

25 Frame Piston Pump

Standard
Models

1020, 2020
1520, 2520
2520C

Hi-Temp Model

FEATURES

Superior Design

- Triplex UniFlo design provides continuous forward fluid flow for smooth operation.
- Wetted cups and floating pistons are lubricated and cooled by pumped fluid for long cup life.
- Mechanically actuated inlet valves give strong lift and easy prime.
- 304 stainless steel flat valve design offers positive seating and greater suction capabilities.
- Oil bath crankcase assures optimum lubrication.

Quality Materials

- Cylinder and sleeve wear surfaces are hard chrome plated 304 stainless steel for maximum durability and abrasion resistance.
- Chrome plated, brass manifolds and optional stainless steel manifolds are strong and corrosion resistant.
- Heavy duty connecting rods are made of high quality Zamak offering superior bearing quality strength.
- Chrome-moly crankshaft gives unmatched strength and surface hardness.
- Oversized crankshaft bearings with greater loading capacity mean longer bearing life.

Easy Maintenance

- Stepped stainless steel piston rod and with sleeve allows easy replacement from front of pump.
- All wet-end wear parts are easily serviced without entering crankcase, requiring less time and effort.
- Wear parts are available in handy kits.

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

$$\frac{\text{DETERMINING THE REQUIRED H.P.}}{\text{GPM x PSI}} = \frac{\text{Electric Brake}}{1460} = \text{H. P. Required}$$

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

Note: Consult engine manufacturer when using gas or diesel engine.

Refer to pump Service Manual for important Inlet Condition Check-List, Start-up Procedure, Tech Bulletins and Pump Maintenance information.

SPECIFICATIONS

	U.S. Measure	Metric Measure
MODEL 1020		
Volume.....	10 GPM	(38 L/M)
Discharge Pressure.....	100 to 1200 PSI	(7 to 85 BAR)
RPM.....	720 RPM	(720 RPM)
Bore.....	.984"	(25 mm)
MODEL 2020		
Volume.....	20 GPM	(76 L/M)
Discharge Pressure.....	100 to 800 PSI	(7 to 55 BAR)
RPM.....	870 RPM	(870 RPM)
Bore.....	1.260"	(32 mm)
MODEL 1520		
Volume.....	15.1 GPM	(57 L/M)
Discharge Pressure.....	100 to 1000 PSI	(7 to 70 BAR)
RPM.....	830 RPM	(830 RPM)
Bore.....	1.122"	(28.5 mm)
MODEL 2520 and 2520C Hi-Temp		
Volume.....	25 GPM	(95 L/M)
Discharge Pressure.....	100 to 800 PSI	(7 to 55 BAR)
RPM.....	772 RPM	(772 RPM)
Bore.....	1.490"	(38 mm)

COMMON SPECIFICATIONS

Stroke.....	1.417"	(36 mm)
Max. Inlet Pressure.....	-8.5 to +40 PSI	(-0.6 to +2.8 BAR)
2520C.....	Flooded to +40 PSI	(Flooded to +2.8 BAR)
Crankcase Capacity.....	84 oz.	(2.5 L)
Maximum Fluid Temperature.....	160°F	(71°C)
2520C.....	210°F	(98°C)
Inlet Ports (1).....	1-1/4" NPT	(1-1/4" NPT)
2520C - Cooling Ports (2).....	1/4" NPT	(1/4" NPT)
Discharge Ports (3).....	1" NPT	(1" NPT)
Pulley Mounting.....	Either side	(Either side)
Shaft Diameters.....	1.181"	(30 mm)
Weight.....	69.3 lbs.	(31.5 kg)
Dimensions.....	20.83" x 15.04" x 7.8"	(529 x 382 x 198 mm)
2520C.....	21.42" x 15.04" x 7.8"	(544.5 x 382 x 198 mm)

HORSEPOWER REQUIREMENTS

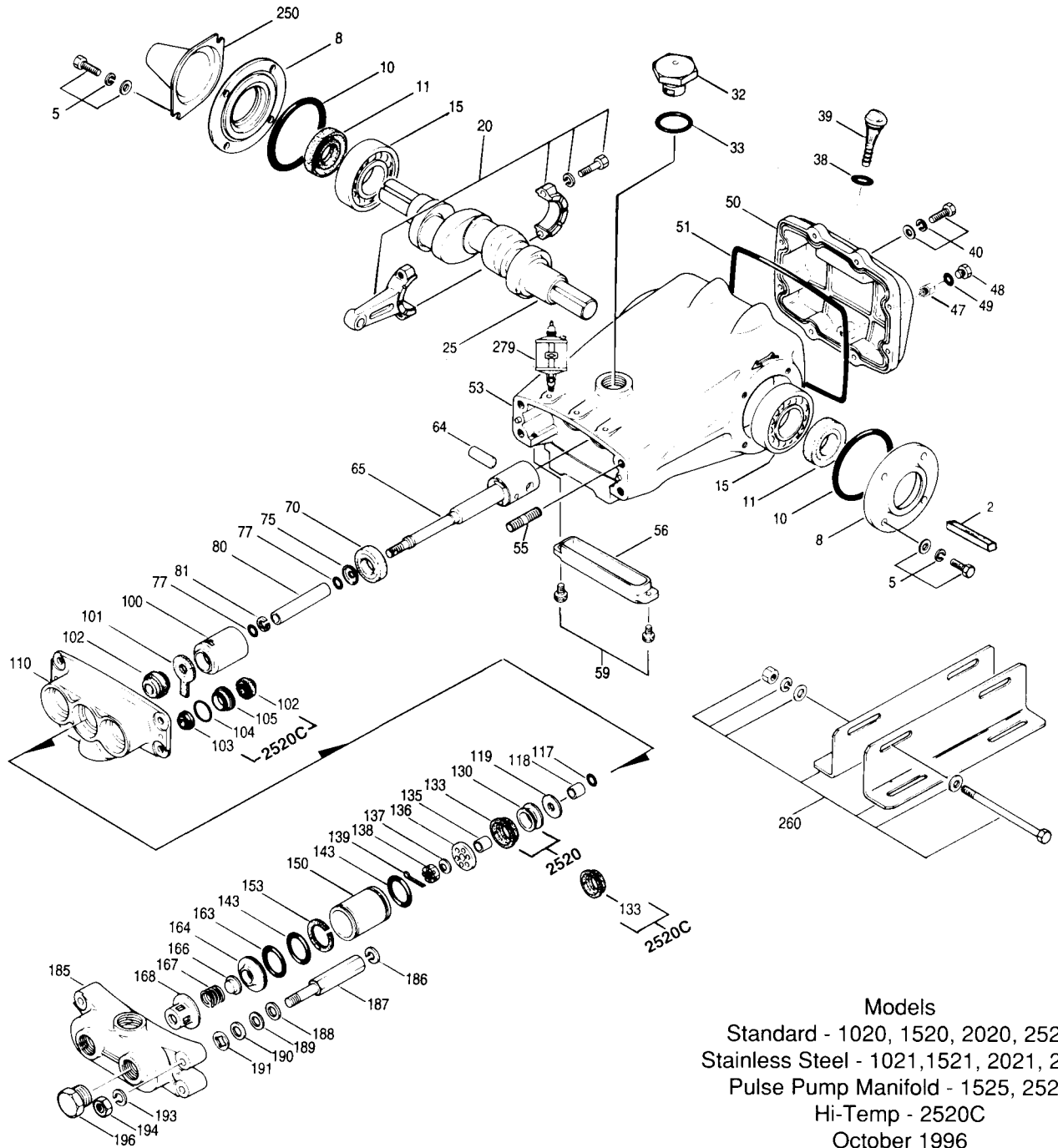
MODEL	FLOW		PRESSURE			MOTOR PULLEY SIZE	
	U.S. GPM	L/M	PSI 800	PSI 1000	PSI 1200	Using 1725 RPM Motor & Std. 9.75" Pulley O.D.	
			BAR 55	BAR 70	BAR 85	RPM	Pulley O.D.
1020	10	38	5.5	6.9	8.3	720	4.1
2020	20.0	76	9.6	11.0	N/A	870	4.9
1520	15.1	57	8.2	10.3	N/A	830	4.7
	12.0	45	6.6	8.3	N/A	660	3.8
	10.0	38	5.5	6.9	N/A	550	3.1
2520 and 2520C	25.0	95	13.7	N/A	N/A	772	4.4
	20.0	76	11.0	N/A	N/A	620	3.5
	15.0	57	8.2	N/A	N/A	465	2.7

