



**MATERIALS of CONSTRUCTION**  
*Models: CRLR1.25, CRL 1.25, CRL 1.5,*  
*CRL2, CRL3, & CRL4B*

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PART NAME		STANDARD MATERIALS		AVAILABLE OPTIONS
Casing, Heads, Relief Valve Cover		Ductile Iron: ASTM A536		
Liner, Discs		Cast Iron: ASTM A48		
Bearing Covers	1.25", 1.5"	Cast Iron: ASTM A48		
	2", 3", 4"	Steel		
Bearing	1.25", 1.5", 3, 4"	Ball (Single Row), Grease Lubricated		
	2"	Ball (Single Row), Grease Lubricated		
Bearings		Ball (Single Row), Grease Lubricated		
Bearing Locknut and Lockwasher		Steel		
<b>Rotor &amp; Shaft</b>	1.25", 1.5"	Single End Keyed Shaft, 4 Vane Rotor		
	2", 3", 4"	Double End Keyed Shaft, 6 Vane Rotor		
Rotor		Ductile Iron: ASTM A536		
Shaft		High Strength Steel		
Relief Valve	1.25", 1.5", 2", 3"	Cast Iron: ASTM A48		
	4"	Plated Cast Iron: ASTM A48		
Relief Valve Cap	1.25", 1.5"	Steel		
	2", 3"	N/A		
	4"	Ductile Iron: ASTM A536		
Relief Valve Spring		Plated Steel		
Relief Valve Spring Setting	1.25", 1.5"	125 psi (8.62 bar) Differential Pressure Adjustable 81-125 psi (5.58 - 8.62 bar)		
	2", 3"	150 psi (10.34 bar) Differential Pressure Non-Adjustable		
	4"	150 psi (8.62 bar) Differential Pressure Adjustable 125-150 psi (8.62 -10.34 bar)		
O-Rings: Other than Mechanical Seal		Buna-N		
Gaskets: Bearing Cover		Fiber		
Vaness		Laminate – Full Size with Stainless Steel Wear Plate		
Push Rods	1.25", 1.5", 2", 3"	Case Hardened Steel		
	4"	Non-metallic Composite		
<b>Mechanical Seals</b>				
Stationary O-Ring		EPDM		
Stationary Seat		Carbon		
Rotating O-Ring		EPDM		
Rotating Seal Face		Silicon Carbide		
Seal Jacket		Plated Steel		
Seal Spring		Stainless Steel		
<b>Gage Ports</b>		<b>Inlet</b>	<b>Discharge</b>	
	1.25", 1.5"	¼ " NPT Tapped	¾ " NPT Tapped	
	2", 3", 4"	¼ " NPT Tapped	¼ " NPT Tapped	

## MATERIALS OF CONSTRUCTION

Models: CRLR1.25, CRL1.25, CRL1.5, CRL2, CRL3, & CRL4B

### FLANGES OR PIPE CONNECTIONS

PUMP SIZE	STANDARD	OPTIONAL
CRLR1.25, CRL1.25	1¼ " NPT Tapped	Not Available
CRL1.5	1½ " NPT Tapped	Not Available
CRL2	Two 2" NPT Flanges, Ductile Iron: ASTM A536	Two 2" Weld Flanges, Steel: ASTM A216, WCB
CRL3	Two 3" NPT Flanges, Ductile Iron: ASTM A536	Two 3" Weld Flanges, Steel: ASTM A216, WCB
CRL4B	One 4" Weld Flange (inlet), Steel: SAEJ435C-0030  & One 3" Weld Flange (discharge), Steel: ASTM A216, WCB	Two 3" NPT Flanges, Ductile Iron: ASTM A536  Two 3" Weld Flanges, Steel: ASTM A216, WCB  Two 4" Weld Flanges, Steel: SAEJ435C-0030

### OPERATING LIMITS

Minimum Temperature	-30°F (-34°C)
Maximum Differential Pressure	100 psi (6.90 Bar)
Maximum Working Pressure	525 psi (36.20 Bar)