

G66 Series

Maximum Flow Rate: 248.7 l/min (65.7 gpm)
Maximum Pressure: 48 bar (700 psi) for Metallic Pump Heads
17 bar (250 psi) for Non-metallic Pump Heads

API 674



WANNER
Hydra-Cell[®]
Seal-less Pump Technology



G66 with Ductile Iron pump head



G66 with Polypropylene pump head

G66 Series Performance

Capacities

Flow

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

Pressure

Maximum Inlet Pressure

Metallic Pump Heads: 14 bar (200 psi)
Non-metallic Pump Heads: 3.4 bar (50 psi)

Maximum Discharge Pressure

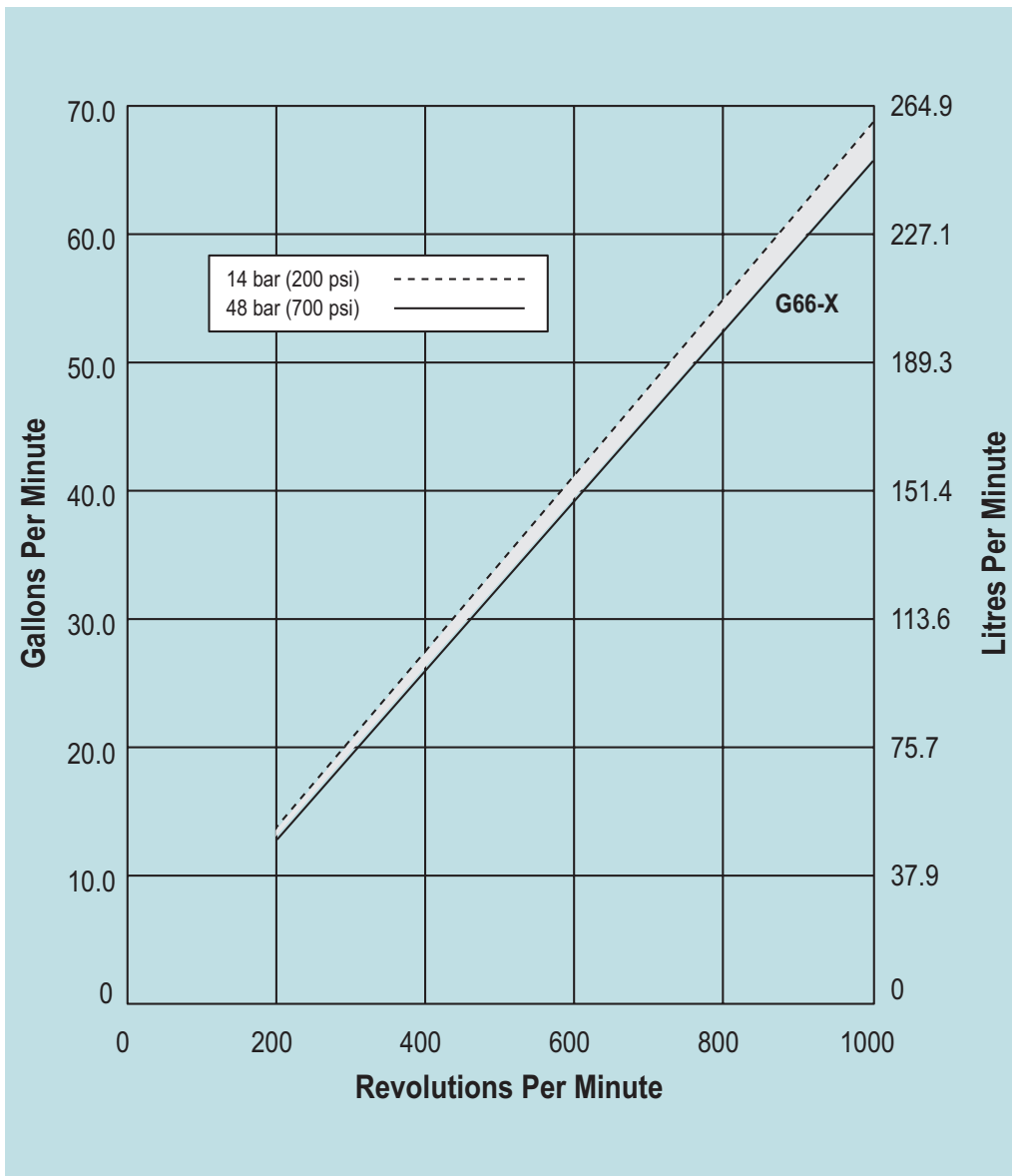
Metallic Pump Heads:
48 bar (700 psi)
Non-metallic Pump Heads:
17 bar (250 psi)