"Customer confidence is our greatest asset"

PARTSLIST

ITEM	PART NUMBER					DESCRIPTION	QTY
	Model 1020	Model 2020	Model 1520	Model 2520	Model 2520C		
2	50146	51046	50146	50146	50146	Key (M7x7x40)	1
5	95208 Z	95208 Z	92508 Z	92508 Z	95208 Z	Screw, Sems Hex Head (M8x25)	8
8	27773 A	27773 A	27773 A	27773 A	27773 A	Bearing Case	2
10	27772 B	27772 B	27772 B	27772 B	27772 B	O-Ring, Bearing Case	2
11	27771 B	27771 B	27771 B	27771 B	27771 B	Oil Seal, Crankshaft	2
15	26512	26512	26512	26512	26512	Bearing	2
20	27776	27776	27776	27776	27776	Connecting Rod Assy	3
25	27770	27770	27770	27770	27770	Crankshaft	1
32	43211	43211	43211	43211	43211	Oil Filler Cap	1
33	14177 B	14177 B	14177 B	14177 B	14177 B	O-Ring, Oil Filler Cap	1
38	11338 B	11338 B	11338 B	11338 B	11338 B	O-Ring, Dipstick	1
39	27769	27769	27769	27769	27769	Dipstick	1
40	92508 Z	92508 Z	92508 Z	92508 Z	92508 Z	Screw, Sems Hex Head (M8x25)	8
47	25144	25144 Z	25144 Z	25144 Z	25144 Z	Adapter, Drain Plug 1/4" NPT (Optional for Drain Hose)	1
48	25625	25625	25625	25625	25625	Drain Plug, 1/4"	1
49	23170 B	23170 B	23170 B	23170 B	23170 B	O-Ring, Drain Plug	1
50	27768 A	27768 A	27768 A	27768 A	27768 A	Crankcase Cover	1
51	27767 B	27767 B	27767 B	27767 B	27767 B	O-Ring, Crankcase Cover	1
53	27762 A	27762 A	27762 A	27762 A	27762 A	Crankcase	1
55	27764 Z	27764 Z	27764 Z	27764 Z	27764 Z	Stud (M12 x 53)	4
56	27790 P	27790 P	27790 P	27790 P	27790 P	Oil Pan	1
59	92519 Z	92519 Z	92519 Z	92519 Z	92519 Z	Screw, Sems Hex (M6x16)	2
64	27784 S	27784 S	27784 S	27784 S	27784 S	Pin, Piston Rod	3
65	29229	29229	29229	29229	43266	Piston Rod (M8)	3
70	27785 B	27785 B	27785 B	27785 B	27785 B	Oil Seal, Crankcase	3
75	27786 S	27786 S	27786 S	27786 S	27786 S	Barrier Slinger	3
77	26531 B	26531 B	26531 B	26531 B	14198 V	O-Ring, Sleeve	6
	14198 V	14198 V	14198 V	14198 V	—	O-Ring, Sleeve	6
80	43122 CS	43122 CS	43122 CS	43122 CS	43122 CS	Sleeve (M16)	3
	43123 S	43123 S	43123 S	43123 S	43123 S	Sleeve (M16)	3
81	29246 T	29246 T	29246 T	29246 T	29246 T	Back-Up Ring, Sleeve	3
100	27788 P	27788 P	27788 P	27788 P	27788 P	Seal Retainer	3
101	43126	43126	43126	43126	43126	Wick, Long Tab (M16)	3
102	43124 B	43124 B	43124 B	43124 B	43272 V	Seal (M16)/Seal w/Grease Pocket	3
	43125 V	43125 V	43125 V	43125 V	—	Seal (M16)	3
103	—	—	—	—	43269 V	Seal w/Lip	3
104	—	—	—	—	14178 V	O-Ring, Seal Adapter	3
105	—	—	—	—	43268 S	Seal Adapter	3
110	27791 CBB	27791 CBB	27791 CBB	27791 CBB	43270 CBB	Manifold, Inlet	1
	28595 SS	28595 SS	28595 SS	28595 SS	—	Manifold, Inlet	1
117	—	—	—	—	14198 V	O-Ring, Spacer	3
118	—	—	—	—	46148 S	Spacer, Inlet Valve	3
119	29242 S	29234 S	29232 S	29240 S	29240 S	Inlet Valve (M8)	3
130	27820 S	27945 S	27814 S	27840 S	—	Piston	3
133	27821 V	27946 V	27815 V	28409 V	—	Cup, Piston	3
	—	—	30189 TG	30498 R	30498 R	Piston Assembly	3
	29091 BT	29093 BT	29092 BT	29094 BT	—	Cup, V-Hot	3
135	29231 S	29231 S	29231 S	29231 S	29231 S	Piston Spacer (M8)	3
136	29241 S	29235 S	29233 S	29239 S	29239 S	Piston Retainer (M8)	3
137	27871 S	27871 S	27871 S	27871 S	27871 S	Washer, Conical (M8)	3
138	27510 S	27510 S	27510 S	27510 S	27510 S	Nut, Slotted (M8)	3
139	29589 S	29589 S	29589 S	29589 S	29589 S	Cotterpin (M8)	3
143	25495 B	25495 B	25495 B	25495 B	11748 V	O-Ring, Cylinder	6
	11748 V	11748 V	11748 V	11748 V	—	O-Ring, Cylinder	6
150	27823 CS	28533 CS	27817 CS	27844 CS	27844 CS	Cylinder, (M65)	3
	29046 S	29048 S	29047 S	29049 S	29049 S	Cylinder, (M65)	3
153	28242 T	28242 T	28242 T	—	—	Back-up Ring, Cylinder	3
163	28395 B	28395 B	28395 B	28395 B	28769 V	O-Ring, Valve Seat	3
	28769 V	28769 V	28769 V	28769 V	—	O-Ring, Valve Seat	3
164	28396 S	28396 S	28396 S	28396 S	28396 S	Valve Seat	3
166	43133 S	43133 S	43133 S	43133 S	43133 S	Valve	3
167	26548 S	26548 S	26548 S	26548 S	26548 S	Valve Spring	3
168	43134 S	43134 S	43134 S	43134 S	43134 S	Spring Retainer	3
185	27805 CBB	27805 CBB	27805 CBB	27805 CBB	27805 CBB	Manifold, Discharge	1
	28594 SS	28594 SS	28594 SS	28594 SS	—	Manifold, Discharge	1
	—	—	6425 CBB	6425 CBB	—	Manifold, Pulse Pump, Ported	1
186	30908 Z	30908 Z	30908 Z	30908 Z	30908 Z	Washer, Spring, 1/2"	4
187	27803 C	27803 C	27803 C	27803 C	43277	Bolt, Cylinder	4
188	27804 Z	27804 Z	27804 Z	27804 Z	27804 Z	Washer (12.5x1.0)	4/8
189	26553 Z	26553 Z	26553 Z	26553 Z	26553 Z	Washer (12.5x0.5)	4/8
190	26554 Z	26554 Z	26554 Z	26554 Z	26554 Z	Washer (12.5x0.3)	4/8
191	27933 Z	27933 Z	27933 Z	27933 Z	27933 Z	Washer, Retaining (11.7x0.2)	4
193	30908 Z	30908 Z	30908 Z	30908 Z	30908 Z	Washer, Split Lock, 1/2"	4
194	81060 Z	81060 Z	81060 Z	81060 Z	81060 Z	Nut, Hex (M12)	4
196	27807 CBB	27807 CBB	27807 CBB	27807 CBB	27807 CBB	Plug, 1" NPT	1

