

PULSAFEEDER

A Unit of IDEX Corporation



Simple
Reliable
Solutions

MVI



Pulsafeeder Technology

Since 1936, Pulsafeeder has been the global leader in fluids handling technology and innovation in chemical dosing. Pulsafeeder has built a foundation of success with thousands of installations in fluid handling applications. Our extensive product breadth enables us to provide the convenience and efficiency of single-source solutions across various industries.

With manufacturing and distribution facilities located around the globe, Pulsafeeder ensures the availability of its products and service world wide to meet customers' fluid handling needs. Pulsafeeder's manufacturing facilities are world-class. Continually investing in the latest production equipment and manufacturing techniques maximizes control of product quality, manufacturing efficiency and production cost for fast, effective response to customers needs. Pulsafeeder manufactures and supplies equipment, systems, and accessories that compliment each other and provide the assurance that each piece of equipment will operate at maximum efficiency.

Omni Series Pumps

The OMNI series is designed to be an economical, compact, rugged, simple, and reliable diaphragm metering pump. It features an industrial design to work in just about any application. OMNI series pumps are a reliable alternative for the customer looking for a simple and compact diaphragm metering pump. These reliable metering pumps are designed to perform in the widest range of chemical dosing applications.

Product Specifications

- Flows to 3600 l/h (951 gph) at 60 Hz
- Pressures to 10.3 Bar (150 psi)
- Accuracy +/- 2% of flow
- Temperatures to 65°C (150°F)
- Viscosity up to 1000 CPS
- Maximum 3 m (10ft) NPSH
- Maximum Suction Pressure 5 psi or .4 bar less than design pressure

Materials of Construction

- Head materials in PVDF, 316 SS, and PP
- Ball Valves - Ceramic, and 316 SS
- Diaphragm - PTFE faced Hypalon

Typical Applications

- Acids
- Caustics
- Polymers
- Bleaches
- pH Control
- Solvents
- Dyes/Inks
- Catalysts
- Cleaning agents
- And many more

