

Hydra-Cell® G Series Seal-less Pumps Selection



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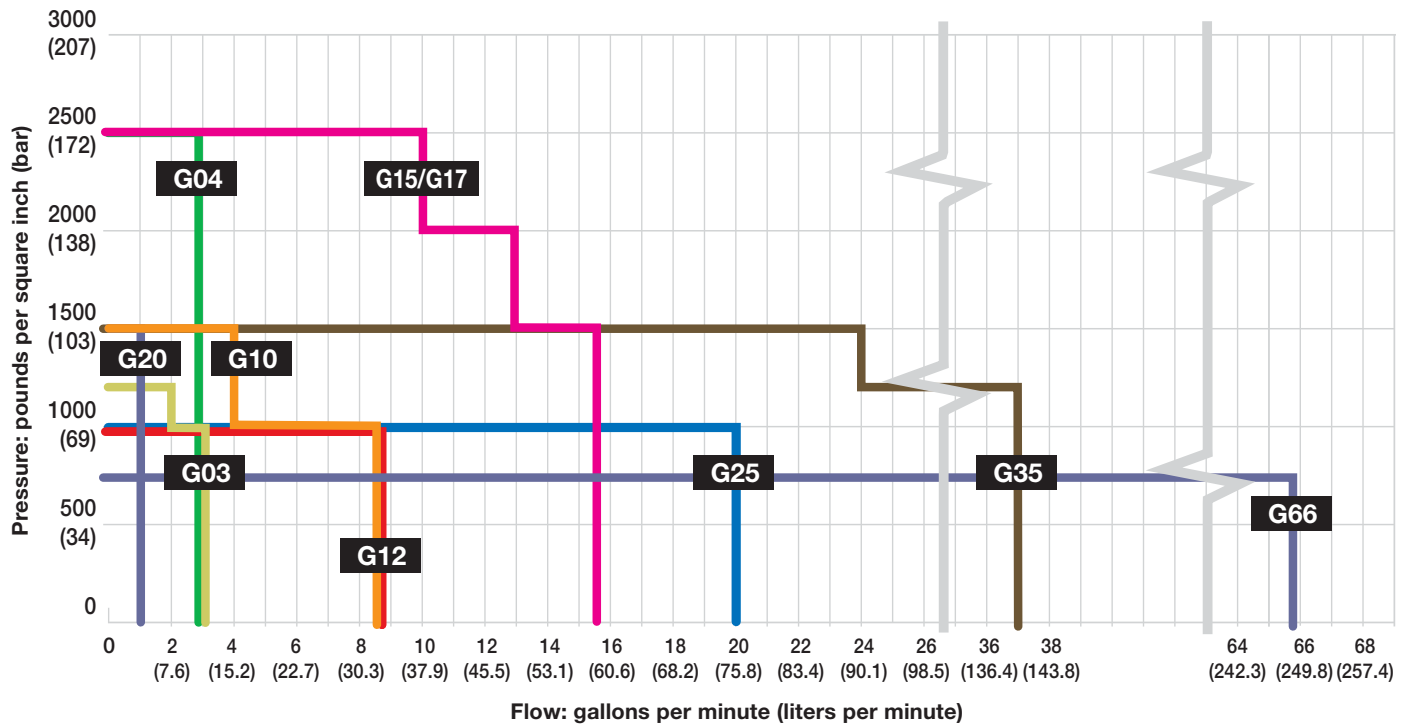
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Hydra-Cell® Flow Capacities and Pressure Ratings

G Series Seal-less Pumps



The graph above displays the maximum flow capacity at a given pressure for each model series. The table below lists the maximum flow capacity and maximum pressure capability of each model series.

Please Note: Some models do not achieve maximum flow at maximum pressure. Refer to the individual model specifications in this section for precise flow and pressure capabilities by specific pump configuration.

Model	Maximum Capacity gpm (l/min)	Maximum Discharge Pressure psi (bar)		Maximum Operating Temperature F (C) ²		Maximum Inlet Pressure psi (bar)
		Non-metallic ¹	Metallic	Non-metallic	Metallic	
G20	1.0 (3.8)	350 (24)	1500 (103)	140° (60°)	250° (121°)	250 (17)
G03	3.1 (11.7)	350 (24)	1200 (83)	140° (60°)	250° (121°)	250 (17)
G04	2.9 (11.2)	N/A	2500 (172)	N/A	250° (121°)	500 (34)
G10	8.8 (33.4)	350 (24)	1500 (103)	140° (60°)	250° (121°)	250 (17)
G12	8.8 (33.4)	N/A	1000 (69)	N/A	250° (121°)	250 (17)
G15 & G17	15.5 (58.7)	N/A	2500 (172)	N/A	250° (121°)	500 (34)
G25	20.0 (75.9)	350 (24)	1000 (69)	140° (60°)	250° (121°)	250 (17)
G35	36.5 (138)	N/A	1500 (103)	N/A	250° (121°)	500 (34)
G66	65.7 (248.7)	250 (17)	700 (48)	140° (60°)	250° (121°)	250 (17)

¹ 350 psi (24 bar) maximum with PVDF liquid end; 250 psi (17 bar) maximum with Polypropylene liquid end.

² Consult factory for correct component selection for temperatures from 160°F (71°C) to 250°F (121°C).

G20 Series

Maximum Flow Rate: 1.0 gpm (3.8 l/min)

Maximum Pressure: 1500 psi (103 bar) for Metallic Pump Heads
350 psi (24 bar) for Non-metallic Pump Heads



G20 Close-coupled with Brass pump head



G21 Shaft-driven with Polypropylene pump head



G22 Flexible-coupled with Stainless Steel pump head

G20 Series Performance

Capacities

Flow

Model	Max. Input rpm	Max. Flow @ 1000 psi (69 bar)	
		gpm	l/min
G20-X	1750	1.01	3.82
G20-E	1750	0.71	2.69
G20-S	1750	0.56	2.12
G20-B	1750	0.31	1.17
G20-G	1750	0.20	0.76

Pressure

Maximum Inlet Pressure
250 psi (17 bar)

Maximum Discharge Pressure

Metallic Pump Heads:

G20 to 1000 psi (69 bar)

G21 to 1500 psi (103 bar)

G22 to 1500 psi (103 bar)

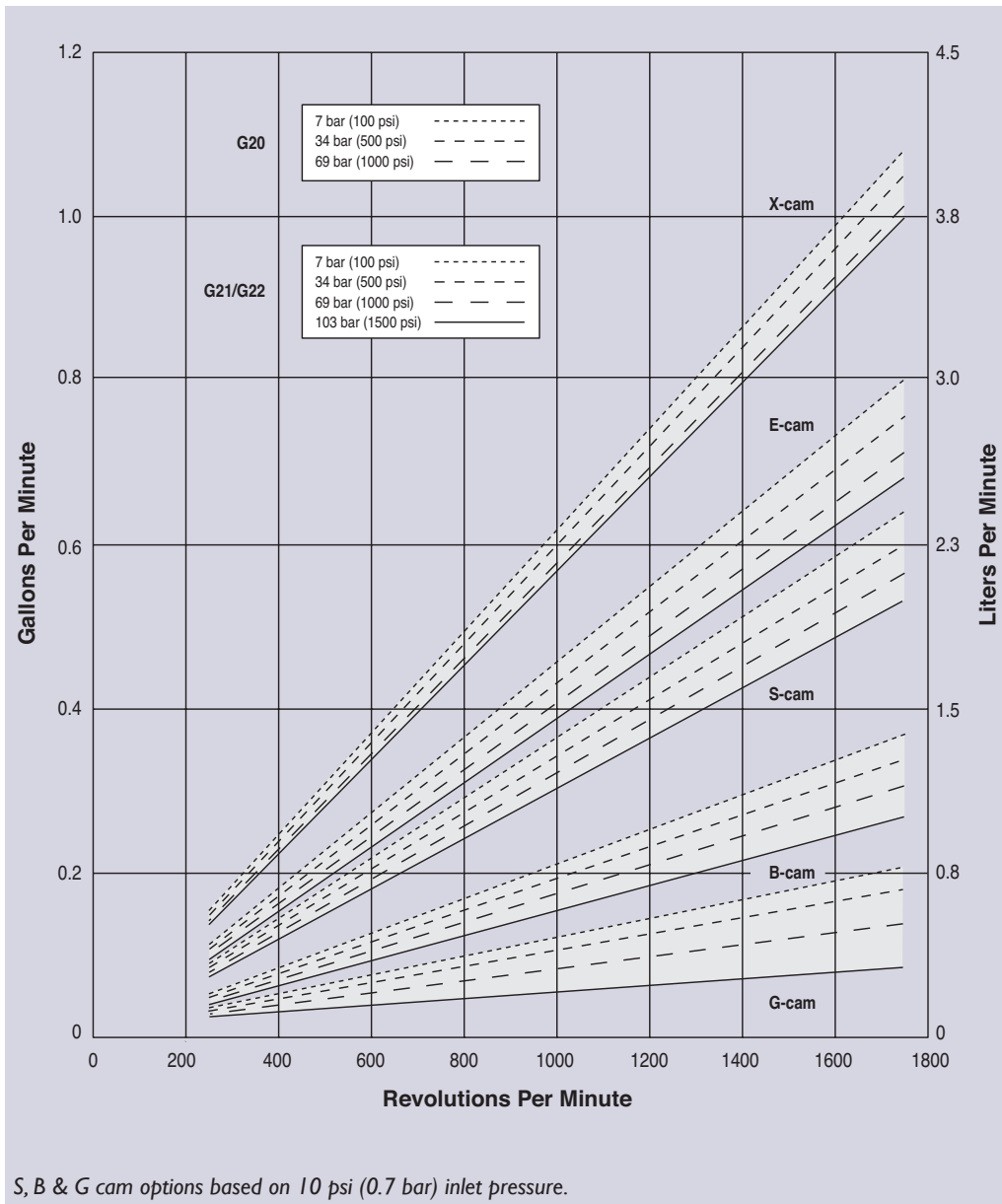
Non-metallic Pump Heads:

250 psi (17 bar) Polypropylene

350 psi (24 bar) PVDF

Performance and specification ratings apply to G20, G21 and G22 configurations unless specifically noted otherwise.

Maximum Flow at Designated Pressure



G20 Series Specifications

Flow Capacities @ 69 bar (1000 psi) 4-pole Motor @ 50 Hz

Model	rpm	gpm	l/min
G20-X	1450	0.83	3.14
G20-E	1450	0.60	2.29
G20-S	1450	0.45	1.72
G20-B	1450	0.27	1.03
G20-G	1450	0.16	0.63

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

Model	rpm	gpm	l/min
G20-X	960	0.55	2.08
G20-E	960	0.40	1.51
G20-S	960	0.30	1.14
G20-B	960	0.18	0.68
G20-G	960	0.10	0.41

Delivery @ 69 bar (1000 psi)

Model	gal/rev	liters/rev
G20-X	0.0006	0.0022
G20-E	0.0004	0.0015
G20-S	0.0003	0.0012
G20-B	0.0002	0.0007
G20-G	0.0001	0.0004

Maximum Discharge Pressure

Metallic Heads:	G20 to 69 bar (1000 psi)
	G21 to 103 bar (1500 psi)
	G22 to 103 bar (1500 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 200 microns

Inlet Port 1/2 inch BSPT

1/2 inch NPT

Discharge Port 3/8 inch BSPT

3/8 inch NPT

Shaft Diameter G20: 19 mm hollow shaft G21 & G22: 19 mm (3/4 inch)

Shaft Rotation Reverse (bi-directional)

Bearings Precision ball bearings

Oil Capacity 0.12 liters (0.125 US quart) - See pages 96 and 97 for oil selection and specification.

Weight

Metallic Heads:	5.5 kg (12 lbs.)
Non-metallic Heads:	4.1 kg (9 lbs.)

Calculating Required Power

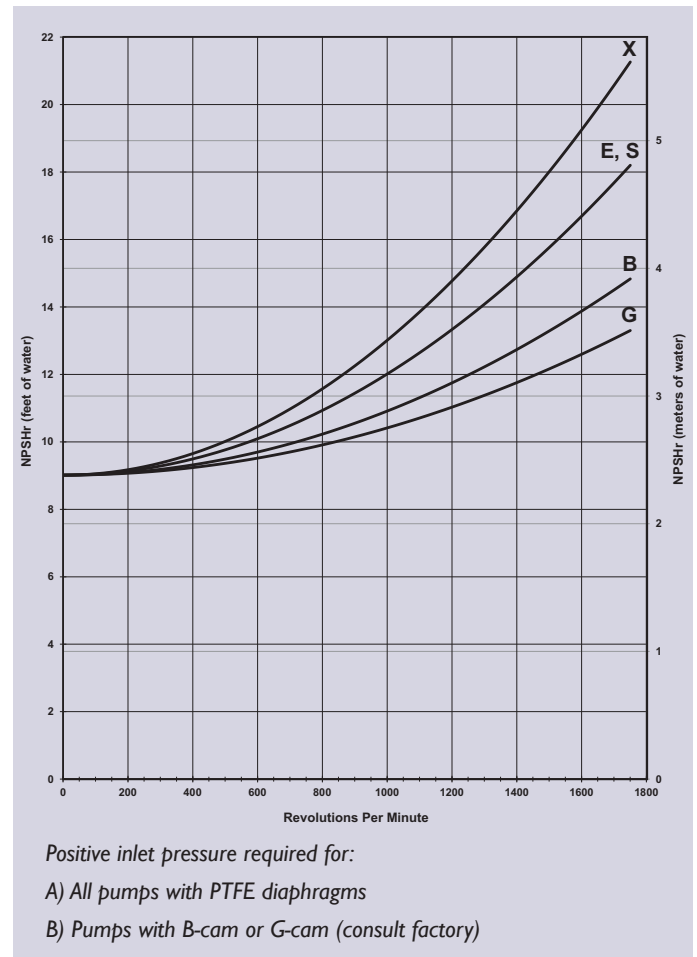
$$\frac{\text{rpm} + 1000}{7000} + \frac{\text{gpm} \times \text{psi}}{1,460} = \text{electric motor hp}$$

$$\frac{\text{rpm} + 1000}{9383} + \frac{\text{l/min} \times \text{bar}}{511} = \text{electric motor kW}$$

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)



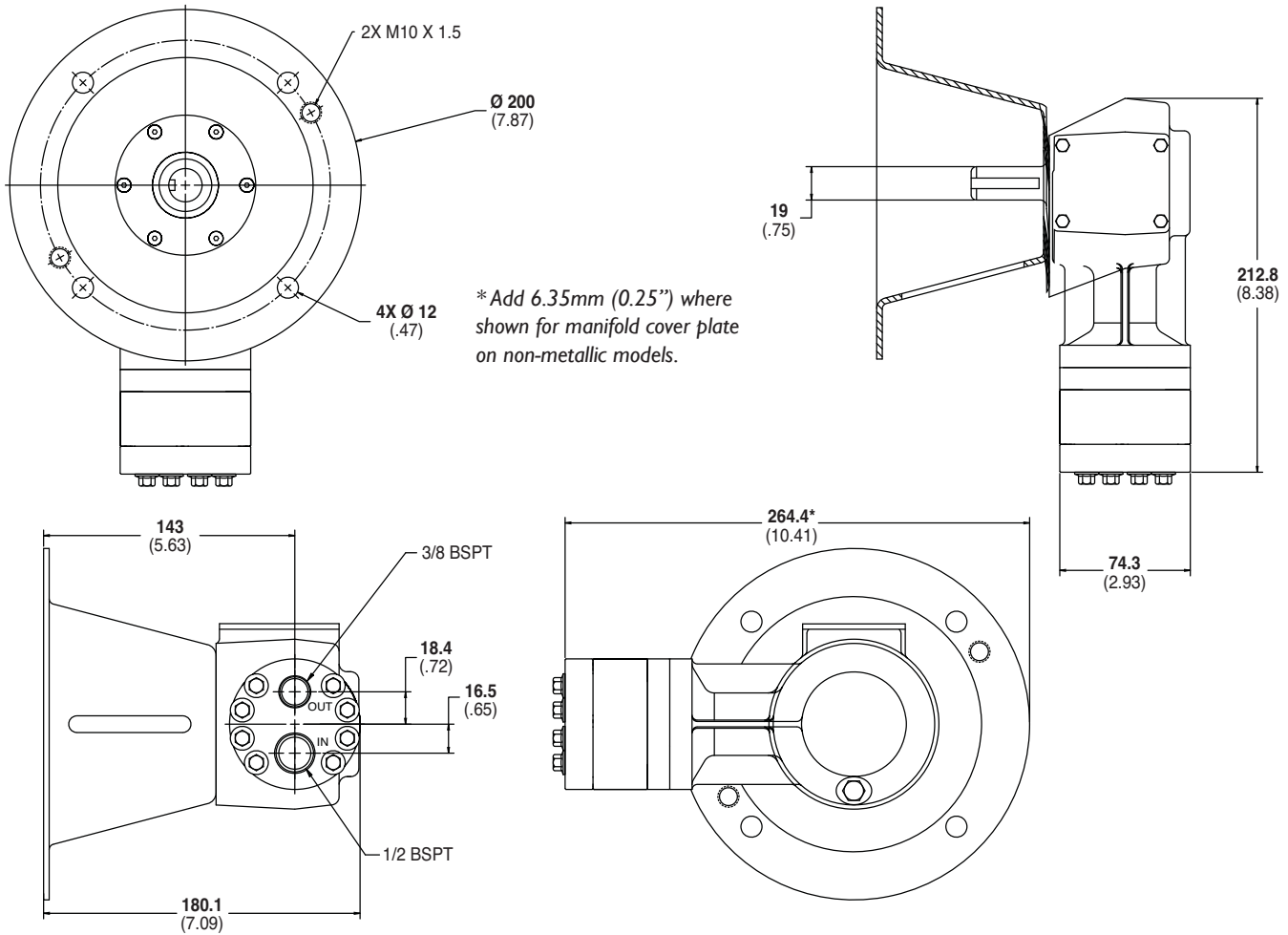
Self-priming:

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.

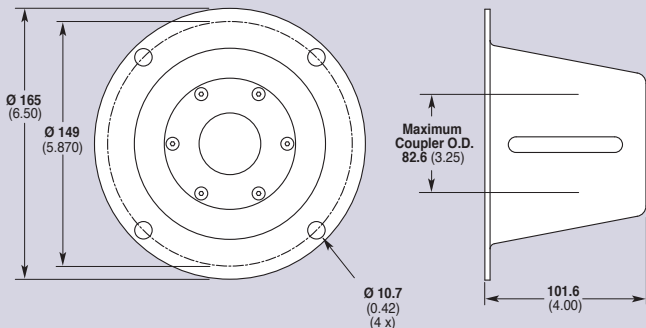
G20 Series Drawings/Adapters/Valves

G22 Models with Metallic Pump Head mm (Inches)



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

Pump/Motor Adapter Inches (mm)



Part Number: A04-006-1200

Must be ordered separately for G22 models (optional for G21 models) for use with IEC 80 - 90 frame motors, B5 flange.

NEMA adapter available - consult factory.

Valve Selection

A Hydra-Cell G20, G21 or G22 pumping system uses a C46 Pressure Regulating Valve.

See page 86 for more information.



G20 Series How to Order

Ordering Information

1	2	3	4	5	6	7	8	9	10	11	12
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A complete G20 Series Model Number contains 12 digits including 9 customer-specified design and materials options, for example: G20GAPGHFECCG.

Digit	Order Code	Description
1-3		Pump Configuration
	G20	Close-coupled to IEC 80 footed motor (BSPT Ports)
	G21	Shaft-driven (BSPT Ports)*
	G22	For use with pump/motor adapter (BSPT Ports)* *Pump/motor adapters ordered separately. See previous page.
4		Hydraulic End Cam
	X	Max 3.1 l/min (0.8 gpm) @ 1450 rpm
	E	Max 2.3 l/min (0.6 gpm) @ 1450 rpm
	S	Max 1.7 l/min (0.4 gpm) @ 1450 rpm
	B	Max 1.0 l/min (0.3 gpm) @ 1450 rpm
5		Pump Head Version
	D	BSPT Ports (for all G20, G21 & G22 pumps)
	X	ATEX <i>(Note: ATEX 94/9/EC Certified, Category 2, Zone 1. Includes certificate and oil level monitor.)</i>
6		Pump Head Material
	B	Brass
	M	PVDF
	P	Polypropylene
	S	316L Stainless Steel
7		Diaphragm & O-ring Material
	A	Aflas diaphragm/PTFE o-ring
	E	EPDM (requires EPDM-compatible oil - Digit 12 oil code J)
	G	FKM
	J	PTFE (available with X and E cams only)
	P	Neoprene
8		Valve Seat Material
	C	Ceramic
	D	Tungsten Carbide
	H	17-4 Stainless Steel
	S	316L Stainless Steel
	T	Hastelloy C

Digit	Order Code	Description
9		Valve Material
	C	Ceramic
	D	Tungsten Carbide
	F	17-4 Stainless Steel
	N	Nitronic 50
	T	Hastelloy C
10		Valve Springs
	E	Elgiloy
	T	Hastelloy C
11		Valve Spring Retainers
	C	Celcon
	H	17-7 Stainless Steel
	M	PVDF
	P	Polypropylene
	T	Hastelloy C
12		Hydra-Oil
	G	5W30 cold-temp severe-duty synthetic oil
	J	EPDM-compatible oil
	K	Food-contact oil

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

G03 Series

Maximum Flow Rate: 3.1 gpm (11.7 l/min)

Maximum Pressure: 1200 psi (83 bar) for Metallic Pump Heads
350 psi (24 bar) for Non-metallic Pump Heads



G13 Close-coupled with Brass pump head



G13 Close-coupled with Polypropylene pump head



G03 Shaft-driven with Stainless Steel pump head

G03 Series Performance

Capacities

Flow

Model	Max. Input rpm	Max. Flow @ 1000 psi (69 bar)	
		gpm	l/min
G03-X	1750	3.1	11.7
G03-E	1750	2.2	8.3
G03-S	1750	1.7	6.4
G03-B	1750	1.0	3.6
G03-G	1750	0.6	2.3
@ 1200 psi (83 bar)			
G03-E	1750	2.1	8.1
G03-S	1750	1.6	6.3
G03-B	1750	0.9	3.5
G03-G	1750	0.6	2.2

Pressure

Maximum Inlet Pressure
250 psi (17 bar)

Maximum Discharge Pressure

Metallic Pump Heads:

G03-X to 1000 psi (69 bar)

G03-S, E, B, G to 1200 psi (83 bar)

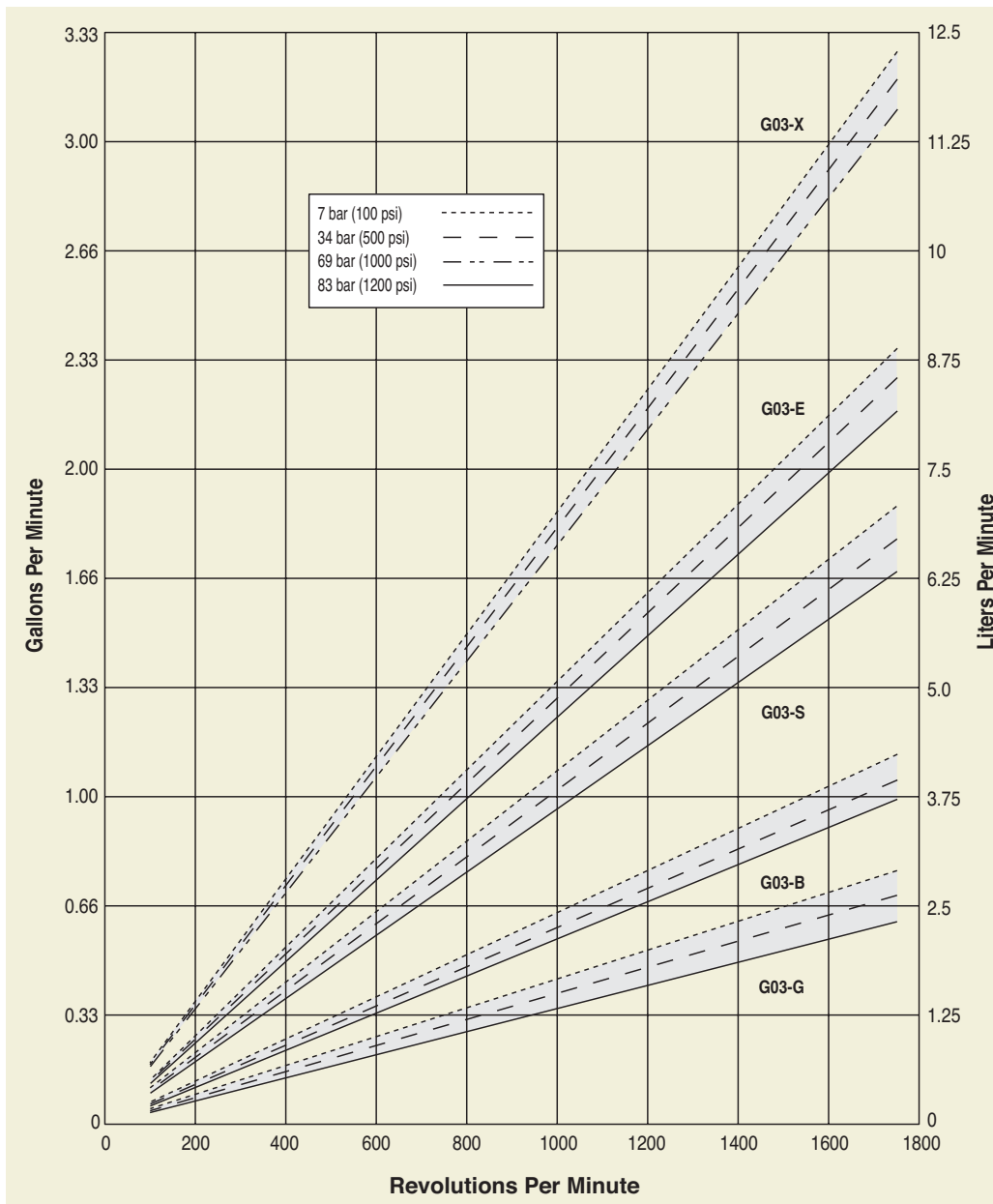
Non-metallic Pump Heads:

250 psi (17 bar) Polypropylene

350 psi (24 bar) PVDF

Performance and specification ratings apply to G03 Kel-Cell and G03 Shaft-driven configurations unless specifically noted otherwise.

