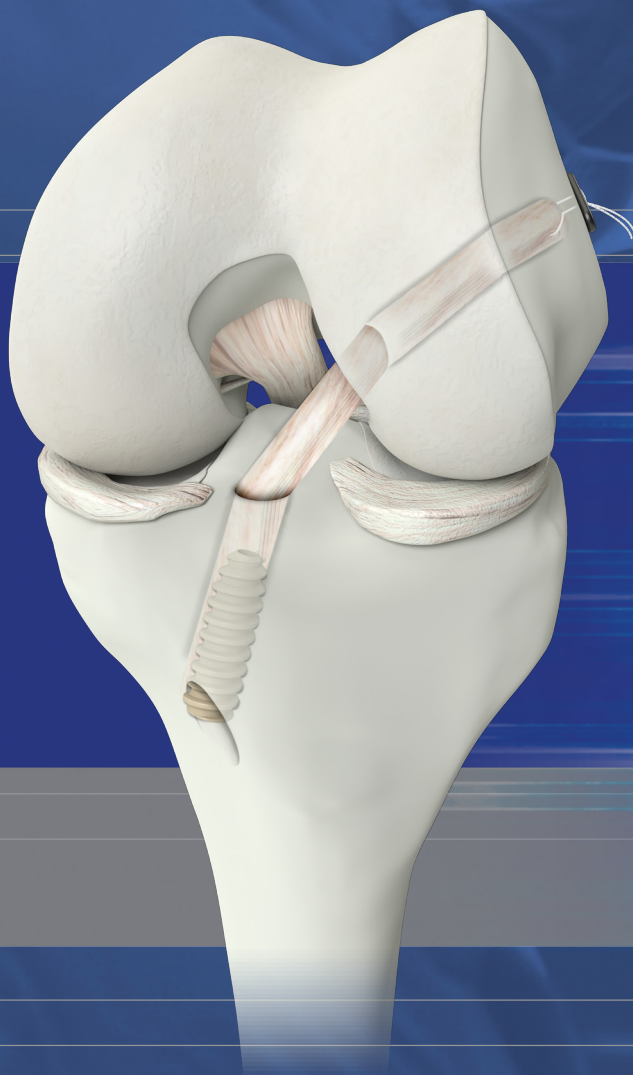


Medacta[®] ACL SB

SINGLE BUNDLE ACL



Product Catalogue

Joint

Spine

Sports Med

NOTE

The Mecta®ACL SB Set, together with the Medacta knee general arthroscopic instruments, allows to perform the surgical steps described in this product catalogue.

INDEX

1. GRAFT EXTRACTION AND PREPARATION	4
2. GRAFT SIZE EVALUATION	5
3. TIBIAL TUNNEL CREATION	6
4. FEMORAL TUNNEL CREATION	8
5. GRAFT FIXATION	9
6. INSTRUMENTS NOMENCLATURE	11

1. GRAFT EXTRACTION AND PREPARATION

If an autologous tendon is used, harvest the graft using a tendon stripper within Medacta System. Both closed (Ref. 05.05.10.0023) and open (Ref. 05.05.10.0024) configurations are available. Position the tendon on the preparation table (Ref. 05.05.10.0009) for the cleaning and reinforcement phase. The preparation table is composed of a plastic cleaning panel (Ref. 05.05.10.0011), two graft clamps (Ref. 05.05.10.0010), a loop sizer (Ref. 05.05.10.0083), a support dedicated to Medacta Extracortical Femoral Button (Ref. 05.05.10.0012) and a suture support (Ref. 05.05.10.0014).



To insert/remove the plastic cleaning board, verify that the fixation button of the metal board is in the open position and slide in/out the board from the right end side of the table. The plastic board fixation clamp can be used, if desired, to fix one side of the graft before cleaning it.

