

# 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**<sup>®</sup>  
Seal-less Pumps



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

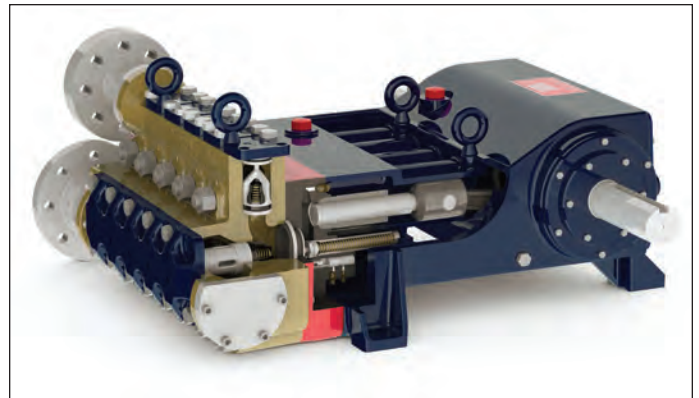
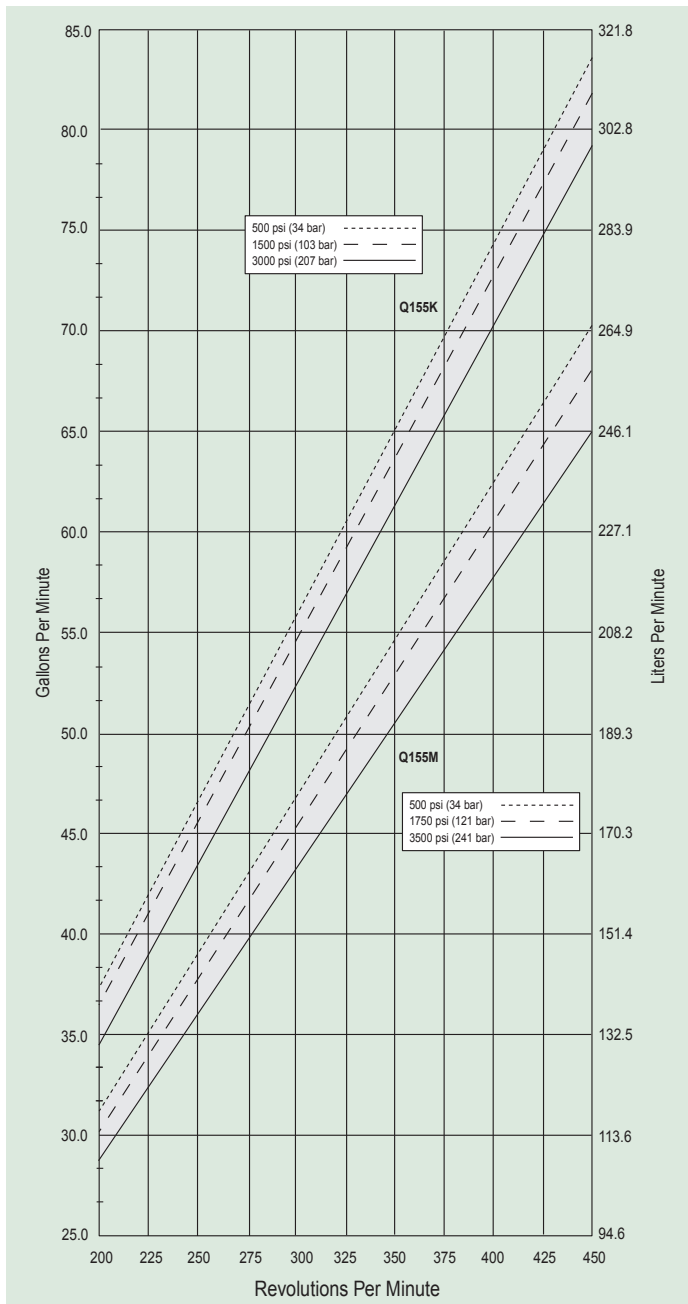
## Capacities

Flow					@ Pressure		Pressure	
Model	Max. Input rpm	Max. Flow			psi	bar	Maximum Inlet Pressure	
		gpm	l/min	BPD			500 psi (34 bar)	
Q155K	450	78	295	2674	3000	207		
Q155M	450	65	246	2228	3500	241		

