



**MATERIALS OF CONSTRUCTION**

Models: SNP1.25, SNP1.5,  
SNP2, SNP2.5, SNP3A,  
SNPJ1.25, SNPJ1.5, SNPJ2, SNPJ2.5

Page Number	104-091
Effective	March 2007
Replaces	June 2003
Section	104

**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 Body, Dowel Pins	316 Stainless Steel: ASTM A743, CF-8M	
Heads	316 Stainless Steel: ASTM A743, CF-8M	1.25", 1.5", 2", 2.5" Models Only: Jackets: Nickel Plated Iron
Discs	Carbon	
Bearing Covers	316 Stainless Steel: ASTM A743, CF-8M	
Bearings	Metallized Carbon	
<b>Rotor &amp; Shaft</b>		
Rotor	316 Stainless Steel: ASTM A743, CF-8M	
Shaft	316 Stainless (Coated with Hard Chrome – Cobalt Alloy in Bearing/Packing Areas)	
Optional Relief Valve (R/V)	316 Stainless Steel: ASTM A743, CF-8M	
Capscrews (Non-wetted)	303 Stainless Steel: 18-8	
Relief Valve Spring	316 Stainless Steel	
R/V Spring Ranges	25-150 psi (172-1034 kPa)	See Parts Lists for Specific Spring Ranges
O-Rings / Seal Rings	PTFE to 500°F (260°C)	
Shaft Packing	PTFE to 500°F (260°C)	Commercial Options Available See Page 2
<b>Vanes</b>	<b>Duravane</b> - Full Size with 316 Stainless Steel Wear Plate to 240°F (115°C); 20,000 SSU (4,250 cP) Maximum.	<b>Laminate</b> – Full size to 240°F (115°C); 20,000 SSU (4,250 cP) <b>EC Laminate</b> - Extra-Clearance with Stainless Steel Wear Plate to 350°F (176°C); 40,000 SSU (8,500 cP)
Push Rods	Nitronic "60" <sup>®</sup> Chrome Plated	
Gage Ports	1/4" NPT	

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

<sup>®</sup> Nitronic "60" is a trademark of Armco Steel, Inc.

Models: SNP1.25, SNP1.5, SNP2, SNP2.5, SNP3A  
 SNPJ1.25, SNPJ1.5, SNPJ2, SNPJ2.5

### Blackmer Triple –Lip Seal

PERFORMANCE		MATERIALS	
Pressure	Seal to 150 PSI (10 bar)	Metal Parts	316SS
Vacuum	Full vacuum when element is facing away from vacuum source	Set Screws	Hastelloy C
Temperature	To 300°F (150°C) Over 300°F Consult Factory	O-Rings	AFLAS <sup>®</sup>
Surface Speed	To 700 fpm (3.5 m/s) dry running; Over 700 fpm consult Factory	Seal Elements	PTFE
Runout	.005" T.I.R. (.13 mm)	Sleeve Coating	Chrome oxide standard
Axial end Play	Not Affected		

### Optional Commercial Mechanical Seals

Part Name	John Crane #9 Max. Temperature: 350°F (176°C) Max. Viscosity: 10,000 SSU (2,200 cP)	Durametallic RO Max. Temperature: 350°F (176°C) Max. Viscosity: 20,000 SSU (4,250 cP)
Retainer, Springs, Disc, Snap Ring, Spacer, Setscrew	316 Stainless Steel	316 Stainless Steel
Stationary Seat	Ceramic	Carbon
Rotating Ring	PTFE	PTFE
Rotating Face	Carbon	Stellite
Gasket (Non-Wetted)	PTFE	PTFE

### PIPE COMPANION FLANGES

PUMP SIZE	STANDARD
1.25", 1.5"	1.5" ANSI 150 lb Compatible Flat Face Flanges
2"	2" ANSI 150 lb Compatible Flat Face Flanges
2.5"	2.5" ANSI 150 lb Compatible Flat Face Flanges
3"	3" Weld Pipe Companion Flanges

### OPERATING LIMITS

	STANDARD MATERIALS	OPTIONAL MATERIALS
Maximum Temperature	240°F (115°C)	350°F (177°C) with EC Laminate Vanes
Maximum Viscosity	20,000 SSU (4,250 cP)	30,000 SSU (6,300 cP) with EC Laminate Vanes Consult Factory for Greater Viscosities.
Maximum Differential Pressure*	150 psi (10.3 Bar)	
Maximum Working Pressure	175 psi (12.1 Bar)	200 psi (13.8 Bar) with Optional Mechanical Seal
Maximum Inlet Pressure	25 psi (1.7 Bar)	
Maximum Jacket Pressure	150 psi (10.3 Bar)	

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

<sup>®</sup> Nitronic "60" is a trademark of Armco Steel, Inc.      <sup>®</sup> AFLAS is a registered trademark of Asahi Glass Co., Ltd

\* Maximum Relief Valve Setting

