

enovis™

SMR SYSTEM

Balanced by design



EVOLVED Modularity
RELIABLE Fixation
PROVEN Performance

MODULARITY, FIXATION, PERFORMANCE

SMR SYSTEM

Balanced by design
since 2002

Each individual clinical case requires a **tailored solution**.

A **balanced** shoulder replacement system should empower surgeons to manage each patient soft tissues' conditions, aiming to minimize the risk of instability and dislocation.

Our company continues to innovate and progress digital technology to transform orthopedics.

It has launched the world first ever modular shoulder platform system that supports surgeons to achieve a **balanced, performing** and well **fixed** joint replacement for each individual patient.

Leveraging our Italian design and engineering heritage, we continue to achieve pioneering milestone developments in orthopedics, continually **evolving** the original shoulder platform system.^[1]

SMR

2002

SMR launch based on Sistema Randelli
shoulder platform legacy^[1]

Trabecular *Titanium*

2007

First 3D printed
orthopedic implants



2017

First RSA to receive
ODEP 10A rating^[11]

SMR TT HYBRID GLENOID

2018

First convertible
Hybrid Glenoid

Point of Care Centre at HSS

2021

First hospital 3D manufacturing facility

EVOLVED MODULARITY

Designed for young, demanding active patients

SMR TT HYBRID GLENOID

Fixation: Address Glenoid Loosening

TT Central peg for enhanced primary fixation and tissue ingrowth, plus cemented peripheral pegs.^[2]

Balance: Soft-Tissue Management

12 different glenoid options for appropriate soft tissue balancing: 3 sizes / 2 thicknesses / 2 radii of curvature

Conversion: Addressing secondary Cuff Tears

Convertible to reverse without removal of a well fixed central peg with dedicated instruments and baseplate.^[13]



SMR STEMLESS

Innovative solution in bone preserving implants, combining advanced modularity and TT technology.^[14]



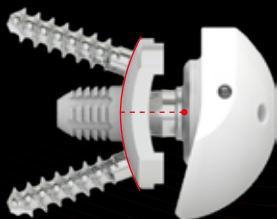
SMR SHORT STEM

Bone sparing solution built on the SMR Stems ODEP 10A's^[11] clinical heritage. 45mm long / 13 diameters available.



SMR LATERALIZED CONNECTORS

A simple solution in cases where additional sphere lateralization is required during shoulder arthroplasty. Allows lateralization from 5 to 10mm from glenoid surface.



EVOLVED MODULARITY

One shoulder system for HA, TSA or RSA



SMR REVERSE HP GLENOSPHERE ^[21-24]

First full polyethylene glenosphere available on the market with a unique design to better support surgery.

The Chamfered shape allows surgeons to use larger diameter glenospheres such as a 40mm, since it has the same bulky dimension as a 36mm glenosphere.

Inversion of the materials enables the use of metal liners with a unique design that offers a pure humeral lateralization option (+4mm) with no distalization on the humeral side.

SMR for PROXIMAL HUMERAL FRACTURES ^[25-28]

Adaptable Humeral Fixation

Diaphyseal press fit cementless stems reduce the need for cement and enable the surgeon to adjust the final height of the implant.

SMArt Modularity

Only one dedicated humeral component, the trauma Reverse Humeral Body with two fins to reattach the tuberosities. SMR modularity also allows for a short learning curve and a reduced stock in the OR.

Clinical Legacy

With more than 18 years of clinical FU and peer reviewed publications, SMR Reverse HP IN TRAUMA has received a 7A ODEP Rating.



EVOLVED MODULARITY

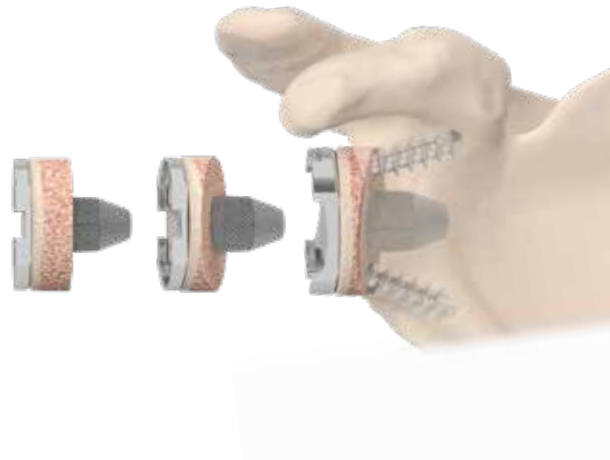
Revision and complex cases

SMR

T7 METAL BACK BONE GRAFTING INSTRUMENTATION

A step-by-step guided procedure allows the surgeon to produce different sizes of bone graft according to the clinical case. T7 Metal Back with bone-graft provides a reliable method of addressing glenoid bone defects in revision and primary TSA.^[5,9]

95% of the TT pegs showed total or > 50% integration on CT scans.^[9]



SMR TT AUGMENTED 360

A circular baseplate design, paired with a modular clinically proven^[3-5,9] **Trabecular Titanium** peg, and prepared ON-AXIS with the ASAP Reamer and ASAP Drill Systems. Baseplate secured by x2 cancellous screws dia. 6,5mm, or x3 cortical screws dia. 5mm.

