

FLATON



INTRRA-LOCK®
SYSTEME MUR OPA



the eyes are the
mirror of the **SOUL**
the **SMILE**
the mirror of the
HEART



FLATON

The logo graphic for FLATON features a stylized circular element divided vertically. The left half is purple and the right half is gold, with a white outline. The word 'FLATON' is positioned above this graphic, with 'FLAT' in grey and 'ON' in gold.

THE IDEAL
ONE-PIECE
IMPLANT
to satisfy every
CLINICAL
NEED



FHS FAST HEALING SURFACE

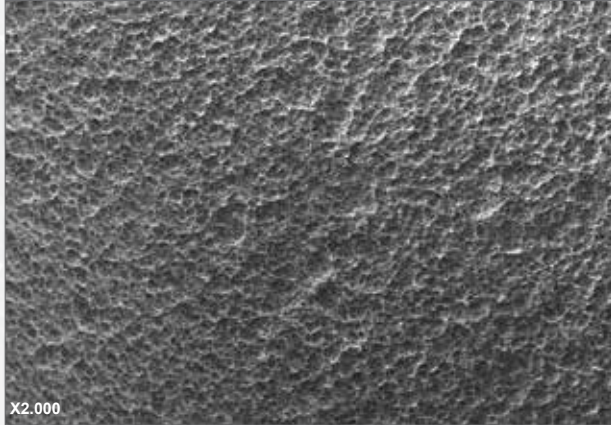


Fig.1 - SEM magnification that highlight the surface micro-roughness

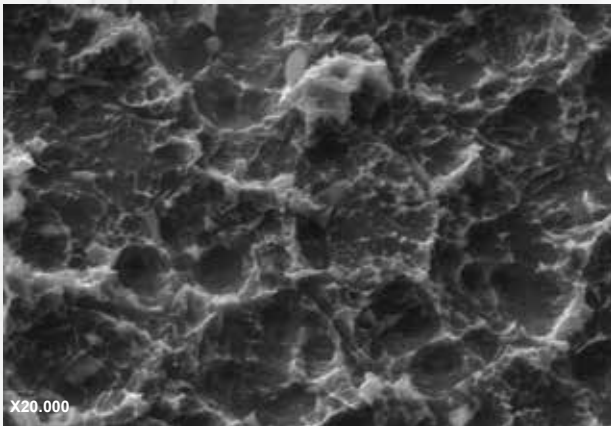


Fig.2 - SEM magnification that highlight the surface micro-roughness



Fig.3 - Surface topography by SEM which highlight the clean surface without residues.

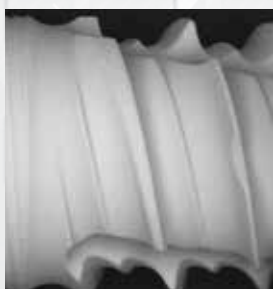


Fig.4

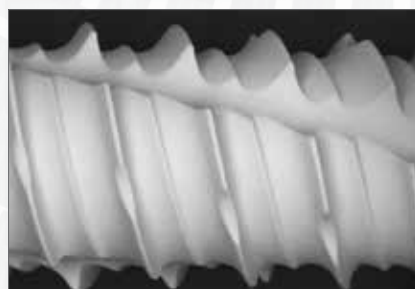


Fig.5



Fig.6

SURFACE TREATMENT

The FHS surface is obtained with a sandblasting process with a long-range roughness to which a short-range roughness is superimposed due to the double acidification treatment. This makes it possible to obtain a homogeneous surface micro-roughness over the entire implant surface (Fig. 1 and 2).

COLD PLASMA SURFACE DECONTAMINATION

This “sponge” topography offers an ideal structure for the adhesion of growth factors, accelerating osseointegration times.

After the surface treatments, the plants are subjected to an accurate decontamination process using cold plasma triggered by Argon GDT (Glow discharge treatment). The GDT causes the removal of any organic contaminant without leaving residues (see Fig. 3,4,5 and 6). This “atomic sandblasting” by activating the ionization of the more superficial atoms of the titanium oxide increases the surface energy and the wettability of the fixture.

