



Basic information for
the surgical procedure –
maxgraft® bonering with Straumann®
BL and BLT Implants
Ø 3.3 and 4.1 mm

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1. Introduction

The maxgraft®bonering with its technique is an innovative solution for 3-dimensional vertical augmentation of bone defects with a single-stage graft and implant placement. The simultaneous bone augmentation and implant placement significantly reduces treatment time compared with the conventional bone block technique.

Note: The maxgraft®bonering technique is only recommended for surgically qualified dentists and oral and maxillofacial surgeons who have sufficient experience in complex bone augmentation procedures in the jaws. Before using the maxgraft®bonering technique, specialists are encouraged to attend a relevant course in which the use of the bone ring technique is trained.

2. Indications

2.1 Indications for maxgraft® bonering

- Vertical augmentation (three-dimensional defects with low-grade horizontal augmentation)
- Single-tooth gap
- Interdental space
- Sinus floor elevation

2.2 Indication for maxgraft® bonering in conjunction with the Straumann® Bone Level und Straumann® Bone Level Tapered Implant (subsequently referred to as Bone Level Implants) Ø 3.3 mm and 4.1 mm

Regarding the indications / contraindications and intended uses of the Straumann® Bone Level and Bone Level Tapered Implants, please refer to the information in the instructions for use and the brochures: Straumann dental implants: Roxolid® SLA® (Art. No. 701580), Roxolid® (Art. No. 701351), SLActive® (Art. No. 701353), SLA® (Art. No. 701352), Straumann® Dental Implant System - Basic information on the surgical procedures (Art. No. 152.754), Basic information on the surgical procedures for the Straumann® Bone Level Tapered Implant (Art. No. 490.038).

Note: When the maxgraft® bonering technique is used in conjunction with Straumann® Bone Level Tapered (BLT) Implants, the surgical procedure depends not only on the bone quality, but also on the existing residual bone. The BLT Implant should be inserted through the bone ring into the residual ridge, with at least 3mm or more. This should be done only in soft bone (Type 3 or 4) and with a residual bone height of only 3.0 mm in an underprepared implant bed, so that primary stability can be achieved with the tapered apical section of the BLT Implant. Please also note the corresponding instructions on the surgical procedure for differing bone qualities in section 5 of the brochure *Basic information on the surgical procedures for the Straumann® Bone Level Tapered Implant*, Art. No. 490.038, extracts of which are also presented here in section 3.2.2, step 8. If adequate stability cannot be achieved with the BLT Implant, a switch to the Straumann® Bone Level Implant is recommended.

3. Surgical procedure maxgraft® bonering technique

3.1 Pre-operative assessment and treatment planning

Careful patient selection is critical to the outcome of the surgical procedure and the long-term success of treatment. Proper case selection requires a thorough clinical and radiographic examination and careful treatment planning.

It is mandatory to thoroughly review the patient's medical and dental history, the anatomy and the residual bone height and bone quality. Special attention should be paid to patient-related factors that may affect bone healing prior to determining the suitability of this treatment for the patient.

Further site-specific assessment should include treatment planning for the ideal implant type, diameter, length, number, and positioning. These implant parameters help to determine the appropriate inner and outer diameter and length of the bone ring required for the procedure.

3.2 Surgical procedure maxgraft® bonering technique

3.2.1 Basic information/requirements

This procedure is performed under local or general anesthesia depending on the scope of the procedure and patient profile.

For a successful procedure, please follow these recommendations:

- Always use a surgical drill template for precise implant positioning and ring bed preparation. This helps in surgical planning and makes it easier to apply the maxgraft® bonering technique.
- During treatment planning, carefully assess the soft tissue situation.
- A thin alveolar ridge no matter in which area of the jaw is a contraindication for the maxgraft® bonering technique as the quantity of bone in this case is insufficient to anchor the implant.
- The evaluation of bone quality and the residual bone height is crucial in determining whether a Straumann® Bone Level or Straumann Bone Level Tapered Implant can be used (see chapter 2.2).
- A good flap preparation and tension-free wound closure is critical for the success of the bone ring technique.
- The temporary restoration following augmentation must not exert any mechanical pressure on the graft.

Refer to the package insert for the instructions for use of the instruments of the maxgraft® bonering surgical kit.

Note: All instruments of the maxgraft® bonering surgical kit are used at max. 800 rpm. An overview of the instruments for preparing the bone bed for maxgraft® bonering can be found in section 6.3 Instruments for the maxgraft® bonering technique.

