

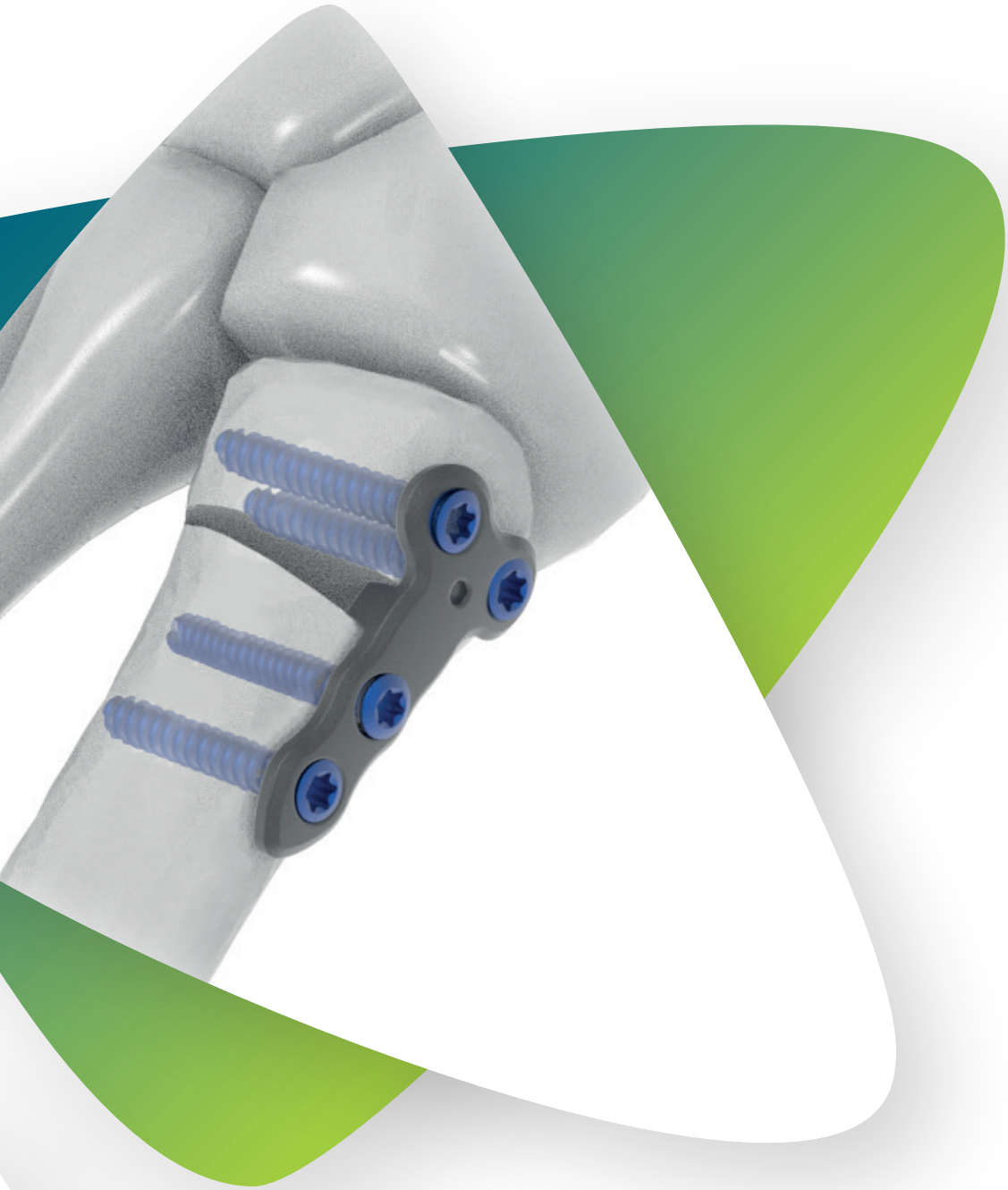


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MAXXOS MEDICAL



P.A.C.E.

