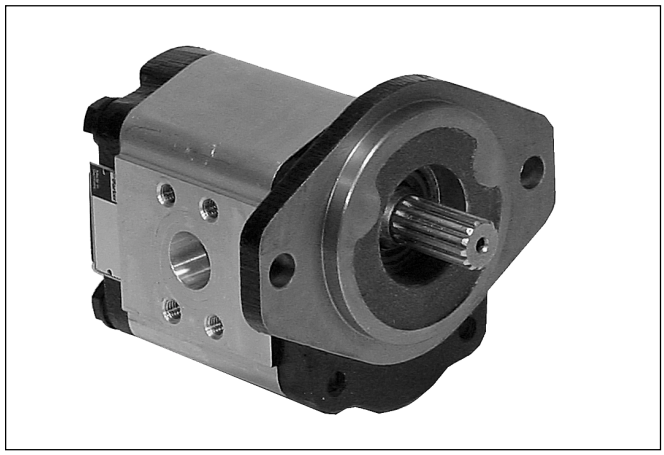
## PGP/PGM 500 Series

**High Performance.**

**High Efficiency.**

**High pressure operation.**

PGP 500 series gear pumps are an advanced-performance version of the international "bushing block" style pumps. PGP 500 series pumps offer superior performance, high efficiency and low noise operation at high operating pressures. They are produced in four frame sizes (PGP 503, PGP 505, PGP 511, PGP 517) with displacements ranging from 0.8 to 52 cm³/rev. A wide variety of standard options is available to meet specific application requirements worldwide.



PGP 500

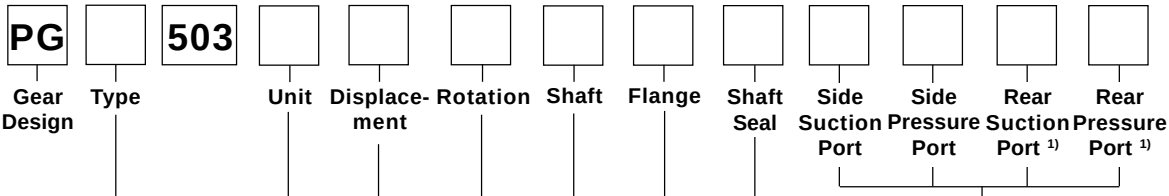
### Advantages

- **Up to 275 bar continuous operation**
  High strength materials and large journal diameters provide low bearing loads for high pressure operation.
- **Low noise**
  PGP 503 - 9 tooth gear profile, PGP 505 and 517 - 13 tooth gear profile, PGP 511 – 12 or 13 tooth gear profile and optimized flow metering provide reduced pressure pulsation and exceptionally quiet operation.
- **High efficiency**
  Pressure balanced bearing blocks assure maximum efficiency under all operating conditions.
- **Application flexibility**
  International mounts and connections, integrated valve capabilities and common inlet multiple pump configurations provide unmatched design and application versatility.

### Characteristics

| | |
|---|---|
| **Pump type** | Heavy-duty, aluminium, external gear |
| **Mounting** | SAE, rectangular, thru-bolt standard specials on request |
| **Ports** | SAE and metric Split flanges and others |
| **Shaft style** | SAE splined, keyed, tapered, cylindrical tang drive, specials on request. |
| **Speed** | 500 - 4000 rpm, see tables |
| **Theor. displacem.** | see tables |
| **Drive** | Drive direct with flexible coupling is recommended. |
| **Axial / Radial Load** | Units subject to axial or radial loads must be specified with an outboard bearing. |
| **Inlet pressure** | Operating range - 0.8 to 2 bar min. inlet pressure 0.5 bar short time without load Consultation is recommended. |
| **Outlet pressure** | see tables |
| **Hydraulic fluids** | Mineral oil, fire resistant fluids:<br>- water-oil emulsions 60/40, HFB<br>- water-glycol, HFC<br>- phosphate-esters, HFD |
| **Fluid temperature** | Range of operating temperature -15 to +80°C.<br>Max. permissible operating pressure dependent on fluid temperature<br>Temperature for cold start -20 to -15°C at speed ≤ 1500 rpm<br>Max. permissible operating pressure dependent on fluid temperature |

| | |
|---|---|
| **Fluid viscosity** | Range of operating viscosity 8 to 1000 mm²/s max. Permissible operating pressure dependent on viscosity. Viscosity range for cold start 1000 to 2000 mm²/s at operating pressure p≤10 bar and speed n ≤1500 rpm. |
| **Range of ambient temperature** | -40°C - +70°C |
| **Filtration** | according to ISO 4406 Cl. 16/13 |
| **Flow velocity** | see table |
| **Direction of rotation** (looking at the drive shaft) | Clockwise, counter-clockwise or double<br>Attention! Drive pump only in indicated direction of rotation. |
| **Multiple pump assemblies** | - Available in two, three or four section configurations.<br>- Max. shaft loading must conform to the limitations shown in the shaft loading rating table in this catalogue.<br>- Max. load is determined by adding the torque values for each pumping section that will be simultaneously loaded. |
| **Separate or common Inlet Capability** | Separate inlet configuration:<br>- Each gear housing has individual inlet and outlet ports.<br>Common inlet configuration:<br>-Two gear sets share a common inlet.<br>- Inlet is located in the front (and third for tripple or quad constr.) gear housing section. |




| Code | Type |
|---|---|
| P | Pump |
| M | Motor |

| Code | Unit | |
|---|---|---|
| | Pump | Motor |
| A | Single unit | Standard Motor w/o checks |
| B | Multiple unit | Standard Motor w. two checks |
| C | — | Standard Motor w. one anti cavitation check (ACC) |

| Displacement | |
|---|---|
| Code | ccm |
| 0008 | 0.8 |
| 0012 | 1.2 |
| 0016 | 1.6 |
| 0021 | 2.1 |
| 0025 | 2.5 |
| 0033 | 3.3 |
| 0036 | 3.6 |
| 0043 | 4.3 |
| 0048 | 4.8 |
| 0058 | 5.8 |
| 0062 | 6.2 |
| 0079 | 7.9 |

| Code | Rotation |
|---|---|
| C | Clockwise |
| A | Counter clockwise |
| B | bi-directional |

| Code | Shaft |
|---|---|
| H1 | Ø10, 3.0Key, no thread, 36L, parallel |
| P1 | Ø10, 8.0L, 2.0Key, M6, taper 1:5 |
| P2 | Ø9.35, 8.8L, 2.4Key, M6, taper 1:8 |
| P3 | Ø9.35, 8.8L, 2.0Key, M6, taper 1:8 |
| V1 | 5x6.5 long shaft w/o coupling tang drive |
| V2 | 5x4.5 short shaft w/o coupling tang drive |
| V3 | 5x4.5 short shaft w/ coupling tang drive |

1) Only coded for the last section.

| | 4 | | 503 | | | | | | | | | 3) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Motor Drain Option[2] | Drain Posi-tion [2] | Section Connection | | Unit | Displacement | Shaft Seal | Side Suction Port | Side Pressure Port | Rear Suction Port [1] | Rear Pressure Port [1] | | |

| Code | Section Connection |
|---|---|
| S | Seperate inlets |
| C | Common inlets |

| Code | Drain Position |
|---|---|
| 4 | Rear drain |

| Code | Motor Drain Option |
|---|---|
| B1 | no drain |
| N | M10x1 metric thread |

| Code | Port Options |
|---|---|
| B1 | No ports |
| D2 | 9/16 - 18 UNF thread |
| D3 | 3/4 - 16 UNF thread |
| E1 | 1/4 - 19 BSP thread |
| E2 | 3/8 - 19 BSP thread |
| E3 | 1/2 - 14 BSP thread |
| G1 | M14x1.5 thread |
| G3 | M18x1.5 thread |
| J1 | 8mm - Ø26mm - M5 square flange |
| J2 | 10mm - Ø26mm - M5 square flange |
| J3 | 8mm - Ø30mm - M6 square flange |
| J4 | 12mm - Ø30mm - M6 square flange |

| Code | Shaft Seal |
|---|---|
| X | No seal |
| N | NBR |
| V | FPM, FKM |

| Code | Flange |
|---|---|
| D1 | 52.2x72.0 - Ø25.4 rectangular |
| H1 | 82.5 - Ø50.8 SAE "A-A" 2bolt flange |
| P1 | 40.0x40.0 - Ø32.0 w/ seal ported, thrubolt flange |
| P2 | 40.0x40.0 - Ø32.0 w/o seal ported, thrubolt flange |
| P3 | 40.0x40.0 - Ø32.0 w/ seal, thrubolt flange |
| P4 | 40.0x40.0 - Ø32.0 w/ seal f. short shaft, thrubolt flange |
| P5 | 40.0x40.0 - Ø32.0 w/ seal f. long shaft, thrubolt flange |

[2] Only for motors

[3] For further "B" triple unit repeat displacement, shaft seal between sections, side suction port, side pressure port, rear suction port, rear pressure port.

| PG | | 505 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Gear Design | Type | | Unit | Displace-ment | Rotation | Shaft | Flange | Shaft Seal | Side Suction Port | Side Pressure Port | Rear Suction Port [1] | Rear Pressure Port [1] | |

| Code | Type |
|---|---|
| P | Pump |
| M | Motor |

| Code | Unit | |
|---|---|---|
| | Pump | Motor |
| A | Single unit | Standard Motor without checks |
| B | Multiple unit | Standard Motor with two checks |
| C | — | Standard Motor w. one anti cavitation check (ACC) |
| M | Single distributor unit | — |
| N | Multiple distributor unit | — |

| Displacement | |
|---|---|
| Code | ccm |
| 0020 | 2.0 |
| 0030 | 3.0 |
| 0040 | 4.0 |
| 0050 | 5.0 |
| 0060 | 6.0 |
| 0070 | 7.0 |
| 0080 | 8.0 |
| 0090 | 9.0 |
| 0100 | 10.0 |
| 0110 | 11.0 |
| 0120 | 12.0 |
| 0130 | 13.0 |

| Code | Rotation |
|---|---|
| C | Clockwise |
| A | Counter clockwise |
| B | Bi-directional |

| Code | Shaft |
|---|---|
| A1 | 9T, 16/32DP, 32L, SAE "A" spline |
| A2 | 9T, 20/40DP, 27L, SAE "AA" spline |
| J1 | Ø12.7, 3.2Key, no thread, 38L, parallel |
| J2 | Ø13.45, 3.2Key, 10-32UNF 33.3L, parallel |
| K1 | Ø15.88, 4.0Key, no thread, 32L, SAE "A", parallel |
| Q1 | Ø12.7, 7.6L, 2.4Key, M8x1.25, taper 1:8 |
| Q2 | Ø14.25, 5.5L, 3.0Key, M10x1, taper 1:8 |
| V4 | 11x2.8, 1/4UNF for flange code A1, tang drive |

| Code | Flange |
|---|---|
| A1 | 50.8x50.8 - Ø45.25 4bolt square flange |
| D2 | 56.0x73.0 - Ø30.0 rectangular |
| D3 | 71.4x96.0 - Ø36.47 rectangular |
| H1 | 82.5 - Ø50.8 SAE "A-A" 2bolt flange |
| H2 | 106.4 - Ø82.55 SAE "A" 2bolt flange |

[1] Only coded for the last section.

| | | | 505 | | | | | | | | | 3) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Motor Drain Option[2] | Drain Position [2] | Section Connection | | Unit | Displacement | Shaft Seal | Side Suction Port | Side Pressure Port | Rear Suction Port [1] | Rear Pressure Port [1] | | |

| Code | Section Connection |
|---|---|
| S | Seperate inlets |
| C | Common inlets |

| Code | Drain Position |
|---|---|
| 2 | Drain on bottom |
| 3 | Drain on top |
| 4 | Rear drain |

| Code | Motor Drain Option |
|---|---|
| B1 | no drain |
| A | 7/16-20 UNF thread |
| C | 9/16-18 UNF thread |
| G | 1/4 BSP thread |

| Code | Port Options |
|---|---|
| B1 | No ports |
| C2 | 3/8 - 18 NPT |
| C3 | 1/2 - 14 NPT |
| D2 | 9/16 - 18 UNF thread |
| D3 | 3/4 - 16 UNF thread |
| D4 | 7/8 - 14 UNF thread |
| D5 | 1 1/16 - 12UN |
| E1 | 1/4 - 19 BSP thread |
| E2 | 3/8 - 19 BSP thread |
| E3 | 1/2 - 14 BSP thread |
| E5 | 3/4 - 16BSP thread |
| G1 | M14x1.5 thread |
| G3 | M18x1.5 thread |
| G4 | M22x1.5 thread |
| J3 | 8mm - Ø30mm - M6 square flange |
| J4 | 12mm - Ø30mm - M6 square flange |
| J5 | 15mm - Ø35mm - M6 square flange |
| J7 | 20mm - Ø40mm - M6 square flange |
| K5 | 14.2mm - 25.15 - 1/4 - 20UNC, square flange |

[2] Only for motors

[3] For further "B" triple unit repeat displacement, shaft seal between sections, side suction port, side pressure port, rear suction port, rear pressure port.

| Code | Shaft Seal |
|---|---|
| X | No seal |
| N | NBR |
| V | FPM, FKM |
| M | Double NBR |
| W | Double FPM |

| PG | | 511 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Gear Design | Type | | Unit | Displace-ment | Rotation | Shaft | Flange | Shaft Seal | Side Suction Port | Side Pressure Port | Rear Suction Port [2] | Rear Pressure Port [2] | |

| Code | Type |
|---|---|
| P | Pump |
| M | Motor |
| F | Flow divider |

| Code | Unit | |
|---|---|---|
| | Pump | Motor |
| A | Single unit | Standard Motor w/o checks |
| B | Multiple unit | Standard Motor w. two checks |
| C | — | Standard Motor w. one anti cavitation check (ACC) |
| D | — | Standard Motor w. one ACC + restrictor |
| M | Single distributor unit | — |
| N | Multiple distributor unit | — |
| S [1] | Single split gear unit | — |
| T [1] | Multiple split gear unit | — |

