



# 1½" GR Internal Eccentric Gear Pump



**Performance:**

Flow rate	5.7 m³/h
Pressure	1 - 14 bar
Temperature	0 - 200 °C
Speed	1400 d/d
Viscosity	100 - 250000 SSU

**Technical Features:**

- ✓ Internal eccentric gear pump
- ✓ 1½" threaded ports
- ✓ Compact design
- ✓ Reliable construction thanks to only two moving parts
- ✓ Various material options
- ✓ Available with external bypass, jacketed and blind cover
- ✓ 230v, three phase 50/60hz motors available
- ✓ Motor and gearbox drive available
- ✓ Manufactured according to CE regulations

**Applications:**

- ✓ Fuel oil, diesel fuel and gas oil transfer
- ✓ Small scale thermal oil applications including Marlotherm, Duratherm, Paratherm, Multitherm, Mobiltherm and Dowtherm
- ✓ Lubrication applications
- ✓ Coolant transfer
- ✓ Any transfer of low to medium viscosity fluids with lubricating properties
- ✓ Not suitable for fluids containing abrasive particles

**Material Options:**

- ✓ Pump body, covers: Pig cast iron, Spheroidal cast iron, cast steel, AISI 304/316 CrNi Stainless Steel
- ✓ Gears: Spheroidal cast iron, cast steel, AISI 304/316 CrNi Stainless Steel
- ✓ Bearings: Snbz 12 bronze, carbon graphite, silicon carbide, hard metal coated steel, bearing
- ✓ Sealing: Soft seal or packing gland, Rotatherm seal, lip seal, mechanical seal, cartridge type mechanical seal

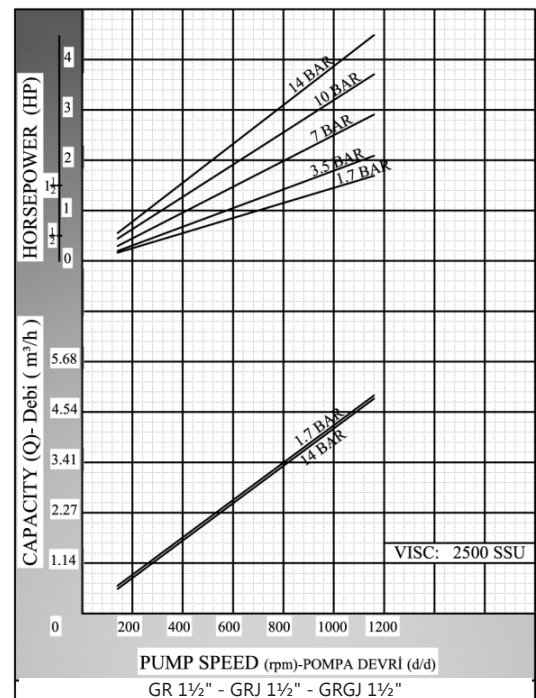
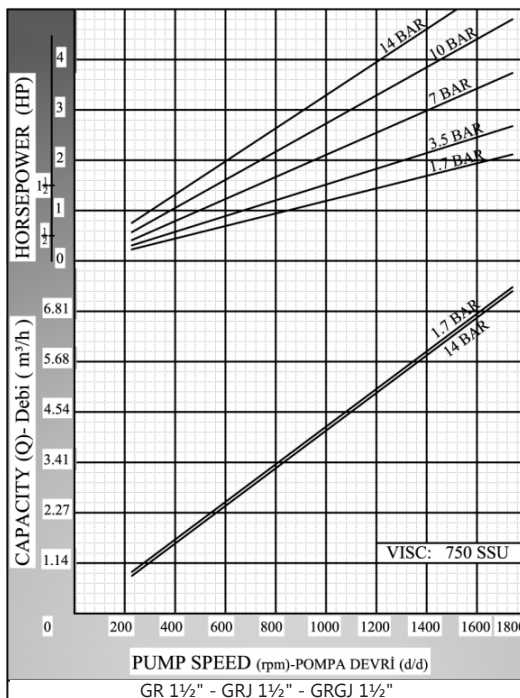
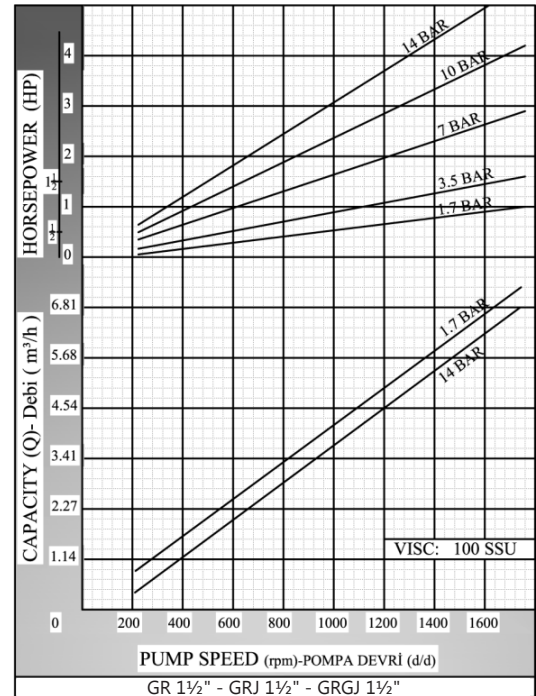
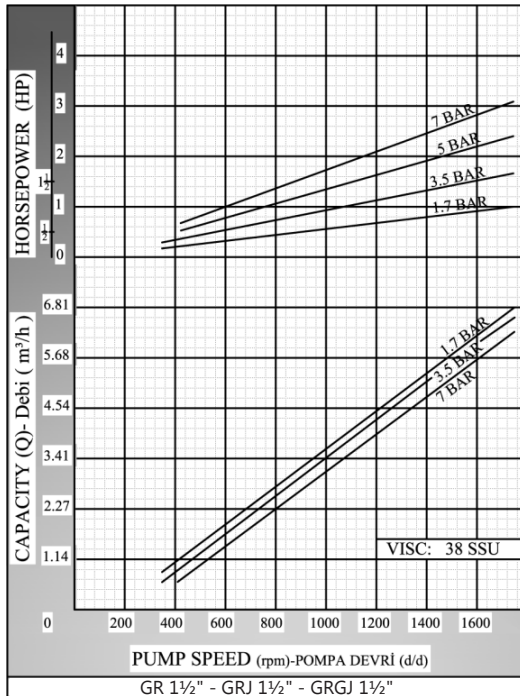
Capacity & Power Table						
Capacity (Q)	Speed (rpm)	Pressure				Viscosity
		3 Bar	6 Bar	9 Bar	12 Bar	
0.200	60	0.5 HP	0.5 HP	0.75 HP	0.75 HP	75000 SSU
0.250	80	0.5 HP	0.75 HP	1 HP	1 HP	25000 SSU
0.300	100	0.75 HP	1 HP	1 HP	1 HP	25000 SSU
3.7	900	1.5 HP	2 HP	3 HP	4 HP	750 SSU
5.7	1400	2 HP	3 HP	4 HP	5.5 HP	100 SSU

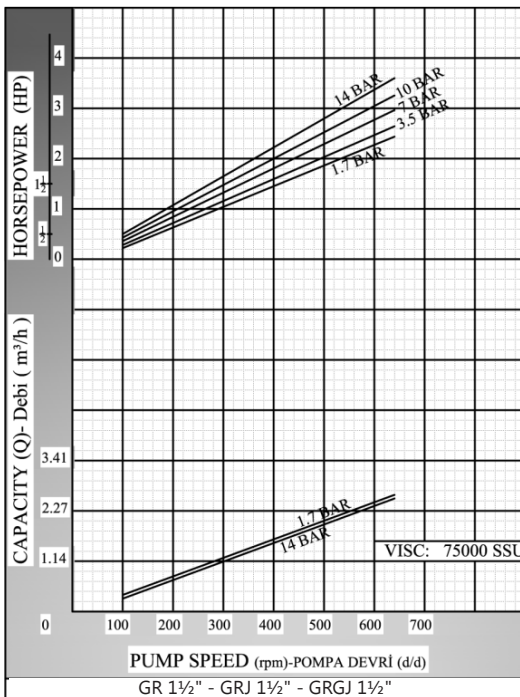
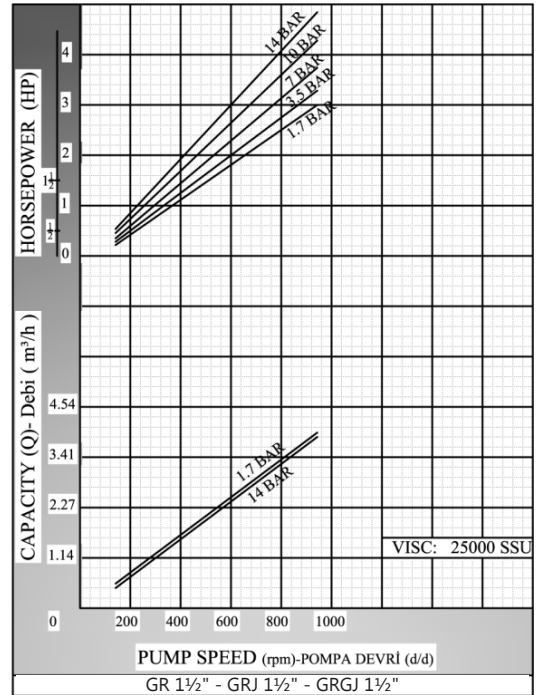
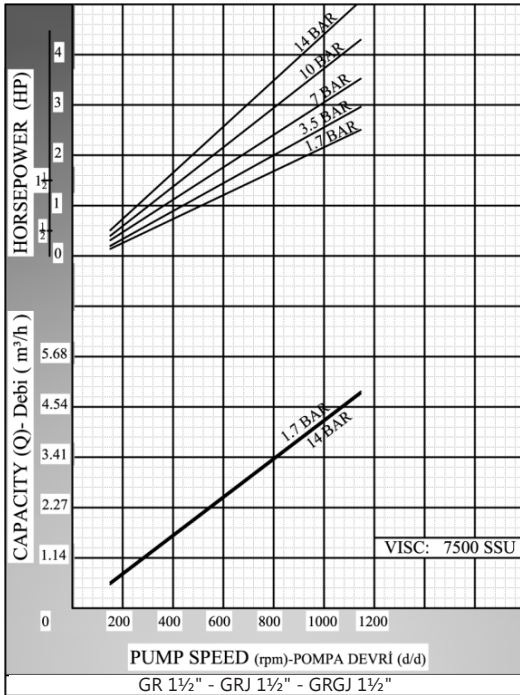
  