Open Wedge Basal Osteotomy
Operation Manual



Precise.
Accurate.
Comprehensive.
Effective.

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WARNING

This Operation Manual alone does not provide sufficient background for direct use of the instrument and implant set. The usage of the system by a surgeon experienced in handling these implants and instruments is highly recommended. For safe and effective use of this implant systems, the surgeon should be familiar with this recommened surgical technique for the device that has been choosen from the system. In every case, accepted surgical practice should be followed in postoperative care and the patient should be made aware about the operations and the allowed acitvities with these implants.

01
PRODUCT FEATURES

The MAXXOS-Medical P.A.C.E. Foot Plating Systems offers a wide range of different plates for fore-, mid- and hindfoot as well as fracture specific plates for ankle fractures. The system is one of the most comprehensive plating systems of anatomically contoured to adress the treatment of osteotomies, fusion and fractures in the forefoot, midfoot and hindfoot.

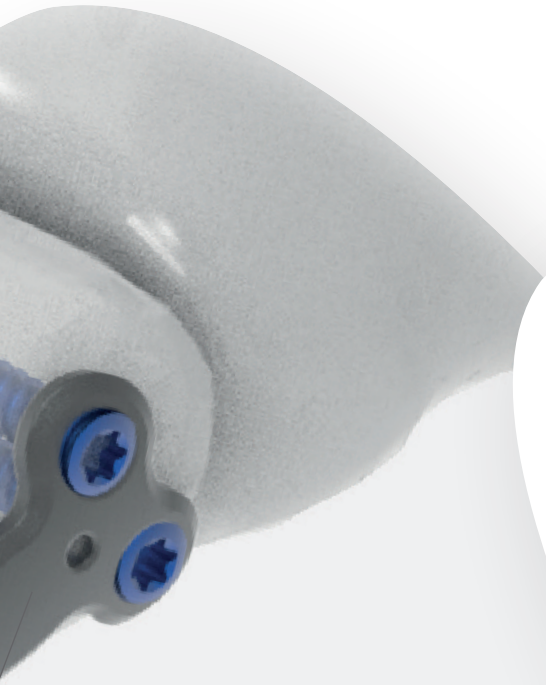


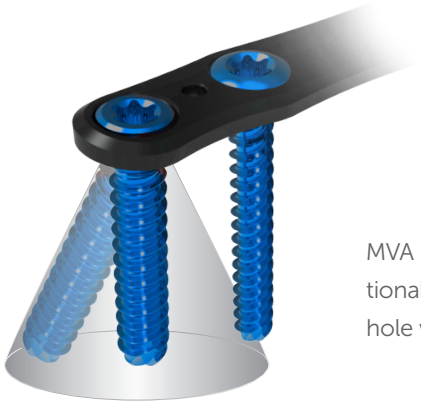
All plates are type II anodized, which makes the surface of the titanium about 15 % harder and reduces the risk of cold welding.

Special plate designs for the treatment of fractures, fusions and osteotomies in the mid- and hindfoot area.



Open Wedge Plate with various wedge sizes from 0, 2, 3, 4, 5, 6 mm. From the Wedge size 4 mm the plate is anatomically shaped for a perfect fit on the bone.





MVA solution allows the multidirectional usage of the screws in every hole with a total variability of 24°.



Colour coding systems allows an easy use of the instruments with the different plating systems. All instruments are colour coded with a ceramic mark related to the screw colour.

