





SURGICAL TECHNIQUE

**4-in-1 Conventional Instrumentation** with common knee instrumentation





# Table of contents

Introdu	ction	4
Overvie	w of the implant	5
Overvie	w of the surgical technique	12
Pre-ope	rative planning	15
Step 1	Distal femoral resection	16
Step 2	Intramedullary tibial system	19
	Combined Intramedullary tibial system	21
Step 3	Tibial resection	23
Step 4	Extension and flexion gaps	24
Step 5	Femoral Sizing	25
Step 6	4-in-1 Femoral Resection	27
Step 7	Femoral preparation	28
Step 8	Tibial preparation	29
Step 9	Patella preparation: patellar resection option	30
	Patella preparation : Patella reaming option	31
Step 10	Definitive implants	32
Step 11	- Explantation	34
Option -	- Combined Extramedullary tibial system	35
Option -	- Extramedullary tibial system	37
Option -	- Ligament balancer	39
Append	ix 1 - Ligament balancer assembly	41
Instrum	entation	43

# Introduction

This surgical technique describes the use of the 4-in-1 conventional instrumentation with common knee instrumentation for SCORE II TKA (Total Knee Arthroplasty).





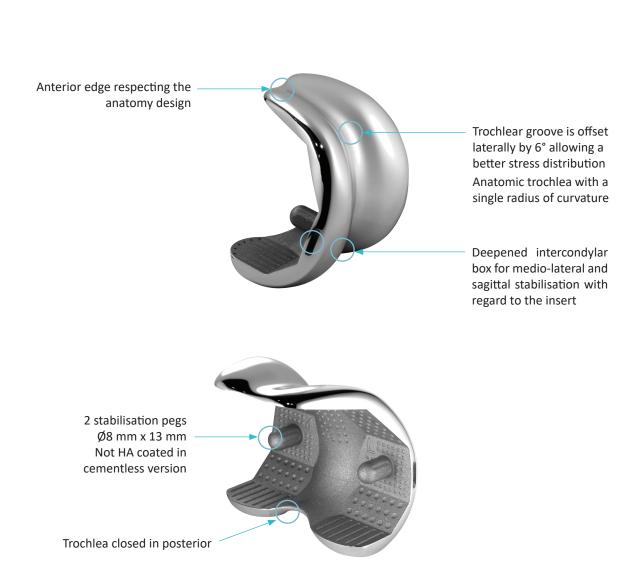
# **Implant SCORE II**

- ▶ The SCORE II TKS (Total Knee System) is a PCL (Posterior Cruciate Ligament)-sacrificing, mobile bearing implant in rotation for primary knee arthroplasty.
- ▶ The stability is provided by sagittal and frontal congruency through the extension to the flexion.
- ▶ The SCORE II TKS is available in cemented or cementless versions.



# Femoral component









# Patella component

Polyethylene patellar implant available in three versions:







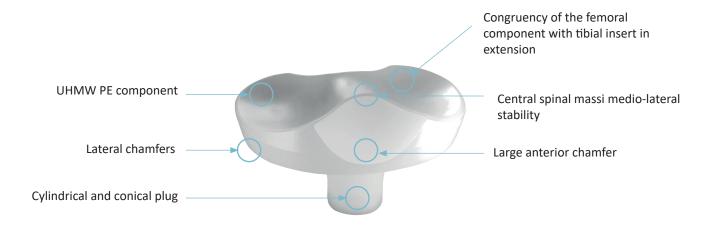
Is also available:

Inset patellar implant cemented



# **Tibial Components**

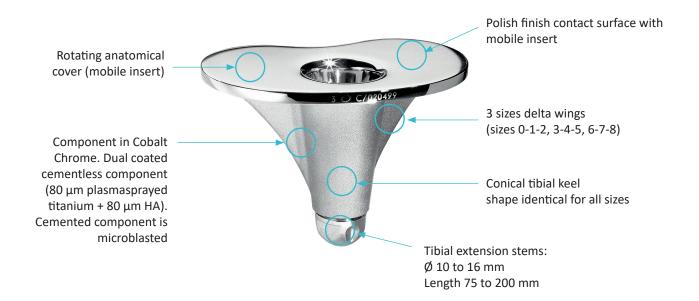
### Tibial insert is mobile in rotation:



# **Tibial component**

### **Tibial baseplate**

#### **Anatomical posterior shape**



Possibility of using (e.g. in cases of unicompartmental revision, or TKA, or after osteotomy):

#### - Tibial extension stems:

- Ø10 to 16 mm
- Lenght 75 to 200 mm



#### - Tibial augments:

- Thickness 5 mm
- Thickness 10 mm
- Thickness 15 mm



#### - Offset adapters:

- 2 mm
- 4 mm
- 6 mm







# Range

#### **Femoral components:**

- Cemented: 9 sizes (0 and 8 are optional)
- Cementless: 9 sizes (0 and 8 are optional)





ΔAP: increment between sizes: 2.66 mm

	0	1	2	3	4	5	6	7	8
AP	44,6	47,1	49,7	52,3	54,9	57,5	60,1	62,6	65,3
ML	56	58,1	60,5	63,1	66	69,1	72,4	76	80

#### **Patellar components:**

Resurfacing patellar implant - cemented: Ø 30, 33 and 36 mm

• Inset patellar implant - cemented: Ø 23, 26 and 29 mm

#### **Tibial components:**

Cemented: 9 sizes (0 and 8 are optional)Cementless: 9 sizes (0 and 8 are optional)

ΔAP: 2,3 mm

**ΔML: 3,5 mm** 



	0	1	2	3	4	5	6	7	8
AP	39,2	41,4	43,6	45,9	48,2	50,5	52,8	55	57,2
ML	60	63,5	67	70,5	74	77,5	81	84,5	88

Inserts: 9 sizes (0 and 8 are optional) 6 heights (10, 11, 12, 14, 16 and 20 mm)



	0	1	2	3	4	5	6	7	8
AP	35,6	37,7	39,8	41,9	44	46,1	48,2	50,3	52,4
ML	56	58,1	60,5	63,1	66	69,1	72,4	76	80

# **Component compatibility**

Size			Insert / Femoral component									
		0	1	2	3	4	5	6	7	8		
	0	•	•	•								
	1	•	•	•	•							
	2	•	•	•	•	•						
	3		•	•	•	•	•					
Tibial Baseplat	4			•	•	•	•	•				
	5				•	•	•	•	•			
	6					•	•	•	•	•		
	7						•	•	•	•		
	8							•	•	•		

<sup>\*</sup>The femoral component must be associated with the same tibial insert size



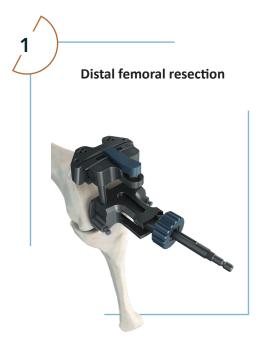


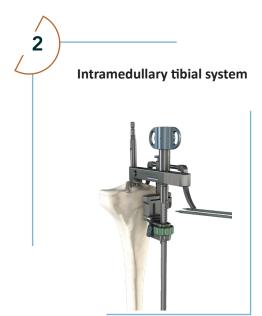
All sizes of Cemented resurfacing patellar implants and Cemented inset patellar implant are compatible with all sizes of score II femoral components.

