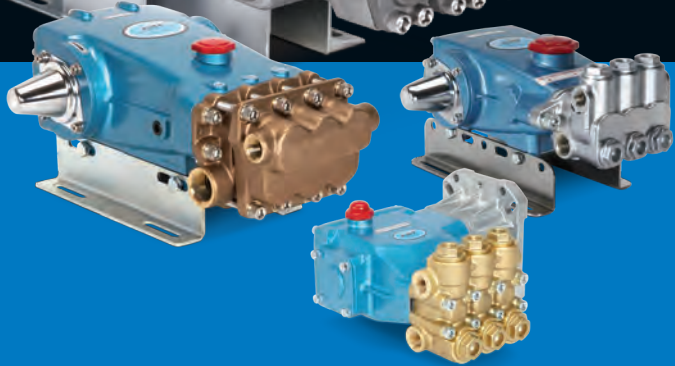
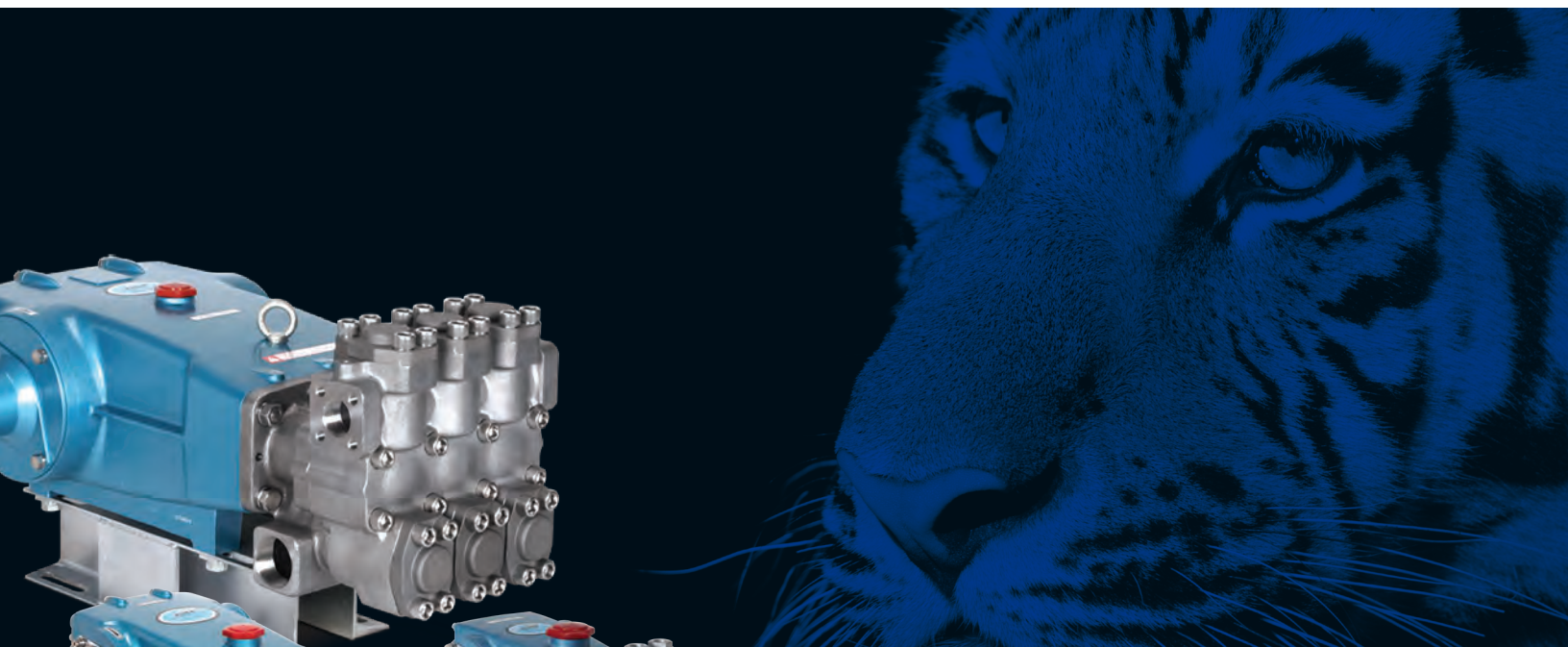




