DENTALTECH

D-77
LOGIC SPHERO
IMPLANT LINES

PRODUCT CATALOGUE

www.dentaltechworldwide.com

INDEX

BWS®

IMPLANT SURFACE
Osseointegration with over 30 years of history

OPTIMAL ROUGHNESS VALUE
SANDBLASTING AND ACID ETCHING

Sandblasting and etching processes of the implant surface allow to obtain optimal roughness values that make the adhesion of fibrin to the surface more tenacious and facilitate the bone healing process, significantly reducing the time.

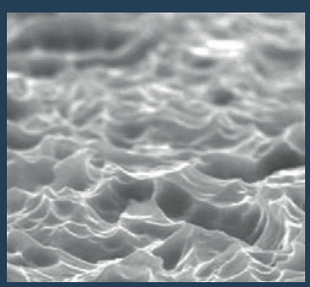
CONTACT OSSEOINTEGRATION
FIBRIN ADHERENCE

The capacity of BWS® to retain fibrin, lets osteoblasts migrate from the bone to the implant surface and reproduce there, generating new bone in direct contact with the titanium (contact Osseointegration).

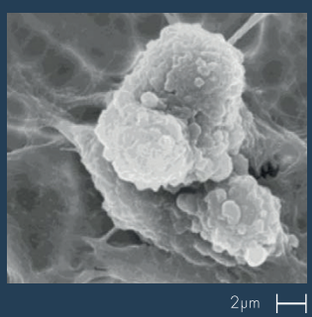
SEM CONTROL
THE IMPLEMENTED PROTOCOL PROVIDES VERIFICATION OF EACH BATCH OF PRODUCTION

After the surface treatment and the classic washings, Dental Tech Implants are additionally cleaned with Argon Cold Plasma to minimize carbon contamination.
Subsequently, minute controls are performed on the fixture with scanning electron microscopes (SEM).

Packaging takes place in controlled environments (Clean Room ISO 7) with packaging impermeable to micro organisms.
A gamma-ray sterilisation process guarantees the destruction of all contaminants.



SEM HV: 20.00 kV
SEM MAG: 4.82 kx
WD: 10.6470 mm
Det: SE Detector
View field: 62.05 µm
VEGA\\TESCAN DentalTech



EHT = 18.00 kV
WD =13 mm
Mag = 6.50 KX
Photo No. = 6159
Detector = SE1

BWS® surface is made by a sandblasting and acid etching process. This double process allow to obtain an extremely clean surface with a uniform and homogeneous roughness that promotes cell adhesion.

