

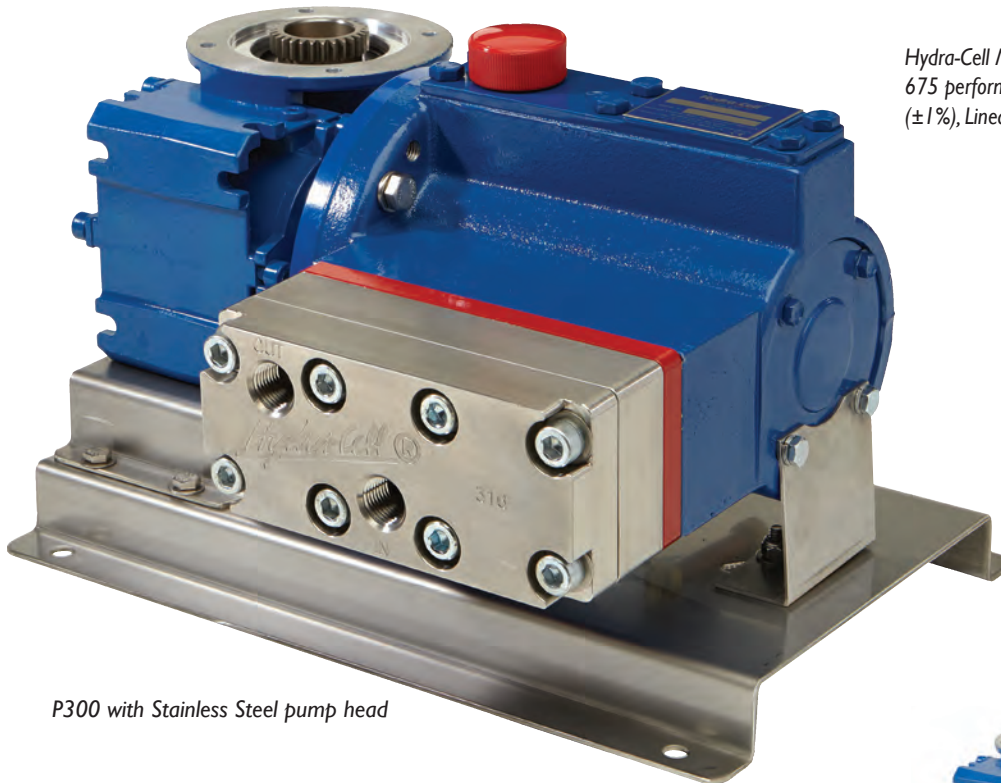
# Hydra-Cell<sup>®</sup>

## METERING SOLUTIONS<sup>™</sup>

### P300 Series

Maximum Flow Rate: 256.8 lph

Maximum Pressure: 2500 psi (172 bar) for Metallic Pump Heads



*P300 with Stainless Steel pump head*

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

### Metering Pumps with “Pulse-Free” Linear Flow

- Handles a wide range of fluids from clear water to thick slurries
- Electronic flow control increases accuracy and reliability
- 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
- Seal-less design means no seals, cups, or packing to leak or replace
- A replenishment valve in every piston assembly ensures optimum actuating oil on every stroke for continuous accuracy



*P300 with Brass pump head*

## Performance Maximum Estimated Flow at Designated Pressure

7 bar	Metallic Pump Heads Only (lph)			Pump rpm	Gear Ratio	Motor rpm
	34 bar	103 bar	172 bar			
10.16	10.04	9.51	8.648	25	60:1	1500
12.29	12.14	11.53	10.57	30	50:1	
15.58	15.40	14.53	13.47	37.5	40:1	
20.94	20.66	19.54	18.25	50	30:1	
25.23	24.86	23.54	22.07	60	25:1	
31.66	31.17	29.55	27.81	75	20:1	
42.39	41.68	39.56	37.36	100	15:1	
63.83	62.70	59.59	56.47	150	10:1	
85.28	83.72	79.61	75.58	200	7.5:1	
128.2	125.8	119.7	113.8	300	5:1	
171.1	167.8	159.7	152.0	400	7.5:1	3000
256.8	251.9	239.8	228.5	600	5:1	

## Required Motor kW

0.18	0.25	0.37	0.55	0.75	1.1	1.5
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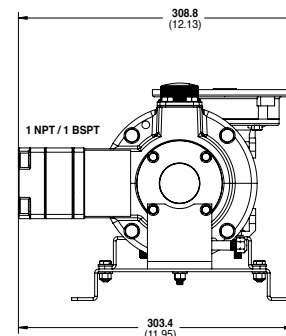
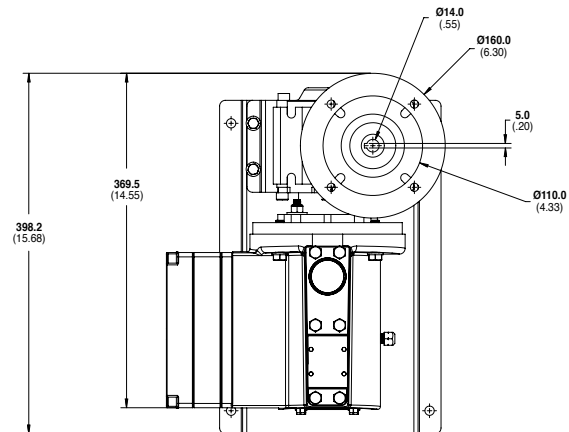
## Pump Data

