

Q155 Series Low Pressure Models Q155E, Q155F & Q155H

Maximum Flow Rate: 157 gpm (595 l/min) 5383 BPD
Maximum Pressure: 2100 psi (144 bar)

Hydra-Cell[®]
Seal-less Pumps



**Available
to Meet
API 674!**

*Q155 Series low-pressure model with
Stainless Steel 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

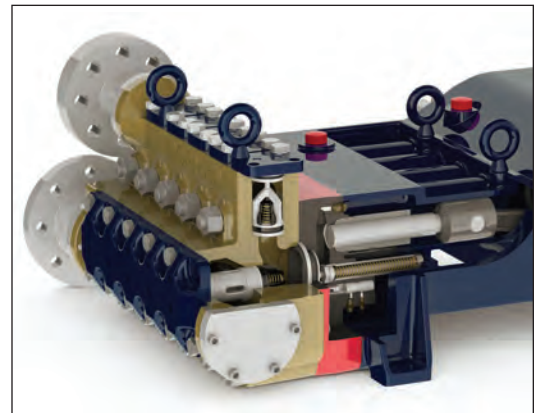
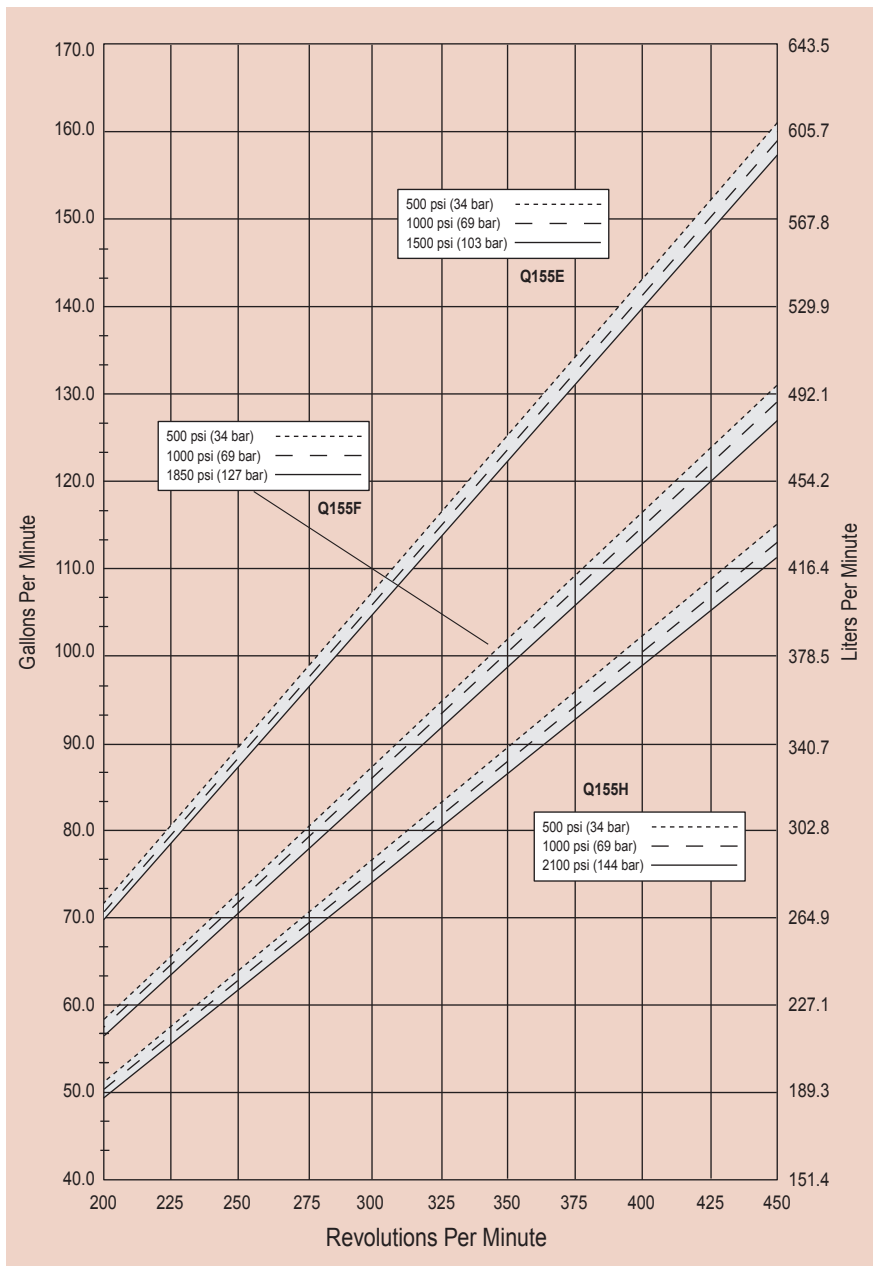
Q155 Low Pressure Performance

