



Sea Water Reverse Osmosis/ Desalination Products

Corrosion-Resistant Products for Superior Life and Dependability



Product Quality, Reliability and Support You Expect

www.catpumps.com



Reliable Fresh Water Production

Cat Pumps has earned the reputation as the industry leader for high-pressure SWRO/desalination pumps due to long product life and dependable performance. Our commitment to produce the highest-quality, longest lasting products is supported by maintaining a rigorous zero defect quality assurance program to guarantee consistently high quality products — every time.

Global Presence and Worldwide Acceptance

Desalination (Seawater Reverse Osmosis or SWRO) is a critical process for safety, survival, and comfort in a variety of applications:

- Work and pleasure boats
- Resorts
- Off-shore platforms
- Military/land-based
- Municipalities
- Many others

With operations in the United States, United Kingdom, Belgium, Germany and a distribution network covering the globe, Cat Pumps products and service are everywhere you need them to be.



Products and Service You Can Count On

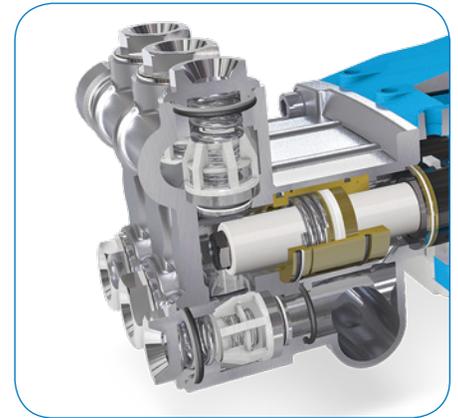
In addition to receiving the highest quality products available, Cat Pumps customers also benefit from the following services:

- Pumps and repair parts are stock items with 99% order fill rate and ship within 24 hours
- Worldwide sales and distribution channels stocking genuine Cat Pumps products
- Engineering and technical support for product selection, installation, maintenance, and troubleshooting. Contact Cat Pumps for more information.

Quality You Need to Keep Your Equipment Running

Cat Pumps designs and builds products to the highest quality levels. Every last design detail is optimized for product life and performance. Examples include the following features:

- Specially formulated seals and high density, polished ceramic plungers typify the attention to design detail that results in thousands of hours of trouble-free service
- Stainless steel valves, seats and springs provide corrosion resistance, positive seating and long life
- Wet seal design increases service life by allowing pumped fluids to cool and lubricate the elastomers on both sides



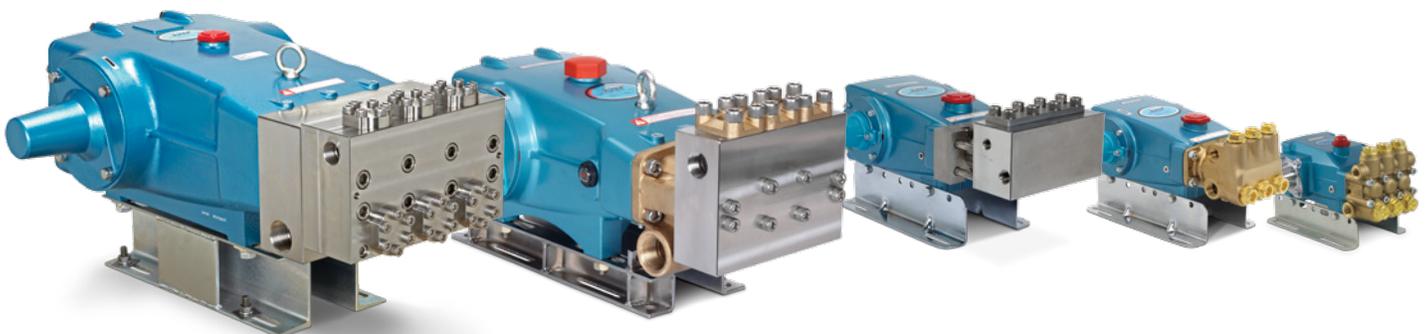
Product Specification Range

A wide range of pump options are available, including a variety of products that meet industry certifications and directives.