Images by Nobil Bio Searches

BCL

BONE CHIPS LAYERING

The **Flat-On** implant with **BCL** thread (Bone Chips Layering) has been designed to have a high cutting action, distributing the native bone over the entire implant surface (fig.1). The BCL thread and the morphology of the Flat-On implant reduce bone compression to obtain optimal primary stability, making immediate loading protocols predictable and minimally invasive.



fig. 1

The **Flat-On** Implant with **BCL** Coil was designed with an ideal coil and angulation for bone types III and IV. These characteristics, together with a spherical, atraumatic apex with a reduced diameter, allow for significantly undersized osteotomies, compared to the diameter of the implant, obtaining ideal primary stability.

FLATON IMPLANT SYSTEM

Flat-On is an implant system that allows to obtain the maximum connection precision between implant and abutment and at the same time to eliminate any interference ensuring the complete passivation of the screwed structure between the implants whatever the degree of disparallelism.



FLATON



In clinical practice it is often necessary, in order to obtain optimal primary stability, to insert the implants with an inclination, sometimes even significant. Thanks to the use of **Flat-On** implants it is possible to create the prosthesis without different aids such as angled abutments or other prosthetic devices.

ROTATING FLAT CONNECTION



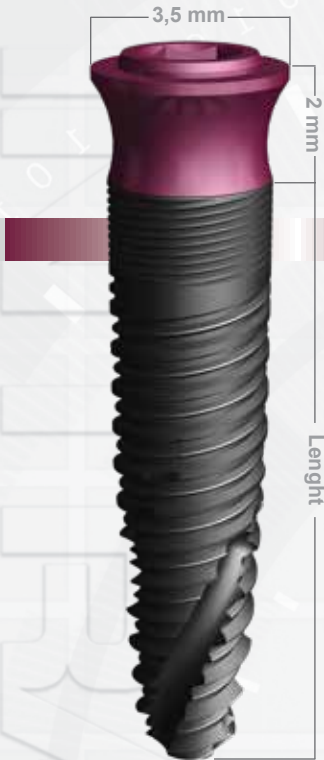
FLAT-ON
Implants and
Components

NOT ROTATING FLAT CONNECTION



FLAT-ON
Implants and
Components

FLAT-ON[®] ROTATING



3.0mmØ

Lenght	Neck High	Product description	Code
8mm	2.0mm	Diameter, BCL [®] Cylindrical body	FO3008R2
10mm	2.0mm	Diameter, BCL [®] Cylindrical body	FO3010R2
11mm	2.0mm	Diameter, BCL [®] Cylindrical body	FO3011R2
13mm	2.0mm	Diameter, BCL [®] Cylindrical body	FO3013R2
15mm	2.0mm	Diameter, BCL [®] Cylindrical body	FO3015R2



3.0mmØ

Lenght	Neck High	Product description	Code
8mm	3.0mm	Diameter, BCL [®] Cylindrical body	FO3008R3
10mm	3.0mm	Diameter, BCL [®] Cylindrical body	FO3010R3
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13mm	3.0mm	Diameter, BCL [®] Cylindrical body	FO3013R3
15mm	3.0mm	Diameter, BCL [®] Cylindrical body	FO3015R3

PROSTHETIC FLAT-ON R

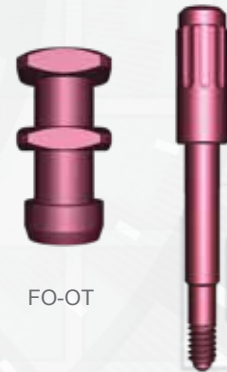
HEALING SCREWS

Height	Product description	Code
3mm	Clinical healing screw	FO-HA3530
4.5mm	Clinical healing screw	FO-HA3545
6mm	Clinical healing screw	FO-HA3560



