

Removable Partial Denture Frame with Custom Attachment Metal Housings and Lingual Arms Fabrication Sequence

Over the years, most of the problems with any attachment are due to poorly designed or fitting RPDs; specifically, frames without proper reciprocating arms. For this reason, we would like to recommend the following technique. The fabrication of a precision attachment RPD with custom metal housings and lingual arms, as separate components, provides many restorative benefits for the dental technician and dentist. This technique allows technicians to fabricate highly accurate and stress free partial frames while sustaining an easier degree of serviceability and retrieveability of the attachment housings/females when necessary. When using the VKS-SG system for fixed-removable combination cases, it is important to have an exact fitting reciprocating lingual arm and shoulder rest with an interlocking vertical groove. The main function of these is to divert occlusal loading forces away from the attachment ball and center them down the long axis of the tooth.



YTZP Zirconia Ball
Bond-In Attachment System

Step 1



Snap VKS-SG 2.2mm Yellow Matrices over the ball attachments.

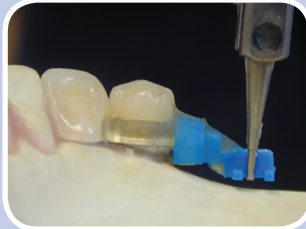
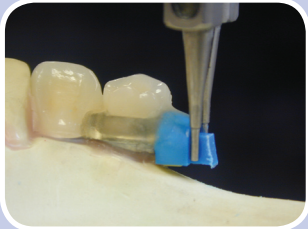
Step 2



Snap VKS-SG 2.2mm Castable Housings (# S05420) over the yellow matrices.



Step 3



Cut the retention tail off the castable housing; however leave a small area to grab it with a mandrel. Use the SV Paralleling Mandrel (#36001151) and a surveyor to secure and maintain the plastic castable housing parallel. Apply Pikuplast Pattern Resin into the shoulder groove rest and onto the plastic castable housing to create the lingual arm.

Tip: Lightly sandblast the plastic housing prior to adding Pikuplast so that it adheres better to it. Reattach as needed, the retention tail of the castable housing following the contour of the ridge.

Step 4



Sprue, invest and cast the housing patterns with lingual arms.

Step 5



Finish the custom metal housings with lingual arms as needed and high shine the lingual arm. Sandblast the housing and tail portion.

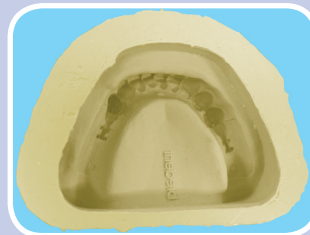


Step 6



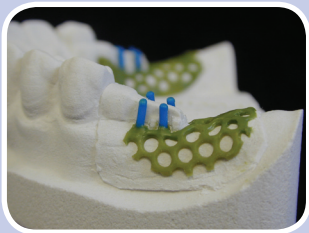
Use Ropak (# 52000165-powder, 52000164-liquid) light curing pink opaquer to mask out the metallic grey color.

Step 7



Block out and duplicate the master model with Exaktosil Duplicating Silicone (#54001147).

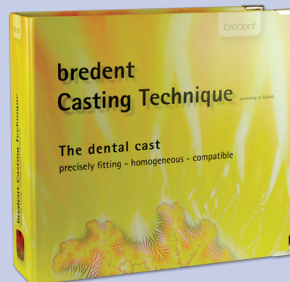
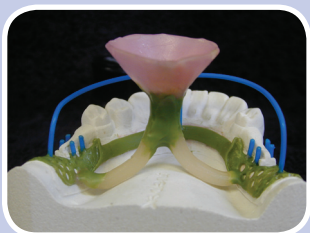
Step 8



After Exaktosil has set; pour the refractory model using a fine grain investment and allow setting. Then wax up the RPD.

Note: Refractory model must be dry before waxing the RPD.

Step 9



Sprue the waxed partial following the Bredent Casting Technique according to Sabath (#992961GB)

Step 10



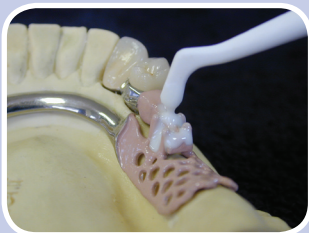
Invest using the same investment used to pour the refractory model. Cast, fit and finish the frame as usual.

Step 11



Paint Ropak light curing opaque onto the saddle mesh areas.

Step 12



Use DTK Adhesive (#54000106) to bond the custom metal housings with lingual arms to the partial frame.

Step 13



Set-up teeth and process and finish acrylic as usual.

Tip: If the attachment metal housings ever require removal from the acrylic; a soldering iron or similar heated instrument may be used to soften the surrounding acrylic/bonding cement to facilitate their separation from the major connector.