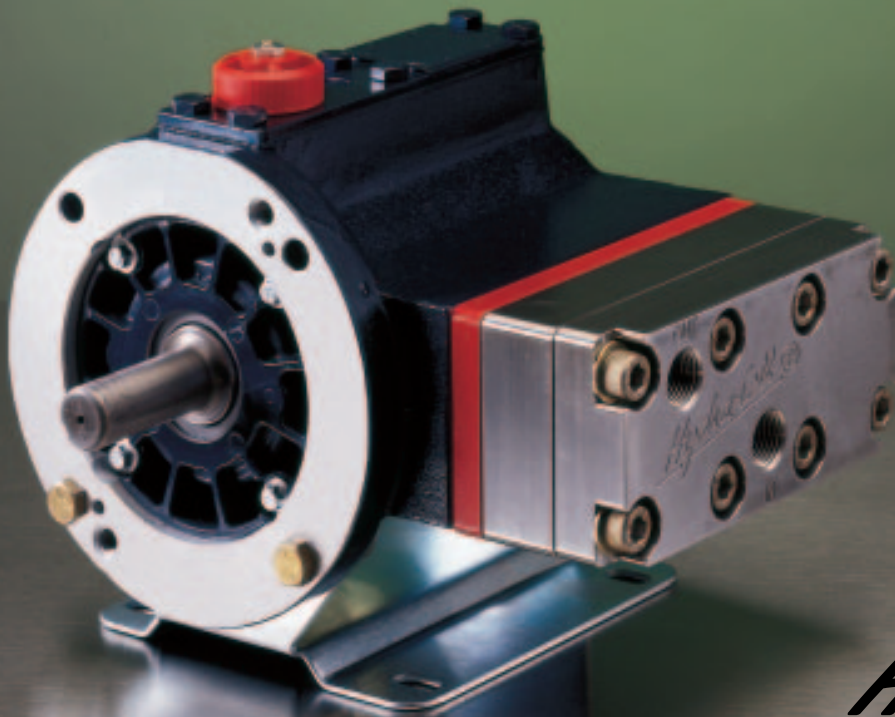


# D-04 Series

*Up to 3 gpm (11.3 l/min)*



*Hydra-Cell*<sup>®</sup>  
SIMPLY BUILT TO LAST

# D-04 Series Performance

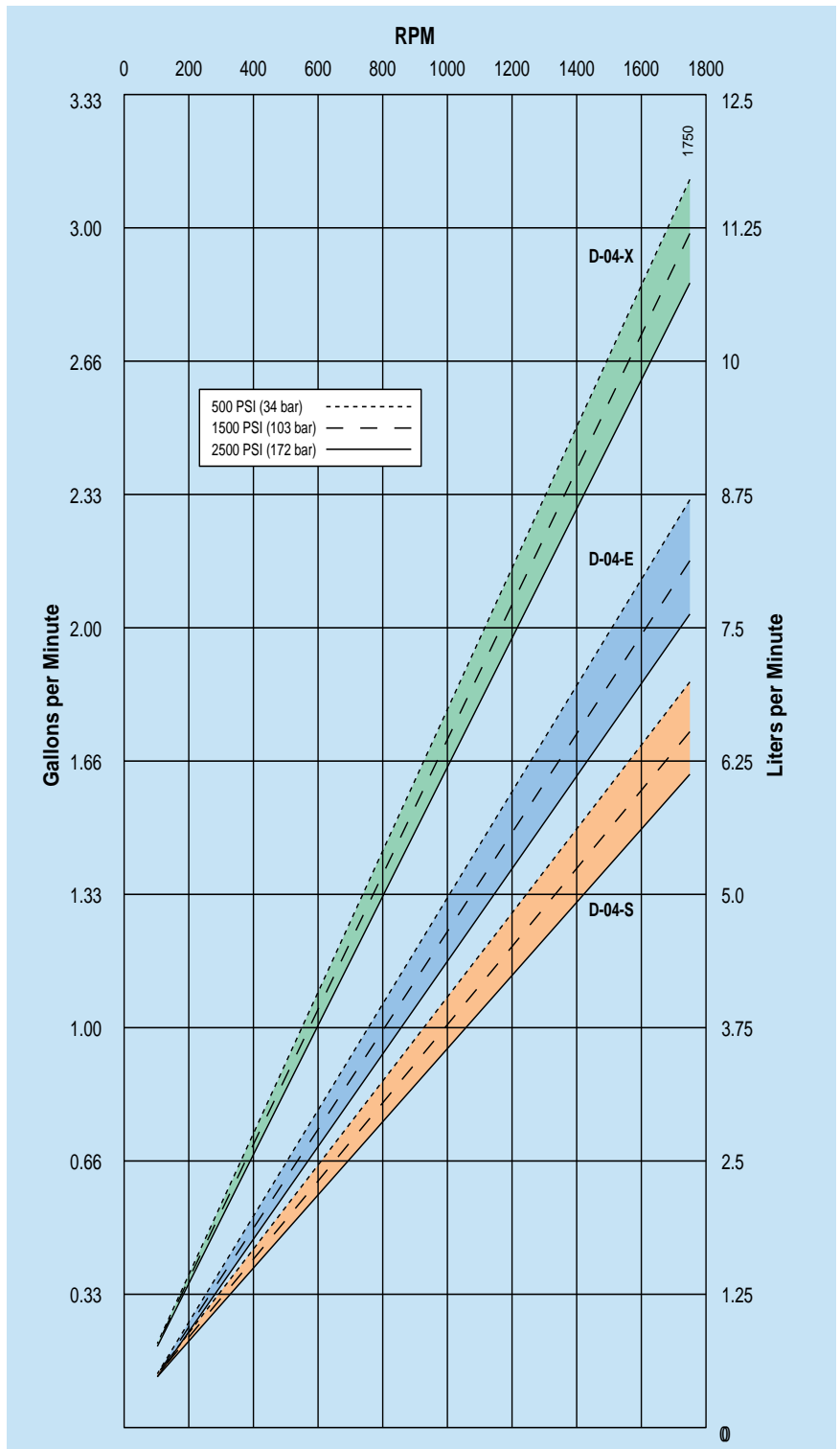
## flow

model*	max flow		max input rpm
	gpm	l/min	
<b>D-04-X</b>	3.0	11.3	1750
<b>D-04-E</b>	2.2	8.3	1750
<b>D-04-S</b>	1.8	6.8	1750

## pressure

**Maximum Inlet Pressure:**  
500 psi (34.5 bar)

**Pressure Variable To:**  
2500 psi (172 bar)



# D-04 Series Specifications

## Maximum Capacity @ max Rated Pressure

	rpm	gpm	l/min
D-04-X	1750	3.0	11.3
D-04-E	1750	2.2	8.3
D-04-S	1750	1.8	6.8

## Delivery

	revs/gal		
	500 psi	1500 psi	2500 psi
D-04-X	565	583	614
D-04-E	761	795	853
D-04-S	921	972	1061

