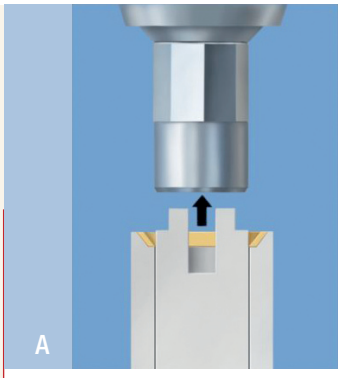
# Trias®solo Abutment

## Indication

For the single-tooth and bridge dentures different abutments are available for the respective implant diameters and gingival heights. According to the application, the prefabricated gingival patterns offer particular advantages but should, if necessary, be adjusted to the particular conditions. All Trias®solo abutments can optionally be provided with a sealing ring of refined gold. This ring reduces the risk of contamination of the microgap between implant and abutment by bacteria from inside the implant. It has been proved within the scope of several studies that this bacterially contaminated microgap is one of the causes for crestal bone loss around the implant shoulder. Relevant literature is available on request.

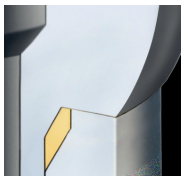
## Trias®Gold Sealing Ring



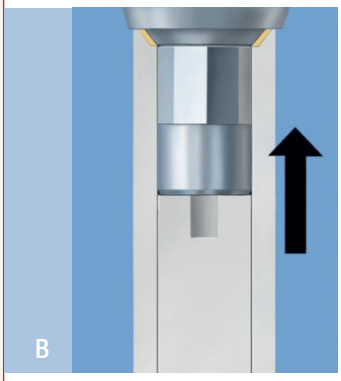

It is also possible to use the system Trias®Implant without gold sealing ring. In this case, to avoid crestal bone loss, you can alternatively choose platform switching or supercrestal insertion.

Should you decide to use the gold sealing ring, it will be supplied separately on a special positioning pin (see Fig. 1). All temporary and preparatory work (impression taking, customization of abutments, etc.) is performed without gold sealing ring.

Only at the moment the definitive integration of the crown/bridge is carried out is the gold sealing ring inserted into the abutment.



Gold sealing ring between implant and abutment

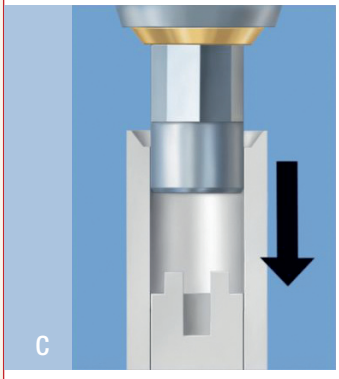



For this purpose, the abutment is simply placed on the positioning pin (Fig. A) and pushed up to the stop (Fig. B).

The gold sealing ring perceptibly engages into the groove between cone and hexagon.

Fig. 1

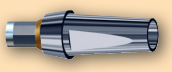
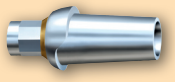
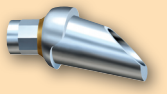
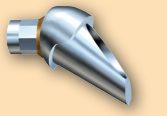
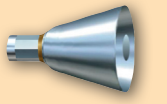
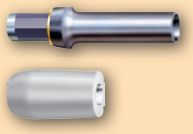
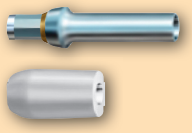
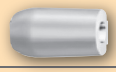
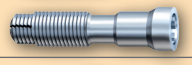
Gold sealing ring on the positioning pin



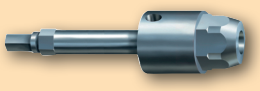

After removal from the positioning pin, the abutment is prepared for definitive insertion (Fig. C).

The torque recommended is 25 Ncm for all abutments stated below.

