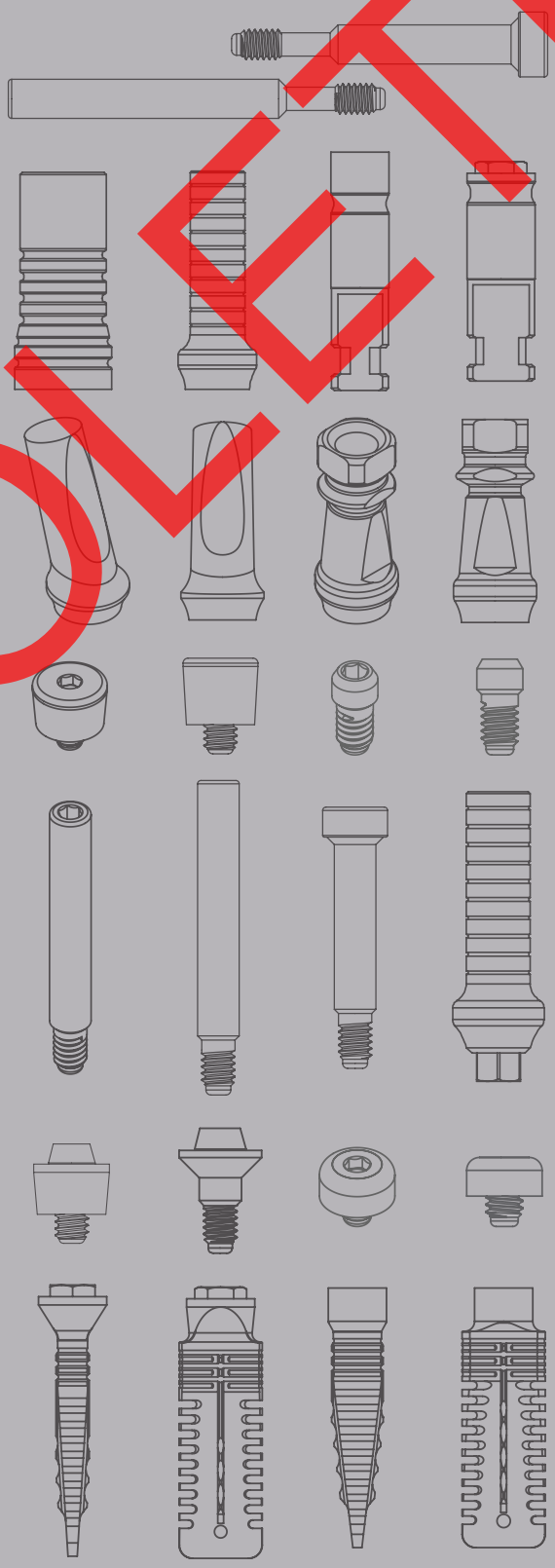
Rex Implants®
minimally invasive technology

PiezoImplant System



Restorative Manual

Narrow Ridges?

Problem Solved

Contents

Contents continued

Device Description

The PiezoImplant System consists of endosseous dental implants, surgical instruments, and restorative components in a variety of dimensions to accommodate differing patient anatomy. PiezoImplants endosseous implants are blade-form having a wedge shape and an apical surface treated with resorbable blast media (grit-blasted and acid passivated). These are provided with a variety of buccolingual thicknesses and lengths.

Cover screws provide protection to the threads of the abutment connection during the tissue healing process. Retention screws fasten the implant and abutment. A variety of PiezoImplant abutments are offered including Straight, Angled, UCLA, Healing, Cylinder, and Multi-unit. Restorations can be screw and/or cement-retained to the abutments. Laboratory analogs, impression transfers, and pins facilitate creation of the prosthetic restoration. A torque of 15 Ncm is recommended for cover screws, coping screws, and healing abutments. A torque of 25 Ncm is recommended for retention screws and all other abutments.

Associated surgical instrumentation includes the alignment pin, fit gauges, hex drivers, thumb knob, removal carriers, Piezosurgery® Handpiece inserts for site preparation, and the REX IPD with attachments for implantation.

Indications for Use

The PiezoImplant System is intended for use in dental implant applications for oral rehabilitation of edentulous and partially dentate patients in the maxilla and mandible. Implant retained restorations may consist of single crowns or bridges as well as complete or partial dentures. The prosthetic components are connected to the implants by the corresponding abutments. The PiezoImplant System is intended for delayed loading.

Contraindications

Do not use the Rex PiezoImplant System in patients who suffer from any medical conditions that make surgery inadvisable or may be otherwise deemed to be a contraindication by the treating dental practitioner. Such conditions may include and not be limited to: heart disease, diabetes, cirrhosis, HIV positivity, puberty, pregnancy or breastfeeding, radiotherapy, chemotherapy, immunosuppressant therapy, parafunctional therapy, and psychiatric disorder. Do not use the Rex PiezoImplant System in the presence of following: bone metabolism disturbances, uncontrolled bleeding disorders, inadequate wound healing capacity, uncompleted growth of the maxilla or mandible, drug or alcohol abuse, xerostomia, weakened immune system, uncontrollable endocrine disorders, steroid use, titanium allergy, an insufficient quantity of bone volume (height and width) at the implant site, untreated periodontal diseases (loosening of the teeth), untreated severe grinding or clenching of the teeth, infections at the operative site or in the neighboring teeth (pockets, cysts, granulomas), including major sinusitis, or poor hygiene of the mouth and teeth and low compliance (uncooperative or unmotivated).

Relative Contraindications

Caution should be exercised in the presence of the following: exposure to long-term use of opioids or bisphosphonate drugs, previously irradiated bone, diabetes mellitus, anticoagulation drugs, hemorrhagic diatheses, unfavorable anatomic bone conditions, temporomandibular joint disorders, tobacco use including moderate to heavy smoking, or an unbalanced relationship between the upper and lower teeth.

Warnings and Precautions

- Techniques required to place and restore dental implants are highly complex, requiring specialized knowledge. Practitioners must be trained in implantology and piezoelectric bone cutting techniques as well as insertion techniques of press-fit implants before using the PiezoImplant System.
- The safe and effective use of implants and associated surgical and restorative devices may be achieved only if qualified surgeons trained in the procedure perform the implant treatment per the instructions provided.
- Devices must be used as supplied. Modifications to implants and surgical instruments may result in serious injury or death. Restorative devices may only be modified as directed.
- A careful biomechanical study must be performed by the surgeon and restorative dentist to determine the optimal oral restoration for each patient. However, a one hundred percent implant success rate cannot be guaranteed.
- The incorrect use or handling of small parts in the patient's oral cavity may lead to inhaling and/or swallowing.
- Unless otherwise specified, reusable device reprocessing has been validated for 50 separate cycles. Removal Carrier BL 2.9 has been validated for 10 separate reuse cycles. Do not reprocess reusable devices if wear and tear is observed. Over-use of a device may harm a patient, reduce surgical effectiveness, and/or lead to the device failure.
- Follow current local regulations and current facility procedure for the safe disposal of devices; devices should be cleaned and sterilized before disposal.
- During the post-operative healing period, it is critical to protect the implant from trauma and promote osseointegration by ensuring adequate clearance between the implant restoration and antagonist teeth, fixed prosthetic bridge elements or removable prosthetic elements.
- Providing instructions to the patient is essential for successful treatment. The patient must be made aware of any limitations of treatment, importance of oral hygiene, avoidance of contraindications, and risk of potential adverse events. During the healing period a soft diet must be prescribed. Patients must be informed to consult a physician if any changes in implant performance occurs including bone resorption, loosening, and/or fracture.
- PiezoImplants may be restored only upon completion of the healing process. Loading must be delayed at least 6 months from implantation. Consult the instructions for use for each PiezoImplant for details on the ability of the implant to support single crowns and the maximum allowable abutment angulation.
- The occlusal load on any PiezoImplant should be similar to that of conventional implants. Avoid traumatic and/or parafunctional contacts in the centric relation, right and left laterality, and protrusion.
- REX TL 1.8 PiezoImplant and angled abutments cannot be used in the posterior region. However, this implant can support a single

crown in the presence of normal masticatory function if placed elsewhere.
- REX BL 2.9 PiezoImplants and angled abutments cannot be used in the posterior region. However, this implant can support a single crown in the presence of normal masticatory function if placed elsewhere.
- REX TL 2.9 PiezoImplant can support a single crown once the osseointegration is completed. If the REX TL 2.9 PiezoImplant is placed in the molar region, a single crown may only be supported in the presence of normal masticatory function.
- Due to the variety of third-party restorative devices available, Rex Implants cannot verify that all device combinations are safe and effective. Therefore, the use of restorative devices manufactured by Rex Implants is strongly recommended.
- If custom abutments are used with implants in the REX TL 1.8 series, the angulation must be no greater than 15°.
- For REX TL 1.8 and REX TL 2.9 implants, do not use multi-unit abutments and related copings for angular or divergence correction of the implant body .
- For REX BL 2.9 implants, do not use multi-unit abutments and related copings for angular or divergence correction of the implant body greater than 30°.
- After implant placement, if more than 40% of a REX TL PiezoImplant surface is exposed (i.e. not surrounded by bone), the implant should be removed from the patient.
- Store devices in a clean, dry, dust-free, dark room at 15° - 30°C.

Potential adverse events

Potential adverse events must be communicated to the patient prior to surgery. Potential adverse events related to the use of dental implants may include: integration failure; integration reduction; wound dehiscence requiring bone graft; jaw bone fracture; the perforation of the following: maxillary sinus, inferior border of the mandible, labial and lingual bone walls, alveolar canal, and gingiva; abscesses, fistulas, suppuration, inflammation, radiotransparency, persistent pain, sensitivity reduction, paresthesia, hyperplasia, excessive bone reduction requiring surgery, implant fracture, systemic infections, nerve lesions or other nerve damage, and vascular lesions or hemorrhaging, which at times may be serious especially in patients undergoing treatment with anticoagulants and/or antiaggregants. Failure to comply with the instructions contained in this document, including reuse of products marked as single-use, may cause harm to the patient, including risk of serious injury or death.

How supplied

The PiezoImplant System restorative components, surgical tray, and surgical instruments are provided non-sterile and must be sterilized prior to use per the instructions provided below. All dental abutments and most restorative devices are indicated as single use.

Cleaning/Reprocessing

The devices in the PiezoImplant System provided non-sterile must be cleaned before initial use. Reusable devices must be cleaned between uses. The cleaning processes should be performed immediately after use to prevent contaminants from drying onto the devices. While it is recommended that the following validated steps are included in a reprocessing protocol, the end-user bears the ultimate responsibility for the cleanliness of the device. These instructions are not intended for implants or devices not manufactured by Rex Implants.

<u>Manual Cleaning/Disinfecting Reprocessing Method</u>

1. Rinse device in cold, potable tap water (< 43°C; < 109°F) to remove debris and prevent coagulation of blood.
2. Prepare a solution of enzyme detergent* and potable tap water at pH 7, according to the manufacturer's instructions.
3. Place the device in a clean container. Add a sufficient amount of solution of enzyme detergent solution in the container to cover completely.
4. Leave the device immersed for 10 minutes at 40°C (104°F). This will reduce the organic residues. When immersed in the solution of enzyme detergent, gently brush any threaded parts and small grooves on the device using a toothbrush with soft bristles made of nylon until all visible contamination is removed.
5. Place the device in an ultrasonic bath containing enzymatic detergent solution at 40°C (104°F) for at least 10 minutes. This will reduce the organic compounds on the devices. After soaking in the ultrasonic bath, gently brush any threaded parts or grooves on the device.
6. Under running, warm, potable tap water and using a toothbrush with soft bristles made of nylon, clean the device thoroughly without damaging the surface. Do this until all visible traces of soil are removed. Carry out the final rinse with distilled water.
7. Finish cleaning and inspect the devices under an appropriate light source, paying attention to details that might house soil (e.g., threads, holes, slots) and if necessary repeat the cleaning cycle.
8. Inspect all devices for any signs of wear and tear. Do not use any device whose integrity is visibly compromised.
9. Dry the device in preparation for sterilization.

*Procedure validated with All-in-One 4 enzyme detergent.

<u>Automated Cleaning/Disinfecting Reprocessing Method</u>

1. Perform a pre-cleaning by following steps 1 - 6 of the Manual Cleaning/Disinfecting Reprocessing Method
2. Lay the pre-cleaned device in a metallic tray and place it in thermodisinfector**.

NOTE: Place the devices in the washing machine so that dead zones do not arise and the water can properly drain. Also, make sure that the devices are properly held in place in the washing basket and cannot move during the washing process, as shocks could damage them.
WARNING: Avoid overloading. Overloading compromises cleaning effectiveness.

3. Set the following sequence and parameters applicable to the cleaning cycle:
   - 3 min, Pre-wash with cold, potable tap water;
   - 5 min, Wash with enzymatic cleaner at 45°C ± 2°C (113°F);
   - 2 min, Rinse with cold, potable tap water;

4. Disinfection:
   – 5 min, Thermodisinfect at 93°C (200°F) with demineralized water following the national requirements about A0 values (thermal disinfection at a temperature of 90°C [200°F] for 5 min results in an A0 value of 3000).
   – 2 min, rinse with cold, de-mineralized water
5. Inspect the devices under an appropriate light source, paying attention to details that might house soil (e.g., threads, holes, slots), and if necessary repeat the cleaning cycle.
6. Inspect all devices for any signs of wear and tear. Do not use any device whose integrity is visibly compromised.
7. Dry the device in preparation for sterilization.

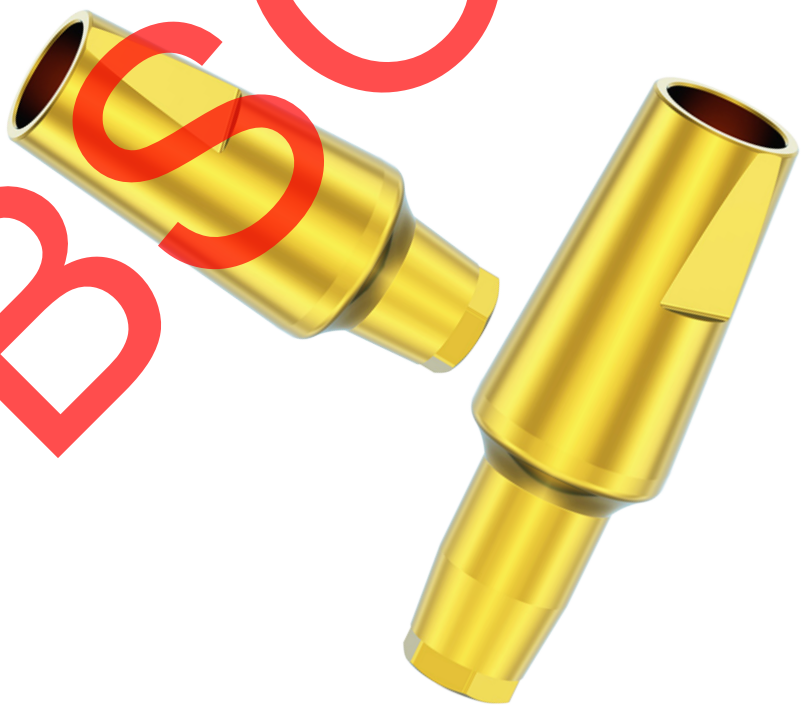
Drying

Before starting the sterilization cycle, make sure that the device is thoroughly dry, both externally and internally. For this purpose, blow compressed air both externally and into/through any holes; this will prevent the onset of stains, haloes, or rust on the device.