- Flow: 0.13 to 240 gpm (0.49 to 908 lpm)
- Pressure: 100 to 10,000 psi (6.9 to 689 bar)
- RPM: 100 to 3450
- Liquid Temperature: -10° to 200°F (-23° to 93°C)
- Manifold Materials: Nickel Aluminum Bronze, 304 and 316 Stainless Steel, Duplex Stainless Steel. Other materials available on request
- Sealing Material: NBR, FPM, EPDM, PTFE, silicone-free and other materials available upon request
- Drives: Electric, Engine, Hydraulic, Pneumatic



Model 6762
60 gpm (227 lpm), 1200 psi (83 bar)



Small Marine Systems

316 Stainless Steel

Direct Drive - Hollow Shaft, NEMA 56C



Model 2SFQ42SEEL
with NEMA Motor

Pump Model	Rated Flow		Rated Pressure			at 1000 psi (69 bar)	
	gpm	lpm	psi	bar	rpm	hp	kW
2SF05SEEL	0.5	1.9	1200	83	1725	0.3	0.2
2SF10SEEL	1.0	3.8	1200	83	1725	0.7	0.5
2SF15SEEL	1.5	5.7	1200	83	1725	1.0	0.8
2SF22SEEL	2.3	8.7	1200	83	1725	1.6	1.2
2SFQ25SEEL	2.5	9.5	1200	83	1725	1.7	1.3
2SFQ29SEEL	2.9	10.8	1200	83	1725	2.0	1.5
2SFQ35SEEL	3.5	13.2	1200	83	1725	2.4	1.8
2SFQ42SEEL	4.2	15.9	1000	69	1725	2.9	2.2

316 Stainless Steel

Direct Drive - Solid Shaft, Bell House, NEMA C or SAE



Model 3CP1221
with Bell Housing and NEMA Motor

Pump Model	Rated Flow		Rated Pressure			at 1000 psi (69 bar)	
	gpm	lpm	psi	bar	rpm	hp	kW
3CP1231	2.3	8.7	2000	138	1725	1.6	1.2
3CP1241	3.6	13.6	2000	138	1725	2.5	1.8
5CPQ6241CS	4.0	15.1	2000	138	1725	2.7	2.0
3CP1221	4.2	15.9	2000	138	1725	2.9	2.1
5CP6251	5.0	18.9	2000	138	1725	3.4	2.6
5CPQ6221	7.4	28	1200	83	1725	5.1	3.8
7CP6111	10.5	39.7	2000	138	1725	7.2	5.4

Nickel Aluminum Bronze

Direct Drive - Solid Shaft, Bell House, NEMA C or SAE



Model 277
with Bell Housing and NEMA Motor

Pump Model	Rated Flow		Rated Pressure			at 1000 psi (69 bar)	
	gpm	lpm	psi	bar	rpm	hp	kW
237	2.3	8.7	1500	103	1725	1.6	1.2
247	3.6	13.6	1200	83	1725	2.5	1.8
347	4.0	15.1	1800	124	1725	2.7	2.0
277	4.2	15.9	1000	69	1725	2.9	2.1
357	5.0	18.9	1500	103	1725	3.4	2.6

316 Stainless Steel

Belt Drive - Solid Shaft



Model 5CPQ6221

Pump Model	Rated Flow		Rated Pressure			at 1000 psi (69 bar)	
	gpm	lpm	psi	bar	rpm	hp	kW
311	4.0	15.1	2200	152	950	2.7	2.0
311 alt	5.0	18.9	1500	103	1190	3.4	2.6
5CPQ6221	6.0	22.7	2000	138	1400	4.1	3.1
1051	10.0	37.9	2200	152	958	6.8	5.1
7CP6171	10.5	39.7	2000	138	1450	7.2	5.4

