



**M P H T**

**MULTILOCKING PROXIMAL HUMERAL TREATMENT NAIL  
IMPLANTS AND OPERATING MANUAL**



**medimetal**<sup>®</sup>  
Medical Products Manufacturing and Trading Ltd.



### Before starting use the product



Before each use, carefully check the operability of implants and surgical instruments, and ensure they are free of any damage. If you notice any cracks, fractures, deformations, discoloration or any damages that indicate improper storage, imperfect sterilization or prior incorrect treatment, do not use the device. Always carry out the assembly, fitting and operation test of the implants and instruments to be used for the implantation. The product may only be used if the fittings are perfect, the dimensions are accurate, the clamping components work properly and the angles are correctly set.

### Requirements regarding the user

The instruments and implants may only be used by qualified surgeons who are familiar with the surgical practice, with the relevant medical literature and are sufficiently experienced in the use of implants and instruments. The operating surgeon is responsible for identifying the correct indication, selecting the implants and conducting the surgical procedure in conformity with the relevant medical practice.

### Contraindications

Use of the implant is not recommended if the medical condition of the patient does not allow successful acceptance of the device, or if the recovery of the patient is hindered by causes such as reduced blood circulation, bone system of poor quality or quantity, existing infection, rehabilitation excluded due to the mental condition of the patient etc.

### General warnings

Before the surgical procedure, the patient should be informed about the possible disadvantages of implant use. When selecting the implant, the type of the bone fracture as well as the weight and activity level of the patient should always be taken into consideration. Since the solidity of the implant is limited, overloading due to overweight should be avoided. The biomechanical loading of the implant should be as minimal as possible.

The process of recovery should be monitored during the use of the implant. In the event of repeated loading or prolonged bone recovery, the implants may be deformed or dislocated, which should be prevented by timely interventions. Strong and/or repeated deformation of the implant should be avoided. The implants are only for single use, re-implantation is prohibited.

The appropriate type and correct size of the implants must be identified according to the characteristics of the particular case. Before the surgical procedure, the user manuals supplied with the other required devices, e.g. implants, should be carefully studied.

### Applied materials

The applied materials are high-quality and high-tensile, nonmagnetic, stainless steel and titanium alloy materials specially developed for implants. Combined use with other materials or products supplied by other manufacturers may lead to harmful processes for which Medimetal Ltd. will not accept any responsibility.

### Protection, packaging and preparation for use

The implants are packaged in clean condition, free of any production-related contaminations. Before use, such storage conditions must be ensured that will preserve the integrity of the packaging. The implants should be stored in a clean, dry place, protected from exposure to extreme temperatures and chemicals.

### Sterilization

Before use, unpack and sterilize the implant in accordance with the relevant instructions. Do not touch the implant with bare hands. The surgical instruments should be sterilized together with the instrument tray. The instructions provided by the manufacturer of the sterilization equipment must always be followed.

### Interactions with medicinal products

It is not known whether the implants interact with medicinal products.



## Implants for MPHT nailing



## System of implants:

Material: steel or titanium alloy

MPHT (multilocking proximal humeral treatment) nail, short, solid, diameter 8 and 9 mm,

cat. nr.: 14300-08140; 14300-08160

34300-08140; 34300-08160 (titanium alloy)

14300-09140; 14300-09160

34300-09140; 34300-09160 (titanium alloy)

MPHT (multilocking proximal humeral treatment) nail, long, solid, diameter 8 and 9 mm,

cat. nr.: 14300-08180; 14300-08200

34300-08180; 34300-08200 (titanium alloy)

14300-09180; 14300-09200

34300-09180; 34300-09200 (titanium alloy)

Locking screw, diameter 3,9 mm, cat. nr.:

from 12201-39020 up to 12201-39070

from 32201-39020 up to 32201-39070 (titanium alloy)

Surgical set (complete with instruments), cat. nr.: 94300-00000



Proximal locking in four different planes.



The decrease of diameter of the longer nail fits to the change of the intramedullary's anatomical size.



## Implants for MPHT nailing

## MPHT - proximal humeral nail, short, solid

L (mm)	Catalogue number			
	Ø 8		Ø 9	
	steel	titanium alloy	steel	titanium alloy
140	14300-08140	34300-08140	14300-09140	34300-09140
160	14300-08160	34300-08160	14300-09160	34300-09160

## MPHT - proximal humeral nail, long, solid

L (mm)	Catalogue number			
	Ø 8		Ø 9	
	steel	titanium alloy	steel	titanium alloy
180	14300-08180	34300-08180	14300-09180	34300-09180
200	14300-08200	34300-08200	14300-09200	34300-09200