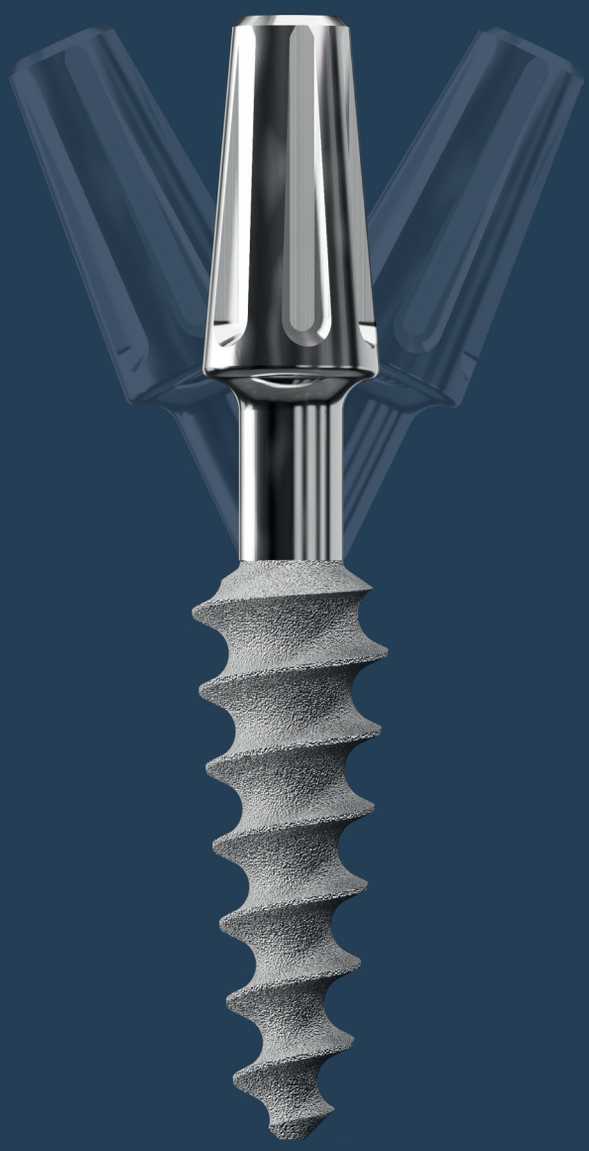
D-77
Compressive threads

The D-77 implant is an implant with compressive threads.
It is used far multiple unit restorations with immediate loading in the upper and lower jaws with adequate bone tissue. It can be used in combination with others implants and allows flap and flapless placement. If the implant has high primary stability it can be bent up to 15 degrees.

One-piece implant Simple placement & prosthetic procedure.

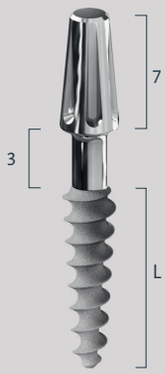
For single & multiple unite cement & telescopic restorations with bendable neck.

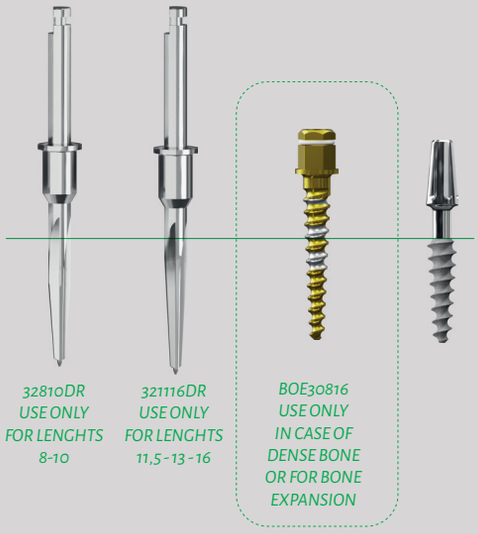
Adjustable abutment slope angle.
No pumping effect.
Bone condensation design.



