



*Enjoy Mobility*

# SMR SYSTEM

INFO PRODUCT



# SMR SYSTEM

## MODULAR REVISION STEM

The SMR hip revision stem is a modular system designed for prosthesis replacement in cases of serious bone loss (Paprosky grades II and III).

With over 20 years of clinical history, the femoral implant consists of three elements: a proximal component, a distal component and a locking screw.

The SMR stem allows customized reconstructions thanks to the wide range of modular combinations of proximal and distal components.

---





# S M R SYSTEM

---

## THE SYSTEM

The system consists of three basic elements:

- Proximal component (125° and 135° CCD angle)
- Distal component
- Locking screw

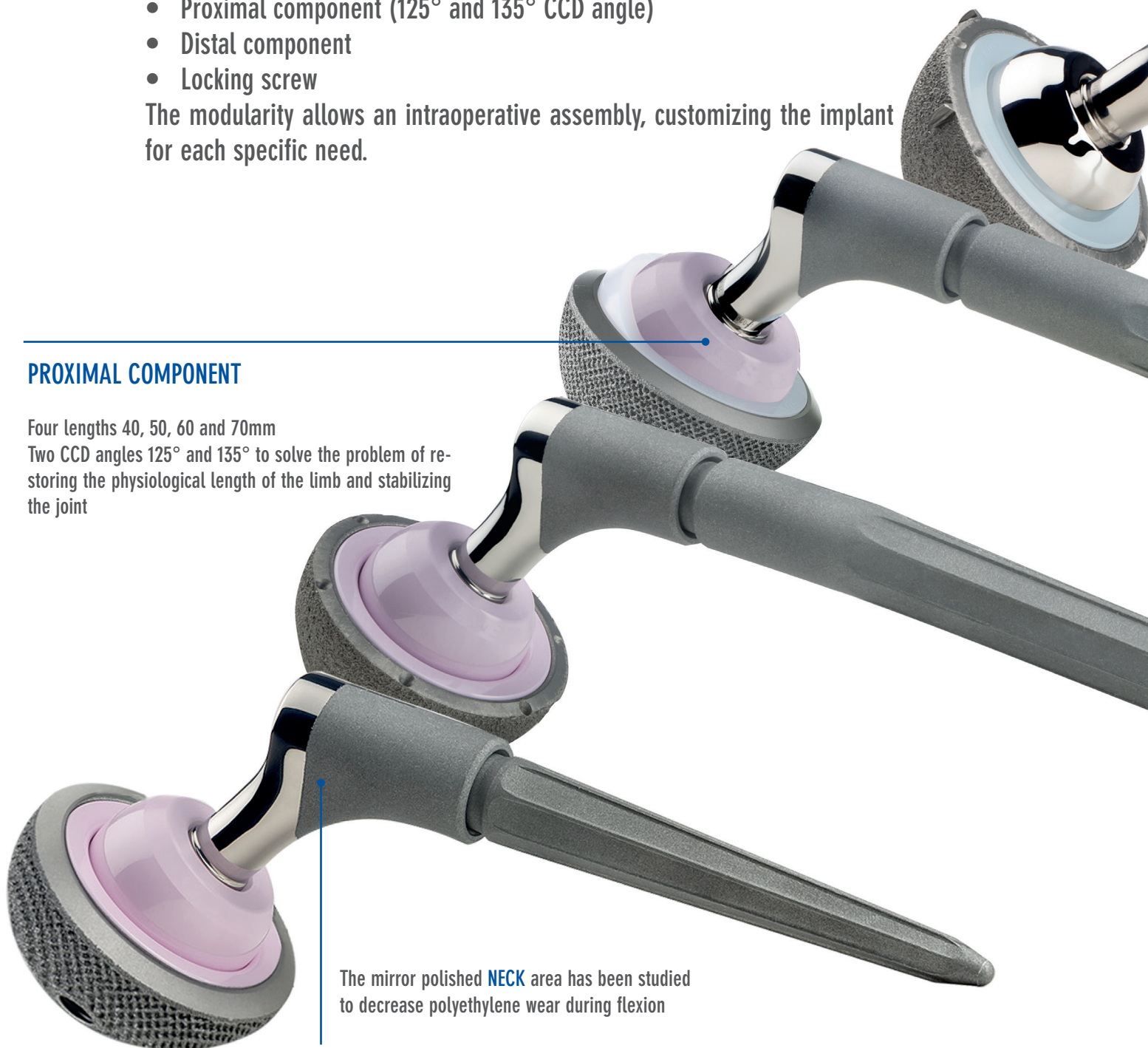
The modularity allows an intraoperative assembly, customizing the implant for each specific need.

