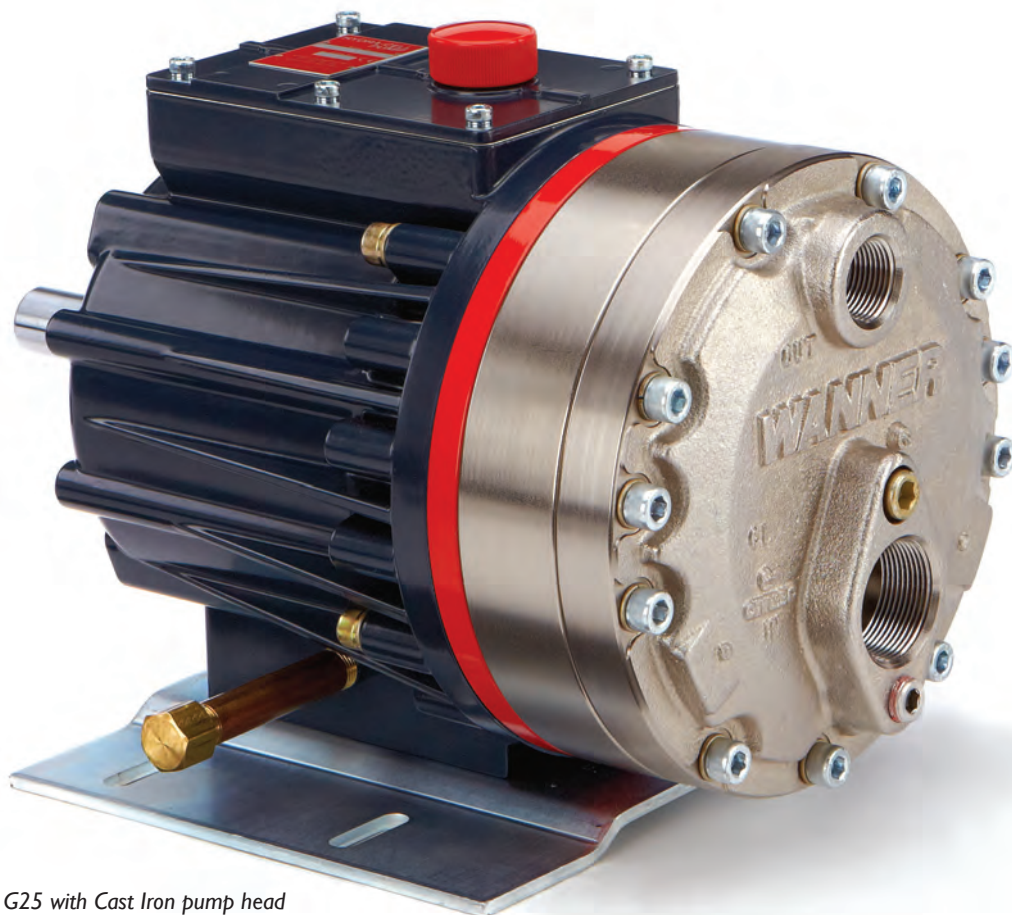


## G25 Series

Maximum Flow Rate: 20.0 gpm (75.9 l/min)

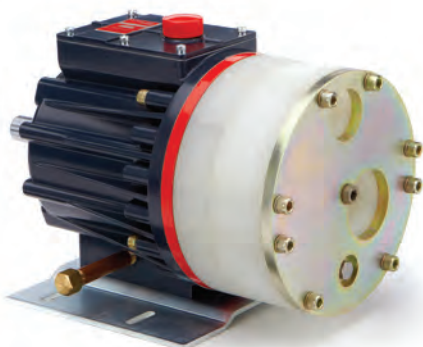
Maximum Pressure: 1000 psi (69 bar) for Metallic Pump Heads  
350 psi (24 bar) for Non-metallic Pump Heads



