PRIMARY HEALING IMPLANT PHI™

a brand of

KRISTAL
IMPLANTOLOGY - ORTHODONTICS

MAC
Surface

TPS
Surface

EVO IMPLANTS

Conometric (6°) internal hexagon Titanium Grade 5 (Ti6Al-4V) implant for submerged technique, available in two surface variants, acid etched (MAC) or Titanium Plasma-Spray (TPS) sandblasted, both TiN-coated.

The cono-morse connection is today the most versatile prosthetic connection for both screw-retained and cemented prostheses.

The morphology of the EVO implant, with its cylindrical body in the coronal part and conical in the medullary part, the large self-centring coils with 1.5 mm pitch, the osteogenic corrugations, allows an atraumatic implant insertion for the patient, with long-term follow-up (more than 25 years).

The **EVO** implant also has a three-principle apical coil with a 0.5 mm pitch that promotes primary stability.

The EVO implant offers the following advantages:

- **ATRAUMATIC SURGERY**
- **PRIMARY HEALING**
- **SINGLE PROSTHETIC CONNECTION FOR ALL DIAMETERS**
- **6° CONOMETRIC CONNECTION**
- **PLATFORM-SWITCHING WITH THREE PROFILES OF EMERGENCY FOR PROSTHETIC COMPONENTS**
- **TITANIUM NITRIDE (TiN) COATING ON ALL IMPLANTS AND DEFINITVE PROSTHETIC COMPONENTS**

EVO CONOMETRIC IMPLANTS INTERNAL HEXAGON

EVO IMPLANRTS

Titanium and its alloys have always been considered as materials of choice in dental implantology due to their excellent biocompatibility features and their behaviour with biological tissues. In order to further improve its properties, Kristal has developed a series of surface treatments that accelerate and promote the osseointegration of PHI-branded implants.

The surface treatment that characterises the PHI EVO implant line is available in two versions, MAC and TPS, both versions are first sandblasted and differ in the employed materials, MAC means combined acid-etched; the surface has a micro-wrinkled morphology that increases the contact surface between bone and implant and reduces the waiting time for load application. Obtained by a subtractive process of double acid-etching, this type of treatment imparts the typical microtopography that is the basis of modern implant surfaces.

The surface irregularities are separated by micrometer distances, making them extremely efficient in platelet activation and clot retention at the implant site. The three-dimensional texture of this surface acts as a highly efficient sponge, which retains the growth factors and ensures a fast and favourable course of the bone healing process.

TPS (Titanium plasma-spray) coating is obtained by means of thermal spray; in the plasma coating, pure Titanium powders are sprayed onto the previously sandblasted surface and adhere to the surface, creating caves of an ideal size for platelet activation and retention of the implant site clot.
Both surfaces are then further coated with Titanium Nitride (TiN).

EVO
MAIN ADVANTAGES

The PHI (Primary Healing Implant) method enables primary bone repair.

Primary bone healing has been studied mainly in orthopaedics by Prof. R. K. Schenk of the University of Bern. While traditional implants were always inserted into the cavity by forcing, screwing or hammering them in, with the PHI implant insertion is by coupling, without forcing. This means not only no pressure, but also no tension. The integration process of the PHI implant was evaluated in a multicentre study carried out in 8 different centres on approximately 2500 implants placed over 24 months and the success rate was 99.28% overall (mandible and maxilla). The scientific value of the experiments on isolated bovine ribs, rabbits, pigs and non-human primates, carried out in collaboration with Italian (Chieti, Milan) and foreign (Buenos Aires, Dijon) universities, was internationally recognised. These trials were presented at several IADR world congresses.

The term EVO, meaning "evolution", is intended as a symbolic transition from the historic PHI transmucosal line with internal hexagon and final cemented prosthetic components created in 1991 to a revised and updated line that meets the current needs of dentists and dental technicians, a submerged implant with prosthetic components with a through screw, conometric connection (6°), platform-switching and abutments without a shoulder (to finish).

The EVO line, in fact, marks the achievement of PHI's maturity with unique features, summarises the best knowledge in implant prosthetics and is constantly evolving.

The EVO line is the result of the development of mechanical concepts that are well established in the dental world and set the benchmark for implant surgery in terms of quality, ergonomics and a fair price.

The line includes implants with variable incremental diameters, all sharing the same platform and implant connection, to facilitate their use during the prosthetic phases; PHI EVO implants have a single prosthetic connection for all implant diameters, allowing the interchangeability of prosthetic components.

MATERIALS AND SURFACES

RAW MATERIALS AND PRODUCTION

PHI devices are manufactured from raw materials that are selected, tested and certified for medical use. Dental implants and prosthetic components are made exclusively of Grade 5 Titanium alloy (Ti6Al4V), which complies with ASTM F136 international standards and is known for its excellent biocompatibility and mechanical properties. Kristal uses the latest generation of dedicated CNC lathes for production, which guarantee micrometric tolerances. Because of the importance of accuracy and compliance with design specifications, each production batch undergoes several 100% checks: both visual and by means of appropriate measuring instruments.

