



# *SAYAN ORTHOPAEDICS*

*Designer & Manufacturer of Orthopaedic and  
Spinal Instruments & OEM Implants*



# *Content*

- ✧ Resources founded in 2006*
- ✧ Manufacturing Plant*
- ✧ Quality System Certificates*
- ✧ Human Resources*
- ✧ CNC Machines*
- ✧ Quality Equipments*
- ✧ Patents*
- ✧ Product Range*





# *Resources in 2006*

- ⌘ Average 8.5 year / worker experience in design and manufacturing of orthopaedic instruments and implants when founded in 2006
- ⌘ 10 skilled personnel : 1 in R&D, 6 in Production and 1 in Quality
- ⌘ Work discipline as if what we manufacture will be used in the operation of *OUR BEST LOVED*
- ⌘ Excellent command of machinery and handcraft
- ⌘ *IN LOVE* with what we do





*Manufacturing Plant*





*Meeting Room*





All semi-finished materials  
supplied either from Europe or USA

Stainless steel and titanium  
bars and sheets either  
European or USA originated

Radel & propylux bars in various colors  
and propylux sheets in black and white  
supplied from Westlake Plastics, USA



*Raw Material Warehouse*





4 Axis VMC

4 Axis VMC

3 Axis VMC

Deep Hole  
Drilling Machine

4 Axis EDM

5 Axis VMC

ERP Data  
Entry Kiosk

C Axis Lathe

*CNC Machines*





