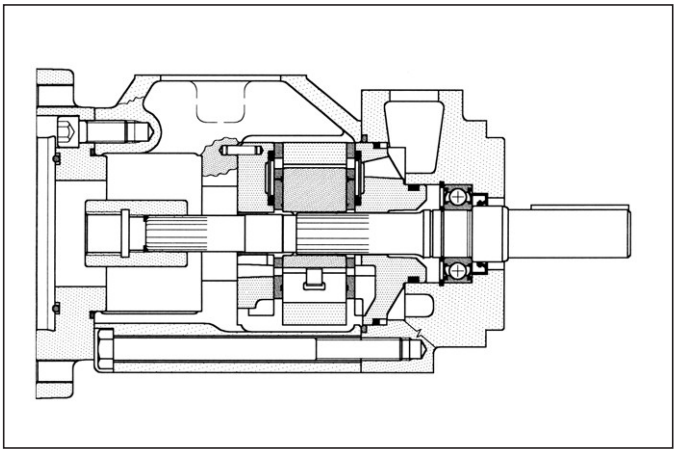


## General description

Fixed displacement vane pump, hydraulically balanced, with capacity determined by the type of cartridge used and the speed of rotation. The pump is available in five different displacements from 80 to 140 l/min*(from 21 to 38 gpm)* at 1200 rpm and 7 bar.

## Technical characteristics

| Cartridge model | Geometric displacement | | Rated capacity at 1000 rpm 7 bar | | Rated capacity at 1200 rpm 7 bar | | Rated capacity at 1500 rpm 7 bar | | Maximum pressure with mineral oil | | Speed range rpm | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $cm^3/g$ | ($in^3/r$) | l/min | (gpm) | l/min | (gpm) | l/min | (gpm) | bar | (psi) | min | max |
| **A04-21** | 69,0 | (4.2) | 66,3 | (17,5) | 79,5 | (21) | 101,4 | (26.8) | 210 | (3050) | 600 | 2500 |
| **A04-25** | 81,6 | (5) | 78,3 | (20.8) | 94,0 | (25) | 120,1 | (31.7) | 210 | (3050) | 600 | 2500 |
| **A04-30** | 97,7 | (6) | 94,8 | (25.0) | 113,8 | (30) | 141,2 | (37.3) | 210 | (3050) | 600 | 2500 |
| **A04-35** | 112,7 | (6.9) | 109,7 | (29.2) | 131,6 | (35) | 167,2 | (44.1) | 210 | (3050) | 600 | 2400 |
| **A04-38** | 121,6 | (7.4) | 116,6 | (31.7) | 139,9 | (38) | 177,3 | (46.8) | 210 | (3050) | 600 | 2400 |

*For detailed technical informations please refer to BQ Series catalogue*

**Hydraulic fluids:** mineral oils, phosphate ester based fluids.

**Viscosity range** *(with mineral oil)***:** from 13 to 860 cSt. *(13 to 54 cSt. recommended)*.

**Filtration:** for the inlet - 149 micron abs., for the return line - 25 micron abs. or better *(with synthetic fluids: for the return line - 10 micron abs. or better)*.

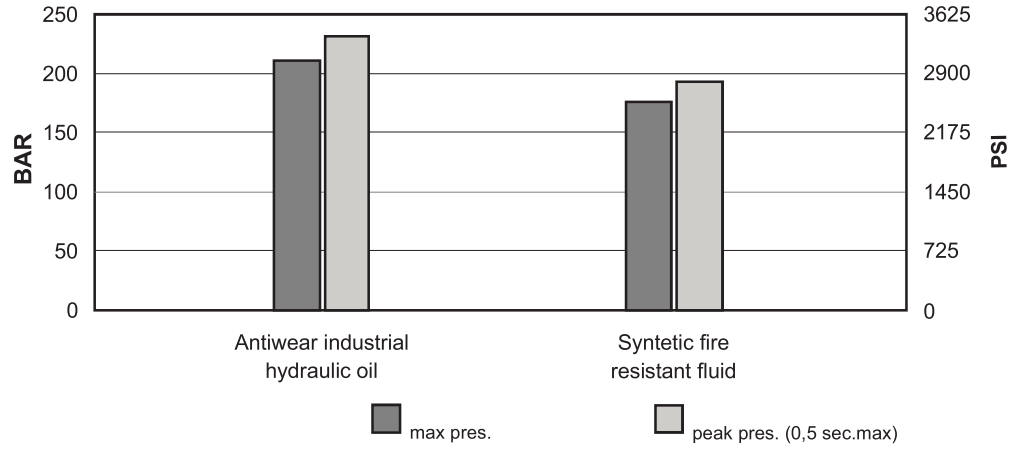
**Inlet pressure:** *(with mineral oil)***:** from -0,17 to +1,4 bar *(-2.5 to + 20 psi)*