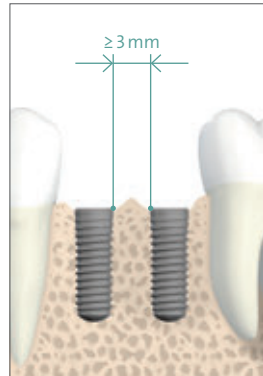
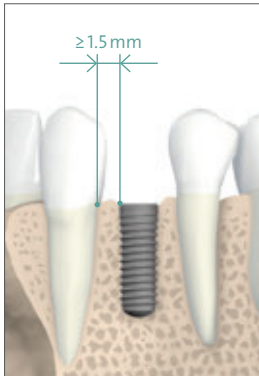
3.2.2 Step-by-step procedure



Step 1 – Determining the diameter of the defect

Once the flap is raised, the diameter of the defect can be determined by using the Trephine drill with an outer diameter of 6.0 mm or 7.0 mm. This measurement helps to determine which diameter of maxgraft® bonering should be used. When using the Straumann® Bone Level Implant Ø 4.1 mm, only the maxgraft® bonering with the outer diameter Ø 7.0 mm can be used.

Note: In determining the diameter of the maxgraft® bonering, the required mesiodistal distance of the implant to the neighboring teeth or to the adjacent implants must be strictly observed.



You can find detailed information in the brochure *Basic information for the Surgical Procedure – Straumann® Dental Implant System*, section Preoperative Treatment Planning, Art. No. 152.754.

Step 2 – Determining the implant position

Check the mesiodistal and orofacial implant position/implant axis (use of a surgical drill template is highly recommended).



Step 3 – Preparation of the bone bed with the Pilot drill

Use the Ø 2 mm drill from the maxgraft® bonering surgical kit to start the preparation of the site for augmentation.

Use of the Pilot drill must precede by the Trephine, as the guiding pin of the Trephine matching the same diameters of 2 mm. The Pilot Drill has depth markings at 1, 3 and 5 mm.



Step 4 – Preparation of the bone bed with the Trepine

The specified outer diameter of the Trepine (6 mm or 7 mm diameter) is used to mill the bed of the maxgraft® bonering. The preparation depth can be determined by the markings (2 - 10 mm, in 2 mm increments) on the Trepine.

The depth of the maxgraft® bonering bed is defined by the size of the defect. Excess and uneven bone that protrudes from the preparation can be removed using a blunt instrument and reintroduced at other parts of the augmentation site.

Note: For bony defects adjacent to natural teeth, the bone level of the neighboring teeth is the reference for the coronal border of the maxgraft® bonering.

In the event of a deeper three-dimensional defect, it may first be necessary to carefully remove some bone using the Planator to insert the Trepine guide pin into the pilot drill hole. To place it in the specified implant position, the Planator has a cutting tip that matches the diameter of the trephine guide pin.



Step 5 – Straightening/decortication of the ring bed

The Planator is then used on the bed of the maxgraft® bonering to achieve a uniform surface for the maxgraft® bonering. At the same time, this step helps to remove any cortical bone from the prepared site.

If it is not possible to achieve a freshly bleeding bone ring bed using the Planator, use a small drill to place a few perforations in the bone to ensure the nutritive supply of the maxgraft® bonering.



Step 6 – Preparation of the maxgraft® bonering

To set the maxgraft® bonering, the Diamond disc from the maxgraft® bonering surgical kit should be used to trim the bone ring to the required length. To avoid injury when cutting and to fix the specified length of the bone ring, the bonering fix can be used.

Note: The maxgraft® bonering must not be rehydrated. By preparing the ring bed using the instruments from the maxgraft® bonering surgical kit, close contact is established between the bone ring and the bleeding bone bed, allowing blood to quickly perfuse the maxgraft® bonering.



Step 7 – Implantation of the maxgraft® bonering

The maxgraft® bonering is now inserted in the prepared bone bed.

Note: When placing the maxgraft® bonering, care should be taken that the bone ring is placed “press fit” in the freshly bleeding ring bed. The precise congruence of the ring base to the bone bed is critical for the primary stability of the maxgraft® bonering and implant.



Step 8 – Preparation of the implant bed

a) After inserting the maxgraft® bonering, the implant bed is prepared through the bone ring according to the surgical procedure for the Straumann® Bone Level and Bone Level Tapered Implant \varnothing 3.3 mm and \varnothing 4.1 mm.

For placing the Straumann® Bone Level Implant, the relevant instructions in the brochure *Basic information for the surgical procedure – Straumann® Dental Implant System*, Art. No. 152.754, must be observed as well as for placing the Straumann® Bone Level Tapered Implant, the brochure *Basic information on the surgical procedures for the Straumann® Bone Level Tapered Implant*, Art. No. 490.038, must be observed.

Note: The length of the implant chosen should be sufficiently long so that the implant is at least 3 mm deep in the residual alveolar bone ridge.

