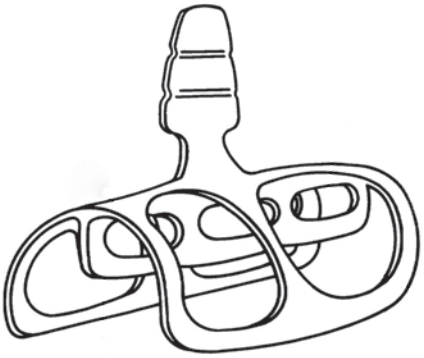
B&B DENTAL
IMPLANT COMPANY

IUXTA IMPLANT

SUBPERIOSTEAL

EVOLUTION OF THE SYSTEM



IUXTA IMPLANTS are custom dental devices, created through laser melting to meet patients' clinical needs. Positioned subperiosteally, leveraging bone structure morphology, and secured with osteosynthesis screws. This solution is considered to offer an alternative for patients with severe bone atrophy, unsuitable for traditional implant surgery due to impractical regenerative procedures.

The Iuxta or subperiosteal implants were introduced at the beginning of the 1940s by Gustav Dahl and subsequently re-examined in 1946 by Norman Goldberg and Aaron Gerschkoff. In the 1960s and 70s, they began to practice the first procedures consistently and to introduce the first protocols. Iuxta implants involved bone segment skeletonization and metal structure creation through lost wax casting.

Despite efforts, success rates were low, leading to total or partial removal due to issues like misfitting, bone quality, exposure of adjacent areas, and potential hypersensitivity from the metal fusion method. Over time, due to these challenges and low success rates, the technique was eventually abandoned.

TODAY, advancements in digital technology and planning software have revolutionized the implant surgery sector, overcoming past limitations. Iuxta implants, made possible through digital design and laser melting, provide an effective solution for severe bone atrophy cases where traditional implantology is impractical.

Today, Iuxta implants are effective products because:

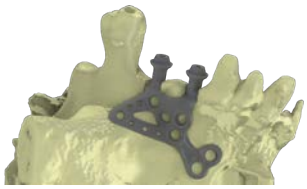
- They represent a suitable clinical solution for cases with severe bone atrophy that would otherwise be untreatable.
- They are completely customizable: digitally tailored and then printed via laser melting, ensuring a precise fit with the patient's bone conformation.
- High-resolution diagnostic instruments, planning, and 3D printing guarantee great precision.
- Fixation with osteosynthesis screws ensures the stability of the Iuxta structure.
- Patients can avoid resorting to lengthy regenerative procedures that do not guarantee success.
- They enable immediate loading and long-lasting rehabilitation.
- They facilitate the achievement of aesthetic and functional results in complex clinical cases.

Lastly, it's essential to note that this method is currently approved in the USA by the FDA (Food & Drug Administration

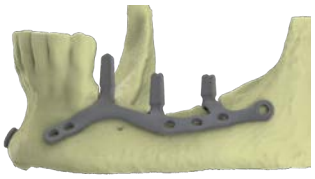
TYPES OF GRIDS

During the creation of the project it is important to decide the type and dimension of the luxta implant, based on the 3D radiographic images and on the agreed prosthesis rehabilitation of the patient by the clinician.

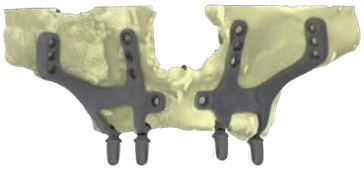
Single-element



2-Element rehabilitation



Hemiarch

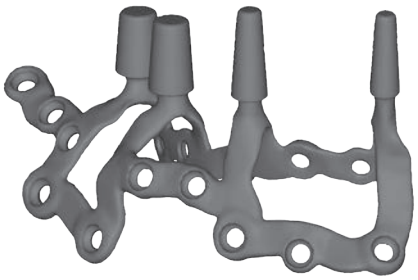


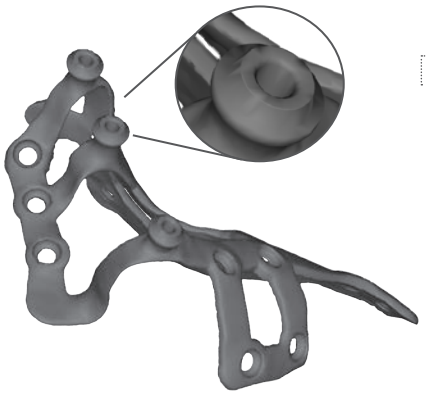
Total rehabilitation

TYPES OF ABUTMENTS

SINGLE-STAGE ABUTMENTS FOR CEMENTATION

All abutments used on luxta implants are rectified by a 5-axis bur, guaranteeing reproducible geometries and mathematics, thus avoiding potential errors that could occur during the manual processing phase.





