



MATERIALS OF CONSTRUCTION

Models: XL2B, XL3B, XL4B

Page Number	107-093
Effective	Nov 2006
Replaces	Jan 2002
Section	107

**NOTE:** Temperature and viscosity ratings given below apply to individual components **Only**. For actual maximum temperatures and viscosities for the rated pump, see "**Operating Limits**" on backside.

PART NAME	STANDARD MATERIALS	AVAILABLE OPTIONS
Casing, Heads, Relief Valve Cover	Ductile Iron: ASTM 536, 18%	
Discs, Liner	Cast Iron: ASTM A48	
Bearing Covers	Steel	
Bearings	Single Row Ball Bearing; Grease Lubricated, to 300°F (149°C) Max.	
Locknuts and Lockwasher	Steel	
<b>Rotor &amp; Shaft</b>		
Rotor	Ductile Iron: ASTM 536, 18%	
Shaft	High Strength Steel	
Relief Valve (R/V)	XL2B, XL3B XL4B	Cast Iron: ASTM A48 Plated Cast Iron: ASTM A48
		Nickel Plated Cast Iron <b>NOTE:</b> XL3 Nickel Plated Relief Valve is NOT suitable for 111-150 psi spring range.
Relief Valve Cap	Ductile Iron: ASTM 536, 18%	
Relief Valve Spring	Plated Steel	
R/V Spring Ranges	51 - 75 psi (3.5 - 5.2 bar)	Optional springs range from 35 - 150 psi (2.4 - 10.3 bar) - See Parts List.
O-Rings: Other than Mechanical Seal	Fluorocarbon (FKM) to 400°F (204°C)	PTFE to 500°F (260°C)
Gaskets	Fiber to 300°F (149°C)	
<b>Vanes</b>	<b>Duravane</b> - Full Size with 316 Stainless Steel Wear Plate to 240°F (115°C); 20,000 SSU (4,250 cP) Maximum.	<b>EC Bronze</b> - Extra-Clearance to 500°F (260°C); 500 SSU (105 cP) Minimum. <b>EC Cast Iron</b> - Extra-Clearance to 500°F (260°C); 500 SSU (105 cP) Min. <b>EC Laminate</b> - Extra-Clearance to 350°F (176°C); 40,000 SSU (8,500 cP) Max. <b>Laminate</b> - Full size to 240°F (115°C); 20,000 SSU (4,250 cP) Maximum
Push Rods	Case Hardened Steel	
<b>Mechanical Seals</b>		
Stationary O-Ring	FKM to 400°F (204°C)	PTFE to 500°F (260°C)
Stationary Seat	Hardened Steel	
Rotating O-Ring / Seal Ring	FKM to 400°F (204°C)	PTFE to 500°F (260°C)
Rotating Seal Face	Carbon - 20,000 SSU (4,250 cP) Max.	Bronze - 500 SSU (105 cP) Min. to 75,000 SSU (15,750 cP) Max.
Seal Jacket	Plated Steel	
Seal Spring	Plated Steel	
Gage Ports	1/4" NPT	

Centipoise (cP) = centistokes (cSt) at fluid specific gravity of 1.0.

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### PIPE COMPANION FLANGES

PUMP SIZE	STANDARD	OPTIONAL
XL2B	2" Ductile Iron, NPT Tapped: ASTM 536, 18%	2" Steel Weld: ASTM A216, 22% ANSI: 2", 150 lb. RF DIN: 50, PN10
XL3B	3" Ductile Iron, NPT Tapped: ASTM 536, 18%	3" Steel Weld: ASTM A216, 22% ANSI: 3", 150 lb. RF DIN: 80, PN10
XL4B	4" Steel Weld: ASTM A216, 22%	3" Ductile Iron, NPT Tapped, ASTM 536, 18%

### OPERATING LIMITS

	STANDARD MATERIALS	OPTIONAL MATERIALS
Maximum Temperature	240°F (115°C)	300°F (149°C) With FKM or PTFE O-Rings and Metal or EC Laminate Vanes <b>NOTE: Temperature is limited by ball bearings</b>
Maximum Viscosity	20,000 SSU (4,250 cP)	With Metal Vanes & Bronze Seal Faces: XL2B & XL3B: 75,000 SSU (15,750 cP) XL4B: 60,000 SSU (12,600 cP)
Maximum Differential Pressure*	150 psi (10.3 Bar)	
Maximum Working Pressure	350 psi (24.1 Bar)	

Centipoise (cP) = centistokes (cSt) at fluid specific gravity of 1.0.

\* Maximum Relief Valve Setting

