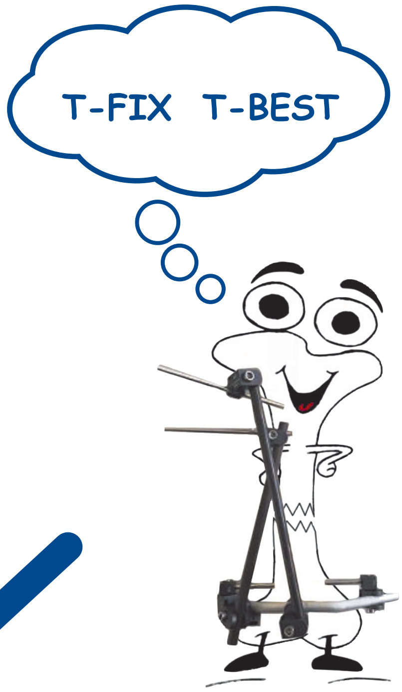
Dial Medicali

MILANO - ITALY



T-fix

Surgical Technique

MAIN FEATURES

T-Fix is an emergency exfix system. Easy to use and composed by MRI safe materials, it was developed for simple, fast and safe temporary stabilizations of fractures in polytrauma patients.

Thanks to its versatility, T-Fix can be used for upper, lower limbs and pelvis, both in adults and pediatrics.

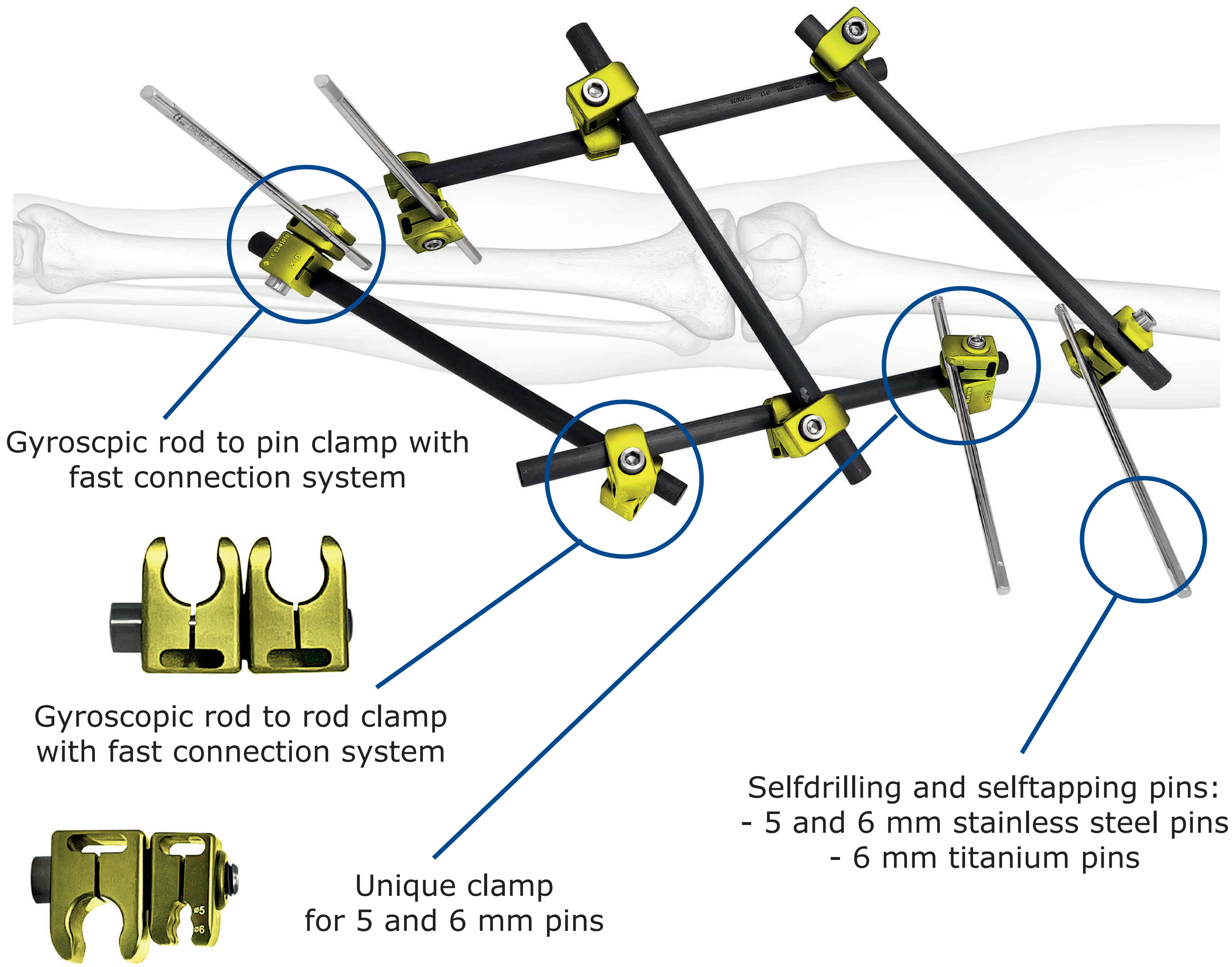
T-Fix fully meets the needs of an urgency/emergency treatment