TRANSFER

Product description	Code
Transfer Flat-On Pick-up, with long screw	FO-OT



Product description	Code
Transfer Flat-On Pop In	FO-AT
Transfer Cap	IHTC



PROSTHETIC FLAT-ON **R**

ABUTMENT



FO-PCPN

Product description

Short castable abutment with peek narrow Analog

Code

FO-PCPN

CYLINDERS



FO-STN

Diameter

3,5mm

Rotating

Product description

Narrow Short Cylinder with Retaining Screw

Code

FO-STN



FO-ANPC

Diameter

3,5mm

Rotating

Product description

Narrow Castable with Retaining Screw

Code

FO-ANPC



FO-ANCCC

Diameter

3,5mm

Rotating

Product description

Narrow Cobalt Chrome Abutment with Retention Screw

Code

FO-ANCCC



FO-ANTC

Diameter

3,5mm

Rotating

Product description

Narrow Titanium Cylinder - Link for bonding with Retaining Screw

Code

FO-ANTC

PROSTHETIC FLAT-ON R

ANALOG

Diameter	Product description	Code
3,5mm	Rotating Analog	FO-ANA



FO-ANA

SCAN BODY

Diameter	Product description	Code
3,5mm	Narrow ScanBody	FO-SBN35



FO-SBN35

SCREWS

Product description	Code
Clinical Screw	FO-CRS



FO-CRS

Product description	Code
Long Screw for Transfer Flat-On	FO-LS35



FO-LS35

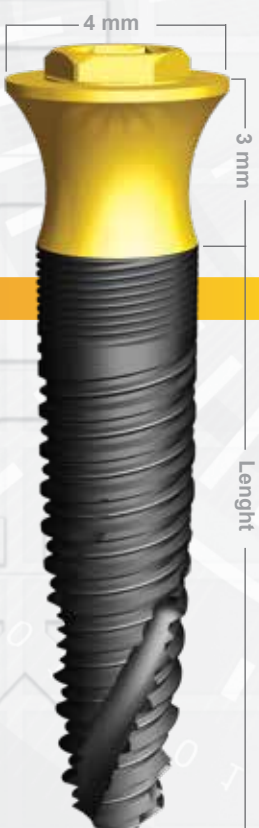
FLAT-ON NR

NON-ROTATING EXTERNAL HEX



3.0mmØ

Lenght	Neck High	Product description	Code
8mm	2.0mm	Diameter, BCL® Cylinder Body	FO3008N2
10mm	2.0mm	Diameter, BCL® Cylinder Body	FO3010N2
11mm	2.0mm	Diameter, BCL® Cylinder Body	FO3011N2
13mm	2.0mm	Diameter, BCL® Cylinder Body	FO3013N2
15mm	2.0mm	Diameter, BCL® Cylinder Body	FO3015N2



3.0mmØ

Lenght	Neck High	Product description	Code
8mm	3.0mm	Diameter, BCL® Cylinder Body	FO3008N3
10mm	3.0mm	Diameter, BCL® Cylinder Body	FO3010N3
11mm	3.0mm	Diameter, BCL® Cylinder Body	FO3011N3
13mm	3.0mm	Diameter, BCL® Cylinder Body	FO3013N3
15mm	3.0mm	Diameter, BCL® Cylinder Body	FO3015N3

FLAT-ON **NR** PROSTHETIC

ABUTMENT

Height	Product description	Code
2,5mm	Clinical Healing Screw	FO-HA4025NR



FO-HA4025NR

TRANSFER

Product description	Code
Transfer Abutment with Long Screw for External Hexagon	FO-OTNR



FO-OTNR

FLAT-ON NR PROSTHETIC

CYLINDERS



FO-APC40NR

Diameter		Product description	Code
4mm	Not Rotating	Castable Cylinder for external hexagon with Retention Screw	FO-APC40NR



FO-APC40

Diameter		Product description	Code
4mm	Rotating	Castable Cylinder for external hexagon with Retention Screw	FO-APC40



FO-LKCC40NR

Diameter		Product description	Code
4mm	Not Rotating	Cobalt Chrome Abutment for External Hex with Retention Screw	FO-LKCC40NR



FO-ACCC40

Diameter		Product description	Code
4mm	Rotating	Cobalt Chrome Abutment for External Hex with Retention Screw	FO-ACCC40

FLAT-ON **NR** PROSTHETIC

DIGITAL ANALOG

Diameter	Product description	Code
4mm	Not Rotating Analog for External Hexagon	FO-AANR



FO-AANR

SCAN BODY

Diameter	Product description	Code
4mm	Scan Body for External Hexagon	FO-SBNR



FO-SBNR

SCREWS

Product description	Code
Clinical Screw	FO-CRS



FO-CRS

Product description	Code
Long Screw for Transfer Flat-On	FO-LS



FO-LS

INSTRUMENTS

CONTRANGLE DRIVE FLAT-ON



OF-ACAD

Product description

Contrangle Driver Flat-On

Code

OF-ACAD

TORQUE WRENCH SCREWDRIVERS



ELD16L



ELD16S

Product description

Long Flat-On Drivers for Torque Ratchet Ø 1.6mm

Code

ELD16L

Short Flat-On Drivers for Torque Ratchet Ø 1.6mm

ELD16S



ELD1



ELDS

Product description

Long Drivers for Torque Ratchet Ø 1.3mm

Code

ELD1

Short Drivers for Torque Ratchet Ø 1.3mm

ELDS

SCREWDRIVERS



EDL



EDC

Product description

Long Screwdriver - Ø 1.3mm

Code

EDL

Short Screwdriver - Ø 1.3mm

EDC

INSTRUMENTS

PARALLELISM PIN

Product description

Parallelism PIN

Code

PP2



PP2

RATCHET

Product description

Surgical Ratchet

Standard Adaptor connection 4x4mm

Code

SRW

UNACR4



SRW



UNACR4

BONE DENSITY: DRILL STEPS

BONE DENSITY AND DRILL STEPS FOR IMPLANT PLACEMENT

BONE DENSITY INDEX according to the traditional Zarb-Lekholm classification:

Type 1: Compact and homogeneous bone

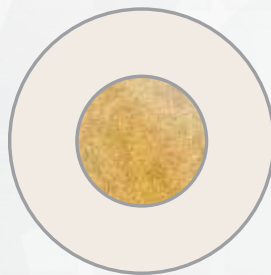
Type 2: A thick layer of compact bone lines the dense trabecular bone part

Type 3: A thin layer of compact bone lines the dense trabecular bone part

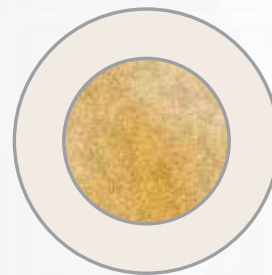
Type 4: A thin, or almost no, layer of compact bone covers the part of the trabecular bone low density



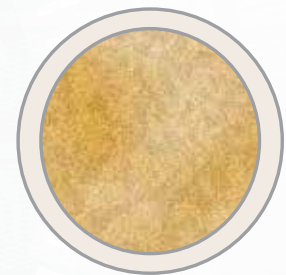
TYPE 1:



TYPE 2:



TYPE 3:

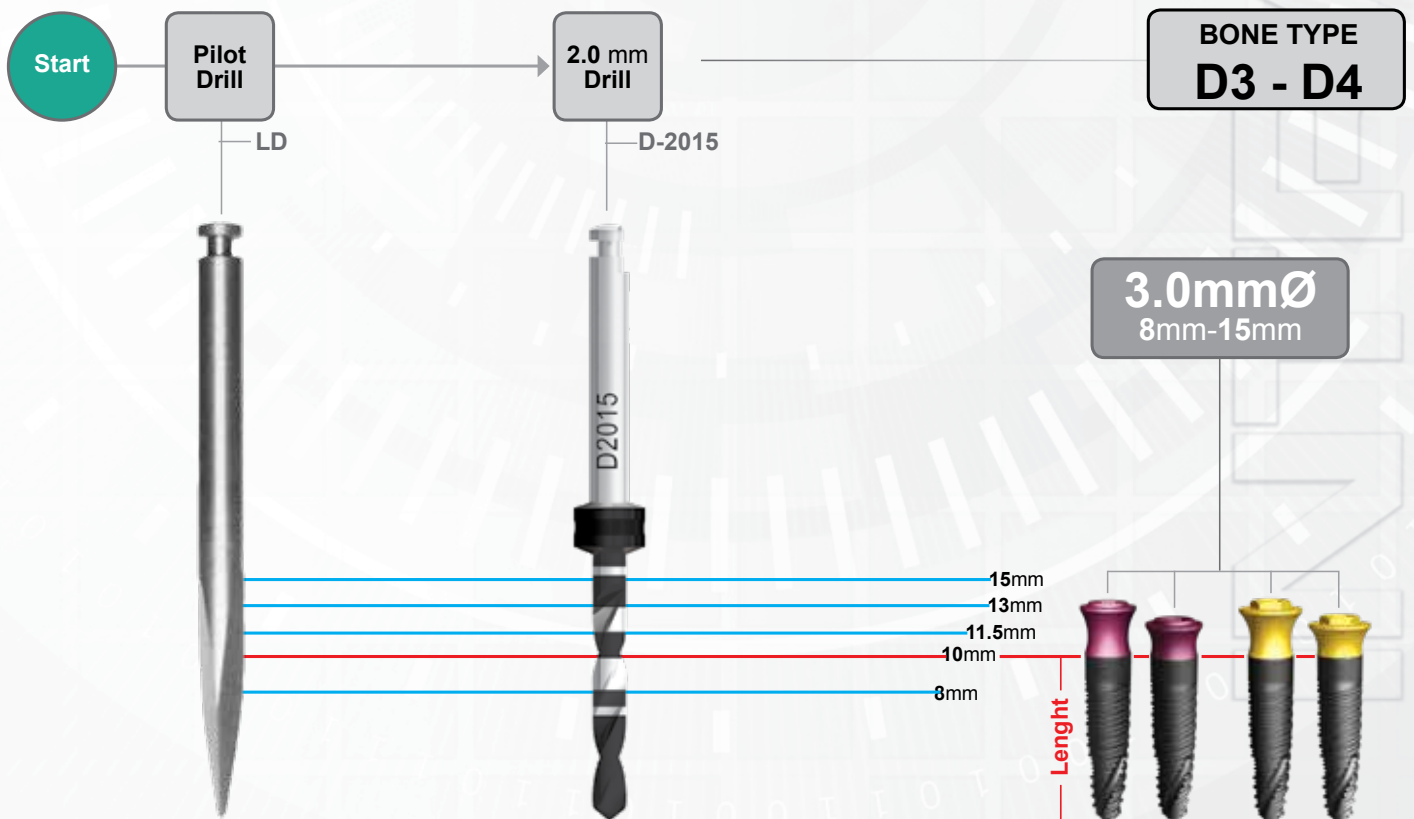
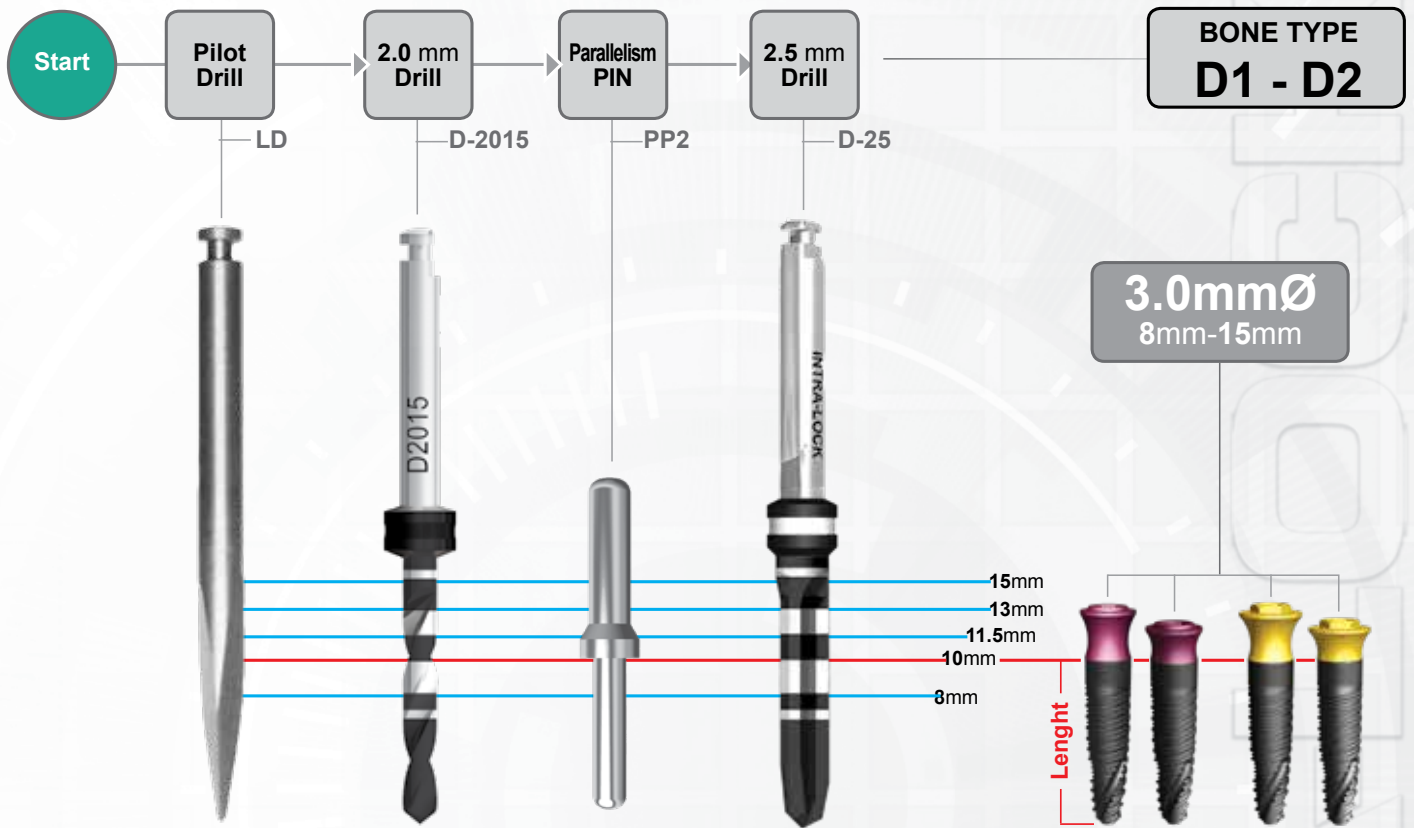