DIAMETER - Ø 3.25 mm

Length (L) mm	REF
8	3208C/SC
10	3210C/SC
11,5	3211C/SC
13	3213C/SC
16	3216C/SC





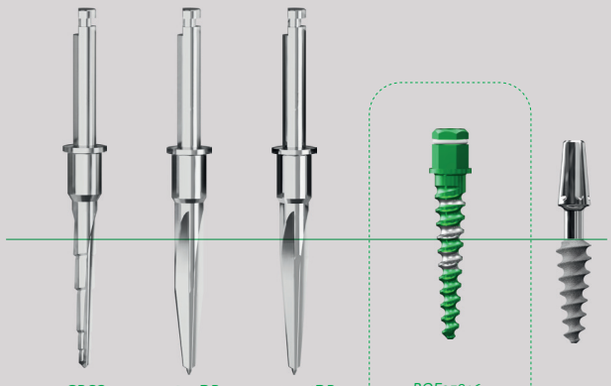
32810DR USE ONLY FOR LENGHTS 8-10

321116DR USE ONLY FOR LENGHTS 11,5 - 13 - 16

BOE30816 USE ONLY IN CASE OF DENSE BONE OR FOR BONE EXPANSION

DIAMETER - Ø 4.00 mm

Length (L) mm	REF
8	4008C/SC
10	4010C/SC
11,5	4011C/SC
13	4013C/SC
16	4016C/SC



40GRCO

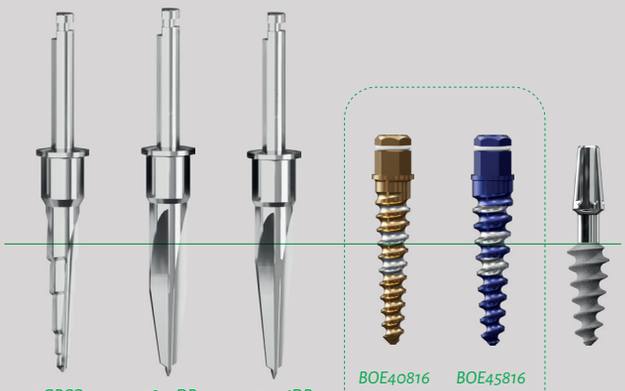
40810DR USE ONLY FOR LENGHTS 8-10

401116DR USE ONLY FOR LENGHTS 11,5 - 13 - 16

BOE35816 USE ONLY IN CASE OF DENSE BONE OR FOR BONE EXPANSION

DIAMETER - Ø 4.75 mm

Length (L) mm	REF
8	4708C/SC
10	4710C/SC
11,5	4711C/SC
13	4713C/SC
16	4716C/SC



47GRCO

47810DR USE ONLY FOR LENGHTS 8-10

471116DR USE ONLY FOR LENGHTS 11,5 - 13 - 16

BOE40816 *BOE45816*

USE ONLY IN CASE OF DENSE BONE OR FOR BONE EXPANSION

Recommended surgical sequence and drill speed

R.P.M. 600/900 max

Ø	IMPLANT	3.25	4.0	4.75
DRILL				
32810DR		✔	✔	✔
321116DR		✔	✔	✔
40GRCO			S	✔
40810DR			R-D	✔
401116DR			R-D	✔
47GRO				S
47810DR				R-D
471116DR				R-D

LEGEND

REQUIRED	✔
OPTIONAL	⊙

Bone texture:

REGULAR BONE	R
DENSE BONE	D
SOFT BONE	S

Warning! In the table "Recommended surgical sequence and drill speed" parameters should be considered as general indications;
the clinical evaluation should always be subjected to careful analysis by the practitioner in each specific case.

Based on the clinical features and bone consistency detected at the time of implant surgery, the choice of the available instrumentation will be made by the practitioner.

D-77 prosthetic components

Impression coping
Material:Peek

REF
C0010

Implant analog
Material:Ti5

REF
C0020

Straight abutment shoulder
Material:Ti5

REF
C0050 ⬡
C0050R ○

Angled abutment 10° shoulder
Material:Ti5

REF
C0060

Castable abutment shoulder
Material:Pmma

REF
C0090 ⬡
C0090R ○

D-77 prosthetic components for digital flow

WARNING
DO NOT orient the Scan Abutment in other unsuitable positions

***Always** match the smaller portion of the Scan Abutment, which is oriented on the hexagon side of the connection, with the milling on the cylindrical portion of the digital analog body.*

Scan abutment
Material: Ti5
Digital CAD-CAM intraoral scan and laboratory scan. For single and multiple cemented elements.

REF
C0011

Digital analog
Material: Ti5
Analog for digital models, specific for applications through the manufacture of models made with 3D printing/ prototyping. The characteristic shape with rounded edges, allows easy insertion into the model seat, without interference and friction with the resinous material of the models.
The apical screw allows to always obtain a total working stability. *This prosthetic component must be used through the Dental Tech Libraries.*

REF
HLA35DG

Straight abutment shoulder
Material:Ti5
Digital library stock abutment available.

REF
C0050 ⬡
C0050R ○

Angled abutment 10° shoulder
Material:Ti5
Digital library stock abutment available.

