

Q155 Series Low Pressure

API 674

Maximum Flow Rate: 595 l/min (157 gpm) 5383 BPD
Maximum Pressure: 145 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

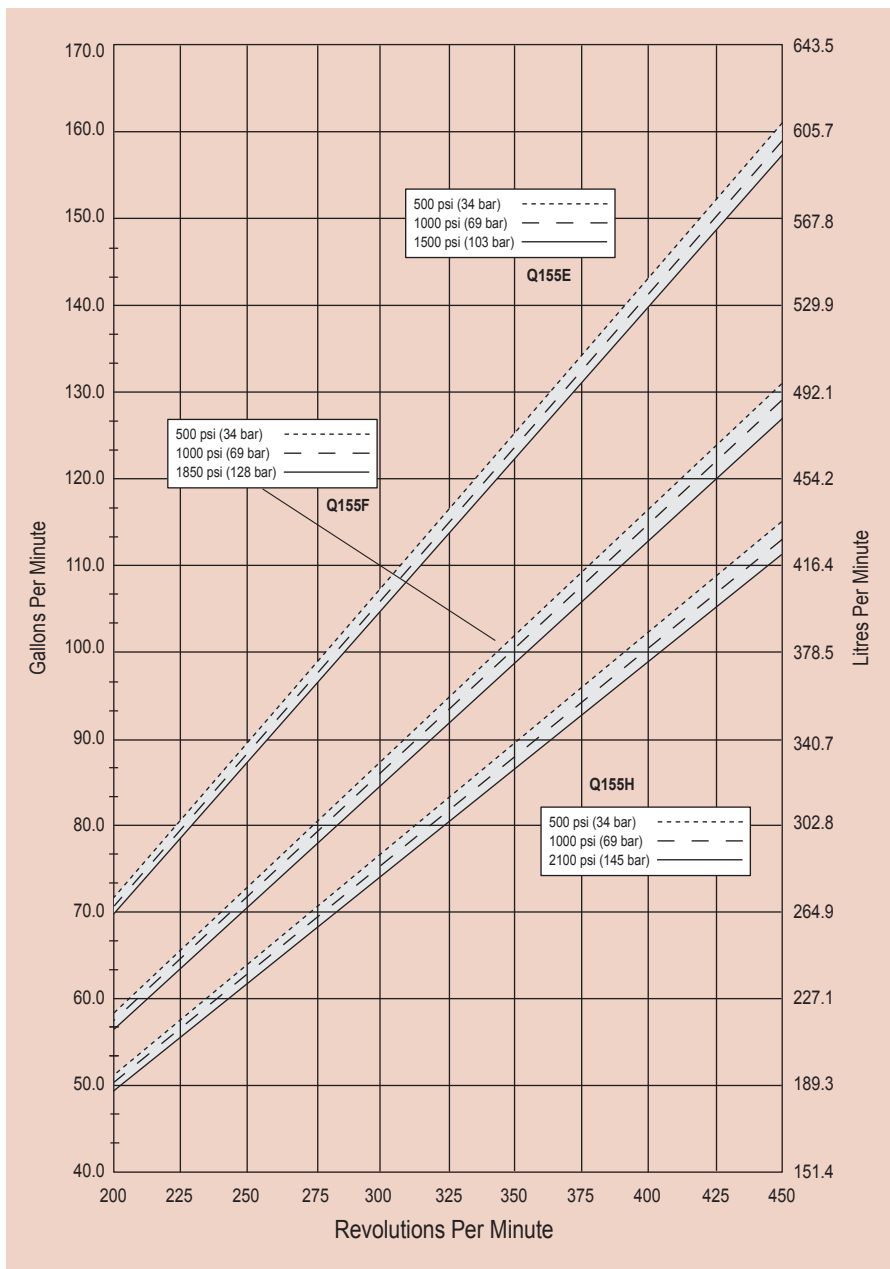
Q155 Low Pressure Performance

Capacities

Flow					@ Pressure Rating		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	Maximum Discharge Pressure	
Q155F	450	127	490	4354	1850	128	Q155E	1500 psi (103 bar)
Q155H	450	111	421	3806	2100	145	Q155F	1850 psi (128 bar)
							Q155H	2100 psi (145 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

Model	Pressure psi (bar)	rpm	gpm	l/min	BPD
Q155E	1500 (103)	450	157	595	5383
Q155F	1850 (128)	450	127	490	4354
Q155H	2100 (145)	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 (103)	0.350	1.323
Q155F	500 (34)	0.291	1.102
	1000 (69)	0.287	1.085
	1850 (128)	0.282	1.068
Q155H	500 (34)	0.256	0.967
	1000 (69)	0.251	0.951
	2100 (145)	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 (128 bar)
	Q155H	2100 psi (145 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 Neck: 4" / SCH. 40
4" NPT, 4" Class 300 RF ANSI

Discharge Ports

Weld Neck: 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

33.1 litres (35 US quarts)
See page 5 for oil selection and specification.

