

# **PULSAFEEDER**

A Unit of IDEX Corporation



Simple  
Reliable  
Solutions



## 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 522.3 l/h (138 gph)
- Pressures to 10.3 Bar (150 psi)
- Accuracy +/- 2% of flow
- Temperatures to 65°C (150°F)
- Viscosity up to 1000 CPS
- Minimum 3 m (10ft) NPSH

### Materials of Construction

- Head materials in PVDF, SS 316
- Ball Valves - Ceramic, SS 316.
- 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



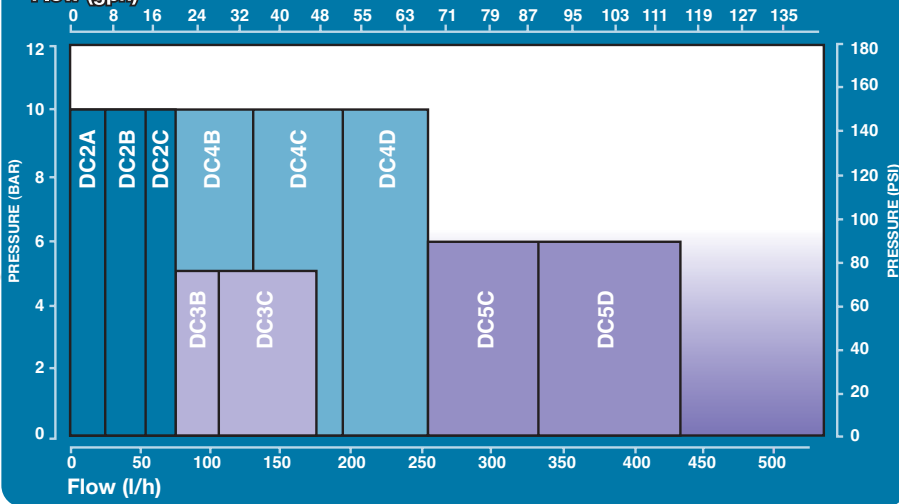
## Metering Pumps

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
- **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 & 316 SS