## System Elements

| | Article No. | |
|---|---|---|
|  | 820xxx | Titanium abutment 0°, standard profile, for 3.3 mm to 6.5 mm dia. in the gingival heights 2 mm and 4 mm |
| | **Properties:** Preparation limit not circularly fitted to the anatomic gingival pattern.<br>Overall height from upper edge of implant: 9 mm to 11 mm | |
|  | 810xxx | Titanium abutment 0°, emergence profile, for 3.3 mm to 4.4 mm implant diameter in the gingival heights 1 mm, 2 mm and 4 mm and for 5.0 mm implant diameter in the gingival heights 2 mm and 4 mm |
| | **Properties:** Preparation limit circularly fitted to the anatomic gingival pattern, preferably for the front teeth area, overall height from upper edge of implant: 7.66 mm to 10.55 mm | |
|  | 811xxx | Titanium abutment 15°, emergence profile, for 3.3 mm to 4.4 mm implant diameter in the gingival heights 0.5 mm, 2 mm and 4 mm |
| | **Properties:** Preparation limit circularly fitted to the anatomic gingival pattern, preferably for the front teeth area, overall height from upper edge of implant: 7.66 mm to 10.55 mm | |
|  | 812xxx | Titanium abutment 25°, emergence profile, for 3.3 mm to 4.4 mm implant diameter in the gingival heights: 3.3 mm dia. / 0.5 mm + 2 mm + 4 mm; 3.8 mm dia. / 2 mm + 3 mm; 4.0 mm dia. / 1 mm + 2 mm + 3 mm |
| | **Properties:** Preparation limit circularly fitted to the anatomic gingival pattern, preferably for the front teeth area, overall height from upper edge of implant: 7.66 mm to 10.55 mm | |
|  | 840xxx | Titanium conical abutment 20°, for 3.3 mm to 4.4 mm implant diameter |
| | **Properties:** Preparation limit and shape can be individually fixed, preferably for the front and lateral teeth area, overall height from upper edge of implant: 11.00 mm | |
|  | 8100xx | Titanium post complete, incl. plastics sleeve and central screw, for 3.3 mm to 6.5 mm implant diameter |
| | 8001xx | Titanium post solo, for 3.3 mm to 6.5 mm diameter |
| | **Properties:** Modelling tool made of plastics (optional) so that shape and preparation limit can be freely modelled; modelled cap as base for crown from pressed ceramics or for metal cast parts, preferably for the front and lateral teeth area, overall height from upper edge of implant: 11.68 mm | |
|  | 8000xx | High-melting alloy post complete, incl. plastics sleeve and central screw, for 3.3 mm to 6.5 mm implant dia. |
| | 8001xx | High-melting alloy post solo, for 3.3 mm to 6.5 mm implant diameter |
| | **Properties:** Modelling tool made of plastics (optional) so that shape and preparation limit can be freely modelled; modelled cap can be integrally cast and burnt with high-melting or low-melting ceramics (depending on alloy used), preferably for the front and lateral teeth area, overall height from upper edge of implant: 11.68 mm | |
|  | 805011 | Plastics sleeve (modelling tool) for titanium/high-melting alloy post |
|  | 260000tra | Central screw for all posts and abutments |
|  | 260001tra | Gold sealing ring with positioning pin |

## Tools

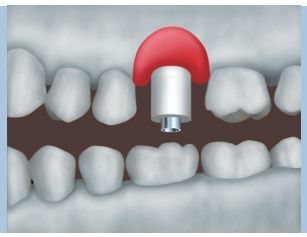
| | Article No. | |
|---|---|---|
|  | 14x33 | universal insertion tool (also available in the long and molar version) |
|  | 140533 | torque ratchet 10-40 Ncm |

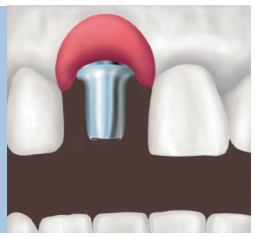
## Procedure

**Fixed dentures**

For esthetic reasons, dentures in the front teeth area need to be planned with particular care. The different posts are therefore also to be understood as a basis for the customization and adjustment to the patient situation. For the demonstration below with a denture consisting of one single implant, a post of high-melting alloy was selected. Both the titanium and the alloy post have a long screw channel to avoid the insertion of the central screw being affected by residues after cementing or casting.

