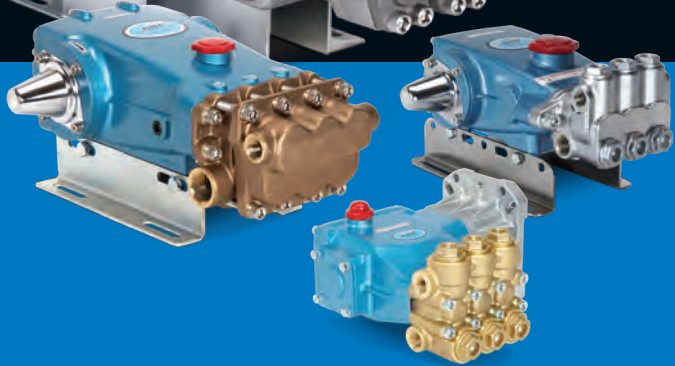
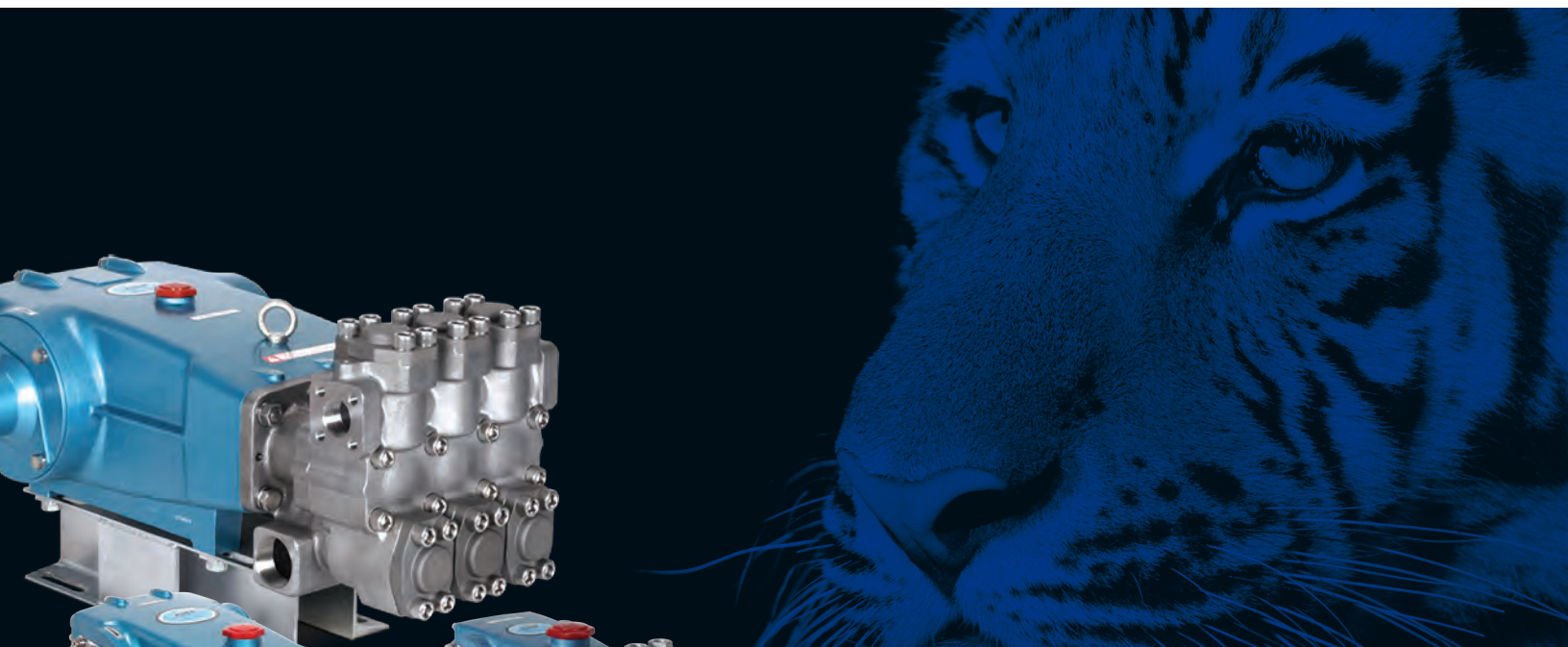




