



MATERIALS of CONSTRUCTION
 Models: TXV2.5B, TXV3B

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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
Cylinder, Heads, Relief Valve Cover	Cast Iron: ASTM A48	
Bearing Covers	Steel	Bearing Cover/Spacer with Hydraulic Motor Adapter (Cast Aluminum) and Coupling (Steel).
Bearings	Single Ball Bearing; Grease Lubricated	
Bearing Grease	Exxon Polyrex or Mobil - Mobil Poly 372	
Rotor & Shaft		
Rotor	Ductile Iron: ASTM 536	
Shaft	High Strength Steel – Double Ended	
Bearing Locknut and Lockwasher	Steel	
Relief Valve (R/V)	Cast Iron ASTM A48	Nickel Plated Cast Iron ASTM A48
Relief Valve Cap	TXV2.5B Brass: ASTM B16 TXV3B Ductile Iron: ASTM 536	
Relief Valve Spring	Plated Steel	Stainless Steel
R/V Spring Ranges	76 -110 psi (5.24 –7.58 bar)	Optional springs range from 51 -125 psi (3.52 – 8.62 bar) See Parts List.
Head O-Rings	Fluorocarbon (FKM) to 400°F (204°C)	PTFE to 500°F (260°C)
Gaskets	Composition to 500°F (260°C)	
Vanes	EC Bronze - to 500°F (260°C); 500 SSU (105 cP) Minimum.	Duravane - With 316 Stainless Steel Wear Plate to 240°F (115°C); 20,000 SSU (4,250 cP) Maximum. EC Laminate – with SS Wear Plate to 350°F (176°C); 40,000 SSU (8,500 cP) Max. EC Cast Iron - to 500°F (260°C); 500 SSU (105 cP) Minimum.
Push Rods	Case Hardened Steel	
Lip Seals	PTFE Lip Seal with FKM O-ring	PTFE Lip Seal with PTFE O-ring
Housing - Lip Seals	Cast Iron: ASTM A48	
O-rings, Lip Seal Housing	FKM to 400°F (204°C)	PTFE to 500°F (260°C)

Optional Mechanical Seals	IVCV	IVBV	IACT
Stationary O-Ring	FKM to 400°F (204°C)	FKM to 400°F (204°C)	PTFE to 500°F (260°C)
Stationary Seat	Cast Iron	Cast Iron	Cast Iron
Rotating O-Ring / Seal Ring	FKM to 400°F (204°C)	FKM to 400°F (204°C)	PTFE to 500°F (260°C)
Rotating Seal Face	Carbon	Bronze	Carbon
Seal Jacket, Spring	Plated Steel	Plated Steel	Plated Steel

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

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GAGE PORTS

Gage Ports	1/4" NPT	
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PIPE COMPANION FLANGES

PUMP SIZE	STANDARD	OPTIONAL
TXV2.5B	2.5" Cast Iron, NPT Tapped	2.5" Steel, Weld
TXV3B	3" Cast Iron, NPT Tapped	3" Steel, Weld

OPERATING LIMITS

	STANDARD MATERIALS	OPTIONAL MATERIALS
Maximum Fluid Temperature	375°F (190°C)	240°F (115°C) With Duravanes 350°F (176°C) with Laminate Vanes
Maximum Environmental Temperature	200°F (93°C)	
Maximum Fluid Viscosity	50,000 SSU (10,500 cP)	20,000 SSU (4,250 cP) with Duravanes 40,000 SSU (8,500 cP) with Laminate Vanes (For higher viscosities, consult the factory)
Maximum Differential Pressure*	125 psi (8.6 Bar)	
Maximum Working Pressure	175 psi (12.1 Bar)	

* Maximum Relief Valve Setting