12+1 Axis  
Swiss Turn

Process Quality  
Control Station

*CNC Machines*





*Conventional Machines*





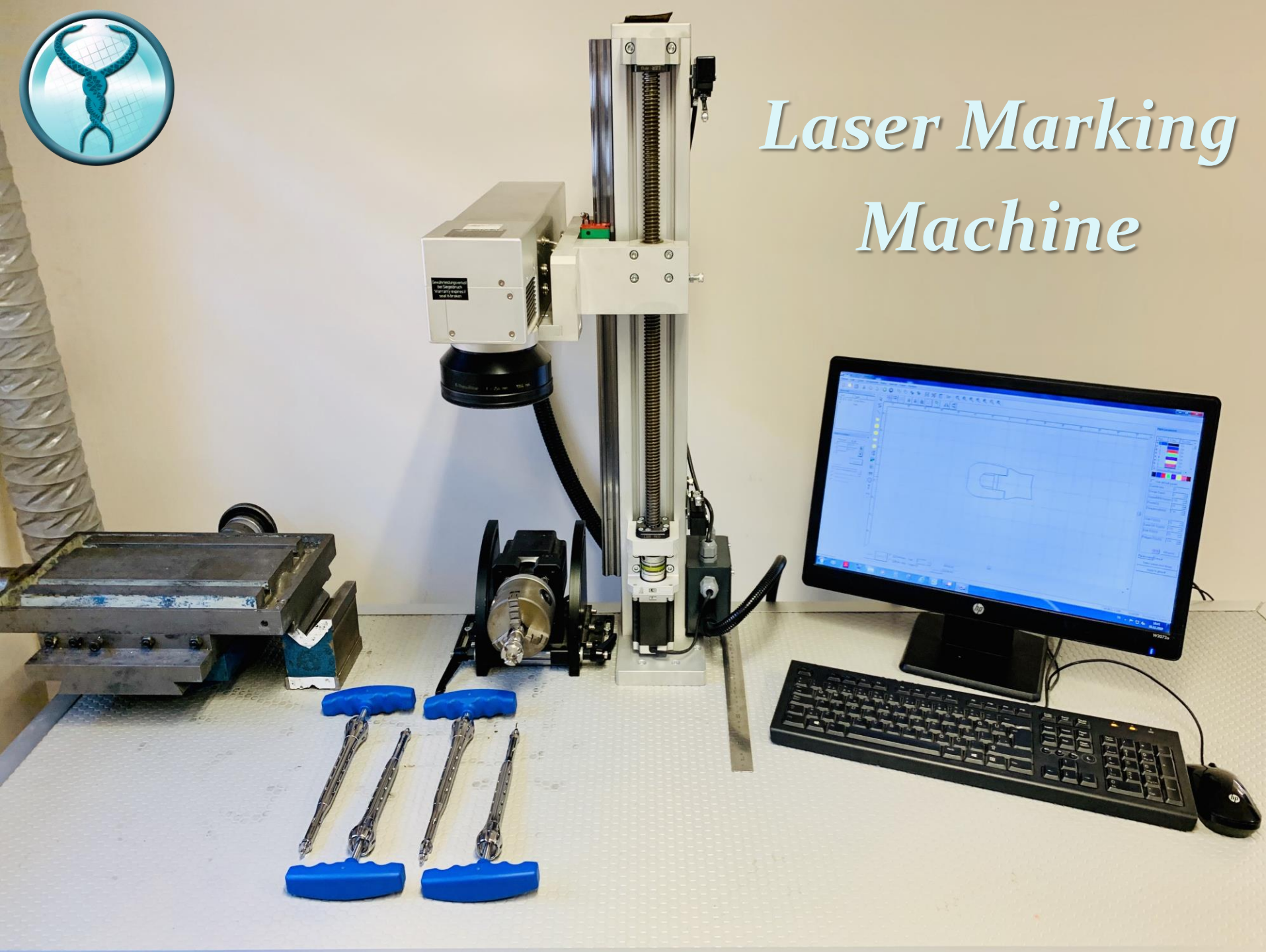
# *Laser Welding Machine*







# *Laser Marking Machine*







*Final Quality Control*





*Final Quality Control*





*Packaging + Shipment*

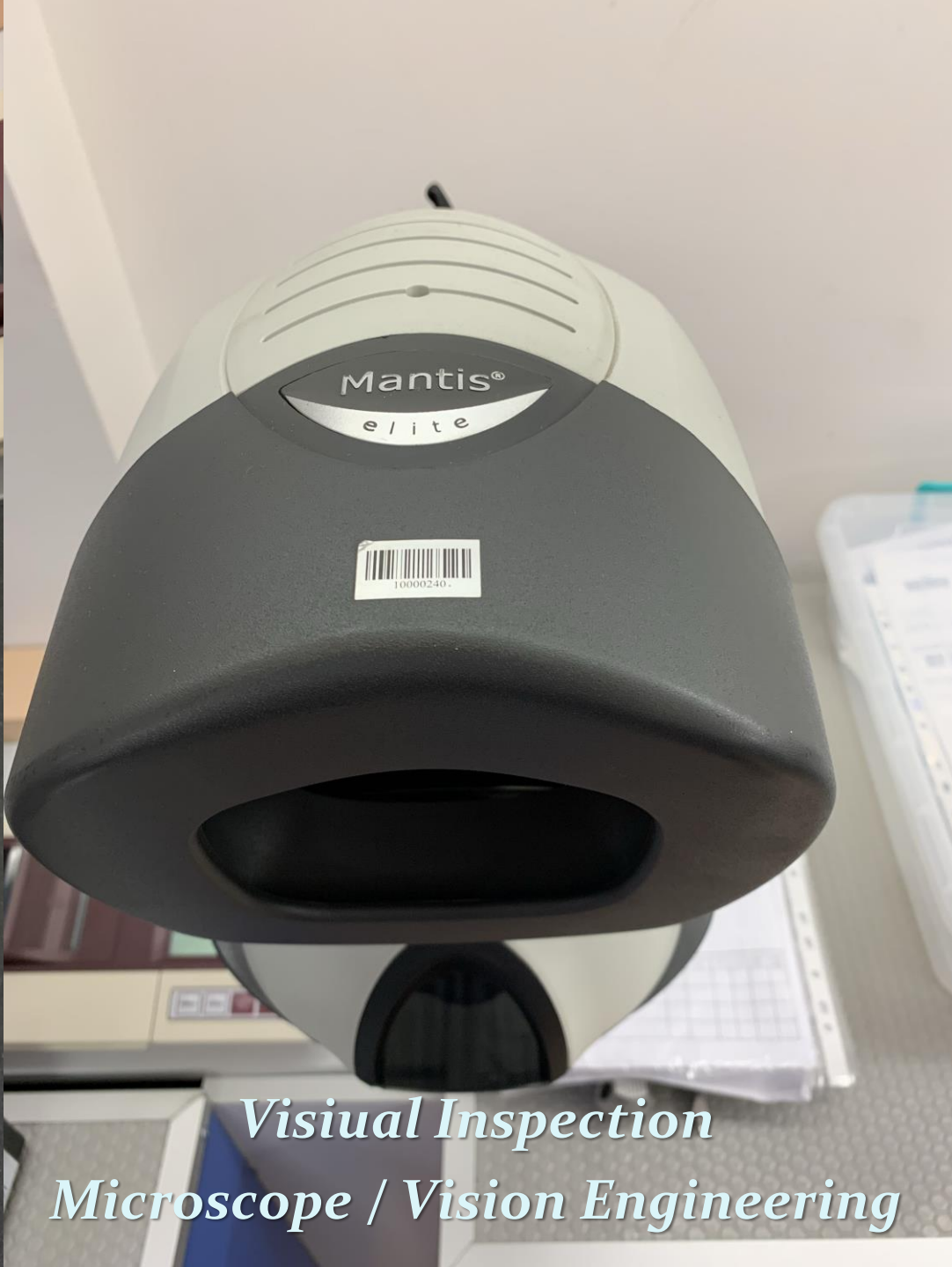




*CNC Video Measuring Machine / Nikon*



*Surface Roughness  
Tester / Mitutoyo*



*Visual Inspection  
Microscope / Vision Engineering*





*Coordinate Measuring  
Machine / Mitutoyo*



*Hardness Tester / Affri*





*Refractory  
quality life ... quality environment*





# *Quality Management System*

More than 30 years behind, both in the US and in Europe orthopaedic implant and instrument manufacturers were individualized & Sayan is the initiative of such differentiation in Turkiye and is still the market leader in the country and serving world spread 48 Customers in 30 different countries, mostly in Europe and USA, an important player in the World arena with below certifications/registrations

ISO 13485 : 2016 Quality Management System

Class I Surgical Instruments

Class IIA Motor Driven Surgical Instruments

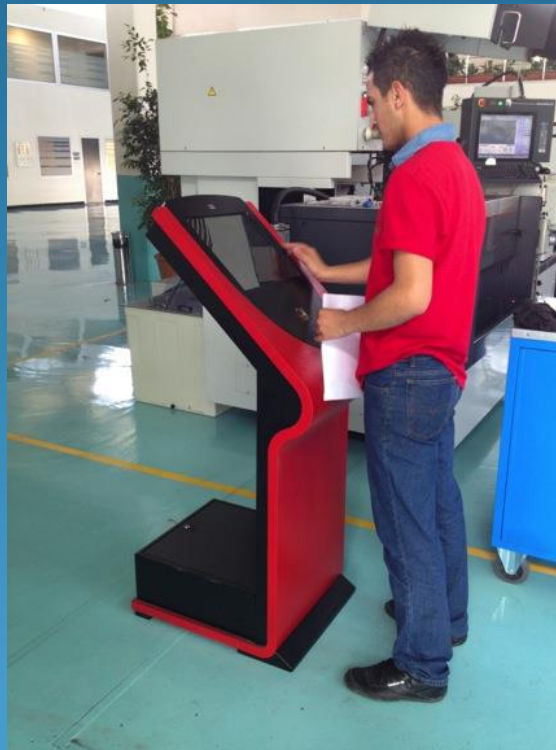