Pump Catalog



Product Quality, Reliability and Support You Expect

www.catpumps.com

World Leader in Triplex Reciprocating High-Pressure Pumps

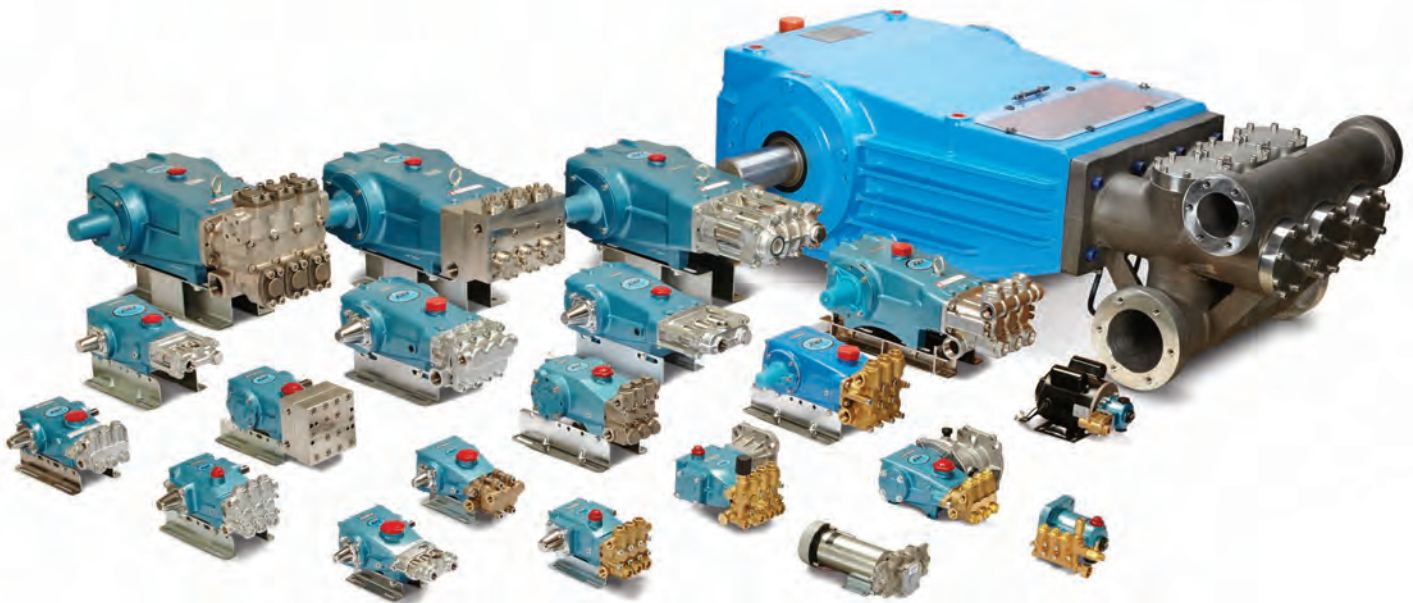
Cat Pumps designs and builds products to the highest quality level for one major reason: our customers depend on our products to keep their equipment running. Every design detail is optimized for long product life and reliable performance.

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.

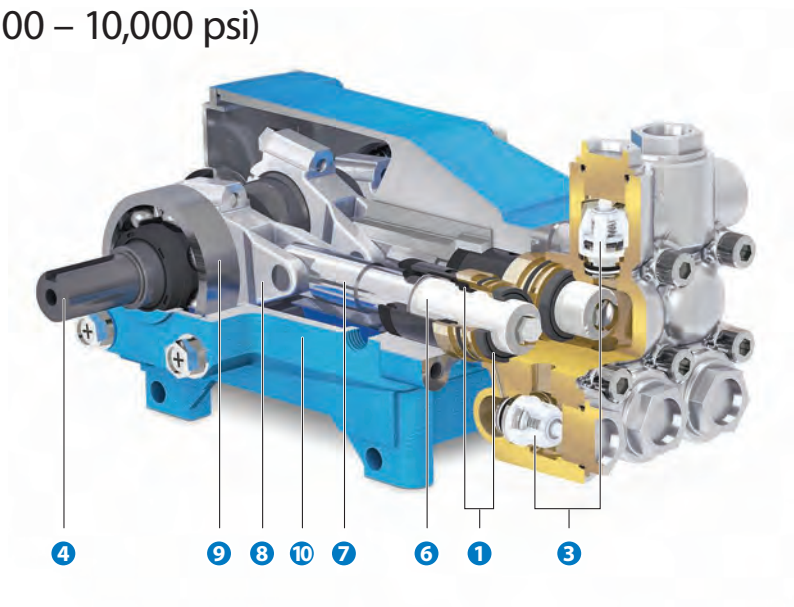
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Selecting your pump