---

## PROXIMAL COMPONENT

Four lengths 40, 50, 60 and 70mm

Two CCD angles 125° and 135° to solve the problem of restoring the physiological length of the limb and stabilizing the joint

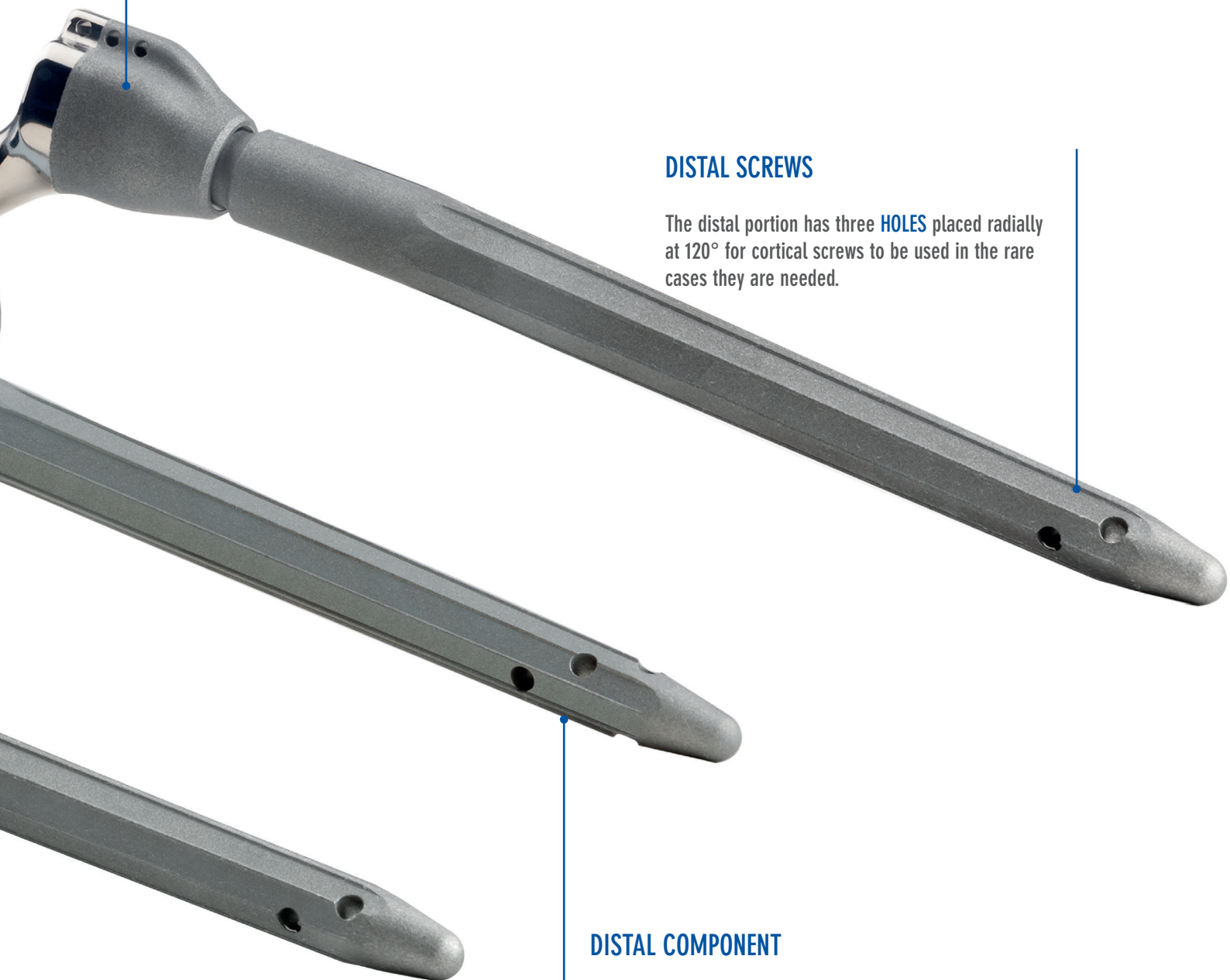


The mirror polished **NECK** area has been studied to decrease polyethylene wear during flexion

## FILLING PROXIMAL COMPONENT

Four lengths 40, 50, 60 and 70mm  
Two CCD angles 125° and 135°

Lateral shoulder with three holes for passing wires or cables (up to 3mm diameter) for cerclage when resolving cases of fractures/detachments of the greater or lesser trochanter



## DISTAL SCREWS

The distal portion has three HOLES placed radially at 120° for cortical screws to be used in the rare cases they are needed.

## DISTAL COMPONENT

Four lengths: 100, 160, 200 and 240mm  
Nine diameters: 14, 15, 16, 17, 18, 19, 20, 22 and 24mm

The 200 e 240 mm distal components have a 3° anatomical pro-curvedure to fit the anatomy of the femur.