[1] Only for displacement codes 0060 to 0280

| Displacement | |
|---|---|
| Code | ccm |
| 0030 | 3.0 |
| 0040 | 4.0 |
| 0050 | 5.0 |
| 0060 | 6.0 |
| 0070 | 7.0 |
| 0080 | 8.0 |
| 0090 | 9.0 |
| 0100 | 10.0 |
| 0110 | 11.0 |
| 0120 | 12.0 |
| 0130 | 13.0 |
| 0140 | 14.0 |
| 0150 | 15.0 |
| 0160 | 16.0 |
| 0170 | 17.0 |
| 0180 | 18.0 |
| 0190 | 19.0 |
| 0200 | 20.0 |
| 0210 | 21.0 |
| 0220 | 22.0 |
| 0230 | 23.0 |
| 0240 | 24.0 |
| 0250 | 25.0 |
| 0260 | 26.0 |
| 0270 | 27.0 |
| 0280 | 28.0 |
| 0290 | 29.0 |
| 0300 | 30.0 |
| 0310 | 31.0 |

| Code | Rotation |
|---|---|
| C | Clockwise |
| A | Counter clockwise |
| B | Bi-directional |

| Code | Shaft Seal |
|---|---|
| X | No seal |
| N | NBR |
| V | FPM, FKM |
| M | Double NBR |
| W | Double FPM |

| Code | Shaft |
|---|---|
| A1 | 9T, 16/32DP, 32L, SAE "A" spline |
| B1 | 10T, 16/32DP, 32L spline |
| B2 | 10T, 16/32DP, 38.2L spline |
| C1 | 11T, 16/32DP, 38.2L, SAE 19-4 spline |
| C2 | 11T, 16/32DP, 32.2L, SAE 19-4 spline |
| F1 | 9T, B17x14, 23L, DIN 5482 spline |
| F2 | 13T, W18x1.25, 24L, DIN 5480 spline |
| F3 | 14T, W20x1.25, 24L, DIN 5480 spline |
| K1 | Ø15.88, 4.0Key, no thread, 32L, SAE "A", parallel |
| K4 | Ø15.88, 3.95Key, no thread, 58.7L, parallel |
| L1 | Ø17.46, 4.8Key, 7/16UNF ext., 44.2L, parallel |
| L6 | Ø19.05, 4.8Key, no thread, 32L, SAE 19-1, parallel |
| R1 | Ø15.9, 8.0L, 4.0Key, 1/2 UNF, SAE "A", taper 1:8 |
| S1 | Ø17.0, 7.7L, 3.0Key, M12x1.5, taper 1:5 |
| S2 | Ø16.65, 12.0L, 3.2Key, M12x1.5, taper 1:8 |
| S4 | Ø16.65, 12.0L, 4.0Key, M12x1.5, taper 1:8 |
| V5 | 8x6.5 short shaft, tang drive |

[2] Only coded for the last section.

[3] Only for motors

| | | | 511 | | | | | | | | | 4) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Motor Drain Option[3] | Drain Position [3] | Section Connection | | Unit | Displacement | Shaft Seal | Side Suction Port | Side Pressure Port | Rear Suction Port [2] | Rear Pressure Port [2] | | |

| Code | Section Connection |
|---|---|
| S | Seperate inlets |
| C | Common inlets |

| Code | Drain Position |
|---|---|
| 2 | Drain on bottom |
| 3 | Drain on top |
| 4 | Rear drain |
| 5 | Drain right view on drive shaft |
| 6 | Drain left view on drive shaft |

| Code | Motor Drain Option |
|---|---|
| B1 | no drain |
| A | 7/16-20 UNF thread |
| C | 9/16-18 UNF thread |
| G | 1/4 BSP thread |
| N | M10x1 metric thread |
| P | M12x1.5 metric thread |

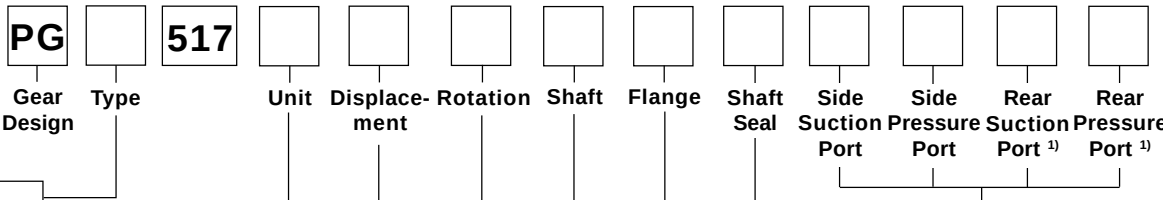
| Code | Flange |
|---|---|
| D3 | 71.4x96.0 - Ø36.47 rectangular |
| D4 | 72.0x100.0 - Ø80 rectangular |
| H2 | 106.4 - Ø82.55 SAE "A" 2bolt flange |
| H3 | 146.1 - Ø101.6 SAE "B" 2bolt flange |
| Q1 | 60.0x60.0 - Ø52.0 w/o seal ,O' thrubolt flange |
| Q2 | 60.0x60.0 - Ø50.0 w. seal 'O' thrubolt flange |
| Q3 | 60.0x60.0 - Ø52.0 w/o seal 'O' thrubolt flange |
| Q4 | 60.0x60.0 - Ø50.0 w. seal 'O',thrubolt flange |
| J5 | H2 with slots, spec 2bolt |
| F3 | 71.4x96.0 - Ø36.47 rect., w. OBB and cont. drive shaft |
| F4 | 72.0x100.0 - Ø80.0 rect., w. OBB and cont. drive shaft |
| L2 | 106.4 - Ø82.55 SAE "A" 2bolt, w. OBB + cont. drive shaft |
| L3 | 146.1 - Ø101.6 SAE "B" 2bolt, w. OBB + cont. drive shaft |
| L5 | 106.4 - Ø82.55 SAE "A" 2bolt, w. OBB + int. drive shaft |
| L6 | 146.1 - Ø101.6 SAE "B" 2bolt, w. OBB + int. drive shaft |

[4] For further "B" triple unit repeat displacement,
shaft seal between sections,
side suction port,
side pressure port,
rear suction port,
rear pressure port.

| Code | Port Options |
|---|---|
| B1 | No ports |
| C2 | 3/8 - 18 NPT thread |
| C3 | 1/2 - 14 NPT thread |
| D2 | 9/16 - 18 UNF thread |
| D3 | 3/4 - 16 UNF thread |
| D4 | 7/8 - 14 UNF thread |
| D5 | 1 1/16 - 12 UN thread |
| D6* | 1 5/16 - 12 UN thread |
| D7* | 1 5/8 - 12 UN thread |
| D8* | 1 7/8 - 12 UN thread |
| E2 | 3/8 - 19 BSP thread |
| E3 | 1/2 - 12 BSP thread |
| E4* | 5/8 - 14 BSP thread |
| E5* | 3/4 - 14 BSP thread |
| E6* | 1 - 11 BSP thread |
| E7* | 1 1/4 - 11 BSP thread |
| E8* | 1 1/2 - 11 BSP thread |
| G1 | M14x1.5 thread |
| G3 | M18x1.5 thread |
| G4 | M22x1.5 thread |
| G5* | M26x1.5 thread |
| G7* | M30x1.5 thread |
| G8* | M33x2 thread |
| H1 | M14x1.5 thread w. O-ring |
| H2 | M16x1.5 thread w. O-ring |
| H3 | M18x1.5 thread w. O-ring |
| H4 | M22x1.5 thread w. O-ring |
| H6* | M27x2 thread w. O-ring |
| H8* | M33x2 thread w. O-ring |
| J3* | 8mm - Ø30mm - M6 square |
| J4* | 12mm - Ø30mm - M6 square |
| J5* | 15mm - Ø35mm - M6 square |
| J6* | 15mm - Ø40mm - M8 square |
| J7* | 20mm - Ø40mm - M6 square |
| J8* | 18mm - Ø55mm - M8 square |
| J9* | 26mm - Ø55mm - M8 square |

| Code | Port Options |
|---|---|
| K1* | 19mm-30.48mm-5/16-18UNF diamond |
| K2* | 19mm-30.48mm-M8 diamond |
| K3* | 19mm-32mm-M6 diamond |
| K4* | 16mm-25.15mm-M6 diamond |
| L1* | 13mm-Ø30mm-M6 diamond |
| L2* | 19mm-Ø40mm-M8 diamond |
| L3* | 27mm-Ø51mm-M10 diamond |
| L4* | 13mm-Ø30mm-1/4-20UNF diamond |
| L5* | 19mm-Ø40mm-5/16-18UNF diamond |
| L6* | 27mm-Ø51mm-3/8-16UNF diamond |
| M1* | 15mm-30.16mm-M6 diamond |
| M2* | 15mm-30.16mm-1/4-20UNF diamond |
| M3* | 14.2mm-35.57mm-1/4-20UNF diamond |
| N1* | 1/2"-5/16-18UNC SAE Split Flange |
| N2* | 3/4"-3/8-16UNC SAE Split Flange |
| N3* | 1"-3/8-16UNC SAE Split Flange |
| N4* | 1 1/4"-7/16-14UNC SAE Split Flange |
| P1* | 12.7mm - M8 Metric Split Flange |
| P2* | 19.0mm - M10 Metric Split Flange |
| P3* | 25.4mm - M10 Metric Split Flange |
| P4* | 31.8mm - M10 Metric Split Flange |
| P5* | 38.1mm - M12 Metric Split Flange |

* Not usable for rear ports.




| Code | Type |
|---|---|
| P | Pump |
| M | Motor |
| F | Flow divider |

| Code | Unit | |
|---|---|---|
| | Pump | Motor |
| A | Single unit | Standard Motor without checks |
| B | Multiple unit | Standard Motor with two checks |
| C | — | Standard Motor w. one anti cavitation check (ACC) |
| M | Single distributor unit | — |
| N | Multiple distributor unit | — |

| Displacement | |
|---|---|
| Code | ccm |
| 0120 | 12 |
| 0140 | 14 |
| 0160 | 16 |
| 0190 | 19 |
| 0230 | 23 |
| 0250 | 25 |
| 0280 | 28 |
| 0290 | 29 |
| 0310 | 31 |
| 0330 | 33 |
| 0360 | 36 |
| 0380 | 38 |
| 0390 | 39 |
| 0420 | 42 |
| 0440 | 44 |
| 0500 | 50 |
| 0520 | 52 |
| 0580 | 58 |
| 0650 | 65 |
| 0700 | 70 |

| Code | Rotation |
|---|---|
| C | Clockwise |
| A | Counter clockwise |
| B | Bi-directional |

| Code | Shaft |
|---|---|
| D1 | 13T, 16/32DP, 41.2L, SAE "B" spline |
| E1 | 15T, 16/32DP, 46L, SAE "B-B" spline |
| F4 | 18T, W25x1.25, 34L, DIN 5480 spline |
| M1 | Ø22.2, 6.3Key, no thread, 41.2L, SAE "B", parallel |
| M2 | Ø25.4, 6.3Key, no thread, 46L, SAE "B-B", parallel |
| T1 | Ø21.59, 11.2L, 4.0Key, M14x1.5, taper 1:8 |
| T2 | Ø25, 12L, 5.0Key, M16x1.5, taper 1:5 |

1) Only coded for the last section.

