



**MATERIALS OF CONSTRUCTION**  
 Models: GX2B, GX2.5B, GX3E, GX4B  
 X2B, X2.5B, X3E, X4B

|             |          |
|-------------|----------|
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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, Relief Valve Cover        | 2", 2.5", 3"   | Cast Iron: ASTM A48   |
|                                     | 4"   | Ductile Iron: ASTM 536, 18%   |
| Heads                               | 2", 2.5", 3"   | Cast Iron: ASTM A48   |
|                                     | GX4B (inboard)   | Cast Iron: ASTM A48   |
|                                     | GX4B (outboard)<br>X4B   | Ductile Iron: ASTM 536, 18%   |
| Bearing Covers                      | 2", 2.5", 3"   | Steel   |
|                                     | 4"   | Cast Iron: ASTM A48   |
| Bearings                            | Single Ball Bearing; Grease Lubricated, to 300°F (149°C) Max.  |   |
| Locknut and Lockwasher              | X2.5, X3 ONLY: Steel   |   |
| <b>Rotor &amp; Shaft</b>            |  |   |
| Rotor                               | 2", 2.5", 3"   | Ductile Iron: ASTM 536, 18%   |
|                                     | 4"   | Cast Iron: ASTM A48   |
| Shaft                               | High Strength Steel  |   |
| Relief Valve (R/V)                  | Cast Iron: ASTM A48  | Nickel Plated Cast Iron   |
| Relief Valve Cap                    | 2", 2.5", 3"   | Brass: ASTM B16   |
|                                     | 4"   | Ductile Iron: ASTM 536, 18%   |
| Relief Valve Spring                 | Plated Steel   |   |
| R/V Spring Ranges                   | 2", 2.5", 3"   | 51-75 psi (3.5 – 5.2 Bar)   |
|                                     | 4"   | 51-110 psi (3.5 – 7.6 Bar)  |
| 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)   |   |
| Vanes                               | <b>Duravane</b> - Full Size with Stainless Steel Wear Plate to 240°F (115°C); 20,000 SSU (4,250 cP) Maximum. | <b>'X' Models only:</b><br><b>EC Bronze</b> - Extra-Clearance to 500°F (260°C); 500 SSU (105 cP) Minimum. |
| 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                     | Cast Iron  | Stainless 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.  | <b>'X' Models only</b><br>Bronze – 500 SSU (105 cP) Minimum<br>75,000 SSU (15,750 cP) Maximum             |
| Seal Jacket & Spring                | Plated Steel   |   |
| Gage Ports                          | 1/4" NPT   |   |

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

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 X2B, X2.5B, X3E, X4B

PIPE COMPANION FLANGES

| PUMP SIZE | STANDARD                              | OPTIONAL         |
|-----------|---------------------------------------|------------------|
| 2"        | 2" Cast Iron, NPT Tapped              | 2" Steel, Weld   |
| 2.5"      | 2.5" Cast Iron, NPT Tapped            | 2.5" Steel, Weld |
| 3"        | 3" Cast Iron, NPT Tapped              | 3" Steel, Weld   |
| 4"        | 4" Ductile Iron: ASTM 536, NPT Tapped | 4" Steel, Weld   |

OPERATING LIMITS

|                                | STANDARD MATERIALS   | OPTIONAL MATERIALS  |
|--------------------------------|--|---|
| Maximum Temperature            | 240°F (115°C)  | 300°F (149°C) With FKM or PTFE O-Rings and metal vanes<br>Note: Temperature is limited by ball bearings |
| Maximum Viscosity              | X2, X2.5, X3<br>20,000 SSU (4,250 cP)  | 75,000 SSU (15,750 cP) with metal vanes and Bronze seal faces.  |
|                                | X4<br>20,000 SSU (4,250 cP)  | 50,000 SSU (10,500 cP) with metal vanes and Bronze seal faces.  |
|                                | GX2, GX2.5, GX3, GX4<br>20,000 SSU (4,250 cP) GX Pumps are limited by the gear reducer. Consult Pump Characteristic Curves and Reducer Horsepower Capabilities |   |
| Maximum Differential Pressure* | 125 psi (8.6 Bar)  |   |
| Maximum Working Pressure       | 175 psi (12.1 Bar)   |   |

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

\* Maximum Relief Valve Setting