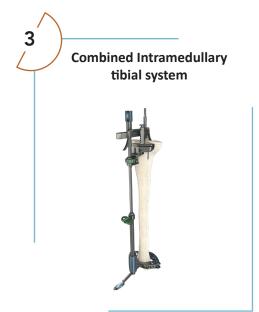


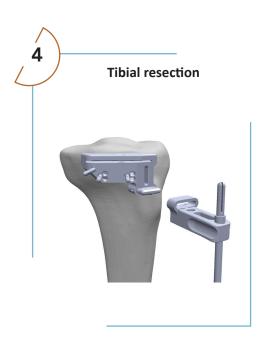


# Surgical Technique overview





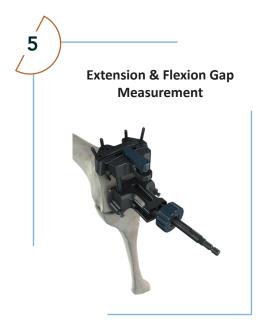


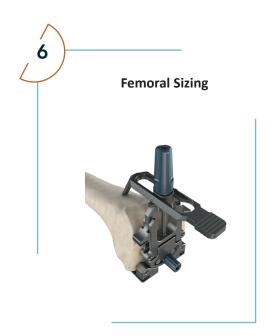


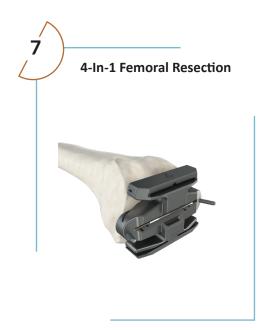


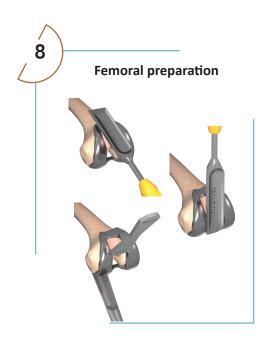


# Surgical Technique overview

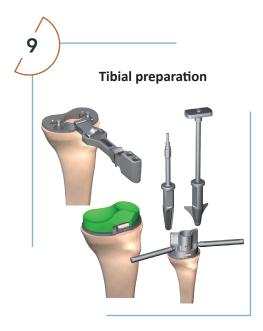


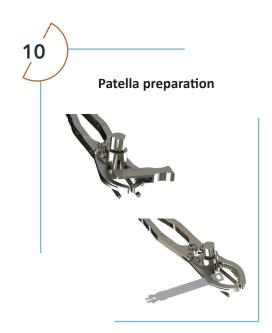


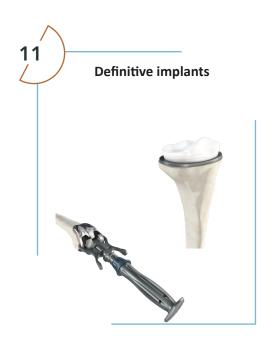




# **Surgical Technique Overview**











# Pre-operative planning

Using X rays and templates, you can determine concerning bone:

#### On the tibia:

- The choice between intramedullary and extramedullary aiming.
- The entry point of the intramedullary rod (coronal and sagittal view).
- The adaptation of the tibial stem to the metaphysis (in case of previous tibial osteotomy).
- The osteophytes.
- The severity of the compartment wear.
- The choice of an extension tibial stem, if required.
- The assessment of the baseplate size and the insert thickness.

#### On the femur:

- The entry point of the intramedullary rod (front and sideways).
- The anatomical femoral valgus angle.
- The posterior osteophytes.
- The size.

#### On the patella:

- The wear of the patellofemoral joint.
- The thickness, the width, the global shape, the tilt and the height of the patella.
- The thickness and the orientation of the patellar resection.
- The mediolateral position of the patellar implant.

#### **NOTE**

The provided templates have a 1:1 scale. Make sure the template scale matches the X-ray scale

#### **REMINDER**

This surgical technique describes how to use the instrumentation properly.

The surgeon is fully responsible for choosing the surgical approach and technique

# Distal femoral resection



### Intramedullary femoral alignment

- Bend the knee at 90°
- Remove any peripheral osteophytes.
- Clear out tissues to access the anterior cortex.
- Based on the pre-operative planning, determine the entry point for the intramedullary (IM) canal and open it with the Intramedullary drill bit.
- Assemble the Intramedullary rod length 400 mm on the T wrench, and insert it into the canal. The landmark located on the Rod must always be visible.

#### **NOTE**

If the Intramedullary rod length 400 mm cannot be inserted or if there is a pre-existing THA, use the Intramedullary rod length 250 mm.

### Position the Femoral Valgus Alignment Guide

- Adjust the Femoral Valgus Alignment Guide 3° according to the side and to the femoral valgus measured during the pre- operative planning.
- Unlock the system by turning the blue screw, adjust the desired value and tighten the screw to secure it.
- Place the Femoral Valgus Alignment Guide on the intramedullary rod.
- Make sure the barrel rests against a healthy portion of the distal condyle and confirm the femoral valgus reading.
- The Valgus Barrel can be secure on the distal part of the femur with 2 Headed Pins length 30 mm insert into the 2 holes located on the Alignment Guide.



#### **NOTE**

If needed a Femoral Valgus Alignment Guide 0° and a Femoral Valgus Alignment Guide 6° are also available as an option with 0° and 6° of Flexion.





# Distal femoral resection



### **Assembly of the Distal Cutting Guide**

 Assemble the Distal Cutting Block 10 mm – Clip System on the Distal Slider – Clip System until the locking system is insert into the slot of the Distal Cutting Block.

### **Positionning of the Distal Cutting Guide**

- Insert the assembly on the Femoral Valgus Alignment Guide.
- Attach the Distal Cutting Block on the bone with 2 Threaded non-headed Pins Length 80 mm (options: Length 65 mm or 100 mm) on the 0 holes (1).
- Remove the whole extramedullary system:
  - Assemble the T Wrench on the Intramedullary Rod.
  - Unlock the Distal Slider from the Distal Cutting block by pressing the button.
  - Remove the entire assembly.



#### **NOTE**

If needed a Distal Cutting Block 8 mm – clip system is also available as an option to perform a 8 mm distal resection.

# Distal femoral resection

### **Perform distal resection**



- Once the Distal Cutting Block is against the bone, check the amount of bone resected with the Resection Gauge inserted in the slot of the guide.
- If necessary, the guide can be shifted by 2 mm: remove the guide by sliding it on the 2 pins, choose the +2 or -2 holes to replace it rest against the bone.
- Secure the Guide with 1 or 2 Collared Threaded Pin Ø 3.2 Lg 57 inserted in the oblique holes.

- Perform the distal resection using a medium AMPLITUDE Sawblade.
- Remove the oblique pins.
- Remove the Distal Resection Guide, leaving the 2 pins in case of re-cutting.



#### **NOTE**

Only the Distal Cutting Block 8 mm - Clip System is compatible with the i.M.A.G.E. system





# 2 Intramedullary tibial system (IM)



# Locating the medullary canal

- Place the knee in hyperflexing position and dislocate the tibia forward.
- Based on the pre-operative planning, make a hole in the middle of the medullary canal using the Intramedullary drill bit.
- Assemble the Intramedullary rod length 400 mm on the T wrench and insert it into the canal, the landmark must always be visible.

#### **NOTE**

If the Intramedullary rod length 400 mm cannot be inserted use the Intramedullary rod length 250 mm.

### Intramedullary tibial system assembly

- Assemble the 4T Wheel/Tibial Resection Guide Support 1
   with the 4T Aiming with tibial bracket.
- Push the Green wheel until the chosen height.

#### **NOTE**

The 'UP' engraving corresponds to the 4T Wheel/
Tibial Resection Guide Support's superior side.
The 'A' engraving on the 4T Aiming with tibial
bracket must be on the anterior side.

- Insert the 4T tibial bracket on the 4T Aiming with tibial 3 bracket.
- Screw the 4T Proximal AP Wheel on the top of the rod.
- Insert the Tibial Cutting Block Light 3° (right or Left according to the operated side) on the 4T Wheel/Tibial Resection Guide Support. The value of the posterior slope is marked on top of the guide.



#### NOTE

The instrumentation set contains two rods. Use the longest one with the 4T tibial bracket.

#### NOTE

The Tibial Cutting Block Light – Right or Left is available with 3° (recommended) posterior slope but also with 0° posterior slope.

#### **NOTE**

The Tibial Cutting Blocks Light are not compatible with the i.M.A.G.E. system.

# Intramedullary tibial system

### Intramedullary tibial system

- Insert the assembly onto the Intramedullary Rod - Length 400 mm, adjust its rotation relative to the anterior tibial tuberosity and then impact the tabs.
- Insert the 4T Tibial Stylus 2/10 on the Tibial Cutting Block Light (make sure the clip is fully engaged).
- Set the resection height by using the 4T tibial stylus to palpate either the:
  - healthy side (10 mm cut relative to palpated point).
  - worn side (2 mm cut relative to palpated point/exit of saw blade).