Graft Clamps

The clamps (image 2, Ref. 05.05.10.0010) are designed to fix the graft and have special recessed areas on their back sides that ensure proper placement of the implant/suture support devices. These clamps can slide along a scaled track on the preparation table to adequately tension the graft. The scales enables assessment of the graft length.



To prevent the graft from slipping during the reinforcement phase, the graft edge needs to be fixed in the clamp, and locked using the upper wheel.

To insert/remove the Medacta supports, press the golden locking button positioned at the rear of the clamp and slide the supports into/out of the dedicated slot.

Supports

A dedicated support (Ref. 05.05.10.0012) has been designed for Medacta Extracortical Femoral Button (Ref. 05.05.0002) and can be assembled within the graft clamps to facilitate graft-implant assembly. To insert the implant, press the dedicated support legs (image 3).

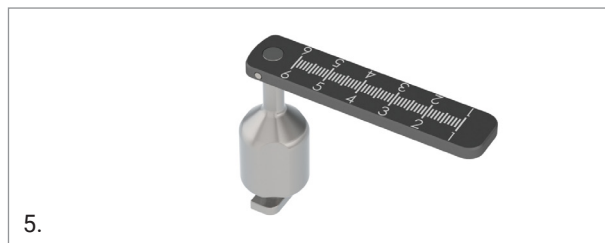


If desired, a dedicated sutures support (Ref. 05.05.10.0014) has been designed to manage free sutures coming from the tibial side of the graft. It can be positioned on the graft clamp (like the other support).

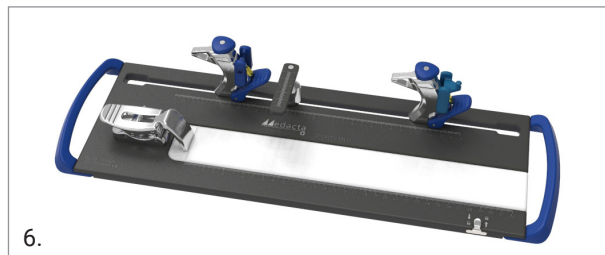


Loop Sizer

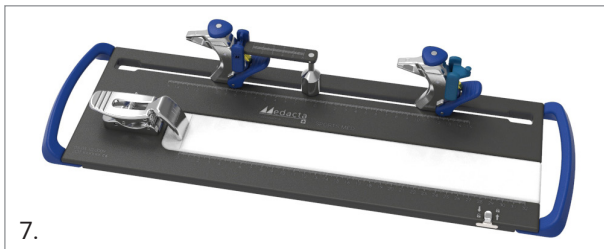
The loop sizer (Ref. 05.05.10.0083) can be coupled with the Medacta preparation table during the graft preparation phase (if no continuous loop button is used) to evaluate the size of the loop length.



Insert the loop sizer within the rail of the preparation table, in between the two graft clamps, maintaining the instrument perpendicular to the rail during insertion (image 6).



Rotate the device counterclockwise to stabilize it on the preparation table (it will only rotate in one direction). Slide the instrument to the desired position. To properly evaluate the length of the button loop, the instrument has to lie flat against the femoral button support (image 7).



7.

To disassemble the device, rotate the instrument 90° degrees clockwise within the preparation table rail (it will only rotate in one direction) and remove it.

2. GRAFT SIZE EVALUATION

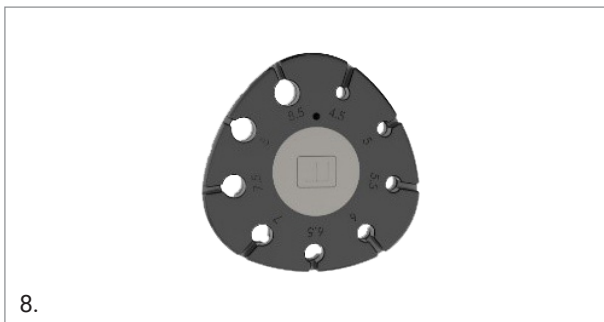
The graft sizer has holes to help evaluate the reinforced graft diameter while the graft is assembled on the preparation table. Each slot features an opening through which sutures coming from the graft can be passed. All the edges are rounded to avoid graft laceration.