Medium to Commercial Marine Systems

316 Stainless Steel

Belt Drive - Solid Shaft

Pump Model	Rated Flow		Rated Pressure		rpm	at 1000 psi (69 bar)	
	gpm	lpm	psi	bar		hp	kW
1531	15.6	59.0	1500	103	1450	10.7	8.0
1541	18	68.1	1200	83	1100	12.3	9.2
2511	20	75.7	1500	103	1450	13.7	10.2
2531	21	79.5	1200	83	860	14.4	10.7
3521	23	87.0	2000	138	800	15.8	11.8
2531	25	94.6	1000	69	1025	17.1	12.8
3531	36	136.2	1200	83	800	24.7	18.4
3541	45	170.3	1000	69	765	30.8	23.0
6761	60	227.0	1200	83	520	41.1	30.7
6771	75	284.0	1200	83	650	51.4	38.3



Model 2531

Duplex Stainless Steel

Belt Drive - Solid Shaft

Pump Model	Rated Flow		Rated Pressure		rpm	at 1000 psi (69 bar)	
	gpm	lpm	psi	bar		hp	kW
1051D	10	37.9	2200	152	958	6.8	5.1
3822	23	87.0	2000	138	800	15.8	11.8
3832	36	136.2	1200	83	800	24.7	18.4
6762	60	227.0	1200	83	520	41.1	30.7
67102	100	378.5	1000	69	680	68.5	51.1
152R060	115	435.3	1200	83	360	78.8	58.8
152R080	200	757.0	1200	83	355	137.0	102.2
152R100	240	908.4	1000	69	270	164.4	122.6



Model 1051D

"Q" Pump Option for Low Noise Applications

Cat Pumps designers developed the "Q" pump option for select models to meet the needs of customers asking for quieter operation. The sound level reduction for "Q" option pumps is -6 dB (decibels). Every 3dB is a 50% reduction in sound intensity or acoustic power. In systems where the pump is the most prominent source of sound, this reduction is significant.

"Q" Option Available in Select Models

Cat Pumps currently offers the following pump models with the "Q" option. Please contact Cat Pumps for more information.

- 2SFQ25, 29, 35, 42 SEEL (stainless steel)
- 5CPQ6221, 6241CS (stainless steel)
- 5CPQ6221G1, 6241CSG1, 6251G1 (stainless steel/gearbox)

Accessories



Pressure Regulators

Model	Flow Range		Pressure Range		Ports	
	gpm	lpm	psi	bar	Inlet/discharge	By-pass
7001.100	0.5 - 5	1.9 - 18.9	100 - 1000	6.9 - 69	3/8" NPT(F)	1/2" NPT(F)
7011.100	1.0 - 10	3.8 - 38	100 - 1000	6.9 - 69	1/2" NPT(F)	3/4" NPT(F)
7021.100	2.5 - 25	9.5 - 94.6	100 - 1000	6.9 - 69	3/4" NPT (F)	1" NPT(F)
7031.100	3.5 - 35	13.2 - 132	250 - 1000	18 - 69	3/4" NPT (F)	1" NPT(F)
7375	10 - 75	38 - 284	100 - 1000	6.9 - 69	1-1/4" NPT(F)	1-1/2" NPT(F)
7410	10 - 100	38 - 378	100 - 1500	6.9 - 103	1-1/2" NPT(F)	2" NPT(F)
890706	15 - 260	57 - 984	250 - 1000	17 - 69	2" NPT(F)	2" NPT(M)



Pop-off Valves / Relief Valves

Model	Max Flow		Pressure Range		Ports	
	gpm	lpm	psi	bar	Inlet/discharge	By-pass
9960	6	23	300 - 1500	21 - 103	1/4" NPT(M)	3/4" Barb
9941	25	95	1000 - 4000	69 - 275	3/4" NPT(M)	1" Barb
890710	100	380	300 - 1500	21 - 103	1" NPT(M)	1" NPT(F)
890713	210	795	500 - 4000	35 - 275	2" NPT(M)	2" NPT(F)