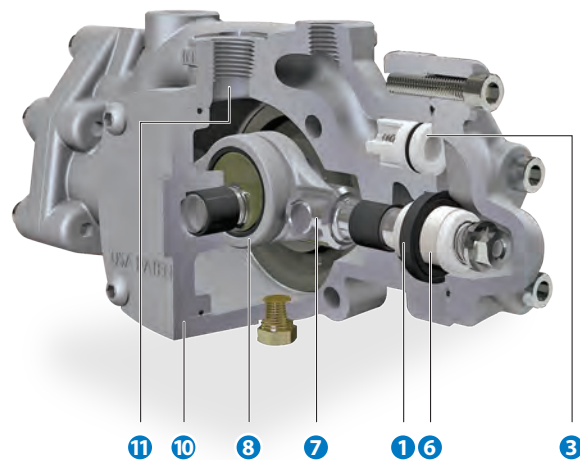
Plunger Pumps (0.13 – 240 gpm, 100 – 10,000 psi)

Plunger pumps utilize spring-loaded closed and hydraulically opened inlet and discharge valves to direct flow through the pump manifold. At the beginning of the stroke, the plunger displaces the liquid in the manifold chamber, forcing the discharge valve open. When the plunger reaches the end of the stroke, the discharge valve closes. As the plunger rod begins its backward stroke, the inlet valve opens to allow more liquid into the manifold chamber, thereby keeping a smooth forward flow of liquid.



XP Series Pumps (0.5 – 2 gpm, 100 – 1,000 psi)

In XP series pumps, fluid enters the inlet port and flows through the drive-end, lubricating the connecting rods and plunger rods as it passes to the inlet valves. Both inlet and discharge valves are spring-loaded closed and hydraulically opened, similar to plunger pumps, however, they utilize a flow-through ceramic plunger design. The continuous forward flow characteristics in conjunction with the packing design of plunger pumps result in improved suction capabilities as well as extended seal life.



Features

- ❶ Specially formulated, Cat Pumps exclusive high pressure and low pressure seals offer unmatched performance and seal life.
- ❷ 100% wet cup/seal design adds to service life by allowing pumped fluids to cool and lubricate the elastomers on both sides.
- ❸ Stainless steel valves, seats, and springs provide corrosion-resistance, positive seating, and long life.
- ❹ Chrome-moly crankshaft provides unmatched strength and surface hardness for long life.
- ❺ The patented stepped piston rod with hard chrome-plated sleeve provides a durable wear surface and easy wet end servicing.
- ❻ Precision-polished, solid ceramic plungers provide maximum resistance to corrosion and abrasion, extending seal life.

Plunger Pumps



Model 4DX10ER



Model 2SF22ES



Model 5SP35ELR



Model 66DX40G1I

DIRECT DRIVE, HOLLOW SHAFT, BRASS MANIFOLD

Electric Motor, 5/8" and 3/4", 56C Face

PUMP MODEL	MAXIMUM FLOW		MAXIMUM PRESSURE		RPM	SHAFT
	gpm	lpm	psi	bar		
4DX03ELR	0.3	1.1	2000	138	1725	5/8"
4DX10ER	1.0	3.8	2000	138	3450	5/8"
4DX15ER	1.5	5.7	2000	138	3450	5/8"
4DX20ER	2.0	7.6	2000	138	3450	5/8"
4SP21ELR	2.1	7.9	2000	138	1750	5/8"
4DX27ER	2.7	10.3	2000	138	3450	5/8"
4SP29ELR	2.85	10.8	1200	83	1725	5/8"
4DX30ER	3.0	11.4	2000	138	3450	5/8"
2SF30GES	3.0	11.4	2000	138	3450	3/4"
2SF35ES	3.5	13.3	1500	103	3450	5/8"
2SF35GES	3.5	13.3	2000	138	3450	3/4"
2SFP500EL	5.0	19.0	500	34.5	1750	5/8"

Note: Pumps rated at 3450 rpm can operate at 1725 rpm, reducing flow by 50%.

