



C2

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)

Video link:



Highlights

Flow range .02 - 16.5 GPH .09 - 62.5 LPH	Pressures 175 PSI (12 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
C2F	•		•	•	•			
C2V	•	•	•	•	•	•	•	•



Engineering Specifications

Maximum Working Pressure	175 psig (12 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)
	230V50Hz = BS 1363/A (UK)
Duty Cycle	Continuous
Motor Speed Adjustment Resolution	100:1, (1.0% – 100% motor speed) Max. rpm = 166
Display	Backlit LCD, UV resistant
Keypad	Positive action tactile switch keypad
Product Weight	24 lb. (10.9 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 and Diaphragm Size
GPH	LPH	PSI(bar)	
.02 - 2.3	.09 - 9.0	150 (10)	.040" (1.02 mm) stroke with Micro-Feed
.04 - 4.0	.15 - 15.0	150 (10)	.060" (1.52 mm) stroke with Micro-Feed
.067 - 6.7	.254 - 25.4	175 (12)	.040" (1.02 mm) stroke with small diaphragm
.10 - 10	.38 - 38	175 (12)	.060" (1.52 mm) stroke with small diaphragm
.165 - 16.5	.625 - 62.5	175 (12)	.060" (1.52 mm) stroke with large diaphragm

Materials of Construction

C2

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

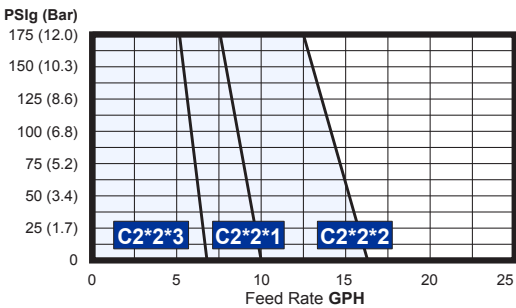
Mounting Brackets and Hardware: 316 Stainless steel

Performance

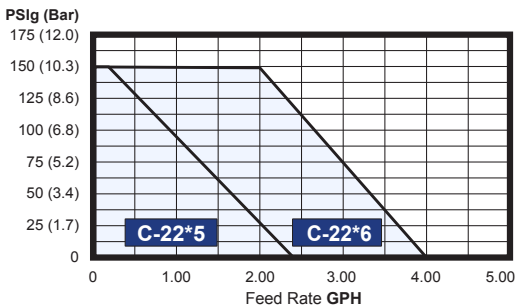
CHEM-FEED® C2 Diaphragm Metering Pump

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

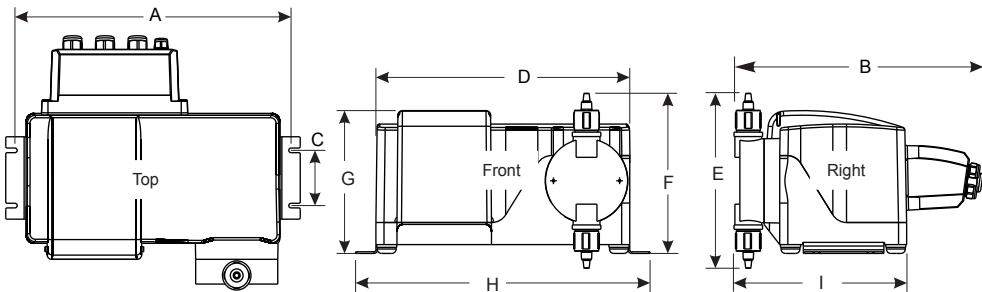
C2 Series Models



C2 Series Micro-Feed



Dimensions



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

Wetted Components:

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

Dim	Inch	cm
A	14.1"	35.8
B	11.5"	29.2
C	2.5"	6.4
D	13.1"	33.2
E	7.9"	20.1
F	7.3"	18.4
G	6.5"	16.4
H	15"	38.0
I	8"	20.3

Model Number Matrix

C2

Model Number

C2 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)									
5 230V / 60Hz, power cord NEMA 6/15 plug (US)									
6 220V / 50HZ, power cord CEE 7/VI plug (EU)									
8 240V / 50HZ, power cord AS 3112 plug (AU/New Zealand)									
9 230V / 50HZ, power cord BS 1363 plug (UK)									
CAM Stroke Length and Diaphragm Size									
1 .060" (1.52 mm) stroke with small diaphragm									
2 .060" (1.52 mm) stroke with large diaphragm									
3 .040" (1.02 mm) stroke with small diaphragm									
5 .040" (1.02 mm) stroke with Micro-Feed									
6 .060" (1.52 mm) stroke with Micro-Feed									
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									
D 3/8" OD Tube Compression Inlet, Outlet, and 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									
C2	F	2	4	1	X	V	A	A	Sample Model Number