**Operating temperature:** with mineral oil -10□C +70□C *(+30□C to +60□C recommended)*.

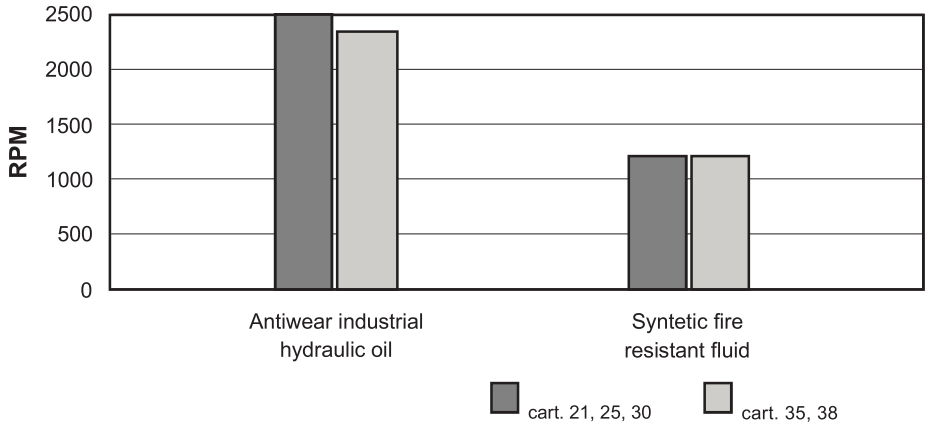
**Drive:** direct and coaxial by means of a flexible coupling.

