



**HUMERAL NAILING
IMPLANTS AND OPERATING MANUAL**



medimetal[®]
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 locking humeral nailing



System of implants:

Material: steel or titanium alloy

Locking humeral nail, solid, diameter 7 - 8 - 9 mm,

cat. nr.: from 14293-70180 to 14293-70310
 from 34293-70180 to 34293-70310 (titanium alloy)
 from 14293-80180 to 14293-80310
 from 34293-80180 to 34293-80310 (titanium alloy)
 from 14293-90180 to 14293-90310
 from 34293-90180 to 34293-90310 (titanium alloy)

Locking humeral nail, cannulated, diameter 7 - 8 - 9 mm,

cat. nr.: from 14294-70180 to 14294-70310
 from 34294-70180 to 34294-70310 (titanium alloy)
 from 14294-80180 to 14294-80310
 from 34294-80180 to 34294-80310 (titanium alloy)
 from 14294-90180 to 14294-90310
 from 34294-90180 to 34294-90310 (titanium alloy)

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

from 12200-39020 to 12200-39065
 from 32200-39020 to 32200-39065 (titanium alloy)

End cup, cat. nr.:

12400-07011 and 32400-07011 (titanium alloy)

Surgical set for locking humeral nailing, cat. nr.: 94290-00000



Locking humeral nail, solid

L (mm)	Catalogue number					
	ø 7		ø 8		ø 9	
	steel	titanium alloy	steel	titanium alloy	steel	titanium alloy
180	14293-70180	34293-70180	14293-80180	34293-80180	14293-90180	34293-90180
205	14293-70205	34293-70205	14293-80205	34293-80205	14293-90205	34293-90205
220	14293-70220	34293-70220	14293-80220	34293-80220	14293-90220	34293-90220
230	14293-70230	34293-70230	14293-80230	34293-80230	14293-90230	34293-90230
240	14293-70240	34293-70240	14293-80240	34293-80240	14293-90240	34293-90240
250	14293-70250	34293-70250	14293-80250	34293-80250	14293-90250	34293-90250
260	14293-70260	34293-70260	14293-80260	34293-80260	14293-90260	34293-90260
270	14293-70270	34293-70270	14293-80270	34293-80270	14293-90270	34293-90270
280	14293-70280	34293-70280	14293-80280	34293-80280	14293-90280	34293-90280
295	14293-70295	34293-70295	14293-80295	34293-80295	14293-90295	34293-90295
310	14293-70310	34293-70310	14293-80310	34293-80310	14293-90310	34293-90310

Implants for locking humeral nailing

Locking humeral nail, cannulated

L (mm)	Catalogue number					
	ø 7		ø 8		ø 9	
	steel	titanium alloy	steel	titanium alloy	steel	titanium alloy
180	14294-70180	34294-70180	14294-80180	34294-80180	14294-90180	34294-90180
205	14294-70205	34294-70205	14294-80205	34294-80205	14294-90205	34294-90205
220	14294-70220	34294-70220	14294-80220	34294-80220	14294-90220	34294-90220
230	14294-70230	34294-70230	14294-80230	34294-80230	14294-90230	34294-90230
240	14294-70240	34294-70240	14294-80240	34294-80240	14294-90240	34294-90240
250	14294-70250	34294-70250	14294-80250	34294-80250	14294-90250	34294-90250
260	14294-70260	34294-70260	14294-80260	34294-80260	14294-90260	34294-90260
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280	14294-70280	34294-70280	14294-80280	34294-80280	14294-90280	34294-90280
295	14294-70295	34294-70295	14294-80295	34294-80295	14294-90295	34294-90295
310	14294-70310	34294-70310	14294-80310	34294-80310	14294-90310	34294-90310

Locking screw

Thread diameter: 3,9 mm
 Core diameter: 3,2 mm
 Pitch: 1,75 mm
 Hex width: 2,5 mm

L (mm)	Cat. no	
	steel	titanium alloy
20	12200-39020	32200-39020
22	12200-39022	32200-39022
24	12200-39024	32200-39024
26	12200-39026	32200-39026
28	12200-39028	32200-39028
30	12200-39030	32200-39030
32	12200-39032	32200-39032
34	12200-39034	32200-39034
35	12200-39035	32200-39035
36	12200-39036	32200-39036
38	12200-39038	32200-39038
40	12200-39040	32200-39040
42	12200-39042	32200-39042

L (mm)	Cat. no	
	steel	titanium alloy
44	12200-39044	32200-39044
45	12200-39045	32200-39045
46	12200-39046	32200-39046
48	12200-39048	32200-39048
50	12200-39050	32200-39050
52	12200-39052	32200-39052
54	12200-39054	32200-39054
55	12200-39055	32200-39055
56	12200-39056	32200-39056
58	12200-39058	32200-39058
60	12200-39060	32200-39060
65	12200-39065	32200-39065

