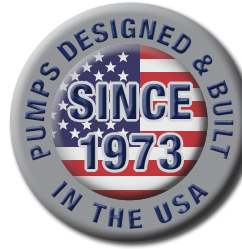


WANNER HYDRA-CELL PRO[®] SEAL-LESS PUMP TECHNOLOGIES



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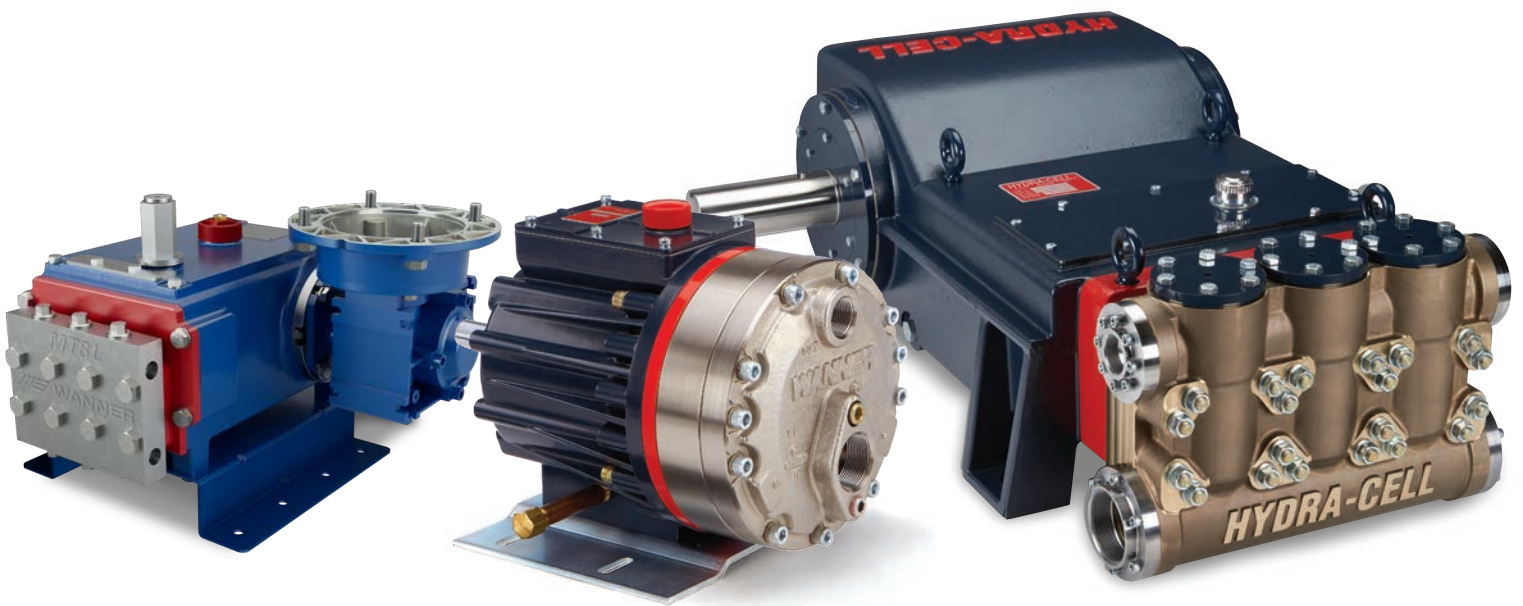
“If the owner of a plant wants cost-effective pumps...he will buy pumps with the lowest Life Cycle Cost. Hydra-Cell is simple in construction, less elaborate in design and physically smaller for equivalent flow/pressure performance. These differences can substantially affect both purchase and operating costs.”

Dr. Ing Friedrich Wilhelm Hennecke
Chemical Engineering World

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NO PACKING.
NO SEALS.
NO LEAKS.



WANNER HYDRA-CELL PRO®
THE **NO-PROBLEM** PUMPS.



LEADING INNOVATION IN SEAL-LESS PUMP TECHNOLOGIES



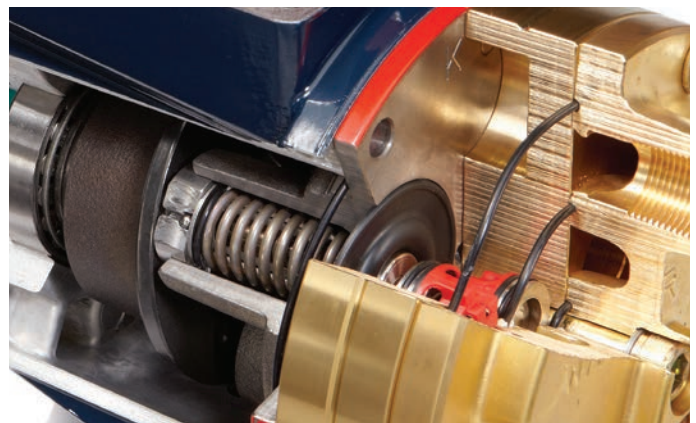
Hydra-Cell Pro® Design Advantages

- Positive displacement pump with hydraulically balanced, unstressed diaphragms.
- Seal-less design can handle abrasive particulates (up to 800 microns in size depending on model) and solids in suspension.
- Wide range of flow capacities and pressure ratings to meet a variety of applications in many industries.
- Heavy-duty construction for long service life in harsh conditions.
- Flexible installation with a variety of mounting configurations.
- Repeatable, accurate output with smooth, virtually pulse-free flow.
- Flow rate is virtually independent of operating pressure.
- Pumping efficiency is sustainable long-term – not vulnerable to internal wear.
- High efficiency, low power consumption.
- Minimal maintenance, no mechanical seals, cups, or packing to leak, wear, or replace.
- Can run dry without damage to the pump.

Patented Advanced Diaphragm Position Control

Advanced Diaphragm Position Control (ADPC) technology protects Hydra-Cell Pro pumps by safeguarding the diaphragms against abnormal or adverse conditions (e.g. blocked pipe or filter, inadequate liquid supply or discharge pressure).

The positioning system stabilizes the diaphragms and virtually eliminates the possibility of incidental diaphragm failure.



Hydra-Cell Pro® | Capabilities and Applications

◀ Non-Lubricating

Propane/
Butane Freon Ammonia Polymers Fuels/
Additives D.I. Water Glycols Chlorine

Viscous Abrasives ▶

Acids/
Caustics Glues/
Adhesives Inks/
Paints Resins Slurries

Fluid Handling Capabilities

Wanner Hydra-Cell Pro® positive displacement pumps feature a seal-less pumping chamber and hydraulically-balanced diaphragm design, enabling the pumps to provide leak-free, low-maintenance performance while processing the most difficult fluids over a wide range of pressures and flows.

From thin liquids to highly viscous resins and slurries, robust Hydra-Cell Pro pumps handle the full spectrum of process fluids while maintaining high-efficiency operation. This includes non-lubricating fluids as well as fluids with abrasives and particulates that can damage or destroy other types of pumps.

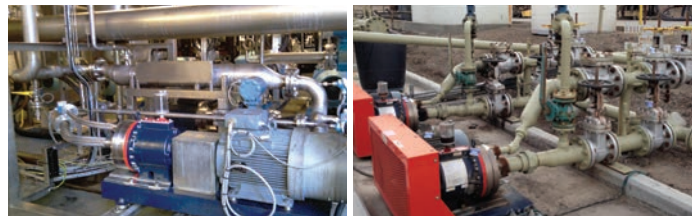
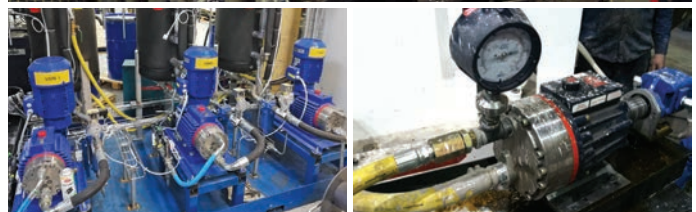
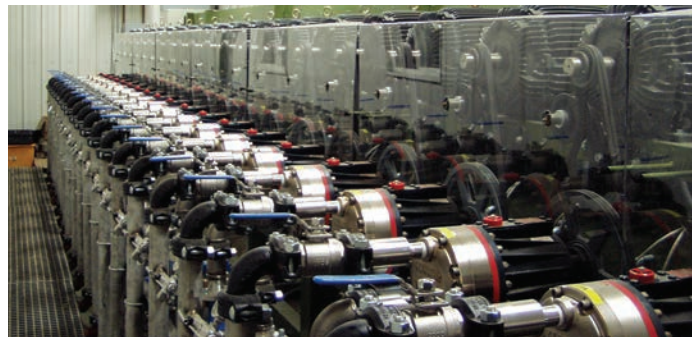
Materials of Construction Selection

- Metallic pump heads in several materials to handle higher pressures and to accommodate SAE, DIN, or ANSI flanges (where available).
- Non-metallic pump heads to process corrosive or aggressive fluids at lower pressures.
- Diaphragms and corresponding o-rings in various elastomeric materials.
- Valve assemblies in a wide range of metallic and non-metallic materials to suit specific process applications. Includes valve seats, valves, valve springs, and valve spring retainers.



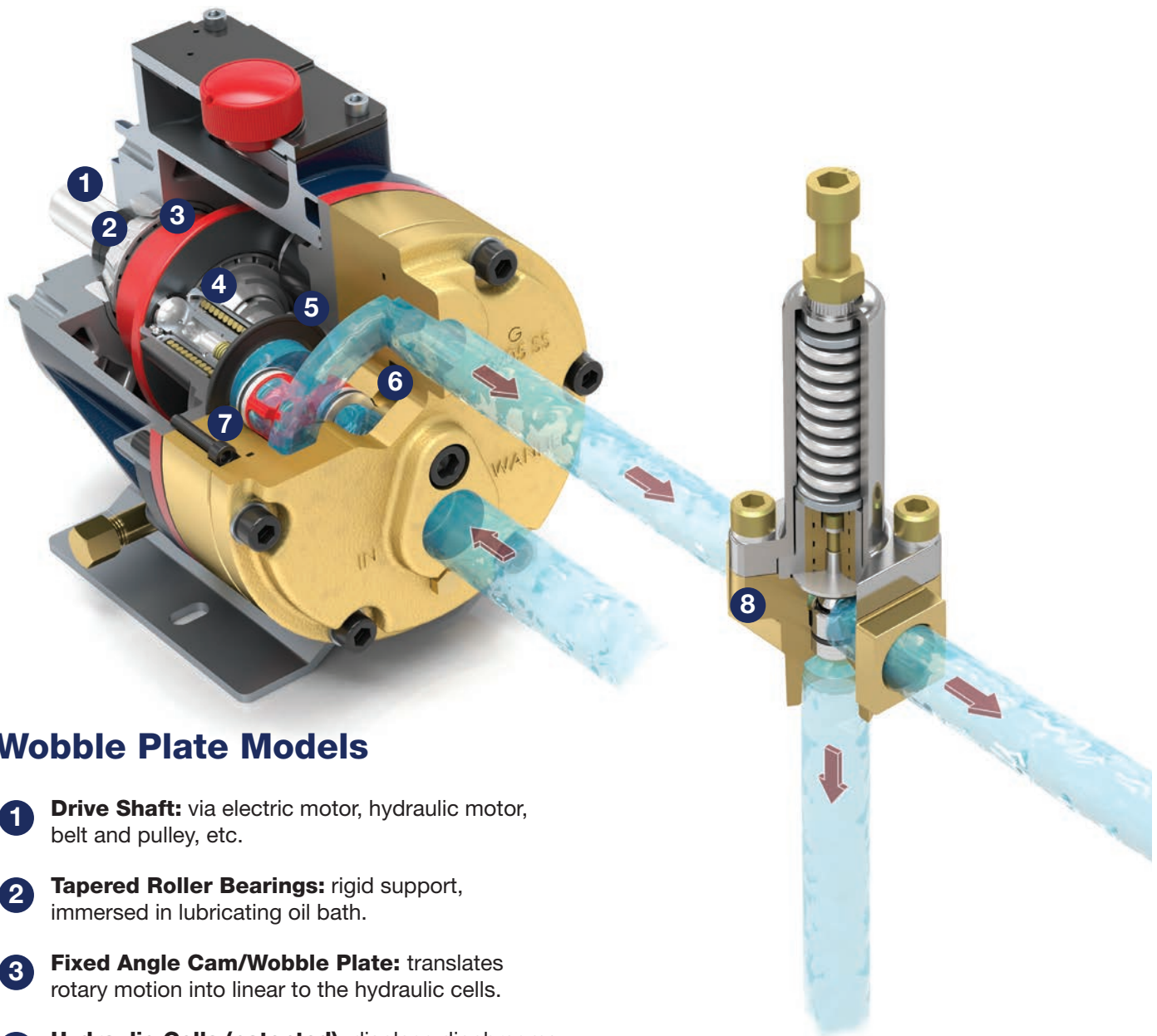
Seal-less compact design, durability and simplicity make Hydra-Cell Pro pumps the optimum choice for handling aggressive fluids, abrasive fluids with particles, and

