

**implantswiss**

**REMOVAL  
HELP KIT**

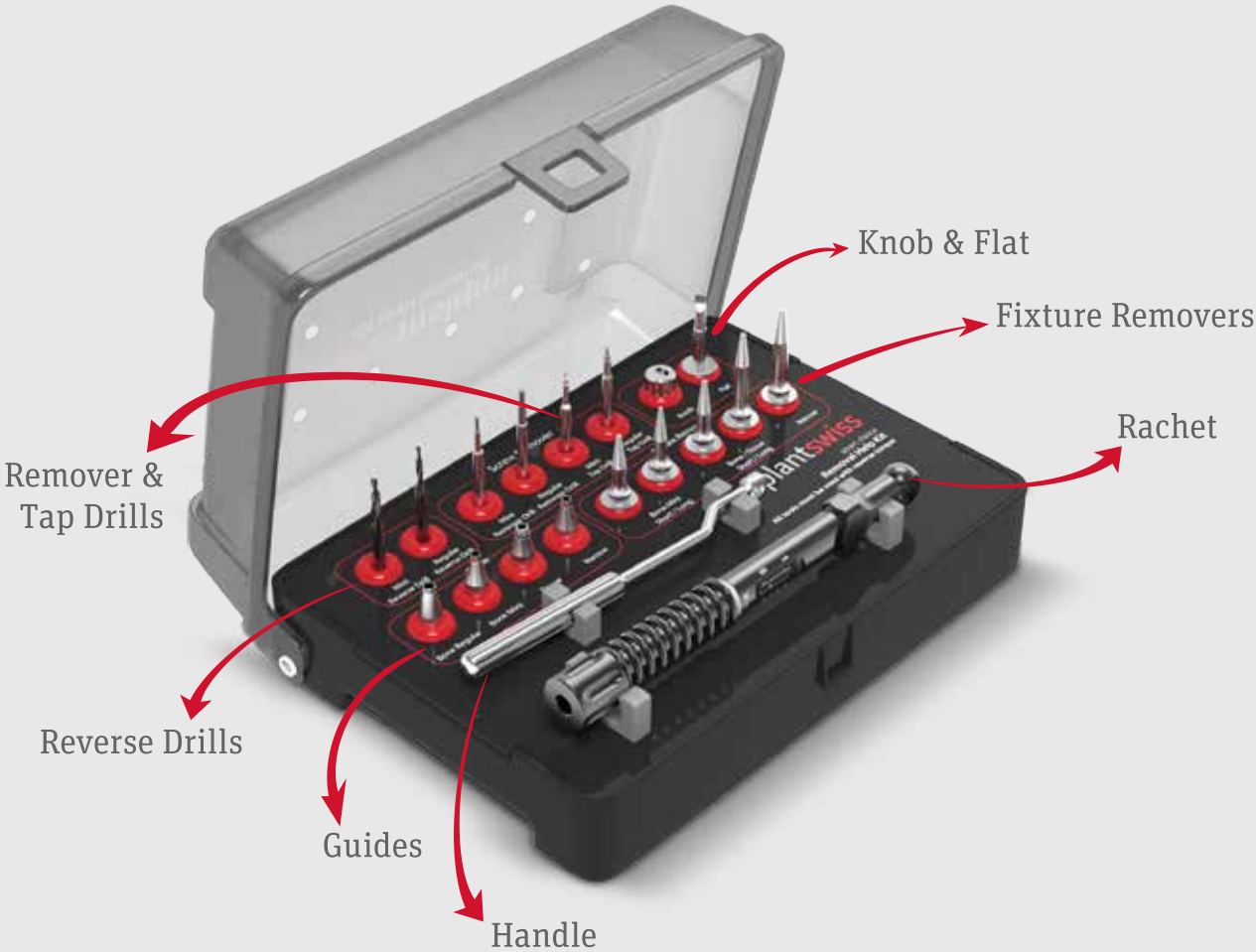
## IMPLANTSWISS REMOVAL HELP KIT

Implantswiss Removal Help Kit is a versatile solution for critical prosthetic challenges. Built with a robust design and ensuring reliable support for professionals in resolving issues like broken abutments and screws.

**Implantswiss Removal Help Kit** is your trusted resource for efficient solutions in dental prosthetics.



## KIT DESIGN



## REMOVAL HELP KIT COMPONENTS

### REMOVER DRILLS

Mini and Regular Remover Drills: In case of breakage of the abutment screw, it is used to remove the screw from the inside of the implant body in reverse rotation by taking support from the appropriate fracture line of the broken screw.

These drills work when the fracture line is suitable.

However, after a few attempts, if it is understood that the fracture line is not suitable, the broken screw should be removed using Reverse drill and Tap drill.



