



**MATERIALS of CONSTRUCTION**  
Models: TXV2.5B, TXV3B

Page Number	202-091
Effective	June 2002
Replaces	Nov 2001
Section	202

**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	
<b>Rotor &amp; Shaft</b>		
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)	
<b>Vanes</b>	<b>EC Bronze</b> - to 500°F (260°C); 500 SSU (105 cP) Minimum.	<b>Duravane</b> - With 316 Stainless Steel Wear Plate to 240°F (115°C); 20,000 SSU (4,250 cP) Maximum. <b>EC Laminate</b> – with SS Wear Plate to 350°F (176°C); 40,000 SSU (8,500 cP) Max. <b>EC Cast Iron</b> - 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.

# MATERIALS OF CONSTRUCTION

Models: TXV2.5B, TXV3B

## GAGE PORTS

Gage Ports	1/4" NPT	
------------	----------	--

## 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