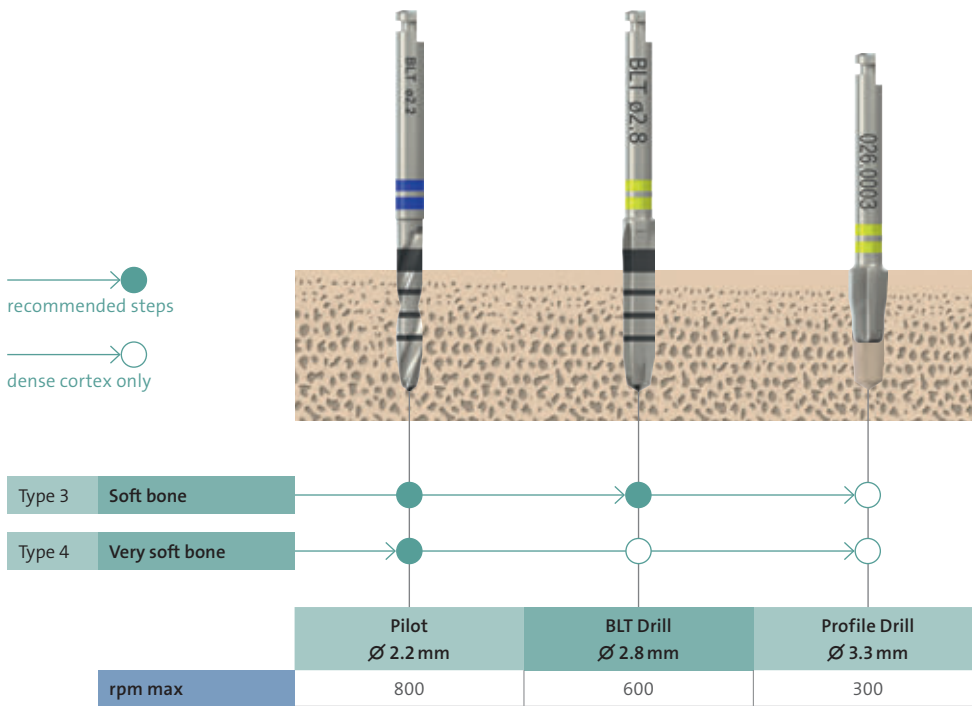
For preparing the implant bed the Straumann® Surgical Cassette is used for all implant lines. The specific instruments to be used for the Bone Level Tapered Implants are marked with two colored rings.

Depending on the bone density (type 1 = very hard bone, type 4 = very soft bone) different drill protocols should be applied for the Bone Level Tapered Implant. This provides the flexibility to adjust the implant bed preparation to the individual bone quality and anatomical situation.

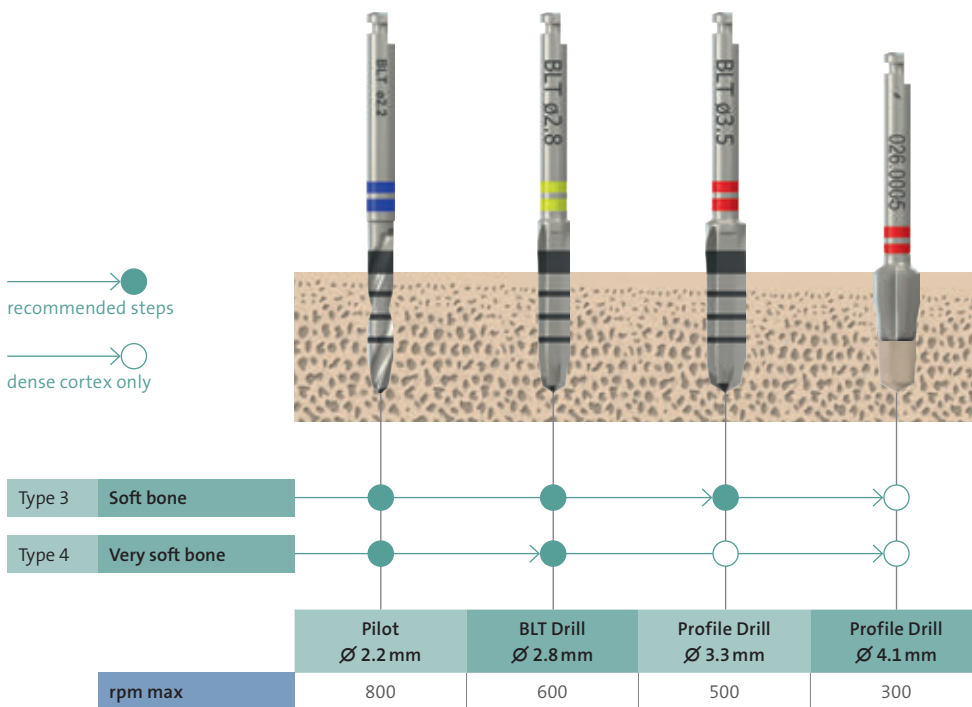
b) Note: Preparation of the implant bed for the Straumann® Bone Level Tapered Implant with a residual bone height of at least 3 mm and more:

When the maxgraft® bonering technique is used in conjunction with Straumann® Bone Level Tapered (BLT) Implants, the surgical procedure depends not only on the bone quality, but also on the existing residual bone. The BLT Implant should be inserted through the bone ring into the residual ridge, with at least 3 mm or more. This should be done only in soft bone (Type 3 or 4) and with a residual bone height of only 3 mm in an underprepared implant bed, so that primary stability can be achieved with the tapered apical section of the BLT Implant. Please also note the corresponding instructions on the surgical procedure for differing bone qualities in section 5 of the brochure Basic information on the surgical procedures for the Straumann® Bone Level Tapered Implant, (Art. No. 490.038), extracts of which are presented below. If adequate stability cannot be achieved with the BLT Implant, a switch to the Straumann® Bone Level Implant is recommended.

c) Workflow – Straumann® Bone Level Tapered 3.3 mm NC for bone heights of at least 3 mm and more and soft bone (types 3 and 4)



d) Workflow – Straumann® Bone Level Tapered 4.1 mm RC for bone heights of at least 3 mm and more and soft bone (types 3 and 4)





Step 9 – Placement of the implant through the maxgraft® bonering
The Straumann® Bone Level Implant \varnothing 3.3 mm or \varnothing 4.1 mm is then inserted through the maxgraft® bonering. After implantation, and in order to protect it, the implant is closed hand-tight using an SCS Closure Screw.

Note: The implant should be placed approx. 1 mm below the cranial surface of the bone ring in order to:

- compensate for any possible resorption of the bone ring
- allow the Fixation Cap to be used if a press-fit cannot be achieved with the bone ring.



Caution: Correct implant orientation

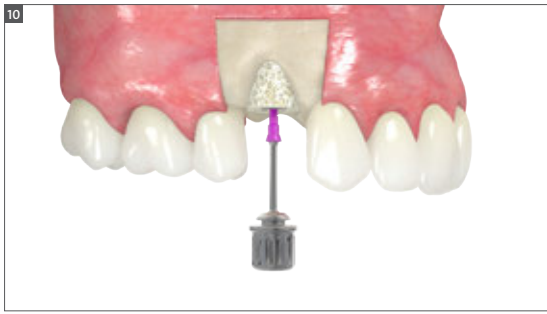
While approaching the final implant position, make sure that the drilled holes on the blue transfer piece are oriented exactly orofacially. This positions the four protrusions of the internal connection for ideal prosthetic abutment orientation. The first hole of the blue transfer piece indicates a 1 mm distance to the implant shoulder, the second hole a 2 mm and the third hole a 3 mm distance.

Caution: Vertical position corrections by turning the implant counter-clockwise must be avoided. Doing so can reduce the primary stability of the implant.

The primary stability of the maxgraft® bonering and the Straumann® Bone Level Implant is carefully achieved by the maxgraft® bonering making full contact when pressed into the prepared bone bed and by inserting the implant approx. 3 mm deep into the residual alveolar bone ridge.

If stable seating of the bone ring cannot be achieved, the maxgraft® bonering should be secured using the Closure and Fixation Caps (see section 10).

If the alveolar ridge is very narrow, care should be taken to prepare the ring bed deep enough to achieve a complete surface to fully support the maxgraft® bonering. This complete ring bed serves as the stabilizer for the maxgraft® bonering and is the most important starting point for the nutritive supply to the graft and hence osseointegration of the maxgraft® bonering and implant.



Step 10 – Use of the Closure and Fixation Cap to stabilize the maxgraft® bonering

If the seating of the maxgraft® bonering is not sufficiently stable, the bone ring can be secured using the Closure and Fixation Cap. Ensure that the internal configuration of the implant is clean and free of blood residues.

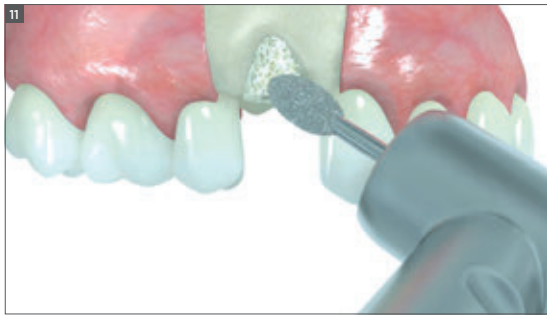
Pick up the Closure Cap for the Fixation Cap with the SCS Screwdriver and screw this into the implant hand-tight.

To fix the maxgraft® bonering, screw the Fixation Cap using the SCS Screwdriver into the Closure Cap, likewise hand-tight.



Note: The Closure and Fixation Caps are supplied in sterile form and ready to use.

To facilitate loosening of the Closure Cap at a later date, apply chlorhexidine gel or petroleum jelly to the Closure Screw before screwing it into the implant.



Step 11 – Rounding off the edges of the maxgraft® bonering

After placing the implant, the edges of the maxgraft® bonering must be smoothed using the Diamond tulip bur from the maxgraft® bonering surgical kit to prevent perforation of the soft tissue flap.



