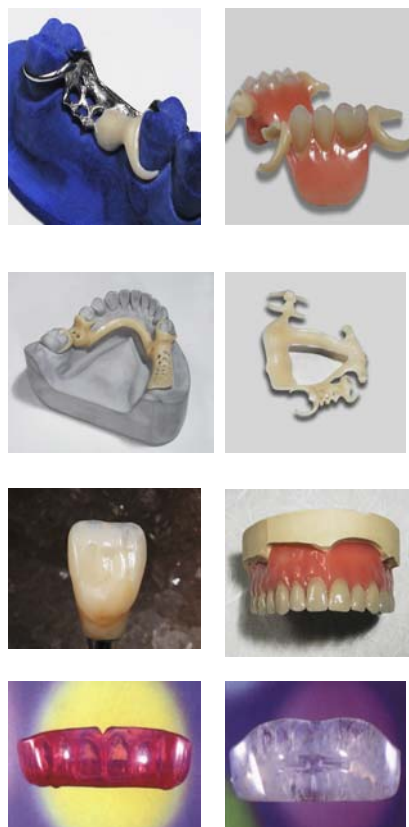


Dental D Technical Manual



Step by Step Instructions

IMPERIAL TRADING

CALL

1-800-733-7490 OR 1-718-793-7490

FAX

1-718-793-9831

Congratulations! You have just purchased one of the most innovative dental processing systems on the market today. With the Dental D system you will be able to process not only esthetically pleasing tooth shaded clasps, but also Facitemp temporaries, rigid partial frameworks, nightguards, flexible dentures, and orthodontic appliances.

Dental D Acetal Resin has many outstanding features such as:

- ◆ 100% elasticity memory
- ◆ 8 tooth colored shades, including bleached shade
- ◆ 3 pink shades
- ◆ Biocompatible
- ◆ Optimum rigidity/flexibility
- ◆ High impact resistance

Dental D is a thermoplastic polymer that is biocompatible. Its processing method is easy and user friendly. The waxed up case is invested in the Dental D flask, the wax is eliminated by the means of boiling out and its processing is carried out by the use of the MG-NEWPRESS injection system.

Dental D thermo-injection takes place by inserting the cartridge that contains the selected shade into the MG-NEWPRESS which is previously pre-heated to 220 degrees C.

After 20 minutes, the pre-heated and boiled out flask is positioned into the MG-NEWPRESS and injected. After injection, the MG-NEWPRESS is turned off and the Dental D material cools down for 30 minutes.

When the Dental D material has cooled, de-flasking is completed and case can now be finished and polished.

Setting up your MG -Newpress

- 1) Connect the MG-NewPress to a compressed air line using the hoses and connections supplied with unit. Bring the pressure up to 6 Bars minimum as indicated on pressure gauge.
- 2) Connect the power supply cable enclosed with unit. into a grounded outlet
- 3) Switch on the power switch on the side of the MG-Newpress.
- 4) Turn on oven. Oven is pre-set to reach at 220°C.

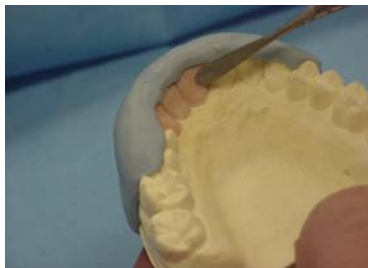
INSTRUCTIONS

Procedures by Rainer Michel

1.) Duplicate Model– Be sure to duplicate the final working model before waxing a case and make a second stone model. Duplicating can be achieved with a duplicating flask and duplicating material of your choice. Before duplicating the model, block out undercuts where minor connector will be. Surveying is not required. For temporaries, use a die spacer for blocking our before duplicating.



2.) Wax up case (temporaries, clasps, or framework) to desired contour. (Red margin wax may stain Dental D material.)



3) Wax up case-continued-Make wax up thicker than usual. When finishing, Dental D material may be finished to contour close to the thickness of metal clasps.



3) Wax up-continued...

Sprue completed wax up from occlusal aspect with 8 gauge wax for temporaries. (Use one sprue for anteriors and two sprues for posteriors)



4) Use 6 gauge wax for partial frames.



Use 3 sprues for larger partials

5.) Lubricate inside of flask with thin layer of Petroleum Jelly. (Do not lubricate area where model is to be glued to flask.)



6.) Glue model to flask to prevent movement.



7.) Make sure model is in correct position before covering with gypsum.