EXPLODED VIEW



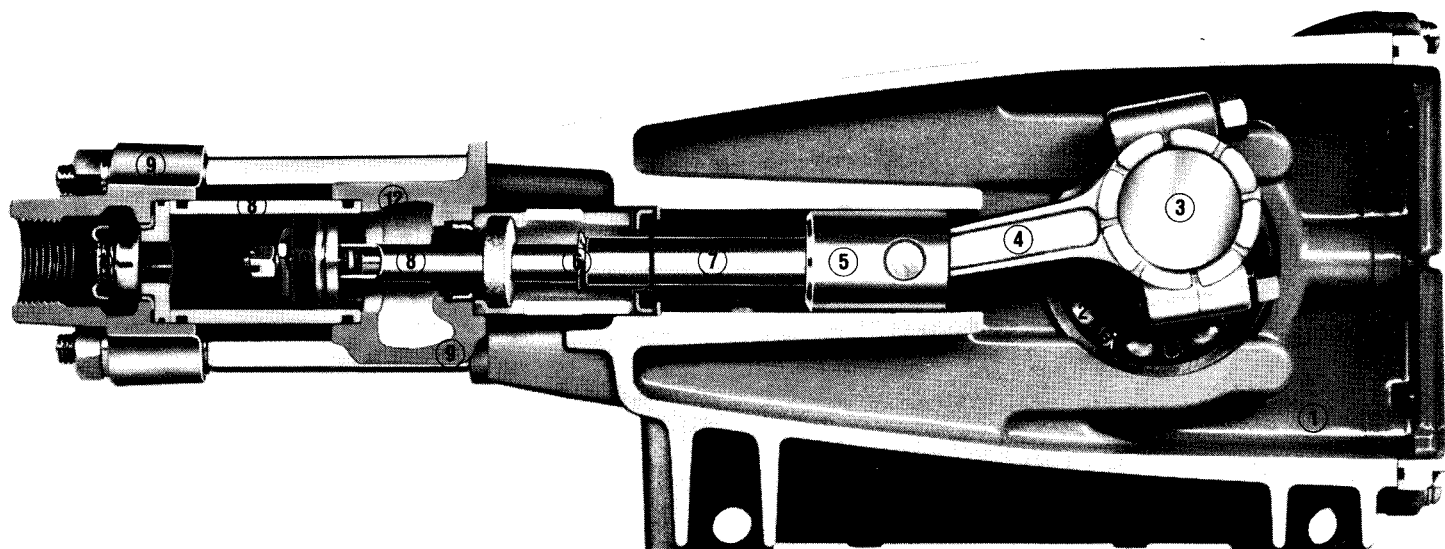
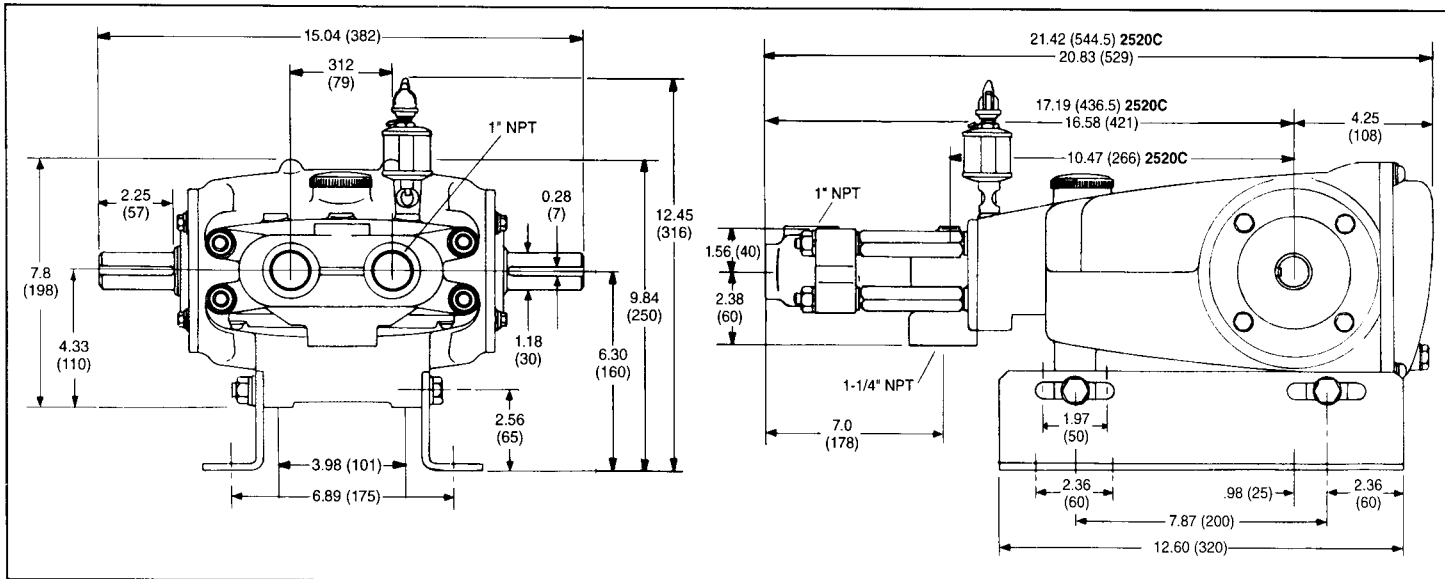
Models
 Standard - 1020, 1520, 2020, 2520
 Stainless Steel - 1021, 1521, 2021, 2521
 Pulse Pump Manifold - 1525, 2525
 Hi-Temp - 2520C
 October 1996

