Q155 Series Medium Pressure
Models Q155K & Q155M

Maximum Flow Rate: 78 gpm (295 l/min) 2674 BPD
Maximum Pressure: 3500 psi (241 bar)

Hydra-Cell® Seal-less Pumps

Available to Meet API 674!

Q155 Series medium-pressure model with Nickel Aluminum Bronze (NAB) pump head.

- Seal-less design eliminates leaks, hazards and the expense associated with seals and packing
- Low NPSH requirements allow for operation with a vacuum condition on the suction - positive suction 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
- Lower energy costs than centrifugal pumps
- Rugged construction for long life with minimal maintenance
- Compact design and double-ended shaft provide a variety of installation options

Wanner Engineering, Inc.

Q155 Medium Pressure Performance

Capacities

Flow

Model	Max. Input rpm	Max. Flow gpm	l/min	BPD	@ Pressure Rating psi	bar
Q155K	450	78	295	2674	3000	207
Q155M	450	65	246	2228	3500	241

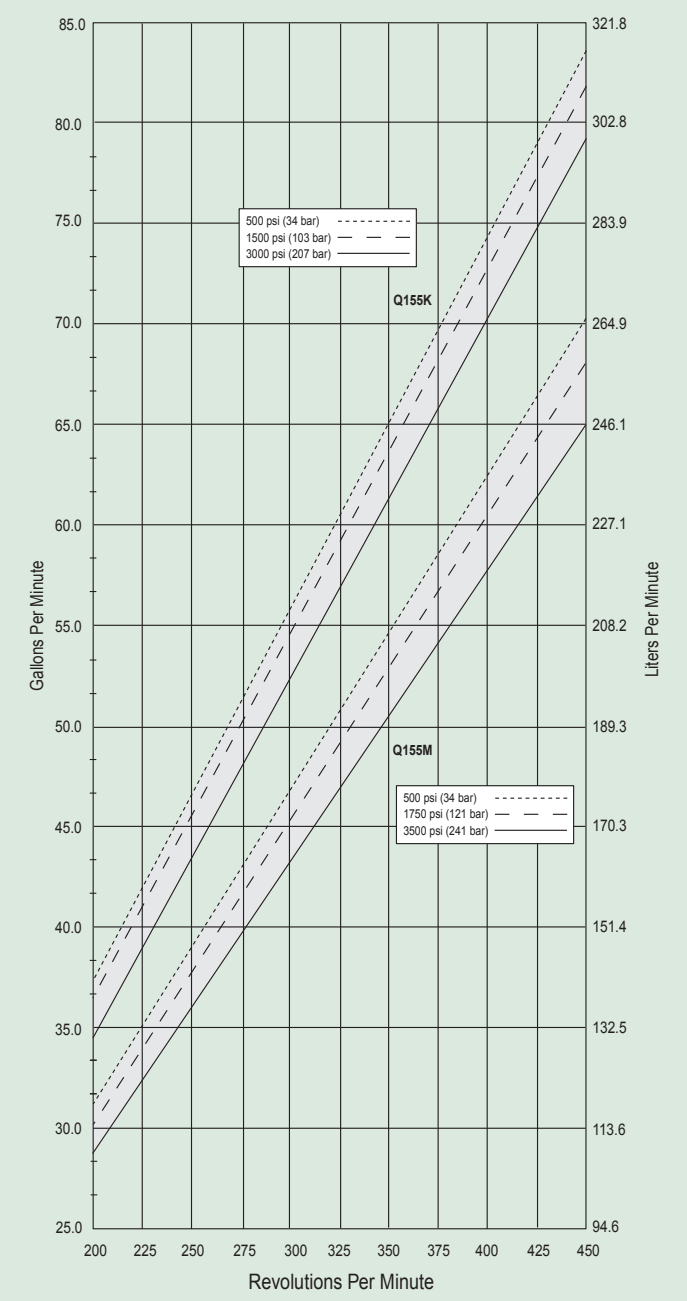
Consult factory when operating below 200 rpm.

