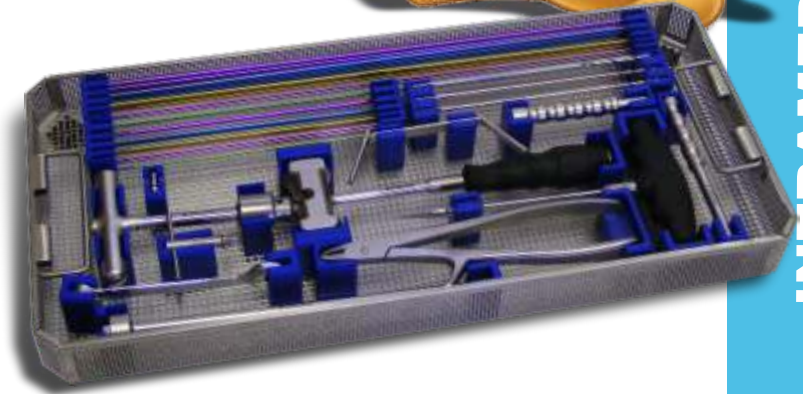




TITANIUM ELASTIC PIN





**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.



**System of implants:**

The titanium elastic pins are used for limb fractures in childhood. There are good results in treatment of children suffering from humerus, ulna, femur and tibia fractures. Thanks to the quality of the materials the pins behave like flexible ones, and they can support the damaged bone with the necessary stability.

The stability and the original position can be ensured by the simultaneous use of two titanium elastic pins and the pins are based on both endpoints and in the middle section on the medullary cavity. The corresponding results of the surgical pins in axial loading, stability, split tensile, and turning anti-slip fastening and bending rigidity is ensured. The thickness of titanium elastic pins are right if they fill the two-third part of the diameter of the medullary cavity up. If necessary, the titanium elastic pin can be bent modelled. The required length can be produced during surgery by cutting.

The titanium elastic pin application techniques to ensure the correctness of the doctor performing surgery.

Contraindication: approx. more than 15 years old and/or over 50 kg.

Material: only titanium alloy

Titanium elastic pin, short, cat. nr.: from 35900-20220 to 35900-40220 (titanium alloy)

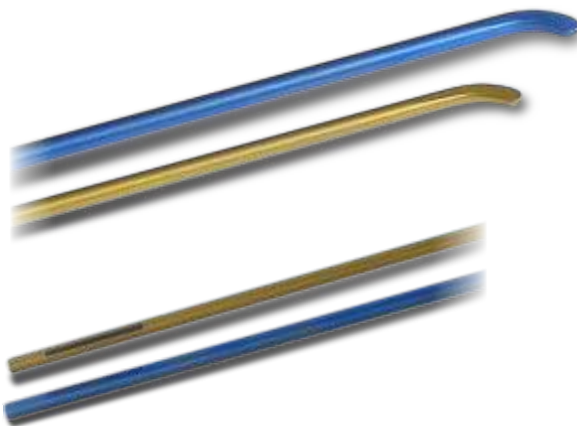
Titanium elastic pin, long, cat. nr.: from 35900-20440 to 35900-40440 (titanium alloy)

**Indications of titanium elastic pin (TEP):**

The Titanium Elastic Pin (TEP) product group of Medimetal is primarily suitable to treat limb injuries of children. The usage of one or more pins in the medullary cavity keeps the bone in the anatomically correct position.

The pin product range is only produced from titanium alloy material. Its special material-quality ensures both large load-bearing capacity and flexibility. The pins are available in five different diameters, which are easy to distinguish due to the colored, biocompatible surface treatment of the titanium alloy. The length of the pins can be cut on demand.

The pin-ends are flattened and curved, which provides better repositioning and more secure anchoring.



The end design of the titanium elastic pins helps for the reposition and it can be anchored on the upper end of medullary cavity.

The range of the diameters can be divided by the using of the colour codes.

It is fixed by the manual handle, visible laser marking the end of phase indicates a bent end-point direction.