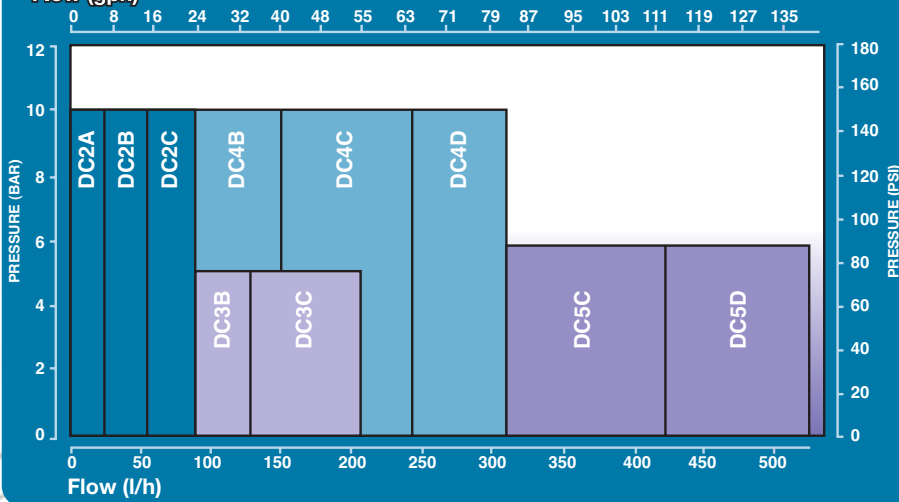
### Mechanical Diaphragm 50 Hz

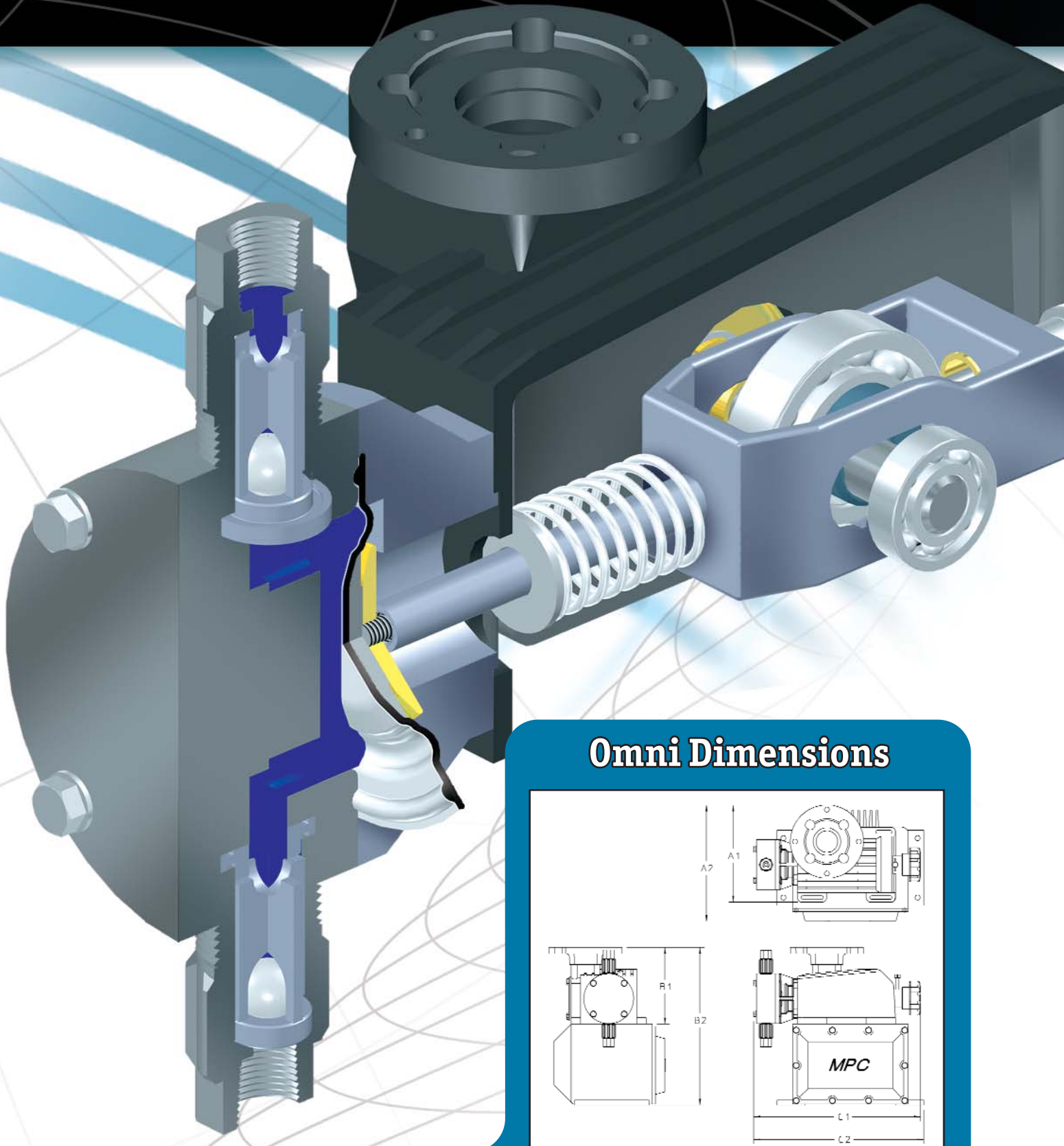
Flow (gph)



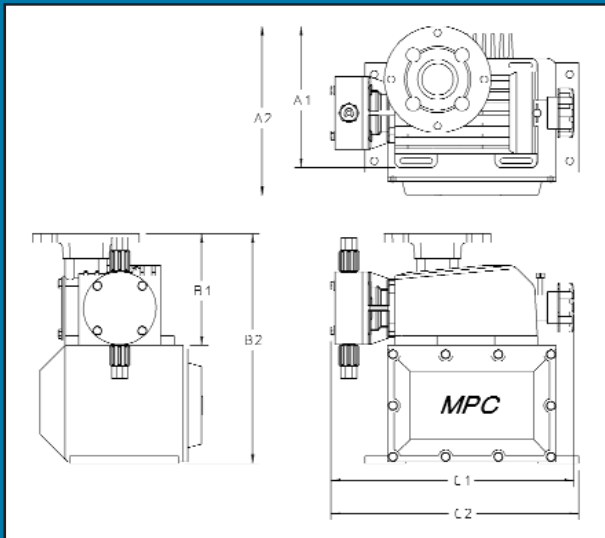
### Mechanical Diaphragm 60 Hz

Flow (gph)





