



# MATERIALS OF CONSTRUCTION

## XT1, XT1.5, XT3, XT4

MAIN PARTS 1''- 1.5''- 3'' – 4''		
PART NAME	STANDARD MATERIALS	OPTIONAL MATERIALS
Pump body, Heads By-pass valve cover	Cast iron GG25	Ductile iron GGG50
Bearing covers	Aluminum	
Front main Shaft	Deep groove ball bearing, grease lubricated, to 150 <sup>0</sup> C (302 <sup>0</sup> F)	
Bearing <sup>1</sup>		
Back main shaft and secondary shaft	Carbon bearing, to 250 <sup>0</sup> C (482 <sup>0</sup> F)	
Gears	Cast iron GG25	Ductile iron GGG50 Case Hardening Steel 17NiCrMo6-4 thermal treated
Shaft	Keyed shaft steel 42CrMo4	Keyed shaft steel 42CrMo4 thermal treated

<sup>1</sup>For 1inch Gear pump bearing is standard GG25. For optional it is GGG50 or Carbon.

<b>BY-PASS VALVE 1.5'' - 3'' - 4''</b>		
<b>PART NAME</b>	<b>STANDARD MATERIALS</b>	<b>OPTIONAL MATERIALS</b>
Valve	Brass	Cast iron GG25 Ductile iron GGG50 Stainless steel SS316
Spring	Steel C80 DIN 17223	Steel C80 DIN 17223 plated Stainless steel SS302 Stainless steel SS316

<b>SEALING 1'' - 1.5'' - 3'' - 4''</b>		
<b>PART NAME</b>	<b>STANDARD MATERIALS</b>	<b>OPTIONAL MATERIALS</b>
Shaft Packing	100% PTFE (Teflon) fibre Nipper to 250 <sup>0</sup> C (482 <sup>0</sup> F), 25bar (362psi)	Carbon fibre and Silicone Free, run-in Lubricant to 300 <sup>0</sup> C (572 <sup>0</sup> F), 25bar (362psi)
O-ring	NBR NITRILE to 120 <sup>0</sup> C (248 <sup>0</sup> F)	FKM (Viton) to 200 <sup>0</sup> C (392 <sup>0</sup> F) FEP (Teflon) to 205 <sup>0</sup> C (400 <sup>0</sup> F) encapsulated FKM (Viton)

**PIPING CONNECTION 1''- 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