The graft sizer is designed with two components that can be rotated obtaining two working configurations:

- Open configuration: the suture slots of the two components are congruent and sutures can be passed through. Graft slots are not congruent between the two components (the tendon cannot be inserted through these openings)
- Closed configuration: the suture slots of the two components are not congruent and sutures cannot exit from these. Graft slots are congruent between the two components (the tendon can be inserted through these openings)

Two sizes are available labelled as Small and Large.

Graft Sizer Small (Ref. 05.05.10.0055), measuring graft sizes from Ø4.5 mm up to Ø8.5 mm:



8.

Graft Sizer Large (Ref. 05.05.10.0056), measuring graft sizes from Ø9 mm up to Ø12 mm:



9.

The instrument, positioned in the open configuration, is inserted over the sutures on one side of the graft (image 10), while the graft is assembled on the preparation table.



10.

After its insertion, the device is positioned in the closed configuration to be moved along the graft (image 11). Read the thickness of the graft on the instrument.



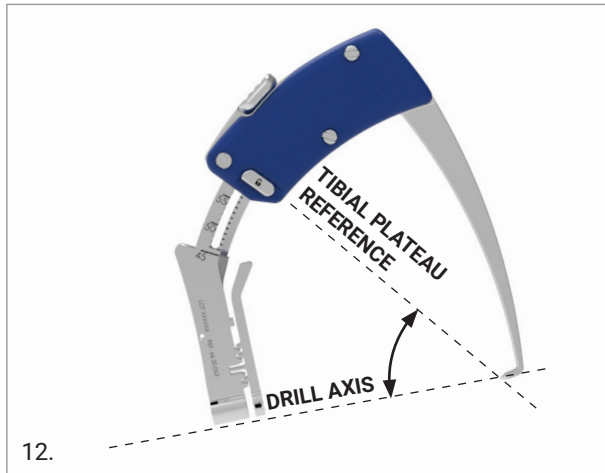
11.

3. TIBIAL TUNNEL CREATION

Tibial Aimer

The tibial aimer is used to create a tunnel in the tibial bone in correspondence with the ACL tibial insertion site.

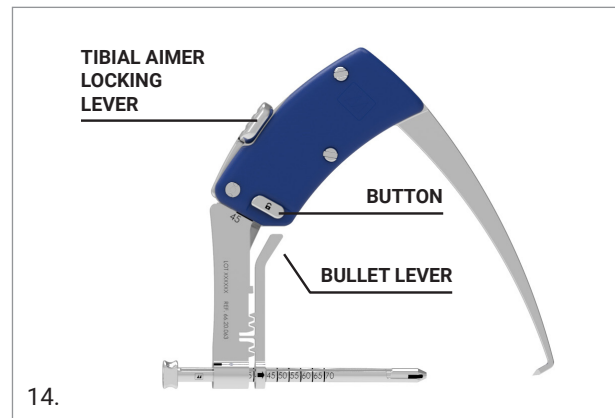
The tibial aimer (Ref. 05.05.10.0073) has an adjustable angle (from 45° up to 70°) between the drill axis (tunnel axis) and the tibial plateau reference plane (tip reference).



A dedicated cannulated bullet (Ref. 05.05.10.0074) has to be assembled with the aiming arc to create the tibial tunnel. Its design prevents accidental disassembly during usage.



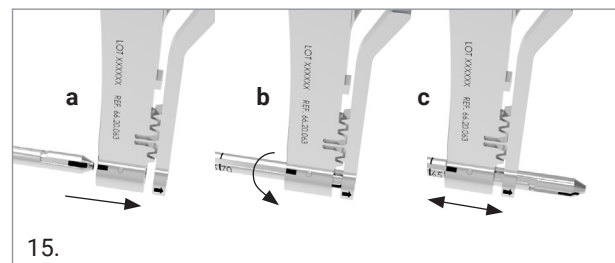
The laser marked measuring scale allows for the evaluation of the length of the tibial tunnel.



