

DATA SHEET

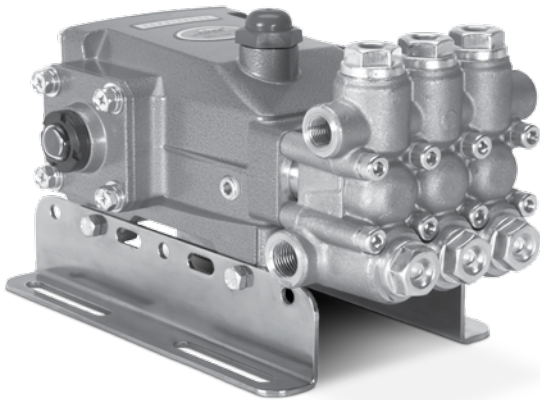
5CP PLUNGER PUMPS



The Pumps with Nine Lives

Brass Model: **5CP5140CSS**

Brass Gearbox Models: **5CP5135CSSG1, 5CP5140CSSG1, 5CP5140CSSG118**



Model 5CP5140CSS Shown
(Rails Sold Separately)

FEATURES

- Industrial triplex design offers reliability and versatility.
- Ultra-compact footprint permits direct-drive to engine with gearbox or belt-drive for precision flow setting.
- Mounting Flange: SAEJ609, Flange B, Extension 4 (1"Ø), Shaft Length = 3-1/4", Pilot Ø = 5-3/4", B.C. Ø = 6-1/2", Thread=3/8" -16 UNC TAP
- Standard NBR seals with alternative options for temperature and chemical compatibility.
 - FPM – .0110
 - EPDM – .0220
 - High Temp, 190° F – .3000
 - High Temp, 200° F – .3400 (Intermittent Run-Dry)

COMMON

SPECIFICATIONS	U.S.	Metric
Inlet Pressure Range, Standard	-2.5 to 60 psi	-.2 to 4 bar
Inlet Pressure Range, Alternate	10 to 60 psi	.7 to 4 bar
Max. Liquid Temperature	160° F	71° C
Above 130°F call Cat Pumps for inlet conditions and elastomer recommendations.		
Bore	0.709"	18 mm
Crankcase Capacity	17 oz.	0.51 l
Inlet Ports (2)	1/2" NPT(F)	1/2" NPT(F)
Discharge Ports (2)	3/8" NPT(F)	3/8" NPT(F)
Shaft Diameter	0.787"	20 mm
Dimensions (pump only)	10.89 x 10.0 x 5.78"	277 x 254 x 147 mm
Dimensions (w/ gearbox)	11.18 x 11.48 x 6.42"	284 x 291 x 163 mm

SPECIFICATIONS

	U.S. Measure	Metric Measure
5CP5140CSS		
Flow	5.5 gpm	21 lpm
Pressure Range	100 to 3500 psi	6.9 to 241 bar
Pump RPM*	1500 rpm	1500 rpm
Stroke	0.787"	20 mm
Weight	19.9 lbs.	9 kg
5CP5140CSS Alternate Specifications		
Flow	6.7 gpm	25.4 lpm
Pressure Range	100 to 3000 psi	6.9 to 207 bar
Pump RPM*	1750 rpm	1750 rpm
5CP5135CSSG1		
Flow	5.0 gpm	19 lpm
Pressure Range	100 to 3500 psi	6.9 to 241 bar
Pump RPM	1515 rpm	1515 rpm
Engine RPM	3090 rpm	3090 rpm
Stroke	0.709"	18 mm
Weight	26.5 lbs.	12 kg
5CP5140CSSG1, 5CP5140CSSG118		
Flow	5.5 gpm	21 lpm
Pressure Range	100 to 3500 psi	6.9 to 241 bar
Pump RPM	1500 rpm	1500 rpm
Engine RPM	3060 rpm	3060 rpm
Stroke	0.787"	20 mm
Weight	26.5 lbs.	12 kg

*Pump minimum is 100 RPM.

