# Evolution2000

# Implant lines with identical prosthetic platform





# Evolution2000



# with high wettability bioactive surfaces

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#### Company

Allmed started in 1997 based on the 20 years experience of its management team in the dental sector and more specifically in the area of surgery and implants, with the aim of **designing**, producing and distributing the Evolution2000 Implant System.

The Evolution2000 ST implant, certified in 1998, and based on many years' clinical experience and research, went into production with the aim of providing the Implant surgeon and Prosthetist with a SIMPLE, ESSENTIAL and COMPLETE surgical and prosthetic system.

Subsequently materials for osteosynthesis were designed, produced and certified in Titanium such as **pins, screws and grids** which supported and improved Allmed's surgical range. After two years of laboratory and practical tests, the **Biomaterial Alos** was added, indispensible in bone regeneration, totally synthetic and unique for its mouldability and ease of use.

**The implant line** was expanded making Spherical and MF **Mini implants** available to Allmed clients, suitable for the stabilisation of removable prostheses and used as temporary implants.

Thanks to clinical experience gained over time, in 2005 the **Evolution2000 MC** implant was created to which several alterations were made to the neck creating a micro screw thread capable of counteracting bone reabsorption at the most critical point.

From the synergy between research and clinical application the **Evolution2000 Speed** was designed, a completely new implant in the design of the threaded part, particularly suitable for dense bone, which uses the same prosthetic components of the previous lines and shares the same **company philosophy of Simplicity and Essentiality.** 



#### **Quality System**

Allmed produces with a Quality System certified according to regulations UNI EN ISO 9001, UNI EN ISO 13485.

The Quality System has been developed and implemented over the years to ensure that the company organisational method is applied and in compliance with the requisites specified by the relevant regulations, both during the design phase and choice of materials and in the checks during all the production phases.

This Quality System, which has become a tried and tested daily operational system, also ensures **the full correspondence**, of all the products, to the legislative regulations of the European Community as specified by Directive 93/42 regarding **medical equipment** Allmed carries out a further series of checks, in order to **guarantee a high level of quality standards**, paying particular attention to the surface treatments, the sterilisation process, product safety and traceability of these.

#### **Production Materials and Methods**



## **Production Materials and Methods**

Titanium, for its biocompatibility features, is the ideal material for the construction of intraosseus implants. To make its Evolution2000 implants, Allmed has chosen **grade 4**, pure biomedical titanium for surgical use, in line with A.S.T.M. F 6795 specifications. For the production of all prosthetic components of the Evolution2000 implant system and the Mini Implants it uses **grade 5** biomedicale titanium (A.S.T.M. F 13696) which has better mechanical resistance characteristics.



#### Surgical burs

For the **burs** a biomedical type of stainless steel was chosen (AISI 420 B/C) which, thanks to its particular strength, gives the burs an extraordinary cutting capacity and consequently **less heat generation**. Our burs, with **specialized sharpening**, avoid ovalising the implant tunnel and thanks to the strength of the tempered steel **do not suffer nitrogen hardening**. This process consists of depositing titanium nitride on the bur, which being deposited also on the cutting edge, would blunt it.

Туре	Breaking load	Yield strength	Chemical composition % in maximum weight limits allowed					
	Мра	Мра	N C H Fe O Al					AI
ASTM F 67 grade 1	240	170	0,03	0,10	0,015	0,20	0,18	
ASTM F 67 grade 2	340	280	0,03	0,10	0,015	0,30	0,25	
ASTM F 67 grade 3	450	380	0,05	0,10	0,015	0,30	0,35	
ASTM F 67 grade 4	550	480	0,05	0,10	0,015	0,50	0,40	
ASTM F 136 grade 5	830	760	0,05	0,08	0,012	0,25	0,13	6,0

### Design

The Evolution2000 Implant System comes from many years of clinical practice, drawing on the experience and skills of implant surgeons, who in practising their professions have had the opportunity to deal with and compare various implantation methods present on the International market.

In **designing** this Implant system, it was imperative for us to consider that **implantation is a routine practice today** in all dental surgeries, and consequently we were motivated by this new perspective, paying particular attention:

- to simplifying the surgical act,
- to respecting the bone and biological tissues,
- to the simplicity of the prosthetic components.