- Hot fluids
- Reclaim water
- Corrosive fluids
- Slurries
- Abrasives
- Liquid gases
- Wettable powders
- Fertilizers
- Cutting fluids
- Viscous fluids
- Ultrapure fluids
- Chemicals
- Adhesives
- Soap solutions
- Salt water
- ... and many more



Primary Pumping Applications

- Adding
- Blending
- Cleaning
- Cooling
- Coating
- Dosing
- Filling
- Filtering
- Injecting
- Metering
- Mixing
- Spraying
- Transferring

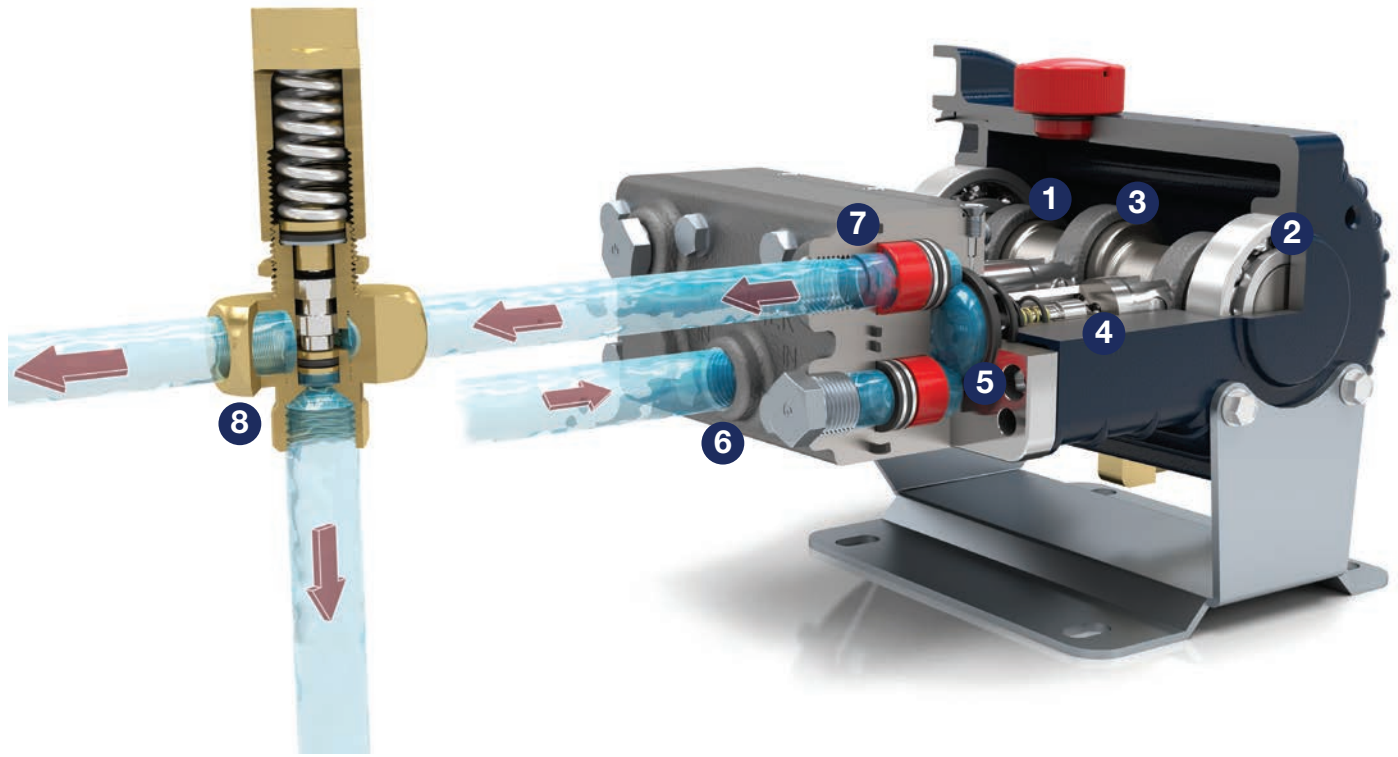


Wobble Plate Models

- 1 Drive Shaft:** via electric motor, hydraulic motor, belt and pulley, etc.
- 2 Tapered Roller Bearings:** rigid support, immersed in lubricating oil bath.
- 3 Fixed Angle Cam/Wobble Plate:** translates rotary motion into linear to the hydraulic cells.
- 4 Hydraulic Cells (patented):** displace diaphragms via pressurized oil.
- 5 Diaphragms:** hydraulic balanced, no stress during flexing.
- 6 Inlet Valve Assembly:** simple design, allows liquid into pump chamber.
- 7 Discharge Valve Assembly:** allows liquid to flow into pressure discharge line.
- 8 C62 Pressure Regulating Valve:** controls output pressure and prevents pump overload.

Available Models

Wobble plate models are featured on select Hydra-Cell Pro pumps, including the D10/G10, D12/G12, D15/G15 & D17/G17, H25/G25, D35/G35, D66/G66 series; and the P400, P500, P600, and P700 series metering pumps.

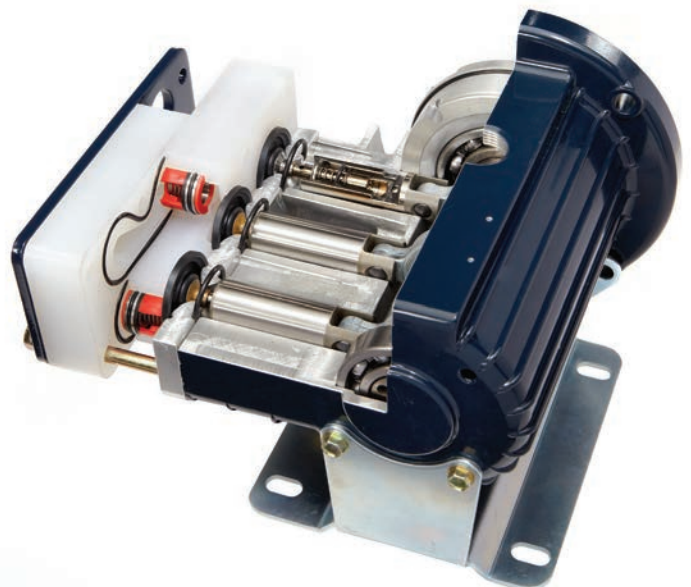


Crankshaft Models

- 1 **Drive Shaft:** via electric motor, hydraulic motor, belt and pulley, etc.
- 2 **Precision Ball Bearings:** rigid support, immersed in lubricating oil bath.
- 3 **Connecting Rods:** hardened, precision ground, and polished.
- 4 **Hydraulic Cells (patented):** displace diaphragms via pressurized oil.
- 5 **Diaphragms:** hydraulically balanced, no stress during flexing.
- 6 **Inlet Valve Assembly:** simple design, allows liquid into pump chamber.
- 7 **Discharge Valve Assembly:** allows liquid to flow into discharge pressure line.
- 8 **C46 Pressure Regulating Valve (In-line):** controls output pressure and prevents pump overload.

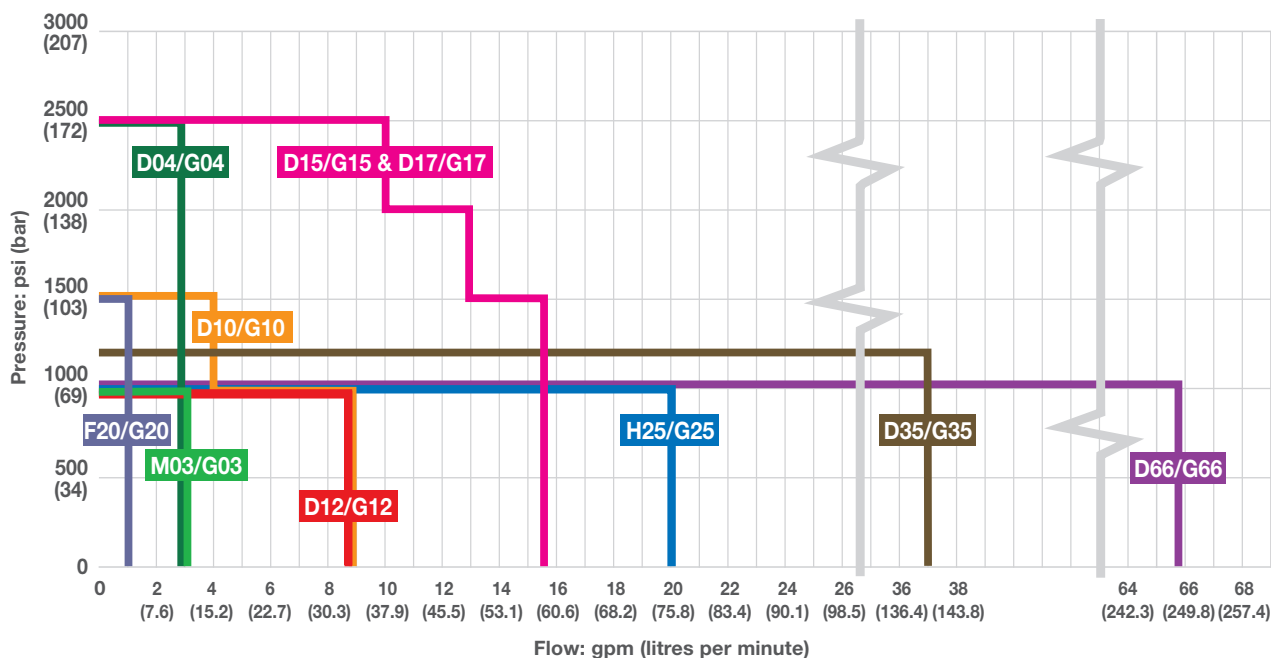
Available Models

Crankshaft models are featured on select Hydra-Cell Pro pumps, including the F20/G20/G22, M03/D03/G03/G13, D04/G04 series; the T & Q series; and the MT8, P100, P200, and P300 series metering pumps.



Hydra-Cell Pro® | Flow Capacities and Pressure Ratings

F/M/D/H Series and 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 Performance graphs on subsequent pages for precise flow and pressure capabilities by specific pump configuration.

* **Note:** G Series Hydra-Cell Seal-less Pumps are the metric versions of the pumps.