Mechanical stability.

Quick mounting.

Completely MRI safe and radiolucent materials in the essential parts.

Easy to use, thanks to the small number of components but still allowing complex mountings.



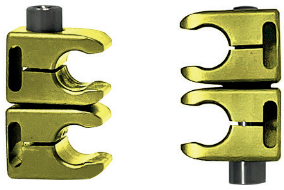
LOCKING OF THE CLAMPS

Manual pre-closing with clockwise rotation of the clamp's bolt.

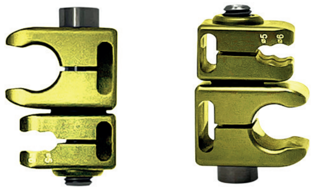
Titanium pins with 6 mm diameter selfdrilling and selftapping (PinFix®)

Final closing using a 6 mm Allen wrench by doing a clockwise rotation of the clamp's bolt.

Gyroscopic rod to rod clamp in titanium/aluminum with fast connection system.

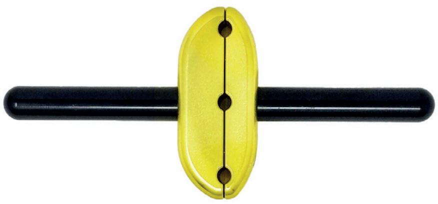


Gyroscpic rod to pin (5 and 6 mm) clamp in titanium/ aluminum with fast connection system.



Radiolucent carbon rod.

Multi-pin clamp
(also available with double junction).



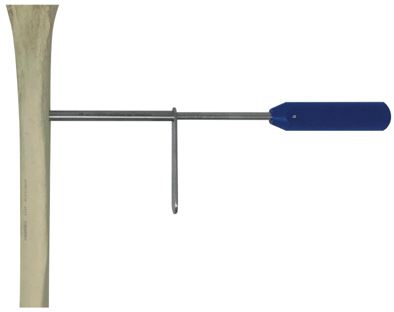
V rod.

Connecting rod to ring for hybrid system.

SURGICAL TECHNIQUE

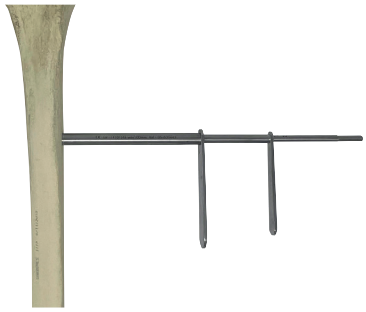
Step 1:
Make an incision at the desired point, position the pin-guide in contact with the bone.

Step 2:
Keep the pin-guide in contact with the bone, insert the appropriate trocar till the first cortex.



Step 3:
Remove the trocar from the pin-guide and insert the right guide-drill (4,5/4,8 mm for 6 mm diameter pins - 3,2/3,5 mm for 5 mm diameter pins).

Connect the drill to a motor and drill the bone untill the second cortex included



Step 4:
Using the appropriate T-wrench, insert the chosen pin till reaching the second cortex.