Crankcase Oil

Part Number	Description
6107	Bottle - 21 Ounces
6100	Case : 12-21 ounce bottles
6105	5 Gallon Twin Pack: 2 x 2.5 gallon jugs
6109	Drum: 30 gallons



Clutches

Model	Outside Diameter	Grooves	Belt Type	Pump Shaft Diameter	Pumps Models
34960	7"	1	A	16.5 mm	3CP Series
34962	7"	1	A	20 mm	311 - 351, 317 - 357
34970	7"	1	A	20 mm	5CP Series
34965	7"	2	A	16.5 mm	3CP Series
34963	7"	2	A	20 mm	311 - 351, 317 - 357
34980	7"	2	A	20 mm	5CP Series
76980	10"	2	B	20 mm	311 - 351, 317 - 357
76970	10"	2	B	20 mm	5CP Series
34563	12.4"	2	B	30 mm	1051, 1531, 1541

Accessories

Pulsation Dampeners

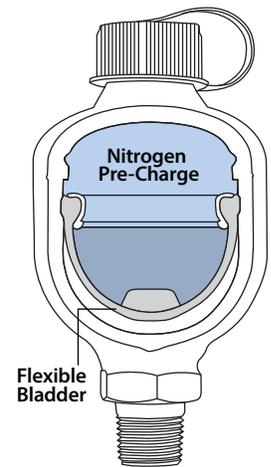
Model	Max Flow		Pressure Range		Volume cu. in.	Ports
	gpm	lpm	psi	bar		
6031	15	57	100 - 2400	6.9 - 165	10	1/2" NPT(M)
6014	25	94.6	100 - 2400	6.9 - 165	20	3/4" NPT(M)
6015	70	265	100 - 1500	6.9 - 103	120	1-1/4" NPT(M)
701550	100	378.5	100 - 3365	6.9 - 232	122	1-1/2" NPT(F)
701557	320	1211	100 - 1275	6.9 - 88	214	1-1/2" NPT(F)



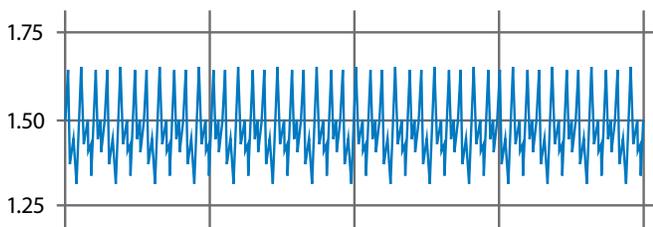
A pulsation dampener contains a dry nitrogen charged bladder that is used to absorb both the high and low fluctuations of pressure produced by a positive displacement pump. A pulsation dampener's bladder not only absorbs the pressure spikes during operation, but due to the nitrogen charged bladder, it pushes flow back into the stream during the low pressure wave, reducing the total fluctuation to 2-3% when properly sized.

Benefits:

- Produces smooth, consistent flow
- Protects downstream system components (i.e., regulator, unloader, relief valve)
- Reduces water hammer
- Improves performance at low rpm

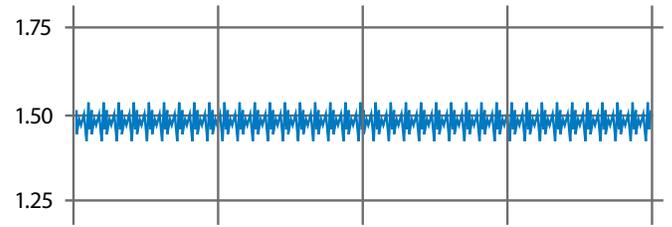


Model 1531 w/o Pulsation Dampener



Min. Pressure = 1275 psi **Max. Pressure = 1652 psi**
 OP. Pressure = 1500 psi Pressure Range = 377 psi