Model ¹	Maximum Capacity gpm (l/min)	Maximum Discharge Pressure psi (bar)		Maximum Operating Temperature F (C) ³		Maximum Inlet Pressure psi (bar)
		Non-metallic ²	Metallic	Non-metallic ²	Metallic	
F20/G20	1.0 (3.8)	350 (24)	1000 (69)	140° (60°)	250° (121°)	250 (17)
G22	1.0 (3.8)	350 (24)	1500 (103)	140° (60°)	250° (121°)	250 (17)
M03/G03	3.1 (11.7)	350 (24)	1000 (69)	140° (60°)	250° (121°)	250 (17)
D04/G04	2.9 (11.2)	N/A	2500 (172)	N/A	250° (121°)	500 (34)
D10⁴/G10⁴	4.3 (15.1)	N/A	1500 (103)	N/A	250° (121°)	250 (17)
D10/G10	8.8 (33.4)	350 (24)	1000 (69)	140° (60°)	250° (121°)	250 (17)
D12/G12	8.8 (33.4)	N/A	1000 (69)	N/A	250° (121°)	250 (17)
D15/G15 & D17/G17	15.5 (58.7)	N/A	2500 (172)	N/A	250° (121°)	500 (34)
H25/G25	20.0 (75.9)	350 (24)	1000 (69)	140° (60°)	250° (121°)	250 (17)
D35/G35	36.5 (138)	N/A	1200 (83)	N/A	250° (121°)	500 (34)
D66⁵/G66⁵	62.5 (236.6)	250 (17)	1000 (69)	120° (49°)	200° (93.3°)	250 (17) ⁶

1 Ratings are for cam design with the highest flow rate.

2 350 psi (24 bar) maximum with PVDF liquid end; 250 psi (17 bar) maximum with Polypropylene liquid end.

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

4 D10/G10 @790 rpm maximum.

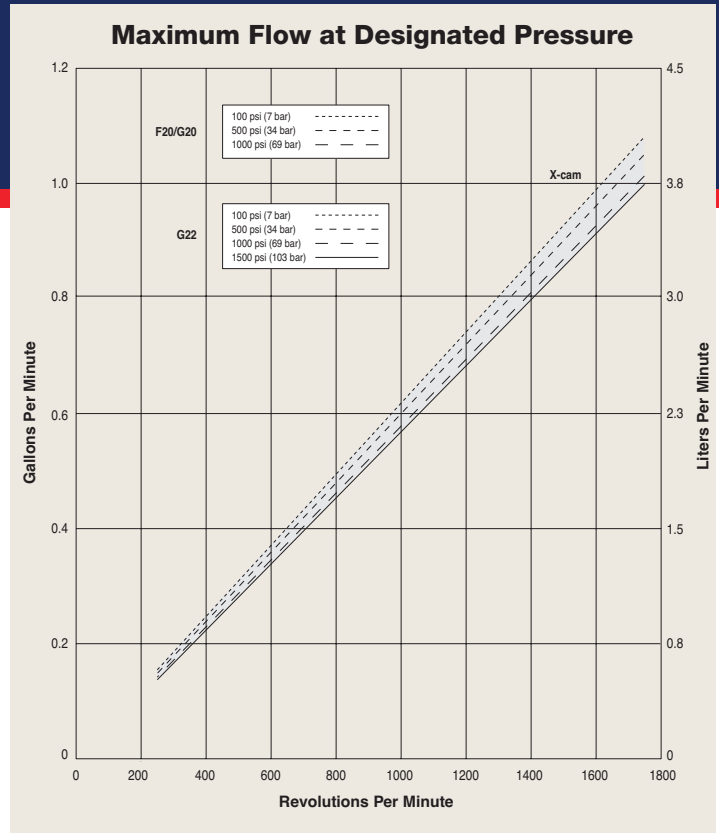
5 D66/G66 maximum inlet pressure 50 psi (3.4 bar) for non-metallic models.

F20/G20/G22 Pro Series

Max. Flow Rate: 1.0 gpm (3.8 l/min)
 Max. Pressure: F20/G20: 1000 psi (69 bar), G22: 1500 psi (103 bar) for Metallic Pump Heads
 350 psi (24 bar) for Non-metallic Pump Heads



F20/G20 close-coupled for 56C frame or IEC 80 footed motors shown. G22 models to IEC 80 - 90 B5 frame motors. Pump head materials include (metallic) Brass, 316L Stainless Steel and Hastelloy C and (non-metallic) Polypropylene and PVDF.



M03/G03 Pro Series

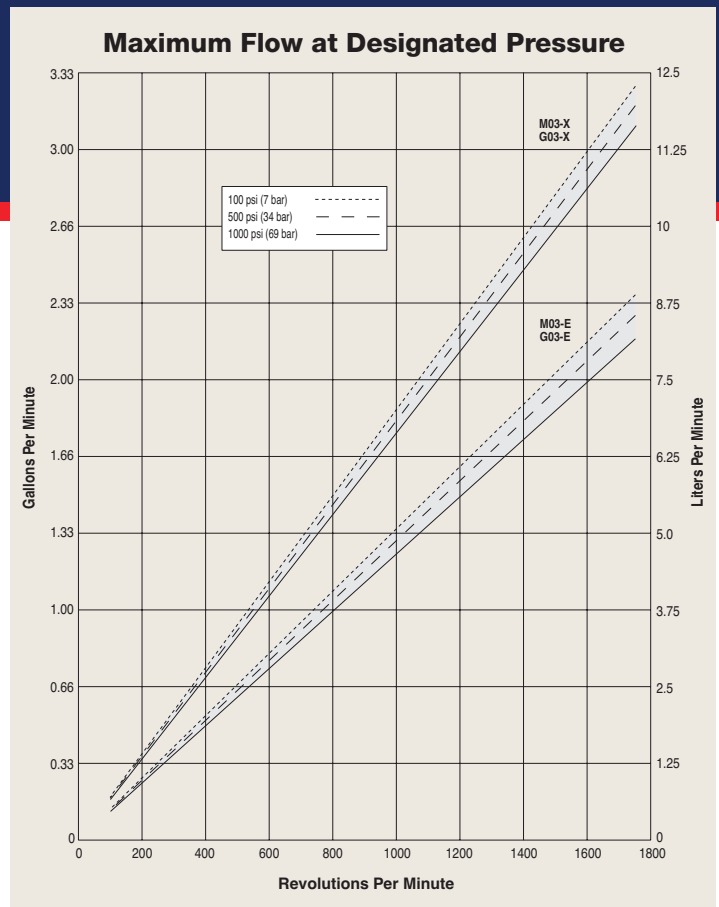
Max. Flow Rate: 3.1 gpm (11.7 l/min)
 Max. Pressure: 1000 psi (69 bar) for Metallic Pump Heads
 350 psi (24 bar) for Non-metallic Pump Heads



M03/G13 close-coupled with Polypropylene pump head. Also available in (metallic) Brass, 316L Stainless Steel, Hastelloy CW12MW and (non-metallic) PVDF pump heads.



D03/G03 shaft-driven with 316L Stainless Steel pump head.

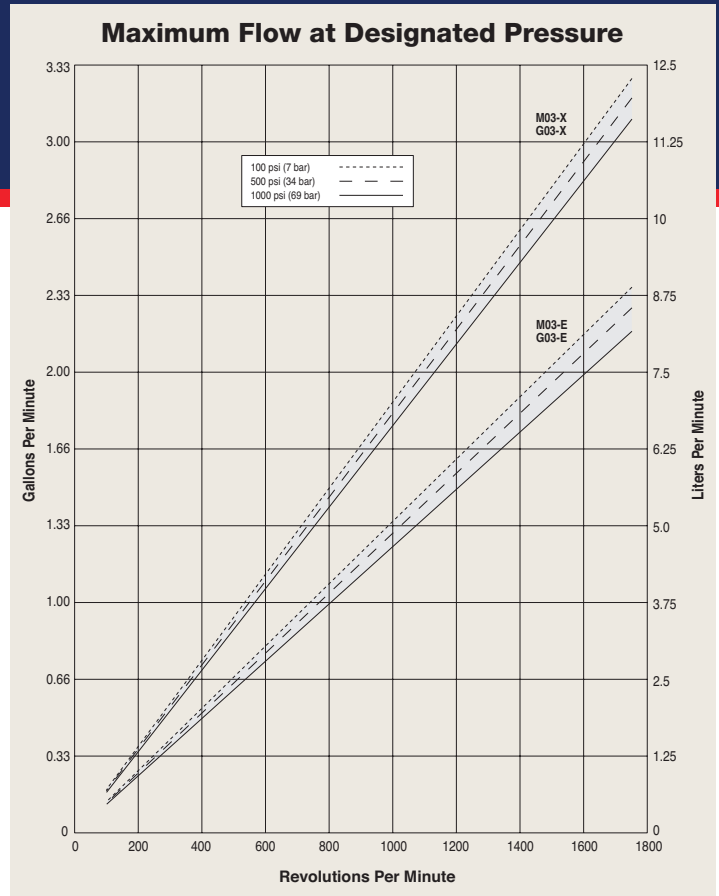


M03/G03 Pro Series Mono-Block

Max. Flow Rate: 3.1 gpm (11.7 l/min)
 Max. Pressure: 1000 psi (69 bar) for Metallic Pump Heads



Mono-Block (M03/G13) close-coupled 316L Stainless Steel pump head. Also available in Brass.

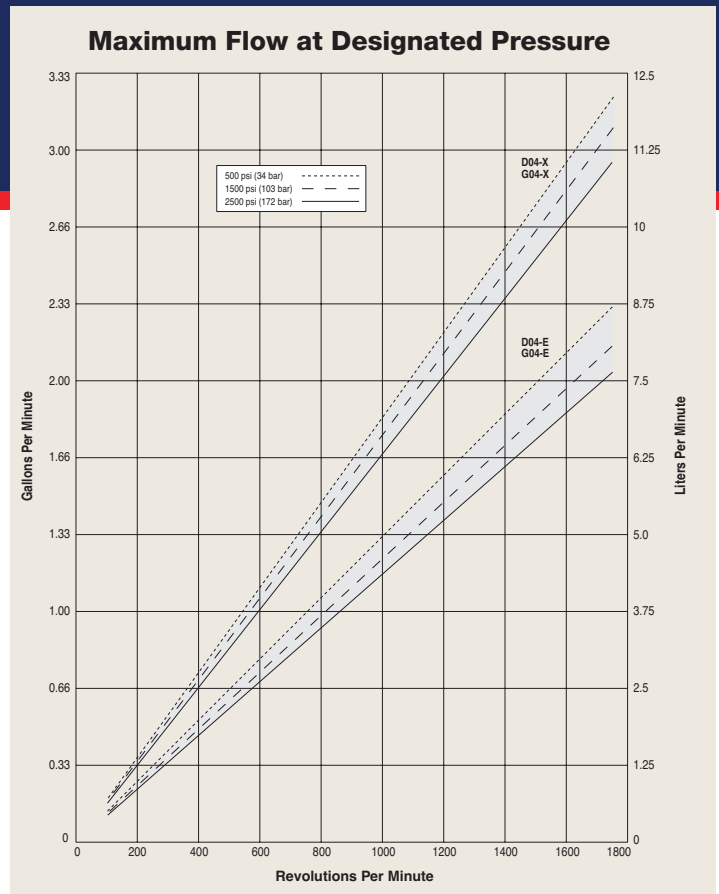


D04/G04 Pro Series

Max. Flow Rate: 2.9 gpm (11.2 l/min)
 Max. Pressure: 2500 psi (172 bar) for Metallic Pump Heads



D04/G04 shaft-driven with 316L Stainless Steel pump head. Also available in Brass and Hastelloy C pump heads.