## Locking screw

Thread diameter:	3,9 mm
Core diameter:	3,2 mm
Pitch:	1,25 mm
Hex width:	2,5 mm

L (mm)	Cat. nr.:		L (mm)	Cat. nr.:	
	steel	titanium alloy		steel	titanium alloy
20	12201-39020	32201-39020	44	12201-39044	32201-39044
22	12201-39022	32201-39022	45	12201-39045	32201-39045
24	12201-39024	32201-39024	46	12201-39046	32201-39046
26	12201-39026	32201-39026	48	12201-39048	32201-39048
28	12201-39028	32201-39028	50	12201-39050	32201-39050
30	12201-39030	32201-39030	52	12201-39052	32201-39052
32	12201-39032	32201-39032	54	12201-39054	32201-39054
34	12201-39034	32201-39034	55	12201-39055	32201-39055
35	12201-39035	32201-39035	56	12201-39056	32201-39056
36	12201-39036	32201-39036	58	12201-39058	32201-39058
38	12201-39038	32201-39038	60	12201-39060	32201-39060
40	12201-39040	32201-39040	65	12201-39065	32201-39065
42	12201-39042	32201-39042	70	12201-39070	32201-39070



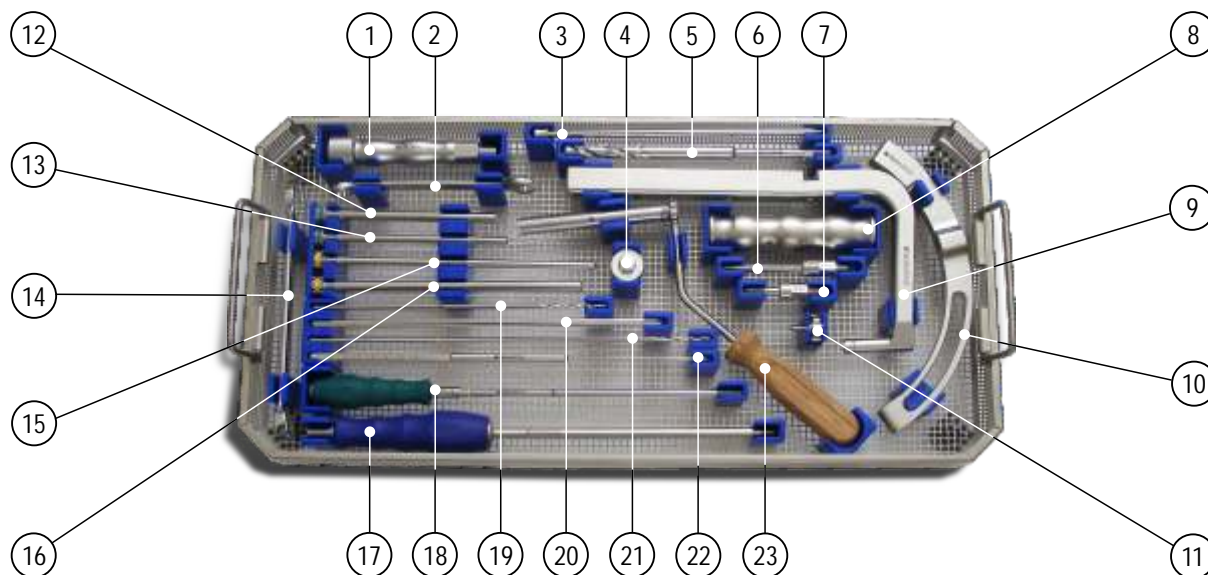
PROXIMAL HUMERUS

## Surgical instruments for MPHT nailing

## Surgical set

Operating tray, complete with instruments:

Cat. nr.: 94300-00000 (Empty tray, with instrument holder, cat. nr.: 94300-10000)



Pos.	Cat. nr.	Description	pcs
1.	94290-01600	Impactor, cannulated	1
2.	99000-00008	Wrench, 11 mm	1
3.	94300-00700	Pointer	1
4.	94290-01003	Bumper for hammer guide	1
5.	99031-10200	Spiral drill, cannulated, 10/2,2 × 200 mm	1
6.	94300-00500	Threaded stem	1
7.	94290-00600	Threaded removal stem	1
8.	94290-01100	Hammer	1
9.	94300-00100	Targeting arm	1
10.	94300-00200	Axial targeting arm	1
11.	94300-00400	Fixing screw for targeting arm	1
12.	94300-00700	Soft tissue protector, short, green, 8/6-132 mm	1
13.	94300-00900	Drill sleeve, green, short, 6/3,2-140 mm	1
14.	99000-00009	Wrench, 17 mm	1
15.	94300-01000	Drill sleeve, long, yellow, 6/3,2-203 mm	1
16.	94300-00800	Soft tissue protector, long, yellow, 8/6-192 mm	1
17.	94290-01000	Hammer guide shaft	1
18.	94300-01200	Screwdriver	1
19.	99020-32210	Spiral drill with quick coupling, 3,2 × 210 mm	1
20.	15000-20250	Kirschner wire, 2,0 × 250 mm	3
21.	99020-32290	Spiral drill with quick coupling, 3,2 × 290 mm	1
22.	94300-01100	Length gauge for locking screw	1
23.	94300-01300	Soft tissue protector with handle	1





**medimetal**<sup>®</sup>

Medical Products Manufacturing and Trading Ltd.

3304 Eger, Berva-völgy, Hungary

Tel.: +36 36 415 577

Fax: +36 36 415 577/13

E-mail: [medimetal@medimetal.hu](mailto:medimetal@medimetal.hu)

[www.medimetal.hu](http://www.medimetal.hu)