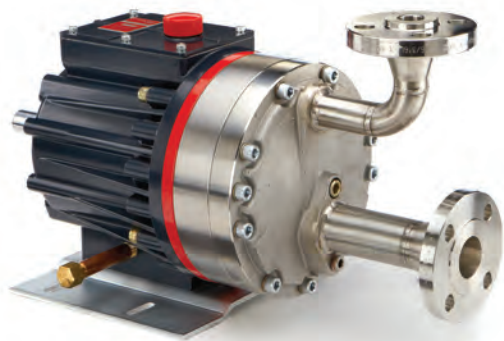
*G25 with Cast Iron pump head*



*G25 with Brass pump head*



*G25 with Polypropylene pump head*



*G25 with Stainless Steel pump head and ANSI flanges*

# G25 Series Performance

## Capacities

### Flow

Model	Max. Input rpm	Max. Flow @ 1000 psi (69 bar)	
		gpm	l/min
G25-X	1050	20.0	75.7
G25-E	1150	20.0	75.9
G25-S	1150	16.2	61.5
G25-I	1150	11.8	44.7

### Pressure

**Maximum Inlet Pressure**  
250 psi (17 bar)

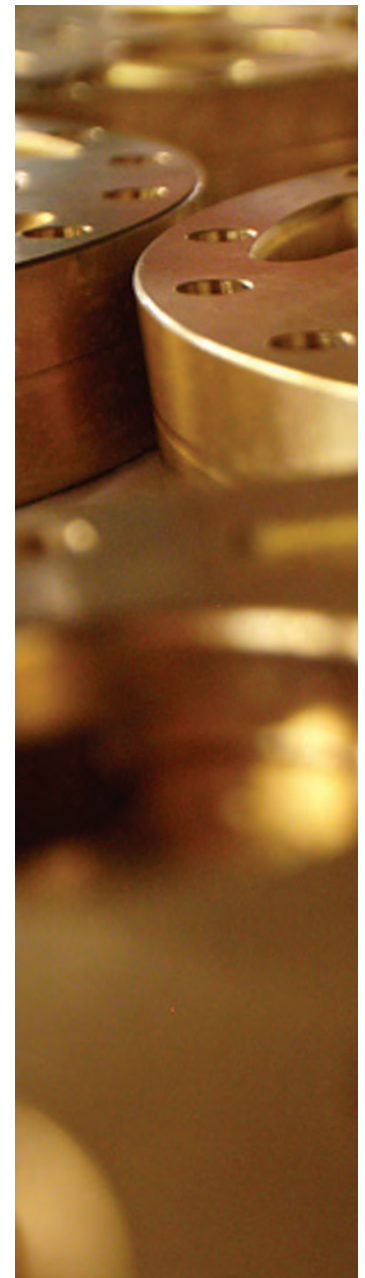
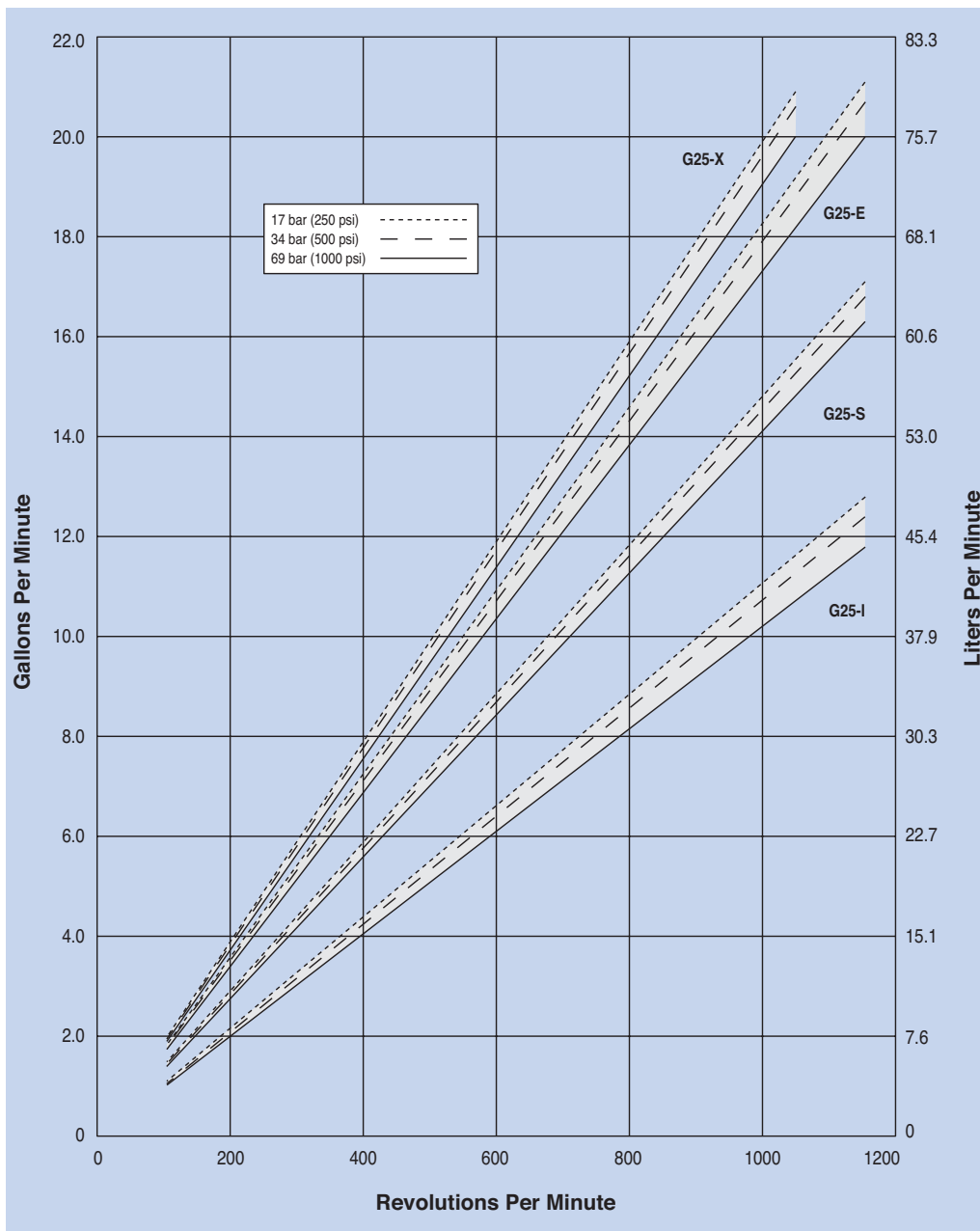
**Maximum Discharge Pressure**

