

# Q330 Series Medium Pressure Models Q330K & Q330M

Maximum Flow Rate: 153 gpm (579 l/min) 5247 BPD  
Maximum Pressure: 3500 psi (241 bar)

**Hydra-Cell**<sup>®</sup>  
Seal-less Pumps



**Available  
to Meet  
API 674!**

*Q330 Series medium-pressure model with  
Nickel Aluminum Bronze pump head.*

- Seal-less design separates the power end from the process fluid end, eliminating 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 and other pump technologies.
- Rugged construction for long life with minimal maintenance.
- Compact design provides a variety of installation options.

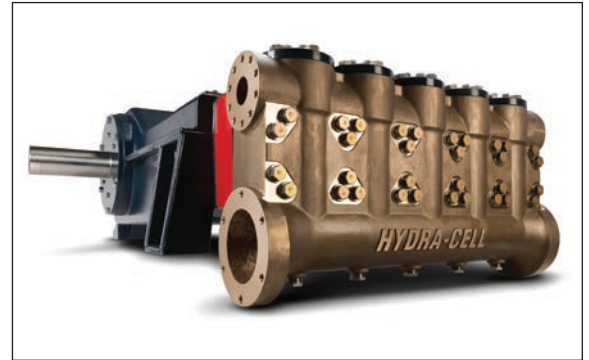
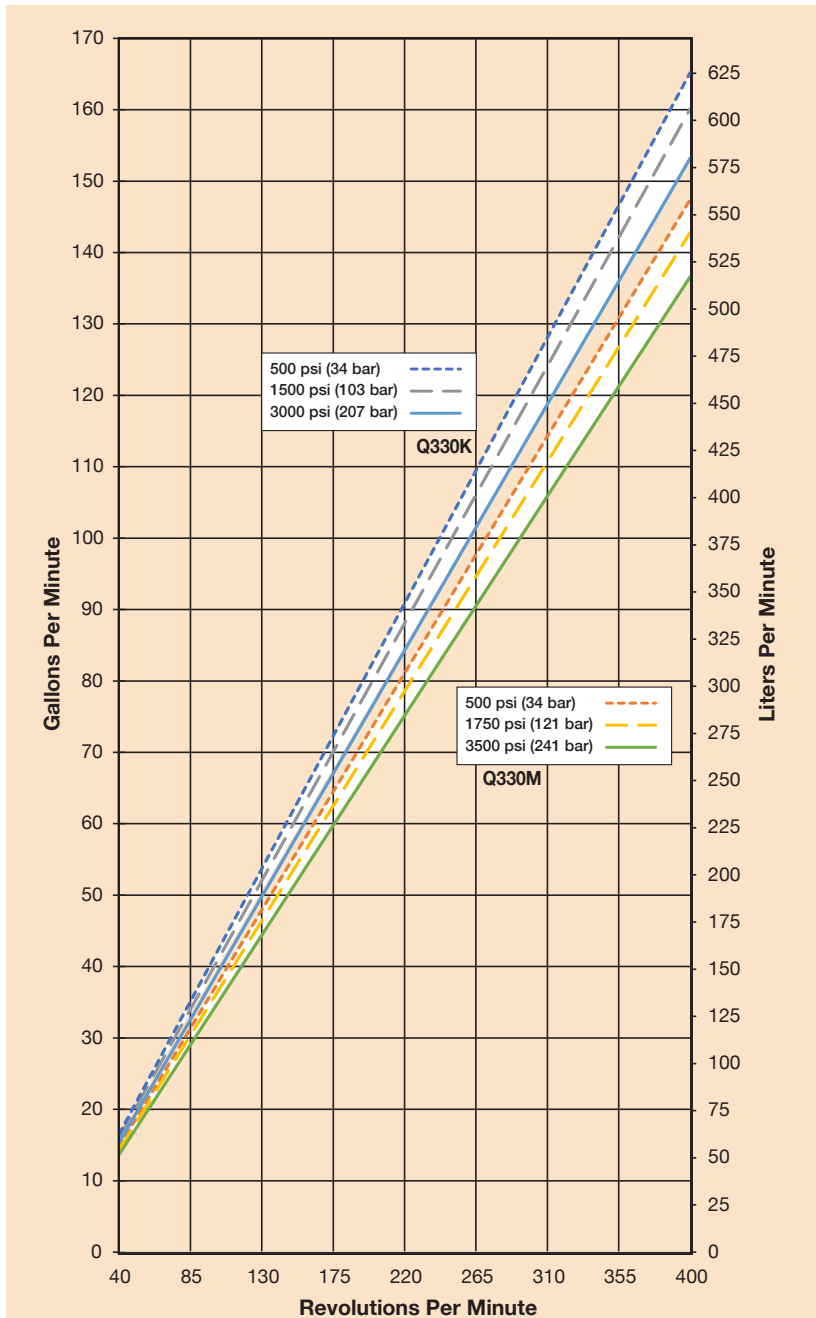
# Q330 Medium Pressure Performance