Maximum Flow at Designated Pressure



G03 Series Specifications

Flow Capacities @ 69 bar (1000 psi) 4-pole Motor @ 50 Hz

Model	rpm	gpm	l/min
G03-X	1450	2.45	9.3
G03-E	1450	1.80	6.8
G03-S	1450	1.48	5.6
G03-B	1450	0.92	3.5
G03-G	1450	0.40	1.5

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

Model	rpm	gpm	l/min
G03-X	960	1.64	6.2
G03-E	960	1.18	4.5
G03-S	960	0.98	3.7
G03-B	960	0.60	2.3
G03-G	960	0.26	1.0

Delivery @ 83 bar (1200 psi)

Model	gal/rev	liters/rev
G03-E	0.0012	0.0046
G03-S	0.0009	0.0036
G03-B	0.0005	0.0020
G03-G	0.0003	0.0013

Delivery @ 69 bar (1000 psi)

Model	gal/rev	liters/rev
G03-X	0.0018	0.0067
G03-E	0.0013	0.0047
G03-S	0.0010	0.0037
G03-B	0.0005	0.0021
G03-G	0.0004	0.0013

Maximum Discharge Pressure

Metallic Heads:	G03-X to 69 bar (1000 psi) G03-S, E, B to 83 bar (1200 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 200 microns

Inlet Port 1/2 inch BSPT 1/2 inch NPT

Discharge Port 3/8 inch BSPT 3/8 inch NPT

Shaft Diameter G13: 24 mm hollow shaft G03: 22.2 mm (7/8 inch)

Shaft Rotation Reverse (bi-directional)

Bearings Precision ball bearings

Oil Capacity 0.95 liters (1.0 US quart) - See pages 96 and 97 for oil selection and specification.

Weight

Metallic Heads:	12.7 kg (28 lbs.)
Non-metallic Heads:	8.6 kg (19 lbs.)

Calculating Required Power

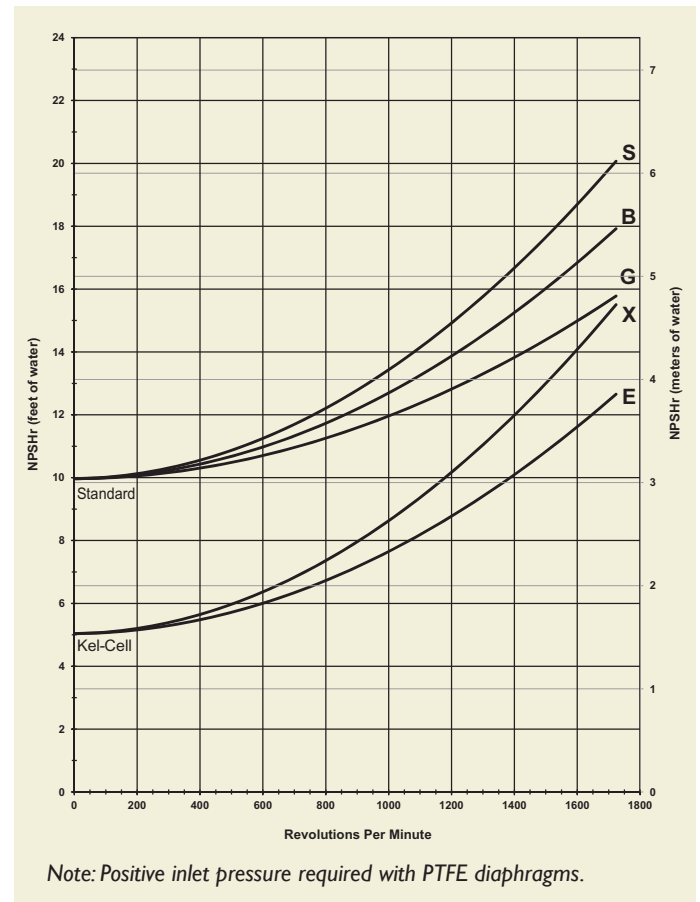
$$\frac{6 \times \text{rpm}}{63,000} + \frac{\text{gpm} \times \text{psi}}{1,460} = \text{electric motor hp}$$

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

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)



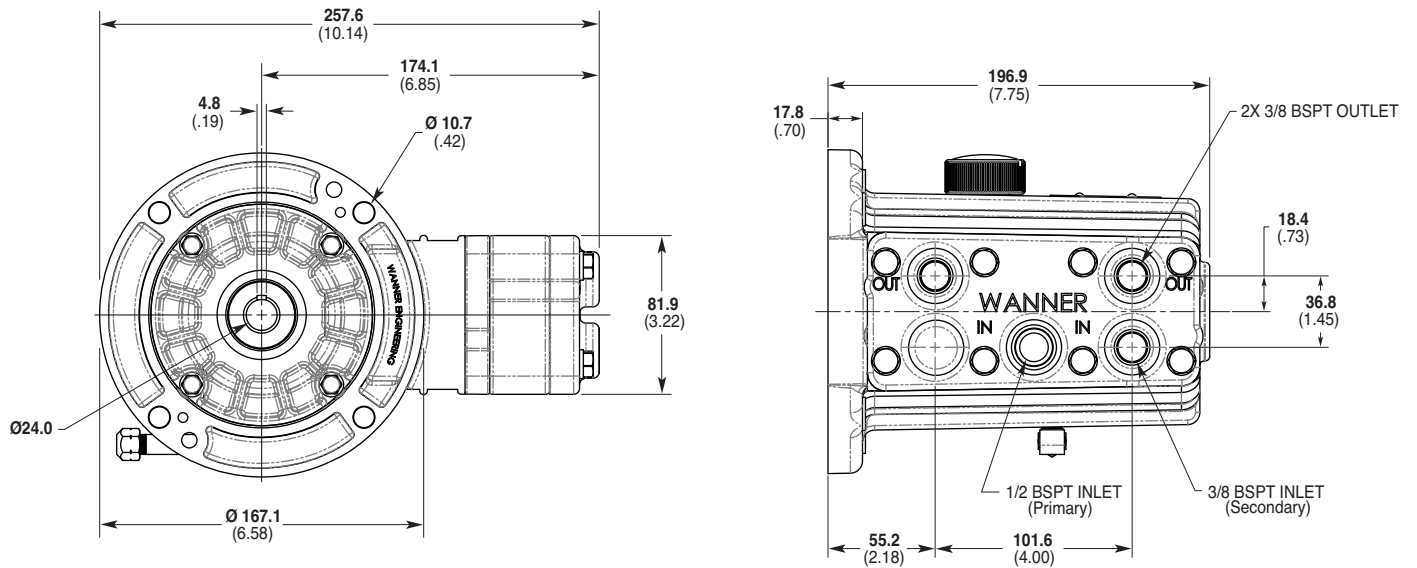
Self-priming:

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.

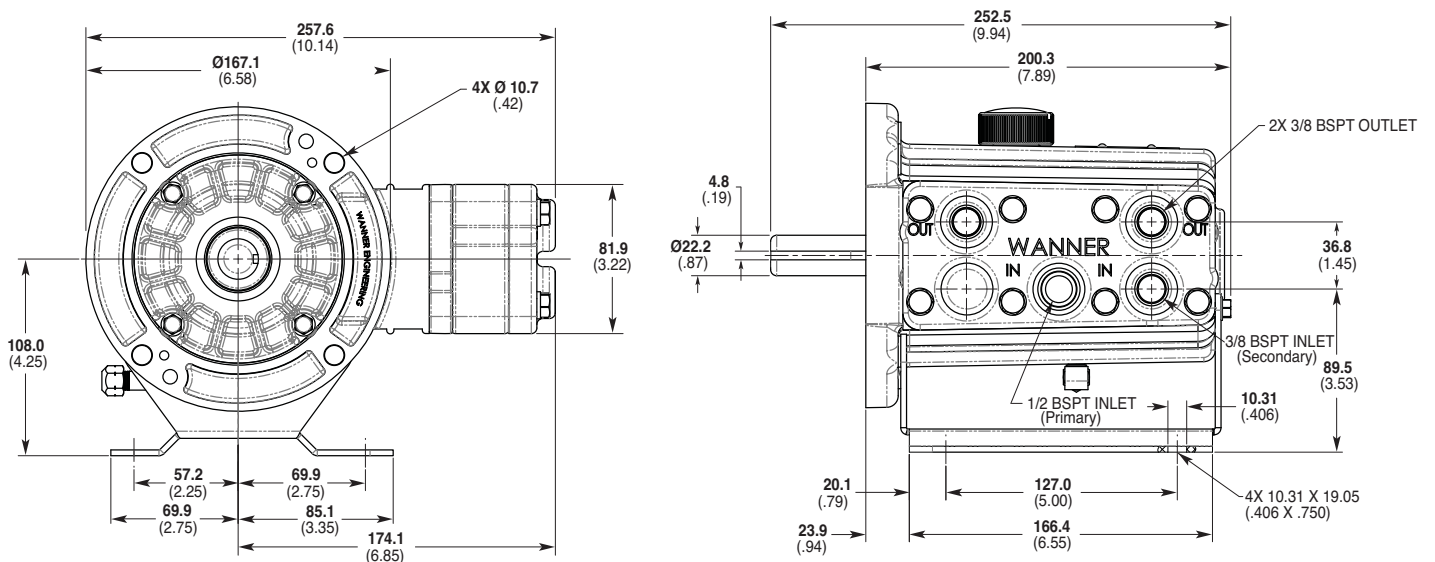
For technical assistance in pump selection, see Frequently Asked Questions on page 162, Design Considerations on page 163, and Installation Guidelines on pages 164-165.

G03 Series Representative Drawings

G13 Models with Metallic Pump Head mm (Inches)



G03 Models with Metallic Pump Head mm (Inches)



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

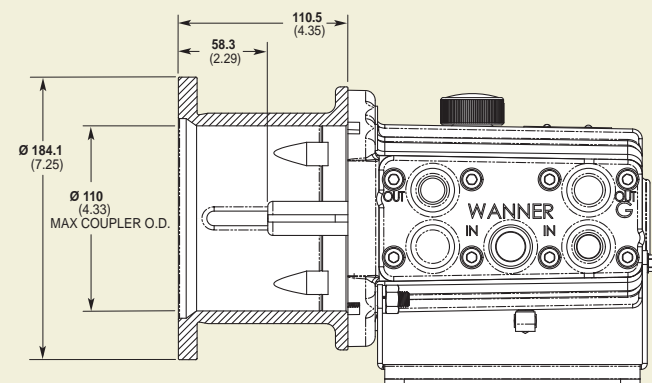
G03 Series **Adapters/Valves**

Pump/Motor Adapter mm (Inches)

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

Must be ordered separately for G03 models for use with IEC 80 - 90 frame motors, B5 flange.

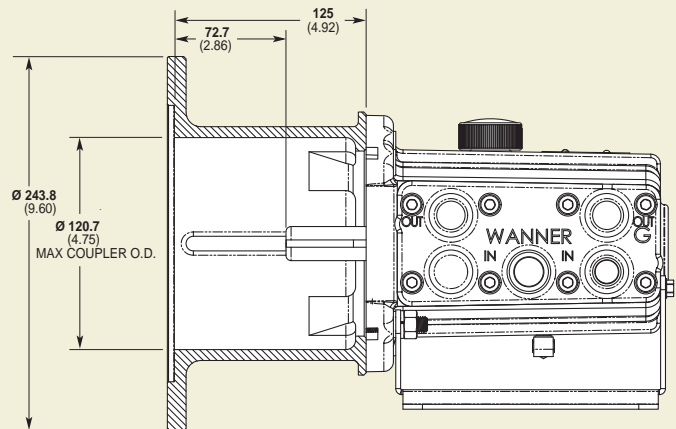
NEMA adapter available - consult factory.



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

Must be ordered separately for G03 models for use with IEC 100 - 112 frame motors, B5 flange.

NEMA adapter available - consult factory.



Valve Selection

A Hydra-Cell G03 pumping system uses a C46 Pressure Regulating Valve.

See page 86 for more information.



G03 Series **How to Order**

Ordering Information

1	2	3	4	5	6	7	8	9	10	11	12
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A complete G03 Series Model Number contains 12 digits including 9 customer-specified design and materials options, for example: G03XKSTHFCA.

Digit	Order Code	Description
1-3	G03	Pump Configuration Shaft-driven (BSPT Ports)*
	G13	Close-coupled to IEC 90 footed motor (BSPT Ports) *Pump/motor adapters ordered separately. See previous page.
4	X	Hydraulic End Cam Max 9.9 l/min (2.6 gpm) @ 1450 rpm
	E	Max 6.8 l/min (1.8 gpm) @ 1450 rpm
	S	Max 5.6 l/min (1.5 gpm) @ 1450 rpm
	B	Max 3.5 l/min (0.9 gpm) @ 1450 rpm
	G	Max 1.5 l/min (0.4 gpm) @ 1450 rpm
5		Pump Head Version
	D	Standard BSPT Ports (S, B & G cams)
	K	Kel-Cell BSPT Ports (X & E cams)
	X	ATEX (Note: ATEX 94/9/EC Certified, Category 2, Zone 1. Includes certificate and oil level monitor.)
6		Pump Head Material
	B	Brass
	M	PVDF
	P	Polypropylene
	S	316L Stainless Steel
	T	Hastelloy CW12MW
7		Diaphragm & O-ring Material
	A	Aflas diaphragm/PTFE O-ring
	E	EPDM (requires EPDM-compatible oil - Digit 12 oil code J)
	G	FKM
	J	PTFE (available with X and E cams, Kel-Cell version only)
	P	Neoprene
	T	Buna-N
8		Valve Seat Material
	C	Ceramic
	D	Tungsten Carbide
	H	17-4 Stainless Steel
	S	316L Stainless Steel
	T	Hastelloy C

Digit	Order Code	Description
9		Valve Material
	C	Ceramic
	D	Tungsten Carbide
	F	17-4 Stainless Steel
	N	Nitronic 50
	T	Hastelloy C
10		Valve Springs
	E	Elgiloy
	S	316L Stainless Steel
	T	Hastelloy C
11		Valve Spring Retainers
	C	Celcon
	H	17-7 Stainless Steel
	M	PVDF
	P	Polypropylene
	T	Hastelloy C
	Y	Nylon
12		Hydra-Oil
	A	10W30 standard-duty oil
	G	5W30 cold-temp severe-duty synthetic oil
	J	EPDM-compatible oil
	K	Food-contact oil

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

G03 Mono-Block Series

Maximum Flow Rate: 3.1 gpm (11.7 l/min)

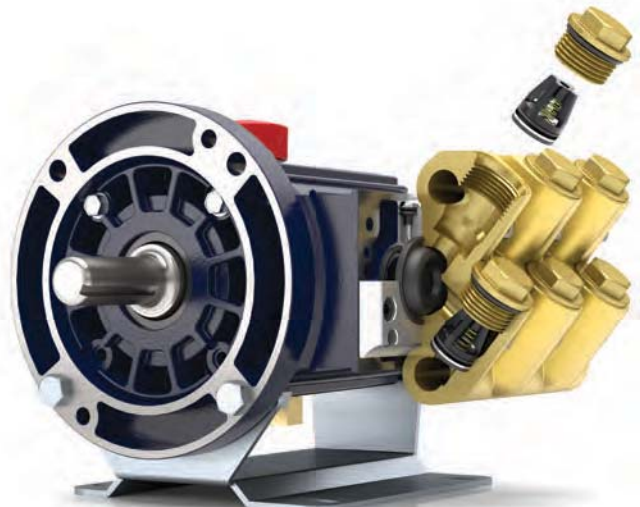
Maximum Pressure: 1000 psi (69 bar) for Metallic Pump Heads



Mono-Block (G13) Close-coupled with Stainless Steel pump head



Mono-Block (G03) Shaft-driven with Brass pump head



The Mono-Block pump head combines the valve plate and manifold into one component for servicing without disassembly or removal of plumbing.

G03 Mono-Block Series Performance

Capacities

Flow

Model	Max. Input rpm	Max. Flow @ 1000 psi (69 bar)	
		gpm	l/min
G03-X	1750	3.1	11.7
G03-E	1750	2.2	8.3

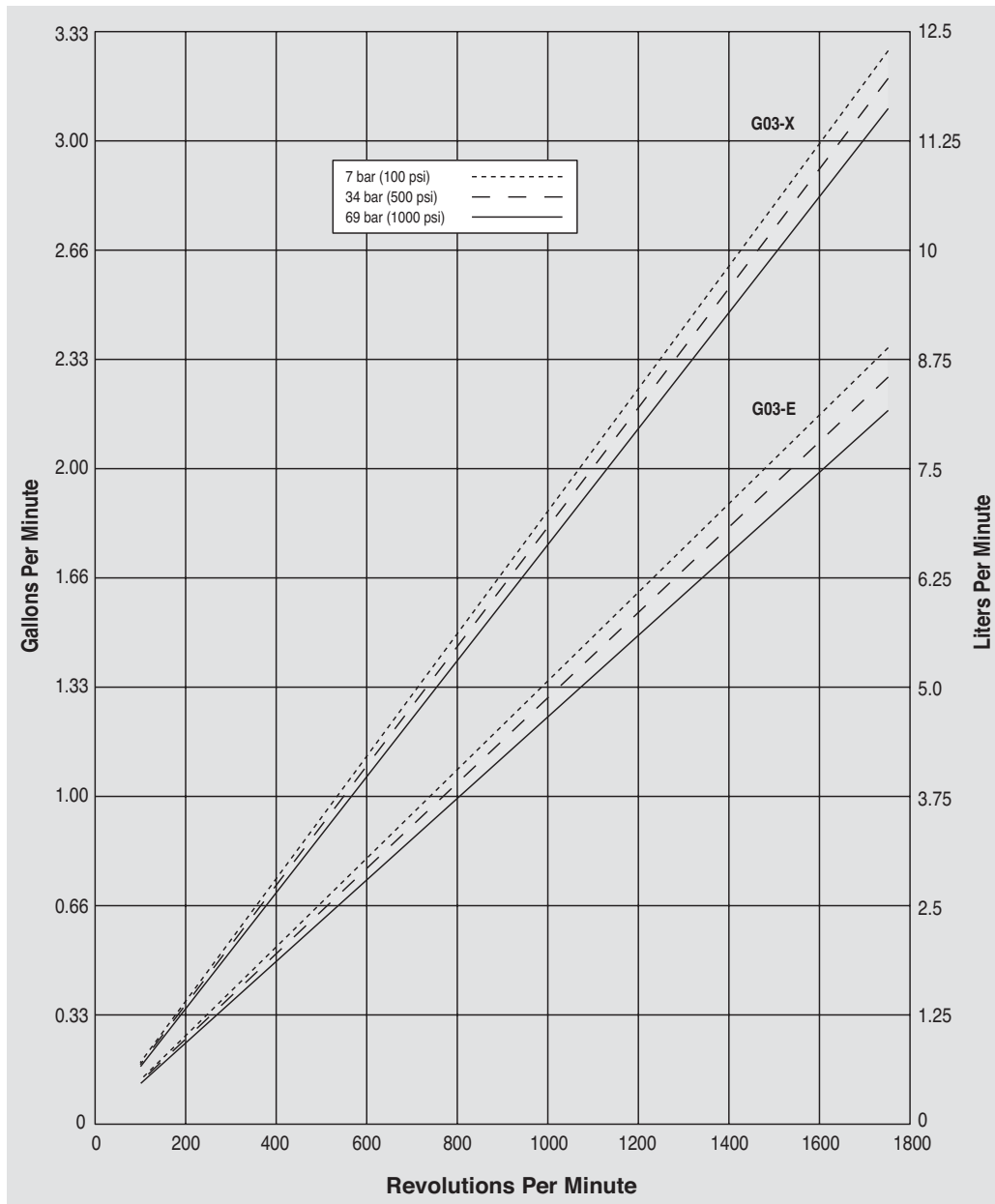
Pressure

Maximum Inlet Pressure
250 psi (17 bar)

Maximum Discharge Pressure
1000 psi (69 bar)

Performance and specification ratings apply to G03 Mono-Block configurations unless specifically noted otherwise.

Maximum Flow at Designated Pressure



G03 Mono-Block Series Specifications

Flow Capacities @ 69 bar (1000 psi) 4-pole Motor @ 50 Hz

Model	rpm	gpm	l/min
G03-X	1450	2.45	9.3
G03-E	1450	1.80	6.8

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

Model	rpm	gpm	l/min
G03-X	960	1.64	6.2
G03-E	960	1.18	4.5

Delivery @ 69 bar (1000 psi)

Model	gal/rev	liters/rev
G03-X	0.0018	0.0067
G03-E	0.0013	0.0047

Maximum Discharge Pressure

Metallic Heads: G03-X, E to 69 bar (1000 psi)

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).

Maximum Solids Size 200 microns

Inlet Port 1/2 inch BSPT

1/2 inch NPT

Discharge Port 1/2 inch BSPT

1/2 inch NPT

Shaft Diameter G03: 22.2 mm (7/8 inch)

G13: 24 mm hollow shaft

Shaft Rotation Reverse (bi-directional)

Bearings Precision ball bearings

Oil Capacity 0.95 liters (1.0 US quart) - See pages 96 and 97 for oil selection and specification.

Weight

Metallic Heads: 12.7 kg (28 lbs.)

