

D66 PRO SERIES

Maximum Flow Rate: 62.5 gpm (236.6 l/min) 2142 BPD
 Maximum Pressure: 1000 psi (69 bar) for Metallic Pump Head
 250 psi (17 bar) for Non-metallic Pump Heads

WANNER™ HYDRA-CELL® PRO SEAL-LESS PUMP TECHNOLOGIES



D66 Pro with brass pump head and SAE flanged ports.

UK
CA CE

A higher standard of pump performance and efficiency.

- Integrates **Wanner Hydra-Cell® Pro** seal-less pump technologies for the highest levels of volumetric and energy efficiencies across a full rpm range.
- Seal-less design API 674 pumps that also exceed API 675 standards for accuracy, linearity and repeatability.
- True positive displacement pumping action achieves overall efficiency of >90%, targeting improvements at lower speeds and higher pressures.
- No mechanical dynamic seals, packing, or cups to leak, wear or replace – reduces maintenance, costs and downtime.
- Pumped liquid is 100% contained – prevents degradation, contamination and environmental risks.
- Patented ADPC (Advanced Diaphragm Position Control) and hydraulic oil management system protects diaphragms under closed or restricted inlet conditions.
- Can run dry indefinitely without damage to the pump.
- Reliably handles a wide range of viscosities and shear sensitivities, corrosive liquids, abrasives, slurries and particulates.
- Reduced ownership costs in acquisition, operation, service, maintenance, and energy use.