#### **IMPORTANT**

For other resection heights:

- A coarse adjustment can be done by pushing the green wheel.
- A fine adjustment can be done by screwing the green wheel.
- Check the height of the bone cut with the Resection gauge inserted into the slot.
- Insert 2 Threaded Non-Headed Pins Lg 80mm in the 0 mm holes with the Pin Driver AO (or Hall).

#### **NOTE**

The 4T tibial stylus can be clipped on the lateral side of the 4T tibial resection guide to palpate the medial plateau (or the reverse) by passing the 4T tibial stylus over the 4T tibial bracket.



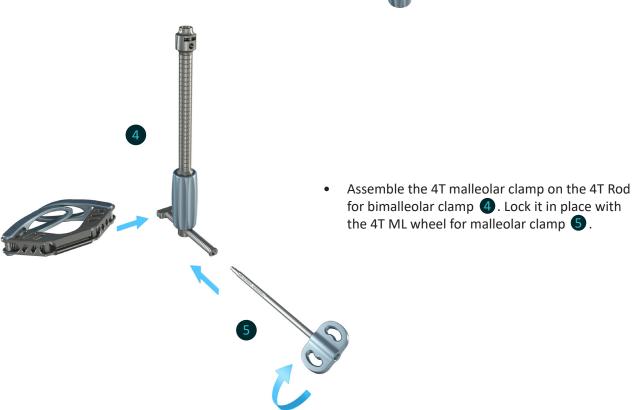


# Combined Intramedullary tibial system

## **Combined intramedullary tibial system assembly**

- Screw the 4T Distal AP wheel on the 4T EM Jig 1
- Insert the 4T Rod for bimalleolar clamp for the Malleolar Clamp into the EM 4T EM Jig 2. Lock it in place with the 4T Distal AP wheel 3.





# Combined Intramedullary tibial system

### Assembly of the intramedullary tibial system

- Assemble the intramedullary tibial system as described in the paragraph «Intramedullary tibial system assembly» and insert it into the assembly described above. Lock them using the 4T Wheel for EM Jig.
- Place the 4T malleolar clamp around the ankle (the clamp has a self-opening feature that makes it easier to set up), lock the clamp and position the 4T tibial bracket on the Intramedullary rod length 400 mm.
- Adjust the rotational alignment in relation to anterior tibial tuberosity and then sagittal alignment by setting the rod parallel to the anterior tibial axis. Impact the tabs.
- Insert the 4T Tibial Stylus 2/10 on the Tibial Cutting Block Light (make sure the clip is fully engaged).
- Set the resection height by using the 4T tibial stylus to palpate either the:
  - healthy side (10 mm cut relative to palpated point).
  - worn side (2 mm cut relative to palpated point/exit of saw blade).

### IMPORTANT

For other resection heights:

- A coarse adjustment can be done by pushing the green wheel.
- A fine adjustment can be done by screwing the green wheel.
- Check the height of the bone cut with the Resection gauge inserted into the slot.
- Insert 2 Threaded Non-Headed Pin Lg 80mm in the 0 mm holes with the Pin Driver AO (or Hall).

#### **NOTE**

All the wheels can be tightened with the H5 Screwdriver.



#### **NOTE**

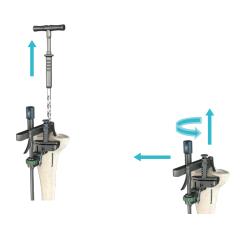
The 4T tibial stylus can be clipped on the lateral side of the 4T tibial resection guide to palpate the medial plateau (or the reverse) by passing the 4T tibial stylus over the 4T tibial bracket.





# 3 Tibial Resection

### **Removing Tibial Alignment System**



- Remove the 4T tibial stylus.
- Loosen the 4T proximal AP wheel enough to allow movement of the alignment system along the tibial bracket slot.
- Place the T Wrench on Intramedullary rod length 400 mm and remove it.
- Press the wings on the 4T Wheel/Tibial Resection Guide Support and pull to release the tibial alignment system from the Tibial Cutting Block.
- Place the «T» end of the slaphammer into the opening on the 4T tibial bracket and impact upwards to remove the entire EM tibial assembly.

### **Completing Tibial Resection**

- Ensure the Tibial Cutting Block is flush with the anterior tibial cortex.
- Check the thickness of the bone cut with the Resection gauge. If required, the Tibial Cutting Block can be moved by +2 or +4 mm to increase the tibial cutting height.
- Use a converging Headed pin length 70 mm or a converging Threaded Non-Headed Pin Lg 80mm to stabilise the Tibial Cutting Block.
- It is possible to check the valgus/varus orientation of the Tibial Resection Guide:
  - Insert the Alignment Device for Tibial Cut into the Tibial Resection Guide.
  - Insert an Extramedullary Alignment Rod into one of the 2 holes.
  - Check the orientation.
- Make the tibial cut with an oscillating saw (see page 74 for available saw blades)
- Remove the converging Headed pin length 70 mm using the Pin extractor or the converging Threaded Non-Headed Pin Lg 80mm using the Pin driver AO (or Hall).
- Slide the Tibial Cutting Block off the two Threaded Non-Headed Pin Lg 80mm. Leave pins in place in case a recut is required.



#### **NOTE**

A symmetrical tibial cutting block is also available with different options of posterior slope and allows a central approach. The tibial resection guide has +2 and +4 pin hole arrays for recutting additional tibial bone.

# Extension & Flexion Gap Measurement

For a mechanically aligned knee, the aim is to achieve an exactly rectangular gap in extension when the ligaments are under tension. The flexion gap space should be a minimum of 10mm.

This will equate to a total flexion gap of 18mm when the posterior condyle resection has been completed.



#### **IMPORTANT**

The extension gap space should be a minimum of 18mm - the combined thickness of the femoral component (8mm) and smallest tibial component/insert combination (10mm).

#### **Ligament Balancing in Extension**

- Extend the knee.
- Assemble the Spacer Base 18mm on the Tibial baseplate handle.
- Insert the spacer with the knee extended.
- Perform checks for varus and valgus tension.
- Check the medial and lateral gaps.
- If the knee is too loose, add a Spacer block 2, 4 or 6mm onto the spacer base.
- If the knee is too tight redo the tibial resection: set the tibial resection guide on the two pins to position +2 or +4, indicating a 2 mm or 4 mm resection.

#### **Ligament Balancing in Flexion**

- Place the knee in flexion.
- Assemble the Spacer Base 10mm on the Tibial baseplate handle (or use the V2 Extra-articular Ligament Balancer if you have it, see in the options).
- Insert the spacer into the flexion space.
- Perform checks for varus/valgus stability.
- Check the medial and lateral gaps. If the knee is too loose add a Spacer block 2, 4 or 6mm onto the spacer base.



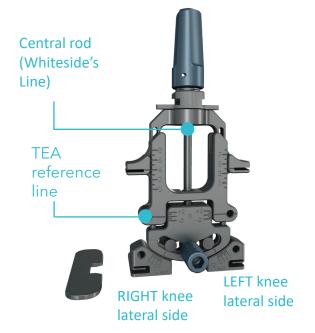


# 5 Femoral Sizing



#### Femoral Sizer Setup - Standard

- Set the femoral rotation value:
  - Loosen the posterior thumb wheel until the sizer paddles can rotate freely.
  - Align the markings to the desired external rotation value on the corresponding LEFT/ RIGHT scale - e.g. 3° LEFT.
  - Re-tighten the posterior thumb wheel, either by hand or with the H5 screwdriver, to lock the femoral sizer in position.
- Check the A/P position is set to the 0mm as default.
   To adjust the A/P position twist the anterior thumb wheel:
  - Right rotation (+) anterior.
  - Left rotation (-) posterior.
  - One complete rotation = 1 mm.



#### Femoral Sizer Setup - Lateral Shims

- Unscrew the posterior thumb wheel.
- Set the femoral rotation to 0°.
- Re-tighten the posterior thumb wheel.
- Three thicknesses of shims can be slotted into the lateral side of the femoral sizer to adjust the femoral rotation. The shim thickness 2, 3 or 4 mm gives the value of the rotation based on the lateral condyle respectively approximatively 2°, 3° or 4°.
- Shims can be interchanged when the femoral sizer is in situ to achieve the optimal femoral rotation.
   Use the Trans-Epicondylar Axis (TEA) line on the femoral sizer as a guide.
- The central rod can be used as a secondary reference to align with Whiteside's line.

