

Basic information on Fixed edentulous solutions Treatment guide



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Now available: The new option within your edentulous treatment portfolio

Providing fixed restorations for edentulous patients is a complex procedure that requires the evaluation of several clinical and individual aspects. Within the existing Straumann product portfolio, you can now choose from several prosthetic treatment options to help edentulous patients:

Straumann edentulous portfolio

		Straightforward		Advanced		Complex	
		Removable			Fixed		
Maxilla							
		LOCATOR® on 4 implants	Fixed screw-retained restoration on 4 implants, posterior tilted avoiding sinus	Fixed screw-retained restoration on 4 implants, posterior tilted avoiding sinus	Fixed screw-retained restoration on 8 implants	Fixed screw-retained restoration on 8 implants	Fixed screw-retained restoration on 8 implants
Mandible							
		LOCATOR® on 2 implants	Bar with pre-fabricated / individualized parts > 3 implants	Fixed screw-retained restoration on 4 implants, posterior tilted avoiding mandibular nerve	Fixed screw-retained restoration on 4 implants, posterior tilted avoiding mandibular nerve	Fixed screw-retained restoration on > 6 implants	Fixed screw-retained restoration on > 6 implants

When treating edentulous cases, removable options represent a more straightforward approach, whereas a fixed option with four or more implants (straight or tilted) represents a more advanced approach.

Depending on what your patient expects, a straightforward restoration might not be a viable option. Most patients desire functional esthetics with a high level of comfort. As a dental professional you are now challenged to provide an immediate fixed solution that meets their expectations.

To address the requirements and expectations of patients seeking fast, convenient and reliable solutions for a full dental replacement, Dr. Paulo Malo from MALO CLINIC® developed a special treatment concept in the early 1990's called the MALO CLINIC® Protocol. The protocol offers immediate restorations for edentulous patients despite limited bone availability. The protocol has become a popular procedure worldwide and has influenced developments in shortening time to teeth. Straumann now offers a new generation of surgical and prosthetic components to provide full-arch fixed restorations on either straight or tilted implants with the additional advantages of its SLActive® surface and Roxolid® material technologies.



An excellent combination of scientifically proven implant technology and sleek prosthetic components.

The new Straumann® Bone Level Tapered Implant provides flexibility in challenging clinical and anatomical situations. It represents a combination of the time-tested Straumann Bone Level Roxolid® SLActive® implant with the advantages of a tapered design. The Roxolid material has been specifically designed for dental implantology and delivers outstanding mechanical properties. Combined with the SLActive surface, Straumann delivers an excellent implant system with outstanding osseointegration and healing properties.

The Straumann® Screw-Retained Abutment provides a wide range of prosthetic options for screw-retained restorations. A low abutment profile as well as various angulations and gingiva heights offer you flexibility to provide an individual solution for edentulous patients, including restoring posterior-tilted implants.

For final restorations, multiple CARES® Bar designs are available, delivering treatment flexibility

THE NEW STRAUMANN® BONE LEVEL TAPERED IMPLANT



Roxolid – reducing invasiveness with smaller implants⁵

- Roxolid material with excellent mechanical properties²
- Roxolid may allow the use of smaller-diameter implants with the same clinical performance as regular-diameter titanium implants¹
- Smaller implants have the potential to preserve peri-implant structures and avoid invasive bone grafting procedures
- Create a full denture on two Roxolid 3.3 implants
- Increase patient acceptance of implant treatment by providing less invasive solutions⁵



SLActive – Designed to maximize treatment success and predictability

- Faster osseointegration to enhance confidence in all treatments⁶
- Reduced healing time from 6 to 8 weeks to 3 to 4 weeks⁶
- Increased predictability in stability critical treatment protocols

Apically tapered – matches the natural shape of a tooth root

- Helps overcome anatomical restrictions
- Full thread at the bottom allows for engagement of threads with the osteotomy
- In combination with the hybrid tapered shape, the cutting notches enable placement in underprepared sites

STRAUMANN® CARES® SCREW-RETAINED BARS AND BRIDGES

- Custom-milled frameworks for final restoration
- Multiple bar and bridge designs
- Bars and bridges for abutment level or implant level, or combination
- Accessibility for every lab

STRAUMANN® SCREW-RETAINED ABUTMENT

- Sleek profile is designed to provide optimal tissue management
- Available for every restorative platform in the Bone Level Implant line
- Angled abutments offer 17° and 30° with 2.5 mm and 4 mm gingival heights
- Straight abutments offer a choice of 1 mm, 2.5 mm and 4 mm gingiva heights
- CrossFit® connection provides guidance at assembly for proper seating of the abutment



More than a fixed rehabilitation. A smart solution with reduced complexity.

The new Straumann® Pro Arch for fixed edentulous restorations combines several treatment steps which reduce complexity without compromising the outcome. From planning and implant placement to the final restoration, the entire treatment is seamless for the patient.

1

Implant planning

- 2D conventional implant and prosthetic planning based on (CB)CT scanning or x-rays
- 3D digital implant planning for predictable results and treatment efficiency

2

Surgical procedure

- Scientifically supported Straumann Bone Level Implants
- Roxolid® material with excellent mechanical properties²
- Outstanding SLActive® surface designed to deliver increased predictability in stability critical protocols
- Straumann Planning Guide to support tilted implant placement
- Internal CrossFit® implant-to-abutment connection for long-term stability

3

Prosthetic treatment

- Abutments with a low-profile design, additional abutment angulations and universal abutment connector
- Abutment portfolio allows immediate temporization to deliver teeth within a short period of time
- High-end final restorations with the option for custom-milled hybrid and wrap-around designs

PLANNING PHASE

For optimal and long-lasting results, a prosthetic-driven planning phase is essential. Collaboration with all treatment partners is important.

During the planning phase the following aspects need to be considered:

- Clarify patient's expectations
- Analyze patient's oral hygiene compliance
- Patient anamnesis (bone density, bone volume, sufficient lip support)
- Decide on final prosthetic restoration (fixed/removable)
- Decide on surgical procedure and implant placement
- Long-term post-operative care and maintenance

Proper diagnosis and treatment planning – including the patient's needs – as well as an evidence-based implant/prosthetic design will help to result in a successful treatment. In combination, these factors can significantly improve the patient's quality of life³.