Step 12 – Filling defects with bone regeneration material

If threads are still exposed buccally after implantation in three-dimensional defects or gaps remain, they should be covered or filled with a particulate bone regeneration material. A resorption-stable bone graft material such as cerabone® of particle size 0.5–1 mm is recommended.



Step 13 – Covering the graft with a barrier membrane

The entire augmentation area is then covered by a barrier membrane that has a long barrier function to prevent tissue perforations and exposure of the augmentation. This will promote osseointegration of the graft and healing of the augmentation site. The Jason® membrane with delayed degradation is recommended.

The membrane must be secured with pins to ensure positional stability.



Step 14 – Tension-free wound closure

The wound is then closed in a tension-free manner. This is the key to success for any augmentation. Therefore, sufficient mobilization of the flap should be checked before insertion of the implant. This is essential for vertical augmentations in particular.

3.3 maxgraft® bonering sinus floor elevation technique

This chapter describes the maxgraft® bonering technique with simultaneous Sinus Floor Elevation (SFE) and implant placement with the Straumann® Ø 3.3 or 4.1 mm Bone Level (BL) and Bone Level Tapered (BLT) Implants.

3.3.1 Introduction

If the residual bone height of the maxilla is less than 4.0 mm, SFE procedures usually require a two-stage surgical protocol. This is a more invasive procedure which requires additional time for healing and maturation of the grafting material, including a second surgery for the implant placement. The final prosthetic treatment may take place as late as 12 to 18 months after the first surgery.

With this maxgraft® bonering technique, a one-stage procedure can be offered to simultaneously perform sinus floor elevation while placing the implant in the allogenic bone ring. The implant is secured within the maxgraft® bonering with a Closure and Fixation Cap, which has a larger diameter than the shoulder of the implant, and is in close contact with the crestal bone to provide stability during the healing phase. This procedure reduces the overall treatment time and avoids a second surgical procedure, even in cases where the residual bone height is less than 4.0 mm but not less than 1.0 mm. This offers an alternative treatment option for patients who have concerns regarding multiple surgeries and long treatment times.



3.3.2 Indications for sinus floor elevation

The maxgraft® bonering technique with simultaneous SFE and implant placement, is indicated when the residual maxillary bone height is less than 4.0 mm, but not less than 1.0 mm. These measurements are guidelines, as the quality of the residual bone must always be considered when using this technique. The Straumann® Bone Level (BL) or Bone Level Tapered Implant (BLT) together with the Closure and Fixation Cap must have sufficient primary stability within the bone ring and residual maxillary ridge, to ensure that these components remain firmly in place during the surgical procedure and healing phase.

3.3.3 Contraindications

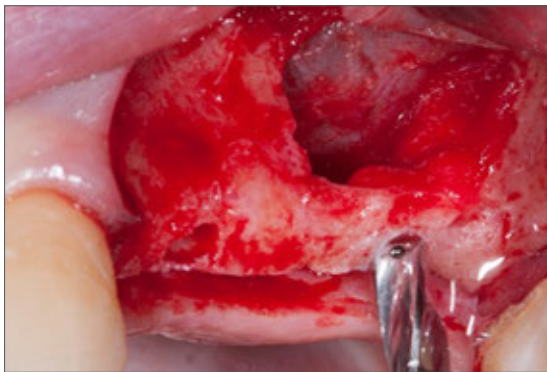
The maxgraft® bonering technique with simultaneous SFE and implant placement, is contraindicated when the residual maxillary bone height is less than 1.0 mm.

3.3.4 Precautions

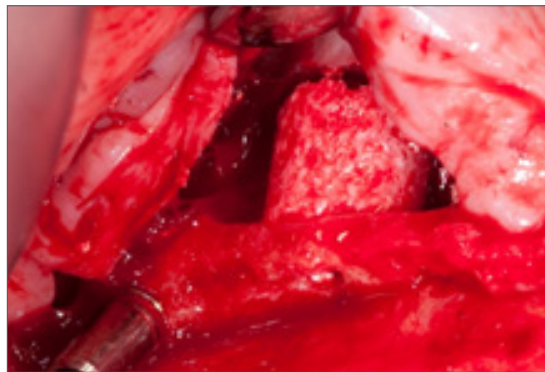
Make sure that there is sufficient bone height and quality of bone when using the maxgraft® bonering technique with simultaneous SFE and implant placement with the Straumann® Bone Level (BL) or Bone Level Tapered (BLT) Implant. In case primary stability of the implant/bone ring cannot be achieved, or if there is insufficient bone (less than 1.0 mm residual bone height) and bone quality, a two-stage sinus lift and implant placement procedure should be used.

