

MC2

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)


NEMA 4X

Highlights

Flow range

.01 - 16.5 GPH
.05 - 62.5 LPH

Pressures

175 PSI
(12 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
MC2	•	•	•	•	•	•	•	•

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 110 °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) Max. RPM = 166
Motor Speed Adjustment Resolution	0.1% increments
Display	Backlit LCD, UV resistant
Keypad	Positive action tactile switch keypad
Approximate Overall Dimensions	11-3/4" W x 7-3/4" H x 10-3/4" D
Approximate Shipping Weight	24 lb. (10.9 Kg)
Enclosure	NEMA 4X (IP66), Powder coated aluminum
RoHS Compliant	Yes
Standards	cETLus, CE

Dimensions

Dim	Inch	cm	Dim	Inch	cm
A	14.1"	32.5	F	7.3"	18.4
B	11.5"	29.2	G	6.5"	16.4
C	2.5"	6.4	H	15"	38.1
D	13.1"	29.9	I	8"	20.3
E	7.9"	20.1			

Top View Front View Side View

Non-wetted Components:		Wetted Components:	
Enclosure: 413 Aluminum (Polyester powder coated)		Pump Head Assembly:	Pump Head: PVDF
Pump Head Cover: 316 Stainless Steel			Adapter Fittings: PVDF
Cover Screws: 300 Series Stainless Steel			Valve Cartridges: PVDF
DFD System Sensor pins: Hastelloy C-276			Valve Balls: Ceramic (optional EP)
Power Cord: 3 conductor, SJTW-A water-resistant			O-Ring Seals: TFE/P (optional EP)
Mounting Brackets and Hardware: 316 Stainless Steel			Diaphragm: PVDF, (optional Flex-A-Prene®)
			Body & Adapter: PVDF
			Check Ball: Ceramic
		Foot Valve / Strainer:	Spring: Hastelloy C-276
			O-Ring Seals: TFE/P (optional EP)
			Filter Screen: PVDF

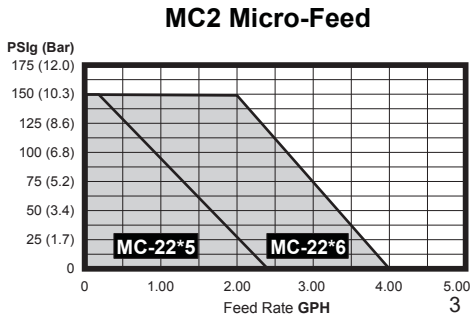
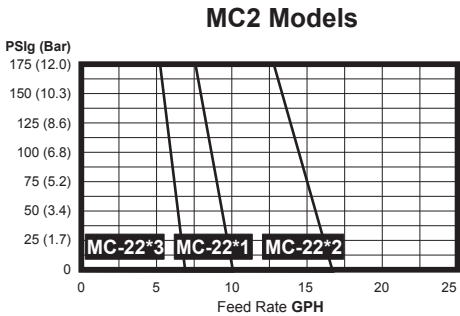
Output Specifications

CAM Stroke Length	Feed Rate Range at 0 PSig			Max Pressure	Diaphragm Size
	GPH	LPH	mL/MIN	PSI (bar)	
1	.05 - 10	.19 - 38	3.2 - 631	175 (12)	.060" (1.52 mm) stroke with small diaphragm
2	.08 - 16.5	.31 - 62.5	8.25 - 1041	175 (12)	.060" (1.52 mm) stroke with large diaphragm
3	.03 - 6.7	.13 - 25.4	2.1 - 423	175 (12)	.040" (1.02 mm) stroke with small diaphragm
5	.01 - 2.3	.05 - 9.0	0.8 - 150	150 (10)	.040" (1.02 mm) stroke with Micro-Feed
6	.02 - 4.0	.08 - 15.0	1.3 - 250	150 (10)	.060" (1.52 mm) stroke with Micro-Feed

Performance

CHEM-FEED® MC2 Diaphragm Metering Pump

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



Model Number Matrix

MC2

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 / small diaphragm .05–10 GPH 175 PSI																					
2		.060" stroke / large diaphragm .08–16.5 GPH 175 PSI																					
3		.040" stroke / small diaphragm .03–6.7 GPH 175 PSI																					
5		.040" stroke / Micro-Feed .01–2.3 GPH 150 PSI																					
6		.060" stroke / Micro-Feed .02–4.0 GPH 150 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		2		2		4		1		X		V		1		A		Sample Model Number					