

Q155 Series Low Pressure

API 674

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



WANNER
Hydra-Cell[®]
Seal-less Pump Technology



Available
to Meet
API 674

- 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

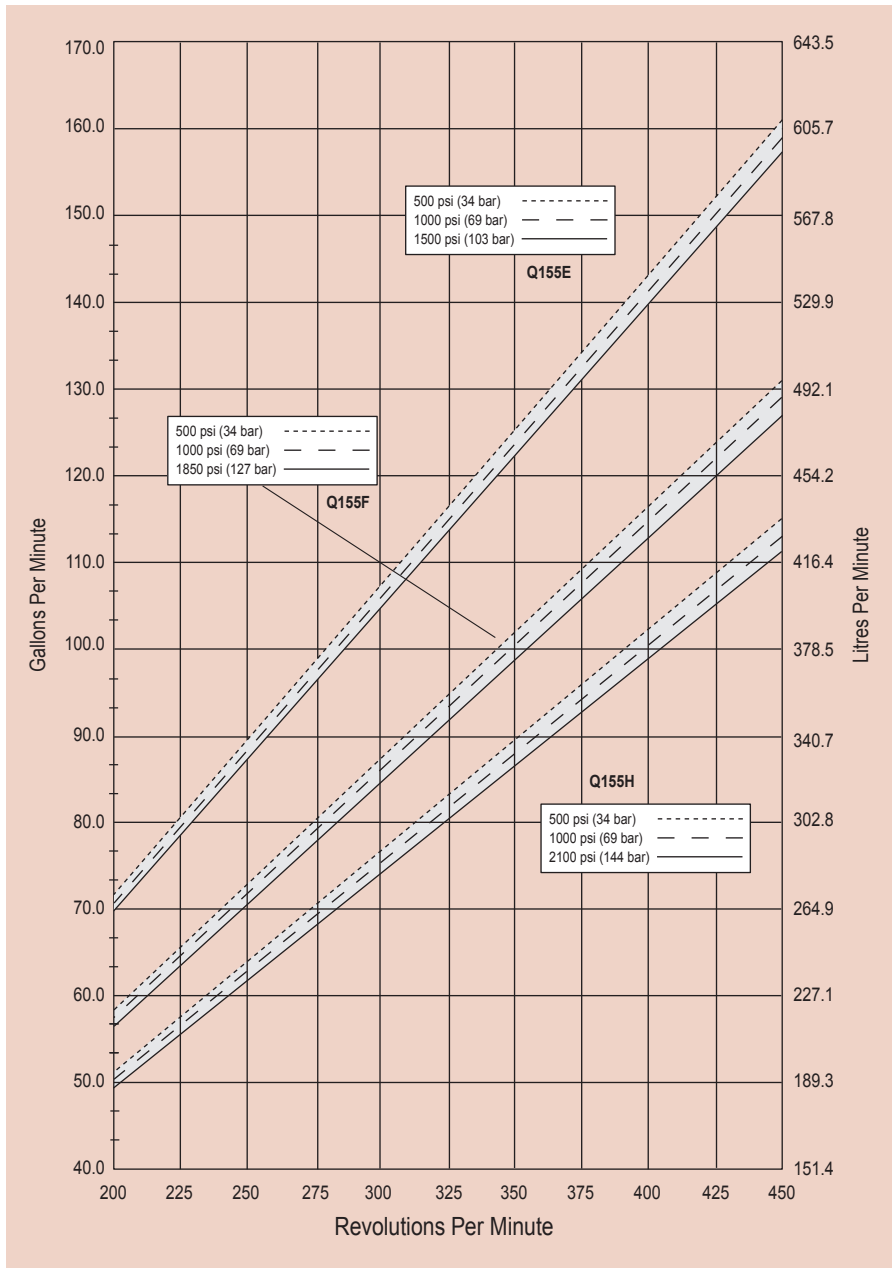
Q155 Low Pressure Performance

Capacities

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

Consult factory when operating below 200 rpm.

Maximum Flow at Designated Pressure



Note: Each pump complies with item 6.8.2 of API 674 across the full performance range.