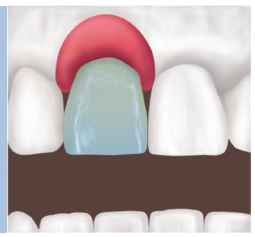
The post of high-melting alloy is a universally usable abutment. As the shape can be freely modelled and the post integrally cast, any gingival pattern can be reproduced and any angle of inclination individually adjusted.





To ensure exact preparation of the post, it is recommended to use a pre-rim. After the post of high-melting alloy and the plastics sleeve have been occlusally fitted and ground, the space available in the articulator is to be checked. After completion of the modelling (ensure protection from twisting), integral casting with a ceramics alloy (e.g. Jenadent 21) takes place.

**Information:** Pinning and integral casting should follow well-known principles of prosthetic dentistry. It is to be ensured in particular that the casting channel is so placed that the molten mass does not impinge direct on the post wall of high-melting alloy. Otherwise, at high casting temperature, deformations of the thin wall may occur and affect the guide of the central screw.



After facing with high- or low-melting ceramics or with plastics, the crown/bridge is cemented on the post.

**Conditionally removable dentures**

The selection of the posts and the modelling do not differ essentially from those for fixed dentures. Owing to the vertical screwing, the attending person can, however, easily remove the denture, if necessary.

As a result, the possibilities of cleaning are better, the flexibility as regards a prosthetic extension of the construction including the existing posts is greater and the possibilities of inspection and treatment of peri-implantitis or peri-implant mucositis are better. On the other hand, however, the costs are higher and handling is in part complicated and time-consuming.

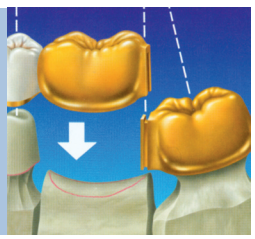
For the conditionally removable dentures, all posts listed above can be used. For the occlusal screwing the central screw is used which connects post and implant. For reasons of space and for esthetic reasons, occlusal screwing should be used preferably in the lateral teeth area. In this case, the crown is modelled using the post of high-melting alloy, and the occlusal shaft is left open for the centering screw.

After casting with a burning-out alloy (for high-melting or low-melting ceramics), the ceramics is laminated and burnt.

After screwing on the implant, the screw opening is closed using a prepared ceramics plate or a light-hardening plastics material.

**Divergence compensation in bridge dentures**

Due to more or less great divergences of the implants, compensation may be necessary.



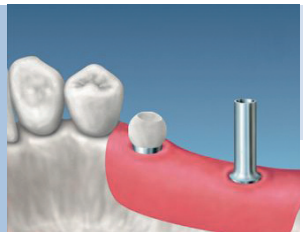
For the bridge, both the high-melting alloy/titanium posts and the titanium abutment 0° standard profile or the conical abutment are used. To compensate divergences, the mesiostructures are so modelled and cast/milled that insertion is possible without any problem.

# Trias®solo Abutment

Procedure

Besides the possibility of achieving parallelism of the posts by milling in the milling parallelometer, the use of bridge divider attachments may be of advantage. For detailed information, see the appurtenant instructions. As an alternative to the time-consuming preparation of a mesiostructure for divergence compensation, the bar post can be inserted combined with the above-mentioned post.

Owing to a short apical extension of conical shape, the post (connector of plastics material or high-melting alloy/titanium), can be screwed onto the bar post to compensate potential divergences. The connector is here integrated into the modelling of the bridge.



Together with a high-melting alloy post or a post of another material, the connector is integrated into the modelling.

As a conditionally removable construction is concerned, the shaft for the central screw is left open in the occlusal direction.

After casting, the bridge is finished on and faced. After insertion, the occlusal opening is closed with a light-hardening plastics material.

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