



MATERIALS OF CONSTRUCTION
 Models: GNX(H)2, GNX(H)2.5,
 GNX(H)3, GNX(H)4

Page Number	101-096
Effective	Mar 2019
Replaces	Sept 2018
Section	101

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	GNX 2", 2.5", 3" GNX4 and all GNXH	Cast Iron: ASTM A48 Ductile Iron: ASTM 536
Heads	2", 2.5", 3" GNX(H)4(inboard) GNX(H)4(outboard)	Cast Iron: ASTM A48 Cast Iron: ASTM A48 Ductile Iron: ASTM 536
Bearing Covers	2", 2.5", 3" 4"	Steel Cast Iron: ASTM A48
Bearings		Single Ball Bearing; Grease Lubricated, to 300°F (149°C) Max.
Locknut and Lockwasher		GNX(H)2", 2.5", and 3" Only: Steel
Rotor & Shaft		
Rotor		Ductile Iron: ASTM 536
Shaft	2", 2.5" 3", 4"	High Strength Steel High Strength Stainless Steel
Relief Valve (R/V)		Cast Iron: ASTM A48
Relief Valve Cap	2", 2.5" 3", 4"	Steel Ductile Iron, ASTM 536
Relief Valve Spring		Plated Steel
R/V Spring Ranges	2", 2.5", 3" 4"	51-75 psi (3.5 – 5.2 Bar) 51-110 psi (3.5 - 7.6)
O-Rings: Other than Mechanical Seal		Fluorocarbon (FKM) to 400°F (204°C) PTFE to 500°F (260°C) Buna-N to 240°F (115°C)
Gaskets		Aramid Fiber to 500°F (260°C)
Vanes		Duravane - Full Size with Stainless Steel Wear Plate to 240°F (115°C); 20,000 SSU (4,250 cP) Maximum. EC Laminate - Extra-Clearance with Stainless Steel Wear Plate to 350°F (176°C); 40,000 SSU (8,500 cP) Max. EC Cast Iron - Extra-Clearance to 500°F (260°C); 500 SSU (105 cP) Min.
Push Rods		Case Hardened Steel
Mechanical Seals		IACV
Stationary O-Ring		FKM to 400°F (204°C) PTFE to 500°F (260°C) Buna-N to 240°F (115°C)
Stationary Seat		Cast Iron Cast Iron
Rotating O-Ring / Seal Ring		FKM to 400°F (204°C) PTFE to 500°F (260°C) Buna-N to 240°F (115°C)
Rotating Seal Face		Carbon - 20,000 SSU (4,250 cP) Max. Carbon - 20,000 SSU (4,250 cP) Max.
Seal Jacket & Spring		Plated Steel Plated Steel
Gage Ports		1/4" NPT

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

Models: GNX(H)2, GNX(H)2.5, GNX(H)3, GNX(H)4

Gearbox

Part Name	STD Materials	
	GNX(H)2, GNX(H)2.5	GNX(H)3, GNX(H)4
Body	Aluminum	Iron Casting
Shafts	Steel	Steel
Gears	Steel	Steel
Bearings	Steel	Steel
Couplings	Plastic	Plastic

PIPE COMPANION FLANGES

PUMP SIZE	STANDARD	OPTIONAL
2"	2" Cast Iron, NPT Tapped	2" Steel, Weld: ASTM A216 WCB 2" 150# RF ANSI compatible
2.5"	2.5" Cast Iron, NPT Tapped	2.5" Steel, Weld: ASTM A216 WCB 3" 150# RF ANSI compatible
3"	3" Cast Iron, NPT Tapped	3" Steel, Weld: ASTM A216 WCB 3" 150# RF ANSI compatible
4"	4" Ductile Iron: ASTM 536, NPT Tapped	4" Steel, Weld: ASTM A105 4" 150# RF ANSI compatible

OPERATING LIMITS

	STANDARD MATERIALS	OPTIONAL MATERIALS
Maximum Temperature	Pump: 240°F (115°C) Gearbox Oil: 220°F (104°C)	300°F (149°C) With FKM or PTFE O-Rings and metal vanes Note: Temperature is limited by ball bearings
Minimum Temperature	-25°F (-31°C)	
Maximum Viscosity	20,000 SSU (4,250 cP)	
Maximum Differential Pressure*	2" and 2.5" - 125 psi (8.6 Bar) / 3" and 4" - 100 psi (6.9 Bar)	
Maximum Working Pressure	175 psi (12.1 Bar)	

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

* Maximum Relief Valve Setting