Class IIB Trauma Implants

US FDA Surgical Instruments

Japan PMDA Surgical Instruments



# *ERP System / Mental Prism*



*Self-Learning ERP System to Record and Track Back All  
Production Records Online*

*300,000 € of Investment*





*... In Service of the World*



# *Countries Served*

## ☼ Americas

Argentina / Brasil / Colombia / Panama / USA

## ☼ Europe

Belgium / Croatia / Czech / France / Germany / Greece /  
Italy / Lithuania / Poland / Portugal / Romania / Spain /  
Switzerland / UK

## ☼ Africa

Egypt / South Africa

## ☼ Asia

Georgia / India / Indonesia / Israel / Japan / Philippines /  
South Korea / Syria / Taiwan

## ☼ Australia





# *Human Resources*

- Enhanced 9.5 year/worker experience in average
- 1 with MBA degree
- 5 with bachelor degree
- 3 with college degree
- 11 with technical high school degree
- Total of 49 personel as 16 white-collar employees and 33 blue-collar employees



# *Production Equipments*

- ☞ 1 off 5 Axis Vertical Machining Center
- ☞ 2 off 4 Axis Vertical Machining Centers
- ☞ 1 off 3 Axis Vertical Machining Center
- ☞ 2 off CNC Lathes with C-Axis
- ☞ 1 off Swiss Turn with B-Axis and Bar Feeder
- ☞ 1 off 4 Axis EDM Wire





