

MC3

CHEM-FEED® Diaphragm Metering Pump



Features

- > Built-in leak detection (DFD) senses diaphragm failure
- > Patented DiaFlex® offers zero breakdown, reducing maintenance
- > 4-20mA input and 4-20mA output, standard on all models
- > Heavy duty PVDF pump head and valves are standard
- > Protective LCD snap-on cover, (UV, in field wear and tear)



Highlights

Flow range

.13 - 40.6 GPH
.5 - 154 LPH

Pressures

150 PSI
(10.3 bar)

Turndown ratio

200 : 1

Exclusive

Diaphragm Failure Detection (DFD)

Motor

Brushed DC

Warranty

2 Years

Control Methods

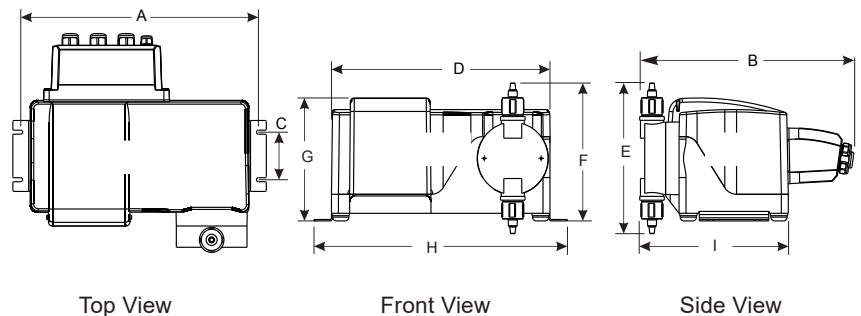
| Control Methods | Manual Control | 4-20mA Input | Remote Start/Stop | Alarm Output | FVS | Motor Status Output | Frequency Input | Pulse Batching |
|-----------------|----------------|--------------|-------------------|--------------|-----|---------------------|-----------------|----------------|
| MC3 | • | • | • | • | • | • | • | • |



| | |
|--|---|
| Maximum Working Pressure | 175 psig (12 bar) |
| | NOTE: see individual pump model maximum pressure ratings |
| Maximum Fluid Temperature | 130 °F (54 °C) |
| Ambient Operating Temperature | 14 °F to 115 °F (-10 °C to 46 °C) |
| Ambient Storage Temperature: | -40 °F to 158 °F (-40 °C to 70 °C) |
| Maximum Viscosity | 1,000 Centipoise |
| Maximum Suction Lift | 15 ft. Water, 0 psig (4.5 m, 0 bar) |
| Operating Voltage (Model Specific) | 115VAC/60Hz, 1ph (1.5 Amp Maximum) |
| | 230VAC/60Hz, 1ph (0.7 Amp Maximum) |
| | 220VAC/50Hz, 1ph (1.0 Amp Maximum) |
| | 240VAC/50Hz, 1ph (1.0 Amp Maximum) |
| Power Cord Options (Model Specific) | 115V60Hz = NEMA 5/15 (USA) |
| | 230V60Hz = NEMA 6/15 (USA) |
| | 220V50Hz = CEE 7/VII (EU) |
| | 240V50Hz = AS 3112 (Australia/New Zealand) |
| | 230V50Hz = BS 1363/A (UK) |
| Motor | Brushed DC, 1/8 H.P. |
| Duty Cycle | Continuous |
| Motor Speed Adjustment Range | 200:1, 0.5% - 100% motor speed |
| Motor Speed Adjustment Resolution | 0.1% increments |
| Display | Backlit LCD, UV resistant |
| Keypad | Five button positive action tactile switch keypad |
| Approximate Overall Dimensions | 13-1/8" W x 9" H x 10-3/4" D |
| Approximate Shipping Weight | 29 lb. (13.1 Kg) |
| Enclosure | NEMA 4X (IP66), Powder coated aluminum |
| RoHS Compliant | Yes |
| Standards | cETLus, CE |

Dimensions

| Dim | Inch | cm | Dim | Inch | cm |
|----------|-------|------|----------|------|------|
| A | 14.1" | 35.8 | F | 7.8" | 19.8 |
| B | 12" | 30.5 | G | 6.5" | 16.4 |
| C | 2.5" | 6.4 | H | 15" | 38.1 |
| D | 13.1" | 33.2 | I | 8" | 20.3 |
| E | 9" | 22.9 | | | |



Non-wetted Components:

Enclosure: 413 Aluminum (Polyester powder coated)

Pump Head Cover: 316 Stainless Steel

Cover Screws: 300 Series Stainless Steel

DFD System Sensor pins: Hastelloy C-276

Power Cord: 3 conductor, SJTW-A water-resistant

Mounting Brackets and Hardware: 316 Stainless Steel

Wetted Components:

Pump Head: PVDF

Adapter Fittings: PVDF

Valve Cartridges: PVDF

Valve Balls: Ceramic (optional EP)

O-Ring Seals: TFE/P (optional EP)

Diaphragm: PVDF, (optional Flex-A-Prene®)

Body & Adapter: PVDF

Check Ball: Ceramic

Pump Head Assembly:

Foot Valve / Strainer: Spring: Hastelloy C-276

O-Ring Seals: TFE/P (optional EP)

Filter Screen: PVDF

Output Specifications

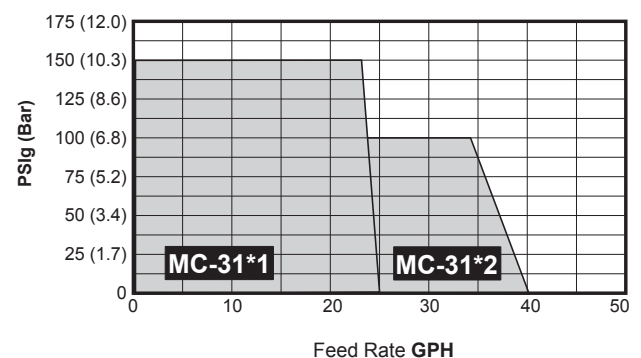
| CAM Stroke Length | Feed Rate Range at 0 PSig | | | Max Pressure | Diaphragm Size |
|-------------------|---------------------------|-----------|-------------|--------------|--------------------------------|
| | GPH | LPH | mL/MIN | PSI (bar) | |
| 1 | .13 - 26.2 | .5 - 99 | 8.3 - 1650 | 150 (10.3) | .060" stroke / large diaphragm |
| 2 | .20 - 40.6 | .77 - 154 | 12.8 - 2560 | 100 (6.8) | .100" stroke / large diaphragm |

Performance

CHEM-FEED® MC3 Diaphragm Metering Pump

NOTE: All tests performed after approximately 30 minutes diaphragm break-in period.

MC3 Models



CHEM-FEED® Model Number

| | | | | | | | | | | | |
|--|---|----------|----------|----------|----------|----------|---|----------|----------------------------|--|--|
| MC | CHEM-FEED® Diaphragm metering pump | | | | | | | | | | |
| Input Voltage / Power Cord | | | | | | | | | | | |
| 4 | 115V / 60Hz, power cord NEMA 5/15 plug (US) | | | | | 8 | 240V / 50HZ, power cord AS 3112 plug (AU/New Zealand) | | | | |
| 5 | 230V / 60Hz, power cord NEMA 6/15 plug (US) | | | | | 9 | 230V / 50HZ, power cord BS 1363 plug (UK) | | | | |
| 6 | 220V / 50HZ, power cord CEE 7/VII plug (EU) | | | | | | | | | | |
| Stroke Length / Diaphragm size | | | | | | | | | | | |
| 1 | .060" stroke / large diaphragm .13–26.2 GPH 150 PSI | | | | | | | | | | |
| 2 | .100" stroke / large diaphragm .20–40.6 GPH 100 PSI | | | | | | | | | | |
| Elastomer Material (o-rings) | | | | | | | | | | | |
| V | TFE/P | | | | | | | | | | |
| E | EP (Ethylene Propylene) | | | | | | | | | | |
| Pump Head Fitting and Injection Fitting / Check Valve Connections | | | | | | | | | | | |
| 1 | 1/2" ID x 3/4" OD tubing pump head | | | | | | | | | | |
| 2 | 1/4" ID x 3/8" OD Tubing pump head | | | | | | | | | | |
| 3 | 1/2" Male NPT inlet and outlet, with 1/2" M/NPT injection fitting | | | | | | | | | | |
| 4 | 1/2" Female NPT inlet and outlet, with 1/2" M/NPT injection fitting | | | | | | | | | | |
| Miscellaneous Options (leave blank if not used) | | | | | | | | | | | |
| A | Hastelloy C check valve balls, standard injection fittings | | | | | | | | | | |
| B | Single 1/2" ceramic ball & Hastelloy C spring P/head check valve for viscous fluids | | | | | | | | | | |
| H | PTFE balls (double ball check valve, injection fitting) low viscosity/density fluids only | | | | | | | | | | |
| J | PTFE balls (single ball w/Hastelloy spring check valve, injection fitting) | | | | | | | | | | |
| S | Flex-A-Prene® Diaphragms (Caustic Soda resistant diaphragms) | | | | | | | | | | |
| MC | 3 | 1 | 4 | 1 | X | V | 1 | A | Sample Model Number | | |