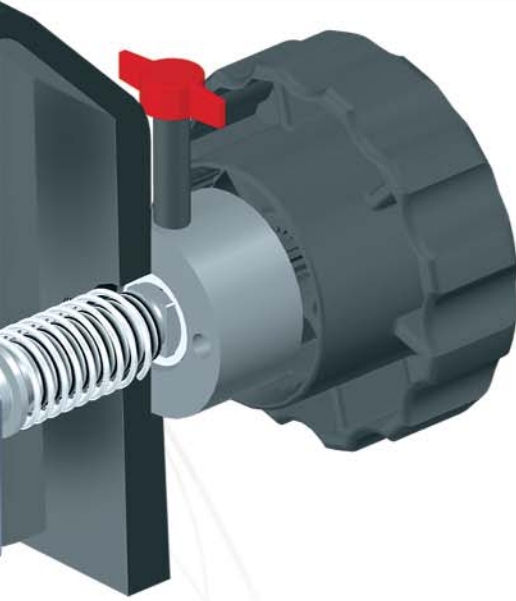
## Omni Dimensions



Model	A1		A2 (MPC)		B1		B2 (MPC)		C1		C2 (MPC)		Weight*	
	(in.)	(cm)	(in.)	(cm)	(in.)	(cm)	(in.)	(cm)	(in.)	(cm)	(in.)	(cm)	(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	13.9	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

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



## OMNI Performance Table

Model Code	60 hz		50 hz		Pressure		SPM @		Power	
	GPH	LPH	GPH	LPH	PSIG	BAR	1725	1425	HP	kW
DC 2 A	7	26.5	5.8	22.1	150	10.3	44	37	1/4	0.18
DC 2 B	14	53.0	11.7	44.1	150	10.3	88	73	1/4	0.18
DC 2 C	24	90.8	20.0	75.7	150	10.3	150	125	1/4	0.18
DC 3 A	15.9	60.2	13.7	51.8	75	5.1	44	37	1/4	0.18
DC 3 B	30	113.5	27.0	102.3	75	5.1	88	73	1/4	0.18
DC 3 C	56	211.9	46.4	175.6	75	5.1	150	125	1/4	0.18
DC 4 A	21	79.5	17.4	66.0	150	10.3	58	49	1/2	0.37
DC 4 B	40	151.4	34.9	132.1	150	10.3	117	98	1/2	0.37
DC 4 C	65	246.0	52.0	196.8	150	10.3	175	146	1/2	0.37
DC 4 D	82.8	313.5	66.0	252.0	150	10.3	223	186	1/2	0.37
DC 5 A	33.1	125.3	27.9	105.6	90	6.2	58	49	1/2	0.37
DC 5 B	66.8	252.8	55.9	211.5	90	6.2	117	98	1/2	0.37
DC 5 C	108	408.8	88.0	333.1	90	6.2	175	146	1/2	0.37
DC 5 D	138	522.3	115.0	435.3	90	6.2	223	186	1/2	0.37

## OMNI Pump Model Configuration

Code	Choice and Description	Required Code	Optional Code
<b>Pump Size</b> Position 1-4	(See "Omni Performance Chart" above)	DC _ _ _ _	
<b>Motor Selection</b> 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-price included in MPC price - supplied by Pulsafeeder 6 MPC No Motor with 56C frame (Always @ 60 Hz1 - Use 60 Hz Performance data) 7 MPC with 71 frame motor-price included in MPC price supplied by Pulsafeeder 8 MPC No Motor with 71 frame (Always @ 60 Hz1 - When selecting a pump) X No Motor - 56C frame Y No Motor - IEC 71 B14 frame		
<b>Wet End Materials</b> Position 6	F PVDF Liquid End - PTFE Diaphragm and PTFE O-rings - Ceramic Ball Valves A 316SS Liquid End - PTFE Diaphragm and PTFE O-rings - 316SS Ball Valves		
<b>Connections</b> Position 7	P NPT B BSPT (Not available on DC2 Pumps)		

### Optional MPC Controller

<b>Control</b>	Blank M	No MPC Controller (Manual Only) MPC Controller - IP56 & NEMA 4X rated frequency	
<b>Controller Input Voltage</b> (Single Phase Only)	Blank 1 2	No MPC Controller 110-115V 50/60Hz ETL (UL & CSA) 220V - 230V 50/60Hz CE & ETL (UL & CSA)	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.
<b>Extended Remote Cable</b>	Blank X C	No MPC Controller Pump mounted keypad (with standard 1.5 meters or 4.5 feet of cable) Extended remote cable, keypad mounted off the pump	Max Length: 305 Meters/1000 feet. (See instructions below).
<b>Language</b> (MPC will be shipped in language chosen)	Blank E F S G	No MPC Controller English French Spanish German	

**MPC - Extended Remote Cable:** To order additional cable, add the line item part number NP530147-000 per foot to order. (ie: To order 62 feet of cable, complete order form as "62 pieces or NP530147-000")