Sterilization

The PiezoImplant System abutments, surgical tray, surgical instruments, and restorative accessories are provided non-sterile and must be cleaned and sterilized prior to use. These instructions are not intended for implants or devices not manufactured by Rex Implants. Prior to sterilization, wrap all instruments individually using FDA cleared, standard, self-sealing sterilization pouches that are large enough not to stretch the seal or tear the packaging. Perform drying inside the steam sterilizer in the prevacuum cycle at 132°C (270°F).
All sterilization phases must be performed by the operator in compliance to ANSI/AAMI/ISO 17665-1, EN ISO 556-1, and ANSI/AAMI ST79.
Do not to exceed the maximum load of the autoclave when sterilizing more than one instrument in the same cycle. Sterilization must be carried out using a pre-vacuum autoclave only. Any other sterilization methods must be avoided. At the end of the sterilization cycle, let devices cool down completely prior to use.
Sterilization validation has shown the following recommendations for sterilization to be effective to an SAL of 10^{-6}.

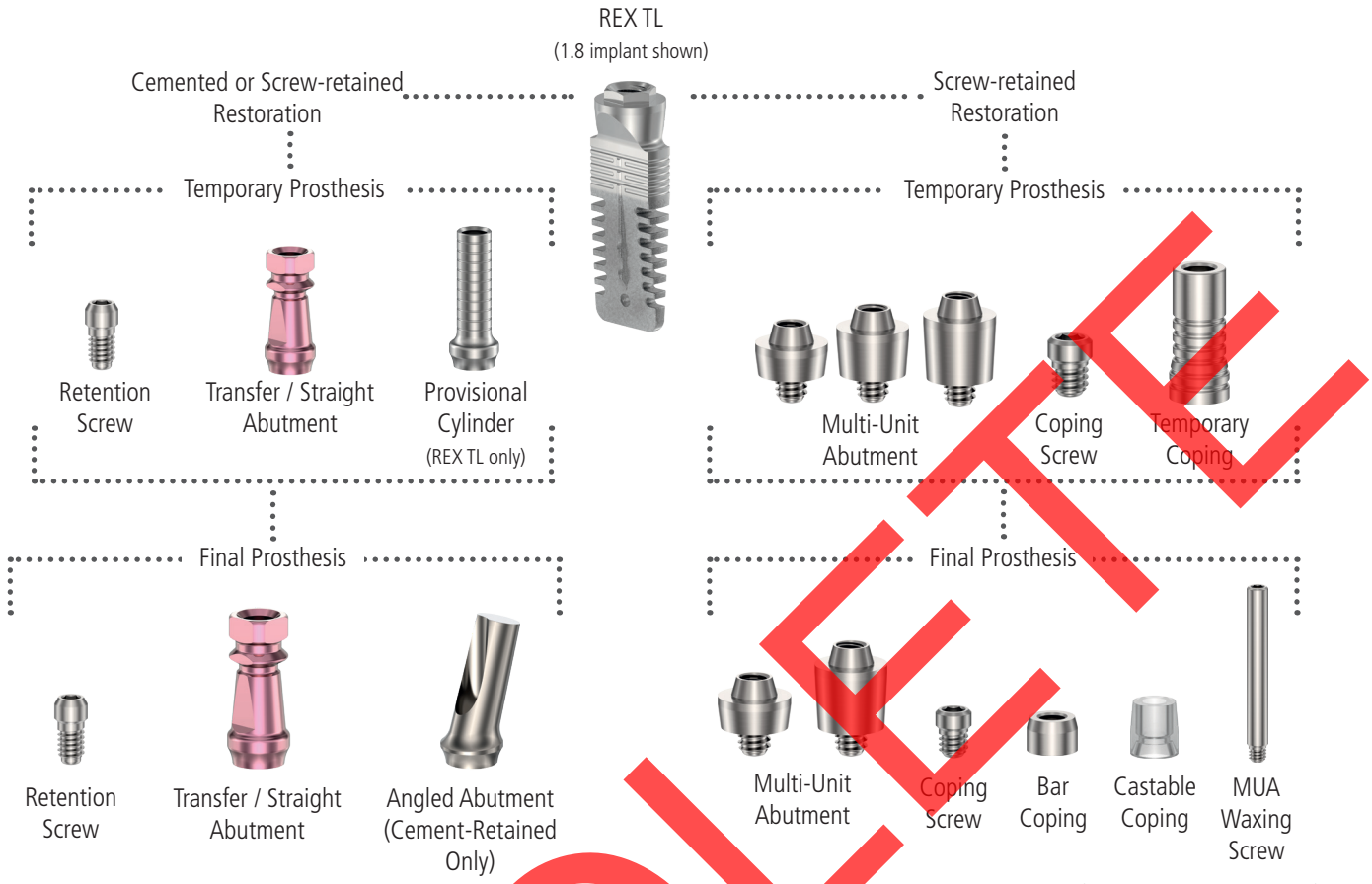
Method: Steam
Cycle: Prevacuum for three cycles
Temperature: 132°C (270°F; tolerance 0°C to +3°C)
Minimum Exposure Time: 4 minutes
Minimum Drying Time: 20 minutes



Reference number and symbol	Title of symbol	Description of symbol per Standard[1]
5.1.1 	Manufacturer	Indicates the medical device manufacturer
5.1.3 	Date of manufacture	Indicates the date when the medical device was manufactured
5.1.4 	Use-by date	Indicates the date after which the medical device is not to be used
5.1.5 	Batch code	Indicates the manufacturer's batch code so that the batch or lot can be identified
5.1.6 	Catalogue number	Indicates the manufacturer's catalogue number so that the medical device can be identified
5.2.4 	Sterilized using irradiation	Indicates a medical device that has been sterilized using irradiation.
5.2.8 	Do not use if package is damaged	Indicates that a medical device should not be used if the package has been damaged or opened and that the user should consult the instructions for use for additional information
5.4.2 	Do not re-use	Indicates a medical device that is intended for one use only
5.4.3 	Consult instructions for use	Indicates the need for the user to consult the instructions for use
5.4.4 	Caution	Indicates that caution is necessary when operating the device or control close to where the symbol is placed, or that the current situation needs operator awareness or operator action in order to avoid undesirable consequences
5.7.7 	Medical device	Indicates the item is a medical device
 **ASMF F2503-23[2]**	MR Conditional	The item poses no known hazards in a specified magnetic resonance imaging (MRI) environment with specified conditions of use
RxOnly **21CFR801.109(b)(1)**	Prescription use only	Caution: Federal law restricts this device to sale only by or on the order of a licensed dentist or physician

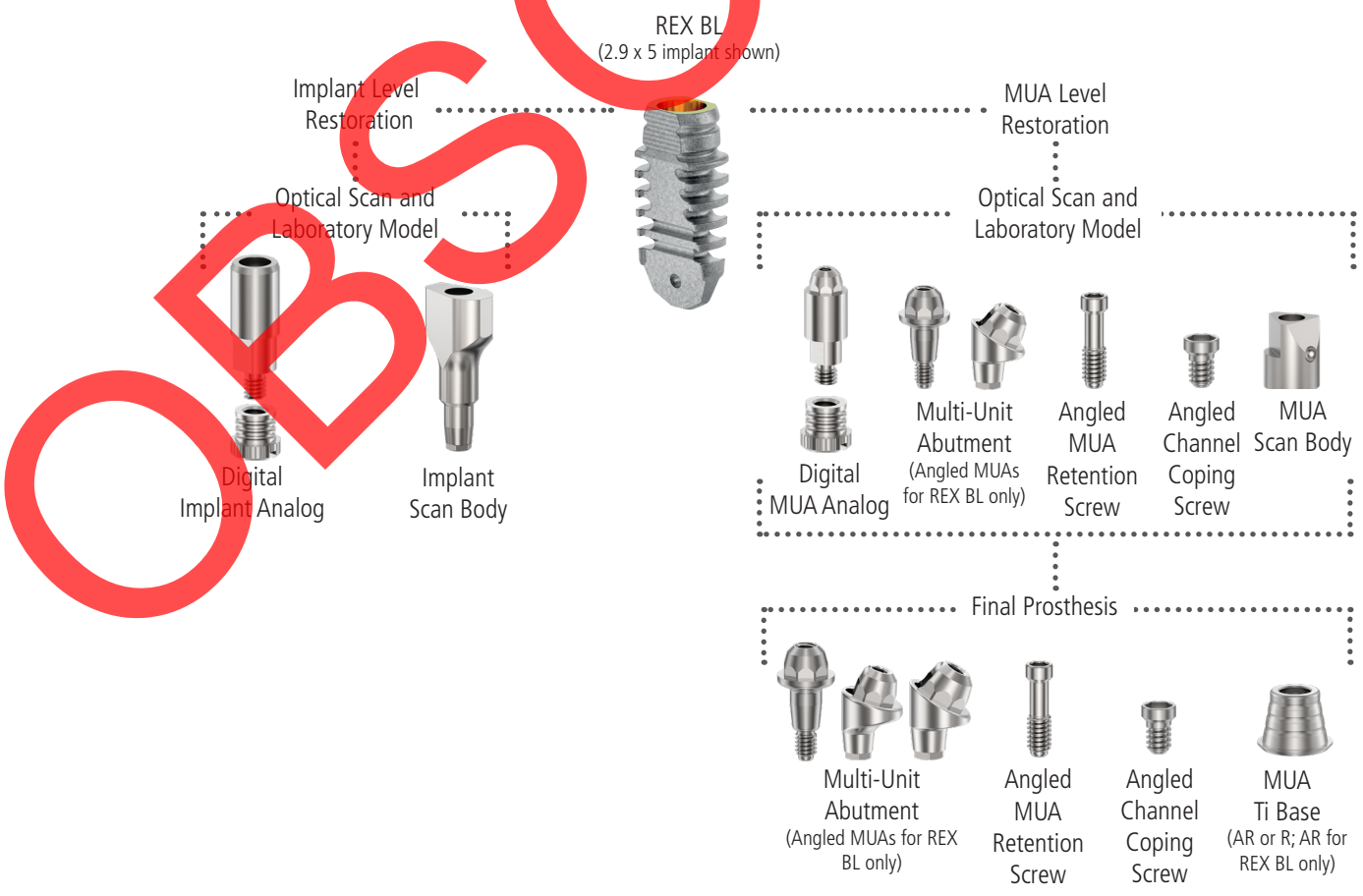
[1] Unless otherwise noted, reference numbers (e.g., 5.1.1) and descriptions from ISO 15223-1:2021, Medical Devices – Symbols to be used with information to be supplied by the manufacturer– Part 1: General requirements, FDA recognized standard # 5-134;
[2] FDA recognized standard #8-602

TRADITIONAL WORKFLOW - AVAILABLE FOR ALL IMPLANTS



(images above are not to scale)

DIGITAL WORKFLOW - AVAILABLE FOR ALL IMPLANTS



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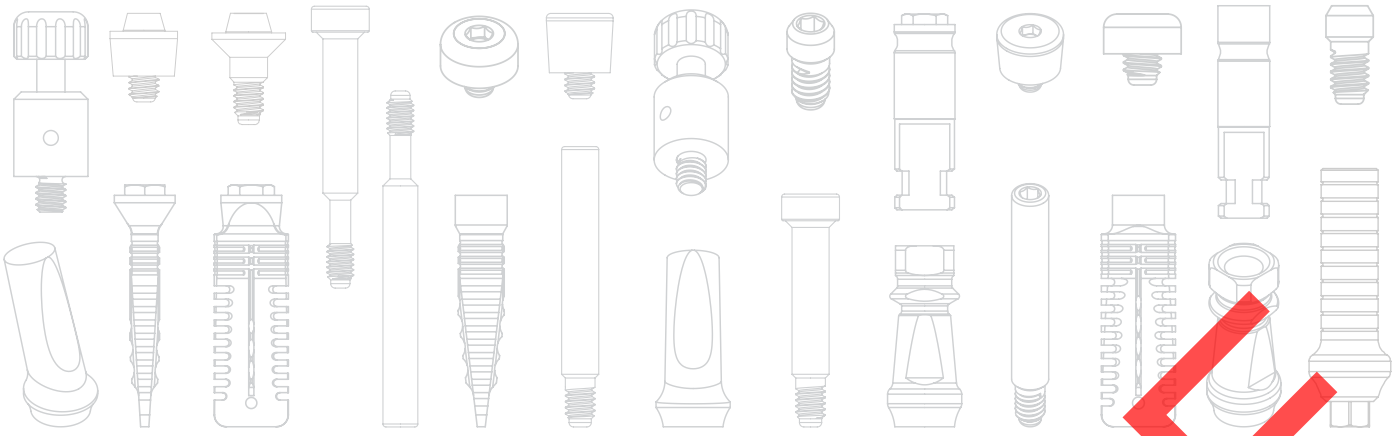


1.1. Prosthetic Connection

REX TL 1.8
Series Platform:
Ø 4.1 mm
External Hex:
2.70 mm

REX TL 2.9
Series Platform:
Ø 3.5 mm
Internal Hex:
2.45 mm

REX BL 2.9
Series Platform:
Ø 2.6 mm
Internal Conical
with Hex

The PiezoImplant wedge shape allows maximizing bone-implant contact in narrow ridges where a conical implant cannot be placed. The restorative connection allows for a similar restoration to traditional implants.

The use of restorative devices manufactured by Rex Implants is strongly recommended. Restorative components have an identifier to designate the PiezoImplant series to which they are compatible (i.e. Angled Abutment TL 1.8, Angled Abutment TL 2.9, or Angled Abutment BL 2.9). Restorative devices with a PiezoImplant identifier are intended for use exclusively with the identified PiezoImplant. Restorative devices to be used with multi-unit abutments have a "MUA" identifier and are to be used exclusively with multi-unit abutments manufactured by Rex Implants. MUA components for bone level (BL) implants are not compatible with multi-unit abutments for tissue level (TL) implants (and vice versa).

Restoration protocols for all PiezoImplant series are identical, so abutment models are often not specified in the remainder of this document.

1.2. Cover Screws

Intended Use: Cover Screws are intended for use as an accessory to endosseous dental implants.

Material: Ti-6Al-4V ELI (anodized)

Furnished sterile when provided with a PiezoImplants; Furnished non-sterile otherwise

Description: Cover Screws cover the PiezoImplant restorative connection during the healing process. A torque of 15 Ncm is recommended to secure a Cover Screw to an implant.

