

# G04 Series

Maximum Flow Rate: 11.2 l/min (2.9 gpm)

Maximum Pressure: 200 bar (2900 psi) for Metallic Pump Heads



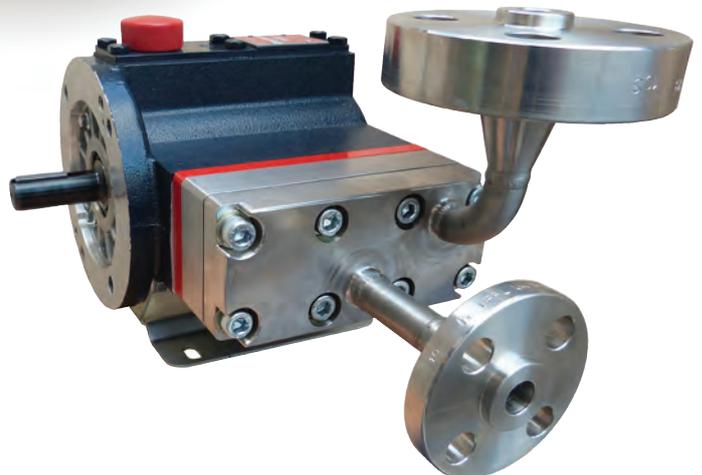
**WANNER**  
*Hydra-Cell*<sup>®</sup>  
Seal-less Pump Technology



G04 with Stainless Steel pump head



G04 with Brass pump head



G04 with Stainless Steel pump head and ANSI RF flanges.

# G04 Series Performance

## Capacities

### Flow

Model	Max. Input rpm	Max. Flow @ 172 bar (2500 psi)	
		gpm	l/min
G04-X	1750	2.9	11.2
G04-E	1750	2.0	7.7
G04-S	1750	1.6	6.2