Model 1531 with Pulsation Dampener



Min. Pressure = 1421 psi **Max. Pressure = 1543 psi**
 OP. Pressure = 1500 psi Pressure Range = 122 psi

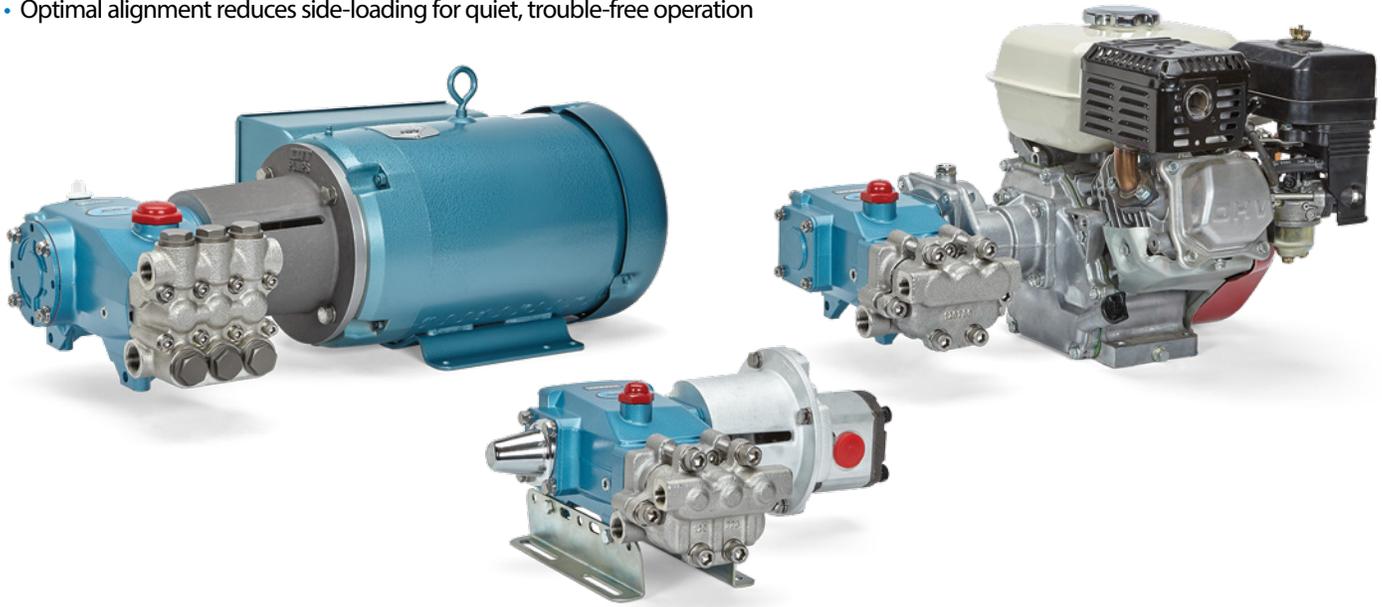
For best results, the dampeners should be mounted as close to the pump head as possible, preferably in a vertical position. Dampener should be charged at 60% of operating pressure.

Direct Mounting Components

Cat Pumps direct mounting options offer perfect alignment and easy assembly. Available for electric motors, hydraulic motors, and gas/diesel engines. Take advantage of direct drive pumps with off the shelf delivery from Cat Pumps.

Features

- Compact direct mounting reduces space requirement
- Ease of assembly reduces fabrication costs
- Eliminates belt selection, sizing and adjustment
- Optimal alignment reduces side-loading for quiet, trouble-free operation



Electric (NEMA) Mounting

Bell Housing Assembly

Pump Series	Models	Motor Frame	Bell Housing Assy
3CP Series	3CP1221 - 41	56C - 145TC	76056.3CP
		182/184TC	76184.3CP
		213/215TC	76215.3CP
3FR Series	237 - 247	56C - 145TC	76056.3FR
		182/184TC	76184.3FR
		213/215TC	76215.3FR
		56C - 145TC	76056.5CP
5CP Series	5CPQ6221 - 5CPQ6251	182/184TC	76184.5CP
		213/215TC	76215.5CP
		254/256TC	76256.5CP
5FR Series	347 - 357	182/184TC	76184.5FR
		213/215TC	76215.5FR
7CP Series	7CP6111	182/184TC	76184.7CP
		213/215TC	76215.7CP
		254/256TC	76256.7CP