With reference to image 14, the instrument's main features:

- The tip enables proper positioning and firm fixation of the aimer on the ACL tibial insertion site
- A dedicated lever (bullet lever) enables bullet fixation, preventing it from slipping from the lower arc body
- A dedicated locking lever (tibial aimer locking lever) enables the lower arc of the tibial aimer body to be fixed into the desired working configuration. The angulation can be checked on the scale marked on the lower arc body
- A dedicated button prevents accidental disassembly of the lower arc during usage if the aiming arc locking lever is left open
- A tip to tip design enables the visualization of the k-wire exit point before its placement

Once the working configuration has been selected, insert the bullet into the tibial aimer from behind by pressing the bullet lever. To properly position the bullet, insert it aligning the laser marking on its tip with the one on the tibial aimer (a). At this point, rotate the bullet by 60° degrees (clockwise) to engage it into the working position (b). Freely slide the bullet back or forward (c).



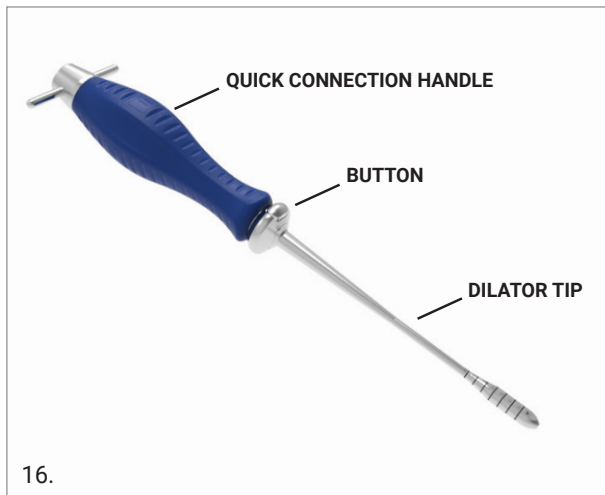
Position the aiming arc tip onto the desired ACL tibial insertion site. Advance the bullet up to the tibial surface by pushing the aiming arc bullet lever. Insert a Ø2.4 mm k wire into the bullet from behind and drill it up to it is visible into the joint. Remove the bullet and the aiming arc leaving the k- wire in place for overdrilling.

Dilator with Quick Connection Handle

The dilator (from Ref. 05.05.10.0060 up to Ref. 05.05.10.0072) can be used to dilate both femoral and tibial tunnels.

Each dilator is cannulated in order to slide along a Ø2.4 mm k-wire. Different sizes are available (head diameter from Ø6 mm up to Ø12 mm, by 0.5 mm increments) and must be selected according to the size of the reinforced graft.

The dilator tips share a unique quick connection handle (Ref. 05.05.10.0059) designed with a quick connection mechanism for easy and safe assembly/disassembly of each tip. The dilator tip features two flat portions decreasing the friction within the bone tunnel during the dilation. In order to evaluate the tunnel depth, the dilator is graduated.



To insert the dilator, tap it from the back using a hammer. Rotate the dilator about 180° to fully dilate the tunnel. To remove it, use a hammer or the slide hammer, coupling it with the backside of the dilator handle.

Slide Hammer

The slide hammer (Ref. 05.05.10.0001) has been designed with a self-locking mechanism to be coupled with the quick connection handle. It enables easy removal of the dilator in case of significant friction between the dilator and the bone.



As an alternative, a standard hammer (Ref. 05.05.10.0050) can be used.

Drills

Manual cannulated drills (from 6mm up to 12mm) with dedicated quick connection T-handle are both available to slide along a Ø 2.4mm k-wire.



