



PROTOCOL

Kit for guided surgery

WARNING:

In order to respect the conditions of this protocol, the kit for guided surgery has to be used with the stop drill kit.

Description and Benefits

The kit for guided surgery allows an accurate drilling of the implant site thanks to the prior positioning of the implant axis in accordance with the treatment plan that has been predefined through digital or traditional impression (plaster model).

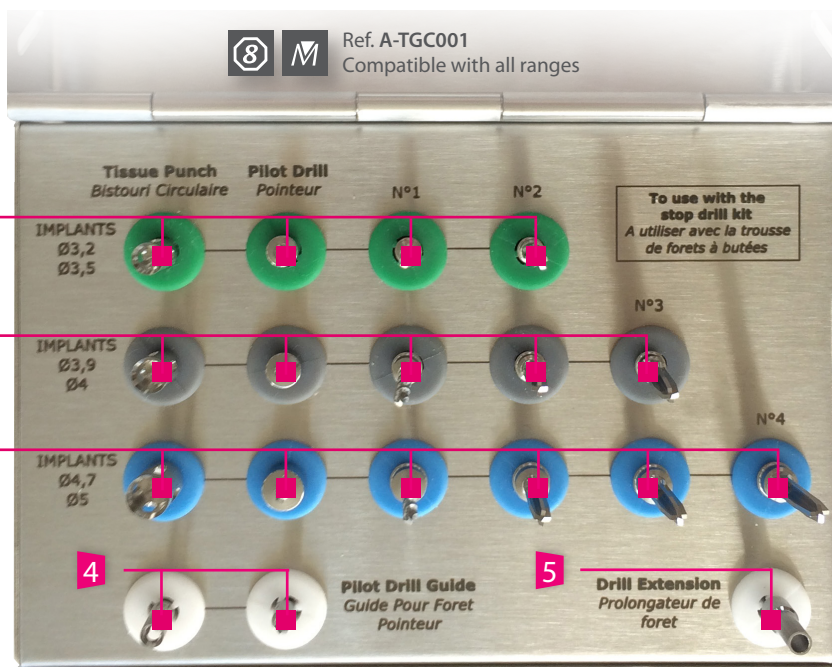
The use of a single use surgical guide that is endowed with metal inserts (called spoons or sleeves) enables to guide the drilling bringing accuracy and abrasion resistance in a resin that will be placed on the patient teeth.

Only one kit for all types of TBR implant connections.



Kit for guided surgery

Description and Product References [More details on the last page]



1 Sequence for implants Ø 3.2 / Ø 3.5

Tissue punch Ø 4.4	A-BCD300
Pointer drill Ø 2	A-FPD300
Drill#1 Ø 2	A-FGB103*
Drill#2 Ø 2.7	A-FGB203*
Drill#3 from the stop drill kit	

2 Sequence for implants Ø 3.9 / Ø 4.0

Tissue punch Ø 5	A-BCD400
Pointer drill Ø 2	A-FPD400
Drill#1 Ø 2	A-FGB104*
Drill#2 Ø 2.7	A-FGB204*
Drill#3 Ø 3.1	A-FGB304*
Drill#4 from the stop drill kit	

3 Sequence for implants Ø 4.7 / Ø 5.0

Tissue punch Ø 6	A-BCD500
Pointer drill Ø 2	A-FPD500
Drill#1 Ø 2	A-FGB105*
Drill#2 Ø 2.7	A-FGB205*
Drill#3 Ø 3.1	A-FGB305*
Drill#4 Ø 3.6	A-FGB405*
Drill#5 from the stop drill kit	

*Drills that require the stoppers from the stop drill kit

4 Guide for Pointer Drill

Tissue punch Ø 3.3	A-BCD100
Pointer Drill Ø 2	A-FPD100
Pilot Drill Ø 2 from the surgical kit	

NOT INCLUDED IN THE KIT FOR GUIDED SURGERY Components from the stop drill kit [A-TF003 / 004 / 005]

5 Additional instrumentation









Drill extension	A-PF661
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NOT INCLUDED IN THE KIT FOR GUIDED SURGERY Components from the surgical kit [A-TCP006 / 008 / 009]



Surgical sleeve

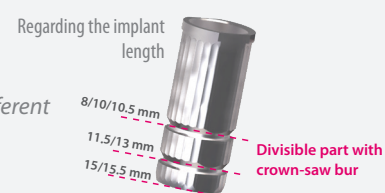
The sleeve serves as a guide for the surgical instruments while protecting the resin from the abrasions during the drilling sequence in order to maintain the guide accuracy all along the drilling sequence.