| Motor Drain Option 2) | Drain Position 2) | Section Connection | 517 | Unit | Displacement | Shaft Seal | Side Suction Port | Side Pressure Port | Rear Suction Port 1) | Rear Pressure Port 1) | 3) |
|---|---|---|---|---|---|---|---|---|---|---|---|

| Code | Section Connection |
|---|---|
| S | Seperate inlets |
| C | Common inlets |

| Code | Drain Position |
|---|---|
| 2 | Drain on bottom |
| 3 | Drain on top |
| 4 | Rear drain |

| Code | Motor Drain Option |
|---|---|
| B1 | no drain |
| A | 7/16-20 UNF thread |
| C | 9/16-18 UNF thread |
| G | 1/4 BSP thread |
| N | M10x1 metric thread |
| P | M12x1.5 metric thread |

| Code | Shaft Seal |
|---|---|
| X | No seal |
| N | NBR |
| V | FPM, FKM |
| M | Double NBR |
| W | Double FPM |

| Code | Flange |
|---|---|
| D5 | 88.4x132.0 - Ø99.94 rectangular |
| D6 | 102.0x145.0 - Ø104.96 rectangular |
| D7 | 98.4x128.2 - Ø50.77 rectangular |
| H2 | 106.4 - Ø82.55 SAE "A" 2bolt flange |
| H3 | 146.1 - Ø101.6 SAE "B" 2bolt flange |
| L2 | 106.4 - Ø82.55 SAE "A" 2bolt flange with OBB |
| L3 | 146.1 - Ø101.6 SAE "B" 2bolt flange with OBB |
| L5 | 106.4 - Ø82.55 SAE "A" 2bolt, w. OBB + int. drive shaft |
| L6 | 146.1 - Ø101.6 SAE "B" 2bolt, w. OBB + int. drive shaft |

| Code | Port Options |
|---|---|
| B1 | No ports |
| C3 | 1/2 - 14 NPT thread |
| C4 | 3/4 - 14 NPT thread |
| D3 | 3/4 - 16 UNF thread |
| D4 | 7/8 - 14 UNF thread |
| D5 | 1 1/16 - 12 UN thread |
| D6 | 1 5/16 - 12 UN thread |
| D7* | 1 5/8 - 12 UN thread |
| D8* | 1 7/8 - 12 UN thread |
| E3 | 1/2 - 12 BSP thread |
| E4 | 5/8 - 14 BSP thread |
| E5 | 3/4 - 16 BSP thread |
| E6 | 1 - 11 BSP thread |
| E7* | 1 1/4 - 11 BSP thread |
| E8* | 1 1/2 - 11 BSP thread |
| G4 | M22x1.5 thread |
| G5 | M26x1.5 thread |
| G7 | M30x1.5 thread |
| G8 | M33x2 thread |
| G9* | M42x2 thread |
| J5* | 15mm - Ø35mm - M6 square |
| J6* | 15mm - Ø40mm - M8 square |
| J7* | 20mm - Ø40mm - M6 square |
| J8* | 18mm - Ø55mm - M8 square |
| J9* | 26mm - Ø55mm - M8 square |

| Code | Port Options |
|---|---|
| L1* | 13mm-Ø30mm-M6 diamond |
| L2* | 19mm-Ø40mm-M8 diamond |
| L3* | 27mm-Ø51mm-M10 diamond |
| L5* | 19mm-Ø40mm-5/16-18UNF diamond |
| L6* | 27mm-Ø51mm-3/8-16UNF diamond |
| M4* | 19mm-48.13mm-5/16-18UNF diamond |
| M5* | 25.4mm-48.13mm-5/16-18UNF diamond |
| N1* | 1/2"-5/16-18UNC SAE Split Flange |
| N2* | 3/4"-3/8-16UNC SAE Split Flange |
| N3* | 1"-3/8-16UNC SAE Split Flange |
| N4* | 1 1/4"-7/16-14UNC SAE Split Flange |
| N5* | 1 1/2"-1/2-13UNC SAE Split Flange |
| P1* | 12.7mm - M8 Metric Split Flange |
| P2* | 19.0mm - M10 Metric Split Flange |
| P3* | 25.4mm - M10 Metric Split Flange |
| P4* | 31.8mm - M10 Metric Split Flange |
| P5* | 38.1mm - M12 Metric Split Flange |

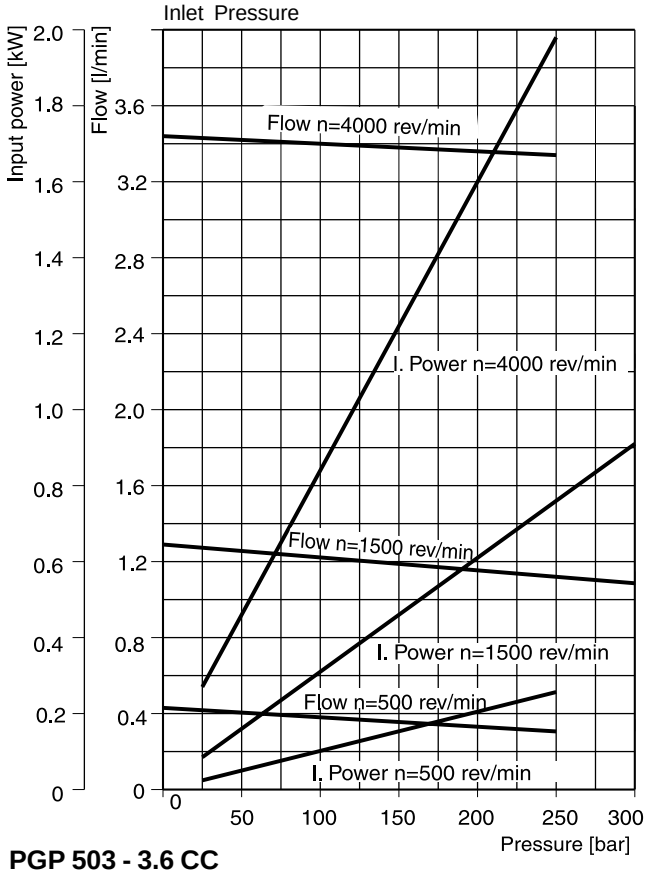
* Not usable for rear ports.

2) Only for motors

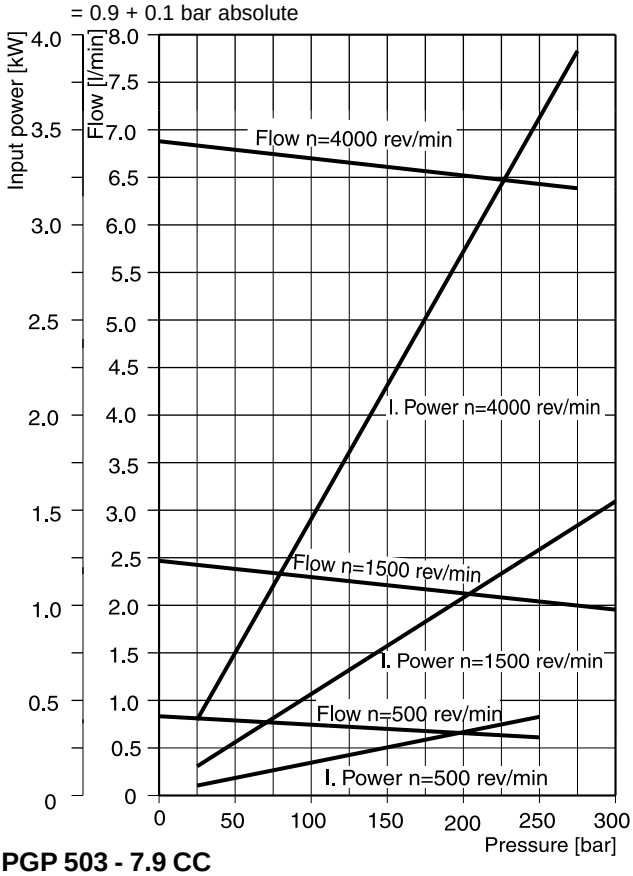
3) For further "B" triple unit repeat displacement,
shaft seal between sections,
side suction port,
side pressure port,
rear suction port,
rear pressure port.

### PGP 503 - 0.8 CC

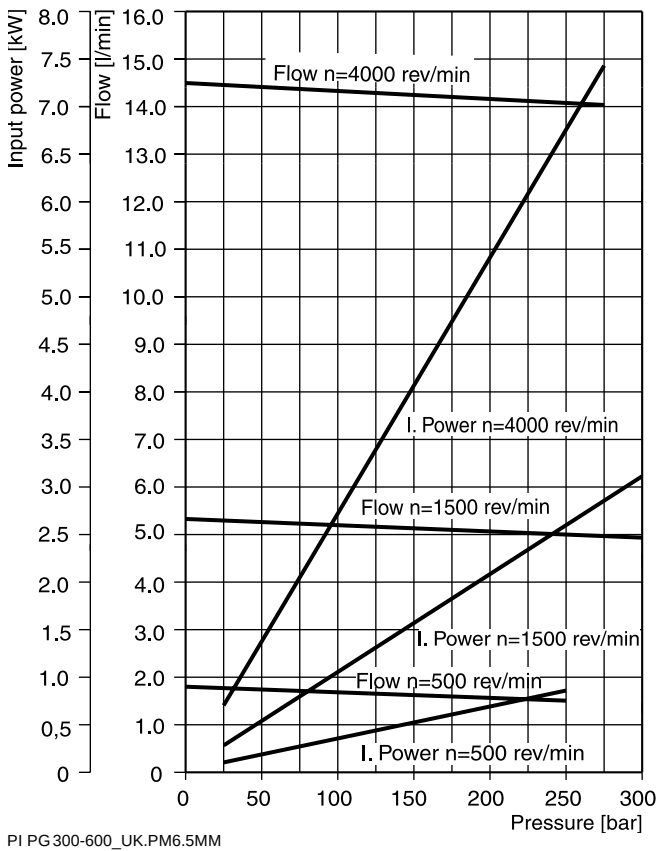
Fluid Temperature = 45± 2°C
Viscosity = 36mm²/s
Inlet Pressure = 0.9 + 0.1 bar absolute



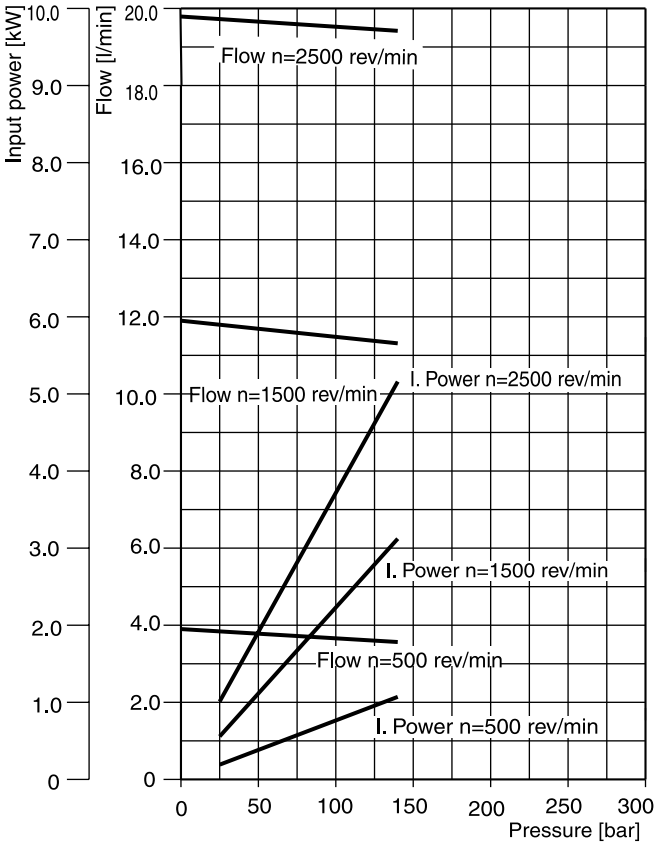

### PGP 503 - 1.6 CC




### PGP 503 - 3.6 CC




### PGP 503 - 7.9 CC



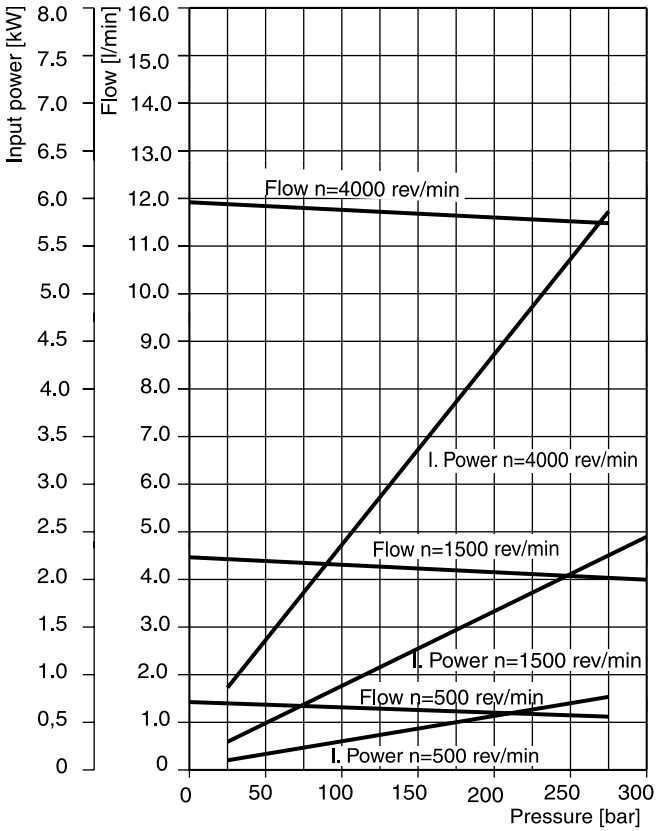

PI PG 300-600_UK.PM6.5MM



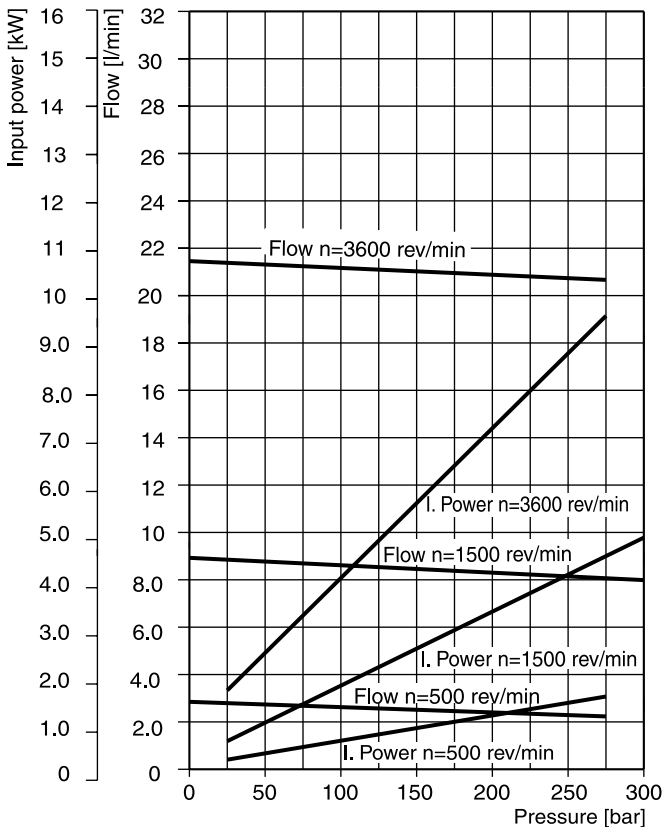
**Parker Hannifin GmbH**
Hydraulic Controls Division