Like the production of the Evolution2000, the design too, happened and happens in full conformity with the quality standards stipulated by the relevant regulations and in line with the Directive relating to Medical Apparatus regarding:

- selection of materials used,
- manufacture and respect for the tolerances,
- systematic checks in every operational phase,
- washing and decontamination,
- packaging and sterilisation,
- storage by lot n°,
- retraceability of the product.



#### Surface Treatment



#### Surface Treatment

The attention to the surfaces starts with the production process where easily rinsable biodegradable vegetable oils are used.

Once the production cycle is finished, the **first phase** of cleaning begins, using specific chloride-free **highly environmentally friendly** products, suitable for removing the oils used during the production process and specifically for the treatment of biomedical products. Following that, the parts are processed through a **fully automated line** including **6 more washing cycles** and equivalent treatments in ultrasound tanks with final drying.

#### Acid Treatment

#### Acid Treatment

The Evolution2000 ST implants and the SF and MF Mini implants undergo a micro retentive treatment of double mordanting which produces a significant increase in implant surface area in contact with the bone, thus enabling better osteointegration.



#### **Oxidisation treatment**

The morphology of the **Evolution2000 MC** and **SP Nanosurface** implants, is obtained using a controlled oxidisation process which establishes a **micro and nano ritentive surface** consisting of Titanium oxide, enriched with phosphorus and some calcium.

This surface assists cell proliferation which improves and **accelerates the osteointegration process.** 



#### Advantages of the Nanosurface surface

The surface of the Evolution2000 MC and SP implants undergoes an electrochemical process of **controlled anodic oxidisation**, the Titanium Oxide (TiO2) is electrodeposited on the surface of the implant which



will be in close contact with the bone. This process creates a **micro and nano** dimensional **structure** which, together with perfect decontamination, creates a surface with very low surface tension and **very high wettability capable of**:

- transforming the implant surface in contact with the bone matrix into a catalyser capable of adsorbing proteins,
- guaranteeing a strong presence of growth factors,
- stimulating the proliferation of osteoblasts,
- accelerating the production of new bone matrix.

These cellular processes lead to an **increase in the strength of the bond at the bone-implant interface** and reduce the bone reshaping time. Consequently, this surface limits unwanted effects in the "window" period reducing the flexion which occurs between the loss of the primary stability and the establishing of the secondary stability relating to the osteointegration.



Wettability of the Nanosurface surface

#### **Cold Plasma Decontamination**

Allmed dedicates particular care and attention to this process which takes place in a **cleanroom** and includes a double decontamination using **cold Argon plasma**. The treatment is carried out in a vacuum and consists of charging a gas (Argon) with energy which breaks it down ionizing itself and bombarding the surface of the implant decontaminates it, producing results impossible to achieve using only liquids. Besides the mechanical effect

there is the benefit of a chemical reaction which **breaks down the organic molecules** and removes them in the form of water and carbon dioxide.





## **Biocompatibility Analysis**

The chemical physical properties of the implants and the surface topography mean that osteointegration can be reached rapidly. The analysis described below were carried out in accordance with regulation **EN ISO 10993–5:1999** with osteoblast cells from human osteosarcoma (line **SAOS–2**) with protocols contained in the International bibliography.

#### Cytotoxicity

" ... the cell layer in contact with the implant screws has demonstrated a total absence of effects capable of negatively influencing the cells. ..... not only have no dead cells been observed but no gigantic multinucleated cells have been noted either or with abnormal morphology or reduced density.

#### Adhesion and cellular growth

**Results after 6 hours "** ... The chemical-physical-morphological characteristics of the surface are such that would not impede adhesion of the osteoblastic cells ... already characterised by a flattened shape"

**Results after 72 hours** "... the chemical and morphological parameters of the surface are **conducive to a noticeable cell proliferation process** ... the surface is evenly covered with very flat cell bodies ... "





#### Analysis of osteointegration

Following explant from the patient, the degree of integration of the Evolution2000 ST implant was evaluated using SEM analysis.

"... presence of bone surrounding the whole implant in close contact with it ..." "The dental implant analysed was **coated with well calcified bone tissue** which had grown in close contact with most of the surface. Thus this material has shown **excellent biocompatibility** and osteointegration."

Univ. di Modena e R. Emilia - Laboratorio di Biomateriali - dr.ssa A. M. Gatti, dr.ssa E. Monari."