Planning and implant preparation for multi-unit and single-unit restorations can either be done via conventional methods or with the help of digital planning softwares. This treatment guide will focus on the conventional procedure with an open-flap approach.

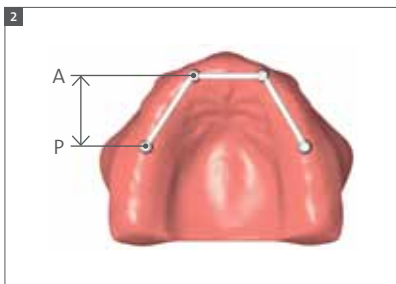
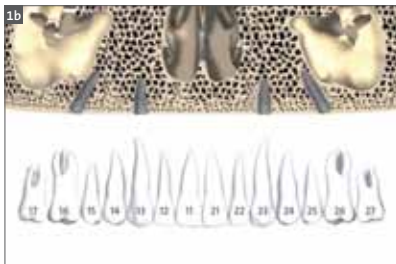
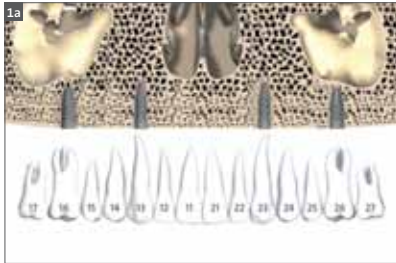
For additional information on Straumann® Guided Surgery, please consult the manual *Basic Information on Straumann® Guided Surgery*, NAMLIT 1006.

2

Surgical procedure

SURGICAL PREPARATION AND GENERAL CONSIDERATIONS

Based on the treatment decision and the desired final restoration, define the following:



1. Position and orientation of the implant based on bone volume:
 - full bone volume up to molars: straight implant placement (1a)
 - bone volume sufficient in anterior region up to premolars: tilted implant placement in the posterior region (1b)

2. Implant position considering anterior-posterior spread (A-P spread) for biomechanical stability
3. Implant angulation (max. angulation): 30° (= higher A-P spread for higher stability)
4. Impression-taking: based on the level of the planned restoration:
 - a. – for a restoration based on abutment level, choose an abutment-level impression
 - for a restoration on implant level, choose an implant-level impression
 - b. for a final restoration using Straumann® CARES®, use an abutment-level impression to ensure optimal results

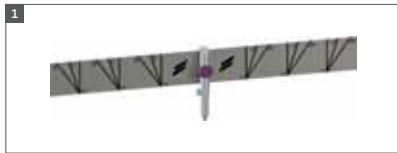
5. Together with the dental lab, produce an individual acrylic guide to verify implant axis, abutment/coping position and screw channels throughout the procedure.

SURGICAL PROCEDURE (FLAP PROCEDURE), ABUTMENT PLACEMENT AND IMMEDIATE TEMPORIZATION*

Make sure the surgical and prosthetic planning are both completed and critical anatomical sites are not compromised (maxilla: sinus/mandible: mandible nerve). In some cases, the individual patient situation may require tilting of the implant. Posterior-tilted implants provide additional distal support for the prosthesis⁴.

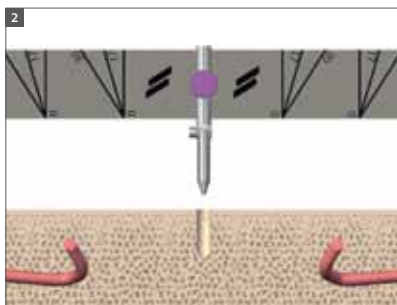
Prerequisites:

- Remaining dentition removed
- Flap opened and ready for implant placement
- Surgical stent prepared by dental lab

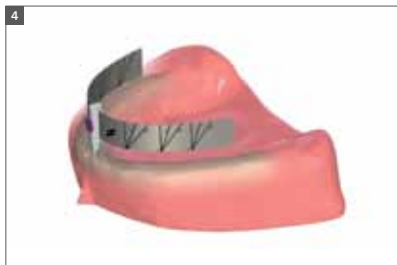


Intraoral verification:

1. To ensure a proper implant position, use the Straumann® Pro Arch Guide.



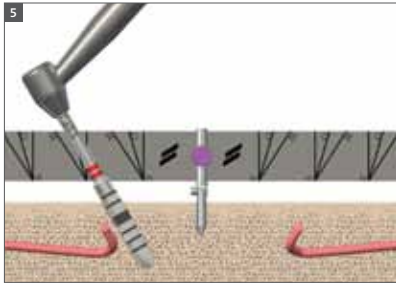
2. To prepare the placement of the Pro Arch Guide, create midline osteotomy by using the 2.2 mm Profile Drill for drilling down to 10 mm.
3. Place the Pro Arch Guide in the midline osteotomy – the marks on the Pro Arch Guide help align the axis of the implant.



4. Bend the Straumann® Pro Arch Guide to adapt to the dental arch and use it as an orientation when you align the abutments/the Occlusal Screw channel. Ideally, the Occlusal Screw channel is oriented more to the lingual/palatinal side to avoid the screw channel coming out buccally.

Note: To adjust the metal plate use the Hexagonal Screwdriver (046.421).

*When good primary stability is achieved



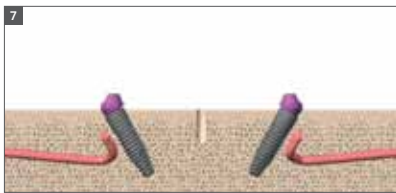
Implant site preparation:

5. Drill to appropriate depth and check correct angulation using the marks on the Straumann® Pro Arch Guide.



6. Place the appropriate implant following the surgical protocol.

Note: Straumann® Roxolid® Implants will be delivered with the Loxim™ Transfer Piece, which is connected to the implant with a snap-in mounting. After insertion of the implant, the Loxim™ can be released by hand or with the help of tweezers.



7. Use Straumann® Plan Abutments intraorally to determine the final Straumann® Screw-Retained Abutment's angulation and gingiva height (GH).

