

60 Frame Piston Pump

Models

6024 6044

FEATURES

Superior Design

- Triplex Uniflow 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 discharge valves for wear resistance.
- 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 316 stainless steel manifolds are strong and corrosion resistant.
- Chrome-moly crankshaft gives unmatched strength and surface hardness.
- Oversized crankshaft bearings with greater loading capacity mean longer bearing life.
- Die cast aluminum crankcase provides high strength, minimum weight and precision tolerance control.

Easy Maintenance

- Stepped stainless steel piston rod with chrome-plated stainless steel 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 convenient kits.

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

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

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

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

MODEL 6024

	U.S. Measure	Metric Measure
Flow	12 GPM	(45 L/M)
Pressure Range.....	100 to 5000 PSI	(7 to 345 BAR)
RPM	500 RPM	(500 RPM)
Bore.....	.984"	(25 mm)

MODEL 6044

Flow20 GPM	(76 L/M)
Pressure Range.....	100 to 3000 PSI	(7 to 210 BAR)
RPM	500 RPM	(500 RPM)
Bore.....	1.260"	(32 mm)

COMMON SPECIFICATIONS

Stroke.....	2.480"	(63 mm)
Crankcase Capacity.....	10 Qts.	(9.46 L)
Maximum Fluid Temperature	140°F	(60°C)
Max. Inlet Pressure	-8.5 to +40 PSI	(-0.6 to +2.8 BAR)
Inlet Ports (1)	2" NPT	(2" NPT)
Discharge Ports (3).....	1" NPT	(1" NPT)
Pulley Mounting	Either Side	(Either Side)
Shaft Diameter	1.772"	(45 mm)
Weight.....	.265 lbs.	(120 kg)
Dimensions.....	35.2 x 24.0 x 17.1"	(895 x 610 x 434 mm)

HORSEPOWER REQUIREMENTS

Model	FLOW		PRESSURE						RPM	DRIVE
	U.S. GPM	L/M	PSI 2000	PSI 2500	PSI 3000	PSI 4000	PSI 4500	PSI 5000		
6024	12	45	N/A	N/A	N/A	32.9	37.1	41.2	500	Consult CAT PUMPS for Pump and Motor Pulley Sizes
	11	42	N/A	N/A	N/A	30.1	34.0	37.7	458	
	10	38	N/A	N/A	N/A	27.5	30.9	34.3	417	
6044	20	76	27.5	34.3	41.2	N/A	N/A	N/A	500	
	18	68	24.7	30.9	36.9	N/A	N/A	N/A	450	
	16	61	22.0	27.5	33.0	N/A	N/A	N/A	400	