# SMR SYSTEM

---

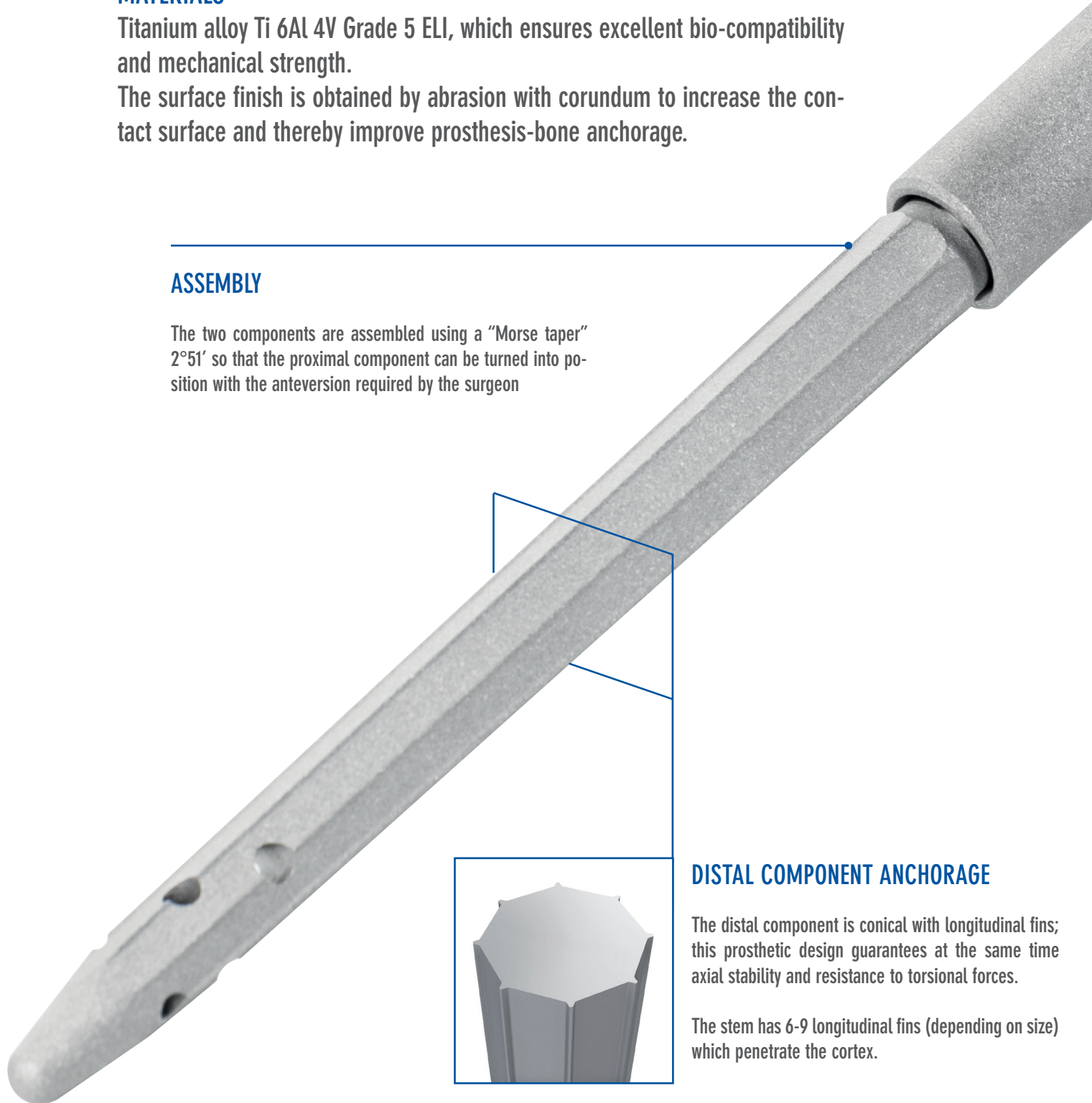
## MATERIALS

Titanium alloy Ti 6Al 4V Grade 5 ELI, which ensures excellent bio-compatibility and mechanical strength.

The surface finish is obtained by abrasion with corundum to increase the contact surface and thereby improve prosthesis-bone anchorage.

## ASSEMBLY

The two components are assembled using a "Morse taper"  $2^{\circ}51'$  so that the proximal component can be turned into position with the anteversion required by the surgeon



