



MATERIALS of CONSTRUCTION
Models: SGLD2, SGLD3, SGLD4B,
SGLWD3, SGLWD4

Page Number	801-093
Effective	June 2024
Replaces	April 2020
Section	801

PART NAME	STANDARD MATERIALS		AVAILABLE OPTIONS
Casing, Heads, Relief Valve Cover, Relief Valve Cap	Ductile Iron: ASTM A536		
Discs, Liner	Cast Iron: ASTM A48		Hardened Ductile Iron ³
Bearing Covers	Steel		
Bearings	Ball (Single Row); Grease Lubricated		
Bearing Locknut and Lockwasher	Steel		
Rotor & Shaft	Double End Keyed Shaft, 6 Vane Rotor		
Rotor	Ductile Iron: ASTM A536		
Shaft	High Strength Steel		
Relief Valve SGLD2, SGL(W)D3	Cast Iron: ASTM A48		
SGL(W)D4B	Plated Cast Iron: ASTM A48		
Relief Valve Spring	Plated Steel		
Relief Valve Spring Range	Range 51–75 psi (3.52–5.17 bar) differential pressure ¹		Up to 150 psi (10.34 bar); see parts pages
O-Rings: Other than Mechanical Seal	HNBR		FKM, Neoprene, PTFE
Gaskets, Bearing Cover	Fiber		
Vanes	Duravane - Full Size with Stainless Steel Wear Plate		EC Laminate – 350 °F (176 °C), 40,000 SSU (8,500 Cp) Max ³
Push Rods SGLD2, SGLD3	Case Hardened Steel		
SGLD4B	Non-metallic Composite		
Mechanical Seals	Single Seal	Dual Seal (52 & 53) ²	Single Seal (ONLY)
Stationary O-Ring	HNBR	FKM	FKM, Neoprene, PTFE
Stationary Seat	Hardened Steel	Carbon	Silicon Carbide
Rotating O-Ring	HNBR	FKM	FKM, Neoprene, PTFE, FFKM
Rotating Seal Face	Carbon	Hardened Steel	
Seal Jacket	Plated Steel		
Seal Spring	Stainless Steel	Stainless Steel	
Gage Ports	1/4" NPT		
Seal Pot Assembly			
Tank material	Steel		
Ports to Seal	1/2" NPT		
Barrier Fluid Type	Phillips 66 Syncon 5 cst weight		
Tank Capacity	3 Gal std. 5 Gal optional		
Ports to Cooling Feed	1/2" NPT		
Cooling water Requirement	Per application. Consult factory.		
Electrical Requirement	24 VDC std. 120 VAC optional		

¹ Relief Valve Springs are factory set at the range midpoint unless otherwise specified.

² Dual Seals are available with the SGLD3, SGLD4, SGLWD3, and SGLWD4 pump models

³ Only Available with the SGLWD3 and SGLWD4

MATERIALS OF CONSTRUCTION

Models: SGLD2, SGLD3, SGLD4B, SGLWD3, SGLWD4

PIPE COMPANION FLANGES

PUMP SIZE	STANDARD	OPTIONAL
SGLD2	Two 2" NPT Flanges, Ductile Iron::ASTM A536	Two 2" Weld Flanges, Steel: ASTM A216 WC Two 2" 300# ANSI RF Flanges, Ductile Iron ASTM A536
SGL(W)D3	Two 3" NPT Flanges, Ductile Iron::ASTM A536	Two 3" Weld Flanges, Steel: ASTM A216 WCB Two 3" 300# ANSI RF Flanges, Steel: ASTM A216 WCB/ASTM A105
SGL(W)D4B	4" x 3" Weld Flanges Steel: ASTM A216 WCB	4" x 4" Weld Flanges Steel: ASTM A216 WCB 4" x 4" 300# ANSI RF Flanges Steel: ASTM A216 WCB/ASTM A105

OPERATING LIMITS

Minimum Temperature	Single Seal: -30°F (-34°C) / Dual Seal: -15°F (-26°C)
Maximum Differential Pressure	SGLD2, SGL(W)D3: 150 psi (10.34 bar) SGL(W)D4B: 125 psi (8.62 bar)
Maximum Working Pressure	Single Seal - 525 psi (36.20 bar) / Dual Seal – 350 psi (24.13 bar)