Short sleeves*				Long sleeves*			
For all implant Ø	For implants Ø3.2/3.5	For implants Ø3.9/4	For implants Ø4.7/5	For all implant Ø	For implants Ø3.2/3.5	For implants Ø3.9/4	For implants Ø4.7/5
							
Øint : 3.3 mm	Øint : 4.5 mm	Øint : 5.0 mm	Øint : 6.0 mm	Øint : 3.3 mm	Øint : 4.5 mm	Øint : 5.0 mm	Øint : 6.0 mm
A-DOU100	A-DOU300	A-DOU400	A-DOU500	A-DOUL100	A-DOUL300	A-DOUL400	A-DOUL500

*The surgical sleeves are anodized with TBR's colour codes related to the diameter of the implant to be set (or universal)

NOTE FOR THE LONG SLEEVE:

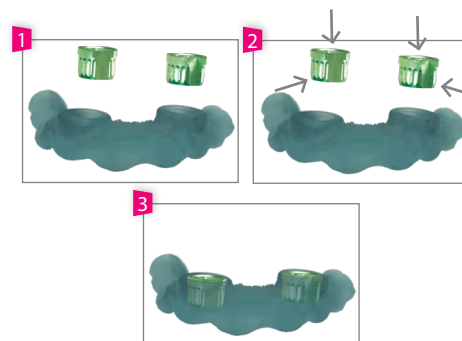
The long version of the sleeve is divisible with crown-saw bur, and can therefore be adjusted to different implant lengths and enables to guide the drills in their planned axis whatever the drill length is.



Surgical guide conception

CAD/CAM or 3D printing

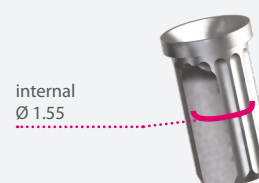
- 1 Create the guide via an ad-hoc software taking care of planning drillings adapted to diameter of the sleeves to be inserted.
- 2 Position the sleeve with its insertion chamfer [indicated on the adjacent illustration with an arrow] on the upper edge of the corresponding drilling.
- 3 Force the sleeve into the guide thanks to a mallet if needed. Repeat the operation for the other sleeves.



NOTE FOR OSSEOSYNTHESIS SCREWS:

Create the guide via an ad-hoc software taking care of planning the drilling adapted to the insertion of the sleeve for osseosynthesis screw [ref. A-DOST100] [screw Ø 1.5 maximum].

Continue the steps 1 & 2 of the «CAD-CAM or 3D printing» protocol



Protocol with universal sleeve

- 1 Punch the soft tissues with the tissue punch through the sleeve. **[A-BCD100]**
- 2 Attack the crest with the pointer drill and prepare the implant site in the planned axis. **[A-FPD100]**
- 3 From the standard surgical kit, use drill N°1 with non removable stopper, matching the implant length. This drill will be guided through the sleeve.

The guide can then be removed and the rest of the drilling sequence will be carried out using this initial drilling as a guideline, combined with the length laser markings on the drills from the surgical kit.

Protocol with the sleeve adapted to the implant diameter Ø 3.5

- 1 Punch the soft tissues with the tissue punch through the sleeve.
- 2 Attack the crest with the pointer drill and prepare the implant site in the planned axis.
- 3 Insert the removable stop drill n°1 for implant Ø 3.5 of the kit for guided surgery - adapted to the implant length and mounted with the corresponding stopper from the stop drill kit - in the implant site. It is then guided in the sleeve thanks to its stopper. Drill until the stopper reaches the bone crest.
- 4 Using the same removable stopper, use the drill n°2 for implant Ø 3.5 of the kit for guided surgery and drill up to the stopper.
- 5 Repeat the operation with the drill n°3** of the stop drill kit for implant Ø 3.5 mounted with the same stopper.

