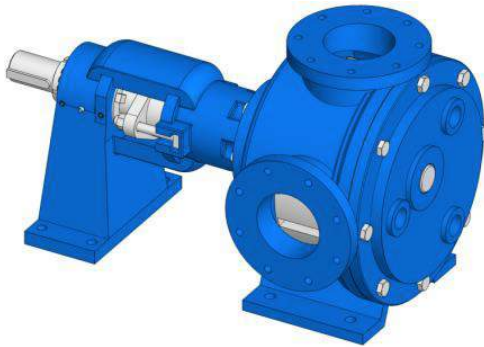




## 5" GRJ Internal Eccentric Gear Pump



### Performance:

|             |                       |
|-------------|-----------------------|
| Flow rate   | 110 m <sup>3</sup> /h |
| Pressure    | 1 - 10 bar            |
| Temperature | 0 - 200 °C            |
| Speed       | 350 d/d               |
| Viscosity   | 100 - 250000 SSU      |

### Technical Features:

- ✓ Internal eccentric gear pump
- ✓ 5" flanged 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
- ✓ Gearbox drive
- ✓ Manufactured according to CE regulations

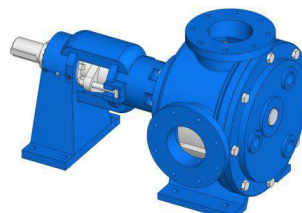
### Applications:

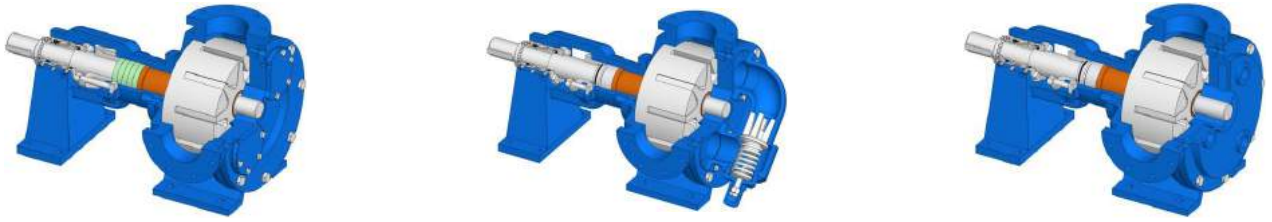
- ✓ Fuel oil, diesel fuel and gas oil transfer
- ✓ Small scale thermal oil applications including Marlotherm, Duratherm, Paratherm, Multitherm, Mobiltherm and Dowtherm
- ✓ Lubrication applications
- ✓ Coolant transfer
- ✓ Any transfer of low to medium viscosity fluids with lubricating properties
- ✓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