Motor Powers		Motor Powers		Motor Powers	
1 HP	900 d/d (rpm)	1.5 HP	750 d/d (rpm)	2 HP	750 d/d (rpm)
1.5 HP	900 d/d (rpm)	2 HP	900 d/d (rpm)	3 HP	900 d/d (rpm)
1.5 HP	1400 d/d (rpm)	3 HP	1400 d/d (rpm)	5.5 HP	1400 d/d (rpm)
2 HP	1400 d/d (rpm)	4 HP	1400 d/d (rpm)	Motor Body	
Motor Body		Motor Body		112	
90		100			



## Pump Dimensions - Capacity Graphs:

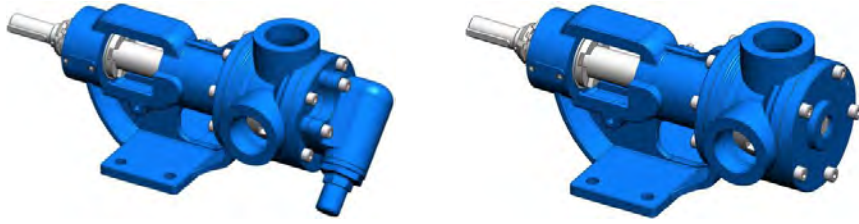




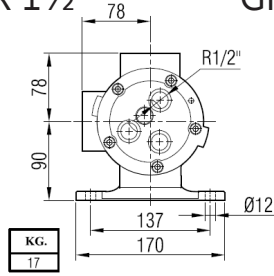




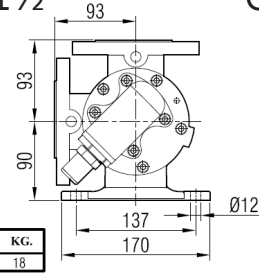
## Pump Dimensions:



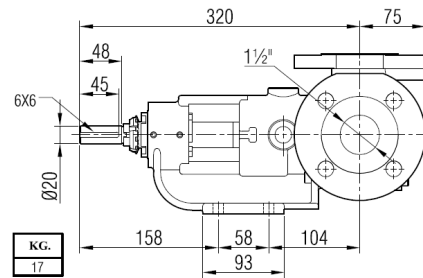
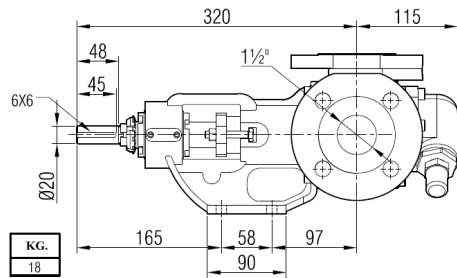
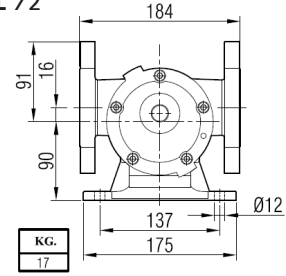
GR 1 1/2"



