# LOW MARGIN STANDARD ABUTMENT


## Summary

Sterngold-ImplaMed's Low Margin Standard Abutments are available in gingival cuff heights of 1 mm, 2mm, 3mm, 4mm and 5mm. These one-piece abutments allow for more aesthetic restorations than are possible with conventional Standard Abutments. Yet, the same restorative procedures and instrumentation are used.

The abutments and restorative components are manufactured from high strength, surgical implant grade, titanium alloy; and are shipped non-sterile. Products should be removed from their packaging and steam autoclaved at 250ºF for 20 minutes, or as specified by the steam sterilizer manufacturer's operating procedures.


### Indications

The Low Margin Standard Abutment is designed for use on externally hexed implants. This abutment is for screw retained, multi-unit, fixed restorations.

| Numbers | Catalog References | Order Numbers |
|---|---|---|
| Abutments | LAB 1 | 904352 |
| | LAB 2 | 904353 |
| | LAB 3 | 904354 |
| | LAB 4 | 904355 |
| | AB 5 | 904356 |
| Impression coping, open tray | LAICS | 904359 |
| Impression coping, closed tray | LAICT | 904395 |
| Healing cap | LABHC | 904350 |
| Abutment analog, titanium | LALRT | 904369 |
| Abutment analog, brass | LALRB | 904371 |
| Prosthetic cylinder, plastic | LANDC | 904363 |
| Prosthetic cylinder, gold alloy | LANGS | 904373 |
| Prosthetic cylinder, titanium | LANTC | 904361 |
| Polishing protector | LAPC | 904367 |

## ABUTMENT SELECTION

1. Remove the Standard Profile Healing Abutments that were inserted at Phase II surgery. Completely expose the implant hex and shoulder.

2. Using the Tissue Depth Gauge, or a probe, measure the distance fromthe shoulder of the implant to the surface of the peri-implant tissue.

3. Based on the measurement, choose the margin height of the abutment. Themargin should be approximately 1mm below the tissue surface (Fig. 1).

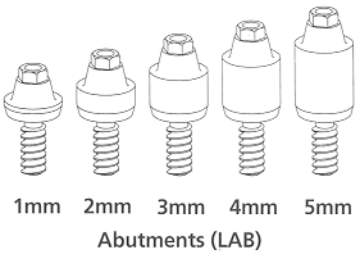



Fig. 1

4. Place the abutment onto the implant using either an Internal Hex Hand Driver, a Locking Internal Hex Hand Driver, or the Internal Hex DriverAttachment (AHI) for hand-pieces.

5. Confirm that the abutment is fully seated on the implant shoulder by clinical examination and a radiograph. Tighten the abutment to 20 N•cm with the Torque Wrench.

6. Place a Healing Cap on the abutment. Use the Small External Hex Hand Driver. The healing cap prevents damage to the abutment margin, and also prevents debris from entering the abutment, while the laboratory phases of treatment are done. It is not necessary to tighten the healing cap with a torque wrench (Fig. 2).

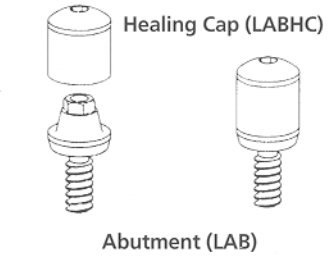



Fig. 2

## IMPRESSIONING

Accuracy in impressions and model fabrication is key to the precision fit of the final restoration. Use either the closed tray or the open tray impressioning technique as conditions or personal preferences dictate. Typically, if the angulation between the abutments is too great to remove the impression material without tearing, the open tray technique is recommended. All laboratory procedures should be performed by skilled personnel following established techniques for implant restorations.

### Closed tray technique

1. Seat a Closed Tray Impression Coping onto each abutment using the Friction Hand Driver (Fig. 3).

2. Try in the impression tray to verify that it seats without interference. Make the impression using the dentist's choice of material.

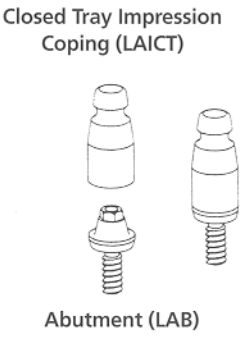



Fig. 3

3. Remove impression copings from their abutments one at a time. Attach an Abutment Analog to each coping and insert the coping/analog assembly into its corresponding site in the impression (Fig. 4).

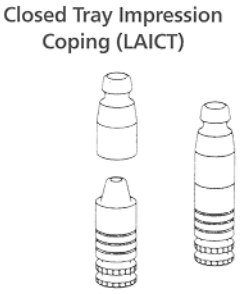



Fig. 4

4. Check for abutments which may have loosened when retrieving the impression copings. Re-tighten them with the 20 N•cm torque wrench as needed. Replace the healing caps.

Open tray technique
1. Seat an Open Tray Impression Coping onto each abutment using a Guide Pin and the Narrow Slotted Hand Driver tool (Fig. 5).