Metallic Pump Heads:  
1000 psi (69 bar)

Non-metallic Pump Heads:  
250 psi (17 bar) Polypropylene  
350 psi (24 bar) PVDF

Performance and specification ratings apply to G25 configurations unless specifically noted otherwise.

## Maximum Flow at Designated Pressure



# G25 Series Specifications

## Flow Capacities @ 69 bar (1000 psi) 6-pole Motor @ 50 Hz

Model	rpm	gpm	l/min
G25-X	960	18.2	69.0
G25-E	960	16.6	63.0
G25-S	960	13.2	50.0
G25-I	960	9.5	36.0

## Flow Capacities @ 69 bar (1000 psi) 8-pole Motor @ 50 Hz

Model	rpm	gpm	l/min
G25-X	730	13.9	52.8
G25-E	730	12.9	48.8
G25-S	730	10.3	39.1
G25-I	730	7.9	29.9

## Delivery @ 69 bar (1000 psi)

Model	gal/rev	liters/rev
G25-X	0.0190	0.0721
G25-E	0.0174	0.0660
G25-S	0.0141	0.0535
G25-I	0.0103	0.0389

## Maximum Discharge Pressure

Metallic Heads:	69 bar (1000 psi)
Non-metallic Heads:	17 bar (250 psi) Polypropylene 24 bar (350 psi) PVDF

## Maximum Inlet Pressure 17 bar (250 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).
Non-metallic Heads:	60 °C (140 °F)

## Maximum Solids Size 800 microns

<b>Inlet Port</b>	1-1/2 inch BSPT 1-1/2 inch NPT 150lb ANSI RF flange
-------------------	---

<b>Discharge Port</b>	1 inch BSPT 1 inch NPT 600lb ANSI RF flange
-----------------------	---

<b>Shaft Diameter</b>	28.6 mm (1-1/8 inch)
-----------------------	----------------------

<b>Shaft Rotation</b>	Reverse (bi-directional)
-----------------------	--------------------------

<b>Bearings</b>	Tapered roller bearings
-----------------	-------------------------

<b>Oil Capacity</b>	3.1 liters (3.3 US quarts) - See pages 96 and 97 for oil selection and specification.
---------------------	---

## Weight

Metallic Heads:	56.8 kg (125 lbs.)
Non-metallic Heads:	40.9 kg (90 lbs.)