#### NOTE

1mm thickness of shim = approx. 1°femoral rotation. It will be slightly >1° for smaller femurs and slightly <1° for larger femurs.

#### **Femoral Stylus Assembly**

- Align the circular cut-out section of the moral stylus over the top blue thumb wheel.
- 2. Place the stylus over the thumb wheel until it reaches the shoulder.
- 3. Locate the tracks on the stylus within the slot on the femoral sizer shoulder to retain it, and slide the stylus to a central position along the track size 3 or 4.

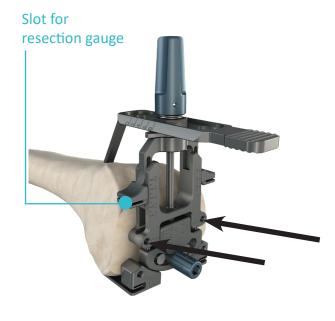
#### **Attaching Sizer To The Guide**

- Position the femoral sizer so that its flat surface is flush against the resected surface of the distal femur and centred mediolaterally. The feet of the sizer must be flush against the posterior condyles.
- Using the tip of the femoral stylus, palpate the deepest point of the femoral anterior sulcus.
- Read the size indicated on the primary size scale on the front of the femoral sizer. Adjust the position of the stylus length according to this size (the tip of the stylus indicates where the exit of the saw blade will be). Confirm the appropriate size.
- Check the anterior resection with the resection gauge inserted in the slots on the femoral sizer.
- The Femoral Sizer and the 4-in-1 Cutting Blocks are based on a Posterior reference.
   The Femoral Sizer - Support includes an AP adjustment which allows to shift the position of the 4in1 Cutting Block if needed.
- 4-in-1 Cutting Block positioning:
  - 4-in1 Cutting Block: insert 2 Threaded Non-Headed Pins Lg 80mm through the central holes.
  - 4-in1 Cutting Block with Spikes (available on special request only): drill 2 central holes with the 3.2 drill bit length 145 mm.
- Remove the femoral stylus.

#### **NOTE**

There is also an option to secure the sizer using 2 headed pins inserted in the posterior pin holes.



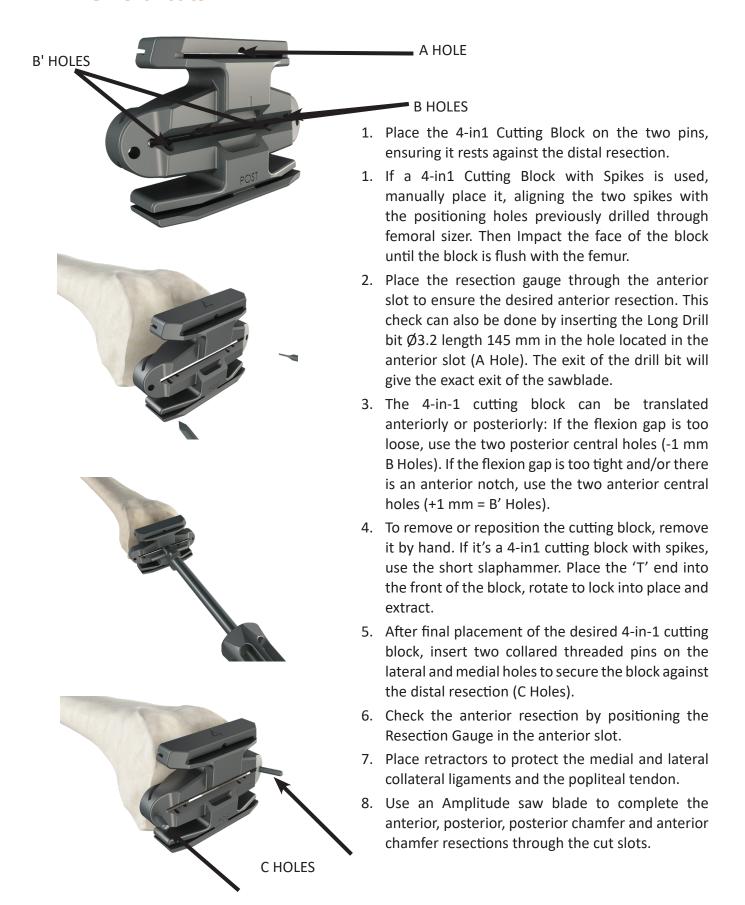




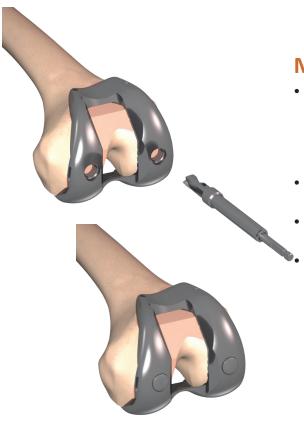


# 6 4-in-1 Femoral Resection

#### Femoral cuts



# 7 Femoral preparation

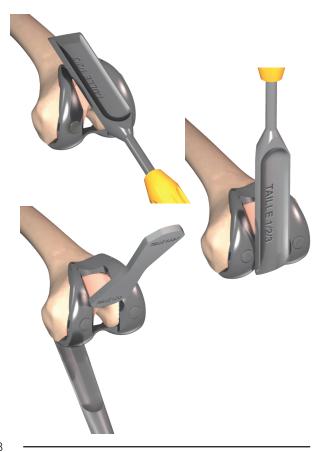


### Mediolateral femoral adjustment

- Impact the SCORE® II Femoral Trial component (corresponding to the operated side and to the size of the Femoral Resection Guide) using the Femoral Condyle Holder (trial position), by choosing a mediolateral position.
- Finish impacting the Trial Component using the Femoral Component Impactor.
- Drill the first hole with the Drill for peg holes and insert the Trial peg for trial femoral component.
- Drill the second hole and insert the second Trial peg for trial femoral component.

### **Trochlear groove preparation**

- Prepare the intercondylar notch using the cutting end of the Femoral Rasp that corresponds to the size of the selected femoral component (size 1/2/3 or size 4/5/6/7).
- The rasp is constrained on two sides. Finalise the preparation with the roughened end.
- Use the Intercondylar Control Gauge to ensure the intercondylar notch has been prepared correctly.
- Resect any posterior osteophytes with the Cutting Gauge.





# 8 Tibial preparation



### **Trial baseplate positioning:**

- Determine the size of the Trial Tibial Baseplate. The baseplate can be one size larger or smaller than the size of the femoral component.
- Position the Trial Tibial Baseplate onto the tibial
- Fix the baseplate with two Headed Pins length 30

#### **NOTE**

Depending on the bone quality a Long Drill bit, Ø 3.2, length 145 mm can be used to make the holes for the pins.



#### Trials:

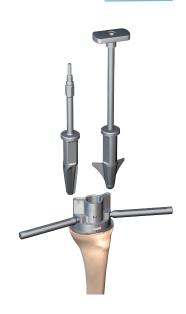
Position the mobile Trial Insert of a size corresponding to the femur starting by Thickness 10mm.

#### **NOTE**

The insert size must always be identical to the femoral size.

### **Preparation:**

- Remove the 2 headless pins in the tibia.
- Tighten the Standard Trial Stem on the Punch Guide for Tibial Baseplate with the Tibial Stem Wrench.
- Position the appropriate size of the Punch guide for tibial baseplate (1/2 or 3/4/5 or 6/7) onto the Trial Tibial Baseplate. If needed Two Removable Handles for Punch Guide can be screwed on the Pun Guide to strongly maintain it.
- Ream using the Reamer for tibial extension stem until the stop (same for all sizes).
- Impact the appropriate sized Punch for Tibial Extension Stem (1/2 or 3/4/5 or 6/7), in case of a sclerotic bone or after osteotomy, prepare first with an osteotome.



#### **NOTE**

Use the Punch for tibial extension stem - size 1/2 for a baseplate size 0 and the size 6/7 for a baseplate size 8.

#### **NOTE**

Check the integrity of the 2 instruments (Punch and Trial Stem ) after extraction of the assembly.

# Patella preparation: patellar resection option



### Patellar preparation:

- Use the Patellar Drilling Guide Ø30, Ø33 or Ø36 to determine the size of patellar component needed: 30, 33 or 36 mm.
- Centre and impact the drilling guide.
- Make the 3 holes for the pegs with the Drill bit for resurfacing patella.
- Set the Trial resurfacing patella Ø 30 Ø 33 Ø 36 into place using the Clamp for locking ring.
- Test the articulation in the trochlea.

