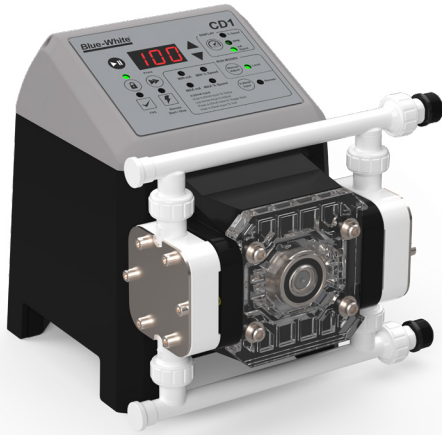


# CD1

## CHEM-FEED® Multi-Diaphragm Metering Pump



**CD1C Model**

### Features

- > Enhanced Multi-diaphragm technology delivers smooth, nearly pulse-less chemical feed
- > Double ball checks increase pumping reliability
- > Unique pump head ensures correct ball check direction
- > Leak detection (DFD) senses diaphragm failure and stops pump
- > Exclusive DiaFlex® Diaphragm minimizes maintenance
- > “C” Control Model includes multiple Input/Output options
- > “B” Base Model includes manual speed control

Video link: 



### Highlights

**Flow range**

0.0035 - 7.0 GPH  
0.0132 - 26.46 LPH

**Pressures**

Up to 180 PSI\*  
(12.4 bar)

**Turndown ratio**

2,000 : 1

**Suction lift**

20 ft. (at 0 PSI)

**Motor**

Brushless DC

**Warranty**

2 Years

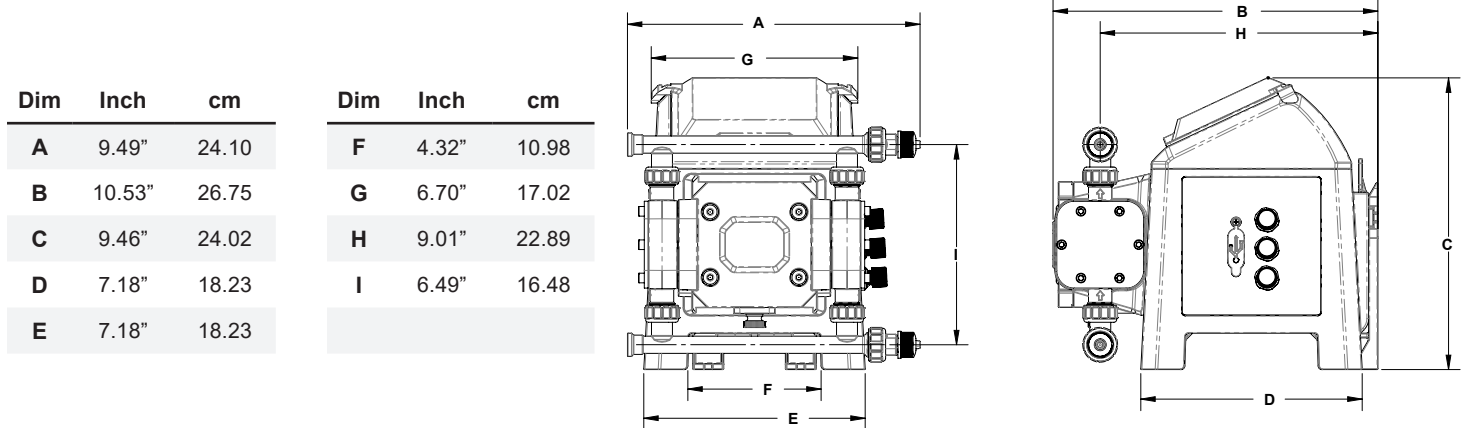
### Control Methods

Control Methods	Manual Control	4-20mA Input	Remote Start/Stop	4-20mA Output	Alarm Output	FVS	Motor Status Output	Prime Button	Lockout Feature
CD1C	•	•	•	•	•	•	•	•	•
CD1B	•							•	•



