

Customer: **Chem-Flow**

Application: **Metering and Pumping**

Product Used: **MC 3000**

MC Making Gains for Chemical Feed Systems Manufacturer

Chem-Flow, based in Chicago, IL, specializes in manufacturing chemical feed systems for varied chemical processing markets. In developing exact dispensing and metering solutions Chem-Flow pays a great deal of attention to choosing the right AC drives. As VP of Operations, Henry Glick, explains, "When you're designing systems whose function is to perform precise metering, transferring and mixing of multiple chemicals, drives are an intrinsically crucial component. Our customers take drive performance very seriously."

According to Glick, Chem-Flow has been using the entire range of **Lenze - AC Tech** drives, "We've been working with AC Tech, taking advantage of the company's willingness to retrofit drives and software in order to meet the our needs down to the last spec." Glick appreciates the capabilities he gets using the **MC 3000** Series drive's PID (Proportional Integral and Derivative) loop. "The PID lets our customers keep a tight rein on what's being pumped," he explains.

The **MC 3000** Series built-in PID feature allows a drive to hold the desired setpoint based on feedback from the process. Variables such as pressure levels, liquid flow rate, and liquid level, are detected by a transmitter, which sends the signal to a PLC. The feedback is then communicated to the variable frequency drive, which uses it to adjust itself to hold the setpoint.

Most set-point controllers are "direct" acting. That is, an increase in the motor speed causes an increase in the process variable like in a pump system where pressure is the process variable; increasing the motor speed increases the system pressure. In some systems an increase in motor speed creates a decrease in the process variable. In the case of a fan blowing air over a heat exchanger, the temperature of the fluid within the heat exchanger is the process variable in flux. As the motor speed increases, the temperature of the fluid will decrease. In this case, a "reverse-acting" controller will achieve the desired change. The **MC Series** drive can be programmed for direct or reverse operation.



Matching the drive technology with the specific needs of their customers is one way Chem-Flow continues to be a leading resource for metering and dispensing solutions. Chem-Flow provides their customers systems featuring **MC 3000** Series drives with a sixteen-character backlit display, overload protection, and a very wide range of voltages. **Lenze - AC Tech** provides the stainless steel drive in 110-120V and 208-230V single phase, 208-230V and 380-480V 3-phase and a 590V option, all programmable in 50/60Hz.

MC 3000 Benefits

- PID Setpoint Control
- Retrofit Drives & Software to Fit Application
- Program Controller: Direct or Reverse-Acting
- Intuitive Programming
- Keypad Option for Local & Remote Operation
- NEMA 1, 12, 4, 4X Enclosures Available
- Proven Performance & Reliability

MC Drives