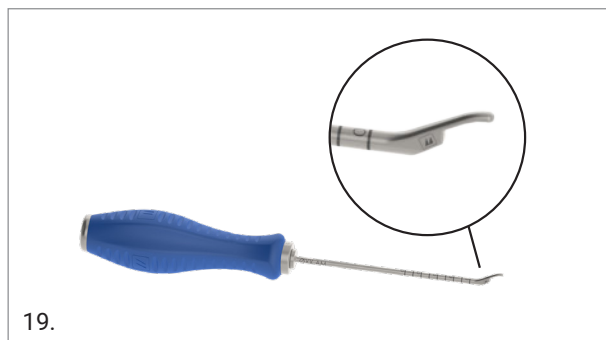
4. FEMORAL TUNNEL CREATION

Femoral Aimer

The femoral aimer is used to properly place a Ø2.4 mm k-wire in the femoral bone. It features circumferential laser markings and a tip that enables direct visualization of the ACL insertion site and a nose which ensures a proper fit on the femoral condyle.

Different versions are available according to the preferred surgical approach (anteromedial or transtibial).

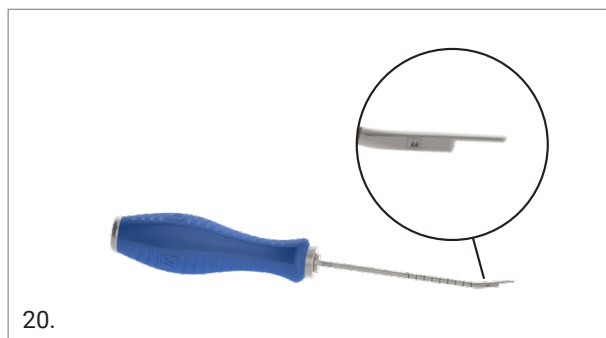
Anteromedial approach:



Two configurations available:

- For Ø7 and Ø8 mm tunnels with at least 2 mm back wall offset (Ref. 05.05.10.0085)
- For Ø9 and Ø10 mm tunnel with at least 2 mm back wall offset (Ref. 05.05.10.0086)

Transtibial approach:



Two configurations available:

- For Ø7 and Ø8 mm tunnels with at least 2 mm back wall offset (Ref. 05.05.10.0057)
- For Ø9 and Ø10 mm tunnel with at least 2 mm back wall offset (Ref. 05.05.10.0058)

According to the reinforced graft size, select the femoral aimer that provides the best fit for the ACL femoral insertion.

Microfracture

The microfracture (Ref. 05.05.10.0084) is used to pierce the bone surface. It features a 60° tip.



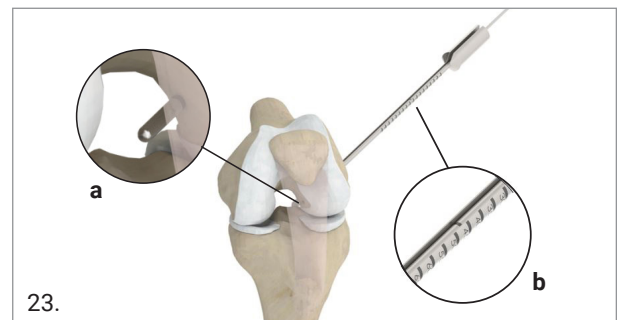
The instrument can be used as a free hand aimer, to mark the desired femoral insertion site.

Reverse Length Gauge

The reverse length gauge (Ref. 05.05.10.0022) helps the surgeon for the femoral tunnel length evaluation. It can be used in combination with Medacta Ø2.4 mm k-wire.



