

## Tech Tip #123 - *Washout Operation with Feed and Bleed Option*

### **ALL SYSTEMS WITH 3 FLUID METERING PUMPS**

When the cycle start button on a MacDermid liquid photopolymer processing unit is pressed, the washout cycle starts and the three chemical feed pumps begin. The chemical pumps will run for two minutes. Five minutes into the washout cycle the water valve opens to feed fresh water into the bath. The amount of water is controlled by the time set in the Smart Relay. The flow meter in the water line can be used to determine both the amount of replenishment water added during the cycle and the volume of the tank during the initial make up.

The length of the washout cycle is determined by the time set on the ATC timer. When the wash cycle ends, an alarm buzzer will sound for 15 seconds to alert the operator to remove the plate. The operator should push the Stop button and remove the plate. If the operator does not react to the alarm the washout will continue to run for an additional 10 minutes. This is to ensure that the plate is not allowed to dry before the plate is removed. At the end of the 10 minutes a second alarm will sound and the machine will stop. It should be stressed to the operators that the plate should be removed as soon as possible after the first alarm sounds.

### **WASHOUT REPLENISHMENT CHEMISTRY SET-UP**

The chemistry requirements should be determined using the "MacDermid Photopolymer Feed & Bleed Set-Up Calculator" provided by the Engineering Department. The amount of water and chemicals added during the feed and bleed cycle can be checked and modified as needed by using the Manual button on the back of the control console. When the Manual button is pressed, all three chemical pumps will run for two minutes and the water will run for the length of time pre-set in the Smart Relay. Before checking pump outputs, be sure the feed lines are free of air bubbles.

Record the reading of the water meter.

Disconnect the feed line of the product to be measured at the manifold. Hold the hose fitting in a 2 cup measuring cup at the manifold level to prevent emptying the hose into the cup and getting a false reading.

Press the Manual button.

At the end of the two minutes record the volume in the measuring cup and the new reading on the water meter. Subtract the new water meter reading from the old reading to verify the water volume added.

If the water volume is correct shut off the water supply valve while the other chemical volumes are verified. If the water amount is not correct the T3 and T6 timers in the Smart Relay must be reset. First verify that both timers are set the same. Then adjust both timers as needed to supply the correct volume of water.

If the chemical volume is correct reconnect the feed line and repeat these steps for the other two products.