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

CE

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: 17 bar (250 psi)
Non-metallic Pump Heads: 3.4 bar (50 psi)

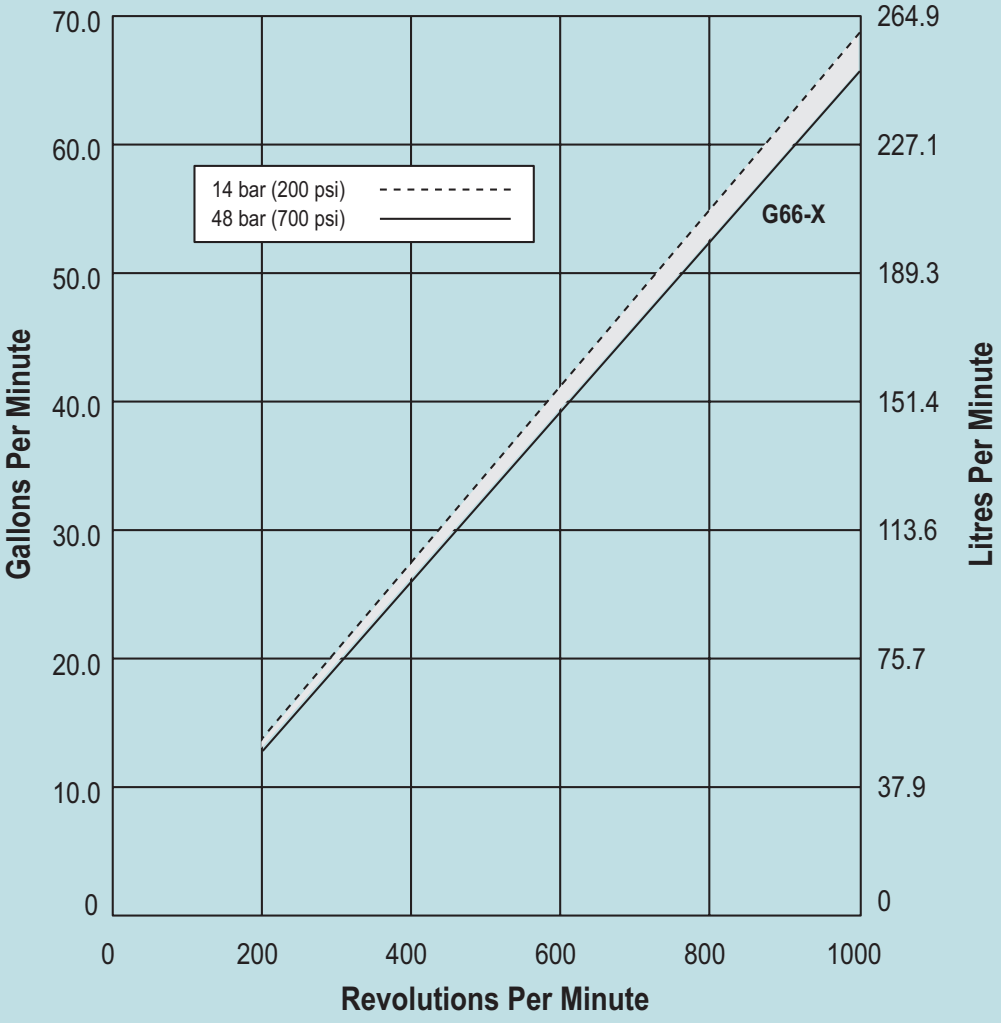
Maximum Discharge Pressure
Metallic Pump Heads:
48 bar (700 psi)
Non-metallic Pump Heads:
17 bar (250 psi)

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

Metering & Dosing

For applications requiring API 675 performance testing, please contact Wanner International.