ELECTRIC HORSEPOWER REQUIREMENTS

MODELS	FLOW		PRESSURE						RPM
			psi	psi	psi	psi	psi	psi	
			1200	1500	2000	2500	3000	3500	
	U.S. gpm	lpm	bar	bar	bar	bar	bar	bar	
			83	103	138	172	207	241	
5CP5135CSSG1	5.0	19	Consult Engine Manufacturer						1515
5CP5140CSS	5.5	21	4.5	6.0	7.5	9.4	11.3	13.2	1500
5CP5140CSS ALT	6.7	25.4	5.5	6.9	9.2	11.5	13.8	NA	1750
5CP5140CSSG1, G118	5.5	21	Consult Engine Manufacturer						1500

DETERMINING THE PUMP R.P.M. $\frac{\text{Rated gpm}}{\text{Rated rpm}} = \frac{\text{"Desired" gpm}}{\text{"Desired" rpm}}$

DETERMINING THE REQUIRED H.P. $\frac{\text{Hp (Electric Brake)}}{\text{gpm x psi}} = \frac{1460}{\text{gpm x psi}}$

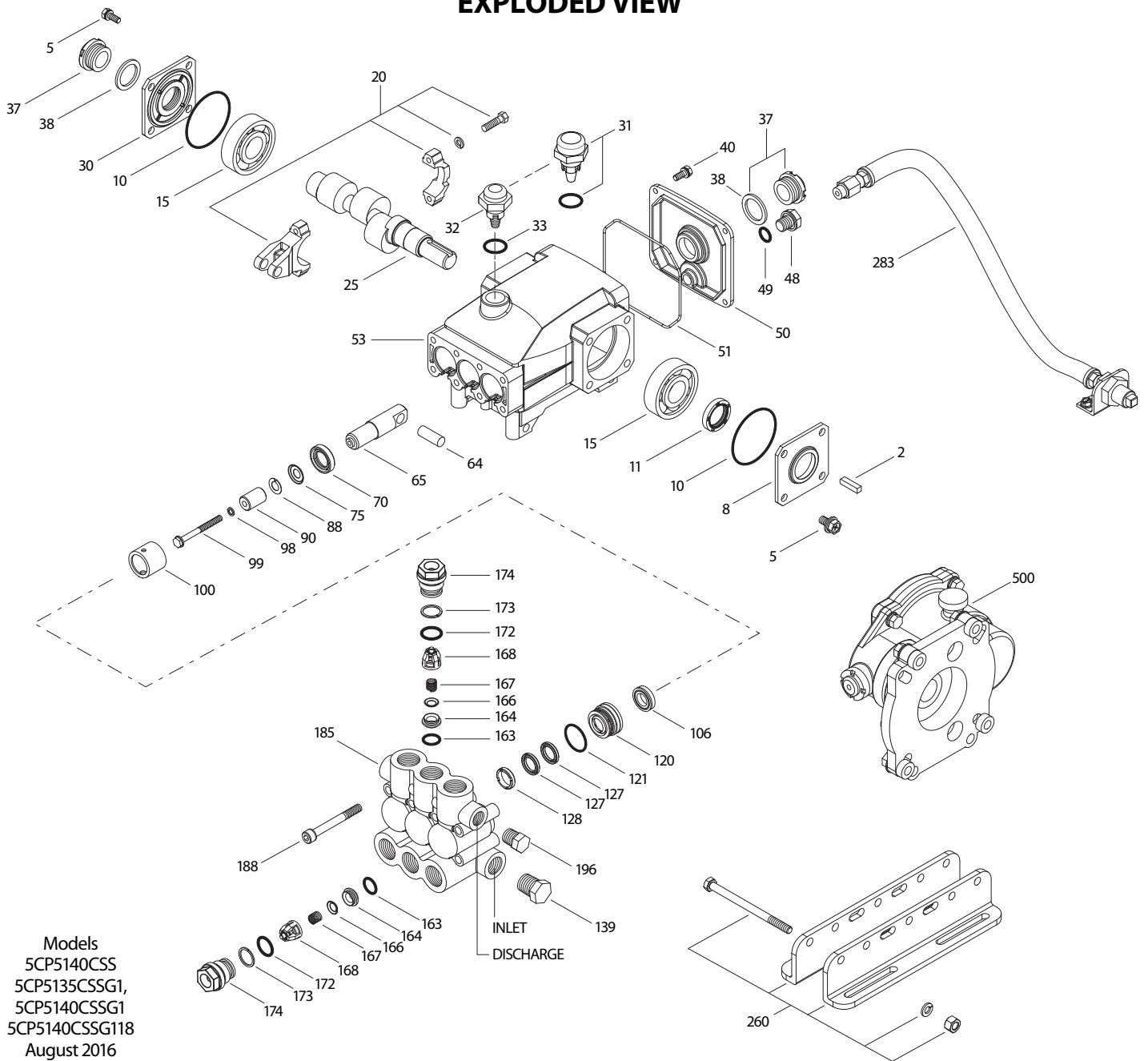
DETERMINING MOTOR PULLEY SIZE $\frac{\text{Motor Pulley O.D.}}{\text{Pump rpm}} = \frac{\text{Pump Pulley O.D.}}{\text{Motor rpm}}$