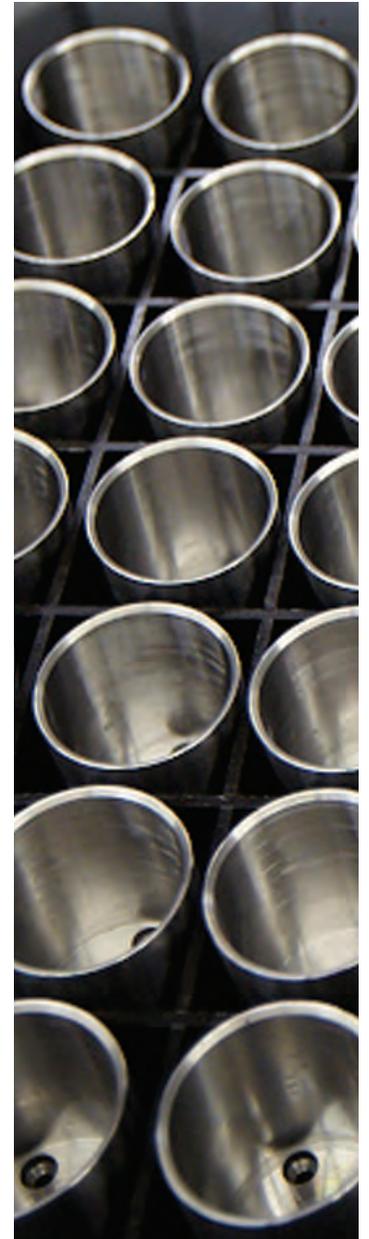
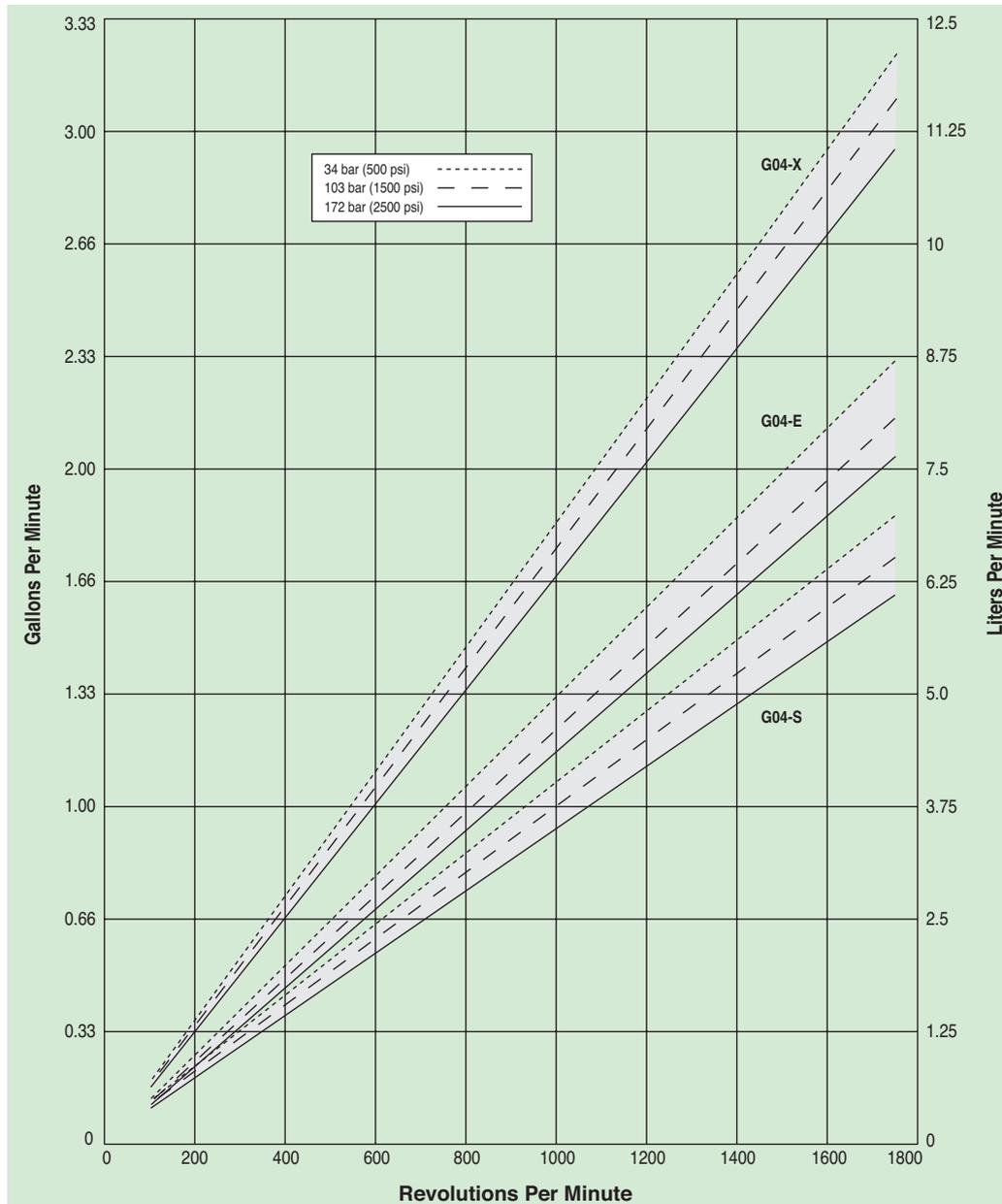
### Pressure

**Maximum Inlet Pressure**  
34 bar (500 psi)

**Maximum Discharge Pressure**  
200 bar (2900 psi) at 875 rpm (max.) = 5.6 l/min

Performance and specification ratings apply to G04 configurations unless specifically noted otherwise.