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

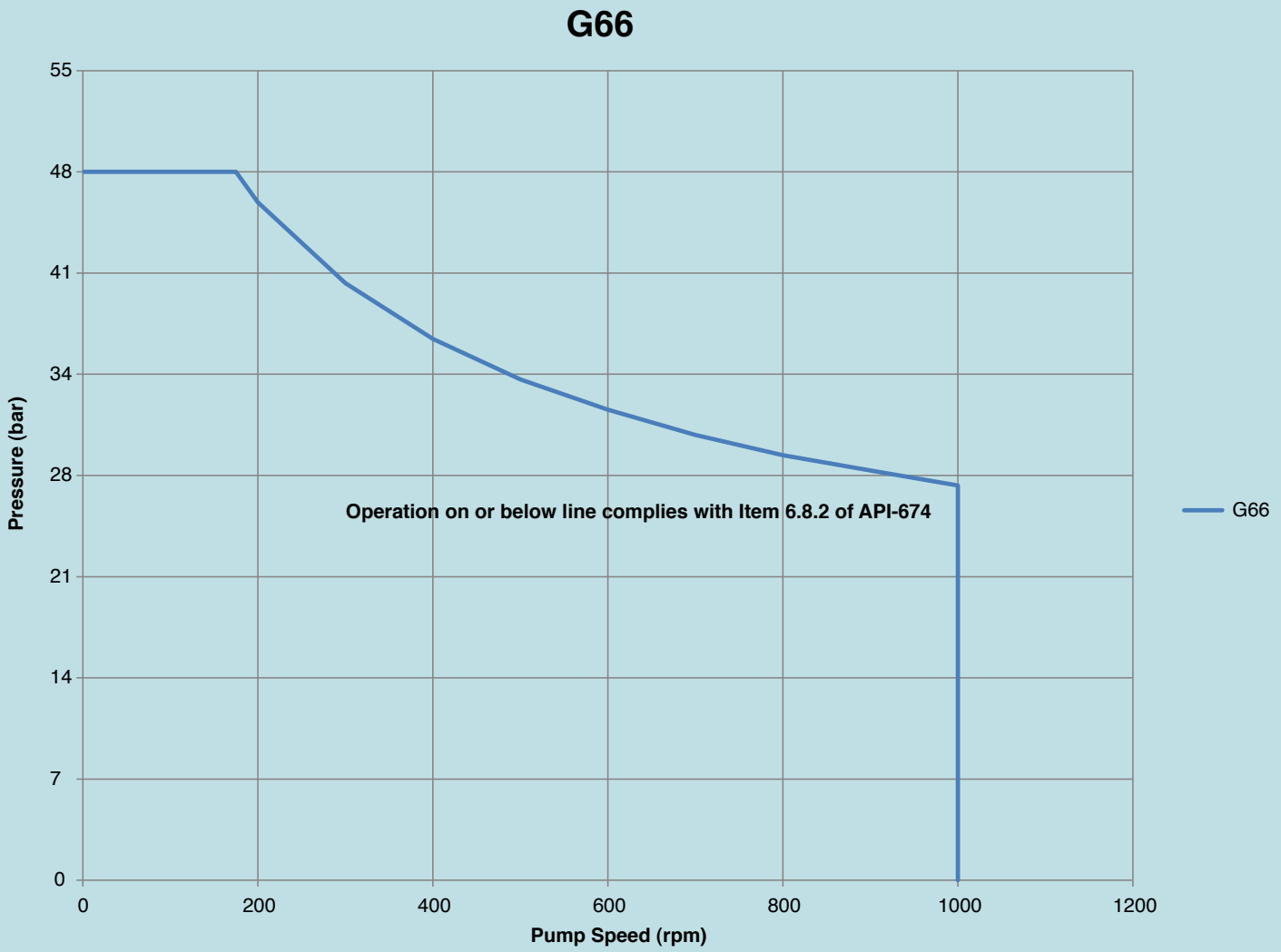
Metallic Pump Heads: 17 bar (250 psi)
Non-metallic Pump Heads: 3.4 bar (50 psi)

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:	17 bar (250 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

