

 acetabular cage

 amplitude



**Surgical Technique**

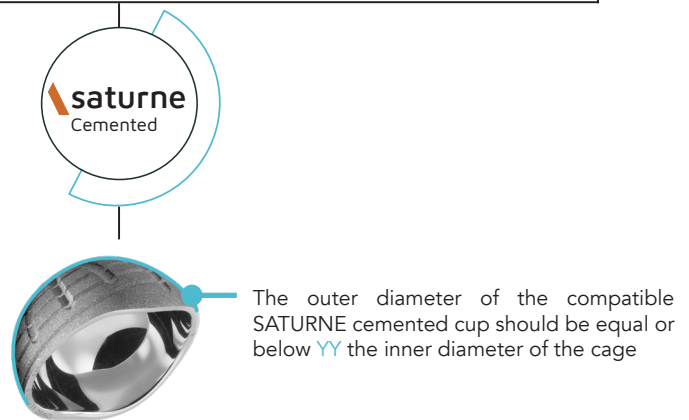
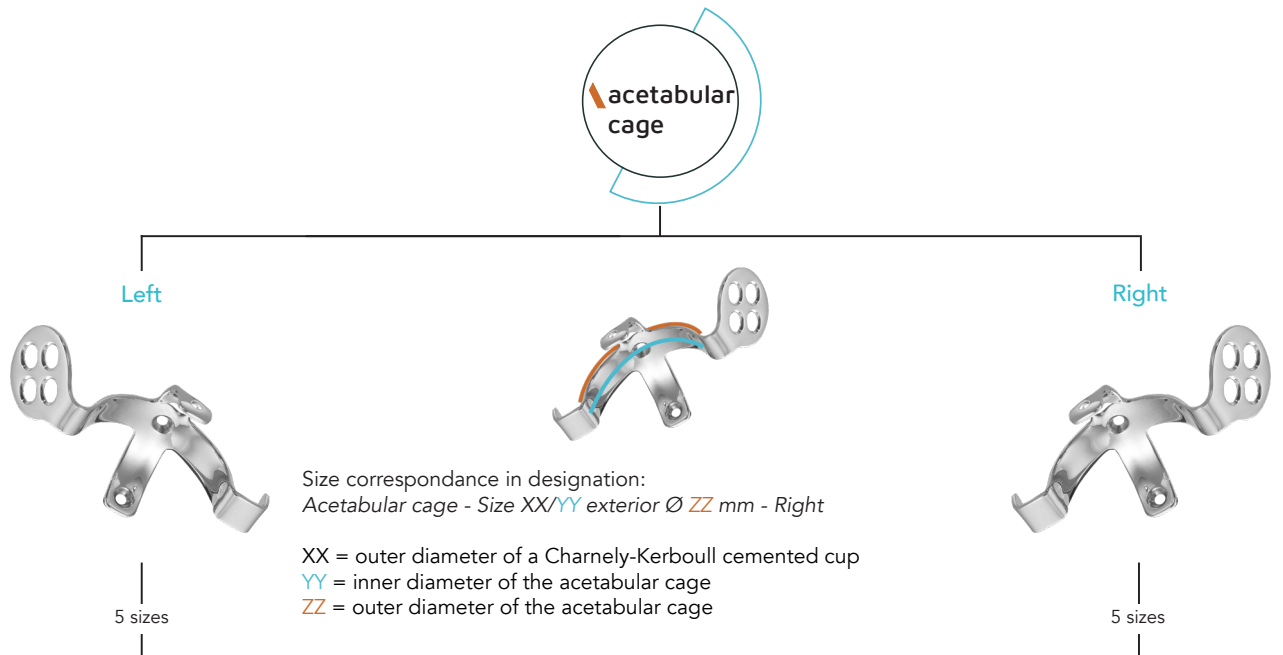


# Summary

|  |    |
|--|----|
| Step 1 - Acetabular preparation .....            | 8  |
| Step 2 - Selection of Trial Acetabular Cage..... | 8  |
| Step 3 - Acetabular Cage positioning .....       | 9  |
| Step 4 - Final cup insertion .....               | 9  |
| Instrumentation.....                             | 10 |



# Concept and Range



## Pairing chart

|                      |                        | SATURNE cemented size |        |        |        |        |        |        |        |        |
|----------------------|------------------------|-----------------------|--------|--------|--------|--------|--------|--------|--------|--------|
|                      |                        | Ø44 mm                | Ø46 mm | Ø48 mm | Ø50 mm | Ø52 mm | Ø54 mm | Ø56 mm | Ø58 mm | Ø60 mm |
| Acetabular cage size | Size 40/44<br>ext. Ø48 |                       |        |        |        |        |        |        |        |        |
|                      | Size 43/48<br>ext. Ø52 |                       |        |        |        |        |        |        |        |        |
|                      | Size 46/52<br>ext. Ø56 |                       |        |        |        |        |        |        |        |        |
|                      | Size 49/56<br>ext. Ø60 |                       |        |        |        |        |        |        |        |        |
|                      | Size 53/60<br>ext. Ø64 |                       |        |        |        |        |        |        |        |        |