# *Production Equipments*

- ₪ 1 off Deep Hole Drilling
- ₪ 1 off Laser Welding Machine
- ₪ 1 off TIG Welding Machine
- ₪ 1 off Vibratory Surface Finishing Machine
- ₪ 3 off Belt Grinding Machines
- ₪ 5 off Conventional Machines



# *Production Equipments*

☞ 2 off Plastering and Pressing Machines

☞ 1 off Grid Blasting Machine

☞ 1 off Laser Marking Machine

☞ 2 off Ultrasonic Cleaning Machines





# *Quality Equipments*

- ∞ 120x – CNC Video Measuring Machine / *Nikon – Japan*
- ∞ Coordinate Measuring Machine / *Mitutoyo – Japan*
- ∞ Surface Roughness Tester / *Mitutoyo – Japan*
- ∞ Hardness Tester / *Affri – Italy*
- ∞ 8x – Visual Inspection Microscope / *Vision Engineering – UK*



# *Main Processes*

✧ Machining

✧ Welding

✧ Surface Treatment

✧ Quality Control

✧ Ultrasonic Cleaning

✧ Electropolishing

✧ Passivation

✧ Assembly

✧ Anodization of Titanium

✧ Laser Marking

✧ Labelling

✧ Packaging





# Patents

✚ *HA Coating Over Ti6Al<sub>4</sub>V in Lactic Acid Enriched Body Fluid*

*European Patent # : EP2296718*

✚ *MIS – Flex Acetabular Reamer Handle*

*European Patent # : EP2626017*

✚ *Bone Reamer Prong Shaft with Additional Cutting Feature*

*TPO Patent # : 2015 / 04604*

✚ *Axial Persuader for Polyaxial Screw*

*TPO Patent # : 2015 / 00454 B*



# *Product Range*

- ✧ Trauma Instruments and Sets*
- ✧ Cable Instruments and Sets*
- ✧ Total Hip Instruments and Sets*
- ✧ Total Knee Instruments and Sets*
- ✧ Spinal Instruments and Sets*
- ✧ MIS Instruments and Sets*
- ✧ Retractor Instruments and Sets*
- ✧ Revision Instruments and Sets*
- ✧ Cement Removal Instruments and Sets*
- ✧ Revision of Instrument Sets in Service*
- ✧ OEM Implant Design and Manufacturing*
- ✧ Custom-made Implant Design & Manufacturing*
- ✧ Tooth Implant Design & Manufacturing*