Markets



Chemical



Food & Beverage



Pharmaceutical



Mining



Paints & Dyes



Petroleum



Petrochemical



Pulp & Paper



Power & Energy



Water Treatment



General Industries



Steel Industry



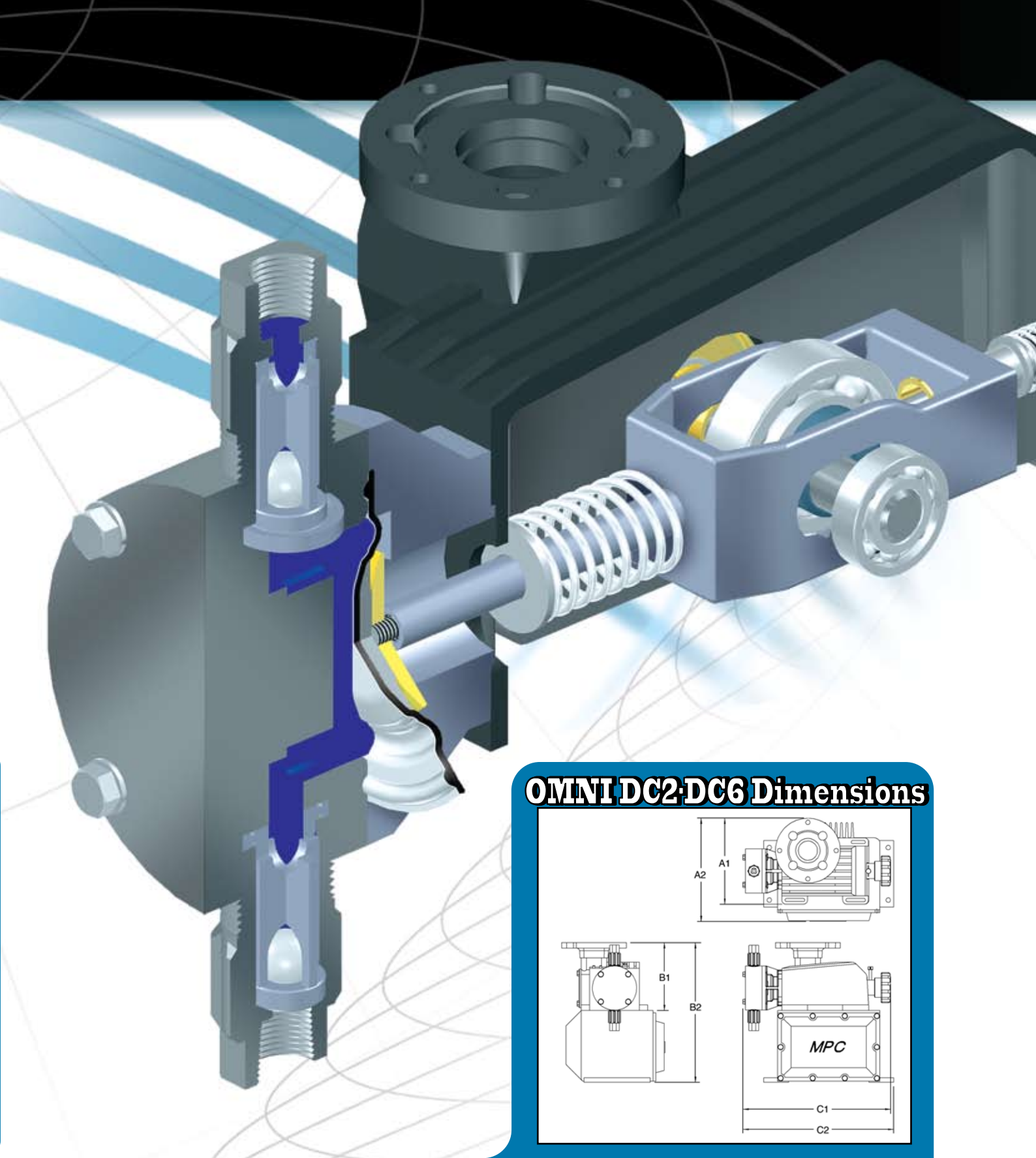
Metering Pumps

OMNI Metering Pumps and Controls are the economical standard for a reliable chemical feed pump with virtually no maintenance. The OMNI offers the following user friendly benefits:

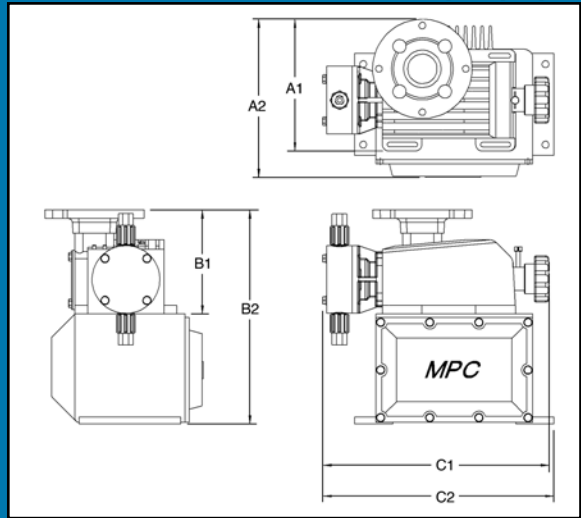
- **Metering Accuracy**
To +/- 2% of flow
- **Turndown Capacity**
Adjustable up to 1000:1 with MPC controls on selected models
- **Oil Free**
Greased for life no oil to buy or change (DC2-6, DC7 has oil bath)
- **Compact and Lightweight**
Saves space and easy handling
- **Controller Ready**
Add an MPC when automatic pump control is required
- **Simple Design**
Easy to install and operate
- **Highly Efficient**
Quiet and cool, standard fan cooled motor design
- **Liquid End Materials**
PVDF, PP, & 316 SS
- **Rugged Construction**
Intended for indoor or outdoor service if protected from precipitation & direct sunlight.