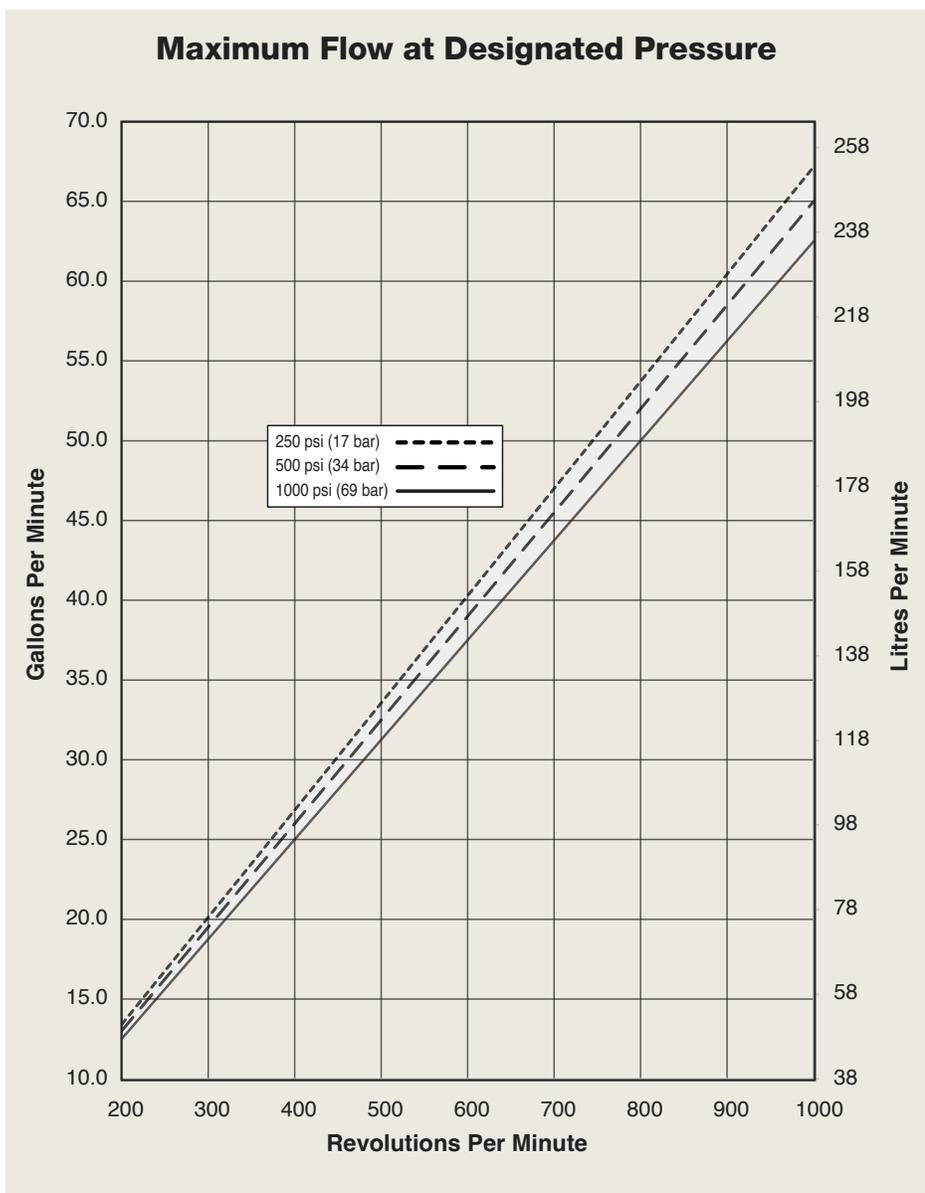


D66 Pro Series | Performance

Capacities

Model	Max. Input		Max. Flow Capacities @1000 psi (69 bar)		Max. Inlet Pressure				Max. Discharge Pressure			
	rpm	gpm	l/min	BPD	Metallic Heads		Non-Metallic Heads		Metallic Heads		Non-Metallic Heads	
					psi	bar	psi	bar	psi	bar	psi	bar
D66-X	1000	62.5	236.6	2142	250	17	50	3.4	1000	69	250	17

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



Due to the Wanner Engineering Continuous Improvement Program, specifications and other data are subject to change.

D66 Pro Series | Specifications

Flow Capacities @ 250 psi (17 bar)

Model	rpm	gpm	l/min	BPD
D66-X (Non-metallic)	1000	66.9	253.2	2293

Flow Capacities @ 500 psi (34 bar)

Model	rpm	gpm	l/min	BPD
D66-X (Metallic)	1000	65.0	246.1	2228

Flow Capacities @ 1000 psi (69 bar)

Model	rpm	gpm	l/min	BPD
D66-X (Metallic)	1000	62.5	236.6	2142

Delivery @ 250 psi (17 bar)

Model	gal/rev	liters/rev
D66-X (Non-metallic)	0.0669	0.253

Delivery @ 500 psi (34 bar)

Model	gal/rev	liters/rev
D66-X (Metallic)	0.0650	0.246

Delivery @ 1000 psi (69 bar)

Model	gal/rev	liters/rev
D66-X (Metallic)	0.0625	0.237

Maximum Discharge Pressure

Metallic Heads:	1000 psi (69 bar)
Non-metallic Heads:	250 psi (17 bar)

Maximum Inlet Pressure

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

Maximum Operating Temperature

Metallic Heads:	200°F (93.3°C) Consult factory for correct component selection for temperatures from 160°F (71°C) to 200°F (93.3°C).
Non-metallic Heads:	120°F (49°C) Consult factory for temperatures above 120°F (49°C).

Calculating Required Power

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

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

Attention!

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.

Calculating Pulley Size

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

Maximum Solids Size 800 microns

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

Discharge Port	1-1/2 inch NPT
	1-1/2 inch SAE

Shaft Diameter	2 inch (50.8 mm)
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Shaft Rotation	Reverse (bi-directional)
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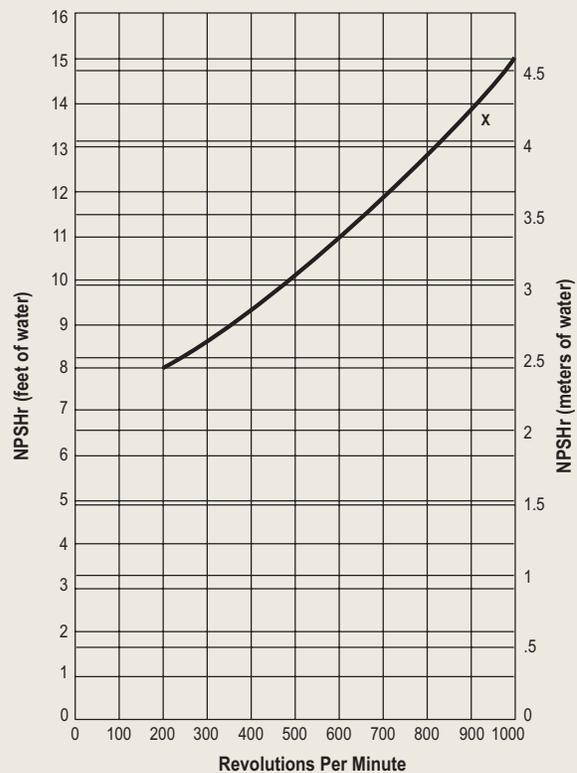
Bearings	Tapered roller bearings
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Oil Capacity	11 US quarts (10.4 liters)
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Weight