See complete Drive Packages [Includes: pulleys, belts, hubs, key] Tech Bulletin 003. Refer to pump **Service Manual** for repair procedure and additional technical information.

PARTS LIST

ITEM	PART NUMBER	MATL	PART NUMBER	MATL	DESCRIPTION	QTY
			5CP3135CSSG1			
			5CP5140CSSG1			
	5CP5140CSS		5CP5140CSSG118			
2	30057	STL	30057	STL	Key (M6x6x25)	1
5	126542	STCP R	126542	STCP R	Screw, HHC, Sems (M8x16)	8
8	46910	AL	46910	AL	Cover, Bearing	1
10	14028	NBR	14028	NBR	O-Ring, Bearing Cover - 70D	2
11	43222	NBR	43222	NBR	Seal, Oil, Crankshaft - 70D	1
15	14480	STL	14480	STL	Bearing, Ball	2
20	48742	TNM	48742	TNM	Rod, Connecting Assy [10/01]	3
25	49773	FCM	49773	FCM	Crankshaft, Single End M18 - 5CP5140CSS, 5CP5140CSSG1, 5CP5140CSSG118	1
	—	FCM	48233	FCM	Crankshaft, Single End M18 - 5CP3135CSSG1	1
30	49776	AL	49776	AL	Cover, Bearing	1
31	127409	—	127409	—	Cap, Vented w/O-Ring (Rain Cap)	1
32	46798	—	46798	—	Cap, Oil Filler, Domed	1
33	14179	NBR	14179	NBR	O-Ring, Oil Filler Cap - 70D	1
37	92241	—	92241	—	Gauge, Oil, Bubble w/Gasket - 80D	2
38	44428	NBR	44428	NBR	Gasket, Flat, Oil Gauge - 80D	2
40	125824	STCP R	125824	STCP R	Screw, HHC, Sems (M6x16)	4
48	25625	STCP	25625	STCP	Plug, Drain (1/4"x19BSP)	1
49	23170	NBR	23170	NBR	O-Ring, Drain Plug - 70D	1
50	46940	AL	46940	AL	Cover, Rear	1
51	14044	NBR	14044	NBR	O-Ring, Rear Cover	1
53	48617	AL	48617	AL	Crankcase	1
64	46746	CM	46746	CM	Pin, Crosshead	3
65	48458	BBNP	48458	BBNP	Rod, Plunger	3
70	46838	NBR	46838	NBR	Seal, Oil, Crankcase - 70D	3
75	43328	S	43328	S	Slinger, Barrier	3
88	45697	S	45697	S	Washer, Keyhole (M18x10)	3
90	49655	CC	49655	CC	Plunger (M18x50)	3
98	46730	NBR	46730	NBR	Washer, Seal - 90D	3
	48394	FPM	48394	FPM	Washer, Seal - 90D	3
	◆ 48432	EPDM	◆ 48432	EPDM	Washer, Seal	3
99	† 48201	SS	† 48201	SS	Retainer, Plunger w/Stud (M6)	3
100	46749	PVDF	46749	PVDF	Retainer, Seal	3