## 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
Q330K	400	2.250	57	153	579	5247	3000	207	500	34
Q330M	400	2.125	54	136	514	4664	3500	241	500	34

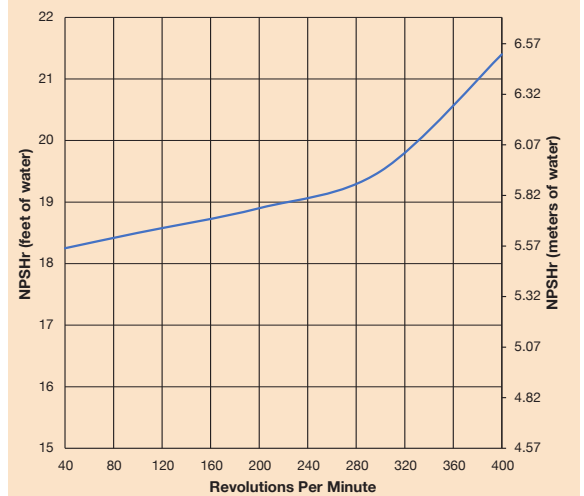
Consult factory when operating below 40 rpm.

## Maximum Flow at Designated Pressure



Q330 Series pumps feature the Hydra-Cell seal-less design, eliminating clean-up costs from leaking seals or packing and protecting operators from dangerous fluids such as those containing hydrogen sulfide.

## Net Positive Suction Head (NPSHr)



Due to the Wanner Engineering Continuous Improvement Program, specifications and other data are subject to change.

# Q330 Medium Pressure Specifications

## Flow Capacities

Model	Pressure psi (bar)	rpm	gpm	l/min	BPD
Q330K	3000 (207)	400	153	579	5247
Q330M	3500 (241)	400	136	514	4664

## Delivery

	Pressure psi (bar)	gal/rev	liters/rev
Q330K	500 (34)	0.413	1.563
	1500 (103)	0.400	1.515
	3000 (207)	0.383	1.450
Q330M	500 (34)	0.369	1.395
	1750 (121)	0.357	1.351
	3500 (241)	0.342	1.293

## rpm

Maximum:	400
Maximum API 674:	310
Minimum:	40 (Consult factory for speeds less than 40 rpm.)

## Maximum Discharge Pressure

Metallic Heads:	Q330K	3000 psi (207 bar)
	Q330M	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