### Material Options:

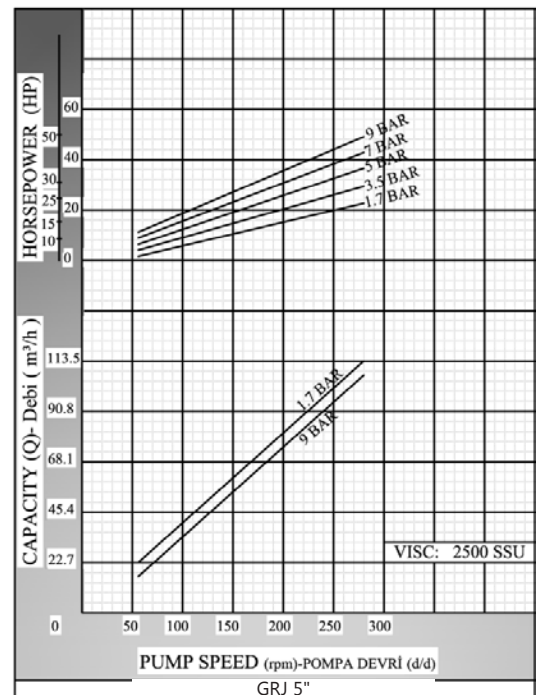
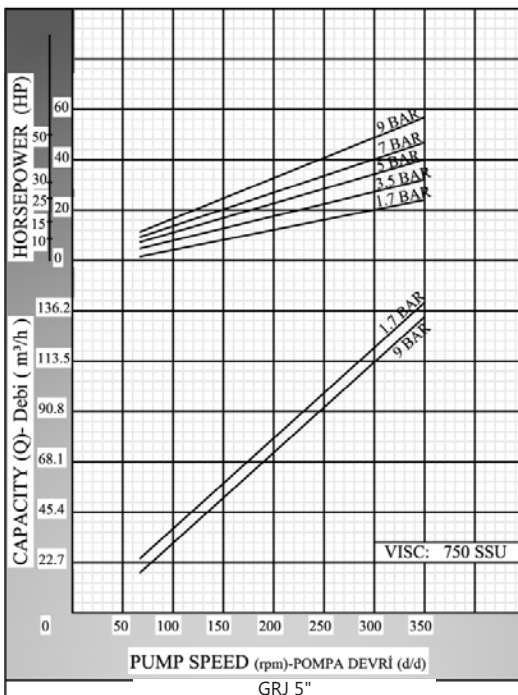
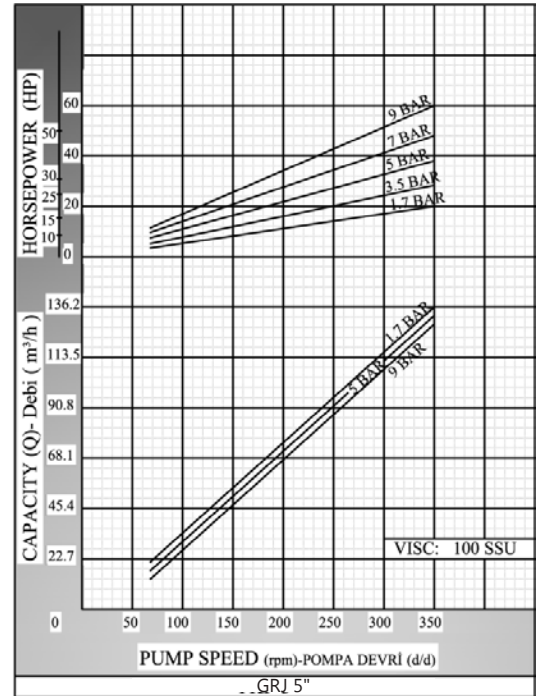
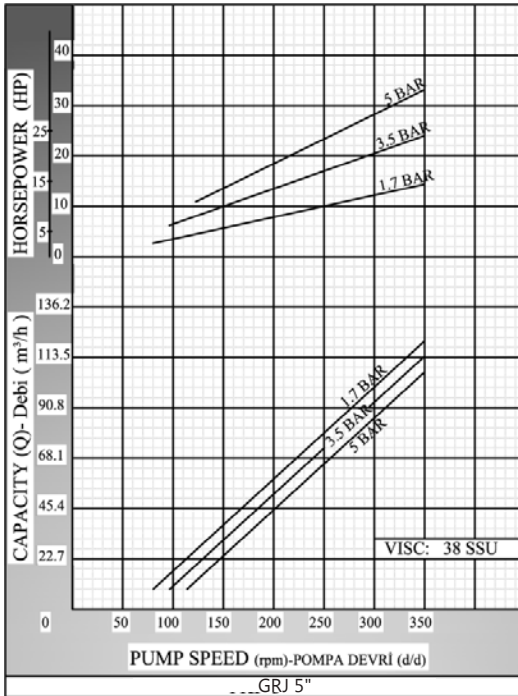
- ✓ Pump casings: Pig cast iron, Spheroidal cast iron, cast steel, AISI 304/316 CrNi Stainless Steel
- ✓ Gears: Spheroidal cast iron, cast steel, AISI 304/316 CrNi Stainless Steel
- ✓ Bearings: Snbz 12 bronze, ball bearing, carbon graphite, silicon carbide, hard metal coated steel
- ✓ Sealing: Soft seal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