OMNI Wetend Material Details

Wetend Configuration	Model	Connection	Head	Guide	Sealing O-rings	Balls	Seats	Ball Seat O-ring					
PVDF	DC2	1/4" NPT	PVDF	PVDF	PTFE	Ceramic	PVDF	n/a					
	DC3	1/2" NPT/BSPT											
	DC4												
	DC5												
	DC6	1" NPT/BSPT			Viton		PVDF (O-ring Seat)	Viton					
DC7	1 1/2" NPT & ANSI Flange 1 1/2"/DIN40 Flange												
PP	DC2	n/a	n/a	n/a	n/a	Ceramic	n/a	n/a					
	DC3												
	DC4												
	DC5								1" NPT/BSPT	PP	PP	PTFE	PVDF
	DC6								1 1/2" NPT & ANSI Flange 1 1/2"/DIN40 Flange	Viton	PP (O-ring Seat)	Viton	
DC7													
316 SS	DC2	1/4" NPT	316 SS	316 SS	316 SS	Ceramic	316 SS	n/a					
	DC3	1/2" NPT/BSPT											
	DC4												
	DC5												
	DC6	1" NPT/BSPT							TFE				
DC7	n/a	n/a	n/a	n/a	n/a								



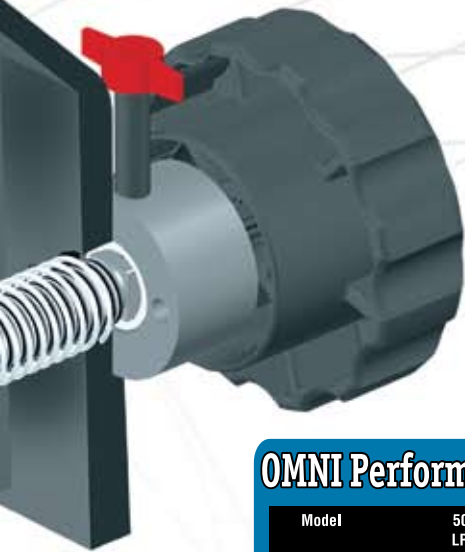
OMNI DC2-DC6 Dimensions



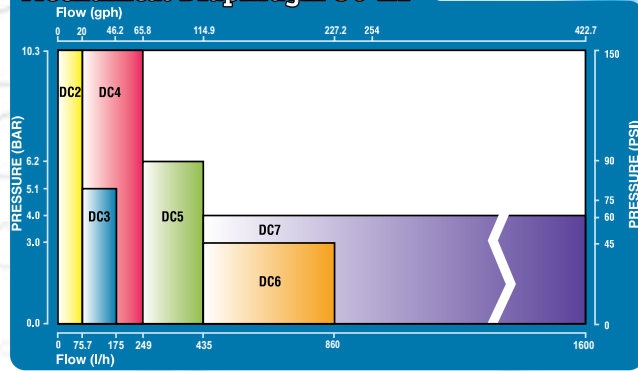
Model	A1 in.	A1 (cm)	A2 (MPC) in.	A2 (MPC) (cm)	B1 in.	B1 (cm)	B2 (MPC) in.	B2 (MPC) (cm)	C1 in.	C1 (cm)	C2 (MPC) in.	C2 (MPC) (cm)	Weight* lbs. (kg)
DC2	6.7	(17.02)	8.3	(21.08)	6.6	(16.76)	13.1	(33.27)	13.1	(33.27)	13.3	(33.78)	13 (5.8)
DC3	6.7	(17.02)	8.3	(21.08)	6.6	(16.76)	13.1	(33.27)	13.1	(35.31)	13.9	(35.31)	17 (7.7)
DC4	7.4	(18.80)	8.9	(22.61)	6.9	(17.48)	13.4	(34.04)	15.0	(38.10)	15.0	(38.10)	22 (9.9)
DC5	7.4	(18.80)	8.9	(22.61)	6.9	(17.48)	13.4	(34.04)	15.3	(38.86)	15.3	(38.86)	25 (11.3)
DC6	11.0	(11.0)	11.0	(11.0)	11.0	(11.0)	11.0	(11.0)	15.8	(40.20)	15.8	(40.20)	26 (11.8)

All weights shown without motors. Motor weights vary by manufacturer. *Weight shown is without MPC and motor. Add 8.3 kg / 18.3 lbs. for MPC.