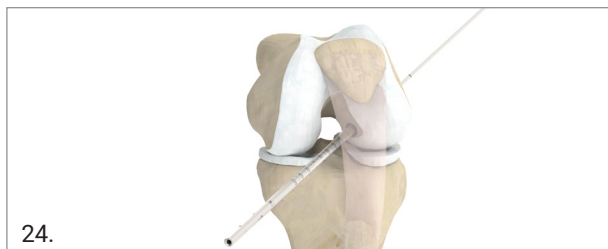
When creating the femoral tunnel, after having placed the k-wire with the femoral aimer (image 22), position the k-wire in the femur aligning the proximal laser marking with the condyle surface (a). Slide the reverse length gauge on the distal portion of the Ø2.4 mm k-wire protruding from the femoral extracortical side. Once the patient bone is reached, evaluate the intraosseous femoral tunnel length using the distal marking of the k-wire and the scale of the length gauge (b).



NOTE: as an alternative, a standard length gauge is available (Ref. 05.05.10.0021).

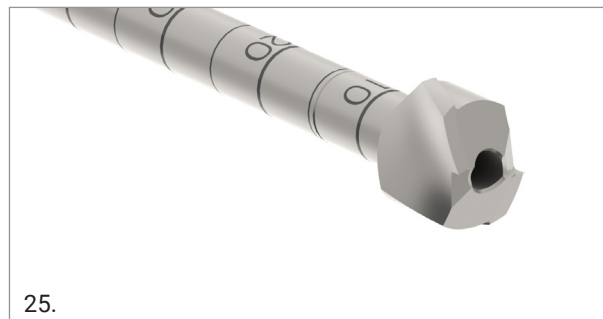
Cannulated Headed Reamers

The cannulated headed reamers (from Ref. 05.05.10.0035 up to Ref. 05.05.10.0049 and Ref. 05.05.10.0054) are designed to slide along a Ø2.4 mm k-wire and are used for femoral and tibial tunnels overdrilling.



24.

The cannulated headed reamers are available in 16 sizes (from Ø4.5 mm up to Ø12 mm with 0.5 mm increments).



25.

5. GRAFT FIXATION

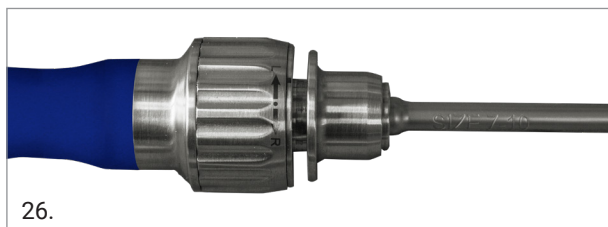
Screwdriver

The screwdriver is used to properly place the Medacta MectaScrew interference screw, ensuring the appropriate fixation of the graft. Both fixed and quick connect ratchet handle version are available.

The ratchet screwdriver has a mechanism that allows the device to apply turning force only in one direction, while moving freely in the opposite.

In case of use of the ratchet version:

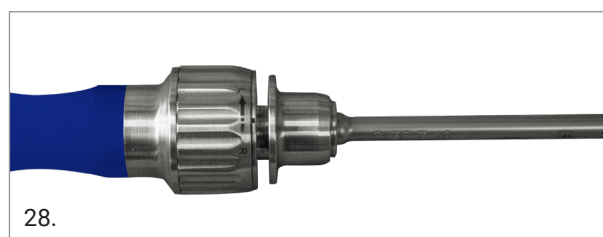
- To assemble/disassemble the shaft, pull back the handle slider and insert/remove the screwdriver tip into/from the handle
- To select the direction of the turning force, rotate the handle switch. Rotate it clockwise to tighten the screw (switch position according to fig. 25), counterclockwise to unscrew the implant (switch position according to fig. 26) or place it the intermediate position to use it as a standard fixed handle screwdriver (switch position according to fig. 27)



26.



27.



28.

The screwdriver tip is designed to:

- Fit the Medacta MectaScrew creating interference as a result of the tapered design. This feature allows for a strong retention of the implant
- This specific feature allows for an easier screw insertion in the intended location and a protection of the screw's most common weak point (screw tip)

The table below shows the compatibility between the available MectaScrews and the screwdrivers.