Pump Catalog



Product Quality, Reliability and Support You Expect

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World Leader in Triplex Reciprocating High-Pressure Pumps

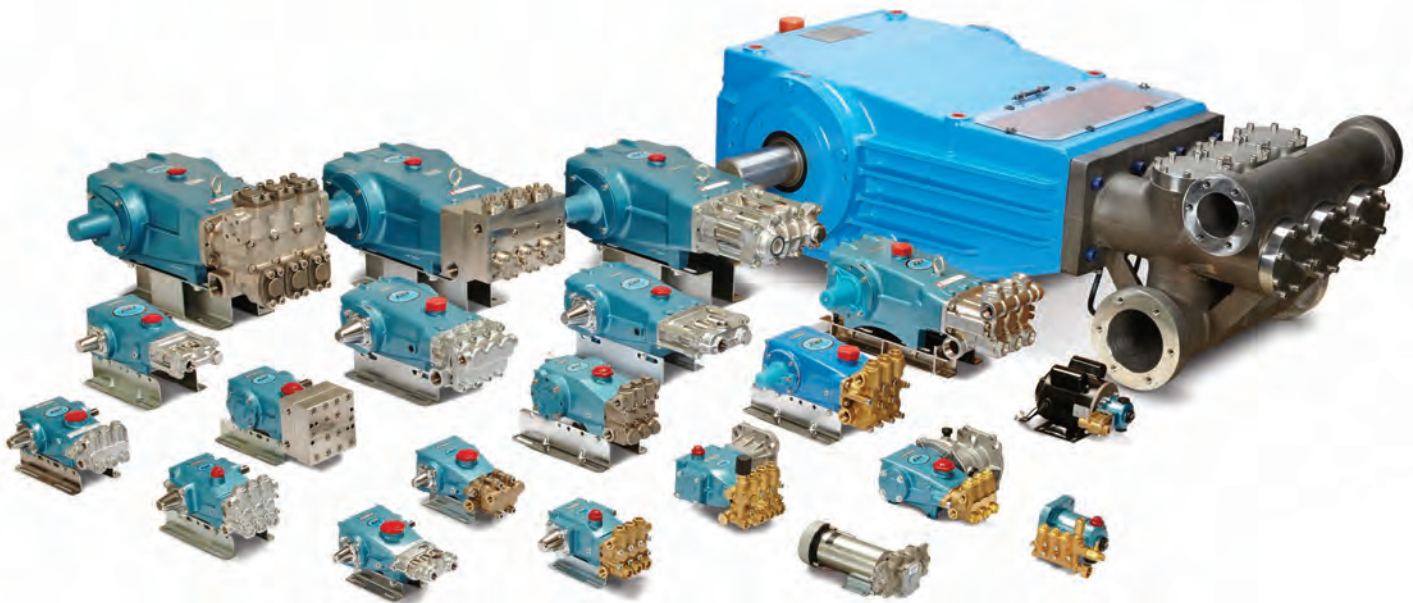
Cat Pumps designs and builds products to the highest quality level for one major reason: our customers depend on our products to keep their equipment running. Every design detail is optimized for long product life and reliable performance.

Cat Pumps embraces a zero defect manufacturing philosophy. Stringent process controls result in highly repeatable processes, yielding the highest level of product reliability. Cat Pumps commitment to quality is legendary within the industry, earning the trust from customers worldwide. When it needs to run, make it Cat Pumps.

Product Performance Range

A wide range of pump options are available, including a variety of products that meet various 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 240°F (-23° to 115°C)
- Manifold Materials: Brass, Nickel Aluminum Bronze, 304 and 316 Stainless Steel, Duplex Stainless Steel
- Drives: Electric, Engine, Hydraulic, Pneumatic



Product Ordering

Using This Catalog

The pump sections of this catalog are organized by drive type/flow rate/manifold materials: brass, 316 stainless steel, duplex stainless steel and nickel aluminum bronze. The model numbers listed represent standard pumps equipped with Buna-N seals and O-rings, except for specialty pumps, such as CO₂, TEG and portable extractor, which are fitted with unique seals for the application.

Standard Buna-N pump seals and/or O-rings can be changed by adding a suffix to the standard model number that represents the desired new seal material.