Description	Height Added to Restorative Platform
Cover Screw BL 2.9	0 mm
Cover Screw TL 1.8	2 mm
Cover Screw TL 2.9	0 mm

1.3. Healing Abutments

Intended Use: Healing Abutments are intended for use as an accessory to endosseous dental implants.

Material: Ti-6Al-4V ELI (anodized)

Furnished sterile when provided with a PiezoImplants; Furnished non-sterile otherwise

Description: Healing Abutments covers the abutment connection of PiezoImplants during the healing process.

Name	Available Heights
Healing Abutment BL 2.9	1, 2, 3, 4, 6 mm
Healing Abutment TL 1.8	3, 4 mm
Healing Abutment TL 2.9	1, 2, 3, 4 mm

A torque of 15 Ncm is recommended to secure a Healing Abutment to a PiezoImplant.

NOTE: The names "Cover Screw" and "Healing Abutment" may be used interchangeably in this document as the have the same functional use but differ in height.

1.4. Retention Screws

Intended Use: Retention screws are intended for use as an accessory to endosseous dental implants.

Material: Ti-6Al-4V ELI

Furnished sterile when provided with a PiezoImplants; Furnished non-sterile otherwise

Name	Thread Size
Retention Screw BL 2.9	M1.8
Retention Screw TL 1.8	M2
Retention Screw TL 2.9	M1.8

Description: Retention screw fasten restorative components to dental implants and Lab Analogs. To secure the final assembly, the Retention Screw is to be tightened to a torque of 25 Ncm with a .050" Hex Driver and calibrated torque wrench. Tapered hex drivers will retain the Retention Screws if they are pressed firmly into the hex connection. These devices are provided sterile when pre-assembled to a PiezoImplant and non-sterile when packaged separately. .

1.5. Lab Analogs

Intended Use: Lab Analogs are intended for use as an accessory to endosseous dental implants.

Material: Ti-6Al-4V ELI

Furnished non-sterile

Description: Lab Analogs replicate the position and coronal dimensional features of a dental implant and MUA platforms. Lab Analogs are used in the impression process and creation of a stone model to facilitate the creation of an oral prosthesis. The body of the Lab Analog features undercuts and anti-rotational grooves and has a platform that matches that of the corresponding PiezoImplant or MUA platform.

1.6. Digital Lab Analogs

Intended Use: Digital Lab Analogs are intended for use as an accessory to endosseous dental implants.

Furnished non-sterile

Material: Ti-6Al-4V ELI

Description: Digital Lab Analogs replicate the position and coronal dimensional features of dental implant and MUA platforms. Digital Lab Analogs are used to create three-dimensional models of the upper and/or lower arches based on digital impressions. This model is typically created using additive manufacturing techniques (i.e., 3D printing) or a standard stone cast. The model assembly is utilized to construct an oral prosthesis. The internally-threaded thumb cap fixes the analog to the 3D printed model. The body of the Digital Lab Analog features undercuts, anti-rotational grooves, and a platform that matches that of the corresponding PiezoImplant or MUA.

1.7. Impression Pins

Intended Use: Impression pins are intended for use as an accessory to endosseous dental implants.

Material: Ti-6Al-4V ELI

Furnished non-sterile

Description: The Impression Pin L (long) facilitates the creation of open tray impressions, and the Impression Pin S (short) facilitates the creation of closed tray impressions. Impression Pins may also act as Waxing Screws during the creation of a prosthesis.

1.8. Impression Copings

Intended Use: Impression copings are intended for use as an accessory to endosseous dental implants.

Material: Ti-6Al-4V ELI

Furnished non-sterile

Description: Impression Copings are used to facilitate the creation of impressions during the oral rehabilitation process. Impression Copings are secured to an implant restorative platform by hand-tightened retention screws. Impression Copings are designated for use with either an open tray or closed tray impression procedure.

1.9. Scan Body

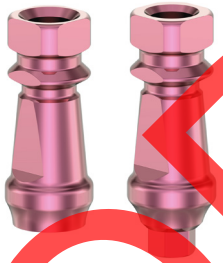
Intended Use: Scan Bodies are intended for use as an accessory to endosseous dental implants.

Furnished non-sterile

Material: Ti-6Al-4V ELI

Description: Scan Bodies are used for digital restorations. Scan Bodies attach to implant platforms with a unique orientation to allow digital impressions to be taken. Once a Scan Body is secured on the implant, full digital impressions of the upper and lower arches may be created using a digital scanner. Hand tightened retention screws are used to fix the scan body onto the implant.

1.10. Transfer / Straight Abutments



Intended Use: Transfer / Straight Abutments are intended for use as an accessory to endosseous dental implants.

Material: Ti-6Al-4V ELI (anodized)

Furnished sterile when provided with a PiezoImplant; Furnished non-sterile otherwise

Description: The Transfer / Straight Abutment is provided pre-assembled to tissue level PiezoImplants, functioning as a pre-attached carrier. This allows for the implant to be safely delivered to the placement site without being directly handled by a clinician. This device also functions as a post to absorb impacts during insertion of a PiezoImplant to an osteotomy. After the implant is properly placed in the patient, the transfer can be used as an impression post, temporary abutment, or final abutment.

When sold separately from the implant, the device is provided non-sterile and labeled as a Straight Abutment. Straight Abutments enable clinicians to restore cases that are periodontally and aesthetically demanding. This permits the development of an emergence profile which is in harmony with the soft tissue. Final margination can be prepared to accurately follow the gingival contours in order to achieve visually appealing aesthetics.

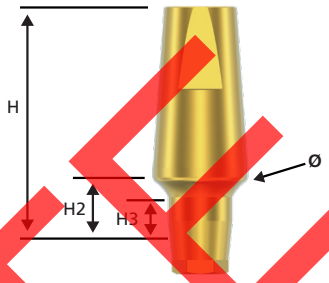
Straight Abutments are designed to be used for cemented or screw-retained restorations and are designed to be installed with a Retention Screw and .050" hex driver. The Straight Abutment may be modified as necessary by a clinician or dental laboratory for the creation of a temporary or final prosthesis. Modify the abutment height to remove the transfer portion (upper 4 mm) with a limitation of a 4 mm abutment post height above the gingival collar. Each abutment should be assembled to the osseointegrated implant by means of a Retention Screw with a calibrated torque wrench set to 25 Ncm.

1.11. Straight Abutments

Intended Use: Straight Abutments are intended for use as an accessory to endosseous dental implants.

Material: Ti-6Al-4V ELI (anodized)

Furnished non-sterile



Description: Straight Abutments enable clinicians to restore cases that are periodontally and aesthetically demanding. This permits the development of an emergence profile which is in harmony with the soft tissue. Final margination can be prepared to accurately follow the gingival contours in order to achieve visually appealing aesthetics. Straight Abutments are designed to be used for cemented or screw-retained restorations and are designed to be installed with a Retention Screw and .050" hex driver.

The Straight Abutment may be modified as necessary by a clinician or dental laboratory for the creation of a temporary or final prosthesis. If abutments are modified, a distance of at least 4 mm from the abutment platform must be maintained for Retention Screw clearance. Each abutment should be assembled to the osseointegrated implant by means of a Retention Screw with a calibrated torque wrench set to 25 Ncm.

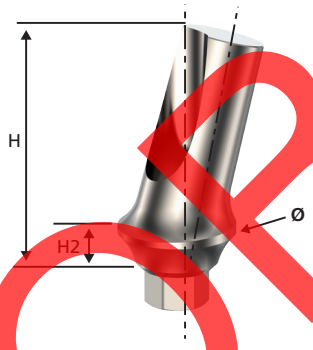
Device	Height (H)	Height to abutment margin (H2)	Straight Section Height (H3)	Margin Diameter (Ø)
Straight Abutment BL 2.9 H1	9 mm	1 mm	0.5 mm	4 mm
Straight Abutment BL 2.9 H2	10 mm	2 mm	1.5	4 mm
Straight Abutment BL 2.9 H3	11 mm	3 mm	2.5 mm	4 mm

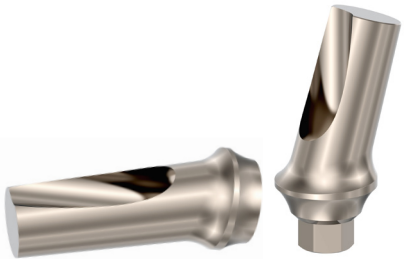
1.12. Angled Abutments

Intended Use: Angled Abutments are intended for use as an accessory to endosseous dental implants.

Material: Ti-6Al-4V ELI

Furnished non-sterile





Description: Angled Abutments offer the clinician a wide range of three-dimensional options for cases where implants are not able to provide alignments leading to clinical parallelism. They are designed to be installed with a Retention Screw and .050" hex driver. Angled Abutments may be modified as necessary for the creation of a temporary or final prosthesis. Angled Abutments may be modified as necessary by reducing the vertical height for the creation of a temporary or final prosthesis with a limitation of a 4 mm abutment post height above the gingival collar. Each abutment must be assembled to the osseointegrated implant by means of a Retention Screw with a calibrated torque wrench set at 25 Ncm.

Device	Height (H)	Height to abutment margin (H2)	Straight Section Height (H3)	Margin Diameter (Ø)	Angle (θ)
Angled Abutment TL 1.8 (15°)	12 mm	1.5 mm	N/A	5 mm	15°
Angled Abutment TL 2.9 (17°)	10 mm	1.5 mm	N/A	5 mm	17°
Angled Abutment BL 2.9 (17°)	11 mm	2 mm	1.5 mm	5 mm	17°

1.13. Provisional Cylinders

Intended Use: Provisional Cylinders are intended for use as an accessory to endosseous dental implants.

Material: Ti-6Al-4V ELI

Furnished non-sterile

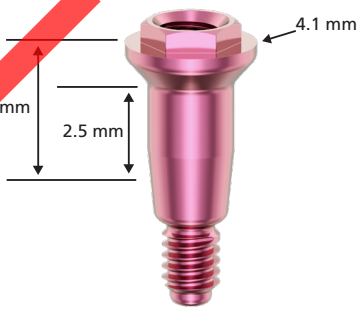
Description: Textured Provisional Cylinders are designed to facilitate temporary restorations and have retentive grooves that engage acrylic temporary materials. Provisional Cylinders are available in single-implant (AR, hexed) and multi-implant (R, non-hexed) designs. These devices are designed to be installed with a Retention Screw and .050" hex driver.

Temporary Provisional Cylinders are manufactured with an extended length designed for customization according to clinical requirements, and therefore should modified as necessary for the creation of a temporary prosthesis with a limitation of a 4 mm abutment post height above the gingival collar.

Each abutment should be assembled to the osseointegrated implant by means of a Retention Screw with a calibrated torque wrench set to 25 Ncm.

1.14. Adapter BL 2.9 to TL 1.8

Intended Use: Adapter BL 2.9 to TL 1.8 are intended for use as an accessory to endosseous dental implants to support a prosthetic device for a partially or fully edentulous patient.

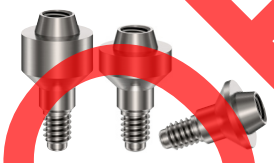


Material: Ti-6Al-4V ELI

Furnished non-sterile

Description: Adapter BL 2.9 to TL 1.8 facilitates screw-retained restorations for fully or partially edentulous patients. Adapter BL 2.9 to TL 1.8 changes the BL 2.9 restorative platform to the TL 1.8 restorative platform. It does not have a hexagonal engagement with the BL implant, but can guarantee the position (anti-rotational) by conical coupling. Each adapter should be assembled to the osseointegrated implant with a calibrated torque wrench set to 25 Ncm.

The platform on the Adapter BL 2.9 to TL 1.8 is identical to the REX TL 1.8 implant platform. All Rex TL 1.8 abutments and screws are compatible with the Adapter BL 2.9 to TL 1.8.



1.15. Multi-unit Abutments

Intended Use: Multi-unit Abutments are intended for use as an accessory to endosseous dental implants to support a prosthetic device for a partially or fully edentulous patient.

Material: Ti-6Al-4V ELI

Furnished non-sterile

Description: Multi-unit Abutments facilitate screw-retained restorations for fully or partially edentulous patients. Multi-unit Abutments are designed to facilitate the fabrication of a multiple-unit screw-retained prosthesis and are used to secure a prosthesis to dental implants. Multi-unit Abutment BL 2.9 also facilitates the creation of single-unit prosthetics. Each abutment should be assembled to the osseointegrated implant with a calibrated torque wrench set to 25 Ncm. A torque of 15 Ncm is recommended for securing copings and/or prosthetic components to a Multi-unit Abutment.

The Multi-unit Abutment platform is identical for the TL 1.8 and TL 2.9 series. The Multi-unit Abutment platform for the BL 2.9 series is unique.

1.15.1. Multi-unit Abutment Accessories

Accessories for the Multi-unit Abutment TL 1.8 series and the Multi-unit Abutment TL 2.9 series are interchangeable. The platform for Multi-unit Abutment BL 2.9 is unique, so Multi-unit Abutment BL 2.9 accessories may not be used with the Multi-unit Abutment TL 1.8 or Multi-unit Abutment TL 2.9 series.

1.15.2. MUA Impression Coping

Intended Use: Impression copings are intended for use as an accessory to Multi-unit Abutments.

Material: Ti-6Al-4V ELI

Furnished non-sterile

Description: MUA (Multi-unit Abutment) Impression Copings are used to facilitate the creation of impressions on MUA platforms during the oral rehabilitation process. MUA Impression Copings are secured directly to a MUA platform by hand-tightened MUA Coping Screws.

1.15.3. MUA Scan Body

Intended Use: MUA Scan Bodies are intended for use as an accessory to Multi-unit Abutments.

Furnished non-sterile

Material: Ti-6Al-4V ELI

Description: MUA (Multi-unit Abutment) Scan Bodies facilitate digital restorations on MUA platforms. MUA Scan Bodies are secured to the MUA platform by hand-tightened MUA Coping Screws. After a MUA Scan Body is secured on the MUA platform, full digital impressions of the upper and lower arches may be created using an intraoral scanner.

1.15.4. MUA Healing Cap

Intended Use: Healing Caps are intended for use as an accessory to Multi-unit Abutments.

Material: Ti6AlV4 ELI (anodized)

Furnished non-sterile

Description: MUA (Multi-unit Abutment) Healing Caps cover the Multi-unit Abutment connection during the healing process.

A torque of 15 Ncm is recommended to secure a MUA Healing Cap to a Multi-unit Abutment.

1.15.5. MUA Temporary Coping

Intended Use: Temporary Copings are intended for use as an accessory to Multi-unit Abutments.

Material: Ti-6Al-4V ELI

Furnished non-sterile

Description: MUA (Multi-unit Abutment) Temporary Copings allow for screw-retained restorations. MUA Temporary Copings are used for the fabrication of a temporary, multiple-unit, screw-retained prosthesis to be secured to a Multi-unit Abutment.