SURFACE TREATMENT

In order to further improve the surface properties of Titanium, Kristal planned several implant surface treatments for the PHI line, which can effectively accelerate and promote the osseointegration processes. Implants must regularly pass strict inspections aimed at checking not only the level of cleanliness of the implants but also the morphological and topographical characteristics and the chemical composition of the surface, which will form the interface with the bone tissue. Regular analysis involves assessing the (quantitative and qualitative) chemical composition of the most superficial layers (5 mm depth) using XPS and observing the superficial morphology under a scanning electron microscope.

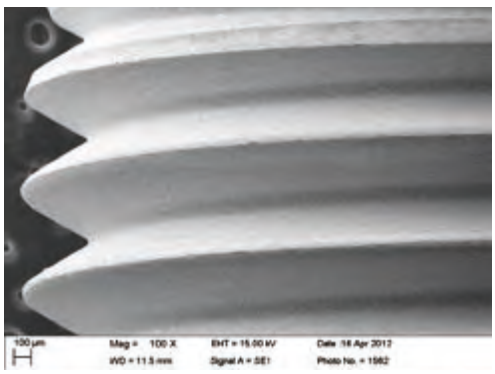
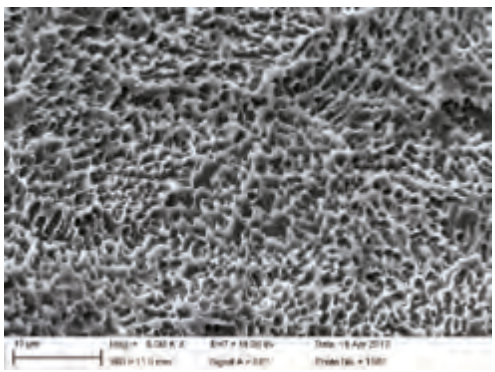
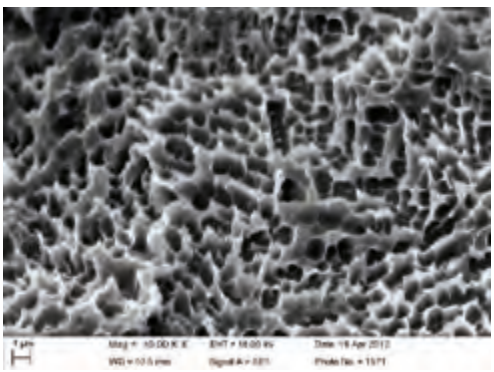
DECONTAMINATION AND PACKAGING

To ensure excellent cleanliness levels, the devices undergo a rigorous decontamination process which involves several washes to remove all contaminants from the surface. The reproducibility of the treatment and the optimisation of the process parameters allow this decontamination technique to be used with high quality standards on devices with complex geometry. Decontamination, as well as the subsequent assembly and packaging phases, take place in a dedicated room under a ISO 5 classified laminar flow hood, which ensures that the most delicate stages of the production process are carried out in an environment with particulate contamination control, constantly kept at predetermined levels in accordance with current regulations. The controlled-contamination room inside our production unit is one of Kristal's strengths, as all the activities carried out there are regulated by strict operating procedures and highly qualified staff, and being inside the facility we are certain that the parameters are kept under control during all stages of the process.

STERILISATION

Sterilisation is one of the few outsourced activities that takes place with a certified supplier. The implants are sterilised by gamma irradiation with a nominal dose of 25KGy; the efficiency of the process and the presence of a sealed package, which acts as a microbiological barrier, guarantee that sterile conditions are maintained and remain intact over time (shelf life 5 years).

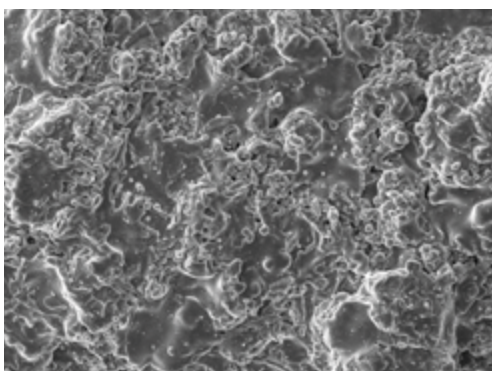
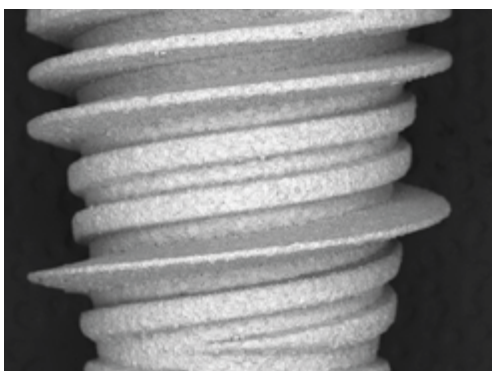
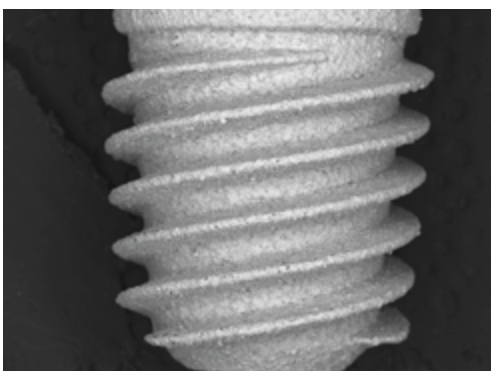
COMBINED ACID ETCHING (MAC)