**Consult factory when operating below 200 rpm.**

**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

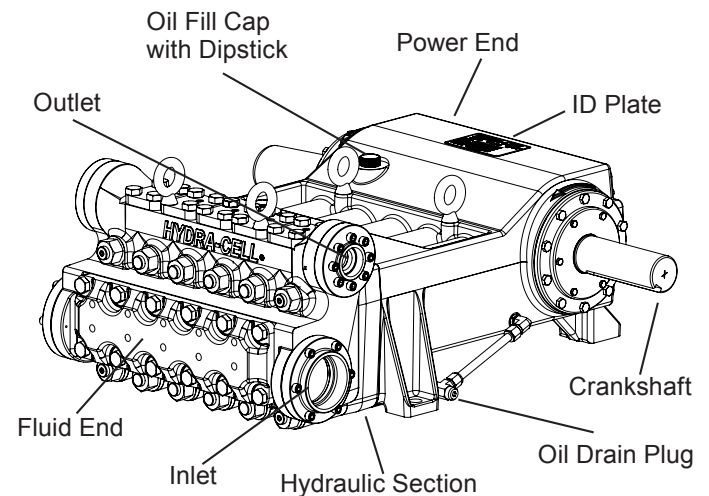
Metallic Heads:	1700 lbs. (771 kg)
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## Fluid End Materials

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
	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.

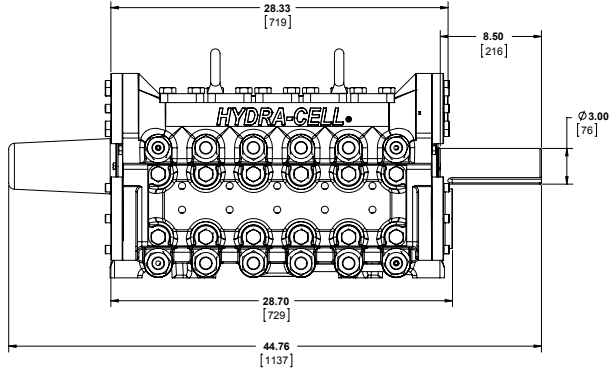
## Attention!

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.

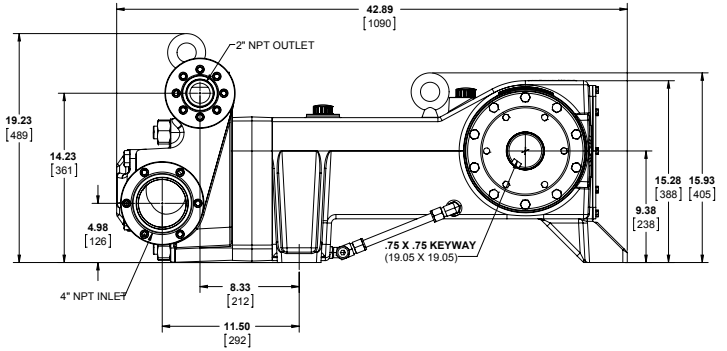
# Q155 Medium Pressure Dimensions

Threaded Version Inches (mm)

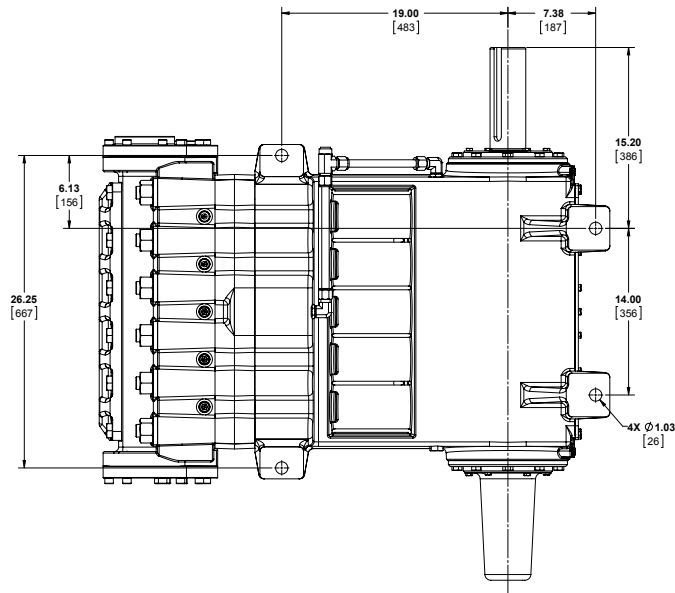
Front View



Side View



Bottom View



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