REF
C0060

D-77 surgical instruments

Hand wheel
Material: Ti5

L mm	REF
6	AMC016

Mounter guide bone expander
Material: Ti5

REF
MCGBOE

Insertion tool
Material: Inox

REF	
C0070	Short
C0080	Long

Extension
Material: Inox

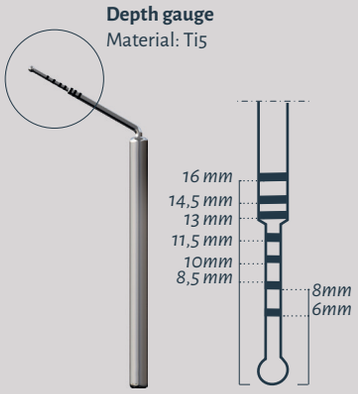
L mm	REF
12,5	110026

Extension for drill
Material: Inox

L mm	REF
9	KI589

Dynamometric ratchet
Material: Inox

REF
CCD070



Depth gauge
Material: Ti5

REF
001140

Surgical screwdriver
Material: Inox

REF
PGI 100

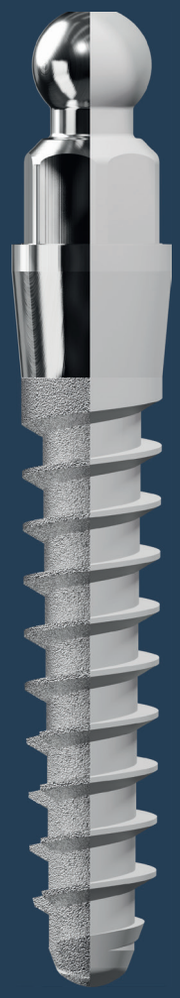
LOGIC SPHERO
Mini implant system

The LOGIC SPHERO system meets the growing clinical need to have small diameter implants for instant stabilisation of total prostheses. Designed for long-term rehabilitation and conceived for excellent clinical results.

EXCEPTIONALLY EASY
Implant characteristics make the surgical phase very easy. The ergonomics of supplied components facilitate prosthetic procedures. Hence, implants can be inserted and the prosthesis can be stabilised in just one session.

EXCELLENT RESISTANCE
The implant is a monocomponent made of Titanium Gr5 for maximum mechanical resistance.

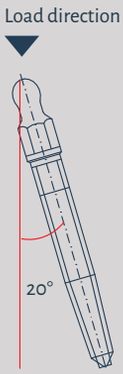
SMALL PROFILE
The diameter (barely 2.7 mm) allows to place the implant in the thin crestal bone to avoid bone regeneration procedures.



MAXIMUM BONE SURFACE CONTACT
The development of implant macrotopography and the clinically tested surface obtained with the BWS® system ensures excellent primary stability of the device and a high BIC (Bone Implant Contact).

MINIMALLY INVASIVE SURGERY
The dentist can choose whether to insert the implant with a traditional or flapless technique.

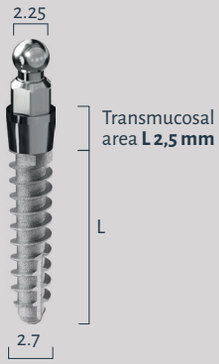
Sphere DIAMETER - Ø 2.25 mm



Static load
Breakage at N 1500

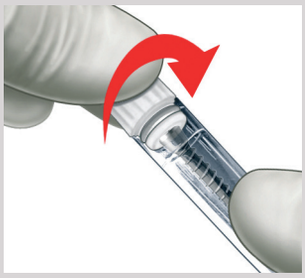
Stress resistance
N 505 x 5,000,000 cycles
No breakages

The tests were performed on devices with Ø2mm to evaluate either the same or higher diameters.

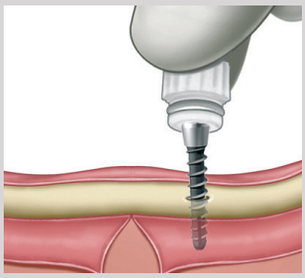


Length (L) mm	REF
10	SPH2710/S
11,5	SPH2711/S
13	SPH2713/S

Logic Sphero insertion procedure



1



2

Remove the device Logic Sphero, which is connected to the plastic cap, from the ampoule by concurrently pulling and gently rotating the cap (Fig. 1).