*Sample Products*

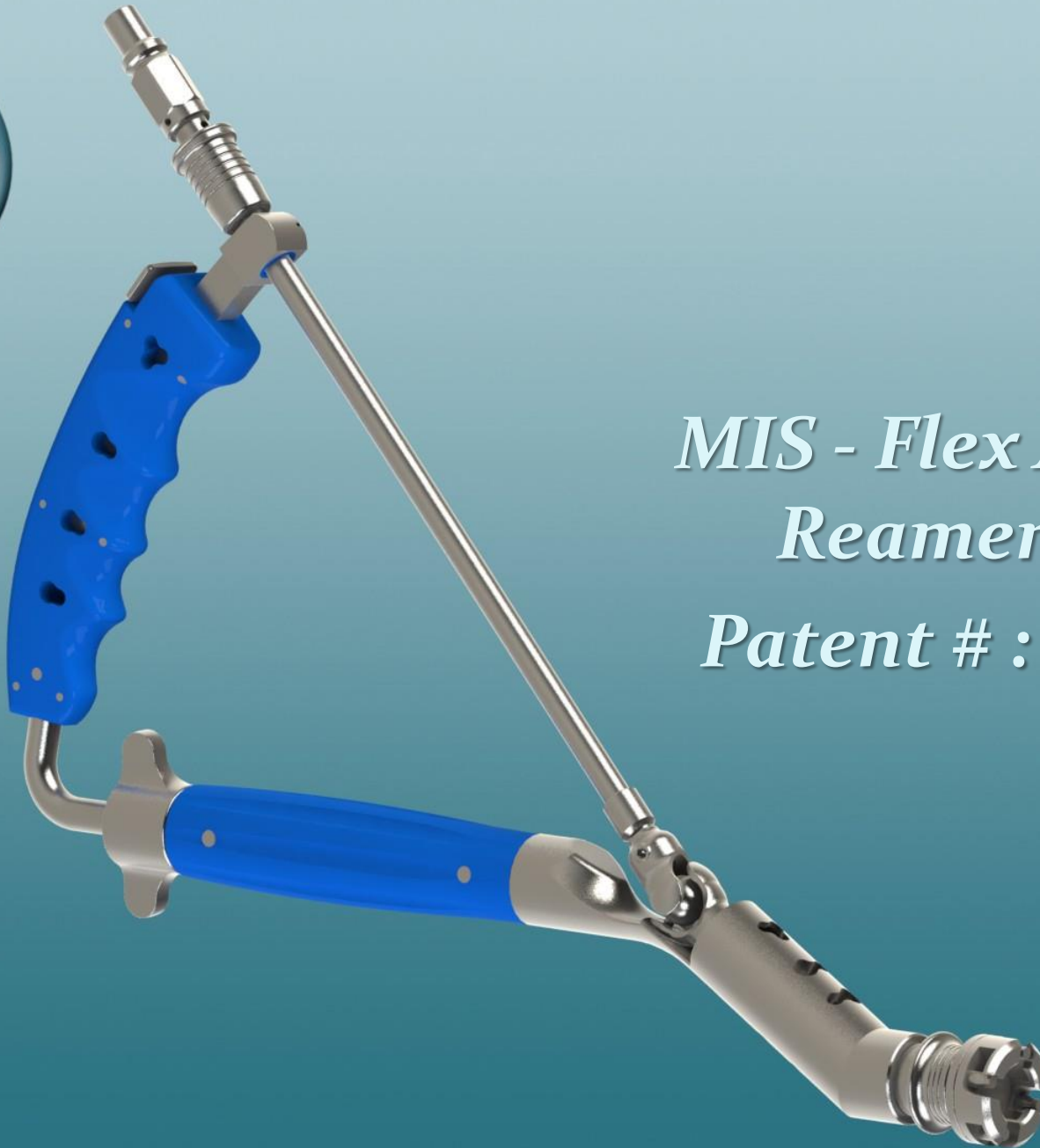


*Hand-on Hand-off Axial  
Persuader*

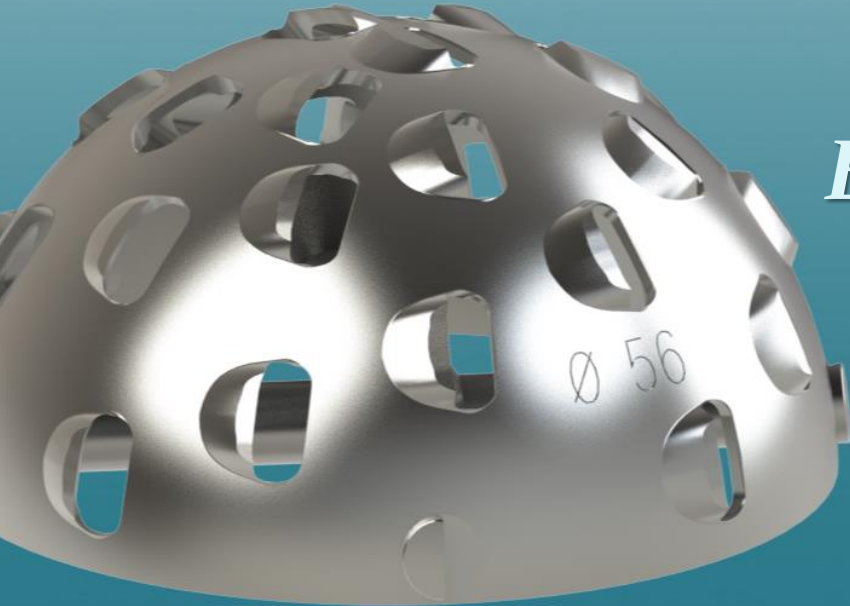
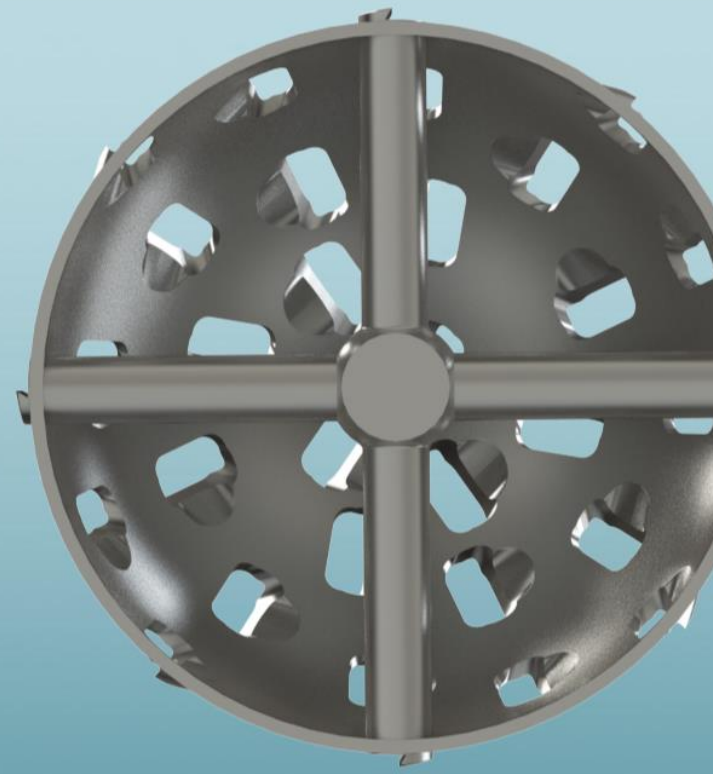
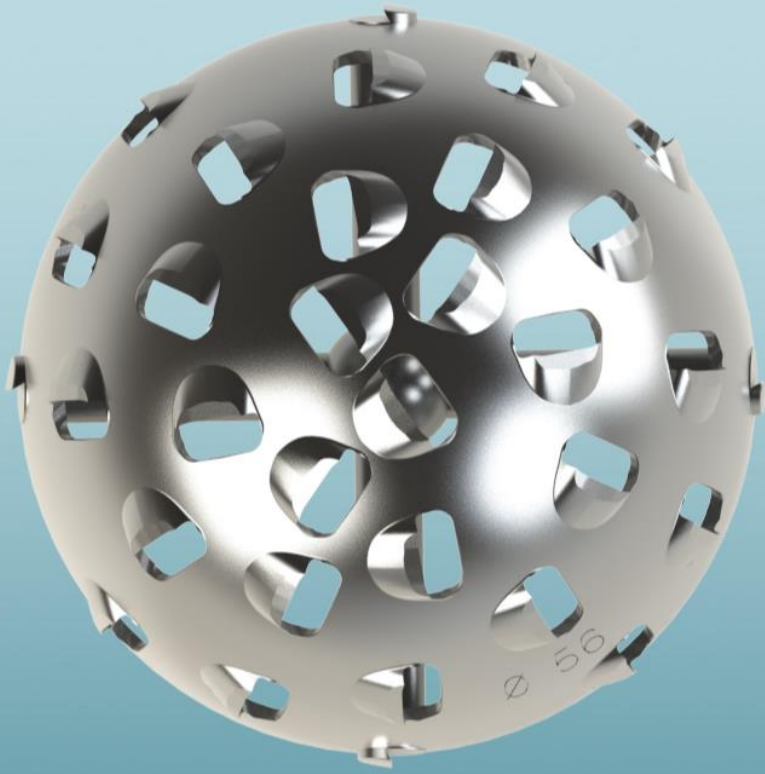