Performance and specification ratings apply to G66 configurations unless specifically noted otherwise.

Metering & Dosing

API 675 Performance Characteristics of Steady State Accuracy $\pm 1\%$, Linearity $\pm 3\%$ and Repeatability $\pm 3\%$ can be achieved at speeds up to 1000 rpm and pressures up to 48 bar (metallic pump heads) for X-cam pumps only.

Maximum Flow at Designated Pressure



G66 Series API 674 Performance

Capacities

Flow

Model	Max. Input rpm	Max. Flow @ 48 bar (700 psi)	
		gpm	l/min
G66-X	1000	65.7	248

Pressure

Maximum Inlet Pressure

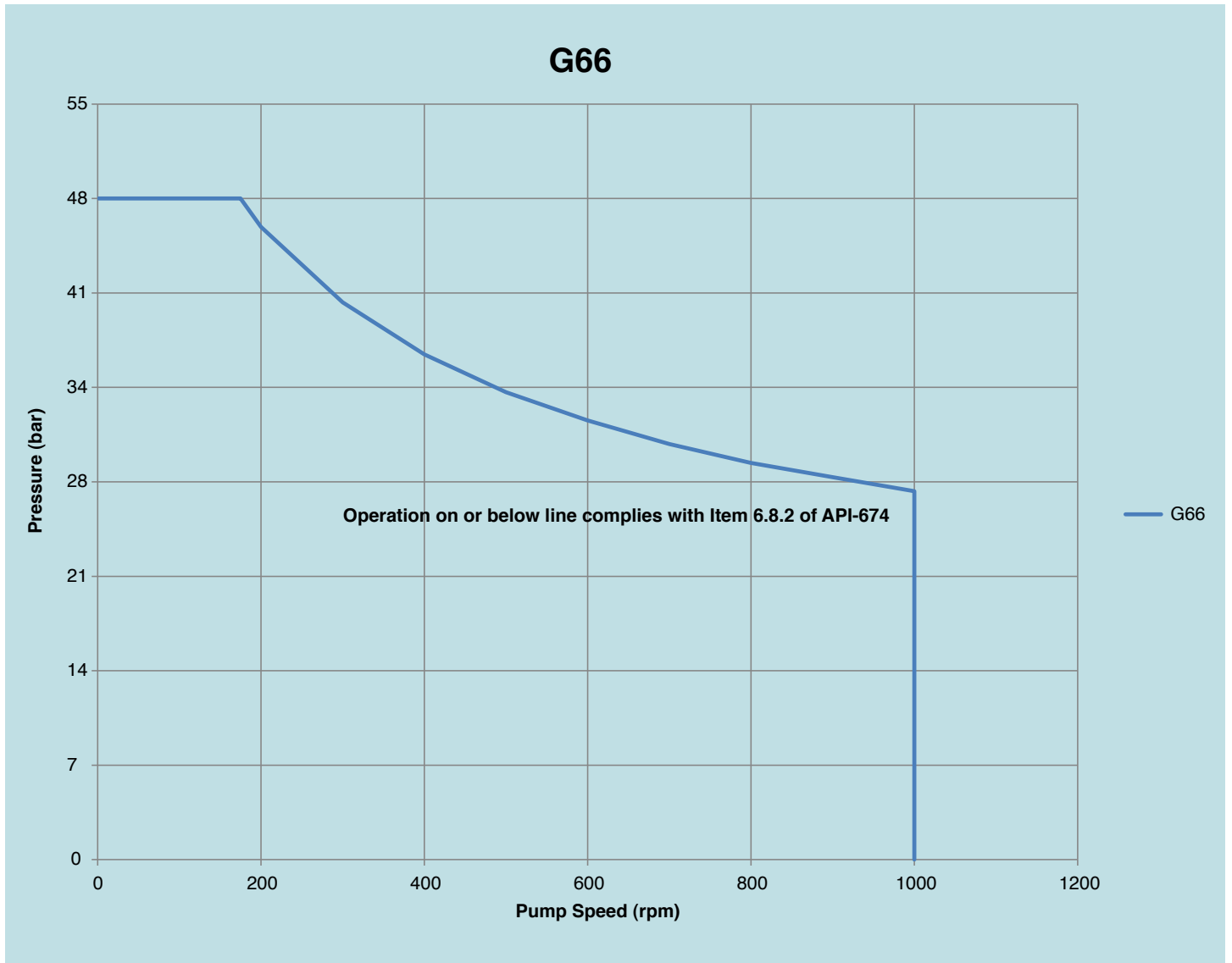
Metallic Pump Heads: 14 bar (200 psi)
 Non-metallic Pump Heads: 3.4 bar (50 psi)