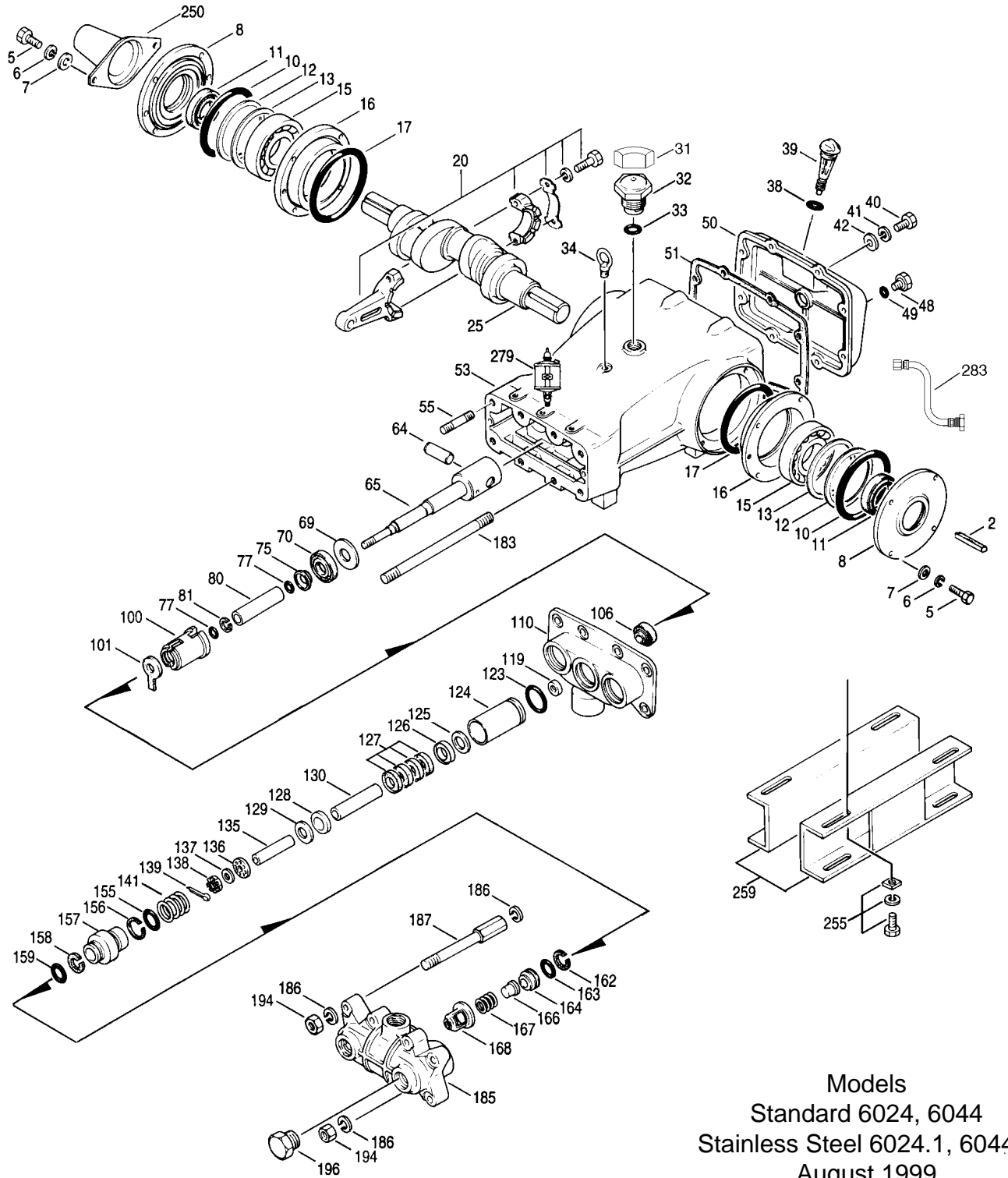
See complete Drive Packages [Incls: Pulleys, Belts, Hubs, Key] Tech Bulletin 03.

"Customer confidence is our greatest asset"