	revs/liter		
	34.5 bar	103.5 bar	172 bar
D-04-X	149	154	162
D-04-E	201	211	225
D-04-S	244	257	283

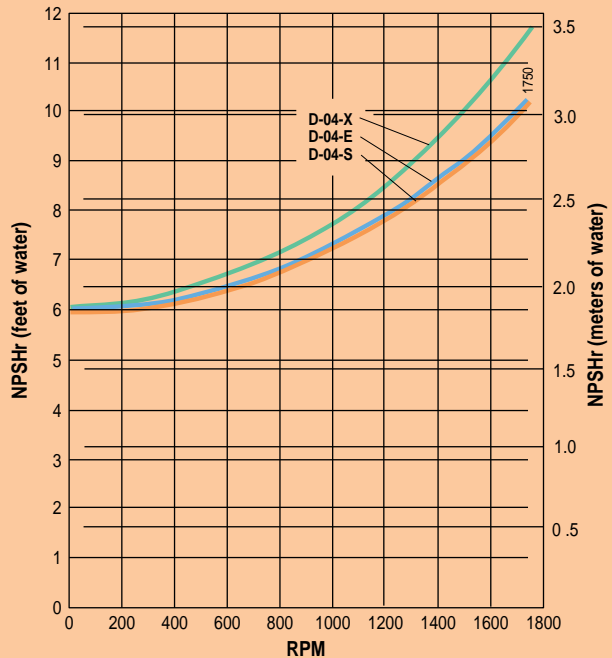
<b>Max Inlet Pressure</b>	500 psi (34.5 bar)
<b>Pressure Variable to</b>	2500 psi (172 bar)
<b>Max Temperature</b>	250°F (121°C) – Consult factory for correct component selection for temperatures above 160°F (71°C)
<b>Inlet Port</b>	1/2 inch NPT (1/2 inch BSPT) female
<b>Discharge Port</b>	1/2 inch NPT (1/2 inch BSPT) female
<b>Shaft Diameter</b>	7/8 inch (22.22 mm)
<b>Shaft Rotation</b>	Bi-directional
<b>Bearings</b>	Ball bearings
<b>Oil Capacity</b>	1.1 U.S. quart (1.05 liters), see page 100 for oil selection and specification.
<b>Weight</b>	37 lbs (16.8 kg)