## Maximum Flow at Designated Pressure



# G04 Series Specifications

## Flow Capacities @ 172 bar (2500 psi) 4-pole Motor @ 50 Hz

Model	rpm	gpm	l/min
G04-X	1450	2.40	9.1
G04-E	1450	1.74	6.6
G04-S	1450	1.35	5.1

## Flow Capacities @ 172 bar (2500 psi) 6-pole Motor @ 50 Hz

Model	rpm	gpm	l/min
G04-X	960	1.58	6.0
G04-E	960	1.16	4.4
G04-S	960	0.87	3.3

## Delivery

Model	gal/rev		
	@34 bar (500 psi)	@103 bar (1500 psi)	@172 bar (2500 psi)
G04-X	0.0019	0.0018	0.0017
G04-E	0.0013	0.0012	0.0012
G04-S	0.0011	0.0010	0.0009

Model	liters/rev		
	@34 bar (500 psi)	@103 bar (1500 psi)	@172 bar (2500 psi)
G04-X	0.0070	0.0067	0.0064
G04-E	0.0050	0.0047	0.0044
G04-S	0.0041	0.0039	0.0035

## Maximum Discharge Pressure

Metallic Heads: 172 bar (2500 psi)

## Maximum Inlet Pressure 34 bar (500 psi)

## Maximum Operating Temperature

Metallic Heads: 121 °C (250 °F) - Consult factory for correct component selection for temperatures from 71 °C (160 °F) to 121 °C (250 °F).

## Maximum Solids Size 200 microns

**Inlet Port**  
1/2 inch BSPT  
1/2 inch NPT  
600lb ANSI RF Flange

**Discharge Port**  
1/2 inch BSPT  
1/2 inch NPT  
2500lb ANSI RF Flange

**Shaft Diameter** 22.2 mm (7/8 inch)

**Shaft Rotation** Reverse (bi-directional)

**Bearings** Precision ball bearings

**Oil Capacity** 1.05 liters (1.1 US quarts)

**Weight** 37 lbs. (16.8 kg)

## Calculating Required Power

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

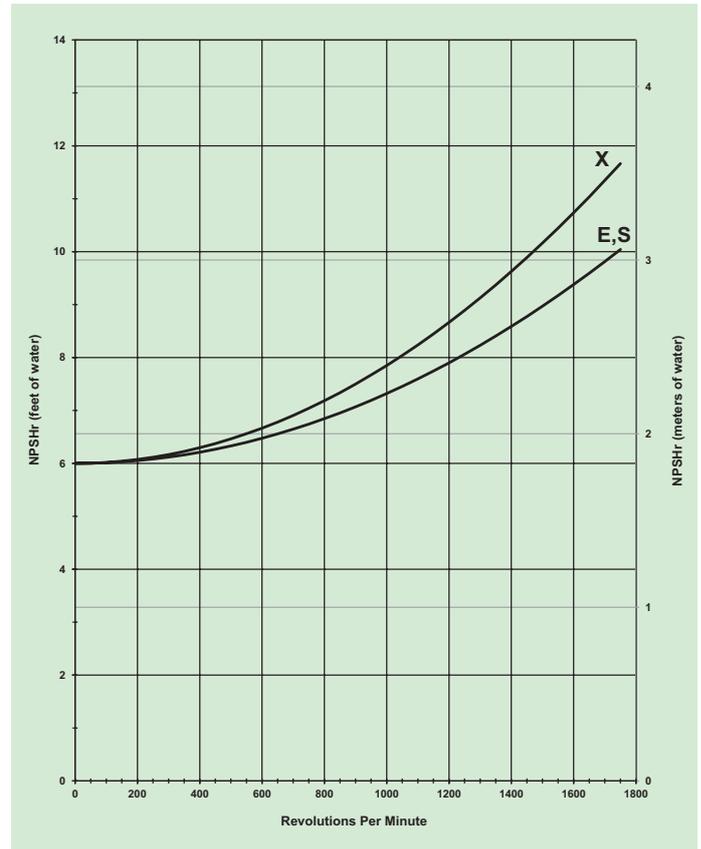
$$\frac{6 \times \text{rpm}}{84,428} + \frac{\text{l/min} \times \text{bar}}{511} = \text{electric motor kW}$$

## Calculating Pulley Size

$$\frac{\text{motor pulley OD}}{\text{pump rpm}} = \frac{\text{pump pulley OD}}{\text{motor rpm}}$$

When using a variable frequency controller (VFD) calculate the hp or kW at minimum and maximum pump speed to ensure the correct hp or kW motor is selected. Note that motor manufacturers typically de-rate the service factor to 1.0 when operating with a VFD.

