



# MEGARoyal® Series Process Diaphragm Pump



## Optimal leak-proof performance for high-volume chemical injection

Engineered for the injection and transfer of hazardous chemicals, the MEGARoyal is capable of handling flow rates of up to 12,680 gph or 211 gpm (48 m<sup>3</sup>/h or 800 L/min) with discharge pressures to 3,655 psi (252 bar) in a footprint that is up to 25% smaller when compared to similar competitive options. The MEGARoyal pump provides the reliability you expect from Milton Roy with the power you want to meet all your chemical dosing needs.

### SPECIFICATIONS:

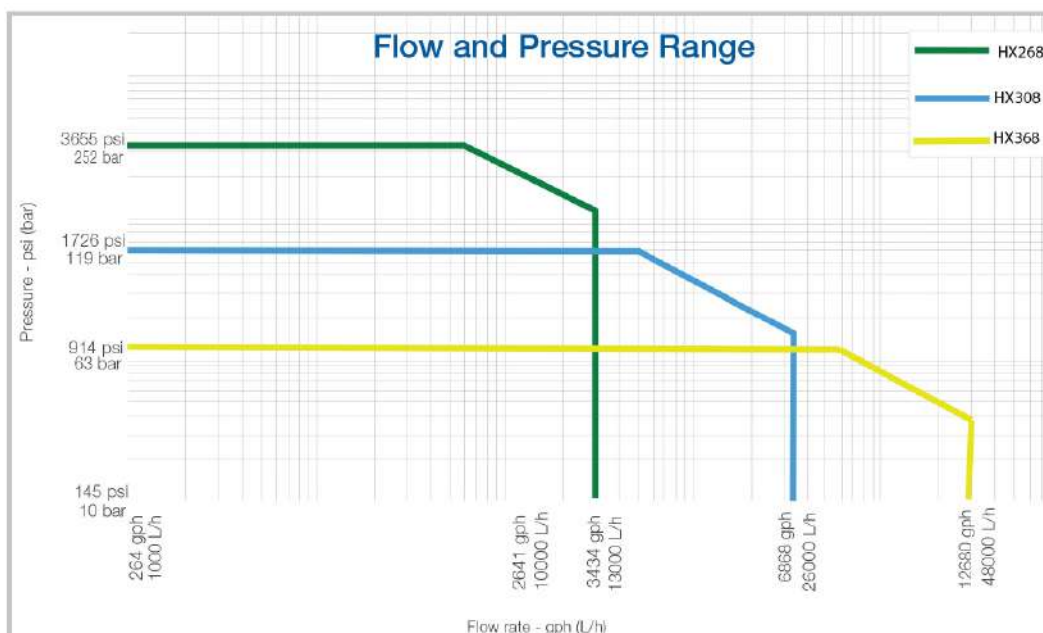
- » Maximum capacity: 12,680 gph or 211 gpm (48 m<sup>3</sup>/h or 800 L/min)
- » Maximum discharge pressure: 3,655 psi (252 bar)
- » Maximum motor power: 100 hp (75 kW)
- » Pumped fluid temperature: 14°F to 203°F (-10°C to 95°C)
- » Capacity adjustment: By variable frequency drive (VFD) with variable frequency motor



### APPLICATIONS:

- » Oil & Gas – applications requiring high pressure liquid injection and transfer to prevent hydrate formation, reduce corrosion, scales and much more.
- » Chemical and Petrochemical Processing – metering of chemicals in refinery processes such as separation / distillation, transformation / conversion and finishing/refining of products.
- » Water Treatment and General Industry - Slurry fluid transfer such as bauxite, coal water slurry and sewage.
- » Ideal for industries requiring zero-leakage and control of critical process liquids.
- » API 675 Compliant\*

\*Consult us for details.



### Critical Sub-Assembly

Provides Operating Efficiencies and Savings

#### FEATURES AND BENEFITS:

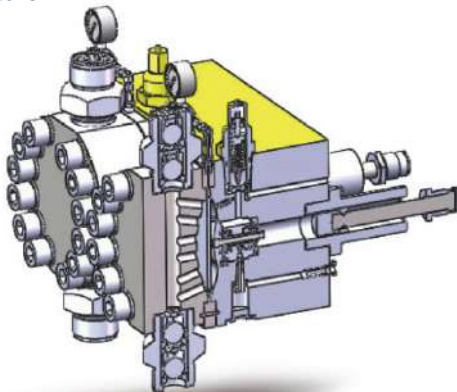
- » Wear-resistant copper alloy worm gear, runs efficiently and provides a long service life.
- » Moving parts lubricated in oil bath to reduce wear.
- » Connecting rods with standard bearing for convenient maintenance.
- » Unique cross-head seal structure protects against leakage.
- » Forged alloy steel crankshaft ensures reliable performance and a long product life.
- » Advanced bearing configuration, maintains a smooth and predictable movement of the suction and discharge.

### Unique Liquid End

Achieves high discharge pressures to 3,655 psig / 252 bar

#### FEATURES AND BENEFITS:

- » Leak-resistant design protects the process and the environment from dangerous and costly contamination.
- » Patented diaphragm design with service life over 20,000 hours reduces maintenance costs while protecting against leakages.
- » Integrated air-bleed valve for accurate “control” of flow.
- » Patented MARS refill system automatically controls the hydraulic oil to protect the diaphragm from rupture while increasing the overall pump reliability and reducing maintenance time and expense.
- » Equipped with a double-diaphragm detection system to monitor via local or remote alarm in the unlikely event of a rupture.



### Options

A variety of options available to meet specification requirements

#### BENEFITS:

- » Special designed suction and discharge valves
- » Low temperature
- » High temperature
- » Jacket insulation
- » Slurry application
- » Variety of diaphragm material
- » Special corrosion resistant material

#### DIMENSIONS:

