

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

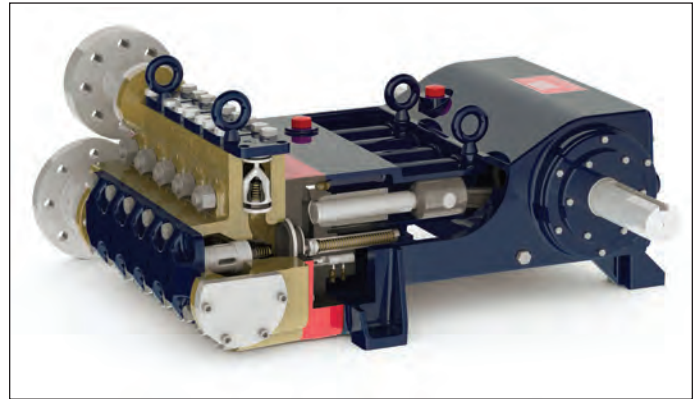
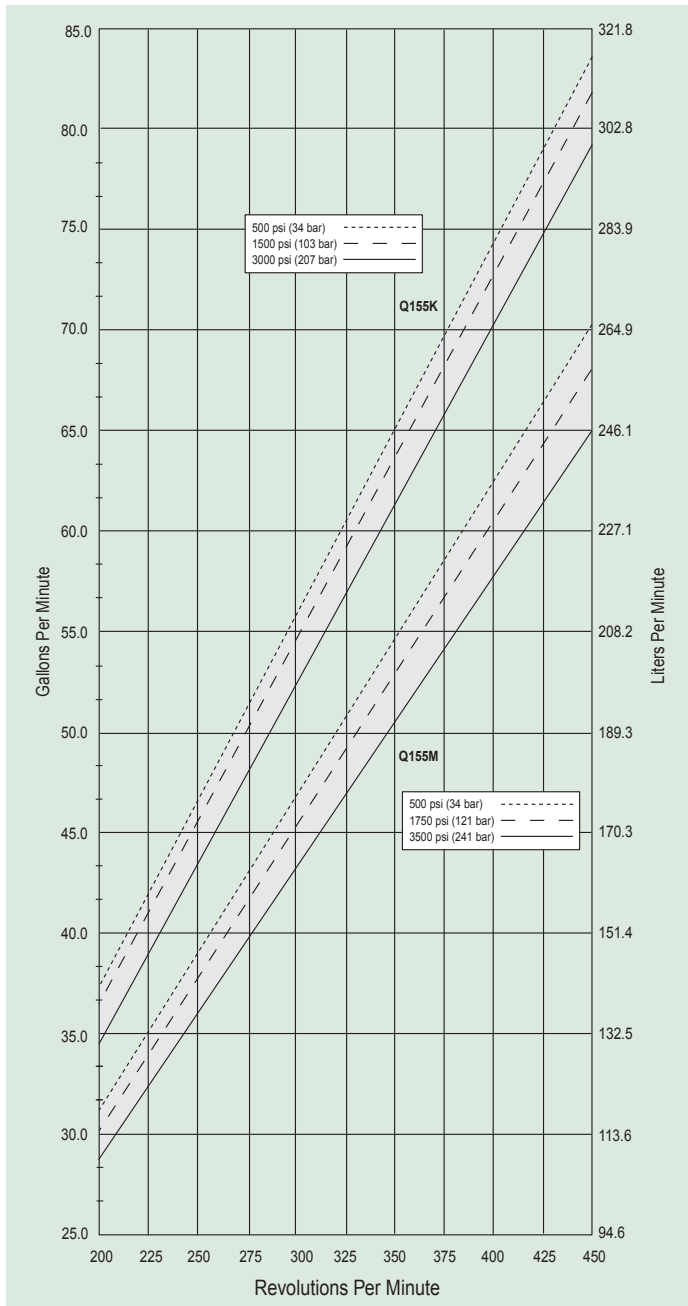
Q155 Medium Pressure Performance

Capacities

Model	Max. Input rpm	Plunger Dia.		Max. Flow Capacities			Max. Pressure Ratings Discharge		Max. Pressure Ratings Inlet	
		Inches	mm	gpm	l/min	BPD	psi	bar	psi	bar
Q155K	450	1.75	44	78	295	2674	3000	207	500	34
Q155M	450	1.625	41	65	246	2228	3500	241	500	34

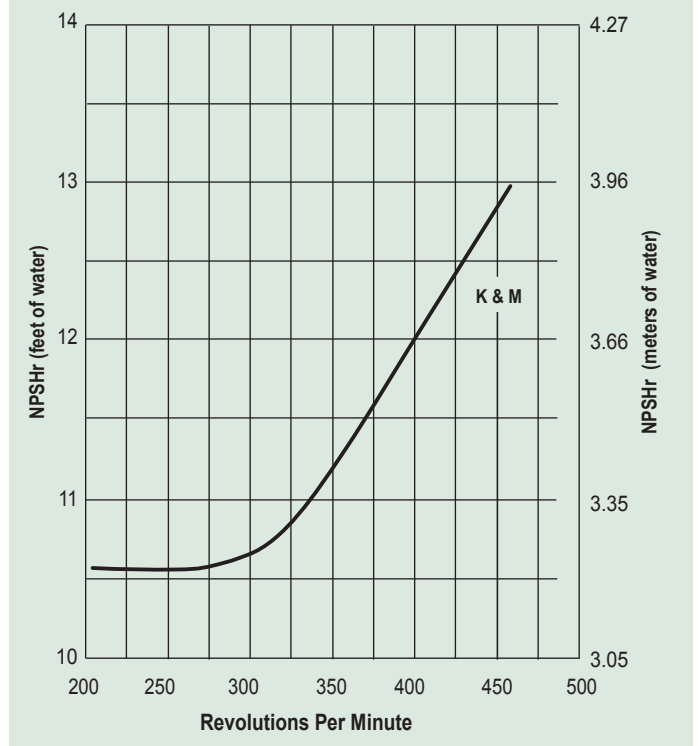
Consult factory when operating below 45 rpm.

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.

Net Positive Suction Head (NPSHr)



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
Maximum API 674:	375
Minimum:	45 (Consult factory for speeds less than 45 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

Plunger Stroke Length

3.5 Inches (88.9 mm)

Shaft Diameter

3 inch (76.2 mm)

Shaft Rotation

Uni-directional (See rotation arrow.)

Oil Capacity

32 US quarts (30.3 liters) - blank back cover
34 US quarts (32.2 liters) - oil level back cover
See page 5 for oil selection and specification.

Weight

Metallic Heads:	1700 lbs. (771 kg)
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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!

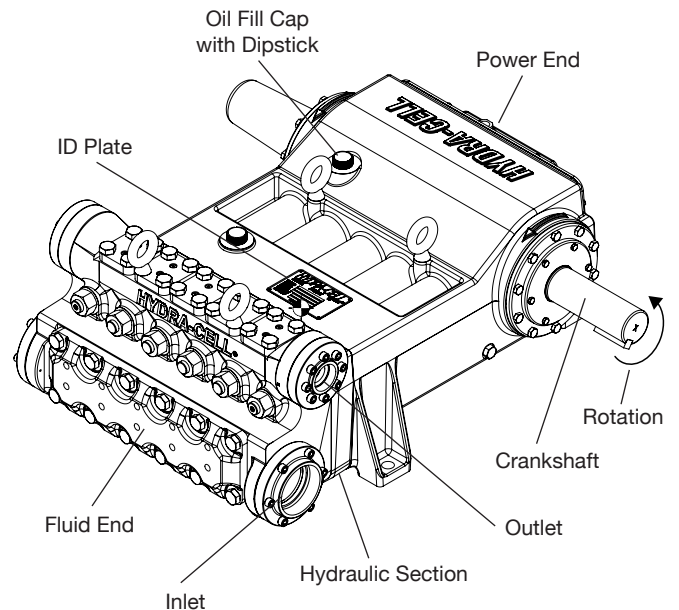
When sizing motors with variable speed drives (VFD): It is very important to select a motor and a VFD rated for constant torque inverter duty service and that the motor is rated to meet the torque requirements of the pump throughout desired speed range.

Fluid End Materials

Manifold:	Nickel Aluminum Bronze (NAB)
	Duplex Alloy 2205
	316L Stainless Steel
Diaphragm/Elastomers:	Hastelloy CX2M
	FKM
	Buna-N
	Aflas
Diaphragm Follower Screw:	EPDM
	316 Stainless Steel
Valve Spring Retainer:	17-7 PH Stainless Steel
	Polypropylene
Check Valve Spring:	PVDF
	316 SST
	Hastelloy C
	Elgiloy
Valve Disc/Seat:	Hastelloy C
	Tungsten Carbide
	17-4 Stainless Steel
	Nitronic 50
Outlet Valve Retainer:	Hastelloy C
	316 Stainless Steel
Plug-Outlet Valve Port:	316 Stainless Steel
	316 Stainless Steel
Inlet Valve Retainer:	316 Stainless Steel

Power End Materials

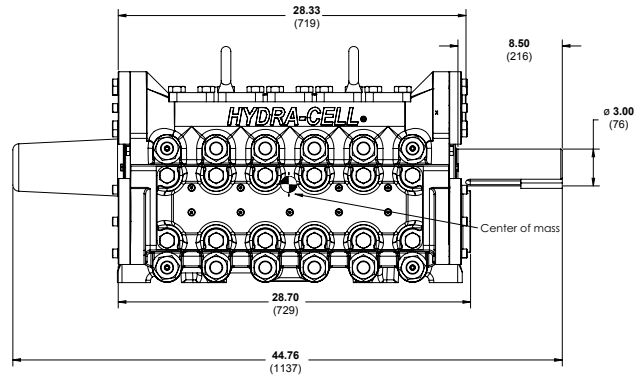
Crankshaft:	Forged Q&T Alloy Steel
Connecting Rods:	Ductile Iron
Crossheads:	12L14 Steel
Crankcase:	Ductile Iron
Bearings:	Spherical Roller (crankshaft main)
	Steel Backed Babbitt (crankpin)
	Bronze (wrist pin, center mains)