Calculating Required Power

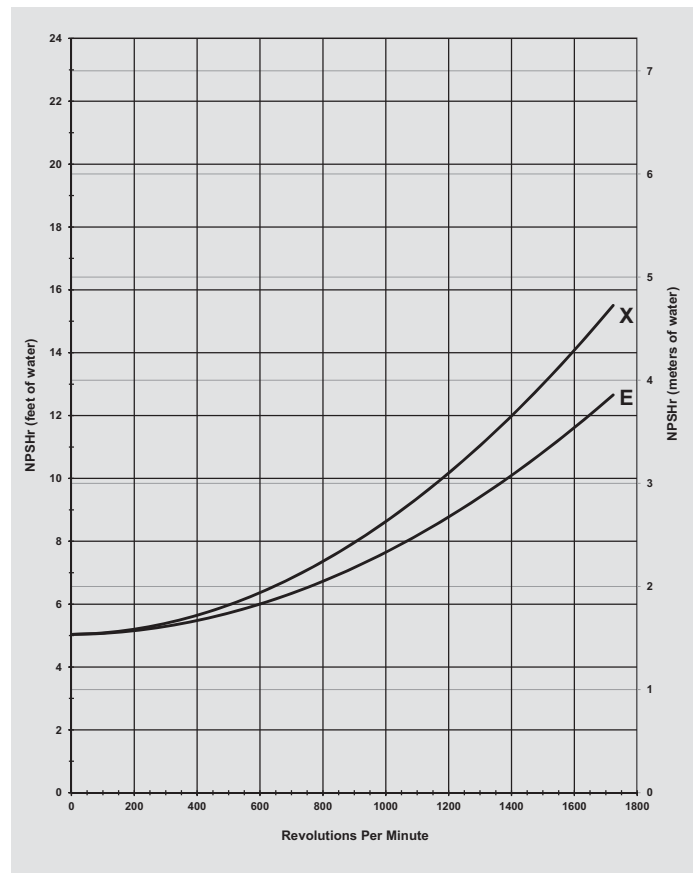
$$\frac{6 \times \text{rpm}}{63,000} + \frac{\text{gpm} \times \text{psi}}{1,460} = \text{electric motor hp}$$

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

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)



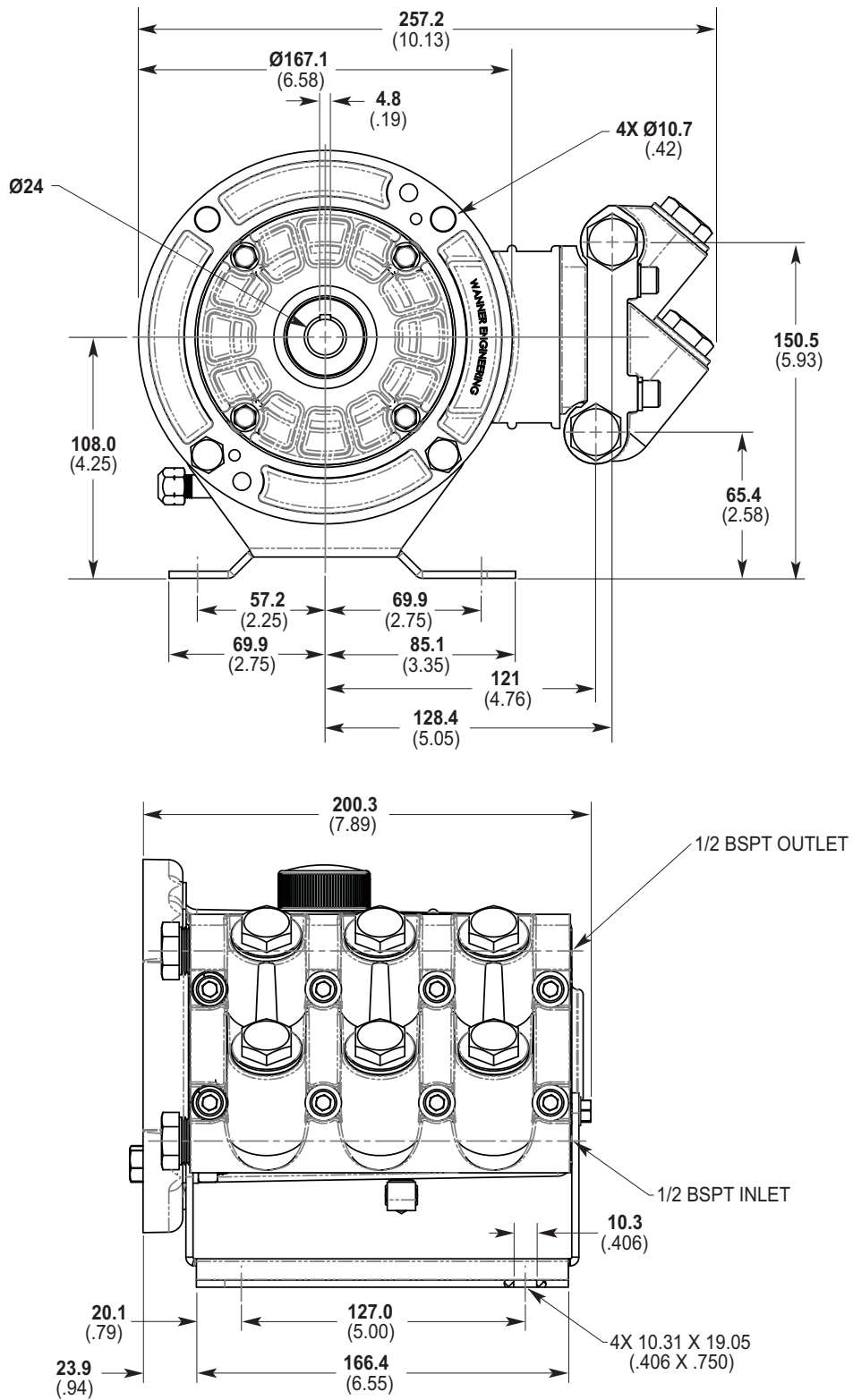
Self-priming:

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.

G03 Mono-Block Series Representative Drawings

G13 Models with Metallic Pump Head mm (Inches)



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

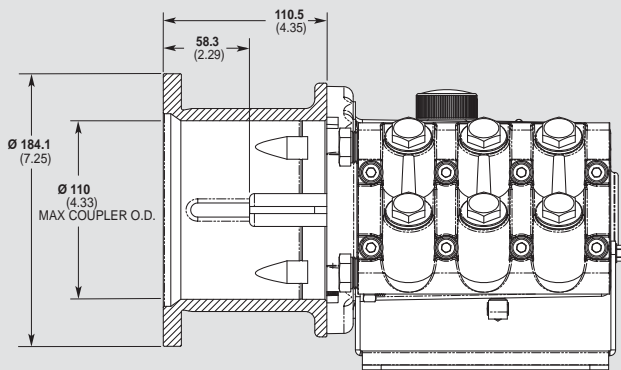
G03 Mono-Block Series Adapters/Valves

Pump/Motor Adapter mm (Inches)

Part Number: A04-003-1202

Must be ordered separately for G03 Mono-Block models for use with IEC 80 - 90 frame motors, B5 flange.

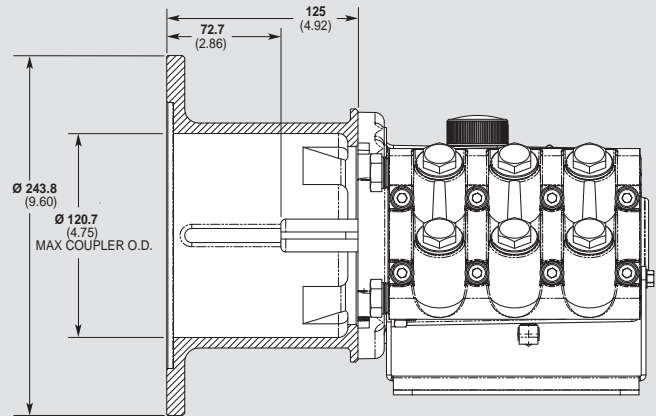
NEMA adapter available - consult factory.



Part Number: A04-004-1202

Must be ordered separately for G03 Mono-Block models for use with IEC 100 - 112 frame motors, B5 flange.

NEMA adapter available - consult factory.



Valve Selection

A Hydra-Cell G03 Mono-Block Series pumping system uses a C46 Pressure Regulating Valve.

See page 86 for more information.



G03 Mono-Block Series How to Order

Ordering Information

1	2	3	4	5	6	7	8	9	10	11	12
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A complete G03 Mono-Block Series Model Number contains 12 digits including 9 customer-specified design and materials options, for example: G03EMBPSFEPG.

Digit	Order Code	Description
1-3		Pump Configuration
	G03	Shaft-driven (BSPT Ports)*
	G13	Close-coupled to IEC 90 footed motor (BSPT Ports) *Pump/motor adapters ordered separately. See previous page.
4		Hydraulic End Cam
	X	Max 9.9 l/min (2.6 gpm) @ 1450 rpm
	E	Max 6.8 l/min (1.8 gpm) @ 1450 rpm
5		Pump Head Version
	M	Mono-Block, Kel-Cell BSPT Ports
	X	ATEX (Note: ATEX 94/9/EC Certified, Category 2, Zone 1. Includes certificate and oil level monitor.)
6		Pump Head Material
	B	Brass
	S	316L Stainless Steel
7		Diaphragm & O-ring Material
	E	EPDM (requires EPDM-compatible oil - Digit 12 oil code J)
	G	FKM
	P	Neoprene
	T	Buna-N
8		Valve Seat Material
	H	17-4 Stainless Steel
	S	316L Stainless Steel
9		Valve Material
	F	17-4 Stainless Steel
	N	Nitronic 50
10		Valve Springs
	E	Elgiloy
	S	316L Stainless Steel

Digit	Order Code	Description
11		Valve Spring Retainers
	M	PVDF
	P	Polypropylene
12		Hydra-Oil
	A	10W30 standard-duty oil
	G	5W30 cold-temp severe-duty synthetic oil
	J	EPDM-compatible oil
	K	Food-contact oil

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

G04 Series

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

Maximum Pressure: 2500 psi (172 bar) for Metallic Pump Heads



G04 Shaft-driven with Stainless Steel pump head



G04 Shaft-driven with Brass pump head

G04 Series Performance

Capacities

Flow

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

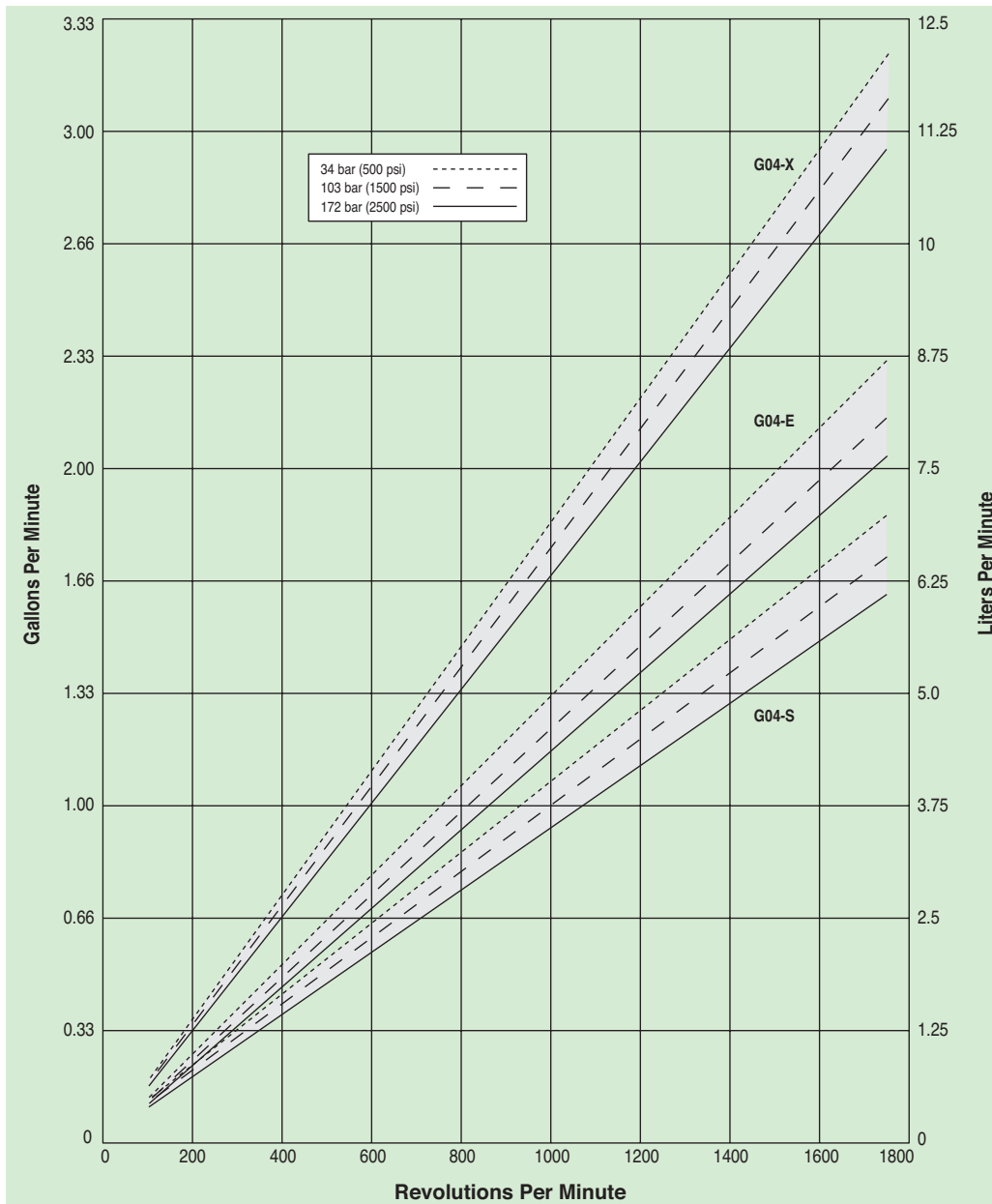
Pressure

Maximum Inlet Pressure
500 psi (34 bar)

Maximum Discharge Pressure
2500 psi (172 bar)

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) - See pages 96 and 97 for oil selection and specification.

Weight 16.8 kg (37 lbs.)

Calculating Required Power

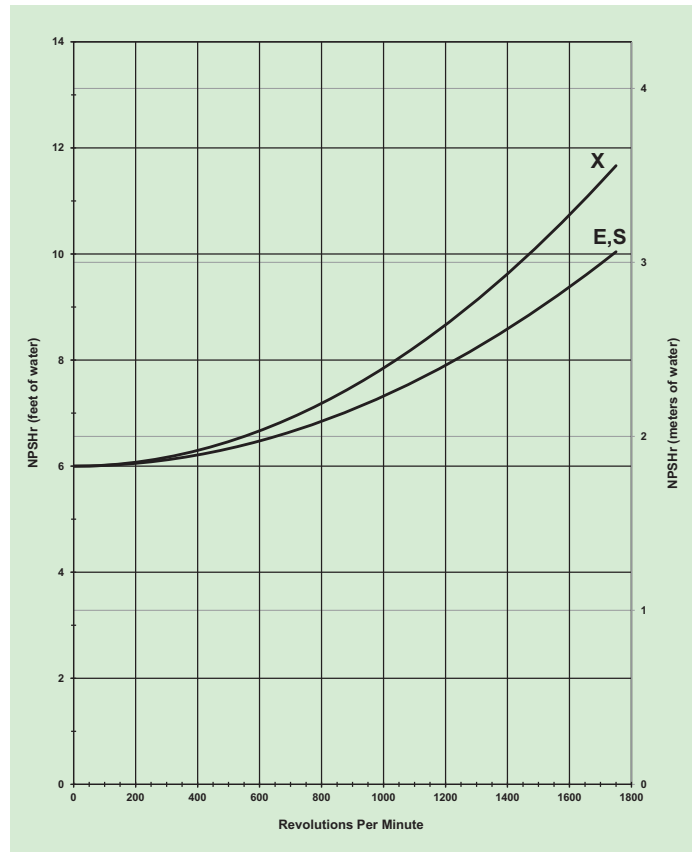
$$\frac{6 \times \text{rpm}}{63,000} + \frac{\text{gpm} \times \text{psi}}{1,460} = \text{electric motor hp}$$

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

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.

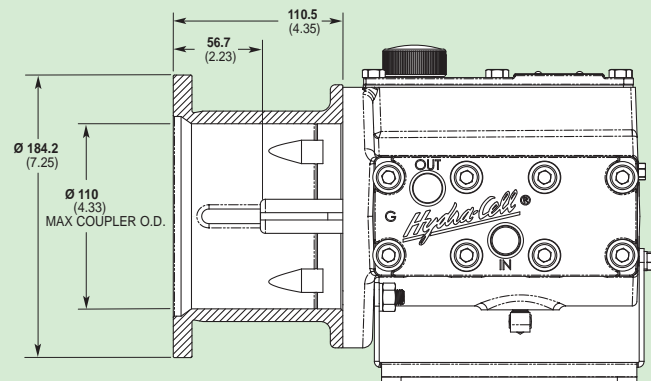
G04 Series **Adapters/Valves**

Pump/Motor Adapter mm (Inches)

Part Number: **A04-003-I202**

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

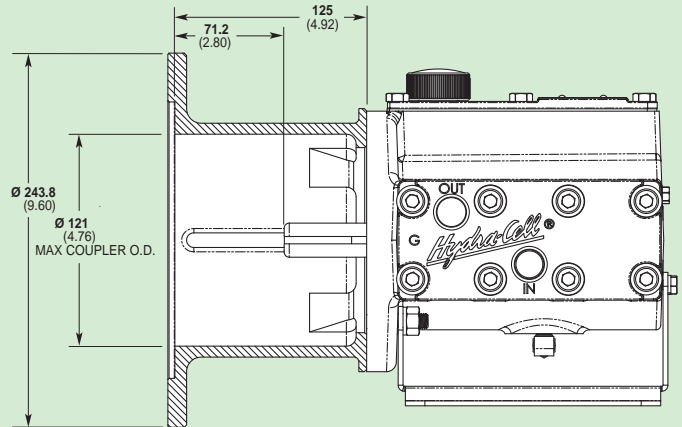
NEMA adapter available - consult factory.



Part Number: **A04-004-I202**

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

NEMA adapter 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.

See page 88 for more information.



G04 Series **How to Order**

Ordering Information

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

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

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

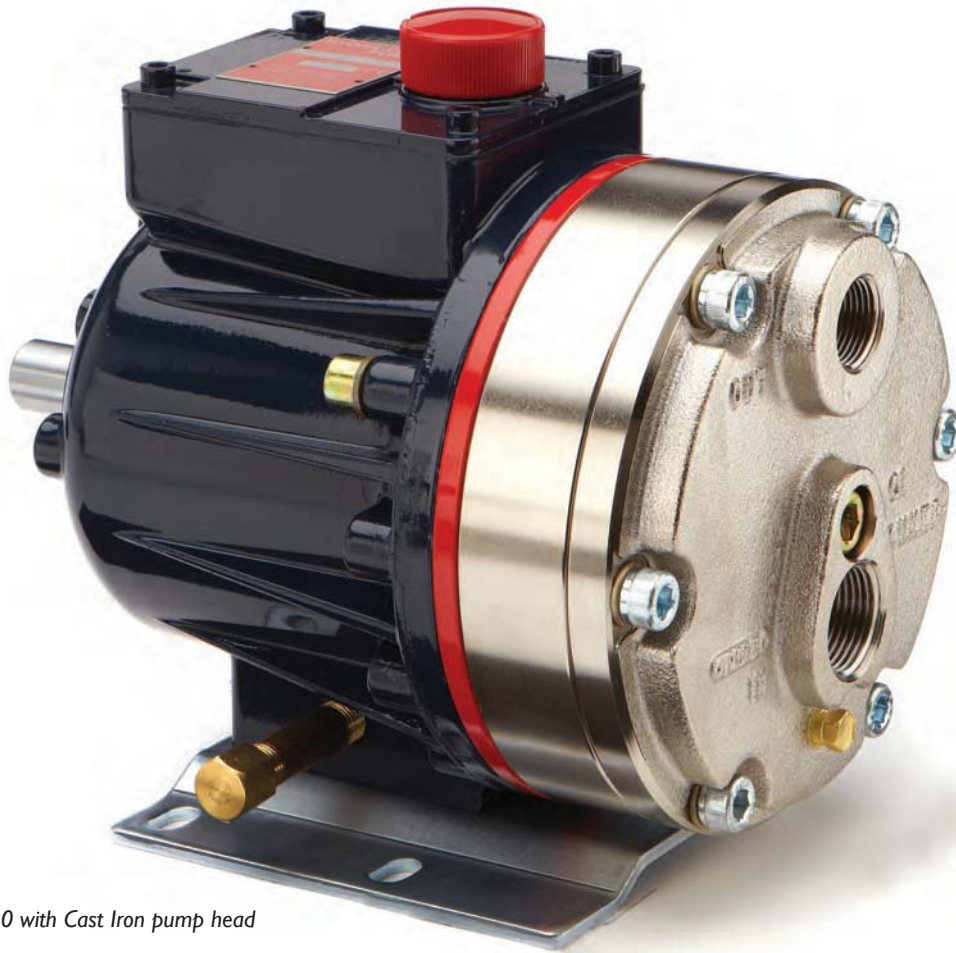
Digit	Order Code	Description
11		Valve Spring Retainers
	C	Celcon
	H	17-7 Stainless Steel
	M	PVDF
	P	Polypropylene
	T	Hastelloy C
	Y	Nylon
12		Hydra-Oil
	G	5W30 cold-temp severe-duty synthetic oil
	J	EPDM-compatible oil
	K	Food-contact oil

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

G10 Series

Maximum Flow Rate: 8.8 gpm (33.4 l/min)

Maximum Pressure: 1500 psi (103 bar) for Metallic Pump Heads
350 psi (24 bar) for Non-metallic Pump Heads



G10 with Cast Iron pump head



G10 with Brass pump head



G10 with Polypropylene pump head



G10 with Stainless Steel pump head and ANSI flanges

G10 Series Performance

Capacities

Flow

Model	Max. Input rpm	Max. Flow	
		@ 1000 psi (69 bar) gpm	@ 1000 psi (69 bar) l/min
G10-X	1450	8.1	30.6
G10-E	1750	8.8	33.4
G10-S	1750	6.0	22.7
G10-I	1750	4.0	15.0
@ 1500 psi (103 bar)			
G10-X	790	4.26	15.1
G10-E	790	3.87	14.7

Pressure

Maximum Inlet Pressure
250 psi (17 bar)

Maximum Discharge Pressure

Metallic Pump Heads:

G10-X, E, S, I to 1000 psi (69 bar)

G10-X to 1500 psi (103 bar) @ 790 rpm max.

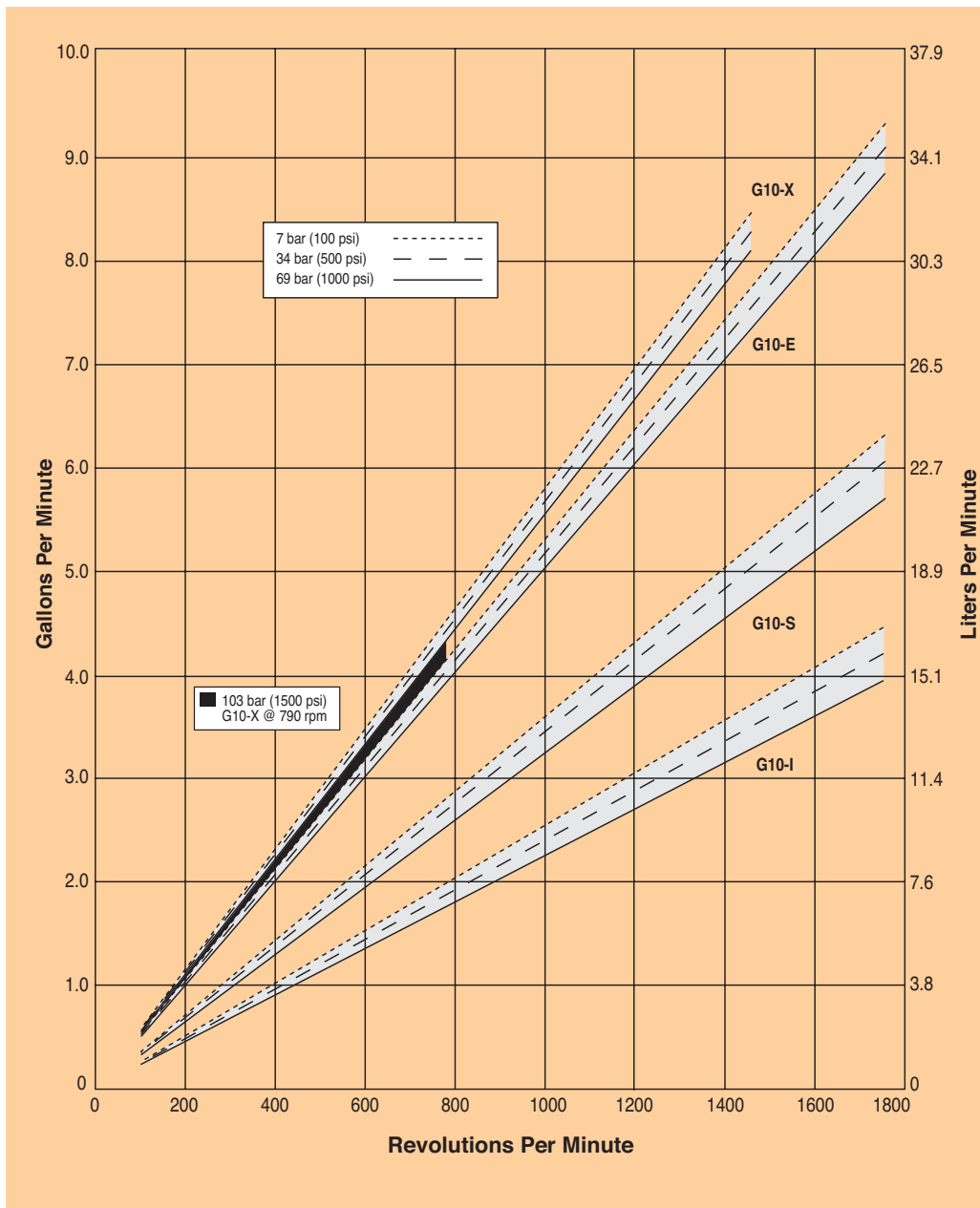
Non-metallic Pump Heads:

250 psi (17 bar) Polypropylene

350 psi (24 bar) PVDF

Performance and specification ratings apply to G10 configurations unless specifically noted otherwise.