Maximum Discharge Pressure

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

Performance and specification ratings apply to G66 configurations unless specifically noted otherwise.

Maximum RPM 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)	0.0675	0.255

Delivery @ 48 bar (700 psi)

Model	gal/rev	liters/rev
G66-X (Metallic)	0.0657	0.248

Maximum Discharge Pressure

Metallic Heads:	48 bar (700 psi)
Non-metallic Heads:	17 bar (250 psi)

Maximum Inlet Pressure

Metallic Heads:	14 bar (200 psi)
Non-metallic Heads:	3.4 bar (50 psi)

Maximum Operating Temperature

Metallic Heads:	93.3 °C (200 °F) - Consult factory for correct component selection for temperatures from 71 °C (160 °F) to 93.3 °C (200 °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 litres (8 US quarts)

Weight

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

Calculating Required Power

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

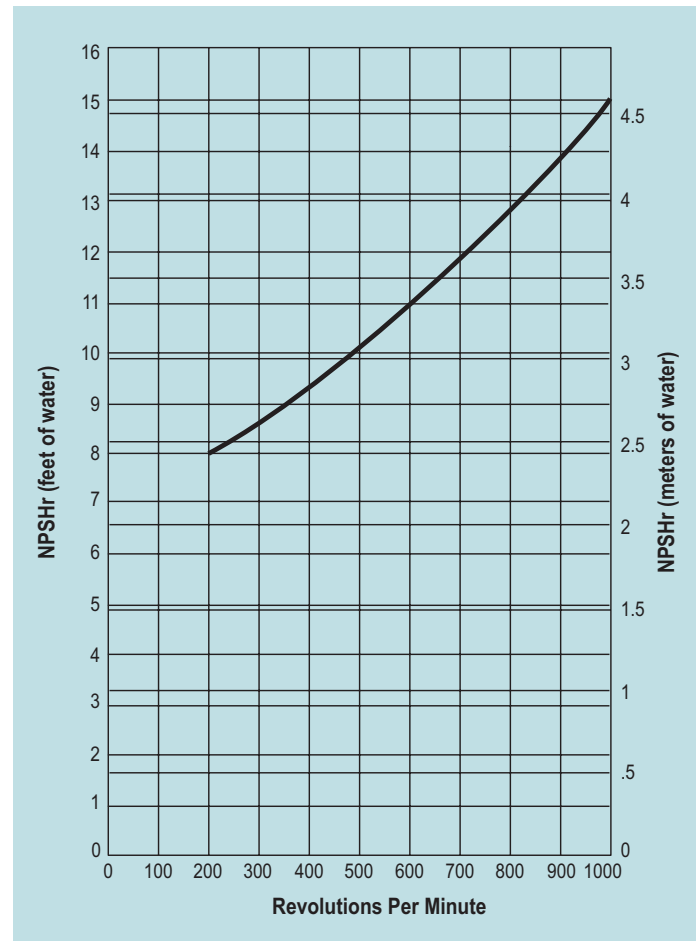
$$\frac{100 \times \text{rpm}}{84,428} + \frac{\text{l/min} \times \text{bar}}{511} = \text{electric motor kW}$$