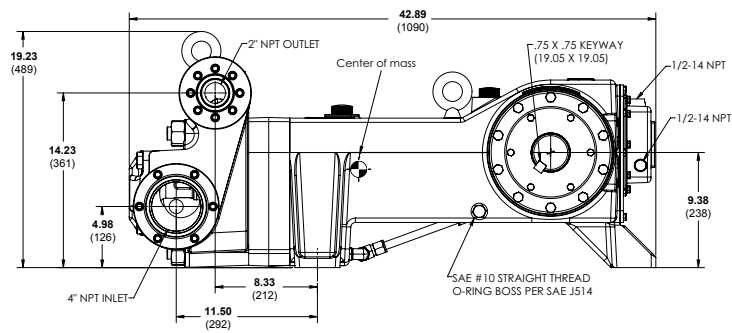
QI55 Medium Pressure Drawings

Threaded Version Inches (mm)

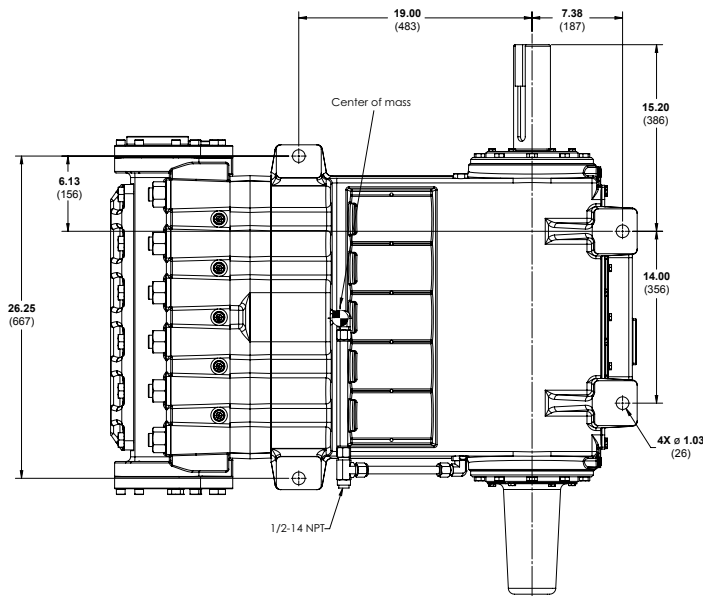
Front View



Side View



Bottom View



Note: Representative drawings only. Contact factory for additional drawings of specific models and configurations.

Q155 Medium 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 Medium Pressure Model contains 14 digits including 10 customer-specified design and materials options, for example: Q155MRSTDDSEEX.

Medium Pressure

Digit	Order Code	Description
1-4	Q155	Pump Configuration Shaft-driven
5	K	Performance Max. 78.0 gpm (295.3 l/min) 2674 BPD @ 3000 psi (207 bar)
	M	Max. 65.0 gpm (246.1 l/min) 2228 BPD @ 3500 psi (241 bar)
6	A	Pump Head Version 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	D	Pump Head Material Nickel Aluminum Bronze (NAB)
	G	Duplex Alloy 2205
	S	316 Stainless Steel
	T	Hastelloy CX2M
8	A	Diaphragm & O-ring Material Aflas
	E	EPDM (requires EPDM-compatible oil - Digit 13 oil code D)
	G	FKM
	T	Buna-N
9	D	Valve Seat Material Tungsten Carbide*
	H	17-4 Stainless Steel
	N	Nitronic 50
	T	Hastelloy C
10	D	Valve Material Tungsten Carbide*
	F	17-4 Stainless Steel
	N	Nitronic 50
	T	Hastelloy C

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

Digit	Order Code	Description
11	E	Valve Springs Elgiloy
	T	Hastelloy C
12	H	Valve Spring Retainers 17-7 PH Stainless Steel
	M	PVDF
	P	Polypropylene
	S	316 SST
	T	Hastelloy C
13	A	Hydra-Oil 10W30 standard-duty oil
	B	40-wt.
	D	EPDM-compatible oil
	E	Food-contact oil
	H	15W50 high-temp severe-duty synthetic oil
14	C	Oil Level Monitor Cover Float switch, normally closed
	O	Float switch, normally open
	S	Float switch, Class I, Div. 1, Groups C & D, normally closed
	T	Float switch, Class I, Div. 1, Groups C & D, normally open
	W	Float switch, ATEX/IECEX, 4-20 mA analog output
	X	Float switch, ATEX/IECEX, discrete output, normally-closed
	Y	No switch, flat cover

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.

Hydra-Cell®

Seal-less Pumps

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