#### SEM checks and EDX analysis

The SEM checks are carried out on samples from the production lots to check the accuracy of the mechanical processing. The EDX analysis is carried out to a depth of several microns, revealing information on the level of **cleanliness of the implant** and chemically analyses any details and specific areas allowing us to understand the origin and consequently improve the production and/or cleaning processes.



#### **XPS Analysis**

This kind of technique allows analysis of the chemical composition of the implant surface to a depth of only 4 – 5 nanometri. Consequently the XPS analyses (X-ray Photoelectron Spectroscopy) allow us to obtain a **quantitative and qualitative evaluation** of the outermost layers, providing us with a precise indication of the implant surface which will be in **direct contact** with the bone tissue.

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#### **Mechanical tests**

The mechanical tests are routinely used when passing from the design phase to the production of the first prototypes in order to check that the design theory is substantiated by objective mechanical confirmation. The **resistence to functional loads** is checked by external bodies using **flexion tests** and **combined compression and bending stress tests**, with results that determine **the absolute reliability** of the Evolution2000 Implant System and its prosthetic components.

Combined compression and bending stress test (abutment implant)						
Sample Maximum forc						
n°	Ncm					
15°-1	5548					
15°-2	4358					
25°-1	3888					
25°-2	4512					

Flexion test (abutment implant)				
Maximum force				
Ncm				
535				
485				



## **Sterilisation Process**

After the decontamination treatment with Argon Plasma, the implant is hermetically sealed in double packaging (glass bulb and blister packaging) under **laminar flow cabinet and in a cleanroom** and then inserted into its cardboard packet.

Following that, using the appropriate containers, with a validated procedure, the product is sent to an area for **Gamma ray** sterilisation, in accordance with the relevant regulations and with a pre-established dose of at least 25 kGy.

Specific **permeability tests** with accelerated ageing processes and analysis of the product on natural expiry, allow us to guarantee the sterility of the implant for at least **5 years**. Samples of the product are regularly tested for sterility in accordance with sec. ISO 11737-2.



#### Mounting device

The mounting device (mount blu) serves to preserve the internal hexagon of the implant. The instruments and the force used during the screwing down phase will be discharged onto the hexagon of the mount thus the internal hexagon of the implant will remain intact and will maintain the precision of the implant/abutment connection.

The digital plug (white) is used to insert the first spirals of the implant in the implant base.



#### Packaging

The packaging of the Evolution2000 implant consists of:

- an external cardboard pack,
- a hermetically sealed blister pack in polyethylene, \*
- a glass bulb with applicator for the implant,
- an assembling device,
- a surgical screw,
- an instruction leaflet,
- two stickers with the identification details of the implant.



# **Product range**



Evolution2000	ST	Implant
	51	mpiant

mm	ø 3.25	ø 3.75	ø 4.25	ø 5.00
8		1	1	1
10	1	1	1	1
12	1	1	1	1
14	1	1	1	1
16		1	1	



#### Evolution2000 MC - Nanosurface Implant

mm	ø 3.25	ø 3.75	ø 4.25	ø 5.00
8		1	1	1
10	1	1	1	1
12	1	1	1	1
14	1	1	1	1
16		1	1	



#### Evolution2000 SP Speed - Nanosurface Implant

mm	ø 3.25	ø 3.75	ø 4 <b>.</b> 25	ø 5.00
6,5				1
8		1	1	1
10	1	1	1	1
12	1	1	1	1
14	1	1	1	1
16		1	1	



#### Spherical Mini Implant (SF) and Fixed Abutment (MF)

mm	SF ø 2.70	MF ø 2.70
10	1	1
12	✓	<i>√</i>
14	✓	1
16	1	1



The primary objective of the Evolution2000 implant system is to provide the implant surgeon and subsequently the prothetist with an essential, simple and safe prosthetic and implant system.

Three implant lines with identical prosthetic platform.



Identical surgical instruments



Identical prosthetic instruments



#### **Evolution2000 ST Implant**



# **Evolution2000 ST Implant**

#### Characteristics of the implant screw

The Evolution2000 ST is self-tapping, with wide spirals, internal hexagon and abutment with through screw. The surface of the implant is acidified with a double mordanting treatment, the implant neck is polished to ensure better management of oral hygiene.

