LILY CORPORATION LPI™ LOW PRESSURE INJECTION SYSTEM

WARNING: The LPI system is unsafe for use at resin pressures greater than 15 pounds per square inch. A specially manufactured pressure regulator component to the dispenser will not allow greater pressure, thus assuring safe operation. Do not operate the LPI system with any other regulator!

INSTRUCTIONS

1. Prepare the surfaces adjacent to the crack by removing any flaking paint and contaminants which may interfere with the bond of the surface seal.

2. Set the Grid-Grip porting pedestal. Slide the tapered brass setting tool into its stem end until the pedestal is retained. Butter a bonding paste (auto body putty, silicone sealants or epoxies all work) to the underside of the pedestal. A layer 1/16" in depth is perfect.

3. Press the tip of the tool against the crack at the exact port location desired and slide the pedestal forward. Keep the tool tight against the surface to prevent the bonding material from oozing into the entry into the crack. Press the pedestal against the surface until paste oozes through the grid. If paste does not rise through the grid, more paste should have been applied. Holding the pedestal firmly in place, remove the tool. Set the ports about 8 inches apart for narrow cracks and up to 20 inches for wide (1/16” and greater) cracks.

4. Seal the crack segments between the ports by applying the paste to a minimum depth of 1/16" and massaging it into the crack.

5. After the seal material is set, snap the adapter t's into place over the pedestals, taking care not to press the t beyond the first click. Cut and string the vinyl tubing from port to port, sliding the tubing onto the barbed t's. No adapter is used at the end port since the tubing is pressed directly onto the pedestal stem instead of the barbed leg of the tee. When the crack length is over 10' it is recommended that a manifolding tee or cross be used to branch off in different directions to reduce the distance the resin must travel.

6. Slice the end of the supply tubing segment on a diagonal and press the tip through the hole in the lid of the dispenser from the topside, pulling it through until the tip reaches the bottom of the bowl when the lid is closed. Before connecting this tube segment to the circuit, slip a crimp-it over the tube. This will allow the sealing off of the circuit so that the dispenser can be disconnected once the resin has gelled.

7. Connect a clean air supply to the pressure regulator inlet. Air pressure should not exceed 125 psi, nor should it be less than 10 psi. Turn the knob on the dispenser regulator counter clockwise until there is no air flow.

8. Estimate the volume of resin required and accurately batch and mix the product into the bowl in accord with the manufacturers instructions. It is absolutely essential that the resin be of low viscosity with a long pot life. A one hour pot life at 72 degrees fahrenheit in a one liter mass is recommended.

9. Clamp the lid down into place and pressurize the bowl by turning the knob on the regulator clockwise. A pressure of up to 15 psi is available. About 8 psi is normally recommended. As the bowl is pressurized, resin will slowly flood the tubing and enter all the ports. In the case of fine cracks, the resin flow may slow dramatically before filling the last few ports. This is normal since entrapped air is being squeezed into the pores of the concrete within the remaining crack segments.

Resin flow to a particular port may be shut off if a leak occurs in its vicinity. To do so, press the adapter Tee firmly until it clicks into the next position. This closes off the resin flow to the local port, yet allows the flow to continue to adjacent ports. Pay attention to the resin level at the bowl. Add more if needed to assure adequate supply until the resin has gelled.

10. After the resin has thoroughly cured throughout the system, remove and dispose of the porting adapters, tubing, and bowl. No environmental precautions are normally required if the resin is cured. Complete cure of the resin may require up to two days depending upon temperatures, chemistry, etc. However, the dispenser may be removed once the material has gelled. To do this, use pliers to close off the tubing next to the dispenser with a Crimp-it and then sever the line. It is a good idea to tape the loose end to the surface of the wall or ceiling.

DISPENSER PARTS SCHEDULE

LPC RESERVOIR BOWL
M-216 PIVOT POST
M-220 PIVOT TOP
M-219 PIVOT BAR CLAMP
M-217 MOUNTING PLATE
P-279 KNOB
M-460 LID
M-560 FRAME
M-562 LID SEAL
P-175 5/32" TUBE X 1/8" NPT TEE SWIVEL FITTING
P-176 5/32" TUBE X 1/8" NPT SWIVEL ELBOW FITTING (LID AIR INLET)
P-320 PRESSURE REGULATOR
P-521 5/32" NYLON TUBING
P-318 10-32 X 2 SCREW (RETAINS LID)
P-580 PRESSURE GAUGE
S-99 1/ 4 -20 X .5SHCS FOR FRAME (6)
P-687 1/4-20 X 3/4" SOCKET HEAD CAP SCREW
P-705 5/32" X 10-32 SWIVEL ELBOW [3] (PRESSURE REGULATOR “IN” & “OUT”)

ACCESSORIES

LPC RESERVOIR BOWL
LPP GRID-GRIP PORTING PEDESTAL
LPT SNAP-IT PORTING TEE
M-260 PEDESTAL SETTING TOOL
P-316 CRIMP-IT
P-830 MANIFOLDING TEE
P-831 MANIFOLDING CROSS
T-101 PVC PLASTIC TUBING

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