## Calculating Required Horsepower

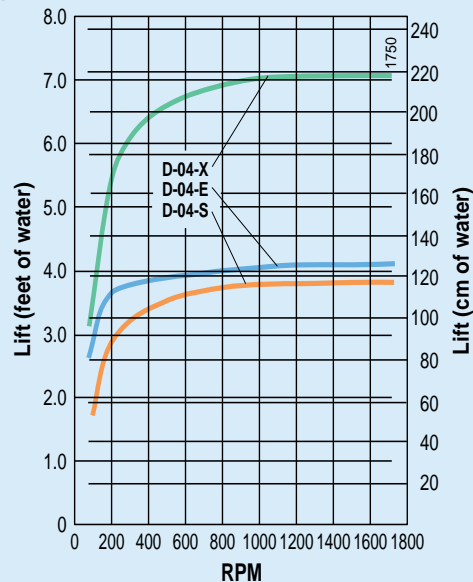
$$\frac{6 \times \text{rpm}}{63,000} + \frac{\text{gpm} \times \text{psi}}{1,460} = \text{electric motor HP}$$

For installation guidelines and other pump selection design considerations, refer to pages 107-111.

## Net Positive Suction Head (NPSHr)



## Dry Lift

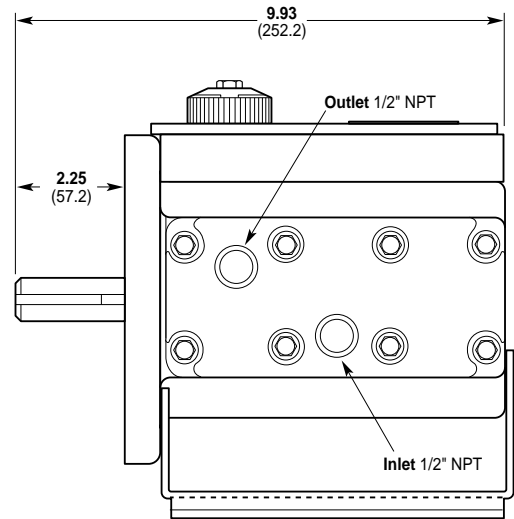
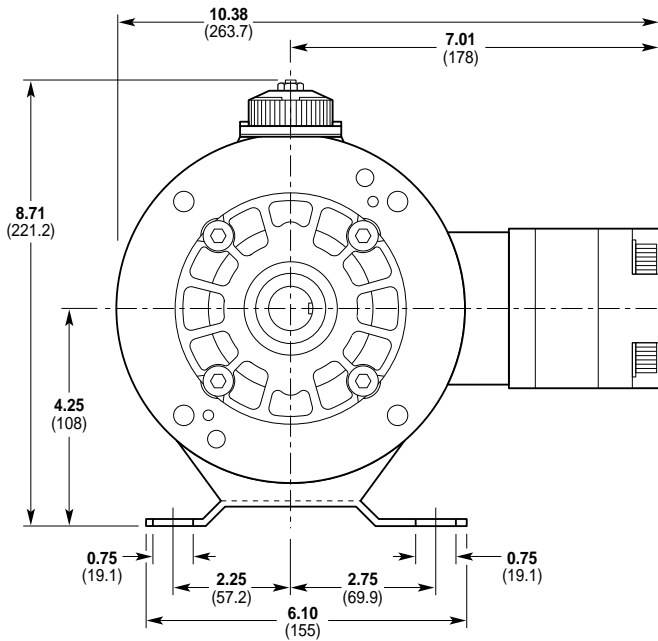


# D-04 Series Dimensions

## D-04 Models with Metallic Pumping Head

Brass  
304 Stainless Steel  
316 Stainless Steel

— Note  
*D-04 Pump/Motor Adapter  
flange ordered separately  
(see accessories, page 44.)*



# D-04 Series Options

## Materials of Construction

All D-04 configurations of Hydra-Cell pumps are manufactured in a variety of heavy-duty materials to meet specific pumping needs. Refer to the design section for more information on appropriate material selection and chemical compatibility. Other customized materials are available by special order. Contact factory application engineering department for further information.