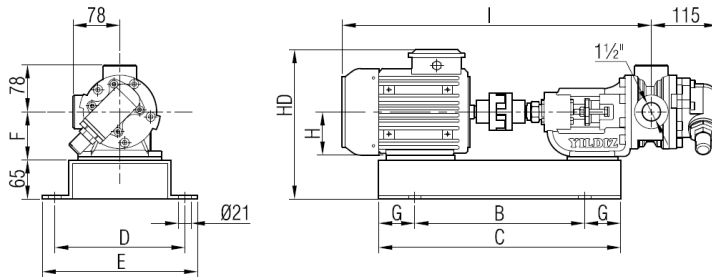
GRJ 1 1/2"



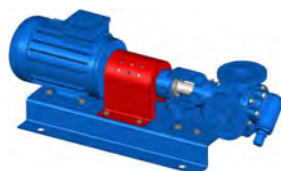
GRGJ 1 1/2"



## Coupling Dimensions - Motor drive:

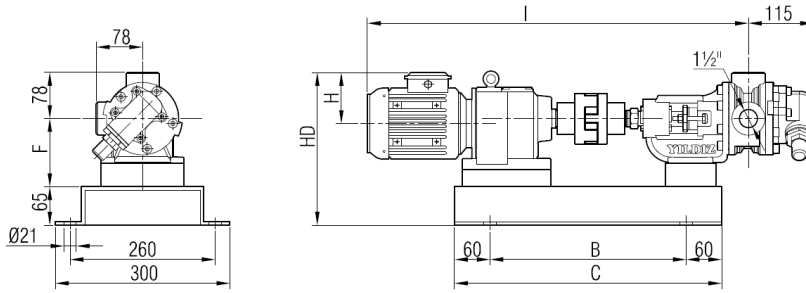


Motor Power & Speed			I	HD	H	B	C	D	E	F	G	Kg
1 hp / 0.75 kw	900 d/d (rpm)	MOTOR 90S	648	281	90	380	500			90		37
1.5 hp / 1.1 kw	1400 d/d (rpm)											37
1.5 hp / 1.1 kw	900 d/d (rpm)	MOTOR 90L	700					260	300		60	39
2 hp / 1.5 kw	1400 d/d (rpm)											39
1.5 hp / 1.1 kw	750 d/d (rpm)	MOTOR 100L	746	300	100	430	550			100		47
2 hp / 1.5 kw	900 d/d (rpm)											47
3-4 hp / 2.2-3 kw	1400 d/d (rpm)	MOTOR 112M	761	323	112	420	620	310	350	112	100	46
2 hp / 1.5 kw	750 d/d (rpm)											50
3 hp / 2.2 kw	900 d/d (rpm)											64
5.5 hp / 4 kw	1400 d/d (rpm)											64
												65

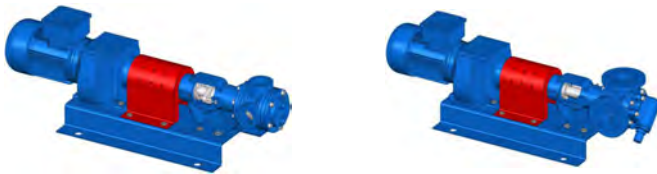




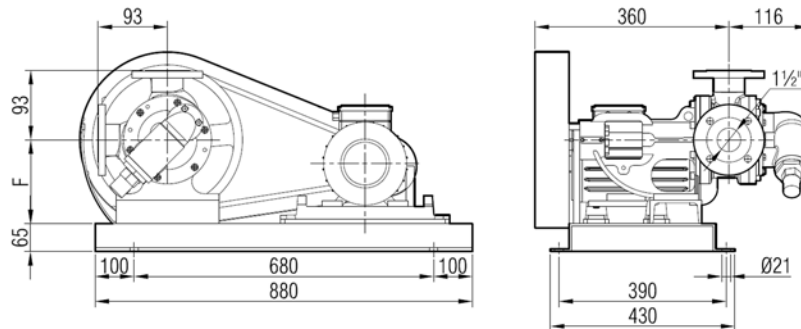
## Dimensions - Gearbox drive:



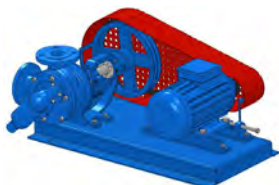
Motor Power & Speed			I	HD	H	B	C	F	Kg
1 hp / 0.75 kw	90/400 d/d (rpm)	IRAM42/80M	761	269	118	350	470		42
1.5 hp / 1.1 kw	200/400 d/d (rpm)	IRAM42/90S	780	283	132				46
1 hp / 0.75 kw	40/240 d/d (rpm)	IRAM53/80M	788	267	118	380	500	90	51
1.5 hp / 1.1 kw	60/382 d/d (rpm)	IRAM53/90S	806	282	132				54
2 hp / 1.5 kw	87/540 d/d (rpm)	IRAM52/90L	831						55
3-4 hp / 2.2-3 kw	300/540 d/d (rpm)	IRAM52/100L	860	291	141				59   62
5.5 hp / 4 kw	87/540 d/d (rpm)	IRAM62/112M	953	318	149	430	550	115	80



## Belt Pulley Coupling Pump Dimensions:

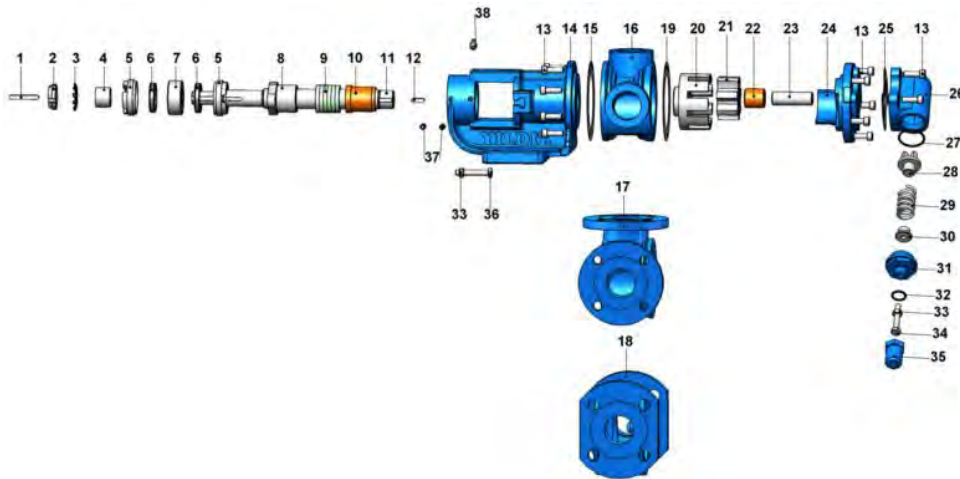


Motor Power & Speed		Pump Speeds				F <sub>(1)</sub>	F <sub>(2)</sub>	F <sub>(3)</sub>	F <sub>(4)</sub>	Kg
		N1 d/d	N2 d/d	N3 d/d	N4 d/d					
3 hp / 2.2 kw	MOTOR 100L	450	400	350	310	150	190	200	200	90
4 hp / 3 kw	MOTOR 100L									95
5.5 hp / 4 kw	MOTOR 112M									105
7.5 hp / 5.5 kw	MOTOR 132S									115
10 hp / 7.5 kw	MOTOR 132M									125