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

DIRECT DRIVE, HOLLOW SHAFT, BRASS MANIFOLD

Electric Motor, 1 1/8", 184TC Face

PUMP MODEL	MAXIMUM FLOW		MAXIMUM PRESSURE		RPM	SHAFT
	gpm	lpm	psi	bar		
5SP30ELR	3.0	11.4	3000	207	1750	1-1/8"
5SP35ELR	3.5	13.3	2500	172	1750	1-1/8"
5SP40ELR	4.0	15.2	2000	138	1750	1-1/8"

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

DIRECT DRIVE, HOLLOW SHAFT, BRASS MANIFOLD

Engine, 3/4"

PUMP MODEL	MAXIMUM FLOW		MAXIMUM PRESSURE		RPM	SHAFT	HP Typical Gas Engine*
	gpm	lpm	psi	bar			
4DNX25GSI	2.5	9.5	3000	207	3450	3/4"	6.5
4DNX27GSI	2.7	10.3	3000	207	3450	3/4"	8
3DX29GSI	2.9	11.0	2500	172	3450	3/4"	6.5
2SF35GS	3.5	13.3	2000	138	3450	3/4"	8

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

DIRECT DRIVE, HOLLOW SHAFT, BRASS MANIFOLD

Engine, 1"

PUMP MODEL	MAXIMUM FLOW		MAXIMUM PRESSURE		RPM	SHAFT	HP Typical Gas Engine*
	gpm	lpm	psi	bar			
66DX30G1I	3.0	11.4	4000	276	3450	1"	13
4SPX32G1I	3.2	12.2	3000	207	3450	1"	9
66DX35G1I	3.5	13.3	4000	276	3450	1"	13
66DX40G1I	4.0	15.2	4000	276	3450	1"	16
4SF45GSI	4.5	17.0	3000	207	3450	1"	13

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

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



Model 3CP1120



Model 5CP3160CSS

DIRECT DRIVE, SOLID SHAFT, BRASS MANIFOLD Electric Motor - Bell Housing

PUMP MODEL	MAXIMUM FLOW		MAXIMUM PRESSURE		RPM	SHAFT
	gpm	lpm	psi	bar		
5CP4110CSS	2.2	8.4	4000	276	1725	20 mm
3CP1130	2.4	9.1	2200	138	1725	16.5 mm
5CP3105CSS	2.5	9.5	3500	241	1725	20 mm
5CP4112CSS	2.7	10.3	4000	276	1725	20 mm
740	2.9	11.0	5000	345	1750	24 mm
5CP4114CSS	3.2	12.1	4000	276	1725	20 mm
3CP1140	3.6	13.7	2200	152	1725	16.5 mm
5CP3110CSS	3.6	13.7	3500	241	1725	20 mm
760	3.6	13.6	5000	345	1750	24 MM
5CP4116CSS	3.8	14.4	4000	276	1725	20 mm
5CP2140WCS	4.0	15.2	2500	172	1725	20 mm
3CP1120	4.2	16.0	2200	152	1725	16.5 mm
5CP4118CSS	4.2	16.0	4000	276	1725	20 mm
5CP3160CSS	4.3	16.3	3500	241	1725	20 mm
5CP4120CSS	4.5	17.0	4000	276	1725	20 mm
60	4.7	17.9	4000	276	1725	24 mm
700	4.7	17.9	5000	345	1750	24 mm
5CP3120CSS	4.8	18.2	3000	207	1725	20 mm
5CP2150W	5.0	19.0	2000	138	1725	20 mm
5CP5120	6.0	22.8	2500	172	1725	20 mm
5CP5140CSS	6.7	25.4	3000	207	1750	20 mm
5CP6120	7.4	28.1	1200	83	1725	20 mm
56	8.0	30.4	2500	172	1760	24 mm
5CP6180CSS	8.2	31.0	1500	103	1750	20 MM
5CP6190	10.0	38.0	1200	83	1750	20 mm
7CP6110	10.5	39.9	2000	138	1725	24 mm
7CP6160CS	10.6	40.1	2500	172	1750	24 mm

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

DIRECT DRIVE, SOLID SHAFT, 316 STAINLESS STEEL MANIFOLD Electric Motor - Bell Housing