The surface is obtained by sandblasting and subsequent acidification. The surface is designed to significantly increase the contact surface and promote the differentiation of osteoblastic cells. The surface has an extensive bibliography of its efficacy and long-term stability, making it a treatment which makes the device suitable for standard conditions and with suboptimal bone quality or quantity. The sandblasting treatment and subsequent acidification significantly increases the "% area increase" value, which represents the contact surface between the implant and the bone. This type of treatment is reliable and has been used for several years with excellent results. The surface has an average Sa surface roughness of 1.3 µ.

TITANIUM PLASMA SPRAY (TPS)

This process is carried out by means of an electric arc plasma burner that is able to raise the temperature of a noble gas in which Titanium powders are sprayed, which, thanks to the melting of their most superficial layer, bond to the body of the implant on which they are deposited. Several studies have shown that titanium plasma-spray preparation not only increases the surface area available for bone adhesion, but also induces an increase in the proportion of implant surface area that comes into contact with mineralised tissue, in comparison with smooth titanium implants. In clinical terms, these phenomena are reflected in a stronger bone anchorage of the implant.

TITANIUM NITRIDE (TiN) COATING

All implants in the PHI EVO line feature Titanium Nitride (TiN) coating. Thanks to PVD technology, the coating isolates the substrate, creating a barrier that produces a high-quality, consistent coating with a dual value: aesthetic, because the gold colour does not reveal the implant against the light through the mucous tissue, and bibliographic studies have shown that it prevents negative bacterial proliferation compared to an untreated surface. Importantly, TiN coating only modifies the surface properties of the implant without altering the substrate properties and biomechanical functionality.

EVO MAC GOLD IMPLANTS

	● Ø 3.5 mm	● Ø 4.0 mm	● Ø 4.5 mm	● Ø 5.0 mm
H.8 mm	**PHVSAB1**	**PHVSAC1**	**PHVSAD1**	**PHVSAE1**
H.10 mm	**PHVSAB2**	**PHVSAC2**	**PHVSAD2**	**PHVSAE2**
H.13 mm	**PHVSAB3**	**PHVSAC3**	**PHVSAD3**	**PHVSAE3**

EVO TPS GOLD IMPLANTS

	● Ø 3,5 mm	● Ø 4.0 mm	● Ø 4.5 mm	● Ø 5.0 mm
H.8 mm	**PHVSGB1**	**PHVSGC1**	**PHVSGD1**	**PHVSGE1**
H.10 mm	**PHVSGB2**	**PHVSGC2**	**PHVSGD2**	**PHVSGE2**
H.13 mm	**PHVSGB3**	**PHVSGC3**	**PHVSGD3**	**PHVSGE3**

EVO MRS GOLD IMPLANTS

	● Ø 3,5 mm	● Ø 4.0 mm	● Ø 4.5 mm	● Ø 5.0 mm
H.8 mm			**PHVSRD1**	
H.10 mm		**PHVSRC2**	**PHVSRD2**	**PHVSRE2**

CAP SCREW (universal for all types of implants)

PHVVG3B	The screw is included in the implant package, housed in the cap of the vial

COLOUR CODING

	Ø 3.5 mm	Ø 4.0 mm	Ø 4.5 mm	Ø 5.0 mm
COLOUR	●	●	●	●

STEP DRILLS

	● Ø 3.5 mm	● Ø 4.0 mm	● Ø 4.5 mm	● Ø 5.0 mm
H.8 mm	PHVFRB1	PHVFRC1	PHVFRD1	PHVFRE1
H.10 mm	PHVFRB2	PHVFRC2	PHVFRD2	PHVFRE2
H.13 mm	PHVFRB3	PHVFRC3	PHVFRD3	PHVFRE3

REAMERS

	● Ø 3.5 mm	● Ø 4.0 mm	● Ø 4.5 mm	● Ø 5.0 mm
H.8 mm	PHVALB1	PHVALC1	PHVALD1	PHVALE1
H.10 mm	PHVALB2	PHVALC2	PHVALD2	PHVALE2
H.13 mm	PHVALB3	PHVALC3	PHVALD3	PHVALE3

pressure compensated outflow

TAPPERS

	● Ø 3.5 mm	● Ø 4.0 mm	● Ø 4.5 mm	● Ø 5.0 mm
H.8 mm	PHVMSB1	PHVMSC1	PHVMSD1	PHVMSE1
H.10 mm	PHVMSB2	PHVMSC2	PHVMSD2	PHVMSE2
H.13 mm	PHVMSB3	PHVMSC3	PHVMSD3	PHVMSE3

CORTICAL INCISION AND PILOT DRILLING

At the implant insertion point, a hole is drilled in the cortical bone with a suitable rotary instrument with a maximum diameter of 1 mm. The exposed cortical may have a sharp profile or otherwise make it difficult to correctly position the pilot drill. The simplest and least expensive from a biological point of view method is to approach the pilot drilling almost orthogonally to the buccally exposed bone.

