APPLICATION PROFILE

COMPRESSED AIR

Automotive

Challenge: **PORTABLE AIR AMPLIFICATION FOR PLASTIC INJECTION MOLDING VALVE GATE SYSTEMS**

Location: **MISSOURI**

> An automotive plant with injection molding equipment tasked Flodraulic's St. Louis team to come up with a cost-effective and efficient means of converting an existing molding machine from a lower to higher pressure valve gate control circuit.

In working with the customer, Flodraulic came up with a custom package that incorporated a complete booster circuit, Fanuc PLC/HMI for gate control, Devicenet valve manifold assembly and portable framework. The system also incorporated analog pressure control and transducer feedback.

Flodraulic built its solution around a Maxpro 5:1 booster with E-stop pressure dump protection. This is accomplished with a solenoid quick-dump poppet valve that releases the primary pressure and also the pilot to the valve that dumps the tank of the amplified pressure.

Flodraulic also incorporated an electro-pneumatic regulator on the drive pressure line, so the customer can easily choose the pressure for a particular mold from his PLC by providing an analog signal to the regulator.

This system can be rolled up to a molding machine, receive a "mold closed" signal and provide complete control for the valve gate cylinder operation. Creative solutions offered by Flodraulic engineers served to meet this customers need to adapt existing machinery to changing operational requirements.