MC3

CHEM-FEED® Diaphragm Metering Pump

Features

> Built-in leak detection (DFD) senses diaphragm failure
> Exclusive DiaFlex® Diaphragm minimizes maintenance
> Signal inputs: 4-20mA, Pulse inputs, and Remote start/stop
> Signal outputs: Relay (3 amp), 4-20mA, Motor Status
> Heavy duty PVDF pump head and valves are standard
> Protective LCD snap-on cover (UV, in field wear and tear)

NSF Certified to NSF / ANSI Standard 61 · NEMA 4X

Highlights

Flow range
.13 - 40.6 GPH
.5 - 154 LPH

Pressures
Up to 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	•	•	•	•	•	•	•	•

For more help and information regarding M**C3**, please visit www.blue-white.com or scan this QR code.

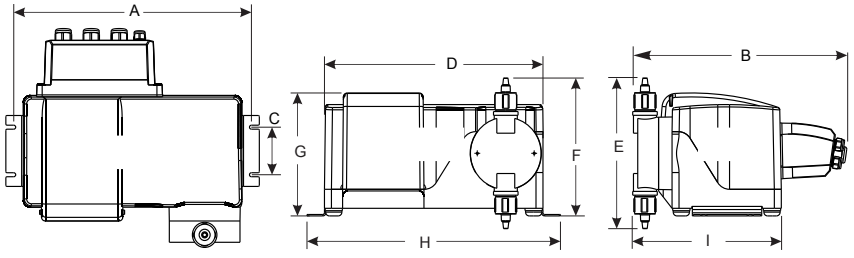
Engineering Specifications

Maximum Working Pressure	Up to 150 psig (10.3 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	NSF 61, cETLus, CE

Dimensions

Dim	Inch	cm
A	14.1”	35.8
B	12”	30.5
C	2.5”	6.4
D	13.1”	33.2
E	9”	22.9

Dim	Inch	cm
F	7.8”	19.8
G	6.5”	16.4
H	15”	38.1
I	8”	20.3



Top View Front View Side View

Materials of Construction

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 Assembly:	Pump Head: PVDF
	Adapter Fittings: PVDF
	Valve Cartridges: PVDF
	Valve Balls: Ceramic (optional EP)
	O-Ring Seals: TFE/P (optional EP)
	Diaphragm: DiaFlex® (optional Flex-A-Prene®)
Foot Valve / Strainer:	Body & Adapter: PVDF
	Check Ball: Ceramic
	Spring: Hastelloy C-276
	O-Ring Seals: TFE/P (optional EP)
	Filter Screen: PVDF

Output Specifications

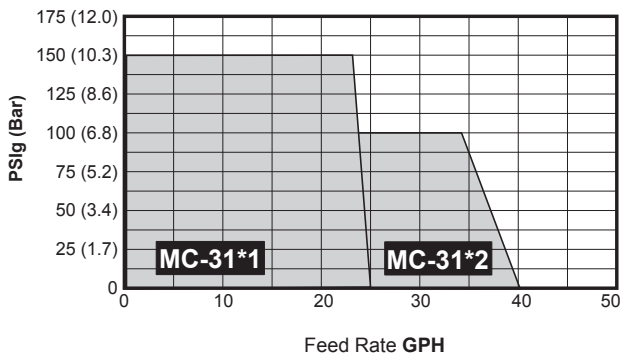
CAM Stroke Length	Feed Rate Range at 0 PSIg			Max Pressure	Diaphragm Size
	GPH	LPH	mL/MIN	PSI (bar)	
1	.13 - 26.2	.5 - 99	8.3 - 1650	150 (10.3)	.060” stroke / large diaphragm
2	.20 - 40.6	.77 - 154	12.8 - 2560	100 (6.8)	.100” stroke / large diaphragm

Performance

CHEM-FEED® MC3 Diaphragm Metering Pump

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

MC3 Models



Model Number Matrix

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

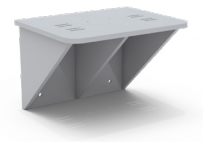
1	1/2” ID Hose Barb Tubing pump head
2	1/4” ID x 3/8” OD Tubing pump head
3	1/2” Male NPT inlet and outlet
4	1/2” Female NPT inlet and outlet

Diaphragm Type

(blank)	Standard
S	Flex-A-Prene® Diaphragms (Caustic Soda resistant diaphragms)

MC	3	1	4	1	X	V	1		**Sample Model Number**

Accessories



KIT-PSM
Wall Mount Bracket, HDPE

71000-555
PVDF INJECTOR, 1/4” ID tubing
71000-579
PVDF INJECTOR,1/2” Hose Barb
71000-577
PVDF INJECTOR,1/2” MNPT

C-334-6-10
Suction Tubing, Clear PVC 1/4”x 3/8”, 10 ft
C-335-6-25
Discharge Tubing, PE, 1/4” x 3/8”, 25 ft
76001-361
Suction Tubing, Clear PVC, 1/2” ID, 8ft
90008-437
Discharge Tubing, Braided PVC, 1/2” ID

Ball Check Cartridge Options

20000-228
Ball Check Cart. Hastelloy Balls
20000-229
Ball Check Cart. PTFE Balls
70001-409 (2 req.)
Ball Check Cart., Single Ceramic Ball with Hastelloy Spring

MC3 is sold and serviced exclusively by highly skilled, factory authorized technicians.

5300 Business Drive, Huntington Beach, CA 92649
TEL 714-893-8529 | FAX 714-894-9492 | www.blue-white.com | sales@blue-white.com

ISO 9001:2015 CERTIFIED
SINCE Quality 1957
MADE IN THE USA