TWO-STAGE ABUTMENTS FOR SCREW-RETAINED PROSTHESES (MUA)

As per the single-stage abutments for cementation, these abutments for the screw-retained prosthesis are checked by a 5-axis bur. These abutments precisely reproduce the shape of classic abutments for screw-retained prostheses, that is, MUA. The locking screw on the abutments is bigger compared to classical ones by 1.4 times.

CYLINDRICAL ABUTMENTS WITH CONICAL COUPLING MORSE TAPER

The cylindrical abutment with conical coupling morse taper favours healing of soft tissue and allows for the use of all rotational abutments that permit a screw-retained, cemented and conometric prosthesis to be created.

TOOLS AND ACCESSORIES

IUXTA SURGICAL KIT

Ergonomic and intuitive, the kit contains all the instruments needed to correctly perform an Iuxta surgical procedure in line with the protocols dictated by B&B Dental.

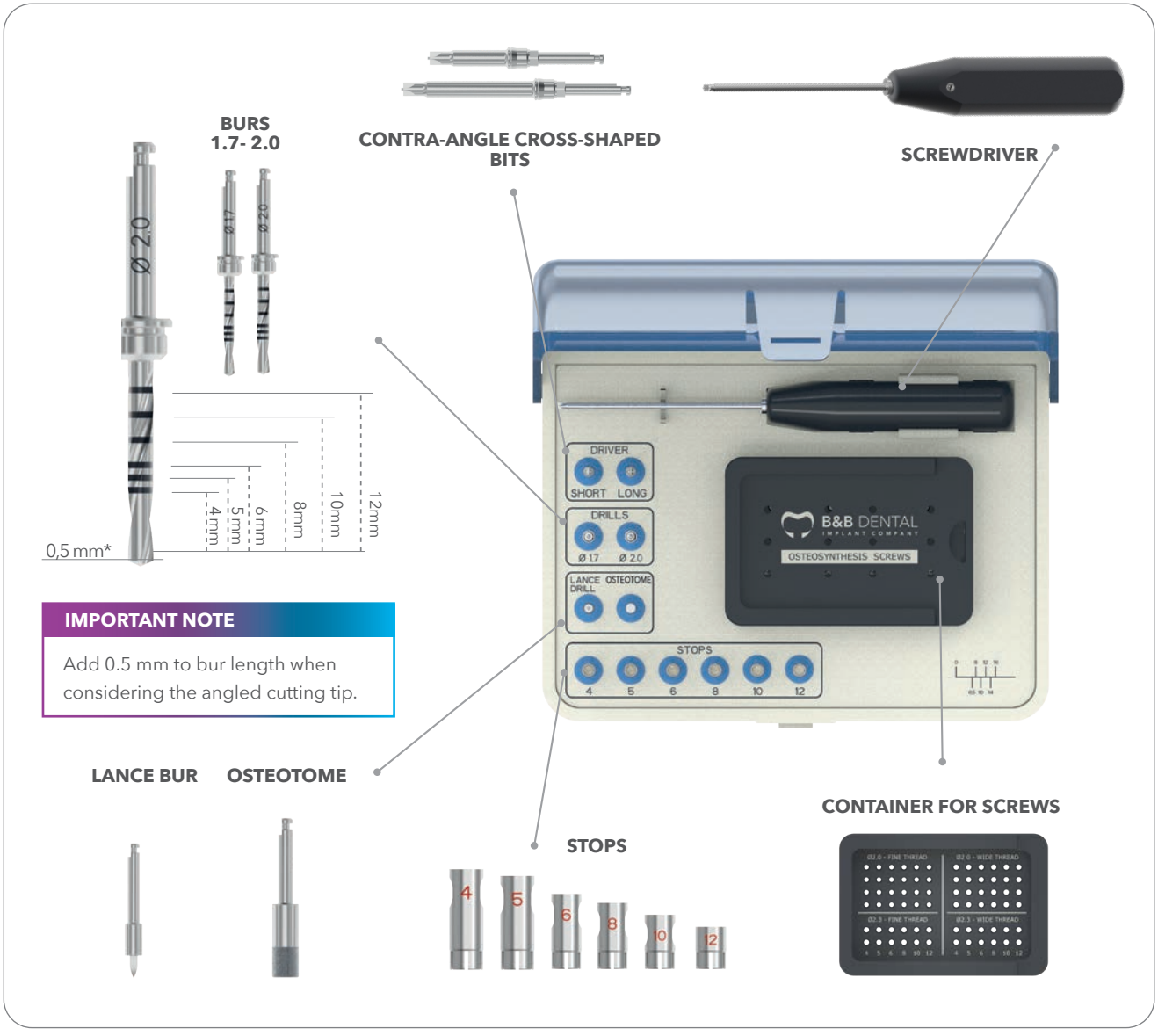
REF. SUB-00090SC

BURS FOR OSTEOTOMY
BURS FOR FIXING SCREWS

The kit contains all of the burs for preparing the bone and the burs for creating entry holes for inserting the fixing screws.

SCREWDRIVER

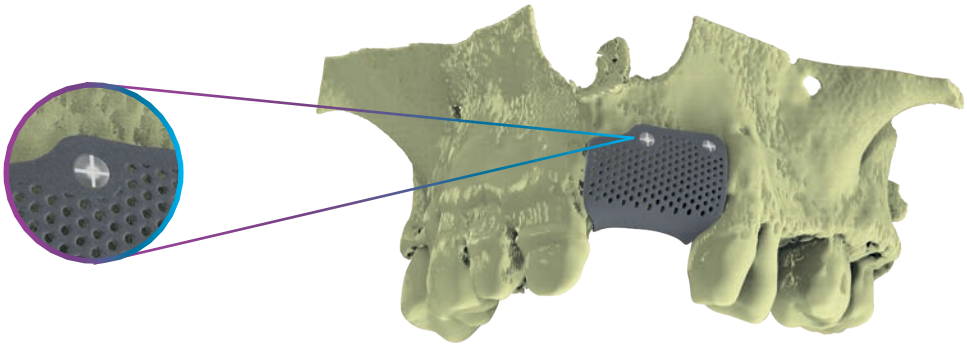
The screwdriver present in the kit allows one to exert adequate force in order to position the screws.
The head of the screwdriver presents a cross-shaped attachment so it can be used to insert both the fixing screws and the osteosynthesis ones.



CUSTOMISED MESH GRIDS