Compatible size

Compatible size with cement mantle >= 3 mm

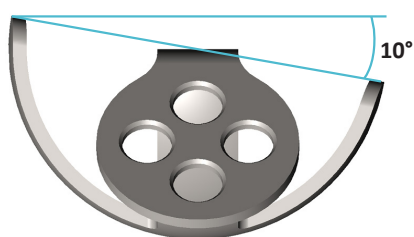
# Concept and Range

## Acetabular reinforcement cage

The acetabular cage is a solution indicated for reconstruction of the acetabular bone, to be paired with the SATURNE cemented cup

### Shorter anterior flange

This creates a 10° anteversion to the cage



### Bone graft fixation holes

Allow the introduction of Ø3.5 mm screws (not provided) for fixation of the reconstruction bone graft

### Inferior hook

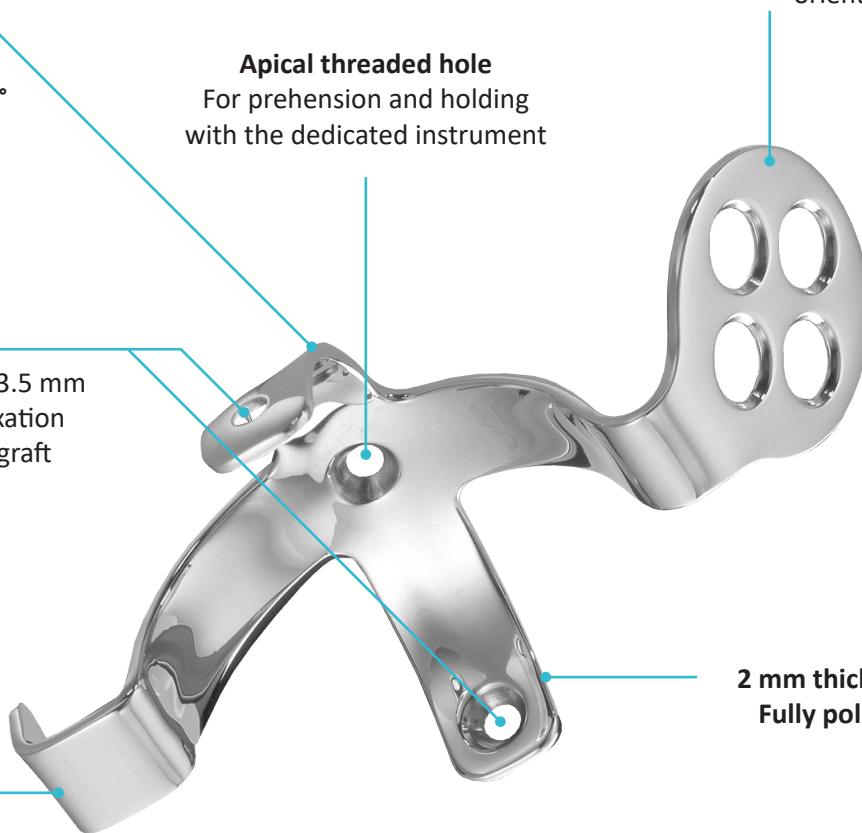
Inserts in the obturator foramen to stabilize the device and avoid verticalization

### Apical threaded hole

For prehension and holding with the dedicated instrument

### Superior fixation plate

Allows fixation to the roof of the acetabulum, using Ø4.5 mm or Ø5 mm cortical fixation screws (not provided). Fixation holes are designed to allow screws orientation



2 mm thickness  
Fully polished

Material = Stainless steel M25W



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# 1 Acetabular preparation

Widely expose the acetabular cavity to retrieve any adherent cement debris (in case of cemented cup revision). Carefully clean the bone cavity. If reaming is necessary, it is recommended to ream softly the peripheral bone of the acetabulum, so as to preserve bone stock that is probably already weakened.

## REMINDER

The purpose of this surgical technique description is to provide instructions on how to use the instrumentation properly. The surgeon is fully responsible for choosing and performing the approach and surgical technique.

## NOTE

The acetabular cage can be implanted with any surgical approach, and either before or after femoral preparation has been performed.

# 2 Selection of Trial Acetabular Cage

Select the Trial Acetabular Cage that better fits the anatomical acetabulum. Dimension of the acetabulum can help select the most appropriate size.

Assemble Acetabular Cage Handle with the Universal Handle, screw the Trial Acetabular cage on the assembly, and insert it inside the acetabulum: position the implant in the vertical plane, beginning with the hook on the apex of obturator foramen, then place the plate. Position the cage in the horizontal plane with the anterior and posterior flanges, trying to place the implant as close as possible to the bony wall. If necessary, remove any bone debris that could prevent from placing the implant properly, until the trial implant sits in the acetabulum. Check that the hook is in a strictly frontal plane. The alignment guide can be mounted on the Universal Handle if desired.

In case of small or large defects of the superior wall, the Trial Acetabular Cage should sit at distance from bone on its superior aspect. In this case it is recommended not to position it more vertical than 45°, and not to put the plate that includes 4 holes in contact with bone (this could lead to hook extraction), nor to bend the plate to adapt defects. It should serve as a reference to check and quantify bony defects, and the size and quantity of fragments that will be used for acetabular reconstruction.