To assure a good stability and bearing capacity, it is recommended to tight the pin over the second cortex of 1-2 pin-threads.

NB: the pre-drilling step is not always necessary.

Thanks to the self-drilling and self-tapping features of the pins, it is possible to insert them directly with motor.

Step 5:
Remove the pin-guide and repeat the step 1-4 in order to insert more pins.

Step 6:
Proceed with the assembly of the other T-Fix components (gyroscopic clamps and rods).

T-Fix allows the Orthopedic Surgeon multiple possibilities of mountings. Nevertheless, it is good practice to keep in mind some fundamental aspects in order to achieve a correct treatment:

- Be careful to the correct placement of the fixator. It is necessary to take into account the distances between the pins and the critical anatomical sections (identification of the so-called "safe corridors").
- Depending on the treatment, consider the available spaces.

In this respect, it advisable to refer to the Prof. Catagni paper:

Catagni, M.A., "Atlas for the Insertion of Transosseous Wires and Half-Pins. Ilizarov Method"; Bianchi-Maiocchi A, ed. Milan, Italy: Medi Surgical Video; 2003.

MOUNTING EXAMPLES

FIG.1

1 cod. 16-0560T/NS	Titanium pin Ø 5 mm thread 6 mm
2 cod. 16-0640T/NS	Titanium pin Ø 6.0x200x40 mm
2 cod. 02-80030	T-Fix carbon rod Ø 12x300mm
4 cod. 02-81010	T-Fix rod to pin Ø 5/6 mm clamp
2 cod. 02-81000	T-Fix rod to rod clamp
1 cod. 02-80020	T-Fix carbon rod Ø 12x200mm

FIG.2

2 cod. 16-0560T/NS	Titanium pin Ø 5mm thread 6mm
2 cod. 02-80050	T-Fix carbon rod Ø 12x500mm
4 cod. 02-81010	T-Fix rod to pin Ø 5/6 mm clamp
2 cod. 02-80020	T-Fix carbon rod Ø 12x200mm
3 cod. 02-81000	T-Fix rod to rod clamp

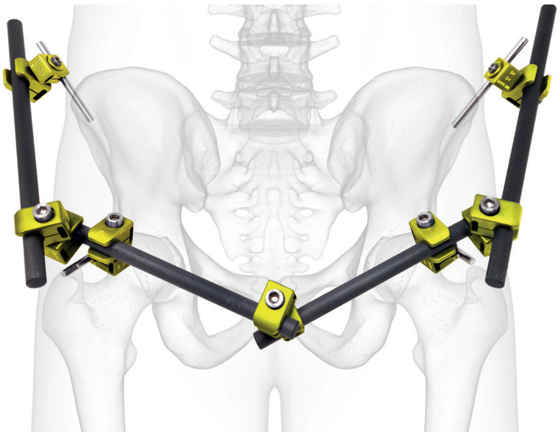
MOUNTING EXAMPLES

FIG.3

4 cod. 16-0640T/NS	Titanium pin Ø 6.0x200x40 mm
4 cod. 02-81010	T-Fix rod to pin Ø 5/6 mm clamp
4 cod. 02-81000	T-Fix rod to rod clamp
2 cod. 02-80035	T-Fix carbon rod Ø 12x350mm
3 cod. 02-80030	T-Fix carbon rod Ø 12x300mm

FIG. 4

2 cod. 16-0660T/NS	Titanium pin Ø 6.0x200x60 mm
2 cod. 16-0680T/NS	Titanium pin Ø 6.0x200x80 mm
2 cod. 02-80020	T-Fix carbon rod Ø 12x200mm
2 cod. 02-81010	T-Fix rod to pin Ø 5/6 mm clamp
3 cod. 02-81000	T-Fix rod to rod clamp



IMPLANT REMOVAL

Using the appropriate 6 mm Allen key, untight the clamps of the mounting.

Hence, it is possible to unblock the implant and remove the rods and clamps.

Lastly, using the T-wrench or the motor to remove the pins.