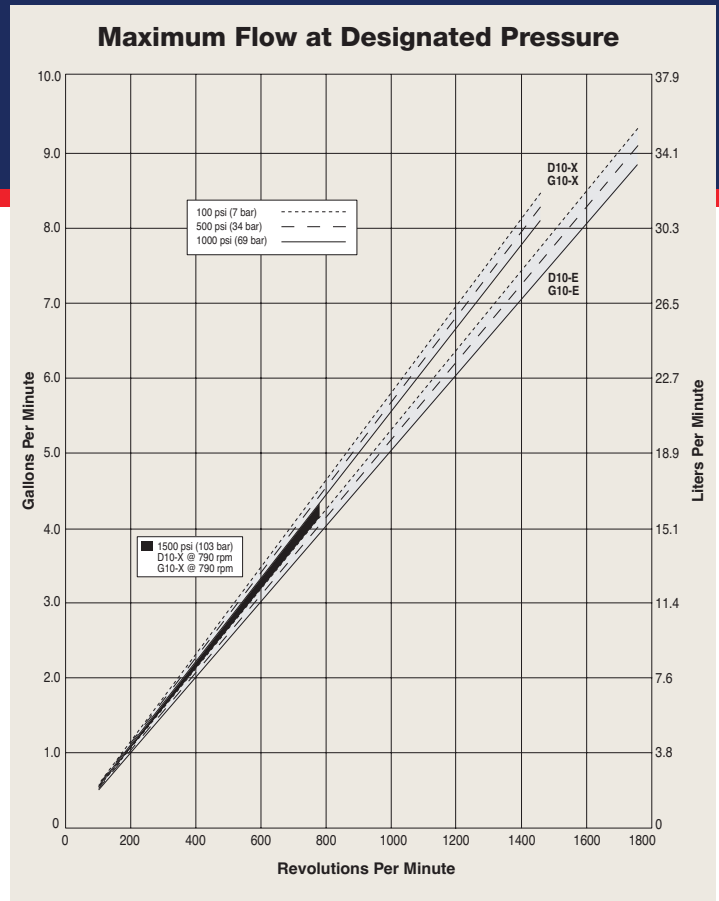
D10/G10 Pro Series

Max. Flow Rate: 8.8 gpm (33.4 l/min)
 Max. Pressure: 1500 psi (103 bar) for Metallic Pump Heads
 350 psi (24 bar) for Non-metallic Pump Heads



D10/G10 with Cast Iron pump head. Also available in (metallic) Brass, Duplex Alloy 2205, 316L Stainless Steel, Hastelloy CW12MW and (non-metallic) Polypropylene and PVDF pump heads.

D10/G10 with 316L Stainless Steel pump head and ANSI flanges.

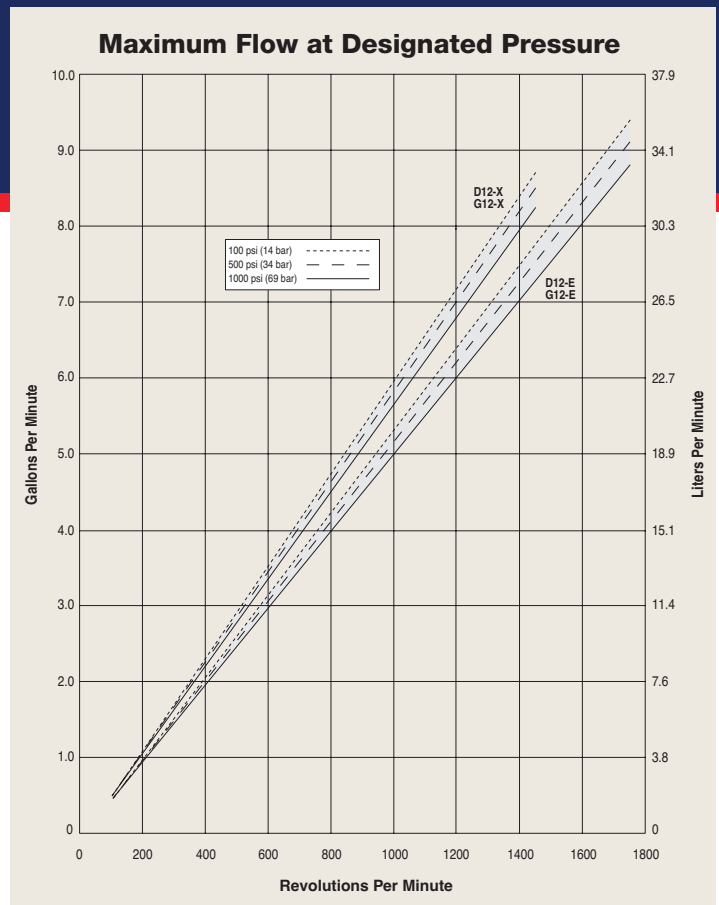


D12/G12 Pro Series

Max. Flow Rate: 8.8 gpm (33.4 l/min)
 Max. Pressure: 1000 psi (69 bar) for Metallic Pump Heads

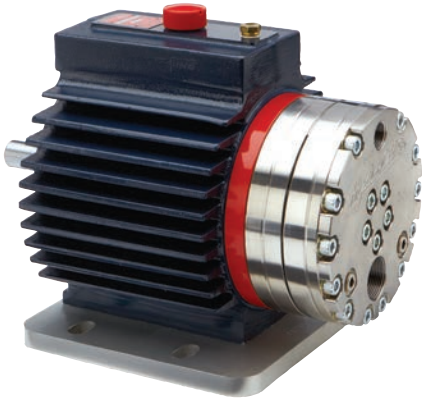


D12/G12 equipped with Model C62 Pressure Regulating Valve and Valve/Tube Accessory. Available in Brass, Cast Iron, and 316L Stainless Steel pump heads.



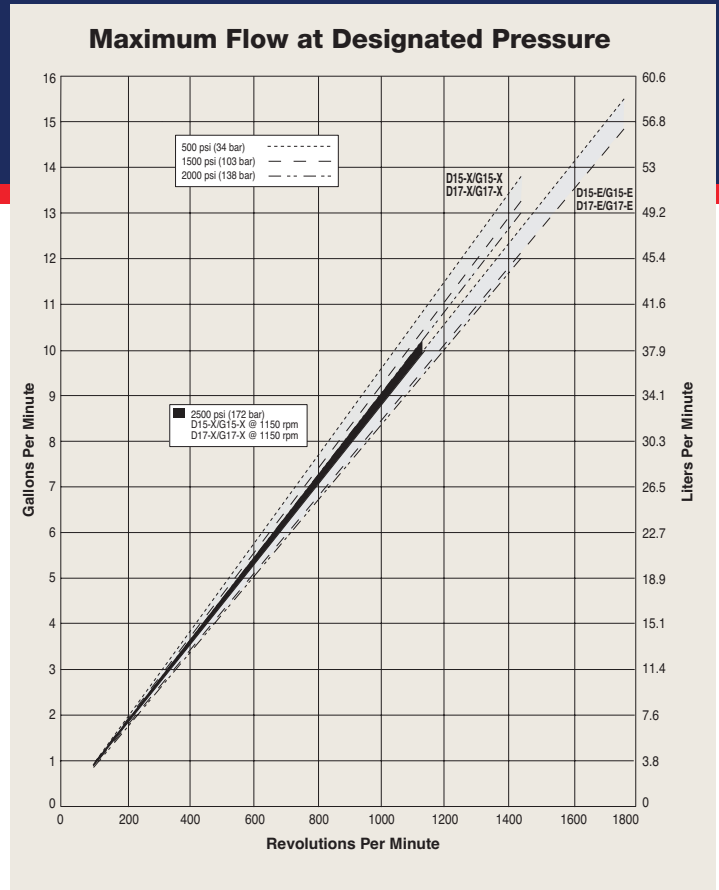
D15/G15 & D17/G17 Pro Series

Max. Flow Rate: 15.5 gpm (58.7 l/min)
 Max. Pressure: 2500 psi (172 bar) for Metallic Pump Heads



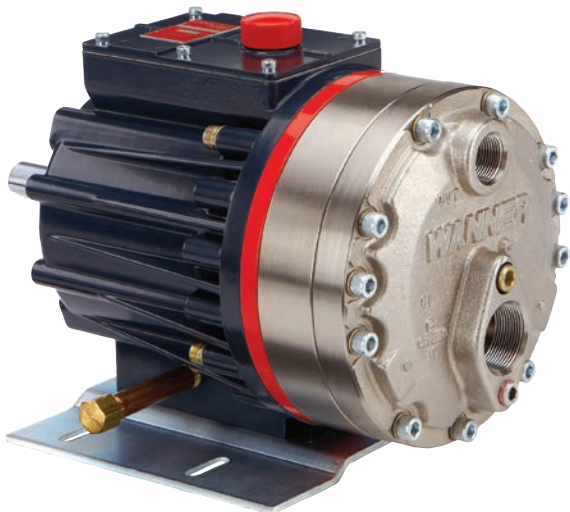
D15/G15 for horizontal installations shown with 316L Stainless Steel pump head.

D17/G17 for vertical mounting (including motor adapter, base plate and oil reservoir) shown with Brass pump head. Also available in Hastelloy C.

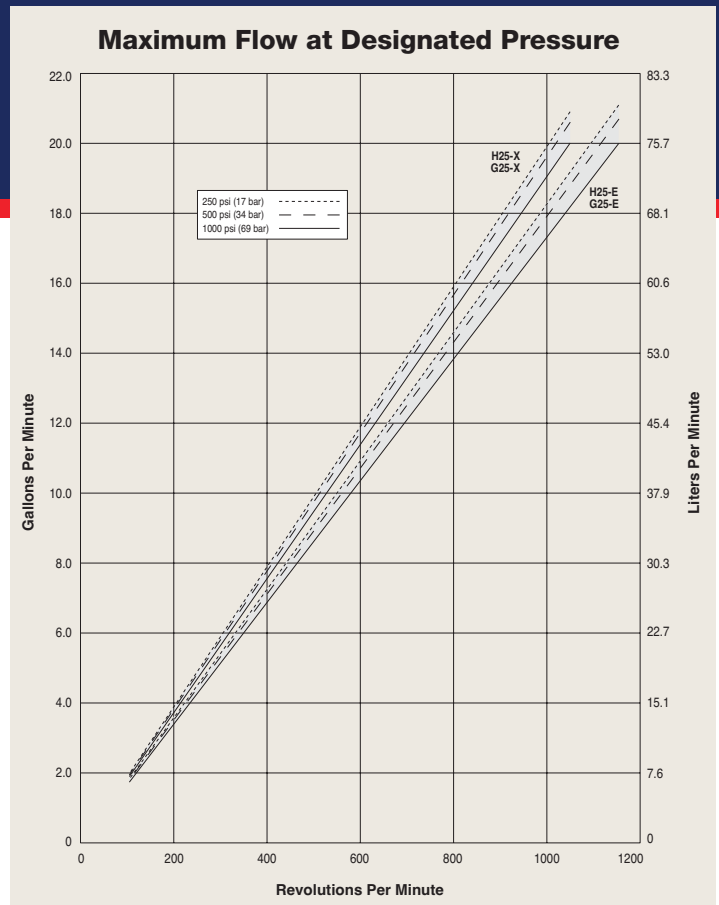


H25/G25 Pro Series

Max. Flow Rate: 20.0 gpm (75.9 l/min)
 Max. Pressure: 1000 psi (69 bar) for Metallic Pump Heads
 350 psi (24 bar) for Non-metallic Pump Heads



H25/G25 with Cast Iron pump head. Also available in (metallic) Brass, Duplex Alloy 2205, 316L Stainless Steel (with ANSI flanges), 316L Stainless Steel, Hastelloy CW12MW and (non-metallic) Polypropylene and PVDF pump heads.



