



MATERIALS OF CONSTRUCTION

RS1, RS1.5, RS3, RS4

MAIN PARTS 1''- 1.5''- 3'' – 4''		
PART NAME	STANDARD MATERIALS	OPTIONAL MATERIALS
Pump body, Heads By-pass valve cover Two-way outlet cover (not for 3'')	Cast iron GG25	
Bearing covers	Aluminum	
Front rotating Shaft bearing ¹	Deep groove ball bearing, grease lubricated, to 150°C (302°F)	Deep groove ball bearing, grease lubricated, to 150°C (302°F) to each side of the shafts
Back rotating shaft and secondary shaft bearing	Carbon bearing, to 250°C (482°F)	Brass bearing, to 150°C (302°F)
Gears	Cast iron GG25	Case Hardening Steel 17NiCrMo6-4 thermal treated
Shafts	Keyed shaft steel 42CrMo4	Keyed shaft steel 42CrMo4 thermal treated

¹For 1inch Gear pump bearing is standard GG25. For optional it is Carbon.

BY-PASS VALVE 1.5''- 3'' – 4''		
PART NAME	STANDARD MATERIALS	OPTIONAL MATERIALS
Valve	Brass	Cast iron GG25 Stainless steel SS316
Spring	Steel C80 DIN 17223	Steel C80 DIN 17223 plated Stainless steel SS316

SEALING 1''- 1.5''- 3'' – 4''		
PART NAME	STANDARD MATERIALS	OPTIONAL MATERIALS
Mechanical seal	Type 502 Stationary Ring: silicon carbide Rotary Ring: silicon carbide Secondary seal: FKM (Viton) to 200°C (392°F) Spring & metal parts: SS304	Type 59U Stationary Ring: silicon carbide Rotary Ring: carbon Secondary seal: PTFE (Teflon) to 250°C (482°F). Spring & metal parts: SS316
O-ring	FKM (Viton) to 200°C (392°F)	NBR NITRILE to 120°C (248°F) FEP (Teflon) to 205°C (400°F) encapsulated FKM (Viton)

PIPING CONNECTION 1.5''- 3'' – 4''

PART NAME	STANDARD MATERIALS	OPTIONAL MATERIALS
Flange	Two weld flanges St37	Two NPT flanges St37 Two BSPP DIN2986 couplings ANSI adaptors