TYPE 4:

The availability of new technologies, such as CT and CBCT, has allowed Rebaudi ** to introduce a new bone quality/density classification system (HNS classification) which divides bone into 3 classes:

- Hard/Compact (H), which corresponds to Q1 and **D1** = Hard bone (>1,000 HU)
- Normal (N), which corresponds to Q2/Q3 and **D2/D3** = (400-1.000 HU)
- Soft (S), which corresponds to Q4 and **D4** = soft bone (<400HU)

DRILL PASSAGES: FLAT-ON Implants



FULL ARCH WITH IMMEDIATE LOAD

Dott. Guerino Caso

Graduated in Medicine and Surgery at the Second University of Naples and specialized in Maxillofacial Surgery at the Federico II University of Naples. He followed a two-year specialization course in advanced implant surgery at the Claude Bernard University in Lyon where he still holds an annual cadaver dissection course. He followed a course on osteo-distraction at the Pyramid Clinic in Zurich. He was a lecturer at the II level Master's degree in implant surgery at the University of Chieti. Lecturer at the master's degree in advanced oral surgery at the University of Cagliari. He attended the Zygomatic Implants course at the Branemark Institute in Johannesburg. Author of numerous publications in the surgical-implant field. He is exclusively interested in reconstructive, implant and periodontal surgery. He is academic director of postgraduate courses UCAM (University S. Antonio de Murcia, Spain).