#### **Clinical indications**

The Evolution2000 ST implant is self-tapping so tapping can be avoided in most cases. The design makes it particularly suitable for use in post-estraction sites, for immediate loading, in low-density bone (D3 - D4) and in all situations where it may be necessary to alter the the insertion axis of the implant.



**Conical Core:** minimalises the trauma at the bone-implant interface during the screwing down.

**Cylindrical profile:** the spirals, wider towards the tip, increase the primary stability even in low-density bone.

Wide and very sharp spirals: guarantee better load dispersion and increase the self-tapping capacity.

**Longitudinal Milling:** avoids compression caused by bone and liquid residues during the screwing down. Make the implant self-tapping.

**Form of the apex:** the cutting apex allows the surgeon to alter the insertion axis, making positioning easier.



During the positioning, in the screwing down phase, the design of the core and the screw-thread allow:

condense the bone progressively, change the insertion axis of the implant.

#### Evolution2000 ST Implant





#### Surface treatment

The **Evolution2000 ST implants** undergo a particular treatment of **double mordanting** with two different types of acid which make the morphology of the implant surface microretentive and better adapted to provide the cells with excellent anchorage, which is indispensible for improving adhesion and osteoblastic proliferation. This process of double mordanting allows **a significant increase of the surface** in contact with the bone, thus promoting better osteointegration.

# **Evolution2000 ST Surgical Procedure**

The **essentiality**, simplicity and safety with which the Evolution2000 implant system has been designed have allowed the surgical procedure to be simplified, thus allowing the operating time to be speeded up and consequently reducing discomfort for the patient.



Ø Implants	Spear bur	Ø 2.2	Ø 2.7	Only with very hard bone Ø 3.2	Countersink 3.75, 4.25 and 5.00	Tapper (if necessary)
3.75			Â		A	
4.25	1	1	l l		Ħ	
5.00			E	E	臣	

4. The only instruments necessary for positioning the Evolution2000 implants









# **Evolution2000 MC Nanosurface Implant**

#### Characteristics of the implant screw

Evolution2000 MC is self-tapping, with wide spirals, with internal hexagon and abutment with through screw. The micro and nano retentive **Nanosurface** surface of the implant, increases its **wettability**, encourages and speeds up the formation of new bone matrix, increases the contact area with the bone, and reduces osteointegration times.

#### **Clinical indications**

The Evolution2000 MC implant is **self-tapping**, so tapping can be avoided in most cases. The design makes it particularly suitable for use in post extraction areas, for immediate loading, in low-density bone (D3 - D4) and in all situations where it may be necessary to alter the insertion axis of the implant.



**Conical core:** minimises trauma at the implant-bone interface during the screwing down.

**Cylindrical profile:** the spirals, wider towards the tip, increase the primary stability also in low-density bone.

**Wide and very sharp spirals:** ensure better weight/pressure distribution of loads and increase the self-tapping capacity.

**Longitudinal Milling:** avoid compression generated by bone residues and liquids during the screwing down. Make the implant self-tapping.

**Form of the apex:** the cutting tip allows the surgeon to alter the insertion axis making positioning easier.



#### Microthreaded neck

Increases by more than 100% il the bone-implant contact in the crest zone. Improves the weight distribution reducing the levels of stress applied to the bone. It mechanically stimulates the bone tissue, counteracts reabsorption at the most critical point, less vascularised and where the greatest stress peaks are concentrated.



During the placement, In the screwing down phase, the design of the core and the screw-thread allows: progressive bone condensation, change of the insertion angle of the implant.





#### Surface treatment

The particular electrochemical process of controlled anodic oxidisation of Titanium Oxide (TiO2) Is able to generate a **Micro and Nano** retentive surface, increase the **wettability**, adsorb proteins, encourage a strong presence of **growth factors**, stimulate the proliferation of **osteoblasts** e and accelerate the production of **new bone matrix**. Such cell processes lead to an increase in the connection strength at the interface and reduce bone reshaping times.

# Evolution2000 MC Nanosurface Surgical procedure

The **essentiality**, simplicity and safety with which the Evolution2000 Implant System has been designed have allowed the surgical procedure to be simplified, allowing operating time and consequently patient discomfort to be reduced.



Ø Implant	Spear bur	Ø 2.2	Ø 2.7	Only with very hard bone Ø 3.2	Countersink 3.75, 4.25 and 5.00	Tapper (if necessary)
3.75	ſ	1	<u> </u>	<u> </u>	Æ	
4.25 5.00	<i>,</i>	V	E	E	E	

The only instruments necessary for positioning the Evolution2000 implants.