## Implants for titanium elastic pin system

**Titanium elastic pin, short**

Diameter: 1,5 mm, 2,0 mm, 2,5 mm, 3,0 mm, 3,5 mm,  
4,0 mm  
Material: titanium alloy

L (mm)	Ø (mm)	Cat. no
		titanium alloy
220	1,5	35900-15220
220	2,0	35900-20220
220	2,5	35900-25220
220	3,0	35900-30220
220	3,5	35900-35220
220	4,0	35900-40220

**Titanium elastic pin, long**

Diameter: 1,5 mm, 2,0 mm, 2,5 mm, 3,0 mm, 3,5 mm,  
4,0 mm  
Material: titanium alloy

L (mm)	Ø (mm)	Cat. no
		titanium alloy
330	1,5	35900-15330
440	1,5	35900-15440
440	2,0	35900-20440
440	2,5	35900-25440
440	3,0	35900-30440
440	3,5	35900-35440
440	4,0	35900-40440



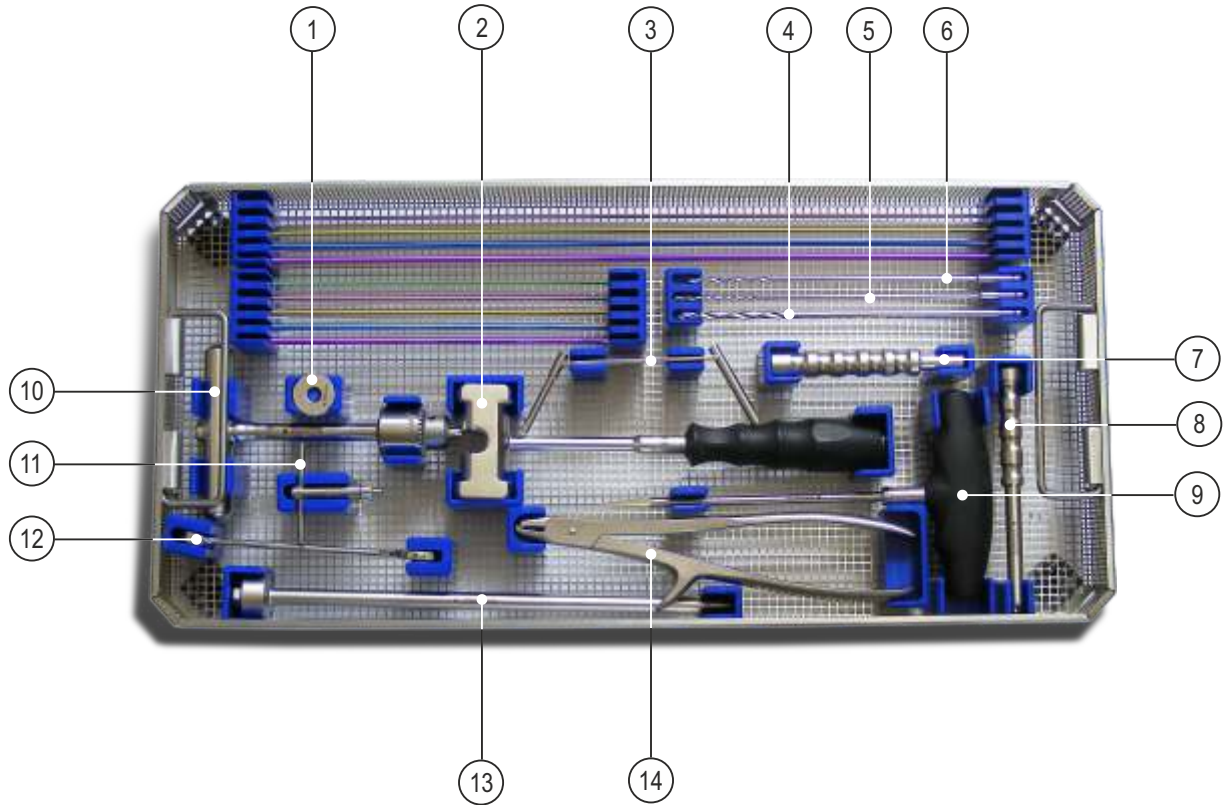
TITANIUM ELASTIC PIN

## Surgical set for titanium elastic pin system

**Surgical set**

Instrument set for titanium elastic pin system complete with instruments: cat. nr. 95900-00000  
(without implants)