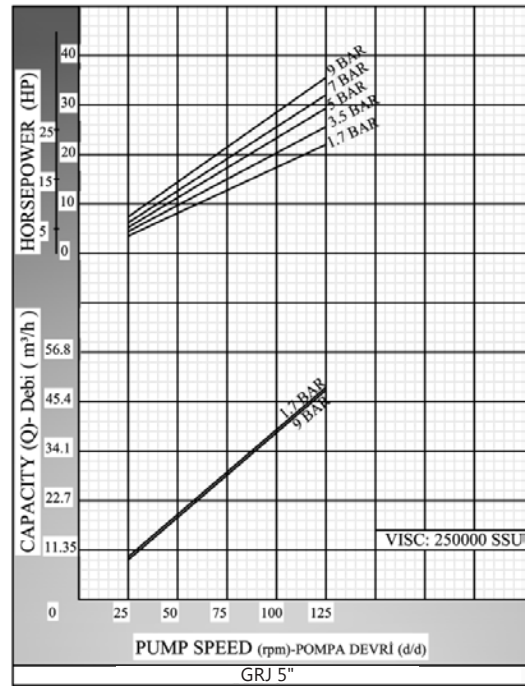
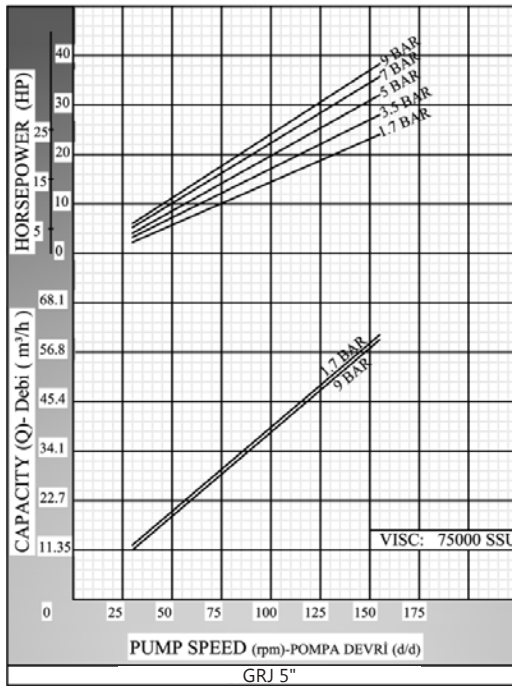
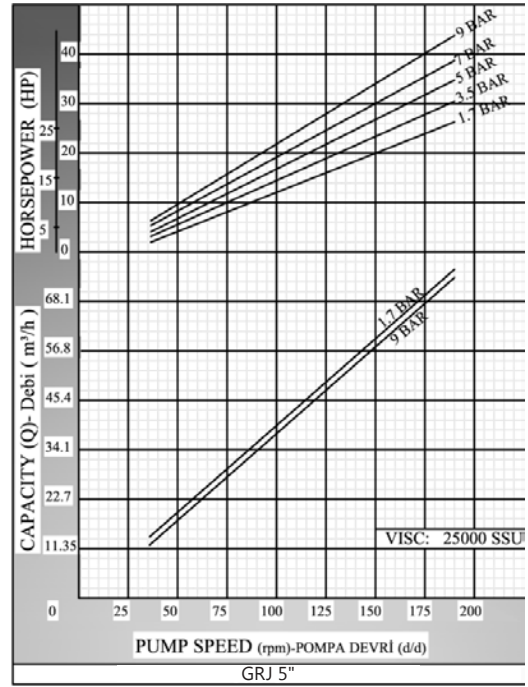
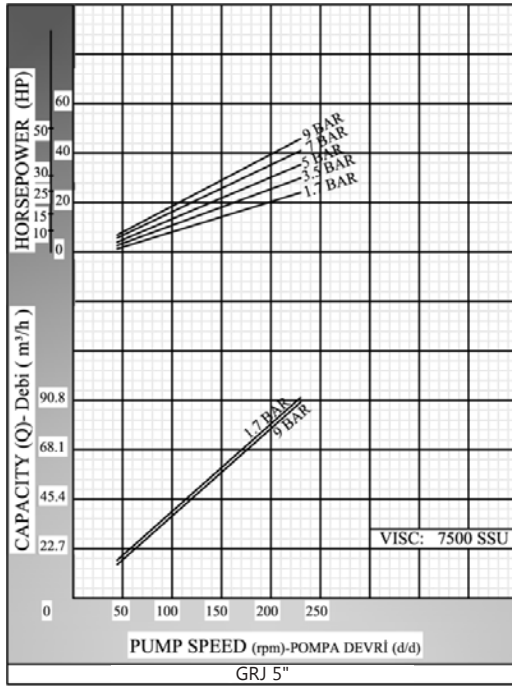
| Capacity & Power Table |             |          |       |       |       |           |
|------------------------|-------------|----------|-------|-------|-------|-----------|
| Capacity (Q)           | Speed (rpm) | Pressure |       |       |       | Viscosity |
|                        |             | 3 Bar    | 5 Bar | 7 Bar | 9 Bar |           |
| 68                     | 175         | 30 HP    | 40 HP | 40 HP | 50 HP | 25000 SSU |
| 90                     | 225         | 30 HP    | 40 HP | 40 HP | 50 HP | 7500 SSU  |
| 105                    | 275         | 30 HP    | 40 HP | 50 HP | 60 HP | 2500 SSU  |
| 135                    | 350         | 30 HP    | 40 HP | 50 HP | 60 HP | 750 SSU   |



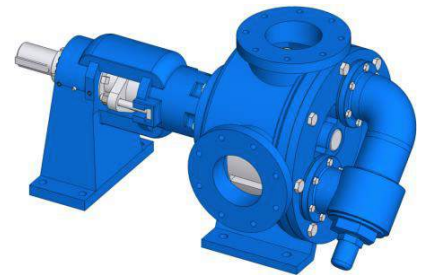
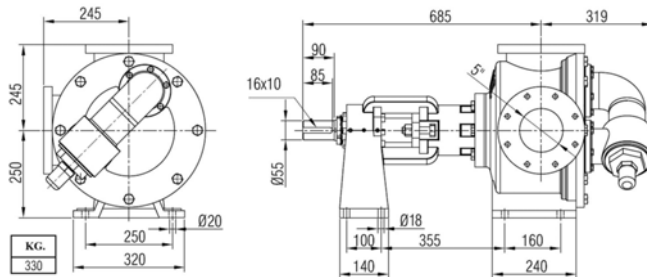


