

D-04 Series

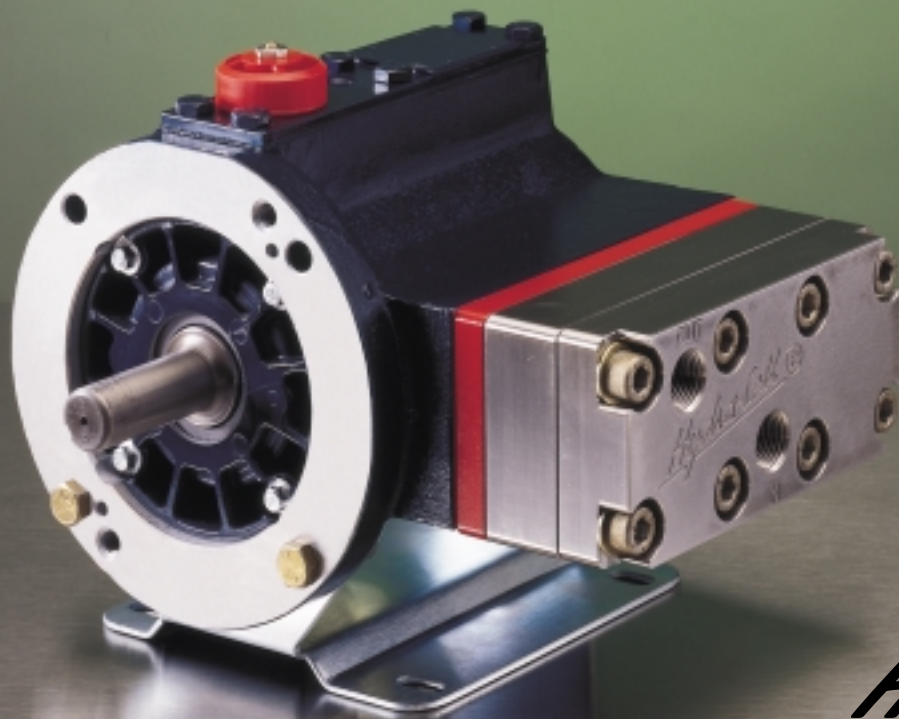
Up to 3 gpm (11.3 l/min)

Hydra-Cell® D-04: The long-lasting industrial pump solution for high pressure applications

The dependable, proven technology of Hydra-Cell pumps is now available in a high-pressure design with operating pressures up to 2,500 psi (172 bar). The Hydra-Cell Model D-04 can be close-coupled to NEMA standard and metric motors, or belt-driven to meet your unique needs. Industry-quality

D-04 pumps tackle difficult to pump solutions with ease. Hydra-Cell technology eliminates troublesome cups, packing and seals – making this THE pump for clean fluids, non-lubricating fluids, abrasive solutions, caustics, corrosives, high temperature fluids and other problem applications at high operating pressures. If you want fewer problems, less maintenance and longer pump life, consider the Hydra-Cell pumps.

Hydra-Cell pumps are the industrial pumps that are “simply built to last.”