02
GENERAL INFORMATION

INDICATIONS

MAXXOS-Medical GmbH Osteosynthesis implants are used for fixation of fractures, fusions in case of osteoarthritis or corrective interventions in case of anatomical malalignments, osteotomies in case of malalignments and reconstructions of extremities. The use of MAXXOS-Medical GmbH Osteosynthesis implants for treating fractures, fusions, osteotomies and reconstructions of extremities requires the following, general indications:

- The patient is in a good condition
- Good neurovascular condition
- Sufficient skin cover
- Good bone substance for the implants
- Post-operative care is possible
- Patient is cooperative

CONTRAINDICATIONS

The P.A.C.E. Fracture and Fusion Plating system has no product specific limitation or contraindications. General contraindications are as follows:

- All concomitant diseases that can endanger / interfere with the fixation or the success of the surgery.
- Poor bone substance / structure which endangers or has a negative effect on the secure fixation of implants
- Serious muscular, neurological or vascular diseases that endanger or have a negative effect on the success of the procedure / surgery
- Patients with allergies susceptible to allergic shock / soft tissue reactions because of the material used in the implant
- Acute or chronic, local or systematic infections.
- Inflammations
- Smoking which can endanger the success of the procedure / surgery by delayed bone healing / wound healing.
- Physically or mentally unstable patient
- Option of conservative treatment
- Growing patient with open epiphyses
- Patient with high level of activity

03
OPERATION MANUAL

PRE-OP: A Basal Osteotomy is only suitable to use in patients with a stable TMTJ1 in the sagittal plane based on a weight bearing lateral Radiograph.

01. Medial Longitudinal incision
02. Identifying the correct position of the Osteotomy
03. Osteotomy
04. Opening of the Osteotomy
05. Opening Wedge Plate Positioning
06. Drilling the hole
07. Determining the appropriate screw length
08. Insertion of the appropriate Non-Locking Screw
09. Insertion of the other screws
10.. Wound closure

01 MEDIAL LONGITUDINAL INCISION



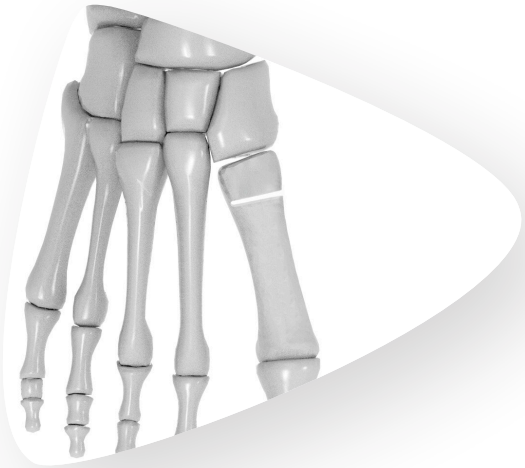
Medial Longitudinal Incision is made with a combined 1st Web dorsal incision for the modified McBriderelease and lateral to the midpoint of the 2nd MetatarsalShaft. Medial Capsulloraphy is performed and the exostosis is removed ensuring the medial sesamoid groove is not involved.

02 IDENTIFYING THE CORRECT POSITION OF THE OSTEOTOMY



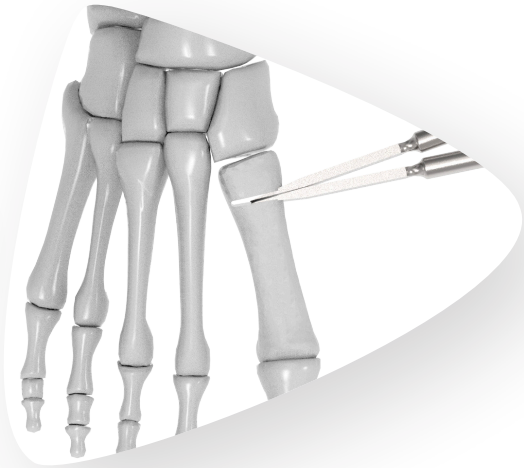
TMTJ1 is identified and an osteotomy site perpendicular to the long axis of the First Metatarsal 14 – 15 mm from the TMTJ1 is marked.

03 OSTEOTOMY



Perform an incomplete osteotomy perpendicular to the long axis of the First Metatarsal and make sure the lateral cortex is not broken.