Once the first cortical is cleared, the pilot drill is gradually aligned with the axis of the implant. Alternatively, the cortical profile can be regularised by an osteoplasty surgery.

PRELIMINARY CAVITY DRILLING

The preliminary cavity is drilled in a single step in D2, D3, D4 bone; in D1 bone, it is done in stages. The drilling process, using a stepped drill (without lateral cutting edges), allows the drills to be self-centred in relation to the bony corticals. These, being more consistent than the spongiosa, can usefully cause small lateral displacements that bring the drill into the softer, central bone zone of the ridge.

In the cortical bone (type D1), progressive milling performs a very small amount of bone removal allowing for a very gentle cavity formation manoeuvre. The number of passes and gauges to be subsequently used depends on the type of bone texture. The chosen step drill is then placed on the contra-angle handpiece to begin execution of the preliminary cavity.

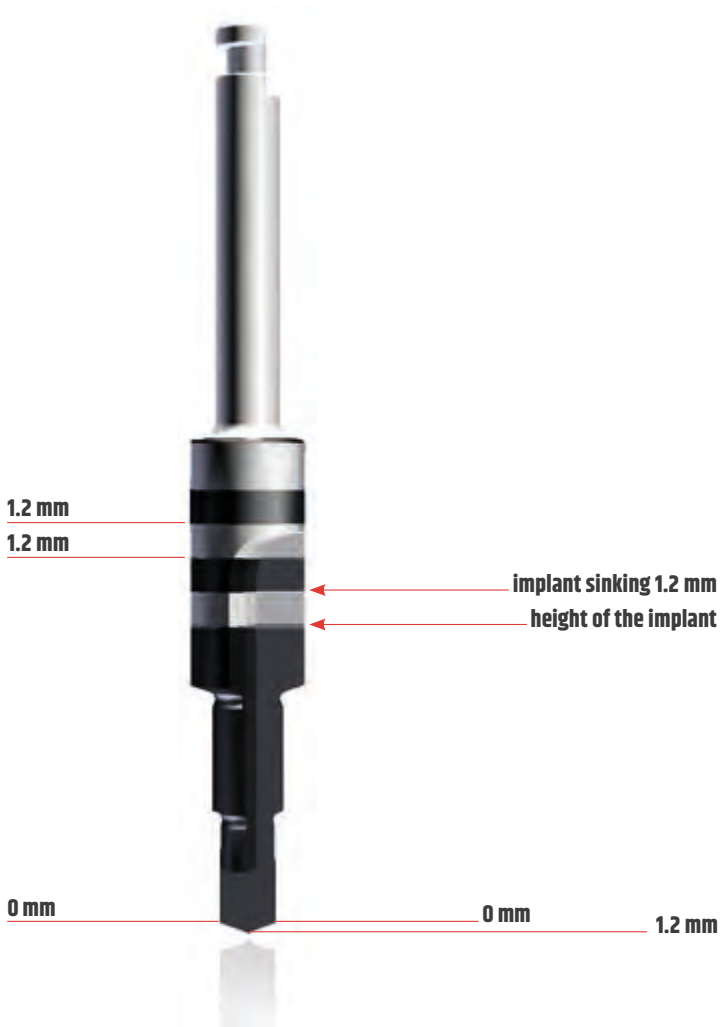
The rotation speed of the drill must be very low (30-70 rpm). It is preferable to use contra-angle handpieces with high reductions (70-260 or higher).

Place the forefinger and thumb of the left hand, mutually opposed, on the sides of the site to be operated on, place the tip of the drill in the tunnel created by the probe drill and drill along the tunnel already traced by the probe drill.

The pressure to be exerted on the handpiece is appropriate to cause the drill to sink; it tends to engage spontaneously in the canal already traced following the lesser consistency of the medulla. The line of advancement is therefore predetermined and it is the line or space of separation of the corticals. By adopting this pre-cavity drilling scheme, the possibility of unwanted gross directional errors is drastically reduced and/or removed. Trespassing from the mandible to the sublingual lodge is a potentially dangerous event due to the presence of important vascular structures. Great care must be taken to avoid this type of accident.

The characteristics of the drill are such that the contact between the burr and the cortical bone, especially the mandibular bone, is unmistakable (low rpm must be strictly applied: 30-70 rpm).

If the bone is fragile and delicate, rpm should be further lowered down to 10-20 rpm. In this way, manual sensitivity is not distorted by speed and prevents any assessment errors; at such low speeds, any damage from trespassing into soft tissue is also limited.