Empty tray with plastic holder: cat. nr.: 95900-10000



Pos.	Cat. no.	Description	pcs
1.	95900-00202	Bumper for hammer guide	1
2.	95900-00300	Hammer	1
3.	95900-00800	Double drill guide, 4,5/3,2 mm	1
4.	99020-45195	Drill bit, quick coupling, 4,5 × 195 mm	1
5.	99020-32200	Drill bit, quick coupling, 3,2 × 200 mm	1
6.	99020-27200	Drill bit, quick coupling, 2,7 × 200 mm	1
7.	95900-00900	Bending rod	1
8.	95900-00400	Impactor rod	1
9.	95900-00700	Awl with T-handle	1
10.	95900-00100	T-handle with chuck	1
11.	95900-00101	Key for chuck	1
12.	99000-00004	Wrench, 12 mm	1
13.	95900-00200	Hammer guide stem, cannulated	1
14.	95900-00600	Extractor plier	1

## Surgical set for titanium elastic pin system

Pos.	Cat. no.	Description	pcs
1.	95900-00202	Bumper for hammer guide	1



Pos.	Cat. no.	Description	pcs
2.	95900-00300	Hammer	1



Pos.	Cat. no.	Description	pcs
3.	95900-00800	Double drill guide 4,5/3,2 mm	1



Pos.	Cat. no.	Description	pcs
4.	99020-45195	Drill bit with quick coupling 4,5 × 195 mm	1



Pos.	Cat. no.	Description	pcs
5.	99020-32200	Drill bit with quick coupling 3,2 × 200 mm	1



Pos.	Cat. no.	Description	pcs
6.	99020-27200	Drill bit with quick coupling 2,7 × 200 mm	1



Pos.	Cat. no.	Description	pcs
7.	95900-00900	Bending rod	1



## Surgical set for titanium elastic pin system

## TITANIUM ELASTIC PIN



Pos.	Cat. no.	Description	pcs
8.	95900-00400	Impactor rod	1



Pos.	Cat. no.	Description	pcs
9.	95900-00700	Awl with T-handle	1



Pos.	Cat. no.	Description	pcs
10.	95900-00100	T-handle with chuck	1



Pos.	Cat. no.	Description	pcs
11.	95900-00101	Key for chuck	1



Pos.	Cat. no.	Description	pcs
12.	99000-00004	Wrench 12 mm	1



Pos.	Cat. no.	Description	pcs
13.	95900-00200	Hammer guide stem, cannulated	1



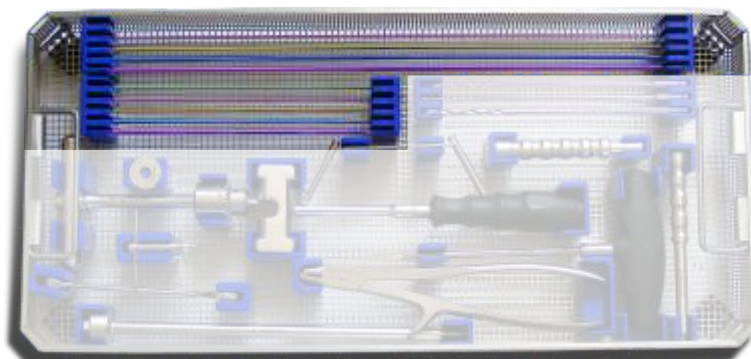
Pos.	Cat. no.	Description	pcs
14.	95900-00600	Extractor plier	1

Pos.	Cat. no.	Description	pcs
15.	95900-00500	Cutting tool, high transmission (no picture added, optional possibility)	1



## Surgical set for titanium elastic pin system

Suggested implants for filled surgical set



Pos.	Cat. no.	Description	Dimension (mm)		pcs
			diameter	length	
	<b>titanium alloy</b>				
1.	35900-20220	Titanium elastic pin, short	2,0	220	5
2.	35900-25220	Titanium elastic pin, short	2,5	220	5
3.	35900-30220	Titanium elastic pin, short	3,0	220	5
4.	35900-35220	Titanium elastic pin, short	3,5	220	5
5.	35900-40220	Titanium elastic pin, short	4,0	220	5
6.	35900-20440	Titanium elastic pin, long	2,0	440	5
7.	35900-25440	Titanium elastic pin, long	2,5	440	5
8.	35900-30440	Titanium elastic pin, long	3,0	440	5
9.	35900-35440	Titanium elastic pin, long	3,5	440	5
10.	35900-40440	Titanium elastic pin, long	4,0	440	5

**TITANIUM ELASTIC PIN**





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**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)