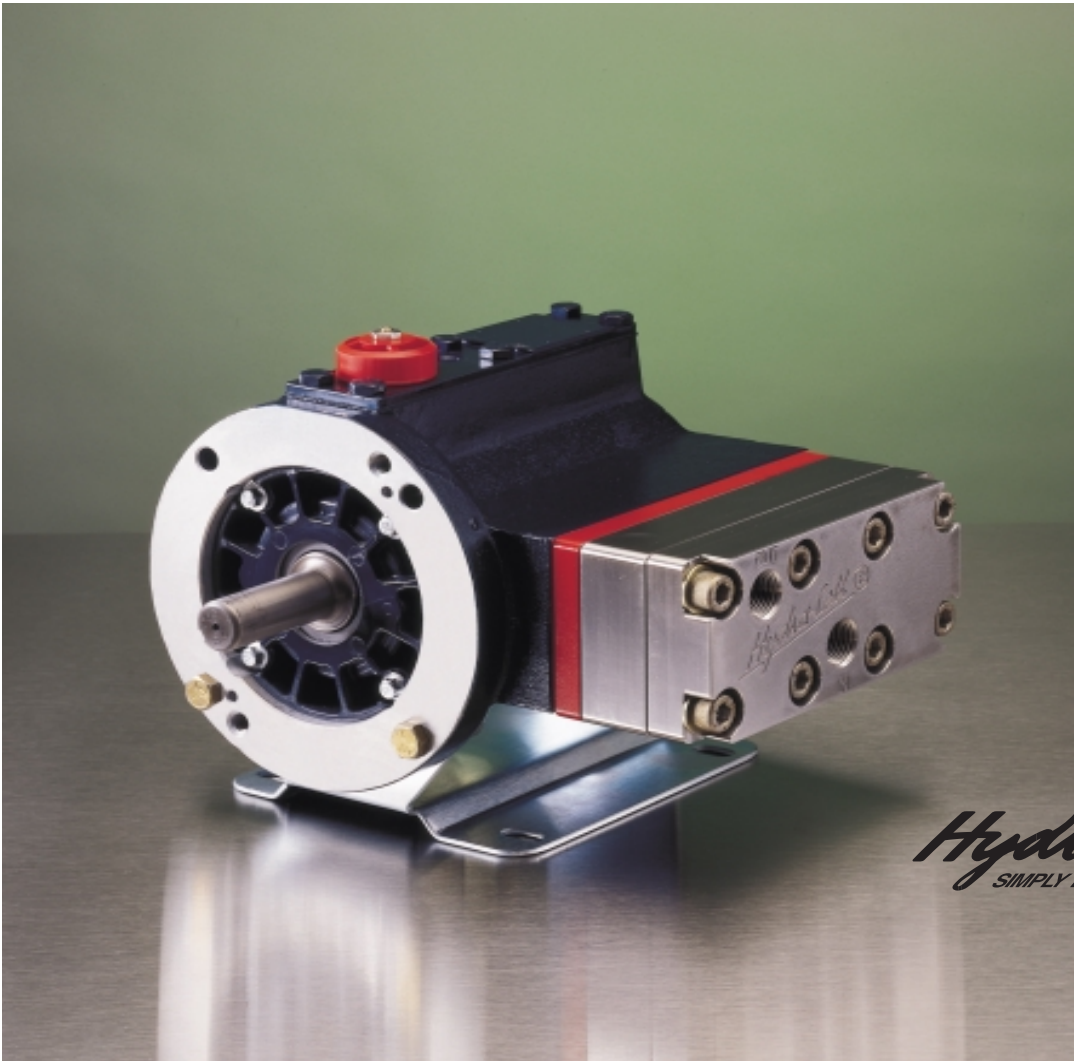


ROTATING RIGHT

## D/G-04 HYDRA-CELL DIAPHRAGM PUMP

### D/G-04 Series

*Up to 3.0 gpm (11.3 l/min)*



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

# D/G-04 Series Performance

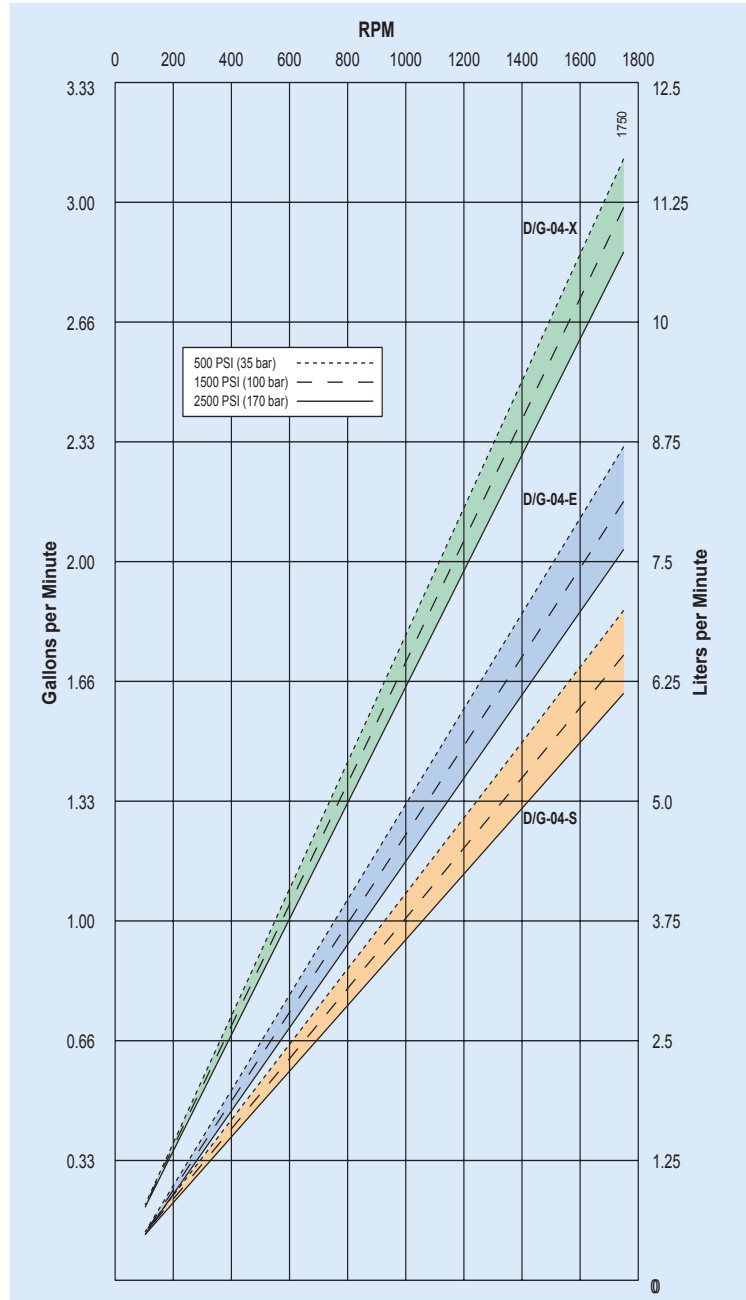
## flow

model	max flow		max input
	gpm	l/min	rpm
D/G-04-X	2.9	11.0	1750
D/G-04-E	2.1	7.8	1750
D-/G04-S	1.6	6.1	1750

## pressure

**Maximum Inlet Pressure:**  
500 psi (35 bar)

**Pressure Variable To:**  
2500 psi (170 bar)



Calculating Required Horsepower (kW)\*\*

$$\frac{6 \times \text{rpm}}{63,000} + \frac{\text{gpm} \times \text{psi}}{1,460 - \left(\frac{\text{psi}-500}{20}\right)} = \text{electric motor HP}$$

$$\frac{6 \times \text{rpm}}{84,428} + \frac{\text{lpm} \times \text{bar}}{511 - \left(\frac{\text{bar}-35}{4}\right)} = \text{electric motor kW}$$