The customised meshes in titanium are used in GBR [guided bone regeneration] for vertical defects and in combined defects. Starting from the acquisition of a pre-operative CBCT [cone beam computed tomography], it is possible to obtain a virtual model on which to design and plan a digital grid. The STL is thus sent to the laboratory and the product is made via laser-sint technology, that is, a titanium 3D printing method.

The advantage compared to standard grids resides in the fact that the customized mesh is designed before the procedure, specifically for the anatomy of the patient. This therefore speeds up the execution, increasing intrinsic ability with a precise fixation: the degree of accuracy during the surgery is therefore extremely high.
The titanium grids maintain a certain degree of elasticity that compensates for any possible inaccuracies, which are almost always linked to a non-optimal quality of CBCT.
Moreover, the design with rounded margins and smooth edges improves the healing of the overlying soft tissues, facilitating the passivation and suturing of the surgical flaps.

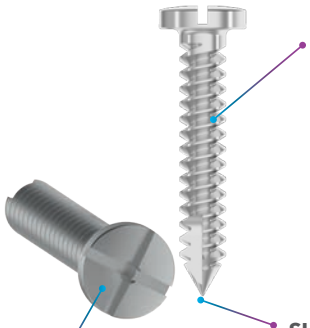


OSTEOSYNTHESIS SCREWS FOR MEMBRANES

Osteosynthesis screws can be used to fix the membranes so as to ensure their stability. They are available in three different heights and three diameters and they have a cross-shaped head. They can be inserted using a manual or contra-angle key.

IMPORTANT NOTE

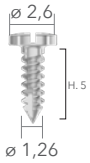
See the Regeneration Materials Catalogue for the complete range of membranes.