MUA Temporary Copings are manufactured with an extended length designed for customization according to clinical requirements, and therefore should modified as necessary for the creation of a temporary prosthesis. If copings are modified, a distance of at least 3 mm from the MUA platform must be maintained for MUA Coping Screw clearance.

A MUA Coping Screw with a torque of 15 Ncm is recommended for securing prosthetic components to a Multi-unit Abutment.

1.15.6. MUA Bar Coping

Intended Use: Bar Copings are intended for use as an accessory to Multi-unit Abutments.

Material: Ti-6Al-4V ELI

Furnished non-sterile

Description: MUA (Multi-unit Abutment) Bar Copings are used during the fabrication of a multiple-unit, screw-retained prosthesis to be secured a Multi-unit Abutment. A MUA Coping Screw with a torque of 15 Ncm is recommended for securing prosthetic components to a Multi-unit Abutment.

1.15.7. MUA Castable Coping

Intended Use: Castable Copings are intended for use as an accessory to Multi-unit Abutments.

Material: PMMA to assure clean burn-out

Furnished non-sterile

Description: MUA (Multi-unit Abutment) Castable Copings facilitate the fabrication of multiple-unit, screw-retained prosthesis to be secured to a Multi-unit Abutment. A MUA Coping Screw with a torque of 15 Ncm is recommended for securing prosthetic components to a Multi-unit Abutment.

1.15.8. MUA Coping Screw

Intended Use: MUA Coping Screws are intended for use as an accessory to Multi-unit Abutments.

Material: Ti6Al4V ELI

Furnished non-sterile

Description: MUA (Multi-unit Abutment) Coping Screws are designed to fasten copings and multi-unit, screw-retained prosthetics to Multi-unit Abutments. When used to secure a prosthesis to a Multi-unit Abutment, the Coping Screw should be tightened with a torque of 15 Ncm using a calibrated torque wrench and .050" hex driver.

1.15.9. MUA Angled Channel Coping Screw

Intended Use: MUA Angled Channel Coping Screws are intended for use as an accessory to Multi-unit Abutments.

Material: Ti6Al4V ELI

Furnished non-sterile

Device	Thread Size	Driver Size
MUA Angled Channel Coping Screw TL 1.8 / 2.9	M1.8	(0.063") 1.6 mm
MUA Coping Screw TL 1.8 / 2.9	M1.8	(0.050") 1.25 mm
MUA Angled Channel Coping Screw BL 2.9	M1.6	(0.063") 1.6 mm
MUA Coping Screw BL 2.9	M1.6	(0.050") 1.25 mm

Description: MUA (Multi-unit Abutment) Angled Channel Coping Screws are designed to fasten copings and multi-unit, screw-retained prosthetics to Multi-unit Abutments. When used to secure a prosthesis to a Multi-unit Abutment, the MUA Angled Channel Coping Screw should be tightened with a torque of 15 Ncm using a calibrated torque wrench and .063" Hex Driver. The MUA Angled Channel Retention Screw can be accessed by an Angled Channel Driver at angles ranging from 0° to 25°.

1.15.10. MUA Waxing Screw

Intended Use: MUA Waxing Screws are intended for use as an accessory to Multi-unit Abutments.

Material: Ti6AlV4 ELI

Furnished non-sterile

Description: MUA (Multi-unit Abutment) Waxing Screws fasten copings or an unfinished prosthesis to Multi-unit Abutments during the fabrication of a prosthesis.

1.15.11. MUA Ti Bases

Intended Use: MUA Ti Bases are intended for use as an accessory to endosseous dental implants.

Furnished non-sterile

Material: Ti-6Al-4V ELI

Description: MUA (Multi-Unit Abutment) Ti (Titanium) Base copings are used for digital restorations secured to the MUA platform. The MUA Ti Base platform height is 0.5 mm. The maximum diameter is 5.50 mm and total height is 4.0 mm for the TL 1.8 / 2.9 series and 4.4 mm for the BL 2.9 series. These parts cannot be cut shorter due to screw head clearance.

MUA Ti Base AR copings facilitate the custom creation of single-unit prosthetics when anti-rotation of the abutment is required. This allows the placement and removal of single unit, screw-retained crowns even on slightly disparallel MUA platforms.

MUA Ti Base R copings facilitate the custom creation of multi-unit prosthetics when anti-rotation of the abutment is not necessary. This allows the placement and removal of a multi-unit, screw-retained prosthesis even on slightly disparallel MUA platforms. These copings are not suitable for single-unit restorations.

MUA coping screws are used to fix the copings onto the MUA platform using a calibrated torque wrench set at 15 Ncm.

2. Impression Protocols

2.1. Open Tray Implant Impression Technique

- Impression Pin L
- Lab Analog
- Retention Screw
- Transfer / Straight Abutment

1. Take an impression of both the upper and lower arches.
2. Remove Cover Screws and/or Healing Abutments from PiezoImplants.
3. For an open tray (direct) impression technique, use an Impression Pin L to fasten a Transfer / Straight Abutment to each PiezoImplant. The Impression Pin L should be hand-tightened with a .050" Hex Driver.
4. Use a custom tray and prepare holes that will line up with the Transfer / Straight Abutments when the impression is taken. Block out the holes on top of each Impression Pin L and any gaps with the Transfer / Straight Abutment with wax or other suitable material to prevent impression material from entering.
5. Place a light to medium body impression material around each Transfer / Straight Abutment and record a full-arch impression with medium body material. Impression Pins will protrude through the tray.
6. With the tray still in place, unscrew and remove each Impression Pin L. Then remove the tray, capturing the Transfer/ Straight Abutments in the impression material.
7. After removing the impression tray, use an Impression Pin L to fasten the corresponding PiezoImplant Lab Analogs to the Transfer / Straight Abutments, which are still in place in the impression material. Hold replica in place to prevent rotation of the Transfer / Straight Abutments and hand-tighten the Impression Pins using a .050" hex driver. The impression can now be sent to the laboratory for the creation of a stone model. Also send one Retention Screw for each PiezoImplant to be restored.
8. Secure a cover screw or healing abutment to each PiezoImplant with 15 Ncm of torque.

2.2. Closed Tray Implant Impression Technique

- Impression Pin S
- Lab Analog
- Retention Screw
- Transfer / Straight Abutment or Impression Coping - Closed Tray

1. Take an impression of both the upper and lower arches.
2. Remove Cover Screws and/or Healing Abutments from PiezoImplants.
3. For a closed tray (indirect) impression technique, use an Impression Pin S or Retention Screw to fasten a Transfer / Straight Abutment or Impression Coping to each PiezoImplant. The Impression Pin S or Retention Screw should be hand-tightened with a .050" Hex Driver.
4. If using an Impression Pin S, block out the holes on top of each Impression Pin S and any gaps with the Transfer / Straight Abutment with wax or other suitable material to prevent impression material from entering. If using a Retention Screw, block out the holes on top of each Transfer / Straight Abutment or Impression Coping with wax or other suitable material to prevent impression material from entering.
5. Place light to medium body impression material around each Transfer / Straight Abutment or Impression Coping and fill an impression tray with a heavier impression material. Place the filled tray into the patient's mouth and follow the impression material instructions for use to allow the impression material to set. Remove the impression from the patient's mouth.
6. Unscrew each Transfer / Straight Abutment and/or Impression Coping from the implant bodies using a .050" hex driver and hand-tighten to the appropriate Lab Analogs with an Impression Pin S or Retention Screw.
7. Place the Transfer / Straight Abutments and/or Impression Copings back into the impression material with Lab Analogs attached. The impression is now ready to send to the laboratory for fabrication of a stone model. Also send one Retention Screw for each PiezoImplant to be restored.
8. Secure a cover screw or healing abutment to each PiezoImplant with 15 Ncm of torque.

2.3. Digital Implant-Level Impression Technique

- Scan Body
- Retention Screw
- Digital Lab Analog

1. With Healing Abutments and/or Cover Screws attached, use an intraoral scanner to take a digital impression of the occlusion following the manufacturer's instructions, capturing both upper and lower arches.
2. Remove Healing Abutments and/or Cover Screws from PiezoImplants using a 0.05" Hex Driver and set them aside.
3. Following the manufacturer's instructions, use an intraoral scanner to take a digital impression of both the upper and lower arches separately to detect the shape of the teeth and gingiva.
4. Use a Retention Screw to fasten a Scan Body to each PiezoImplant. The Retention Screw should be hand-tightened with a 0.050" Hex Driver. Ensure that each Scan Body is fully seated into the PiezoImplant platform.
5. Following the manufacturer's instructions, use an intraoral scanner to take a digital impression of all Scan Bodies and the surrounding area. Ensure that the scan includes adequate and sufficient details before continuing.
6. Remove the Scan Bodies. Secure Healing Abutments and/or Cover Screws to all PiezoImplants. Tighten to 15 Ncm using a 0.050" hex driver and calibrated torque wrench.
7. Following the manufacturer's instructions, use an intraoral scanner to take a digital impression of the occlusion, capturing both upper and lower arches.
8. Send the scan files, Digital Lab Analogs, Retention Screws, and 0.050" Hex Driver to the laboratory.

2.4. MUA-Level Impression Technique

- MUA Impression Copings
- Coping Screws
- Multi-unit Abutments
- MUA Lab Analogs
- MUA Healing Caps

1. Take an impression of both the upper and lower arches.
2. For a Multi-unit Abutment impression technique, remove MUA Healing Caps from Multi-unit Abutments and set aside. Hand-tighten MUA Impression Copings to the Multi-unit Abutments using a .050" hex driver.
3. Block out the holes on top of each MUA Impression Coping and any gaps with the Multi-unit Abutment with wax or other suitable material to prevent impression material from entering.
4. Place light to medium body impression material around each MUA Impression Coping and fill an impression tray with a heavier impression material. Place the filled tray into the patient's mouth, and follow the impression material instructions for use to allow the impression material to set. Remove the impression from the patient's mouth.
5. Unscrew MUA Impression Copings from the Multi-unit Abutments using a .050" hex driver. Hand-tighten the MUA Impression Copings to MUA Lab Analogs.
6. Place the MUA Impression Copings back into the impression material with the MUA Lab Analogs attached. The impression is now ready to send to the laboratory for fabrication of a stone model.
7. Secure the MUA Healing Caps to the Multi-unit Abutments with 15 Ncm of torque.

2.5. Digital MUA-Level Impression Technique

- MUA Scan Body
- MUA Coping Screw or MUA Angled Channel Coping Screw
- MUA Digital Lab Analog
- MUA Ti Base (optional)

1. With MUA Healing Caps attached, use an intraoral scanner to take a digital impression of the occlusion following the manufacturer's instructions, capturing both upper and lower arches.
2. Remove MUA Healing Abutments from MUA platforms using a 0.05" Hex Driver and set them aside.
3. Use a MUA Coping Screw or MUA Angled Channel Coping Screw to fasten a MUA Scan Body to each MUA platform. Hand-tighten the MUA Coping Screws with a 0.050" Hex Driver or a 0.063" Hex Driver if using the MUA Angled Channel Coping Screws. Ensure that the MUA Scan Body is fully seated on the MUA platform.
4. Following the manufacturer's instructions, use an intraoral scanner to take a digital impression of both the upper and lower arches, separately.
5. Remove the MUA Scan Bodies. Secure MUA Healing Caps to all MUA platforms to 15 Ncm using a 0.050" Hex Driver and calibrated torque wrench.
6. Send the scan files, MUA Digital Lab Analogs, MUA Ti Bases (if required), MUA Coping Screws, MUA Angled Channel Coping Screws (if required), 0.050" Hex Driver, and 0.063" Hex Driver (if required), to the laboratory.

3. Temporary, Cement-Retained Restoration Protocols

3.1. Temporary Cement Retained, Single-Unit Restoration Protocol

- Transfer / Straight Abutment, Straight Abutment, or Provisional Cylinder
- Retention Screw
- Impression Pin L
- Lab Analog

RESTORATIVE DENTIST

1. Follow the steps of Open or Closed Tray Impression Technique. Send the impression, Impression Pin, Transfer/ Straight Abutment, and Retention Screw to the laboratory.

LABORATORY

2. Fabricate a stone model using high hardness, minimal expansion die stone and articulate as appropriate. A soft-tissue model is recommended for subgingival margins. To create a soft-tissue model, apply lubricant in the desired location and syringe a soft tissue replica material around the Lab Analog
3. Set a denture tooth in wax on the cast where the single tooth is missing.
4. Make a vacuum formed template over the denture tooth and adjacent teeth on the cast. Remove the template, denture tooth, and wax from the cast.
5. Place the abutment onto the Lab Analog and engage the hex. Thread an Impression Pin L through the abutment and into the Lab Analog until finger-tight using a .050" hex driver.
6. Reduce the height of the abutment as necessary. Maintain at least 4 mm from the abutment platform to provide adequate Retention Screw clearance. Block out any undercuts apical to the contact points of the adjacent teeth.
7. Cut a hole in the template to accommodate the Impression Pin. Add acrylic resin to the abutment and template and place the template on the cast to form the single-unit provisional crown. Allow the acrylic resin to set per the manufacturer's instructions. Remove the Impression Pin and template from the cast. Remove the provisional crown from the template.
8. Place the Laboratory Analog onto the restorative platform. Fill any voids around the subgingival area. Contour and polish the crown. Place the crown back onto the cast and thread a Retention Screw into the Lab Analog until finger-tight. Adjust the occlusion as necessary. Send the stone model with modified abutment, Retention Screw, and crown to the restorative dentist.

RESTORATIVE DENTIST

9. Sanitize and sterilize the abutment, Retention Screw, and prosthesis.
10. Remove the Cover Screw and/or Healing Abutment from the PiezoImplant using a sterile .050" hex driver. Ensure that no bone or soft tissue is present on the implant restorative platform. Irrigate and then clean the PiezoImplant with cotton with 0.12% chlorhexidine and dry.
11. Seat the abutment on the PiezoImplant in the patient, maintaining the same orientation as on the model. Secure with a Retention Screw hand-tightened with a .050" hex driver. Radiographically verify abutment seating.
12. Tighten the Retention Screw to 25 Ncm with a .050' hex driver and calibrated torque wrench. Use an abutment clamp to grasp the abutment and provide counter torque.
13. Place a resilient material of choice (gutta-percha, silicone or temporary filling material) into the screw access hole and fill the remaining channel with composite or another material of choice. This allows easy access to the abutment screw in the future.
14. Place the provisional restoration onto the abutment prior to cementation. Check the occlusion and contacts. There should only be a light contact in centric occlusion and no contact in lateral excursions.
15. Modify as necessary and polish after making adjustments. Coat the inside margin of the prosthesis with temporary cement and seat on the abutment. Remove any excess cement and take x-rays to verify that all excess cement has been removed.
16. 1Make any additional adjustments as necessary and polish the restoration.
17. Take X-rays for patient records and provide the patient with instructions for proper oral hygienic care of the prosthesis and implant.