Streamlined Preparation

Intraoperative experience does matter.

The **ASAP system** has been designed for a streamlined on-axis glenoid preparation through user-friendly instrumentation.



Full-Wedge

7°, 15°, 19°*

15°X, 19°X*



Lateralized

+2mm

+4mm

ASAP System



*Upon request only

PROMADE

Dedicated engineering design service

Leveraging proprietary technologies and surgeon collaboration aiming at developing bespoke solutions based on 3D printing know-how to manage the most challenging cases.



Design Service

- Dedicated Engineer and direct partnership to define design, surgical steps and technique, from beginning to shipment.
- Models and PSIs to carefully plan the case and guide the surgery intraoperatively. ^[15]
- Fully sterile Implants & PSI to reduce infection risks.

Confidence through Primary Stability

- Increased primary stability thanks to Trabecular Titanium (TT) high friction between bone and implant to reduce micro-motion risk. ^[3,10]
- TT low elastic modulus allows proper load transfer to the bone, reducing stress shielding and bone resorption. ^[3,10,12]
- Highly stable initial placement thanks to irregular shaped bone interfaces of the implant design that aim to fill in defects. ^[3,16]

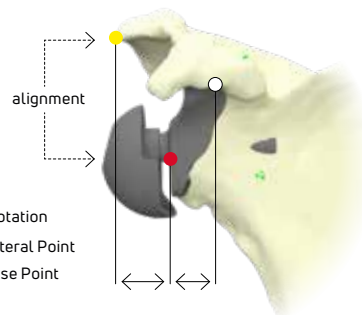


Biomechanical Restoration

- A comprehensive surgical plan, using imaging data and clinical insight, to aim at restoring desired patient biomechanics.
- Design versatility to properly restore the patient anatomy and filling of defects.
- Expanded modularity facilitated by modular connections with Enovis' portfolio to provide a wide range of surgical options.

LEGEND

- COR: Centre Of Rotation
- ALP: Acromial Lateral Point
- CBP: Coracoid Base Point



TT RELIABLE FIXATION

Since 2007

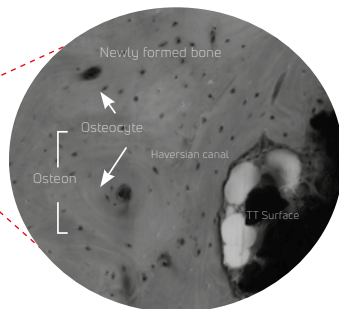
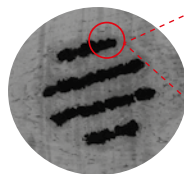


Trabecular Titanium is a complex alveolar structure. It's hexagonal cells mimic a diamond cubic lattice - created out of titanium powder through Electron Beam Melting.

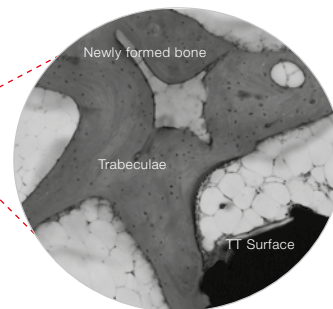
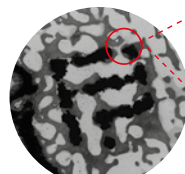
TT provides significant tissue ingrowth both in cancellous and cortical bone.^[4,6,8,9]

TT has been demonstrated to stimulate osteoblast proliferation and differentiation and reduces apoptosis.^[6,7]

Cortical bone
inside a pore



Cortical bone
inside a pore



PRE-OPERATIVE PLANNER

To plan cases in a simple, automated and independent manner

Find SMR System solutions integrated in our Pre-Operative Planner software powered by Materialise*

- Auto-Segmentation^[17]
- User-friendly Interface
- 360° Planning
- Plan Everywhere
- Patient Specific Instruments^[18-20]



* Materialise NV is the proprietor and - to all effects - the legal manufacturer of the pre-op planning software.

Limacorporate Spa, as a manufacturer of prosthetic implants, does not practice the medical profession. The choice of surgery and the most appropriate technique and products is the responsibility of the healthcare professional. Each Surgeon must evaluate the appropriateness of the implant technique they intend to perform considering their own training, experience and clinical evaluation of each individual Patient.

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Bibliography