Please note: Plan Abutments are only available in GH 2.5 mm.



8. Use the Straumann® Bone Level Bone Profiler to prepare the bone coronally to the implant shoulder in cases where the bone interferes with the abutment's emergence profile. For more details see *Appendix B: Straumann® Bone Level Bone Profiler*.

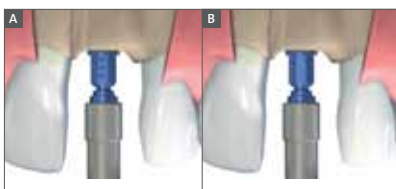


9. Position the final abutments with a torque value of 35 Ncm.

10. For anterior implant placement repeat steps 4 to 7.



11. Use the surgical stent throughout the procedure to verify implant position and orientation.



Note: In order to find the correct abutment version (A or B), check the height markings on the Loxim™ Transfer Piece.

- If the height markings **are** oriented buccally use A-type abutments.
- If the height markings **are not** oriented buccally use B-type abutments.

Additional information on the Straumann Screw-retained abutment

Straumann® Screw-Retained Abutments, straight NC GH 1.0 mm (Ø 3.5 mm and Ø 4.6 mm), are indicated for single-crown restorations in central and lateral incisors, and for multi-unit restorations incisors to pre-molars:

		Single-unit restoration	Multi-unit restorations (incisors – premolars)	Multi-unit restorations (molars)
NC Ø 3.5 mm straight abutments	GH 1 mm	Central/lateral incisors	Yes	No
	GH 2.5/4 mm	Yes	Yes	No
NC Ø 4.6 mm straight abutments	GH 1 mm	Central/lateral incisors	Yes	No
	GH 2.5/4 mm	Yes	Yes	No
NC Ø 4.6 mm angled abutments		Yes	Yes	No
RC Ø 4.6 mm straight abutments		No limitation		
RC Ø 4.6 mm angled abutments		No limitation		

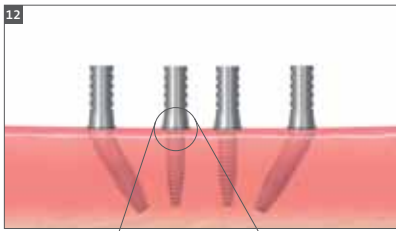
Note: For additional information on the surgical procedure, please consult the *Basic information on the surgical procedure for the Straumann® Bone Level Tapered Implant*, NAMLIT 1043.

If immediate temporization is not indicated, place Protective Caps for Straumann® Screw-Retained Abutments directly onto the abutments and hand-tighten them.

Note: Do not keep the Protective Caps in the patient's mouth for more than 30 days. Prepare sufficient space in the patient's temporary denture until the final prosthesis is placed.

IMMEDIATE TEMPORIZATION* WITH THE HELP OF THE DENTAL LAB**Prerequisites:**

- Acrylic guide based on patient situation prepared by the dental lab
- Temporary restoration prepared by dental lab
- Abutments placed and tightened to 35 Ncm



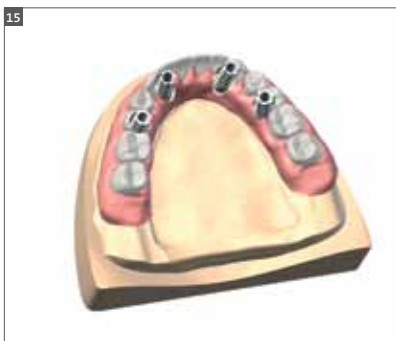
12. Place non-engaging Titanium Copings on the anterior and posterior abutments.



13. Ensure correct position of the Titanium Copings on the abutments. Avoid any gaps between the Titanium Coping and the abutment.



14. Use the acrylic guide to check the alignment and position of the Titanium Copings. Once the position is ensured make sure the occlusal set up fits with the prepared prosthesis. Apply bite registration material to identify the emergence of the Titanium Copings as well as preparation for pick up.



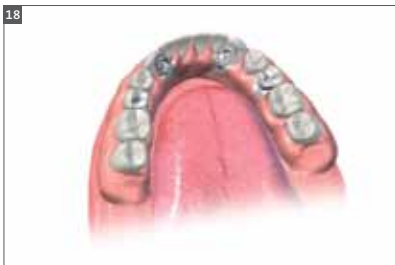
15. Use the acrylic guide to transfer the clinical situation to the dental lab.

Steps 16 – 18 can be performed in the dental office while the patient waits (direct method), or can be performed by an off-site dental lab (indirect method)

16. The dental lab adapts the temporary restoration based on all information provided. Make sure to prepare sufficient space in the temporary restoration to fit in the Titanium Copings.



17. Intraorally, fix the Titanium Copings with the existing reworked prosthesis using resin material.

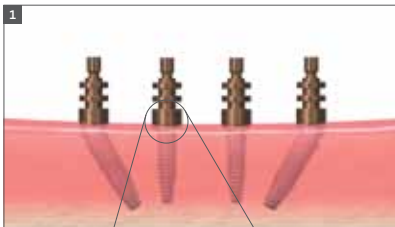


18. Finalize and polish the temporary restoration in the dental lab.
19. Place the temporary restoration in the patient's mouth and tighten the Occlusal Screws to 15 Ncm using the SCS Screwdriver along with the Ratchet and the Torque Control Device.

IMPRESSION TAKING ON ABUTMENT LEVEL FOR FINAL RESTORATION

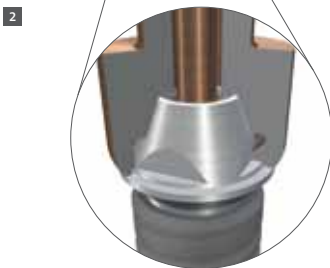
Prerequisites:

- Implants, abutments and Protective Cap placed
- Implant site healed
- Temporary prosthesis is removed



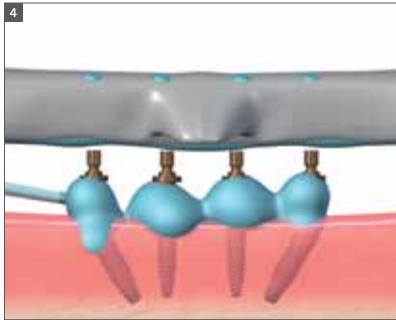
Open-tray impression

1. Place the Impression Post accurately into the abutment and hand-tighten the Guide Screw.



2. Ensure correct positioning of the Impression Posts to ensure proper fit of the restoration. Make sure the engaging features of the impression components are correctly aligned with the abutments to avoid any gaps.