Carry the implant into the mouth with the cap/support, and use it to start placing the implant in the osteotomy site. Screw the implant onto the bone until it reaches the stability level that allows to extract the support from the device by pulling upwards (Fig. 2).

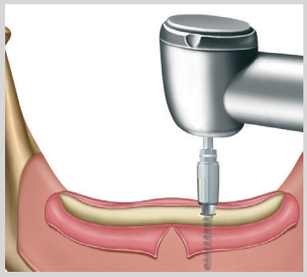
Complete the insertion of the Logic Sphero implant by using the contra-angle assembled with the dedicated adaptor to screw it on, leaving the entire hexagonal portion that is under the sphere outside the soft tissue. This will prevent the O-RING retention device from causing compression of soft tissues (Fig. 3).

Other instruments can also be used as an alternative to the contra-angle, such as the manual key and the pawl.

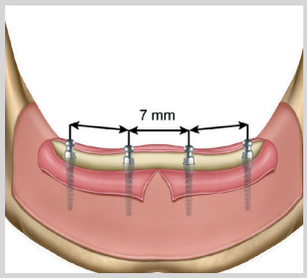
Insertion of the implant must ensure that O-RING retainers are correctly in place. Hence the need to ensure a distance of at least 7mm between the osteotomies (Fig. 4).

⚠

Warning
Do not exceed 20 rpm and 55 Ncm of torque when screwing on the implant.



3



4

Logic Sphero prosthetic components

Abutment
Material: Pmma / Ti5

REF
PCSPH

REF
PTSPH

Sphere analog
Material: Ti5

REF
AAF225

O-ring

Material: Ti5

REF
POR225

Package 10 pcs.

REF
ORG225

Retention compatible with
Ø 2.25 Sphere RHEIN83®

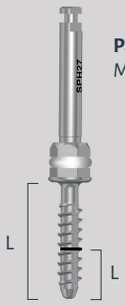
Logic Sphero surgical instruments

Initial cilindrical drill
Material: Inox

L mm	REF
2,3	DRP200

Tapper
Material: Ti5

L mm	REF
L 11,5/13 **L1** 10	LSPHP27



Parallel Pin
Material: Ti5

L mm	REF
L 10 **L1** 5	MSPH2700

Implant screwdriver
Material: Ti5

L mm	REF
6	RDS225

Hand wheel
Material: Ti5

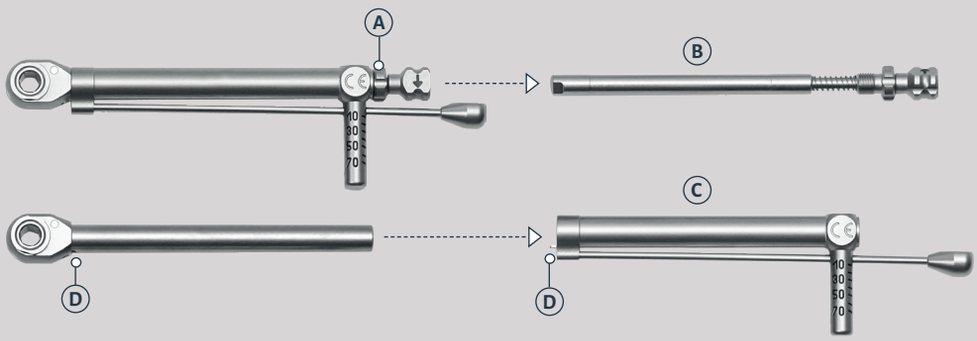
L mm	REF
6	AMC016

Dynamometric ratchet
Material: Inox

REF
CCD070

Dynamometric ratchet cleaning and maintenance

CCD070



The dynamometric ratchet, after each use, must be disassembled for cleaning. This maintenance operation does not require any tools. Completely unscrew the screw **(A)**, remove the whole pawl **(B)** and then the flexible dynamometric bar **(C)**. Once disassembled, clean according to the instructions for use and maintenance attached to the device, brush with non-metallic rigid bristles, even in hollow areas with pipe cleaner for a complete removal of biological residues.
Once the cleaning and disinfection phase has been completed, reassemble the ratchet using the reverse disassembly procedure, making sure to match the pin **(D)** in the housing dedicated.