## Pump Dimensions - Capacity Graphs:





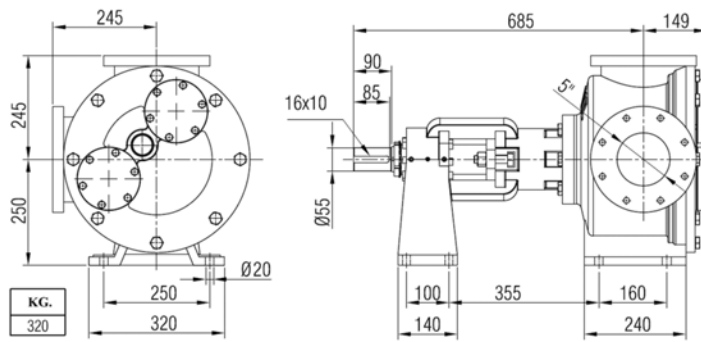
### Pump Dimensions - Bypassed:



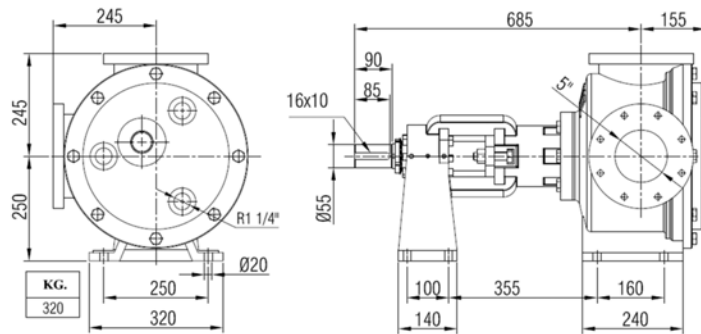




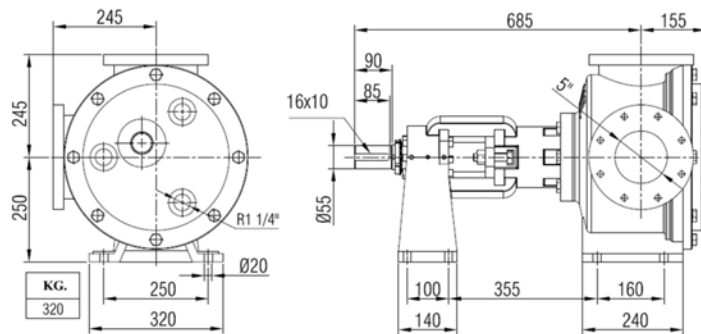
## Pump Dimensions - Blind covered:



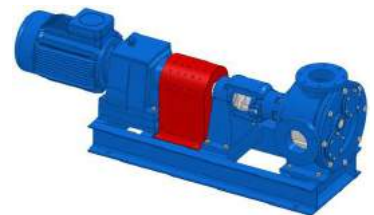
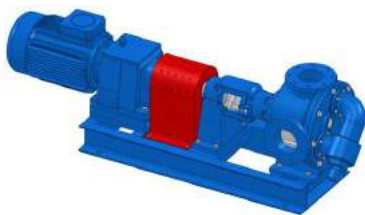
## Pump Dimensions - with jacket:

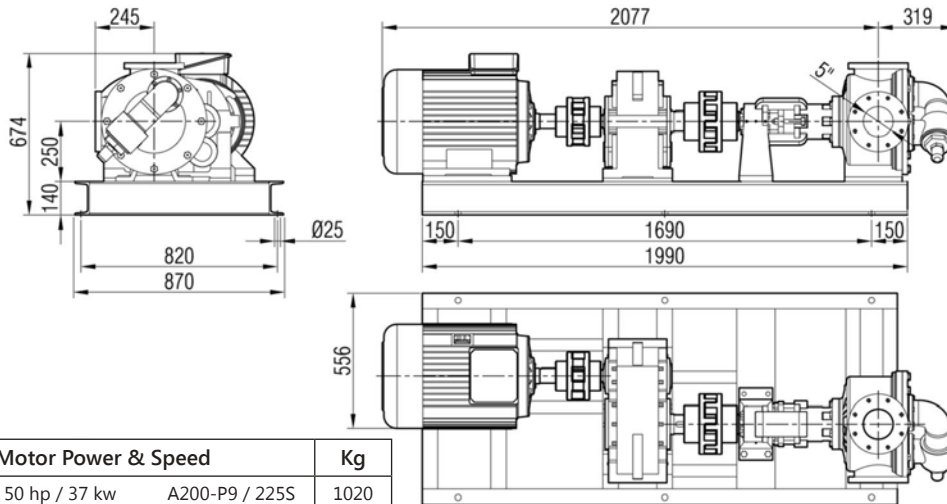


## Pump Dimensions - Gearbox drive:

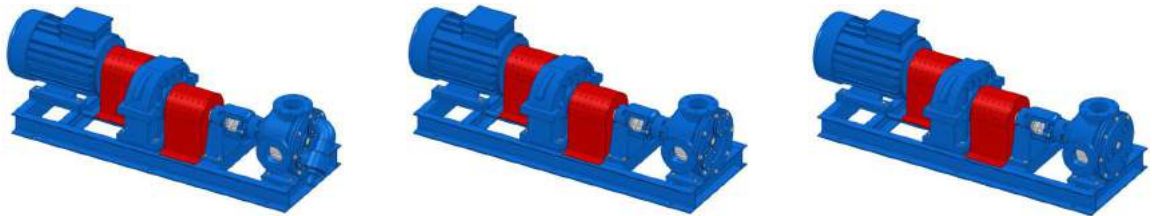


| Motor Power & Speed |                   |              | I    | HD  | H   | B    | C    | D   | E   | Kg   |
|---------------------|-------------------|--------------|------|-----|-----|------|------|-----|-----|------|
| 25 hp / 18.5 kw     | 145/350 d/d (rpm) | IRAM82/180M  | 1665 | 626 | 248 | 1040 | 1240 | 430 | 480 | 600  |
| 30 hp / 22 kw       | 105/350 d/d (rpm) | IRAM92/180L  | 1783 | 617 |     | 1110 | 1310 |     |     | 720  |
| 40 hp / 30 kw       | 204/350 d/d (rpm) | IRAM92/200L  | 1822 | 644 | 275 | 1200 | 1400 | 520 | 570 | 755  |
| 50 hp / 37 kw       | 89/350 d/d (rpm)  | IRAM102/225S | 1913 | 654 | 285 |      |      |     |     | 720  |
| 60 hp / 45 kw       | 113/350 d/d (rpm) | IRAM102/225M | 1942 |     | 285 | 1200 | 1400 | 520 | 570 | 1005 |

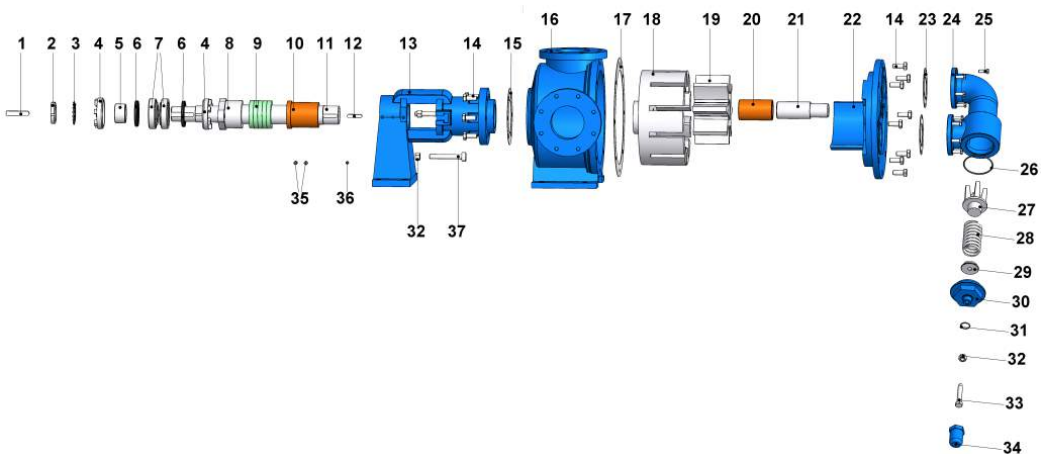




| Motor Power & Speed |                | Kg   |
|---------------------|----------------|------|
| 50 hp / 37 kw       | A200-P9 / 225S | 1020 |
| 60 hp / 45 kw       | A200-P9 / 225M | 1044 |



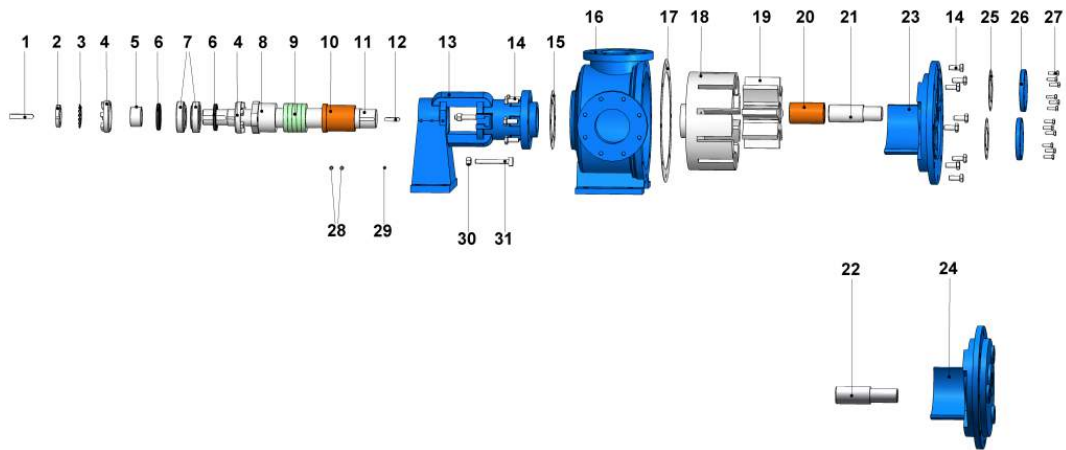
## Spare Parts List - Sealed with soft seal, and bypassed with pressure relief valve:



| No. | Part Name.                                  | Qty. | No. | Part Name.                     | Qty. | No. | Part Name.             | Qty. |
|-----|---|------|-----|--------------------------------|------|-----|------------------------|------|
| 1   | Coupling Key 16x10x85 AB                    | 1    | 14  | Hex Bolt M16x40                | 14   | 27  | Valve                  | 1    |
| 2   | Lock Nut                                    | 1    | 15  | Bracket Gasket                 | 1    | 28  | Spring                 | 1    |
| 3   | Lock Washer                                 | 1    | 16  | Casing (w/ 90° Flanged Ports)  | 1    | 29  | Washer                 | 1    |
| 4   | Adjusting Nut                               | 2    | 17  | Bracket Gasket                 | 1    | 30  | Bypass Cover           | 1    |
| 5   | Spacer (Adjusting Nut)                      | 1    | 18  | Rotor Gear                     | 1    | 31  | Cap O-Ring             | 1    |
| 6   | Lip Seal $\phi 70 \times \phi 95 \times 10$ | 2    | 19  | Idler Gear                     | 1    | 32  | Nut M16                | 3    |
| 7   | Ball Bearing (32212)                        | 2    | 20  | Idler Bushing                  | 1    | 33  | Adjusting Screw M16x90 | 1    |
| 8   | Packing Press                               | 1    | 21  | Cover Pin                      | 1    | 34  | Cap                    | 1    |
| 9   | Soft Seal Packing Gland                     | 1 TK | 22  | Cover                          | 1    | 35  | Grub Screw M12x20      | 4    |
| 10  | Bracket Bushing                             | 1    | 23  | Bypass Gasket                  | 2    | 36  | Greasing Fitting R3/8" | 1    |
| 11  | Shaft                                       | 1    | 24  | Pressure Relief Valve - Bypass | 1    | 37  | Square Screw M16x120   | 2    |
| 12  | Rotor Key 12x8x55 A                         | 1    | 25  | Hex Bolt M10x30                | 12   |     |                        |      |
| 13  | Bracket                                     | 1    | 26  | Bypass O-Ring                  | 1    |     |                        |      |

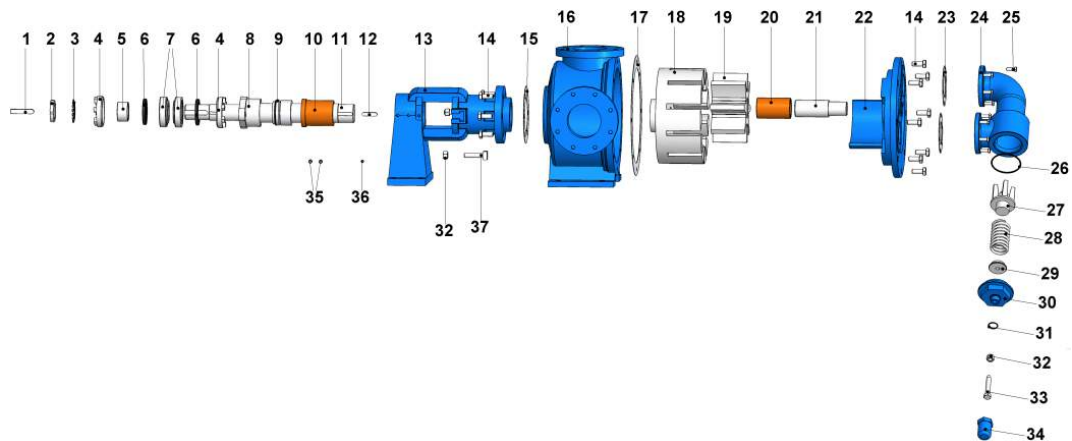


## Spare Parts List - Sealed with soft seal, jacketed, and with blind cover:



| No. | Part Name.  | Qty. | No. | Part Name.                    | Qty. | No. | Part Name.                     | Qty. |
|-----|---|------|-----|-------------------------------|------|-----|--------------------------------|------|
| 1   | Coupling Key 16x10x85 AB                                  | 1    | 12  | Rotor Key 12x8x55 A           | 1    | 23  | Cover                          | 1    |
| 2   | Lock Nut  | 1    | 13  | Bracket                       | 1    | 24  | Jacketed Cover                 | 1    |
| 3   | Lock Washer   | 1    | 14  | Hex Bolt M16x40               | 14   | 25  | Bypass Gasket                  | 2    |
| 4   | Adjusting Nut   | 2    | 15  | Bracket Gasket                | 1    | 26  | Pressure Relief Valve - Bypass | 2    |
| 5   | Spacer (Adjusting Nut)                                    | 1    | 16  | Casing (w/ 90° Flanged Ports) | 1    | 27  | Hex Bolt M10x30                | 12   |
| 6   | Lip Seal $\varnothing 70 \times \varnothing 95 \times 10$ | 2    | 17  | Bracket Gasket                | 1    | 28  | Grub Screw M12x20              | 4    |
| 7   | Ball Bearing (32212)                                      | 2    | 18  | Rotor Gear                    | 1    | 29  | Greasing Fitting R3/8"         | 1    |
| 8   | Packing Press   | 1    | 19  | Idler Gear                    | 1    | 30  | Nut M16                        | 2    |
| 9   | Soft Seal / Packing Gland                                 | 1 TK | 20  | Idler Bushing                 | 1    | 31  | Square Screw M16x120           | 2    |
| 10  | Bracket Bushing   | 1    | 21  | Cover Pin                     | 1    |     |                                |      |
| 11  | Shaft   | 1    | 22  | Jacketed Cover Pin            | 1    |     |                                |      |