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

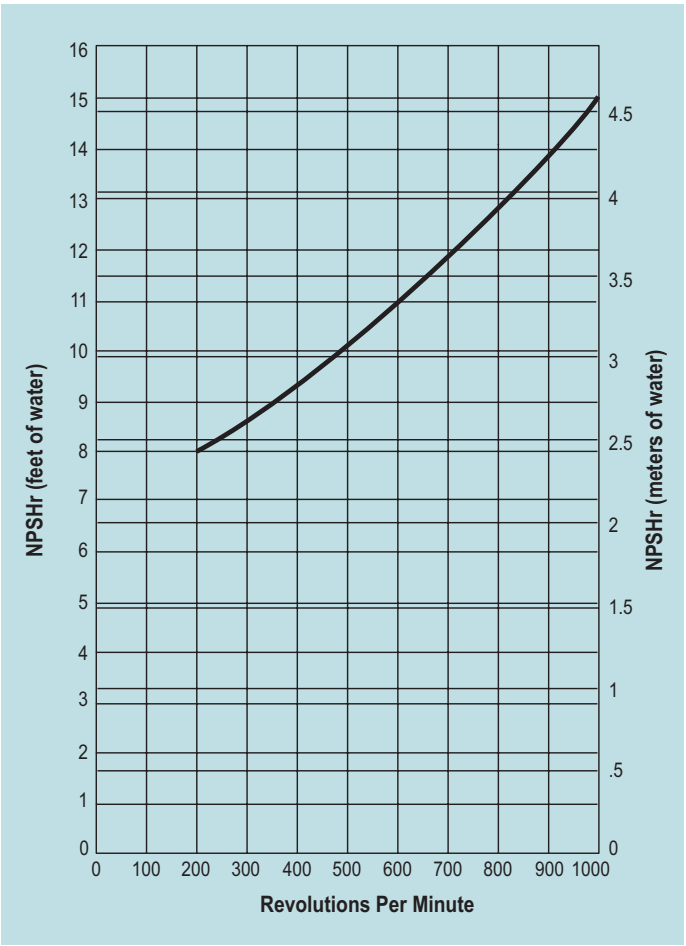
$$\frac{100 \times \text{rpm}}{84{,}428} + \frac{\text{l/min} \times \text{bar}}{511} = \text{electric motor kW}$$

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)