### PGP 505 - 3.0CC

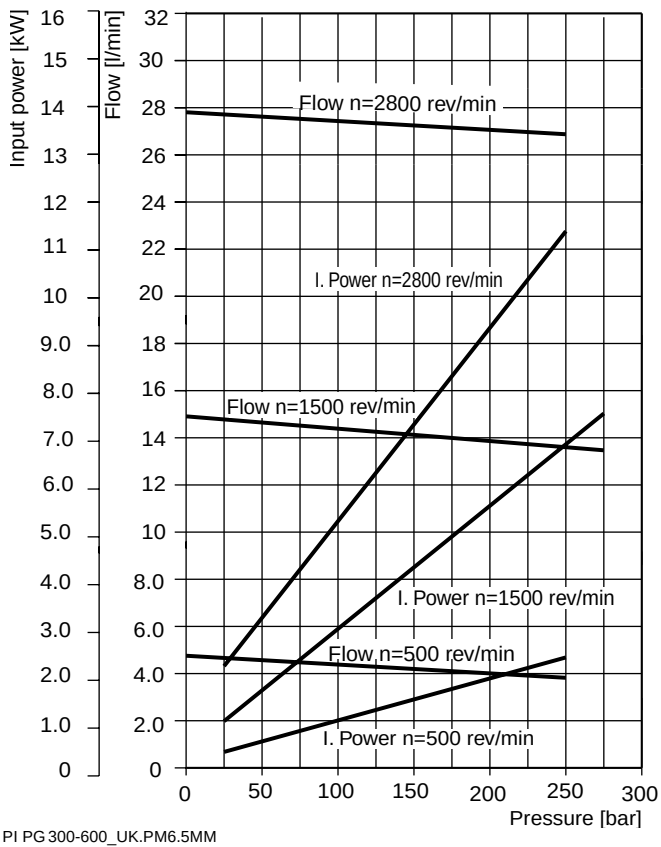
Fluid Temperature = 45± 2°C
Viscosity = 36mm²/s
Inlet Pressure = 0.9 + 0.1 bar absolute



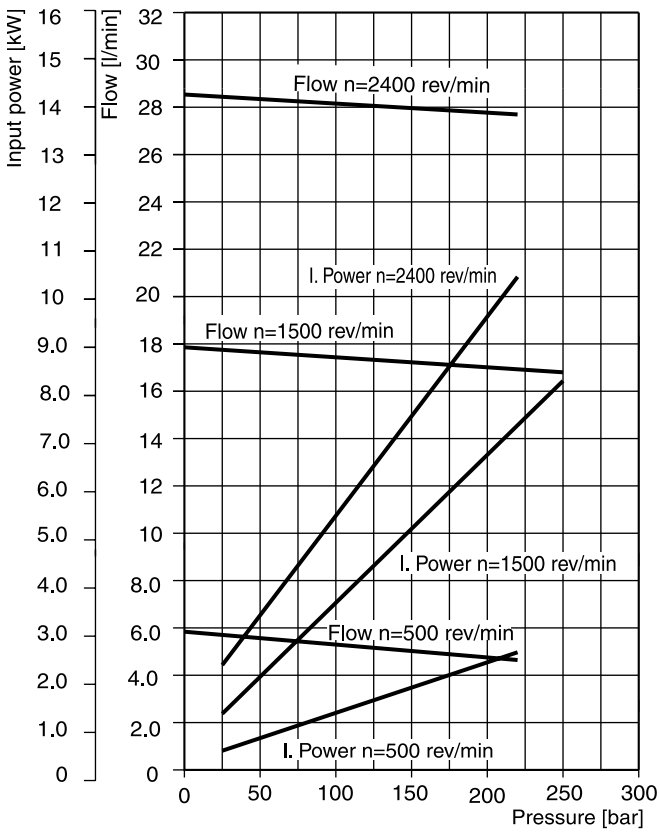

### PGP 505 - 6.0 CC




### PGP 505 - 10.0 CC

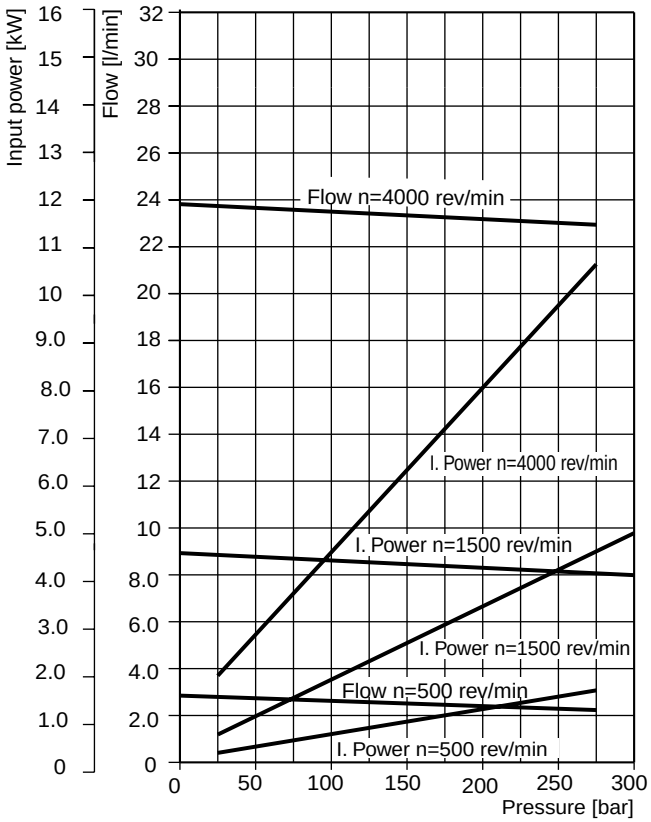



### PGP 505 - 12.0 CC

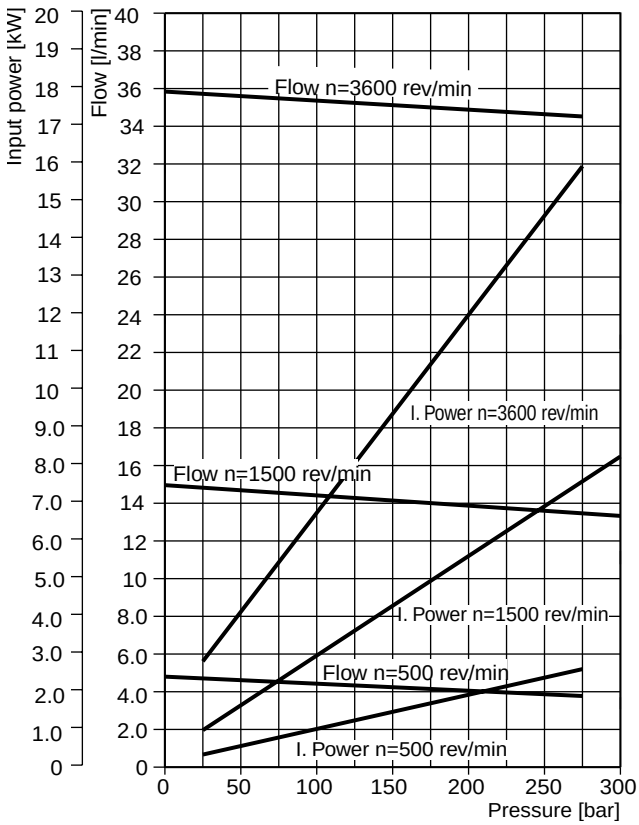


### PGP/PGM 511 - 6.0 CC

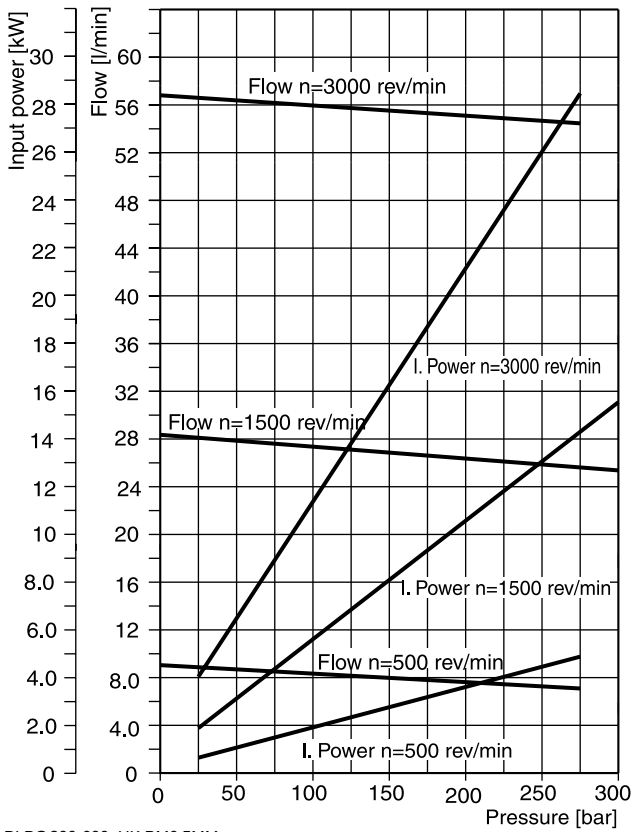
Fluid Temperature = 45± 2°C
Viscosity = 36mm²/s
Inlet Pressure = 0.9 + 0.1 bar absolute



