

# P500 Pump Series

# Exceed your metering pump expectations ...for less!

From clear water to thick slurry applications, seal-less Hydra-Cell® Metering Pumps are an extraordinary alternative metering solution:

- · Electronic flow control achieves higher accuracy
- Smaller footprint saves valuable space
- Multiple diaphragm liquid end provides "pulse-free" linear flow
- One pump covers extremely wide range of flows and pressures, dramatically reducing inventory requirements with simple, fast field conversion capability
- Duplexing option doubles capacity and equipment savings
- Simple mechanical design reduces spares and maintenance costs
- Hydraulically-actuated, balanced diaphragms provide superior performance across entire pressure range
- Rugged, industrial construction increases reliability
- Affordable choices for liquid end, diaphragm and check valve materials

#### **Performance Characteristics\***

Steady State Accuracy	±1% or better		
Linearity	±3% or better		
Repeatability	±3% or better		

<sup>\*</sup>Meets or exceeds API 675 performance standards.



#### The tradition continues...

Hydra-Cell® Pumps are renowned for their simplicity and versatility – excelling in wide-ranging and challenging fluid flow applications for nearly four decades. As the platform for our complete line of Hydra-Cell Metering Solutions pumps, they dramatically out-perform ordinary metering pumps with more features and lower costs of ownership.

#### The bottom line:

Switching to the most revolutionizing concept for metered flow on the market doesn't mean compromising performance for cost; it means increasing your bottom line through technology. With Hydra-Cell Metering Solutions, you just get more for less!

### **Performance** – GPH Maximum Flow at Designated Pressure

GPH Metallic Pump Heads Only				Pump	Gear	Motor
100 PSI	500 PSI	1500 PSI	2500 PSI	RPM	Ratio	RPM
11.73	11.26	10.25	9.47	18	100:1	
14.39	13.89	12.79	11.89	22.5	80:1	
18.82	18.27	17.02	15.92	30	60:1	
22.36	21.78	20.41	19.15	36	50:1	_
27.67	27.03	25.49	23.99	45	40:1	
36.52	35.80	33.95	32.06	60	30:1	- 1800
43.60	42.81	40.73	38.52	72	25:1	- 1800
54.22	53.32	50.89	48.20	90	20:1	
71.93	70.84	67.82	64.34	120	15:1	
107.3	105.9	101.7	96.62	180	10:1	_
142.7	140.9	135.5	128.9	240	7.5:1	
213.6	211.0	203.3	193.5	360	5:1	_
284.4	281.1	271.0	258.0	480	7.5:1	- 3600
426.0	421.3	406.5	387.1	720	5:1	3000

Required Motor HP					
1/4	1/2	3/4	1	1-1/2	
2	3	5	7-1/2	10	15





# **P500 Pump Series**

### **Pump Data**

<b>Diaphragms per Liquid End</b> 5			
Flow Control	Electronic variable speed drive		
Maximum Discharge Pre	essure		
Metallic Head:	2500 PSI (173 bar)		
Maximum Suction Pressure 500 PSI (35 ba			
<b>Maximum Temperature</b>			
Metallic Head:	250°F (121°C)*		
Suction Port	1-1/4 inch NPT or BSPT		
Discharge Port	3/4 inch NPT or BSPT		
Weight (less motor)			
Metallic Head:	160 lbs (72.6 kg)		

#### Dimensions (less motor)\*\*

Metallic Head: 19.2" W x 10.7" D x 12.4" H (488 mm W x 272 mm D x 315 mm H)

P500 Series Pumps are just one part of a complete Hydra-Cell Metering Solution.

Contact your Hydra-Cell Sales Representative or visit our website at www.hydra-cell.com/metering for complete information on all of our metering solution products...



Motors, Motor Adapters, VFDs



Pressure Relief and Back Pressure Valves



**Calibration Cylinders** 



**Pulsation Dampeners** 

#### **P500 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 and drive options.

P 5 0 0 0 5 6 7 8 9 10 11 12	13
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#### Pump Model Size (Digits 1-4)

**P500** For all P500 Pumps

Pump	Version (Digit 5)
N	NPT Ports
M	BSPT Ports

#### Pump Head Material (Digit 6)

S 316 Stainless Steel T Hastelloy® C

#### Diaphragm & O-ring Material (Digit 7)

G Viton®-XT T Buna-N-XS

# Check Valve Material (Digits 8-9)

## (Valve Spring / Valve & Seat)

SS 316 SST / 316 SST TT Hastelloy® C / Hastelloy® C

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

	(9	,
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)
A40	40:1	(143/145TC Motor Frame)
030	30:1	(56C Motor Frame)
A30	30:1	(143/145TC Motor Frame)
025	25:1	(56C Motor Frame)
A25	25:1	(143/145TC Motor Frame)
020	20:1	(56C Motor Frame)
A20	20:1	(143/145TC Motor Frame)
015	15:1	(56C Motor Frame)
A15	15:1	(143/145TC Motor Frame)
B15	15:1	(182/184TC Motor Frame)
010	10:1	(56C Motor Frame)
A10	10:1	(143/145TC Motor Frame)
B10	10:1	(182/184TC Motor Frame)
007	7.5:1	(56C Motor Frame)
A07	7.5:1	(143/145TC Motor Frame)
B07	7.5:1	(182/184TC Motor Frame)
C07	7.5:1	(213/215TC Motor Frame)
005	5:1	(56C Motor Frame)
A05	5:1	
B05	5:1	,
C05	5:1	(213/215TC Motor Frame)
D05	5:1	(254/256TC Motor Frame)

### Base Plate (Digit 13)

A Aluminum (Epoxy painted)
H Carbon Steel (Epoxy painted)
for B, C and D reducers



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<sup>\*</sup> Consult factory for correct component selection for temperatures above 160°F (71°C).

<sup>\*\*</sup> For 56C motor frame only. Consult factory for all other motor frame sizes.