Optional Seal and O-Ring Configurations			
MATERIAL CODE	DESCRIPTION	MAX. TEMPERATURE *	PUMP MODEL SUFFIX
FPM	Fluorocarbon (Viton®) seals and O-Rings, chemical resistance	180°F (82°C)	0.0110
EPDM	Ethylene Propylene Diene Monomer seals and O-Rings	160°F (71°C)	0.0220
HT	High-temperature high pressure seals	180°F (82°C)	0.3000
STHT	Special Teflon® high temperature low and high pressure seals, NBR O-Rings	200°F (93°C)	0.3400
	Special Teflon® high temperature low and high pressure seals, FPM O-Rings	200°F (93°C)	0.3410
PTFE	Pure Polytetrafluoroethylene (Teflon®) Seals and Buna-N O-Rings	200°F (93°C)	0.0700
	Pure Polytetrafluoroethylene (Teflon®) Seals and FPM O-Rings	200°F (93°C)	0.0710
IPFE	I-Perfluoroelastomer (Teflon®) Seals and Isolast O-Rings	200°F (93°C)	0.0770
ST4	Special blend PTFE high and low pressure seals, Buna-N O-Rings	200°F (93°C)	0.4400
	Special blend PTFE high and low pressure seals, FPM O-Rings	200°F (93°C)	0.4410
NBRS	Buna-N silicone free seals and O-Rings	160°F (71°C)	0.6000

FPM = Fluorocarbon, EPDM = Ethylene Propylene Diene Monomer, HT = High Temp (EPDM Alternative), STHT = Special PTFE High Temperature

PTFE = Pure Polytetrafluoroethylene, IPFE = I-Perfluoroelastomer, ST4 = Special PTFE 4, NBRS = Buna-N silicon free seals and O-Rings

* See individual data sheet for each pump to verify actual maximum temperature allowed.

Viton® and Teflon® are registered trademarks of DuPont Dow Elastomers.

Example

Pump model 3535 can be changed from Buna-N to FPM. To convert pump model 3535 from Buna-N seals and O-rings to FPM (Viton®), add the suffix (.0110) to the standard pump model number (3535.0110). Use this new number when ordering the pump.

Cat Pumps configures a number of pumps for special applications and certifications such as ATEX, CO₂, TEG, Flushed, High-Temp and others. Please contact Cat Pumps directly at (763) 780-5440 for more information.

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Plunger Pumps

DIRECT DRIVE, HOLLOW SHAFT, 316 STAINLESS STEEL MANIFOLD

Electric Motor, 5/8", 56C Face

PUMP MODEL	MAXIMUM FLOW		MAXIMUM PRESSURE		RPM	SHAFT
	gpm	lpm	psi	bar		
2SF05SEEL	0.5	1.9	1200	83	1725	5/8"
2SF10SEEL	1.0	3.8	1200	83	1725	5/8"
2SF15SEEL	1.5	5.7	1200	83	1725	5/8"
2SF22SEEL	2.2	8.4	1200	83	1725	5/8"
2SFQ25SEEL	2.5	9.5	1200	83	1725	5/8"
2SFQ29SEEL	2.85	10.8	1200	83	1725	5/8"
2SFQ35SEEL	3.5	13.3	1200	83	1725	5/8"
2SFQ42SEEL	4.2	15.9	1000	69	1725	5/8"

$$\text{Electric Brake Hp} = \frac{\text{gpm} \times \text{psi}}{1460}$$



Model 2SF22SEEL

DIRECT DRIVE, HOLLOW SHAFT GEARBOX, BRASS MANIFOLD

Engine, 3/4" and 1"

PUMP MODEL	MAXIMUM FLOW		MAXIMUM PRESSURE		RPM		SHAFT	HP Typical Gas Engine*
	gpm	lpm	psi	bar	Pump	Engine		
740G1	2.8	10.6	5000	345	1700	3465	1"	13
3CP1120G	3.5	13.3	2200	152	1420	3600	3/4"	8
760G1	3.5	13.3	5000	345	1700	3465	1"	16
5CP3160CSSG1	4.0	15.2	3500	241	1627	3320	1"	13
60G1	4.2	16.0	4000	276	1570	3200	1"	18
5CP3120CSSG1	4.5	17.0	3500	241	1645	3353	1"	16
700G1	4.5	17.0	5000	345	1700	3465	1"	20
5CP5135CSSG1	5.0	19.0	3500	241	1515	3090	1"	16
5CP5140CSSG1	5.5	20.9	3500	241	1500	3060	1"	18
5CP6120CSSG1	6.7	25.5	1600	110	1570	3200	1"	8
56G1	8.0	30.4	2500	172	1760	3600	1"	16
5CP6190G1	8.7	33.1	1200	83	1570	3200	1"	11
7CP6110CSG1	10.0	38.0	2000	138	1667	3400	1"	18
7CP6170G1	12.0	45.4	1800	124	1600	3264	1"	16

Note: All 1" Gearboxes are also available in 1 1/8" size (G118)

*Consult engine manufacturer for actual torque available at required speed.