## Calculating Required Power

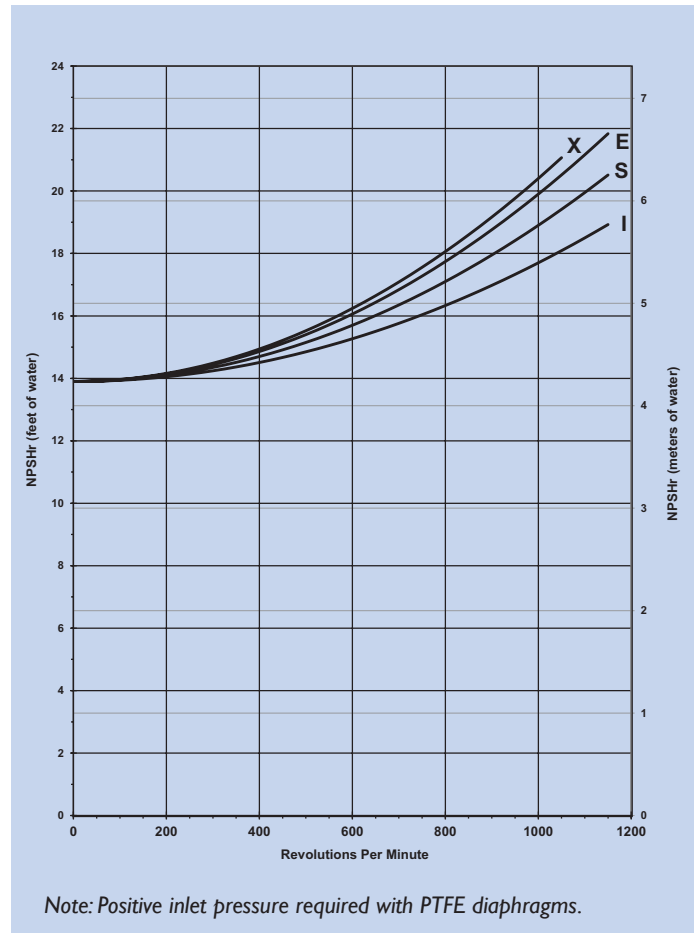
$$\frac{50 \times \text{rpm}}{63,000} + \frac{\text{gpm} \times \text{psi}}{1,460} = \text{electric motor hp}$$

$$\frac{50 \times \text{rpm}}{84,428} + \frac{\text{l/min} \times \text{bar}}{511} = \text{electric motor kW}$$

See page 164 for calculating pulley size.

When using a variable frequency drive (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)



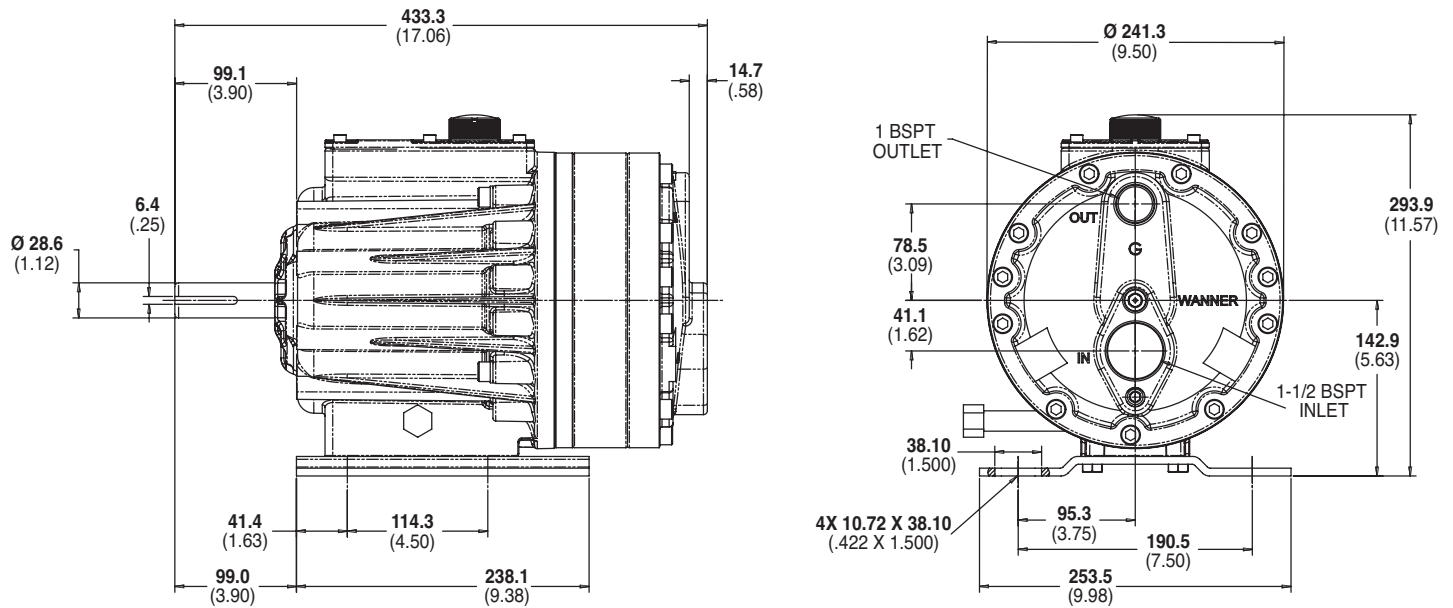
## Self-priming:

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.

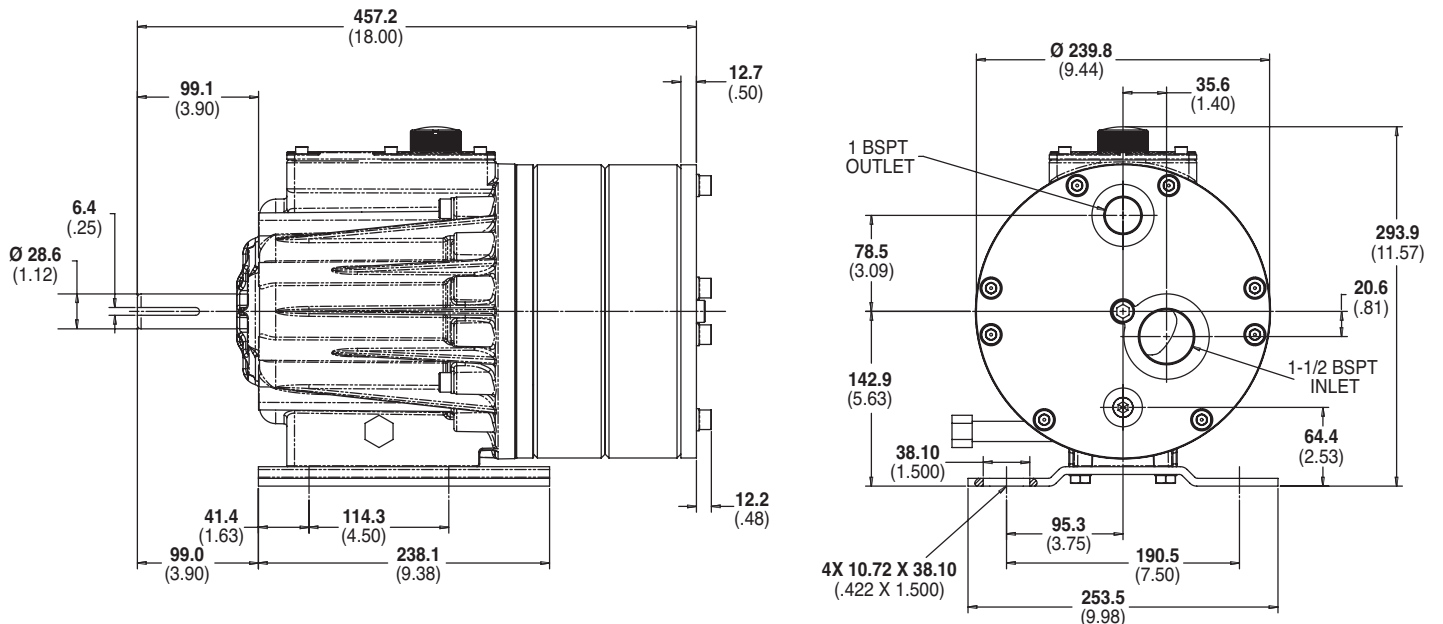
For technical assistance in pump selection, see Frequently Asked Questions on page 162, Design Considerations on page 163, and Installation Guidelines on pages 164-165.