#### Evolution2000 SP Implant Speed Nanosurface



# Evolution2000 SP Implant Speed Nanosurface

#### Characteristics of the implant screw

The Evolution2000 SP implant screw is closely threaded, with internal hexagon and abutment with through screw. The **Nanosurface** surface increases the **wettability**, assists and **speeds up the formation of new bone matrix**, increases the contact surface with the bone and reduces osteointegration times.

#### **Clinical indications**

The Evolution2000 SP implant for its geometry and surface morphology is recommended for all clinical applications and particularly in situations where the bone density is type D1 or D2.



#### Longitudinal Milling

Make the implant self-tapping, avoiding compression generated by bone residues and liquids during the screwing down.

#### **APEX** portion

Slightly smaller in diameter than the main body of the implant, makes insertion into the implant site easier. The "round" apex avoids potential traumas in the case of sinus lift.



#### Implant ø 5.00

In a wide diameter implant, used for replacing molars, where the large occlusal surface Is require to tolerate high pressure in chewing, the **platform switching** helps to limit any bone loss. The implant surface, the micro thread on the neck, the connection stability without micromoviments and the correct positioning of the implant, are the other factors which contribute to the success of the implant.



#### Microthreaded neck

Increases the bone-implant contact in the crest area by **over 100%.** Improves the **dispersion of weight** reducing the stress levels put on the bone. Mechanically stimulates the bone tissue, **counteracts reabsorption at the most critical point**, less vascularised and where the greatest stress peaks are concentrated.

#### Evolution2000 SP Implant Speed Nanosurface





#### Surface treatment

The particular treatment with controlled anodic oxidisation of Titanium Oxide (TiO2) is able to generate a **Micro and Nano** surface, increase the **wettability**, adsorb proteins, encourage a strong presence of **growth factors**, stimulate the proliferation of **osteoblasts** and accelerate the production of **new bone matrix**. These cell processes lead to an increase in the bonding strength at the interface and reduce bone reshaping times.

# Evolution2000 SP Nanosurface Surgical Procedure

Ø implant	Spear bur	Ø 2.2	Ø 2.7				Countersink for 3.25	Tapper ø 3.25
3.25	đ						E E	
Ø implant	Spear bur	Ø 2.2	Ø 2.7	Ø 3.2			Countersink 3.75 and 4.25	Tapper ø 3.75
3.75	V	V	V				A	
Ø implant	Spear bur	Ø 2.2	Ø 2.7	Ø 3.2	Ø 3.7			Tapper ø 4.25
4.25	J	J	J	J			Ð	
Ø implant	Spear bur	Ø 2.2	Ø 2.7	Ø 3.2	Ø 3.7	Ø 4,5	Countersink for 5.00	Tapper ø 5.00
5.00	\$	\$	\$	\$	V			



# Advantages for the Surgeon and the Patient

The simplification of the surgical procedure allows operating times to be speeded up, consequently reducing discomfort also for the patient.

# Advantages for the prosthetist/ prosthodontist

The **precision of the** implant/abutment **connection**, with very few  $\mu$ m of tolerance and the **depth of the internal hexagon** of 2.30 mm, are of fundamental importance for the stability of the prosthetic abutment.

Consequently all the force applied during chewing will be discharged onto the base of the neck of the implant and on the hexagon. Thus **avoiding mechanical stress** to the connecting screw which would lead to unscrewing and consequently the possibility of fracture.





#### Economic and management advantages

The essentiality of the design has allowed the instruments necessary to be reduced to a single surgical kit which allows the implantation of three different implant lines. The whole range of prosthetic components may also be used equally on the Evolution2000 ST, MC and SP implants.





## **Theory and Practical Courses**

Our main Scientific and training activites are performed: in Italy, with live operations and closed circuit television cameras with courses in Basic Implantology, from Surgery to Prosthesis, Advanced Implant Surgery and Individual Courses;

**abroad with** The Anatomy course and **Surgical Implantation on a Cadaver** (France), designed for neophytes, those wanting to broaden their existing knowledge of already familiar topics and experts wishing to add advanced surgical techniques to their professional skills, such as the smaller and greater lifts of the maxillary sinus, the crest increases, bone grafts and so on. Thus great importance is given to the anatomy chapter in the oromaxillofacial section and to visualising all of the structures particularly relevant to implantology.

