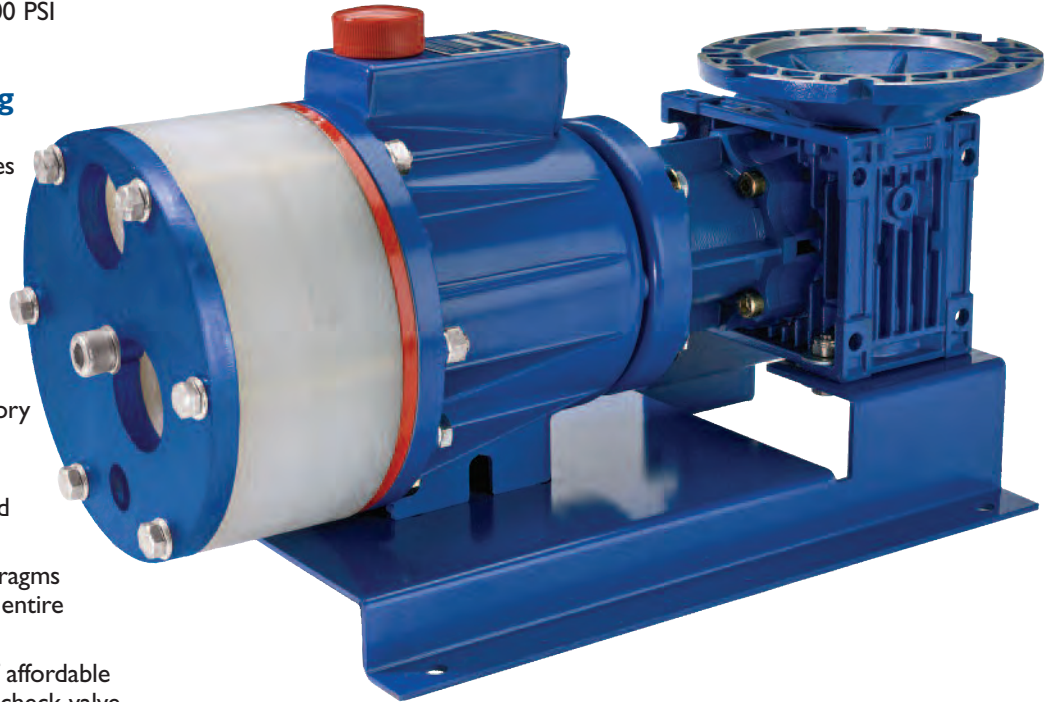


P400 Pump Series

Capacities to 243.0 GPH - Rated to 1000 PSI

Electronic Precision Metering

- Designed to handle a wide range of fluids from clear water to thick slurries
- Electronic flow control increases accuracy and reliability
- Multiple diaphragm design provides linear, virtually pulse-less flow
- Smaller footprint saves valuable space
- One pump covers a wide range of flows and pressures - reducing inventory requirements with fast, simple field conversion
- Duplexing option doubles capacity and equipment savings
- Hydraulically-actuated, balanced diaphragms provide superior performance across entire pressure range
- Rugged construction with a variety of affordable choices for liquid end, diaphragm and check valve materials



Hydra-Cell Metering Solutions meet or exceed API 675 performance standards for Steady-State Accuracy (±1%), Linearity (±3%), and Repeatability (±3%).

Performance*

GPH Maximum Flow at Designated Pressure

GPH All Pumps		GPH Metallic Pump Heads Only		Pump RPM	Gear Ratio	Motor RPM	
100 PSI	250 PSI	500 PSI	1000 PSI				
5.45	5.40	5.35	5.19	18	100:1	1800	
6.97	6.92	6.86	6.68	22.5	80:1		
9.51	9.45	9.38	9.16	30	60:1		
11.54	11.48	11.40	11.15	36	50:1		
14.59	14.52	14.43	14.13	45	40:1		
19.66	19.59	19.47	19.10	60	30:1		
23.72	23.64	23.51	23.07	72	25:1		
29.81	29.72	29.56	29.04	90	20:1		
39.96	39.85	39.65	38.97	120	15:1		
60.27	60.12	59.83	58.84	180	10:1		
80.57	80.38	80.00	78.71	240	7.5:1		
121.2	120.9	120.4	118.5	360	5:1		
161.8	161.4	160.7	158.2	480	7.5:1		3600
243.0	242.5	241.4	237.7	720	5:1		

* Capacity data is shown for pumps with elastomeric diaphragms. Consult factory for performance characteristics of pumps with PTFE diaphragms.