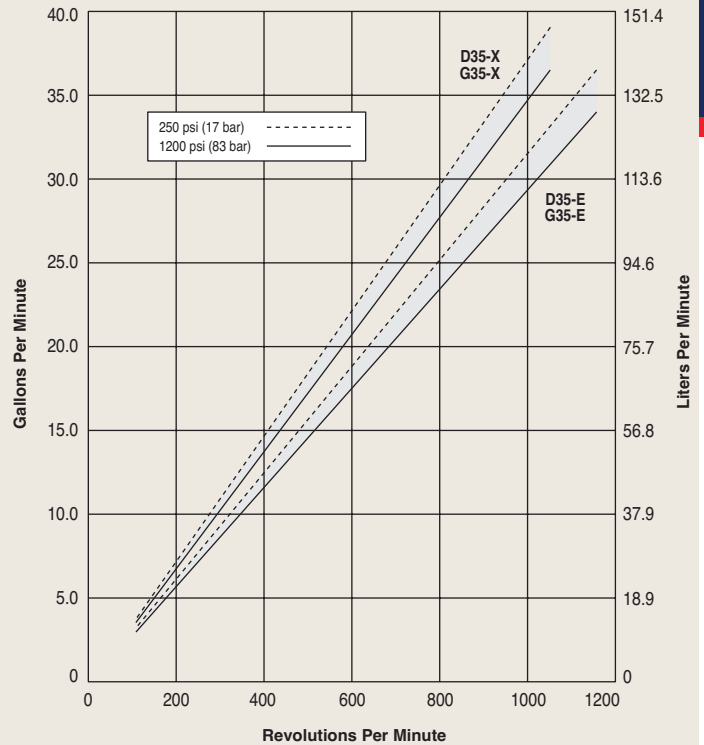
D35/G35 Pro Series

Max. Flow Rate: 36.5 gpm (138 l/min)
 Max. Pressure: 1200 psi (83 bar) for Metallic Pump Heads



D35/G35 with 316L Stainless Steel pump head. Also available in Brass, Ductile Iron, Duplex Alloy 2205, 316L Stainless Steel (with ANSI flanges or SAE ports) and Hastelloy CW12MW pump heads.

Maximum Flow at Designated Pressure



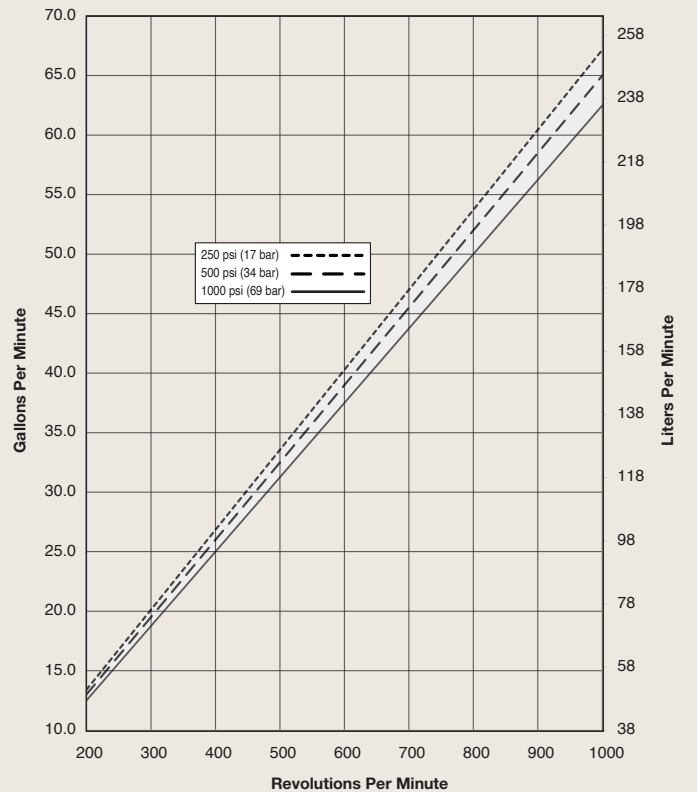
D66/G66 Pro Series

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



D66/G66 with 316L Stainless Steel pump head. Also available in (metallic) Brass, Ductile Iron, Duplex Alloy 2205 and (non-metallic) Polypropylene pump heads.

Maximum Flow at Designated Pressure



C Series | Pressure Regulating Valves

Designed for use with any positive displacement pump, Hydra-Cell® C Series pressure regulating valves bypass system fluid to prevent excess system pressure. They can also be used as pressure relief valves.

Performance Advantages

- Accurate and repeatable.
- Adjustable.
- Immediate response.
- Smooth, chatter-free bypass.
- No external springs or moving parts.
- Flow-through design with minimal pressure surge.
- Heavy-duty construction.
- Easy to service in place.



Tapered design of the C20 Series valves plunger.



C60 Series valves feature a seal-less diaphragm with a tapered plunger, making the valves ideal for high-pressure requirements and handling dirty fluids.

C46 Series

For use with Hydra-Cell models F20/G20/G22, M03/D03/G03/G13, and M03/G03 Mono-Block.



C46 In-line with Brass body.



C46 Off-line with Stainless Steel body (also available in Brass).

C20 Series

For use with Hydra-Cell models D10/G10, D12/G12, H25/G25, D35/G35, and D66/G66*.

C22 valve with Brass body (also available in 316L Stainless Steel and Hastelloy CW12MW).



C60 Series

For use with Hydra-Cell models D04/G04, D10/G10, D12/G12, D15/G15 & D17/G17, H25/G25, D35/G35, and D66/G66*.

C62 Seal-less valve with 316L Stainless Steel body (also available in Brass and Hastelloy C).



**C24 or C64 valves can be used with D66/G66 pumps when the flow rate is up to 40 gpm (151 l/min). For flow rates higher than 40 gpm, contact factory.*

Hydra-Cell® Pro | Pumps Accessories and Options



HDD Series: Horizontal Direct Drive with Orange Coupling Guard, Motor, and Base.



HFD Series: Horizontal Flanged Adapter Drive with Flanged Adapter, Motor, and Base.



HBD Series: Horizontal Belt Drive with Belt Pulley Guard, Motor, and Base.



Air-cooled Oil Filter shown with complete kit



Water-cooled Oil Filter shown with complete kit

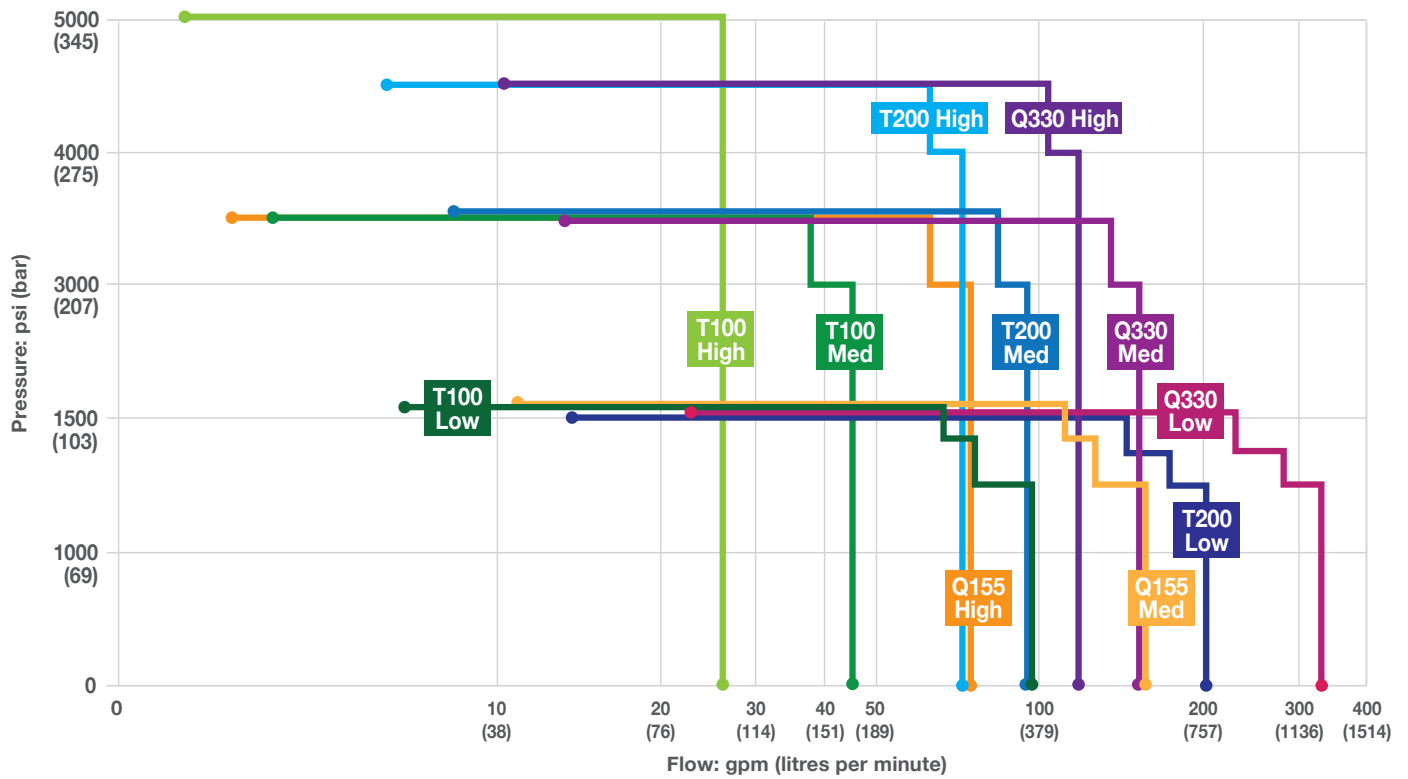


Hydra-Oil Lubricants, Motor Adapters, Oil Reservoir Sight Bottles, Tool Kits, and Couplings.



Replacement Parts Kits

T & Q Series | Flow Capacities and Pressure Ratings



Maximum Inlet Pressure for all models: 500 psi (34 bar).

Maximum Operating Temperature for all models: 180°F (82°C). Consult factory for correct component specification for temperatures above 180°F (82°C) or below 40°F (4°C).