Calculating Pulley Size

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

When using a variable frequency drive (VFD) controller, 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)

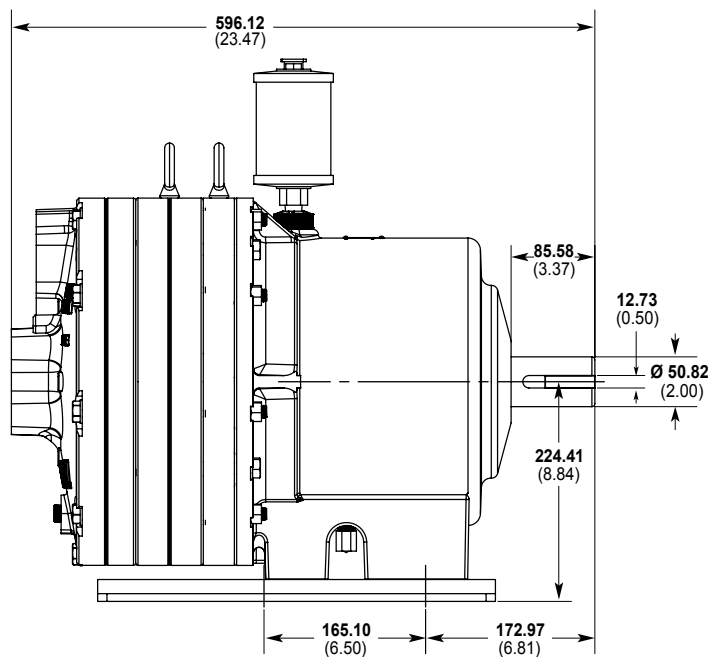
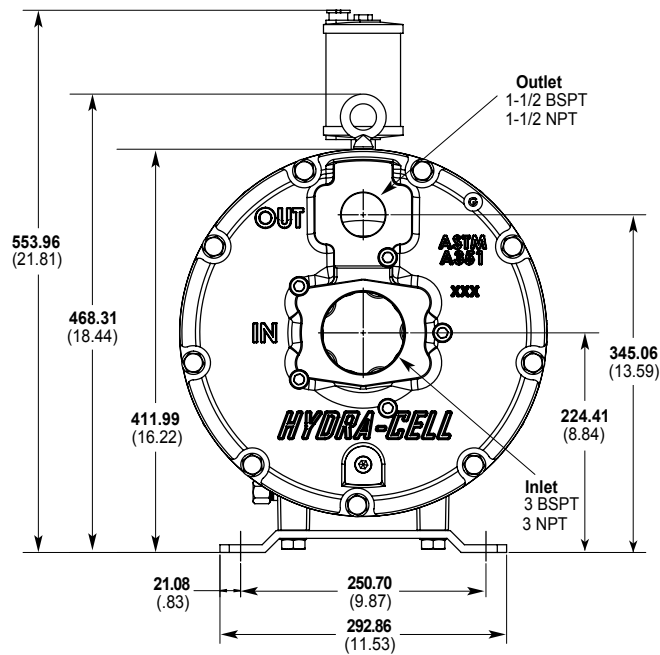


Self-priming:

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.