*Patent # : 2015 / 00454 B*

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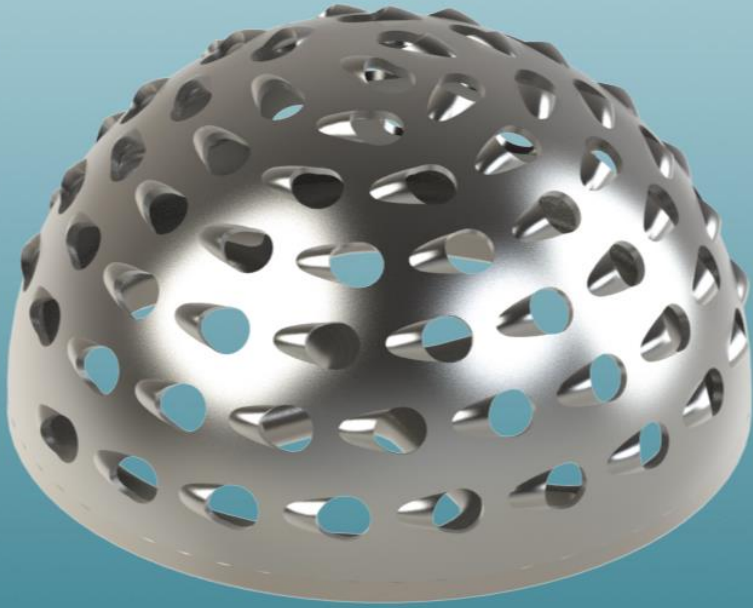
*MIS - Flex Acetabular  
Reamer Handle  
Patent # : EP2626017*