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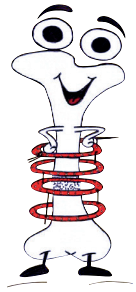
PinFix®

Quality half-pin for external fixation



HALF-PINS

THREAD-BONE CONTACT SURFACE

crew diameter area	thread lenght	Total
5mm	30mm	821.10 mm^2
5mm	40mm	1094.80 mm^2
5mm	50mm	1368.50 mm^2
5mm	60mm	1642.20 mm^2
5mm	70mm	1915.90 mm^2
6mm	30mm	1005.60 mm^2
6mm	40mm	1340.80 mm^2
6mm	50mm	1676.00 mm^2
6mm	60mm	2011.20 mm^2
6mm	70mm	2346.40 mm^2

SELF-DRILLING AND SELF-TAPPING HALF-PINS

Cylindrical - Diameter 6 mm
Coated - Stainless steel
Drill diameter 4.5 mm

16-0630HA	PinFix HA 220/30
16-0640HA	PinFix HA 220/40
16-0650HA	PinFix HA 220/50
16-0660HA	PinFix HA 220/60
16-0670HA	PinFix HA 220/70

SELF-DRILLING AND SELF-TAPPING HALF-PINS

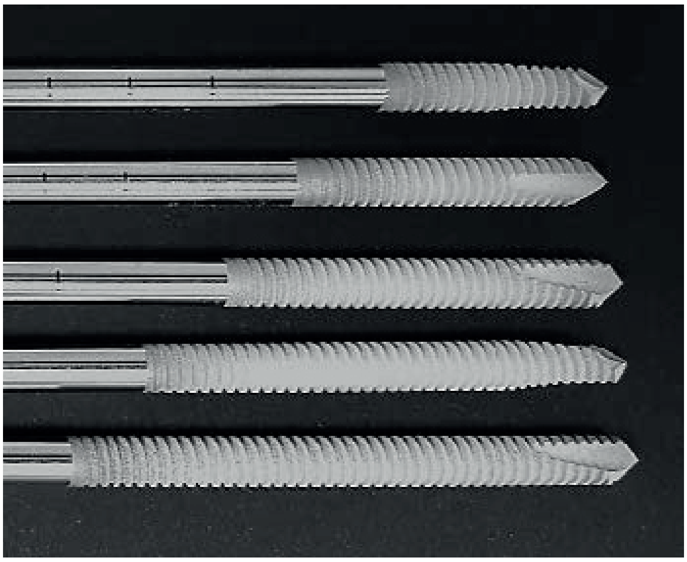
Cylindrical - Diameter 6 mm
Not coated - Stainless steel
Drill diameter 4.5 mm

16-0630	PinFix 220/30
16-0640	PinFix 220/40
16-0650	PinFix 220/50
16-0660	PinFix 220/60
16-0670	PinFix 220/70

SELF-DRILLING AND SELF-TAPPING HALF-PINS

Cylindrical - Diameter 5 mm
Coated - Stainless steel
Drill diameter 3.2 mm

16-0530HA	PinFix HA 220/30
16-0540HA	PinFix HA 220/40
16-0550HA	PinFix HA 220/50
16-0560HA	PinFix HA 220/60



SELF-DRILLING AND SELF-TAPPING HALF-PINS

Cylindrical - Diameter 5 mm
Not coated - Stainless steel
Drill diameter 3.2 mm

16-0530	PinFix 220/30
16-0540	PinFix 220/40
16-0550	PinFix 220/50
16-0560	PinFix 220/60

SELF-TAPPING HALF-PINS

Cylindrical - Diameter 4 mm
Coated - Stainless steel
Drill diameter 2.7 mm

16-0425HA	PinFix HA 160/25
16-0435HA	PinFix HA 160/35

SELF-TAPPING HALF-PINS

Cylindrical - Diameter 4 mm
Not coated - Stainless steel
Drill diameter 2.7 mm

16-0425	PinFix 160/25
16-0435	PinFix 160/35
16-1925	PinFix 200/25
16-1935	PinFix 200/35