G66 Series Representative Drawings

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

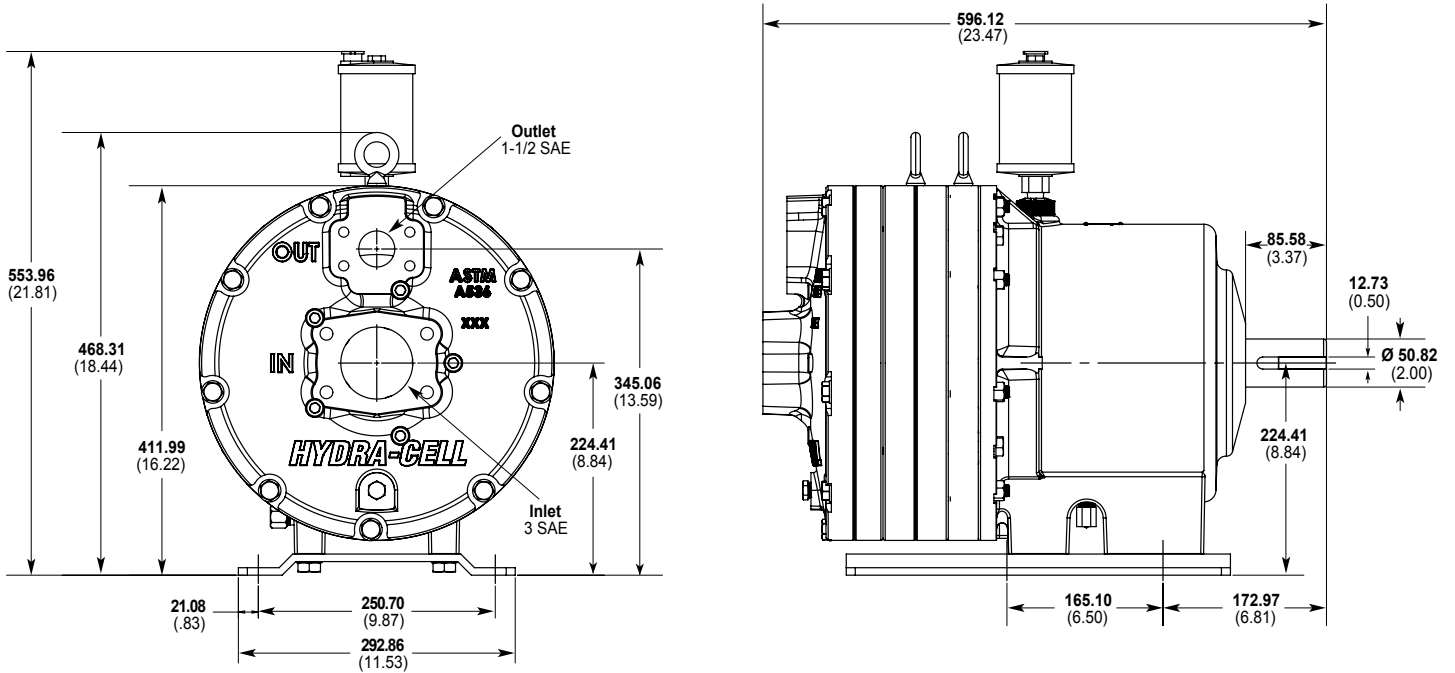


Metallic pump head models shown.