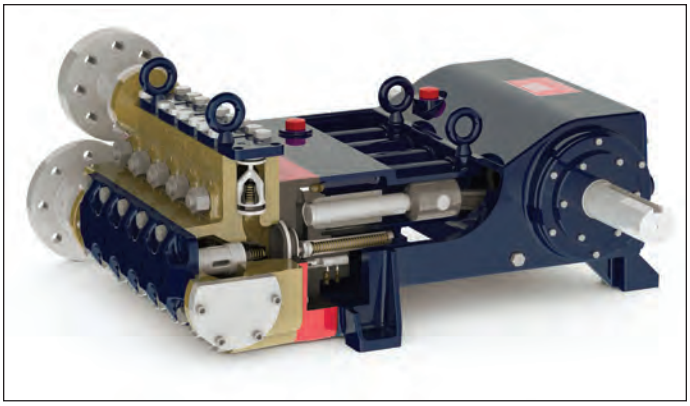
Pressure

Maximum Inlet Pressure
500 psi (34 bar)

Maximum Discharge Pressure
Q155K 3000 psi (207 bar)
Q155M 3500 psi (241 bar)

Maximum Flow at Designated Pressure





Hydra-Cell Q155 is a positive displacement, multiple-diaphragm pump featuring a seal-less design that provides full containment of the pumping chamber. This means there are no VOC emissions when operating Hydra-Cell and no packing or dynamic seals that pose environmental issues from leakage.

Due to Wanner Engineering continuous improvement practices, performance data and specifications may change without notice.

Q155 Medium Pressure Specifications

Flow Capacities

Model	Pressure psi (bar)	rpm	gpm	l/min	BPD
Q155K	3000 (207)	450	78.0	295.3	2674
Q155M	3500 (241)	450	65.0	246.1	2228

Delivery

	Pressure psi (bar)	gal/rev	liters/rev
Q155K	500 (34)	0.185	0.700
	1500 (103)	0.181	0.685
	3000 (207)	0.173	0.654
Q155M	500 (34)	0.157	0.592
	1750 (121)	0.151	0.573
	3500 (241)	0.145	0.547

rpm

Maximum: 450
Minimum: 200 (Consult factory for speeds less than 200 rpm)

Maximum Discharge Pressure

Metallic Heads: Q155K 3000 psi (207 bar)
Q155M 3500 psi (241 bar)

Maximum Inlet Pressure 500 psi (34 bar)

Operating Temperature

Maximum: 180° F (82.2° C)
Minimum: 40° F (4.4° C)
Consult factory for temperatures outside this range

Maximum Solids Size 800 microns

Input Shaft Left or Right Side

Inlet Ports Weld-On: 4" / SCH. 40
4" NPT, 4" Class 300 RF ANSI

Discharge Ports Weld-On: 2" / SCH. 160
2" NPT, 2" Class 2500 RTJ ANSI

Shaft Diameter 3 inch (76.2 mm)

Shaft Rotation Uni-directional (see rotation arrows)

Oil Capacity 32 US quarts (30.3 liters)
10W30 standard-duty oil

Weight

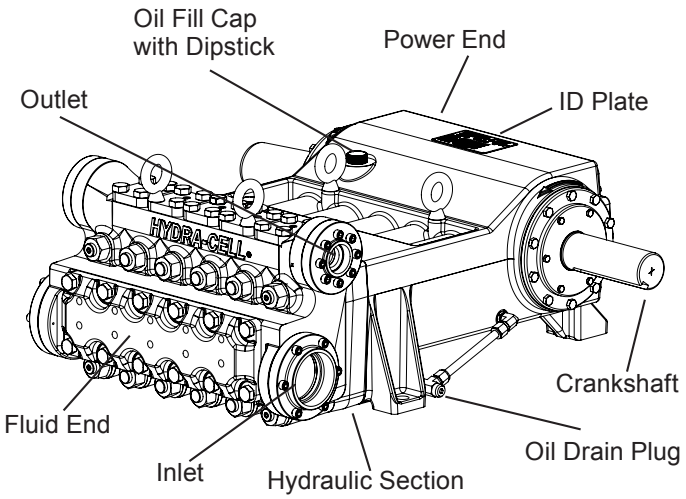
Metallic Heads: 1700 lbs. (771 kg)

Fluid End Materials

Manifold:	Nickel Aluminum Bronze (NAB)
	316 Stainless Steel
Diaphragm/Elastomers:	FKM, Buna-N
Diaphragm Follower Screw:	316 Stainless Steel
Valve Spring Retainer:	17-7 PH Stainless Steel
	Polypropylene
	PVDF
Check Valve Spring:	Elgiloy
Valve Disc/Seat:	Tungsten Carbide
	17-4 Stainless Steel
	Hastelloy C
Outlet Valve Retainer:	316 Stainless Steel
Plug-Outlet Valve Port:	316 Stainless Steel
Inlet Valve Retainer:	316 Stainless Steel