PARTS LIST

ITEM	PART NUMBER		DESCRIPTION	QTY		
	6024	MATL	6044	MATL		
● 2	43048	STL	43048	STL	Key (M14x9x90)	1 ●
4	14177	NBR	14177	NBR	O-Ring, Oil Filler Cap	1
5	80296	STZP	80296	STZP	Screw, Hex Cap (M10x40)	8
6	12503	STZP	12503	STZP	Lockwasher	8
7	12490	STZP	12490	STZP	Washer	8
8	29443	AL	29443	AL	Cover, Bearing	2
10	29444	NBR	29444	NBR	O-Ring, Bearing Cover	2
11	11443	NBR	11443	NBR	Seal, Oil	2
12	43642	S	43642	S	Washer, Shim	2
13	43643	S	43643	S	Washer, Shim	2
15	29441	STL	29441	STL	Bearing	2
16	29442	AL	29442	AL	Cover, Bearing	2
17	29444	NBR	29444	NBR	O-Ring, Bearing Cover	2
20	115983	BBHS	115983	BBHS	Rod, Connecting	3
21	44941	STZP	44941	STZP	Washer, Locking	3
	43641	STZP	43641	STZP	Washer, Shim (M10)	6
25	29440	FCM	29440	FCM	Crankshaft	1
31	828710		828710		Protector, Oil Cap	1
32	43211		43211		Cap, Oil Filler	1
33	14177	NBR	14177	NBR	O-Ring, Filler Cap	1
34	44319	STZP	44319	STZP	Bolt, Eye	1
38	11338	NBR	11338	NBR	O-Ring, Dip Stick	1
39	27769	ABS	27769	ABS	Stick, Dip	1
40	80288	STZP	80288	STZP	Screw, Hex Cap (M10x30)	6
41	12503	STZP	12503	STZP	Lockwasher	6
42	12490	STZP	12490	STZP	Washer (M10)	6
48	25625	STCP	25625	STCP	Plug, Drain (1/4"x11)	1
49	23170	NBR	23170	NBR	O-Ring, Drain Plug	1
50	29438	AL	29438	AL	Cover, Rear	1
51	29439	NBR	29439	NBR	Gasket, Rear Cover	1
● 53	43284	AL	43284	AL	Crankcase	1 ●
55	85449	STZP	85449	STZP	Stud (M16x70)	4
64	29481	S	29481	S	Pin, Rist	3
65	43002	SZZ	43002	SZZ	Rod, Piston	3
69	29453	STZP	29453	STZP	Washer, Oil Seal	3
70	29454	NBR	29454	NBR	Seal, Oil, Crankcase	3
75	29340	S	29340	S	Slinger, Barrier	3
77	11345	NBR	11345	NBR	O-Ring, Sleeve	6
	11375	FPM	11375	FPM	O-Ring, Sleeve	6
80	43129	S	43129	S	Sleeve (M25)	3
	43271	S	43271	S	Sleeve (M25)	3
81	20189	PTFE	20189	PTFE	Back-up-Ring, Sleeve	3
100	29456	PVDF	29456	PVDF	Retainer, Seal	3
101	43136		43136		Wick, Oil (M25)	3
106	43130	NBR	43130	NBR	Seal, LPS, Ungreased (M25)	3
	43132	FPM	43132	FPM	Seal, LPS, Ungreased (M25)	3
● 110	43283	BBCP	43283	BBCP	Manifold, Inlet	1 ●
	29805	SS	29805	SS	Manifold, Inlet	1
119	43010	S	43029	S	Valve, Inlet	3
123	12392	NBR	12392	NBR	O-Ring, Cylinder	3
	13279	FPM	13279	FPM	O-Ring, Cylinder	3
124	43004	BB	43021	BBCP	Cylinder	3
	43118	S	43119	S	Cylinder	3
125	43005	BB	43022	BB	Spacer, Female Adapter	3
	43127	S	43128	S	Spacer, Female Adapter	3
126	43006	PTFE	43023	PTFE	Adapter, Female	3
127	26592	PTFE	43024	PTFE	V-Packing	12
128	26589	PTFE	43025	PTFE	Adapter, Male	3
129	27828	BB	43026	BB	Spacer, Male Adapter	3
	43120	S	43121	S	Spacer, Male Adapter	3
130	43011	SCP	43030	SCP	Piston (Sleeve-Type)	3
	30788	S	30768	S	Piston (Sleeve-Type)	3
135	43012	S	43012	S	Spacer (Sleeve-Type), Piston	3
136	43013	S	43031	S	Retainer, Piston	3
137	88579	S	88579	S	Washer, Conical (M10)	3
138	29505	S	29505	S	Nut, Slotted (M10)	3
139	29354	S	29354	S	Cotterpin	3
141	43007	S	43027	S	Spring, V-Packing	3
155	13429	NBR	25495	NBR	O-Ring, Adapter, Inner	3
	28773	FPM	11748	FPM	O-Ring, Adapter, Inner	3
156	43008	PTFE	28242	PTFE	Back-up-Ring, Adapter, Inner	3
157	43009	S	43028	S	Adapter	3
158	43008	PTFE	43008	PTFE	Back-up-Ring, Adapter, Outer	3
159	13429	NBR	13429	NBR	O-Ring, Adapter, Outer	3
	28773	FPM	28773	FPM	O-Ring, Adapter, Outer	3
162	43064	PTFE	43064	PTFE	Back-up-Ring, Seat	3
163	43015	NBR	43015	NBR	O-Ring, Seat	3
	43194	FPM	43194	FPM	O-Ring, Seat	3
164	43014	S	43014	S	Seat	3
166	19393	S	19393	S	Valve	3
167	43016	S	43016	S	Spring	3
168	43117	S	43117	S	Retainer, Spring	3
183	88901	STZP	88901	STZP	Stud (M16x385)	4
● 185	43017	SS	43017	SS	Manifold, Discharge	1 ●
186	12504	STZP	12504	STZP	Washer, Lock (M16)	12
187	43018	STZP	43018	STZP	Bolt, Cylinder (M16)	4
194	88853	STCP	88853	STCP	Nut, Hex	8
196	27807	BBCP	27807	BBCP	Plug (1" NPT)	1
● 250	29445	AL	29445	AL	Protector, Shaft (Incl. w/Pump)	1 ●
● 255	33243		33243		Mount, Direct (Incl. w/Pump)	1 ●
● 259	29477	STZP	29477	STZP	Mounting Rail (Incl. w/Pump)	1 ●