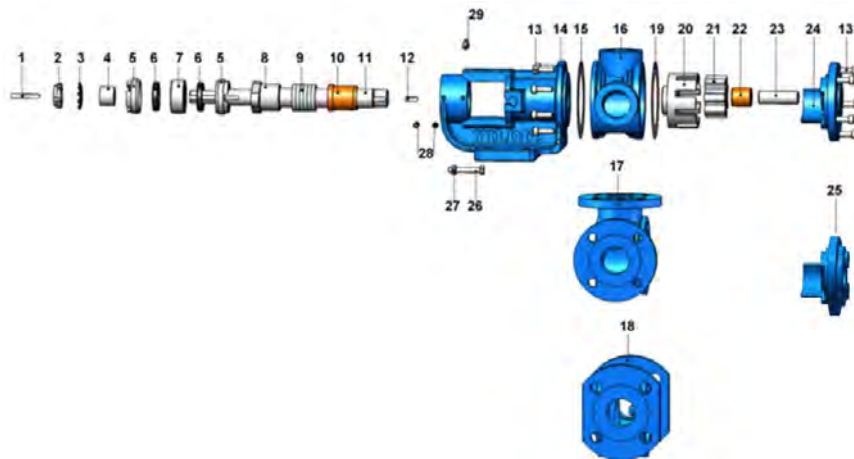


## Spare Parts List - Sealed with soft seal, and pressure relief valve on cover:



No.	Part Name.	Qty.	No.	Part Name.	Qty.	No.	Part Name.	Qty.
1	Coupling Key 6x6x45 AB	1	14	Bracket	1	27	Bypass O-Ring	1
2	Lock Nut	1	15	Bracket Gasket	1	28	Valve	1
3	Lock Washer	1	16	Casing (w/ 90° Threaded Points)	1	29	Spring	1
4	Spacer	1	17	Casing (w/ 90° Flanged Points)	1	30	Washer	1
5	Adjusting Nut	2	18	Casing (w/ 180° Flanged Points)	1	31	Bypass Cover	1
6			19	Cover Gasket	1	32	Cap O-Ring	1
7	Ball Bearing (3205-2RS)	1	20	Rotor Gear	1	33	Nut M8	3
8	Packing Press	1	21	Idler Gear	1	34	Adjusting Screw M8x55	1
9	Soft Seal / Packing Gland	1 TK	22	Idler Bushing	1	35	Cap	1
10	Bracket Bushing	1	23	Cover Pin	1	36	Hex Bolt M8x50	2
11	Shaft	1	24	Cover (w/ Bypass Inlets)	1	37	Grub Screw M8x16	4
12	Rotor Gear 6x6x20 A	1	25	Bypass Gasket	1			
13	Inbus Bolt M8x25	17	26	Pressure Relief Valve - Bypass	1			

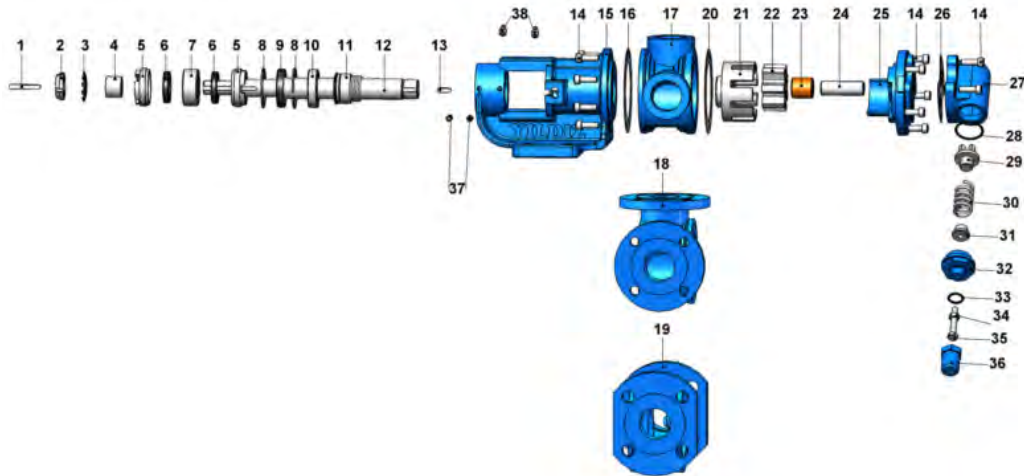
## Spare Parts List - Sealed with soft seal, jacketed, and with blind cover:



No.	Part Name.	Qty.	No.	Part Name.	Qty.	No.	Part Name.	Qty.
1	Coupling Key 6x6x45 AB	1	11	Shaft	1	21	Idler Gear	1
2	Lock Nut	1	12	Rotor Gear 6x6x20 A	1	22	Idler Bushing	1
3	Lock Washer	1	13	Inbus Bolt M8x25	13	23	Cover Pin	1
				Hex Socket M8x30 For Cover w/ Heating Jacket	5			
4	Spacer	1	14	Bracket	1	24	Blind Cover	1
5	Adjusting Nut	2	15	Bracket Gasket	1	25	Cover (w/ Heating Jackets)	1
6			16	Casing (w/ 90° Threaded Ports)	1	26	Hex Bolt M8x50	2
7	Ball Bearing (3205-2RS)	1	17	Casing (w/ 90° Flanged Ports)	1	27	Nut M8	2
8	Packing Press	1	18	Casing (w/ 180° Flanged Ports)	1	28	Grub screw M8x16	4
9	Soft Seal / Packing Gland	1 TK	19	Cover Gasket	1			
10	Bracket Bushing	1	20	Rotor Gear	1			