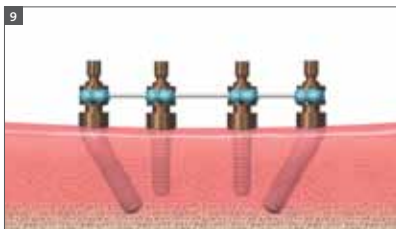
3. Make perforations in the custom-made impression tray (light-cured resin) according to the individual situation so that the Positioning Screw of the Impression Post sticks out visibly.



4. Take the impression using a standard elastomeric impression material (e.g. polyvinyl siloxane or polyether rubber). **Uncover the screws before the material is set.**
5. Once the material is set, loosen the Guide Screws and remove the tray.
6. For easy abutment identification, include the impression components when you send the dental impression to your dental lab partner.
7. In the dental lab, reposition and fix the Analog in the impression using the Guide Screw.



8. Fabricate the master cast. A gingival mask should always be used to ensure that the emergence profile is optimally contoured.



9. Fabricate verification jig to verify accuracy of master cast.

Option for closed-tray impression:

Place the Impression Posts onto the Screw-retained Abutments, ensure correct positioning with the retentive features and click the Positioning Caps onto the Impression Posts allowing a vestibular orientation. After taking the impression, forward all impression components to the dental lab for processing.

In the dental lab, screw the Impression Posts onto the corresponding analogs and click back into the Positioning Caps.

Please note: All Impression Posts are intended for single use only to ensure optimal fit and precise impression taking for each patient.

Note: Hydrocolloid is not suitable for this application due to its low tensile strength.

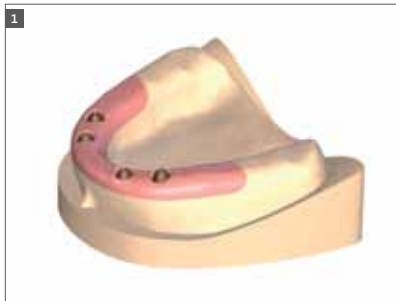
FINAL FIXED PROSTHESIS INCLUDING DIGITAL IMPRESSION-TAKING AND CUSTOM-MILLED BARS

Prerequisites:

- Implants placed and completely osseointegrated
- Abutments placed
- Provisional fixed prosthesis available

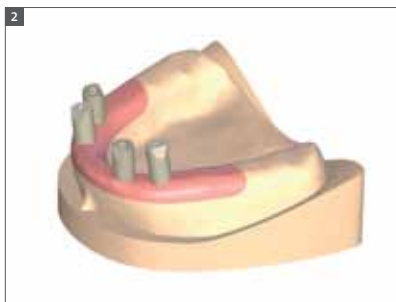
For digital procedure: digital impression taken from the dental model using Straumann® CARES® Mono Scanbodies for Screw-retained Abutments, and imported into Straumann® CARES® Visual

DIGITAL IMPRESSION ON A DENTAL MODEL WITH SCANBODIES



If you decide to work with a custom-milled CARES® framework, please proceed as follows:

1. Fabricate a master cast based on a dental impression.



2. Place CARES® Mono Scanbodies for Screw-retained Abutments onto the abutments on the dental model.



3. Scan the dental situation with the help of the Straumann® Scanner.

Clinicians should consult a Straumann CARES laboratory for steps required to produce the final restoration. Dental laboratories should consult User Manuals or your local Straumann Territory Manager for additional details.



4. Design the framework in Straumann® CARES® Visual. Route project to milling. A stone model with soft tissue is required to process the framework. Ship both to Straumann's milling facility.
5. The final restoration is processed on the custom-milled framework.



6. In the dental office, place the final restoration into the patient's mouth.

In CARES® Visual software the following framework designs for screw-retained restorations are currently available:

	Tissue Level	Bone Level	Screw-retained Abutment-level
Bridge	✓	✓	✓
Removeable Bar Designs	✓	✓	✓
CARES® Basic Fixed Bar	✓	✓	✓
CARES® Advanced Fixed Bar	✓	✓	✓
Material	Titanium, coron® (chrome-cobalt)		



CARES® Screw-retained Bridge



CARES® Milled Bar



CARES® Basic Fixed Bar



CARES® Advanced Fixed Bar

For additional information on Straumann® CARES® products and services, please consult the following brochures:

- Straumann® CARES® Customized Prosthetic Solutions (NAMLIT 1004; NAMLIT 1002)

STRAUMANN® CARES® SCAN & SHAPE

For labs without a scanner and software, the CARES® Scan & Shape service is available



1. Fabricate a master cast based on a dental impression.



2. Send the impression order sheet, and any other required materials, to CARES® Scan & Shape service.
3. The final restoration is processed on the custom-milled framework.
4. In the dental office, place the final restoration into the patient's mouth.

For more detailed information please contact your local laboratory territory manager.

CARE AND MAINTENANCE

For long-term success and proper fit of the fixed prosthesis, thorough patient instruction, and periodic check-ups are recommended.

It may not be necessary to exchange the Occlusal Screws at each check-up visit.

During patient visits, you should carefully examine the:

- Condition of peri-implant tissues with regard to diseases:
 - Plaque and calculus, bleeding, recession, bone loss, radiographs
- Superstructure:
 - Occlusal fit and articulation, proper fit of the fixed bridge, wear of occlusal surface, retention, attachment loosening, abutment status
- Function of the prosthesis.

For proper care at home, instruct the patient to clean the space between gingiva and fixed bridges, especially around the implants on a regular basis. Dental floss, super dental floss or interdental brushes are recommended.

Clinical case

THIS CLINICAL CASE REPRESENTS ONE METHOD OF PROVIDING A SCREW-RETAINED FULL-ARCH RESTORATION.