Right Side
------------

## Inlet Ports

Weld-On: 6 inch / SCH. 40
---------------------------

6 inch NPT, 6 inch Class 300 RF ANSI
--------------------------------------

## Discharge Ports

Weld-On: 3 inch / SCH. XXH
----------------------------

3 inch NPT, 3 inch Class 2500 RTJ ANSI
--

## Plunger Stroke Length

5 inch (127 mm)
-----------------

## Shaft Diameter

4 inch (101.6 mm)
-------------------

## Shaft Rotation

Uni-directional (See rotation arrow.)
---------------------------------------

## Oil Capacity

110 US quarts (104.1 liters)
------------------------------

## Weight

Metallic Heads:	5000 lbs. (2268 kg)
-----------------	---------------------

## 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)

Diaphragm/Elastomers: FKM

Buna-N

Diaphragm Follower Screw: 316 Stainless Steel

Valve Spring Retainer: Hastelloy C

Check Valve Spring: Elgiloy

Hastelloy C

Valve Disc/Seat: 17-4 Stainless Steel

Nitronic 50

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: Ductile Iron

Connecting Rods: Ductile Iron

Crossheads: Ductile Iron

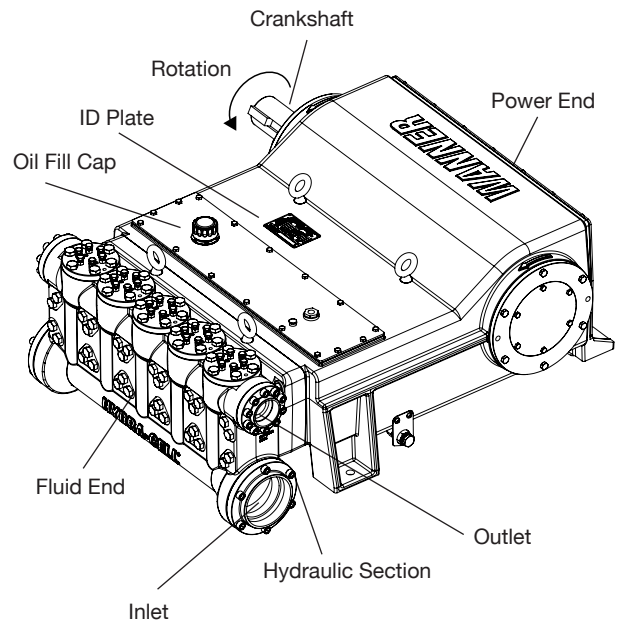
Crankcase: Ductile Iron

Bearings: Spherical Roller Journal

(outer mains)

Steel Backed Tri-metal (crankpin)

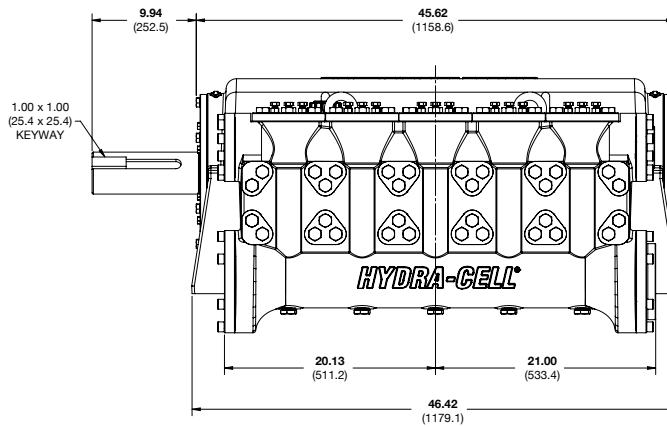
Bronze (wristpin, center mains)



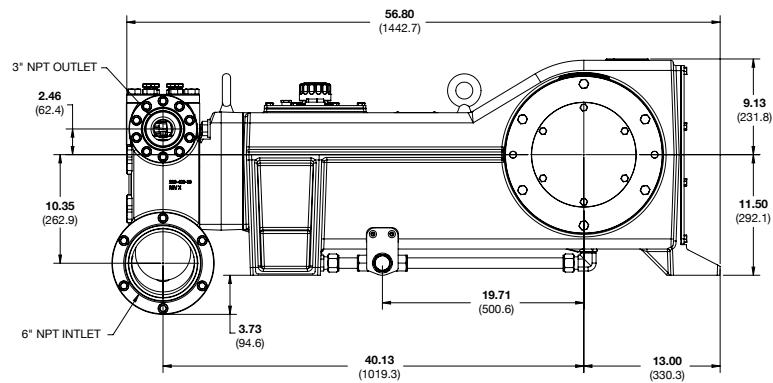
# Q330 Medium Pressure Drawings

Threaded Version Inches (mm)

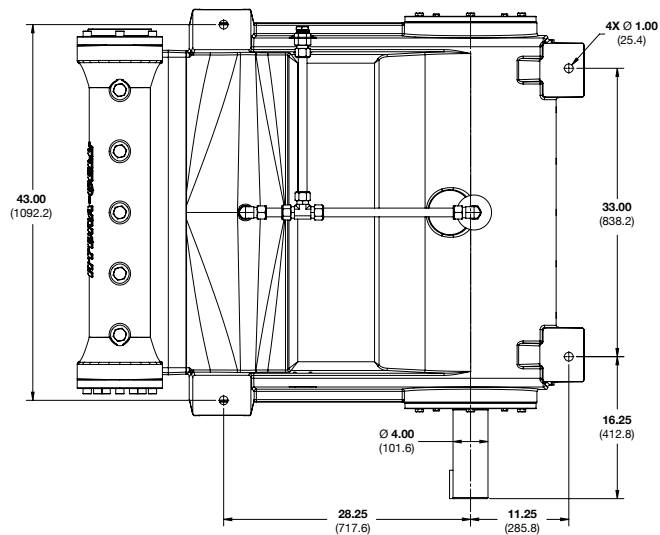
## Front View



## Side View



## Bottom View



**Note:** Dimensions are for reference only. Contact factory for certified drawings.

# Q330 Medium Pressure **How to Order**

## Ordering Information

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Q	3	3	0			D					T		

A complete Q330 Series Medium Pressure Model Number contains 14 digits including 8 customer-specified design and materials options, for example: Q330KDDGHFETA.