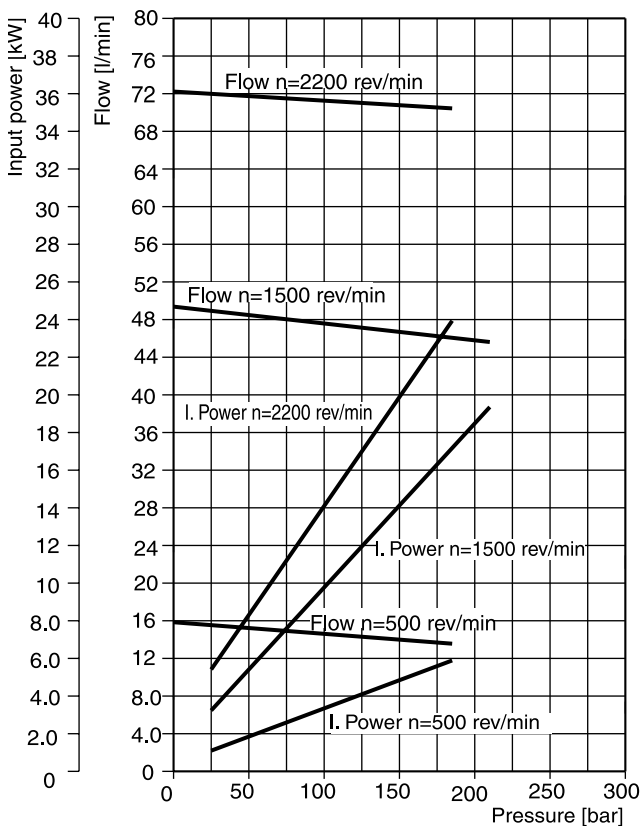

### PGP 511 - 10.0 CC




### PGP/PGM 511 - 19.0 CC

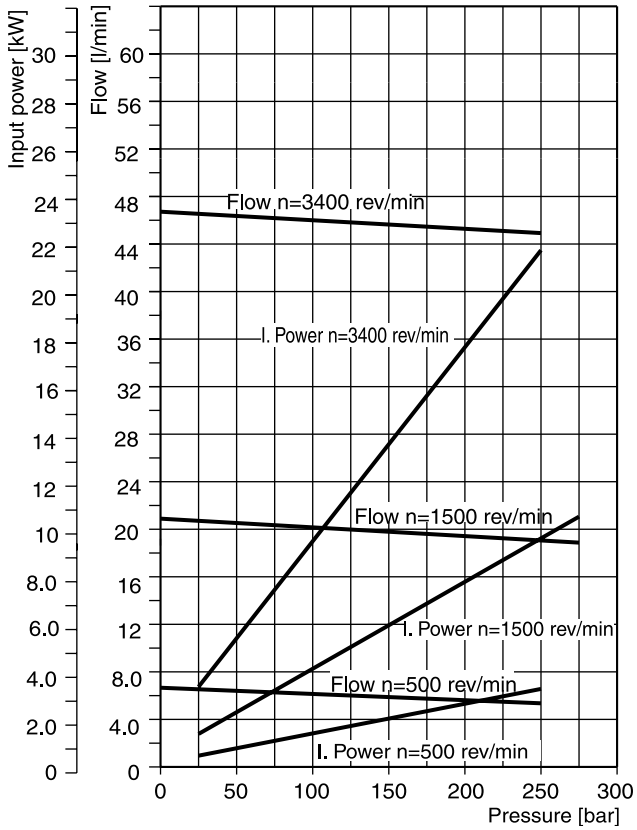



### PGP 511 - 33.0 CC

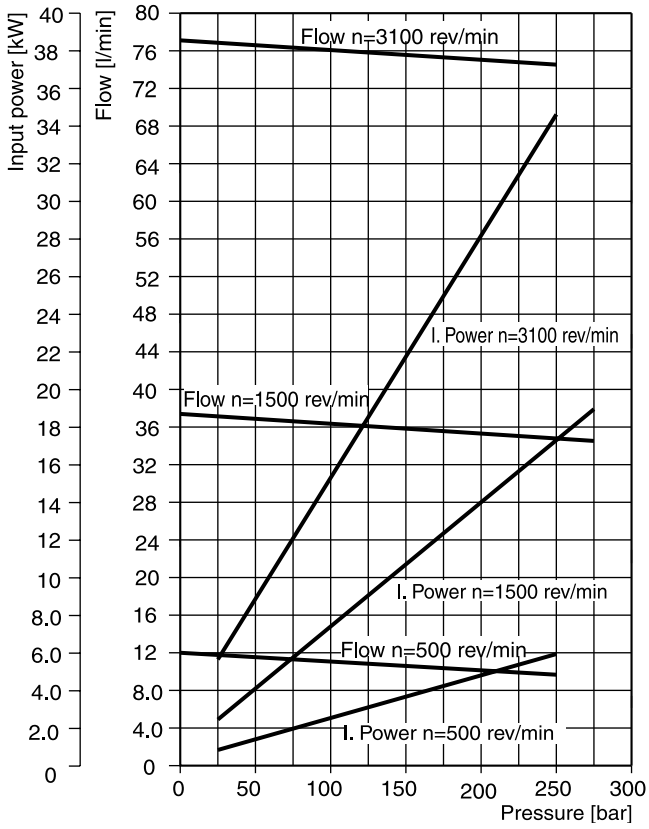


**PGP 517- 14.0 CC**

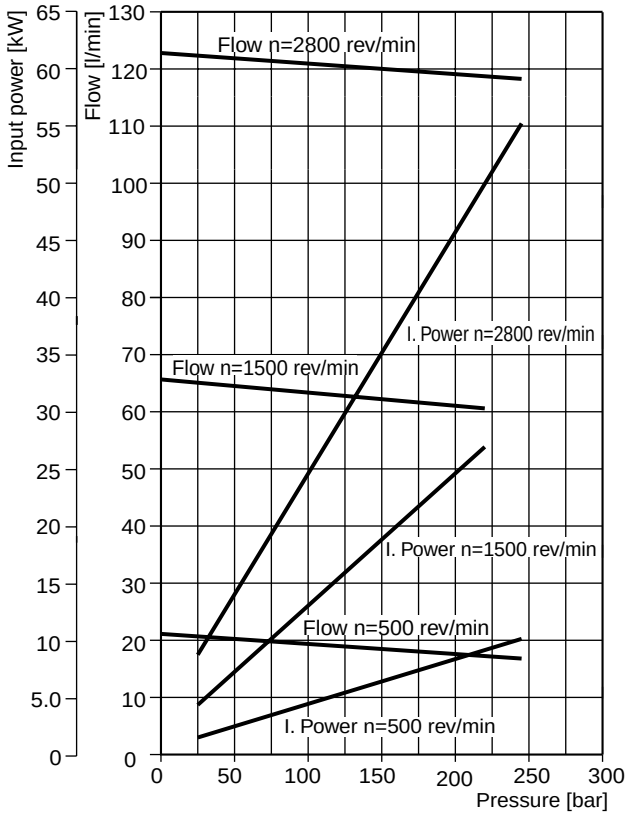
Fluid Temperature = 45± 2°C
Viscosity = 36mm²/s
Inlet Pressure = 0.9 + 0.1 bar absolute



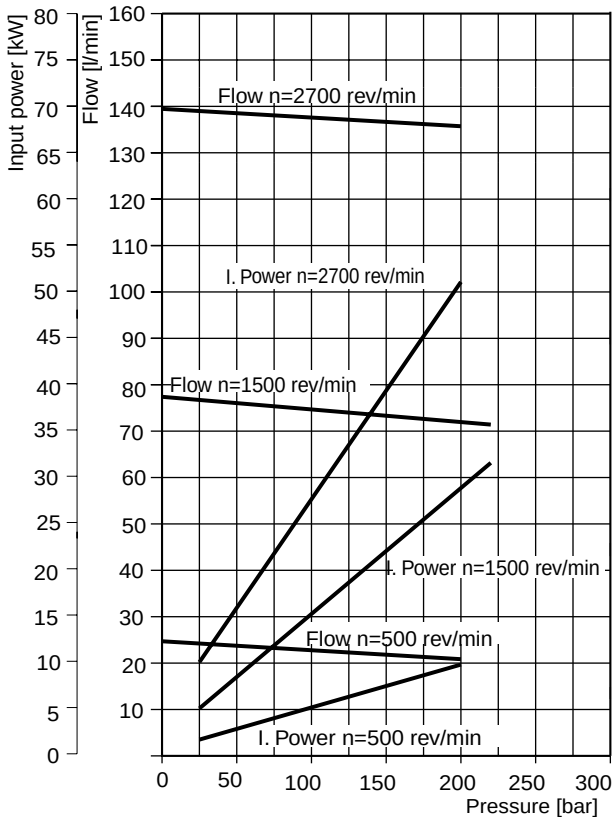

**PGP/PGM 517 -25.0 CC**




**PGP 517 - 44.0 CC**




**PGP 517- 52.0 CC**



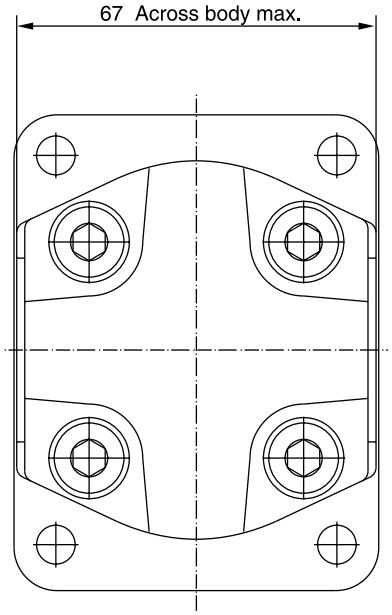
## PGP/PGM 503 Dimensions

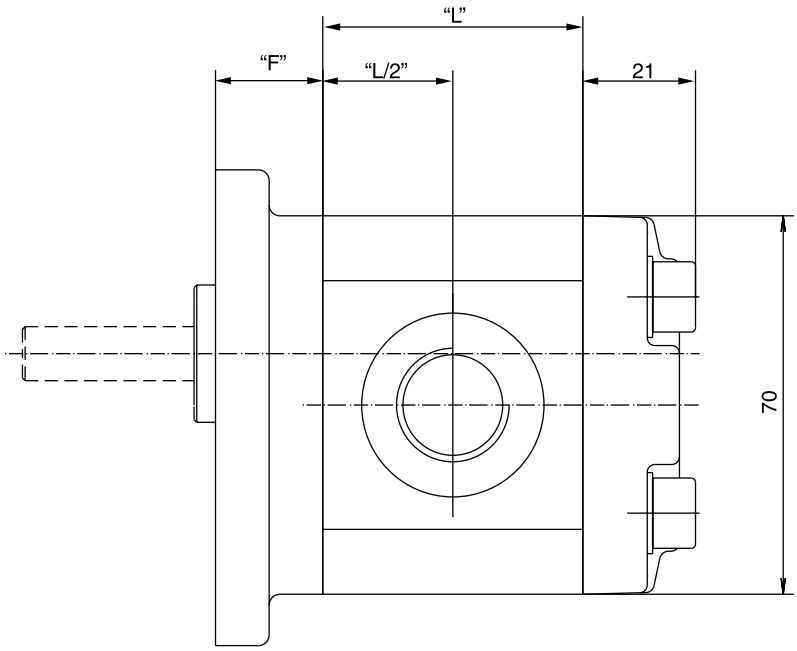
### PGP/PGM 503 Pump Specification - Standard Displacements

| Pump Displacement | Code | 0008 | 0012 | 0016 | 0021 | 0025 | 0033 | 0036 | 0043 | 0048 | 0058 | 0062 | 0079 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | cm³/rev | 0.8 | 1.2 | 1.6 | 2.1 | 2.5 | 3.3 | 3.6 | 4.3 | 4.8 | 5.8 | 6.2 | 7.9 |
| **Continous Pressure** | bar | 275 | 275 | 275 | 275 | 275 | 275 | 250 | 210 | 160 | 160 | 150 | 120 |
| **Intermittent Pressure** | bar | 300 | 300 | 300 | 300 | 300 | 300 | 280 | 230 | 180 | 180 | 170 | 140 |
| **Minimum Speed** @ Max. outlet press. | rpm | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 |
| **Maximum Speed** @ 0 Inlet & Max.outlet press. | rpm | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 3500 | 3000 | 3000 | 3000 | 2500 |
| **Pump Input Power** @ Max. Press. and 1500 rpm | kW | 0.82 | 1.1 | 1.4 | 1.7 | 2.0 | 2.5 | 2.6 | 2.6 | 2.4 | 2.8 | 2.9 | 3.0 |
| **Dimension "L"** | mm | 35.3 | 36.8 | 38.3 | 39.9 | 41.5 | 44.5 | 45.6 | 48.5 | 50.0 | 53.8 | 55.3 | 61.6 |
| **Approximate Weight**[1)] | kg | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 | 1.2 | 1.2 | 1.3 | 1.4 | 1.4 | 1.5 | 1.6 |