## Net Positive Suction Head (NPSHr)

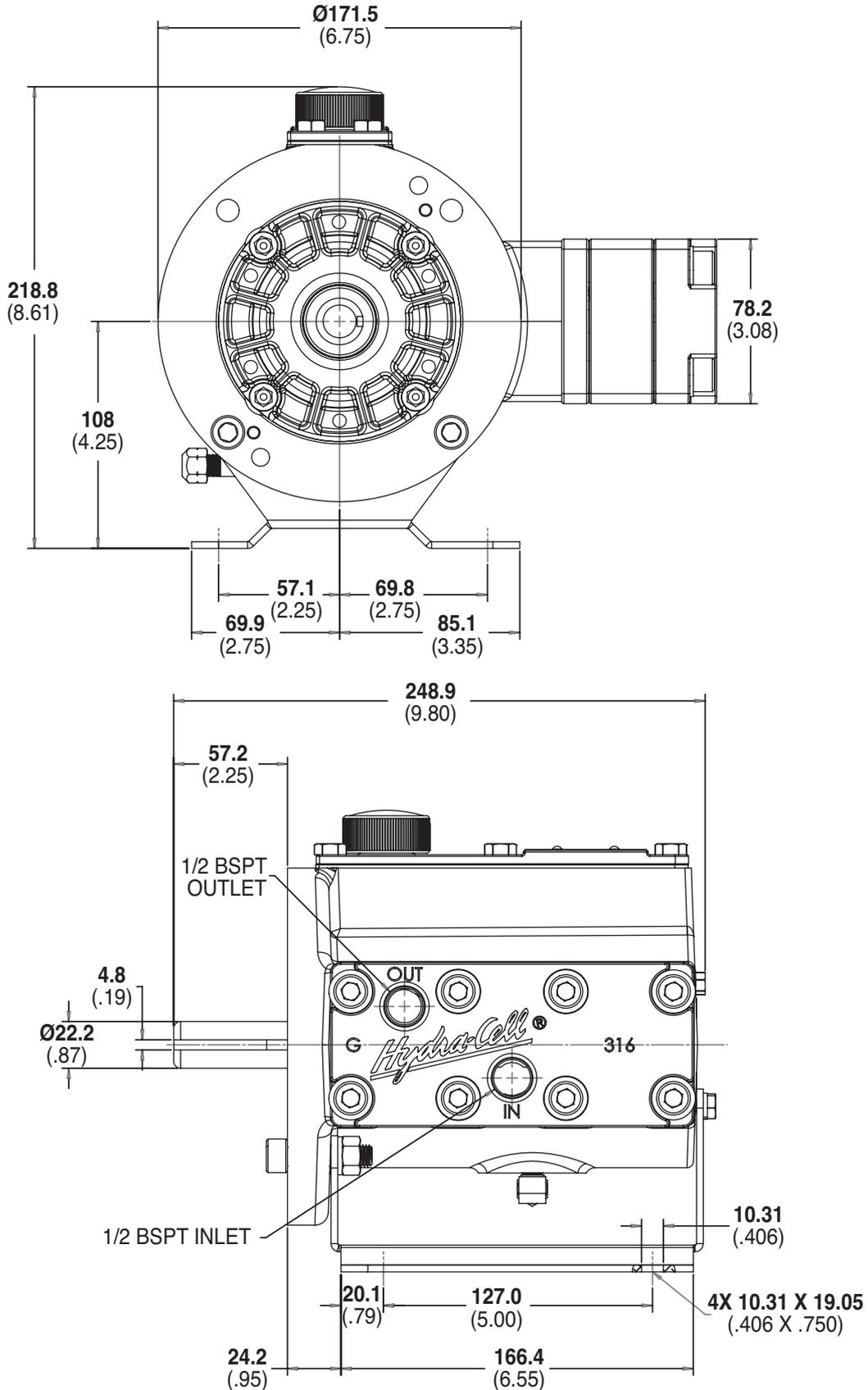


## Self-priming:

Each Hydra-Cell pump has different lift capability depending on model size, cam angle, speed, and fluid characteristics. To ensure that your specific lift characteristics are met, refer to the inlet calculations regarding friction, and acceleration head losses in your Hydra-Cell Installation & Service Manual. Compare those calculations to the NPSHr curves above.