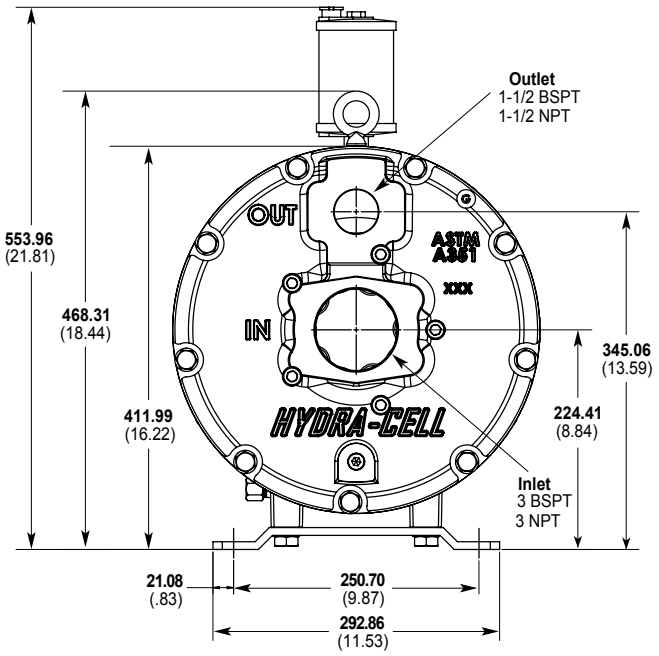


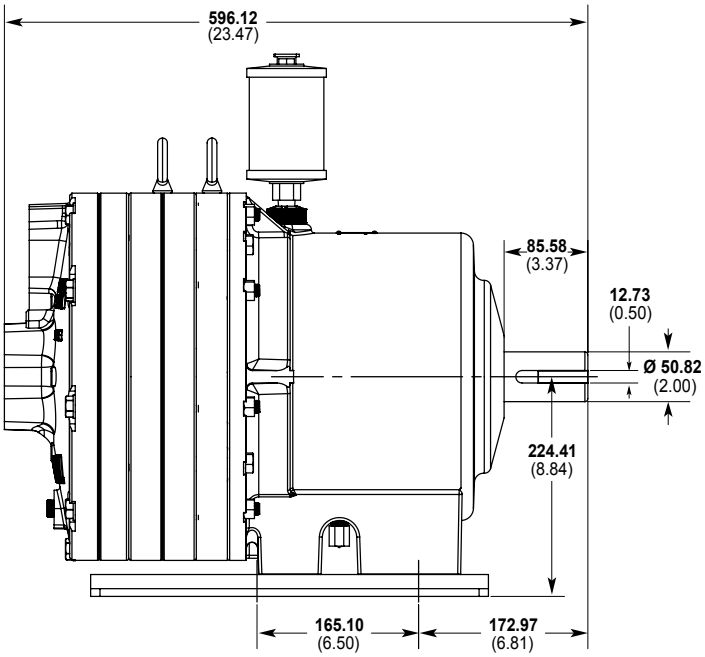
Self-priming:

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)



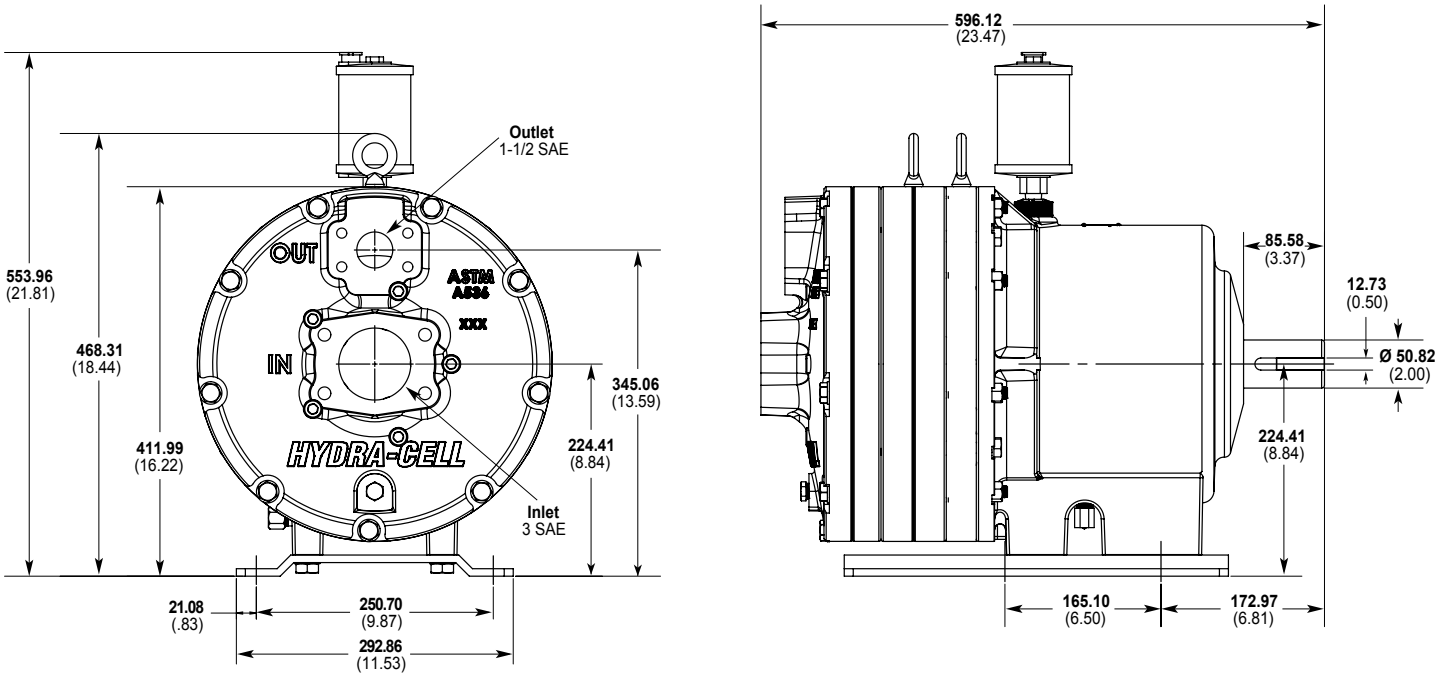


Metallic pump head models shown.