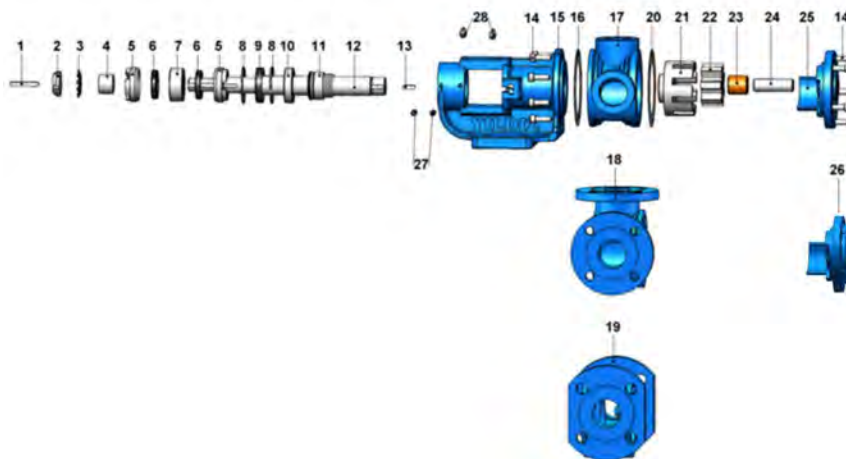


## Spare Parts List - Sealed with mechanical seal, and pressure relief valve on cover:



No.	Part Name.	Qty.	No.	Part Name.	Qty.	No.	Part Name.	Qty.
1	Coupling Key 6x6x45 AB	1	14	Inbus Bolt M8x25	17	27	Pressure Relief Valve - Bypass	1
2	Lock Nut	1	15	Bracket	1	28	Bypass O-Ring	1
3	Lock Washer	1	16	Bracket Gasket	1	29	Valve	1
4	Spacer	1	17	Casing (w/ 90° Threaded Points)	1	30	Spring	1
5	Adjusting Nut	2	18	Casing (w/ 90° Flanged Points)	1	31	Washer	1
6			19	Casing (w/ 180° Flanged Points)	1	32	Bypass Cover	1
7	Ball Bearing (3205-2RS)	1	20	Cover Gasket	1	33	Cap O-Ring	1
8	Internal Circlip (ø55)	2	21	Rotor Gear	1	34	Nut M8	1
9	Lip Seal ø30xø55x10	1	22	Idler Gear	1	35	Adjusting Screw M8x55	1
10	Ball Bearing (6006)	1	23	Idler Bushing	1	36	Cap	1
11	Mechanical Seal Ø30	1	24	Cover Pin	1	37	Grub Screw M8x16	4
12	Shaft	1	25	Cover (w/ Bypass Inlets)	1			
13	Rotor Key 6x6x20 A	1	26	Bypass Gasket	1			

## Spare Parts List - Sealed with mechanical seal, jacketed, and with blind cover:

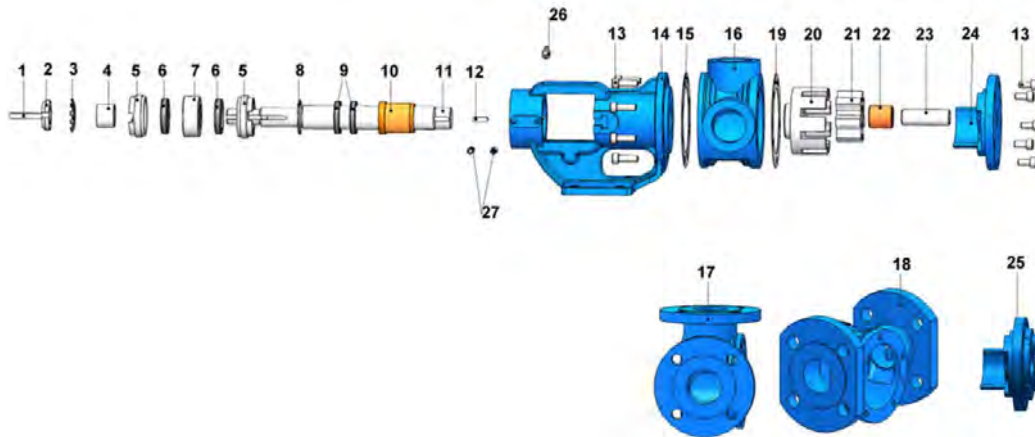


No.	Part Name.	Qty.	No.	Part Name.	Qty.	No.	Part Name.	Qty.
1	Coupling Key 6x6x45 AB	1	11	Mechanical Seal Ø30	1	21	Rotor Gear	1
2	Lock Nut	1	12	Shaft	1	22	Idler Gear	1
3	Lock Washer	1	13	Rotor Key 6x6x20 A	1	23	Idler Bushing	1
4	Spacer	1	14	Inbus Bolt M8x25	13	24	Cover Pin	1
				Inbus Bolt M8x30 For Cover w/ Heating Jacket	5			
5	Adjusting Nut	2	15	Bracket	1	25	Blind Cover	1
6			16	Bracket Gasket	1	26	Cover (w/ Heating Jacket)	1
7	Bearing (3205-2RS)	1	17	Casing (w/ 90° Threaded Ports)	1	27	Grub Screw M8x16	4
8	Internal Circlip (ø55)	2	18	Casing (w/ 90° Flanged Ports)	1			
9	Lip Seal ø30xø55x10	1	19	Casing (w/ 180° Flanged Ports)	1			
10	Ball Bearing (6006)	1	20	Cover Gasket	1			