		SCREW DIAMETER (mm)						
SCREWDRIVER TORX		Ø 6	Ø 7	Ø 8	Ø 9	Ø 10	Ø 11	Ø 12
	T20							
	T25							
	T40							

NOTE: each screwdriver is marked with the compatible screws diameter.

Nitinol Guidewire

The Nitinol guidewire (Ref. 05.05.10.0075) is used to guide cannulated screwdrivers during insertion. Designed with rounded edges, 385 mm in length and 1.1 mm in diameter.



NOTE: the Nitinol guidewire is available only with cannulated screwdrivers.

Chisel

The chisel (Ref. 05.05.10.0082) is used to create bone wedges.



6. INSTRUMENTS NOMENCLATURE

Metal trays designed with dedicated brackets to contain the instruments of the set.

The MectaACL SB Set (Ref. 05.05.10.9003) is available in different configurations. Femoral aimers are customizable according to the chosen surgical approach (anteromedial or transtibial). If cannulated screwdrivers are chosen, the tray is completed with Ø 1.1 mm Nitinol guidewires.

REF. NO.	DESCRIPTION	PICTURE
05.05S.001	Sports Medicine - Knee General Tray	
05.05S.004	Sports Medicine - Knee Preparation Table Tray	
05.05S.003	MectaACL SB Tray - Transtibial Approach & Cannulated Screwdrivers	 
05.05S.005	MectaACL SB - Anteromedial Approach & Cannulated Screwdrivers	
05.05S.006	MectaACL SB Tray - Anteromedial Approach & NonCannulated Screwdrivers	
05.05S.007	MectaACL SB Tray - Transtibial Approach & NonCannulated Screwdrivers	
05.05S.011	MectaACL SB Tray – Anteromedial Approach & Cannulated Screwdrivers, w/o dilators	
05.05S.012	MectaACL SB Tray – Anteromedial Approach & NonCannulated Screwdrivers, w/o dilators	
05.05S.013	MectaACL SB Tray – Transtibial Approach & Cannulated Screwdrivers, w/o dilators	
05.05S.014	MectaACL SB Tray – Transtibial Approach & NonCannulated Screwdrivers, w/o dilators	
05.05S.017	SportsMed Cannulated Drills with T-Handle.	
05.05S.008	Cannulated Headed Reamers Tray	

REF. NO.	DESCRIPTION	PICTURE
05.05.10.0133	Ligament reconstruction wires kit	
05.05.10.0118	Cannulated Screwdriver Shaft T20	
05.05.10.0120	Cannulated Screwdriver Shaft T25	
05.05.10.0122	Cannulated Screwdriver Shaft T40	
05.05.10.0124	Quick Connect Ratchet Handle cannulated	
05.05.10.0134	T-Handle Zimmer Hall connection	

Part numbers subject to change.

NOTE FOR STERILISATION

If not specified, the instruments are not sterile and must be cleaned before use and sterilised in an autoclave in accordance with the regulations of the country, EU directives where applicable and following the instructions for use of the autoclave manufacturer. For detailed instructions please refer to the document "Recommendations for cleaning decontamination and sterilisation of Medacta International orthopaedic devices" available at www.medacta.com.



**REDEFINING BETTER
IN ORTHOPAEDICS
AND SPINE SURGERY**

MEDACTA.COM



Medacta International SA
Strada Regina - 6874 Castel San Pietro - Switzerland
Phone +41 91 696 60 60 - Fax +41 91 696 60 66
info@medacta.ch

Find your local dealer at: medacta.com/locations

All trademarks are property of their respective owners and are registered at least in Switzerland
This document is not intended for the US market.
Please verify approval of the devices described in this document with your local Medacta representative.

Mecta®ACL SB
Product Catalogue

ref: 99.102.180
rev. 05

Last update: June 2020