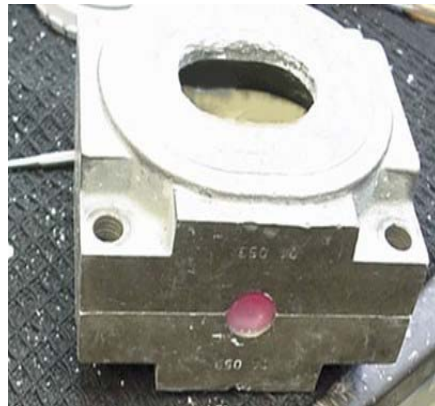
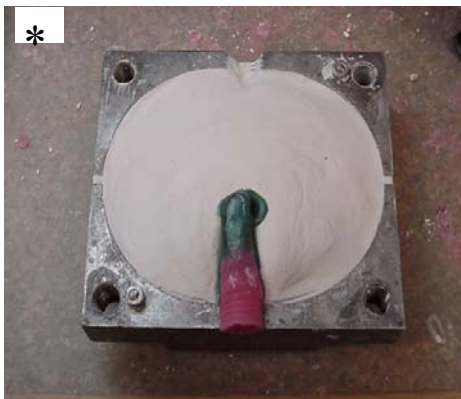
**8.) Invest model and sprued wax up in gypsum.
(Plaster or a half and half mixture of plaster and TYPE III stone is acceptable.)**



9.) Expose wax sprues while creating a channel towards threads on flask.



10.) Run a wax channel towards threaded area on flask. Close flask to check if there is enough wax to seal threaded opening when flask is closed.



11.) Open flask and apply a plaster and stone separator.



*Note that main connector wax sprue from injection hole is 2 X 6 gauge wax for partials

*With temporaries make a 6 gauge loop to connect all of the 8 gauge holes.

12.) After applying separator, Close flask and tighten bolts with wrench provided, screw in threaded plug on opposite side of flask. Fill with gypsum and let set.

This is an excellent time to start pre-heating of Dental D heating element. Turn oven switch to right.



13.) Open flask, put flask in boil out pot for 30 minutes and boil away wax. (Make sure all sprue holes are clear of wax.)

Set your timer for 10 minutes!



14.) *After 10 minutes insert appropriate amount of Dental D ingots into cartridge and place cap on to close.

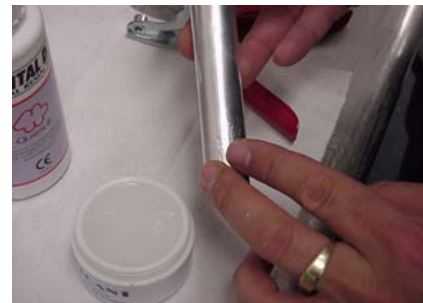


*** There must be a minimum of 4 ingots per cartridge to compensate for sprues. There must be a maximum of 11 ingots allowing space for the material to expand.**

15.) With nose on the outside of cap use crimping tool to secure cap onto cartridge. (Be sure cap is crimped all around circumference of cartridge.)



16.) With a blade, carve a star into cap making sure not to pierce cap. Place lubricating grease (only use the grease included in the MG New Press kit) around entire cartridge.



17.) After temperature reaches 220 degrees C on the MG – New Press unit. Insert cartridge into MG-New Press for 20 minutes. (Set timer to 18 minutes. You will need 2 minutes to prepare flask for injection.)



18.) After 20 minutes at 220 degrees C, material is ready to inject.

19.) Take flask out of hot water bath, use steamer first and then air pressure to clear out sprue holes, close and tighten bolts. (Make sure you remove threaded plug before injecting.) Place flask into the MG-New Press with sprue channel facing the cartridge and tighten with handle on MG-New Press. (make sure that the flask is secured by tightening the handwheel so that there is no space between the flask and the machine)



20.) Turn on Piston and then turn off the main switch on MG-New Press. Keep flask in place for one hour minimum or until material is cool. Leave piston turned on.



21.) To release flask from MG-New Press, turn off piston, loosen handwheel, and then turn piston on again to eject cartridge and to enable removal of flask.

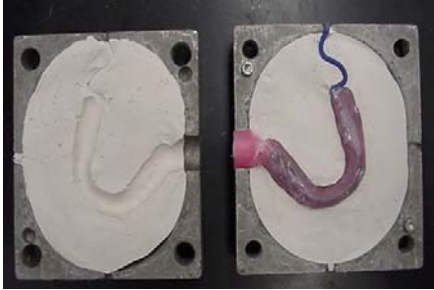


22.) Divesting & Finishing–

- 1. Divest with plaster nippers,**
- 2. Finish the case using a trimming bur of your choice,**
- 3. Smooth the surface by using a silicone rubber point or a 180 micron sandpaper strip.**
- 4. Polish with the Dental D polishing material included in the MG Press Kit**

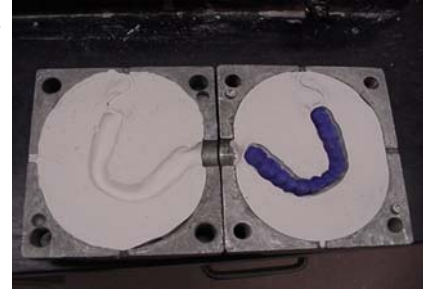
Flexidy Procedure

- 1.) Wax up case, sprue, and invest.
- 2.) Boil-out wax and apply 2 coats of separator (Norsep) to model.