### **Patellar implantation:**

- Clean and dry the bone surface.
- Apply cement onto the implant and the patellar
- Position the implant on the cut.
- Tighten the implant using the Patellar Impaction
- Remove the excess of cement.
- Keep the clamp until the cement is dry.

### Patellar preparation:

Clear osteophyles.

## Position the patellar resection clamp:

- Place the Patellar resection clamp so the two lugs are on the anterior side of the patella.
- With the clamp jaws open, bring the Patellar resection Gauge in contact with the articular surface using the adjustment knob.
- Lock the clamp.
- Evaluate remaining bone.
- Push the saw blade into the slot to perform the

#### **NOTE**

The thickness of the patella implant is 8mm for all the diameters and it is advisable to leave a rem-nant of 12mm of residual

bone.







# Patella preparation: patellar reaming option



### **Patellar preparation:**

• Clear osteophytes.

### **Position the Patellar reaming forceps:**

- Centre the Trial inset patellar cemented Ø 23 mm Plastic (or Ø 26, or Ø 29) on the articular surface of the native patella.
- The appropriate size (Ø 23, 26 or 29 mm) is determined based on the following criteria:
  - Superior-to-inferior length of the articular surface.
  - Width of the patella's medial articular facet.
- The size must be slightly smaller (by about 2 mm) than the superior-to-inferior length of the articular surface and must be slightly inside the medial edge of the medial articular facet.
- Assemble the Patella Reamer Surfacing Guides Ø 23 corresponding to the chosen patellar implant size onto the Patellar reamer Clamp and lock it.
- Position the clamp. The inferior jaw on the Patellar reamer Clamp must rest against the anterior side of the patella. The clamp must rest against at least one of the patella's two articular facets.
- Use the thumb knob to tighten the Patellar reamer Clamp.
- Assemble the reamer for inset patella of the same size as the chosen clamp onto the power tool.
- Ream the patella until the stop is reached.

### **Trials:**

- Assemble the Patellar Reamer Impaction Clamp onto the Patellar reamer Clamp and lock it.
- Use it to place the Trial inset patellar cemented of the selected size into the native patella.
- Test the patella tracking.

### **Patellar implantation:**

- Clean and dry the bone surface.
- Use the Patellar Reamer Impaction Clamp assemble on the Patellar reamer Clamp to insert the chosen patellar component.



# 10 Definitive implants



### Insertion of chosen tibial baseplate:

- Use the Tibial stem wrench to screw the distal peg into the tibial baseplate (cemented or cementless).
- Wash and dry bone surfaces and the joint space.
- For the cemented version, apply a layer of cement to the bone, to the implant surface or to both.
- Position the tibial baseplate and impact it using the Baseplate impactor mounted on the Universal handle.
- For the cemented version, remove any excess cement taking care to limit the movement of the components while the cement is curing.

#### **NOTE**

If a cemented femoral implant is used, it is recommended to apply little cement on the posterior condyles and no cement on the posterior area of the notch, due to the implant design.

### **Insertion of chosen insert:**

 Place the polyethylene insert with the size corresponding to the femur and the thickness validated during testing.







# **Definitive implants**



# Insertion of chosen femoral component:

- Assemble the chosen femoral component (cemented or cementless) with the Femoral component holder.
- For the cemented version, apply a layer of cement to the bone, the implant surface or to both.
- Place the femoral component onto the femoral cuts, make sure it is aligned precisely, and then impact it.
- Remove the Femoral component holder.
- Finish impacting the component using the Femoral component impactor and Universal handle.
- For the cemented version, remove any excess cement taking care to limit the movement of the components while the cement is curing.
- Reduce the femoral component onto the insert.

# 11 Explantation

### **Tibial Extraction:**

- Remove the tibial insert.
- Assemble the tibial baseplate extractor with the handle.
- Screw it on the tibial baseplate.
- Gradually extract the component by tapping under the anvil.

#### **NOTE**

The slaphammer can be assembled with the modular handle for easy extraction.



### **Femoral extraction:**

- Assemble the femoral impactor/extractor on the modular handle.
- Attach to femoral component.
- Gradually extract the component by tapping under the anvil.





# Option - Combined Extramedullary tibial system

### **Combined Extra-medullary Guide:**

- For the combined extra-medullary jig, all the steps are identical to the combined intra-medullary guide, except that the 4T Tibial Bracket is directly impacted on the tibial eminence.
- Adjust its rotation relative to the anterior tibial tuberosity and then in the sagittal plane by aligning the rod parallel to the anterior tibial axis. Impact the tabs.
- Insert the 4T Tibial Stylus 2/10 (or 2/8 or 0/10) on the Tibial Resection Guide (make sure the clip is fully engaged).
- Adjust the resection height by using the stylus to palpate either the:
  - Healthy side (10 mm cut relative to the chosen point).
  - Worn side (2 mm cut relative to the chosen point (exit level of the sawblade)).



#### NOTE

For a different cutting height, the adjustment can be:

- A fast adjustment can be done by pushing the green wheel on the guide support (disengaging).
- A fine adjustment can be done by screwing the green wheel (the guide is graduated every 2mm).

Check the height of the bone cut with the Resection Gauge inserted into the slot.

Insert 2 Headless Pins Lg 80mm in the 0 mm holes.

#### **NOTE**

It is possible to insert the Tibial Stylus on the lateral hole of the Tibial Resection Guide to palpate the medial plateau (and the opposite) by over-passing the Tibial bracket.

#### NOTE

Two 4T Aiming are provided in the instrumentation. The one used with the Tibial Bracket is the longest.

# Option - Combined Extramedullary tibial system

## Removal of the tibial guide:

- Remove the Tibial Stylus.
- Unscrew and remove the 4T AP Proximal Wheel.
- For the Combined intra-medullary Guide, assemble the T Wrench on the IM Rod and remove the IM Rod.
- Position the "T" part of the slaphammer in the Tibial Bracket and remove it.
- Remove the all Tibial Jig by pressing the two blue buttons of the 4T Wheel/Tibial Resection Guide Support.







# Option - Extramedullary tibial system

## **Extramedullary tibial system assembly**

- Screw the 4T Distal AP wheel on the 4T EM Jig 1.
- Insert the 4T Rod for bimalleolar clamp for the Malleolar Clamp into the EM 4T EM Jig 2. Lock it in place with the 4T Distal AP wheel 3.





- Assemble the 4T Tibial resection guide right or left – 0° or 3° with the 4T Wheel/Tibial Resection Guide Support 6.
- Assemble the 4T Wheel/Tibial Resection
  Guide Support with the 4T Aiming without
  tibial bracket by pressing on the support's
  green wheel 7.
- Place the assembly on the 4T EM Jig. Lock them using the 4T Wheel for EM Jig.

### **NOTE**

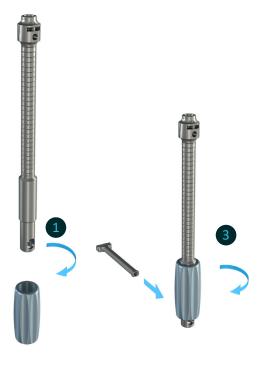
The 'UP' engraving corresponds to the 4T Wheel/Tibial Resection Guide Support's superior side.



The 'A' engraving on the 4T Aiming without tibial bracket must be on the anterior side.

### **NOTE**

The instrumentation set contains two rods. Use the shortest one without the tibial bracket.





# Option - Extramedullary tibial system

# **Extra-medullary system:**

- Open the 4T Malleolar Clamp and position it on the ankle (the self-holding in open position of the clamp makes it easier to be placed), close the Clamp.
- Adjust its rotation relative to the anterior tibial tuberosity and then in the sagittal plane by aligning the rod parallel to the anterior tibial axis.
- Insert the 4T Tibial Stylus 2/10 (or 2/8) on the Tibial Resection Guide (make sure the clip is fully engaged).
- Adjust the resection height by using the stylus to palpate either the:
  - Healthy side (10 mm cut relative to the chosen point),
  - Worn side (2 mm cut relative to the chosen point (exit level of the sawblade)).