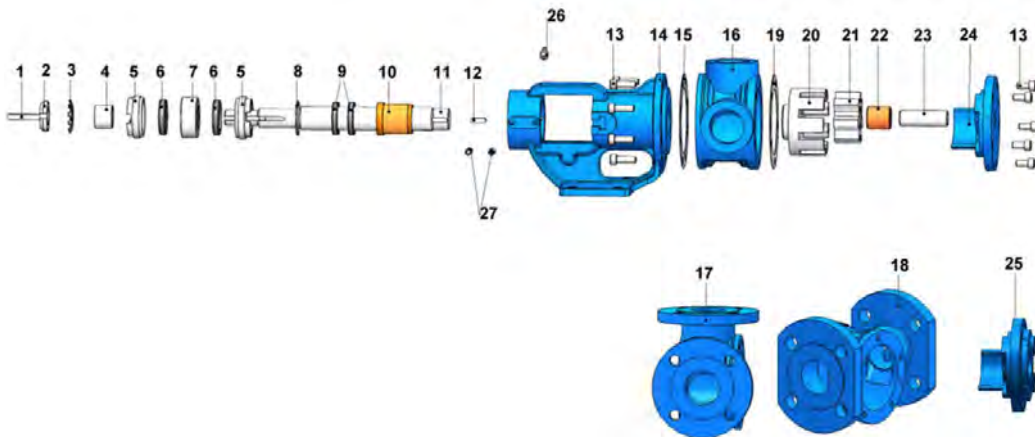


## Spare Parts List - Sealed with lip seal, jacketed, and with blind cover:



No.	Part Name.	Qty.	No.	Part Name.	Qty.	No.	Part Name.	Qty.
1	Coupling Key 6x6x45 AB	1	11	Shaft	1	21	Idler Gear	1
2	Lock Nut	1	12	Rotor Key 6x6x20 A	1	22	Idler Bushing	1
3	Lock Washer	1	13	Inbus Bolt M8x25	13	23	Cover Pin	1
				Inbus Bolt M8x30 For Cover w/ Heating Jacket	5			
4	Spacer	1	14	Bracket	1	24	Blind Cover	1
5	Adjusting Nut	2	15	Bracket Gasket	1	25	Cover (w/ Heating Jacket)	1
6			16	Casing (w/ 90° Threaded Ports)	1	26		
7	Bearing (3205-2RS)	1	17	Casing (w/ 90° Flanged Ports)	1	27	Grub Screw M8x16	4
8	Internal Circlip (ø42)	1	18	Casing (w/ 180° Flanged Ports)	1			
9	Lip Seal ø30xø42x7	2	19	Cover Gasket	1			
10	Bracket Bushing	1	20	Rotor Gear	1			

## Spare Parts List - Double jacketed, and sealed with lip seal:



No.	Part Name.	Qty.	No.	Part Name.	Qty.	No.	Part Name.	Qty.
1	Coupling Key 6x6x45 AB	1	11	Shaft	1	21	Idler Gear	1
2	Lock Nut	1	12	Rotor Key 6x6x20 A	1	22	Idler Bushing	1
3	Lock Washer	1	13	Inbus Bolt M8x25	13	23	Cover Pin	1
				Inbus Bolt M8x30 For Cover w/ Heating Jacket	5			
4	Spacer	1	14	Bracket Jacketed	1	24	Blind Cover	1
5	Adjusting Nut	2	15	Bracket Gasket	1	25	Cover (w/ Heating Jacket)	1
6			16	Casing (w/ 90° Threaded Ports)	1	26		
7	Bearing (3205-2RS)	1	17	Casing (w/ 90° Flanged Ports)	1	27	Grub Screw M8x16	4
8	Internal Circlip (ø42)	1	18	Casing (w/ 180° Flanged Ports)	1			
9	Lip Seal ø30xø42x7	2	19	Cover Gasket	1			
10	Bracket Bushing	1	20	Rotor Gear	1			