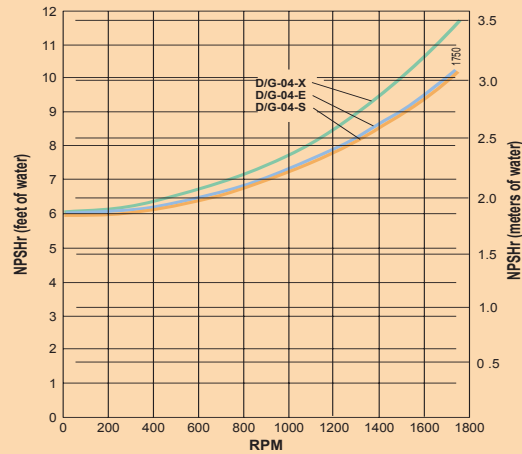
\*\*rpm equals pump shaft rpm. HP/kW is required application power. Use caution when sizing motors with variable speed drives.

# D/G-04 Series Specifications

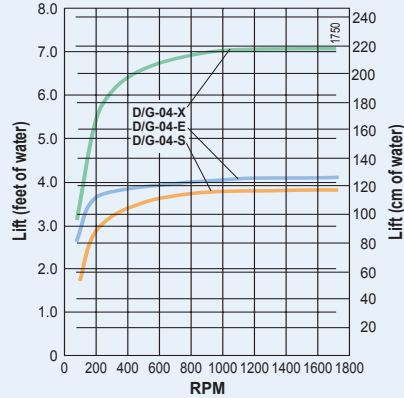
<b>Max Pressure</b>	2500 psi (170 bar)		
<b>Capacity @ Max Pressure</b>	<b>rpm</b>	<b>gpm</b>	<b>l/min</b>
D/G-04-X	1750	2.9	11.0
D/G-04-E	1750	2.1	7.8
D/G-04-S	1750	1.6	6.1
<b>Delivery @ Max Pressure</b>	<b>revs/gal</b>		
	<b>500 psi</b>	<b>1500 psi</b>	<b>2500 psi</b>
D/G-04-X	565	583	603
D/G-04-E	761	795	833
D/G-04-S	921	972	1093
	<b>revs/liter</b>		
	<b>35 bar</b>	<b>100bar</b>	<b>170 bar</b>
D/G-04-X	149	154	159
D/G-04-E	201	211	224
D/G-04-S	244	257	287
<b>Max Inlet Pressure</b>	500 psi (35 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>	D-04: 1/2 inch NPT; G-04: 1/2 inch BSPT		
<b>Discharge Port</b>	D-04: 1/2 inch NPT; G-04: 1/2 inch BSPT		
<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 Accessories Section for oil selection and specification.		
<b>Weight</b>	37 lbs (16.8 kg)		

Refer to installation guidelines and design considerations for additional information.

Net Positive Suction Head (NPSHr)



Dry Lift

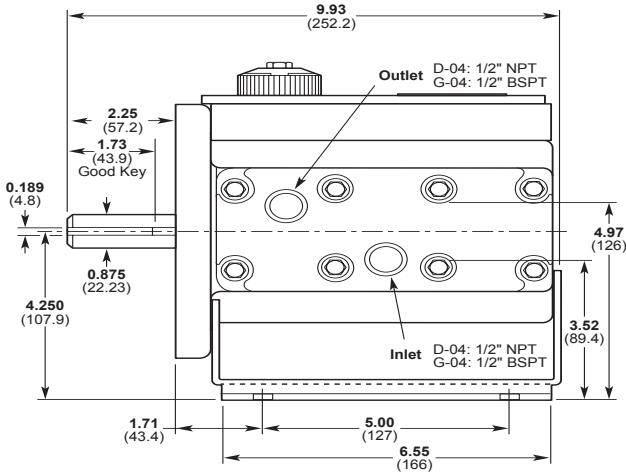
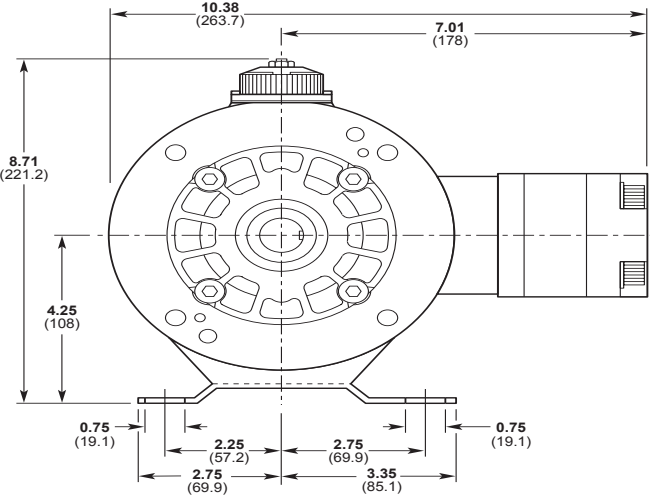