[1)] Single pump with Flange D1and Port end cover B1

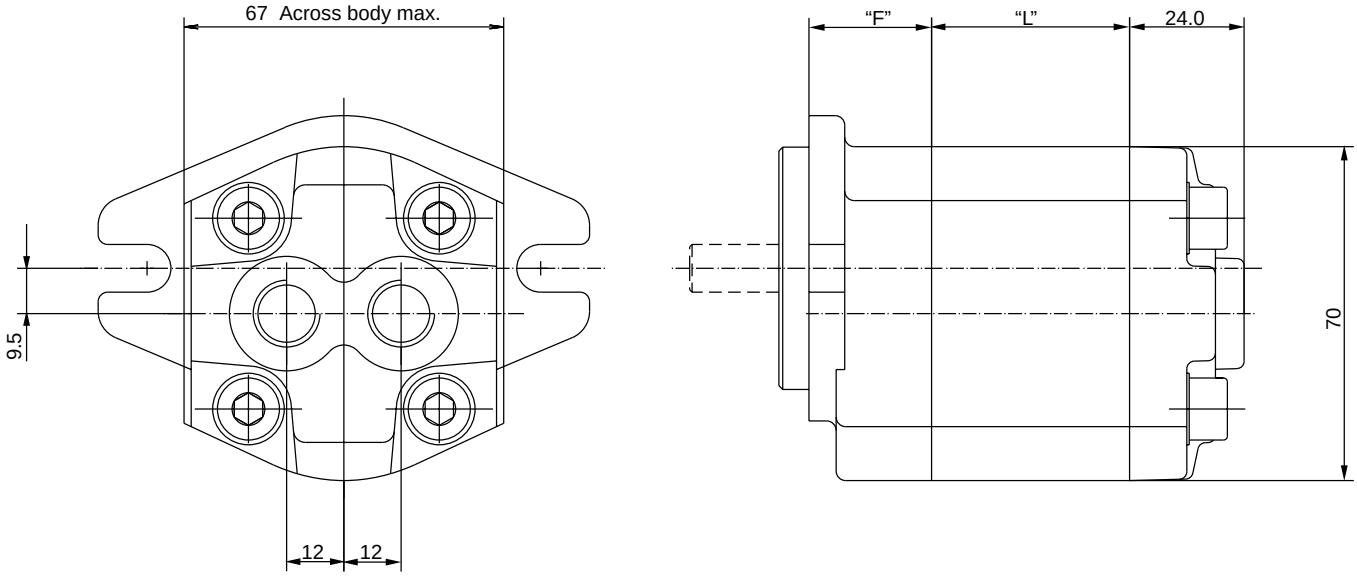
### Single Unit PGP/PGM 503



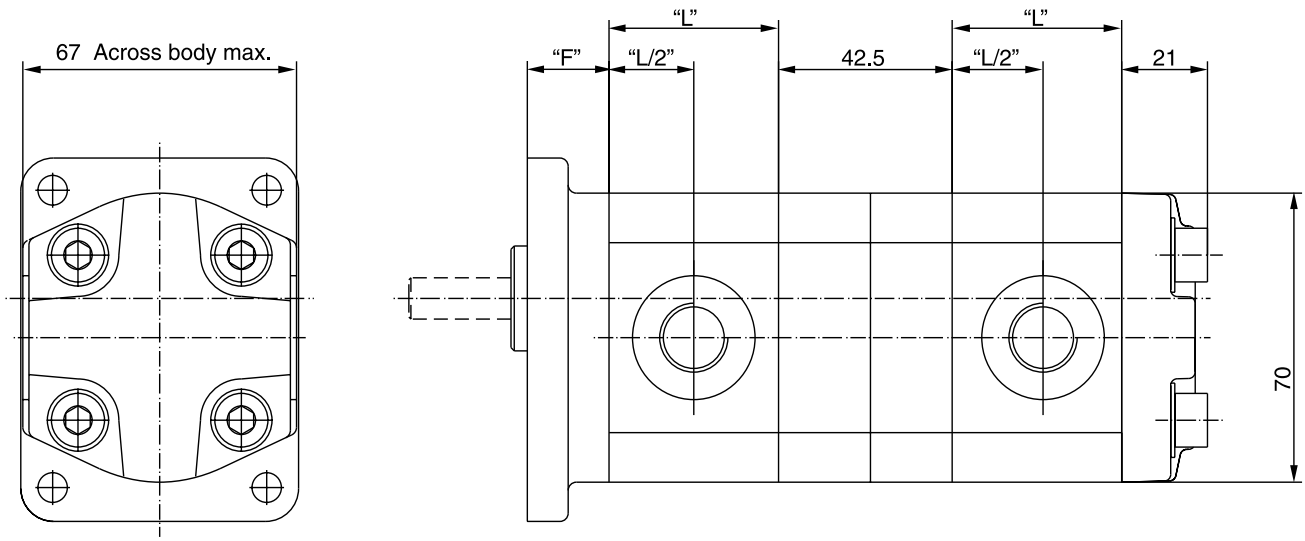

**Dimension "F"** see flanges
**Dimension "L"** see table

### Single Unit PGP/PGM 503 with rear ports




**Dimension "F"** see flanges
**Dimension "L"** see table

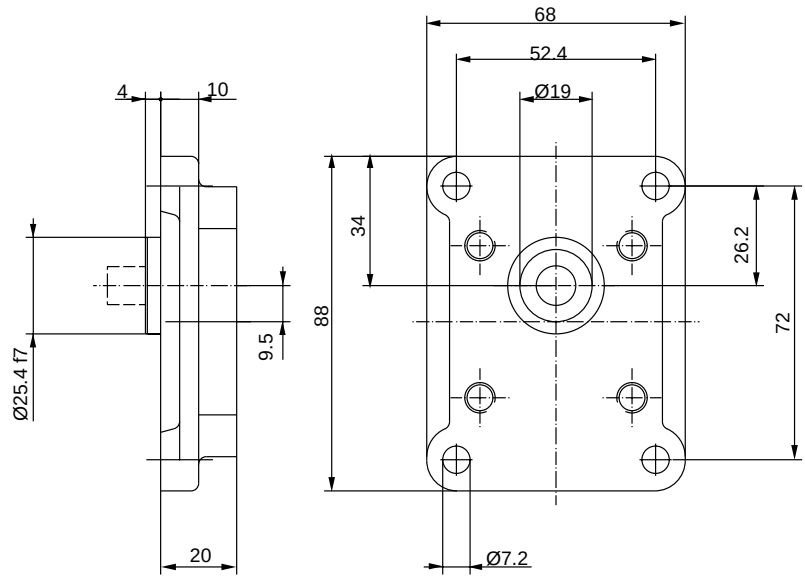
### Tandem Unit PGP/PGM 503



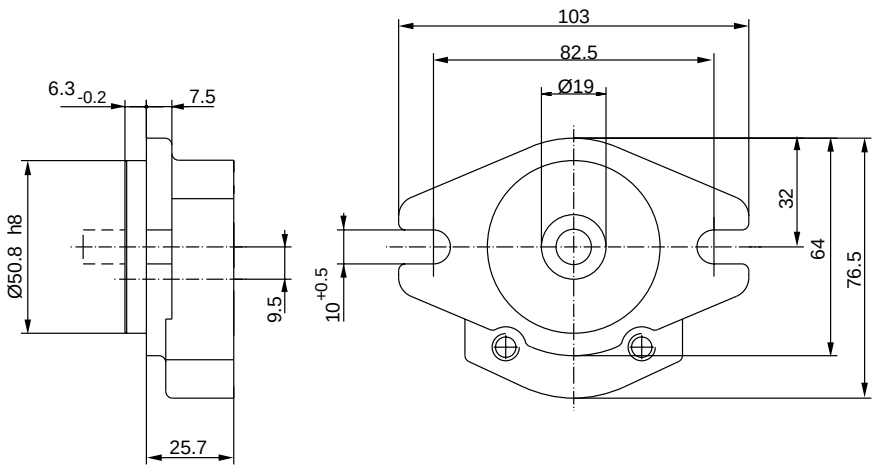

**Dimension "F"** see flanges
**Dimension "L"** see table

## PGP/PGM 503 Mounting Flange

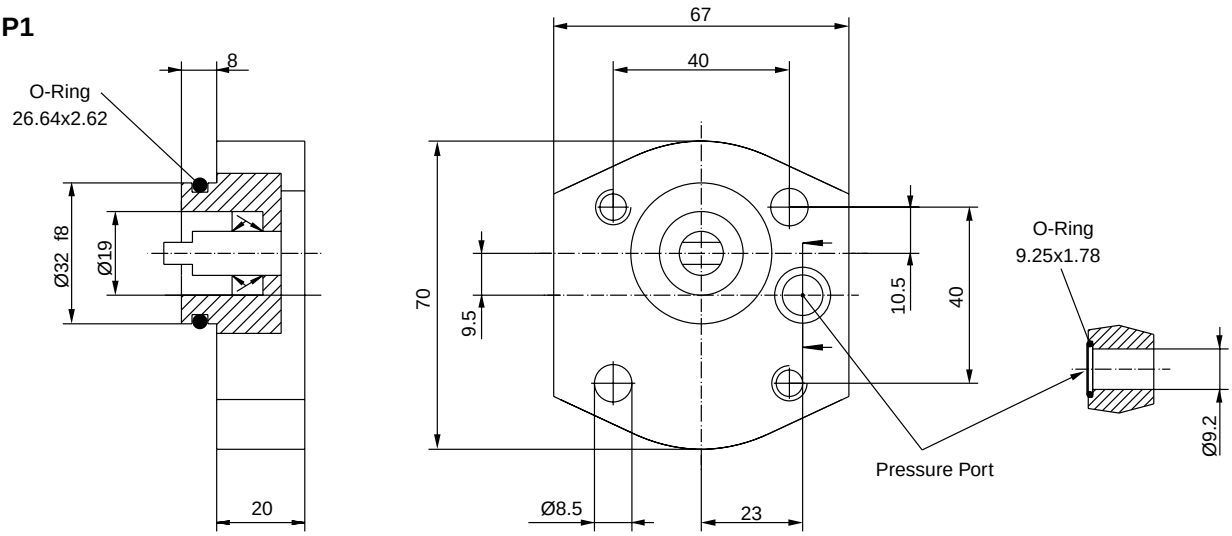
### Code D1




### Code H1

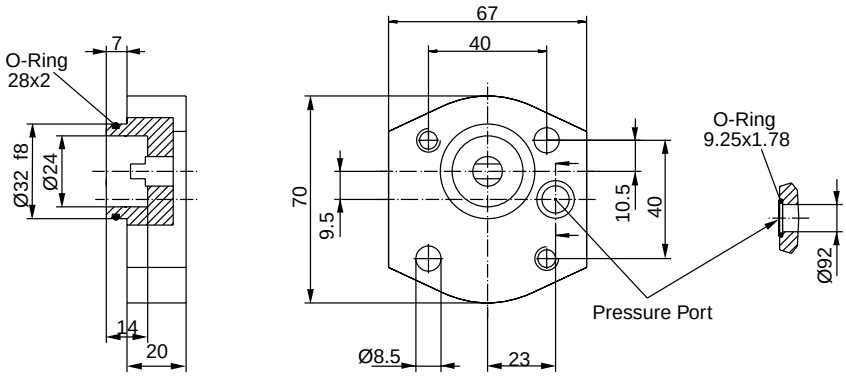



### Code P1

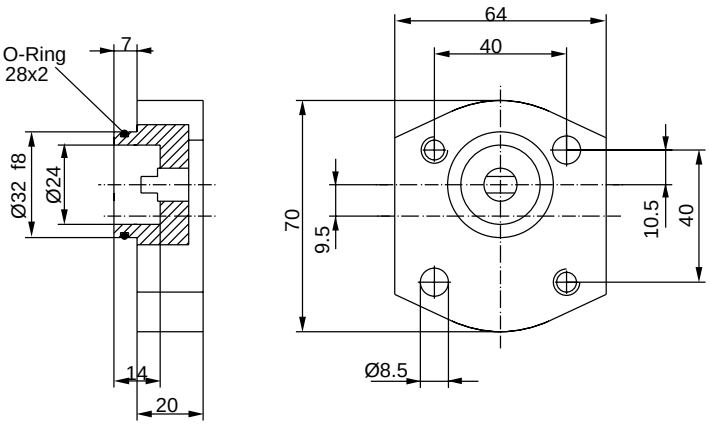


## PGP/PGM 503 Mounting Flange

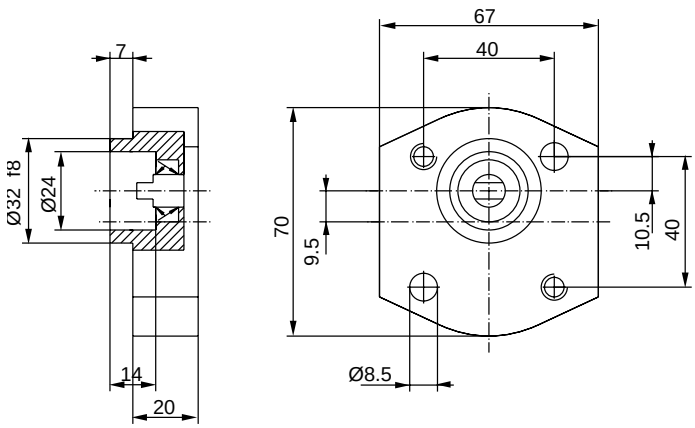
### Code P2



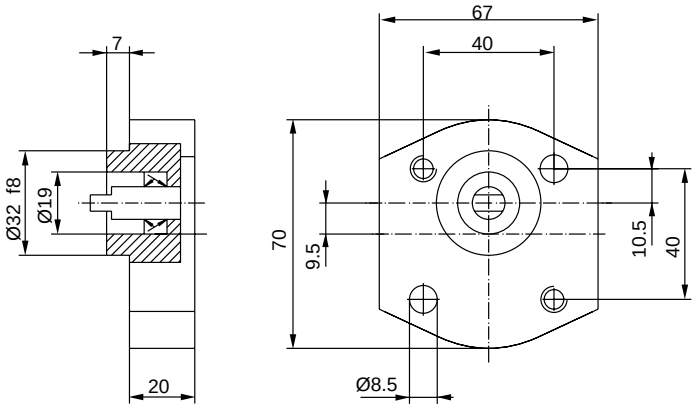

### Code P3



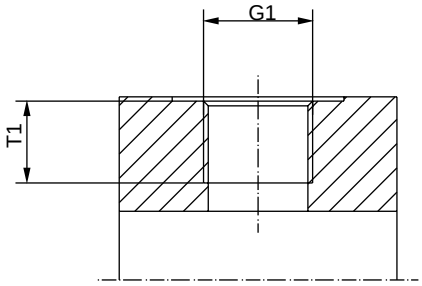

### Code P4

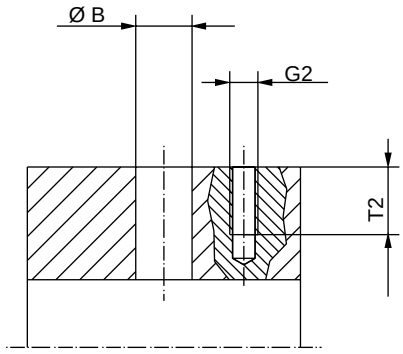



### Code P5

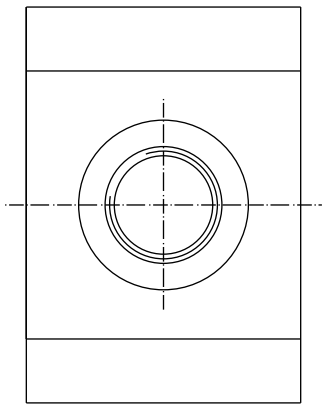


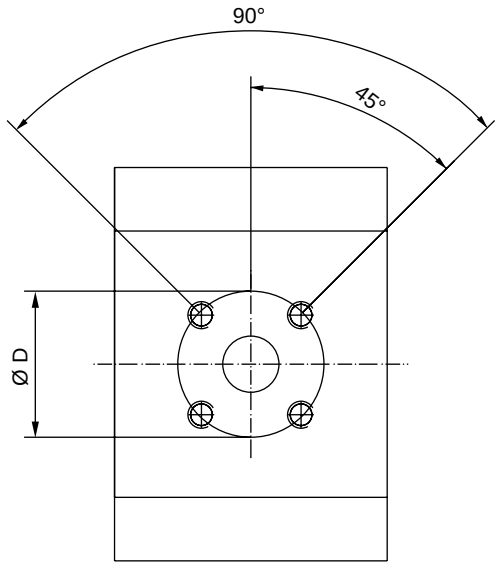
**Porting PGP/PGM 503**



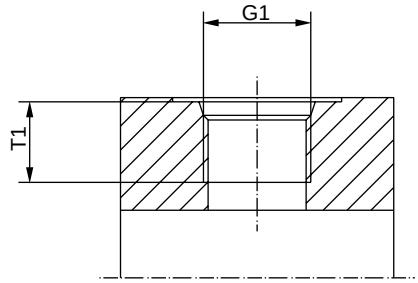




**Code E** British Standard Pipe Parallel (BSPP)
**Code G** Metric straight thread






**Code J** European flange

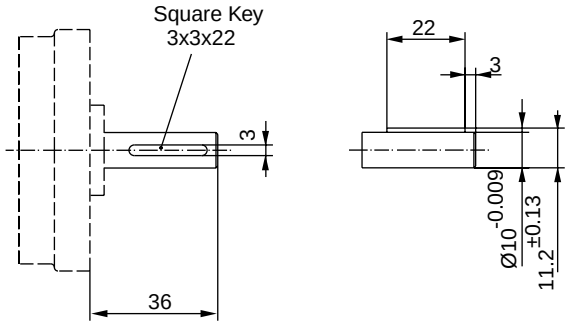



**Code D** SAE straight thread

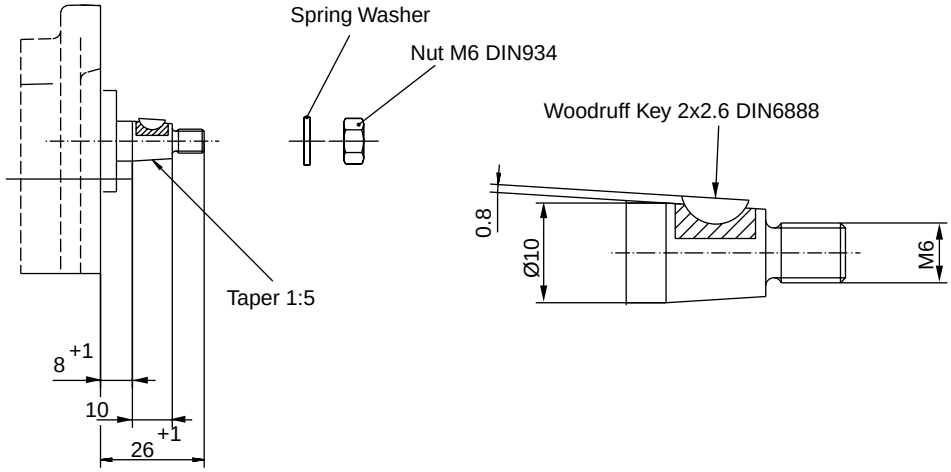
| Code | G1 Thread | G2 Thread | T1 | Ø B | Ø D | T2 |
|---|---|---|---|---|---|---|
| | | | Dimension | | | |
| **D2** | 9/16-18 UNF | | 12.7 | | | |
| **D3** | 3/4-16 UNF | | 14.3 | | | |
| **E1** | 1/4-19 BSP | | 12.0 | | | |
| **E2** | 3/8-19 BSP | | 12.0 | | | |
| **E3** | 1/2-14 BSP | | 14.0 | | | |
| **G1** | M14x1.5 | | 12.0 | | | |
| **G3** | M18x1.5 | | 12.0 | | | |
| **J1** | | M5 | | 8.0 | 26.0 | 12.0 |
| **J2** | | M5 | | 10.0 | 26.0 | 12.0 |
| **J3** | | M6 | | 8.0 | 30.0 | 12.0 |
| **J4** | | M6 | | 12.0 | 30.0 | 12.0 |