## Medium Pressure

Digit	Order Code	Description
<b>1-4</b>	Q330	<b>Pump Configuration</b> Shaft-driven
<b>5</b>	K	<b>Performance</b> Max. 153 gpm (579 l/min) 5247 BPD @ 3000 psi (276 bar)
	M	Max. 136 gpm (514 l/min) 4664 BPD @ 3500 psi (214 bar)
<b>6</b>	A	<b>Pump Head Version</b> NPT Ports (Steel)
	C	Weld Neck (Steel)
	D	Weld Neck (316L Stainless Steel)
	R	ANSI Flange Ports (Steel)
	S	ANSI Flange Ports (316L Stainless Steel)
<b>7</b>	D	<b>Pump Head Material</b> Nickel Aluminum Bronze (NAB)
<b>8</b>	G	<b>Diaphragm &amp; O-ring Material</b> FKM
	T	Buna-N
<b>9</b>	H	<b>Valve Seat Material</b> 17-4 Stainless Steel
	N	Nitronic 50
	T	Hastelloy C
<b>10</b>	F	<b>Valve Material</b> 17-4 Stainless Steel
	N	Nitronic 50
	T	Hastelloy C
<b>11</b>	E	<b>Valve Springs</b> Elgiloy
	T	Hastelloy C
<b>12</b>	T	<b>Valve Spring Retainers</b> Hastelloy C
<b>13</b>	A	<b>Hydra-Oil</b> 10W30 standard-duty oil
	B	40-wt. oil
	H	15W50 high-temp severe-duty synthetic oil

Digit	Order Code	Description
<b>14</b>	C	<b>Oil Level Monitor Cover</b> Float switch, normally closed (recommended)
	O	Float switch, normally open
	Y	No switch, flat back cover



# Hydra-Cell®

## Seal-less Pumps

### **Wanner Engineering, Inc.**

#### **World Headquarters & Manufacturing**

Wanner Engineering, Inc.  
1204 Chestnut Avenue  
Minneapolis, MN 55403 USA  
Phone: 612-332-5681 • Fax: 612-332-6937  
Toll-Free Fax (USA): 800-332-6812  
Email: [sales@wannereng.com](mailto:sales@wannereng.com)  
[www.Hydra-Cell.com](http://www.Hydra-Cell.com)

#### **Regional Office**

207 US Highway 281  
Wichita Falls, TX 76310 USA  
Phone: 940-322-7111  
Toll-Free: 800-234-1384  
Email: [sales@wannereng.com](mailto:sales@wannereng.com)  
[www.Hydra-Cell.com](http://www.Hydra-Cell.com)

#### **Latin American Office**

Avenida Senador Vergueiro 608 - Centro  
São Bernardo do Campo/São Paulo, Brazil  
CEP 09750-000  
Phone: +55 (11) 99582-1969  
Email: [mmagoni@wannereng.com](mailto:mmagoni@wannereng.com)  
[www.Hydra-Cell-Pumps.com.br](http://www.Hydra-Cell-Pumps.com.br)



### **Wanner International Ltd.**

Wanner International, Ltd.  
Hampshire - United Kingdom  
Phone: +44 (0) 1252 816847  
Email: [sales@wannerint.com](mailto:sales@wannerint.com)  
[www.Hydra-Cell.co.uk](http://www.Hydra-Cell.co.uk)

### **Wanner Pumps Ltd.**

Wanner Pumps, Ltd.  
Kowloon - Hong Kong  
Phone: +852 3428 6534  
Email: [sales@wannerpumps.com](mailto:sales@wannerpumps.com)  
[www.WannerPumps.com](http://www.WannerPumps.com)

Shanghai - China  
Phone: +86-21-6876 3700  
Email: [sales@wannerpumps.com](mailto:sales@wannerpumps.com)  
[www.WannerPumps.com](http://www.WannerPumps.com)