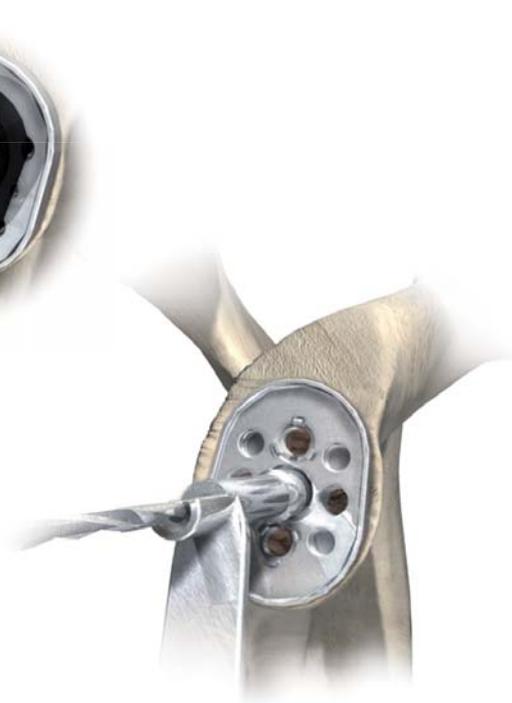


Figure 16a

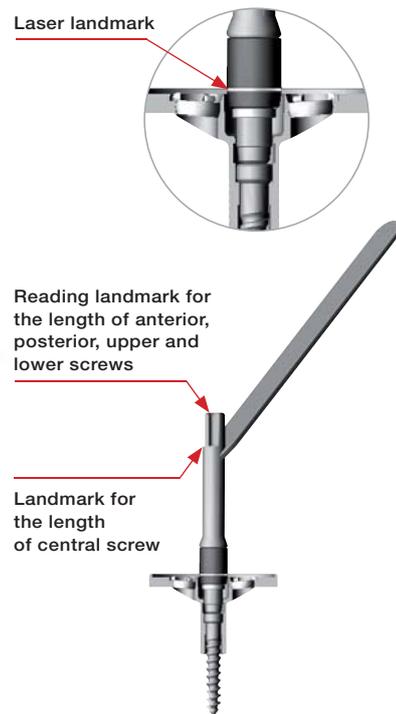


Figure 16b

### Baseplate insertion

Following the glenoid preparation, take the definitive glenoid baseplate of the appropriate size.

#### BE CAREFUL

**Never remove the keel plug except when using a central screw or an extension keel.**

**In these cases, remove the keel plug.**

Put the implant onto the forceps (A1700442).

#### BE CAREFUL

**Do not put the pins of the forceps in the screws holes of the baseplate.**

Orient « clockwise or counterclockwise » to position the definitive prosthesis (Figure 15).

Impact the definitive baseplate with the impactor (A1700296) mounted on the handle (A1700444).

Check the contact between the baseplate and the bone over the whole surface.



A1700442



A1700282



A1700444

### Screws insertion

#### Central screw (Option)

#### BE CAREFUL

**When using, the central screw must always be implanted first, before all other screws.**

Using the drill guide (A1700438), a hole is drilled, through the central hole of the baseplate, using the 2.5mm drill (T14935) (Figure 16a).

The calibrated drill bit will indicate the appropriate length using the dedicated landmark on the drill guide (Figure 16b).

Using the screwdriver (MTO1DTG630) the screw is inserted through the hole and tightened until the head is in contact with the baseplate.

To ensure that the central screw is sufficiently correctly seated, use the drill guide (A1700438) as follows:

- Position the drill guide (A1700438) in the hole the central screw of the baseplate.
- Check that the white marker, located on the drill guide, is at the same level as the upper surface of the baseplate (Figure 16b).

Otherwise, it is required to unscrew the central screw and take the steps above.

## Anatomic – Cementless Glenoid



Figure 17



Figure 18

### Superior and inferior screws

Using the drill guide (A1700438), a hole is drilled, through the inferior hole of the baseplate, in the direction of the pillar of the scapula using the 2.5mm drill (T14935) (Figure 17).

The calibrated drill bit will indicate the appropriate screw length using the dedicated landmark on the drill guide (Figure 16b).

Using the screwdriver (MTO1DTG630) the self tapping low profile screw is inserted through the hole and partially tightened until the head of the screw is in contact with the baseplate.

The second screw is inserted, using the same method, in the direction the base of the coracoid.

Tightening of the screws is completed, beginning with the inferior screw.

### Anterior and posterior screws

One or two anterior-posterior screws can be inserted.

For each screw, proceed as following:

- Unscrew the anterior-posterior spikes (Figure 18)
- Using the drill guide (A1700438), a hole is drilled using the 2.5mm drill (T14935)
- The calibrated drill bit will indicate the appropriate screw length using the dedicated landmark on the drill guide (Figure 16b)
- Using the screwdriver (MTO1DTG630) the screw is inserted through the hole and tightened until the head of the screw is in contact with the baseplate.

### BE CAREFUL

**For the anterior and posterior, only screws 15 and 20mm should be used.**



T14935



A1700438

# T.E.S.S. Shoulder System

Anatomic – Cementless Glenoid

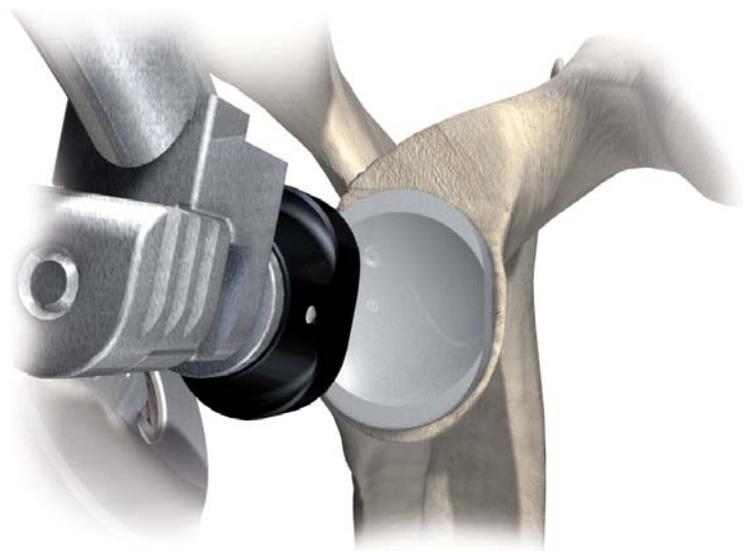


Figure 19

## Inlay impaction

Be sure that the baseplate is clean and dry.

