

### NB.: It is mandatory to use an implantology motor as extractions require torque when screwing and unscrewing.

After all screw or implant extraction procedures, do not forget to treat the cause of the problem (occlusal stress, prosthetic passive fit, bruxism, unsuitable prosthetic choice, contraindicated implant situation, etc.).

NB.: some small instruments, in particular drills, may break under inappropriate or excessive constraints, etc.



# Extraction of a screw following deformation of the screw head hexagon

The screw head hexagon is deformed and you cannot unscrew the screw with the external hexagonal key. Take the screw extractor.

- 1. Insert the screw extractor into the hexagon of the screw head.
- Turn in an anticlockwise direction to grip the screw by exerting pressure on the extractor.

Continue unscrewing until the screw comes up.



## ) Extraction of a fragment of a broken screw in the implant

#### RECOMMENDATIONS

We recommend once-off use for the reverse drill. Its diameter of 1.2 mm makes it fragile and the drill may break. We recommend to order two for the extraction of a screw.

The attachment screw is broken and a fragment of the screw has remained in the thread of the implant connection.

The prosthetic abutment and the upper part of the screw must be removed.

Take the drilling guide <u>corresponding to your implant</u> and the reverse drill. The "short" version of the guide and the drill are intended for small occlusions in the back section if the "long" version is too long.

- 1. Place 2 drops of food-grade lubricant in the connection.
- 2. Place the drilling guide over the implant.
- 3. Insert the drill into the contra-angle.

Set the implantology motor in "reverse" mode at 400 Rpm and <u>at</u> <u>maximum torque of the motor</u> (50 N.cm). Use the irrigation system in order to cool the drill.

 Place the reverse drill through the drilling guide. Unscrew until the broken screw reverses out.

## ) Re-tapping of the connection threads

After the extraction of the screw using the reverse drill, the tapping threads of the implant may be damaged. We recommend re-tapping the threads using the tap.

Take the tap corresponding to your implant.

As tapping may generate titanium chips, is it recommended to use water irrigation and suction to clean them.

1. Lubricate the tap with food-grade lubricant.

2. Screw in the tap manually without forcing (too much force may cause the tap to break off in the implant). If resistance is felt, turn gently, approximately 1/8 turn, then completely, and remove the tap.

3. Clean with water and suction.

4. Start the operation again until no resistance is felt any more, and that you have reached the thread bottom.

5. Check the threads are properly re-tapped by trying to screw an abutment in the connection. Beware not to force!

6. After checking the abutment seats properly, remove it, and flush the implant connection. Continue with the standard procedure.







# Extraction of an abutment

The screw of the abutment must be removed. Take the abutment extractor.

- 1. Manually screw the abutment extractor into the abutment.
- Screw the extractor until the very bottom of the implant connection.
  NB: cut the top of the abutment if the extractor comes against it.
  Optional: if necessary, use the ratchet on the extractor to finish the screwing and dislodge the abutment.

# ) Extraction of an implant

#### Phase 1

To be noted that :

- · the use of an implant extractor may fracture the peri-implant bone;
- this extraction technique with an implant extractor may not function in the event that the implant is still firmly osseointegrated, and not loose enough in the bone.
- 1. Take the implant extractor.
- Insert it into the implant connection and turn in an anticlockwise direction to grasp the connection threads. The tip of the implant extractor will engage in the connection and unscrew the implant at the same time.
- 3. In the event than more force is needed, use the ratchet and turn in an anticlockwise direction, by fits and starts.

#### Phase 2

In the event that the implant could not be removed with the implant extractor, use the bone trephine.

- 1 Take the trephine according to the diameter of the implant to be removed (see table 1 overleaf).
- 2. Insert the trephine into the contra-angle.
- 3. Set the motor speed depending on the trephine's diameter (see table 2 overleaf).
- 4. Drill around the implant taking into account the fact that the drilling depth must be inferior to the implant's length.
  - see the graduation every 2 mm on the trephines to indicate the drilling depth.

#### RECOMMENDATIONS

After being used several times, the cutting power of the trephines deteriorates. We recommend that you check them before each use and to change them after the10th use.









#### INSTRUCTIONS FOR CLEANING AND DECONTAMINATION OF THE EXTRACTION KITS

#### DECONTAMINATION

- Immediately after use, dismantle the instruments with multiple parts (torque ratchet, torque wrench, etc.) and plunge all the instruments into a suitable disinfection bath (respect the manufacturer's recommendations in terms of dosage, exposure time and temperature). Failure to adhere to these indications may lead to accelerated deterioration of your instruments.

#### CLEANING

- Clean the stainless steel or plastic supports as well as the instruments using a detergent specifically for dental instruments and with a neutral pH. A soft nylon brush may be used to clean the instruments.
- After cleaning rinse with demineralised water in order to eliminate all traces of detergent or mineral particles.
- The kit boards are equipped with different silicone supports. This silicone also tolerates any type of decontamination and cleaning.
- Complete and meticulous drying must be carried out before sterilisation.
- Instruments with multiple parts must be mounted again before sterilisation and the instruments are either placed back in the kit, in the silicone supports provided for such purpose, or in a sterilisation bag.

#### STERILISATION

- After cleaning, inspect the products whilst ensuring that any dirt has been removed during the cleaning.
- Place the kit and the instruments that it contains in a bag.
- The autoclave sterilisation cycle at 134°C – 18 minutes hold time was validated for all our ranges and makes it possible to attain the sterile condition of the components.
- Respect the instructions of the manufacturer of the steriliser for correct use of the device. Make sure that the process has been validated.

#### RECOMMENDATIONS

After being used several times, the cutting power of the trephines deteriorates. We recommend that you check them before each use and to change them after the 10th use.

## Table 1: Trephine selection depending on the implant's diameter

	TREPHINE DIAMETER				
	Ø 3.2	Ø 3.8	Ø 4.6	Ø 5.3	Ø 6.7
Aesthetica+ <sup>2</sup>			Ø 3.6 neck Ø 4.2 Ø 4.1 neck Ø 4.2	Ø 3.6 neck Ø 4.8 Ø 4.1 neck Ø 4.8 Ø 4.8 neck Ø 4.8	Ø 4.8 neck Ø 6.5
Aesthetica+			Ø 3.6 neck Ø 4.2 Ø 4.1 neck Ø 4.2	Ø 3.6 neck Ø 4.8 Ø 4.1 neck Ø 4.8 Ø 4.8 neck Ø 4.8	Ø 4.8 neck Ø 6.5
Natea+		Ø 3.6	Ø 4.1	Ø 4.8	Ø 6
Natea		Ø 3.6	Ø 4.1	Ø 4.8	Ø6
Naturactis	Ø 3	Ø 3.5	Ø 4 Ø 4.5	Ø 5	-
Naturall+	Ø 3	Ø 3.5	Ø 4	Ø 4.5 Ø 5	
Naturall		Ø 3.5	Ø 4	Ø 4.5 Ø 5	
Uneva+			Ø 3.6 Ø 4.1	Ø 4.8	Ø 6
Uneva			Ø 3.6 Ø 4.1	Ø 4.8	Ø 6

### Table 2: Drilling speed depending on the trephine diameter

TREPHINE DIAMETER	DRILL SPEED
Ø 3.2	200 rpm
Ø 3.8	200 rpm
Ø 4.6	200 rpm
Ø 5.3	190 rpm
Ø 6.7	140 rpm



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