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

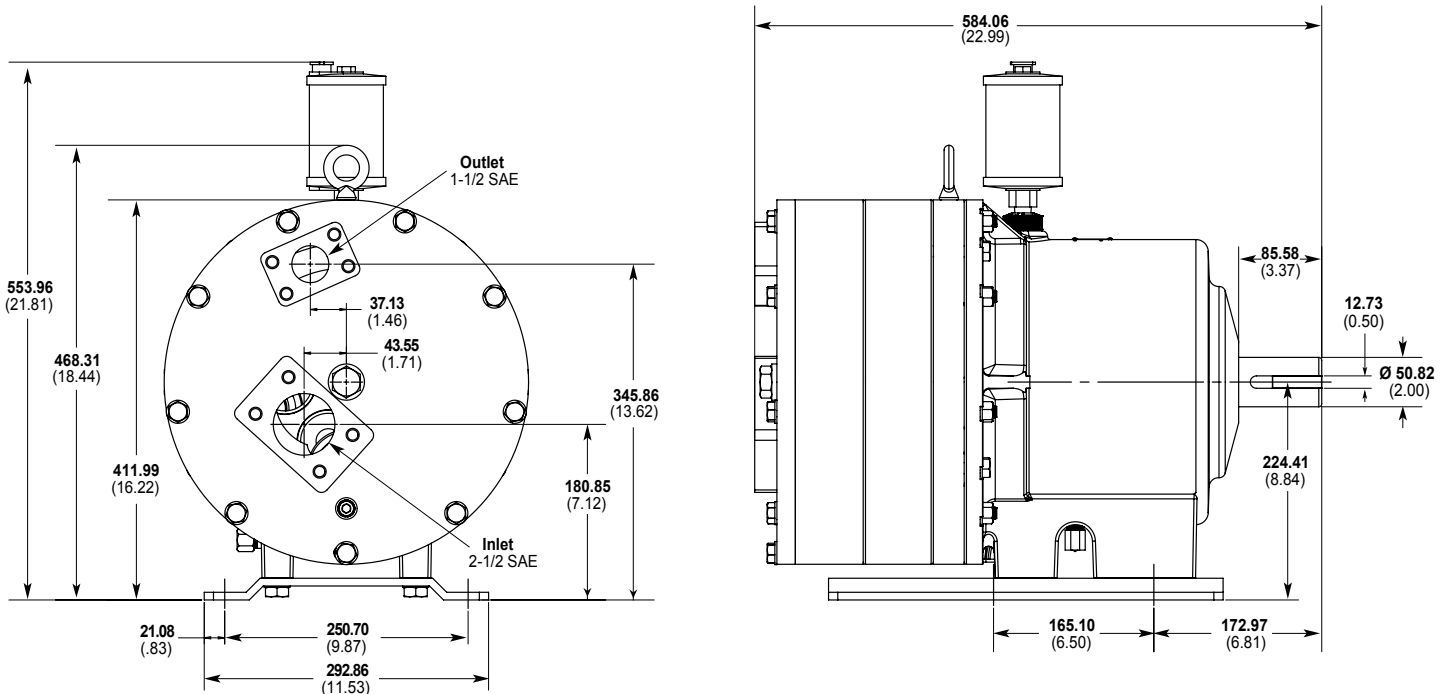
G66 Series Representative Drawings

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 How to Order

Ordering Information



A complete G66 Series Model Number contains 12 digits including 7 customer-specified design and materials options, for example: G66XKDGHFPA.

Digit	Order Code	Description
1-3		Pump Configuration
	G66	Shaft-driven (BSPT Ports)
	D66	Shaft-driven (NPT Ports)
4		Hydraulic End Cam
	X	Max 248.7 l/min (65.7 gpm) @ 1000 rpm
5		Pump Head Version
	K	Kel-Cell NPT Ports
	E	Kel-Cell SAE Flange Ports
6		Pump Head Material
	B	Brass
	C	Ductile Iron (Nickel-plated)
	N	Polypropylene (with Hastelloy C followers and follower screws)
	P	Polypropylene (with 316 SST followers and follower screws)
	S	316L Stainless Steel
7		Diaphragm & O-ring Material
	G	FKM (used with metallic heads only)
	H	FKM (used with non-metallic heads only)
	T	Buna-N (used with metallic heads only)
	U	Buna-N (used with non-metallic heads only)
8		Valve Seat Material
	H	17-4 Stainless Steel
	N	Nitronic 50
	T	Hastelloy C
9		Valve Material
	F	17-4 Stainless Steel
	N	Nitronic 50
	T	Hastelloy C
10		Valve Springs
	E	Elgiloy
	H	17-7 Stainless Steel
11		Valve Spring Retainers
	C	Celcon
	M	PVDF
12		Hydra-Oil
	H	15W50 high-temp severe-duty synthetic oil





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