04 OPENING OF THE OSTEOTOMY

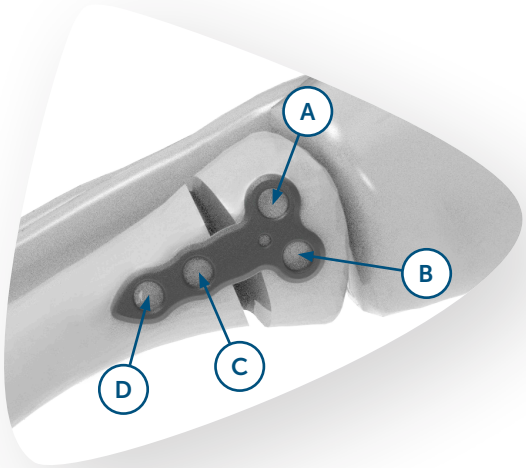


Perform the opening wedge manoeuvre, either with wires or with small osteotomes slighted in over each other to achieve the required angular IM angle correction. The lateral cortex is used as a hinge.

NOTE: 1 mm : 2 degrees basal correction but this depends on the length of the metatarsal.

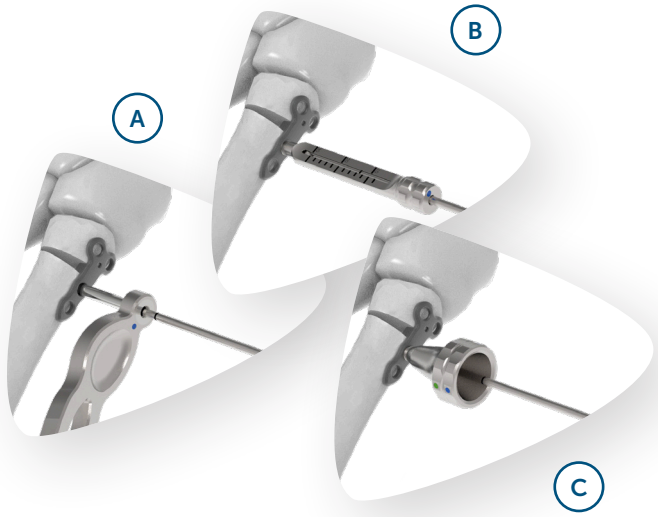
NOTE: Surgeon may insert a debrided 1st MTPJ exostosis in the wedge site.

05 OPENING WEDGE PLATE POSITIONING



Place the required Opening Wedge plate into the osteotomy site.

06 DRILLING THE HOLE



Insert a 2.8mm non locking screw into pre-drilled hole C to fix the plate onto the bone to ensure the angular correction is maintained. There are 3 ways available to prepare the hole described in image 6a, 6b and 6c.

6A STANDARD DRILL GUIDE



Position the Non Locking Drill Guide right in the center of the plate hole **(C)** and drill the hole freehand.

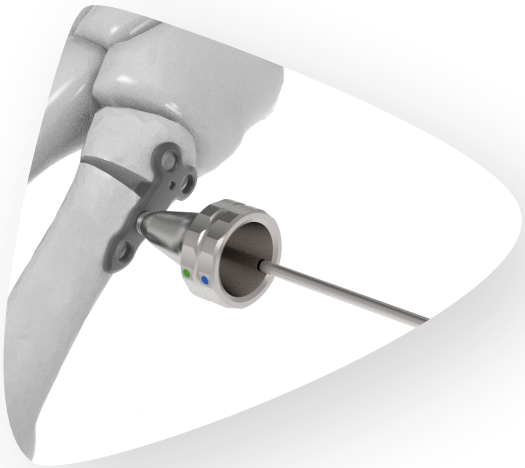
ATTENTION: To be used only for the Non-Locking Screws