# D/G-04 Series Dimensions

D/G-04 Models with Metallic Pumping Head

— Note  
*D/G-04 Pump/Motor Adapter  
 flange ordered separately  
 (see accessories, page 46)*

Brass  
 304 Stainless Steel  
 316 Stainless Steel



# D/G-04 Series Options

## Materials of Construction

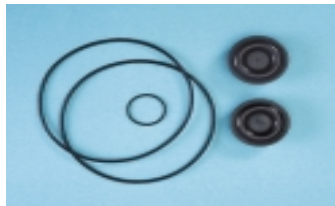
Hydra-Cell pumps are manufactured in a variety of heavy-duty materials to meet specific pumping needs. Refer to the design section for more information on appropriate material selection and chemical compatibility. Other customized materials are available by special order. Contact factory application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



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



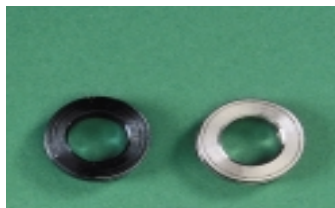
**Valves**  
17-4 PH Stainless Steel  
Tungsten Carbide  
Nitronic 50



**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/G-04 Series Accessories

## Options, Accessories and Custom Designs

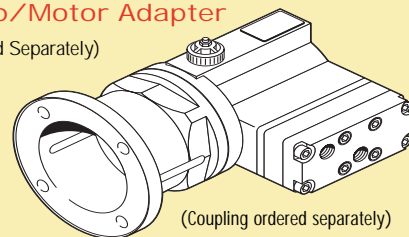
See the Accessories Section for complete information on these other products:

- Valves
- Couplings
- Hose Connectors
- Hydra-Oil
- Oil Cooler and Filtering System
- Oil Reservoir
- Tool Kits
- Pump/Motor Adapters



## Pump/Motor Adapter

(Ordered Separately)



(Coupling ordered separately)

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

For D-04 for use with NEMA 56C, 143/145TC C-Face motors.

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

For D-04 for use with NEMA 182/184TC, 213/215TC C-Face motors.

**Part Number: A04-003-1202**

For G-04 for use with IEC 80-90 B5 flange motors.

**Part Number: A04-004-1202**

For G-04 for use with IEC 100-112 B5 flange motors.

See the Accessories Section for dimensions.

# D/G-04 Series How To Order

## Ordering Information

A complete 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 (NPT ports)
	G04	Shaft-driven (BSPT ports)
<b>4</b>		<b>Hydraulic End Cam</b>
	X	Max 2.9 gpm (11.0 l/min) @ 1750 rpm
	E	Max 2.1 gpm (7.8 l/min) @ 1750 rpm
	S	Max 1.6 gpm (6.1 l/min) @ 1750 rpm
<b>5</b>		<b>Pump Head Version</b>
	A	Version A Pump Head (NPT ports)
	D	Version D Pump Head (BSPT ports)
<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/G-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\*      **G04** 4\* XX 7\* XXXX 12\*

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



## Head Office:

6120 Davies Road  
Edmonton, AB  
T6E 4M9

Phone: (780) 485-2010 • Toll Free: (866) 707-7867

Fax: (780) 485-1938

• Calgary • Drayton Valley • Lethbridge

www.rotatingright.com