Q155 Low Pressure Specifications

Flow Capacities

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

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)

Liquid 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

Discharge Ports Weld-On: 3" / SCH. 80 3" NPT

Shaft Diameter 3 inch (76.2 mm)

Shaft Rotation Uni-directional (see rotation arrows)

Oil Capacity 32 US quarts (30.3 litres)

10W30 standard-duty oil

Weight

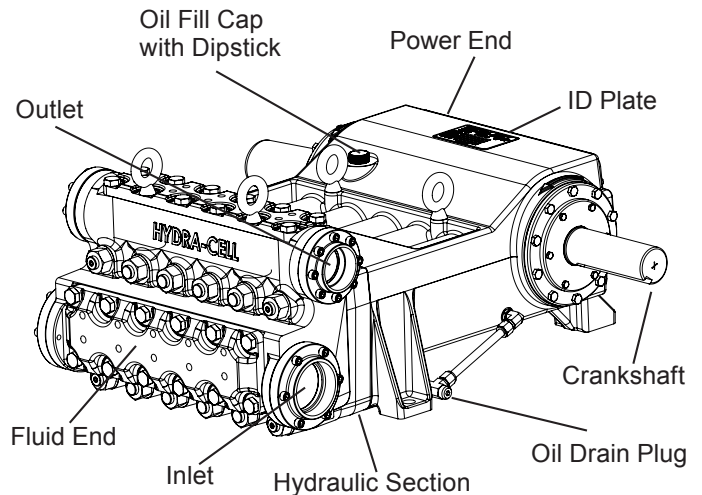
Metallic Heads:	1700 lbs. (771 kg)
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Fluid End Materials

Manifold:	Nickel Aluminum Bronze (NAB)
	316 Stainless Steel
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.

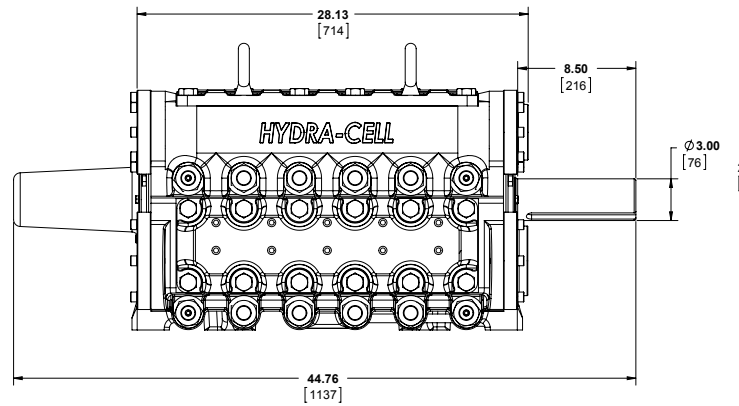
Attention!

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.

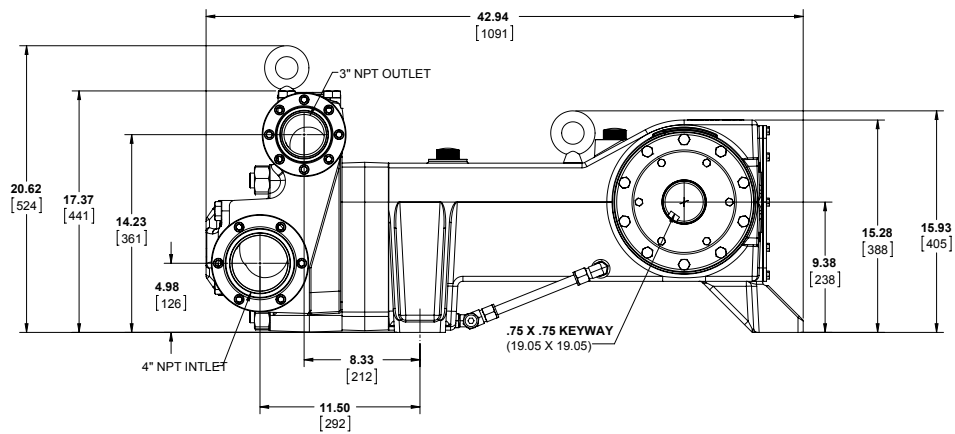
Q155 Low Pressure Dimensions

Threaded Version Inches (mm)