Capacities

Flow					@ Pressure		Pressure	
Model	Max. Input rpm	Max. Flow			psi	bar	Maximum Inlet Pressure	
		gpm	l/min	BPD			500 psi (34 bar)	
Q155E	450	157	595	5383	1500	103		
Q155F	450	127	490	4354	1850	128	Maximum Discharge Pressure	
Q155H	450	111	421	3806	2100	144	Q155E	1500 psi (103 bar)
							Q155F	1850 psi (127 bar)
							Q155H	2100 psi (144 bar)

Consult factory when operating below 200 rpm.

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 Low Pressure Specifications

Flow Capacities

Model	Pressure psi (bar)	rpm	gpm	l/min	BPD
Q155E	1500 (103)	450	157	595	5383
Q155F	1850 (127)	450	127	490	4354
Q155H	2100 (144)	450	111	421	3806

Delivery

	Pressure psi (bar)	gal/rev	liters/rev
Q155E	500 (34)	0.358	1.354
	1000 (69)	0.353	1.338
	1500 (104)	0.350	1.323
Q155F	500 (34)	0.291	1.102
	1000 (69)	0.287	1.085
	1850 (127)	0.282	1.068
Q155H	500 (34)	0.256	0.967
	100 (69)	0.251	0.951
	2100 (144)	0.247	0.936

rpm

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

Maximum Discharge Pressure

Metallic Heads:	Q155E	1500 psi (103 bar)
	Q155F	1850 psi (127 bar)
	Q155H	2100 psi (144 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: 3" / SCH. 80
3" NPT, 3" Class 900 RF 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

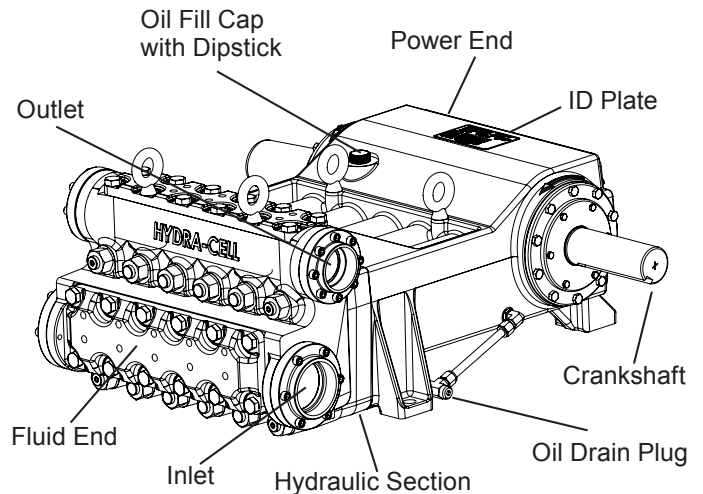
Metallic Heads:	1700 lbs. (771 kg)
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Fluid End Materials

Manifold:	Nickel Aluminum Bronze (NAB)
	316 Stainless Steel
	Duplex Alloy 2507
Diaphragm/Elastomers:	FKM, Buna-N
Diaphragm Follower Screw:	316 Stainless Steel
Valve Spring Retainer:	17-7 PH Stainless Steel
	316 SST
	Hastelloy C
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.