Note: *Dimensions are for reference only. Contact factory for certified drawings.*

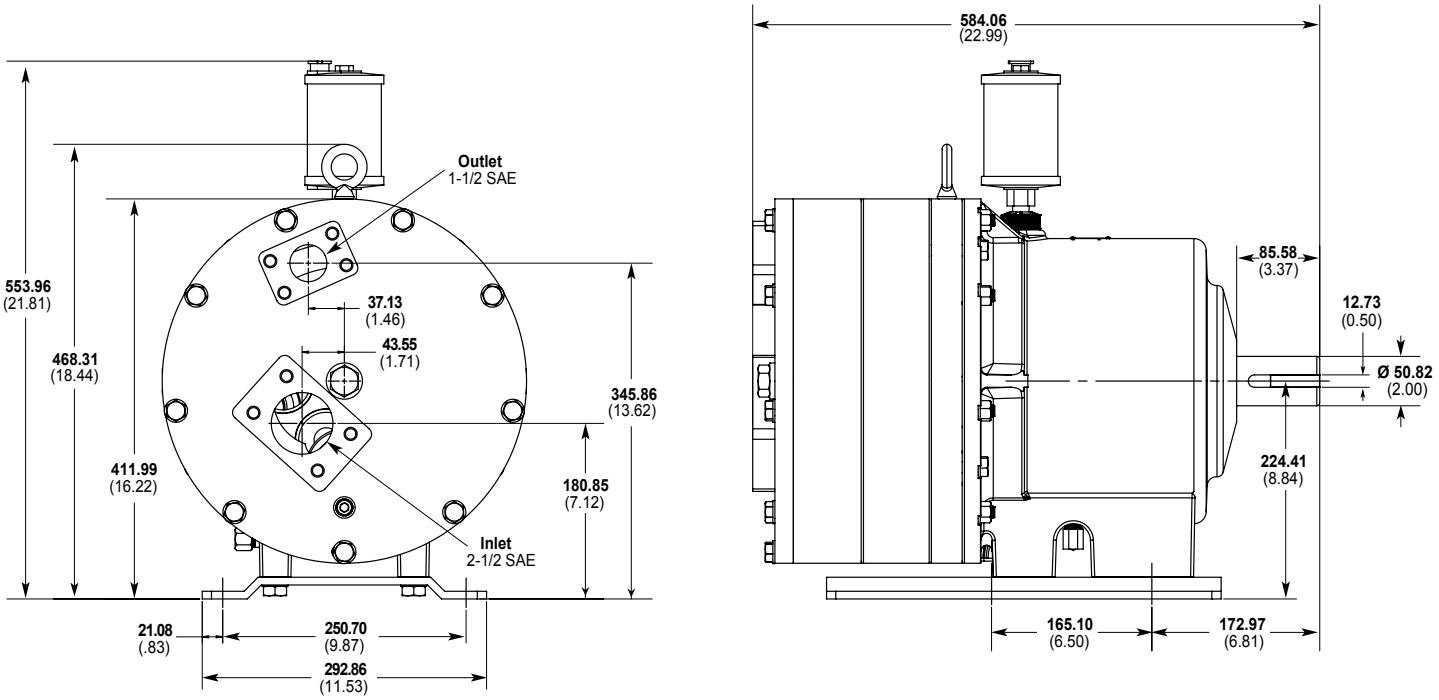
G66 Series Representative Drawings

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: *Dimensions are for reference only. Contact factory for certified drawings.*

G66 Series How to Order

Ordering Information

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

A complete G66 Series Model Number contains 12 digits including 7 customer-specified design and materials options, for example: G66XKCGHFEMH.

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 or BSPT Ports)
	E	Kel-Cell (SAE 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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G66 Version 4b 07/19

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