S-BHKRD08

S-BHKRD13

### REVERSE DRILLS

Reverse Drills are used to prepare the necessary slot for the tap drills included in the Help kit, which will be used to remove the abutment screw that broke due to exposure to excessive load, to hold into the broken screw.

These drill bits come in two different sizes: Mini Drill and Regular Drill. The Mini Drill is ideal for screws with diameters  $\varnothing$  1 to  $\varnothing$  1.2 mm. Regular Drill is used for screws with a diameter of  $\varnothing$  1.2 mm and above.



S-BHKRV08

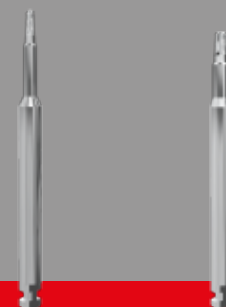
S-BHKRV13

### MINI AND REGULAR TAP DRILLS

They are used to remove the broken abutment screw or the cover screw whose screw driver slot is broken.

After having a grip on the screw in counter clockwise, it loosens the screw.

In the broken abutment screw, the appropriate slot for the Tap Drill to hold is prepared with the Reverse Drills.



S-BHKTP08

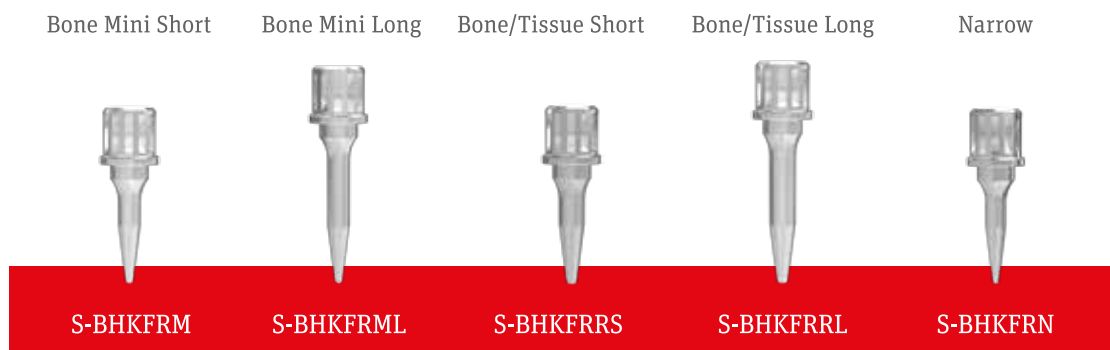
S-BHKTP13

## FIXTURE REMOVER

The Fixture Remover is a tool specifically designed to remove broken or deformed implants.

This tool is placed and fixed on the implant by turning it counterclockwise. If it continues to be turned counterclockwise, the fixture may become dislodged as it will rotate in the opposite direction of the path it followed when settling into the bone. This tool plays an important role whenever the implant needs to be removed or when other traditional removal methods have failed.

Fixture Remover can also be used when the abutment is broken and the hex connection of the abutment remains inside of the implant.



## HANDLE

Handle is used to hold guides. It provides stability and convenience during Removal Protocols application.



## FLAT

For cover screws or healing abutments that are jammed or whose screwdriver slot is damaged, a suitable flat slot is prepared so that the flat can be used (a line slot in which the flat can fit is prepared with the help of a suitable round drill that is hard enough to cut titanium) and the stuck screw is loosened by applying force in the reverse rotation with the help of the flat.



S-BHKFT

## KNOB

Knob is the suitable spacer for using Remover Drill and Tap Drill with Ratchet and manually, if necessary.



I-SKNB

## GUIDE

Guide helps place drills in the correct position and angle; It is used by placing it on the handle and provides guidance. Guides help precisely direct the drill or other tools to the desired target to ensure successful operation. Additionally, when the guide is placed on the handle, the handle stabilizes the guides and helps the surgeon hold drills or other instruments in a stable position. There are different guides for the different connection types included in the kit.

Bone Mini



S-BHKMG

Bone Regular



S-BHKRG

Tissue



S-BHKTG

Narrow



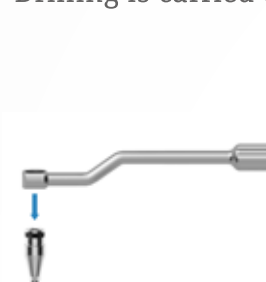
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## PROTOCOLS

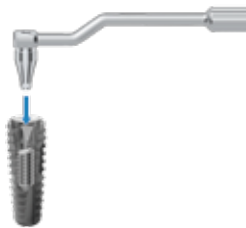
### ABUTMENT SCREW REMOVAL PROTOCOLS

#### Removal with Remover Drill

If the abutment screw is broken and there are indentations on the broken surface of the screw, it is appropriate to first try to remove the broken screw by grabbing the indentations with the Remover Drill and applying a counterclockwise torque. Drilling is carried out counterclockwise, at 25 rpm.