Economic
Compact
Simple
Rugged



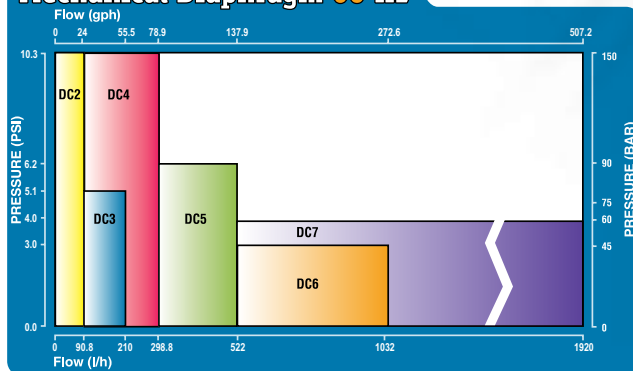
Mechanical Diaphragm 50 Hz



OMNI Performance 50Hz

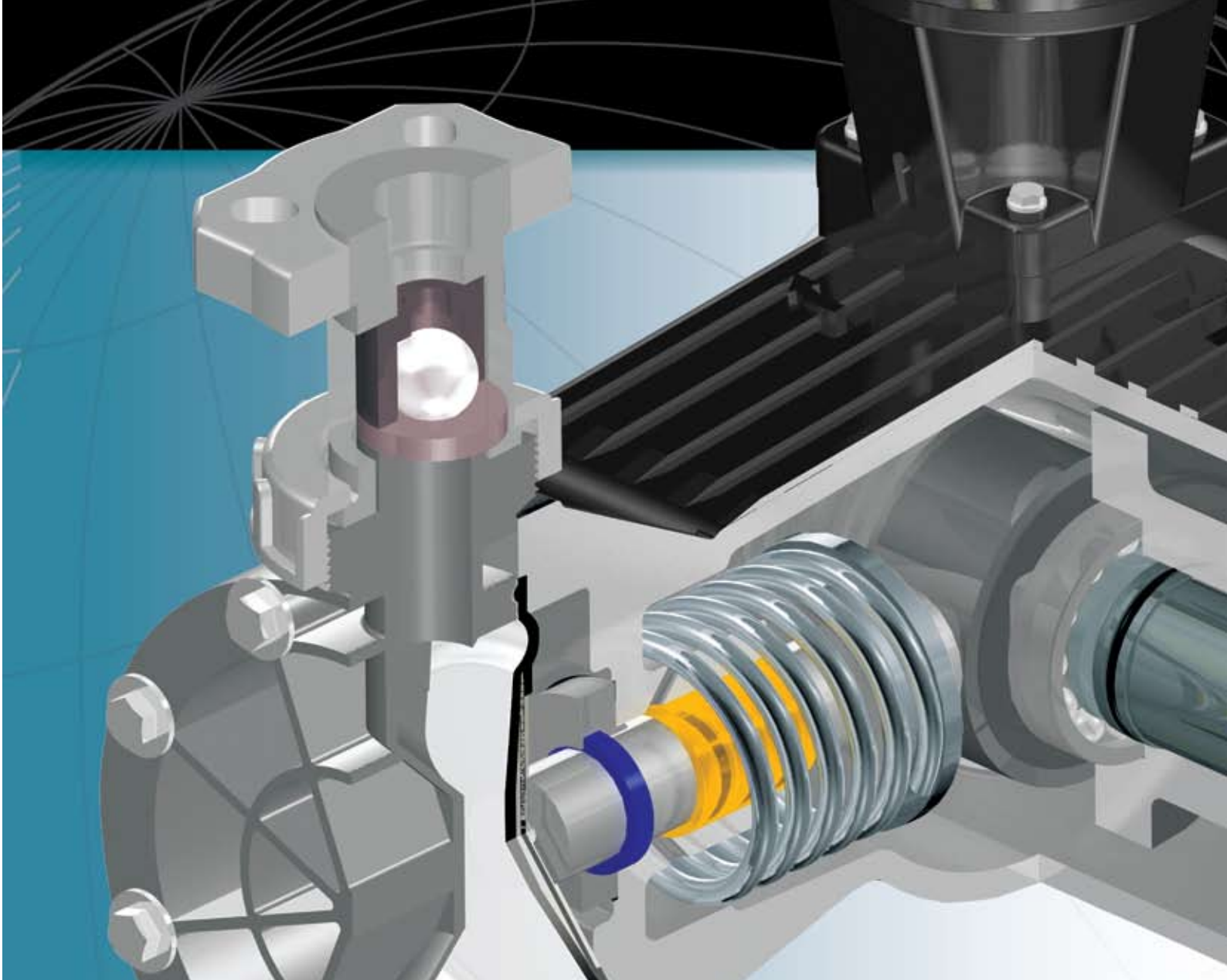
Model	50 Hz Flow LPH (GPH)		Pressure		SPM @ 50 Hz		Power	
	1450 RPM	940 RPM	Bar	PSI	1450 (940) RPM	KW	HP	
DC 2A	22 (5.8)	22 (3.8)	10.3	150	37 (24)	0.18	0.25	
DC 2B	44 (11.7)	44 (7.6)	10.3	150	73 (47)	0.18	0.25	
DC 2C	76 (20)	75.7 (13)	10.3	150	125 (81)	0.18	0.25	
DC 3B	102 (27)	102 (17.5)	5.1	75	73 (47)	0.18	0.25	
DC 3C	177 (47)	175 (30)	5.1	75	125 (81)	0.18	0.25	
DC 4B	132 (35)	128 (22.6)	10.3	150	98 (64)	0.37	0.5	
DC 4C	205 (54)	195 (35)	10.3	150	146 (95)	0.37	0.5	
DC 4D	261 (69)	249 (45)	10.3	150	186 (121)	0.37	0.5	
DC 5C	341 (90)	320 (58)	6.2	90	146 (95)	0.37	0.5	
DC 5D	435 (115)	435 (75)	6.2	90	186 (121)	0.37	0.5	
DC 6C	670 (177)	690 (115)	3	45	146 (95)	0.37	0.5	
DC 6D	840 (222)	860 (144)	3	45	186 (121)	0.37	0.5	
DC 7C	1200 (317)	1300 (206)	4	60	146 (95)	1.1	1.5	
DC 7D	1500 (396)	1600 (257)	4	60	186 (121)	1.1	1.5	
DC 7J Duplex	2400 (634)	2600 (411)	4	60	146 (95)	1.1	1.5	
DC 7K Duplex	3000 (793)	3200 (514)	4	60	186 (121)	1.1	1.5	