Metallic Heads:	400 lbs. (181 kg)
Non-metallic Heads:	275 lbs. (125 kg)

Net Positive Suction Head (NPSHr)



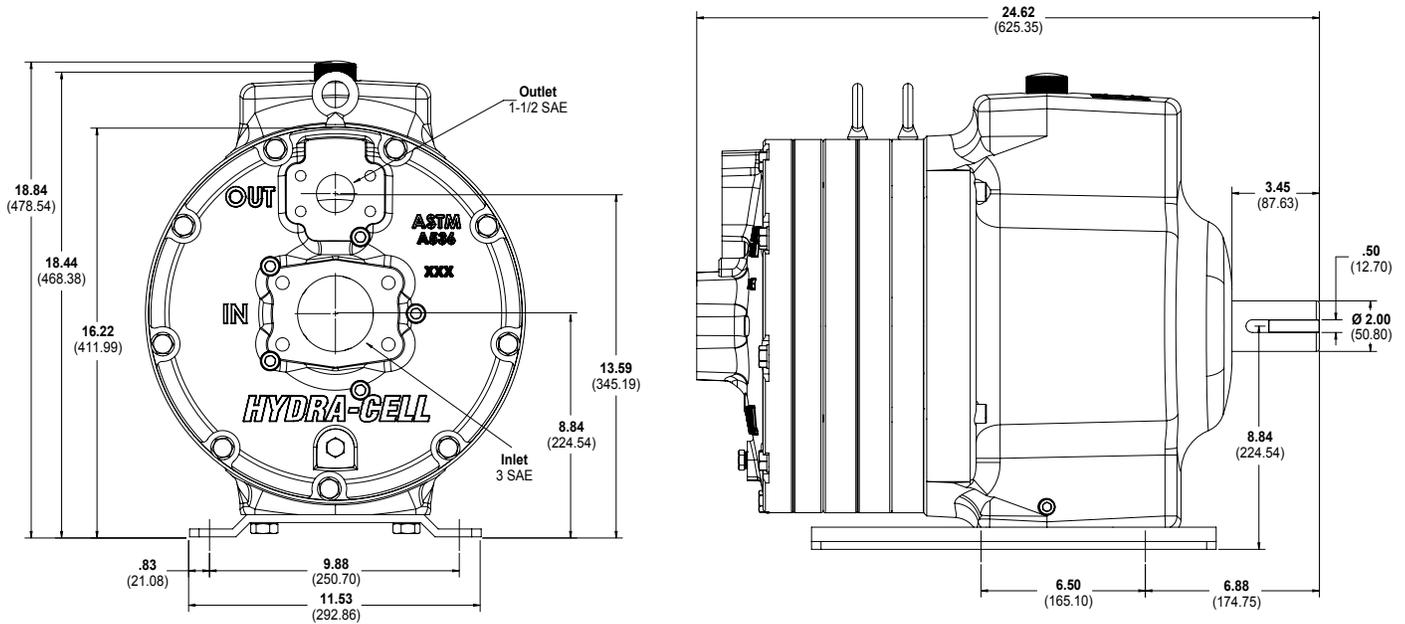
Suction Lift

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 Product Manual. Compare those calculations to the NPSHr curves above.