106	43243	NBR	43243	NBR	Seal, LPS w/S-Spg	3
	44926	FPM	44926	FPM	Seal, LPS w/SS-Spg	3
	◆ 46651	EPDM	◆ 46651	EPDM	Seal, LPS w/SS-Spg	3
	76243	ST2	76243	ST2	Seal, LPS w/S-Spg	3
120	49657	BB	49657	BB	Case, Seal (Press-in-style)	3
121	13978	NBR	13978	NBR	O-Ring, Seal Case - 70D	3
	14329	FPM	14329	FPM	O-Ring, Seal Case	3
	◆ 48904	EPDM	◆ 48904	EPDM	O-Ring, Seal Case	3
127	44549	SNG	44549	SNG	V-Packing	6
	45617	SFG	45617	SFG	V-Packing	6
	48300	STG	48300	STG	V-Packing	6
128	45618	BB	45618	BB	Adapter, Male	3
139	22179	BBCP	22179	BBCP	Plug, Inlet [1/2" NPT(M)]	1
163	17547	NBR	17547	NBR	O-Ring, Seat - 85D	6
	11685	FPM	11685	FPM	O-Ring, Seat - 85D	6
	◆ 46648	EPDM	◆ 46648	EPDM	O-Ring, Seat - 70D	6
164	45790	S	45790	S	Seat	6
166	46429	S	46429	S	Valve	6
167	43750	S	43750	S	Spring	6
168	† 44565	PVDF	† 44565	PVDF	Retainer, Spring	6
172	17549	NBR	17549	NBR	O-Ring, Valve Plug - 70D	6
	26996	FPM	26996	FPM	O-Ring, Valve Plug - 70D	6
	◆ 49133	EPDM	◆ 49133	EPDM	O-Ring, Valve Plug	6
173	48365	D	48365	D	Back-up-Ring, Valve Plug	6
174	45900	BB	45900	BB	Plug, Valve	6
185	46895	FBB	46895	FBB	Manifold, Head	1
188	126513	STCP R	126513	STCP R	Screw, HSH (M8x70)	8
196	22187	BBCP	22187	BBCP	Plug, Discharge [3/8" NPT(M)]	1
260	30611	STZPR	—	—	Mount, Rail, Assy (4.22")	1
	30613	STZPR	—	—	Mount, Rail, Assy (5.02")	1
	76513	STZPR	—	—	Mount, Rail, Assy (5.52")	1
	30637	STZP	—	STZP	Mount, Angle Assy-Retro Fit (See Tech Bulletin 078)	1
283	34334	—	34334	—	Kit, Oil Drain (3/8" x 24") (See Individual Data Sheet)	1
	76334	—	76334	—	Kit, Oil Indicator (3/8" x 24") (See Individual Data Sheet)	1
299	814844	FBB	814844	FBB	Head, Complete w/NBR Seals and O-Rings	1
300	33630	NBR	33630	NBR	Kit, Seal (Incls: 98,106,121,127) Standard	1
	31350	FPM	31350	FPM	Kit, Seal (Incls: 98,106,121,127) .0110	1
	76645	HT	76645	HT	Kit, Seal (Incls: 98,106,121,127) .3000	1