Make sure that the screw heads are fully included in their housing in the glenoid baseplate. Failure to fully seat the screws will result in the PE liner not seating correctly.

Place the PE inlay facing the baseplate and in the correct orientation.

Position the keel of the PE inlay into the center of the glenoid baseplate. Press firmly with your thumb to assemble the two implants. If the PE inlay is not retained in the baseplate it is not correctly positioned. Remove and repeat previous steps.

Impact the PE inlay corresponding to the baseplate with the impactor (A1700294) mounted with the handle (A1700282) (Figure 19).



A1700282



A1700294

# T.E.S.S. Shoulder System

## Anatomic – Humeral



Figure 20



Figure 21

## Humeral trials

To remove the humeral protector, use the black handle (A1700078) on the extractor (A1700032).

Screw the extractor onto the protector and press the black handle against the protector to remove (Figure 20).

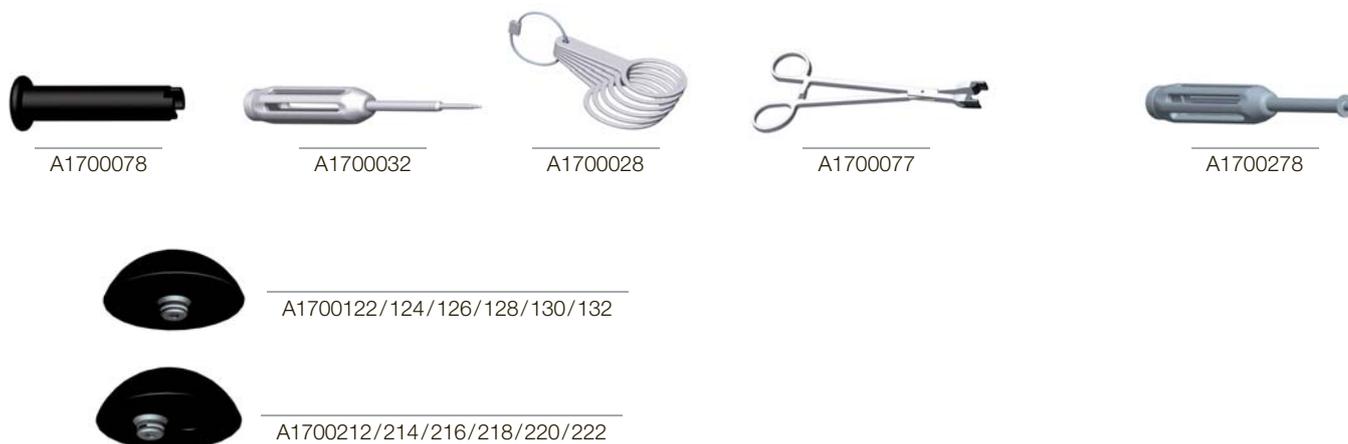
The size of the cut humeral head can be confirmed with the head caliper (A1700028).

With the trial head forceps (A1700077), take a centred trial head (A1700122/124/126/128/130/132) or an eccentric trial head (A1700212/214/216/218/220/222) and attach to the humeral punch.

Perform a trial reduction (Figure 20).

Remove the trial head with the trial head forceps (A1700077).

Remove the humeral punch with the impactor/extractor (A1700278) (Figure 21).



# T.E.S.S. Shoulder System

## Anatomic – Humeral



Figure 22



Figure 23

## Implants insertion

Screw the small stem onto the definitive corolla with the screwdriver (314-070). When a long stemmed prosthesis is required, see chapter entitled “Stem Insertion” (page 24).

To connect the anatomic corolla and the chosen head, 2 options can be used:

### Option n° 1

**(before preparation for reattachment of the subscapularis)**

Using the screwdriver 4.5mm (A1700440), the corolla is impacted into the humerus to 2/3 of its height (Figure 22).

Prepare the insertion of the subscapularis.

The head is then impacted onto the corolla with the impactor (A1700254 + A1700326). The impaction of the assembled corolla is completed.

### Option n° 2

**(after preparation for reattachment of the subscapularis)**

Place the corolla on the impactor tee (A1700224) and impact the head onto the corolla with the head impactor (A1700254 + A1700326). The assembled corolla is then impacted into the humerus.

The prosthesis is correctly implanted when the rim of the humeral head is flush with the cut surface of the humerus (Figure 23).





Reverse

# T.E.S.S. Shoulder System

## Reverse – Humerus

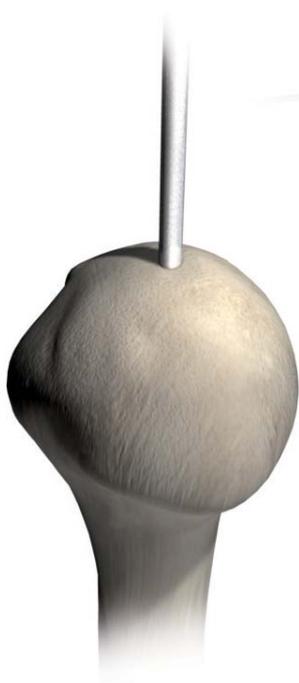


Figure 24

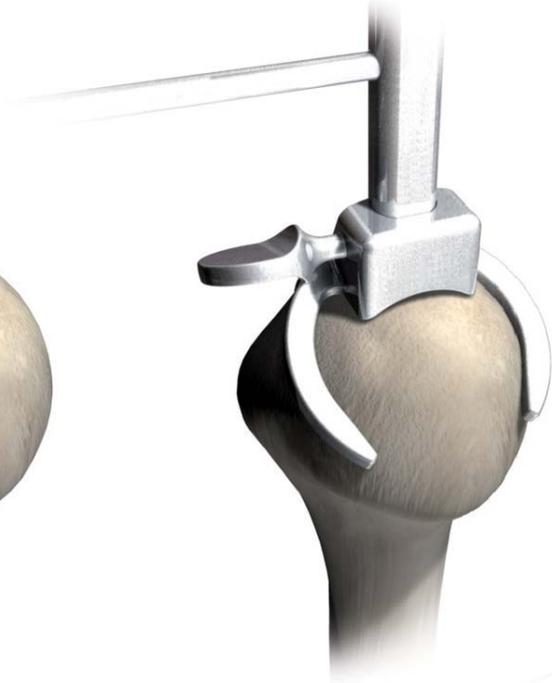


Figure 25



Figure 26

## Humeral cut

Slide down the cutting guide (A1700146) onto the upper part of the intra-medullary guide (A1700083). Then use the T-handle (402416) to complete the assembly.

Insert the stem of the guide in the shaft by punching the top of the humeral head (Figure 24).