End cup for locking humeral nail

Cat. no	
	steel
12400-07011	32400-07011



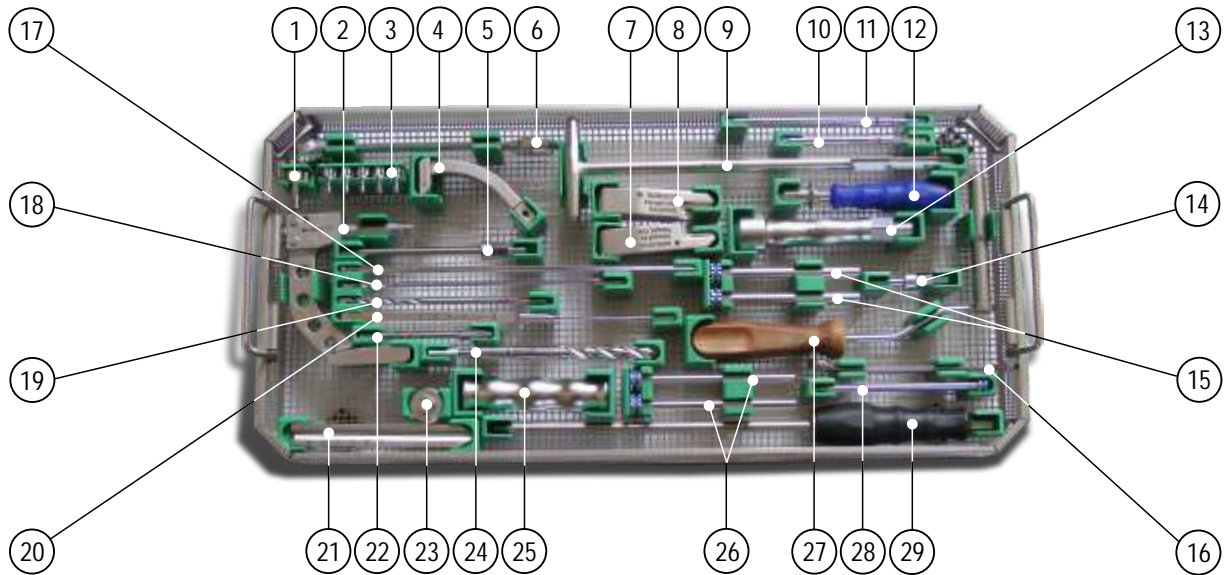
HUMERAL NAILING

Surgical instruments for locking humeral nailing

Surgical set

Tray for humeral nailing instrument set with instruments:

Cat. nr.: 94290-00000



Pos.	Cat. no.	Description	pcs
1.	94290-00105	Fixing screw, M8	1
2.	94290-00100	Proximal targeting arm	1
3.	94290-00503	M5 screw for auxiliary arm and targeting shaft	5
4.	94290-00500	Auxiliary targeting arm	1
5.	94290-00400	Threaded stem, cannulated	1
6.	99000-00009	Wrench, 17 mm	1
7.	94290-00103	Targeting shaft, antegrade left, retrograde right	1
8.	94290-00104	Targeting shaft, retrograde left, antegrade right	1
9.	94290-00700	Reamer 10 mm, cannulated	1
10.	99150-35106	Screw driver, quick coupling, 3,5 × 106 mm	1
11.	99150-25150	Screw driver, quick coupling, 2,5 × 150 mm	1
12.	99000-00012	Quick coupling handle	1
13.	94290-01600	Impactor, cannulated	1
14.	94290-00600	Threaded removal shaft	1
15.	94290-01400	Soft tissue protector, 8/6 mm	2
16.	99000-00008	Wrench, 11 mm	1
17.	15000-20250	Kirschner-wire, 2 × 250 mm	3
18.	99010-32190	Spiral drill, quick coupling, 3,2 × 190 mm	1
19.	99010-45145	Spiral drill, 4,5 × 145 mm	1
20.	94290-01500	Screw length gauge	1
21.	94290-01700	Length gauge	1
22.	94290-01800	Burr	1
23.	94290-01003	Removal - impactor bumper	1
24.	99031-10200	Spiral drill, cannulated, 10/2,2 × 200 mm	1
25.	94290-01100	Hammer	1
26.	94290-01300	Drill sleeve 6/3.2 mm	2
27.	94290-01900	Soft tissue protector, 10 mm	1
28.	94290-01200	Pointer	1
29.	94290-01000	Removal - impactor shaft	1



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