# JV2 (PLASTIC DOVETAIL)

#### Summary

- Intracoronal semi-precision slide attachment.
- Frictional retention, not adjustable.
- Plastic pattern male and female.
- Built in paralleling mandrel.
- Can also be used in conjunction with a retentive clasp arm as a rigid attachment for removable partial dentures, although this is not generally recommended.

Fixation: Male - cast as part of crown or pontic pattern. Female - cast as part of crown pattern.

If using the attachment in a removable prosthesis, cast plastic components using alloys with a minimum Vickers hardness of 200 and at least 85,000 psi ultimate tensile strength. Appropriate choices are Pegasus ceramic alloy and Sterngold 100 crown and bridge alloy for yellow gold castings.

Minimum Space Required:								
	Height	FC Width	Prep Depth	RPD Height				
JV2/PD	2.0mm	2.5mm	2.0mm	3.5mm				

#### Indications

- Non-parallel abutments in fixed partial dentures.
- Segmented construction for fixed partial dentures.
- Removable partial dentures. Used only in conjunction with a retentive clasp arm.

#### **Contraindications**

• If using a chromium alloy removable partial denture framework, do not cast the male with the partial framework. Instead, cast the male and lingual arm out of a hard crown and bridge alloy that will be slightly softer than the alloy of the female. Solder, weld or connect with acrylic, the male and lingual arm assembly to the chromium alloy framework using Chrome 2 solder.

### **ATTACHMENT DESCRIPTION**

Order Number	Туре	Scale	Overall Height	Width
JV-200-11-U 6 per pkg.	Female	1:1	6mm	2.7mm
	Male	1:1	6mm	2.5mm







# TOOLS LIST

No special tools required. Paralleling mandrel is a part of the male.

# **FABRICATION INSTRUCTIONS**

Fixed Partial Denture Procedure

- 1. Survey the model to determine the position of the JV2.
- 2. Wax all abutments and cut recesses for the females (Fig. 1).
- 3. Place the male's mandrel in the surveyor. Place the female pattern on the male. Position the JV2 female in the recess of the abutment and tack it in position with wax. Keep the entire female within the correct contour for the abutment tooth (Fig. 2).
- 4. Carefully remove the male from the female pattern.
- 5. Complete waxing of abutments to proper contour. Keep the inside of the female free from wax.
- 6. Any extension of the female pattern above the occlusal of the abutment is left. The extension will be reduced after casting (Fig. 3).
- 7. Sprue and remove the abutment patterns. Invest, being sure to completely fill the inside of the female with investment without air bubbles (Fig. 4).
- 8. Burnout and cast. Burnout for plastic components requires two stages: 1. Slow rate of temperature rise to 600°F (316°C) and hold for 20 minutes. This assures a clean and complete burnout of the plastic piece. 2. Complete the burnout procedure by following your alloy manufacturer's instructions.
- 9. Remove the sprues and finish the casting. Reduce any excessive height of the female at this time (Fig. 5).
- 10. Remove any bubbles from the inside of the female.
- 11. Insert the male pattern into the cast female. If the male pattern will not fully seat, heat the cast abutment prior to seating the male pattern. The heat will soften the male pattern so it will contour to the female (Fig. 6).
- 12. Seat the male pattern in the female and wax the adjacent pontics or abutments to the male.
- 13. Cut off the mandrel from the male with a hot spatula. Sprue, invest and cast the units.
- 14. Finish the castings and the male. If the fit is too tight and the male will not fully seat, use one of the following procedures to achieve proper seating.
  - a) Strip the male for 15 20 seconds to insure positive seating.
  - b) Put rouge or tripoli on a soft brush and polish the male until complete seating is achieved.















Removable Partial Denture Procedure

Most commonly used basic technique:

Steps 1 - 11 same as in Fixed Partial Denture Procedure except that the female must be cast of a harder alloy than the male so that the female in the cemented crown does not wear significantly.

- 12. Prepare the lingual of the retainer crown for the clasp arm. Eliminate any lingual undercuts and prepare a dimple on the lingual of the crown away from the female with a #3 round bur. (Fig. 7)
- 13. Place the male pattern in the female receptacle on crown. Remove the mandrel from the male with a hot spatula.

If the male pattern is not used, fill the female with resin.

- 14. Using pattern resin, make clasp arms to the male pattern(s). Be sure to extend the clasp arm into the dimple. Use an alloy which is softer than that used to cast the attachment female.
- 15. Block out all undercuts and duplicate the model. Pour a refractory model used to fabricate only the partial frame.
- 16. Cast the framework in chrome cobalt. Finish the casting.
- 17. Seat the completed casting on the master model. If the fit is too tight and the male will not fully seat, one of the following steps may be used to achieve proper seating.
  - a) Strip the casting for 15 20 seconds to insure positive seating.
  - b) Put rouge or Tripoli on a soft bristle brush and polish the male until a complete seating is achieved. If the fit of the male is too loose, lightly reduce the base of the male with a dis to insure a proper fit.

If the fit of the male is too loose, lightly reduce the base of the male with a disc to insure a proper fit.

- 18. Solder the male/lingual arm assembly to the partial framework using Chrome 2 solder or weld. If the fit of the male is too loose, light reduce the base of the male with a disc to insure a proper fit.
- 19. Process the partial denture over the completed castings in a routine manner (Fig 8).

Note: You can eliminate soldering by making the cast minor connector with a tail which is then anchored in the denture base acrylic.



Fig. 7



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