Hydra-Cell[®]
SIMPLY BUILT TO LAST

D-04 Series Performance

flow

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

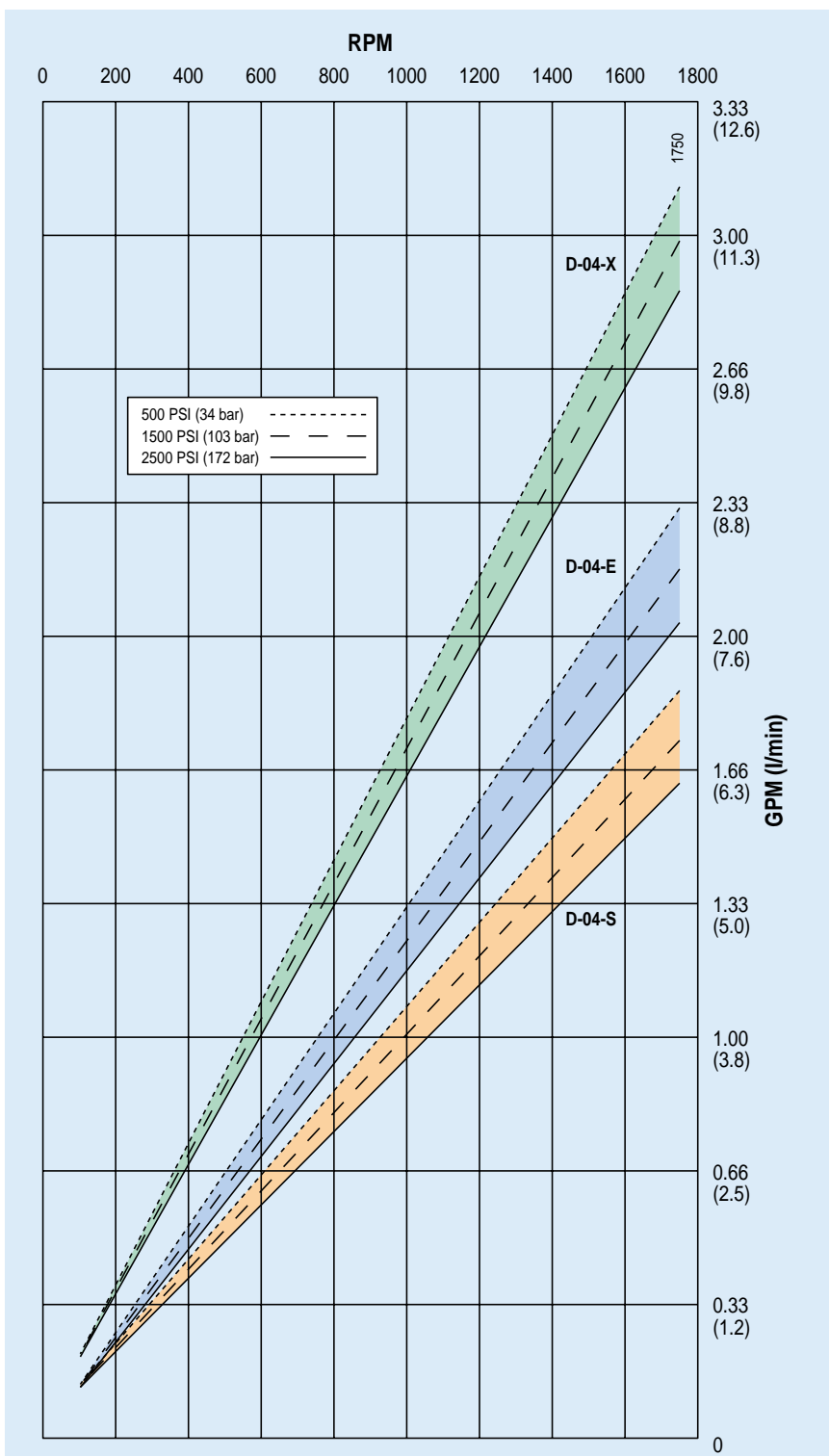
pressure

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

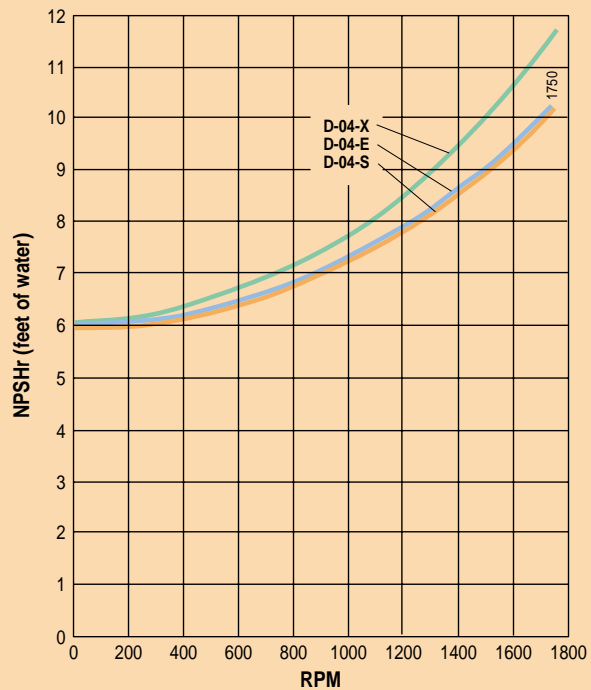
Delivery

	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

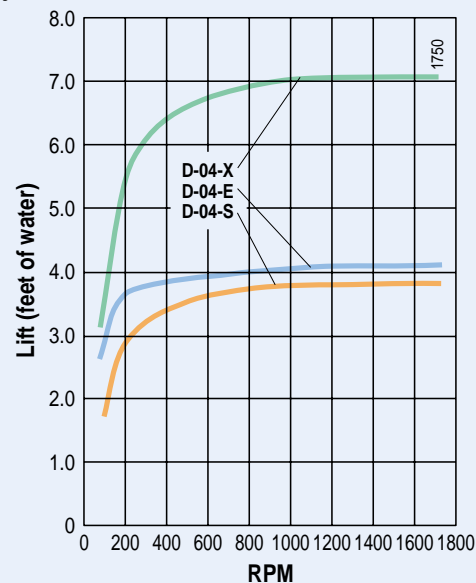
	revs/liter		
	34.5 bar	103.5 bar	172 bar
D-04-X	149	154	162
D-04-E	201	211	225
D-04-S	244	257	283

Max Inlet Pressure	500 psi (34.5 bar)
Pressure Variable to	2500 psi (172 bar)
Max Temperature	250°F (121°C) (refer to engineering section, page 94 for temperatures above 180°F)
Inlet Port	1/2 inch NPT (1/2 inch BSPT) female
Discharge Port	1/2 inch NPT (1/2 inch BSPT) female
Shaft Diameter	7/8 inch (22.22 mm)
Shaft Rotation	Bi-directional
Bearings	Ball bearings
Oil Capacity	1.1 U.S. quart (1.05 liters), see page 88 for oil selection and specification.
Weight	37 lbs (16.8 kg)