NOTE

- Step cutters are made of high-strength surgical steel and DLC-coated.
- The cutting capacity of the step cutter is guaranteed for up to 20 uses, based on the type of bone and therefore the degree of wear on the cutting edges.
- Rotation speed of drill with irrigation: 30-70 rpm
- Rotation speed of drill without irrigation; MAX 40 rpm

STEP CAVITY OSTEOTOMY

The progressive technique is fundamental because it allows the safe drilling of a very compact bone. Probe drills and drills with increasing steps are used until the required diameter is reached. The operation following the formation of the stepped cavity is the osteotomy which allows the rectification of the cavity.

The last tool to be used is the reamer whose gauge is immediately below the final diameter lastly used. The operation following the formation of the stepped cavity is the osteotomy which allows the rectification of the cavity. This operation is the cornerstone that ensures accuracy and enables repeatability. The tolerance with respect to the size of the instrument is certainly less than 5 microns when working in a sufficiently consistent tissue. Therefore, there are limitations related to the consistency of the bone. The manual osteotomy process is valid in D1-D2-D3 bone, but not in D4 bone, whose extreme rarefaction does not ensure adequate resistance to the type of forces applied. Alternatively, a step drilling of a smaller diameter than planned can be performed, after which a careful and gentle osteotomy of the cavity can be performed with the osteotome of the planned calibre. In the D4 bone, tuber region, sometimes distal mandible and in some cases of osteoporosis, the osteotome reamer is therefore not used. Diagnosis of bone density is soon made. In fact, when during milling, you have the sensation of penetrating the crumb of fresh bread, or balsa wood, you are in the presence of D4 bone, which is too soft for using the osteotome.

The osteotome is also not used in cases where the superficial cortical layer has a certain thickness, but the spongiosa is so thin that it has a D4 consistency; in such soft soil, step milling already removes the amount of tissue that should then be removed with the osteotome.

The osteotomy procedure begins with the insertion of the osteotome into the stepped cavity, where it sits for a considerable distance without forcing. Rotation is done manually using a special drum key, held between the thumb and forefinger in opposition. Once the most suitable key for the anatomical situation has been chosen, the osteotome is given a rotating movement, exerting minimum downward pressure.

In general, the pressure exerted by resting the hand on the key is sufficient.

The rotational force is as much is needed to overcome the resistance of the bone; with a smooth, progressive movement, a smooth, axial and effective rotational advance is achieved.

NOTE

The osteotome can be used with a contra-angle handpiece adapter (15-40 rpm).

ADVANTAGES OF MANUAL OSTEOTOMY:

- VITALITY OF THE SITE WALLS.
- VITALITY OF THE AUTOLOGOUS BONE GRAFTING.
- REGENERATION AND MONOPHASIC SURGERY.

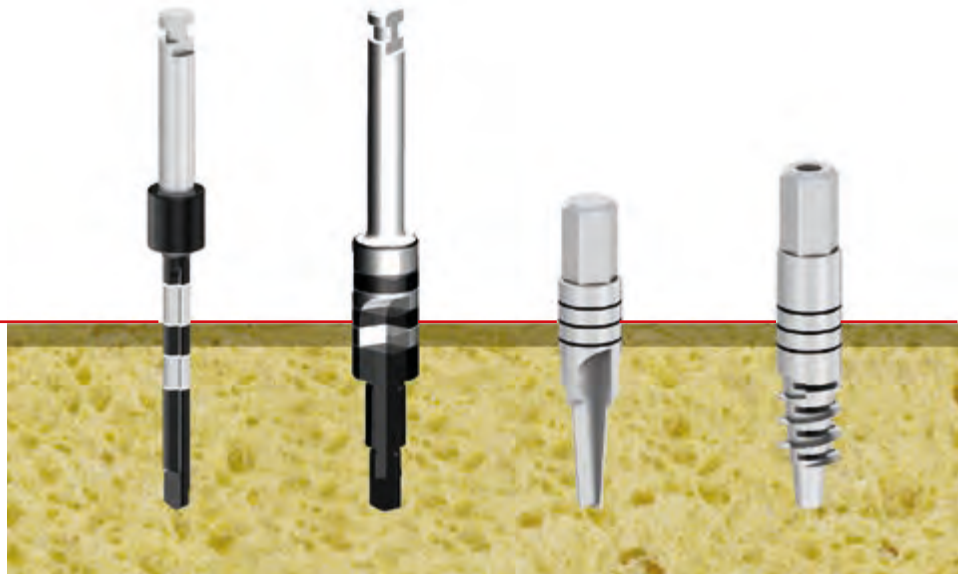
TAPPING

The EVO tapping device is perforated along its axis and is pressure compensated, thus facilitating the outflow of organic fluids and also allowing the collection and housing in the cavity of frustules and any residues between the filters.
Tapping devices should only be used for the corresponding implant type and diameter and should be inserted to the full depth of the implant cavity.
The use of the tapper avoids alterations in the implant structure, phenomena caused by torsion and any related deformations as it crawls into the bone to imprint its lead nut, and mainly avoids the possible self-tapping carried out by the implant surface capturing and dragging biological filamentary structures, thus causing ischaemia and/or necrosis of the surrounding tissue. Tapping is recommended in thick bone to keep the insertion torque within an appropriate range.