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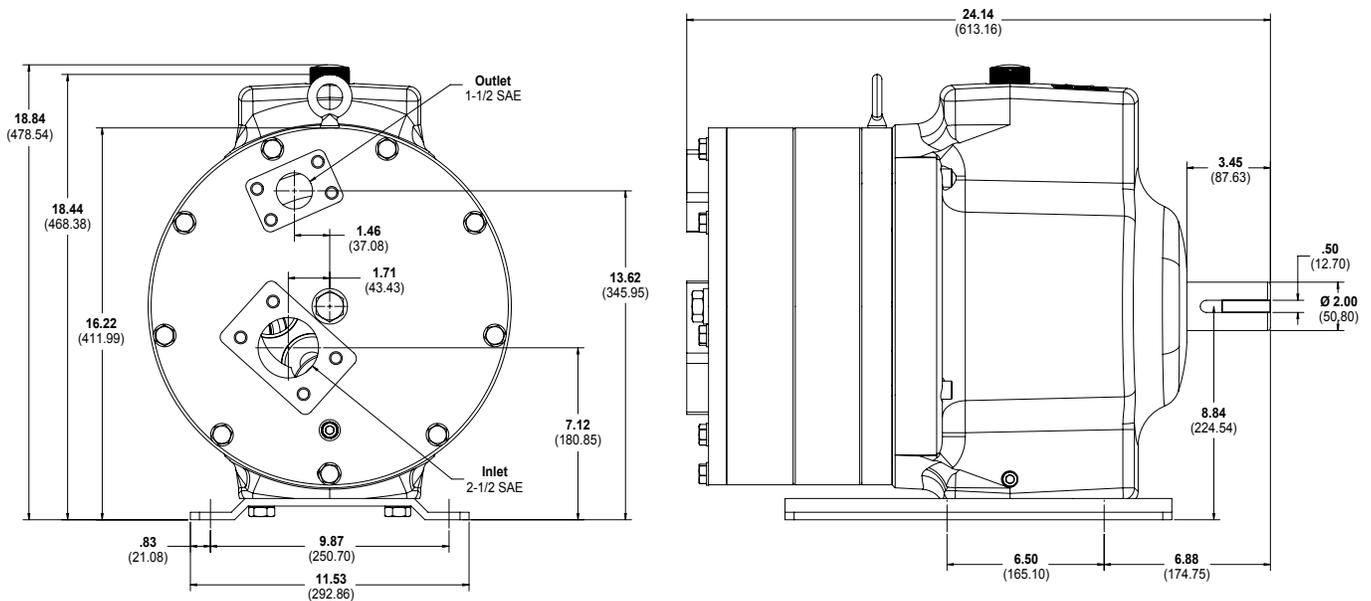
D66 Pro Series | Representative Drawings

D66 Models with SAE Flange Inlet/Outlet Ports Inches (mm)



Metallic pump head models shown.

D66 Models with SAE Flange Inlet/Outlet Ports Inches (mm)