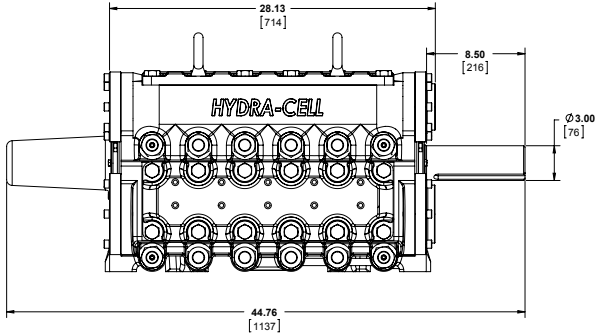
Attention!

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.

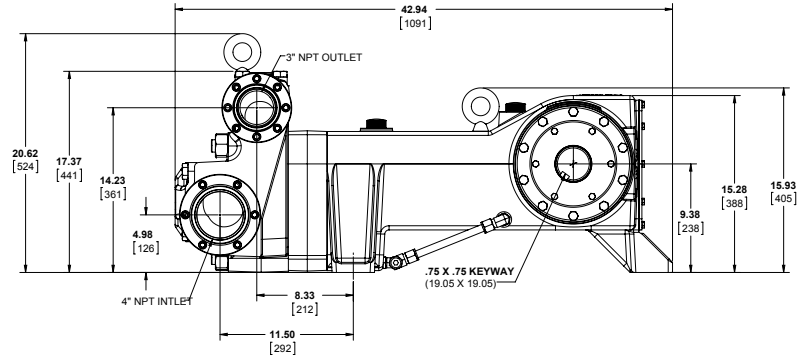
Q155 Low Pressure Dimensions

Threaded Version Inches (mm)

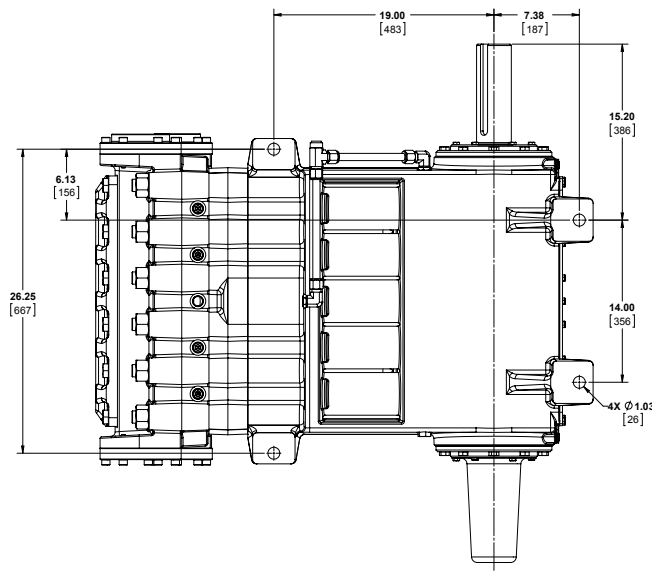
Front View



Side View



Bottom View



www.Hydra-Cell.com

Wanner Engineering, Inc.

World Headquarters & Manufacturing

1204 Chestnut Avenue
 Minneapolis, MN 55403 USA
 Tel: (612) 332-5681 • FAX: (612) 332-6937
 Toll Free FAX (USA only) (800) 332-6812
 Email: sales@wannereng.com
www.hydra-cell.com

Wanner International Ltd.

8 & 9 Fleet Business Park
 Sandy Lane, Church Crookham,
 Hampshire GU52 8BF England
 Tel: +44 (0) 1252 816847
 FAX Tel: +44 (0) 1252 629242
 Email: sales@wannerint.com
www.hydra-cell.eu

Wanner Pumps Ltd.

Flat A, 21 F
 Chatham Commercial Building
 399 Chatham Road North
 Hunghom, Kowloon, Hong Kong
 Tel: (852) 3428-6534
 FAX: (852) 3188-9145
 Email: sales@wannerpumps.com