All of which occurs by providing the extraordinary opportunity for participants to follow the surgical and implantation techniques directly and discover the interesting anatomical sites on cadavers, under the guidance of a tutor for every two participants.













# Mini Evolution2000 SF (spherical)

The Mini implants are a simple but important complement to the Evolution2000 implant line. A simple and economic solution for secure anchorage.

Clinical indications

**Immediate stabilisation of removable prostheses** permanent or temporary whilst waiting for definitive prothesisation with conventional implants. Not recommended for definitive use in posterior positions or for canines.



Nitrided sphere and cube, scratch resistant and less bacterial adhesion

Smooth neck

Depth stop

Spirals for excellent primary stability

Surface treatment

Self-tapping, longitudinal milling

Pointed apex, improved insertion

SF

# Mini Evolution2000 SF Surgical procedure

lmplant ø 2,7	Operculator Spear bur		Ø 1.9
	H		

#### **Technical features**

Implant diameter: Ø 2.7 mm Active length: 10 - 12 - 14 - 16 mm Sphere diameter: 1.8 mm Transmucous height: 1.30 mm Cube and sphere height: 4.5 mm

#### Mini Evolution2000 SF



#### **Surgical Kit**

Operculator – Spear bur for cortex - bur Ø 1.9 Digital lever screw-jack– Implant screwdriver for screw-jack – Digital key



### **Clinical case**

Dr Maurizio Maggioni - Dr. Aldo Francesconi.

Greater prosthetic implant rehabilitation with the positioning of Evolution2000 MC implants and with insertion of three Mini Evolution SF implants, used for retaining temporary mobile prosthesis.













# Mini Evolution2000 MF (fixed abutment)

The Mini implants are a simple but important complement to the Evolution2000 implant line. A simple and economic solution for safe anchorage.

#### **Clinical indications**

**Immediate stabilisation of temporary fixed prostheses** whilst waiting for a definitive prosthesis with conventional implants. Immediate prosthetisation of upper lateral incisors or lower central incisors in the absence of or with reduced chewing load. Not recommended for use in posterior positions or for canines.



**Conical abutment with milling for cementing** (h 8 mm, including quadro)

Smooth neck

Depth stop

Spirals for excellent primary stability

Surface treatment

Self-tapping, longitudinal milling

Pointed tip, improves insertion

MF

# Mini Evolution2000 MF Surgical Procedure



#### **Clinical case**

Dr Walter Ghinzani.

Bone regeneration operation with Alos Block, positioning of 4 implants, post extraction (Evolution2000 MC) and two Mini MF implants for immediate loading for the stabilisation of the temporary fixed prosthesis.









Prosthetic Schemes Surgical Instruments Accessories Prosthetic components

#### **Prosthetic Scheme**





# Prosthetic Scheme for implants ø 3.25

All the implants Ø 3.25 of the three Evolution2000 lines (ST, MC and SP) can all be mounted onto the same abutments in that they have all been designed with the same hexagon and the same neck diameter.

	h 2	h 4	h 6	Transfer
Ø 3.7	[h	[h	h I	
Analogue				
	0°	15°	Calcinable	Gold
Ø 3.7			Ų	t.

	Conical h 1,5	Conical h 2,5	Roden h 2	Roden h 4
Overdenture			• 1,8 • 1,8 • 1,8	• 1,8 • 1,8 • 1h



# Prosthetic Scheme for implants ø 3.75 ø 4.25 ø 5.00

All the implants Ø 3.75 4,25 5,00 of the three Evolution2000 lines (ST, MC and SP) can all be mounted onto the same abutments in that they have all been designed with the same hexagon and the same neck diameter. The choice of abutment will be based ONLY on the prosthetic solution chosen and not on the diameter of the implant used.

	h 2	h 4	h 6	Temporary F	Peek 0° e 10°	Tran	sfer
Ø 4.5	h	h	[h				
Ø 5.5				Ą			
Ø 6.5							7
			Single Ana	logue			
	Calcinable	0°	15°	25°	Fresable	Gold	Base in Ti
Ø 4.5	ų						
Ø 5.5	Ų				Ţ	ų	
Ø 6.5	Ų			ł			
Overdenture							
Conical h 1	Conical h 2	Conical h 3	Roden h 2	Roden h 4	Spherical h 2	Spherical h 4	Spherical h 6
			ø 1,8	ø 1,8	ø 2,5	Ø 2,5	ø 2,5



# **Evolution2000 Surgical Instruments**

The essentiality, simplicity and safety with which the Evolution2000 implant system has been designed have allowed the surgical instruments necessary to be simplified, thus allowing a more rapid operating time.