## Main operating data

**max pressure / hydraulic fluid**

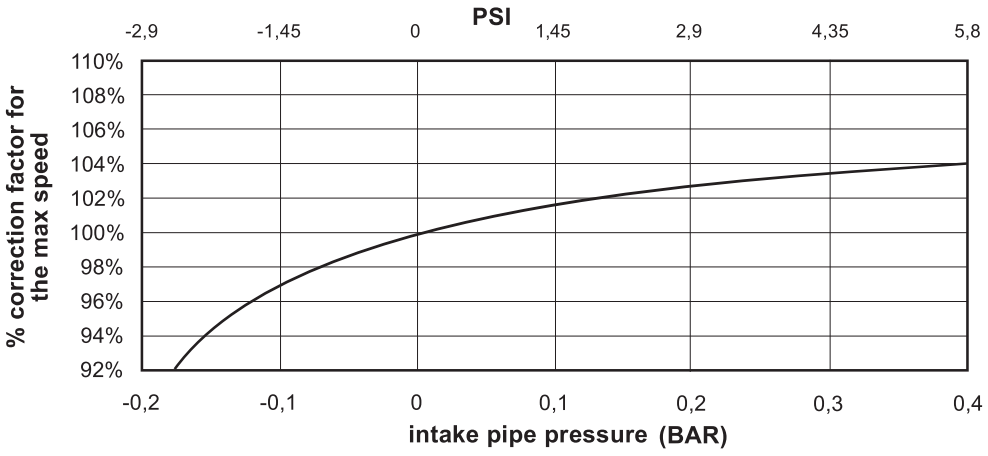



**max speed / hydraulic fluid** (with 0 bar in the intake pipe)

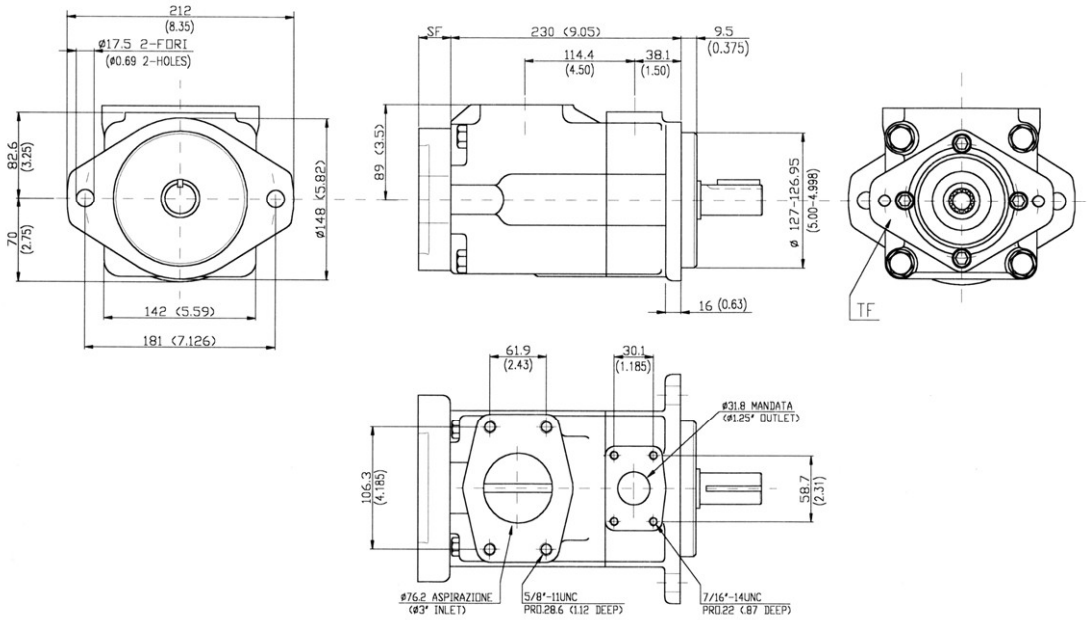



If the intake pressure is not zero bar, use the graph below to find the percentage correction factor to apply to the maximum speed.

**max speed / intake pipe pressure**



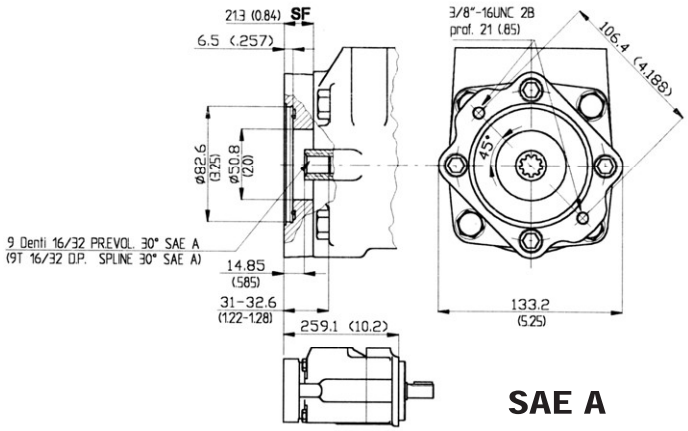
## Installation dimensions mm (inches)



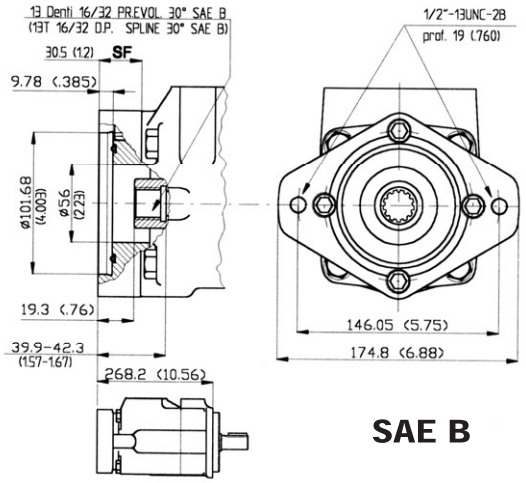

Approx. weight: 28,7 kg. (63 lbs.)