Maximum Flow at Designated Pressure



G10 Series Specifications

Flow Capacities @ 69 bar (1000 psi) 4-pole Motor @ 50 Hz

Model	rpm	gpm	l/min
G10-X	1450	8.10	30.6
G10-E	1450	6.63	25.1
G10-S	1450	4.96	18.8
G10-I	1450	3.30	12.5

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

Model	rpm	gpm	l/min
G10-X	960	5.19	19.6
G10-E	960	4.39	16.6
G10-S	960	3.28	12.4
G10-I	960	2.19	8.3

Delivery @ 103 bar (1500 psi)

Model	gal/rev	liters/rev
G10-X	0.0054	0.0205
G10-E	0.0049	0.0186

Delivery @ 69 bar (1000 psi)

Model	gal/rev	liters/rev
G10-X	0.0056	0.0211
G10-E	0.0051	0.0191
G10-S	0.0034	0.0130
G10-I	0.0023	0.0086

Maximum Discharge Pressure

Metallic Heads:	69 bar (1000 psi) @ 1450 rpm (G10-X)
	69 bar (1000 psi) @ 1750 rpm (G10-E, S, I)
	103 bar (1500 psi) @ 790 rpm (G10-X)
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).
	60 °C (140 °F)
Non-metallic Heads:	60 °C (140 °F)

Maximum Solids Size 500 microns

Inlet Port	1 inch BSPT
	1 inch NPT
	150lb ANSI RF flange

Discharge Port	3/4 inch BSPT
	3/4 inch NPT
	600lb ANSI RF flange

Shaft Diameter 22.2 mm (7/8 inch)

Shaft Rotation Reverse (bi-directional)

Bearings Tapered roller bearings

Oil Capacity 1.05 liters (1.1 US quarts) - See pages 96 and 97 for oil selection and specification.

Weight

Metallic Heads:	21.8 kg (48 lbs.)
Non-metallic Heads:	15.9 kg (35 lbs.)

Calculating Required Power

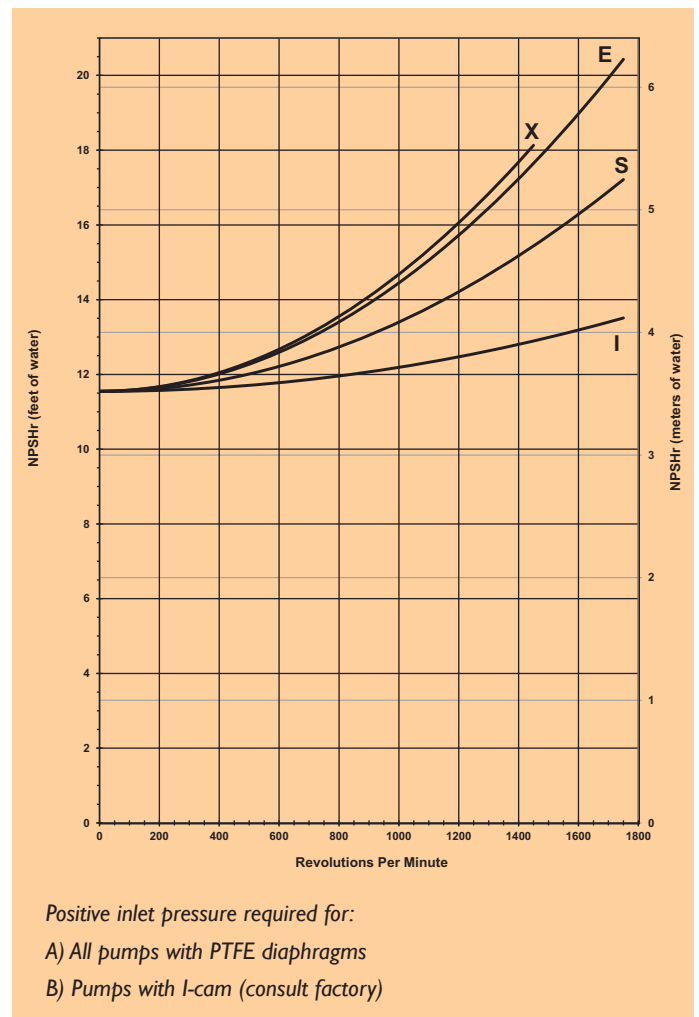
$$\frac{15 \times \text{rpm}}{63,000} + \frac{\text{gpm} \times \text{psi}}{1,460} = \text{electric motor hp}$$

$$\frac{15 \times \text{rpm}}{84,428} + \frac{\text{l/min} \times \text{bar}}{511} = \text{electric motor kW}$$

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)



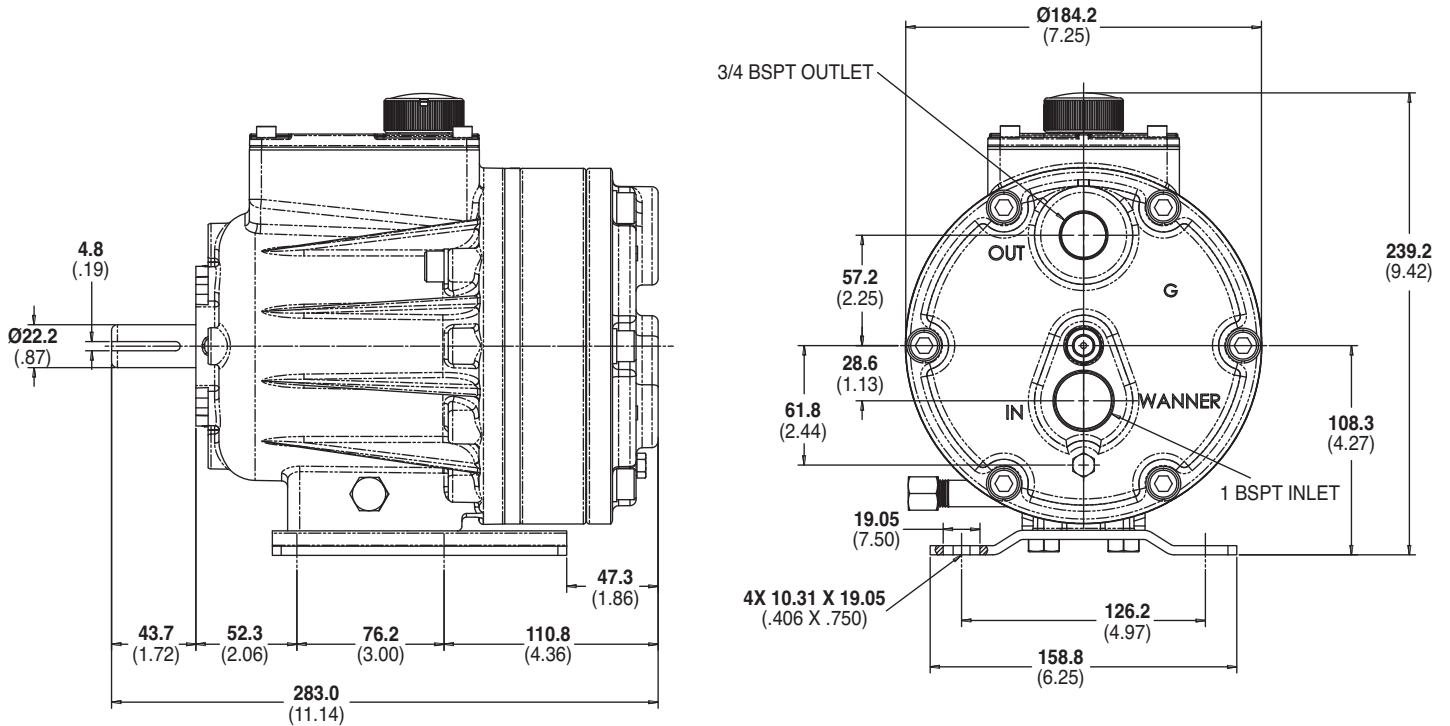
Self-priming:

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.

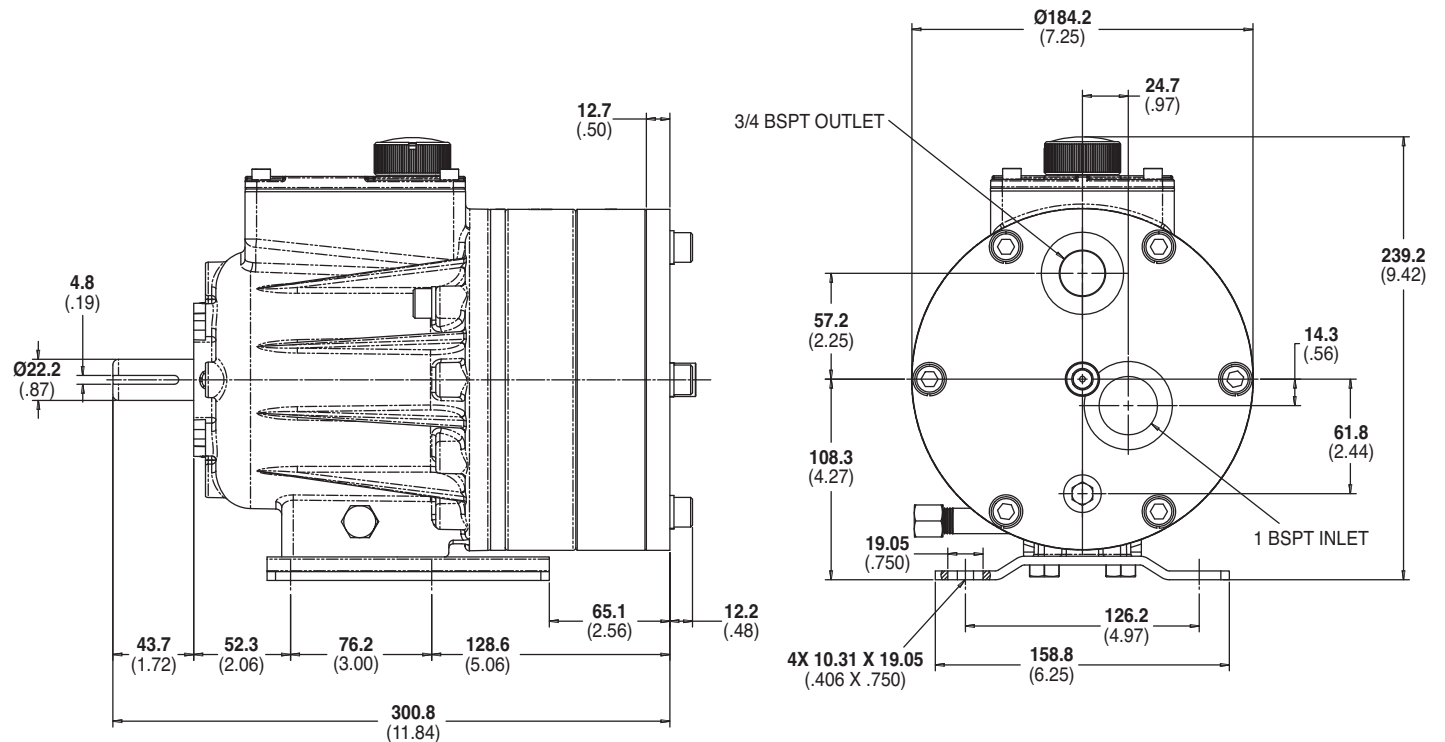
For technical assistance in pump selection, see Frequently Asked Questions on page 162, Design Considerations on page 163, and Installation Guidelines on pages 164-165.

G10 Series Representative Drawings

G10 Models with Metallic Pump Head mm (Inches)



G10 Models with Non-metallic Pump Head mm (Inches)



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

G10 Series **Adapters/Valves/Skids**

Pump/Motor Adapter mm (Inches)

Part Number: A04-003-1200

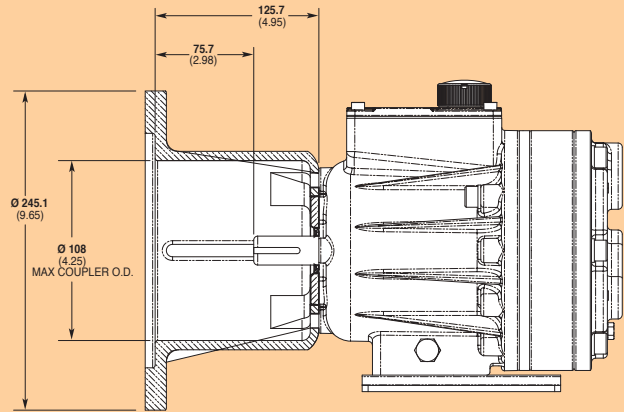
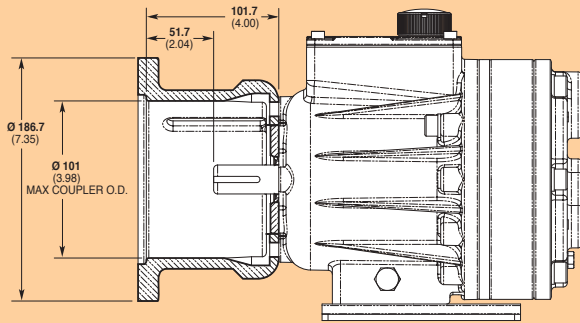
Must be ordered separately for G10 models for use with IEC 80 - 90 frame motors, B5 flange.

NEMA adapter available - consult factory.

Part Number: A04-004-1200

Must be ordered separately for G10 models for use with IEC 100 - 112 frame motors, B5 flange.

NEMA adapter available - consult factory.



Valve Selection

A seal-less C62 Pressure Regulating Valve is recommended for Hydra-Cell G10 pumping systems, especially for high-pressure requirements or when handling dirty fluids.

See page 88 for more information.



A C22 Pressure Regulating Valve provides a capable, lower-cost alternative to C62 valves for Hydra-Cell G10 pumping systems.

See page 84 for more information.



Skid-mounted G10 with 3hp, 3-phase motor.

G10 Series **How to Order**

Ordering Information



A complete G10 Series Model Number contains 12 digits including 9 customer-specified design and materials options, for example: G10XKBTHFECA.

Digit	Order Code	Description
1-3	G10	Pump Configuration Shaft-driven (BSPT Ports or ANSI Flanges)* *Pump/motor adapters ordered separately. See previous page.
4	X	Hydraulic End Cam Max 30.6 l/min (8.1 gpm) @ 1450 rpm
	E	Max 25.1 l/min (6.6 gpm) @ 1450 rpm
	S	Max 18.8 l/min (5.0 gpm) @ 1450 rpm
	I	Max 12.5 l/min (3.3 gpm) @ 1450 rpm
5	K	Pump Head Version Kel-Cell BSPT Ports
	R	Kel-Cell Reduced Pocket
	X	ATEX <i>(Note: ATEX 94/9/EC Certified, Category 2, Zone 1. Includes certificate and oil level monitor.)</i>
6	B	Pump Head Material Brass
	C	Cast Iron (Nickel-plated)
	G	Duplex Alloy 2205 (with Hastelloy C followers & follower screws)
	M	PVDF (with Hastelloy C followers & follower screws)
	N	Polypropylene (with Hastelloy C followers & follower screws)
	P	Polypropylene (with 316L Stainless Steel followers & follower screws)
	R	316L Stainless Steel ANSI flange class 150 x 600
	S	316L Stainless Steel
	T	Hastelloy CW12MW
7	A	Diaphragm & O-ring Material Aflas diaphragm / PTFE o-ring
	E	EPDM (requires EPDM-compatible oil - Digit 12 oil code C)
	G	FKM
	J	PTFE (available with E and S cams only; 1200 rpm max.)
	P	Neoprene
	T	Buna-N

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

G10 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.

G12 Series

Maximum Flow Rate: 8.8 gpm (33.4 l/min)

Maximum Pressure: 1000 psi (69 bar) for Metallic Pump Heads



G12 equipped with Model C62 Pressure Regulator Valve and Tube Accessory

G12 Series Performance

Capacities

Flow

model	Max. Input rpm	Max. Flow @ 1000 psi (69 bar)	
		gpm	l/min
G12-X	1450	8.1	30.6
G12-E	1750	8.8	33.4
G12-S	1750	6.0	22.7
G12-I	1750	4.0	15.0

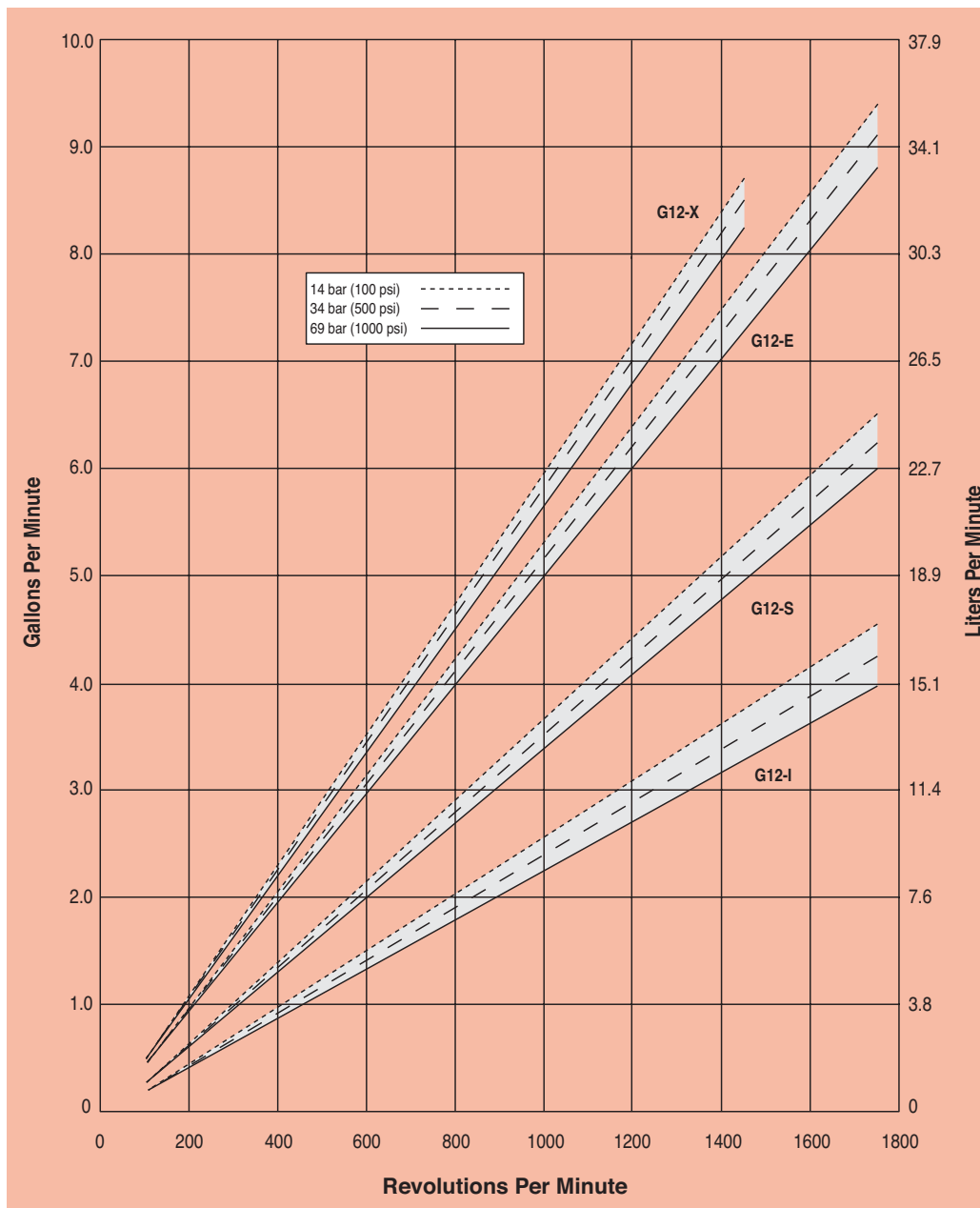
Pressure

Maximum Inlet Pressure
250 psi (17 bar)

Maximum Discharge Pressure
1000 psi (69 bar)

Performance and specification ratings apply to G12 configurations unless specifically noted otherwise.

Maximum Flow at Designated Pressure



G12 Series Specifications

Flow Capacities @ 69 bar (1000 psi) 4-pole Motor @ 50 Hz

Model	rpm	gpm	l/min
G12-X	1450	8.10	30.6
G12-E	1450	6.63	25.1
G12-S	1450	4.96	18.8
G12-I	1450	3.30	12.5

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

Model	rpm	gpm	l/min
G12-X	960	5.19	19.6
G12-E	960	4.39	16.6
G12-S	960	3.28	12.4
G12-I	960	2.19	8.3

Delivery @ 69 bar (1000 psi)

Model	gal/rev	liters/rev
G12-X	0.0056	0.0211
G12-E	0.0051	0.0191
G12-S	0.0034	0.0130
G12-I	0.0023	0.0086

Maximum Discharge Pressure

Metallic Heads: 69 bar (1000 psi)

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).

Maximum Solids Size 500 microns

Inlet Port 1 inch BSPT 1 inch NPT

Discharge Port 3/4 inch BSPT 3/4 inch NPT

Shaft Diameter 22.2 mm (7/8 inch)

Shaft Rotation Reverse (bi-directional)

Bearings Tapered roller bearings

Oil Capacity 1.4 liters (1.5 US quarts) - See pages 96 and 97 for oil selection and specification.

Weight

Metallic Heads: 28.6 kg (63 lbs.)