Model	Maximum Capacity			Maximum Discharge Pressure psi (bar)
	BPD	gpm	(l/min)	
T100E	3292	96	363	1500 (103)
T100F	2605	76	287	1850 (128)
T100H	2297	67	253	2100 (145)
T100K	1543	45	170	3000 (207)
T100M	1302	38	143	3500 (241)
T100S	891	26	98	5000 (345)
Q155E	5383	157	594	1500 (103)
Q155F	4354	127	480	1850 (128)
Q155H	3806	111	420	2100 (145)
Q155K	2571	75	284	3000 (207)
Q155M	2160	63	238	3500 (241)

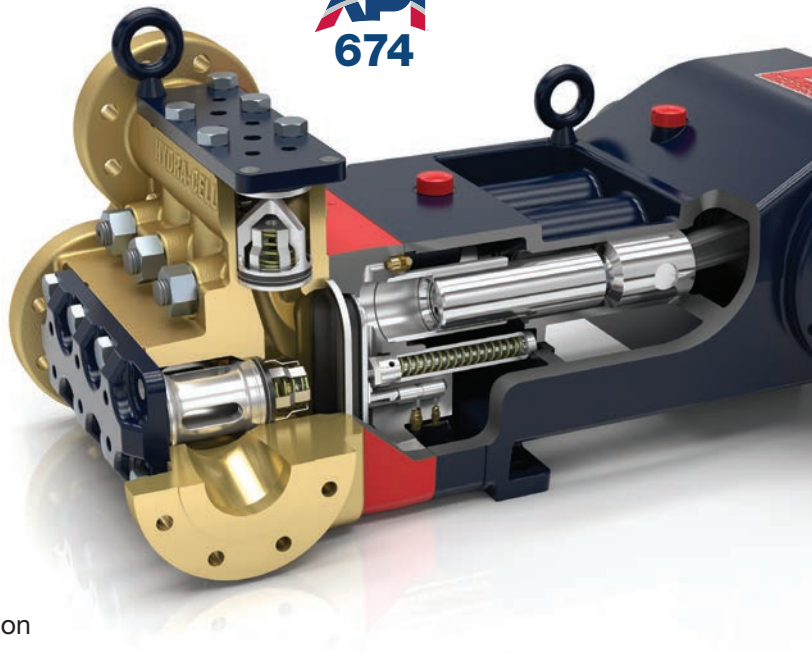
Model	Maximum Capacity			Maximum Discharge Pressure psi (bar)
	BPD	gpm	(l/min)	
T200E	6925	202	764	1500 (103)
T200F	5896	172	651	1750 (120)
T200G	4971	145	548	2000 (138)
T200K	3222	94	355	3000 (207)
T200M	2880	84	318	3500 (241)
T200P	2469	72	272	4000 (276)
T200Q	2160	63	238	4500 (310)
Q330E	11312	330	1249	1500 (103)
Q330F	9598	280	1060	1750 (120)
Q330G	7884	230	871	2000 (138)
Q330K	5247	153	579	3000 (207)
Q330M	4664	136	514	3500 (241)
Q330P	4045	118	446	4000 (276)
Q330Q	3566	104	393	4500 (310)

Hydra-Cell Pro® T & Q Series | Design Advantages

Exclusive Seal-less Diaphragm Design

- Seal-less design separates the power end from the process fluid end, eliminating leaks, hazards, and the expense associated with seals and packing.
- Low NPSH requirements allow for operation with a vacuum condition on the suction - positive inlet pressure is not necessary.
- Can operate with a closed or blocked suction line and run dry indefinitely without damage, eliminating downtime and repair costs.
- Unique diaphragm design handles more abrasives with less wear than gear, screw or plunger pumps.
- Hydraulically balanced diaphragms to handle high pressures with low stress.
- Provides low-pulse, linear flow due to its multiple diaphragm design.
- Lower energy costs than centrifugal pumps and other pump technologies.
- Rugged construction for long life with minimal maintenance.
- Compact design provides a variety of installation options – T100 and Q155 models also feature a double-ended shaft for greater versatility.

AVAILABLE
TO MEET
API
674



An Economical and Environmental Choice

Ideal for a variety of applications:

- Amine Injection
- Boiler Feed Condensate
- Brine Transfer
- Chemical Metering
- Crude Oil Transfer
- Gas Dehydration (Drying)
- Jet Lift
- LACT Unit Transfer
- Methanol & Glycol Injection
- Natural Gas Liquids
- Produced Water
- Saltwater Disposal (SWD)
- Waterflooding



Designed for higher pressures, T and Q Series pumps provide reliable, low-maintenance service in a variety of field production and transport applications (T100 shown).



T and Q Series pumps feature the Hydra-Cell seal-less design, eliminating clean-up costs from leaking seals or packing and protecting operators from dangerous fluids such as those containing hydrogen sulfide (Q155 shown).

T100 | Low Pressure Models

Model T100E

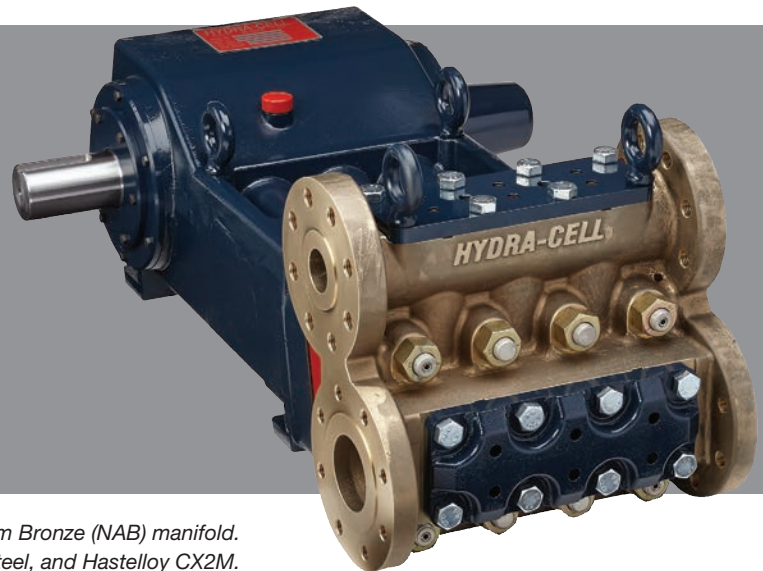
Max. Flow Rate: 96 gpm (363 l/min) 3292 BPD
Max. Pressure: 1500 psi (103 bar)

Model T100F

Max. Flow Rate: 76 gpm (287 l/min) 2605 BPD
Max. Pressure: 1850 psi (128 bar)

Model T100H

Max. Flow Rate: 67 gpm (253 l/min) 2297 BPD
Max. Pressure: 2100 psi (145 bar)



*T100 Low Pressure model with Nickel Aluminum Bronze (NAB) manifold.
Also available in Duplex Alloy 2205, 316L Stainless Steel, and Hastelloy CX2M.*

T100 | Medium Pressure Models

Model T100K

Max. Flow Rate: 45 gpm (170 l/min) 1543 BPD
Max. Pressure: 3000 psi (207 bar)

Model T100M

Max. Flow Rate: 38 gpm (143 l/min) 1302 BPD
Max. Pressure: 3500 psi (241 bar)

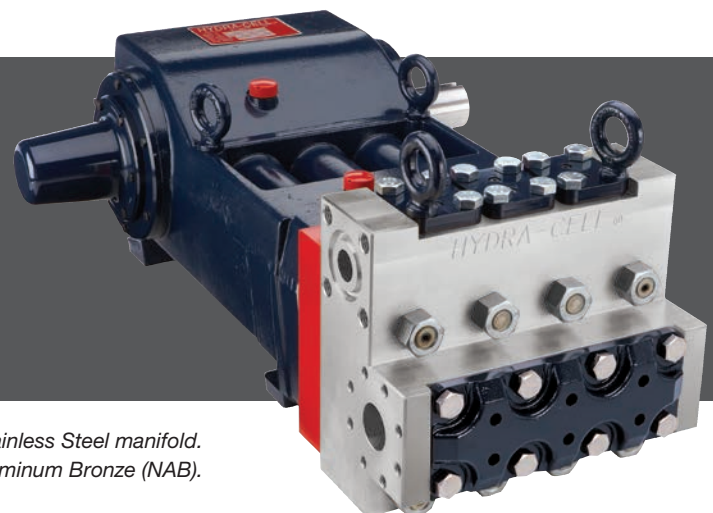


*T100 Medium Pressure model with Nickel Aluminum Bronze (NAB) manifold.
Also available in Duplex Alloy 2205, 316L Stainless Steel, and Hastelloy CX2M.*

T100 | High Pressure Model

Model T100S

Max. Flow Rate: 26 gpm (98 l/min) 891 BPD
Max. Pressure: 5000 psi (345 bar)



*T100 High Pressure model with 316L Stainless Steel manifold.
Also available in Nickel Aluminum Bronze (NAB).*

Q155 Pro Series Pumps

Q155 | Low Pressure Models

Model Q155E

Max. Flow Rate: 157 gpm (594 l/min) 5383 BPD
 Max. Pressure: 1500 psi (103 bar)

Model Q155F

Max. Flow Rate: 127 gpm (480 l/min) 4354 BPD
 Max. Pressure: 1850 psi (128 bar)

Model Q155H

Max. Flow Rate: 111 gpm (420 l/min) 3806 BPD
 Max. Pressure: 2100 psi (145 bar)



*Q155 Low Pressure model with 316L Stainless Steel manifold.
 Also available in Nickel Aluminum Bronze (NAB), Duplex Alloy 2205, and Hastelloy CX2M.*

Q155 | Medium Pressure Models

Model Q155K

Max. Flow Rate: 75 gpm (284 l/min) 2571 BPD
 Max. Pressure: 3000 psi (207 bar)

Model Q155M

Max. Flow Rate: 63 gpm (238 l/min) 2160 BPD
 Max. Pressure: 3500 psi (241 bar)



*Q155 Medium Pressure model with Nickel Aluminum Bronze (NAB) manifold.
 Also available in Duplex Alloy 2205, 316L Stainless Steel, and Hastelloy CX2M.*

T200 Pro Series Pumps

AVAILABLE TO MEET



T200 | Low Pressure Models

Model T200E

Max. Flow Rate: 202 gpm (764 l/min) 6925 BPD
Max. Pressure: 1500 psi (103 bar)

Model T200F

Max. Flow Rate: 172 gpm (651 l/min) 5896 BPD
Max. Pressure: 1750 psi (120 bar)

Model T200G

Max. Flow Rate: 145 gpm (548 l/min) 4971 BPD
Max. Pressure: 2000 psi (138 bar)



*T200 Low Pressure model with Nickel Aluminum Brass (NAB) manifold.
Also available in Duplex Alloy 2205, 316L Stainless Steel and Hastelloy CX2M.*

T200 | Medium Pressure Models

Model T200K

Max. Flow Rate: 94 gpm (355 l/min) 3222 BPD
Max. Pressure: 3000 psi (207 bar)

Model T200M

Max. Flow Rate: 84 gpm (318 l/min) 2880 BPD
Max. Pressure: 3500 psi (241 bar)



*T200 Medium Pressure model with Nickel Aluminum Brass (NAB) manifold.
Also available in Duplex Alloy 2205, 316L Stainless Steel and Hastelloy CX2M.*

T200 | High Pressure Models

Model T200P

Max. Flow Rate: 72 gpm (272 l/min) 2469 BPD
Max. Pressure: 4000 psi (276 bar)

Model T200Q

Max. Flow Rate: 63 gpm (238 l/min) 2160 BPD
Max. Pressure: 4500 psi (310 bar)



*T200 High Pressure model with 316L Stainless Steel manifold.
Also available in Nickel Aluminum Bronze (NAB), Duplex Alloy 2205 and Hastelloy CX2M.*

Q330 Pro Series Pumps

Q330 | Low Pressure Models

Model Q330E

Max. Flow Rate: 330 gpm (1249 l/min) 11312 BPD

Max. Pressure: 1500 psi (103 bar)

Model Q330F

Max. Flow Rate: 280 gpm (1060 l/min) 9598 BPD

Max. Pressure: 1750 psi (120 bar)

Mode Q330G

Max. Flow Rate: 230 gpm (871 l/min) 7884 BPD

Max. Pressure: 2000 psi (138 bar)



Q330 Low Pressure model with Nickel Aluminum Brass (NAB) manifold.

Q330 | Medium Pressure Models

Model Q330K

Max. Flow Rate: 153 gpm (579 l/min) 5247 BPD

Max. Pressure: 3000 psi (207 bar)

Model Q330M

Max. Flow Rate: 136 gpm (514 l/min) 4664 BPD

Max. Pressure: 3500 psi (241 bar)



Q330 Medium Pressure model with Nickel Aluminum Brass (NAB) manifold.