3.3.5 Basic information/requirements

The maxgraft® bonering technique with simultaneous SFE and implant placement, uses a combined lateral window and transcrestal bone technique. This technique may only be considered if primary stability can be achieved in the residual sub-antral bone with the implant, secured within the bone ring and with the Closure and Fixation Cap.



Sinus lift with maxgraft® bonering: Combined laterals window and trans-crestal*

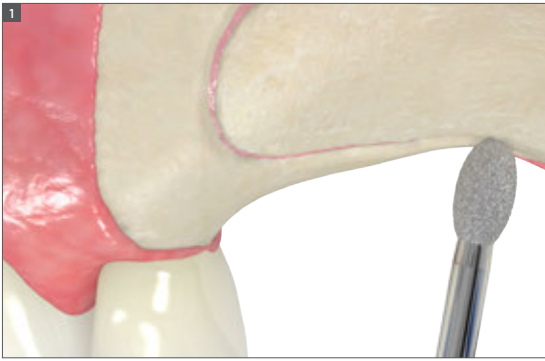


Placement of maxgraft® bonering into the sinus*

- The surgeon must be well-trained and experienced in SFE procedures and familiar with this technique.
- Pre-op planning: It is mandatory to thoroughly review the patient's anatomy of the maxillary sinus, its adjacent structures and the residual bone height and quality.
- The implant(s) must be correctly planned and positioned for successful prosthodontic rehabilitation.
- Care must be taken to keep the Schneiderian membrane intact.
- The sinus should be sufficiently wide, i.e. not too narrow at the base otherwise the ring cannot lie flush with the bone.
- Primary stability must be achievable with the Straumann® Bone Level (BL) and Bone Level Tapered (BLT) Implant \varnothing 3.3 or 4.1mm inserted through the maxgraft® bonering and secured with the Closure and Fixation Cap.
- When the residual bone height and bone quality does not provide enough primary stability of the implant and bone ring, there may be a high risk that the implant and bone ring will perforate the sinus and require retrieval and explantation. If this lack of primary stability is noticed during surgery, it is recommended to change to a two-staged standard lateral window SFE augmentation procedure.
- Wound closure must be achieved using tension-free sutures.
- There should be no exertion of pressure from any temporary prosthodontic appliance to the soft tissue above the Closure and Fixation Cap during the healing phase.

* Images courtesy of Dr. Kris Chmielewski, Danzig, Poland.

3.3.6 Step-by-step procedure



Step 1 – Preparation of the lateral window

After flap elevation, carefully prepare a lateral window with a bur or piezoelectric instrument. The window size and position are determined by the anatomic location and position of other structures.



Step 2 – Sinus floor elevation

Gently detach the Schneiderian membrane from the inner aspect of the sinus cavity, taking care around Underwood's septum. The bony lid of the lateral wall of the sinus is carefully reflected to allow visualization of the bony floor of the sinus and the area for implantation with the bone ring.

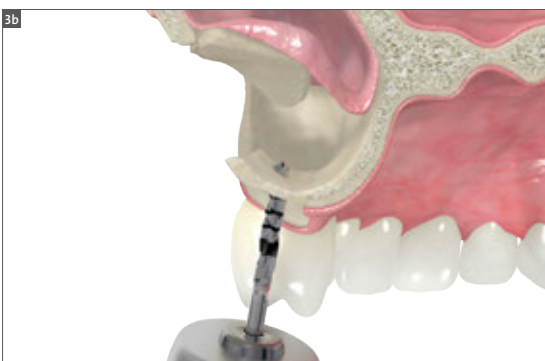
Caution:

Avoid perforating the Schneiderian membrane!



Step 3 – Preparation of the implant bed*

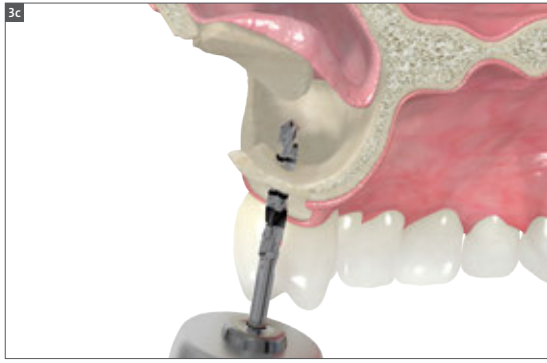
a) Mark the planned implantation site from the transalveolar side with the Diamont Tulip from the maxgraft® bonering surgical kit.



b) Use the \varnothing 2.2 mm Pilot Drill (for BL implants) or the \varnothing 2.2 mm BLT Pilot Drill to access and prepare the planned implant bed and axis. Take care to keep the Schneiderian membrane intact. Once the drill has penetrated the bone at the floor of the sinus, check via the lateral window the required height of the bone ring by using the laser-markings on the drill as a reference for depth measurement.

* For further reference on implant placement, please read the brochure

Straumann® Dental Implant System – Basic information on the surgical procedures, Art. No. 152.754.



c) Widen this access hole by using the \varnothing 2.8 mm Pilot Drill (for BL implants) or the \varnothing 2.8 mm BLT Drill.