Mechanical Diaphragm 60 Hz

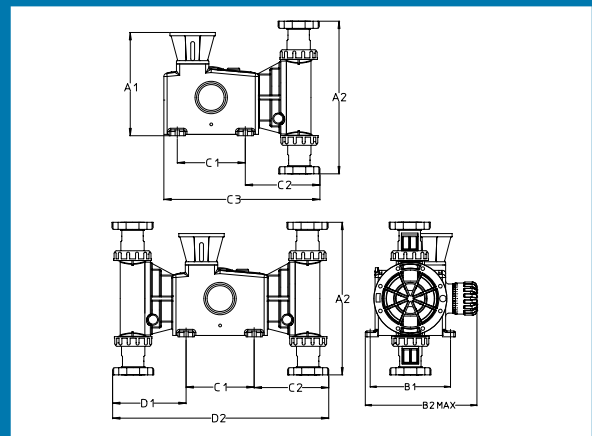


OMNI Performance 60Hz

Model	60 Hz Flow LPH (GPH)		Pressure		SPM @ 60 Hz		Power	
	1725 RPM	1140 RPM	Bar	PSI	1725 (1140) RPM	KW	HP	
DC 2A	26.5 (7)	17.5 (4.6)	10.3	150	44 (29)	0.18	0.25	
DC 2B	53 (14)	35 (9.3)	10.3	150	88 (58)	0.18	0.25	
DC 2C	91 (24)	60 (16)	10.3	150	150 (99)	0.18	0.25	
DC 3B	123 (32.4)	81 (21.4)	5.1	75	88 (58)	0.18	0.25	
DC 3C	212 (56)	140 (37)	5.1	75	150 (99)	0.18	0.25	
DC 4B	159 (42)	105 (27.7)	10.3	150	117 (77)	0.37	0.5	
DC 4C	246 (65)	163 (43)	10.3	150	175 (116)	0.37	0.5	
DC 4D	313 (83)	207 (55)	10.3	150	223 (147)	0.37	0.5	
DC 5C	409 (108)	270 (71)	6.2	90	175 (116)	0.37	0.5	
DC 5D	522 (138)	345 (91)	6.2	90	223 (147)	0.37	0.5	
DC 6C	804 (212)	531 (140)	3	45	175 (116)	0.37	0.5	
DC 6D	1008 (266)	666 (176)	3	45	223 (147)	0.37	0.5	
DC 7C	1440 (380)	952 (251)	4	60	175 (116)	1.1	1.5	
DC 7D	1800 (476)	1190 (314)	4	60	223 (147)	1.1	1.5	
DC 7J Duplex	2880 (761)	1903 (503)	4	60	175 (116)	1.1	1.5	
DC 7K Duplex	3600 (951)	2379 (628)	4	60	223 (147)	1.1	1.5	



OMNI DC7 Dimensions



Frame	A1 (in.) (cm)	A2 (in.) (cm)	B1 (in.) (cm)	B2 Max (in.) (cm)	C1 (in.) (cm)	C2 (in.) (cm)	C3 (in.) (cm)	D1 (in.) (cm)	D2 (in.) (cm)	Weight Simplex/Duplex lbs (kg)
90 IEC	12.55 (31.9)	18.54 (47.1)	9.76 (24.8)	15.75 (40.0)	8.27 (21.0)	9.06 (23.0)	18.96 (48.2)	8.93 (22.7)	26.26 (66.7)	96/125lbs (43.64/56.8)
100 IEC	13.24 (33.63)	18.54 (47.1)	9.76 (24.8)	15.75 (40.0)	8.27 (21.0)	9.06 (23.0)	18.96 (48.2)	8.93 (22.7)	26.26 (66.7)	96/125lbs (43.64/56.8)
56C NEMA	13.18 (33.48)	18.54 (47.1)	9.76 (24.8)	15.75 (40.0)	8.27 (21.0)	9.06 (23.0)	18.96 (48.2)	8.93 (22.7)	26.26 (66.7)	96/125lbs (43.64/56.8)
143/145TC	13.18 (33.48)	18.54 (47.1)	9.76 (24.8)	15.75 (40.0)	8.27 (21.0)	9.06 (23.0)	18.96 (48.2)	8.93 (22.7)	26.26 (66.7)	96/125lbs (43.64/56.8)



Model Shown: DC7 Duplex, J or K

OMNI DC7 Configuration

Code	Description	DC7			
C	10:1 Gear Ratio				
D	8:1 Gear Ratio				
J	Duplex - 10:1 Gear Ratio				
K	Duplex - 8:1 Gear Ratio				
1	90 IEC Frame				
2	100 IEC Frame				
3	56C Frame				
4	143TC/145TC Frame				
F	PVDF Liquid End				
P	Polypropylene Liquid End				
X	No Motor Purchased (Pump will come with main assembly and motor frame kit.)				
M	Motor Purchased (As line item) (Pump will come completely assembled.)				

DC7 uses MPC Vector for the speed only controller. Connections are flange with 1 1/2 NPT.

