



## CASE STUDY

# Milton Roy Reacts to the Challenge, Delivers Long-Term Reliability at Polyethylene Plant

### OPERATION:

### PETROCHEMICAL PROCESSING

### LOCATION: TEXAS, USA

The MILROYAL® series metering pumps are the most reliable, industrial-duty metering pump for critical processes.

The pump's diaphragm designs provide leak-proof performance while its modularity and capacity adjustment options enable the pump to be customized to meet process requirements.

### Challenge

A major polyethylene plant was using a competitor's polypropylene reactor catalyst charge pumps. The plant was experience numerous pump failures, leading to catalytic reactor unit shut downs and losing hundreds of thousands dollars of production per hour.

The facility needed a more reliable pump that could withstand the harsh chemicals, pressures and processing conditions, and it needed a pump that could endure the climate fluctuations within the region.

### Solution

Milton Roy engineered a customized reactor charge pump. The specifically-designed Milroyal® B reactor charge pump featured critical service liquid ends to pump the solids with accuracy and reliability, a custom diaphragm made from Gylon with thicker walls than standard pumps, and check valves equipped with hardened balls and seats.

### Results

The pump's design enabled it to accommodate the solids and viscosity encountered in the reactor fluid and pump the solids continuously to the catalyst reactor at about 800 psi with accuracy. In addition, the pump is unprotected from the weather, being exposed to conditions ranging from 100°F (38°C) heat to rain, wind and other harsh conditions.

Because of the reliability of the pump's performance, the plant operator has installed pumps in other facilities within the region and across the globe.