Flexible Coupler Assembly

Pump Series	Motor Frame	Flex Coupler Assy	Shaft to Shaft	HP Rating
3CP	56C	8215	16.5mm x 5/8"	3
	145TC	8210	16.5mm x 7/8"	3
	182/184TC	8220	16.5mm x 1 1/8"	3
	182/184TC	8225	16.5mm x 1 1/8"	10
	213/215TC	8270	16.5mm x 1 3/8"	20
5CP & 5FR	56C	8261	20mm x 5/8"	10
	145TC	8260	20mm x 7/8"	10
	182/184TC	8230	20mm x 1 1/8"	10
	213/215TC	8275	20mm x 1 3/8"	20
7CP	245/256TC	8217	20mm x 1 5/8"	20
	182/184TC	8370	24mm x 1 1/8"	10
	213/215TC	8375	24mm x 1 3/8"	10
	254/256TC	8380	24mm x 1 5/8"	20

Hydraulic, SAE Mounting Components

Bell Housing Assembly

Pump Series	Models	SAE Type	Bell Housing Assembly
3CP Series	3CP1221-1241	A2	76SAEA2.3CP
		B2	76SAEB2.3CP
		B4	76SAEB4.3CP
3FR Series	237-277	A2	76SAEA2.3FR
		B2	76SAEB2.3FR
		B4	76SAEB4.3FR
5CP Series	5CPQ6221-6251	A2	76SAEA2.5CP
		B2	76SAEB2.5CP
		B4	76SAEB4.5CP
5FR Series	311, 347-357	A2	76SAEA2.5FR
		B2	76SAEB2.5FR
		B4	76SAEB4.5FR
7CP Series	7CP6111-6171	A2	76SAEA2.7CP
		B2	76SAEB2.7CP
		B4	76SAEB4.7CP

Flexible Coupler Assembly

Pump Series	SAE Type	Flex Coupler Assy	Shaft to Shaft	HP Rating
3CP & 3FR	A2	8271	16.5mm x 5/8"	10
	B2, B4	8272	16.5mm x 7/8"	10
5CP & 5FR	A2	8273	20mm x 5/8"	10
	B2, B4	8274	20mm x 7/8"	10
7CP	A2	8371	24mm x 5/8"	20
	B2, B4	8372	24mm x 7/8"	20

Bell Housing Assemblies include mounting hardware and flange

SAE TYPE:

A2 = SAE "A" 2 Bolt, 3.25" Pilot

B2 = SAE "B" 2 Bolt, 4" Pilot

B4 = SAE "B" 4 Bolt, 4" Pilot

Gas/Diesel Direct Mount Gearbox

316 Stainless Steel

Gearbox Drive 3/4" and 1"

Pump Model	Rated Flow		Rated Pressure		Engine rpm	Pump rpm	Shaft	at 1000 psi (69 bar)	
	gpm	lpm	psi	bar				hp	kW
3CP1241G	3.0	11.4	2000	138	3600	1412	3/4"	2.6	18.5
3CP1211G	3.8	14.4	1500	103	3400	1333	3/4"	3.3	5.1
3CP1221G	3.5	13.2	1500	103	3600	1412	3/4"	3.0	11.8
5CPQ6241CSG1	4.0	15.1	2000	138	3600	1760	1"	3.4	30.8
5CP6251G1	5.0	18.9	2000	138	3600	1760	1"	4.3	51.4
5CPQ6221G1	7.4	28.0	1200	83	3600	1760	1"	6.4	59.1
7CP6111G1	10.0	37.9	2000	83	3400	1760	1"	8.6	102.7

Note: All 1" Gearboxes are also available in 1-1/8" size (G118). Pump models listed include pump and gearbox

*Consult engine manufacturer for actual torque available at required speed

Custom Pumping Systems

Cat Pumps is the industry leader in providing custom-engineered pumping systems to meet a wide range of application needs. By selecting Cat Pumps for your next pumping system, you eliminate the expense of designing, multiple source buying, fabrication and testing. The Cat Pumps technical sales team assists with proper component selection, as well as operation and maintenance support.