EXPLODED VIEW



ITEM	PART NUMBER	MATL	PART NUMBER	MATL	DESCRIPTION	QTY
			5CP3135CSSG1			
			5CP5140CSSG1			
			5CP5140CSSG118			
	◆ 76630	EPDM	◆ 76630	EPDM	Kit, Seal (Incls: 98,106,121,127) .0220	1
	76546	STHT	76546	STHT	Kit, Seal (Incls: 98, 106, 120, 121, 127) Prior to 2/09 .3400	1
	76960	STHT	76960	STHT	Kit, Seal (Incls: 98,106,121,127) After 2/09 .3400	1
310	33060	NBR	33060	NBR	Kit, Valve Preassembled (Incls: 163,164,166-168,172,173) Standard, .3400, .3000	2
	31345	FPM	31345	FPM	Kit, Valve Preassembled (Incls: 163,164,166-168,172,173) .0110	2
	◆ 31735	EPDM	◆ 31735	EPDM	Kit, Valve Preassembled (Incls: 163,164,166-168,172,173) .0220	2
500	—	—	8076	—	Gearbox 1" (See Individual Data Sheet)	1
	—	—	8077	—	Gear box 1-1/8" (See Individual Data Sheet)	1
—	6107	—	6107	—	Oil, Bottle (21 oz.) ISO 68 Hydraulic	1

Bold print part numbers are unique to a particular pump model. Italics are optional items. [] Date of latest production change.

◆ Silicone oil/grease required. † Production parts are different than repair parts. R Components comply with RoHS Directive.

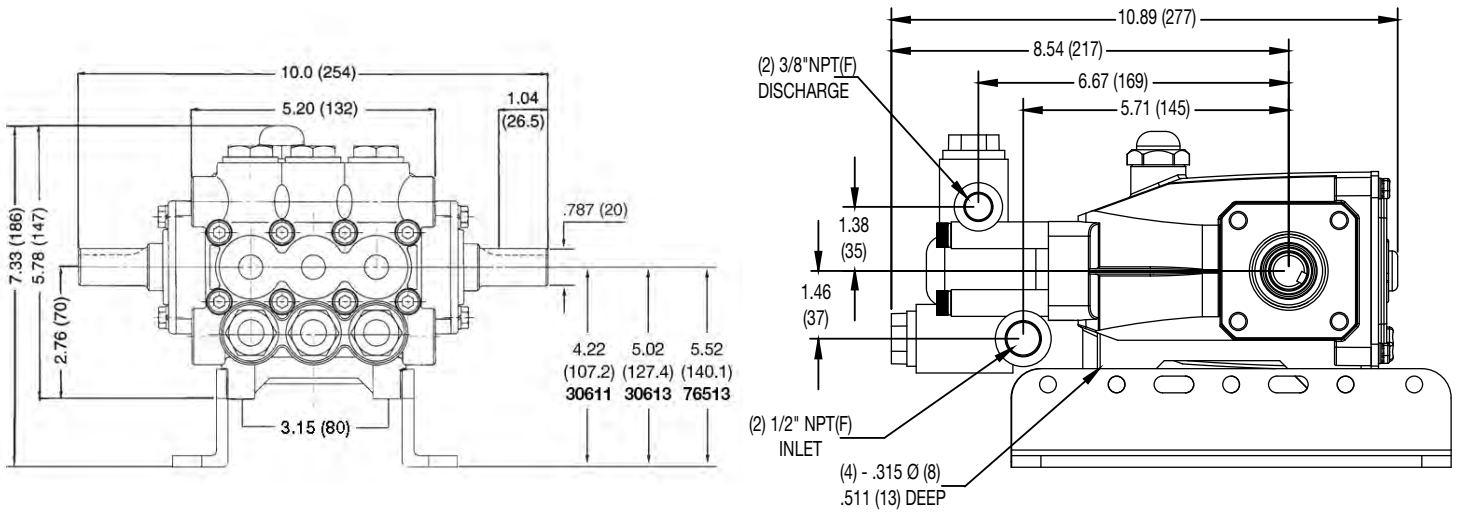
View Tech Bulletins 002, 003, 024, 036, 043, 053, 060, 061, 064, 073, 074, 078 and 083 for additional information.