# G04 Series Representative Drawings

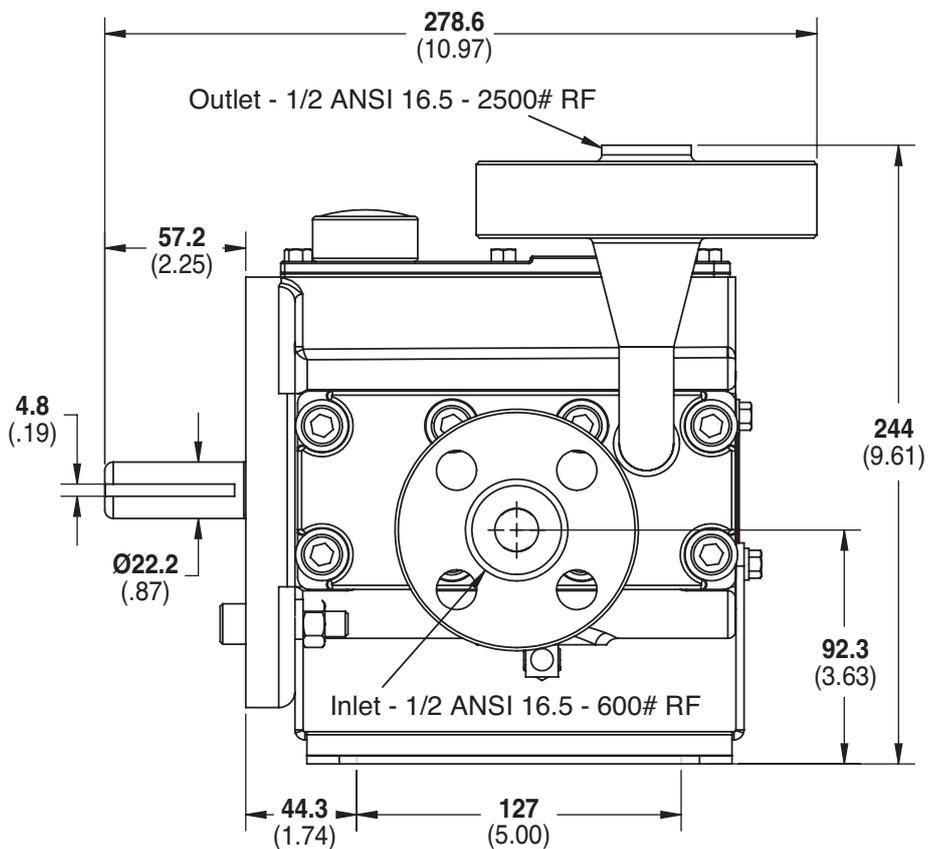
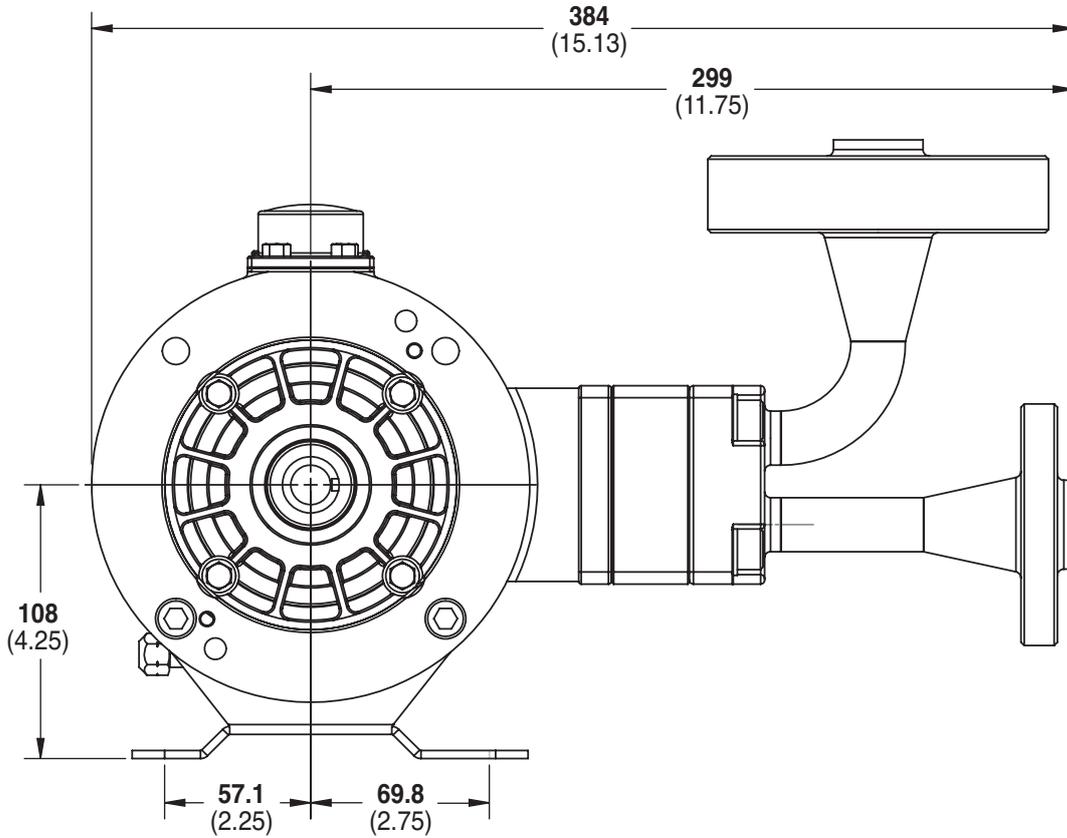
## G04 Models with Metallic Pump Head mm (Inches)