## Rear mountings mm (inches)

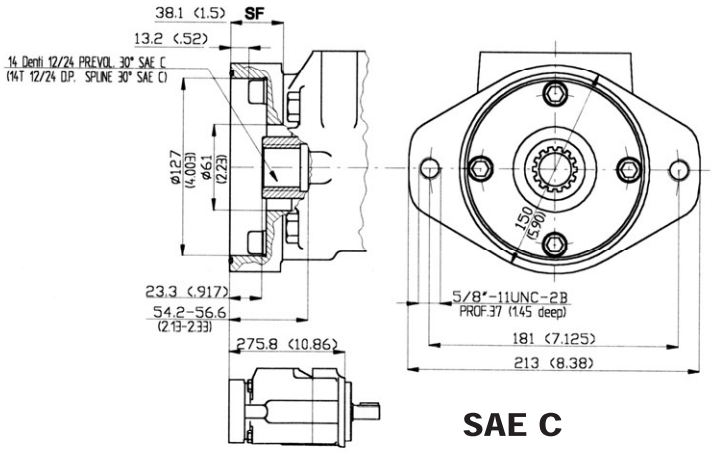
Different types of coupling with other pumps are also available. Please contact our Technical Dept. for detailed information.




**SAE A**




**SAE B**




**SAE C**

## Model code breakdown

**TQ 04 * ** * *** * (L) (*)**

**Pump series**

**Pump type**

**Rear mounting**
**A** = SAE A, **B** = SAE B, **C** = SAE C

**Cartridge type**
**21 25 30 35 38**

**Outlet port positions**
(outlet viewed from adapter side)
**A** = Outlet opposite end
**B** = Outlet 90° CCW from inlet
**C** = Outlet in line with inlet
**D** = Outlet 90° CW from inlet

**Shaft options**
**203** = Straight with key
**297** = Splined

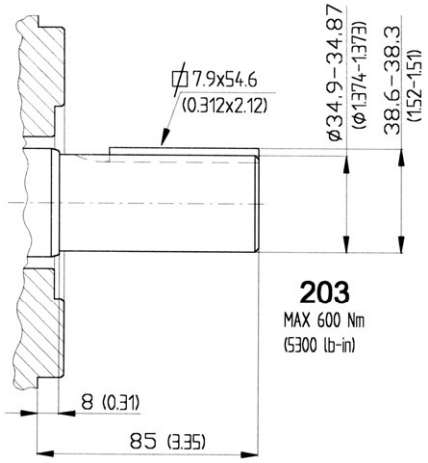
**Adapter orientation**
(viewed from adapter side)
SAE A
**A** = Rotate 45° CW with respect to pump mounting flange
**B** = Rotate 45° CCW with respect to pump mounting flange

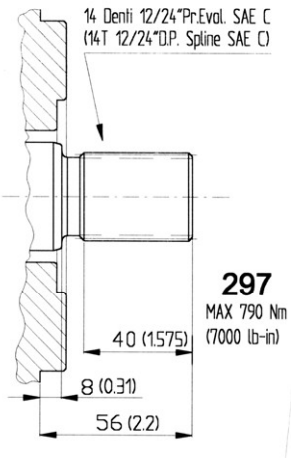
SAE B
SAE C
**A** = In line with pump mounting flange
**B** = Rotate 90° with respect to pump mounting flange

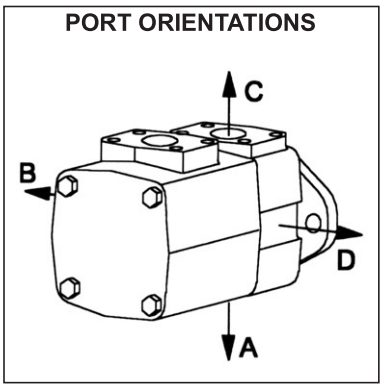
**Rotation**
(viewed from shaft end)
**L** = left hand rotation CCW (omit if CW)

**Seals**
(omit with standard seals and one shaft seal in NBR)
**V** = seal and shaft-seal in FPM (Viton®)
**D** = standard seals and double shaft-seals in NBR
**F** = seals and double shaft-seals in FPM (Viton®)