<b>Maximum Working Pressure</b>	Up to 180 psig (12.4 bar) * Maximum pressure when using compression fittings: 150 psig (10.3 bar)
<b>Maximum Fluid Temperature</b>	Up to 185 °F (85 °C)
<b>Maximum Ambient Temperature</b>	14 to 115 °F/ -10 to 46 °C
<b>Maximum Viscosity</b>	1,000 Centipoise
<b>Maximum Suction Lift</b>	20 ft. at 0 PSI
<b>Operating Voltage</b>	115V60Hz 1 PH (0.6A max., 80 W max.)
	220V50Hz 1 PH (0.3A max., 80 W max.)
	230V60Hz 1 PH (0.3A max., 80 W max.)
	230V50Hz 1 PH (0.3A max., 80 W max.)
	240V50Hz 1 PH (0.3A max., 80 W max.)
<b>Power Cord Options</b>	115V/60Hz = NEMA 5/15 (USA)
	230V/60Hz = NEMA 6/15 (USA)
	220V/60Hz = CEE 7/VI (EU)
	240V/60Hz = AS 3112 (Australia/New Zealand)
	230V 50/60Hz = BS 1363/A (United Kingdom)
<b>Signal Connectors</b>	M12 - 5 pin (IP67 rated) ("C" model only)
<b>Motor</b>	Brushless DC, 42W
<b>Duty Cycle</b>	Continuous
<b>Motor Speed Adjustment Range</b>	2,000:1 (0.05% – 100%) Max. rpm = 100 (200 strokes/min)
<b>Maximum Overall Dimensions</b>	9.49"W x 9.46"H x 10.53"D (24.10 W x 24.02 H x 26.75 D cm)
<b>Product Weight</b>	10.7 lb. (4.85 Kg)
<b>Approximate Shipping Dimensions</b>	10.5" W x 11.75" H x 13" D (26.7 W x 29.8 H x 33 D cm)
<b>Approximate Shipping Weight</b>	20.0 lb. (9.1 Kg)
<b>Enclosure</b>	NEMA 4X, Valox® (PBT)
<b>RoHS Compliant</b>	Yes
<b>Standards</b>	cETLus, CE, BABA Compliant