Calculating Required Power

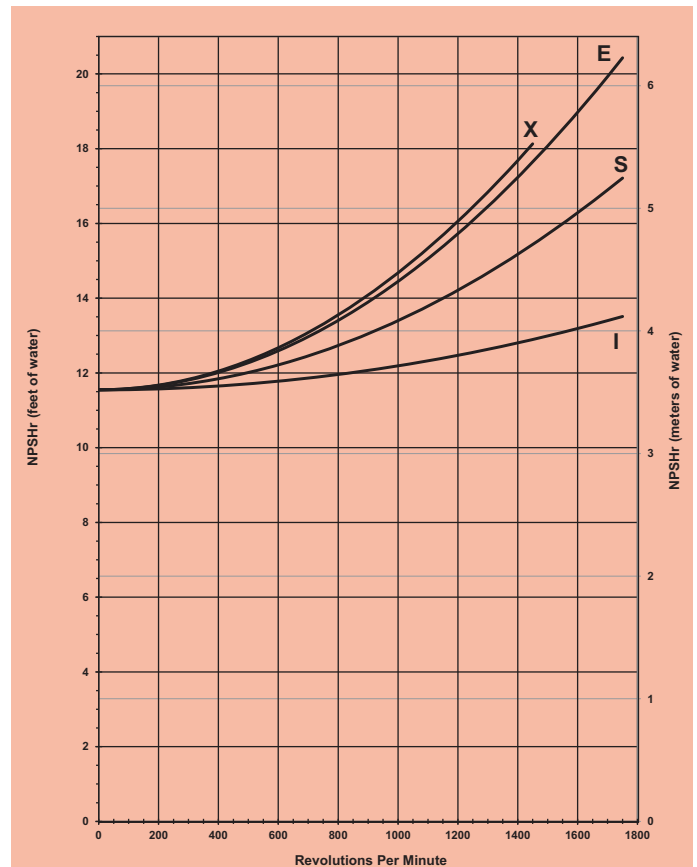
$$\frac{15 \times \text{rpm}}{63,000} + \frac{\text{gpm} \times \text{psi}}{1,460} = \text{electric motor hp}$$

$$\frac{15 \times \text{rpm}}{84,428} + \frac{\text{l/min} \times \text{bar}}{511} = \text{electric motor kW}$$

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)



Positive inlet pressure required for:

- A) All pumps with PTFE diaphragms
- B) Pumps with I-cam (consult factory)

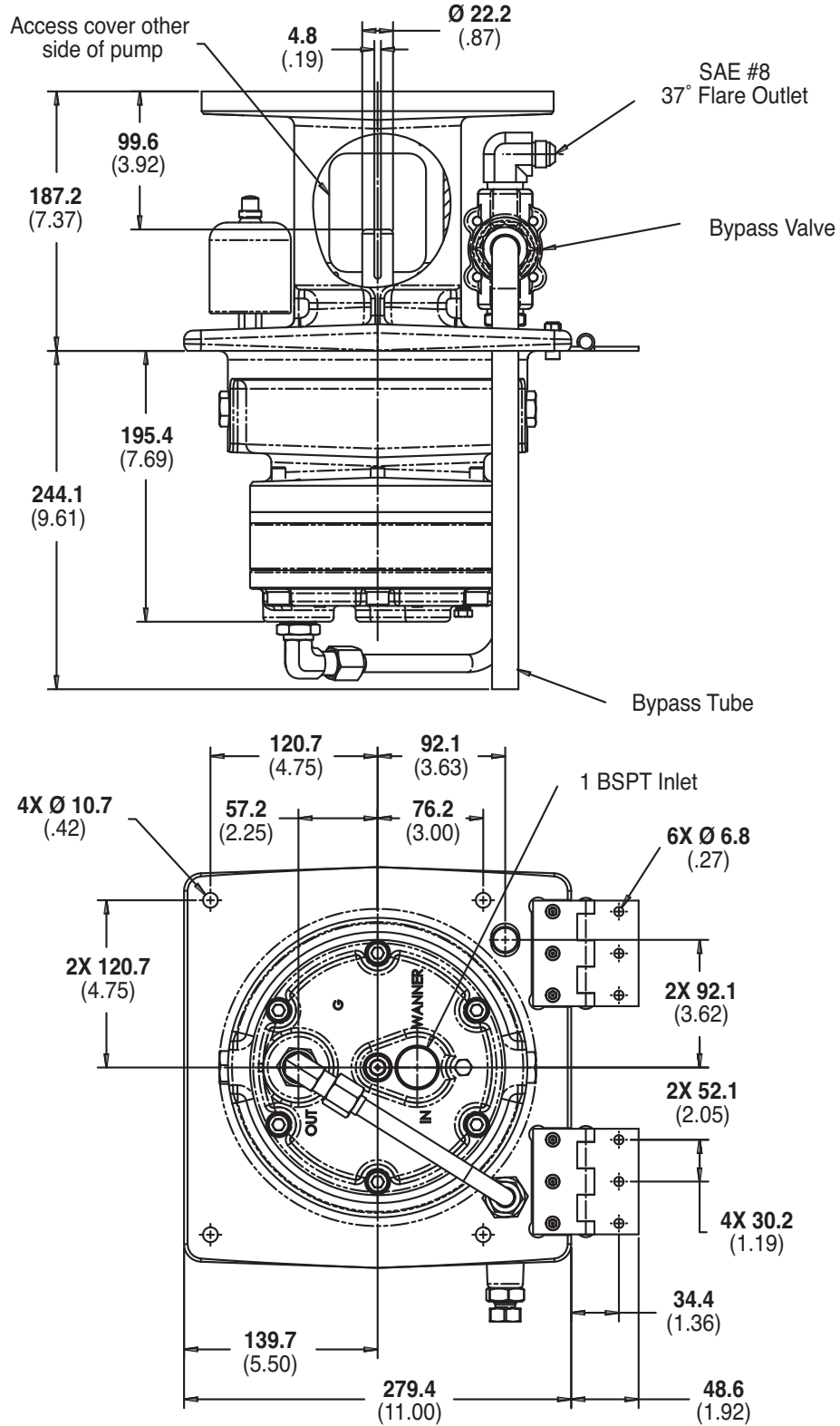
Self-priming:

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.

G12 Series Representative Drawings

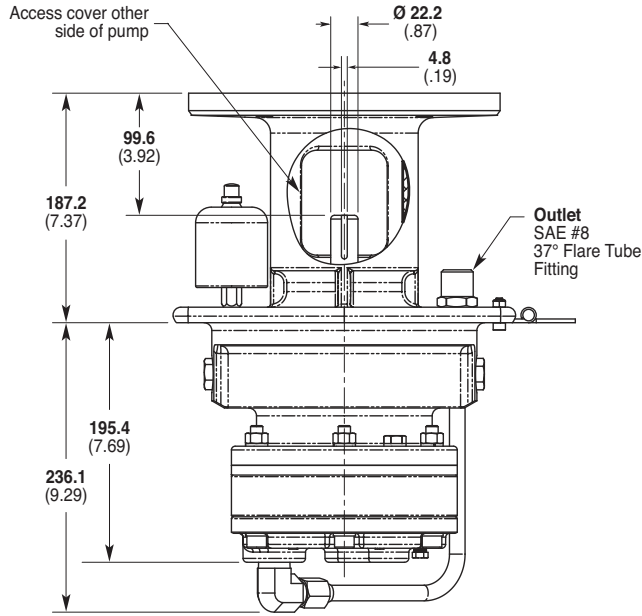
G12 Standard Configuration (Metallic Pump Heads) mm (Inches)



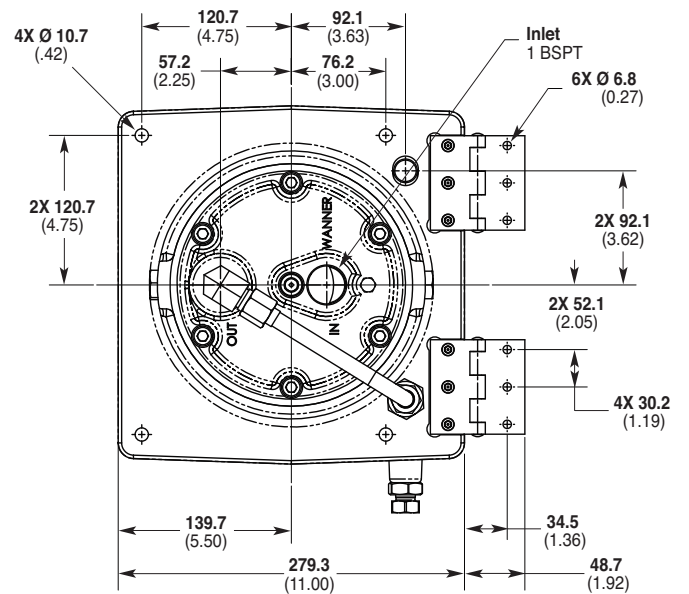
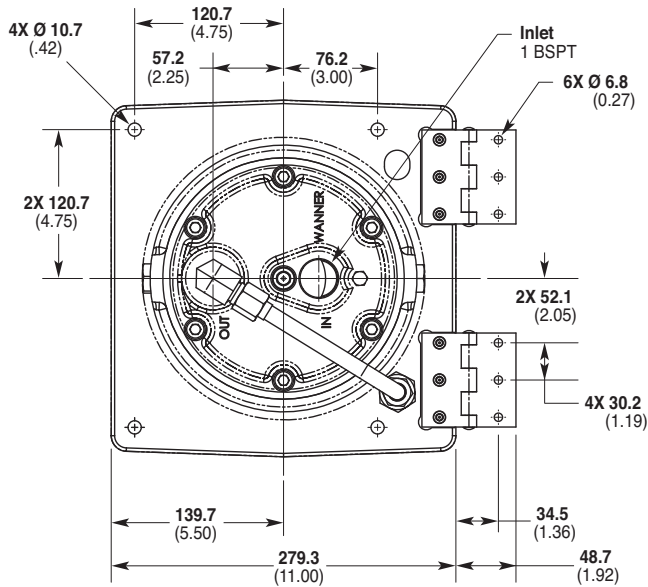
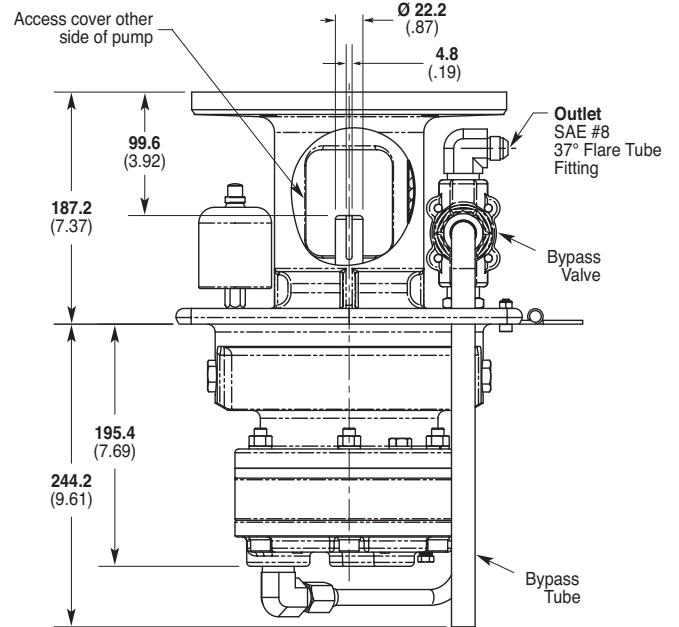
Note: Contact factory for additional drawings of specific models and configurations.

GI2 Series Representative Drawings

GI2 with Tube Accessory mm (Inches)



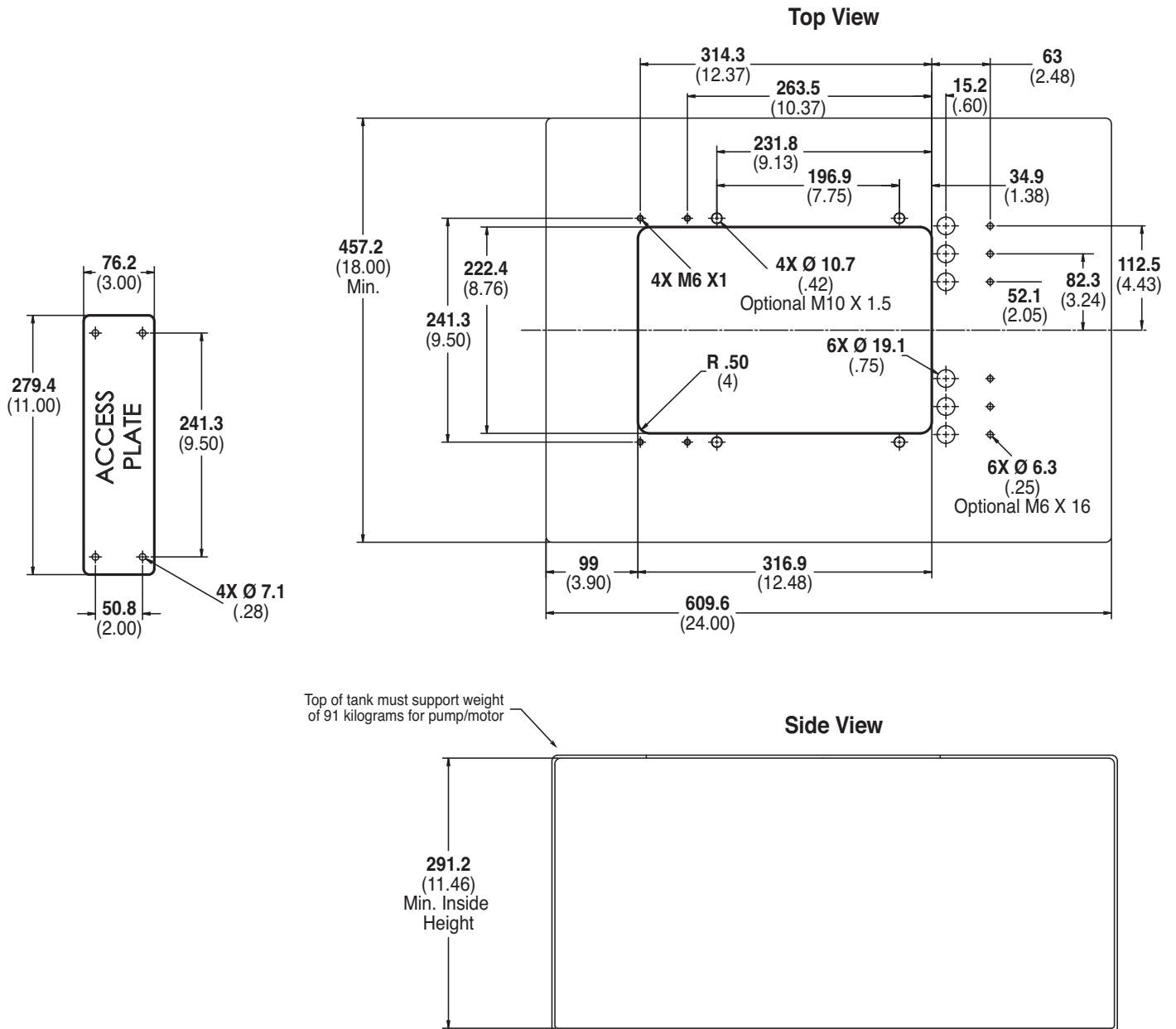
GI2 with Valve/Tube Accessory mm (Inches)



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

G12 Series Representative Drawings

G12 Models with Minimum Tank Size and Critical Installation Dimensions mm (Inches)



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

G12 Series **Valve/Tube Accessories**

The Hydra-Cell G12 Tube and Valve/Tube Accessories provide a pre-fabricated plumbing package for simplified installation. (See page 54 for dimensions.)

Ordering Information

Tube Accessory Part Number: A04-009-1200

Valve/Tube Accessory Part Number: A04-010-1200



Valve Selection

A seal-less C62 Pressure Regulating Valve is recommended for Hydra-Cell G12 pumping systems, especially for high-pressure requirements or when handling dirty fluids. See page 88 for more information.

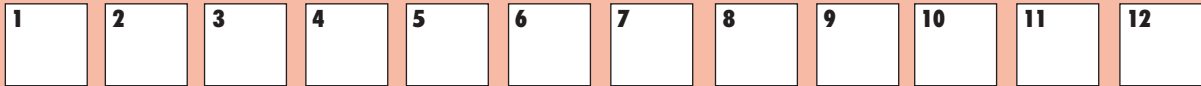


A C22 Pressure Regulating Valve provides a capable, lower-cost alternative to C62 valves for Hydra-Cell G12 pumping systems. See page 84 for more information.



G12 Series **How to Order**

Ordering Information



A complete G12 Series Model Number contains 12 digits including 9 customer-specified design and materials options, for example: G12XKCGHFECA.

Digit	Order Code	Description
1-3	G12	Pump Configuration Flanged for IEC 100 - 112, B5 (BSPT Ports)* <i>*Tube Accessory Kits ordered separately. See previous page.</i>
4	X	Hydraulic End Cam Max 29.0 l/min (7.7 gpm) @ 1450 rpm
	E	Max 25.1 l/min (6.6 gpm) @ 1450 rpm
	S	Max 22.7 l/min (6.0 gpm) @ 1750 rpm
	I	Max 15.0 l/min (4.0 gpm) @ 1750 rpm
5	K	Pump Head Version Kel-Cell BSPT Ports
	R	Kel-Cell Reduced Pocket
	X	ATEX <i>(Note: ATEX 94/9/EC Certified, Category 2, Zone 1. Includes certificate and oil level monitor.)</i>
6	B	Pump Head Material Brass
	C	Cast Iron (Nickel-plated)
	S	316L Stainless Steel
7	E	Diaphragm & O-ring Material EPDM (requires EPDM-compatible oil - Digit 12 oil code C)
	G	FKM
	J	PTFE (available with E and S cams only; 1200 rpm max.)
	P	Neoprene
	T	Buna-N
8	C	Valve Seat Material Ceramic
	D	Tungsten Carbide
	H	17-4 Stainless Steel
	S	316L Stainless Steel
9	C	Valve Material Ceramic
	D	Tungsten Carbide
	F	17-4 Stainless Steel
	N	Nitronic 50

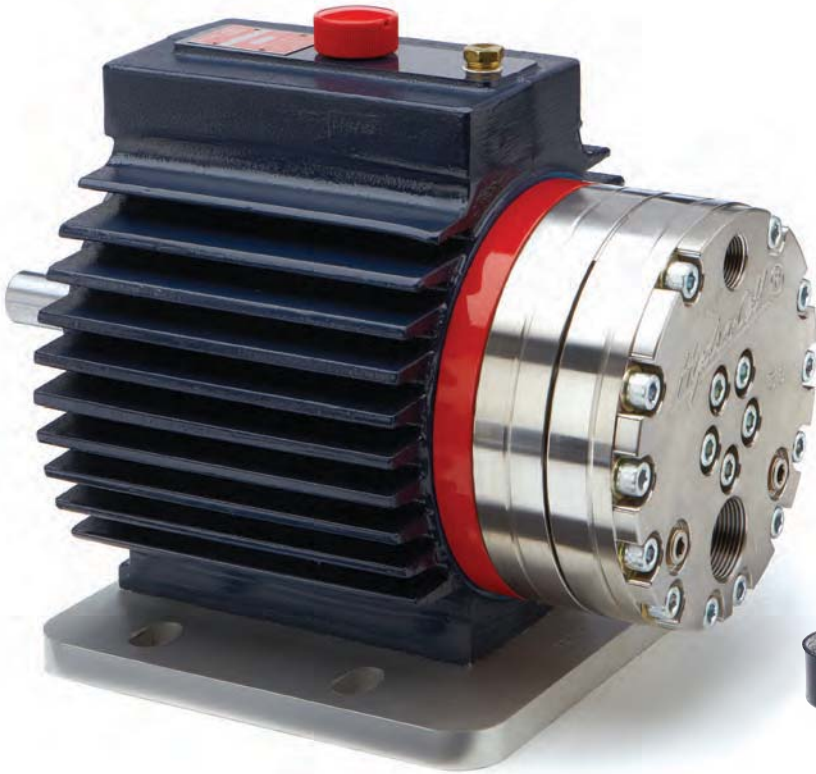
Digit	Order Code	Description
10	E	Valve Springs Elgiloy
11	C	Valve Spring Retainers Celcon
	H	17-7 Stainless Steel
	M	PVDF
	P	Polypropylene
	Y	Nylon (Zytel)
12	A	Hydra-Oil 10W30 standard-duty oil
	B	40-wt for continuous-duty (use with 316L SST pump head - standard)
	C	EPDM-compatible oil
	E	Food-contact oil
	G	5W30 cold-temp severe-duty synthetic oil

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

G15/G17 Series

Maximum Flow Rate: 15.5 gpm (58.7 l/min)

Maximum Pressure: 2500 psi (172 bar) for Metallic Pump Heads



G15 for horizontal installations shown with Stainless Steel pump head.



G17 for vertical mounting (including motor adapter, base plate and oil reservoir) shown with Brass pump head.

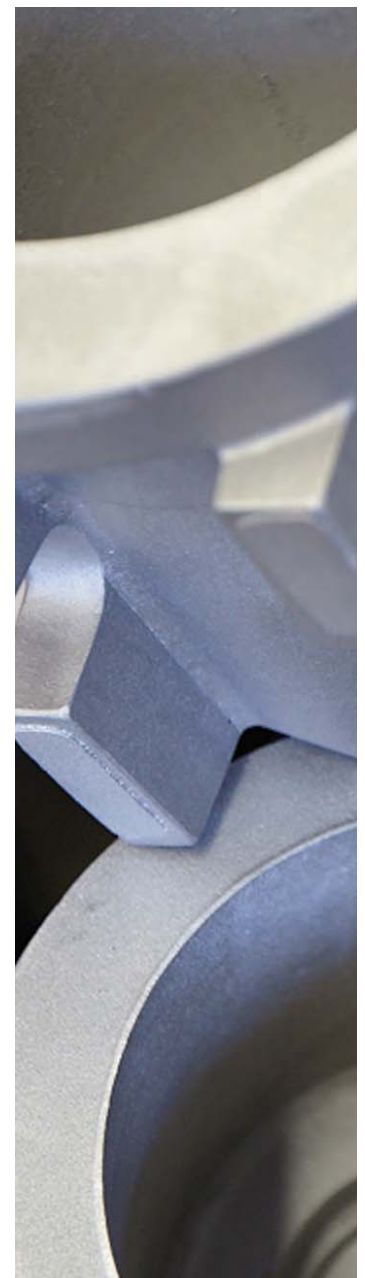
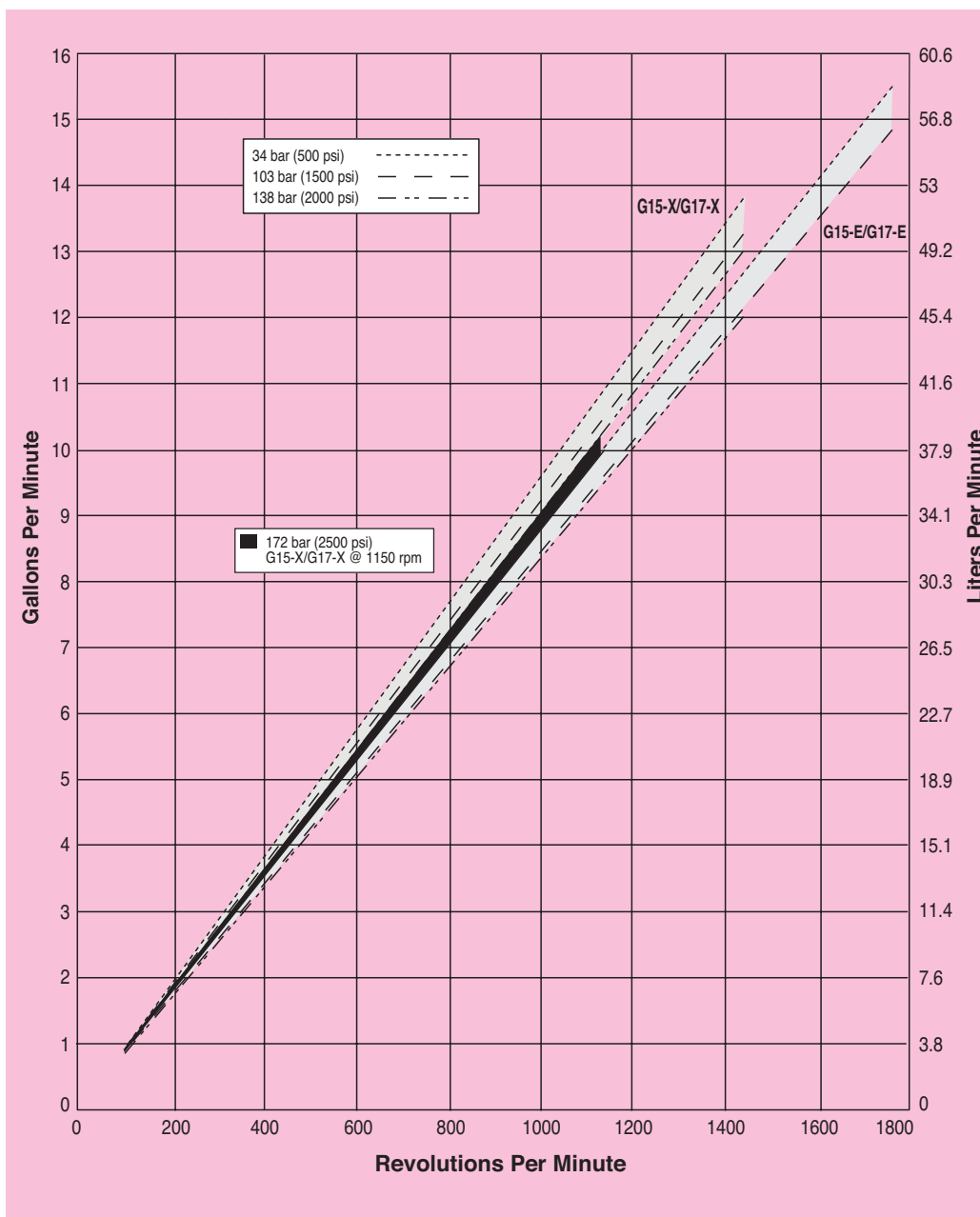
G15/G17 Series Performance

Capacities

Model	Max. Input rpm	Flow		Pressure	
		gpm	l/min	Max. Inlet Pressure	Max. Discharge Pressure
G15-X/G17-X	1450	13.8	52.3	500 psi (34 bar)	500 psi (34 bar)
	1450	13.3	50.2	500 psi (34 bar)	1500 psi (103 bar)
	1450	13.0	49.2	500 psi (34 bar)	2000 psi (138 bar)
	1150	10.1	38.1	500 psi (34 bar)	2500 psi (172 bar)
G15-E/G17-E	1750	15.5	58.7	500 psi (34 bar)	500 psi (34 bar)
	1750	14.8	56.2	500 psi (34 bar)	1500 psi (103 bar)
	1450	12.0	45.5	500 psi (34 bar)	2000 psi (138 bar)

Performance and specification ratings apply to G15/G17 configurations unless specifically noted otherwise.

