EGM LLC

PROCESS & CHEMICAL FEED EQUIPMENT

Oil & Gas • Power Generation • Chemical Processing • Mining • Pulp and Paper • Water Resources • Pharmaceutical

# *CUSTOM FEED SYSTEMS*

3748 Industrial Park Drive
Mobile, AL 36693 USA
+1.251.662.1250 phone
+1.251.662.8250 fax
www.egm-llc.com

# Custom Feed Systems

The CEO series (Custom Equipment Operations) available from EGM offers client companies the ability to have feed systems designed and built to their exact specifications. System fabrication can begin with user supplied drawings, concepts, or photos of existing installations that need replacement. Alternately, the design team at EGM can take care of the engineering work for you to manufacture a feed system that will achieve your desired results. To discuss your specific needs, call EGM to speak with one of our process and chemical equipment engineers to help. EGM can also deploy personnel to end-user site to assist with system evaluation and scoping.

This simplex high-capacity centrifugal pump system was built with client specified motor, pump, automatic valve and flowmeter.

Motor starter and system automation is controlled via remote devices. EGM plumbing, assembly and test make installation of this system much simpler than a field assembled unit. Installation time is reduced with a pre-fabricated package and prior to shipping, EGM conducts operational and pressure integrity testing to prevent rework once the system is installed.

This example demonstrates the simplicity an EGM CEO Feed System can have, yet still provide quick installation time and simplify on-site start-up requirements.

This CEO System is part of a multi-component pumping system that is used for metering two different chemicals to multiple feed points.

Automation, instrumentation and plumbing is laid out for easy access making the system easy to install and easier to live with.

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**P**ictured here is an EGM CEO Series Feed System that incorporates a Hydra-Cell pump fitted to variable speed drive with an Endress+Hauser Magnetic Flow-meter.

Systems like the one pictured here can be configured with several different control options allowing for flexibility in use. Naturally local manual and local PID loop control is available, as is remote DCS tie-in.

For clients struggling with DCS I/O point management, this system can also be configured to run on ratio control which would required only one 4-20mA signal be sent to the unit for setpoint and the rest of the control logic can take place on the skid.

The ability to perform ratio control, without the use of a PLC, is an EGM exclusive offering that is possible because of our in-house electrical shop capabilities.

**S**hown here is the control panel for a custom built system that uses twin variable frequency drives, along with a complex dilution and flushing scheme to delivery chemical feed at increased injection velocities and then provide automated flushing for post-feed system hygiene.

The installation of the variable area flowmeters is configured to so operators can read all information by standing directly in front of the panel. Design fore-thought, like good placement of instruments, is what separates EGM systems from other vendors.

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This customized feed system was built to run on local PID loop control for maintaining constant flow at all times to meet client requirements.

The system is installed in an area of the customer's site where high ambient temperatures threaten electrical drive overheating. To counteract the threat of the installation environment, EGM built the system with massively oversized control panel and twin vortex cabinet coolers to keep the system running reliably.

This type of planning and preparation demonstrates how years of experience in the field translate to robust equipment designs.

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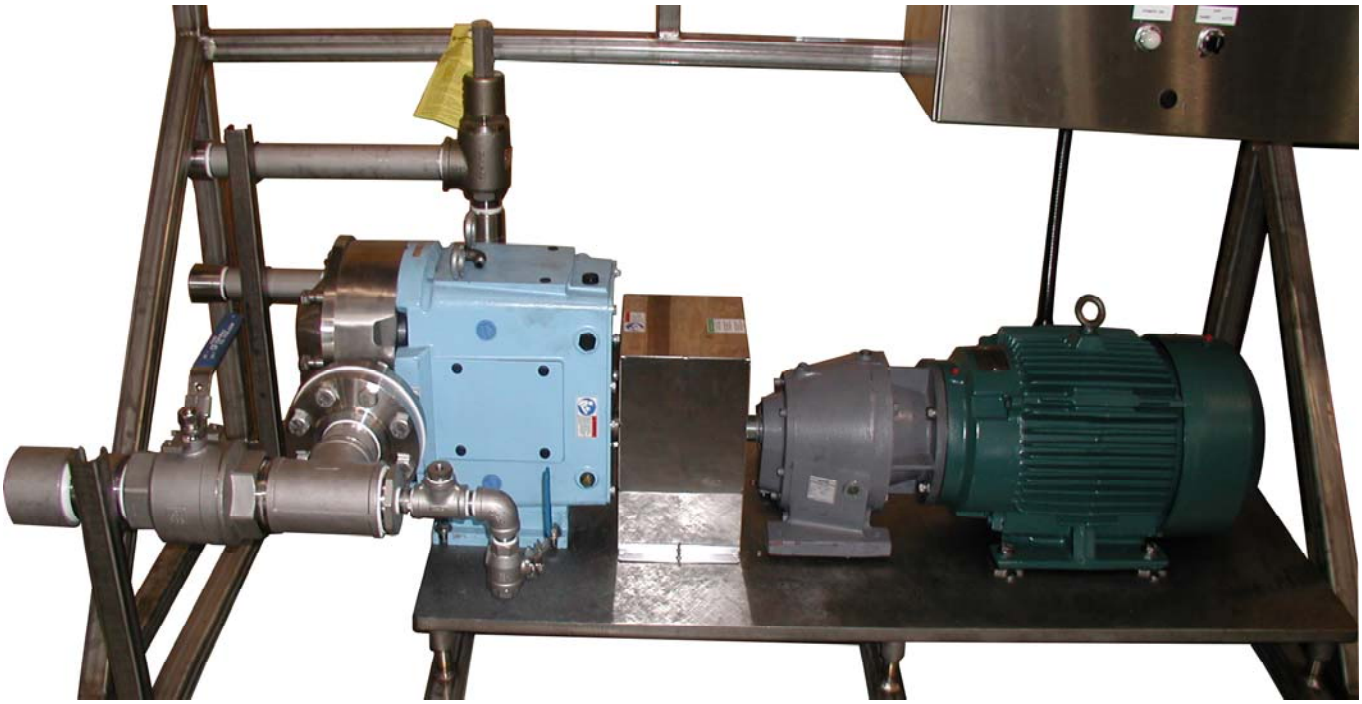

This lobe pump feed system was custom built to be used for a client who moved the equipment from job site to job site.

Realizing the unit would potentially see more damage from transport than service duty, EGM built the pump, motor and critical alignment components on a massive, solid steel mounting plate to offer rigidity, durability and reliability.

## Discuss your requirements with EGM…

To discuss your specific custom feed system needs, call EGM at 251.662.1250. To assist our evaluation of your requirements, be prepared to discuss the following:

- General system description
- System flow and pressure requirements (minimum, target and maximum flow information as well as inlet and outlet pressures)
- Material specifics such as temperatures, viscosities, solids and MSDS information to help determine suitable construction materials
- Desired automation schemes or strategies (manual, local, remote control, PLC, etc)
- Plant or site constraints with regards to pump and instrumentation brands
- Safety specific requirements (guards, enclosures, shielding, pressure relief valve settings, etc)
- System accessories you may need (tanks, filtration, flushing lines, dilution lines, etc)
- Preferred system connection sizes (EGM can size the equipment for you if there are no constraints)


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