Images courtesy of Dr. William Runyon and Dr. William Ralstin. Lab work by Darrel Clark, CDT, Fort Worth, Texas.

Initial situation: A female patient presented at the dental office with a problematic screw-retained bridge restoration in the anterior maxilla. Based on her dental history it was decided to restore utilizing a fixed restoration on 4 implants and an immediate temporary prosthesis.



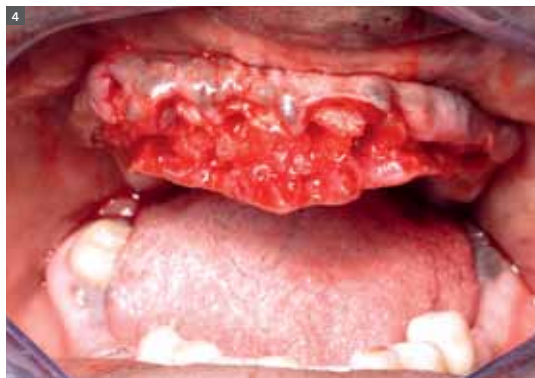
Pre-operative situation



Study model, surgical stent and interim fixed prosthesis prepared by the dental lab



Anterior maxilla occlusal view



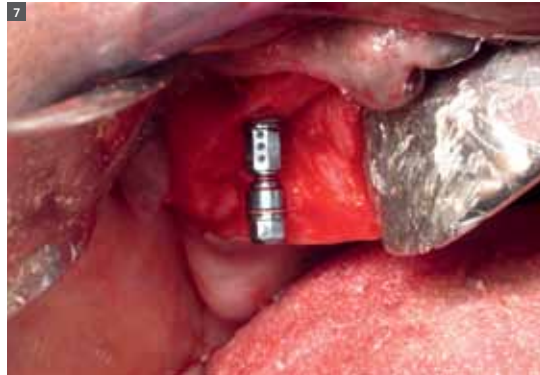
Flap and extraction of maxillary teeth



Maxillary ridge reduction



Ridge preparation



7
Straumann® BL RC Implant with SLActive® surface placed at #4



8
30° angled Screw-retained Abutment, placed onto the implant



9
Implant osteotomy #13



10
Surgical stent and anterior implants



11
Titanium Copings, non-engaging, placed intra-orally, facial view



12
Titanium Copings, non-engaging, placed intra-orally, occlusal view



Block-out technique to protect screw channels



Blu-Mousse® application to identify the emergence of the Titanium Copings



Blu-Mousse® set and pick up



Trimming of impression material in the dental lab



Study model drilling and registration



Study model occlusal view



Interim fixed bridge registration with study model



Trimming interim fixed bridge for intra-oral pick up



Passivity and fit check on study model



Titanium Copings in place and screw channels blocked out



Anterior Titanium Copings blocked out, verify access and passivity



Acrylic material intra-oral pick up



Posterior abutments blocked out and pick up



Security of intra-oral pick up verified



Application of additional acrylic to pick up sites



Trimming interim fixed prosthesis



Fit check of study model



Interim fixed prosthesis initial seating, occlusal view



Interim fixed prosthesis. Close screw access holes



Interim fixed prosthesis, post-operative, facial view: note buccal flange extension, adaptation to maxillary ridge, and relation to mandibular natural dentition



For the final fixed prosthesis, Straumann® CARES® Bars are used as a framework



4 months later, the final fixed prosthesis is delivered to the patient


















Pre-operative situation



Post-operative situation

Product overview






















	Pictures	Art. No.	Product description		Plan components / Screws
3.5 mm		022.2745	NC Screw-retained Abutment, TAN, straight 0°, D 3.5 mm, GH 1 mm		025.2648-04 NC Plan Screw-retained Abutment, POM, straight 0°, D 3.5 mm, GH 2.5 mm
		022.2746	NC Screw-retained Abutment, TAN, straight 0°, D 3.5 mm, GH 2.5 mm		
		022.2753	NC Screw-retained Abutment, TAN, straight 0°, D 3.5 mm, GH 4 mm		
4.6 mm		022.2747	NC Screw-retained Abutment, TAN, straight 0°, D 4.6 mm, GH 1 mm		025.2650-04 NC Plan Screw-retained Abutment, POM, straight 0°, D 4.6 mm, GH 2.5 mm
		022.2748	NC Screw-retained Abutment, TAN, straight 0°, D 4.6 mm, GH 2.5 mm		
		022.2754	NC Screw-retained Abutment, TAN, straight 0°, D 4.6 mm, GH 4 mm		
		022.2749	NC Screw-retained Abutment, TAN, angled 17°, D 4.6 mm, GH 2.5 mm, Type A		025.2655-04 NC Plan Screw-retained Abutment, POM, angled 17°, D 4.6 mm, GH 2.5 mm, Type A
		022.2750	NC Screw-retained Abutment, TAN, angled 17°, D 4.6 mm, GH 2.5 mm, Type B		
		022.2755	NC Screw-retained Abutment, TAN, angled 17°, D 4.6 mm, GH 4 mm, Type A		025.2658-04 NC Plan Screw-retained Abutment, POM, angled 17°, D 4.6 mm, GH 2.5 mm, Type B
		022.2756	NC Screw-retained Abutment, TAN, angled 17°, D 4.6 mm, GH 4 mm, Type B		
		022.2751	NC Screw-retained Abutment, TAN, angled 30°, D 4.6 mm, GH 2.5 mm, Type A		025.2653-04 NC Plan Screw-retained Abutment, POM, angled 30°, D 4.6 mm, GH 2.5 mm, Type A
		022.2752	NC Screw-retained Abutment, TAN, angled 30°, D 4.6 mm, GH 2.5 mm, Type B		
		022.2757	NC Screw-retained Abutment, TAN, angled 30°, D 4.6 mm, GH 4 mm, Type A		025.2660-04 NC Plan Screw-retained Abutment, POM, angled 30°, D 4.6 mm, GH 2.5 mm, Type B
		022.2758	NC Screw-retained Abutment, TAN, angled 30°, D 4.6 mm, GH 4 mm, Type B		
	4.6 mm		022.4745	RC Screw-retained Abutment, TAN, straight 0°, D 4.6 mm, GH 1 mm	
022.4746			RC Screw-retained Abutment, TAN, straight 0°, D 4.6 mm, GH 2.5 mm		
022.4751			RC Screw-retained Abutment, TAN, straight 0°, D 4.6 mm, GH 4 mm		
		022.4747	RC Screw-retained Abutment, TAN, angled 17°, D 4.6 mm, GH 2.5 mm, Type A		025.4649-04 RC Plan Screw-retained Abutment, POM, angled 17°, D 4.6 mm, GH 2.5 mm, Type A
		022.4748	RC Screw-retained Abutment, TAN, angled 17°, D 4.6 mm, GH 2.5 mm, Type B		
		022.4752	RC Screw-retained Abutment, TAN, angled 17°, D 4.6 mm, GH 4 mm, Type A		025.4650-04 RC Plan Screw-retained Abutment, POM, angled 17°, D 4.6 mm, GH 2.5 mm, Type B
		022.4753	RC Screw-retained Abutment, TAN, angled 17°, D 4.6 mm, GH 4 mm, Type B		
		022.4749	RC Screw-retained Abutment, TAN, angled 30°, D 4.6 mm, GH 2.5 mm, Type A		025.4653-04 RC Plan Screw-retained Abutment, POM, angled 30°, D 4.6 mm, GH 2.5 mm, Type A
		022.4750	RC Screw-retained Abutment, TAN, angled 30°, D 4.6 mm, GH 2.5 mm, Type B		
		022.4754	RC Screw-retained Abutment, TAN, angled 30°, D 4.6 mm, GH 4 mm, Type A		025.4660-04 RC Plan Screw-retained Abutment, POM, angled 30°, D 4.6 mm, GH 2.5 mm, Type B
		022.4755	RC Screw-retained Abutment, TAN, angled 30°, D 4.6 mm, GH 4 mm, Type B		