NOTE

In the surgical method of primary healing it is essential not to cause hydraulic pressure in the bone. Osteotomy debris must be carefully removed so as not to be pressed against the walls by subsequent operations. Washing with saline alone is not sufficient to detach the coagulated residue from the walls and/or bottom of the cavity. The removal of bone remnants is done with a number zero surgical spoon. Pay attention to the effective removal of the missing residues on the osteotome; an exploration of the cavity is carried out with the spoon at a later stage, which should confirm the consistency of its walls and bottom. The action of the spoon is aimed at cleaning it and the walls should not be scraped with force, but cleaned gently. The cavity is then flushed with a 20 cc syringe of saline. The syringe needle must be of a suitable cross-section.

SURGERY SEQUENCE



NOTE

The first notch corresponds to the height of the implant;
The second is the recommended depth for sinking the implant (1.2 mm);
The subsequent notches provide a reference when sinking;
Step milling cutters have an over-instrumentation of the tip (1.2 mm) beyond the height of the implant.

OPERCOLATING SCALPEL

DESCRIPTION	CODE
Opercolating scalpel	PHVBSBB

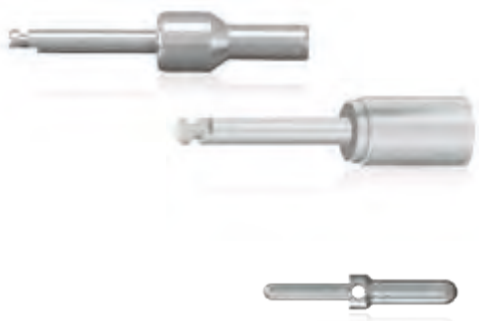
INITIAL DRILLS

DESCRIPTION		CODE
Corticotomy drill		FI
Probe drill	H.7-8-10-13 mm	PHVFR1C

DEPTH STOP FOR PROBE DRILL

DESCRIPTION	CODE
Depth stop for probe drill H.7 mm	PHVSFS07
Stop for probe drill H.8 mm	PHVSFS08
Depth stop for probe drill H.10 mm	PHVSFS10
Stop for probe drill H.13 mm	PHVSFS13

EXTENSIONS



DESCRIPTION	CODE
For drilling	PHVFR1P
For reamer and tapper	AVCST

PARALLELISM PIN

DESCRIPTION	CODE
Parallelism pin	ID

Rotation speed of PHIdrills	30-70 rpm based on the bone type

THREE PROFILES OF EMERGENCE

Healing screws come in four different configurations (low, high, extra-high and full closure) with three alternative emergence profiles to meet different aesthetic and functional requirements.

Fully enclosed (without switching-platform)

Low (1 mm switching-platform)

High (2.5 mm switching-platform)

Extra high (2.5 mm switching-platform with prolonged mucosal conditioning)

HEALING SCREWS

	Ø 3.5 mm	Ø 4.0 mm	Ø 4.5 mm	Ø 5.0 mm
EXTRA-HIGH		PHVVTCE	PHVVTDE	PHVVTEE
HIGH	PHVVTBA	PHVVTCA	PHVVTDA	PHVVTEA
LOW	PHVVTBB	PHVVTCB	PHVVTDB	PHVVTEB
FULL CLOSURE	PHVVTBC	PHVVTCC	PHVVTDC	

PEEK ABUTMENTS FOR PROVISIONAL SOLUTIONS

		Ø 4.0 mm	Ø 4.5 mm
STRAIGHT	HIGH	PHVAPCD	PHVAPD
	LOW	PHVAPCE	PHVAPDE
15° ANGLE	HIGH	PHVAPCA	
	LOW	PHVAPCB	

LABORATORY ANALOGS

Ø 3.5 mm	Ø 4.0 mm	Ø 4.5 mm	Ø 5.0 mm
PHVBIBD	PHVBICD	PHVBIDD	

The internal cavity is the same, use analogs corresponding to the diameter of the inserted implant only when using a fully closed abutment (abutting onto the implant).

PULL-UP TRANSFER

	Ø 3.5 mm
High (including screw)	PHVTRBA
Low (including screw)	PHVTRBB
SCREW	
High (spare)	PHVTR2S
Low (spare)	PHVTR3S

TRANSFER PICK-UP

	Ø 4.0 mm
Transfer pick-up EVO high	PHVTPCA
EVO high pick-up transfer screw (spare)	PHVTP1V

REMOVABLE TRANSFER (pick-up with removable hexagon)

	Ø 3.5 mm	Ø 4.0 mm	Ø 4.5 mm
High (full)	PHVTSBA	PHVTSCA	PHVTSDA
Bass (full)	PHVTSBB	PHVTSCB	PHVTSDB

	HEXAGONAL PIN	SCREW
High (spare)	PHVTS2P	PHVTS3V
Low (spare)	PHVTS3P	PHVTS4V
	Short screw for EVO bars	PHVTS5V