6B LOCKING UNIDIRECTIONAL DRILL GUIDE



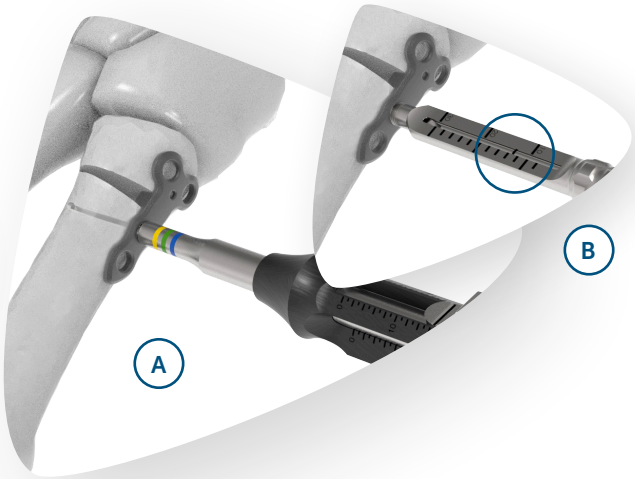
Pre-drill the Locking Drill Guide into the plate hole **(C)** and drill the hole guided through the Locking Drill Guide. You can measure the lengths the appropriate screw size over the scale on the Locking Drill Guide.

6C CONICAL MULTIDIRECTIONAL DRILL GUIDE



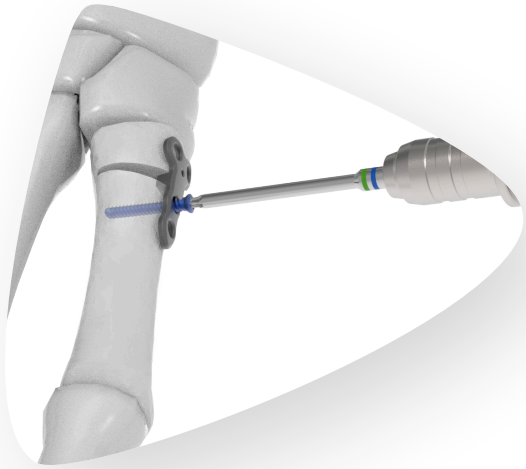
Pre-drill the Conical MVA Drill Guide into the plate hole **(C)** and drill the hole in the angulation offered by the conical Drill Guide.

07 DETERMINING THE APPROPRIATE SCREW LENGTH



Determine the appropriate screw length with the blue color coded Depth Gauge **(A)**. The screw length can be also determined with the mark on the blue color coded Drill Bit and the standard graduated Drill Guide with window **(B)**.

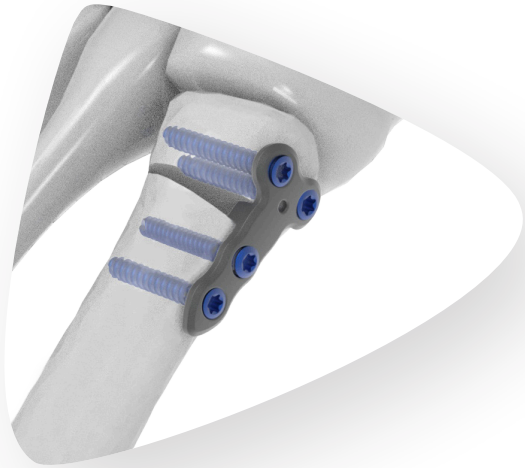
08 INSERTION OF THE APPROPRIATE NON-LOCKING SCREW



Inserting the appropriate screw size with the blue color coded T8 Screw Driver Shaft.