3.2. Temporary Cement Retained, Multiple-Unit Restoration Protocol

- Transfer / Straight Abutment, Straight Abutment, or Provisional Cylinder
- Retention Screw
- Impression Pin L
- Lab Analog

RESTORATIVE DENTIST

1. Follow the steps for Open or Closed Tray Impression technique. Send the impression, Impression Pins, Transfer / Straight Abutments, and Retention Screws to the laboratory.

LABORATORY

2. Fabricate a stone model using high hardness, minimal expansion die stone and articulate as appropriate. A soft-tissue model is recommended for subgingival margins. To create a soft-tissue model, apply lubricant in the desired location and syringe a soft tissue replica material around the Lab Analog.
3. Set denture teeth on the cast where the multiple-unit fixed provisional restoration will be fabricated.
4. Make a vacuum formed template over the denture teeth and adjacent teeth. Remove the template, denture teeth, and wax from the cast.
5. Place abutments onto the Lab Analogs. Thread the Impression Pins (L) through the abutments and into the Lab Analogs until finger-tight using a .050" hex driver. Seal the margin between each Impression Pin L and abutment with wax.
6. Reduce or adjust the abutment as necessary. Maintain at least 4 mm from the abutment platform to provide adequate Retention Screw clearance. The abutments may be connected with ortho-wire or a framework may be waxed and cast to support a pontic. Block out any undercuts apical to the contact points of the adjacent teeth.
7. Cut holes in the template for the Impression Pins. Add acrylic resin to the abutments and inside the template to form the provisional prosthesis. Place the template on the cast. Allow the acrylic resin to set per the template from the cast. Remove the provisional prosthesis from the template.
8. Fill in any voids around the subgingival areas. Remove any excess material, and contour and polish the prosthesis. Place the prosthesis back on the cast and thread Retention Screws into the Lab Analogs until finger-tight. Adjust the occlusion as necessary. Send the stone model with abutments, Retention Screws, and prosthesis to the restorative dentist.

RESTORATIVE DENTIST

9. Sanitize and sterilize the abutments, Retention Screws, and prosthesis.
10. Remove the Cover Screws and/or Healing Abutments from the PiezoImplants using a sterile .050" hex driver. Ensure that no bone or soft tissue is present on the implant restorative platform. Irrigate and then clean the PiezoImplants with cotton with 0.12% chlorhexidine and dry. I
11. Seat the abutment on the PiezoImplant in the patient, maintaining the same orientation as on the model. Secure with a Retention Screw hand-tightened with a .050" hex driver and calibrated torque wrench. Radiographically verify abutment seating.
12. Tighten the Retention Screw to 25 Ncm with a .050' hex driver and calibrated torque wrench. Use an abutment clamp to grasp the abutment and provide counter torque.
13. Place a resilient material of choice (gutta-percha, silicone or temporary filling material) into the screw access holes and fill the remaining channels with composite or another material of choice. This allows easy access to the Retention Screws in the future.
14. Place the provisional restoration onto the abutments prior to cementation. Check the occlusion and contacts. There should only be a light contact in centric occlusion and no contact in lateral excursions. Modify as necessary and polish after making adjustments.
15. Coat the inside margin of the prosthesis with temporary cement and seat on the abutment. Remove any excess cement and take x-rays to verify that all excess cement has been removed. Make any additional adjustments as necessary and polish the restoration.
16. Take X-rays for patient records and provide the patient with instructions for proper oral hygienic care of the prosthesis and implants.

4. Temporary, Screw-Retained Restoration Protocols

4.1. Temporary Screw-Retained, Single-Unit Restoration Protocol

- Transfer / Straight Abutment, Straight Abutment, or Provisional Cylinder
- Retention Screw
- Impression Pin L
- Lab Analog

RESTORATIVE DENTIST

1. Follow the steps for Open or Closed Tray Impression Technique. Send the Impression Pin, Transfer/ Straight Abutment, and Retention Screw to the laboratory.

LABORATORY

2. Fabricate a stone model using high hardness, minimal expansion die stone and articulate as appropriate. A soft-tissue model is recommended for subgingival margins. To create a soft-tissue model, apply lubricant in the desired location and syringe a soft tissue replica material around the Lab Analog.
3. Set a denture tooth in wax on the cast where the single tooth is missing.
4. Make a vacuum-formed template over the denture tooth and adjacent teeth on the cast. Remove the template, denture tooth, and wax from the cast.
5. Place an abutment onto the Lab Analog and engage the hex. Thread an Impression Pin L through the abutment and into the Lab Analog until finger-tight using a .050" Hex Driver. Seal the margin between the Impression Pin L and abutment with wax
6. Reduce the height of the abutment as necessary. Maintain at least 4 mm from the abutment platform to provide adequate Retention Screw clearance. Block out any undercuts apical to the contact points of the adjacent teeth.
7. Cut a hole in the template to accommodate the Impression Pin L. Add acrylic resin to the abutment and template and place the template on the cast to form the single-unit provisional crown. Allow the acrylic resin to set per the manufacturer's instructions. Remove the Impression Pin L and template from the cast. Remove the provisional crown from the template.
8. Place the provisional crown onto the restorative platform on the stone model. Fill any voids around the subgingival area. Contour and polish the crown. Place the crown back onto the cast and thread a Retention Screw into the Lab Analog until finger-tight. Adjust the occlusion as necessary. Send the stone model with crown and Retention Screw back to the restorative dentist.

RESTORATIVE DENTIST

9. Sanitize and sterilize the provisional crown and Retention Screw.
10. Remove the Cover Screw or Healing Abutment from the PiezoImplant using a sterile .050" hex driver. Ensure that no bone or soft tissue is present on the implant restorative platform. Irrigate and then clean the PiezoImplant with cotton with 0.12% chlorhexidine and dry.
11. Place the single-unit provisional crown on the PiezoImplant, engaging the hex and maintaining the same orientation as on the model. Thread the Retention Screw into the PiezoImplant until finger-tight using a .050" hex driver. Check the interproximal and occlusal contacts and make any necessary occlusal adjustments. Radiograph the interface to verify an accurate fit
12. Tighten the Retention Screw to 25 Ncm using a .050" hex driver and calibrated torque wrench.
13. Place protective material into the screw access opening. Seal the access opening with temporary filling material and composite resin.
14. Take X-rays for patient records and provide the patient with instructions for proper oral hygienic care of the prosthesis and implant.

4.2. Temporary Screw-Retained, Multiple-Unit Restoration Protocol with Provisional Cylinders or Straight Abutments

- Transfer / Straight Abutment, Straight Abutment, or Provisional Cylinder
- Retention Screw
- Impression Pin L
- Lab Analog

RESTORATIVE DENTIST

1. Follow the steps for Open or Closed Tray Impression technique. Send the impression, Impression Pins, Transfer / Straight abutments, and Retention Screws to the laboratory.

LABORATORY

2. Fabricate a stone model using high hardness, minimal expansion die stone and articulate as appropriate. A soft-tissue model is recommended for subgingival margins. To create a soft-tissue model, apply lubricant in the desired location and syringe a soft tissue replica material around the Lab Analog
3. Set denture teeth on the cast where the multiple-unit fixed provisional restoration will be fabricated.
4. Make a vacuum formed template over the denture teeth and adjacent teeth. Remove the template, denture teeth, and wax from the cast.
5. Select abutments and place them onto the Lab Analogs. Thread the Impression Pins (L) through the abutments and into the Lab Analogs until finger-tight using a .050" hex driver. Seal the margin between each Impression Pin L and abutment with wax.
6. Reduce or adjust the abutments as necessary. Maintain at least 4 mm from the abutment platform to provide adequate Retention Screw clearance. The abutments may be connected with ortho-wire or a framework may be waxed and cast to support a pontic. Block out any undercuts apical to the contact points of the adjacent teeth.
7. Cut holes in the template for the Impression Pins. Add acrylic resin to the abutments and inside the template to form the provisional prosthesis. Place the template on the cast. Allow the acrylic resin to set per the template from the cast. Remove the provisional prosthesis from the template.
8. Fill in any voids around the subgingival areas. Remove any excess material, and contour and polish the prosthesis. Place the prosthesis back on the cast and thread Retention Screws into the Lab Analogs until finger-tight. Adjust the occlusion as necessary. Send the stone model with prosthesis and Retention Screws to the restorative dentist.

RESTORATIVE DENTIST

9. Sanitize and sterilize the prosthesis and Retention Screws.
10. Remove the Cover Screws and/or Healing Abutments from the PiezoImplants using a sterile .050" hex driver. Ensure that no bone or soft tissue is present on the implant restorative platform. Irrigate and then clean the PiezoImplants with cotton with 0.12% chlorhexidine and dry.
11. Place the multiple-unit provisional restoration onto the PiezoImplants, maintaining the same orientation as on the model. Thread Retention Screws into the PiezoImplants until finger-tight using a .050" hex driver. Check the interproximal and occlusal contacts and make any necessary occlusal adjustments. Radiograph the interface to verify an accurate fit.
12. Tighten the Retention Screws to 25 Ncm using a .050" hex driver and calibrated torque wrench.
13. Seal the access openings with temporary filling material and composite resin.
14. Take X-rays for patient records and provide the patient with instructions for proper oral hygienic care of the prosthesis and implants.

4.3. Temporary Screw-Retained, Multiple-Unit Restoration Technique with Multi-unit Abutments

- Multi-unit Abutment
- Temporary Coping
- Coping Screw

RESTORATIVE DENTIST

1. Select, clean, and sterilize appropriate Multi-unit Abutments. Multi-unit Abutments should provide a 1 to 2 mm supragingival margin when not placed in the aesthetic zone. Clean and sterilize Temporary Copings and Coping Screws.
2. Remove the MUA Healing Cap from the implants using a sterile .050" hex driver. Ensure that no bone or soft tissue is present on the implant restorative platforms. Irrigate and clean the PiezoImplants with cotton with 0.12% chlorhexidine and dry.
3. Secure the selected abutments to the PiezoImplants with a torque of 25 Ncm using a .050" hex driver and calibrated torque wrench.
4. Place a Temporary Coping on each Multi-unit Abutment. Secure the copings with Coping Screws until finger-tight using a .050" hex driver.
5. Cut holes in a sterile rubber dam and place over the Temporary Copings to protect the patient's tissue.
6. Create holes in a clean, sterile denture corresponding to the location of each Temporary Coping. Modify until the denture fully seats.
7. Block off the screw access holes of each Temporary Coping with wax. Secure each Temporary Coping to the denture by applying flowable composite between the denture and Temporary Coping.
8. Remove Coping Screws and then remove the modified denture from the mouth. Shorten the Temporary Copings as necessary ensuring to maintain at least 4 mm from the Multi-unit Abutment platform to provide adequate Coping Screw clearance. Remove any sharp edges or flanges and fill voids with acrylic. Finish and polish as necessary.
9. Place the modified denture back on to the Multi-unit Abutments. Thread a Coping Screw into the most distal abutment until finger-tight using a .050" hex driver. Verify visually or radiographically that the prosthetic interface is fully seated. Repeat with all other abutments.
10. If the modified denture lifts when a Coping Screw is tightened, the fit is not passive. Modify the denture as appropriate to achieve a passive fit.
11. When a passive fit has been achieved, take a radiograph along the long axis of the implants to verify correct seating of the denture. Tighten each Coping Screw to 15 Ncm using a .050" hex driver and calibrated torque wrench.
12. Fill in the screw-access holes of the modified denture with a temporary filling material and check the occlusion, making any adjustments as necessary. Provide adequate space for hygiene access around all abutments.
13. Take X-rays for patient records and provide the patient with instructions for proper oral hygienic care of the prosthesis and implants.

5. Final Cement-Retained Restoration Protocols

5.1. Final Cement-Retained Restoration Protocols

- Transfer / Straight Abutment, Straight Abutment, or Angled Abutment
- Retention Screw
- Lab Analog

RESTORATIVE DENTIST

1. Remove the Cover Screw / Healing Abutment / temporary restoration from the implant using a .050" hex driver. Follow the steps for Open or Closed Tray Impression Technique. Send the impression, Impression Pin, Transfer/ Straight Abutment, and Retention Screw to the laboratory.

LABORATORY

2. Fabricate a stone model using high hardness, minimal expansion die stone and articulate as appropriate. A soft-tissue model is recommended for subgingival margins. To create a soft-tissue model, apply lubricant in the desired location and syringe a soft tissue replica material around the Lab Analog
3. Select an abutment and place it on the Lab Analog, engaging the hex.
4. Secure the abutment with a Retention Screw until finger tight using a .050" hex driver. Evaluate the abutment for ideal emergence, angulation, parallelism, and crown margins. Mark the abutment for necessary adjustments.
5. Remove the abutment from the stone model and reduce and/or adjust the abutment as necessary. Maintain at least 4 mm from the abutment platform to provide adequate Retention Screw clearance. A diamond burr is recommended for modification of the margins.
6. Return the abutment to the stone model and make final adjustments, respecting the soft tissue contours. In esthetic areas, the margin should be 0.5 -1 mm subgingival. In non-esthetic areas, the gingiva should be at or above the gingiva. Block out abutment screw holes and apply die spacer.
7. Create a wax coping on the modified abutment following standard procedures. Carefully remove the coping from the abutment.
8. Sprue, invest, and cast the coping in a noble alloy or high noble allow following the manufacturer's instructions. Chemically divest, fit, and finish the coping following standard procedures.
9. Place the cast coping back onto the modified abutment in the stone model. Stain and glaze porcelain onto the prosthetic framework following standard procedures. Polish the prosthesis with a polishing protector in place. Send the modified abutment, prosthesis (crown), Retention Screw, and stone model to the restorative dentist.

RESTORATIVE DENTIST

10. Sanitize and sterilize the modified abutment, Retention Screw, and crown.
11. Remove the Cover Screw / Healing Abutment / provisional prosthesis from the PiezoImplant using a sterile .050" hex driver. Ensure that no bone or soft tissue is present on the implant restorative platform. Irrigate and then clean the PiezoImplant with cotton with 0.12% chlorhexidine and dry.
12. Place the modified abutment on the implant, engaging the hex and maintaining the same orientation as on the model. Thread the Retention Screw into the implant until finger-tight using a .050" hex driver. Check the interproximal and occlusal contacts and make any necessary occlusal adjustments. Radiograph the interface to verify an accurate fit.
13. Tighten the Retention Screw to 25 Ncm with a .050" hex driver and calibrated torque wrench. Use an abutment clamp to grasp the abutment and provide counter torque.
14. Seal the screw-access channel with a material that will allow easy access to the screw thread.
15. Place the finished crown on the abutment. Verify the marginal fit and contour of the final prosthesis and check the occlusion. Make any final adjustment or finishing if necessary.
16. Use a cement of choice to secure the final prosthesis to the modified Angled Abutment. Remove any excess cement and take x-rays to verify that all excess cement has been removed.
17. Take X-rays for patient records and provide the patient with instructions for proper oral hygienic care of the prosthesis and implant.