Screw the retroversion control rod (A1700202) onto the intra-medullary guide to make the cut compared to the axis of the forearm (Figure 25).

Begin the cut with an oscillating saw below the cutting guide at the upper edge of the anatomical neck and progressing parallel to the guide (Figure 26).

Remove the centro-medullary guide.

Complete the cut.



A1700083



A1700146



402416



A1700202

## Reverse – Humerus

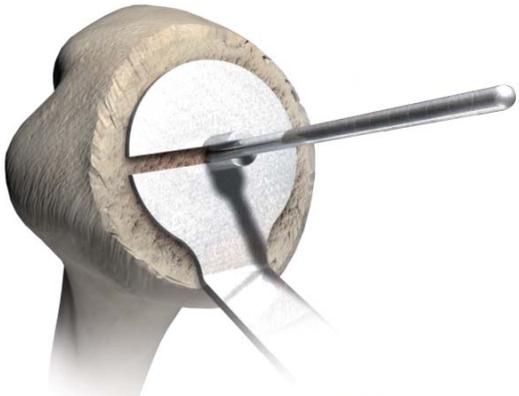


Figure 27

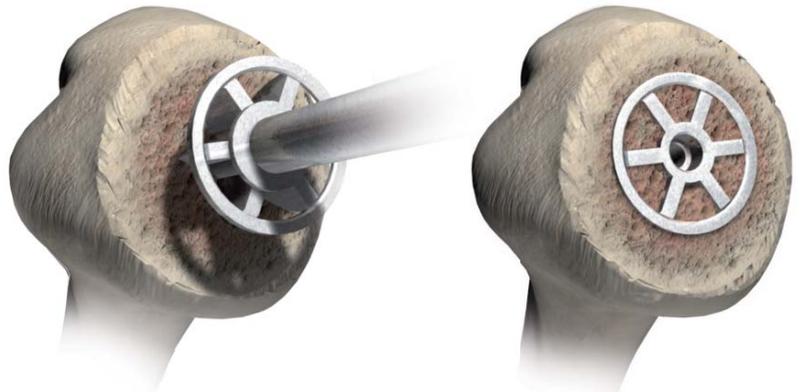


Figure 29



Figure 28



Figure 30

## Corolla size determination

Choose the size of the definitive corolla using a humeral template (A1700092/08/09/10).

The most appropriate size is the one which gives maximum coverage of the cancellous bone at 5mm from the rim of cortical bone (Figure 27).

### BE CAREFUL

**If the anatomy is intermediate between 2 sizes always choose the smaller.**

Insert the pin Ø 3.2mm L 100mm (A1700350) in the centre of the humeral template.

Remove the template leaving the pin in place.

Pass the drill bit Ø 12mm (A1700242) over the pin (Figure 28).

Screw the humeral punch corresponding to the defined size (A1700270/72/74/76) onto the impactor/extractor (A1700278).

### BE CAREFUL

**The punch is then impacted into the bone over the guide pin with a blade positioned at 12 'clock (TOP) (Figure 29).**

Unscrew the handle and remove.

Remove the pin.

The punch can remain in place as a trial and to protect the cut.

When implanting the glenoid prosthesis, it is important to use a protector of the appropriate size (A1700262/64/66/68) on the humeral punch (Figure 30).



A1700092/08/09/10



A1700350



A1700270/72/74/76



A1700278



A1700262/64/66/68

# T.E.S.S. Shoulder System

## Reverse – Glenoid

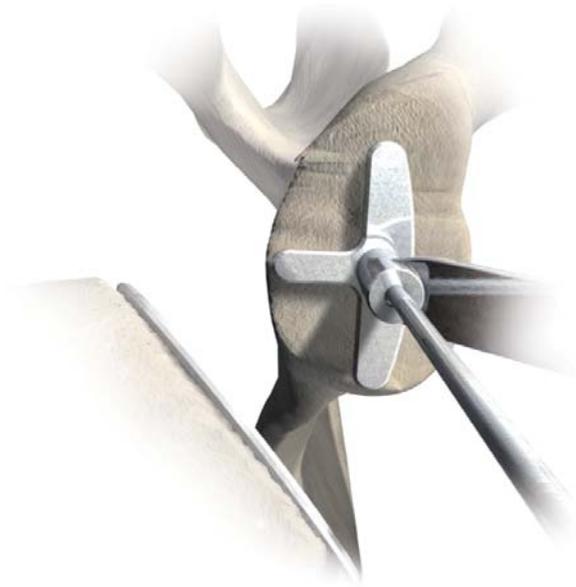


Figure 31



Figure 32

## Glenoid size determination

The glenoid is exposed with a complete periglenoid capsulotomy.

The osteophytes are removed.

The size of the glenoid is determined with the glenoid templates (A1700094/104/106/108) attached to the handle (A1700174). The ends of the 3 branches of the template must be positioned at the periphery of the glenoid anatomy.

The pin Ø 3.2mm L 160mm (A1700352) is inserted in the centre of the chosen template (Figure 31).

Remove the template leaving the pin in place.

Set the drill stop (A1700448) on the 7.7 cannulated drill bit (A1700430) at the chosen level (Figure 32):

- ① STD: if implantation of a cemented glenoid or a cementless glenoid in primary or with a central screw
- ② +5: if implantation of a metal-back glenoid with a 5mm extension keel
- ③ +10: if implantation of a metal-back glenoid with a 10mm extension keel.

### BE CAREFUL

**Do not remove the spring and connector after cleaning.**



A1700094/104/106/108



A1700174



A1700352



A1700448



A1700430

## Reverse – Glenoid

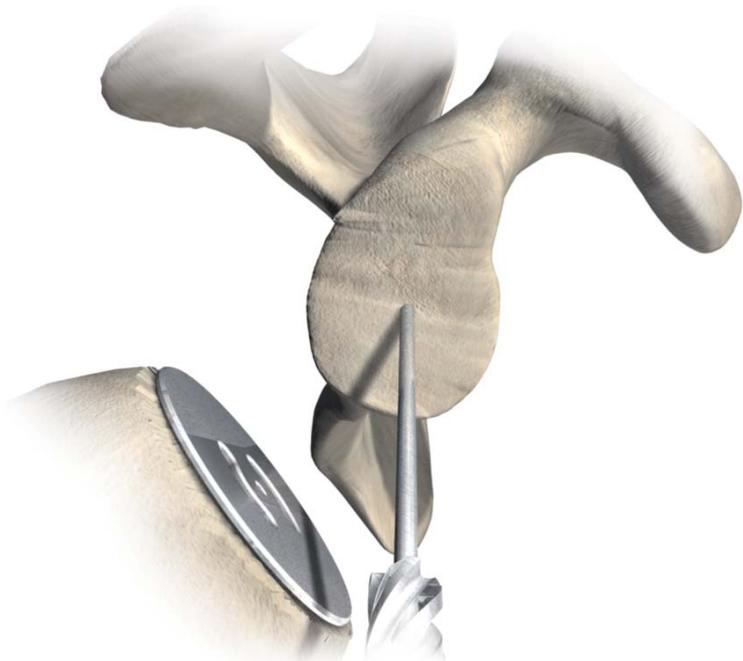


Figure 33



Figure 34

Pass the cannulated drill bit over the pin and drill until the stop (Figure 33).