Q330 | High Pressure Models

Model Q330P

Max. Flow Rate: 118 gpm (446 l/min) 4045 BPD

Max. Pressure: 4000 psi (276 bar)

Model Q330Q

Max. Flow Rate: 104 gpm (393 l/min) 3566 BPD

Max. Pressure: 4500 psi (310 bar)



Q330 High Pressure model with Nickel Aluminum Brass (NAB) manifold.

Hydra-Cell Pro® | P Series Metering Pumps

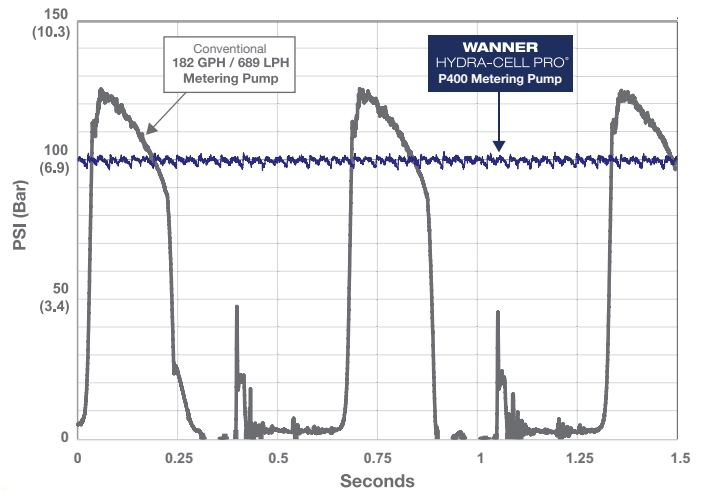
WANNER HYDRA-CELL PRO® METERING PUMP SOLUTIONS

Compact, cost-effective pump systems for high-performance metering applications

The technology used to produce metering pumps has barely changed in over a generation. As a result, conventional metering pumps have operational limitations and greater cost consequences. Hydra-Cell Pro® Metering Pump Solutions are anything but conventional. They enable you to meet and, in most cases, exceed API 675 performance standards with virtually pulse-less, linear flow while providing many other operational benefits.

Hydra-Cell Pro metering pumps achieve superior levels of accuracy, repeatability and linearity, while delivering precise, constant flow. This revolution in metering employs the latest available means of electronic flow control to replace antiquated, inaccurate stroke adjusters.

Pulsation Graph Comparison
Metering pumps operating without pulsation dampeners
Flow rate: 182 gph (689 lph) – Pressure: 100 psi (6.9 bar)



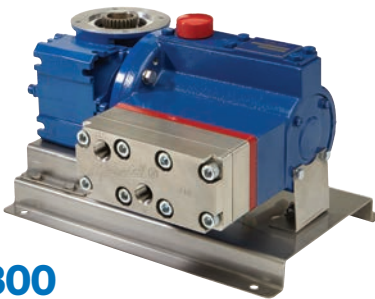
Compared to conventional metering pumps operating under the same conditions at the same flow and pressure, Hydra-Cell Pro metering pumps provide smooth, almost pulse-less performance.



P100



P200



P300



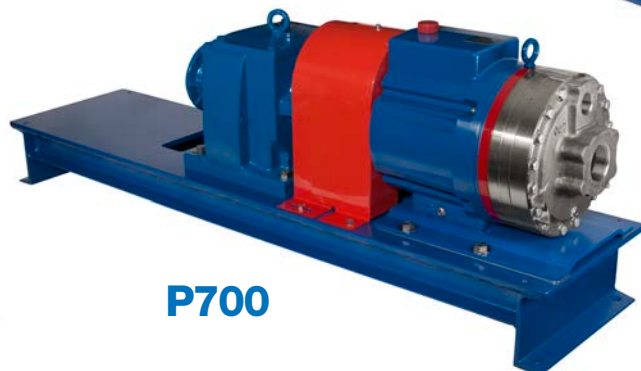
P400



P500

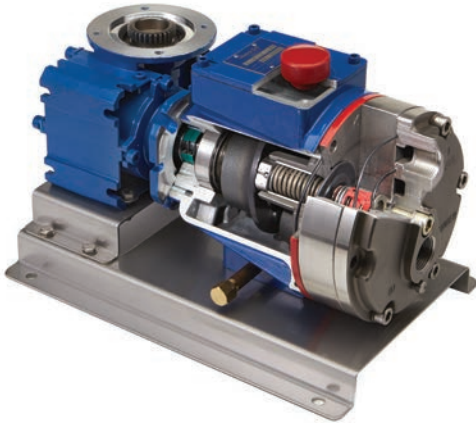


P600

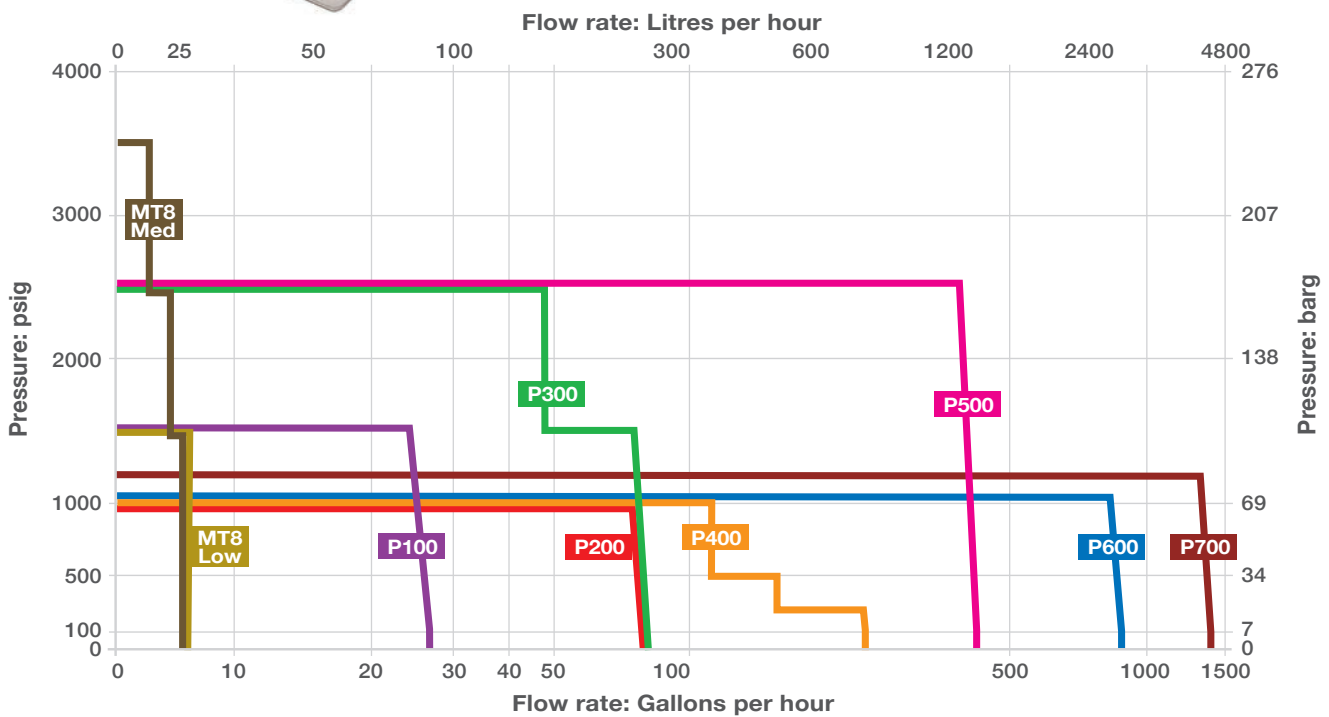


P700

P Series Metering | Flow Capacities and Pressure Ratings



P Series multiple-diaphragm metering pumps exceed API 675 performance standards for Steady-state accuracy ($\pm 1\%$), Linearity ($\pm 3\%$) and Repeatability ($\pm 3\%$) while providing virtually pulse-free, linear flow.



Flows for each metering pump shown in the graph above and listed in the chart below are based upon lab testing of multiple pumps. However, these flows are approximate values and pumps must be calibrated once installed into any system. Flow variations will occur, but calibration will ensure proper pump performance.

Model ¹	Max. Capacity gph (lph) ²	Max. Discharge Pressure psi (bar)		Max. Operating Temp. F (C) ⁴		Max. Inlet Pressure psi (bar)
		Non-metallic ³	Metallic	Non-metallic	Metallic	
P100	27.0 (85.0)	350 (24)	1500 (103)	140° (60°)	250° (121°)	250 (17)
P200	81.0 (255.4)	350 (24)	1000 (69)	140° (60°)	250° (121°)	250 (17)
P300	81.4 (256.8)	N/A	2500 (172)	N/A	250° (121°)	500 (34)
P400	242.8 (765.9)	350 (24)	1000 (69)	140° (60°)	250° (121°)	250 (17)
P500	425.9 (1343.5)	N/A	2500 (172)	N/A	250° (121°)	500 (34)
P600	890.3 (2808.0)	350 (24)	1000 (69)	140° (60°)	250° (121°)	250 (17)
P700	1394.0 (4396.0)	N/A	1200 (83)	N/A	250° (121°)	250 (17)

¹ Ratings are for X-cam design.

² Flow capacities are based on pump speeds of 3600 rpm for gallons per hour (gph) and 3000 rpm for liters per hour (lph).

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

⁴ Consult factory for correct component selection for temperatures from 160°F (71°C) to 250°F (121°C).

Hydra-Cell Pro® MT8 | Low-flow Triplex Metering Pump

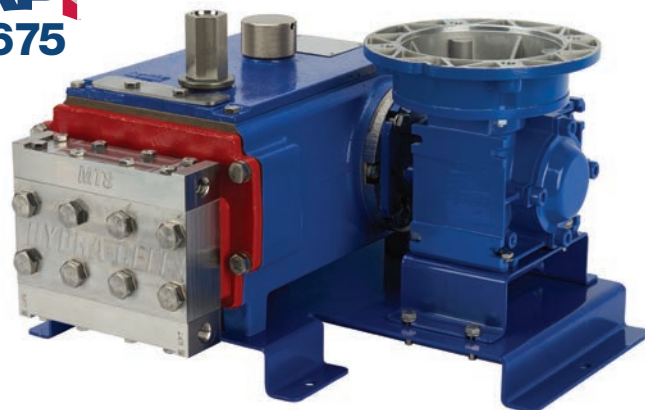
This groundbreaking triplex metering pump is the latest addition to the Hydra-Cell Pro® Metering Solutions product line. Ideal for low-flow requirements at high pressures, it features a triplex-diaphragm design to provide smooth, linear, virtually pulse-free flow without the need for expensive pulsation dampeners.

Hydraulically-balanced and actuated, the pump features an integral relief valve for added safety and cartridge check valves for ease of maintenance.

The MT8 is available in Low Pressure (1500 psi / 103 bar maximum discharge) and Medium Pressure (3500 psi / 241 bar maximum discharge) models. The MT8 Low Pressure models is available in 316 SST liquid end and check valve with PTFE diaphragms. The MT8 Medium Pressure model is available with metallic (316 SST, Hastelloy C, Alloy 20) and non-metallic (PVC, PVDF) liquid ends with PTFE diaphragms, and check valve materials options including 316 SST, Hastelloy C, and Alloy 20.

Hydra-Cell Metering Solutions model MT8 pumps exceed API 675 performance standards for Steady-State Accuracy ($\pm 1\%$), Linearity ($\pm 3\%$), and Repeatability ($\pm 3\%$).

EXCEEDS
API
675



With its multiple-diaphragm design, the MT8 Medium Pressure (above) and MT8 Low Pressure (below) models provide virtually pulse-free flow.