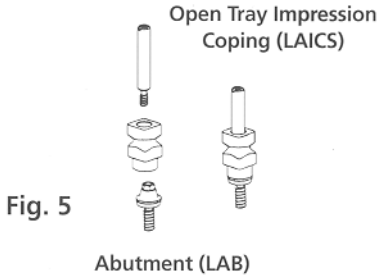


Fig. 5

2. The impression tray is made with occlusal openings over the implant sites for access to the guide pin. Try in the impression tray to verify that it seats without interference. Make the impression using the dentist's choice of material. Allow the guide pins to protrude from the impression material and extend through the tray opening.

## Open Tray

3. After the material has set completely, free the impression copings from Coping the abutments by unscrewing the guide pins. Remove the impression with the copings now embedded in it. Check for abutments which may have loosened when retrieving the impression copings. Re-tighten them as needed with the 20 N•cm torque wrench and replace the healing caps.

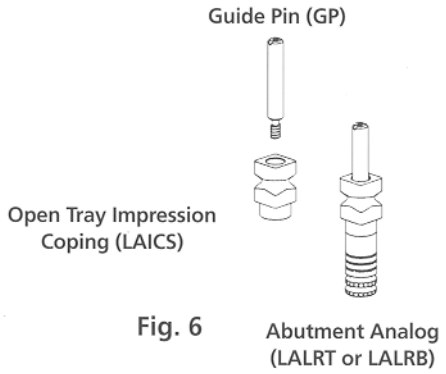


Fig. 6

4. Attach Abutment Analogs to the impression copings by securing them with the guide pins (Fig. 6).

## LABORATORY PROCEDURE

1. Pour a cast with improved die stone. Removable soft tissue models are recommended to improve upon the result of the final restoration. This cast incorporates the Abutment Analogs.

2. Construct a temporary acrylic restoration which incorporates the Low Margin Standard Abutment's titanium Prosthetic Cylinder. Use Guide Pins to affix the cylinders on the abutment analogs. See Plastic Fig. 7. Secure the temporary restoration to the patient's implant abutments Cylinder with Gold Prosthetic Screws. Use hand drivers to set the gold screws.

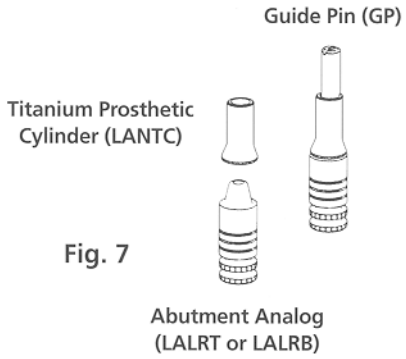


Fig. 7

3. Fabricate the final restoration using the Low Margin Standard Abutment's gold alloy or plastic Prosthetic Cylinders. Connect the prosthetic cylinders to the abutment analogs embedded in the cast using Guide Pins (Fig. 8).

4. Wax, invest and cast the restoration's metal structure according to established laboratory standards and procedures.

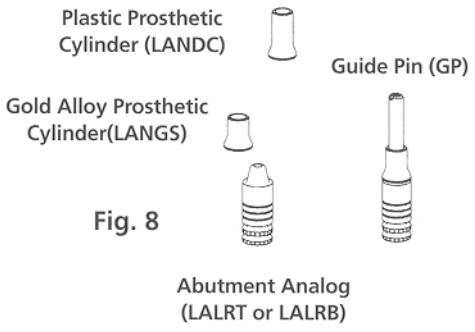


Fig. 8

5. Recover the casting and prepare it for patient try-in. During finishing procedures, use the Polishing Protector (LAPC) to prevent damage to the casting surfaces which will be in contact with the implant abutments (Fig. 9).

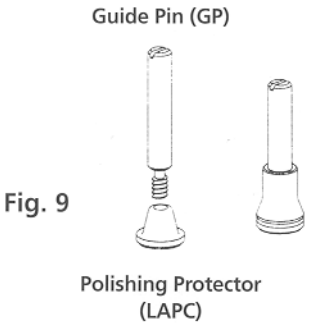


Fig. 9

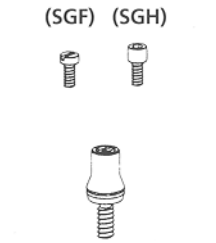
6. Try-in may reveal that the casting does not have the required passive fit on all the implant abutments. This is corrected by sectioning the casting, establishing the correct relationship between the sections intraorally, and soldering the casting back together. Use Sterngold-ImplaMed's heat resistant titanium Abutment Analogs and titanium Guide Pins to help stabilize the casting in the soldering investment.

7. After fit of the casting to the implant abutments is accepted by the dentist, add aesthetic veneers as prescribed.

## INSERTION

Remove the temporary restoration and check for abutments, which you may have loosened. Re-tighten them as needed with the 20 N•cm torque wrench.

The completed restoration is passively seated on the implant abutments and securer Gold Prosthetic Screws (Fig. 10). Use hand drivers to set the gold screws, then tighten them to 10 N•cm with the Torque Wrench.




Gold Prosthetic Screws

Fig. 10

## MAINTENANCE

A conscientious program of home oral hygiene and regular professional care is required to maintain implant restorations. Periodic removal and cleaning of the restoration may be required. It may also be necessary to periodically tighten the abutments and gold prosthetic screws. This can be incorporated into a regular maintenance program. We recommend using torque wrenches to establish optimum force on all screw threads. Replace worn components as needed.