## PGP/PGM 503 Drive Shaft

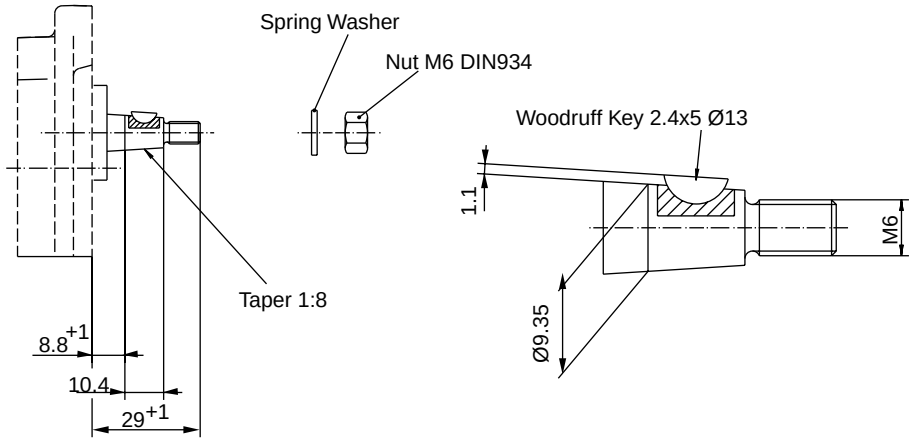
### Code H1



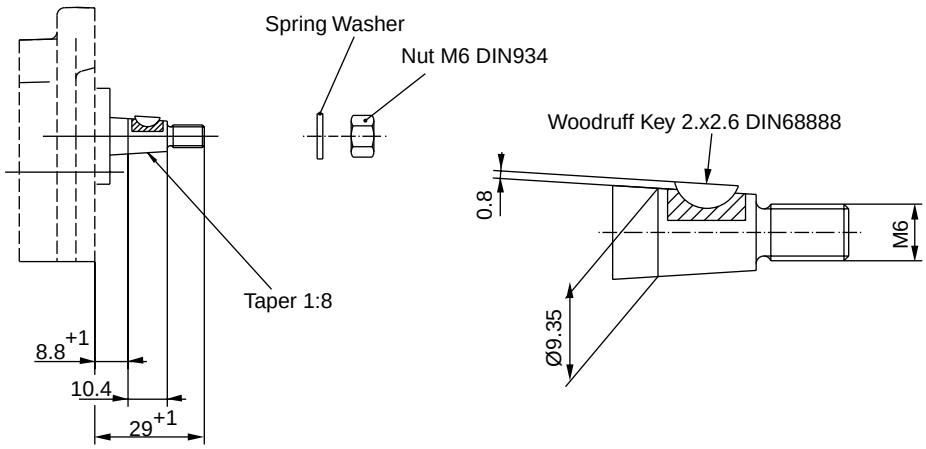

### Code P1




### Code P2

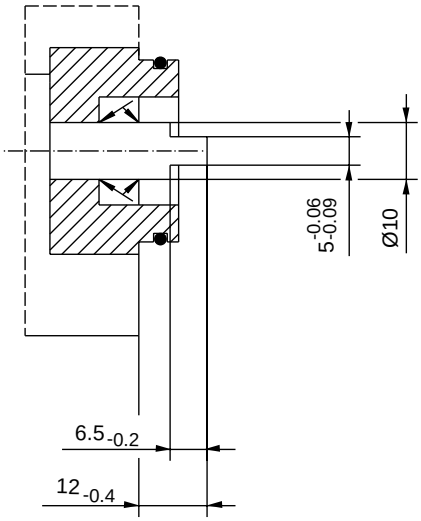



### Code P3

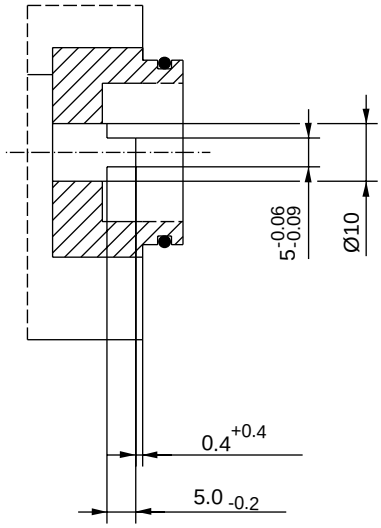


## PGP/PGM 503 Drive Shaft

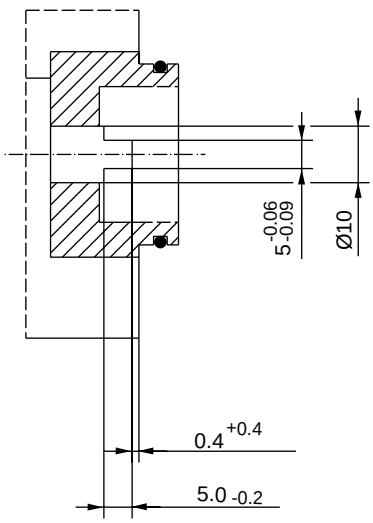
### Code V1

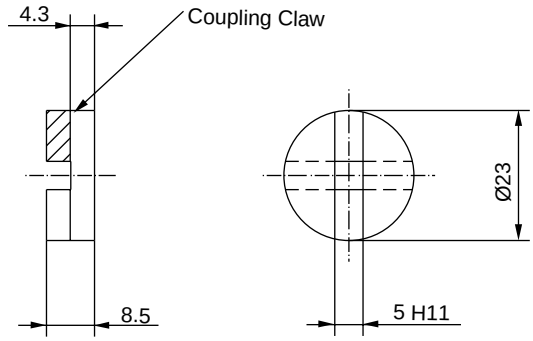



### Code V2




### Code V3




## PGP/PGM 503 - Shaft Load Capacity

| Code | Description | | Torque Rating [Nm] |
|---|---|---|---|
| **H1** | Ø10,3.0 KEY, no thread, 36L | parallel | 30 |
| **P1** | Ø10.0,8.0L, 2.0 KEY, M6 | taper 1:5 | 30 |
| **P2** | Ø9.95,8.8L, 2.4 KEY, M6 | taper 1:8 | 30 |
| **P3** | Ø9.95,8.8L, 2.0 KEY, M6 | taper 1:8 | 30 |
| **V1** | 5x6.5 long shaft w/o coupling | tang drive | 20 |
| **V2** | 5x4.5 short shaft w/o coupling | tang drive | 20 |
| **V3** | 5x4.5 short shaft w/ coupling | tang drive | 20 |

$$\text{Torque [Nm]} = \frac{\text{Displacement [cm}^3\text{/rev]} \times \text{Pressure [bar]}}{57.2}$$

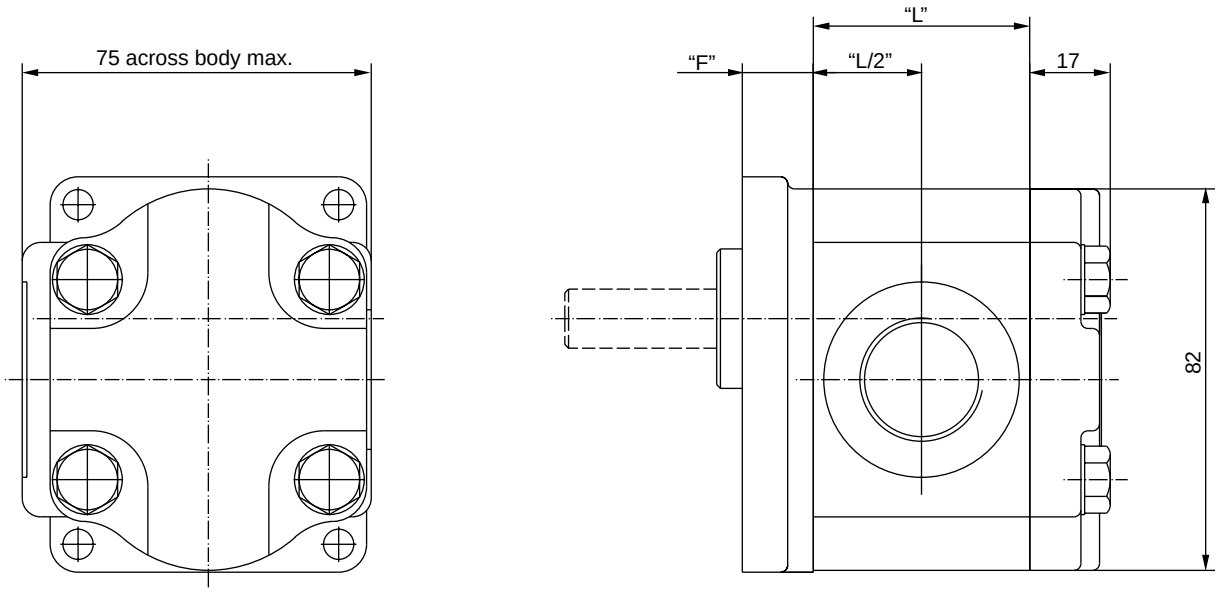
## PGP/PGM 505 Dimensions

## PGP/PGM 505 Specification - Standard Displacements

| Pump Displacement | Code | 0030 | 0040 | 0050 | 0060 | 0070 | 0080 | 0100 | 0110 | 0120 |
|---|---|---|---|---|---|---|---|---|---|---|
| | cm³/rev | 3.0 | 4.0 | 5.0 | 6.0 | 7.0 | 8.0 | 10.0 | 11.0 | 12.0 |
| **Continous Pressure** | bar | 275 | 275 | 275 | 275 | 275 | 275 | 250 | 250 | 220 |
| **Intermittent Pressure** | bar | 300 | 300 | 300 | 300 | 300 | 300 | 275 | 275 | 220 |
| **Minimum Speed** | rpm | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 |
| @ Max. outlet pressure | | | | | | | | | | |
| **Maximum Speed** | rpm | 4000 | 4000 | 4000 | 3600 | 3300 | 3000 | 2800 | 2400 | 2400 |
| @ 0 Inlet & Max. outlet pressure | | | | | | | | | | |
| **Pump Input Power** | kW | 2.3 | 3.0 | 3.8 | 4.5 | 5.3 | 6.0 | 6.9 | 7.6 | 7.5 |
| @ Max. Pressure and 1500 rpm | | | | | | | | | | |
| **Dimension "L"** | mm | 41.1 | 43.8 | 46.5 | 49.1 | 51.8 | 54.5 | 59.8 | 62.5 | 65.2 |
| **Approximate Weight**[1)] | kg | 2.22 | 2.27 | 2.32 | 2.38 | 2.43 | 2.48 | 2.58 | 2.63 | 2.68 |