**Note:** Contact factory for additional drawings of specific models and configurations.

# G04 Series Representative Drawings

## G04 Models with ANSI RF Flanges mm (Inches)



**Note:** Contact factory for additional drawings of specific models and configurations.

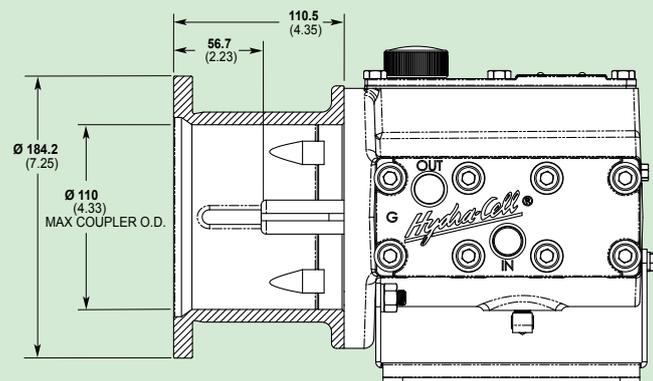
# G04 Series **Adaptors/Valves/Baseplates**

## Pump/Motor Adaptor mm (Inches)

### Part Number: A04-003-I202

Must be ordered separately for G04 models for use with IEC 80 - 90 frame motors, B5 flange.

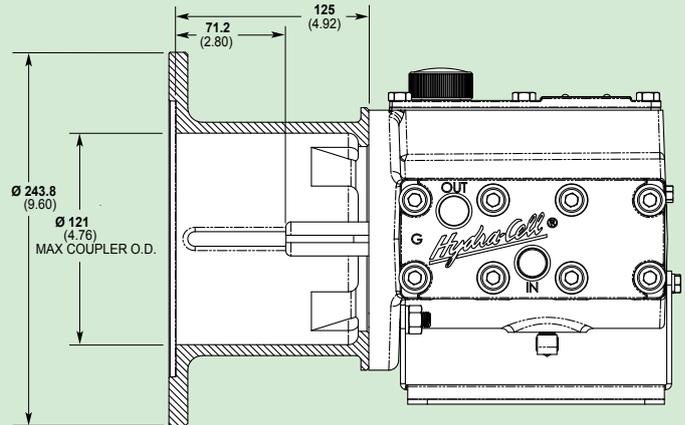
*NEMA adaptor available - consult factory.*



### Part Number: A04-004-I202

Must be ordered separately for G04 models for use with IEC 100 - 112 frame motors, B5 flange.

