Application Data

Epoxy Resin ◆ Temperature Control ◆ Control Valves



Red Valve Series 5200 Control Valves are used in conjunction with a temperature controller to maintain a constant temperature on epoxy resin tanks. This system saves money and down time on the Epoxy Resin Process.

Temperature control of the epoxy resin is very important to the total system. Should the temperature of the resin tanks drop below the set point, the resin will solidify. The solidification of the resin will cause scaling and blockage of the discharge into the process.

Because an oil bath solution was considered as the heating source, Red Valve Control Pinch Valves were selected.

In this application, when the circulation pump comes on line, an oil bath is circulated through the heater, where it is brought to temperature. The heated oil is sent to each outer casing on the epoxy resin tanks. The temperature controller monitors the oil bath at approximately 300°F. As long as the temperature remains at the controller set point, the control valves throttle at the minimum flow condition and recirculate the oil bath solution back to the ciculation pump. When the oil bath solution drops below the high-set point, the control valves open to the maximum flow condition to circulate a larger supply of oil bath solution to the heater to maintain the temperature set point.

Red Valve Series 5200 Control Valves, with Viton cone sleeves and electro-pneumatic positioner were selected because of the flow pattern on turn-down capabilities the valve has.

This selection provided the customer with a low maintenance long-life control valve at a minimum cost.

Red Valve Company manufactures a complete line of control valves to meet our customers' exact flow conditions for specific applications.

RED VALVE SERIES 5200 CONTROL PINCH VALVES USED IN TEMPERATURE CONTROL OF EPOXY RESIN 2" Series **Recirculation Line** 5200 2" Series 2" Series 2" Series 4-20 mA 4-20 mA 4-20 mA Tank 2 Tank 3 Tank 1 Signal Signal Temperature **Temperature** Temperature Controller Controller Controller Circulation Discharge Discharge Discharge 30 PSIG Oil Output 2" Line 300° F