Power End Materials

Crankshaft:	Forged Q&T Alloy Steel
Connecting Rods:	Ductile Iron
Crossheads:	12L14 Steel
Crankcase:	Ductile Iron
Bearings:	Spherical Roller/Journal (outer mains)
	Steel Backed Babbitt (crankpin)
	Bronze (wrist pin, center mains)



Calculating Required Horsepower (kW)*

$$\frac{\text{gpm} \times \text{psi}}{1{,}460} = \text{electric motor hp*}$$

$$\frac{\text{lpm} \times \text{bar}}{511} = \text{electric motor kW*}$$

** hp (kW) is required application power.*

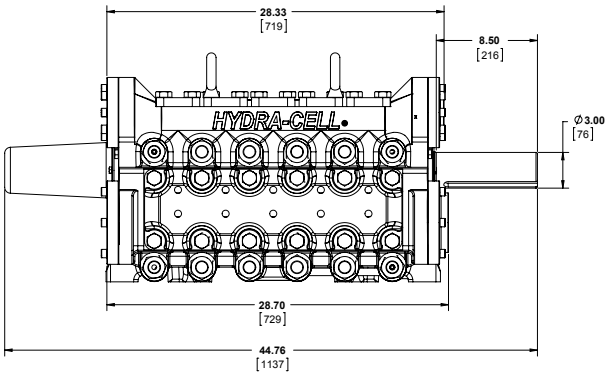
Attention!

When sizing motors with variable speed drives (VFD): It is very important to select a motor and a VFD rated for constant torque inverter duty service and that the motor is rated to meet the torque requirements of the pump throughout desired speed range.

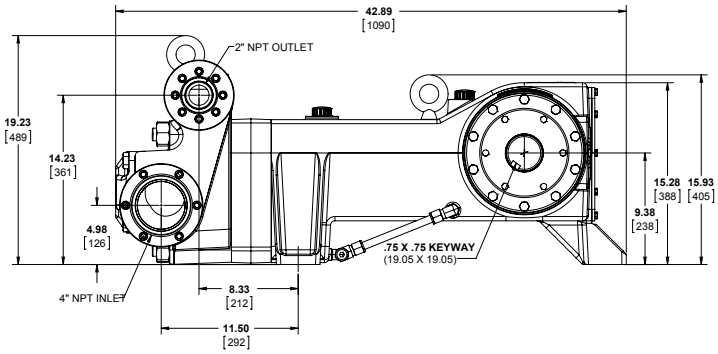
Q155 Medium Pressure Dimensions

Threaded Version Inches (mm)

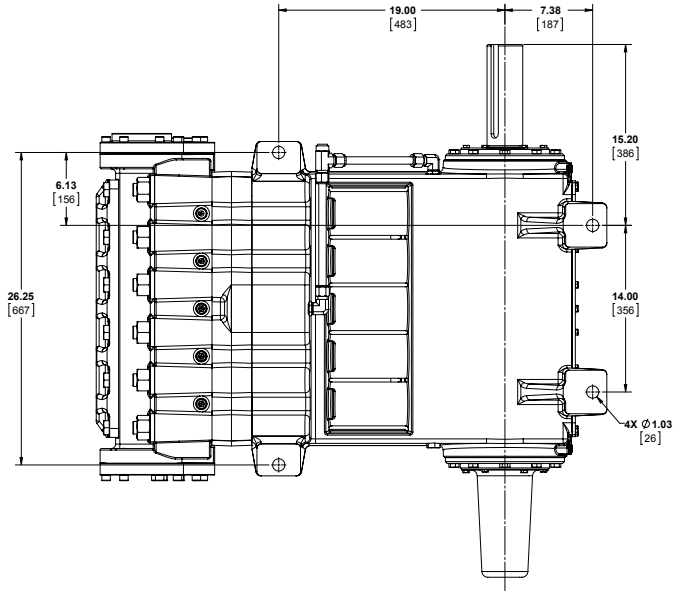
Front View



Side View



Bottom View



Hydra-Cell® Seal-less Pumps

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