5.2. Final Cement-Retained, Single-Unit Restoration Protocol

- Transfer / Straight Abutment, Straight Abutment, or Angled Abutment
- Retention Screw
- Lab Analog

RESTORATIVE DENTIST

1. Remove the Cover Screw / Healing Abutment / temporary restoration from the implants using a .050" hex driver. Follow the steps for Open or Closed Tray Impression Technique. Send the impression, Impression Pins, Transfer/ Straight Abutments, and Retention Screws to the laboratory.

LABORATORY

2. Fabricate a stone model using high hardness, minimal expansion die stone and articulate as appropriate. A soft-tissue model is recommended for subgingival margins. To create a soft-tissue model, apply lubricant in the desired location and syringe a soft tissue replica material around the Lab Analog
3. Select abutments and place them on the Lab Analogs, engaging the hex.
4. Secure the abutments with a Retention Screws until finger tight using a .050" hex driver. Evaluate the abutments for ideal emergence, angulation, parallelism, and crown margins. Mark the abutments for necessary adjustments.
5. Remove the abutments from the stone model and reduce and/or adjust the abutments as necessary. Maintain at least 4 mm from the abutment platform to provide adequate Retention Screw clearance. A diamond burr is recommended for modification of the margins. Create markings to ensure correct orientation of the abutments on the stone model.
6. Return the abutments to the stone model and make final adjustments, respecting the soft tissue contours. In esthetic areas, the margin should be 0.5 -1 mm subgingival. In non-esthetic areas, the gingiva should be at or above the gingiva. Block out abutment screw holes and apply die spacer.
7. Create a wax framework on the modified abutments following standard crown and bridge procedures. Carefully remove the framework from the abutments.
8. Sprue, invest, and cast the framework in a noble alloy or high noble allow following the manufacturer's instructions. Chemically divest, fit, and finish the framework following standard procedures.
9. Place the cast framework back onto the modified abutments in the stone model. Ensure that it fits passively. Send the stone model with abutments, Retention Screws, and framework back to the clinician.

RESTORATIVE DENTIST

10. Sanitize and sterilize the modified abutments, Retention Screws, and framework.
11. Remove the Cover Screws / Healing Abutments / provisional prosthesis from the PiezoImplants using a sterile .050" hex driver. Ensure that no bone or soft tissue is present on the implant restorative platforms. Irrigate and then clean the PiezoImplants with cotton with 0.12% chlorhexidine and dry.
12. Place the modified abutments on the implants, engaging the hex and maintaining the same orientation as on the model. Thread Retention Screws into the implants until finger-tight using a .050" hex driver. Take a radiograph along the long axis of the implants to verify correct seating of the abutments.
13. Try in the bridge framework and confirm a passive fit. Remove the framework and modified abutments. Replace each modified abutment as is removed with a Cover Screw, Healing Abutment, or prosthesis as appropriate.
14. Send the stone model, framework, modified abutments, and Retention Screws back to the laboratory.

LABORATORY

15. Place the abutments and framework back onto the stone model. Stain and glaze porcelain onto the prosthetic framework following standard procedures. Polish the prosthesis with a polishing protector in place. Send the stone model with modified abutments, Retention Screws, and framework back to the clinician.

RESTORATIVE DENTIST

16. Sanitize and sterilize the modified abutments and prosthesis.
17. Remove the Cover Screws / Healing Abutments / provisional prosthesis from the PiezoImplants using a sterile .050" hex driver. Ensure that no bone or soft tissue is present on the implant restorative platforms. Irrigate and then clean the PiezoImplants with cotton with 0.12% chlorhexidine and dry.
18. Place the modified abutments on the implants, engaging the hex and maintaining the same orientation as on the model. Thread Retention Screws into the implants until finger-tight using a .050" hex driver. Take a radiograph along the long axis of the implants to verify correct seating of the abutments.
19. Tighten the Retention Screws to 25 Ncm with a .050" hex driver and calibrated torque wrench. Use an abutment clamp to grasp each abutment and provide counter torque.
20. Seal the screw-access channels with a material that will allow easy access to the screw thread.
21. Place the final restoration on to the modified abutments. Verify the marginal fit and contour of the final prosthesis and check the occlusion. Make any final adjustment or finishing if necessary.
22. Use a cement of choice to secure the final prosthesis to the modified Angled Abutment. Remove any excess cement and take x-rays to verify that all excess cement has been removed.
23. Take X-rays for patient records and provide the patient with instructions for proper oral hygienic care of the prosthesis and implants.

6. Final Screw-Retained Restoration Protocol

6.1. Final Screw-Retained, Single-Unit Restoration Protocol

- Castable Abutment AR
- Retention Screw
- Impression Pin L
- Lab Analog

RESTORATIVE DENTIST

1. Remove the Cover Screw / Healing Abutment / temporary restoration from the implant using a .050" hex driver. Follow the steps for Open or Closed Tray Impression Technique. Send the impression, Impression Pin, transfer/ straight abutment, and Retention Screw to the laboratory.

LABORATORY

2. Fabricate a stone model using high hardness, minimal expansion die stone and articulate as appropriate. A soft-tissue model is recommended for subgingival margins. To create a soft-tissue model, apply lubricant in the desired location and syringe a soft tissue replica material around the Lab Analog
3. Place the abutment on the Lab Analog, engaging the hex. Thread an Impression Pin L through the abutment and into the Lab Analog until finger tight using a .050" hex driver. Reduce or adjust the plastic sleeve as necessary. Maintain at least 4 mm from the abutment platform to provide adequate Retention Screw clearance.
4. Add wax and/or acrylic burnout resin to form a custom abutment with ideal emergence, angulation, parallelism, and crown margins. In esthetic areas, the margin should be 0.5 -1 mm subgingival. In non-esthetic areas, the margin should be at or above the gingiva. Remove the Impression Pin L and carefully remove the wax abutment from the Lab Analog.
5. Sprue, invest, and cast the abutment in a noble alloy or high noble allow following the manufacturer's instructions. Chemically divest, fit, and finish the coping following standard procedures.
6. Place the cast abutment back onto the Lab Analog in the cast and thread an Impression Pin into the Lab Analog until finger tight. Opaque and build porcelain on the single-unit coping. Stain and glaze the porcelain. Polish the abutment with a polishing protector in place. Send the stone model with crown and Retention Screw to the restorative dentist.

RESTORATIVE DENTIST

7. Sanitize and sterilize the cast abutment and Retention Screw.
8. Remove the Cover Screw / Healing Abutment / provisional prosthesis from the PiezoImplant using a sterile .050" hex driver. Ensure that no bone or soft tissue is present on the implant restorative platform. Irrigate and then clean the PiezoImplant with cotton with 0.12% chlorhexidine and dry.
9. Place the crown onto the implant. Secure with a Retention Screw hand-tightened with a .050" hex driver.
10. Adjust the occlusion, marginal fit and interproximal contacts as needed. Place protective material into the screw access opening. Seal the access opening with temporary filling material and composite resin. Make any occlusal adjustments as necessary. Radiograph the interface of the implant to verify an accurate fit.
11. Tighten the Retention Screw to 25 Ncm using a .050" hex driver and calibrated torque wrench.
12. Seal the screw-access channel with a material that will allow easy access to the screw thread. Fill the remainder of the screw-access channel with a resin material.
13. Take X-rays for patient records and provide the patient with instructions for proper oral hygienic care of the prosthesis and implant.

6.2. Final Screw-Retained, Multiple-Unit Restoration Protocol

- Castable Abutment R
- Retention Screw
- Impression Pin L
- Lab Analog

RESTORATIVE DENTIST

1. Remove the Cover Screw / Healing Abutment / temporary restoration from the implants using a .050" hex driver. Follow the steps for Open or Closed Tray Impression Technique. Send the impression, Impression Pins, Transfer/ Straight Abutments, and Retention Screws to the laboratory.

LABORATORY

2. Fabricate a stone model using high hardness, minimal expansion die stone and articulate as appropriate. A soft-tissue model is recommended for subgingival margins. To create a soft-tissue model, apply lubricant in the desired location and syringe a soft tissue replica material around the Lab Analog
3. Place the abutments on the Lab Analogs, engaging the hex. Thread Impression Pins (L) into the Lab Analogs until finger tight using a .050" hex driver. Reduce or adjust the plastic sleeves as necessary. Maintain at least 4 mm from the abutment platform to provide adequate Retention Screw clearance.
4. Add wax and/or acrylic burnout resin to form a custom framework with ideal emergence, angulation, parallelism, and crown margins. In esthetic areas, the margin should be 0.5 -1 mm subgingival. In non-esthetic areas, the gingiva should be at or above the gingiva. Remove the Impression Pins and carefully remove the wax framework from the Lab Analog.
5. Sprue, invest, and cast the wax framework in a noble alloy or high noble alloy following the manufacturer's instructions. Chemically divest, fit, and finish the coping following standard procedures. Send the stone model with framework and Retention Screws to the restorative dentist.

LABORATORY

6. Place the framework back onto the stone model. Stain and glaze porcelain onto the prosthetic framework following standard procedures. Polish the prosthesis with a polishing protector in place. Send the stone model with final framework and Retention Screws back to the clinician.

RESTORATIVE DENTIST

7. Sanitize and sterilize the framework and Retention Screws.
8. Remove the Cover Screws / Healing Abutments / provisional prosthesis from the PiezoImplants using a sterile .050" hex driver. Ensure that no bone or soft tissue is present on the implant restorative platforms. Irrigate and then clean the PiezoImplants with cotton with 0.12% chlorhexidine and dry.
9. Place the custom framework on the implants, maintaining the same orientation as on the model. Thread Retention Screws into the implants until finger-tight using a .050" hex driver. Take a radiograph along the long axis of the implants to verify correct seating of the framework.
10. Confirm a passive fit of the framework. If a passive fit is not achieved, modify the framework appropriately using resin material and send to the lab for soldering/welding. Replace Cover Screws, Healing Abutments, or temporary prosthesis as appropriate.
11. Send the stone model, framework, and Retention Screws back to the laboratory.

LABORATORY

12. Place the framework back onto the stone model. Stain and glaze porcelain onto the prosthetic framework following standard procedures. Polish the prosthesis with a polishing protector in place. Send the stone model with final framework and Retention Screws back to the clinician.

RESTORATIVE DENTIST

13. Sanitize the final framework and prosthesis.
14. Remove the Cover Screws / Healing Abutments / provisional prosthesis from the PiezoImplants. Ensure that no bone or soft tissue is present on the implant restorative platforms. Irrigate and then clean the PiezoImplant with cotton with 0.12% chlorhexidine and dry.

15. Place the custom framework on the implants, engaging the hex and maintaining the same orientation as on the model. Thread Retention Screws into the implants until finger-tight using a .050" hex driver.
16. Verify the marginal fit and contour of the final prosthesis and check the occlusion. Make any final adjustment or finishing if necessary. Take a radiograph along the long axis of the implants to verify correct seating of the framework.
17. Tighten the Retention Screws to 25 Ncm with a .050" hex driver and calibrated torque wrench.
18. Seal the screw-access channels with a material that will allow easy access to the screw threads. Fill the remainder of the screw-access channels with a resin material.
19. Take X-rays for patient records and provide the patient with instructions for proper oral hygienic care of the prosthesis and implants.

6.3. Final Screw-Retained, Multi-unit Abutment Bar Overdenture Technique

- Multi-unit Abutment
- Bar Coping
- Castable Coping
- Coping Screw
- Waxing Screw
- MUA Lab Analog

RESTORATIVE DENTIST

1. Remove the MUA Healing Caps or temporary restoration from the implants using a .050" hex driver. Follow the steps for the MUA Impression Technique. Select appropriate Multi-unit Abutments to provide a 1 to 2 mm supragingival margin.
2. Send the impression, MUA Impression Copings, MUA Lab Analogs, copings, Waxing Screws, and Coping Screws to the laboratory. Include information on the appropriate location of the Multi-unit Abutments.

LABORATORY

3. Fabricate a stone model using high hardness, minimal expansion die stone and articulate as appropriate. A soft-tissue model is recommended for subgingival margins. To create a soft-tissue model, apply lubricant in the desired location and syringe a soft tissue replica material around the MUA Lab Analog.
4. To fabricate a verification jig, secure Bar Copings to the MUA Lab Analogs using Waxing Screws and hand-tighten.
5. Wrap orthodontic wire or dental floss around and between Waxing Screws and analogs. Apply resin to the copings and wire or floss. Continue adding wire or floss and additional resin until the verification jig is fully formed.
6. Make any necessary adjustments to the acrylic and send the verification jig, Coping Screws, stone model, and Waxing Screws to the restorative dentist for a try in.

RESTORATIVE DENTIST

7. Sanitize and sterilize the verification jig and screws.
8. Remove the MUA Healing Caps or provisional prosthesis from the PiezoImplants using a sterile .050" hex driver. Ensure that no bone or soft tissue is present on the implant restorative platforms. Irrigate and then clean the Multi-unit Abutments with cotton with 0.12% chlorhexidine and dry.
9. Place the verification jig on the abutments, maintaining the same orientation as on the model. Verify a passive fit.
10. Thread a Coping Screw through the jig into the most distal abutment until finger-tight using a .050" hex driver. Verify visually or radiographically that the prosthetic interface is fully seated. Repeat with all other abutments.
11. If the verification jig lifts when a Coping Screw is tightened, the fit is not passive. Section the jig as appropriate to achieve a passive fit, and lute the sections together using acrylic or a composite material. When a passive fit has been achieved, take a radiograph along the long axis of the implants to verify correct seating of the verification jig.

12. Replace MUA Healing Caps or temporary prosthesis as appropriate.
13. Send the stone model, verification jig, Coping Screws, and Waxing Screws back to the laboratory. Do not attach the verification jig to the model.

LABORATORY

14. If the verification jig has been modified, correct the stone model as appropriate. Remove misaligned MUA Lab Analogs until the verification jig rests passively. Secure the MUA Lab Analogs to the verification jig with Waxing Screws and hand-tighten. Place the verification jig on the stone model and secure to the MUA Lab Analogs with hand-tightened Waxing Screws. The MUA Lab Analogs will now be suspended in the stone model. Soak the stone model in water. Vibrate stone into the holes created by removing the Lab Analogs. Make any necessary modifications to the verification jig and send back for another try-in or proceed with the creation of a prosthesis.
15. Remove the verification jig from the stone model. Secure Bar Copings to the MUA Lab Analogs with a Waxing Screw and hand-tighten.
16. Create a stabilized baseplate by placing baseplate material around the copings and over the edentulous arch. Contour the material as appropriate.
17. Fabricate a wax occlusal rim on the stabilized baseplate. Leave access to at least two screws in the cuspid area to secure the assembly to the stone model. Index the occlusal rim.
18. Send the stabilized baseplate and occlusal rim assembly, stone model, and Coping Screws to the restorative dentist.