OMNI DC2-6 Configuration

	Code	Choice and Description	Required Code	Optional Code
Pump Size Position 1-4		(See "Omni Performance Chart" on the previous page.)	DC	
Motor Selection Position 5	1	IEC 71 B14 Frame, 1PH 115/230V, 0.37kW (1/2HP), TEFC, MOTOR [50/60hz]		
	2	56C Frame, 1PH 115/230V, 0.37kW (1/2HP), TEFC, MOTOR [50/60hz]		
	3	IEC 71 B14 Frame, 3PH 220/380V (&460V), 0.37kW (1/2HP), TEFC, MOTOR [50/60hz]		
	4	56C Frame, 3PH 220/380V (&460V), 0.37kW (1/2HP), TEFC, MOTOR [50/60hz]		
	5	MPC with 56C frame motor		
	6	MPC No Motor with 56C frame (Always @ 60 Hz - Use 60 Hz Performance data)		
	7	MPC with 71 frame motor		
	8	MPC No Motor with 71 frame (Always @ 60 Hz - When selecting a pump)		
	X	No Motor - 56C frame		
	Y	No Motor - IEC 71 B14 frame		
Wet End Materials Position 6	F	PVDF Liquid End		
	A	316SS Liquid End		
	P	Polypropylene Liquid End (Available only on DC5 & 6)		
Connections Position 7	P	NPT		
	B	BSPT (Not available on DC2 Pumps)		
Optional MPC Controller				
Control	Blank	No MPC Controller (Manual Only)		
	M	MPC Controller - IP56 & NEMA 4X rated frequency		
Controller Input Voltage (Single Phase Only)	Blank	No MPC Controller		All MPCs will run at 60 Hz even if the input voltage is 50 Hz. Use the 60 Hz performance data when selecting a pump.
	2	110-115V 50/60Hz ETL (UL & CSA) 220V - 230V 50/60Hz CE & ETL (UL & CSA)		
Extended Remote Cable	Blank	No MPC Controller		Max Length: 305 Meters/1000 feet. (See instructions below).
	X	Pump mounted keypad (with standard 1.5 meters or 4.5 feet of cable)		
	C	Extended remote cable, keypad mounted off the pump		
Language (MPC will be shipped in language chosen)	Blank	No MPC Controller		
	E	English		
	F	French		
	S	Spanish		
	G	German		



MPC Features

Feature	MPC	Competition	AC Drive
NEMA 4X Enclosure (minimum IP56)	X		Optional
Typical Turndown	1000:1	90:1	10:1
UL, CE, and CSA Approvals	X	Some	Optional
On Board Pump and Process System Diagnostics	X		
Simple Flow & Signal Calibration Routine	X	X	
Single Function Auto/Manual Switch	X		X
Motor ON/OFF Control at Pump	X	X	
Memory of Settings	X	X	X
Alarm Outputs	X	Optional	Optional
Factory Calibration of Flow w/ Flow Indication at Pump	X	Optional	
Auto Re-Calibration of Flow if Manual Stroke Length	X		
Control Changes	X		
Modular for Field Convert from Pump Mount to Wall Mount Controls	X		
Additional Flow capacity (when operating at 50Hz)	20%		Optional
Analog Input (4-20)	X	X	Optional
Analog Outputs (4-20)	X		
Digital Inputs (User configurable)	2		
Digital Outputs (User configurable)	3		

