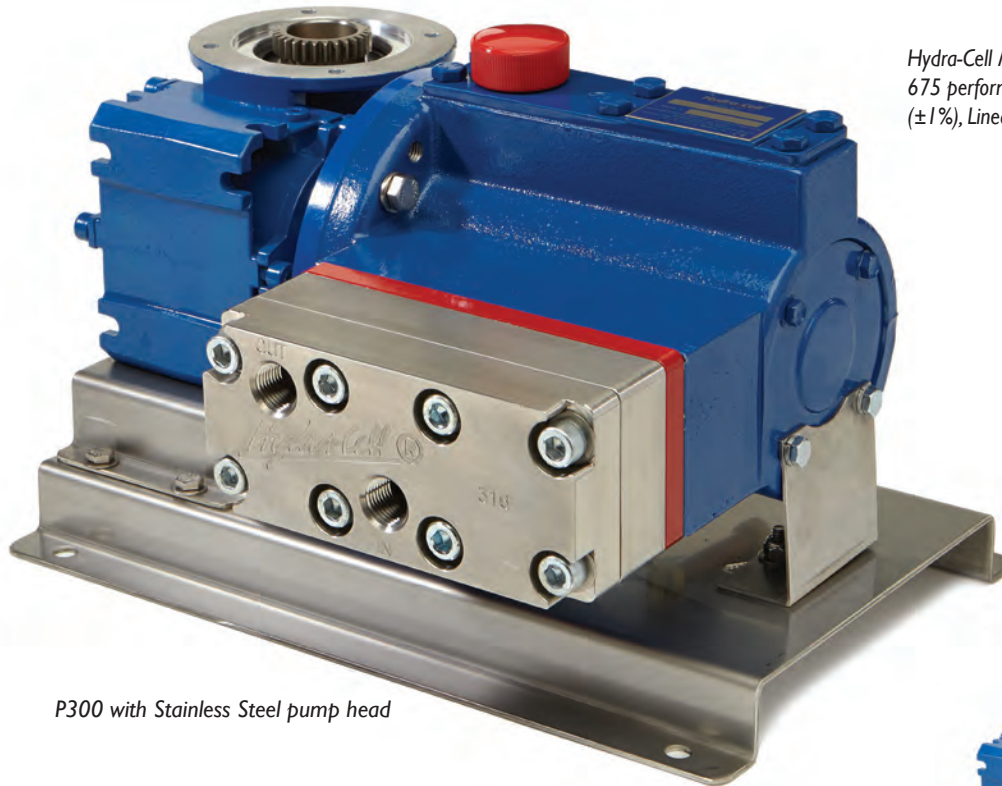


# Hydra-Cell®

## METERING SOLUTIONS™

### P300 Series

Maximum Flow Rate: 81.4 gph  
Maximum Pressure: 2500 psi (172 bar) for Metallic Pump Heads  
350 psi (24 bar) for Non-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 ( $\pm 3\%$ ).



*P300 with Brass pump head*

### 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 Series

## Performance Maximum Flow at Designated Pressure

| Metallic Pump Heads Only (gph) |         |          |          | Pump<br>rpm | Gear<br>Ratio | Motor<br>rpm |
|--------------------------------|---------|----------|----------|-------------|---------------|--------------|
| 100 psi                        | 500 psi | 1500 psi | 2500 psi |             |               |              |
| 3.221                          | 3.183   | 3.014    | 2.741    | 30          | 60:1          | 1800         |
| 3.895                          | 3.849   | 3.655    | 3.350    | 36          | 50:1          |              |
| 4.939                          | 4.882   | 4.607    | 4.272    | 45          | 40:1          |              |
| 6.639                          | 6.548   | 6.194    | 5.786    | 60          | 30:1          |              |
| 7.999                          | 7.881   | 7.463    | 6.998    | 72          | 25:1          |              |
| 10.04                          | 9.880   | 9.368    | 8.815    | 90          | 20:1          |              |
| 13.44                          | 13.21   | 12.54    | 11.84    | 120         | 15:1          |              |
| 20.24                          | 19.88   | 18.89    | 17.90    | 180         | 10:1          |              |
| 27.03                          | 26.54   | 25.24    | 23.96    | 240         | 7.5:1         |              |
| 40.63                          | 39.87   | 37.93    | 36.08    | 360         | 5:1           |              |
| 54.23                          | 53.20   | 50.63    | 48.19    | 480         | 7.5:1         | 3600         |
| 81.42                          | 79.85   | 76.02    | 72.43    | 720         | 5:1           |              |

## Required Motor hp

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

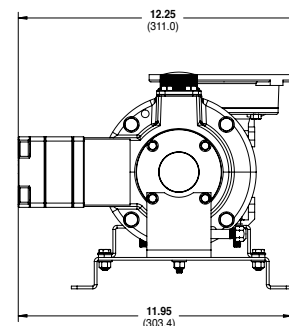
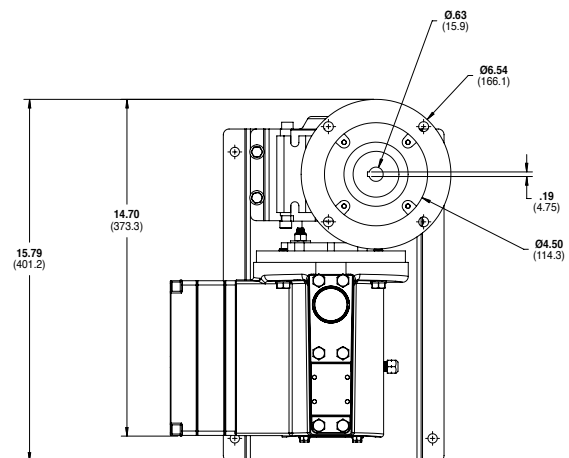
## Pump Data

|                               |                                                                         |
|-------------------------------|-------------------------------------------------------------------------|
| 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<br>(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 56C motor frame only. Consult factory for other motor frame sizes.

## Representative Drawings Inches (mm)



**Metallic Pump Heads**

# P300 Series

## 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)

### 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) NEMA Motors

|            |       |                         |
|------------|-------|-------------------------|
| <b>060</b> | 60:1  | (56C Motor Frame)       |
| <b>050</b> | 50:1  | (56C Motor Frame)       |
| <b>040</b> | 40:1  | (56C Motor Frame)       |
| <b>030</b> | 30:1  | (56C Motor Frame)       |
| <b>025</b> | 25:1  | (56C Motor Frame)       |
| <b>020</b> | 20:1  | (56C Motor Frame)       |
| <b>015</b> | 15:1  | (56C Motor Frame)       |
| <b>010</b> | 10:1  | (56C Motor Frame)       |
| <b>007</b> | 7.5:1 | (56C Motor Frame)       |
| <b>A07</b> | 7.5:1 | (143/145TC Motor Frame) |
| <b>005</b> | 5:1   | (56C Motor Frame)       |
| <b>A05</b> | 5:1   | (143/145TC 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<sup>™</sup>



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