All systems are designed, built and pressure tested in the Cat Pumps Minneapolis location. To begin the quoting process, call the main office at (763) 780-5440 or submit the custom system quote form at catpumps.com.

With thousands of installations running around the world, Cat Pumps is the supplier of choice for custom pumping systems.



System Configuration

With extensive design experience, Cat Pumps can help determine the best configuration for any application. Common options listed below:

Base

System design starts with choosing the base that best fits the application. Numerous base configurations are available to meet space, portability, sound and material demands.

- Standard
- Vertically Stacked
- Enclosed
- Multiple Pump

Power Source

A qualified technical staff with extensive experience can assist in recommending the correct product for any power source available.

- Electric
- Gas
- Diesel
- Hydraulic
- Pneumatic

Drive Package

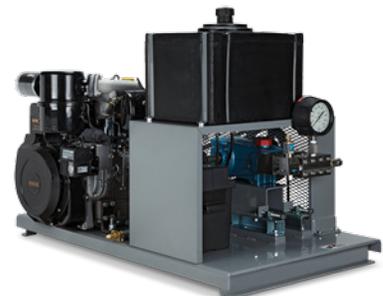
A wide variety of drive packages are available to complement any power source of choice.

- Belt
- Direct Drive
- Gearbox
- Clutch

Accessories

Choose from hundreds of high-quality genuine Cat Pumps accessories for optimum system performance and life.

- Regulator
- Relief / Pop-off Valve
- Pressure Gauge
- Pulsation Dampener
- Inlet Filter / Strainer
- Oil



Customer Care that Keeps You in Business



Customer Service – Another Cat Pumps Difference

When customers do business with Cat Pumps, they benefit not only from long-lasting dependable products, but also from excellent customer service and support. Cat Pumps customers enjoy the following benefits:

- 99.4% order fill rate, supported by world-class inventory management system
- 99.9% shipping accuracy, which means customers receive what they ordered
- 99.8% of orders ship within 24 hours for fast on-the-job delivery
- Worldwide distribution network stocking genuine Cat Pumps products and parts
- Industry-leading customer service with “live” support, from phone operators to Technical Services
- Experienced staff on call to assist with inquiries, from designing power units to system troubleshooting
- Email sales@catpumps.com for fast response to questions and requests or call (763) 780-5440

Sales and service support is provided by highly qualified distribution network covering the U.S., Canada, and Mexico. Cat Pumps has an international presence with sales offices in the U.K., Belgium and Germany as well as a worldwide distribution channel.

Complete, Accurate and Fast Order Shipping

CUSTOMER SERVICE PERFORMANCE
99.4%
Fill Rates

CUSTOMER SERVICE PERFORMANCE
99.9%
Shipping Accuracy

CUSTOMER SERVICE PERFORMANCE
99.8%
On-time Delivery

Pumps and parts are stocked for off-the-shelf delivery. Wherever customers are in the world, Cat Pumps service and support are never far away. Long-lasting products backed by excellent customer service are why Cat Pumps is the best choice for high-pressure pumps and systems.

ABOUT CAT PUMPS

Proven Quality, Customer Focused

Cat Pumps is the world leader in the design, manufacture and marketing of the most dependable high-pressure positive displacement reciprocating triplex pumps and systems in the market. Our mission to exceed customer expectations for quality, reliability, availability, delivery, technical expertise and aftermarket support to assure the best value in all the industries served.

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