EXPLODED VIEW



Models
Standard 6024, 6044
Stainless Steel 6024.1, 6044.1
August 1999

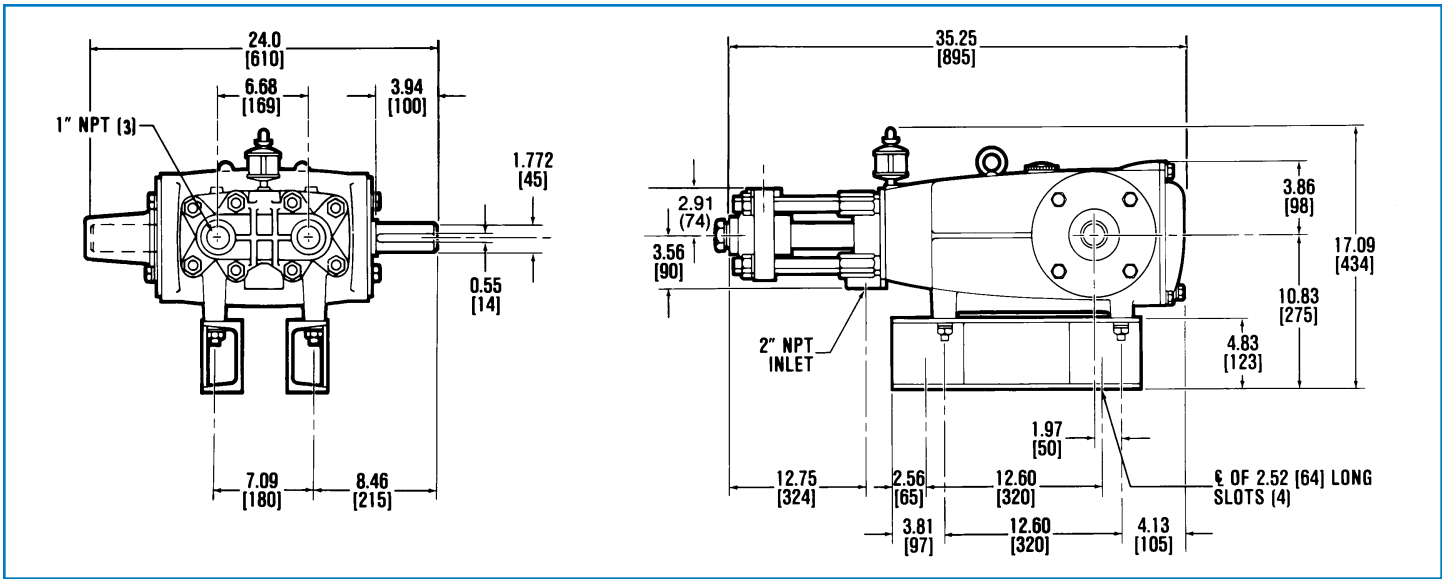
	6024	MATL	6044	MATL		
● 275	—		—		Hub & Key Assy [See Drive Packages, Tech Bulletin 03]	1
● 279	30429	<i>STZP</i>	30429	<i>STZP</i>	Oilers (10 oz.)	3 ●
280	30969		30969		Oilers, Glass (10 oz.)	3
281	10070		10070		Gasket, Oiler (10 oz.)	3
● 283	34334		34334		Kit, Oil Drain	1 ●
302	—		—		Kit, V-Packing (Select: 126, 127, 128, 139, 155, 156, 159)	1
306	30484	<i>NBR</i>	30484	<i>NBR</i>	Kit, Seal (Incls: 85, 106, 139)	1
310	—		—		Kit, Valve (Select: 155, 159, 162, 163, 164, 166, 167, 168)	1
390	—		—		C.A.T. (See individual Date Sheet for selection)	1
391	—		—		Adapters (2 per C.A.T. required) (See individual Date Sheet for selection)	2

● Industrial discount. **Bold print part numbers are unique to a particular pump model.** *Italics are optional items.*