Model 56G1



Model 5CP3120CSSG1

DIRECT DRIVE, HOLLOW SHAFT GEARBOX, 316 STAINLESS STEEL MANIFOLD

Engine, 3/4" and 1"

PUMP MODEL	MAXIMUM FLOW		MAXIMUM PRESSURE		RPM		SHAFT	HP Typical Gas Engine*
	gpm	lpm	psi	bar	Pump	Engine		
3CP1241G	3.0	11.4	2000	138	1410	3600	3/4"	5
3CP1211G	3.8	14.4	1500	103	1330	3400	3/4"	5
5CPQ6241CSG1	4.0	15.2	2000	138	1760	3600	1"	8
781G1	4.5	17.0	5000	345	1700	3465	1"	20
5CPQ6251G1	5.0	19.0	2000	138	1760	3600	1"	9
5CPQ6221G1	7.4	28.0	1200	83	1760	3600	1"	8
7CP6111CSG1	10.0	38.0	2000	138	1667	3400	1"	18

Note: All 1" Gearboxes are also available in 1 1/8" size. (G118). *Consult engine manufacturer for actual torque available at required speed.



Model 7CP6111CSG1

Plunger Pumps

SOLID SHAFT, BRASS MANIFOLD

PUMP MODEL	MAXIMUM FLOW		MAXIMUM PRESSURE		RPM	SHAFT
	gpm	lpm	psi	bar		
5CP6120	6.0	22.8	1600	110	1400	20 mm
5CP5120	6.0	22.8	2500	172	1725	20 mm
1570	6.0	22.8	6000	414	1350	30 mm
5CP5140CSS	6.7	25.4	3000	207	1750	20 mm
5CP6180CSS	6.9	26.1	1500	103	1450	20 mm
650	7.0	26.6	3000	207	1000	30 mm
5CP6120	7.4	28.1	1200	83	1725	20 mm
5CP6190	8.0	30.4	1450	100	1450	20 mm
56	8.0	30.4	2500	172	1725	24 mm
5CP6180CSS	8.2	31.0	1500	103	1750	20 mm
1560	9.0	34.0	4000	276	1280	30 mm
5CP6190	10.0	38.0	1200	83	1750	20 mm
1050	10.0	38.0	2200	152	958	30 mm
660	10.0	38.0	3000	207	1429	30 mm
3550	10.0	38.0	6000	414	940	35 mm
6810**	10.0	38.0	10000	689	600	45 mm
7CP6110CS	10.5	39.9	2000	138	1725	24 mm
7CP6170	11.0	41.6	2000	138	1450	24 mm
1050	12.0	45.4	1800	124	1150	30 mm
7CP6170	12.0	45.4	1800	124	1600	24 mm
1580	12.0	45.4	3000	207	1180	30 mm
1530	15.6	59.3	1500	103	1450	30 mm
1540E	18.0	68.4	1200	83	1100	30 mm
2510	20.0	76.0	2000	138	1450	30 mm
3560	20.0	76.0	4000	276	1160	35 mm
2530	25.0	95.0	1200	83	1025	30 mm
3520	25.0	95.0	2000	138	870	35 mm
3560	25.0	95.0	3000	207	1450	35 mm
3570*	30.0	113.6	3000	207	1080	35 mm
3535	36.0	136.2	1200	83	800	35 mm
3535HS*	40.0	152.0	2000	138	888	35 mm
6835	40.0	152.0	3000	207	625	45 mm
3545	45.0	171.0	1000	69	765	35 mm
3545HS*	50.0	189.3	1500	103	850	35 mm
67070	50.0	189.3	2000	138	653	45 mm
6760	60.0	228.0	1200	83	520	45 mm
67070*	65.0	246.0	2000	138	850	45 mm
6775	75.0	285.0	1200	83	650	45 mm

* Intermittent duty only – operating pump at stated flow and pressure for no more than 50% of time in any given hour.