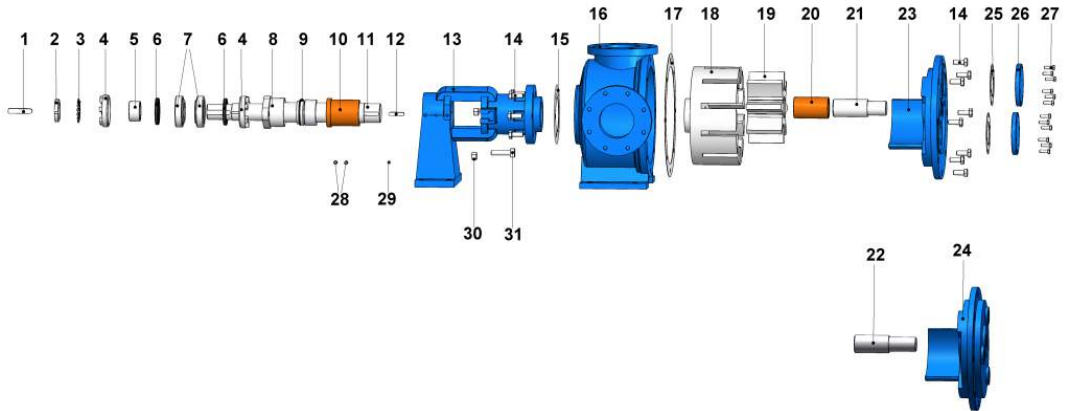
## Spare Parts List - Sealed with mechanical seal, and bypassed with pressure relief valve:



| No. | Part Name.  | Qty. | No. | Part Name.                     | Qty. | No. | Part Name.             | Qty. |
|-----|---|------|-----|--------------------------------|------|-----|------------------------|------|
| 1   | Coupling Key 16x10x85 AB                                  | 1    | 14  | Hex Bolt M16x40                | 14   | 27  | Valve                  | 1    |
| 2   | Lock Nut  | 1    | 15  | Bracket Gasket                 | 1    | 28  | Spring                 | 1    |
| 3   | Lock Washer   | 1    | 16  | Casing (w/ 90° Flanged Ports)  | 1    | 29  | Washer                 | 1    |
| 4   | Adjusting Nut   | 2    | 17  | Bracket Gasket                 | 1    | 30  | Bypass Cover           | 1    |
| 5   | Spacer (Adjusting Nut)                                    | 1    | 18  | Rotor Gear                     | 1    | 31  | Cap O-Ring             | 1    |
| 6   | Lip Seal $\varnothing 70 \times \varnothing 95 \times 10$ | 2    | 19  | Idler Gear                     | 1    | 32  | Nut M16                | 3    |
| 7   | Ball Bearing (32212)                                      | 2    | 20  | Idler Bushing                  | 1    | 33  | Adjusting Screw M16x90 | 1    |
| 8   | Packing Press (For Mech. Seal)                            | 1    | 21  | Cover Pin                      | 1    | 34  | Cap                    | 1    |
| 9   | Mechanical Seal $\varnothing 70$                          | 1    | 22  | Cover                          | 1    | 35  | Grub Screw M12x20      | 4    |
| 10  | Bracket Bushing   | 1    | 23  | Bypass Gasket                  | 2    | 36  | Greasing Fitting R3/8" | 1    |
| 11  | Shaft   | 1    | 24  | Pressure Relief Valve - Bypass | 1    | 37  | Square Screw M16x70    | 2    |
| 12  | Rotor Key 12x8x55 A                                       | 1    | 25  | Hex Bolt M10x30                | 12   |     |                        |      |
| 13  | Bracket   | 1    | 26  | Bypass O-Ring                  | 1    |     |                        |      |