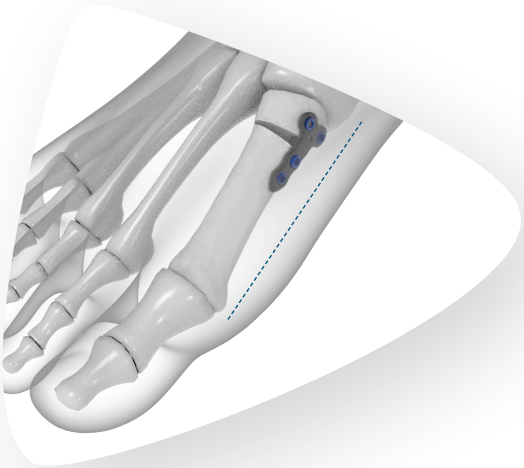
ATTENTION: Control the screw on the screw caddy.

09 INSERTION OF THE OTHER SCREWS



Fill the remaining ø 2.8 mm holes A, B, D with 2.8 mm MVA Locking Screws, following the operation steps 5 till 7 using the Locking or the Conical Locking MVA Drill Guide. If required, exchange the Non-Locking ø 2.8 mm Screw in hole C for a Locking Screw.

10 WOUND CLOSURE



Layered surgical closure per Surgeon's preference.

04
IMPLANTS · PLATES



P.A.C.E.
2,8 MM BASAL OPEN WEDGE PLATE

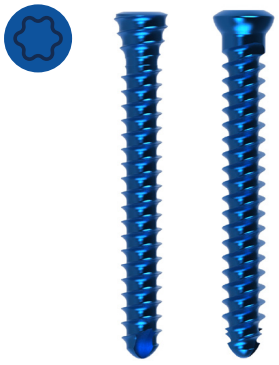
INDICATION

- Proximal basal open wedge osteotomy of the first metatarsal bone

DESCRIPTION	ARTICLE NO.	SCREW TYPE
0 mm	M211146-000	
2 mm Wedge	M211146-002	
3 mm Wedge	M211146-003	
4 mm Wedge	M211146-004	
5 mm Wedge	M211146-005	
6 mm Wedge	M211146-006	

04
IMPLANTS · SCREWS

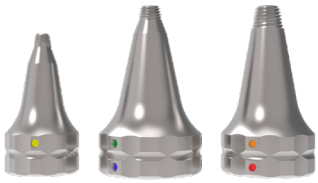
P.A.C.E.
2,8 MM CORTICAL SCREW



	Locking Screw (MVA)	Non Locking Screw
8 mm	M113128-008	M112128-008
10 mm	M113128-010	M112128-010
12 mm	M113128-012	M112128-012
14 mm	M113128-014	M112128-014
16 mm	M113128-016	M112128-016
18 mm	M113128-018	M112128-018
20 mm	M113128-020	M112128-020
22 mm	M113128-022	M112128-022
24 mm	M113128-024	M112128-024
26 mm	M113128-026	M112128-026
28 mm	M113128-028	M112128-028
30 mm	M113128-030	M112128-030

04
INSTRUMENTS

P.A.C.E.
MVA DRILL GUIDE



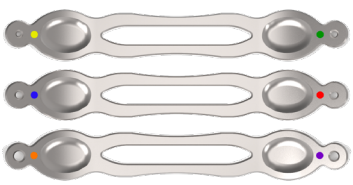
ARTICLE NO.	PLATING SYSTEM
MI05101-020	ø 2,0 mm
MI05101-028	ø 2,5 / 2,8 mm
MI05101-030	ø 3,0 / 3,5 mm

P.A.C.E.
LOCKING DRILL GUIDE WITH / WITHOUT WINDOW



ARTICLE NO.	PLATING SYSTEM
MI03101-020	ø 2,0 / 1,5 mm Drill with window
MI03101-025	ø 2,5 / 1,7 mm Drill with window
MI03101-028	ø 2,8 / 2,0 mm Drill with window
MI03101-030	ø 3,0 / 2,0 mm Drill with window
MI03101-035	ø 3,5 / 2,5 mm Drill with window
MI03101-036	ø 3,5 / 2,5 mm Drill without window
MI03101-040	ø 4,0 / 3,0 mm Drill without window