Dott. Marco Cirmeni

Laureato con lode e menzione accademica in Odontoiatria e Protesi dentale presso l'Università degli studi di Chieti G. D'Annunzio. Ha seguito presso Università d'Annunzio Graduated with honors and academic mention in Dentistry and Dental Prosthesis at the University of Chieti G. D'Annunzio. He attended the second level specialization course in applied periodontal surgery at the University of Annunzio. He attended the annual Surgical and non-surgical periodontology course of Dr. Stefano Parma-Benfenati. Mucogingival surgery course with Dr. Stefano Parma Benfenati. Course in mucogingival surgery and soft tissue plastic surgery with prof. Zucchelli. Annual Fixed Prosthesis Course at Lake Come Institute. (Fabio Scutella). B.O.P.T Course (Dr. Ignazio Loi). He attended the annual course of aesthetic adhesive conservation of dr. Lamorgese (University of Rome), by Prof Aniello Ingenito (University of Naples). He collaborates with Dr Guerino Caso in the management of the anatomical dissection course at the Claude Bernard University of Lyon. Tutor and speaker of the annual oral surgery course at the Nocerino Dental Center. Speaker and lecturer for Masters in Fixed Prosthesis on Natural Teeth and Implants, La Sapienza University of Rome. Speaker and lecturer for postgraduate courses for U.C.A.M. (Murcia Catholic University) of Surgery, Implantology and prosthetic rehabilitation. He was a department intern in the University Clinic of Chieti in the Endodontics department of Prof. V.A.Malagnino. IAO member.

Dott. Ottavio Fedele

Dental technician diploma obtained at "I.P.S.I.A. Francesco Trani" (SA) in 2000. He attended numerous refresher courses dedicating himself mainly to prosthetics on dental implants. Since 2002 he has been collaborating for the drafting of technical protocols and as an implant-prosthetic consultant with Intra-Lock System Europa Spa. In 2013 he graduated in "MEDIC DENTIST" at the "Universitatea de Vest Vasile Goldis" Arad (RO). Enrolled in the Order of Surgeons and Dentists of the Province of Salerno, Register of Dentists, since 2014. Perfected in outpatient oral surgery at the University of Naples "Federico II" in the year 2014/2015. He attended the anatomical dissection course at the Claude Bernard University of Lyon. International master's degree in implantology and advanced surgery II level University of Cagliari. Master in Forensic Dentistry University of Foggia. He is a prosthetic consultant in the field of implantology for well-known Italian implantologists. Co-author of numerous publications in the surgical-implant field. Speaker and lecturer for Masters in Fixed Prosthesis on Natural Teeth and Implants, La Sapienza University of Rome. Freelance in Sant'Egidio del Monte Albino (SA).

CASE DESCRIPTION

64-year-old patient with upper total prosthesis and lower removable partial prosthesis with non-recoverable residual teeth. The patient will be rehabilitated in 2 surgical stages with the Flat-On® protocol, starting from the upper arch.

Since he already wears a full prosthesis and has a good vertical dimension, a duplication of the prosthesis is performed which will be used both as a surgical template and as a landmark for the vertical dimension.

The case was run in Cad Cam with a modified fiberglass (Zantex Arch) and composite framework. Delivery 8 hours after surgery and radiological checks.

The same protocol was performed for the lower arch.

The traumatic extraction of the teeth was carried out. Detected the vertical dimension. The impression transfers are positioned and bonded with a zero-shrinkage photopolymerizable resin. Finally, after trying the spoon, precision impressions were taken.

The prosthesis is always developed in Cad Cam with modified fiberglass framework (Zantex Arch).

Delivery 8 hours after surgery and radiological checks.

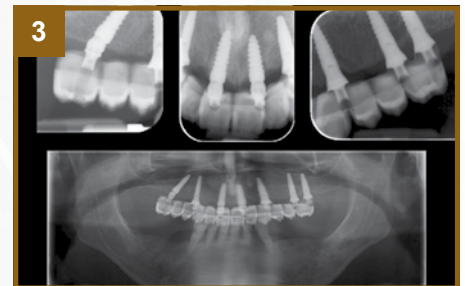
Clinical and radiological control at 12 months.



1: Initial clinical case



2: Pre RX



3: RX upper prosthesis



4: Delivery of the upper prosthesis after 8 hours



5: Cad Cam phases



6: RX patient

WITH FLAT-ON AND ZANTEX ARCH



7: Extractions



8: Implants with impression transfer



9: Vertical dimension



10: Transfer solidarity + individual spoon



11: Imprint



12: Cad Cam inferior



13: Delivery inferior prosthesis



14: RX check at 12 months



15: Prosthesis check at 12 months



16: Mandibular tissue check at 12 months



17: Jaw tissue control over 12 months



18: Patient smile at 12 months

Photos and clinical case kindly provided by:
Dott. Guerino Caso • Dott. Marco Cirmeni • Dott. Ottavio Fedele



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