**Pumping Head**  
304 Stainless Steel  
316 Stainless Steel  
Brass



**Valves**  
17-4 PH Stainless Steel  
Tungsten Carbide  
Nitronic 50



**Diaphragms & O-rings**  
Buna-N-XS  
Viton®-XT



**Valve Springs**  
316 Stainless Steel  
Elgiloy®  
Hastelloy® C



**Valve Seats**  
17-4 PH Stainless Steel  
Tungsten Carbide  
Nitronic 50



**Valve Spring Retainers**  
17-7 PH Stainless Steel  
Celcon®  
Kynar®  
Polypropylene  
Nylon

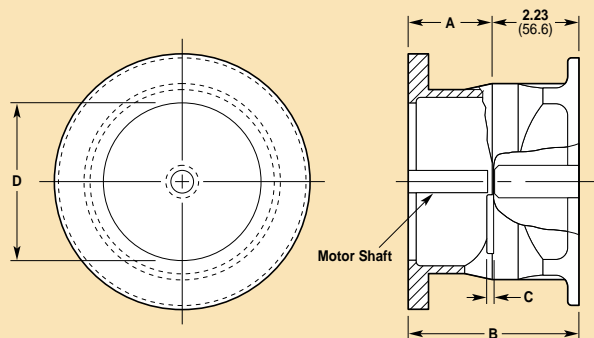
# D-04 Series Accessories

## Options, Accessories and Custom Designs

- Valves, page 84
- Couplings, page 95
- Hose Connectors, page 99
- Hydra-Oil, page 100
- Oil Cooler and Filtering System, page 102
- Oil Reservoir, page 104
- Tool Kits, page 105



## Pump/Motor Adapter



**Part Number: A04-001-1202**

Must be ordered separately for D-04 models for use with 56C, 143TC and 145TC frame motors.

**Part Number: A04-002-1202**

Must be ordered separately for D-04 models for use with 182TC, 184TC, 213TC and 215TC frame motors.

# D-04 Series How To Order

## Ordering Information

A complete D-04 Series Model Number contains 12 digits of customer-specified design options: for example D04XABTHFECG.

1	2	3	4	5	6	7	8	9	10	11	12
---	---	---	---	---	---	---	---	---	----	----	----

Digit	Order Code	Description
<b>1-3</b>		<b>Pump Configuration*</b>
	D04	Shaft-driven
*Pump/motor adapters ordered separately. See accessories section for selection and pricing information.		
<b>4</b>		<b>Hydraulic End Cam</b>
	X	Max 3.0 gpm (11.3 lpm) @ 1750 rpm
	E	Max 2.2 gpm (8.3 lpm) @ 1750 rpm
	S	Max 1.8 gpm (6.8 lpm) @ 1750 rpm
<b>5</b>		<b>Pump Head Version</b>
	A	Version A Pump Head
<b>6</b>		<b>Pump Head Material</b>
	B	Brass
	R	304 Stainless Steel
	S	316 Stainless Steel
<b>7</b>		<b>Diaphragm &amp; O-ring Material</b>
	G	Viton®-XT
	T	Buna-N-XS
<b>8</b>		<b>Valve Seat Material</b>
	D	Tungsten Carbide
	H	17-4 PH Stainless Steel
	N	Nitronic 50
<b>9</b>		<b>Valve Material</b>
	D	Tungsten Carbide
	F	17-4 PH Stainless Steel – Machined
	N	Nitronic 50
<b>10</b>		<b>Valve Springs</b>
	E	Elgiloy®
	S	316 Stainless Steel
	T	Hastelloy® C
<b>11</b>		<b>Valve Spring Retainers</b>
	C	Celcon
	H	17-7 PH Stainless Steel
	M	Kynar®
	P	Polypropylene
	Y	Nylon
<b>12</b>		<b>Hydra-Oil</b>
	G	5W30 standard & cold-temp severe duty oil
	K	20-wt food-contact oil

### Replacement Hydraulic End Assembly

Complete D-04 Hydraulic End Assemblies are available as replacement items. The Hydraulic End contains all drive end components from the drive shaft up to and including the diaphragms. All Hydraulic Ends are factory tested and shipped with oil. To order a Replacement Hydraulic End, specify the desired Cam (Digit 4), the Diaphragm and O-ring Material (Digit 7), and the Hydra-Oil (Digit 12).

#### Part Number\*

D04 4\* **XX** 7\* **XXXX** 12\*

\* Order Code Digits 4, 7 and 12 must be filled in when ordering.