** 304 Stainless Manifold

$$\text{Electric Brake Hp} = \frac{\text{gpm} \times \text{psi}}{1460}$$

Selecting a Drive

A variety of different drive options are offered by Cat Pumps. Most systems are belt-driven by a pulley or clutch, but there are also direct-drive options such as direct coupled, gearbox or hollow shaft direct drive.

Commonly Used Formulas

$$\text{Desired rpm} = \text{Desired gpm} \times \frac{\text{Rated rpm}}{\text{Rated gpm}}$$

$$\text{Pump Pulley}^* \times \frac{\text{Pump rpm}}{\text{Motor/Engine rpm}} = \text{Motor Pulley}^*$$

*Pitch Diameter



Model 1570



Model 660



Model 1540E



Model 3535

Plunger Pumps

SOLID SHAFT, 316 STAINLESS STEEL MANIFOLD



Model 311



Model 1051



Model 2531



Model 6811

PUMP MODEL	MAXIMUM FLOW		MAXIMUM PRESSURE		RPM	SHAFT
	gpm	lpm	psi	bar		
3CP1231	2.3	8.7	2000	138	1725	16.5 mm
784	2.9	11.0	5000	345	1750	24 mm
3CP1241	3.6	13.7	2000	138	1725	16.5 mm
786	3.6	13.7	5000	345	1750	24 mm
341	4.0	15.2	1800	124	1725	20 mm
5CPQ6241CS	4.0	15.2	2000	138	1725	20 mm
311	4.0	15.2	2200	152	950	20 mm
3CP1221	4.2	16.0	2000	138	1725	16.5 mm
781	4.7	17.9	5000	345	1750	24 mm
351	5.0	19.0	1500	103	1725	20 mm
3CP1211CS	5.0	19.0	1700	117	1750	16.5 mm
5CPQ6251	5.0	19.0	2000	138	1725	20 mm
5CPQ6221	6.0	22.8	2000	138	1400	20 mm
5CPQ6221	7.4	28.0	1200	83	1725	20 mm
1051	10.0	38.0	2200	152	958	30 mm
3501	10.0	38.0	5000	345	915	35 mm
7CP6111CS	10.5	39.9	2000	138	1725	24 mm
7CP6171CS	10.5	39.9	2000	138	1450	24 mm
1051	12.0	45.4	1800	124	1150	30 mm
3511	14.0	53.2	3000	207	800	35 mm
6811	15.0	57.0	5000	345	600	45 mm
6801	15.0	57.0	7000	483	600	45 mm
1531	15.6	59.0	1500	103	1450	30 mm
1541	18.0	68.4	1200	83	1100	30 mm
2511	20.0	76.0	1500	103	1450	30 mm
2531	25.0	95.0	1200	83	1025	30 mm
6821	25.0	95.0	3000	207	615	45 mm
3531D	36.0	136.2	1200	83	800	35 mm
3531DHS*	40.0	152.0	2000	138	888	35 mm
6831	40.0	152.0	2300	159	625	45 mm
3541D	45.0	171.0	1000	69	765	35 mm
6841	48.0	182.4	2000	138	615	45 mm
3541DHS*	50.0	189.3	1500	103	850	35 mm
6761	60.0	228.0	1200	83	520	45 mm

* Intermittent duty only – operating pump at stated flow and pressure for no more than 50% of time in any given hour.

$$\text{Electric Brake Hp} = \frac{\text{gpm} \times \text{psi}}{1460}$$

Plunger Pumps

SOLID SHAFT, DUPLEX STAINLESS STEEL MANIFOLD

PUMP MODEL	MAXIMUM FLOW		MAXIMUM PRESSURE		RPM	SHAFT
	gpm	lpm	psi	bar		
1051D	10.0	38.0	2200	152	958	30 mm
661D	10.0	38.0	3000	207	1429	30 mm
1051D	12.0	45.4	1800	124	1150	30 mm
3521DHS	25.0	95.0	2000	138	870	35 mm
6762	60.0	228.0	1200	83	520	45 mm
67102	80.0	302.8	1200	83	540	45 mm
67102	100.0	378.5	1000	69	680	45 mm
157R060	100.0	380.0	2700	186	310	100 mm
152R060	115.0	437.0	1200	83	360	100 mm
152R061	115.0	437.0	2000	138	360	100 mm
152R080	200.0	760.0	1200	83	355	100 mm
152R081	200.0	760.0	1560	108	355	100 mm
152R100	240.0	912.0	1000	69	270	100 mm