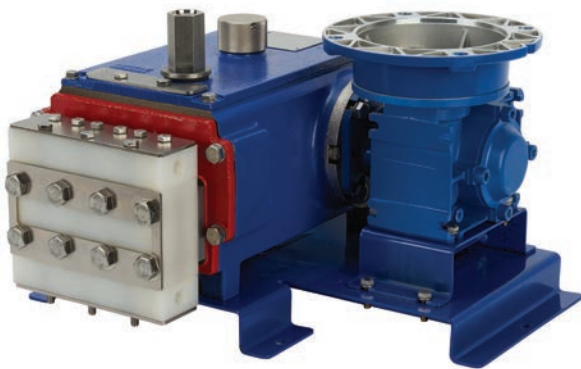
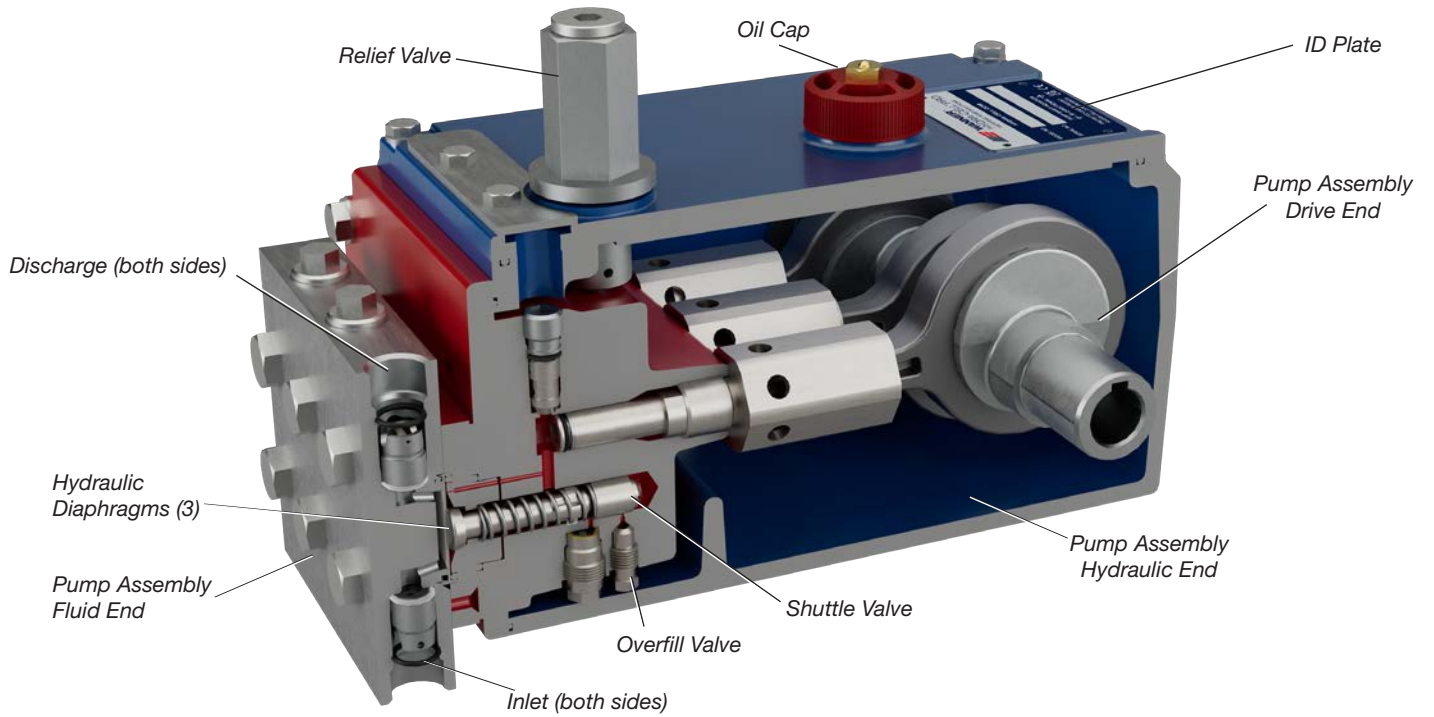
MT8 Flow Capacities and Pressure Ratings

Model Pressure	Minimum to Maximum Capacity gph (lph)	Maximum Discharge Pressure psi (bar)		Maximum Operating Temperature ² F (C)		Maximum Inlet Pressure psi (bar)
		Non-metallic ¹	Metallic	Non-metallic	Metallic	
MT8 Low	0.06 to 8.00 (0.227 to 30.28)	–	1500 (103)	–	250° (121°)	500 (34)
MT8 Med	0.06 to 8.00 (0.227 to 30.28)	350 (24)	3500 (241)	140° (60°)	250° (121°)	500 (34)

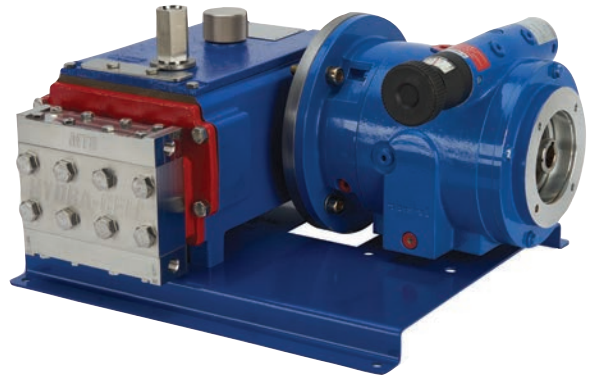
¹ 350 psi (24 bar) maximum with PVDF liquid end; 250 psi (17 bar) maximum with PVC liquid end.

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

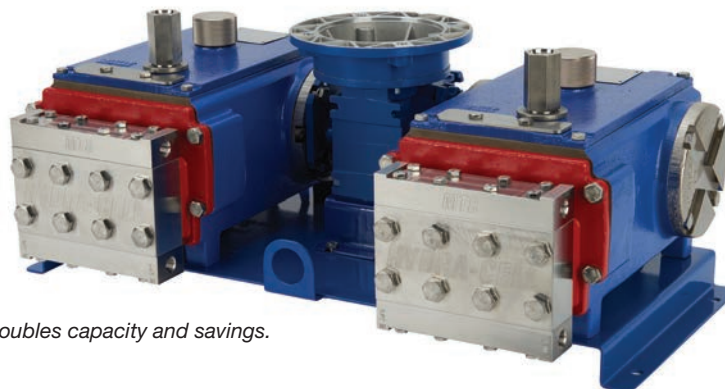
MT8 Low Pressure



MT8 Medium Pressure with PVDF pump head.



ATEX-compliant manual variable speed gearbox.



Duplexing capability doubles capacity and savings.

STAN-COR™

Non-metallic ANSI Centrifugal Pumps

Designed to handle difficult process fluids, Stan-Cor pumps offer total dynamic head to 350 feet and flow rate capacities to 700 gpm (2650 l/min).

- Solid PVDF pump head for chemical compatibility and excellent abrasion resistance.
- Operates with a smooth, full-curve performance.
- Concentric casing design for better flow patterns than other centrifugal pumps - less turbulence, longer seal life, and reduced shaft deflection.
- Handles high operating temperatures.
- Compact design features including heavy-duty drive shaft, adjustable bearing supports, and large-capacity oil bath ensure low maintenance as well as durable performance for the toughest fluid applications.
- Back pull-out design for easy servicing.
- Handles solid sizes up to 9/16" maximum.



Designed to handle difficult process fluids, Stan-Cor pumps offer total dynamic head to 350 feet and flow rate capacities to 700 gpm (2650 l/min).

VECTOR™

Peristaltic Pumps that Isolate the Pumped Fluid

Vector pumps can handle pasty, pulp, or thick fluids commonly found in industrial processing applications. They will reliably start, stop, and continuously pump such fluids at a wide range of pressures and flows. The pumping action is powerful, but will not break up delicate emulsions or cause excessive frothing of dissolved gases.

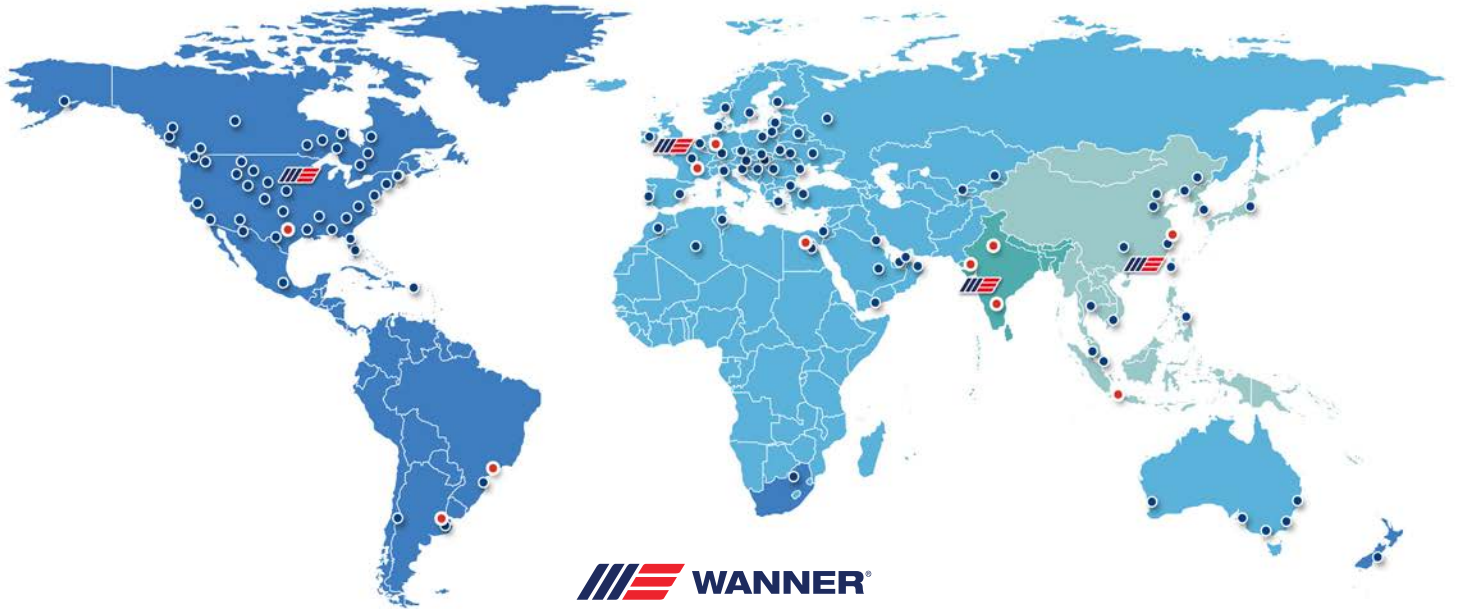
- Dry pump cavity.
- Self-priming operation.
- Runs dry without damage to the pump.
- Complete isolation of the fluid being pumped from contact with mechanical parts for the fluid transport system.
- Heavy-duty roller bearings.
- Wide range of pump configurations and flow rates.
- No cups, packing, or dynamic seals to leak or replace or come in direct contact with the pumped fluid.
- Low maintenance.
- Reversible flow.



Nine 2000 Series Vector pump models (2005 shown) offer maximum flow rates from 0.3 gpm (1.1 l/min) to 211 gpm (798.7 l/min) and discharge pressures from 30 psig (2.1 bar) to 116 psig (8 bar) depending on pump model. Model 3005 provides up to 9.2 gpm (34.8 l/min) at 200 psig (13.8 bar).



Seven 4000 Series Vector pump models (4010 shown) offer maximum flow rates from 0.79 gpm to 154.1 gpm and discharge pressures of 110 psig or 218 psig depending on pump model.



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