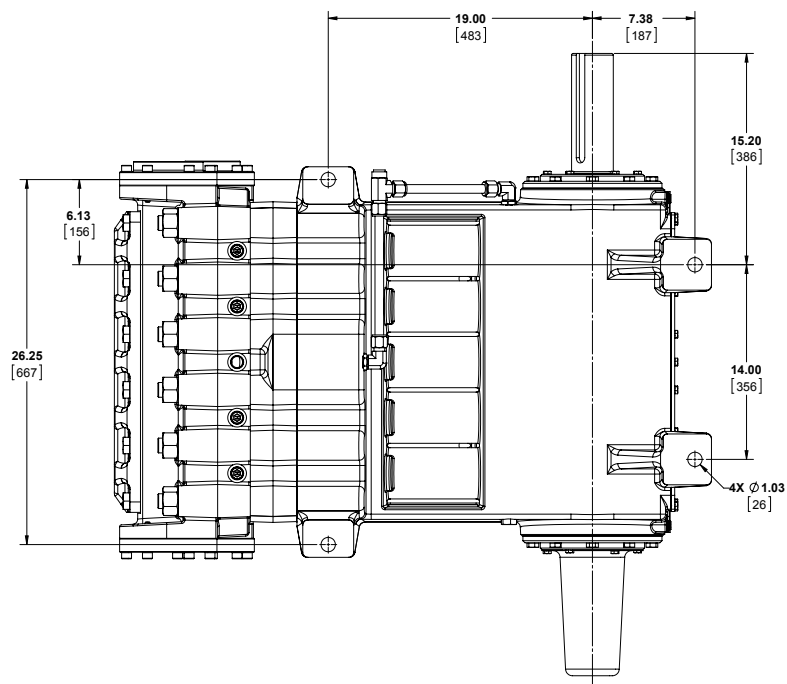
Front View



Side View



Bottom View



Q155 Low Pressure **How to Order**

Ordering Information

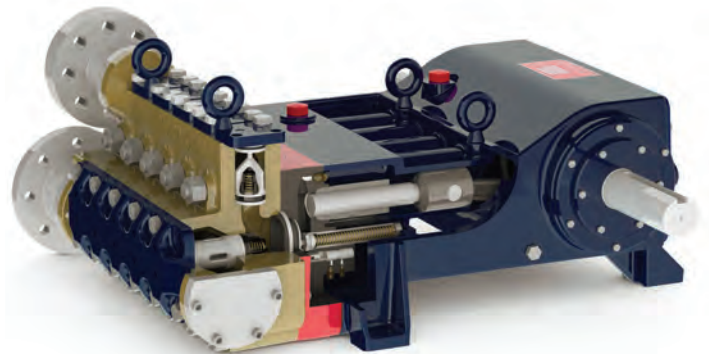
¹ Q	² 1	³ 5	⁴ 5	⁵	⁶	⁷	⁸	⁹	¹⁰	¹¹ E	¹²	¹³ A
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A complete Q155 Series Low Pressure Model contains 13 digits including 7 customer-specified design and materials options, for example: (TBP)

Low Pressure

Digit	Order Code	Description
1-4	Q155	Pump Configuration Shaft-driven
5	E F H	Performance Max. 595 l/min (157 gpm) @ 103 bar (1500 psi) Max. 490 l/min (127 gpm) @ 127 bar (1850 psi) Max. 421 l/min (111 gpm) @ 144 bar (2100 psi)
6	A R	Pump Head Version NPT Threaded Ports ANSI Flange Ports
7	D S	Pump Head Material Nickel Aluminum Bronze (NAB) 316 Stainless Steel
8	G T	Diaphragm & O-ring Material FKM Buna-N
9	D H T	Valve Seat Material Tungsten Carbide 17-4 Stainless Steel Hastelloy C
10	D F T	Valve Material Tungsten Carbide 17-4 Stainless Steel Hastelloy C
11	E	Valve Springs Elgiloy
12	H S T	Valve Spring Retainers 17-7 PH Stainless Steel 316 SST Hastelloy C
13	A	Hydra-Oil 10W30 standard-duty oil

*Tungsten Carbide valve seat and disc are a matched set and must be purchased together.





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