## DISTAL COMPONENT ANCHORAGE

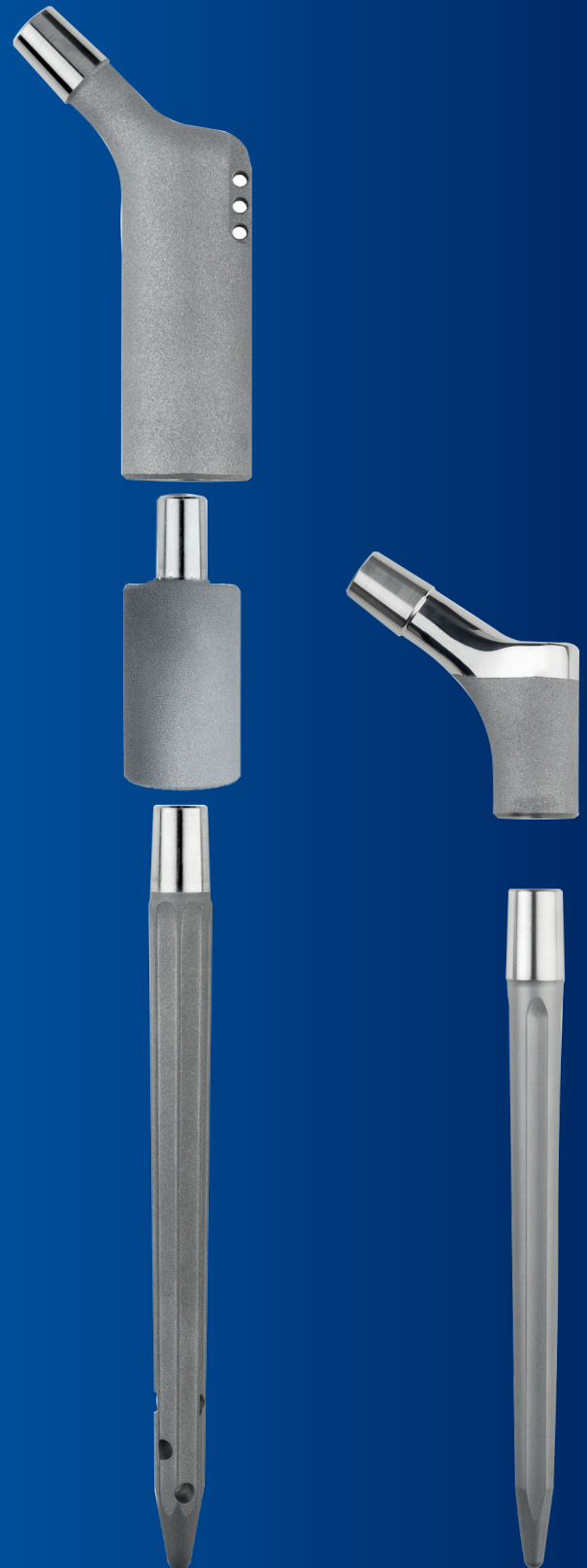
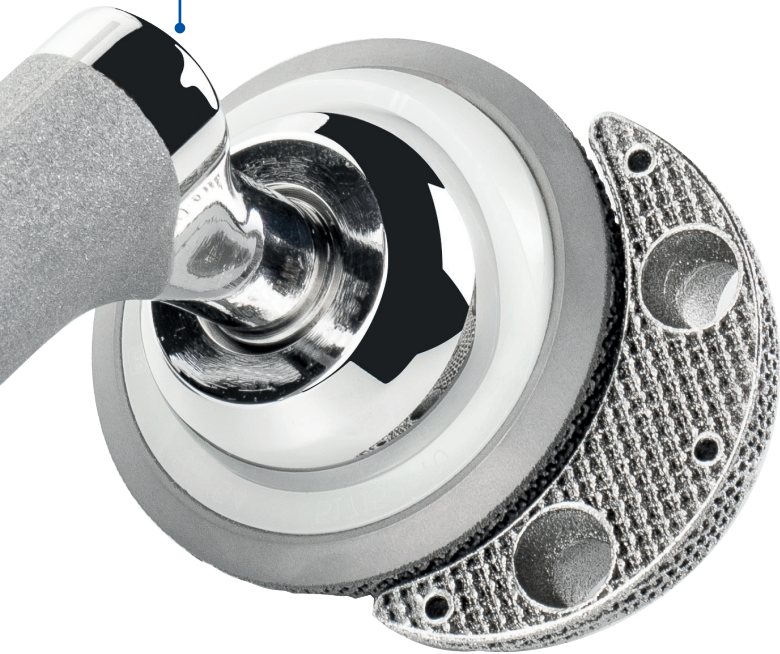
The distal component is conical with longitudinal fins; this prosthetic design guarantees at the same time axial stability and resistance to torsional forces.

The stem has 6-9 longitudinal fins (depending on size) which penetrate the cortex.

## LOCKING SCREW

The locking screw is used to hold the "Morse taper" cone in place but does not have a sealing effect, as it is the coupling of the two tapers that guarantees the seal over time.

The screw has a cross bolt made of polyethylene to prevent loosening.



## SMR RESECTION - SMR MODULARITY

The distal component of the SMR revision stem is also used in coupling with the proximal component of the SMR Resection prosthesis.

Depending on the indication, it's possible to choose between cemented or uncemented distal components.

## Web site

---

Use the QR-Code to visit Gruppo Bioimpianti website



## IFU

---

Use the QR-Code to view complete product informations, including instructions for use, indications and contraindications, precautions and warnings



*Enjoy Mobility*

**GRUPPO BIOIMPIANTI S.R.L.**

Via Liguria 28, 20068 Peschiera Borromeo (Milan) Italy

Tel. +39 02 51650371 - Fax +39 02 51650393

info@bioimpianti.it

**bioimpianti.it**