Remove the drill bit leaving the pin in place.

## Glenoid reaming

Choose the glenoid rasp corresponding to the glenoid size:

- For the baseplates **sizes 0 and 1**, use rasp **size 0/1** (A1700432)
- For the baseplates **sizes 2 and 3**, use rasp **size 2/3** (A1700434)

The rasp is passed over the pin (Figure 34).

The glenoid is reamed gently to develop the central convex shape and the flat periphery minimizing bone resection and keeping subchondral bone.

Remove the rasp.

For a metal-back prosthesis, the pin needs to be removed for the further steps.



A1700432/434

# T.E.S.S. Shoulder System

## Reverse – Glenoid



Figure 35

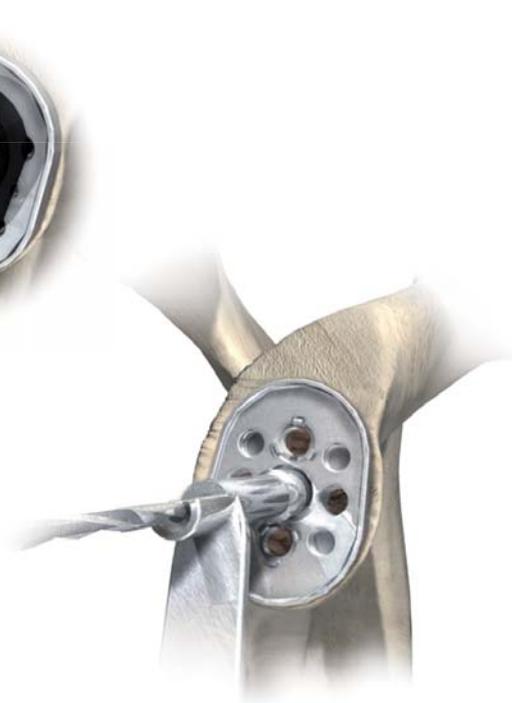


Figure 36a

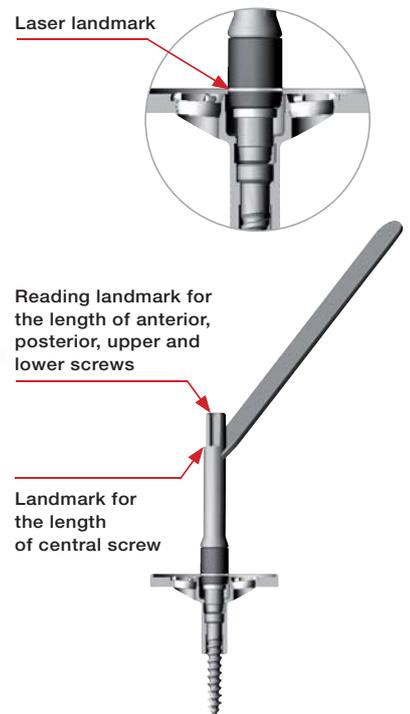


Figure 36b

## Baseplate insertion

Following the glenoid preparation, take the definitive glenoid baseplate of the appropriate size.

### BE CAREFUL

**Never remove the keel plug except when using a central screw or an extension keel.**

**In these cases, remove the keel plug.**

Put the implant onto the forceps (A1700442).

### BE CAREFUL

**Do not put the pins of the forceps in the screws holes of the baseplate.**

Orient « clockwise or counterclockwise » to position the definitive prosthesis (Figure 35).

Impact the definitive baseplate with the impactor (A1700444) mounted on the handle (A1700282).

Check the contact between the baseplate and the bone over the whole surface.



A1700442



A1700282



A1700444

## Screws insertion

### Central screw (Option)

#### BE CAREFUL

**When using, the central screw must always be implanted first, before all other screws.**

Using the drill guide (A1700438), a hole is drilled, through the central hole of the baseplate, using the 2.5mm drill (T14935) (Figure 36a).

The calibrated drill bit will indicate the appropriate length using the dedicated landmark on the drill guide (Figure 36b).

Using the screwdriver (MTO1DTG630) the screw is inserted through the hole and tightened until the head is in contact with the baseplate.

To ensure that the central screw is sufficiently correctly seated, use the drill guide (A1700438) as follows:

- Position the drill guide (A1700438) in the hole the central screw of the baseplate.
- Check that the white marker, located on the drill guide, is at the same level as the upper surface of the baseplate (Figure 36b).

Otherwise, it is required to unscrew the central screw and take the steps above.

## Reverse – Glenoid



Figure 37



Figure 38

### Superior and inferior screws

Using the drill guide (A1700438), a hole is drilled, through the inferior hole of the baseplate, in the direction of the pillar of the scapula using the 2.5mm drill (T14935) (Figure 37).

The calibrated drill bit will indicate the appropriate screw length using the dedicated landmark on the drill guide (Figure 36b).

Using the screwdriver (MTO1DTG630) the self tapping low profile screw is inserted through the hole and partially tightened until the head of the screw is in contact with the baseplate.

The second screw is inserted, using the same method, in the direction the base of the coracoid.

Tightening of the screws is completed, beginning with the inferior screw.

### Anterior and posterior screws

One or two anterior-posterior screws can be inserted.

For each screw, proceed as following:

- Unscrew the anterior-posterior spikes (Figure 38)
- Using the drill guide (A1700438), a hole is drilled using the 2.5mm drill (T14935)
- The calibrated drill bit will indicate the appropriate screw length using the dedicated landmark on the drill guide (Figure 16b)
- Using the screwdriver (MTO1DTG630) the screw is inserted through the hole and tightened until the head of the screw is in contact with the baseplate.