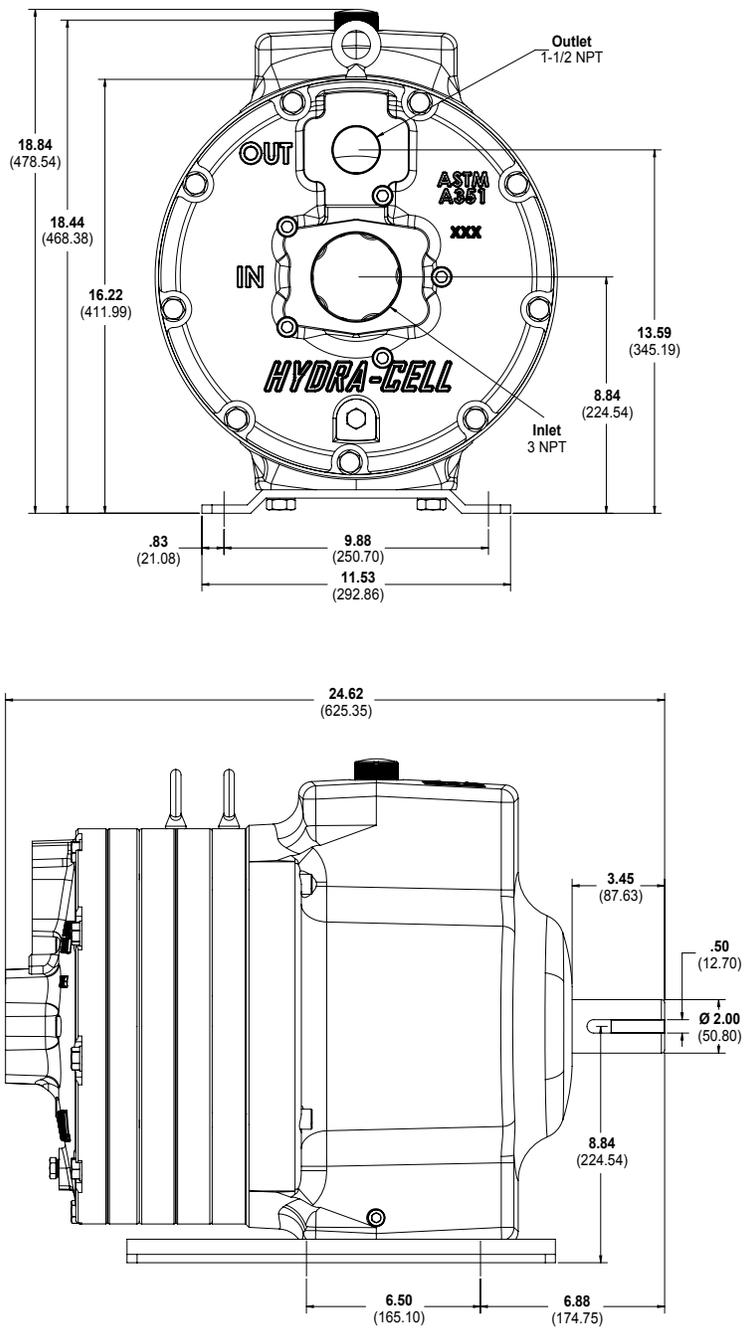


Non-metallic pump head models shown.

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

D66 Pro Series | Representative Drawings

D66 Models with NPT Flange Inlet/Outlet Ports Inches (mm)



Metallic pump head models shown.

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

D66 Pro Series | Options

Consult the Hydra-Cell Master Catalog for:

- Motors, bases, couplings and other pump accessories
- Hydra-Oil selection and specification information
- Design considerations, installation guidelines, and other technical assistance in pump selection



D66 Pro with Brass pump head and threaded ports.



D66 Pro with Brass pump head and SAE flanged ports



D66 Pro with Stainless Steel pump head



D66 Pro with Polypropylene pump head

D66 Pro Series | How to Order

Ordering Information

A complete D66 Pro Series Model Number contains 12 digits including 8 customer-specified design and materials options, for example: D66XPBTHFECH.

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

Digit	Order Code	Description
1-3	D66	Pump Configuration Shaft-driven
4	X	Hydraulic End Cam Max. 62.5 gpm (236.6 l/min) 2142 BPD @ 1000 rpm
5	P E	Pump Head Version Hydra-Cell Pro Hydra-Cell Pro SAE Flanges
6	B C G N S	Pump Head Material Brass Ductile Iron (Nickel-plated) Duplex Alloy 2205 Stainless Steel (with Hastelloy C followers & follower screws) Polypropylene (with Hastelloy C followers and follower screws) - SAE only 316L Stainless Steel
7	E R G H T U	Diaphragm & O-ring Material EPDM (used with metallic heads only) EPDM (used with non-metallic heads only) FKM (used with metallic heads only) FKM (used with non-metallic heads only) Buna-N (used with metallic heads only) Buna-N (used with non-metallic heads only)
8	H N T	Valve Seat Material 17-4 Stainless Steel Nitronic 50 Hastelloy C
9	F N T	Valve Material 17-4 Stainless Steel Nitronic 50 Hastelloy C

Digit	Order Code	Description
10	E T	Valve Springs Elgiloy Hastelloy C
11	C M	Valve Spring Retainers Celcon PVDF
12	C H	Hydra-Oil EPDM-compatible oil 15W50 high-temp severe-duty synthetic oil

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WANNER ENGINEERING, INC.

WORLD HEADQUARTERS & MANUFACTURING

Minneapolis, Minnesota USA
t: 612-332-5681
e: sales@wannereng.com
Hydra-Cell.com

REGIONAL OFFICE

Wichita Falls, Texas USA
t: 940-322-7111
e: sales@wannereng.com

LATIN AMERICAN OFFICE

São Paulo, Brazil
t: +55 (11) 99582-1969
e: mmagoni@wannereng.com
Hydra-Cell-Pumps.com.br

WANNER INTERNATIONAL, LTD.

UNITED KINGDOM

Church Crookham,
Hampshire UK GU52 8BF
t: +44 (0) 1252 816847
e: support@wannerint.com
Hydra-Cell.co.uk

WANNER PUMPS, LTD.

Kowloon, HONG KONG
t: +852 3428 6534
e: sales@wannerpumps.com
WannerPumps.com

Shanghai, CHINA
t: +86-21-6876 3700
e: sales@wannerpumps.com
WannerPumps.com

WANNER INDIA PVT. LTD.

Mumbai, INDIA
t: +91 (22) 22044766
e: support@wannerindia.com
WannerIndia.com