RESTORATIVE DENTIST

19. Sanitize and sterilize the stabilized baseplate and occlusal rim assembly and Coping Screws.
20. Remove the MUA Healing Caps or provisional prosthesis from the Multi-unit Abutments using a sterile .050" hex driver. Ensure that no bone or soft tissue is present on the implant restorative platforms. Irrigate and then clean the Multi-unit Abutments with cotton with 0.12% chlorhexidine and dry.
21. Place the baseplate and occlusal rim assembly on to the Multi-unit Abutments and secure with hand-tightened Coping Screws using a .050" hex driver.
22. Contour the occlusal rim, mark the smile line, and mark the midline on the assembly. Use bite registration material to record the vertical dimension of the occlusion.
23. Remove the baseplate and occlusal rim assembly with bite registration material from the patient and reassemble to the stone model. Secure the assembly with bite registration material to the stone model with hand-tightened Coping Screws.
24. Replace the MUA Healing Caps or provisional prosthesis on to the PiezoImplants as appropriate. Send the Coping Screws, tooth selection, prescription with lab instructions, and stone model with attached baseplate and occlusal rim assembly with bite registration material.

LABORATORY

25. Ensure that the assembly is hand-tightened to the stone model.
26. Mount the stone model and opposing model in an articulator. Set the teeth selected by the restorative dentist and finish the assembly for a denture try-in. Send the trial denture and Coping Screws to the restorative dentist.

RESTORATIVE DENTIST

27. Sanitize and sterilize the trial denture, and screws.
28. Remove the MUA Healing Caps or provisional prosthesis from the Multi-unit Abutments using a sterile .050" hex driver. Ensure that no bone or soft tissue is present on the restorative platforms. Irrigate and then clean the Multi-unit Abutments with cotton with 0.12% chlorhexidine and dry.
29. Verify the fit of the try-in denture. Check occlusion, esthetics, and phonetics and if necessary, make adjustments and new occlusal records.
30. Replace the MUA Healing Caps or provisional prosthesis to the Multi-unit Abutments as appropriate. Send the trial denture, screws, and any new records back to the laboratory.

LABORATORY

31. Index the stone model and use silicon putty to create a labial matrix. This will be used to record the position of the teeth and labial borders on the stone model.
32. Place Castable Copings on the MUA Lab Analogs and secure with hand-tightened Coping Screws.
33. Position the labial matrix on the stone model and use the matrix as a guide while modifying the copings and designing the bar.
34. Create the overdenture bar using standard waxing procedures. Verify that the bar height is correct and functional requirements have been met. Verify the attachment positions with a surveyor. Make any adjustments as needed.
35. Sprue, invest, and cast the wax pattern in an appropriate noble alloy or high noble allow following the manufacturer's instructions. Chemically divest, fit, and finish the bar following standard procedures.
36. Check the bar on the stone model for a passive fit and make adjustments as needed by sectioning and soldering.
37. Remove the bar from the stone model. Block out the abutment connections with a temporary, removable material and polish the bar.
38. Place the bar back on the stone model and secure to the MUA Lab Analog with hand-tightened coping screws. Modify the wax-setup as necessary. Select denture attachments and attach to the denture base using standard laboratory procedures.
39. Send the bar, Coping Screws, trial denture, and stone model to the restorative dentist

RESTORATIVE DENTIST

40. Sanitize and sterilize the trial denture, bar, and screws.
41. Remove the MUA Healing Caps or provisional prosthesis from the Multi-unit Abutments using a sterile .050" hex driver. Ensure that no bone or soft tissue is present on the restorative platforms. Irrigate and then clean the Multi-unit Abutments with cotton with 0.12% chlorhexidine and dry.
42. Place the bar on the Multi-unit Abutments and confirm a passive fit.
43. Thread a Coping Screw into the most distal abutment until finger-tight using a .050" hex driver. Verify visually or radiographically that the prosthetic interface is fully seated. Repeat with all other abutments.
44. If the bar lifts when a Coping Screw is tightened, the fit is not passive. Mark the areas of the bar that require sectioning and remove from the patient. Section the bar as appropriate, and lute the sections together using acrylic or a composite material. Place the bar back on to the abutments and verify visually or radiographically that a passive fit has been achieved and the prosthetic interface is fully seated.
45. When a passive fit has been achieved and the prosthetic interface seats properly, place the trial denture on the bar. Verify that proper occlusion, esthetics, and phonetics have been achieved. Make any adjustments and take a new bite registration as necessary. Remove the trial denture and bar from the patient.
46. Replace the MUA Healing Caps or provisional prosthesis to the Multi-unit Abutments as appropriate. Send the trial denture, bar, screws, stone model, any new records created, and a prescription with instructions back to the laboratory.

LABORATORY

47. Fabricate the final denture per the restorative dentist's instructions and standard laboratory procedures.
48. Send the final denture, bar, Coping Screws, and stone model to the restorative dentist.

RESTORATIVE DENTIST

49. Sanitize and sterilize the final denture, bar, and screws.
50. Remove the MUA Healing Cap or provisional prosthesis from the Multi-unit Abutments using a sterile .050" hex driver. Ensure that no bone or soft tissue is present on the implant restorative platforms. Irrigate and then clean the Multi-unit Abutments with cotton with 0.12% chlorhexidine and dry.
51. Place the bar on the Multi-unit Abutments and confirm a passive fit.
52. Thread a Coping Screw into the most distal abutment until finger-tight using a .050" hex driver. Verify visually or radiographically that the prosthetic interface is fully seated. Repeat with all other abutments.
53. Tighten the Coping Screws to 15 Ncm using a .050" hex driver and calibrated torque wrench.

54. Seat the final denture on the bar and verify that the attachments have engaged. Verify that proper occlusion, esthetics, and phonetics have been achieved. If necessary, make adjustments and polish.
55. Take X-rays for patient records and provide the patient with instructions for proper oral hygienic care of the prosthesis and implants.
56. Remove the MUA Healing Cap or provisional prosthesis from the Multi-unit Abutments using a sterile .050" hex driver. Ensure that no bone or soft tissue is present on the implant restorative platforms. Irrigate and clean the Multi-unit Abutments with cotton with 0.12% chlorhexidine and dry.
57. Place the bar on the Multi-unit Abutments and confirm a passive fit.
58. Thread a Coping Screw into the most distal abutment until finger-tight using a .050" hex driver. Verify visually or radiographically that the prosthetic interface is fully seated. Repeat with all other abutments.
59. Tighten the Coping Screws to 15 Ncm using a .050" hex driver and calibrated torque wrench.
60. Seat the final denture on the bar and verify that the attachments have engaged. Verify that proper occlusion, esthetics, and phonetics have been achieved. If necessary, make adjustments and polish.
61. Take X-rays for patient records and provide the patient with instructions for proper oral hygienic care of the prosthesis and implants.

6.4. Final Digital, Single-Unit Restoration Protocol with a Multi-Unit Abutment (REX BL Only)

- Multi-Unit Abutment BL 2.9
- MUA Coping Screw BL 2.9 or MUA Angled Channel Coping Screw BL 2.9
- MUA Digital Lab Analog BL 2.9
- MUA Ti Base AR BL 2.9

RESTORATIVE DENTIST

1. Follow the steps for a MUA Digital Impression Technique. Send the scan files, MUA Digital Lab Analog, MUA Ti Base AR, MUA Coping Screw & 0.050" Hex Driver or MUA Angled Channel Coping Screw & 0.063" Hex Driver to the laboratory.

LABORATORY

2. Fabricate a 3D printed model using the digital scans, following the manufacturer's instructions. Print a hole at the implant site for attaching the two-part MUA Digital Lab Analog to the model.
3. Secure the MUA Digital Lab Analog to the model. A 3D printed soft-tissue model is recommended for subgingival margins.
4. Secure a MUA Ti Base AR to the MUA Digital Lab Analog. Ensure the MUA Ti Base AR is fully seated on the MUA platform. Hand-tighten the MUA Coping Screw using a 0.050" hex driver or a 0.063" Hex Driver if using the MUA Angled Channel Coping Screw.
5. Fabricate the final prosthesis. If using the MUA Angled Channel Coping Screw, the screw-access channel may be up to 25° from the long axis of the screw.
6. Use a cement of choice to secure the final prothesis to the MUA Ti Base AR. Ensure that it fits properly in the model. Send the model with prosthesis and MUA Coping Screw & 0.050" Hex Driver or MUA Angled Channel Coping Screw & 0.063" Hex Driver to the restorative dentist.

RESTORATIVE DENTIST

7. Sanitize and sterilize the final prosthesis and MUA Coping Screw & 0.050" Hex Driver or MUA Angled Channel Coping Screw & 0.063" Hex Driver.
8. Remove the MUA Healing Cap / provisional prosthesis from the MUA platform using the sterile 0.050" or 0.063" Hex Driver. Ensure that no bone or soft tissue is present on the MUA restorative platform. Irrigate and clean the MUA restorative platform with cotton infused with 0.12% chlorhexidine and dry.
9. Place the final prosthesis onto the MUA restorative platform. Ensure that the final prosthesis is fully seated on the MUA platform. Secure with a hand-tightened MUA Coping Screw using a 0.050" Hex Driver or a MUA Angled Channel Coping Screw using 0.063" Hex Driver.

10. Adjust the occlusion, marginal fit, and interproximal contacts as needed. Place protective material into the screw-access opening. Seal the access opening with temporary filling material and composite resin. Make any occlusal adjustments as necessary. Radiograph the interfaces of the prosthesis and MUA as well as the MUA and implant to verify an accurate fit.
11. Tighten the MUA Coping Screw or MUA Angled Channel Coping Screw to 15 Ncm using a 0.050" or 0.063" hex driver and calibrated torque wrench.
12. Seal the screw-access channel with a material that will allow easy access to the screw. Fill the remainder of the screw-access channel with a resin material.
13. Take X-rays for patient records and provide the patient with instructions for proper oral hygienic care of the prosthesis and implant.

6.5. Final Digital, Multiple-Unit Restoration Protocol with Multi-Unit Abutments

- MUA Ti Base R
- MUA Coping Screw or MUA Angled Channel Coping Screw
- MUA Digital Lab Analogs

RESTORATIVE DENTIST

1. Follow the steps for a MUA Digital Impression Technique. Send the scan files, MUA Digital Lab Analogs, MUA Ti Base R copings, and MUA Coping Screws & 0.050" Hex Driver or MUA Angled Channel Coping Screws & 0.063" Hex Driver to the laboratory.

LABORATORY

2. Fabricate a 3D printed model using the digital scans, following the manufacturer's instructions. Print holes at the implant sites for attaching the two-part MUA Digital Lab Analogs to the model.
3. Secure the MUA Digital Lab Analogs to the model. A 3D printed soft-tissue model is recommended for subgingival margins.
4. Place the MUA Ti Base R Abutments onto the MUA Digital Lab Analogs. Ensure the MUA Ti Base R Abutments are fully seated on the MUA platform. Hand-tighten using MUA Coping Screws and a 0.05" hex driver or a 0.063" Hex Driver if using MUA Angled Channel Coping Screws.
5. Fabricate a custom framework following standard crown and bridge procedures, ensuring a passive fit. If using MUA Angled Channel Screws, the screw-access channel can be up to 25° from the long axis of the screw. Send the 3D printed model with framework and MUA Coping Screws & 0.050" Hex Driver or MUA Angled Channel Coping Screws & 0.063" Hex Driver to the restorative dentist.

RESTORATIVE DENTIST

6. Sanitize and sterilize the framework, MUA Coping Screws & 0.050" Hex Driver or MUA Angled Channel Coping Screws & 0.063" Hex Driver.
7. Remove the MUA Healing Caps / provisional prosthesis from the MUAs using a sterile 0.05" or 0.063" hex driver. Ensure that no bone or soft tissue is present on the MUA restorative platforms. Irrigate and then clean the MUA restorative platforms with cotton infused with 0.12% chlorhexidine, and dry.
8. Place the custom framework on the Multi-unit Abutments, maintaining the same orientation as on the model. Secure the framework by threading Coping Screws into the Multi-unit Abutments until hand-tight using a 0.050" Hex Driver or a 0.063" Hex Driver if using Angled Channel Coping Screws.
9. Confirm a passive fit of the framework. If a passive fit is not achieved, modify the framework appropriately using resin material and send to the lab for soldering/welding. Take a radiograph along the long axis of the implants to verify correct seating of the framework.
10. Replace MUA Healing Caps or temporary prosthesis as appropriate.
11. Send the 3D printed model, framework, and MUA Coping Screws & 0.050" Hex Driver or MUA Angled Channel Coping Screws & 0.063" Hex Driver back to the laboratory.

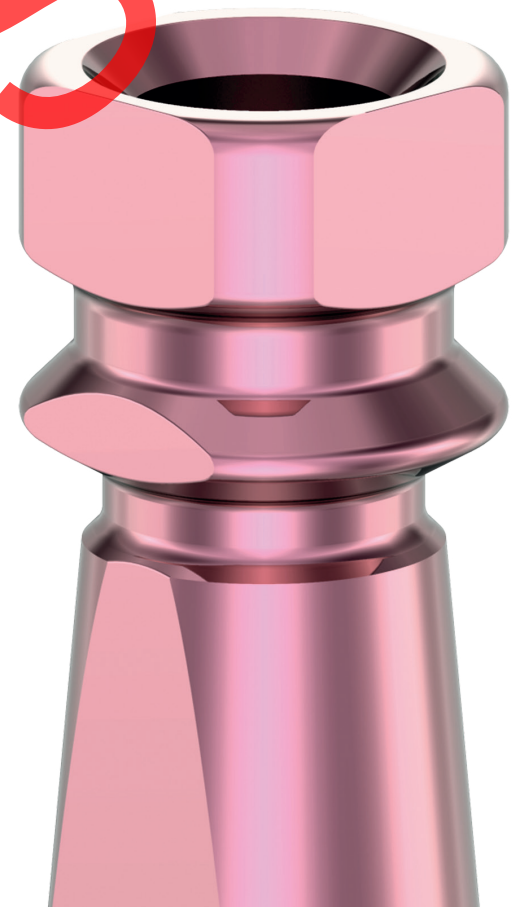
LABORATORY

12. Place the framework back onto the 3D printed model. Stain and glaze porcelain onto the prosthetic framework following standard procedures. Polish the prosthesis with a polishing protector in place. Send the 3D printed model with final framework and MUA Coping Screws & 0.050" Hex Driver or MUA Angled Channel Coping Screws & 0.063" Hex Driver back to the clinician.