STRAIGHT TITANIUM ABUTMENTS

	Ø 3.5 mm	Ø 4.0 mm	Ø 4.5 mm	Ø 5.0 mm
HIGH	**PHVABBA**	**PHVABCA**	**PHVABDA**	**PHVABEA**
LOW	**PHVABB**	**PHVABCB**	**PHVABDB**	**PHVABEB**
FULL CLOSURE	**PHVABBC**	**PHVABCC**	**PHVABDC**	

ANGLED TITANIUM ABUTMENTS

	Ø 3.5 mm	Ø 4.0 mm	Ø 4.5 mm	Ø 5.0 mm
15° HIGH	**PHVAABA**	**PHVAACA**	**PHVAADA**	**PHVAAEA**
15° LOW	**PHVAABB**	**PHVAACB**	**PHVAADB**	**PHVAAEB**
15° AT FULL CLOSURE	**PHVAABC**	**PHVAACC**	**PHVAADC**	
25° HIGH	**PHVADBA**	**PHVADCA**	**PHVADDA**	
25° LOW	**PHVADBB**	**PHVADCB**	**PHVADDB**	

STRAIGHT CALCINABLE ABUTMENTS

	Ø 3.5 mm	Ø 4.0 mm	Ø 4.5 mm	Ø 5.0 mm
HIGH	**PHVCDBA**	**PHVCDCA**	**PHVCDDA**	
LOW	**PHVCDBB**	**PHVCDCB**	**PHVCDDB**	

PROSTHETIC SCREW

CODE (universal for all prosthetic components)

PHVAB2V

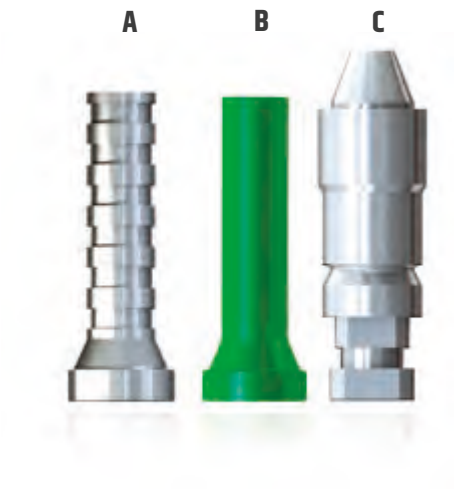
EXTRACTOR FOR EVO ABUTMENTS

CODE

EME

ABUTMENT FOR BONDING

ABUTMENT	**PHVMIDA**
CALCINABLE CYLINDER (spare)	**PHVMICC**
PROTESTIVE SCREW (spare)	**PHVAB2V**



TORONTO ABUTMENT

STRAIGHT	**PHVAT00**
17° ANGLE	**PHVAT17**
30° ANGLE	**PHVAT30**
PEEK CAP	**CMT**
CALCINABLE CYLINDER	**CT-C**
STEEL CYLINDER	**CT-I**

SHORT STEEL CYLINDER	**CT-IS**
TITANIUM CYLINDER	**CT-T**
SHORT TITANIUM CYLINDER	**CT-TS**
MICRO TORONTO SCREW (spare)	**VTMT**
TORONTO LONG SCREW (Replacement)	**VTLT**
TORONTO ANALOG	**ALT**

SCAN-BODY/SCAN-ABUTMENT

DESCRIPTION	CODE
For **Toronto**	SBT
EVO	PH VAB SB

TI-BASE EVO

DESCRIPTION	CODE
For high **EVO** (non-rotational)	PH VTB DA
For high **EVO** (rotational)	PH VTB DA-R
For low **EVO** (non-rotational)	PH VTB DB
For low **EVO** (rotational)	PH VTB DB-R
Toronto	TBT

CAD CAM EVO ANALOG

DESCRIPTION	CODE
for EVO implants	PH VBI CC
for Toronto	ALT-CC

EVO PREMILLED

DESCRIPTION	CODE
for EVO implants	PH VAB PR

ABUTMENTS FOR BARS

HIGH	**PHVODDA**
LOW	**PHVODDB**
CALCINABLE CYLINDER (spare)	**PHVODCC**
HIGH SCREW (spare)	**PHVOD2A**
LOW SCREW (spare)	**PHVOD2B**

BALL OVERDENTURE ATTACHMENT

	SPHERE	ABUTMENT
HIGH	**PHVOD4S**	**PHVOD4M**
LOW	**PHVOD5S**	**PHVOD5M**

EQUATOR

HIGH	**130EV04A**
LOW	**130EV04B**

TRANSFER CLAMPING SCREWS	**Manually 8-10 NCM**
SCREWS FOR TEMPORARY ABUTMENTS	**Manually 8-10 NCM**
MICRO-SCREW FOR TORONTO ABUTMENTS	**10-15 Ncm**
ALL PROSTHETIC SCREWS	**20-25 Ncm**
PROSTHETIC COMPONENTS WITH DIRECT SCREWING ONTO IMPLANT	**25-30 Ncm**