# *Acetabular Reamer with Equatorial Cutting Feature*

*Patent # : 2015 / 04604*

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## *Acetabular Reamer with Carnet Plate*

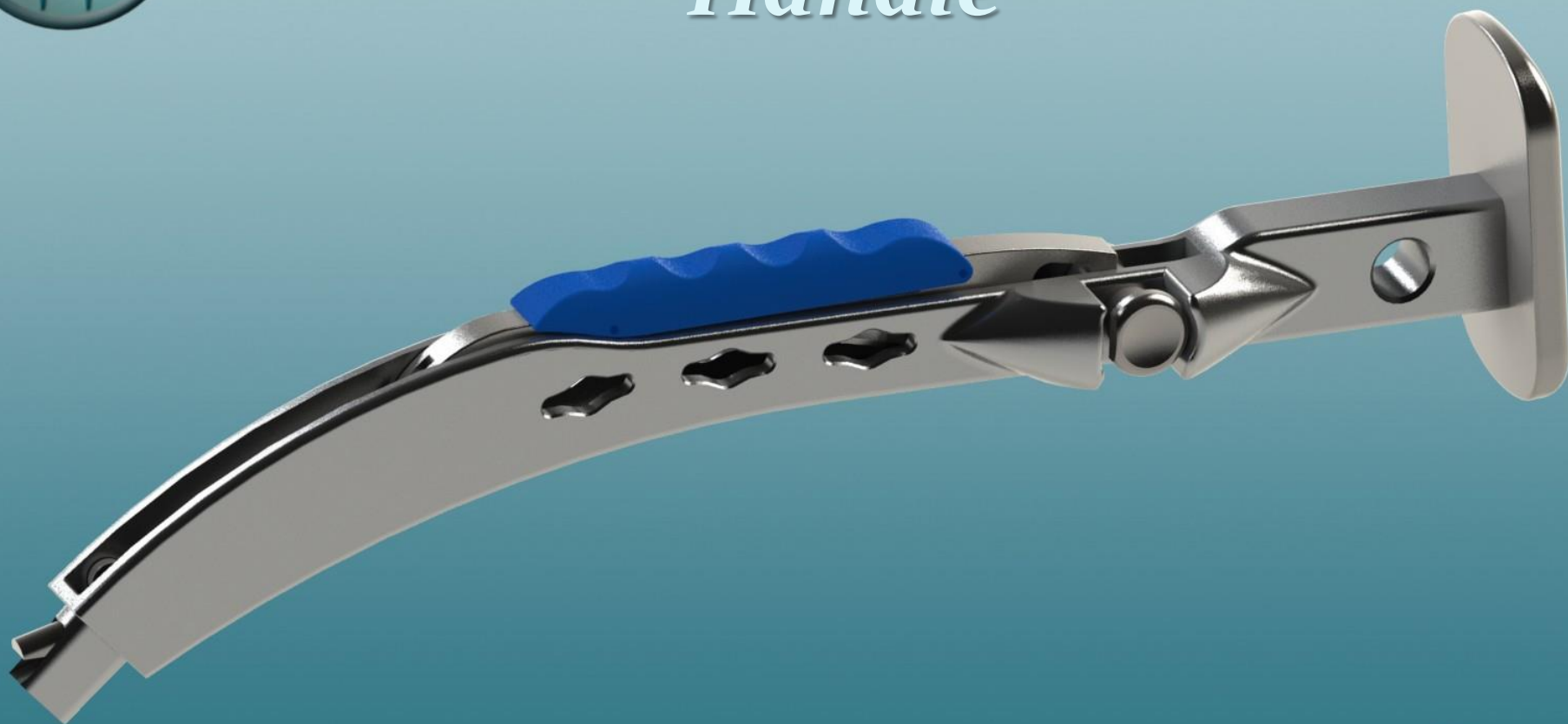




*Broach*



# *Posterior Broach Handle*





# *Anterior Broach Handle*







*Thank you for  
your precious time*