250	26516	26516	26516	26516	26516	Shaft Protector	1
260	30614	30614	30614	30614	30614	Angle Rail Assy (Incls: 27808,30902,30930,30911,30908)	1
265	30658	30658	30658	30658	30658	Mounting Kit (Incls: 30614,30285,50146)	1
269	30206	30206	30206	30206	30206	Pulley, 9.75" A.B.	1
275	30207	30207	30207	30207	30207	Hub "H" (M7Keyway)	1
						(See complete Drive Accessory Packages, Tech Bulletin 03)	
279	30278	30278	30278	30278	30278	Oiler (1/4" NPT-1 oz)	3
281	30967	30967	30967	30967	30967	Oiler, Glass only	1
282	10069	10069	10069	10069	10069	Gasket, Oiler	1
295	—	—	6300 SS	6300 SS	—	Pulse Pump (1Qt.) 1000 PSI	1
295	—	—	6305 SS	6305 SS	—	Pulse Pump (1 Gal.) 1000 PSI	1
300	30253	30255	30254	30256	—	Cup Kit (Incls: 133,139,143,153)	1
302	30838	30840	30839	30252	—	Piston Kit (Incls: 119-143)	1
305	30819	30819	30819	30819	—	Sleeve & Seal Kit (M8, M16) (Incls: 75,77,80,85,102,139)	1
306	30482	30482	30482	30482	—	Seal Kit (Incls: 101,102,139)	1
310	30767	30767	30767	30767	30767	Valve Kit (Incls: 153,143,163,164,166,167,168)	1

Bold printed part numbers are standard and unique to a particular pump model. Italics are optional items.

See Tech Bulletins 03, 08, 09, 17, 21, 34, 36, 63, 64, and 74 for additional information.

MATERIAL CODES (Not Part of Part Number) A=Aluminum B=Buna-N BB=Brass BZ=Berillian Bronze C=Chromeplated P=PVDF R=Roulon S=304SS SS=316SS T=Teflon TG=Teflon Graphite V=Viton Z=Zinc Plated



- | | | |
|---|--|---|
| <p>1 Diecast aluminum crankcase means high strength, lightweight, and excellent tolerance control.</p> <p>2 Oversized crankshaft bearings provide extended bearing life and pump performance.</p> <p>3 Chrome-moly crankshaft provides unmatched strength and surface hardness for long life.</p> <p>4 Matched oversized connecting rods are made of Zamak, a material noted for strength and superior bearing quality.</p> | <p>5 The piston rods are high tensile strength 316 stainless steel with zamak crossheads.</p> <p>6 The stainless steel slinger provides back-up protection for the crankcase seal, keeping pumped fluids out of the crankcase.</p> <p>7 The patented stepped piston rod with hard chrome-plated sleeve provides a durable wear surface and easy wet end servicing.</p> <p>8 The cylinder and sleeve wear surfaces are hard chrome-plated stainless steel for longer service life.</p> | <p>9 Manifolds are of high tensile strength chrome-plated brass or 316 stainless steel for special corrosion resistance.</p> <p>10 100% wet cup design adds to service life by allowing pumped fluids to cool and lubricate the elastomers on both sides.</p> <p>11 Stainless steel valves, seats, and springs provide corrosion-resistance, positive seating and long life.</p> <p>12 Special dual inlet seals with cooling ports allow pumped fluids up to 210°F.</p> |
|---|--|---|

Products described hereon are covered by one or more of the following U.S. patents 3558244, 3652188, 3809508, 3920356, 3930756 and 5035580

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