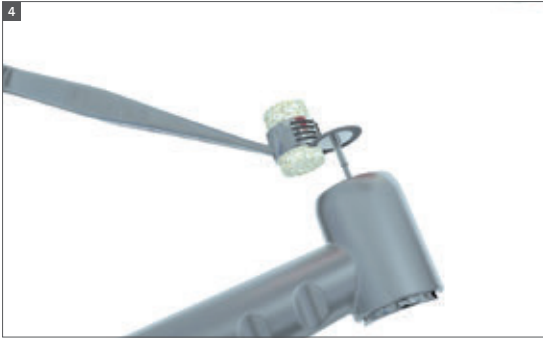
If you are planning to use a \varnothing 3.3 mm BL or BLT implant, basic preparation ends here, but now carry out fine implant bed preparation (Step 3e).



d) If using an implant with a \varnothing 4.1 mm endosteal diameter, continue to widen this access hole with the \varnothing 3.5 mm Twist Drill PRO or the \varnothing 3.5 mm BLT Drill.



e) If there is sufficient residual bone height, fine implant bed preparation is done by profile drilling, to help prepare the residual bone for the implant.



Step 4 – Placing the maxgraft® bonering

The maxgraft® bonering is placed through the lateral window of the osteotomy into the area prepared for the transalveolar insertion of the implant.

The height of the maxgraft® bonering depends on the thickness and anatomy of the sinus floor, and the length of the planned implant. Usually the full height (10mm) of the maxgraft® bonering can be used. However, if there is insufficient space in the prepared area of the sinus cavity, the maxgraft® bonering may be shortened to the required height. This is done with the Diamond disc provided in the maxgraft® bonering surgical kit. It may be necessary to further adjust the shape of the bone ring to fit onto the floor of the sinus.



Step 5 – Placing the implant

During the placement of the implant, the maxgraft® bonering is held in-situ inside the sinus cavity with a forceps from the lateral window to avoid rotation of the ring.

The Straumann® Bone Level (BL) or Bone Level Tapered (BLT) Implant is inserted from the transalveolar approach into the maxgraft® bonering.

A maximum speed of 15 rpm should be used.

Note: The implant should be placed 1.0mm deeper into the maxgraft® bonering.

Once implant placement is completed, you may release the forceps and withdraw this from the lateral window.



NC Closure Cap



RC Closure Cap

Step 6 – Placing the Closure and Fixation Cap

The Closure and Fixation Cap is used for fixing the implant and maxgraft® bonering to the residual bone to provide primary stability during the healing phase.



Fixation Cap

Before inserting the Closure and Fixation Cap, thoroughly rinse the internal configuration of the implant to remove any blood or other debris. You may apply chlorhexidine gel or petroleum jelly inside the screw channel to help facilitate future retrieval.



Pick up the Closure Cap with the Straumann® SCS Screwdriver and hand-tighten this into the implant.



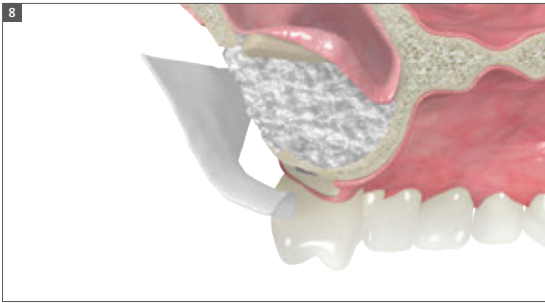
Then pick up the Fixation Cap with the Straumann® SCS Screwdriver and hand-tighten this into the Closure Cap. The implant inside the maxgraft® bonering is now fixed and stabilized with the residual bony ridge.

Caution: If primary stability of the implant/bone ring is not achieved at this stage, or if the residual bony ridge is too thin or of poor bone quality, a two-stage sinus lift and implant placement procedure should be used.



Step 7 – Filling the remaining sinus cavity

The remaining space in the sinus cavity should be filled with particulate bone substitute material. The use of cerabone® is recommended here because this xenogenic bone substitute shows little resorption and helps to maintain the required bone volume.



Step 8 – Covering the lateral window

The lateral window is covered with a resorbable collagen membrane (such as collprotect® or Jason® membrane).



Step 9 – Wound closure

Closure of the flap for submerged healing should be carried out in a tension-free manner to facilitate healing. If there is a temporary prosthesis provided for the patient during the healing phase, this needs to be adjusted to ensure no pressure is exerted on the healing site.

4. Post-operative care

1. Immediate post-operative X-rays are taken.
2. The sutures are removed about 10 days after surgery.
3. Further review visits with follow-up X-rays at appropriate intervals should be arranged (eg. 6 weeks after surgery, 6 months after surgery, prior to planning the final prosthesis, 6–12 months after prosthetic loading)




5. Healing time

The entire healing time is 6 to 8 months. The exact amount of time must be estimated individually by the surgeon depending on the location, type and extent of the defect.