For a different cutting height, the adjustment can be:

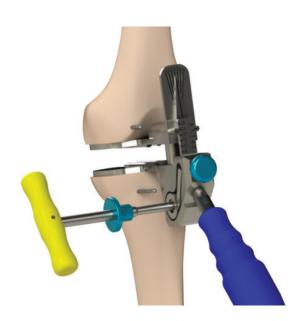
- A fast adjustment can be done by pushing the green wheel on the guide support (disengaging).
- A fine adjustment can be done by screwing the green wheel (the guide is graduated every 2mm).
- Check the height of the bone cut with the Resection Gauge inserted into the slot.
- Insert 2 Headless Pins Lg 80mm in the 0 mm holes.
- Remove the Tibial Stylus.
- Remove the all Tibial Jig by pressing the two blue buttons of the 4T Wheel/Tibial Resection Guide Support.

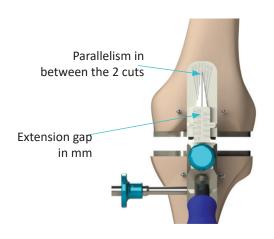






# **Option - Ligament balancer**





### **Extension gap measurement:**

This step is carried out after performing the distal femoral and tibial cuts. The goal is to achieve a rectangular gap in extension when the ligaments are under tension. The resulting gap will be measured and should be the same when the knee is flexed.

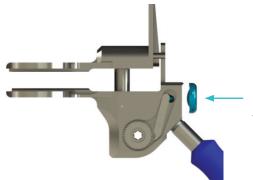
- Insert the Extra-articular ligament balancer V2 into the knee joint with the knee extended.
- Insert the Snap Screwdriver H5 into the balancer's cog wheel.
- Turn the Snap screwdriver H5 to operate the distraction mechanism and apply the desired amount of tension. Do not apply excessive distraction, otherwise the knee will flex. The knee must stay extended during the measurements.
- Make sure the tibial and distal femoral cuts are parallel, and check the height of the tibiofemoral gap.
- If the tibiofemoral gap is less than the 18 mm minimum gap needed (10 mm for the tibial component plus 8 mm for the femoral component), redo the tibial or distal femoral cut.

Minimum gap in extension:
18 mm = 10 mm (tibial component) + 8 mm (femoral component)

### NOTE

Ligament can be released to achieve desired ligament balance (value of 0 on Balancer).

# **Option - Ligament balancer**



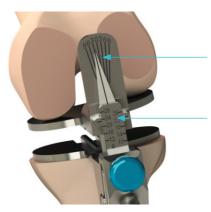
• Press the blue unlock button to remove the Extra-articular ligament balancer V2 from the joint.

### **REMARQUE**

Remove the 2 Headless pins length 80 mm left in anterior part.

### Flexion gap measurement:

- Flex the knee.
- Insert the Extra-articular ligament balancer V2 and apply the desired tension (same procedure as with knee extended).
- Read the flexion gap value and femur rotation value (induced by ligament laxity) relative to the tibia.
- Make sure the flexion gap is equal to the extension gap (8 mm must be subtracted from the extension gap value).



Femoral rotation in degree

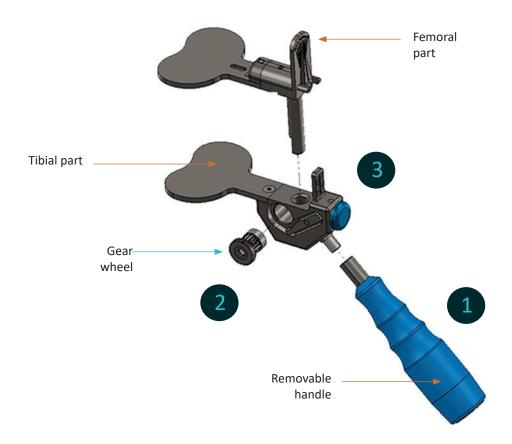
Read flexion gap here (subtract 8 mm from extension gap)





# Appendix 1 - Ligament balancer assembly

# Assembly and disassembly of the ligament balancer



### **Assembly of Balancer:**

- Screw the removable handle onto the tibial housing.
- Place the gear wheel into the lateral opening on the tibial housing.
- 3 Press the blue button and insert the femoral housing on top of the tibial housing

### Dissassembly of the Balancer:

Repeat the above steps in the reverse order.





### The SCORE II 4-in-1 conventional instrumentation\* consists of 4 trays:

- Common set + Tibial cut
- Common set + Femoral cuts
- SCORE II Femoral trials
- SCORE II Tibial trials

### And either of:

- SCORE Primary patella resection set (conventional)
- SCORE Patella set reaming patella set

### **Optional sets:**

- SCORE II Size 0 Femur + Tibia
- SCORE II Size 8 Femur + Tibia
- Knee Ligament Balancer
- TKA LOAN OPTION Conv iMAGE CAS
- SCORE tibial revision
- Sterile medium and large saw blades

<sup>\*</sup> Not all devices presented in this Surgical Technique may be registered in your country. Please contact your Amplitude Sales Representative for availability.

## Common set + Tibial cut



Item	Name	Product N°	Qty
1	Headed pin length 30 mm	2-0201301	3
2	Headed pin length 70 mm	2-0201302	3
3	Headless pin length 80 mm	2-0201400	6
4	Threaded Non-Headed Pin Lg 80mm	2-0255402	6
5	Collared threaded pin Ø3,2-L57	2-0238857	3
6	AO Pin driver	2-1201100	1
SUBSTITUTE	HALL Pin driver	2-1201200	1
7	Specific pin extractor	8-0202700	1
8	Long Drill bit Ø3.2 length 145 mm	2-0102400	1
SUBSTITUTE	HALL Ø3,2 drill bit length 145 mm	2-0248700	1
9	4T tibial bracket	2-0236600	1
10	4T Wheel/Tibial Resection Guide Support	2-0236700	1
11	4T Proximal AP Wheel	2-0236800	1
12	4T Aiming with tibial bracket	2-0236900	1
13	4T Wheel for EM Jig	2-0237000	1
14	4T EM Jig	2-0237100	1
15	4T Distal AP wheel	2-0237200	1
16	4T Rod for bimalleolar clamp	2-0237300	1
17	4T ML wheel for malleolar clamp	2-0237400	1
18	4T malleolar clamp	2-0237500	1
19	4T Aiming without tibial bracket	2-0239000	1
20	4T tibial stylus – 2/10	2-0236502	1
SUBSTITUTE	4T tibial stylus – 0/10	2-0236500	1
SUBSTITUTE	4T tibial stylus – 2/8	2-0236501	1
21	Tibial Cutting Block Light 3° - Right	2-1200103	1
21	Tibial Cutting Block Light 3° - Left	2-1200104	1
SUBSTITUTE	Tibial Cutting Block Light 0° - Right	2-1200100	1
SUBSTITUTE	Tibial Cutting Block Light 0° - Left	2-1200101	1
SUBSTITUTE	4T tibial resection guide left - 0°	2-0236400	1
SUBSTITUTE	4T Tibial resection guide right – 0°	2-0236401	1
SUBSTITUTE	4T Tibial resection guide left – 3°	2-0237600	1
	4T tibial resection guide right – 3°	2-0237700	1



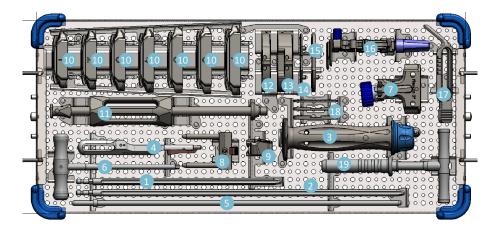


**Common set + Tibial cut** 



Item	Name	Product N°	Qty
22	Alignement Device for Tibial Cut	2-1200300	1
23	Resection gauge	2-0204500	1
24	Intramedullary drill bit	2-0200100	1
SUBSTITUTE	Intramedullary hall drill BIT Ø10 mm	2-0245400	1
25	Femoral Impactor / Extractor	2-1201300	1
26	Modular Handle	2-0255300	1
27	Femoral Impactor - Universal	2-0241200	1
28	Insert Impactor - Universal	2-0241300	1
29	Insert Extractor	2-0241500	1
30	Tibial Baseplate Extractor	2-0241600	1
31	Tibial impactor - Universal	2-0241900	1
32	Modular Tibial Stem Wrench	2-1201000	1