Diaphragms per Liquid End	3
Flow Control	Electronic variable speed drive
Maximum Discharge Pressure	
Metallic Heads:	2500 psi (172 bar)
Maximum Inlet Pressure	500 psi (34 bar)
Maximum Operating Temperature	
Metallic Heads:	250 °F (121 °C)*
Inlet Port	1/2 inch NPT or BSPT
Discharge Port	1/2 inch NPT or BSPT
Weight (less motor)**	
Metallic Heads:	54.5 lbs (24.7 kg)
Dimensions (less motor)**	
Metallic Heads:	15.79" W x 12.25" D x 9.46" H (401.2 mm W x 311.0 mm D x 240.2 mm H)

\* Consult factory for correct component selection for temperatures from 160°F (71°C) to 250°F (121°C).

\*\* For 63 B5 motor frame only. Consult factory for other motor frame sizes.

## Representative Drawings mm (Inches)



**Metallic Pump Heads**

## How to Order

A complete pump order number contains 13 digits based on the specified pump materials listed below.

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

### Pump Model Size (Digits 1-4)

**P300** For all P300 Pumps (Non Kel-Cell)

### Pump Version (Digit 5)

**N** NPT Ports (NEMA motors only)  
**M** BSPT Ports (IEC motors only)  
**X** ATEX BSPT Ports (IEC motors only)

### Pump Head / Retainer Material (Digit 6)

**B** Brass / Hastelloy C  
**R** 304 Stainless Steel / Hastelloy C  
**S** 316L Stainless Steel / Hastelloy C  
**T** Hastelloy C / Hastelloy C

### Diaphragm & O-ring Material / Oil (Digit 7)▲

**E** EPDM (EPDM-compatible oil)  
**X** FKM (Synthetic oil)  
**J** PTFE (Food-contact oil)  
**T** Buna-N (Synthetic oil)

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

### Check Valve Material (Digits 8-9)

(Valve Spring / Valve Seat / Valve)

**SS** Elgiloy / Nitronic 50 / Nitronic 50  
**TT** Hastelloy C / Hastelloy C / Hastelloy C  
**SD** Elgiloy / Tungsten Carbide / Tungsten Carbide  
**TD** Hastelloy C / Tungsten Carbide / Tungsten Carbide

### Gearbox Ratio (Digits 10-12) IEC Motors

<b>060</b>	60:1	(63 B5 Motor Frame)
<b>050</b>	50:1	(63 B5 Motor Frame)
<b>040</b>	40:1	(63 B5 Motor Frame)
<b>C40</b>	40:1	(90 B5 Motor Frame)
<b>A30</b>	30:1	(71 B5 Motor Frame)
<b>C30</b>	30:1	(90 B5 Motor Frame)
<b>A25</b>	25:1	(71 B5 Motor Frame)
<b>A20</b>	20:1	(71 B5 Motor Frame)
<b>C20</b>	20:1	(90 B5 Motor Frame)
<b>A15</b>	15:1	(71 B5 Motor Frame)
<b>C15</b>	15:1	(80 B5 Motor Frame)
<b>A10</b>	10:1	(71 B5 Motor Frame)
<b>B10</b>	10:1	(80 B5 Motor Frame)
<b>C10</b>	10:1	(90 B5 Motor Frame)
<b>A07</b>	7.5:1	(71 B5 Motor Frame)
<b>B07</b>	7.5:1	(80 B5 Motor Frame)
<b>C07</b>	7.5:1	(90 B5 Motor Frame)
<b>A05</b>	5:1	(90 B5 Motor Frame)
<b>B05</b>	5:1	(80 B5 Motor Frame)
<b>C05</b>	5:1	(90 B5 Motor Frame)

### Base Plate (Digit 13)

**C** Carbon Steel (Epoxy painted)  
**S** 316L Stainless Steel

## Accessories, Options & Services

Consult the Hydra-Cell Metering Solutions catalog for complete details about available accessories and options as well as special services.

- Manifolds and Flanges
- Multiplexing Capability
- Different Gearbox Ratios
- Oil Systems and Kits
- Actuating Oils
- Motors (Standard/Explosion-proof)
- Controllers
- Control Freak Touch-screen Metering Controller
- SmartDrive Motor-Controller
- Calibration Cylinders
- Back Pressure Valves
- Pressure Relief Valves
- Pulsation Dampeners
- Demonstration (Cutaway) Units
- Testing Services
- System Components, Priming Kits and Plugs
- Replacement Part Kits and Tool Kits
- Customization Services



Hydra-Cell Metering Solutions demonstration unit complete with the Control Freak™ touch-screen metering controller.

# Hydra•Cell<sup>®</sup>

## METERING SOLUTIONS™

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