# MPC



## MPC Features

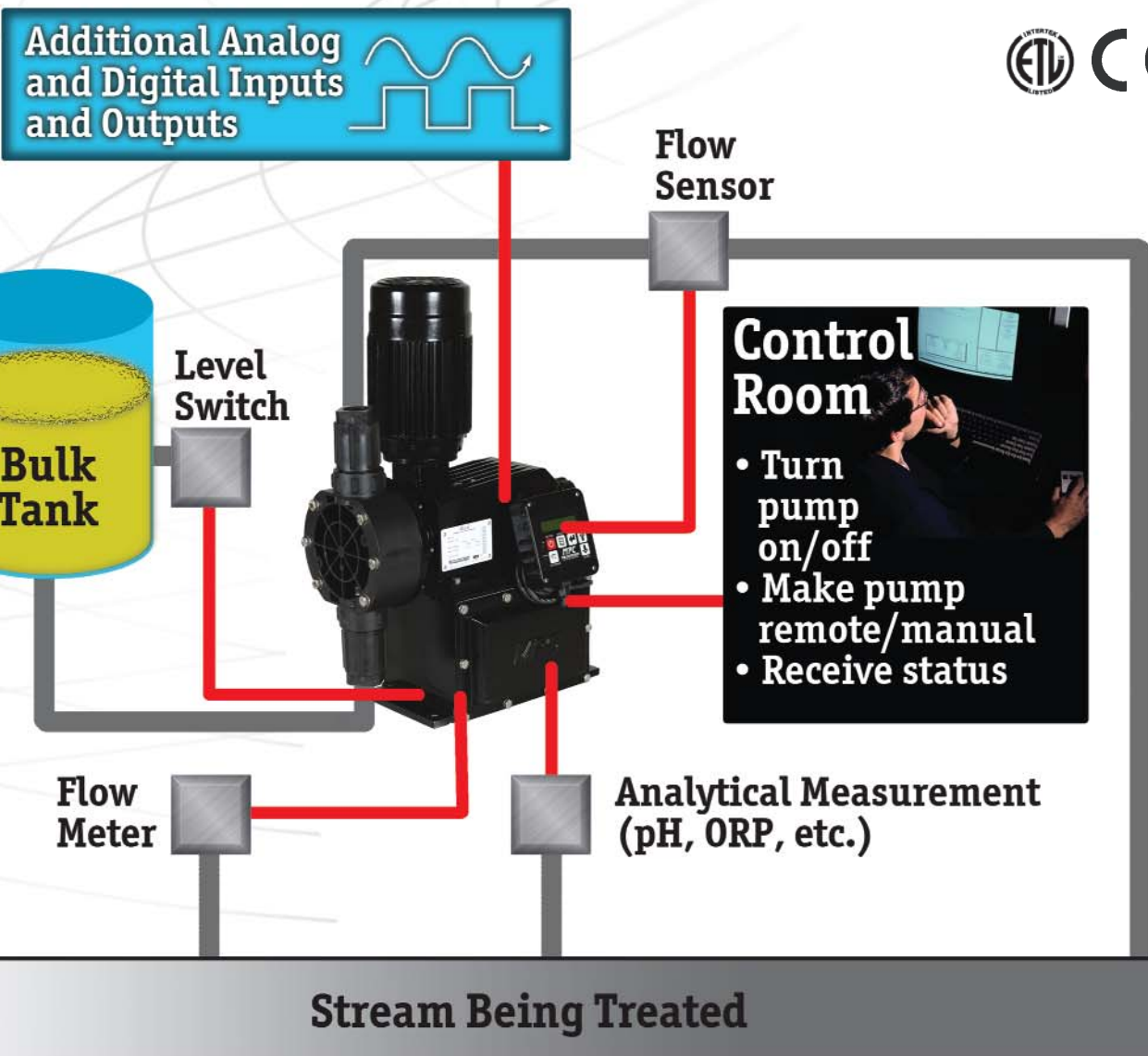
Feature	MPC	Competition	AC Drive
NEMA 4X Enclosure (minimum IP56)	X		Optional
Typical Turndown	1000:1	90:1	10:1
UL, CE, and CSA Approvals	X	Some	Optional
On Board Pump and Process System Diagnostics	X		
Simple Flow & Signal Calibration Routine	X	X	
Single Function Auto/Manual Switch	X		X
Motor ON/OFF 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 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)

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 pulse output (stroke counter)
  - Pump auto/manual status



Additional Analog and Digital Inputs and Outputs

Flow Sensor



Level Switch

**Control Room**

- Turn pump on/off
- Make pump remote/manual
- Receive status

Flow Meter

Analytical Measurement (pH, ORP, etc.)

Stream Being Treated



## Systems and Installations



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