Once this is done, remove the trial acetabular cage.





## 3 Acetabular Cage positioning

Position the final acetabular cage on the prepared cavity, along with necessary and previously quantified bone graft. It can be assembled and held with the Acetabular Cage Handle assembled on the Universal Handle if necessary. The alignment guide can be mounted on the Universal Handle if desired.

Check that the implant position is correct, apply manual pressure on the cage and fix it to iliac bone using  $\varnothing 4,5\text{mm}$  or  $\varnothing 5\text{mm}$  cortical screws on its superior plate. Begin with the hole that is closest to the hook, and screw up and back in sacro-iliac direction (it must not reach it). Before tightening it firmly, screw another one in the anterior hole and tighten it to stabilize the implant.

Tighten firmly the two screws while keeping manual pressure on the implant. It is recommended to go through the grafts with the screws, until the tightening pushes it against the bone.

Screws placement will put stress on the acetabular cage. If the hook tends to get out from its place, the superior graft height is probably not thick enough. In this case it is recommended to add a graft or put a thicker one on the superior aspect, under the plate. Screw again until the implant seats properly into the bone cavity.

Remodel the lateral wall of the acetabulum thanks to bone graft that will fill the gaps between the flanges and bone cavity. If necessary, it is possible to fix them to the acetabular cage thanks to  $\varnothing 3,5\text{mm}$  screws in the dedicated holes on each flange.

Morcellized cancellous bone should then be packed between interstices on pubis, ischium and between grafts.

## 4 Final cup insertion

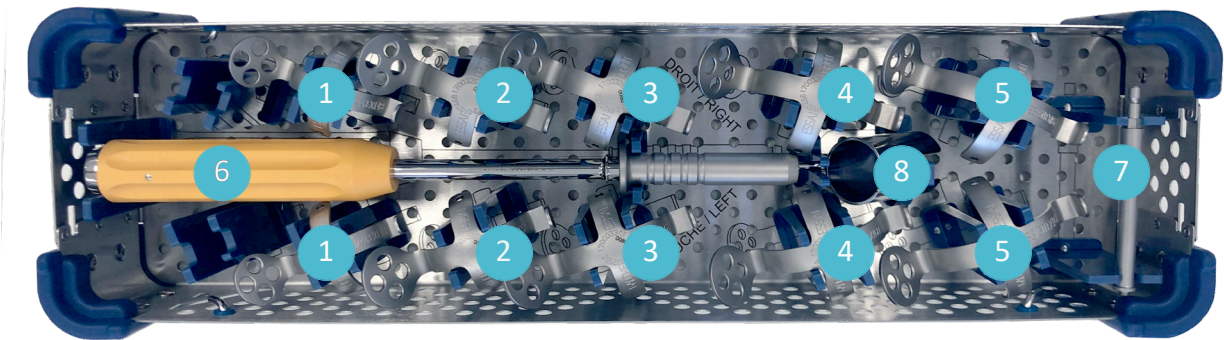
Clean the bone cavity remodelled with the acetabular cage, and check the proper fixation of grafts.

Position the trial cup of the proper size (for size selection, please refer to the table on page 5).

Once the size has been validated, remove the trial cup and proceed to the cementation and insertion of the final cup. Refer to the dedicated surgical technique of SATURNE cemented cup for more information on the insertion of the cup and stability trials.

# Instrumentation

## Acetabular Cage Left and Right side



| Rep | Description  | Reference |           | Qty |
|-----|--|-----------|-----------|-----|
|     |  | Left      | Right     |     |
| 1   | Trial acetabular reconstruction cage - Size 40/44 exterior $\varnothing$ 48 mm | 2-0107544 | 2-0107444 | 1   |
| 2   | Trial acetabular reconstruction cage - Size 43/48 exterior $\varnothing$ 52 mm | 2-0107548 | 2-0107448 | 1   |
| 3   | Trial acetabular reconstruction cage - Size 46/52 exterior $\varnothing$ 56 mm | 2-0107552 | 2-0107452 | 1   |
| 4   | Trial acetabular reconstruction cage - Size 49/56 exterior $\varnothing$ 60 mm | 2-0107556 | 2-0107456 | 1   |
| 5   | Trial acetabular reconstruction cage - Size 53/60 exterior $\varnothing$ 64 mm | 2-0107560 | 2-0107460 | 1   |
| 6   | Universal Handle   | 2-0101000 |           | 1   |
| 7   | Acetabular Reconstruction Cage Handle  | 2-0108800 |           | 1   |
| 8   | Cup Alignment Guide  | 2-0102000 |           | 1   |





**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](mailto:amplitude@amplitude-ortho.com)

**Customer Service – Export :**

11, cours Jacques  
Offenbach, ZA Mozart 2,  
26000 Valence – France  
Tél. : **+33 (0)4 75 41 87 41**  
Fax : +33 (0)4 75 41 87 42

[www.amplitude-ortho.com](http://www.amplitude-ortho.com)