### BE CAREFUL

**For the anterior and posterior, only screws 15 and 20mm should be used.**



T14935



A1700438

# T.E.S.S. Shoulder System

## Reverse – Glenoid

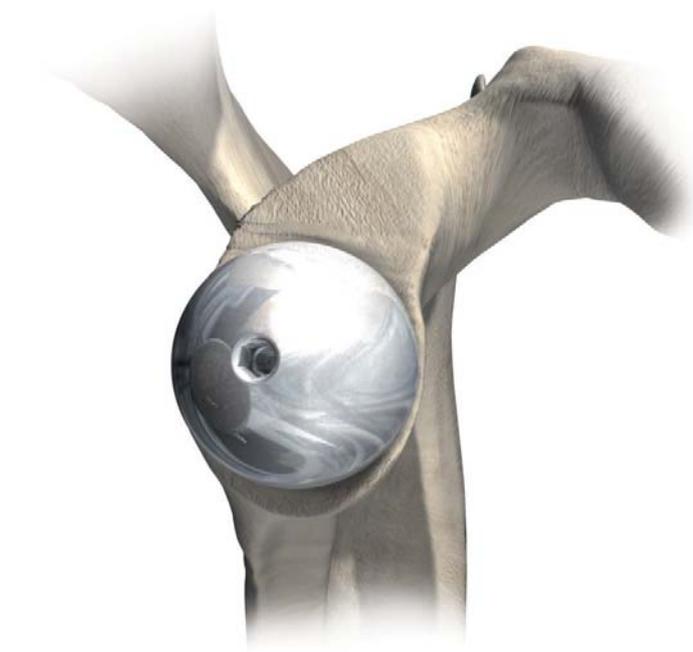


Figure 39

## Reverse head insertion

### BE CAREFUL

- Before the head impaction, remove the osteophytes around the glenoid.
- The taper of the glenoid baseplate and reversed head must not be altered by various manipulations. Ensure that the female cone of the glenoid baseplate is dry before impaction.

Implant the glenosphere prosthesis using the screwdriver (A1700440) (Figure 39).

### BE CAREFUL

**Surely maintain the reversed head with your hand to avoid any risk of collapse of the implant.**

Check that the retractors (anterior, posterior and inferior) emerge completely the base glenoid baseplate in place.

Position the head face to the glenoid baseplate. Push the male cone and hold it strongly to pre-assembled the two implants.

If the assembly is not obtained, repeat previous steps.

Impact the reversed head with the impactor (A1700326) mounted with the handle (A1700254).

### BE CAREFUL

**Check with the screwdriver (A1700440) that the head is fixed in place and it can not turn on its axis.**



A1700440



A1700254



A1700326

# T.E.S.S. Shoulder System

## Reverse – Humerus



Figure 40



Figure 41

### Humerus reaming

To remove the humeral protector, use the black handle (A1700078) on the extractor (A1700032).

Screw the instrument on the protector and press, with the black handle, against the humeral punch to take off the protector.

Impact the pin  $\varnothing$  3.2mm L 100mm (A1700350) through the centre of the humeral punch.

Remove the punch with the impactor/extractor (A1700278).

Pass, over the pin, the humeral reamer (A1700234 / 236 / 238 / 240) corresponding to the chosen size of the corolla (Figure 40).

### Reverse corolla implantation

Screw the small stem on the definitive corolla with the screwdriver (314-070).

When a long stemmed prosthesis is required, see chapter entitled "Stem Insertion" (page 24).

The definitive reverse corolla is connected with the corresponding impactor (A1700316 / 318 / 320 / 322) and mounted on the appropriate handle (A1700282 – prosthesis without stem or A17000280 – prosthesis with stem) (Figure 41).

The 'TOP' mark on the definitive corolla must be lined up with the mark on the impactor.

Then, the marks are lined up with the top of the humerus.



A1700078



A1700032



A1700350



A1700316/318/320/322



A1700278



A1700234 / 236 / 238 / 240



A1700282



A17000280

# T.E.S.S. Shoulder System

## Reverse – Humerus



Figure 42

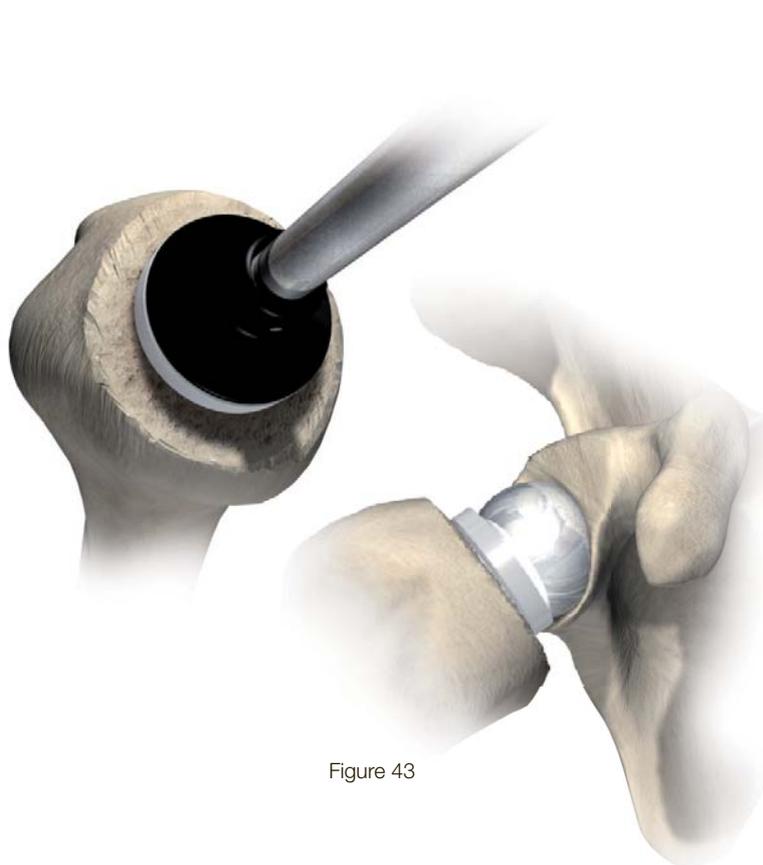


Figure 43

### Humeral inlay trials

Perform the trial reduction with the trial humeral inlays thicknesses 6, 8, 10 and 12mm (A1700162/64/.../82/84 et A1700330/32/.../46/48) (Figure 42).

**It is imperative to reduce the joint in order to make sure that there are no inter-prosthesis and/or prosthesis bone conflicts which could limit the performance of the implants.**

**These trials also validate the height of the insert which gives the optimum strength of the soft tissues (dislocation testing and deltoid tension testing).**

### Inlay insertion

Put the definitive inlay in the reverse corolla superimposing the laser marking of the insert with the marking TOP of the corolla.