## **Common set + Femoral cuts**

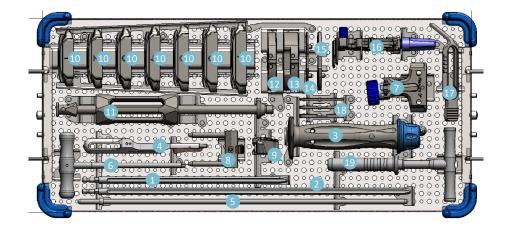


Item	Name	Product N°	Qty
1	Intramedullary rod length 250 mm	2-0200200	1
2	Intramedullary rod length 400 mm	2-0200300	1
3	Modular Handle	2-0255300	1
4	Tibial baseplate handle	2-0223500	1
5	Extramedullary alignment rod	2-0200600	1
6	H5 Screwdriver	2-0200800	1
7	Femoral Valgus Alignement Guide 3°	2-0226603	1
SUBSTITUTE	Femoral Valgus Alignement Guide 0°	2-0226600	1
SUBSTITUTE	Femoral Valgus Alignement Guide 6°	2-0226606	1
8	Distal Slider - Clip System	2-1200700	1
9	Distal Cutting Block 10 mm - Clip System	2-1200600	1
SUBSTITUTE	Distal Cutting Block 8 mm - Clip System	2-1200500	1
10	4-in-1 Cutting Block Size 1	2-0255101	1
10	4-in-1 Cutting Block Size 2	2-0255102	1
10	4-in-1 Cutting Block Size 3	2-0255103	1
10	4-in-1 Cutting Block Size 4	2-0255104	1
10	4-in-1 Cutting Block Size 5	2-0255105	1
10	4-in-1 Cutting Block Size 6	2-0255106	1
10	4-in-1 Cutting Block Size 7	2-0255107	1
11	Short Slap hammer	2-0255700	1
12	Spacer Base 10mm	2-0255510	1
13	Spacer Base 18mm	2-0255518	1
14	Spacer Block 2mm	2-0255602	1
15	Spacer Block 4mm	2-0255604	1
16	Femoral Sizer	2-1201700	1
17	Femoral Sizer - Stylus	2-0257100	1
18	Shim 2 mm - Femoral Sizer	2-0257300	1
18	Shim 3 mm - Femoral Sizer	2-0257400	1
18	Shim 4 mm - Femoral Sizer	2-0257500	1
19	T wrench	2-0200400	1





### **Common set + Femoral cuts**



Item	Name	Product N°	Qty
SUBSTITUTE	4-in1 Cutting Block with Spikes Size 1	2-0255201	1
SUBSTITUTE	4-in1 Cutting Block with Spikes Size 2	2-0255202	1
SUBSTITUTE	4-in1 Cutting Block with Spikes Size 3	2-0255203	1
SUBSTITUTE	4-in1 Cutting Block with Spikes Size 4	2-0255204	1
SUBSTITUTE	4-in1 Cutting Block with Spikes Size 5	2-0255205	1
SUBSTITUTE	4-in1 Cutting Block with Spikes Size 6	2-0255206	1
SUBSTITUTE	4-in1 Cutting Block with Spikes Size 7	2-0255207	1

### **SCORE II – Femoral trials**



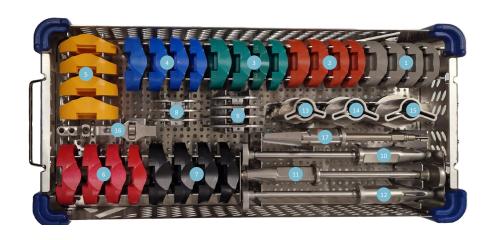
Item	Name	Product N°	Qty
1	SCORE II Femoral Trial Nav. S1 Right	2-0254421	1
2	SCORE II Femoral Trial Nav. S2 Right	2-0254422	1
3	SCORE II Femoral Trial Nav. S3 Right	2-0254423	1
4	SCORE II Femoral Trial Nav. S4 Right	2-0254424	1
5	SCORE II Femoral Trial Nav. S5 Right	2-0254425	1
6	SCORE II Femoral Trial Nav. S6 Right	2-0254426	1
7	SCORE II Femoral Trial Nav. S7 Right	2-0254427	1
8	SCORE II Femoral Trial Nav. S1 Left	2-0254411	1
9	SCORE II Femoral Trial Nav. S2 Left	2-0254412	1
10	SCORE II Femoral Trial Nav. S3 Left	2-0254413	1
11	SCORE II Femoral Trial Nav. S4 Left	2-0254414	1
12	SCORE II Femoral Trial Nav. S5 Left	2-0254415	1
13	SCORE II Femoral Trial Nav. S6 Left	2-0254416	1
14	SCORE II Femoral Trial Nav. S7 Left	2-0254417	1
15	Trial peg for trial femoral component	2-0233300	2
16	Cutting gauge	2-0206500	1
17	Drill for peg holes	2-0204000	1
SUBSTITUTE	HALL drill bit for femoral peg	2-0245500	1
18	SCORE® II Femoral Rasp S0-3	2-0254503	1
19	SCORE® II Femoral Rasp S4-8	2-0254548	1
20	SCORE® II Intercondylar control gauge	2-0254600	1
22	Handle Hohmann 26.5 cm 24.0 mm*	18703	1
23	Handle Hohmann 24 cm 18.0 mm*	18602	2

<sup>\*</sup>Not all devices presented in this Surgical Technique may be registered in your country. Please contact your Amplitude Sales Representative for availability.



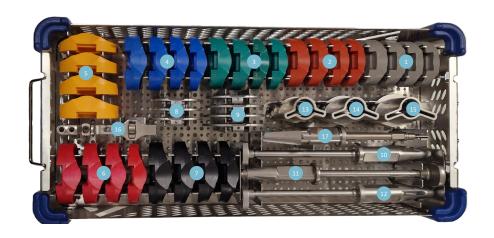


SCORE II – Tibial trials



Item	Name	Product N°	Qty
1	Trial insert Size 1 thickness 10 mm	2-0202911	1
1	Trial insert Size 1 thickness 12 mm	2-0202921	1
1	Trial insert Size 1 thickness 14 mm	2-0202931	1
1	Trial insert Size 1 thickness 16 mm	2-0202941	1
2	Trial insert Size 2 thickness 10 mm	2-0202912	1
2	Trial insert Size 2 thickness 12 mm	2-0202922	1
2	Trial insert Size 2 thickness 14 mm	2-0202932	1
2	Trial insert Size 2 thickness 16 mm	2-0202942	1
3	Trial insert Size 3 thickness 10 mm	2-0202913	1
3	Trial insert Size 3 thickness 12 mm	2-0202923	1
3	Trial insert Size 3 thickness 14 mm	2-0202933	1
3	Trial insert Size 3 thickness 16 mm	2-0202943	1
4	Trial insert Size 4 thickness 10 mm	2-0202914	1
4	Trial insert Size 4 thickness 12 mm	2-0202924	1
4	Trial insert Size 4 thickness 14 mm	2-0202934	1
4	Trial insert Size 4 thickness 16 mm	2-0202944	1
5	Trial insert Size 5 thickness 10 mm	2-0202915	1
5	Trial insert Size 5 thickness 12 mm	2-0202925	1
5	Trial insert Size 5 thickness 14 mm	2-0202935	1
5	Trial insert Size 5 thickness 16 mm	2-0202945	1
6	Trial insert Size 6 thickness 10 mm	2-0202916	1
6	Trial insert Size 6 thickness 12 mm	2-0202926	1
6	Trial insert Size 6 thickness 14 mm	2-0202936	1
6	Trial insert Size 6 thickness 16 mm	2-0202946	1
7	Trial insert Size 7 thickness 10 mm	2-0202917	1
7	Trial insert Size 7 thickness 12 mm	2-0202927	1
7	Trial insert Size 7 thickness 14 mm	2-0202937	1
7	Trial insert Size 7 thickness 16 mm	2-0202947	1