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

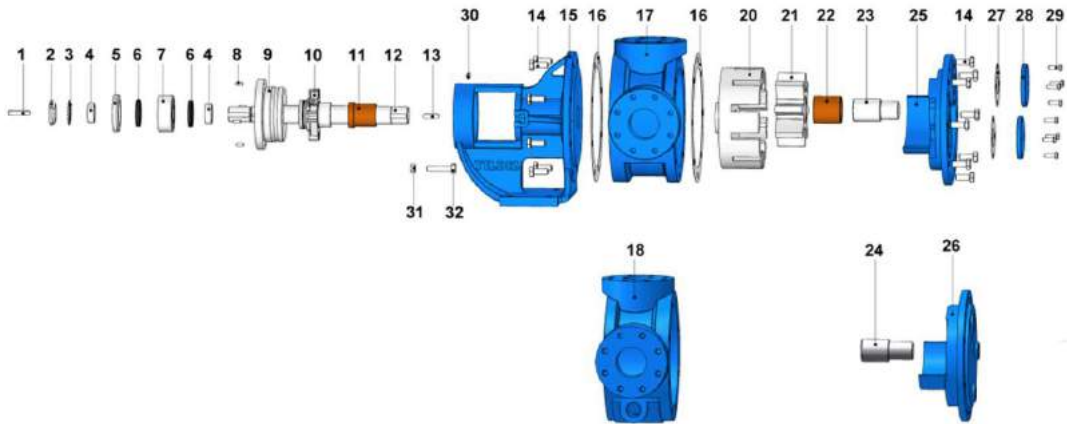


| No. | Part Name.                     | Qty. | No. | Part Name.                    | Qty. | No. | Part Name.                     | Qty. |
|-----|--------------------------------|------|-----|-------------------------------|------|-----|--------------------------------|------|
| 1   | Coupling Key 16x10x85 AB       | 1    | 12  | Rotor Key 12x8x55 A           | 1    | 23  | Cover                          | 1    |
| 2   | Lock Nut                       | 1    | 13  | Bracket                       | 1    | 24  | Jacketed Cover                 | 1    |
| 3   | Lock Washer                    | 1    | 14  | Hex Bolt M16x40               | 14   | 25  | Bypass Gasket                  | 2    |
| 4   | Adjusting Nut                  | 2    | 15  | Bracket Gasket                | 1    | 26  | Pressure Relief Valve - Bypass | 2    |
| 5   | Spacer (Adjusting Nut)         | 1    | 16  | Casing (w/ 90° Flanged Ports) | 1    | 27  | Hex Bolt M10x30                | 12   |
| 6   | Lip Seal ø70xø95x10            | 2    | 17  | Bracket Gasket                | 1    | 28  | Grub Screw M12x20              | 4    |
| 7   | Ball Bearing (32212)           | 2    | 18  | Rotor Gear                    | 1    | 29  | Greasing Fitting R3/8"         | 1    |
| 8   | Packing Press (For Mech. Seal) | 1    | 19  | Idler Gear                    | 1    | 30  | Nut M16                        | 2    |
| 9   | Mechanical Seal Ø70            | 1    | 20  | Idler Bushing                 | 1    | 31  | Square Screw M16x70            | 2    |
| 10  | Bracket Bushing                | 1    | 21  | Cover Pin                     | 1    |     |                                |      |
| 11  | Shaft                          | 1    | 22  | Jacketed Cover Pin            | 1    |     |                                |      |





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



| No. | Part Name.                                  | Qty. | No. | Part Name.  | Qty. | No.                    | Part Name.          | Qty. |
|-----|---|------|-----|---|------|------------------------|---------------------|------|
| 1   | Coupling Key 12x8x60 AB                     | 1    | 12  | Shaft   | 1    | 23                     | Cover Pin           | 1    |
| 2   | Lock Nut                                    | 1    | 13  | Rotor Key 12x8x45 A                               | 1    | 24                     | Jacketed Cover Pin  | 1    |
| 3   | Lock Washer                                 | 1    | 14  | Hex Bolt M16x40                                   | 16   | 25                     | Cover               | 1    |
| 4   | Spacer                                      | 2    | 15  | Bracket (w/ Cartex Mech. Seal)                    | 1    | 26                     | Jacketed Cover      | 1    |
| 5   | Pulley Cover                                | 1    | 16  | Bracket & Cover Gasket                            | 2    | 27                     | Bypass Gasket       | 2    |
| 6   | Lip Seal $\phi 55 \times \phi 72 \times 10$ | 2    | 17  | Casing (w/ 90° Flanged Ports)                     | 1    | 28                     | Bypass Inlets Cover | 2    |
| 7   | Ball Bearing (3209)                         | 1    | 18  | Casing (w/ 90° Flanged Ports & w/ Heating Jacket) | 1    | 29                     | Hex Bolt M10x30     | 8    |
| 8   | Grub Screw M8x20                            | 4    | 19  | _____   | 30   | Greasing Fitting R3/8" | 1                   |      |
| 9   | Pulley                                      | 1    | 20  | Rotor Gear  | 1    | 31                     | Nut M14             | 2    |
| 10  | Cartex Mechanical Seal $\phi 50$            | 1    | 21  | Idler Gear  | 1    | 32                     | Square Screw M14x90 | 2    |
| 11  | Bracket Bushing                             | 1    | 22  | Idler Bushing                                     | 1    |                        |                     |      |