Article	Description	Code
ŭ	Spear bur for cortex	170207
	Bur Ø 1.9 for mini implants	170211
	Bur Ø 2.2	Short <b>170212</b> Long <b>170217</b>
	Bur Ø 2.7	Short <b>170222</b> Long <b>170227</b>
	Bur Ø 3.2 Long	170209
	Bur Ø 3.7 Long (only for Ø 4.25 SP)	170210
	Bur Ø 4.5 (only for Ø 5.00 SP)	170228
	Countersink (only for Ø 3.25)	170231
dt	Countersink for Ø 3.75, 4.25, 5.00	170232
d	Countersink (only for Ø 5.00 SP)	170233
tt[O	Extension for burs	170235
	Tapper only for implants ST and MC	Ø 3,25 <b>170255</b> Ø 3,75 <b>170260</b> Ø 4,25 <b>170265</b> Ø 5,00 <b>170270</b>
	Tapper only for SP implants	Ø 3,25 <b>170271</b> Ø 3,75 <b>170272</b> Ø 4,25 <b>170273</b> Ø 5,00 <b>170274</b>
fir	Operculator, mucotomous	ø 3,7 180113 ø 4,5 180114 ø 5,5 180115 ø 6,5 180116
	Parallelism Indicator	ø 2,1 <b>170305</b> ø 2,6 <b>170310</b>



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#### Accessories

Article	Description	Code
	Digital lever screw-jack with 4 dynamometric inserts of Ncm 32, 42, 72 and 102	170340/D
	Srewdriver for Mini implants SF and MF	170327
	Implant screwdriver for screw-jack	Short <b>170345</b> Long <b>170348</b>
	Implant screwdriver for micromotor	Short <b>170320</b> Long <b>170325</b>
	Digital key	170338
	Manual key	170335
	Mount key	170333
	Pliers	170330
	Hexagon Screwdriver 1.27	Short <b>170350</b> Long <b>170355</b>
	Screwdriver for hexagon jack 1.27	170358
	Screwdriver for hexagon micromotor 1.27	170356
	Roden screwdriver	170626

# Prosthetic components for Mini implants ø 2,70 SF and MF (Spherical and Fixed abutment)

Article	Description	Code
	Analogue for Mini spherical implant (SF)	170376
	Analogue for Mini fixed abutment implant (MF)	170377
Į	Calcinable abutment for Mini implant SF and MF	170555
ô 💷 🗅 🗅	Ferrule with o-ring and cap case with Rilsan cap	Ferrule <b>170646</b> Cap <b>170664</b>

# Prosthetic components for implants ø 3,25

Article	Description	Code
<b>I</b> h	Healing abutment: the different heights allow for healing guided by the mucous tissues in order to obtain a correct prosthetic emergence profile.	h 2 mm <b>170000</b> h 4 mm <b>170001</b> h 6 mm <b>170002</b>
	<b>Transfer:</b> allows the imprint to be taken reproducing the prosthetic emergence profile obtained with the healing abutment.	170380
	<b>Analogue:</b> in titanium, faithfully replicates the internal hexagon and the boring of the implant ø 3,25.	170374
	<b>Straight abutment 0°:</b> straight abutments are used for every fixed prosthesis need. Available also in aesthetic or gold versions.	170535
	Angled abutment 15°: angled abutments are used for every fixed prosthesis need. Also available in aesthetic or gold versions.	170425
	<b>Calcinable abutment:</b> may be used for every type of fixed or mobile prosthesis.	170560
Ļ	<b>Calcinable abutment with gold base:</b> può may be used for every type of fixed or removable prosthesis. An alloy is recommended for superfusion with gold titre > 600 thousandths.	170605
© 0 1,8 □ □ □ □ □ □ □ □ □ □	<b>Roden spherical abutment (ø 1,8):</b> used for anchoring removable prostheses. The pack includes the retention cap in Rilsan and the cap case. For assembly use the Roden screwdriver.	h 2 mm <b>170668</b> h 4 mm <b>170669</b>
	<b>Roden Bar:</b> preformed bar for overdenture, circular section, telescopic. This is fixed onto 2 spherical abutments (Ø 1,8) Roden and fixed with 2 U-springs.	170613
	<b>Conical abutment:</b> is recommended for fixed screwed down prostheses, removable prostheses and bar prostheses.	h 1,5 mm <b>170461</b> h 2,5 mm <b>170462</b>
	Universal screw ø 1.8: used for all abutments except the conical abutment.	170633