**Fig.1:**  
The appropriate Guide is selected and placed in the Handle.



**Fig.2:**  
Guide placed on top of the broken abutment screw.



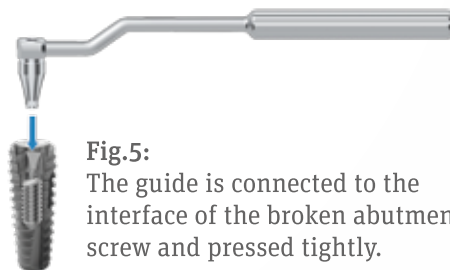
**Fig.3:**  
The appropriate Remover Drill is selected and connected to the contra-angle handpiece.

#### Removal with Tap Drill

If the abutment screw is broken and it is not possible to catch it from the indentations on the broken surface of the screw, it is a suitable practice to drill a slot of appropriate size with the Reverse Drill and place it in the slot opened in the opposite direction with the Tap Drill, torque it counterclockwise and try to remove the broken screw.



**Fig.4:**  
The appropriate Guide is selected and placed in the Handle. Here, Guide supports centering the reverse drill on the screw.



**Fig.5:**  
The guide is connected to the interface of the broken abutment screw and pressed tightly.



**Fig.6:**  
The appropriate reverse drill is selected. Drilling is carried out in intervals, counterclockwise, at 600-700 rpm.

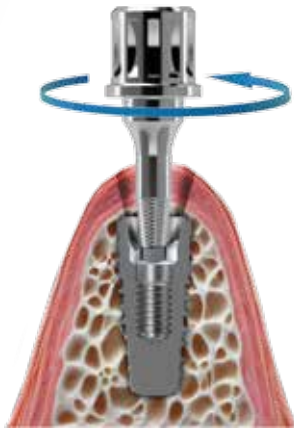


**Fig.7:**  
Appropriate tap drill is selected and Drilling is carried out in intervals, counterclockwise, below 80 rpm.

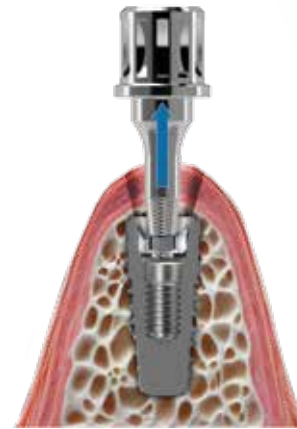
## ABUTMENT HEX REMOVAL PROTOCOL

To remove the relevant part in case the Abutment Hex is deformed,

The appropriate Fixture Remover is selected and placed on the Ratchet. It is rotated clockwise to ensure that the Fixture Remover fits tightly into the hex slot. Once fully seated in the slot, the Fixture Remover is placed to the Ratchet and the hex is gently loosened manually until it comes out. Here, it is important to loosen with moderate pressure without applying too much force.



**Fig.8:**  
Fixture Remover placed in deformed hexagon connection and start to rotate counter clockwise



**Fig.9:**  
Fixture Remover begins moving the broken abutment hex piece upwards



**Fig.10:**  
Fixture Remover completely loosened the abutment hex and enabled its removal



## FIXTURE REMOVAL PROTOCOL

Fixture Remover placed on the Ratchet, then placed inside the fixture. The Ratchet is slowly rotated counterclockwise until it is firmly locked into the fixture.

The Ratchet continues to be torqued until the deformed fixture is completely loosened and removed.



**Fig.11:**  
The fixture remover fits snugly into the implant's internal connections and rotates counterclockwise.



**Fig.12:**  
The fixture remover rotates counterclockwise to remove the implant from the bone in the direction of the grooves it fits into.

## HEALING ABUTMENT REMOVAL PROTOCOL

For healing abutments that are jammed or whose screwdriver slot is damaged, a suitable drill is selected and a suitable flat slot is prepared. The drill to be used must be a drill that can open slots suitable for Flat, such as a round drill or a separate drill. The Flat is placed on the Ratchet and the stuck Healing Abutment piece is loosened by applying force by turning it counterclockwise.