The humeral inlay is impacted using the impactor (A1700210) with the appropriate handle (A1700254) (Figure 43).

Reduce the joint.



A1700162/64/.../82/84

A1700330/32/.../46/48



A1700254



A1700210



Anatomic - Reverse

Stem Implantation

# T.E.S.S. Shoulder System

## Anatomic – Reverse – Stem



Figure 44



Figure 45

### Humeral reaming

Ensure that the appropriate proximal Humerus preparation has been completed for either Anatomic or Reverse Corolla, prior to implantation of the Stemmed Prosthesis.

Connect the reamer Ø 6mm (A1700022) with the T handle (402416).

Introduce the reamer in the humeral medullary canal. The point of entry is situated medial and inferior to the origin of the bicipital groove (Figure 44).

The humeral medullary canal is prepared using the tapered sequential reamers Ø 8, 10, 12, and 14mm (A1700023 / 024 / 025 / 180), increasing the size until resistance is felt throughout the length of the reamer.

The length of the stem is measured on the reamer.

The diameter of the stem is the same as the last reamer used.

### Stem fixation

Screw the stem on the definitive corolla, anatomic or reverse, with the screwdriver 2.5mm (314-070) until tight locking of the screw.

Implant the prosthesis with the appropriate impactor:

- Anatomic: screwdriver 4.5mm (A1700029)
- Reverse: impactor (A1700316/318/320/322) with the handle (A17000280).



402416



A1700023/024/025/180



A1700316/318/320/322



A1700029



A17000280

## Anatomic – Reverse – Stem

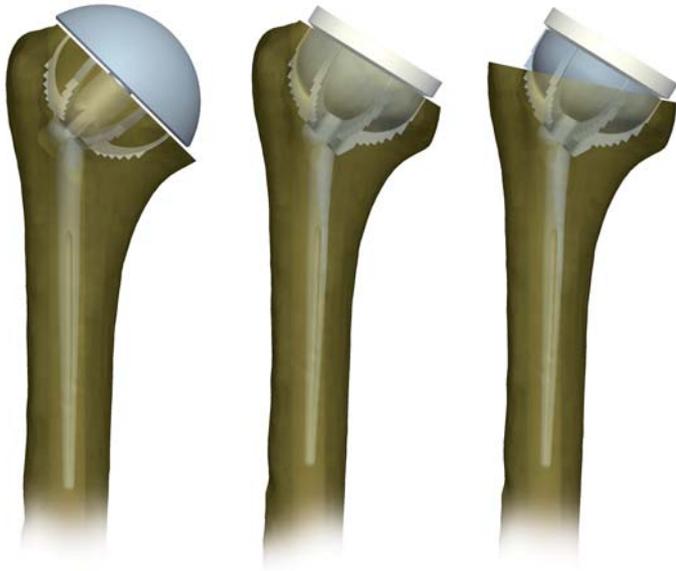


Figure 46

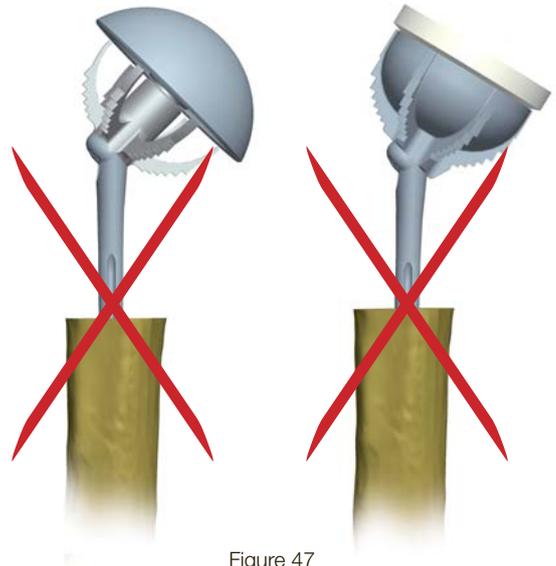


Figure 47

## Indications for stem implantation

Please note that the T.E.S.S. shoulder prosthesis should only be implanted where there is sufficient proximal humerus around the corolla-stem junction and to encase at least 2/3 of the corolla anatomic or reverse (Figure 46).

The corolla must be supported by bone to avoid the risk of fatigue failure to the stem and potential disassociation between the components. In these cases, a periprosthetic bone graft reconstruction is necessary (Figure 47).

# T.E.S.S. Shoulder System

## Reverse – Implants Extraction



Figure 48



Figure 49



Figure 50

### Reverse head extraction

Screw the head extractor (A1700446) to bear on the bottom of the base (or the central plug, the extension keel or central screw as appropriate). Continue to tighten until extraction of the head (Figure 48).



A1700446

Screw the slap hammer assembly (A3500001) (Figure 50).  
Extract the base with the slap hammer.

#### BE CAREFUL

**By removing the baseplate, be careful not to make turn on itself as it could damage the glenoid, preventing implantation of a new base.**

### Baseplate extraction

Once the head removed, unscrew all screws and spikes.  
Screw the retroversion rod (A1700202) in the top hole of the baseplate extractor (A1700436).  
This rod allows positioning the extractor (Figure 49).  
Place the baseplate extractor (A1700436) and screw in the anterior and posterior screw holes.



A3500001



A1700436



A1700202

### Reverse head revision

#### BE CAREFUL

**If replacing the head reversed, ensuring that the female Morse taper is undamaged by the extraction process. Otherwise, it will be necessary to change also the glenoid baseplate.**



## References

# T.E.S.S. Shoulder System

## Implants References

Implant	Reference	Description	Size
	P1700056	T.E.S.S. HUMERUS - Anatomic Corolla	S0
	P1700058		S1
	P1700060		S2
	P1700062		S3
	P1700130	T.E.S.S. HUMERUS - Centred Head	Ø 41
	P1700132		Ø 43
	P1700134		Ø 45
	P1700136		Ø 48
	P1700138		Ø 50
	P1700140		Ø 52
	P1700142	T.E.S.S. HUMERUS - Eccentric Head	Ø 41
	P1700144		Ø 43
	P1700146		Ø 45
	P1700148		Ø 48
	P1700150		Ø 50
	P1700152		Ø 52
	P1700420	T.E.S.S. GLENOID - Cemented PE	S0
	P1700422		S1
	P1700424		S2
	P1700426		S3
	P1700340	T.E.S.S. GLENOID - Anatomic Inlay PE	S0
	P1700341		S1
	P1700342		S2
	P1700343		S3
	P1700064	T.E.S.S. HUMERUS - Reverse Corolla	S0
	P1700066		S1
	P1700068		S2
	P1700070		S3
	P1700336	T.E.S.S. GLENOID - Reverse Head	Ø 36mm
	P1700337		Ø 41mm