# G25 Series Representative Drawings

## G25 Models with Metallic Pump Head mm (Inches)



## G25 Models with Non-metallic Pump Head mm (Inches)



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



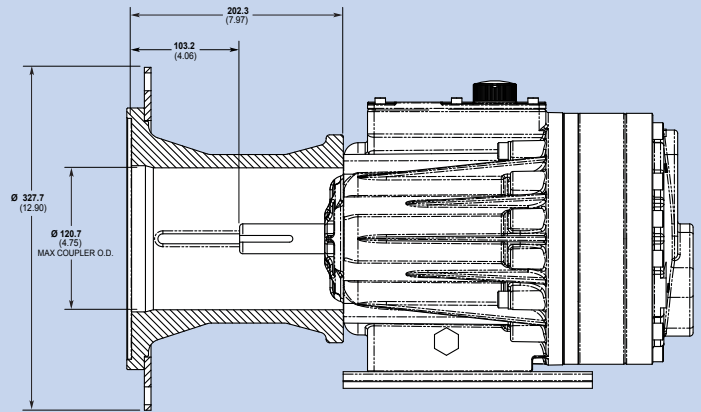
# G25 Series Adapters/Valves

## Pump/Motor Adapter mm (Inches)

### Part Number: A04-041-1201

Must be ordered separately for G25 models for use with IEC 132 frame motors, B5 flange.

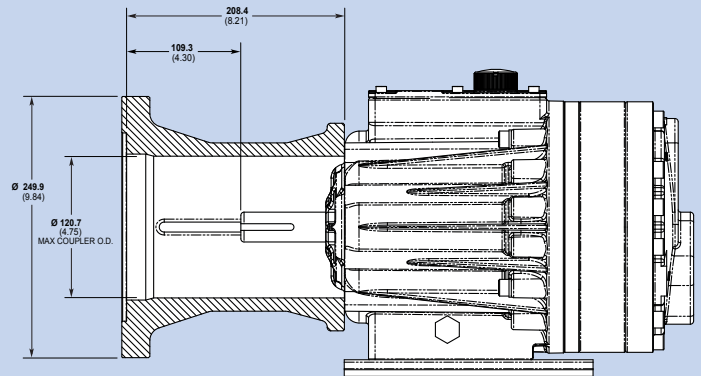
*NEMA adapter available - consult factory.*



### Part Number: A04-041-1203

Must be ordered separately for G25 models for use with IEC 160 frame motors, B14 flange.

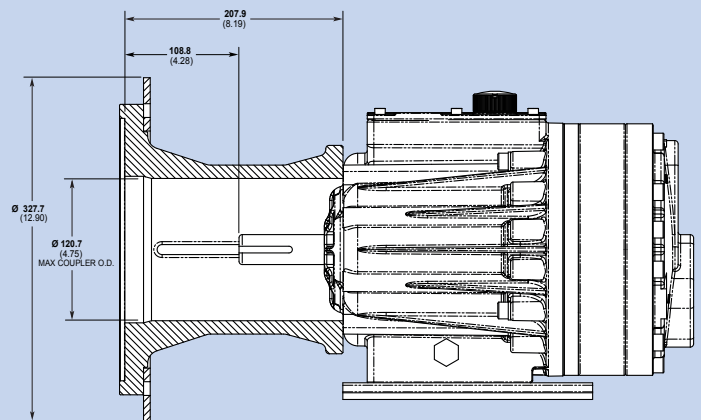
*NEMA adapter available - consult factory.*



### Part Number: A04-041-1205

Must be ordered separately for G25 models for use with IEC 160 - 180 frame motors, B5 flange.

*NEMA adapter available - consult factory.*



## Valve Selection

A seal-less C63 Pressure Regulating Valve is recommended for Hydra-Cell G25 pumping systems, especially for high-pressure requirements or when handling dirty fluids.

See page 88 for more information.