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
5CPQ6241CS	4.0	15.2	2000	138	1725	20 mm
3CP1221	4.2	16.0	2000	138	1725	16.5 mm
781	4.7	17.8	5000	345	1750	24 mm
3CP1211CS	5.0	19.0	1700	117	1750	16.5 mm
5CPQ6251	5.0	19.0	2000	138	1725	20 mm
5CPQ6261CSS	5.5	20.9	2000	138	1750	20 mm
5CPQ6271CSS	6.6	25.1	1800	124	1750	20 mm
5CPQ6221	7.4	28.0	1200	83	1725	20 mm
7CP6111CS	10.5	39.9	2000	138	1725	24 mm

DIRECT DRIVE, SOLID SHAFT, NICKEL ALUMINUM BRONZE MANIFOLD Electric Motor - Bell Housing

PUMP MODEL	MAXIMUM FLOW		MAXIMUM PRESSURE		RPM	SHAFT
	gpm	lpm	psi	bar		
237	2.3	8.7	1500	103	1725	16.5 mm
247	3.6	13.7	1200	83	1725	16.5 mm
277	4.2	16.0	1000	69	1725	16.5 mm
347	4.0	15.2	1800	124	1725	20 mm
357	5.0	19.0	1500	103	1725	20 mm

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



Model 3CP1231



Model 277

Plunger Pumps

Direct-Drive Mounting Components

BELL HOUSING ASSEMBLY, NEMA AND SAE

PUMP SERIES	MODELS	ELECTRIC MOTOR		HYDRAULIC MOTOR	
		MOTOR FRAME	BELL HOUSING ASSY	SAE TYPE*	BELL HOUSING ASSEMBLY
3CP Series	All 3CP Models	56C - 145TC	76056.3CP	A2	76SAEA2.3CP
		182/184TC	76184.3CP	B2	76SAEB2.3CP
		213/215TC	76215.3CP	B4	76SAEB4.3CP
3FR Series	230 - 270, 231, 241, 271, 237, 247	56C - 145TC	76056.3FR	A2	76SAEA2.3FR
		182/184TC	76184.3FR	B2	76SAEB2.3FR
		213/215TC	76215.3FR	B4	76SAEB4.3FR
5CP Series	All 5CP Models	56C - 145TC	76056.5CP	A2	76SAEA2.5CP
		182/184TC	76184.5CP	B2	76SAEB2.5CP
		213/215TC	76215.5CP	B4	76SAEB4.5CP
5FR Series	340, 350, 341, 351, 347, 357	56C - 145TC	76056.5FR	A2	76SAEA2.5FR
		182/184TC	76184.5FR	B2	76SAEB2.5FR
		213/215TC	76215.5FR	B4	76SAEB4.5FR
7CP Series	All 7CP Models	182/184TC	76184.7CP	A2	76SAEA2.7CP
		213/215TC	76215.7CP	B2	76SAEB2.7CP
		254/256TC	76256.7CP	B4	76SAEB4.7CP
7FR/8FR Series	56-60, 700-760, 781-786	182/184TC	76184.7FR	A2	76SAEA2.7FR
		213/215TC	76215.7FR	B2	76SAEB2.7FR
		254/256TC	76256.7FR	B4	76SAEB4.7FR
35FR Series	All 35FR Models			C2/C4	76SAEC.35FR

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, C2 = SAE "C" 2 Bolt, 5" Pilot, C4 = SAE "C" 4 Bolt, 5" Pilot



Bell Housing Series (Electric)



Bell Housing Assembly (Hydraulic)