Weight

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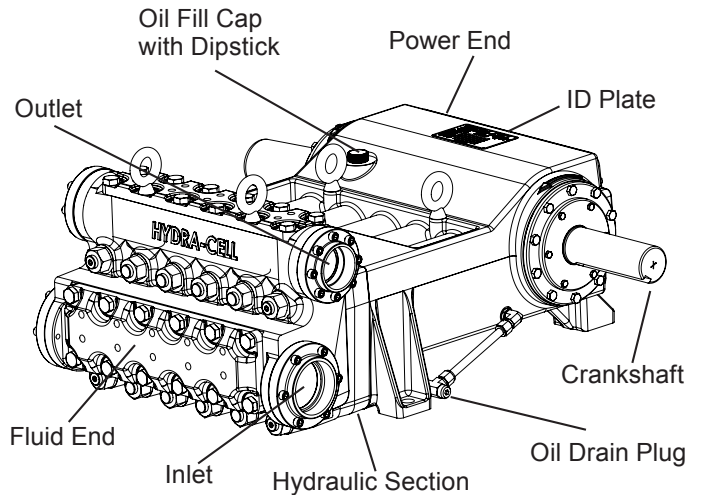
Fluid End Materials

Diaphragm Follower Screw:	316 Stainless Steel
Outlet Valve Retainer:	316 Stainless Steel
Plug-Outlet Valve Port:	316 Stainless Steel
Inlet Valve Retainer:	316 Stainless Steel

See page 5 for customer-specified fluid end materials choices.

Power End Materials

Crankshaft:	Forged Q&T Alloy 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.

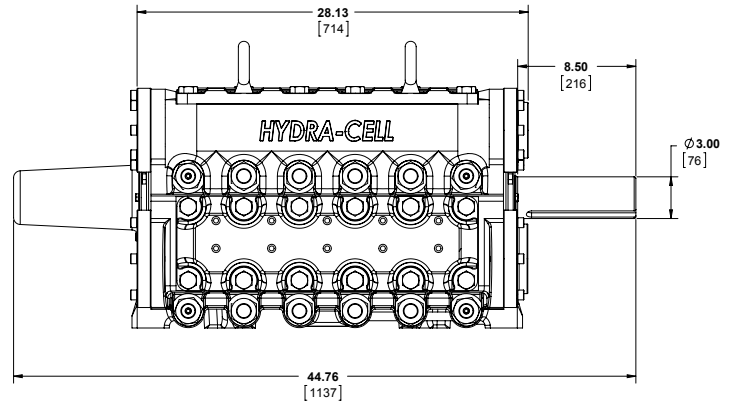
Attention!

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.

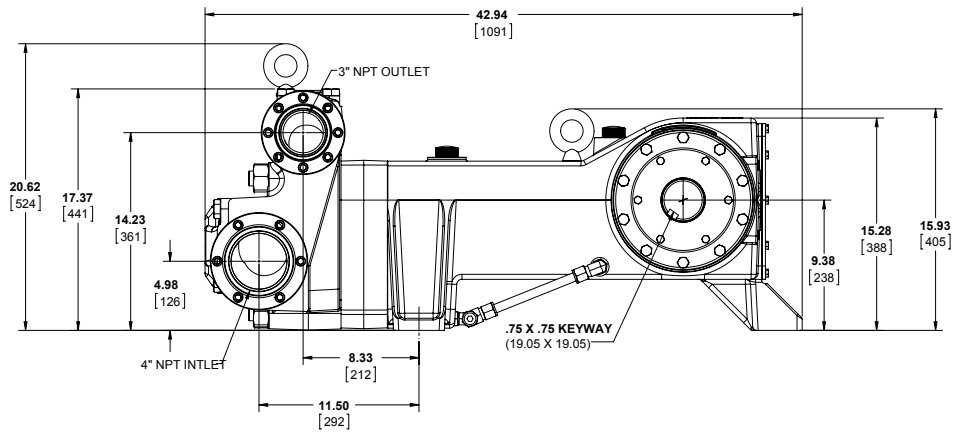
Q155 Low Pressure Dimensions

Threaded Version Inches (mm)