PREVENTION

Besides correct and continuous long-term maintenance, wear and tear of the instruments can also be prevented and slowed down. In the first place every instrument must only be used for the envisaged and indicated use.
The instruments used must be cleaned immediately after the end of surgery. Remove residue and encrustations only with soft brushes and NOT with metal brushes.
When envisaged, disassemble the instruments and deeply clean the cavity. The devices must be fully immersed in the most appropriate detergents or disinfectants for the material, and left to rest for a period of time that never exceeds the manufacturer's instructions.
After disinfecting them, rinse thoroughly with water and dry the devices with a clean and dry cloth. Complete with a jet of compressed air.

PACKAGING AND STERILITY

» Dental Tech tools are supplied as non sterile in heat-sealed Pouches in containing the leaflet.
» Dental Tech tools can be used again and therefore it has to be washed and sterilised prior to their usage.

Dental Tech validated the following cleansing and disinfection method:

MANUAL CLEANING

» Just after the use of Dental Tech equipment, place the equipment into a container with a peracetic acid based solution at concentration of 2% (NO GLUTARALDEHYDE OR SODIUM HYPOCHLORITE), as long as 18 minutes.
» After-ward rinse carefully.

MANUAL DISINFECTION

» Place the equipment into a container with a peracetic acid based solution at concentration of 4% (NO GLUTARALDEHYDE OR SODIUM HYPOCHLORITE), as long as 15 minutes.
» Rinse generously
» Examine the equipment and make sure there are no organic remains. Carefully scrub the outer parts with a non-metal bristled brush.

MANUAL RINSE

» Place the equipment into ultrasound bath, and wash it for approx. 18 minute and then rinse carefully.

DRY

» Perfectly dry the equipment, seal it individually with material suitable for moist heat sterilisation.

STERILIZATION

» Dental Tech validated the following Autoclave moist heat sterilization cycle: 3 minutes - 134 °C
» Since Dental Tech tools are manufactured in different materials, they shall be washed and sterilized one by one.

CHECK

After the cleaning phases, check that none of the instruments presents signs of corrosion, contamination or damage. Especially use a magnifying lens to check the most concealed areas, the joints and the handles.
If any contamination is detected, repeat the cleaning procedure.
In case of damage, dispose of the instrument as established by the laws in force for waste management.

Warning *The use of suitable protection during cleaning and sterilisation of contaminated instruments enhances personal safety during these phases.*

PRESERVATION

After the sterilisation phase, the instruments must be preserved in the sterilised package in a dry, dust-free place, far from heat sources. The bags must only be opened before use. The storage period of sterilised items must not exceed the period recommended and indicated on the bag.

DISPOSAL PROCEDURES

At the end of its life the medical device must be disposed of according to the methods established by national laws in force for waste management.

INSTRUMENT FOR SURGERY

The surgical instrumentation of the Dental Tech Implant System is simple and essential, responding to every clinical need and treatment protocol. All drills and components are laser marked, to allow preparation of the implant site correctly to the established depth, and a predictable and safe positioning of the implant. The instruments are available individually or in sets with different types of surgical kit.