$$\text{Electric Brake Hp} = \frac{\text{gpm} \times \text{psi}}{1460}$$



Model 6762



Model 152R100

BELT DRIVE, SOLID SHAFT, NICKEL ALUMINUM BRONZE MANIFOLD

PUMP MODEL	MAXIMUM FLOW		MAXIMUM PRESSURE		RPM	SHAFT
	gpm	lpm	psi	bar		
237	2.3	8.7	1500	103	1725	16.5 mm
277	3.5	13.3	1500	103	1420	16.5 mm
247	3.6	13.7	1200	83	1725	16.5 mm
347	4.0	15.2	1800	124	1725	20 mm
317	4.0	15.2	2200	152	950	20 mm
277	4.2	16.0	1000	69	1725	16.5 mm
357	5.0	19.0	1500	103	1725	20 mm
1057	10.0	38.0	2200	152	958	30 mm
3507	10.0	38.0	5000	345	915	35 mm
1057	12.0	45.4	1800	124	1150	30 mm
3517	14.0	53.2	3000	207	800	35 mm
2537	25.0	95.0	1200	83	1025	30 mm
3527	25.0	95.0	2000	138	870	35 mm
3537	36.0	136.2	1200	83	800	35 mm
3537HS*	40.0	152.0	2000	138	888	35 mm
6747	48.0	182.4	2000	138	615	45 mm
6767	60.0	228.0	1200	83	520	45 mm

* Intermittent duty only – operating pump at stated flow and pressure for no more than 50% of time in any given hour.

$$\text{Electric Brake Hp} = \frac{\text{gpm} \times \text{psi}}{1460}$$



Model 277



Model 3517

Piston Pumps

PISTON PUMPS, SOLID SHAFT, BRASS MANIFOLD

Belt Drive



Model 280



Model 820



Model 2520



Model 6020

PUMP MODEL	MAXIMUM FLOW		MAXIMUM PRESSURE		RPM	SHAFT
	gpm	lpm	psi	bar		
280	3.0	11.4	1000	69	1330	16.5 mm
290	3.5	13.3	1200	83	1200	16.5 mm
333	4.0	15.2	1200	83	1070	16.5 mm
430	5.0	19.0	1000	69	1040	16.5 mm
323	5.0	19.0	1500	103	1000	20 mm
623	6.0	22.8	1200	83	850	25 mm
820	10.0	38.0	1000	69	940	25 mm
390	12.0	45.4	600	41	1200	20 mm
1010	13.0	49.4	700	48	900	25 mm
2520*	25.0	95.0	800	55	772	30 mm
6040	40.0	152.0	1500	103	500	45 mm
6020	60.0	228.0	1000	69	500	45 mm

*Available as a model 2520C with flushed inlet manifold

$$\text{Electric Brake Hp} = \frac{\text{gpm} \times \text{psi}}{1460}$$

PISTON PUMPS, SOLID SHAFT, 316 STAINLESS STEEL MANIFOLD

Belt Drive

PUMP MODEL	MAXIMUM FLOW		MAXIMUM PRESSURE		RPM	SHAFT
	gpm	lpm	psi	bar		
281	3.0	11.4	1000	69	1330	16.5 mm
291	3.5	13.3	1200	83	1200	16.5 mm
331	4.0	15.2	1200	83	1070	16.5 mm
431	5.0	19.0	1000	69	1040	16.5 mm
621	6.0	22.8	1200	83	850	25 mm
821	10.0	38.0	1000	69	940	25 mm
1011	13.0	49.4	700	48	900	25 mm
6041	40.0	152.0	1500	103	500	45 mm
6021	60.0	228.0	1000	69	500	45 mm

$$\text{Electric Brake Hp} = \frac{\text{gpm} \times \text{psi}}{1460}$$

TECH TIP

Pump Rotation

Forward rotation (towards the manifold) is recommended to allow optimum lubrication of the crosshead area. If your installation does not allow for forward rotation, reverse rotation is acceptable if the crankcase oil is above the red dot in the oil gauge. This indicates adequate lubrication.