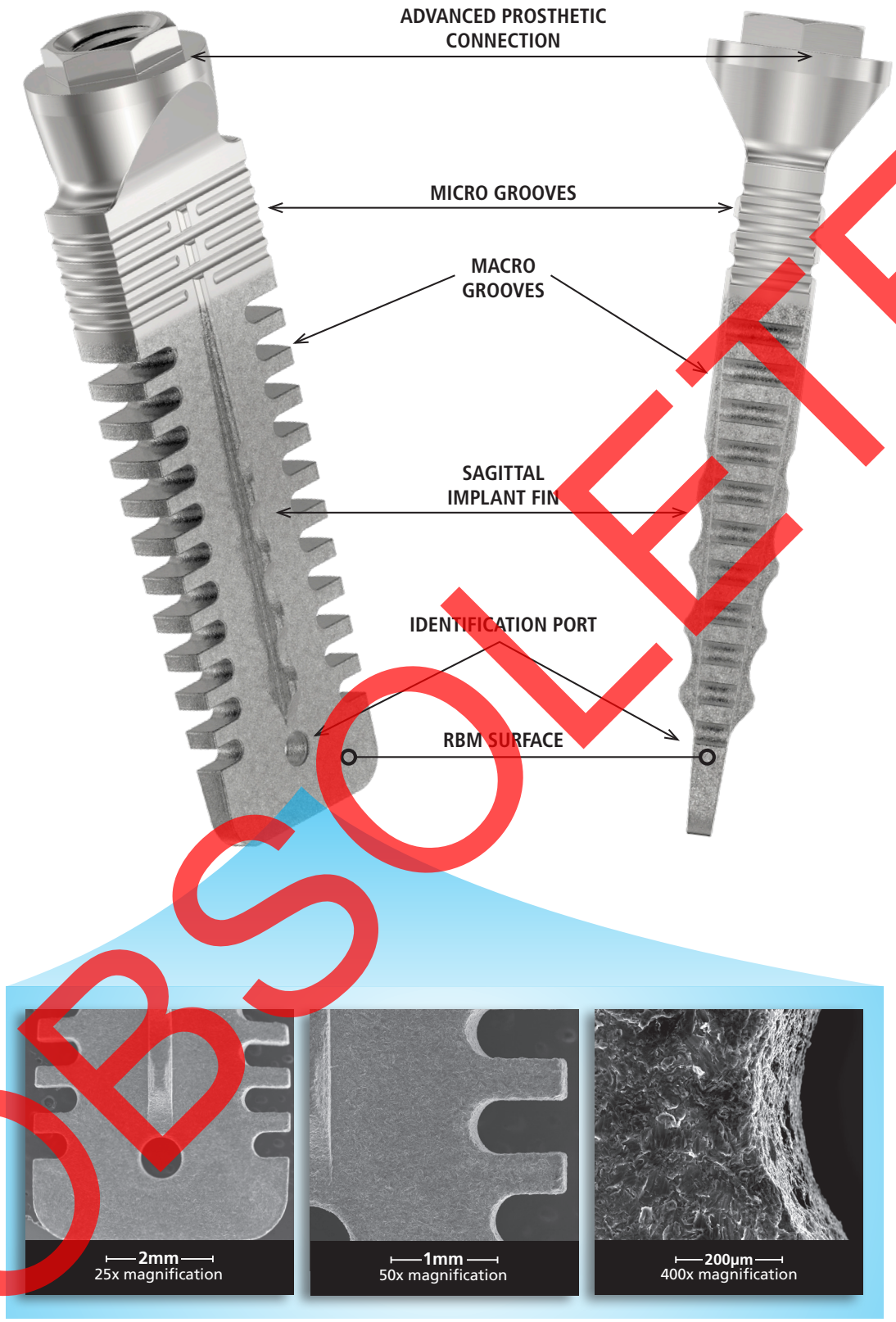
RESTORATIVE DENTIST

13. Sanitize the final framework and prosthesis.
14. Remove the MUA Healing Caps / provisional prosthesis from the Multi-unit Abutments. Ensure that no bone or soft tissue is present on the Multi-unit Abutment restorative platforms. Irrigate and then clean the Multi-unit Abutment restorative platforms with cotton infused with 0.12% chlorhexidine and dry.
15. Place the custom framework on the Multi-unit Abutments, maintaining the same orientation as on the model. Thread MUA Copings Screws / MUA Angled Channel Coping Screws into the implants until finger-tight using a 0.050" / 0.063" Hex Driver.
16. Verify the marginal fit and contour of the final prosthesis and check the occlusion. Make any final adjustment or finishing if necessary.
17. Tighten the MUA Coping Screws to 15 Ncm with a 0.050" Hex Driver or with a 0.063" Hex Driver if using MUA Angled Channel Coping Screws. Take a radiograph along the long axis of the implants to verify the correct seating of the framework and Multi-unit Abutments.
18. Seal the screw-access channels with a material that will allow easy access to the screw threads. Fill the remainder of the screw-access channels with a resin material.
19. Take X-rays for patient records and provide the patient with instructions for proper oral hygienic care of the prosthesis and implants.

RM-01-US Rev 4, issued September 5, 2025. Additional information may be found at http://www.reximplants.com. Please contact your local distributor to request physical copies of this document.



Anatomy of a REX TL PiezoImplant



Resorbable Blast Media (RBM) Surface Treatment
REX TL PiezoImplants are grit-blasted with hydroxylapatite and acid-passivated to increase the roughness of the implant and promote osseointegration.

PRODUCT CATALOG

PROSTHETIC COMPONENTS REX TL 1.8

R1-01
Retention Screw TL 1.8

R1-03
Cover Screw TL 1.8

R1-06
Healing Abutment TL 1.8 H3

R1-07
Healing Abutment TL 1.8 H4

R1-04
Impression Pin TL 1.8 L

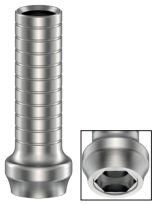
R1-13
Impression Pin TL 1.8 S

R1-05
Lab Analog TL 1.8

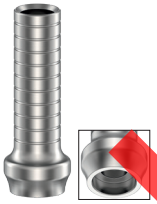
R1-33
Digital Lab Analog TL 1.8

R1-02
Transfer / Straight Abutment TL 1.8

R1-08
Angled Abutment TL 1.8 (15°)



R1-09
Provisional Cylinder AR TL 1.8



R1-35
Provisional Cylinder R TL 1.8

R1-47
Castable Abutment AR TL 1.8

R1-48
Castable Abutment R TL 1.8

R1-21
MUA TL 1.8 H2

R1-22
MUA TL 1.8 H3

R1-23
MUA TL 1.8 H4

R1-27
MUA Coping Screw TL 1.8 / 2.9

R1-45
MUA Angled Channel Coping Screw TL 1.8 / 2.9

R1-36
MUA Healing Cap TL 1.8 / 2.9

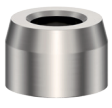
R1-24
MUA Temporary Coping TL 1.8 / 2.9

R1-26
MUA Castable Coping TL 1.8 / 2.9

R1-32
MUA Ti Base R TL 1.8 / 2.9

R1-28
MUA Waxing Screw TL 1.8 / 2.9

R1-43
MUA Scan Body TL 1.8 / 2.9



R1-25
MUA Bar Coping TL 1.8 / 2.9

R1-37
MUA Impression Coping TL 1.8 / 2.9

R1-29
Scan Body TL 1.8

R1-39
MUA Lab Analog TL 1.8 / 2.9

R1-44
MUA Digital Lab Analog TL 1.8 / 2.9

PRODUCT CATALOG

PROSTHETIC COMPONENTS REX TL 2.9

R2-01
Retention Screw TL 2.9

R2-03
Cover Screw TL 2.9

R2-06
Healing Abutment TL 2.9 H1

R2-07
Healing Abutment TL 2.9 H2

R2-08
Healing Abutment TL 2.9

R2-09
Healing Abutment TL 2.9

R2-04
Impression Pin TL 1.8 L

R2-15
Impression Pin TL 1.8 S

R2-36
Digital Lab Analog TL 2.9

R2-05
Lab Analog TL 2.9

R2-02
Transfer / Straight Abutment TL 2.9

R2-10
Angled Abutment TL 2.9 (17°)

R2-43
Castable Abutment AR TL 2.9

R2-44
Castable Abutment R TL 2.9

R2-11
Provisional Cylinder AR TL 2.9

R2-37
Provisional Cylinder R TL 2.9

R1-27
MUA Coping Screw TL 1.8 / 2.9

R1-45
MUA Angled Channel Coping Screw TL 1.8 / 2.9

R1-36
MUA Healing Cap TL 1.8 / 2.9

R1-32
MUA Ti Base R TL 1.8 / 2.9

R2-24
MUA TL 2.9 H1

R2-25
MUA TL 2.9 H2

R2-26
MUA TL 2.9 H3

R2-27
MUA TL 2.9 H4

R1-28
MUA Waxing Screw TL 1.8 / 2.9

R1-43
MUA Scan Body TL 1.8 / 2.9

R1-25
MUA Bar Coping TL 1.8 / 2.9

R1-26
MUA Castable Coping TL 1.8 / 2.9

R1-24
MUA Temporary Coping TL 1.8 / 2.9

R1-37
MUA Impression Coping TL 1.8 / 2.9

R2-33
Scan Body TL 2.9

R1-39
MUA Lab Analog TL 1.8 / 2.9

R1-44
MUA Digital Lab Analog TL 1.8 / 2.9

PRODUCT CATALOG

PROSTHETIC COMPONENTS REX BL 2.9

R4-03
Adapter BL 2.9 to External Hex (TL 1.8) H4

R4-04
Retention Screw BL 2.9

R4-05
Straight Abutment BL 2.9 H1

R4-06
Straight Abutment BL 2.9 H2

R4-07
Straight Abutment BL 2.9 H3

R4-48
Angled Abutment BL 2.9 (17°)

R4-09
Impression Pin L BL 2.9

R4-10
Impression Pin S BL 2.9

R4-67
Impression Coping BL 2.9 - Open Tray

R4-11
Impression Coping BL 2.9 - Closed Tray

R4-12
Lab Analog BL 2.9

R4-52
Digital Lab Analog BL 2.9

R4-49
Scan Body BL 2.9

R4-08
Cover Screw BL 2.9

R4-13
Healing Abutment BL 2.9 H1

R4-14
Healing Abutment BL 2.9 H2

R4-15
Healing Abutment BL 2.9 H3

R4-16
Healing Abutment BL 2.9 H4

R4-17
Healing Abutment BL 2.9 H6

R4-18
Healing Abutment BL 2.9 H8

R4-20
Multi-Unit Abutment BL 2.9 H2

R4-21
Multi-Unit Abutment BL 2.9 H3

R4-22
Multi-Unit Abutment BL 2.9 H4

R4-23
Multi-Unit Abutment BL 2.9 H5

R4-24
Multi-Unit Abutment BL 2.9 H6

OBSOLETE

PRODUCT CATALOG

PROSTHETIC COMPONENTS REX BL 2.9

R4-25
Angled MUA
Retention Screw
BL 2.9

R4-27
17° Angled
Multi-Unit
Abutment
BL 2.9 H3

R4-28
17° Angled
Multi-Unit
Abutment
BL 2.9 H4

R4-29
17° Angled
Multi-Unit
Abutment
BL 2.9 H5

R4-30
17° Angled
Multi-Unit
Abutment
BL 2.9 H6

R4-31
30° Angled
Multi-Unit
Abutment
BL 2.9 H3

R4-32
30° Angled
Multi-Unit
Abutment
BL 2.9 H4

R4-33
30° Angled
Multi-Unit
Abutment
BL 2.9 H5

R4-34
30° Angled
Multi-Unit
Abutment
BL 2.9 H6

R4-38
MUA Coping
Screw BL 2.9

R4-65
MUA Angled
Channel Coping
Screw BL 2.9

R4-35
MUA Temporary
Coping BL 2.9

R4-36
MUA Bar
Coping
BL 2.9

R4-37
MUA Castable
Coping
BL 2.9

R4-40
MUA Ti
Base R
BL 2.9

R4-64
MUA Ti
Base AR
BL 2.9

R4-42
MUA Healing
Cap BL 2.9

R4-63
MUA Scan
Body BL 2.9

R4-41
MUA
Impression
Coping BL 2.9

R4-39
MUA Waxing
Screw
BL 2.9

R4-43
MUA Lab
Analog
BL 2.9

R4-66
MUA Digital Lab
Analog
BL 2.9

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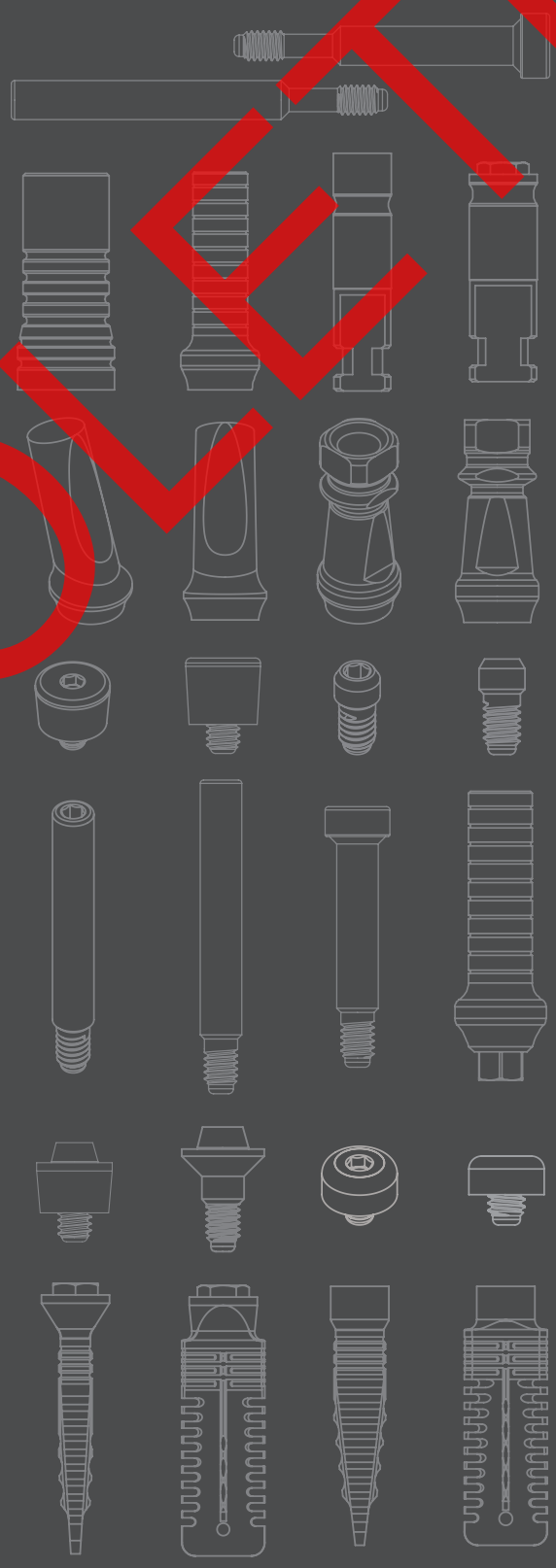

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