

C3

CHEM-FEED® Diaphragm Metering Pump



Features

- > Diaphragm Failure Detection system senses diaphragm failure.
- > Exclusive Patent pending Dia-Flex® PVDF single-layer diaphragm
- > Signal inputs include: 4-20mA, pulse inputs, and Remote start/stop
- > Signal outputs include: Relay (3 amp), 4-20mA (optional), Motor Status
- > Protective LCD snap-on cover, (UV, in field wear and tear)



NEMA 4X

Highlights

Flow range

.262 - 40.6 GPH
.99 - 154 LPH

Pressures

150 PSI
(10.3 bar)

Turndown ratio

100 : 1

Exclusive

Diaphragm Failure Detection

Motor

Brushed
DC Motor

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
C3F	•		•	•	•			
C3V	•	•	•	•	•	•	•	•



Engineering Specifications

C3

Maximum Working Pressure	150 psig (10.3 bar)
Maximum Fluid Temperature	130 °F (54 °C)
Maximum Ambient Temperature	14 °F to 110 °F (-10 °C to 46 °C)
Maximum Viscosity	1,000 Centipoise
Maximum Suction Lift	15 ft. Water, 0 psig (4.5 m, 0 bar)
Operating Voltage	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)
	230VAC/50Hz, 1ph (1.0 Amp Maximum)
Power Cord Options	115V60Hz = NEMA 5/15 (USA)
	230V60Hz = NEMA 6/15 (USA)
	220V50Hz = CEE 7/VII (EU)
	240V50Hz = AS 3112 (Australia/New Zealand)
Duty Cycle	Continuous
Motor Speed Adjustment Resolution	100:1, (1.0% – 100% motor speed) Max. rpm = 130
Display	Backlit LCD, UV resistant
Keypad	Positive action tactile switch keypad
Product Weight	29 lb. (13.1 Kg)
Enclosure	NEMA 4X (IP66), Polyester powder coated aluminum.
RoHS Compliant	Yes
Standards	cETLus, CE

Output Specifications

Feed Rate Range at 0 PSIG		Max Pressure	CAM Stroke Length
GPH	LPH	PSI (bar)	
.262 - 26.2	.99 - 99	150 (10.3)	.060" (1.52 mm) stroke with large diaphragm
.406 - 40.6	1.54 - 154	100 (6.8)	.100" (2.54 mm) stroke with large diaphragm

Non-wetted Components:

Enclosure: 413 Aluminum (Polyester powder coated)

Pump Head: PVDF

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 & Insert: PVDF

Check Ball: Ceramic

Spring: Hastelloy C-276

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

Body & Adapter: PVDF

Check Ball: Ceramic

Pump Head Assembly:

Injection / Back-Flow Check Valve:

Foot Valve / Strainer:

Spring: Hastelloy C-276

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

Filter Screen: PVDF

Suction Tubing

3/4" x 1/2" Tube connections: Not supplied

1/4" x 3/8" Tube connections:
Clear PVC

Discharge Tubing

3/4" x 1/2" Tube connections: Not supplied

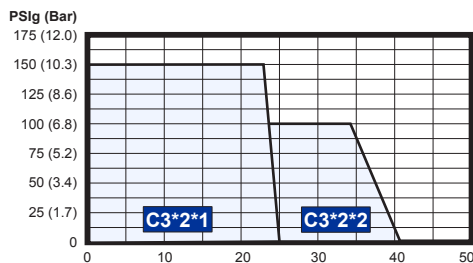
1/4" x 3/8" Tube connections:
Natural Polyethylene (LLDPE)

Performance

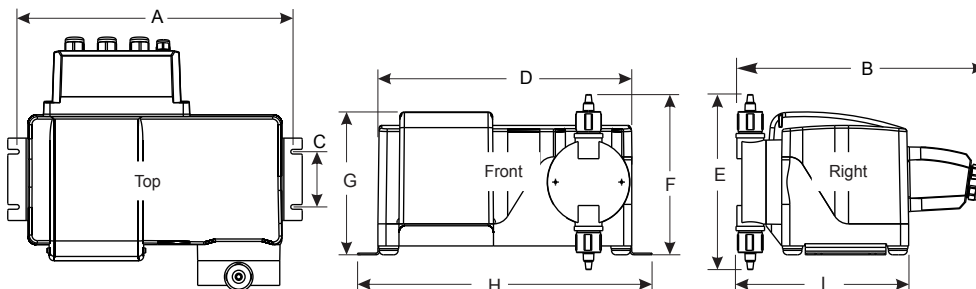
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NOTE: All tests performed after approximately 30 minutes tube break-in period.

C3 Series Models



Dimensions



Dim	Inch	cm
A	14.1"	35.8
B	12"	29.2
C	2.5"	6.4
D	13.1"	33.2
E	9"	20.1
F	7.8"	19.8
G	6.5"	16.4
H	15"	38
I	8"	20.3

NOTE: Optional Extended Bracket adds 4.5" (11.43cm) to overall height (dimension F and G).

Model Number

C3	Diaphragm metering pump									
Series										
F	Single manual output control (manual/local control only)									
V	Multiple automatic input output control and alarm modes (remote control)									
Input Voltage										
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/II plug (EU)									
CAM Stroke Length and Diaphragm Size										
1	.060" (1.52 mm) stroke with large diaphragm									
2	.100" (2.54 mm) stroke with large diaphragm									
Electrical Options										
X	Standard equipment									
A	4-20mA output signal, requires "V" series control									
Elastomer Material (o-rings)										
V	TFE/P				E	EP (Ethylene Propylene)				
Fitting Connection Types										
A	1/2" Hose Barb Inlet, 1/2" Male NPT Outlet, with 1/2" Male NPT Injection Fitting									
B	1/2" Hose Barb Inlet, 1/2" Female NPT Outlet, with 1/2" Male NPT Injection Fitting									
C	1/2" Hose Barb Inlet and Outlet, with 1/2" ID Hose Barb Injection Fitting									
E	1/2" Male NPT Inlet and Outlet, with 1/2" Male NPT Injection Fitting									
F	1/2" Female NPT Inlet and Outlet, with 1/2" Male NPT Injection Fitting									
Miscellaneous Options (leave blank for standard model)										
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									
S	Flex-A-Prene® Diaphragms (Caustic Soda resistant diaphragms)									
H	PTFE balls (double ball check valve, injection fitting) low viscosity/density fluids only									
C3	F	2	4	1	X	V	A	A	Sample Model Number	