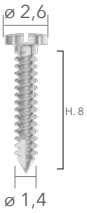
THREAD CUTTING SCREW
- Sharp thread means easier insertion
- Easy placement
- High primary stability

SHARP TIP
- Precision in initial positioning
- High penetration

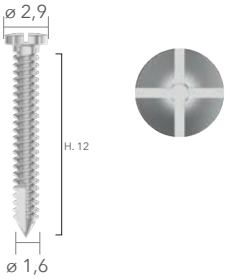
CROSS HEAD
- Can be used with prosthetic bits or contra-angle bits
- Stable and easy to engage



00391*



00392*



00394*

PROSTHERTIC COMPONENTS

MUA ANALOGUE

Analogues reproduce the position of the implant connection within the model, they must be carefully placed on the transfers inside the impression before proceeding with cast pouring.

ROTATIONAL ANALOGUE
MUA-00586

ROTATIONAL DIGITAL ANALOGUE
3D-00587

TRANSFER MUA

The transfer is screwed onto the MUA for precise position adjustment during the impression taking step.
The screw size ø1.6.

TRANSFER - CLOSED SPOON
MUA-00611

ROTATIONAL TRANSFER - OPEN SPOON
MUA-00610
This code includes screw MUA-00612

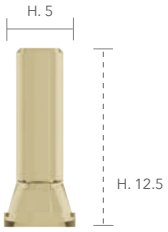
MUA ABUTMENTS

These abutments must be fixed onto the MUA to build structures.

ROTATING

The screw size ø1.6.

TEMPORARY ABUTMENT
MUA-5144



CASTABLE ABUTMENT
MUA-5145

This code includes screw INN-6051

HEALING SCREW MUA

This is used in the patient's healing phase to protect the MUA abutment until the prosthesis is applied.

HEALING SCREW
MUA-6030

MUA SCAN

The MUA scan is a device that takes impressions by means of intraoral scanners.

SCAN
SCAN-MUA-16

ROTATIONAL ABUTMENTS FOR CONICAL MORSE TAPER

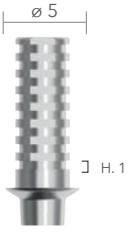
The rotational conical abutments are fixed via a locking screw to the coupling cone and can be used both when cementing and screwing.

ROTATING

IMPORTANT NOTE

To see all of the available rotational abutments for conical morse taper lengths please consult the Product Catalogue on pages: 29, 33 and 40.

INN-2715/1*



IUXTA FIXING SCREWS

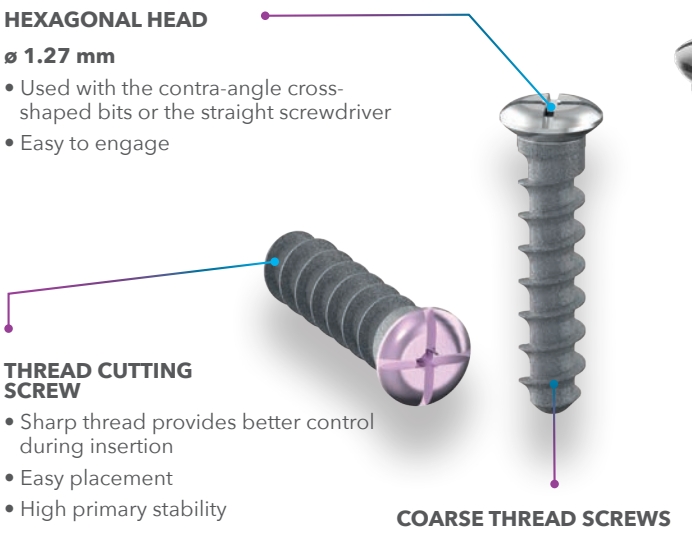
HEXAGONAL HEAD

ø 1.27 mm

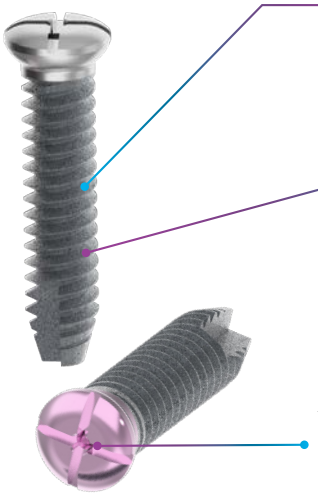
- Used with the contra-angle cross-shaped bits or the straight screwdriver
- Easy to engage

THREAD CUTTING SCREW

- Sharp thread provides better control during insertion
- Easy placement
- High primary stability



COARSE THREAD SCREWS



TREATED SURFACE

- Improved osseointegration
- Stability over time

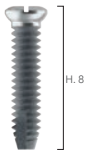
FINE THREAD SCREW

DIFFERENT COLOURED HEADS

for easyidentification of the diameter

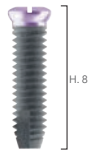
The fixing screws are of two types with the following diameters: Ø 2 and Ø 2.3. These fixing screws need preparation with suitable drills of a defined diameter.