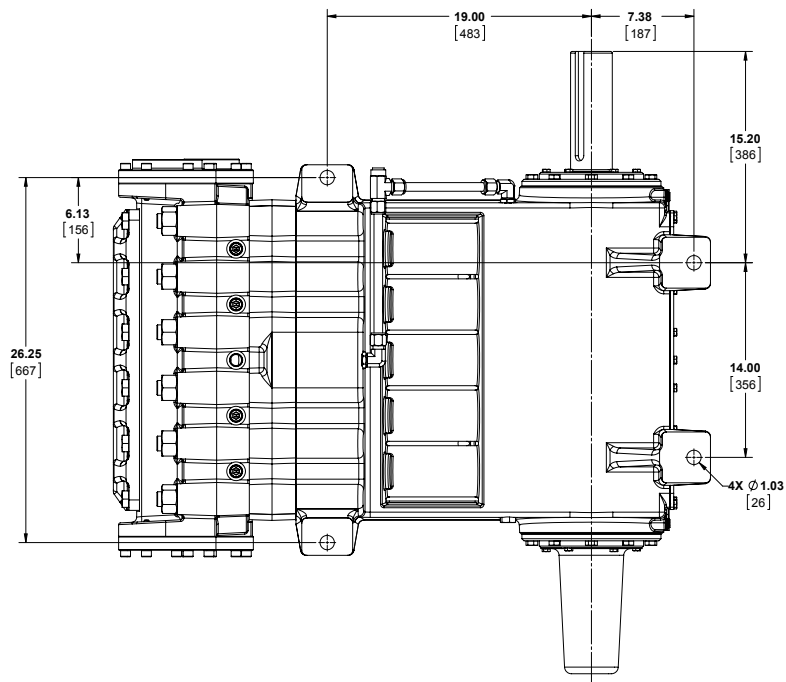
Front View



Side View



Bottom View



Q155 Series Low Pressure **How to Order**

Ordering Information

1	Q	2	1	3	5	4	5	5	6	7	8	9	10	11	12	13	14
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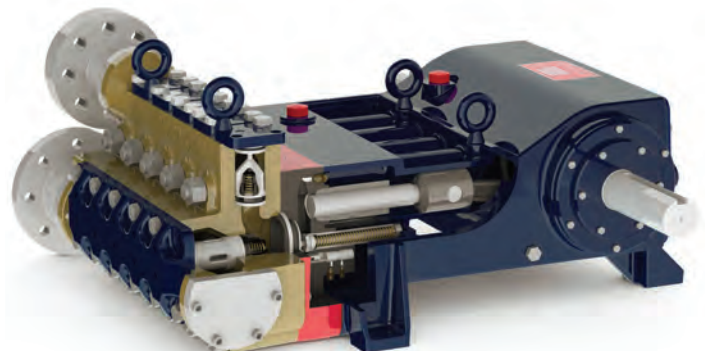
A complete Q155 Series Low Pressure Model contains 14 digits including 10 customer-specified design and materials options, for example: Q155ERSGDDESAY.

Low Pressure

Digit	Order Code	Description
1-4	Q155	Pump Configuration Shaft-driven API 674 - Contact Wanner International
5		Performance
	E	Max. 157 gpm (595 l/min) 5383 BPD @ 1500 psi (103 bar)
	F	Max. 127 gpm (490 l/min) 4354 BPD @ 1850 psi (128 bar)
	H	Max. 111 gpm (421 l/min) 3806 BPD @ 2100 psi (145 bar)
	-	ATEX - Contact Wanner International <i>(Note: ATEX 2014/34/EU Certified, Category 2, Zone 1, Hazardous Liquids)</i>
6		Pump Head Version
	A	NPT Threaded Ports (Steel)
	C	Weld Neck (Steel)
	D	Weld Neck (316L Stainless Steel)
	E	Weld Neck (Hastelloy)
	F	Weld Neck (Duplex Alloy 2205)
	G	ANSI Flange Ports (Duplex Alloy 2205)
	R	ANSI Flange Ports (Steel)
	S	ANSI Flange Ports (316L Stainless Steel)
	T	ANSI Flange Ports (Hastelloy)
7		Pump Head Material
	D	Nickel Aluminum Bronze (NAB)
	G	Duplex Alloy 2205
	S	316 Stainless Steel
	T	Hastelloy CX2M
8		Diaphragm & O-ring Material
	G	FKM
	T	Buna-N
9		Valve Seat Material
	D	Tungsten Carbide*
	H	17-4 Stainless Steel
	N	Nitronic 50
	T	Hastelloy C
10		Valve Material
	D	Tungsten Carbide*
	F	17-4 Stainless Steel
	N	Nitronic 50
	T	Hastelloy C

Digit	Order Code	Description
*Tungsten Carbide valve seat and disc are a matched set and must be purchased together.		
11		Valve Springs
	E	Elgiloy
	T	Hastelloy C
12		Valve Spring Retainers
	H	17-7 PH Stainless Steel
	S	316 SST
	T	Hastelloy C
13		Hydra-Oil
	A	10W30 standard-duty oil
	B	40-wt.
	E	Food-contact oil
	H	15W50 high-temp severe-duty synthetic oil
14		Oil Level Monitor Cover
	C	Float switch, normally closed
	O	Float switch, normally open
	X	Float switch, explosion proof, normally closed
	Y	No switch

Note: The Oil Level Monitor Cover is an assembly that replaces the previous back cover on Q155 Series pumps. It contains a float switch assembly that can trigger an alarm or shutdown when pre-defined levels of high or low oil are reached. It may also be ordered without a float switch cover.





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