MATERIAL CODES (Not Part of Part Number): AL=Aluminum BB=Brass BBCP=Brass/Chrome Plated BBNP=Brass/Nickel Plated CC=Ceramic

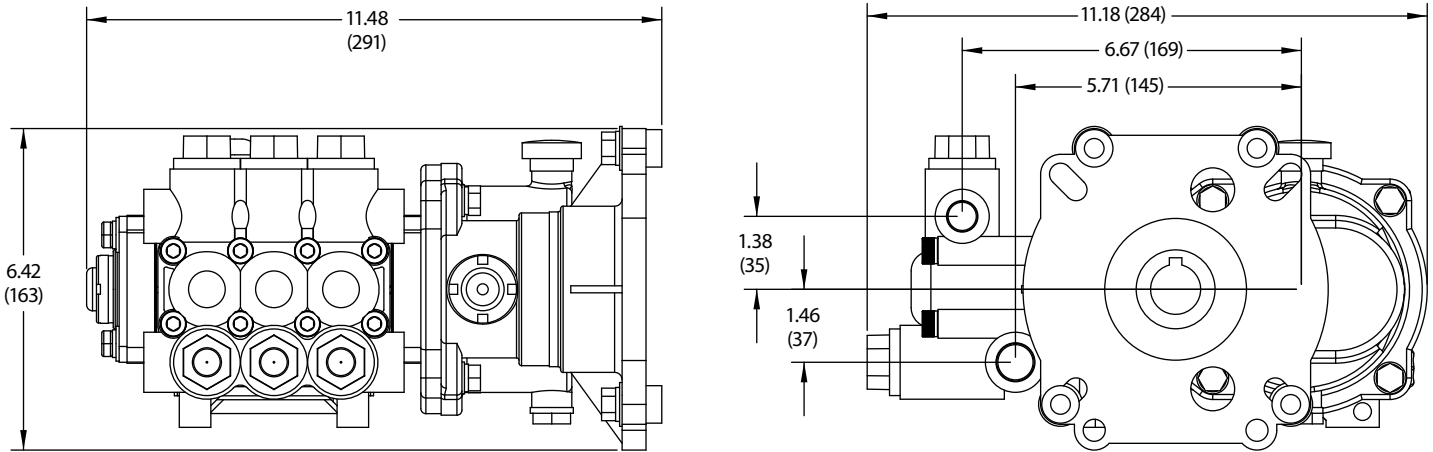
CM=Chrome-moly D=Acetal EPDM=Ethylene Propylene Diene Monomer FBB=Forged Brass FCM=Forged Chrome-moly FPM=Fluorocarbon HT=Hi-Temp (EPDM Alternative)

NBR=Medium Nitrile (Buna-N) PVDF=Polyvinylidene Fluoride S=304SS SS=316SS SNG=Special Blend (Buna) SFG=Special Blend (FPM) STG=Special Blend PTFE White

ST2=Special Blend PTFE Grey STL=Steel STCP=Steel/Chrome Plated STHT=Special PTFE High Temp STZP=Steel/Zinc Plated TNM=Special High Strength



Model 5CP5140CSS



Models 5CP5135CSSG1, 5CP5140CSSG1, 5CP5140CSSG118 (with gearbox)

⚠ CAUTIONS AND WARNINGS

All High Pressure Systems require a primary pressure regulating device (i.e. regulator, unloader) and a secondary pressure relief device (i.e. pop-off valve, relief valve). Failure to install such relief devices could result in personal injury or damage to pump or property. Cat Pumps does not assume any liability or responsibility for the operation of a customer's high pressure system.

Read all CAUTIONS and WARNINGS before commencing service or operation of any high pressure system. The CAUTIONS and WARNINGS are included in each service manual and with each Accessory Data sheet. CAUTIONS and WARNINGS can also be viewed online at www.catpumps.com/cautions-warnings or can be requested directly from Cat Pumps.

WARRANTY

View the Limited Warranty on-line at www.catpumps.com/warranty.



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