HOW TO USE THE SURGICAL INSTRUMENTS

So as not to cause mechanical and/or thermal damage to bone tissue in the zone in which the implant is to be inserted, and to obtain a congruous surgical site (indispensable to achieving good osseointegration of the implant) some fundamental rules must be respected:
» Use drills with gradual diameter progression: the same instruments must not be used for more than 25 osteotomies;
» Do not exceed 800 RPM during the osteotomy;
» Do not exceed 20 RPM in the event of tapping with the contra-angle;
» Ensure, during the osteotomy, that the instruments work in axis;
» Do not exert lateral pressure during the osteotomy and tapping;
» The osteotomy must be performed exercising light pressure and back and forth movements on the axis of the instrument;
» Use generous irrigation with physiological solution, both during drilling and tapping of the surgical site;
» Ensure that during the intervention the irrigation canals of the instruments are clear;
» Avoid categorically, during surgery, the cooling of instruments and the implant site with the air-water syringes tips.
» For taps, during preparation of the site with the drills, don't set forces greater than 55N/cm with micromotors equipped with the control-TORQUE device.

NON-ROTATING INSTRUMENT

The non-rotating instrument is compatible with all Dental Tech implant systems.

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Quintessence International 3/4 bis 2001

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Supplemento n.1 a Doctor OS anno XIV n.1 gennaio 2003

Valutazione istologica della risposta ossea a una nuova superficie implantare sabbiata e mordenzata: uno studio sperimentale sul coniglio Antonio Scarano / Giovanna Iezzi* / Alessandro Quaranta** / Adriano Piattelli*

Implantologia orale numero 2 marzo 2007

Dentista moderno ottobre 2011
Progettazione e realizzazione di una superficie implatare dalla decontaminazione all'osteointegrazione
Chiara Giamberini / Angelo Tagliabue / Dino Azzalin / Giorgio Santarelli

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Lazzara RJ / Porter SS.

IVela-Nebot X, et al.
Benefits of an implant platform modification technique to reduce crestal bone resorption.
Implant Dent 2006;15:313–320

SALE CONDITIONS

With the placing of an order, the present Conditions of Sale are considered to be accepted by the Customer.
The Company reserves the right to modify the Pricelist at any time, and without prior warning.

The goods travel at the risk of the Customer, even if delivered postage free.
The delivery terms have an indicative value. The Company reserves the right to make partial deliveries.

Payment must occur according to the agreed terms and method. In the event of non-fulfilment, the Company reserves the right to vary the conditions of payment for the new supplier or to suspend them and to resort to any other precautionary and executive measures for a total recovery of the sum owed.
Each claim for defect or damage must be communicated in writing within 8 days of receiving the goods. Any returns must be previously authorized by the Company.
For everything not expressly stated in the General Terms of Sale the provisions of Italian law shall apply. All disputes fall under the jurisdiction of the Court of Milano.

WARNINGS

RESPONSABILITY
The use of non-original components, produced by third-parties may compromise the functionality of the implants and their elements, compromising the final result and voiding the guarantee of the manufacturer. The application of the product occurs outside the control of Dental Tech and is the sole responsibility of the end user. We accept no liability for any damage resulting from such activities.

INSTRUCTIONS FOR USE
These are to be considered solely as recommendations. This information is not sufficient and does not exempt the user from ensuring the adequacy of the product for its intended use through continued training.
For more information about Dental Tech instruments and prosthetic components, consult the page:
dentaltechitalia.com/ifu-online

VALIDITY
This nullifies all previous versions. The images, the content and the products illustrated are subject to modification without warning.

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OT-CAP RHEIN 83®
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MATERIALS LEGEND

CrCo	Cobalt-chrome alloy
Inox	Surgical stainless steel
Ptfe	Polytetrafluoroethylene
Peek	Polyetereeterechetone
Pmma	Polymethylmethacrylate
Ti5	Titanium gr.V ELI for medical use
Plastic	Polymer

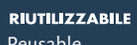
PACKAGING SYMBOLS LEGEND

Lot number

Sterilized by gamma rays

Not sterile

Product code



Reusable


Use by


Non-reusable


Attention, consult
the supplied documentation


Directive 93/94/CEE
conformity mark

Notified body identification

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