Impression / transfer components			Temporary restorations / Copings / Screws			
3.5 mm		025.2243	Impression Post for open tray, TAN, for Screw-retained Abutment, abut. level, 0°, D 3.5 mm		024.2323-04	NC Protective Cap for Screw-retained Abutment, D 3.5 mm, H 5 mm, PEEK/TAN
		025.2245	Impression Post for closed tray, TAN/POM, for Screw-retained Abutment, abut. level, D 3.5 mm		024.2324-04	NC Protective Cap for Screw-retained Abutment, D 3.5 mm, H 6.5 mm, PEEK/TAN
		025.0000	CARES® Scanbody for Screw-retained Abutment, D 3.5 mm (NC)		024.2325-04	NC Protective Cap for Screw-retained Abutment, D 3.5 mm, H 8 mm, PEEK/TAN
		023.2754	NC Analog for Screw-retained Abutment, TAN, straight 0°, D 3.5 mm		023.2749	NC Coping for Screw-retained Abutment, Ti, Bridge, D 3.5 mm
				023.2750	NC Coping for Screw-retained Abutment, Ti, Bar, D 3.5 mm	
				023.2747	NC Coping for Screw-retained Abutment, Ti, Crown, D 3.5 mm	
				023.2755	NC Burn-out Coping for Screw-retained Abutment, POM, Bridge/Bar, D 3.5 mm	
				023.2748	NC Burn-out Coping for Screw-retained Abutment, POM, Crown, D 3.5 mm	
				023.2751	NC Gold Coping for Screw-retained Abutment, engaging, D 3.5 mm, Ceramicor®/POM	
				023.2752	NC Gold Coping for Screw-retained Abutment, non-engaging, D 3.5 mm, Ceramicor®/POM	
				023.2753	NC Gold Coping for Screw-retained Abutment, bar, D 3.5 mm, Ceramicor®/POM	