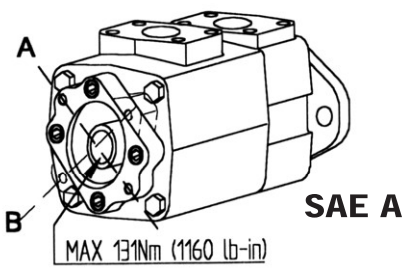
## Shaft options mm (inches)

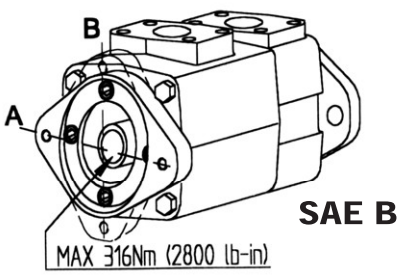


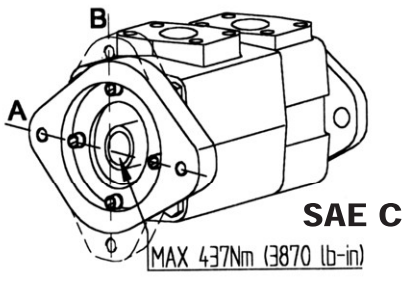



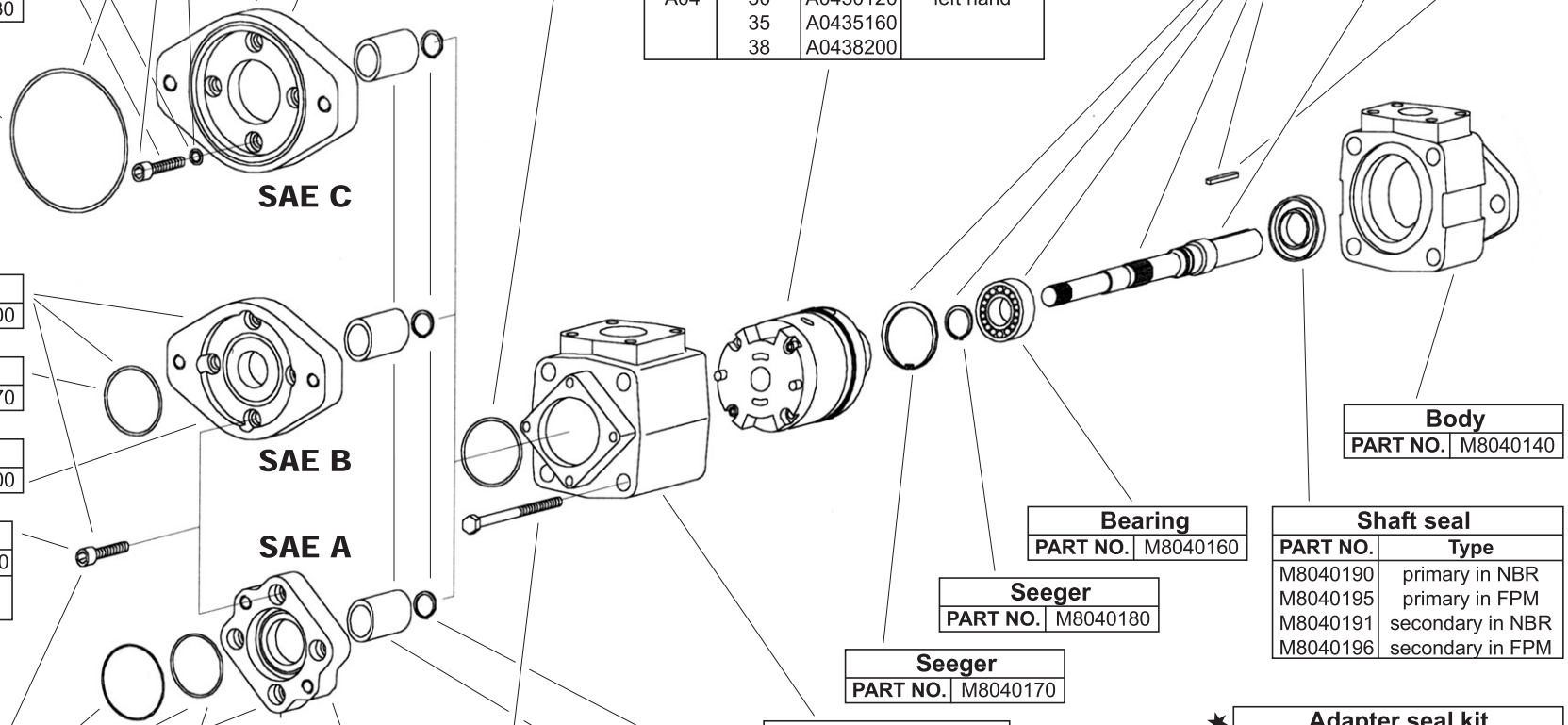

## Adapter plate orientations



# Id. codes of pump components




| Washer | |
|---|---|
| PART NO. | M7061025 |

| Adapter kit | |
|---|---|
| PART NO. | M7060300 |

| Adapter plate | |
|---|---|
| PART NO. | M8060300 |

| Screw | |
|---|---|
| PART NO. | M7061020 |
| Torque at 70 Nm (624 lb. in.) | |

| ✶ "O" ring | |
|---|---|
| PART NO. | M7061130 |

| ✶ "O" ring | |
|---|---|
| PART NO. | M7061050 |

| Cartridge | | | |
|---|---|---|---|
| Series | Model | PART NO. | PUMP ROTAT. |
| A04 | 21 | A0421030 | right hand |
| | 25 | A0425070 | |
| | 30 | A0430110 | |
| | 35 | A0435150 | |
| | 38 | A0438190 | |
| A04 | 21 | A0421040 | left hand |
| | 25 | A0425080 | |
| | 30 | A0430120 | |
| | 35 | A0435160 | |
| | 38 | A0438200 | |

| Pump | Model | Kit | Shaft | Key |
|---|---|---|---|---|
| TQ04A | 203 | M7041203 | K0470203 | M8048600 |
| TQ04A | 297 | M7041297 | K0490297 | - |
| TQ04B | 203 | M7042203 | K0471203 | M8048600 |
| TQ04B | 297 | M7042297 | K0491297 | - |
| TQ04C | 203 | M7043203 | K0472203 | M8048600 |
| TQ04C | 297 | M7043297 | K0492297 | - |

| Adapter kit | |
|---|---|
| PART NO. | M7060200 |

| ✶ "O" ring | |
|---|---|
| PART NO. | M7061070 |