## Dimensions



## Non-wetted Components:

**Enclosure:** Valox® (PBT)

**Drive Enclosure:** PA12

**Control Panel Cover:** Polycarbonate

**Pump Head Cover:** Polycarbonate

**Cover Screws:** Stainless steel

**DFD System Sensor Pins:** Hastelloy C-276

**Power Cord:** 3 Conductor, SJTW-A water-resistant

**Hardware:** 316 Stainless steel screws

**Mounting Brackets:** Nylon

## Wetted Components:

### Pump Head Assembly:

Pump Head : PVDF

Adapter Connections : PVDF

Valve Cartridge : PVDF

Valve Balls : Ceramic

O-Ring Seals : TFE/P or EP

Diaphragm : DiaFlex® or Flex-A-Prene®

### Injection/Back-Flow Check Valve:

Body & Insert : PVDF

Check Ball : Ceramic

Spring : Hastelloy C-276

Ball Seat O-Ring : TFE/P or EP

Static Seal O-Ring : TFE/P or EP

### Foot Valve / Strainer:

Body & Adapter : PVDF

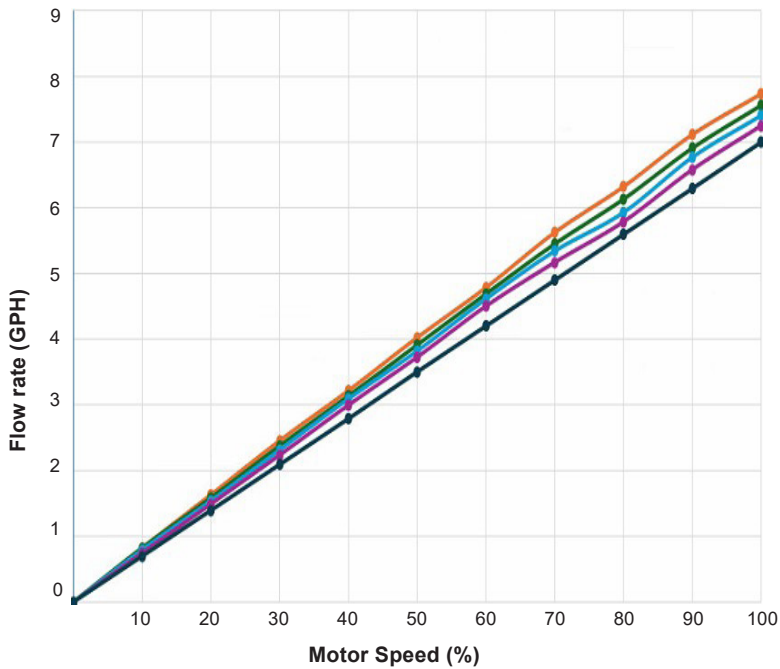
Check Ball : Ceramic

Spring : Hastelloy C-276

O-Ring Seal TFE/P or EP

Filter Screen : PVDF

## Performance



— 30 PSI  
 — 60 PSI  
 — 90 PSI  
 — 120 PSI  
 — 150 PSI  
 — 180 PSI

Motor Speed %	Flowrate (Gal/hr), Pressure						Flowrate (mL/min), Pressure					
	30 PSI	60 PSI	90 PSI	120 PSI	150 PSI	180 psi	30 PSI	60 PSI	90 PSI	120 PSI	150 PSI	180 PSI
	2.1 Bar	4.2 Bar	6.2 Bar	8.3 Bar	10.3 Bar	12.4 Bar	2.1 Bar	4.2 Bar	6.2 Bar	8.3 Bar	10.3 Bar	12.4 Bar
10	0.82	0.82	0.79	0.74	0.73	0.70	52	52	50	47	46	44
20	1.63	1.59	1.54	1.49	1.46	1.39	103	100	97	94	92	88
30	2.46	2.38	2.31	2.23	2.19	2.09	155	150	146	141	138	132
40	3.22	3.14	3.09	3.00	2.92	2.79	203	198	195	189	184	176
50	4.03	3.92	3.82	3.72	3.60	3.50	254	247	241	235	227	221
60	4.79	4.69	4.61	4.50	4.36	4.20	302	296	291	284	275	265
70	5.63	5.45	5.34	5.17	5.01	4.90	355	344	337	326	316	309
80	6.32	6.13	5.93	5.79	5.66	5.60	399	387	374	365	357	353
90	7.12	6.91	6.77	6.58	6.45	6.29	449	436	427	415	407	397
100	7.73	7.56	7.40	7.24	7.13	7.00	488	477	467	457	450	441

# Model Number Matrix

## CHEM-FEED® Model Number

CD1

<b>CD1</b>	CHEM-FEED® Diaphragm Metering Pump				
<b>Control</b>					
<b>B</b>	Base = Manual Speed Control (No I/O)				
<b>C</b>	Control = 4-20mA Input, 4-20mA Output, Manual Speed Control, Remote Start/Stop Input, Outputs (TFD, FVS, Motor)				
<b>Diaphragm and O-Rings Material</b>					
<b>V</b>	DiaFlex® Diaphragms and TFE/P O-Rings				
<b>W</b>	Flex-A-Prene® Diaphragms and TFE/P O-Rings				
<b>D</b>	DiaFlex® Diaphragms and EP O-Rings				
<b>E</b>	Flex-A-Prene® Diaphragms and EP O-Rings				
<b>Pump Fittings (Inlet / Outlet)</b>					
<b>B</b>	1/2" ID Barb Straight Fittings				
<b>C</b>	1/2" ID Barb Elbow Fittings				
<b>S</b>	1/4" x 3/8" Compression Straight Fittings (maximum pressure rating is 150 psi (10.3 bar) when using compression fittings)				
<b>T</b>	1/4" x 3/8" Compression Elbow Fittings (maximum pressure rating is 150 psi (10.3 bar) when using compression fittings)				
<b>M</b>	1/2" M/NPT Straight Fittings				
<b>X</b>	1/2" M/NPT Elbow Fittings				
<b>Power Cord - Removable (Operating voltage requirement 96VAC to 264VAC)</b>					
<b>4</b>	115V 50/60Hz, power cord NEMA 5/15 plug (US)				
<b>6</b>	220V 50/60Hz, power cord CEE 7/11 plug (EU)				
<b>X</b>	No Power Cord Provided (Power cord is required - See accessories for power cord options)				
<b>CD1</b>	<b>B</b>	<b>V</b>	<b>B</b>	<b>4</b>	<b>Sample Model Number</b>

## Accessories

 <p><b>KIT-S07</b> <b>KIT-S15</b> <b>KIT-S30</b></p> <p>* Includes cover and foot valve</p> <p>KIT-S07 (7 Gallon), KIT-S15 (15 Gallon), KIT-S30 (30 Gallon) STAR III TANKS, PP</p>	 <p><b>KIT-PSM (Lg), KIT-PSS (Sm)</b> WALL MOUNT BRACKET, HDPE</p>	<p>KIT-C*1TZZ Elbow, 1/4x3/8 tubing KIT-C*1XZZ Elbow, 1/2" MNPT KIT-C*1CZZ Elbow, 1/2" Hose Barb KIT-C*1SZZ Straight, 1/4x3/8 tubing KIT-C*1MZZ Straight, 1/2" MNPT KIT-C*1BZZ Straight, 1/2" Hose Barb * A = Aflas O-rings, E = EP O-rings</p> <p><b>FITTING KITS</b> 2 fittings, 2 union nuts, 2 O-rings</p>	
<p><b>POWER CABLES - 6 ft</b> 90010-663 115V/60Hz NEMA 5/15 90010-664 220V/50Hz CEE 7/11 90010-665 230V/50Hz BS 1363/A 90010-666 240V/50Hz AS 3112 90010-696 230V/60Hz NEMA 6/15 90010-821 115V Lockable</p> <p><b>POWER CABLES</b></p>	 <p><b>KIT-M12</b> TWO M12 CABLES - 9.8 ft</p>	 <p><b>KIT-CQA (Aflas) / KIT-CQE (EP)</b> QUICK CONNECT KIT MD1</p>	<p><b>Teflon Ball Check Unibody Cartridge Valve Kit (PVDF body, O-rings, PTFE balls)</b> 4 cartridges included. 72000-854 w/Aflas O-rings 72000-855 w/EPDM O-rings</p> <p><b>PTFE Ball Check Cart. Kits</b></p>

Visit Accessory Pages for More Options

P.N. # 85000-208 CD1 Enhanced Datasheet Rev 0.9 20260409

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