Maximum Flow at Designated Pressure



G15/G17 Series Specifications

Flow Capacities (4-pole Motor @ 50 Hz)

Model	@ max rpm	psi	bar	gpm	l/min
G15-X/G17-X	1450	500	34	13.8	52.3
	1450	1500	103	13.3	50.2
	1450	2000	138	13.0	49.2
	1150	2500	172	10.1	38.1
G15-E/G17-E	1750	500	34	15.5	58.7
	1750	1500	103	14.8	56.2
	1450	2000	138	12.0	45.5

Delivery

Model	psi	bar	gal/rev	liters/rev
G15-X/G17-X	500	34	0.0095	0.0360
	1500	103	0.0092	0.0346
	2000	138	0.0090	0.0339
	2500	172	0.0088	0.0331
G15-E/G17-E	500	34	0.0089	0.0335
	1500	103	0.0085	0.0321
	2000	138	0.0083	0.0314

Maximum Discharge Pressure

Metallic Heads:	103 bar (1500 psi) @1750 rpm (G15-E & G17-E only)
	138 bar (2000 psi) @1450 rpm
	172 bar (2500 psi) @1150 rpm

Maximum Inlet Pressure 500 psi (34 bar)

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 500 microns

Inlet Port	1-1/4 inch BSPT
	1-1/4 inch NPT

Discharge Port	3/4 inch BSPT
	3/4 inch NPT

Shaft Diameter	28.6 mm (1-1/8 inch)
----------------	----------------------

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

Bearings	Tapered roller bearings
----------	-------------------------

Oil Capacity	2.1 liters (2.2 US quarts) - See pages 96 and 97 for oil selection and specification.
--------------	---

Weight

Metallic Heads:	66 kg (145 lbs.)
-----------------	------------------

Calculating Required Power

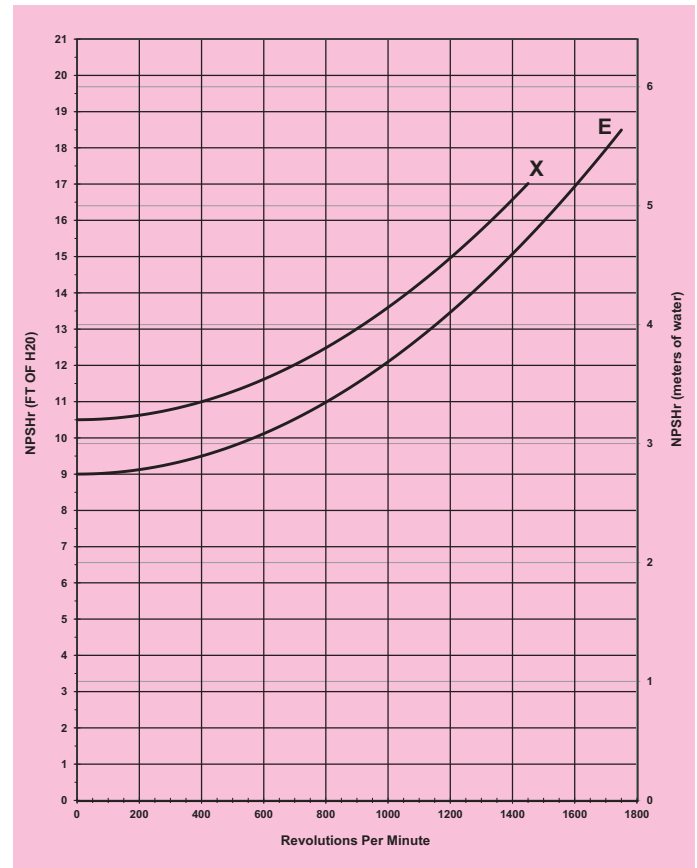
$$\frac{80 \times \text{rpm}}{63,000} + \frac{\text{gpm} \times \text{psi}}{1,460 - \left(\frac{\text{psi} - 500}{20}\right)} = \text{electric motor hp}$$

$$\frac{80 \times \text{rpm}}{84,428} + \frac{\text{l/min} \times \text{bar}}{511 - \left(\frac{\text{bar} - 35}{4}\right)} = \text{electric motor kW}$$

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)



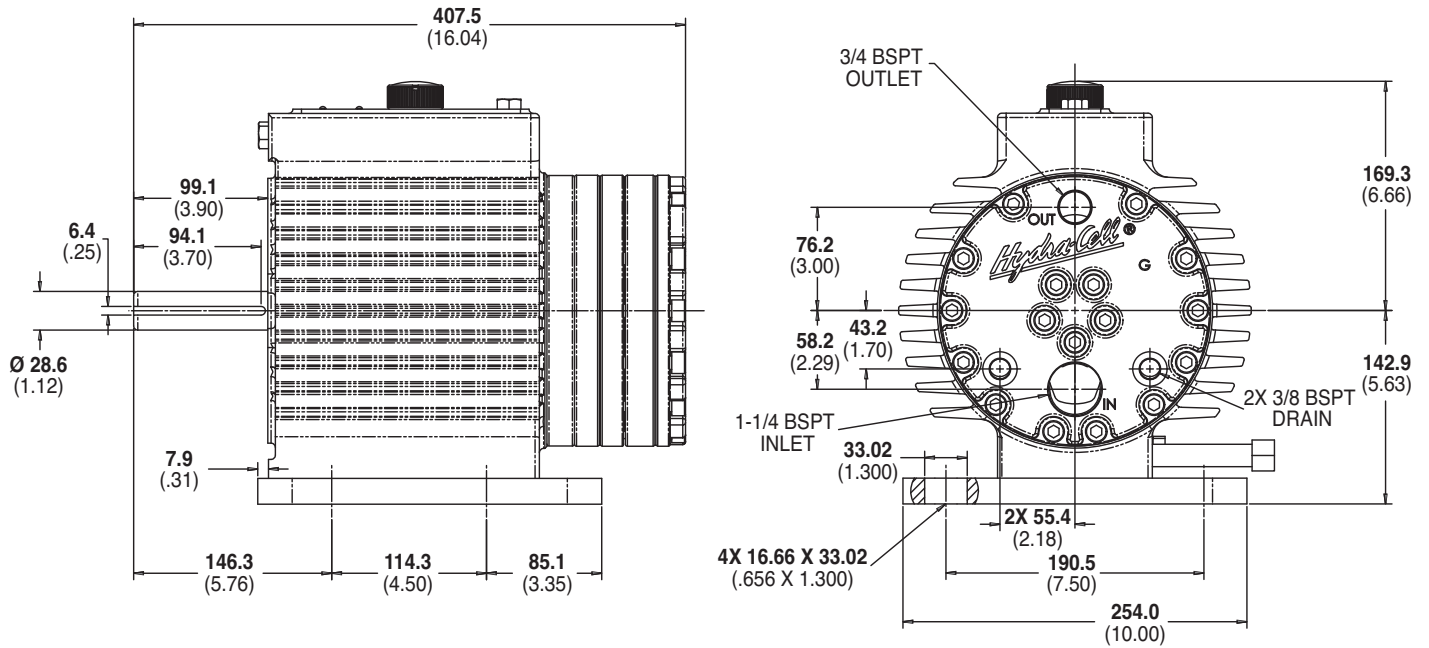
Self-priming:

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.

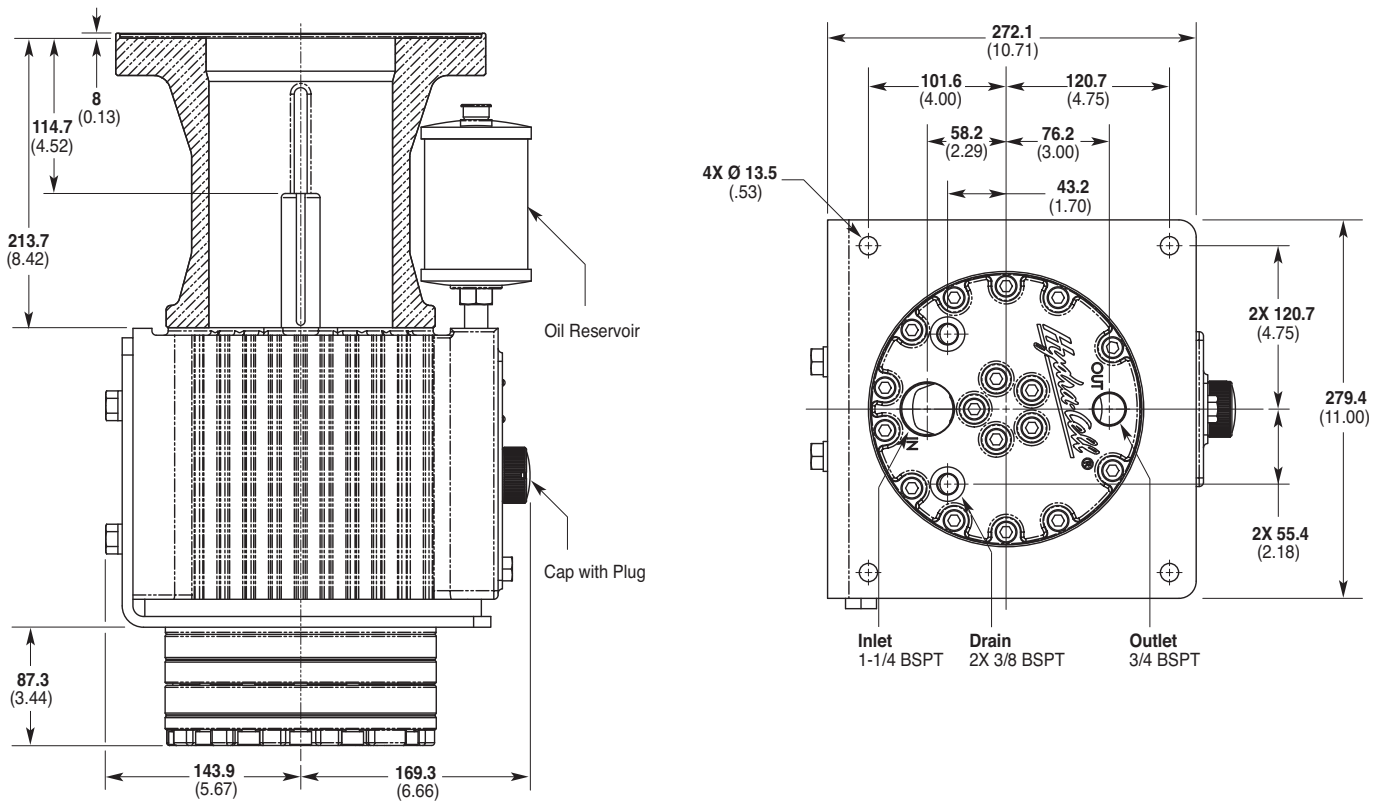
For technical assistance in pump selection, see Frequently Asked Questions on page 162, Design Considerations on page 163, and Installation Guidelines on pages 164-165.

GI5/GI7 Series Representative Drawings

GI5 Models for Horizontal Mounting (Metallic Pump Heads) mm (Inches)



GI7 Models for Vertical Mounting (Metallic Pump Heads) mm (Inches)

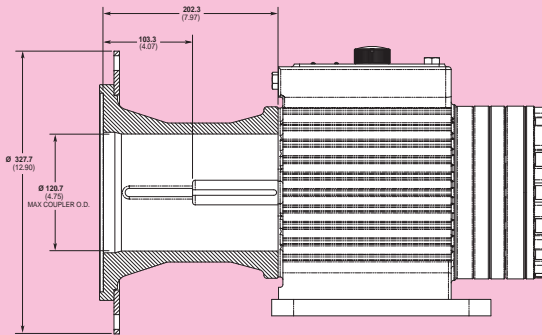


Note: Contact factory for additional drawings of specific models and configurations.

G15/G17 Series Adapters/Valves

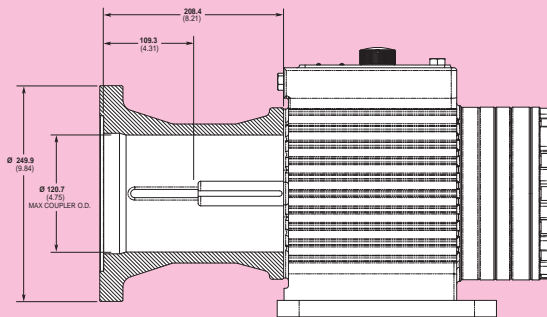
Pump/Motor Adapter mm (Inches)

G15 (Horizontal) Models



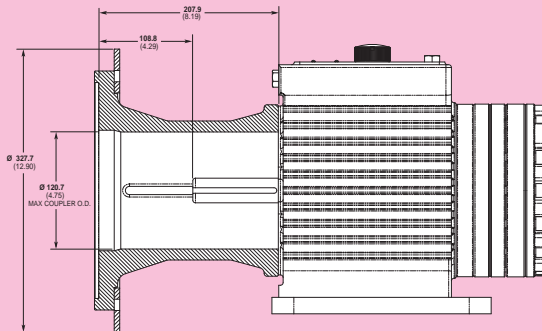
Part Number: A01-041-1201

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



Part Number: A01-041-1203

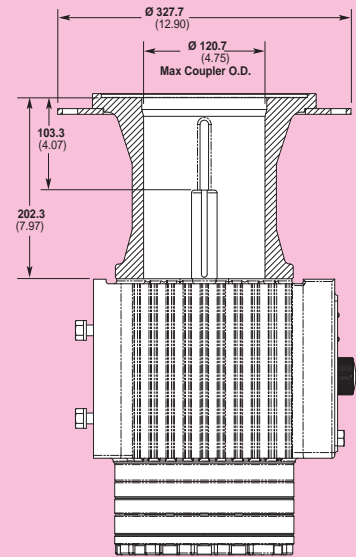
Must be ordered separately for use with IEC 160 frame motors, B14 flange.



Part Number: A01-041-1205

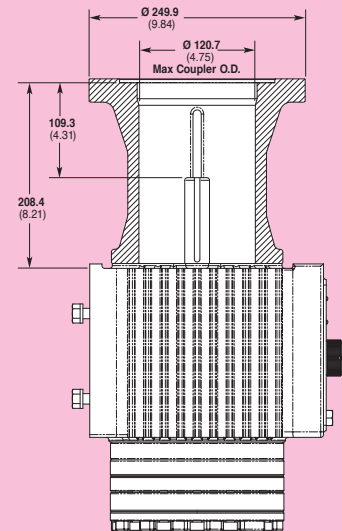
Must be ordered separately for use with IEC 160 - 180 frame motors, B5 flange.

G17 (Vertical) Models



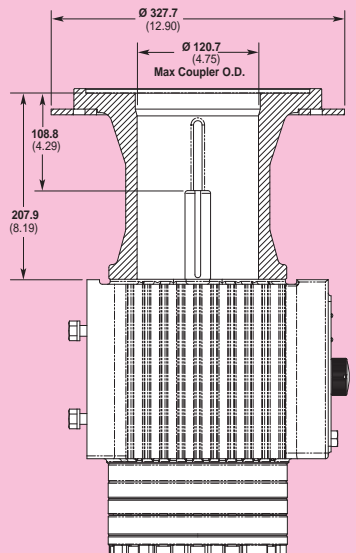
Part Number: A01-041-1201

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



Part Number: A01-041-1203

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



Part Number: A01-041-1205

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

Valve Selection

A Hydra-Cell G15/G17 Series pumping system uses a seal-less C62 Pressure Regulating Valve.

See page 88 for more information.



NEMA adapters available - consult factory.

G15/G17 Series **How to Order**

Ordering Information

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

A complete G15/G17 Series Model Number contains 12 digits including 9 customer-specified design and materials options, for example: G15XABTHFECG.

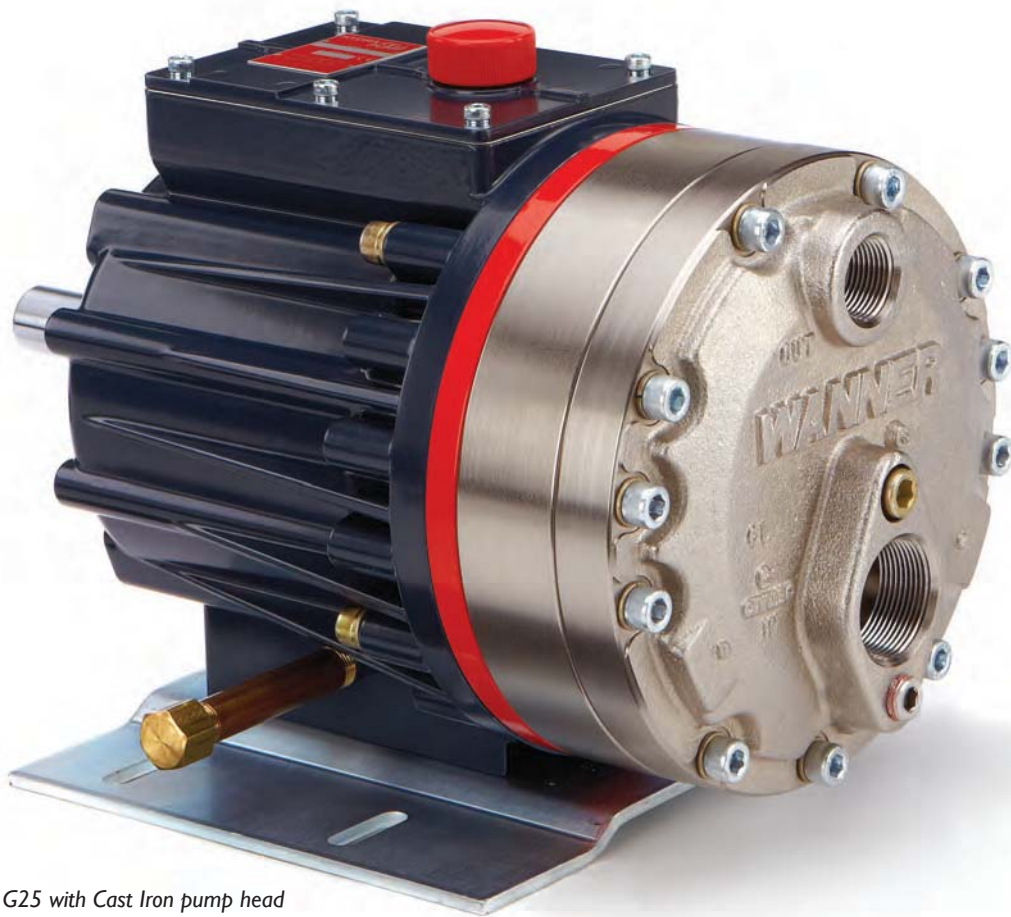
Digit	Order Code	Description
1-3		Pump Configuration
	G15	Horizontal shaft-driven (BSPT Ports)
	G17	Vertical shaft-driven (BSPT Ports) *Pump/motor adapters ordered separately. See previous page.
4		Hydraulic End Cam
	X	Max 48.0 l/min (12.7 gpm) @ 1450 rpm
	E	Max 43.5 l/min (11.5 gpm) @ 1450 rpm
5		Pump Head Version
	D	BSPT Ports
	X	ATEX (Note: ATEX 94/9/EC Certified, Category 2, Zone 1. Includes certificate and oil level monitor.)
6		Pump Head Material
	B	Brass
	S	316L Stainless Steel
7		Diaphragm & O-ring Material
	A	Aflas diaphragm/PTFE o-ring
	G	FKM
	T	Buna-N
8		Valve Seat Material
	D	Tungsten Carbide
	H	17-4 Stainless Steel
	N	Nitronic 50
9		Valve Material
	D	Tungsten Carbide
	F	17-4 Stainless Steel
	N	Nitronic 50
10		Valve Springs
	E	Elgiloy
	H	17-7 Stainless Steel
	T	Hastelloy C
11		Valve Spring Retainers
	C	Celcon
	H	17-7 Stainless Steel
	M	PVDF
	P	Polypropylene
	Y	Nylon (Zytel)

Digit	Order Code	Description
12		Hydra-Oil
	A	10W30 standard-duty oil
	B	40-wt for continuous-duty (use with 316L SST pump head - standard)
	E	Food-contact oil
	G	5W30 cold-temp severe-duty synthetic oil
	H	15W50 high-temp severe-duty synthetic oil

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

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)

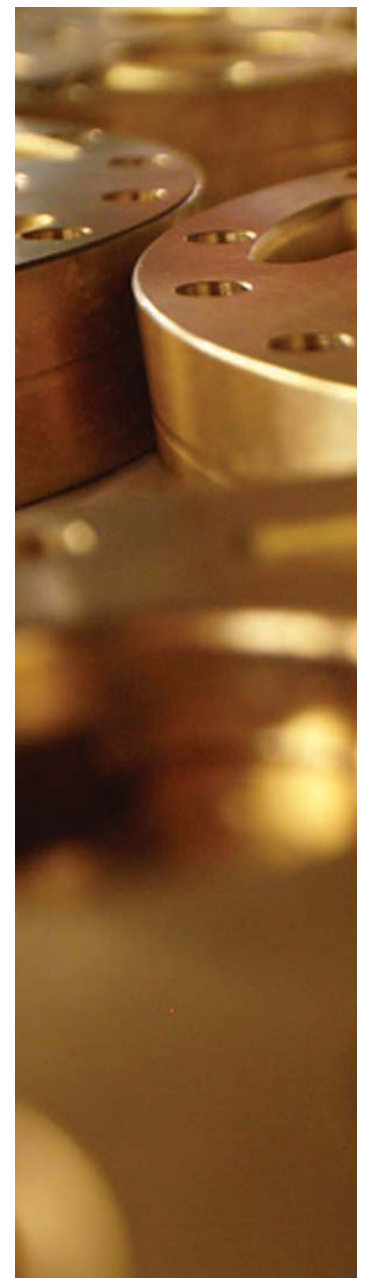
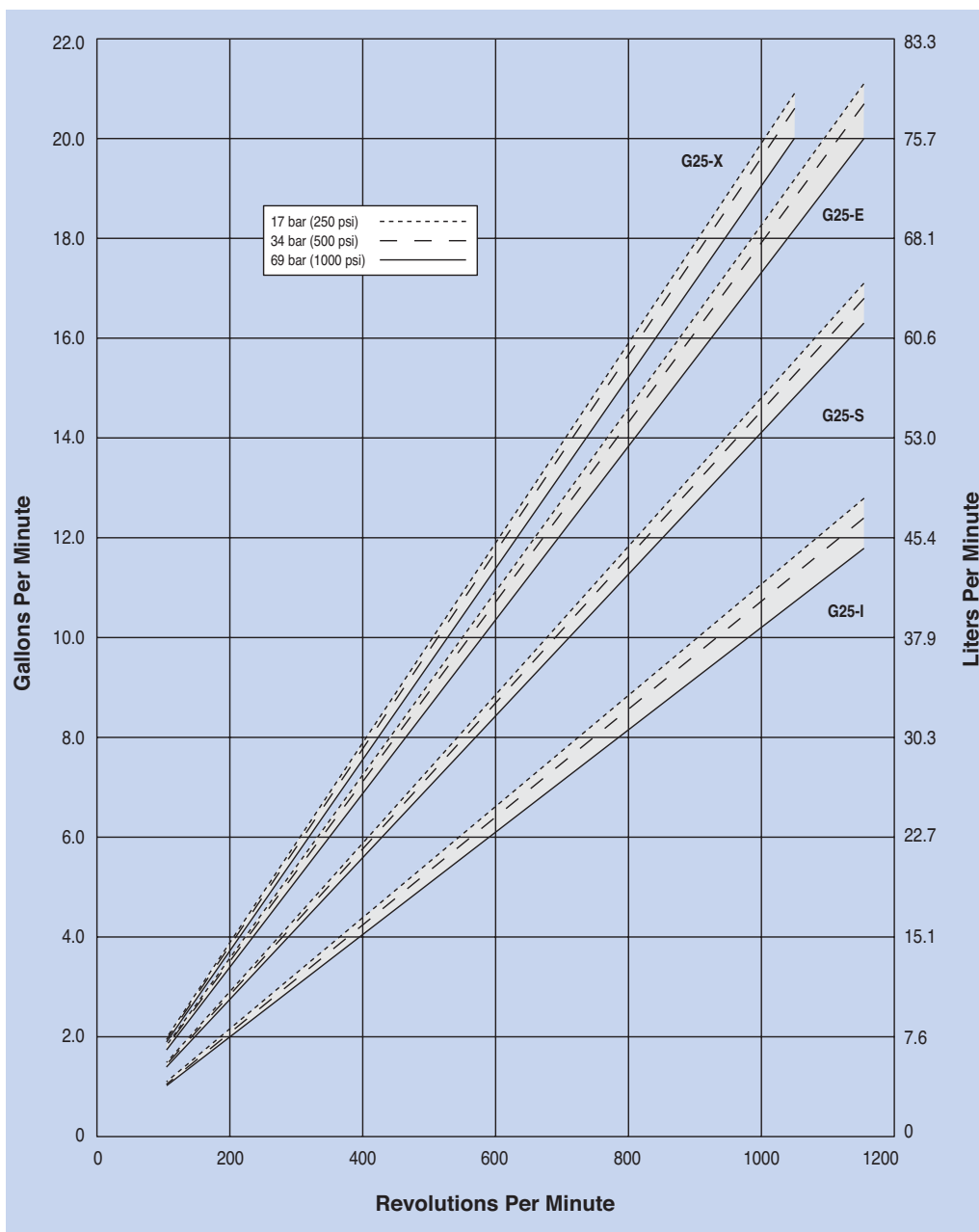
Non-metallic Pump Heads:

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

Inlet Port	1-1/2 inch BSPT 1-1/2 inch NPT 150lb ANSI RF flange
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Discharge Port	1 inch BSPT 1 inch NPT 600lb ANSI RF flange
-----------------------	---

Shaft Diameter	28.6 mm (1-1/8 inch)
-----------------------	----------------------

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

Bearings	Tapered roller bearings
-----------------	-------------------------

Oil Capacity	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

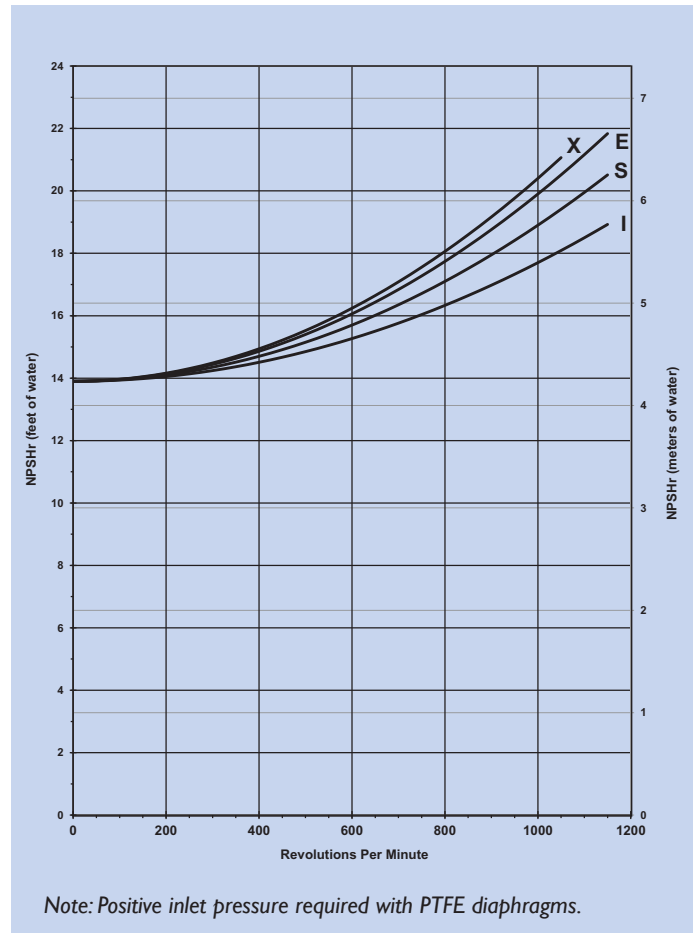
$$\frac{50 \times \text{rpm}}{63,000} + \frac{\text{gpm} \times \text{psi}}{1,460} = \text{electric motor hp}$$

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

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)



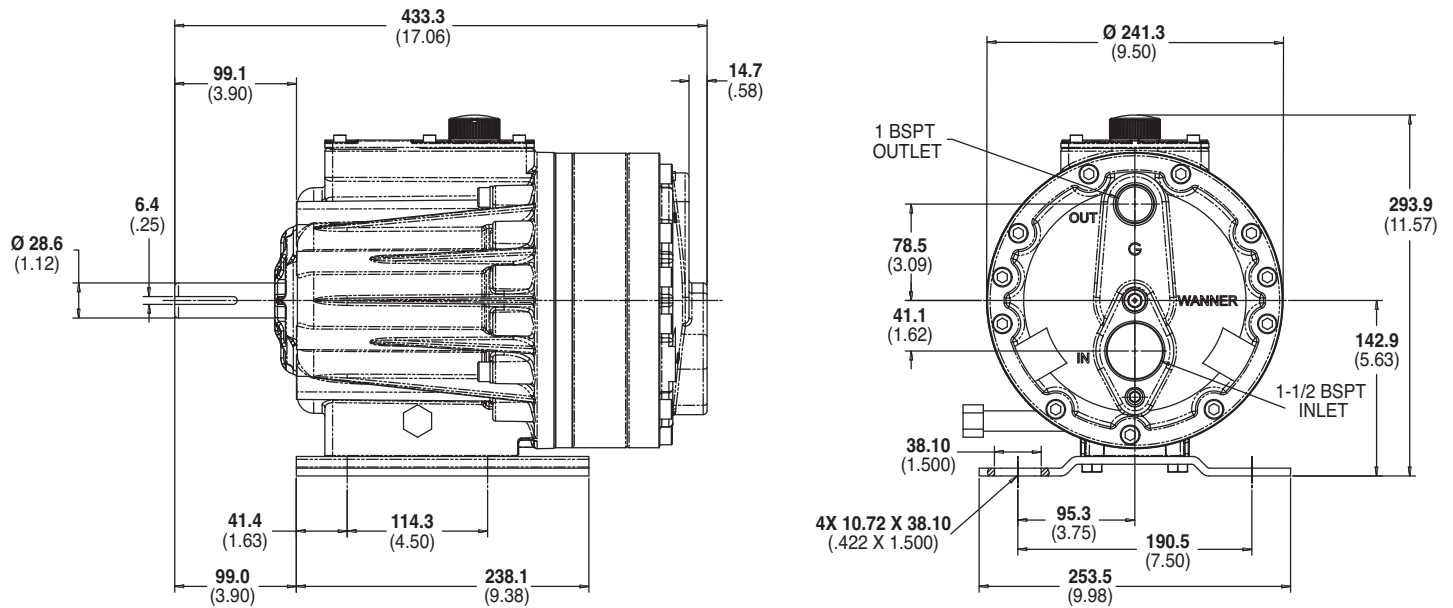
Self-priming:

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.

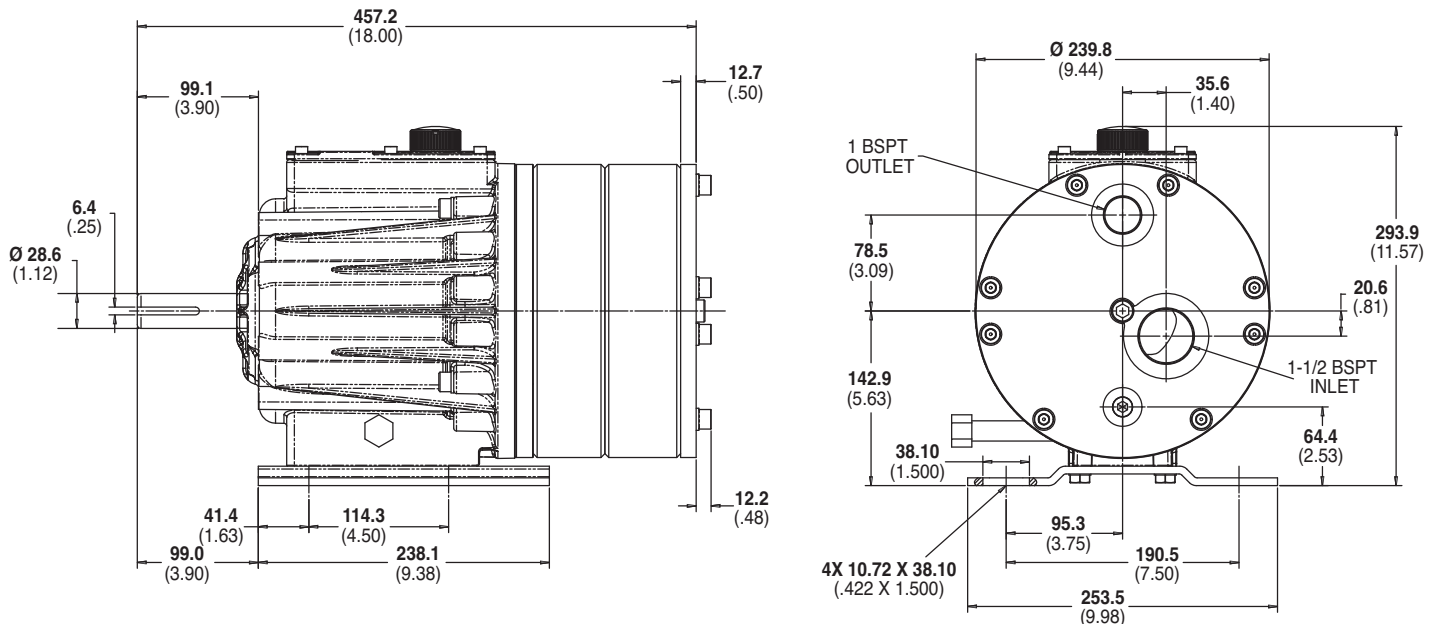
For technical assistance in pump selection, see Frequently Asked Questions on page 162, Design Considerations on page 163, and Installation Guidelines on pages 164-165.

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.

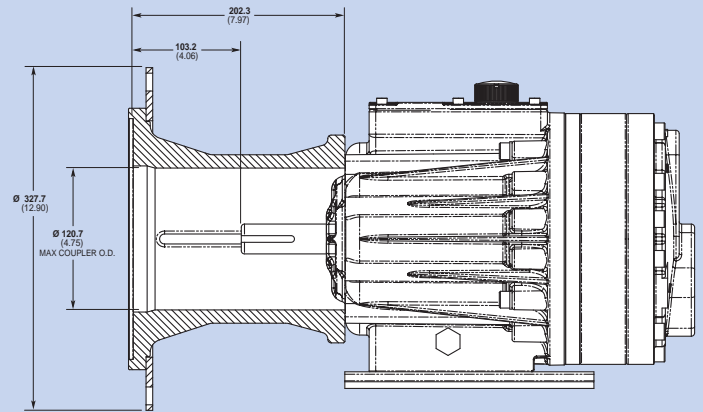
G25 Series Adapters/Valves

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.

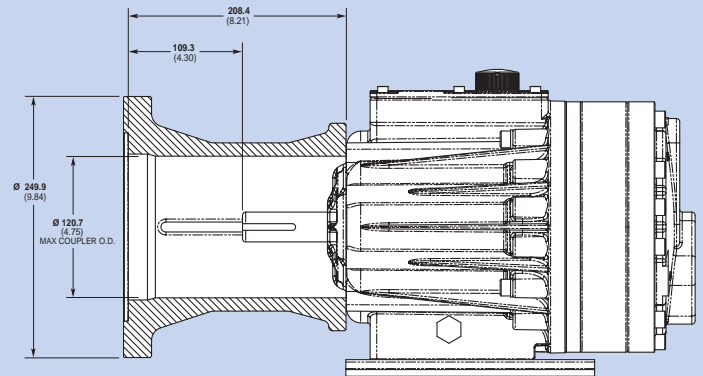
NEMA adapter available - consult factory.



Part Number: A04-041-1203

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

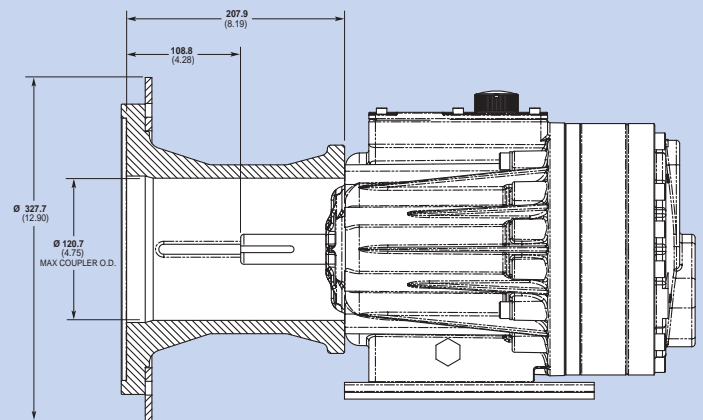
NEMA adapter available - consult factory.



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

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

G35 Series

Maximum Flow Rate: 36.5 gpm (138 l/min)

Maximum Pressure: 1500 psi (103 bar) for Metallic Pump Heads



*G35 with Stainless Steel pump head
and SAE flanges*



G35 with Brass pump head

G35 Series Performance

Capacities

Flow

Model	Max. Input rpm	Max. Flow	
		@ 1200 psi (83 bar) gpm	l/min
G35-X	1050	36.5	138
G35-E	1150	34.0	129
@ 1500 psi (103 bar)			
G35-X	700	23.1	87.5

Pressure

Maximum Inlet Pressure

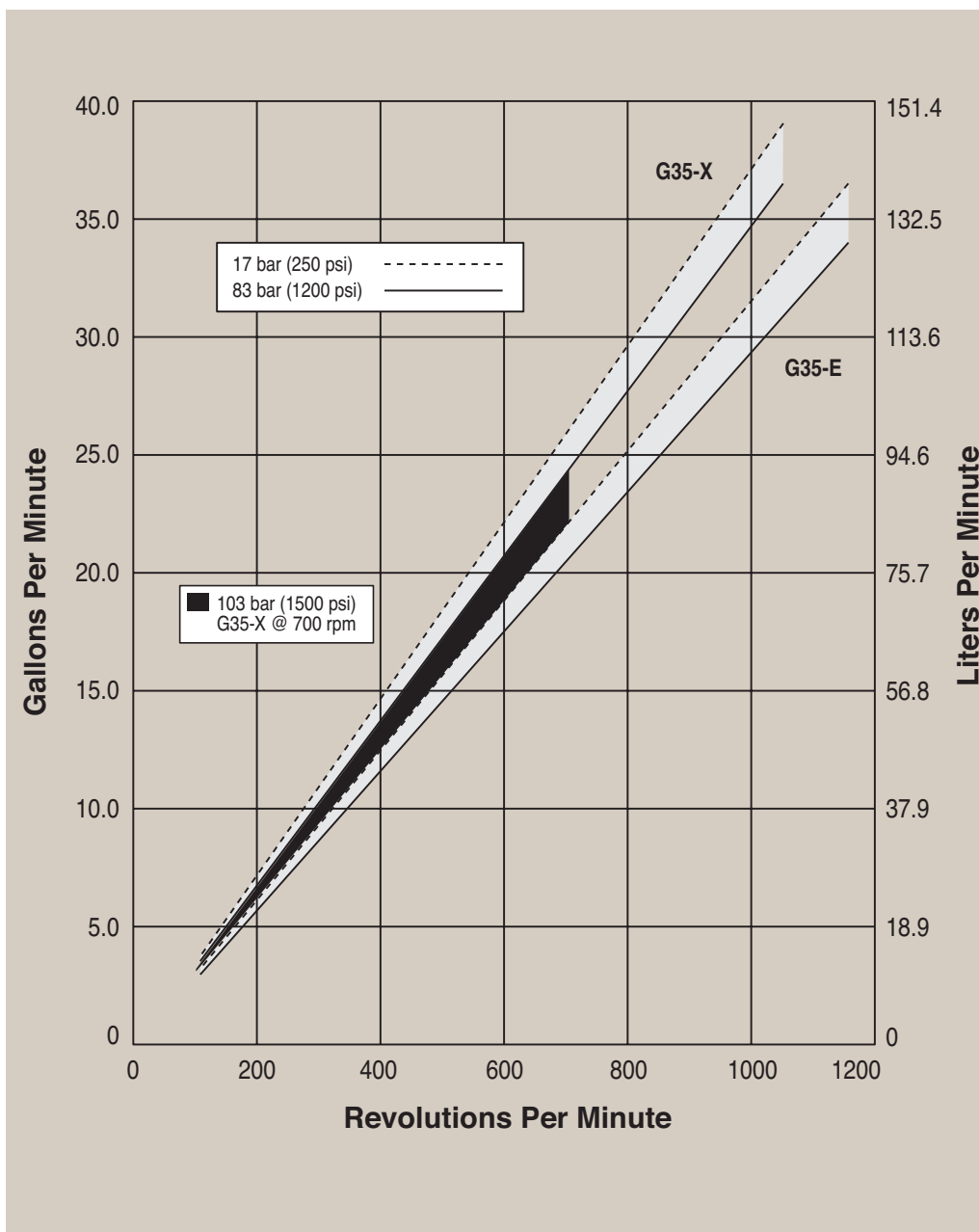
250 psi (17 bar) with 1500 psi (103 bar) maximum discharge pressure
 500 psi (34 bar) with 1200 psi (83 bar) maximum discharge pressure

Maximum Discharge Pressure

1200 psi (83 bar) @ 1150 rpm max.
 1500 psi (103 bar) @ 700 rpm max.

Performance and specification ratings apply to G35 configurations unless specifically noted otherwise.

Maximum Flow at Designated Pressure



G35 Series Specifications

Flow Capacities @ 83 bar (1200 psi) 6-pole Motor @ 50 Hz

Model	rpm	gpm	l/min
G35-X	960	33.50	127.00
G35-E	960	29.00	110.00

Flow Capacities @ 83 bar (1200 psi) 8-pole Motor @ 50 Hz

Model	rpm	gpm	l/min
G35-X	730	25.50	96.60
G35-E	730	22.10	83.60

Delivery @ 83 bar (1200 psi)

Model	gal/rev	liters/rev
G35-X	0.0347	0.1314
G35-E	0.0296	0.1120

Delivery @ 103 bar 1500 psi)

Model	gal/rev	liters/rev
G35-X	0.0330	0.1250

Maximum Discharge Pressure

Metallc Heads: 103 bar (1500 psi) @ 700 rpm

Maximum Inlet Pressure 17 bar (250 psi) with 103 bar (1500 psi) maximum discharge pressure
34 bar (500 psi) with 83 bar (1200 psi) maximum discharge pressure

Maximum Operating Temperature

Metallc 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 800 microns

Inlet Port 2-1/2 inch BSPT
2-1/2 inch NPT
150lb or 600lb ANSI RF flange
3 inch SAE flange

Discharge Port 1-1/4 inch BSPT
1-1/4 inch NPT
600lb or 1500lb ANSI RF flange
1-1/4 inch SAE flange

Shaft Diameter 50.8 mm (2 inch)

Shaft Rotation Reverse (bi-directional)

Bearings Tapered roller bearings

Oil Capacity 7.3 liters (7.75 US quarts) - See pages 96 and 97 for oil selection and specification.

Weight

Metallc Heads: 116.6 kg (257 lbs.)

Calculating Required Power

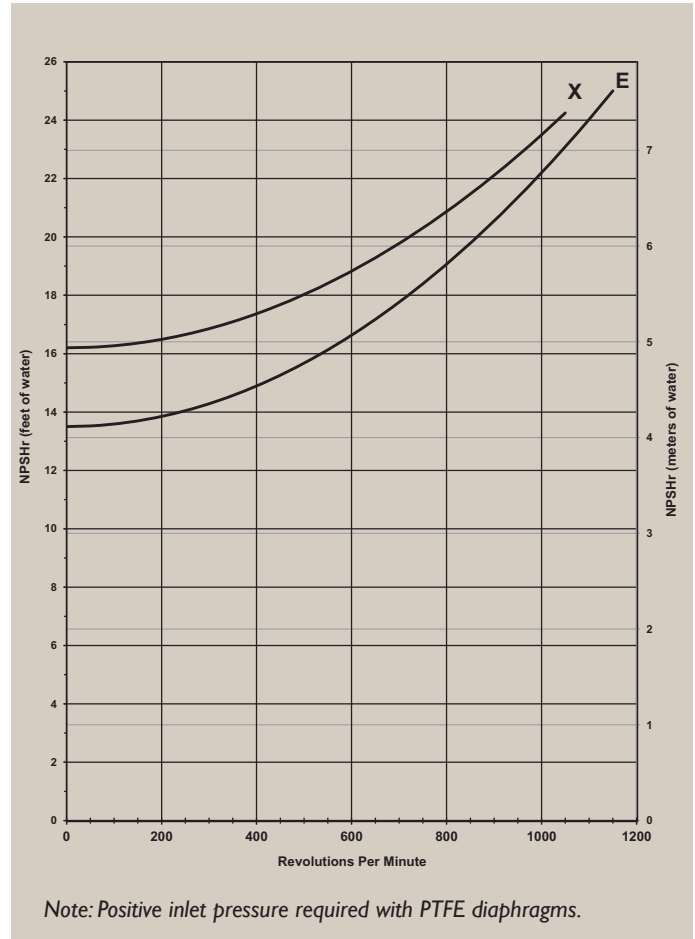
$$\frac{100 \times \text{rpm}}{63,000} + \frac{\text{gpm} \times \text{psi}}{1,460} = \text{electric motor hp}$$

$$\frac{100 \times \text{rpm}}{84,428} + \frac{\text{l/min} \times \text{bar}}{511} = \text{electric motor kW}$$

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)



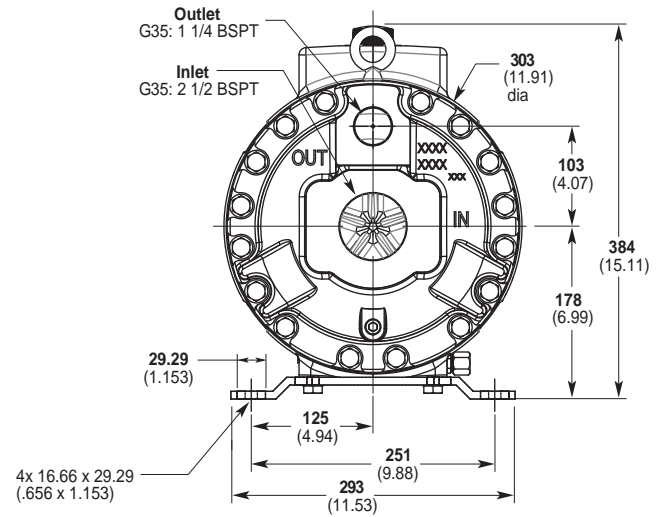
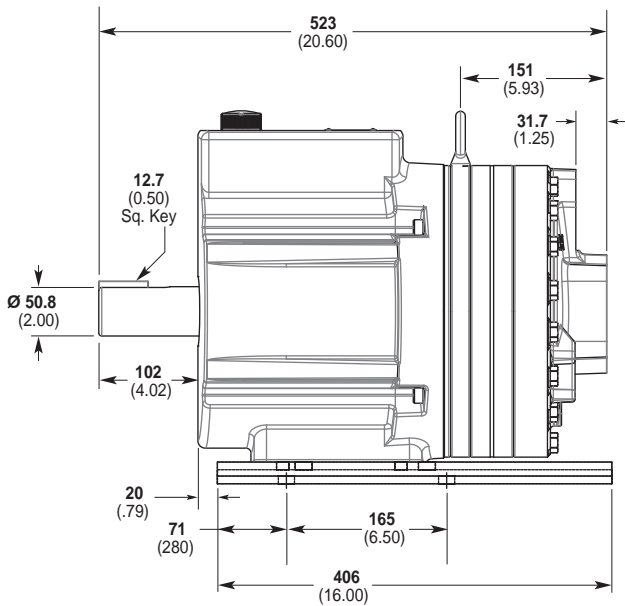
Self-priming:

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.

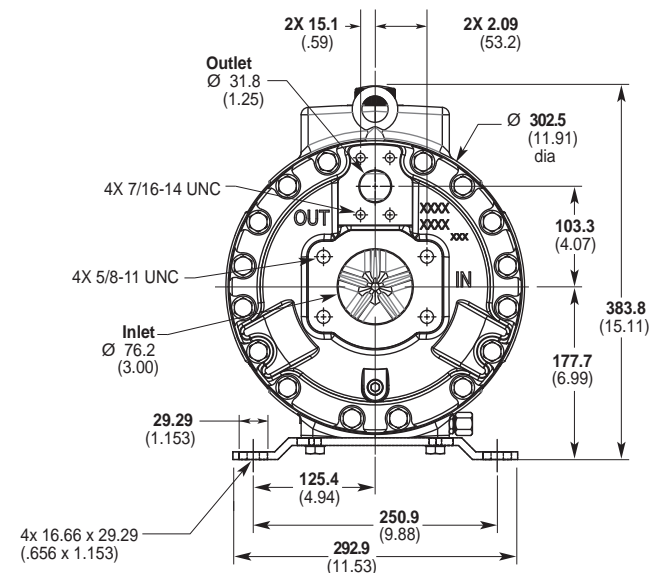
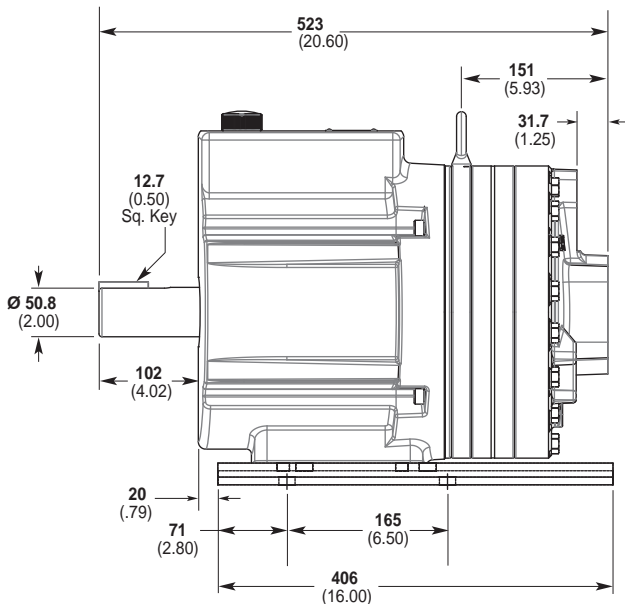
For technical assistance in pump selection, see Frequently Asked Questions on page 162, Design Considerations on page 163, and Installation Guidelines on pages 164-165.