Final Bar Options*

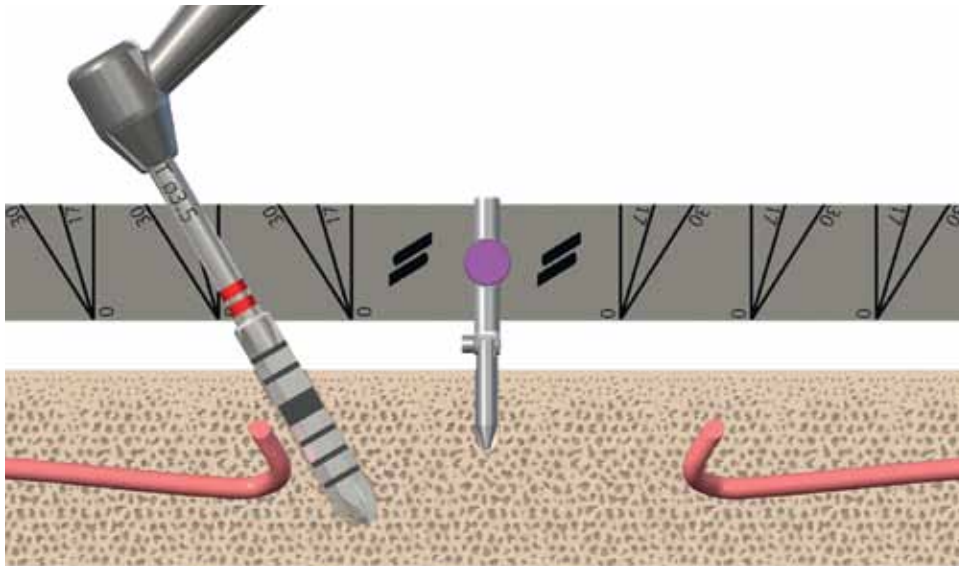


* Additional bar types are available

		Impression / transfer components		Temporary restorations / Copings / Screws			
4.6 mm	4.6 mm		023.4756	NC/RC Analog for Screw-retained Abutment, TAN, straight 0°, D 4.6 mm		023.4753	NC/RC Gold Coping for Screw-retained Abutment, engaging, D 4.6 mm, Ceramicor®/POM
			023.4757	NC/RC Analog for Screw-retained Abutment, TAN, angled 17°/30°, D 4.6 mm		023.4754	NC/RC Gold Coping for Screw-retained Abutment, non-engaging, D 4.6 mm, Ceramicor®/POM
			025.2244	Impression Post for open tray, TAN, for Screw-retained Abutment, abut. level, 0°, D 4.6 mm		023.4755	NC/RC Gold Coping for Screw-retained Abutment, bar, D 4.6 mm, Ceramicor®/POM
			025.2246	Impression Post for closed tray, TAN/POM, for Screw-retained Abutment, abut. level, D 4.6 mm		024.4323-04	NC/RC Protective Cap for Screw-retained Abutment, D 4.6 mm, H 5.1 mm, PEEK/TAN
						024.4324-04	NC/RC Protective Cap for Screw-retained Abutment, D 4.6 mm, H 6.6 mm, PEEK/TAN
						024.4325-04	NC/RC Protective Cap for Screw-retained Abutment, D 4.6 mm, H 8.1 mm, PEEK/TAN
	023.4751	NC/RC Coping for Screw-retained Abutment, Ti, Bridge, D 4.6 mm		023.4752	NC/RC Coping for Screw-retained Abutment, Ti, Bar, D 4.6 mm		
				023.4747	NC/RC Coping for Screw-retained Abutment, Ti, Crown, D 4.6 mm		
				023.4758	NC/RC Burn-out Coping for Screw-retained Abutment, POM, Bridge/Bar, D 4.6 mm		
	023.4748	NC/RC Burn-out Coping for Screw-retained Abutment, POM, Crown, D 4.6 mm		023.4749	NC/RC Screw for Screw-retained Abutment, TAN, straight 0°, GH 1 mm		
				023.4750	NC/RC Screw for Screw-retained Abutment, TAN, straight 0°, GH 2.5 mm		
				023.4760	NC/RC Screw for Screw-retained Abutment, TAN, straight 0°, GH 4 mm		
	023.4763	NC/RC Occlusal Screw, TAN, for Coping, Screw-retained Abutment		025.0002	NC/RC Screw for Screw-retained Abutment, TAN, 17°/30°		
	025.0001	CARES® Scanbody for Screw-retained Abutment, D4.6 (NC/RC)					

	026.0016	Straumann® Pro Arch Guide for Screw-retained Abutment
	026.0902	CrossFit® Plan Set
	026.0000	CrossFit® Plan Set, empty

Appendix A: Straumann® Pro Arch Guide



Intended use: The Straumann® Pro Arch Guide is used for visual and three-dimensional orientation of the implant angulation (mesial/distal) and oral parallelization.

Indication: The surgical and prosthetic procedure is the placement of multiple implants in combination with Screw-retained Straight or Angled Abutments.

Product description: The Straumann® Pro Arch Guide is used in edentulous jaws for surgical implant placement. The template of the Pro Arch Guide can be easily bent to adapt to the dental arch. It is secured by drilling into the symphysis with a \varnothing 2.2 mm Pilot Drill and a pin in the jaw. The drilling depth for the bone cavity of the pin is 10 mm. The drilling depth can be checked optically using the depth markings on the drills or using the optional depth stop system.

The slider is used to position the template for drilling. Drill the implant sites according to the surgical protocol. Each drill is aligned parallel to the template surface and at the implantation angle. Make sure the Pro Arch Guide is properly assembled, clean and sterile. Never use potentially contaminated components.

Warnings and precautions: Take the following precautions prior to or during treatment:

- Position the patient in such a way that the danger of aspiration of components is minimized. All components that are used intraorally must be secured to prevent aspiration or swallowing.
- Do not use damaged or blunt instruments. Always inspect the instruments before use.
- If the laser markings are illegible, the device must be replaced.
- Do not use more than 20 times.

Sterilization: Autoclave, fractionated vacuum method or gravitation method: at least 18 min (for prion inactivation) at 134 °C (273 °F).

Appendix B: Straumann® Bone Level Bone Profiler

The Bone Level Bone Profiler is used to remove bone coronally to the implant shoulder in the following situations:

- deeply placed implants
- angulated/tilted implants
- scalloped or sloped alveolar ridge

Important: Use the Bone Level Bone Profilers only if the bone walls interfere with the abutment's emergence profile.

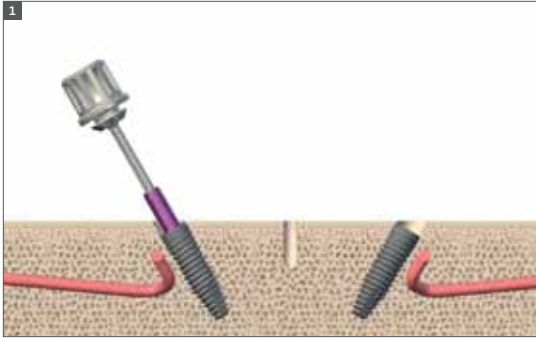
The Straumann® Bone Level Bone Profiler system consists of the following components:



Instrument	Article number
Guiding Cylinder NC for Bone Level Bone Profiler	026.0025S
Guiding Cylinder RC for BL Bone Profiler	026.0026S
Bone Level Bone Profiler 1	026.0022
Bone Level Bone Profiler 2	026.0023
Bone Level Bone Profiler 3	026.0024

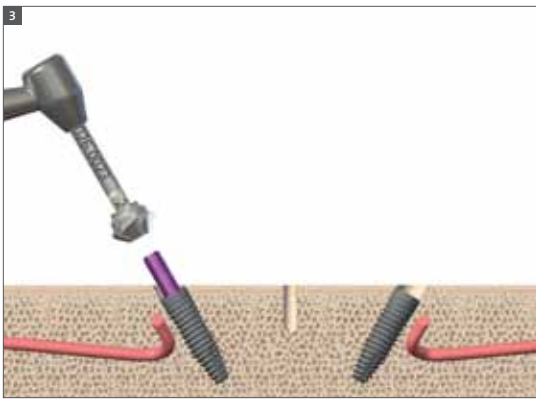
Instructions for use

For detailed instructions please consult the *Instructions for use* supplied with the product or at ifu.straumann.com



1. Depending on the implant connection type (RC or NC), screw the Guiding Cylinder NC (026.0025S) or Guiding Cylinder RC (026.0026S) into the implant using an SCS Screwdriver. Hand-tighten the Guiding Cylinder.