6. maxgraft® bonering and instruments for the bone ring technique

6.1 maxgraft® bonering



The maxgraft® bonering is a pre-fabricated ring of processed allogenic donor bone.

Art. No.	Image	Product	Dimensions
BO-33160		maxgraft® bonering 3.3	L: 10 mm; D: 6 mm*
BO-33170		maxgraft® bonering 3.3	L: 10 mm; D: 7 mm*
BO-33174		maxgraft® bonering 4.1	L: 10 mm; D: 7 mm**

* Can be used with implants with an outer diameter of 3.3 to 3.6 mm









** Can be used only for Straumann® Bone Level Implants and Bone Level Tapered Implants \varnothing 4.1 mm

6.2 Closure and Fixation Cap for BL and BLT implants \varnothing 3.3 and 4.1 mm for the bone ring technique

Art. No.	Image	Product	Dimensions
024.2220S		NC Closure & Fixation Cap	\varnothing 5.5mm, Ti
024.4220S		RC Closure & Fixation Cap	\varnothing 5.5mm, Ti

6.3 Instruments for the maxgraft® bonering technique

All instruments should be used with 800 rpm max.

Art. No.	Image	Product	Dimensions
bo-33000		maxgraft® bonering surgical kit consisting of:	
bo-33001		Pilot drill	∅ 2mm
bo-33002		Trepphine	6mm
bo-33003		Trepphine	7mm
bo-33006		Planator	6mm
bo-33007		Planator	7mm
bo-33010		bonering fix	
bo-33005		Diamond disc	
bo-33004		Diamond tulip	

7. Cleaning and care of instruments

Detailed information for cleaning and care of the instruments for the bone ring technique, you will find in the IFU enclosed to the maxgraft® bonering surgical kit (bo-33000) and for the Straumann implants in the Brochure *Straumann® Dental Implant System – Basic information on the surgical procedure*, 152.754.

8. Related documentation

Note: Our detailed documentation will help you in carefully planning and performing your implant-based restorations.

152.754	<i>Straumann® Dental Implant System – Basic information on the surgical procedures</i>
490.038	<i>Basic information on the surgical procedures for the Strauman® Bone Level Tapered Implant</i>
701351	<i>Instructions for use: Straumann® Dental Implants: Roxolid® Standard, Standard Plus, Standard Plus Narrow Neck CrossFit®, Tapered Effect and Bone Level</i>
701352	<i>Instructions for use: Straumann® Dental Implants: SLA® Standard, Standard Plus, Tapered Effect and Bone Level</i>
701353	<i>Instructions for use: Straumann® Dental Implants: SLActive® Standard, Standard Plus, Tapered Effect and Bone Level</i>
701580	<i>Instructions for use: Straumann® Dental Implants: Roxolid® SLA® Standard, Standard Plus, Standard Plus Narrow Neck CrossFit®, Tapered Effect, Bone Level and Bone Level Tapered</i>

Instruction for use for the maxgraft® bonering surgical kit and instruments:

BO1RF	<i>Reprocessing of resterilizable Zepf hand instruments and their accessories/</i>
BRSK	<i>maxgraft® bonering surgical kit</i>
S02MSK	<i>botiss bonering fix</i>

9. Courses and training

Continuing education ensures long-term success! Please, ask your Straumann representative directly for information on the Straumann® Dental Implant System and bone ring technique courses and training. Further information at www.straumann.com and/or for bone ring courses <https://www.botiss.com/en/events>

10. Important guidelines

Please note

Practitioners must have appropriate knowledge and instructions in the handling of the Straumann Dental Implant System, Straumann CAD/CAM products and other products distributed by Straumann ("Straumann Products") for using the Straumann Products safely and properly in accordance with the instructions for use. The Straumann Product must be used in accordance with the instructions for use provided by the manufacturer. It is the practitioner's responsibility to use the device in accordance with these instructions for use and to determine, if the device fits to the individual patient situation.

The Straumann Products are part of an overall concept and must be used only in conjunction with the corresponding original components and instruments distributed by Institute Straumann AG, its ultimate parent company and all affiliates or subsidiaries of such parent company ("Straumann"), except if stated otherwise in this document or in the instructions for use for the respective Straumann Product. If use of products made by third parties is not recommended by Straumann in this document or in the respective instructions for use, any such use will void any warranty or other obligations, express or implied, of Straumann.

Availability

Some of the Straumann Products listed in this document may not be available in all countries.

Caution

In addition to the caution notes in this document and in the IFU's, the Straumann Products must be secured against aspiration when used intraorally.

Validity

Upon publication of this document, all previous versions are superseded.

Documentation

For detailed instructions on the Straumann Products contact your Straumann representative.

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