Flexidy Soft main wax connector is approximately 2x6 gauge wire wax sprues. From the injection hole to one side of the mouthguard.

Fabricate a 10 gauge wax sprue in a s shape form connection to small vent slot.



- 3.) Place appropriate amount of Flexidy material in cartridge. Crimp, lubricate, and place in preheated MG-Newpress (160 degrees C) for 15 minutes.



- 4.) After 15 minutes, place flask into MG-Newpress and tighten handwheel. Set air pressure at 3 bars and increase to 6 bars. Turn off main switch and let cool in MG NewPress for 10 minutes and then emerge in water.



Injected Flexidy Mouthguard

Flexidy continued.....

5.)Deflask, remove from model, finish and smooth out rough edges.



Flexidy Hard– Liquefy the material at 270° C for 15 minutes in the MG-Newpress.
Wax up, invest, and sprue, with two 6 gauge sprues . (See full denture photo below)

FULL DENTURES

Full Dentures – Sprue wax up as shown. Boil out, apply separator, and close flask. Mix up required amount of self cured or heat cured acrylic and pour into cartridge. Crimp and make a small hole in cap of cartridge. When material reach a doughy consistency injection can be made. Inject starting at 2 bars of pressure and slowly increase to 6 bars. After 2 minutes, release pressure, loosen handwheel, and turn on piston to release flask.



When using self cured acrylic , leave flask in the MG-Newpress under pressure to cure.



After flask is released, screw in flask plug to hold in pressure. Cure according to manufacturers requirements.

Facitemp Temporaries Utilizing Facitemp Bonding Kit



1.) Cut back 1/3 of incisal.



2) Blast temporary with Facitemp bonding agent using sandblaster with a nozzle (110 micron).



3.) Apply coupling agent and wait five minutes.

4.) Apply T1 to body and incisal area (more material can be added if more translucency is required) and light cure 10-15 seconds to hold in place. (make sure to cover the entire surface)



Preparing the fitting surface for relining with self-cure acrylic

Facitemp Temporaries Utilizing Facitemp Bonding Kit *continued*

5.)

1. -Apply a thin layer of Sinfony E-3 enamel, in the incisal area apply as much as needed
2. -Apply, at least a thin layer of Sinfony E-3 enamel in the whole labial area of the crown or pontic, to achieve an esthetically pleasing appearance.
3. -Light-cure for five minutes.



6.) Trim with bur or diamond of your choice and polish with pumice and Dental D polish.



1. Use Dental D Bonding Agent
2. Use Dental D Coupling agent
3. Apply a thin layer of Sinfony E-3 enamel around the margin

Adjusting the fit on various upper frame designs

1) Score model with bur.



2) Apply petroleum jelly to prevent sticking at clasp area.



3) Blast fitting surface with Dental D bonding agent. And then apply coupling agent. If using self cure acrylic, blast with Aluminum Oxide. Apply E-3 Sinfony around periphery of fitting surface, and cover entire tissue surface with acrylic



4) secure with rubber band.



5) Light cure composite material or place self cured material in pressure pot.



Facitemp Temporaries

1. Use Dental D Bonding Agent
2. Use Dental D Coupling agent
3. Apply a thin layer of Sinfony E-3 enamel around the margin

Trouble Shooting

Miscasting will occur-

1. If you used too little material in the cartridge
2. When the waxing is layered too thin

Porosity will occur-

1. If the connections between the sprues and the partial is too thick
2. If the partial wax-up is too thick

High shrinkage will occur:

1. If the wax up is too thick
2. If the flask at the time of injection is too cold less than 70c
3. When the flask with the material is removed from the machine before it is cooled under pressure
4. When the case is not sprued correctly

Teeth will not bond to Dental D

1. Not enough retention

Anteriors: Must have a dovetail retention

Posterior: Must have a straight line cut in the palatal area

Cap of cartridge pops off and material flows out before injection

1. Cartridge has been left in the machine for more than 20 minutes.
(Set timer for 18 minutes so you will have sufficient time to prepare flask for injection)

Notes