**Fig.13:**  
A suitable slot is opened for Flat Healing Abutment.

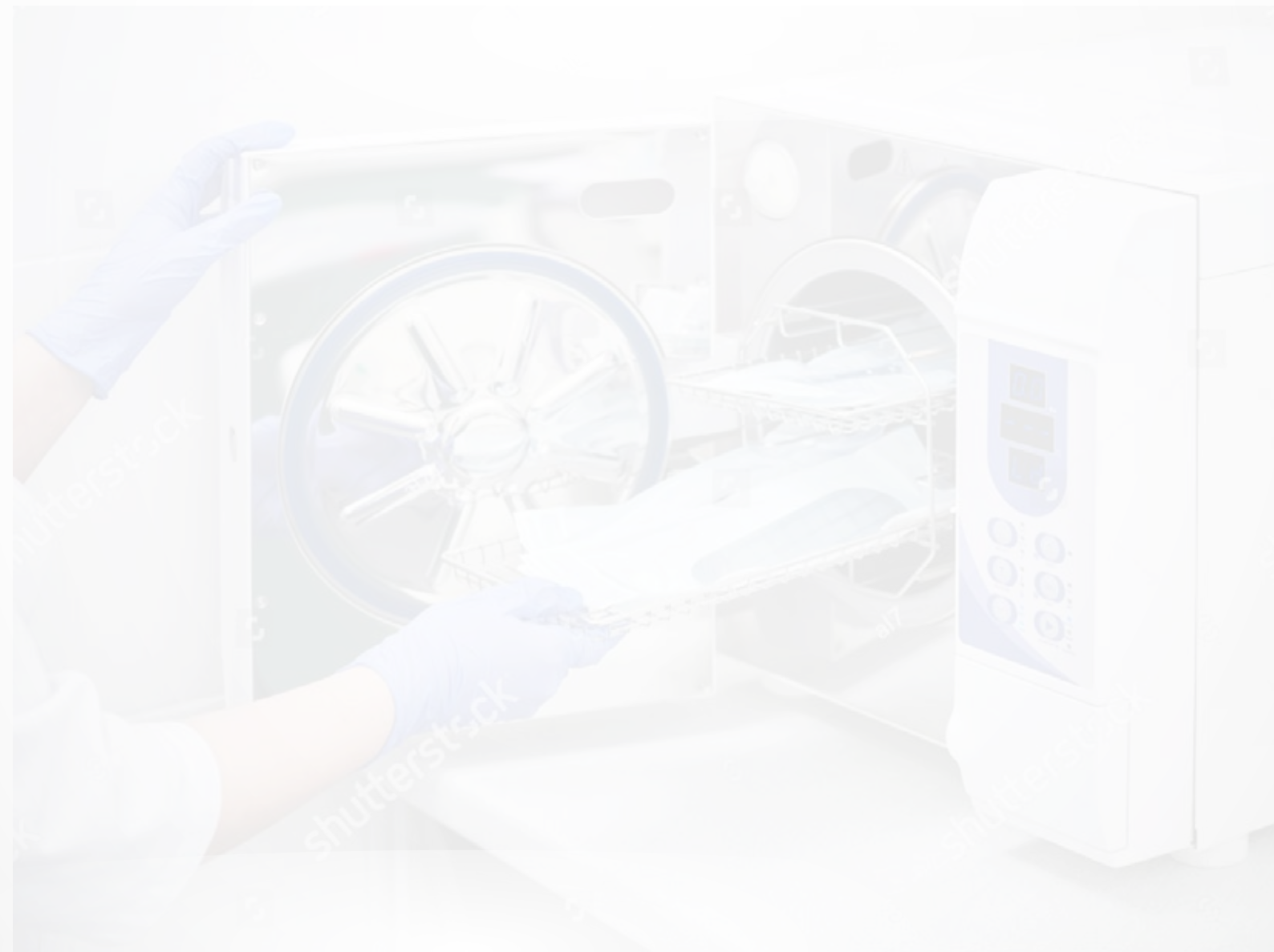


**Fig.14:**  
Flat is placed on the Ratchet, seated in the opened slot on the top of the Healing Abutment, and rotated counterclockwise.




















## **CLEANING AND STERILIZATION**

B-Class Autoclave is recommended.

Dry heat sterilization is not suitable.



## PRODUCT IMAGES & CODES

Images	Product	Codes
	Mini Remover Drill	S-BHKRD08
	Regular Remover Drill	S-BHKRD13
	Mini Reverse Drill	S-BHKRVO8
	Regular Reverse Drill	S-BHKRV13
	Mini Tap Drill	S-BHKTP08
	Regular Tap Drill	S-BHKTP13
	Flat	S-BHKFT
	Knob	I-SKNB
	Fixture Remover Mini Short	S-BHKFRMS
	Fixture Remover Mini Long	S-BHKFRML
	Fixture Remover Narrow	S-BHKFRN
	Fixture Remover Regular Short	S-BHKFRRS
	Fixture Remover Regular Long	S-BHKFRRL
	Bone Mini Guide	S-BHKMG
	Narrow Guide	S-BHKNG
	Bone Regular Guide	S-BHKRG
	Tissue Guide	S-BHKTG
	Handle	SBHKH
	Ratchet	S-T-RATCHET

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