G35 Series Representative Drawings

G35 Models with BSPT Inlet/Outlet Ports mm (Inches)



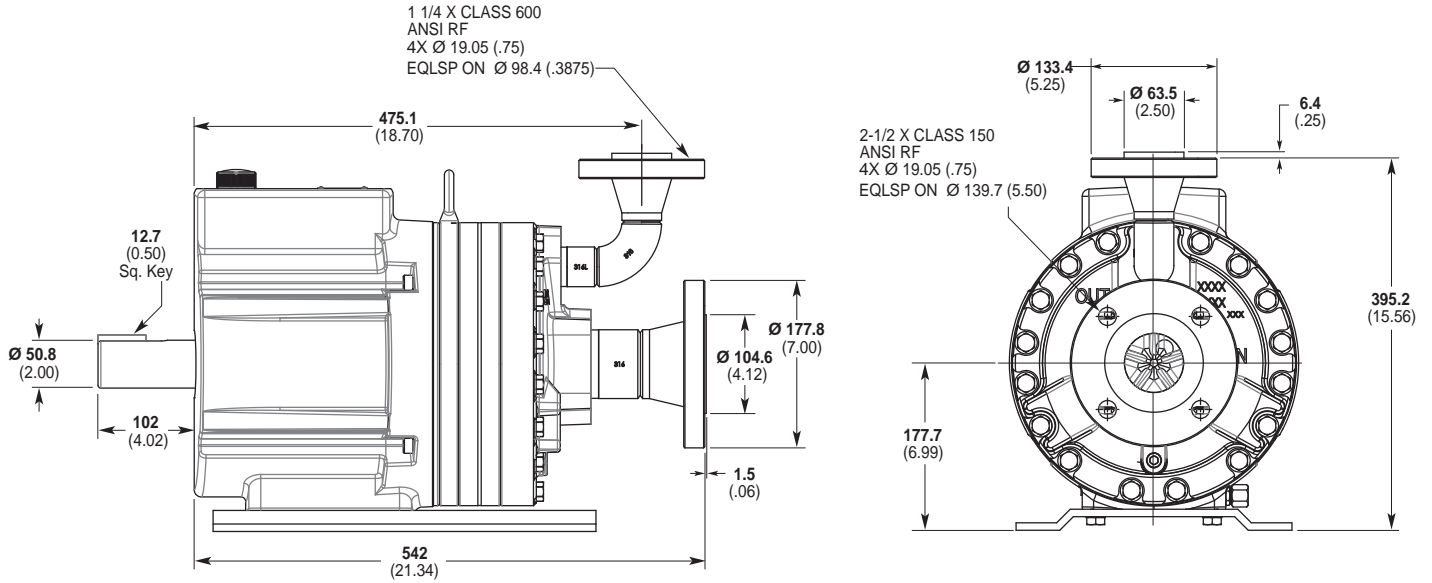
G35 Models with SAE Flange Inlet/Outlet Ports mm (Inches)



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

G35 Series Representative Drawings/Valves/Skids

G35 Models with ANSI Flange Inlet/Outlet Ports mm (Inches)



Valve Selection

A seal-less C64 Pressure Regulating Valve is recommended for Hydra-Cell G35 pumping systems, especially for high-pressure requirements or when handling dirty fluids. See page 88 for more information.



A C24 Pressure Regulating Valve provides a capable, lower-cost alternative to C64 valves for Hydra-Cell G35 pumping systems. See page 84 for more information.



Skid-mounted G35 with 20hp, 3-phase motor.



G35 Series How to Order

Ordering Information

1	2	3	4	5	6	7	8	9	10	11	12
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A complete G35 Series Model Number contains 12 digits including 9 customer-specified design and materials options, for example: G35XKBTHFECA.

Digit	Order Code	Description
1-3	G35	Pump Configuration Shaft-driven (BSPT Ports or SAE or ANSI Flanges)
4	X	Hydraulic End Cam Max 127.0 l/min (33.5 gpm) @ 960 rpm
	E	Max 110.0 l/min (29.1 gpm) @ 960 rpm
5	K	Pump Head Version Kel-Cell BSPT Ports or ANSI Flanges
	E	Kel-Cell SAE Flanges
	X	ATEX <i>(Note: ATEX 94/9/EC Certified, Category 2, Zone 1. Includes certificate and oil level monitor.)</i>
6	B	Pump Head Material Brass
	C	Cast Iron (Nickel-plated)
	G	Duplex Alloy 2205 (with Hastelloy C followers & follower screws)
	Q	316L Stainless Steel ANSI flange class 600 x 1500
	R	316L Stainless Steel ANSI flange class 150 x 600
	S	316L Stainless Steel - threaded or SAE ports
	T	Hastelloy CW12MW
7	A	Diaphragm & O-ring Material Aflas diaphragm / PTFE o-ring
	E	EPDM (requires EPDM-compatible oil - Digit 12 oil code D)
	G	FKM
	J	PTFE (available with E cam only; 1050 rpm max.)
	P	Neoprene
	T	Buna-N
8	C	Valve Seat Material Ceramic
	D	Tungsten Carbide
	H	17-4 Stainless Steel
	N	Nitronic 50
	T	Hastelloy C
9	C	Valve Material Ceramic
	D	Tungsten Carbide
	F	17-4 Stainless Steel
	N	Nitronic 50
	T	Hastelloy C

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

G35 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.

G66 Series

Maximum Flow Rate: 65.7 gpm (248.7 l/min)

Maximum Pressure: 700 psi (48 bar) for Metallic Pump Heads
250 psi (17 bar) for Non-metallic Pump Heads



G66 with Cast Iron pump head



G66 with Polyurethane pump head

G66 Series Performance

Capacities

Flow

Model	Max. Input rpm	Max. Flow @ 700 psi (48 bar)	
		gpm	l/min
G66-X	1000	65.7	248.7

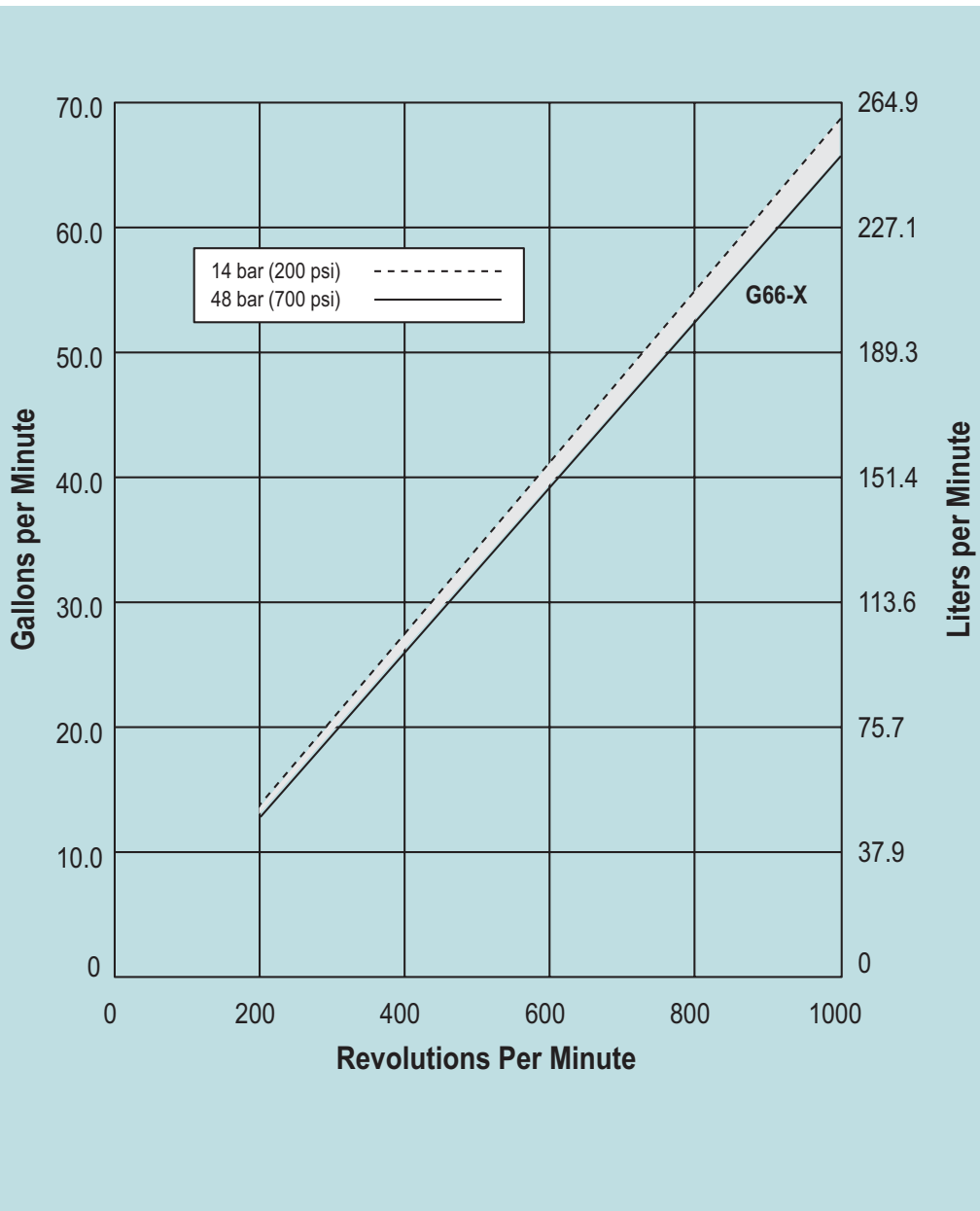
Pressure

Maximum Inlet Pressure
250 psi (17 bar)

Maximum Discharge Pressure
Metallic Pump Heads:
700 psi (48 bar)
Non-metallic Pump Heads:
250 psi (17 bar) Polypropylene

Performance and specification ratings apply to D66 configurations unless specifically noted otherwise.

Maximum Flow at Designated Pressure



G66 Series Specifications

Flow Capacities @ 14 bar (200 psi)

Model	rpm	gpm	l/min
G66-X (Metallic)	1000	67.8	256

Flow Capacities @ 17 bar (250 psi)

Model	rpm	gpm	l/min
G66-X (Non-metallic)	1000	67.5	255

Flow Capacities @ 48 bar (700 psi)

Model	rpm	gpm	l/min
G66-X (Metallic)	1000	65.7	248

Delivery @ 14 bar (200 psi)

Model	gal/rev	liters/rev
G66-X (Metallic)	0.0678	0.256

Delivery @ 17 bar (250 psi)

Model	gal/rev	liters/rev
G66-X (Non-metallic)	0.675	0.255

Delivery @ 48 bar (700 psi)

Model	gal/rev	liters/rev
G66-X (Metallic)	0.657	0.248

Maximum Discharge Pressure

Metallic Heads:	48 bar (700 psi) @1000 rpm
Non-metallic Heads:	17 bar (250 psi) Polypropylene

Maximum Inlet Pressure

Metallic Heads:	17 bar (250 psi)
Non-metallic Heads:	3.5 bar (50 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:	49 °C (120 °F) - Consult factory for temperatures above 49 °C (120 °F).

Maximum Solids Size

800 microns

Inlet Port

3 inch BSPT
3 inch NPT
2-1/2 inch SAE J518 Flange (Non-metallic)
3 inch SAE J518 Flange (Metallic)

Discharge Port

1-1/2 inch BSPT
1-1/2 inch NPT
1-1/2 inch SAE

Shaft Diameter

50.8 mm (2 inch)

Shaft Rotation

Reverse (bi-directional)

Bearings

Tapered roller bearings

Oil Capacity

7.5 liters (8 US quarts)

Weight

Metallic Heads:	226 kg (500 lbs.)
Non-metallic Heads:	133 kg (295 lbs.)

Calculating Required Power

$$\frac{100 \times \text{rpm}}{63,000} + \frac{\text{gpm} \times \text{psi}}{1,460} = \text{electric motor hp}$$

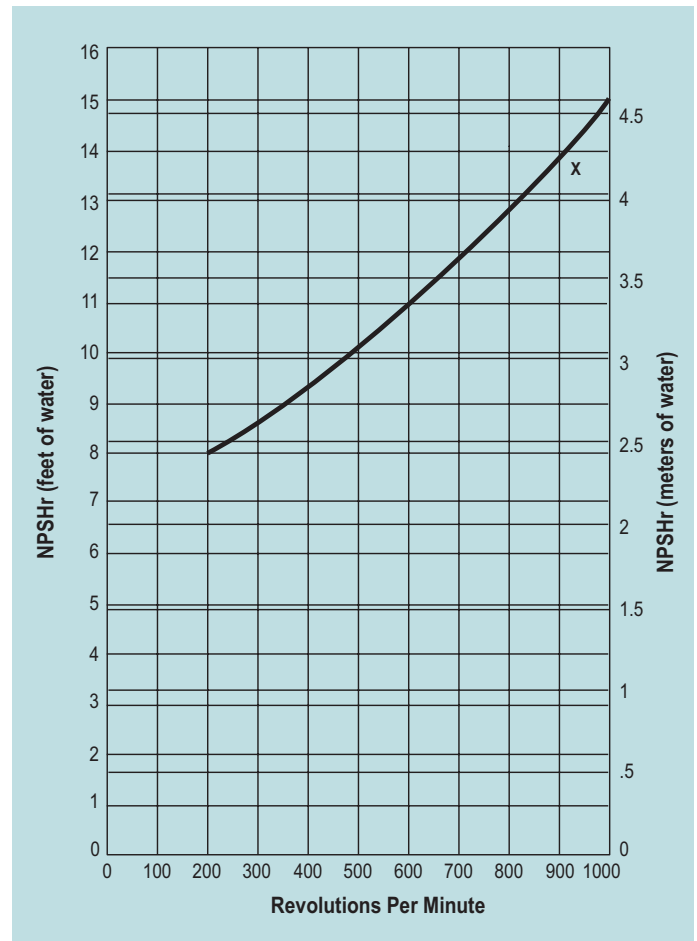
$$\frac{100 \times \text{rpm}}{84,428} + \frac{\text{l/min} \times \text{bar}}{511} = \text{electric motor kW}$$

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)



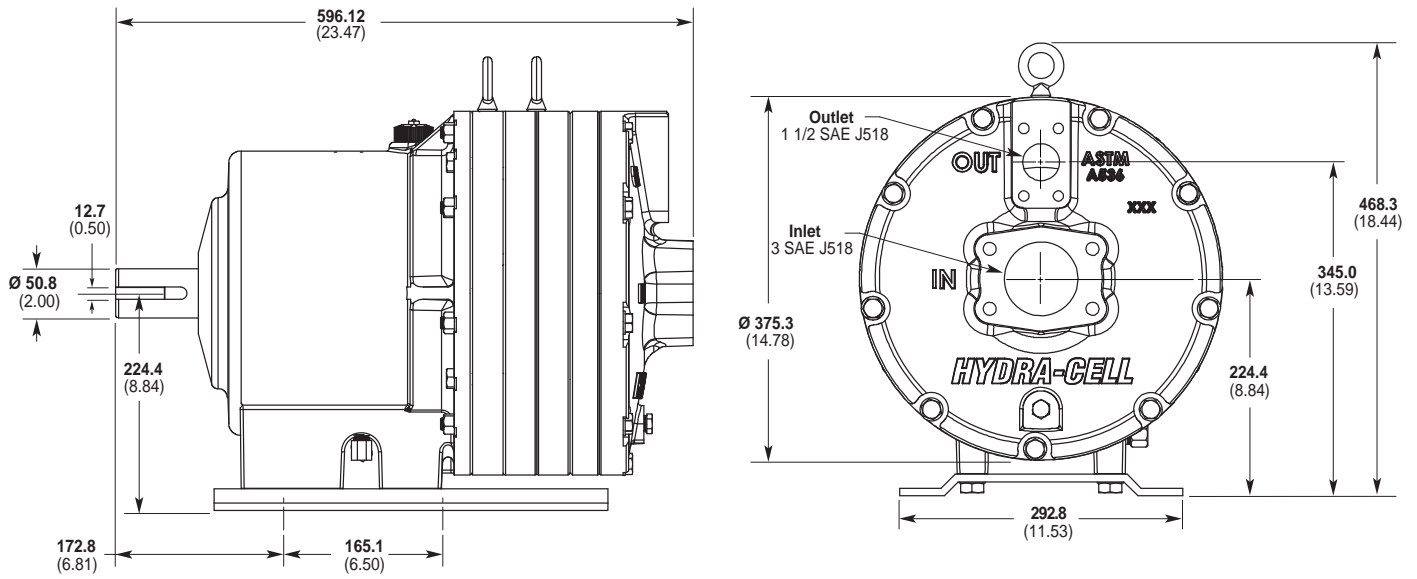
Self-priming:

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.

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.

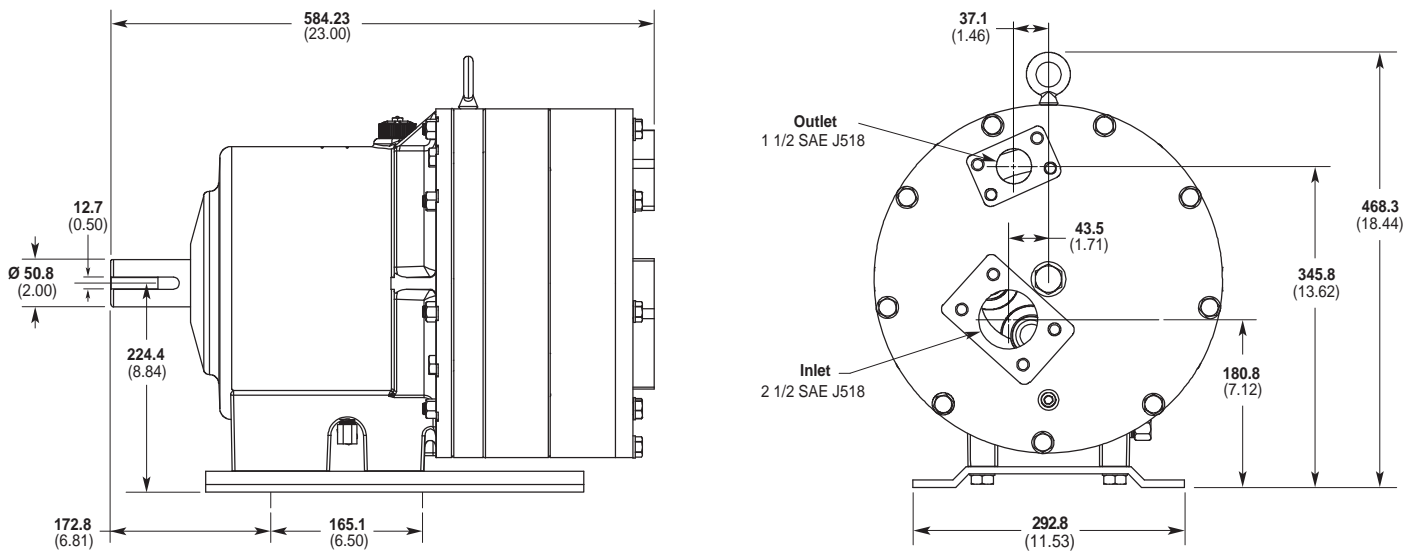
G66 Series Representative Drawings

G66 Models with SAE Flange Inlet/Outlet Ports mm (Inches)



Metallic pump head models shown.

G66 Models with SAE Flange Inlet/Outlet Ports mm (Inches)

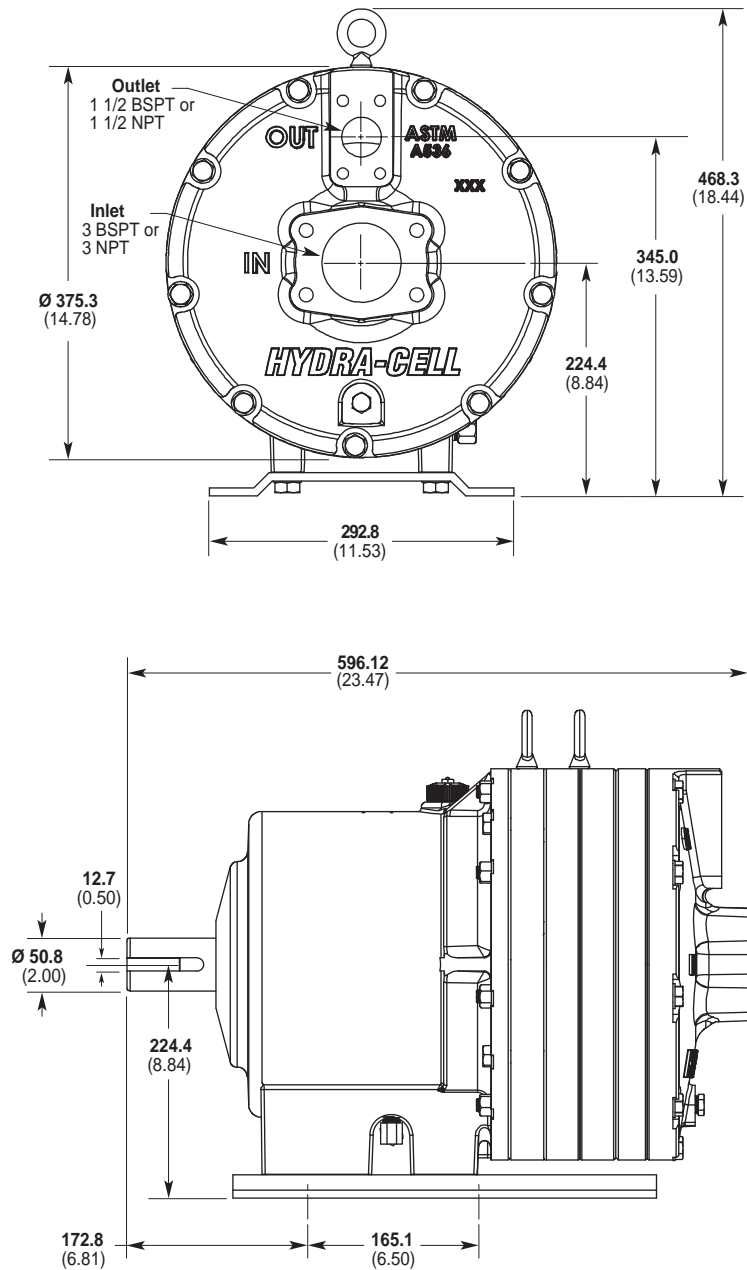


Non-metallic pump head models shown.

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

G66 Series Representative Drawings

G66 Models with BSPT Inlet/Outlet Ports mm (Inches)



Metallic pump head models shown.

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

G66 Series **How to Order**

Ordering Information

1	2	3	4	5	6	7	8	9	10	11	12
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A complete G66 Series Model Number contains 12 digits including 9 customer-specified design and materials options, for example: G66XKDGHFPA.

Digit	Order Code	Description
1-3	G66	Pump Configuration Shaft-driven
4	X	Hydraulic End Cam Max 248.7 l/min (65.7 gpm) @ 1000 rpm
5	K	Pump Head Version Kel-Cell BSPT Ports or SAE Flanges
6	B	Pump Head Material Brass
	D	Ductile Iron
	N	Polypropylene (with Hastelloy C followers and follower screws)
	P	Polypropylene (with 316 SST followers and follower screws)
	S	Stainless Steel
7	G	Diaphragm & O-ring Material FKM
	T	Buna-N
8	H	Valve Seat Material 17-4 Stainless Steel
	N	Nitronic 50
	T	Hastelloy C
9	F	Valve Material 17-4 Stainless Steel
	N	Nitronic 50
	T	Hastelloy C
10	E	Valve Springs Elgiloy
	H	17-7 Stainless Steel
11	C	Valve Spring Retainers Celcon
	M	PVDF
	P	Polypropylene
12	A	Hydra-Oil 10W30 standard-duty oil
	H	15W50 high-temp severe-duty synthetic oil

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