| Adapter plate | |
|---|---|
| PART NO. | M8060200 |

| Screw | |
|---|---|
| PART NO. | M7061010 |
| Torque at 70 Nm (624 lb. in.) | |

| Body | |
|---|---|
| PART NO. | M8040140 |

| Bearing | |
|---|---|
| PART NO. | M8040160 |

| Shaft seal | |
|---|---|
| PART NO. | Type |
| M8040190 | primary in NBR |
| M8040195 | primary in FPM |
| M8040191 | secondary in NBR |
| M8040196 | secondary in FPM |

| Seeger | |
|---|---|
| PART NO. | M8040180 |

| Seeger | |
|---|---|
| PART NO. | M8040170 |

| Inlet body | |
|---|---|
| PART NO. | M8040430 |

| Adapter plate | |
|---|---|
| PART NO. | M8060100 |

| Adapter kit | |
|---|---|
| PART NO. | M7060100 |

| ✶ "O" ring | |
|---|---|
| PART NO. | M7061110 |

| ✶ "O" ring | |
|---|---|
| PART NO. | M7061060 |

| Screw | |
|---|---|
| PART NO. | M8040210 |
| Torque at 225 Nm (2010 lb. in.) | |

| Model | Coupling | Seeger | Coupling kit (seeger+coupling) |
|---|---|---|---|
| TQ04C | M7003000 | M7061190 | M7013000 |
| TQ04B | M7002500 | M7061180 | M7012500 |
| TQ04A | M7001000 | M7061160 | M7011000 |

✶

| Adapter seal kit | | |
|---|---|---|
| Model | PART NO. | Type |
| TQ04A | M7065100 | NBR |
| TQ04B | M7065200 | NBR |
| TQ04C | M7065300 | NBR |
| TQ04A | M7065150 | FPM |
| TQ04B | M7065250 | FPM |
| TQ04C | M7065350 | FPM |

For "Pump seal kit" part no. refer to BQ Series technical catalogue