*NEMA adaptor available - consult factory.*



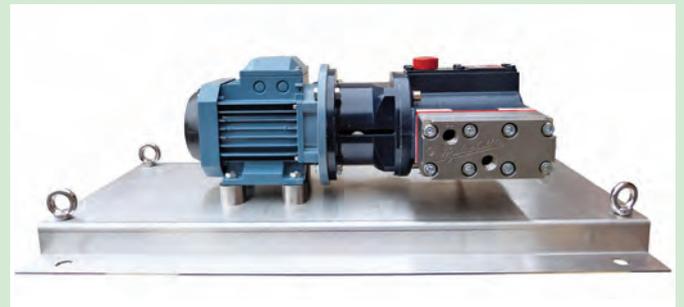
## Valve Selection

A seal-less C62 Pressure Regulating Valve is recommended for Hydra-Cell G04 pumping systems, especially for high-pressure requirements or when handling dirty fluids.



## IEC Baseplates

Complete assembly (excluding pump and motor) for IEC 80, 90, 100 and 112 frame motors in 304 Stainless Steel.



# G04 Series **How to Order**

## Ordering Information

1	2	3	4	5	6	7	8	9	10	11	12
G	0	4									

A complete G04 Series Model Number contains 12 digits including 9 customer-specified design and materials options, for example: G04SABTHFECG.

Digit	Order Code	Description
<b>1-3</b>	<b>G04</b>	<b>Pump Configuration</b> Shaft-driven (BSPT Ports)*  *Pump/motor adaptors ordered separately. See previous page.
<b>4</b>	<b>X</b> <b>E</b> <b>S</b>	<b>Hydraulic End Cam</b> Max 9.1 l/min (2.4 gpm) @ 1450 rpm Max 6.6 l/min (1.7 gpm) @ 1450 rpm Max 5.1 l/min (1.3 gpm) @ 1450 rpm
<b>5</b>	<b>D</b> <b>-</b>	<b>Pump Head Version</b> BSPT Ports ATEX <i>(Note: ATEX 94/9/EC Certified, Category 2, Zone 1. Includes certificate and oil level monitor.)</i>
<b>6</b>	<b>B</b> <b>R</b> <b>S</b> <b>-</b>	<b>Pump Head Material</b> Brass 304 Stainless Steel 316L Stainless Steel 316L Stainless Steel with ANSI RF flange class 600lb x 2500lb
<b>7</b>	<b>E</b> <b>G</b> <b>J</b> <b>P</b> <b>T</b>	<b>Diaphragm &amp; O-ring Material</b> EPDM (requires EPDM-compatible oil - Digit 12 oil code J) FKM PTFE Neoprene Buna-N
<b>8</b>	<b>D</b> <b>H</b> <b>N</b>	<b>Valve Seat Material</b> Tungsten Carbide 17-4 Stainless Steel Nitronic 50
<b>9</b>	<b>D</b> <b>F</b> <b>N</b>	<b>Valve Material</b> Tungsten Carbide 17-4 Stainless Steel Nitronic 50
<b>10</b>	<b>E</b> <b>T</b>	<b>Valve Springs</b> Elgiloy Hastelloy C

Digit	Order Code	Description
<b>11</b>	<b>C</b> <b>H</b> <b>M</b> <b>P</b> <b>Y</b>	<b>Valve Spring Retainers</b> Celcon 17-7 Stainless Steel PVDF Polypropylene Nylon
<b>12</b>	<b>G</b> <b>J</b> <b>K</b>	<b>Hydra-Oil</b> 5W30 cold-temp severe-duty synthetic oil 20-wt EPDM-compatible oil Food-contact oil





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