Dalbo Small, Dalbo Mini and SwissMini

Preliminary and Initial Attachment Procedures

Phase 1: Always refer to the Preliminary and Initial Attachments Procedures, page 8. Only this will guarantee a successful restoration.

Phase 2: TECHNICAL

1. Survey the model to determine the most favorable path of insertion (A). Wax the abutment crown(s) to full contour.

2. Create a box into the wax pattern to receive the male element. With the mandrel, place the male(s) into the crown wax-up as low as possible without impinging the tissue (B). Be sure to enclose the vertical groove for retention in the casting (C). The SwissMini males should be parallel with the vertical plane. To hinge smoothly, the males should not be significantly divergent in the sagittal plane (D). The males should be parallel (line “C”) or bisect the angle between the crest of the ridge and the sagittal plane (line “B”). (E)

3. Sprue wax pattern, invest, cast, and finish the crowns or bridge(s). (Plastic castable male should be cast in non-precious. Metal cast-to males should be cast only to precious or semi-precious alloy). Do not sandblast the attachments as this may damage them.

Tip: After casting, do not polish the Dalbo or SwissMini cast-to males, just air spray with glass beads before delivery. The gingival aspect of male is the only portion of the attachment which can be polished to facilitate hygiene.

Phase 3: CLINICAL

1. Try in the crowns and/or bridge(s).

2. If necessary, take a pick-up impression with the crowns in place for new processing model.

3. Return the impression or model with instructions for any changes to the technician.

Phase 4: TECHNICAL

1. If a “pick-up” impression was made for a new master model, insert transfer dies into crowns and pour the new master model with crowns in place.

2. Rearticulate the new master models and check for any necessary adjustments.

3. Design a wide thin palatal strap whenever possible on maxillary restorations, trying not to cover the rugae. Research has shown that this design is preferred, as it is much more comfortable than a “horseshoe” design. (F)

Note: Temporary rest struts should be added to mandibular frameworks which will hold the partial frame in place while the female elements are luted to the partial framework (G). The partial frame should be designed to support the female loop(s).

4. Cast and finish the partial framework.

5. Block out the adjustable flanges with wax and lute the female(s) to the partial framework with auto-cure resin. (H)

Setting Denture Teeth—Mini Dalbo/SwissMini

5a. The upright portion of the Mini Dalbo/SwissMini male element should be shortened to allow space for the denture tooth. The Mini Dalbo/SwissMini male may be shortened to the height of the female. (J)

procedures continued next page
Dalbo Small, Dalbo Mini and SwissMini

Setting Denture Teeth—Dalbo Small

6. To allow vertical resiliency for the Dalbo Small Attachment, the denture tooth must be relieved around the occlusal male upright (K). To improve esthetics, select a wider tooth to reduce the interproximal spaces.
7. Return the crowns, bridge(s), and partial to the dentist for the final try-in.

Phase 5: CLINICAL

1. Try-in the crowns/bridge(s), and partial. Check for proper attachment function. Check the occlusion and the esthetics.
2. Return the models, crown, bridge(s), and partial(s) to the technician with written instructions for any additional changes.

Phase 6: TECHNICAL

1. Remove crowns and preps on model. Remove frame with set-up from the model. Fill in female element(s) with thin plaster and quickly reposition frame with set-up on model. Smooth missing crown area with plaster. Invest the partial and boil out the wax. (L)

Acrylic Processing:

1. Carefully block out adjustable flange areas with a latex material such as Rubber Sep™ or Liquid Latex. The blockout will create a space which will allow the flanges to flex properly over the male ball and be adjustable. (M)
2. Process the acrylic. Deflask and finish the partial. Remove any temporary rest struts.
3. Verify that partial fits with the crowns and exhibits proper hinge function.
4. Return the completed restoration to the dentist. Include information including the shade, mold number, attachment name and order number.

Phase 7: CLINICAL

1. Review and check the final restoration.
2. Remove the temporary crowns and bridge(s).
3. Try-in the restoration and adjust the retention. (We recommend using the least retention possible).
4. Check for sore spots and adjust the occlusion.
5. Seat the crowns / bridges with temporary cement one side at a time, opposite side should be seated without cement until first side is set. The removable partial denture must be seated before the cement sets. Seat remaining crowns / bridge with temporary cement.
6. Instruct the patient on the insertion and removal of the partial and care of the tissue below and around the attachment.
7. After approximately two weeks, recall the patient for permanent cementation. At this time you may determine if a reline is required. See Reline Procedures page 63.
8. Record the attachment name and order number in the patient's file.
9. Recall the patient (in 3 to 6 months) to determine if the removable partial requires a reline and to assure continued proper function of the restoration.

Adjusting Retention

1. The retention may be adjusted simply by bending slightly the buccal/lingual flanges. (N)

Replacing the Dalbo Small Spring

1. The worn spring is easily removed with a modified bur shaft.
2. The replacement spring is then placed on a burr mandrel and inserted with the wider end towards the occlusal aspect. (P)
Dalbo Small, Dalbo Mini and SwissMini

**Dalbo Small**

*Making New Partial Denture to Existing Crown*

**Phase 1: CLINICAL**

1. When working with the Dalbo Small Attachment, remove the coil spring from the female (Q) and replace with the steel plug (#97-630124) (R). The steel plug is the same size as an uncomressed spring and is used to prevent any vertical compression of the female when taking an impression.

2. NOTE: The Dalbo Mini does not use a spring.

3. Place Dalbo females on the Dalbo males intraorally and ensure that the attachments are in the correct position. Block out the underside of the distal extension of the females with temporary cement to prevent rotation of the matrix on the ball. (S)

4. Take a pick-up impression, withdrawing female elements from impression.

**Phase 2: TECHNICAL**

1. For Dalbo Small, remove the steel plug and insert the Dalbo Small male analog (#97-630123) (T).

2. The Dalbo analogs are inserted vertically into the females (T). Secure the analogs with sticky wax to prevent them from working loose when pouring the stone model. Pour model stone into impression, taking care that the Male Analogs do not move.

3. When set, remove impression and take out the attachment females and reseat onto the analogs. You will see that the attachment will only seat in one position and will not rotate. Process acrylic, blocking out the females phalanges as described in the Dalbo procedures on previous page under Phase 6: Technical “Acrylic Processing”.

**Dalbo Mini**

*Making New Partial Denture to Existing Crown*

**Phase 1: CLINICAL**

1. Place Dalbo Mini females on the Dalbo males intraorally and ensure that the attachments are in the correct position perpendicular to the male. Block out the underside of the distal extension of the females with temporary cement to prevent rotation of the matrix on the ball. (U & V)

2. Take a pick-up impression, withdrawing Dalbo Mini female elements.

**Phase 2: TECHNICAL**

1. The Dalbo analogs (#97-643002) are inserted vertically into the females (T). Secure the analogs with sticky wax to prevent them from working loose when pouring the stone model. Pour model stone into impression, taking care that the Male Analogs do not move.

2. When set, remove impression and take out the attachment females and reseat onto the analogs. You will see that the attachment will only seat in one position and will not rotate. Process acrylic, blocking out the females phalanges as described in the Dalbo procedures on previous page under Phase 6: Technical “Acrylic Processing”.

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