A C23 Pressure Regulating Valve provides a capable, lower-cost alternative to C63 valves for Hydra-Cell G25 pumping systems.

See page 84 for more information.



# G25 Series **How to Order**

## Ordering Information



A complete G25 Series Model Number contains 12 digits including 9 customer-specified design and materials options, for example: G25XKCGNNECA.

Digit	Order Code	Description
<b>1-3</b>	<b>G25</b>	<b>Pump Configuration</b> Shaft-driven (BSPT Ports or ANSI Flanges) *Pump/motor adapters ordered separately. See previous page.
<b>4</b>	<b>X</b>	<b>Hydraulic End Cam</b> Max 69.0 l/min (18.2 gpm) @ 960 rpm
	<b>E</b>	Max 63.0 l/min (16.6 gpm) @ 960 rpm
	<b>S</b>	Max 50.0 l/min (13.2 gpm) @ 960 rpm
	<b>I</b>	Max 36.0 l/min (9.5 gpm) @ 960 rpm
<b>5</b>		<b>Pump Head Version</b>
	<b>K</b>	Kel-Cell BSPT Ports
	<b>M</b>	Machined housing to accept C-face adapter/gearbox
	<b>X</b>	ATEX <i>(Note: ATEX 94/9/EC Certified, Category 2, Zone 1. Includes certificate and oil level monitor.)</i>
<b>6</b>		<b>Pump Head Material</b>
	<b>B</b>	Brass
	<b>C</b>	Cast Iron (Nickel-plated)
	<b>G</b>	Duplex Alloy 2205 (with Hastelloy C followers & follower screws)
	<b>M</b>	PVDF (with Hastelloy C followers & follower screws)
	<b>N</b>	Polypropylene (with Hastelloy C followers & follower screws)
	<b>P</b>	Polypropylene (with 316L Stainless Steel followers & follower screws)
	<b>R</b>	316L Stainless Steel ANSI flange class 150 x 600
	<b>S</b>	316L Stainless Steel
	<b>T</b>	Hastelloy CW12MW
<b>7</b>		<b>Diaphragm &amp; O-ring Material</b>
	<b>A</b>	Atlas diaphragm / PTFE o-ring
	<b>E</b>	EPDM (requires EPDM-compatible oil - Digit 12 oil code C)
	<b>G</b>	FKM
	<b>J</b>	PTFE (available with E and S cams only; 1050 rpm max.)
	<b>P</b>	Neoprene
	<b>T</b>	Buna-N
<b>8</b>		<b>Valve Seat Material</b>
	<b>C</b>	Ceramic
	<b>D</b>	Tungsten Carbide
	<b>H</b>	17-4 Stainless Steel
	<b>N</b>	Nitronic 50
	<b>T</b>	Hastelloy C

Digit	Order Code	Description
<b>9</b>		<b>Valve Material</b>
	<b>C</b>	Ceramic
	<b>D</b>	Tungsten Carbide
	<b>F</b>	17-4 Stainless Steel
	<b>N</b>	Nitronic 50
	<b>T</b>	Hastelloy C
<b>10</b>		<b>Valve Springs</b>
	<b>E</b>	Elgiloy
	<b>H</b>	17-7 Stainless Steel
	<b>T</b>	Hastelloy C
<b>11</b>		<b>Valve Spring Retainers</b>
	<b>C</b>	Celcon
	<b>H</b>	17-7 Stainless Steel
	<b>M</b>	PVDF
	<b>P</b>	Polypropylene
	<b>T</b>	Hastelloy C
	<b>Y</b>	Nylon (Zytel)
<b>12</b>		<b>Hydra-Oil</b>
	<b>A</b>	10W30 standard-duty oil
	<b>B</b>	40-wt for continuous-duty oil (use with 316L SST or Hastelloy CW12MW pump head - standard)
	<b>C</b>	EPDM-compatible oil
	<b>E</b>	Food-contact oil
	<b>G</b>	5W30 cold-temp severe-duty synthetic oil
	<b>H</b>	15W50 high-temp severe-duty synthetic oil

**G25 Pump Housing is standard as Cast Aluminum. Upgrade to Ductile Iron available.**

**Note:** For motors, bases, couplings and other pump accessories, refer to the Accessories section beginning on page 92.

# Hydra-Cell®

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