P.A.C.E.
DOUBLE DRILL GUIDE



ARTICLE NO.	PLATTENSYSTEM
MI01201-015	ø 2,0 / 2,5 mm / ø 1,5 / ø 1,7 mm
MI01201-020	ø 2,8 / 3,0 mm / ø 2,8 / ø 3,0 mm
MI01201-030	ø 3,5 / 4,0 mm / ø 3,5 / ø 4,0 mm

P.A.C.E.
DRILL WITH / WITHOUT SCALE



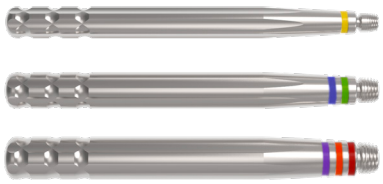
ARTICLE NO.	PLATING SYSTEM
MI11115-115	ø 2,0 mm / 115 mm
MI11117-115	ø 2,5 mm / 115 mm
MI11120-115	ø 2,8 mm / 115 mm
MI11120-1151	ø 3,0 mm / 115 mm
MI11125-125	ø 3,5 mm / 125 mm
MI11125-150	ø 3,5 mm / 150 mm
MI11130-125	ø 4,0 mm / 125 mm
MI11130-150	ø 4,0 mm / 150 mm

P.A.C.E.
DEPTH GAUGE



ARTICLE NO.	PLATING SYSTEM
MI51101-040	ø 2,0 / 2,5 / 2,8 mm / 40 mm
MI51101-050	ø 3,0 / 3,5 / 4,0 mm / 50 mm
MI51101-060	ø 3,0 / 3,5 / 4,0 mm / 60 mm

P.A.C.E.
BENDING AND POSITIONING INSTRUMENT



ARTICLE NO.	PLATING SYSTEM
MI71000-020	ø 2,0 mm
MI71000-028	ø 2,5 / 2,8 mm
MI71000-040	ø 3,0 / 3,5 mm

P.A.C.E.
SCREW DRIVER BLADE



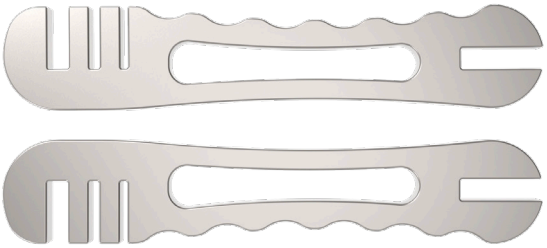
ARTICLE NO.	PLATING SYSTEM
MI41101-006	ø 2,0 mm / T6
MI41102-108	ø 2,5 / 2,8 mm / T8
MI41102-110	ø 3,0 / 3,5 mm / T10

P.A.C.E.
K-WIRES WITH OLIVE



ARTICLE NO.	VERSION
M321110-150	ø 1,0 mm / 150 mm
M321112-150	ø 1,2mm / 150 mm
M321112-1501	ø 1,2 mm / 150 mm / long
M321114-150	ø 1,4 mm / 150 mm
M321116-150	ø 1,6 mm / 150 mm

P.A.C.E.
BENDING IRON



ARTICLE NO.	VERSION
MI71001-000	Left
MI71001-001	Right

P.A.C.E.
HANDLES, AO



ARTICLE NO.	VERSION
MI42101-001	AO / QC small
MI42101-002	AO / QC medium
MI42102-001	AO / QC small, cannulated

P.A.C.E.
HOHMANN RETRACTOR



ARTICLE NO.	VERSION
MI71101-006	6 mm
MI71101-008	8 mm

05
CLEANING INSTRUCTIONS

ATTENTION FOR CLEANING DEPTH GAUGE:

The Depth Gauge needs to be disassambled complete into the three single parts (Outer Sleeve / Inner Sleeve and Measuring Needle) for cleaning. It is recommended to clean them first manually before putting them disassambled into the washing tray.