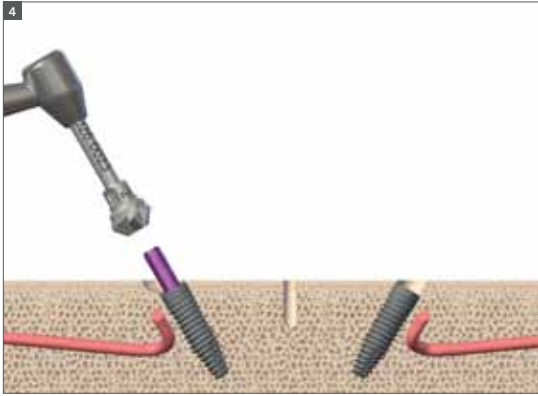
2. Choose the Bone Profiler 1, 2 or 3 depending on the abutment emergence profile, the implant position (e.g. subcrestal placement, tilted position) and surrounding bone situation (e.g. uneven, scalloped ridge). Table 1 (on the next page) shows which Bone Profiler is generally suggested for a particular abutment in situations of deeply (subcrestally) placed implants.



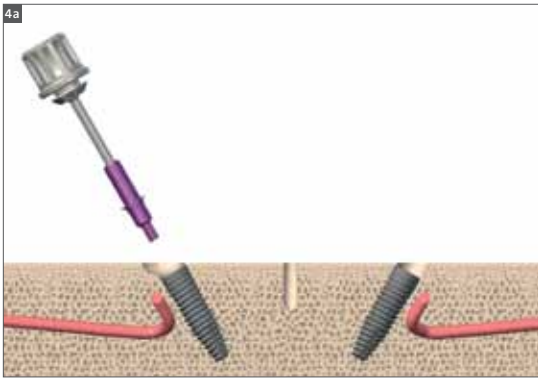
3. Insert the Bone Profiler into the dental hand-piece. Without turning the Bone Profiler, place it over the Guiding Cylinder and slide it down until the Bone Profiler is 1 mm away from the bone. Once in position, drill into the bone not exceeding the maximum rotational speed of 200 rpm. Use intermittent drilling technique with ample irrigation with sterile precooled physiological saline solution.

Important: When drilling keep the Bone Profiler and the Guiding Cylinder axially aligned and do not apply any bending forces. Continue drilling until the Bone Profiler reaches the stop collar of the Guiding Cylinder.





1. Remove the Bone Profiler and unscrew the Guiding Cylinder from the implant.



2. Place the abutment and screw it into the implant.

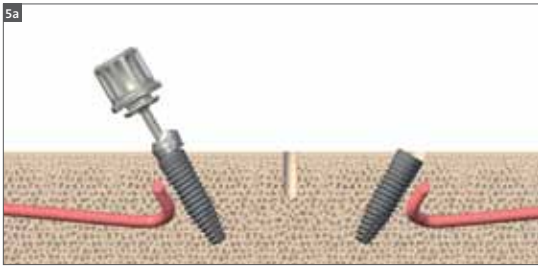


Table 1: Abutments and corresponding Bone Level Bone Profilers

	Art No	Bone Profiler 1 026.0022	Bone Profiler 2 026.0023	Bone Profiler 3 026.0024
Bone Level Healing Abutments	024.4236, 024.4236S	✓		
	024.4234, 024.4234S	✓		
	024.4222, 024.0000S	✓		
	024.4222S		✓	
	024.4224, 024.4224S, 024.0001S	✓		
	024.4226, 024.4226S, 024.0002S	✓		
	024.4242, 024.4242S, 024.0003S			✓
	024.4244, 024.4244S, 024.0004S		✓	
	024.4246, 024.0005S		✓	
	024.4246S	✓	✓*	
	024.2236, 024.2236S	✓		
	024.2234, 024.2234S	✓		
	024.2222, 024.2222S	✓		
	024.2224, 024.2224S	✓		
	024.2226, 024.2226S	✓		
	024.2242, 024.2242S		✓	
024.2244, 024.2244S	✓			
024.2246, 024.2246S	✓			
Screw-retained Abutments	022.2745	✓		
	022.2746	✓		
	022.2753	✓		
	022.2747		✓	
	022.2748	✓		
	022.2754	✓		
	022.2749			✓
	022.2750			✓
	022.2755		✓	
	022.2756		✓	
	022.2751			✓
	022.2752			✓
	022.2757		✓	
	022.2758		✓	
	022.4745		✓	
	022.4746	✓		
	022.4751	✓		
	022.4747			✓
	022.4748			✓
	022.4752		✓	
	022.4753		✓	
	022.4749			✓
022.4750			✓	
022.4754		✓		
022.4755		✓		

* Bone Profiler may only be needed if the implant is placed deeper than 3mm subcrestally; otherwise use Bone Profiler.

References

1 Benic GI et al. : Titanium-zirconium narrow-diameter versus titanium regular-diameter implants for anterior and premolar single crowns: 1-year results of a randomized controlled clinical study. *Journal of Clinical Periodontology* 2013; [Epub ahead of print] 2 Norm ASTM F67 (states min. tensile strength of annealed titanium). Data on file for Straumann cold-worked titanium and Roxolid® Implants 3 Wismeijer D et al. : ITI Treatment Guide: Loading protocols in Implant Dentistry – Edentulous Patients, Volume 4, 2010, page 223 Patient Consideration 4 Wismeijer D et al. : ITI Treatment Guide: Loading protocols in Implant Dentistry – Edentulous Patients, Volume 4, 2010, page 54 Treatment Options for the Edentulous Arch 5 If a guided bone regeneration (GBR) procedure can be avoided. 6 Compared to SLA.

International Headquarters

Institut Straumann AG
Peter Merian-Weg 12
CH-4002 Basel, Switzerland
Phone +41 (0)61 965 11 11
Fax +41 (0)61 965 11 01

Straumann North American Headquarters

60 Minuteman Road
Andover, MA 01810
Phone 800/448 8168 (US) • 800/363 4024 (CA)
Fax 978/747 2490
www.straumann.us • www.straumann.ca