Net Positive Suction Head (NPSHr)



Dry Lift



Calculating Required Horsepower

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

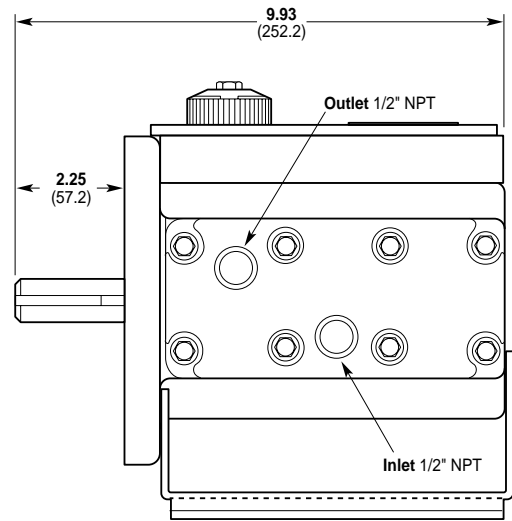
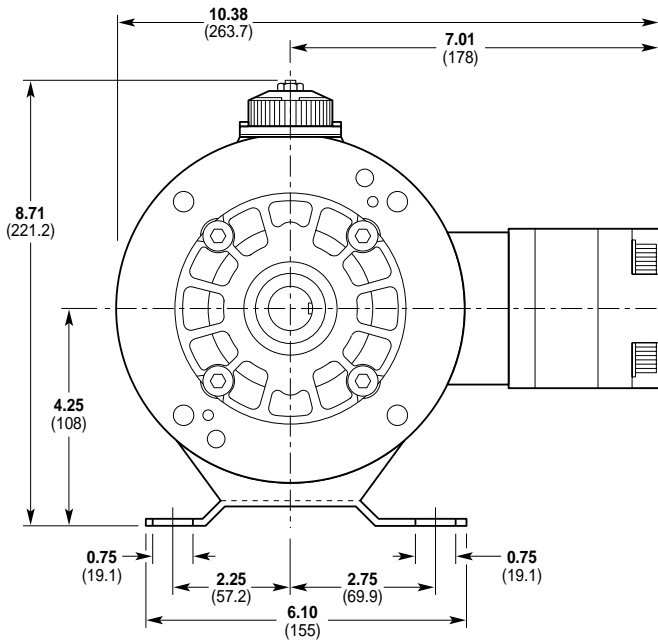
For installation guidelines and other pump selection design considerations, refer to pages 92-95.

D-04 Series Dimensions

D-04 Models with Metallic Pumping Head

Brass
304 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
Brass



Valves
17-4 PH Stainless Steel
Carbide



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



Valve Springs
316 Stainless Steel
Elgiloy®



Valve Seats
17-4 PH Stainless Steel
Carbide



Valve Spring Retainers
Celcon®
Kynar®
Polypropylene
Nylon

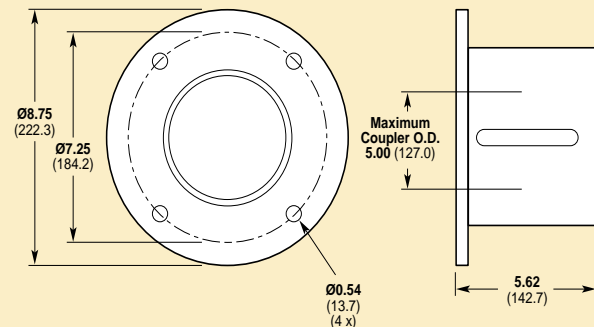
D-04 Series Accessories

Options, Accessories and Custom Designs

- Valves, page 78
- Hydra-Oil, page 88
- Couplers, page 87
- Hose Connectors, page 87
- Tool Kits, page 90



Pump/Motor Adapter



Part Number: A04-033-1002

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

D-04 Series How To Order

Ordering Information

A complete D-04 Series Model Number contains 12 digits including 8 customer-specified design options: for example D04XABTHHECG.



4 Hydraulic End Cam

- 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

6 Pumping Head Material

- B Brass
- R 304 Stainless Steel

7 Diaphragm & O-ring Material

- G Viton®-XT
- T Buna-N-XS

8 Valve Seat Material

- B Carbide
- H 17-4 PH Stainless Steel

9 Valve Material

- B Carbide
- F 17-7 PH Stainless Steel

10 Valve Springs

- E Elgiloy®
- S 316 Stainless Steel

11 Valve Spring Retainers

- C Celcon
- M Kynar®
- P Polypropylene
- Y Nylon

12 Hydra-Oil

- G 5W30 cold-temperature severe duty synthetic oil – standard
- J 20-wt EPDM-compatible oil
- K 20-wt food-contact oil