### SCORE II – Tibial trials

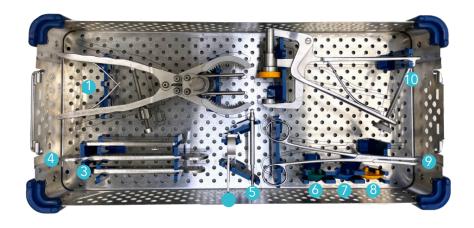


Item	Name	Product N°	Qty
8	Trial Tibial Baseplate Size 1	2-0208601	1
8	Trial Tibial Baseplate Size 2	2-0208602	1
8	Trial Tibial Baseplate Size 3	2-0208603	1
9	Trial Tibial Baseplate Size 4	2-0208604	1
9	Trial Tibial Baseplate Size 5	2-0208605	1
9	Trial Tibial Baseplate Size 6	2-0208606	1
9	Trial Tibial Baseplate Size 7	2-0208607	1
10	Punch for tibial extension stem - size 1/2	2-0202812	1
11	Punch for tibial extension stem - size 3/4/5	2-0202835	1
12	Punch for tibial extension stem - size 6/7	2-0202867	1
13	Punch guide for tibial baseplate Size 1/2	2-0202612	1
14	Punch guide for tibial baseplate size 3/4/5	2-0202635	1
15	Punch guide for tibial baseplate size 6/7	2-0202667	1
16	Universal handle	2-0216400	1
17	Reamer for tibial extension stem	2-0202700	1
SUBSTITUTE	HALL reamer for tibial keel	2-0245700	1
	Standard trial stem	2-0208900	3



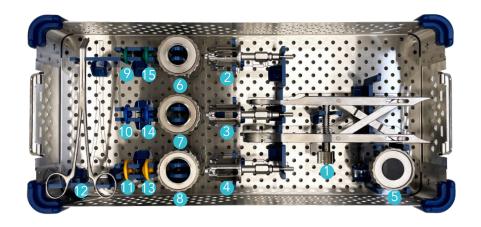


**Score Primary - Patella resection set (conventional)** 



Item	Name	Product No.	Qty
1	Patellar Resection Clamp	2-0206700	1
2	Patellar resection gauge	2-0208400	1
3	Patellar Drilling Guide Ø30	2-0204900	1
4	Patellar Drilling Guide Ø33 and Ø36	2-0205000	1
5	Drill Bit for Resurfacing Patella	2-0205100	1
6	Trial resurfacing patella Ø 30	2-0205330	1
7	Trial resurfacing patella Ø 33	2-0205333	1
8	Trial resurfacing patella Ø 36	2-0205336	1
9	Clamp for Locking Ring	2-0104600	1
10	Patellar Impaction Clamp	2-0206100	1

# Score - Patella set - Patella reaming



Item	Name	Product No.	Qty
1	Patella Reamer Clamp	2-0216600	1
2	Reamer for inset cementless patellar Ø 23	2-0216523	1
3	Reamer for inset cementless patellar Ø 26	2-0216526	1
4	Reamer for inset cementless patellar Ø 29	2-0216529	1
5	Patellar Reamer Impaction Clamp	2-0216800	1
6	Patella Reamer Surfacing Guides Ø 23	2-0216723	1
7	Patella Reamer Surfacing Guides Ø 26	2-0216726	1
8	Patella Reamer Surfacing Guides Ø 29	2-0216729	1
9	Trial Inset Patellar - Cemented Ø 23 - Plastic	2-0205223	1
10	Trial Inset Patellar - Cemented Ø 26 - Plastic	2-0205226	1
11	Trial Inset Patellar - Cemented Ø 29 - Plastic	2-0205229	1
12	Clamp for Locking Ring	2-0104600	1
13	Trial Inset Patellar - Cementless Ø 29 - Plastic	2-0216929	1
14	Trial Inset Patellar - Cementless Ø 26 - Plastic	2-0216926	1
15	Trial Inset Patellar - Cementless Ø 23 - Plastic	2-0216923	1



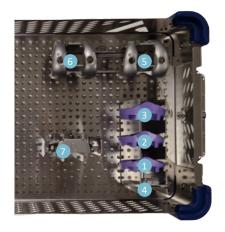


**OPTION: SCORE II – Tibial trials thickness 20** 



Item	Name	Product N°	Qty
1	Trial insert Size 1 thickness 20 mm	2-0202951	1
2	Trial insert Size 2 thickness 20 mm	2-0202952	1
3	Trial insert Size 3 thickness 20 mm	2-0202953	1
4	Trial insert Size 4 thickness 20 mm	2-0202954	1
5	Trial insert Size 5 thickness 20 mm	2-0202955	1
6	Trial insert Size 6 thickness 20 mm	2-0202956	1
7	Trial insert Size 7 thickness 20 mm	2-0202957	1

**OPTION: SCORE II - Size 0 Femur + Tibia** 



Item	Name	Product N°	Qty
1	SCORE® II Trial Insert S0 Th. 10mm	2-0202910	1
2	SCORE® II Trial Insert S0 Th. 12mm	2-0202920	1
3	SCORE® II Trial Insert S0 Th. 14mm	2-0202930	1
4	Trial Tibial Baseplate Size 0	2-0208600	1
5	SCORE® II Femoral Trial Nav. SO Left	2-0254410	1
6	SCORE® II Femoral Trial Nav. SO Right	2-0254420	1
7	4-in-1 Cutting Block Size 0	2-0255100	1



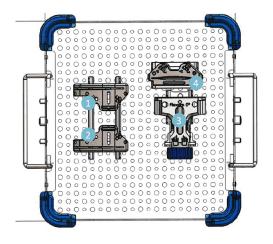


**OPTION: SCORE II - Size 8 Femur + Tibia** 



Item	Name	Product N°	Qty
1	SCORE® II Trial Insert S8 Th. 10mm	2-0202918	1
2	SCORE® II Trial Insert S8 Th. 12mm	2-0202928	1
3	SCORE® II Trial Insert S8 Th. 14mm	2-0202938	1
4	Trial Tibial Baseplate Size 8	2-0208608	1
5	SCORE® II Femoral Trial Nav. S8 Left	2-0254418	1
6	SCORE® II Femoral Trial Nav. S8 Right	2-0254428	1
7	4-in-1 Cutting Block Size 8	2-0255108	1

### **OPTION: TKA LOAN OPTION Conv - iMAGE - CAS**

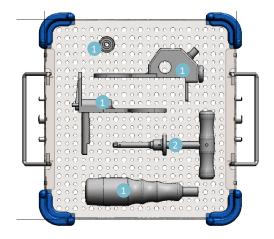


Item	Name	Product N°	Qty
1	4T tibial resection guide left - 0°	2-0236400	1
2	4T Tibial resection guide right – 0°	2-0236401	1
3	Femoral Valgus Alignement Guide 0°	2-0226600	1
4	Distal Cutting Block 8 mm - Clip System	2-1200500	1





**OPTION: Knee Ligament Balancer** 



Item	Name	Product N°	Qty
1	Extra-articular ligament balancer V2	2-0233200	1
2	Snap screwdriver H5	2-0233100	1

### Large saw blades

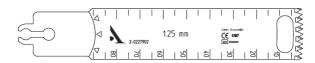
Synthes AO / SODEM large sawblade

Sterile product No. 2-0227901



**STRYKER large sawblade** 

Sterile product No. 2-0227902



ZIMMER / HALL / LINVATEC large sawblade

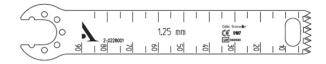
Sterile product No. 2-0227903



### **Medium saw blades**

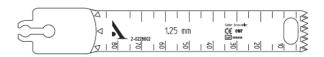
Synthes AO / SODEM medium sawblade

Sterile product No. 2-0228001



**STRYKER** medium sawblade

Sterile product No. 2-0228002



ZIMMER / HALL / LINVATEC medium sawblade

Sterile product No. 2-0228003

















### **Service Clients – France :**

Porte du Grand Lyon, 01700 Neyron – France Tél. : +33 (0)4 37 85 19 19

Fax: +33 (0)4 37 85 19 18

E-mail: amplitude@amplitude-ortho.com

### **Customer Service – Export:**

11 cours Jacques Offenbach, ZA Mozart 2,

26000 Valence - France

Phone.: +33 (0)4 75 41 87 41

Fax: +33 (0)4 75 41 87 42

www.amplitude-ortho.com

Reference: TO.G.052/EN/C