KEYS AND SURGICAL ACCESSORIES

SCREWDRIVERS FOR TOOLS

MANUAL LOW	**PHVCE5B**
MANUAL MEDIUM	**PHVCE5S**
FROM CONTRA-ANGLE	**AVCST**

SCREWDRIVERS FOR IMPLANTS

HIGH FROM RATCHET	**AVMIA**
MEDIUM FROM RATCHET	**AVMIM**
FROM CONTRA-ANGLE H. 12	**AVCI12**
FROM CONTRA-ANGLE H. 24	**AVCI24**
MANUAL HIGH	**PHVCB2A**
MANUAL MEDIUM	**PHVCB2M**

UNIVERSAL DIGITAL BEZEL

Ø 16 mm	**GUD16**

HEXAGONAL SCREWDRIVERS Ø 1.27 mm

FROM HIGH CONTRA-ANGLE	**PH-27-25**
FROM MEDIUM CONTRA-ANGLE	**PH-27-18**
MANUAL ADAPTER	**ADMA**
Short hexagonal drill bit **Ø 1.27 mm**	**AV 127 19C**
Long hexagonal drill bit **Ø 1.27 mm**	**AV 127 24C**

ANGLED SPANNERS

FOR IMPLANTS	**CLAI**
FOR INSTRUMENTS	**CLAST**
ALLEN KEY Ø 1.27 mm	**B127**

DYNAMOMETRYC RATCHET

RATCHET	**CRID**

BALL ATTACHMENT KEYS

FOR Normo BALL (Ø2.5 mm)	**CSF25**
SQUARE SECTION FOR EQUATOR*	**774CHE**

*Equator is a trademark owned by Rhein83 Srl

EVO
MODULAR SURGICAL TRAY

SURGICAL KIT

Plastic box with removable internal trays, complete with all the surgical instruments needed for implant placement. The sequence of use of surgical instruments is simplified by colour coding.

- Ergonomic light and compact; easy to carry
- Silicone supports prevent movement of the instruments during transport
- Measuring marks for a control check
- Simple, intuitive design with laser-engraved measurements
- Simplified and optimised cleaning thanks to **silicone support which areflush to the tray** (Grommets - Less Insert®)*
- Autoclaved at 121 °C with a minimum exposure of 30 minutes and a drying cycle of 15 minutes.

The modular box, which can contain 2 trays, is made up of the basic tray (see picture) complete with all accessories and necessary instrumentation that can be used for PHI EVO implants, the instruments for Ø3.5, plus the probe instrument and the dynamometric ratchet in the part below the tray and removable; the box is completed with the standard tray for the EVO line, which contains the rest of the available sizes.

BASIC TRAY

- Corticotomy drill
- Probe drills
- Step drill Ø3.5 H. 8-10-13
- Reamers Ø3.5 H. 8-10-13
- Tappers Ø3.5 H. 8-10-13
- Depth stop for probe drill (h mm 8; 10; 13)
- Parallelism pin - 2 pcs
- Extension for drills
- Adapter for contra-angle reamer
- Hexagon screwdriver Ø1.27 mm (short and long)
- Manual adapter for contra-angle drill bits

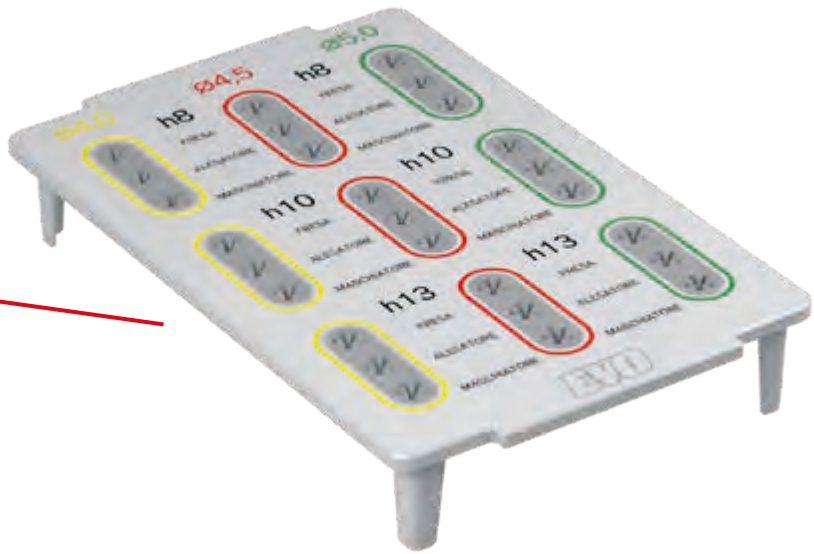
- Device for picking up implant for contra-angle handpiece connection (short and long)
- Implant pick-up device for ratchet (short and long)

BASIC TRAY CODE PHMB-C

EMPTY BOX FOR 2 TRAYS CODE TM

EMPTY BOX FOR 1 TRAY CODE TS

* EG Medical patent



STANDARD EVO TRAY

- Step drills Ø4.0; 4.5; 5.0 x H.8; 10; 13 mm
- Reamers Ø4.0; 4.5; 5.0 x H.8; 10; 13 mm
- Tapping Attachments Ø4.0; 4.5; 5.0 x H.8; 10; 13 mm

CODE	PHEST-C