## Implants References

Implant	Reference	Description	Size
	P1700184	T.E.S.S. HUMERUS - Inlay Ø 36 mm	th. 6 mm
	P1700192		th. 8 mm
	P1700270		th. 10 mm
	P1700272		th. 12 mm
	P1700186		th. 6 mm
	P1700194		th. 8 mm
	P1700274		th. 10 mm
	P1700276		th. 12 mm
	P1700174		th. 6 mm
	P1700176		th. 8 mm
	P1700278	th. 10 mm	
	P1700280	th. 12 mm	
	T.E.S.S. HUMERUS - Inlay Ø 41 mm	P1700188	th. 6 mm
		P1700196	th. 8 mm
		P1700282	th. 10 mm
		P1700284	th. 12 mm
		P1700190	th. 6 mm
		P1700198	th. 8 mm
		P1700286	th. 10 mm
		P1700288	th. 12 mm
	P1700330	T.E.S.S. GLENOID - Cementless Baseplate	S0
	P1700331		S1
	P1700332		S2
	P1700333		S3
	P1700351	T.E.S.S. GLENOID - Screw	4.5 x 15
	P1700353		4.5 x 20
	P1700055		4.5 x 25
	P1700004		4.5 x 30
	P1700005		4.5 x 35
	P1700006		4.5 x 40
	P1700007		4.5 x 45
	P1700345	T.E.S.S. GLENOID - Central Screw	10mm
	P1700346		15mm
	P1700347		20mm
	P1700338	T.E.S.S. GLENOID - Extension keel	5mm
	P1700339		10mm

# T.E.S.S. Shoulder System

## Implants References

Implant	Reference	Description	Size
	P1700128	T.E.S.S. HUMERUS - Small Stem	-
	P1700074	T.E.S.S. HUMERUS - Stem	Ø 6mm
	P1700076		L 100
	P1700078	T.E.S.S. HUMERUS - Stem	Ø 8mm
	P1700080		L 125
	P1700300		L 140
	P1700302		L 180
	P1700082	T.E.S.S. HUMERUS - Stem	Ø 10mm
	P1700084		L 100
	P1700304		L 125
	P1700306		L 140
	P1700308	T.E.S.S. HUMERUS - Stem	Ø 12mm
	P1700086		L 180
	P1700088		L 220
	P1700310		L 100
	P1700312	T.E.S.S. HUMERUS - Stem	Ø 14mm
	P1700314		L 125
	P1700090		L 140
	P1700092		L 180
	P1700316	T.E.S.S. HUMERUS - Stem	Ø 16mm
	P1700318		L 220
	P1700320		L 100
	P1700322	T.E.S.S. HUMERUS - Stem	Ø 16mm

## Instruments References

### Hemi

Instrument	Reference	Description	Size
	A1700068	T.E.S.S. HUMERUS - Humeral Head Guide	Ø 41
	A1700069		Ø 43
	A1700070		Ø 45
	A1700071		Ø 48
	A1700072		Ø 50
	A1700073		Ø 52
	A1700350	T.E.S.S. HUMERUS - Pin Ø 3.2mm	L 100mm
	A1700092	T.E.S.S. HUMERUS - Template	S0
	A1700008		S1
	A1700009		S2
	A1700010		S3
	A1700242	T.E.S.S. HUMERUS - Drill Ø 12mm	
	A1700278	T.E.S.S. HUMERUS - Impactor / Extractor	
	A1700270	T.E.S.S. HUMERUS - Punch	S0
	A1700272		S1
	A1700274		S2
	A1700276		S3
	A1700262	T.E.S.S. HUMERUS - Protector	S0
	A1700264		S1
	A1700266		S2
	A1700268		S3
	A1700078	T.E.S.S. HUMERUS - Extraction handle	
	A1700032	T.E.S.S. HUMERUS - Extractor	
	A1700028	T.E.S.S. HUMERUS - Head Caliper	
	A1700077	T.E.S.S. HUMERUS - Trial Head Forceps	

# T.E.S.S. Shoulder System

## Instruments References

### Hemi

Instrument	Reference	Description	Size
	A1700122	T.E.S.S. HUMERUS - Centred Trial Head	Ø 41
	A1700124		Ø 43
	A1700126		Ø 45
	A1700128		Ø 48
	A1700130		Ø 50
	A1700132		Ø 52
	A1700212	T.E.S.S. HUMERUS - Excentred Trial Head	Ø 41
	A1700214		Ø 43
	A1700216		Ø 45
	A1700218		Ø 48
	A1700220		Ø 50
	A1700222		Ø 52
	A1700440	T.E.S.S. HUMERUS - Screwdriver	4.5mm
	A1700254	T.E.S.S. HUMERUS - Impactor Handle	
	A1700326	T.E.S.S. HUMERUS - Head Impactor	
	A1700224	T.E.S.S. HUMERUS - Head Impactor Tee	
	314-070	Screwdriver	2.5mm
	A1700075	T.E.S.S. - Screwdriver Tip	2.5mm
	A1700044		3mm
	A1700046		4.5mm
	250-016C	Quick Connector AO	
	250-002C	Quick Connector HUDSON	
	250-001C	Quick Connector STANDARD	
	A1700084	T.E.S.S. HUMERUS - Head Handle	

## Cases References

### Hemi



Bottom Insert



Top Insert

	A1700380	T.E.S.S. - Base
	A1700382	T.E.S.S. - Lid
	A1700384	T.E.S.S. HUMERUS - Hemi Bottom Insert
	A1700386	T.E.S.S. HUMERUS - Hemi Top Insert

# T.E.S.S. Shoulder System

## Instruments References

### Glenoid

Instrument	Reference	Description	Size
	A1700174	T.E.S.S. GLENOID - Template Handle	
	A1700094	T.E.S.S. GLENOID - Template	S0
	A1700104		S1
	A1700106		S2
	A1700108		S3
	A1700352	T.E.S.S. GLENOID - Pin Ø 3.2mm	L 160mm
	A1700430	T.E.S.S. GLENOID - Canulated Drill Ø 7.7mm	
	A1700448	T.E.S.S. GLENOID - Drill Stop	
	A1700432	T.E.S.S. GLENOID - Rasp	S 0/1
	A1700434		S 2/3
	A1700198	T.E.S.S. GLENOID - Full PE Drilling Guide	
	A1700244	T.E.S.S. GLENOID - Drill Ø 5mm for Full PE Keel	
	A1700324	T.E.S.S. GLENOID - Anti-Rotational Peg	
	A1700282	T.E.S.S. GLENOID - Offset Impactor	
	A1700258	T.E.S.S. GLENOID - Full PE Puncher	
	A1700450	T.E.S.S. GLENOID - Trial Glenoid	S0
	A1700452		S1
	A1700454		S2
	A1700456		S3