# Prosthetic components for implants ø 3.75 ø 4.25 ø 5.00

Article	Description	Code
	Healing abutment: the different heights and diameters allow healing guided by the mucous tissues in order to obtain a correct prosthetic emergence profile.	ø 4,5 ø 5,5 ø 6,5 h 2 mm <b>170110 170125 170140</b> h 4 mm <b>170115 170130 170145</b> h 6 mm <b>170120 170135 170150</b>
êêê	<b>Transfer:</b> allows the imprint to be taken by reproducing the prosthetic emergence profile obtained with the healing abutment.	ø 4,5 <b>170390</b> ø 5,5 <b>170395</b> ø 6,5 <b>170400</b>
量	<b>Analogue:</b> in titanium. Faithfully reproduces the internal hexagon and the boring of the implants 3,75 - 4,25 - 5,00.	170375
	<b>Abutment 0°:</b> the straight abutments are used for all fixed prosthesis needs. The different diameters correspond to the emergence profile obtained with the healing abutment. Available also in aesthetic and gold versions.	ø 4,5 170540 ø 5,5 170545 ø 6,5 170550 ø 4,5 (h 4 mm) 170543
	<b>Abutment 15°:</b> the angled abutments are used for all fixed prosthesis needs. The different diameters correspond to the emergence profile obtained with the healing abutment. Available also in aesthetic and gold versions.	ø 4,5 <b>170430</b> ø 5,5 <b>170435</b> ø 6,5 <b>170440</b>
	<b>Abutment 25°:</b> the angled abutments are used for all fixed prosthesis needs. The different diameters of the abutments correspond to the exact emergence profile obtained with the healing abutments. Available also in aesthetic and gold versions.	ø 4,5 <b>170445</b> ø 5,5 <b>170450</b> ø 6,5 <b>170455</b>
	<b>Temporary abutment in peek:</b> recommended to obtain, with a temporary fixed prosthesis, a correct emergence profile. N.B.: the abutment in peek does not include screws.	ø 5,5 0° <b>170415</b> ø 5,5 10° <b>170418</b>
តំពុំព្	Calcinable abutment: may be used for every type of fixed/ removable prosthesis.	ø 4,5 170565 ø 5,5 170570 ø 6,5 170575
Ų	<b>Calcinable Abutment with gold base:</b> used for every type of fixed/removable prosthesis. An alloy for superfusion is recommended with gold titre > 600 thousandths. Ø 4,5	ø 4,5 <b>170607</b>
	Fresable Abutment: allows personalised preparation of the abutment itself.	170585
0 2,5 [h	<b>Spherical Abutment (ø 2,5):</b> used for anchoring mobile prostheses. The pack includes the retention cap in Rilsan and the stainless steel cap case.	h 2 mm <b>170587</b> h 4 mm <b>170588</b> h 6 mm <b>170589</b>
• 1,8 • 1,8 • 1,8	<b>Spherical Roden abutment (ø 1,8):</b> si used for direct anchoring of mobile prostheses. The pack includes the retention cap in Rilsan and the cap case. For assembly, use the Roden screwdriver.	h 2 mm <b>170619</b> h 4 mm <b>170620</b>
	<b>Conical abutment:</b> is recommended for screwed down fixed prostheses, removable bar mounted prostheses.	h 1 mm <b>170470</b> h 2 mm <b>170475</b> h 3 mm <b>170480</b>
	Titanium base: recommended for personalised abutments in zirconia with Cad Cam technique.	170517
	<b>Universal screw ø 2.0:</b> used for all abutments except conical abutments.	170635
	<b>Angled indicator:</b> abutments in Al to show the exact angle at 0°, 15° e 25°.	0° 15° 25° <b>170402 170406 170410</b>



Wettability is the first step towards rapid osteointegration.





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