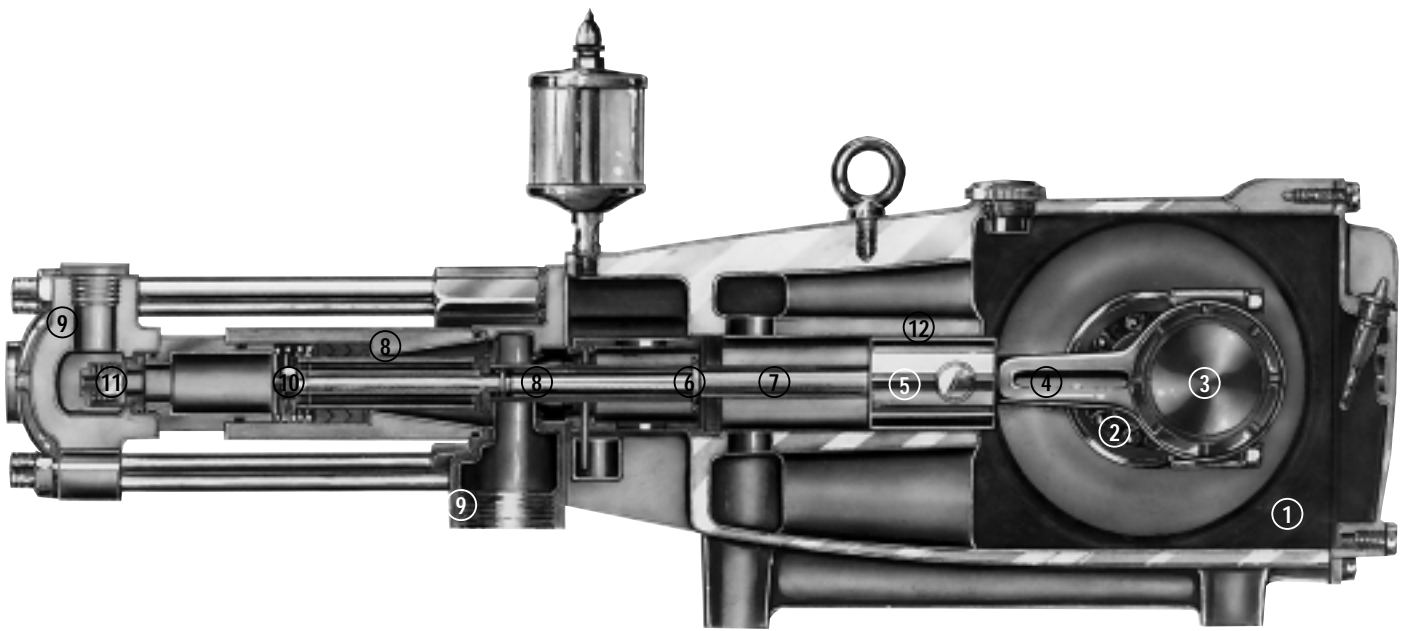
C. A. T. highly recommended for pressurized inlet, R.O. and Industrial applications.

See Tech Bulletins 02, 03, 12, 24, 34, 36, 64, 74 and 77 for additional information.

MATERIAL CODES (Not Part of Part Number): ABS=ABS Plastic AL=Aluminum BB=Brass BBCCP=Brass/Chrome Plated BBHS=Brass High Strength FCM=Forged Chrome-moly
FPM=Fluorocarbon (Viton®) NBR=Medium Nitrile (Buna-N) PTFE=Polytetrafluoroethylene (Teflon®) PVDF=Fluoroplastic (High Strength) S=304SS
SCP=304SS/Chrome Plated SS=316SS STCP=Steel/Chrome Plated STL=Steel STZP=Steel/Zinc Plated SZZ=304SS/Zamack



Models 6024, 6044



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|--|---|---|
| <p>1 Die cast 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 high strength connecting rods are noted for superior strength and 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 stainless steel sleeves provides a durable wear surface and easy wet-end servicing.</p> <p>8 The cylinder and sleeve wear surfaces are hard chrome-plated 304 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 seal design adds to service life by allowing pumped fluids to cool and lubricate the elastomers on both sides.</p> <p>11 304 stainless steel valves, seats, and springs provide corrosion-resistance, positive seating and long life.</p> <p>12 Crossheads are 360° supported for uncompromising alignment.</p> |
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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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