## Instruments References

### Glenoid

Instrument	Reference	Description	Size
	A1700442	T.E.S.S. GLENOID - Baseplate Handle	
	A1700294	T.E.S.S. GLENOID - PE Inlay Impactor	
	A1700444	T.E.S.S. GLENOID - Baseplate Impactor	
	A1700438	T.E.S.S. GLENOID - Drilling Guide	
	T14935	T.E.S.S. GLENOID - Graduated Drill Ø 2.5	L 180mm
	MTO1DTG630	Screwdriver	3mm
	644165	FUKUDA Humeral Head Retractor	
	644160/32	KOLBEL Retractor	
	A1700446	T.E.S.S. GLENOID - Reverse Head Extractor	

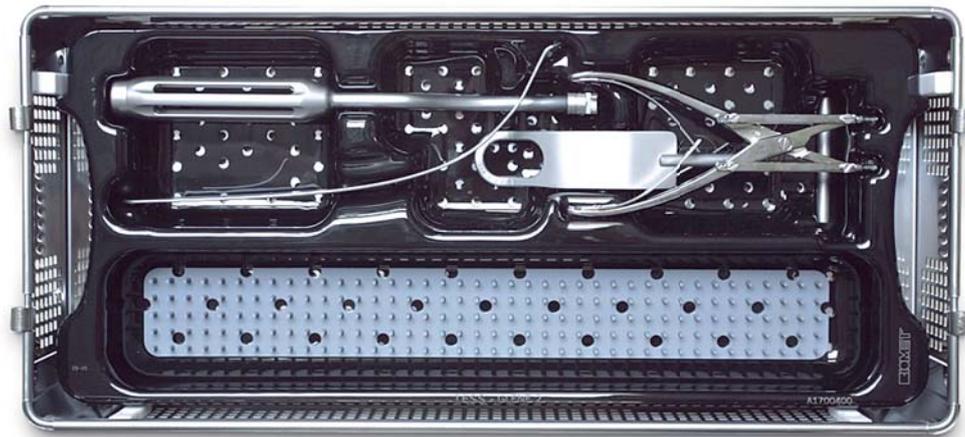
### Optional instruments for revision cases

Instrument	Reference	Description	Size
	A1700436	T.E.S.S. GLENOID - Baseplate extractor	
	A3500001	Salp Hammer	

# T.E.S.S. Shoulder System

## Cases References

### Glenoid



Bottom Insert

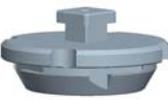


Top Insert

	A1700380	T.E.S.S. - Base
	A1700382	T.E.S.S. - Lid
	A1700400	T.E.S.S. GLENOID - Bottom Insert
	A1700402	T.E.S.S. GLENOID - Top Insert

## Instruments References

### Humerus

Intrument	Reference	Description		Size
	A1700083	T.E.S.S. HUMERUS - Cutting Guide Rod		
	A1700146	T.E.S.S. HUMERUS - Cutting Guide		
	A1700204	(Locking Screw)		
	402416	T.E.S.S. HUMERUS - T Handle		
	A1700202	T.E.S.S. HUMERUS - Retroversion Rod		
	A1700234	T.E.S.S. HUMERUS - Rasp		S0
	A1700236			S1
	A1700238			S2
	A1700240			S3
	A1700316	T.E.S.S. HUMERUS Reverse Corolla Impactor Tip		S0
	A1700318			S1
	A1700320			S2
	A1700322			S3
	A1700280	T.E.S.S. HUMERUS Reverse Impactor Handle		
	A1700210	T.E.S.S. HUMERUS Reverse Inlay Impactor		
	A1700022	T.E.S.S. HUMERUS - Reamer		Ø 6mm
	A1700023			Ø 8mm
	A1700024			Ø 10mm
	A1700025			Ø 12mm
	A1700180			Ø 14mm

# T.E.S.S. Shoulder System

## Instruments References

### Humerus

Instrument	Reference	Description	Size	
	A1700162	T.E.S.S. HUMERUS - Trial Inlay Ø 36	th. 6mm	S0
	A1700164		th. 8mm	S0
	A1700330		th. 10mm	S0
	A1700340		th. 12mm	S0
	A1700166		th. 6mm	S1
	A1700172		th. 8mm	S1
	A1700332		th. 10mm	S1
	A1700342		th. 12mm	S1
	A1700182		th. 6mm	S2
	A1700184		th. 8mm	S2
	A1700336		th. 10mm	S2
	A1700346		th. 12mm	S2
	A1700168	T.E.S.S. HUMERUS - Trial Inlay Ø 41	th. 6mm	S2
	A1700176		th. 8mm	S2
	A1700334		th. 10mm	S2
	A1700344		th. 12mm	S2
	A1700170		th. 6mm	S3
	A1700178		th. 8mm	S3
	A1700338		th. 10mm	S3
	A1700348		th. 12mm	S3

## Cases References

### Humerus



Bottom Insert



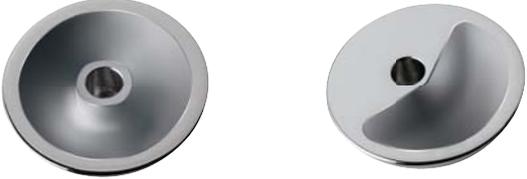
Top Insert

	<b>A1700380</b>	T.E.S.S. - Base
	<b>A1700382</b>	T.E.S.S. - Lid
	<b>A1700392</b>	T.E.S.S. HUMERUS - Humerus Bottom Insert
	<b>A1700394</b>	T.E.S.S. HUMERUS - Humerus Top Insert

# T.E.S.S. Shoulder System

## Sizes Correspondence

### Anatomic

							
Anatomical glenoid implants		Humeral head diameter					
Ø		Ø 41	Ø 43	Ø 45	Ø 48	Ø 50	Ø 52
S0: 48		•	•				
S1: 48		•	•				
S2: 53				•	•		
S3: 57						•	•

### Reverse

						
Baseplate	Head	Humeral inlay (th. 6, 8 , 10 and 12mm)				
Size	Ø	S0: Ø 36	S1: Ø 36	S2: Ø 36	S2: Ø 41	S3: Ø 41
0	36	•	•	•		
1	36	•	•	•		
2	41				•	•
3	41				•	•



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