Forward Rotation



Reverse Rotation

1XP Series Portable Extractor Pumps

1XP Pump with AC Induction Motor

- Long Service Life
- Dual Frequency for world-wide use
- Constant torque



AC Induction Motor – 60 Hz, 120V (1750 rpm)

GPM	Max PSI	Pump Assembly	SFA	HP
0.5	600	1XP050.031	4.0	1/3
0.75	500	1XP075.031		
0.85	500	1XP085.031		
1	450	1XP100.031		
1.25	400	1XP125.031		
1.5	325	1XP150.031		
2	250	1XP200.031	8.0	1/2
0.4	1000	1XP050.051		
0.7	1000	1XP075.051		
0.8	1000	1XP085.051		
0.9	800	1XP100.051		
1.2	800	1XP125.051		
1.5	600	1XP150.051	9.0	3/4
2	450	1XP200.051		
0.9	1000	1XP100.071		
1.1	1000	1XP125.071		
1.4	800	1XP150.071		
1.75	700	1XP180.071		
2	550	1XP200.071	12.6	1
1.45	1000	1XP150.101		
1.8	800	1XP180.101		
2	750	1XP200.101		

AC Induction Motor – 50 Hz, 240V (1450 rpm)

GPM	Max PSI	Pump Assembly	SFA	HP
0.40	600	1XP050.031	2.1	1/3
0.60	500	1XP075.031		
0.70	500	1XP085.031		
0.80	450	1XP100.031		
1	400	1XP125.031		
1.2	325	1XP150.031		
1.70	250	1XP200.031	3.8	1/2
0.30	1000	1XP050.051		
0.60	1000	1XP075.051		
0.70	1000	1XP085.051		
0.75	800	1XP100.051		
1	800	1XP125.051		
1.2	600	1XP150.051	4.6	3/4
1.70	450	1XP200.051		
0.75	1000	1XP100.071		
0.90	1000	1XP125.071		
1.20	800	1XP150.071		
1.50	700	1XP180.071		
1.70	550	1XP200.071	6.3	1
1.20	1000	1XP150.101		
1.40	800	1XP180.101		
1.70	750	1XP200.101		

1XP Pump with DC Permanent Magnet Motor

- Low amp draw
- Compact
- Lighter weight



DC Permanent Magnet – 120 Volt - 1/3 HP ODP and TEFC Enclosures

GPM	Max PSI	Amps (at max psi)	Pump Assembly ODP Motor	Pump Assembly TEFC Motor
0.5	600	4.0	1XP050.03DC	1XP050.03DCT
0.75	500	4.0	1XP075.03DC	1XP075.03DCT
0.85	400	4.0	1XP085.03DC	1XP085.03DCT
1	350	4.0	1XP100.03DC	1XP100.03DCT
1.25	300	4.0	1XP125.03DC	1XP125.03DCT
1.5	250	4.0	1XP150.03DC	1XP150.03DCT
2.3	150	4.0	1XP200.03DC	1XP200.03DCT

DC Permanent Magnet – 240 Volt - 1/3 HP ODP

GPM	Max PSI	Amps (at max psi)	Pump Assembly ODP Motor
0.5	600	2.0	1XP050.03DC2
0.75	500	2.0	1XP075.03DC2
0.85	400	2.0	1XP085.03DC2
1	350	2.0	1XP100.03DC2
1.25	300	2.0	1XP125.03DC2
1.5	250	2.0	1XP150.03DC2
2.3	150	2.0	1XP200.03DC2

Custom Pumping Systems

System Configuration

With extensive experience building thousands of systems, Cat Pumps can help determine the best configuration for any application.

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 • Portable • 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 • Flex Coupling/Bell Housing • Clutch

Accessories

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

- Regulator • Unloader • Relief / Pop-off Valve • Pressure Gauge
- Pulsation Dampener • Inlet Stabilizer • Inlet Filter / Strainer • Guns • Oil

Cat Pumps Advanced Control Options



Ask about the wide variety of advanced control options designed to provide maximum system performance as well as maximum system protection. Options include:

- Variable Frequency Drives (VFD)
- PID Loop (varies speed of pump to maintain system pressure)
- Multiple Pump Systems
- Low-Pressure Seal Monitors
- Auto Shutdowns (Temperature and Low Inlet Pressure)

Other control options are available upon request.