Case of sleeve adapted to the diameter of implants Ø4 and Ø5

The protocol is similar to the one of the Protocol with sleeve adapted to the diameter of implant Ø 3.5 above, but:

- the drills, the sleeves and the stoppers to use are adapted to the implants to be set
- Respectively add 1 or 2 steps in the drilling sequence in order to reach the desired diameter without damaging the bone and respect the sequence chart below.

Sequence chart

Ø Implants	Short sleeve or Long sleeve	Tissue punch	Pointer drill	Removable stops	Drill N°1	Drill N°2	Drill N°3	Drill N°4	Drill N°5	
All	A-DOU100	A-DOUL100	A-BCD100	A-FPD100	--	A-FBX*				
Ø3.2/3.5	A-DOU300	A-DOUL300	A-BCD300	A-FPD300	A-BF3*	A-FGB103	A-FGB203	A-FCB300**		
Ø3.9/4	A-DOU400	A-DOUL400	A-BCD400	A-FPD400	A-BF4*	A-FGB104	A-FGB204	A-FGB304	A-FCB400**	
Ø4.7/5	A-DOU500	A-DOUL500	A-BCD500	A-FPD500	A-BF5*	A-FGB105	A-FGB205	A-FGB305	A-FGB405	A-FCB500**
Ø 3.5 - Z1-Connect	A-DOU400	A-DOUL400	A-BCD400	A-FPD400	A-BF3*	A-FGB104	A-FGB204	A-FGB304		








*the exact reference depends on the implant length


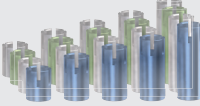
**drill from the stop drill kit [A-TF003/004/005]

Overview of the components and pieces


In the kit for guided surgery - [A-TGC001]

Description	Use	View
Tissue punch for sleeve (A-BDCxxx)	This tissue punch serves to punch gingival tissues. The drilling depth will therefore be independent from the gingival thickness because the drill stopper will directly stop on the bone crest.	
Guided pointer drill (A-FPDxxx)	It serves to attack the bone crest while preparing a first guidance for the next drills. This is the reason why it has a cylindro-conical shape with a high angulation. It goes through the sleeve that matches the implant diameter. Therefore it exists 4 versions from which only the external sleeve diameter varies to be adapted to the sleeve that matches the implant to be set.	
Fixed stop drills (A-FGBxxx)	Those drills prepare the axis and the drilling depth.	
Removable stop drills (A-FGBxxx)	They are in the kit for guided surgery apart from the final drill that is in the stop drill kit.	
Drill extension (A-PF661)	If an obstacle blocks the way of the contra-angle head, use the drill extension from the kit for guided surgery.	

In the removable stop drill kit - [A-TF003 / A-TF004 / A-TF005]

Designation	Use	Preview
Final removable stop drills	Final drill from the stop drill kit depending on the implant range used.	
Removable stops	They come from the stop drill kit (ref. A-TF003 to 005). They depend on the implant diameter and are adapted to the internal sleeve diameter. The cylindrical sleeves will be used to guide the drill in addition to their use as axial blocking during the drilling.	

Components and unit pieces [outside the kits]

Designation	Use	Preview
Short and long sleeve	Metal inlay that guides and orients the drilling. In order to ensure its stability in the resin. It is endowed with lateral flat sides that avoid any rotational and axial movements during the resin moulding. It is particularly adapted to CAD/CAM guides and can be forced or moulded into the guide.	
Sleeve for osseosynthesis screw	Specially used for the osseosynthesis screws [screw Ø 1.5 maximum] that stabilize the surgical guide in particular in case of full edentulism. Same geometrical features for the stability as the other sleeves.	