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PinFix®

Quality half-pin for external fixation

HALF-PINS

SELF-TAPPING HALF PIN

Cylindrical - Diameter 3.5 mm
Coated - Stainless steel
Drill diameter 2.7 mm

16-3925HA	PinFix 160/25
16-3935HA	PinFix 160/35

SELF-TAPPING HALF PIN

Cylindrical - Diameter 3.5 mm
Not coated - Stainless steel
Drill diameter 2.7 mm

16-3925	PinFix 160/25
16-3935	PinFix 160/35

TOOLS

05-200800	5/6 mm cutter
05-600237	T-Handle for 5 mm PinFix
05-600220	T-Handle for 6 mm PinFix
05-600235	T-Handle for wrist fixator
05-600435	5 mm Pin guide
05-205888	8x100 mm Pin guide - for 6mm pins
05-600442	8x120 mm Pin guide - for 6mm pins
05-216483	8x150 mm Pin guide - for 6mm pins
05-204497	2.7 mm drill guide
05-205852	3.2x80 mm drill guide
05-216506	3.2x130 mm drill guide
05-205876	4.5x80 mm drill guide
05-216490	4.5x130 mm drill guide
05-204435	guide for wrist pins

05-085188	2.7 mm drill
05-085331	3.2x200 mm drill
05-085355	4.5x200 mm drill
05-216469	3.2x300 mm drill AO Attachment
05-216476	4.5x300 mm drill AO Attachment

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COMPONENTS

PRODUCT CODE	STERILE PRODUCT CODE	DESCRIPTION
Components for adult		
02-80010	02-80010-S	T-Fix carbon rod Ø12x100mm
02-80015	02-80015-S	T-Fix carbon rod Ø12x150mm
02-80020	02-80020-S	T-Fix carbon rod Ø12x200mm
02-80025	02-80025-S	T-Fix carbon rod Ø12x250mm
02-80030	02-80030-S	T-Fix carbon rod Ø12x300mm
02-80035	02-80035-S	T-Fix carbon rod Ø12x350mm
02-80040	02-80040-S	T-Fix carbon rod Ø12x400mm
02-80050	02-80050-S	T-Fix carbon rod Ø12x500mm
02-80060	02-80060-S	T-Fix carbon rod Ø12x600mm
02-81000	02-81000-S	T-Fix rod to rod clamp
02-81010	02-81010-S	T-Fix rod to pin 5/6 mm clamp
02-81030	02-81030-S	T-Fix V rod
02-81040	02-81040-S	T-Fix multi-pin 5/6 mm clamp
02-81045	02-81045-S	T-Fix multi-pin 5/6 mm with double junction
02-85000	02-85000-S	T-Fix rod to rod clamp
02-85010	02-85010-S	T-Fix rod to pin 5-6 mm clamp
02-81070	02-85070-S	T-Fix rod to pin 3-4 mm clamp
16-0560T/NS	16-0560T	Titanium pin diam. 5 mm thread 6 mm
16-0640T/NS	16-0640T	Titanium pin 6.0x200x40 mm
16-0660T/NS	16-0660T	Titanium pin 6.0x200x60 mm
16-0680T/NS	16-0680T	Titanium pin 6.0x200x80 mm
02-81020	02-81020-S	rod to ring for hybrid mounting
Components for upper limb and pediatrics		
02-81050	02-81050-S	T-Fix 6 mm rod to 3/4 mm pin clamp
02-81060	02-81060-S	T-Fix 6 mm rod to 6 mm rod clamp
02-82050	02-82050-S	T-Fix carbon rod Ø6x50mm
02-82075	02-82075-S	T-Fix carbon rod Ø6x75mm
02-82100	02-82100-S	T-Fix carbon rod Ø6x100mm
02-82125	02-82125-S	T-Fix carbon rod Ø6x125mm
02-82150	02-82150-S	T-Fix carbon rod Ø6x150mm
02-82175	02-82175-S	T-Fix carbon rod Ø6x175mm
16-1925/NS	16-1925	Stainless steel PinFix® 200/25 D. 4mm
16-5925/NS	16-5925	Stainless steel PinFix® 200/25 D. 3mm

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Dial Medicali srl
Viale Berbera 45 - 20162 Milano - Italy
Tel. +39.02.89828078 - Fax +39.02.66104021

REV 02-2022