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	1.5, 2, 2.5, 3	Cast Iron: ASTM A48	
	4	Ductile Iron: ASTM A536, 18%	
Bearing Covers	1.5, 2, 2.5, 3	Steel	Bearing Cover/Spacer with Hydraulic Motor Adapter (Cast Aluminum) and Coupling (Steel).
	4	Cast Iron: ASTM A48	----
Bearings		Ball (Single Row), Grease Lubricated, to 300°F (149°C) Max.	
Rotor & Shaft	1.5	Single End Keyed Shaft	
	2, 2.5, 3	Double End Keyed Shaft	
	4	Single End Keyed Shaft	
Rotor	1.5, 2, 2.5, 3	Ductile Iron: ASTM A536	
	4	Cast Iron: ASTM A48	
Shaft		High Strength Steel	
Relief Valve	TX Models	Cast Iron: ASTM A48	
	TXS Models	Nickel Plated Cast Iron: ASTM A48	
Relief Valve Cap	1.5, 2, 2.5	Brass: ASTM B16	
	3, 4	Ductile Iron: ASTM A536, 18%	
Relief Valve Spring		Plated Steel	Stainless Steel (TXS Models ONLY)
Relief Valve Spring Ranges	1.5	76-100 psi (5.24-6.90 bar)	Optional springs range from 35-125 psi (2.41-8.62 bar). See Parts List.
	2, 2.5, 3	76-110 psi (5.24-7.58 bar)	
	4	76-125 psi (5.24-8.62 bar)	
O-Rings (other than seal)	TX Models	Buna-N to 240°F (115°C)	----
	TXS Models	Fluorocarbon (FKM) to 400°F (204°C)	PTFE to 500°F (260°C)
Gaskets		Composition to 500°F (260°C)	
Vanes		**Duravane -** Full Size with 316 Stainless Steel Wear Plate to 240°F (115°C); 20,000 SSU (4,250 cP) Maximum.	**Laminate** – with SS Wear Plate to 350°F (176°C); 40,000 SSU (8,500 cP) Max. **Note:** TX1.5 Laminate vanes to 240°F (115°C); 20,000 SSU (4,250 cP) Max. **Bronze** - to 500°F (260°C); 500 SSU (105 cP) Minimum.
Push Rods		Case Hardened Steel	
Gage Ports		1/4" NPT	

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

MATERIALS OF CONSTRUCTION

Models: TX1.5, TXD2A, TXD2.5A, TXD3E, TX4A

TXSD2A, TXSD2.5A, TXSD3E

PART NAME	**STANDARD MATERIALS**		**AVAILABLE OPTIONS**			
Mechanical Seals	TX Models	TXS Models	TXS Models ONLY			
Seal Codes	**INCN**	**IVCT**	**IVCV**	**INCT**	**IACT**	**WACT**
Stationary Seat	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Stainless Steel
Stationary O-Ring	Buna-N to 240^{0}F (115^{0}C)	FKM to 400^{0}F (204^{0}C)	FKM to 400^{0}F (204^{0}C)	Buna-N to 240^{0}F (115^{0}C)	PTFE to 400^{0}F (204^{0}C)	PTFE to 400^{0}F (204^{0}C)
Rotating Face	Carbon - 20,000 SSU (4,250 cP) Maximum	Carbon - 20,000 SSU (4,250 cP) Maximum	Carbon - 20,000 SSU (4,250 cP) Maximum	Carbon - 20,000 SSU (4,250 cP) Maximum	Carbon - 20,000 SSU (4,250 cP) Maximum	Carbon - 20,000 SSU (4,250 cP) Maximum
Rotating O-Ring/Seal Ring	Buna-N O-Ring to 240^{0}F (115^{0}C)	PTFE Seal Ring to 400^{0}F (204^{0}C)	FKM O-Ring to 400^{0}F (204^{0}C)	PTFE Seal Ring to 400^{0}F (204^{0}C)	PTFE Seal Ring to 400^{0}F (204^{0}C)	PTFE Seal Ring to 400^{0}F (204^{0}C)
Seal Jacket	Plated Steel					
Seal Spring	Plated Steel					

PIPE COMPANION FLANGES

PUMP SIZE	**STANDARD**	**OPTIONAL**
TX1.5	**1.5" NPT** Tapped Cylinder Ports	---
TXD2A, TXSD2A	**Two 2" NPT** Tapped Flanges, Cast Iron: ASTM A48	**2" Weld** Flanges, Steel: ASTM A216 WCB
TXD2.5A, TXSD2.5A	**Two 2½" NPT** Tapped Flanges, Cast Iron: ASTM A48	**2½" Weld** Flanges, Steel: ASTM A216 WCB **2" NPT** Tapped Flanges, Cast Iron: ASTM A48 **2", 2½"** or **3" Victaulic** type grooved flanges, Cast Iron: ASTM A48
TXD3E, TXSD3E	**Two 3" NPT** Tapped Flanges, Cast Iron: ASTM A48	**3" Weld** Flanges, Steel: ASTM A216 WCB **3" Untapped** Flanges, Cast Iron: ASTM A48
TX4A	**Two 4" NPT** Tapped Flanges, Ductile Iron: ASTM A536, 18%	**4" Weld** Flanges, Steel:

OPERATING LIMITS

	STANDARD MATERIALS	**OPTIONAL MATERIALS**
Maximum Temperature	240°F (115°C)	300°F (149°C) With FKM or PTFE O-Rings and Bronze or Laminate Vanes **Note: Temperature is limited by ball bearings**
Maximum Viscosity	20,000 SSU (4,250 cP) (For higher viscosities and temperatures, refer to the TXV Series pump.)	
Maximum Differential Pressure*	125 psi (8.62 Bar)	
Maximum Working Pressure	175 psi (12.07 Bar)	

* Maximum Relief Valve Setting

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

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