Required Motor HP

1/4	1/2	3/4	1
1-1/2	2	3	

P400 Pump Series

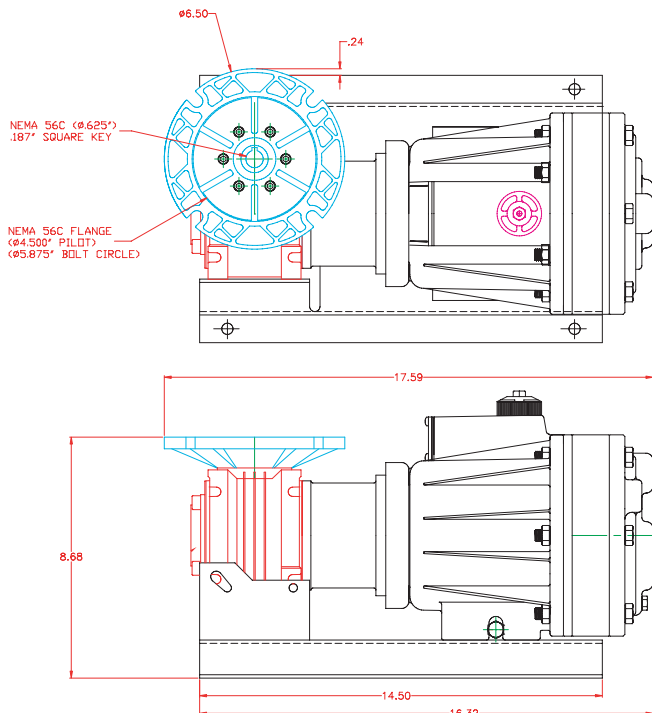
Pump Data

Diaphragms per Liquid End	3
Flow Control	Electronic variable speed drive
Maximum Discharge Pressure	
Metallic Head:	1000 PSI (70 bar)
Non-Metallic Head:	Polypropylene- 250 PSI (17 bar) Kynar- 350 PSI (24 bar)
Maximum Suction Pressure	250 PSI (17 bar)
Maximum Temperature	
Metallic Head:	250°F (121°C)*
Non-Metallic Head:	140°F (60°C)
Suction Port	1 inch NPT or BSPT
Discharge Port	3/4 inch NPT or BSPT
Weight (less motor)	
Metallic Head:	62 lbs (28.1 kg)
Non-Metallic Head:	49 lbs (22.2 kg)
Dimensions (less motor)**	
Metallic Head:	17.59" W x 9.87" D x 10.34" H (447 mm W x 251 mm D x 263 mm H)
Non-Metallic Head:	18.19" W x 9.87" D x 10.34" H (462 mm W x 251 mm D x 263 mm H)

* Consult factory for correct component selection for fluid temperatures above 160°F (71°C).

** For 56C motor frame only. Consult factory for other motor frame sizes.

Representative Dimensional Drawings



Hydra-Cell Metering Solutions pump systems are available with back pressure and relief valves, calibration cylinders, pulsation dampeners (optional), manifolds and flanges, suction accumulators, custom controllers, strainers, a variety of actuating oils, witnessed and non-witnessed testing, drawing packages, and OEM paint and nameplate customization.

Pump Ordering Information

A complete pump order number contains 13 digits based on the specified pump materials listed below. Contact your Hydra-Cell sales representative for accompanying motor drive options.

1	2	3	4	5	6	7	8	9	10	11	12	13
P	4	0	0									

Pump Model Size (Digits 1-4)

P400 For all P400 Pumps

Pump Version (Digit 5)

N NPT Ports
M BSPT Ports

Pump Head Material (Digit 6)

C Cast Iron
M Kynar®
P Polypropylene
S 316 Stainless Steel
T Hastelloy®C

Diaphragm & O-ring Material (Digit 7)♦

E EPDM
G Viton®-XT
J PTFE
P Neoprene
T Buna-N-XS

♦ See price list for different actuating oils available with these materials.

Check Valve Material (Digits 8-9)

(Valve Spring / Valve & Seat)

SS 316 SST / 316 SST
TT Hastelloy®C / Hastelloy®C
SC 316 SST / Ceramic
TC Hastelloy®C / Ceramic

Gearbox Ratio (Digits 10-12)

100	100:1	(56C Motor Frame)
080	80:1	(56C Motor Frame)
060	60:1	(56C Motor Frame)
050	50:1	(56C Motor Frame)
040	40:1	(56C Motor Frame)
030	30:1	(56C Motor Frame)
025	25:1	(56C Motor Frame)
020	20:1	(56C Motor Frame)
015	15:1	(56C Motor Frame)
010	10:1	(56C Motor Frame)
007	7.5:1	(56C Motor Frame)
A07	7.5:1	(143/145TC Motor Frame)
005	5:1	(56C Motor Frame)
A05	5:1	(143/145TC Motor Frame)

Base Plate (Digit 13)

C Carbon Steel (Epoxy painted)
S Stainless Steel

For information on the complete line of Hydra-Cell Metering Solutions pumps, contact us today.



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