Metering Pump Controller (MPC) DC 2-6 Models Only

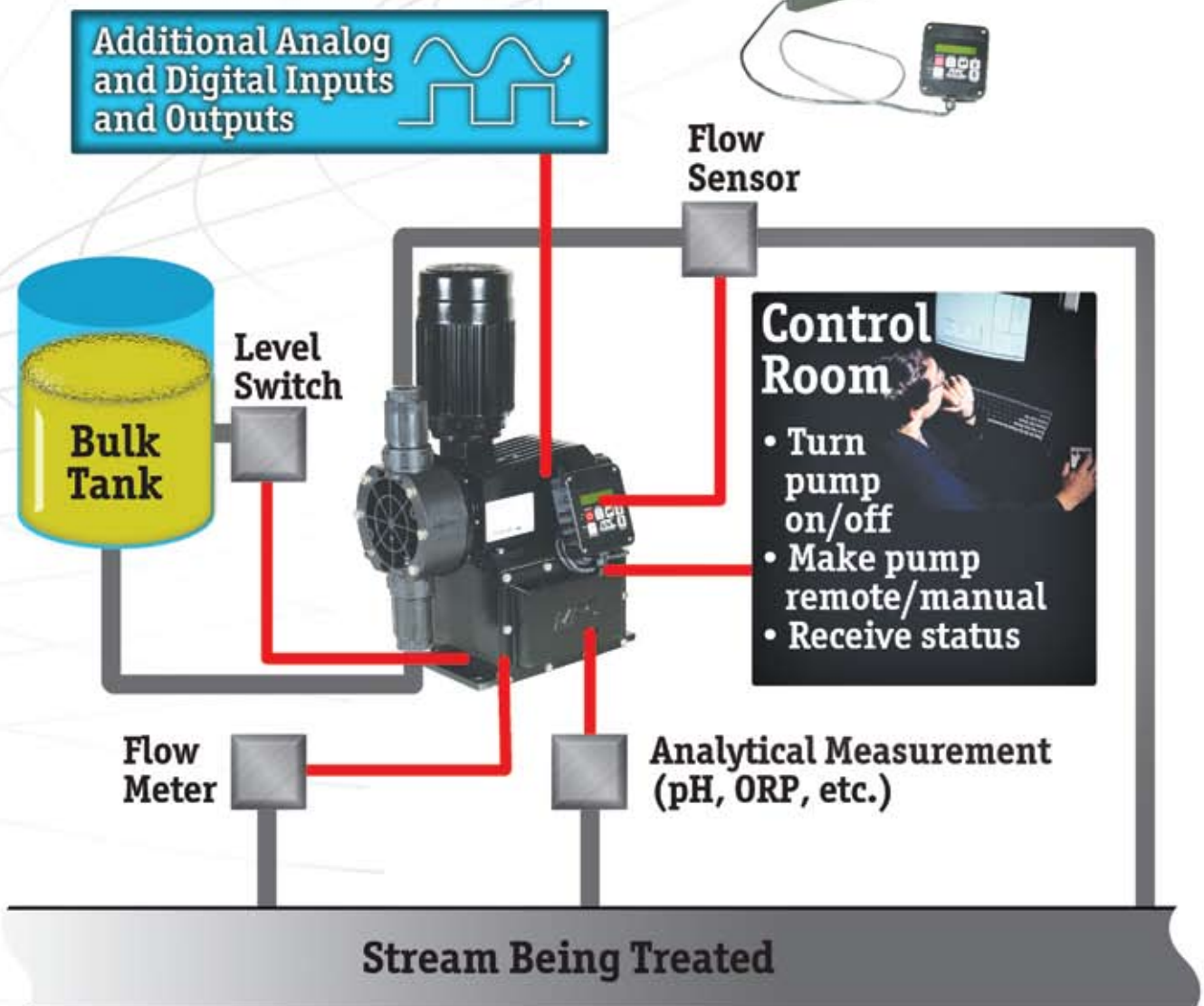
For high technology in a simple to understand package at an economical price, add an MPC to the Omni pump to take advantage of complete system integration between metering pump and process.

The MPC features:

- Automatically control and display flow with a 4-20 mA input HANDHELD keypad, and manual stroke control
- Controls Pulsafeeder metering pumps up to 1000:1 turn down ratio
- The IP56 (NEMA 4X) Handheld user interface is attached to the pump with 1.5 meters (4.5 feet) of cable
- Optionally, the Handheld can be mounted up to 300 meters (1000 feet) away from the pump
- Handheld displays flow rate of the pump in LPH or GPH
- Use digital inputs and outputs to monitor and control:
 - Supply tank level
 - Pump flow verification
 - Remote status indication of pump (on/off)
 - Pump alarm status
 - Pump auto/manual status



Metering Pump Controller MPC
Vector Drive DC7 only





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