FINE THREAD



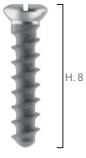
00392/Q-20

DIAMETER Ø 2		DIAMETER Ø 2.3	
H. 4	00390/Q-20	H. 4	00390/Q-23
H. 5	00395/Q-20	H. 5	00395/Q-23
H. 6	00391/Q-20	H. 6	00391/Q-23
H. 8	00392/Q-20	H. 8	00392/Q-23
H. 10	00393/Q-20	H. 10	00393/Q-23
H. 12	00394/Q-20	H. 12	00394/Q-23



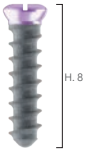
00392/Q-23

COARSE THREAD



00399/Q-20

DIAMETER Ø 2		DIAMETER Ø 2.3	
H. 4	00396/Q-20	H. 4	00387/Q-23
H. 5	00397/Q-20	H. 5	00386/Q-23
H. 6	00398/Q-20	H. 6	00385/Q-23
H. 8	00399/Q-20	H. 8	00384/Q-23
H. 10	00389/Q-20	H. 10	00382/Q-23
H. 12	00388/Q-20	H. 12	00383/Q-23



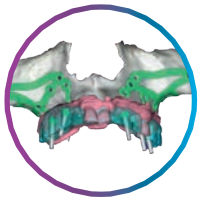
00384/Q-23

WORKFLOW

1. DATA COLLECTION

To create an Iuxta implant project a high-resolution tomographic imaging exam is necessary (Cone Beam CT) with a 0.2 mm section. During the exam it is important that the patient wear a dedicated radiological guide or, even better, a duplicate of the prosthesis with radiopaque markers.

The file obtained is saved in DICOM format, so that it can be read by most segmentation software. We can therefore print the 3D model and create a clear and precise image. This is followed by a double scan, just as in a normal guided surgery case, and matching.



2. DIGITAL DESIGN

From this received data, the B&B Dental Team can proceed with the next steps, analysing:

- The DICOM files (Analysis of structure and bone conformation)
- STL files Master model (View of soft tissue and possible residual teeth)
- STL files model with radiological template (View of prosthesis size and matching).

These data allow the team to correctly create a project with the help of CAD programmes, so as to assess the thickness and morphology of the Iuxta implant, the form and the diameters of the holes for the osteosynthesis screws, the emergency profile of the prosthetic abutments and the type of grids.

3. SLM PRINTING
(SINTER LASER MELTING)

Once the design phase is complete, B&B Dental will send the file with the digital project via email to the clinician for written approval, obtained via the filling in of a specific form, without which production cannot be started (the form can be downloaded online). During this phase, certain processing techniques may be requested, such as a temporary implant in PMMA.

Iuxta implants are produced via SLM technology, a highly-advanced method that creates the implants via titanium micro powders: grids are formed with fused titanium layer by layer, thus avoiding any inaccuracies.

4. PROCESSING AND SHIPPING

The Iuxta implant is monitored and sent to a clean room for cleaning and decontamination operations in a controlled atmosphere and via saturated steam. Packaging is also performed in a clean room. All the production processes are meticulously verified by the quality management system and registered, to guarantee traceability in compliance with the most stringent regulations in force. The sterilization of the sealed envelope containing the Iuxta implant must be performed by the clinic performing the procedure.

B&B DENTAL DIGITAL SUPPORT

Even in the prosthetic field, B&B Dental supports dentists in all of their projects by providing two valid services for design and creation.

A software for guided surgery that can be downloaded from the B&B Dental website and that is clear, user-friendly, suitable for any device and allows you to view CBCTs, convert DICOM files to STL and plan your cases, leaving you with the freedom to work independently but facilitating sharing information with our technicians before finalising a project.

We guide you in all stages of treatment, because thanks to the equipment at our centre we can prepare the prostheses according to the purposes and with the materials you want.