FLEXIBLE COUPLER ASSEMBLY, NEMA AND SAE

PUMP SERIES	MOTOR FRAME	FLEX COUPLER ASSY	HP RATING	SAE TYPE*	FLEX COUPLER ASSY	SHAFT TO SHAFT	HP RATING
3CP & 3FR	56C	8215	3	A2	8271	16.5 mm x 5/8"	115 ft/lbs
	145TC	8210	3	B2	8272	16.5 mm x 7/8"	115 ft/lbs
	182/184TC	8220	3	B4	8272	16.5 mm x 7/8"	115 ft/lbs
	182/184TC	8225	10				
	213/215TC	8270	20				
5CP & 5FR	56C	8261	10	A2	8273	20 mm x 5/8"	115 ft/lbs
	145TC	8260	10	B2	8274	20 mm x 7/8"	115 ft/lbs
	182/184TC	8230	10	B4	8274	20 mm x 7/8"	115 ft/lbs
	213/215TC	8275	20				
	254/256TC	8217	20				
7CP & 7FR	182/184TC	8370	10	A2	8371	24 mm x 5/8"	145 ft/lbs
	213/215TC	8375	10	B2	8372	24 mm x 7/8"	145 ft/lbs
	254/256TC	8380	20	B4	8372	24 mm x 7/8"	145 ft/lbs
35FR				C2/C4	997872	35mm x 1 1/4"	350 ft/lbs
				C2/C4	999368	35mm x 1 3/8"	350 ft/lbs
				C2/C4	994403	35mm x 1 1/2"	350 ft/lbs
				C2/C4	999180	35mm x 1 5/8"	350 ft/lbs
				C2/C4	999206	35mm x 1 7/8"	350 ft/lbs

*SAE Type: A2 = SAE "A" 2 Bolt, 3.25" Pilot, B2 = SAE "B" 2 Bolt, 4" Pilot, B4 = SAE "B" 4 Bolt, 4" Pilot, C2 = SAE "C" 2 Bolt, 5" Pilot, C4 = SAE "C" 4 Bolt, 5" Pilot



Flex Coupler Series

Plunger Pumps

SOLID SHAFT, BRASS MANIFOLD



Model 1810



Model 310



Model 700



Model 5CP2120W

PUMP MODEL	MAXIMUM FLOW		MAXIMUM PRESSURE		RPM	SHAFT
	gpm	lpm	psi	bar		
5CP4110CSS	2.2	8.4	4000	276	1725	20 mm
3CP1130	2.4	9.1	2200	138	1725	16.5 mm
5CP3105CSS	2.5	9.5	3500	241	1725	20 mm
5CP4112CSS	2.7	10.3	4000	276	1725	20 mm
740	2.9	11.0	5000	345	1750	24 mm
1810**	3.0	11.4	10000	689	1500	30 mm
5CP4114CSS	3.2	12.1	4000	276	1725	20 mm
3CP1140	3.6	13.7	2200	152	1725	16.5 mm
5CP3110CSS	3.6	13.7	3500	241	1725	20 mm
760	3.6	13.7	5000	345	1750	24 mm
5CP4116CSS	3.8	14.4	4000	276	1725	20 mm
310	4.0	15.2	2200	152	950	20 mm
5CP2120W	4.0	15.2	2500	172	950	20 mm
5CP2140WCS	4.0	15.2	2500	172	1725	20 mm
3CP1120	4.2	16.0	2200	152	1725	16.5 mm
5CP4118CSS	4.2	16.0	4000	276	1725	20 mm
5CP3160CSS	4.3	16.3	3500	241	1725	20 mm
5CP3120CSS	4.5	17.0	3500	241	1645	20 mm
5CP4120CSS	4.5	17.0	4000	276	1725	20 mm
60	4.7	17.9	4000	276	1725	24 mm
700	4.7	17.9	5000	345	1750	24 mm
5CP3120CSS	4.8	18.2	3000	207	1725	20 mm
310	5.0	19.0	1500	103	1190	20 mm
5CP2150W	5.0	19.0	2000	138	1725	20 mm
530	5.0	19.0	2500	172	1100	24 mm
5CP5120	5.0	19.0	3000	207	1415	20 mm
5CP3150CSS	5.2	19.7	3000	207	1750	20 mm
5CP5140CSS	5.5	20.9	3500	241	1500	20 mm
56	5.5	20.9	3500	241	1210	24 mm

** 304 Stainless Manifold

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

Selecting a Power Source

Positive displacement pumps can use a variety of different power sources, including electric motors, gas or diesel engines, hydraulic and pneumatic motors. Note: system power sources must be sized with adequate horsepower to handle the maximum system flow and pressure required.

Commonly Used Formulas

$$\text{Required Electric Brake HP}^* = \frac{\text{gpm} \times \text{psi}}{1460}$$

$$\text{Hydraulic Torque (ft. lbs.) Required} = 3.6 \times \frac{\text{gpm} \times \text{psi}}{\text{rpm}}$$

*Standard 85% Overall Efficiency

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