[1)] Single pump with Flange D3 and Port end cover B1

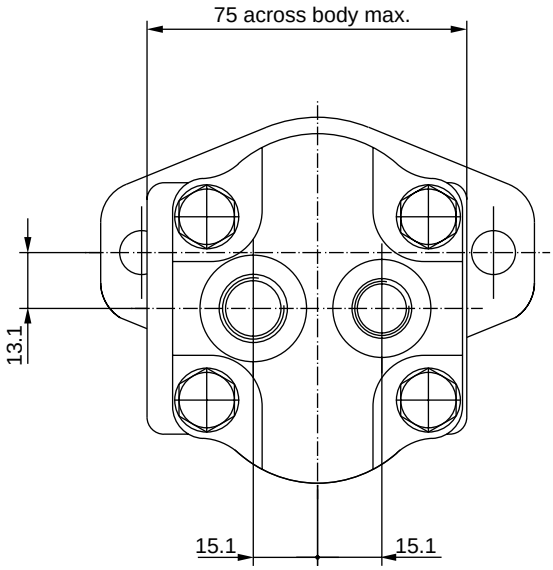
## Single Unit PGP/PGM 505

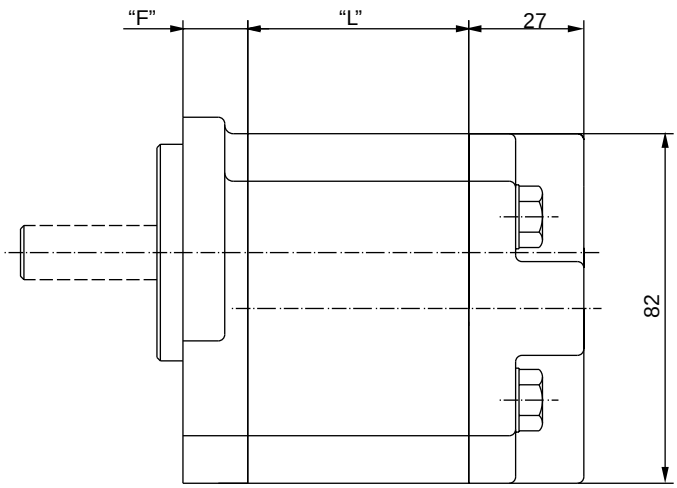



**Dimension "F"** see flanges
**Dimension "L"** see table

## PGP/PGM 505 Dimensions

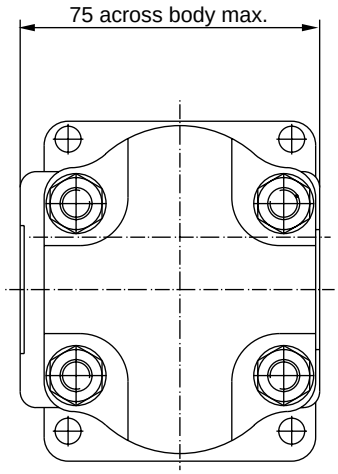
### Single Unit PGP/PGM 505 with rear ports

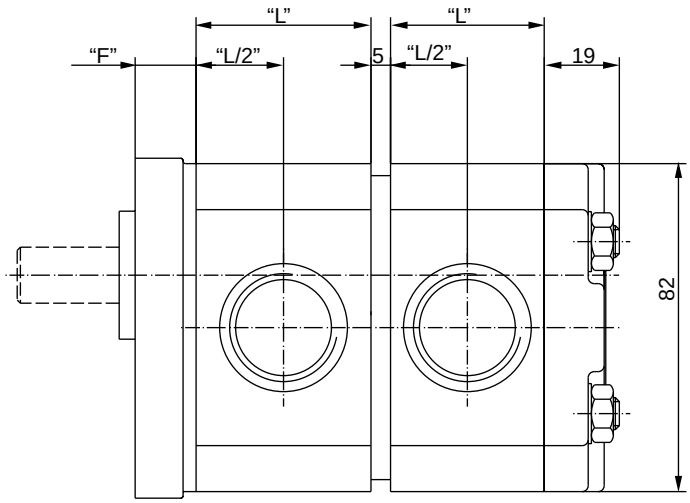



**Dimension "F"** see flanges
**Dimension "L"** see table

### Tandem Unit PGP/PGM 505

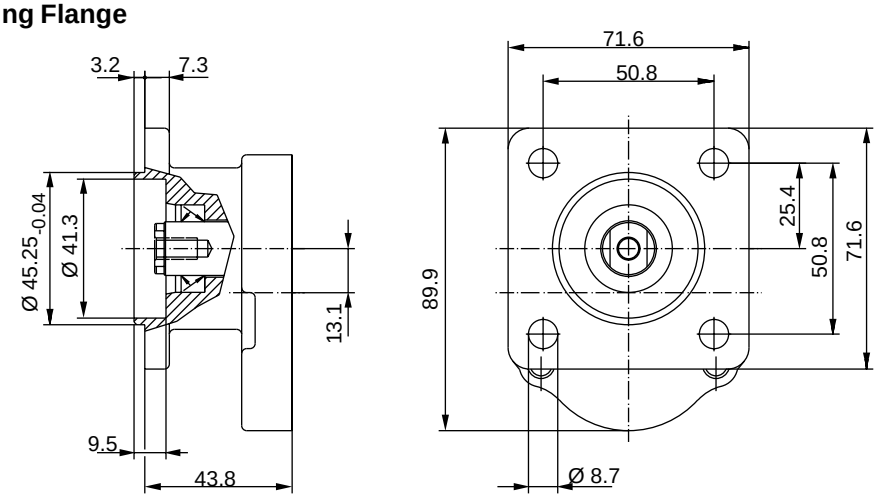


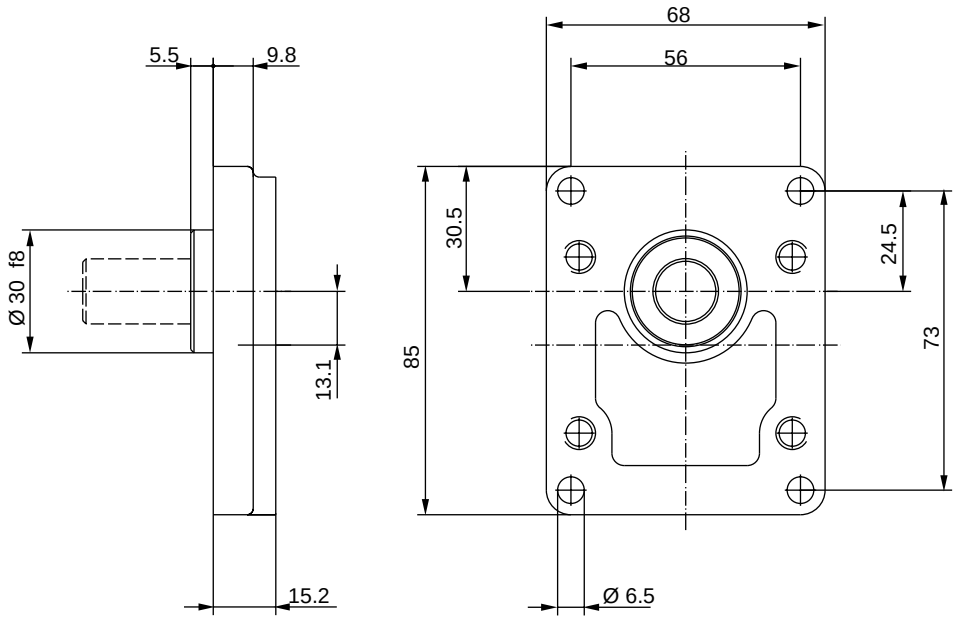

**Dimension "F"** see flanges
**Dimension "L"** see table

## PGP/PGM 505 Mounting Flange

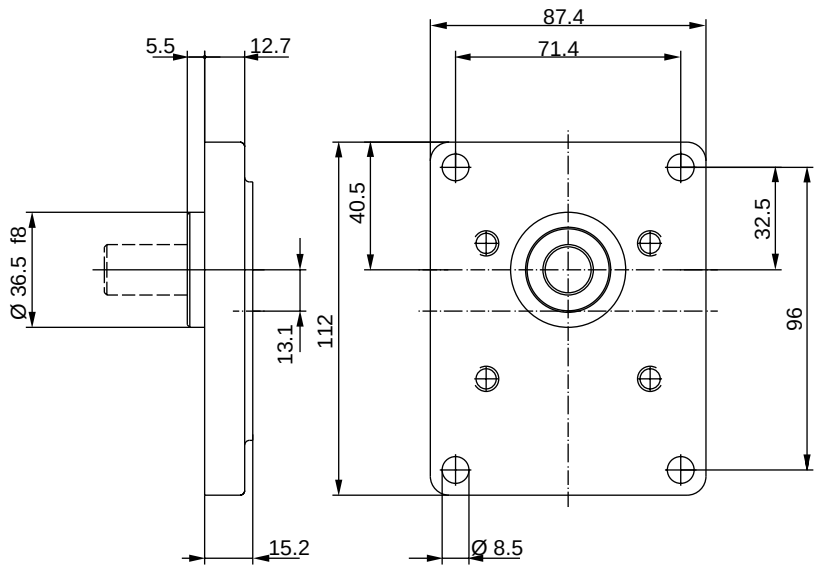
### Code A1




### Code D2

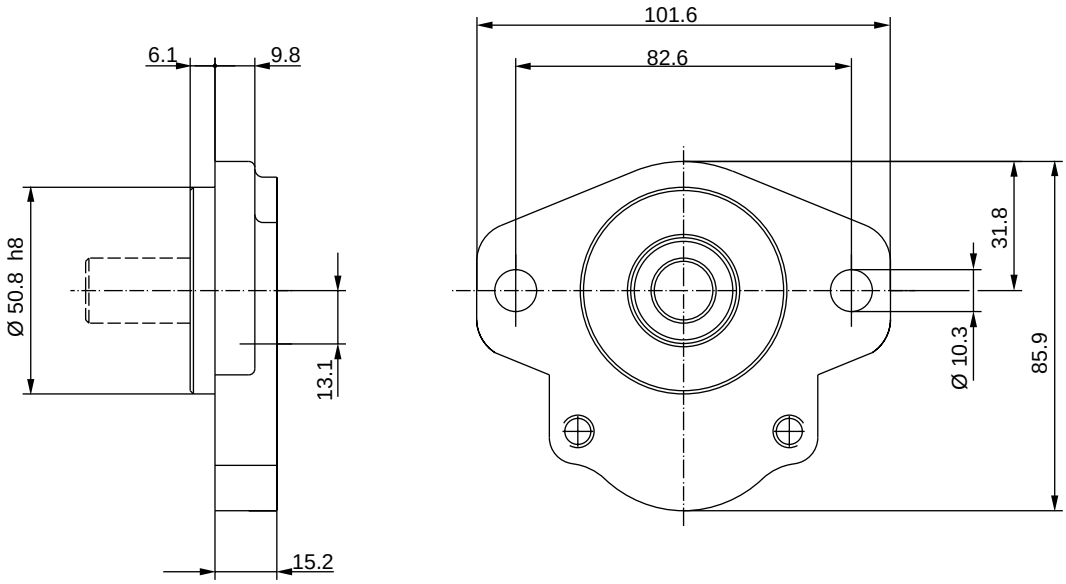



### Code D3

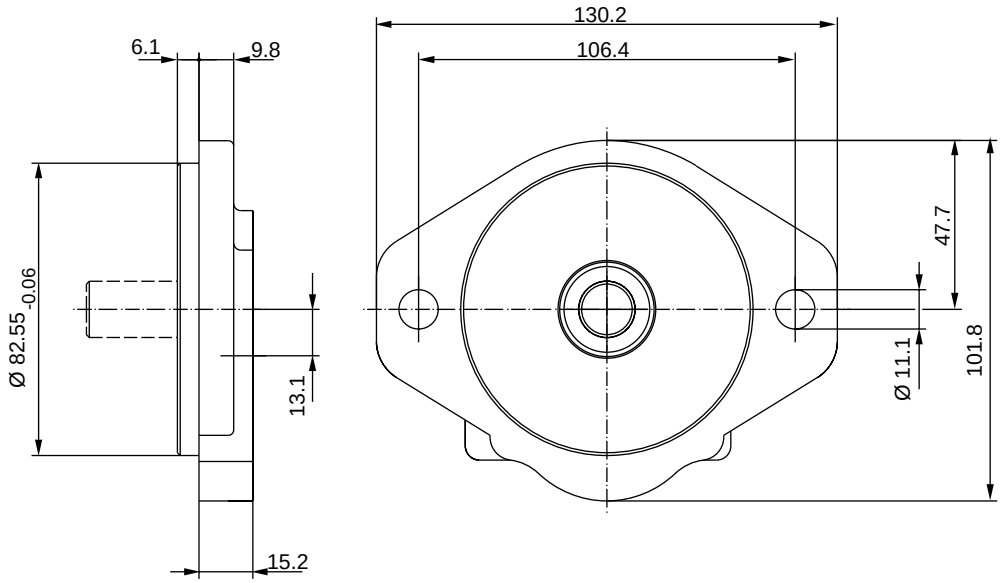


### PGP/PGM 505 Mounting Flange

**Code H1**

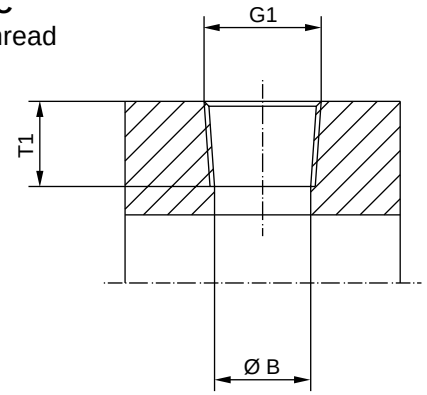



**Code H2**



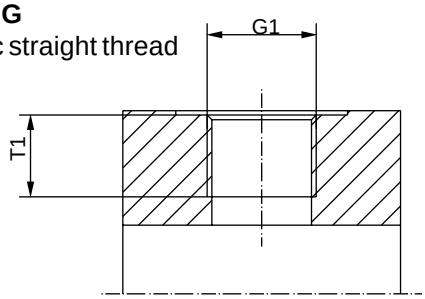
## PGP/PGM 505 Porting

**Code C**
NPT thread

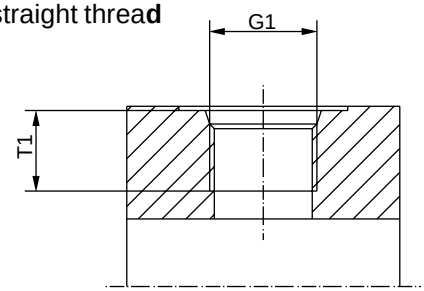



**Code E**
British Standard Pipe

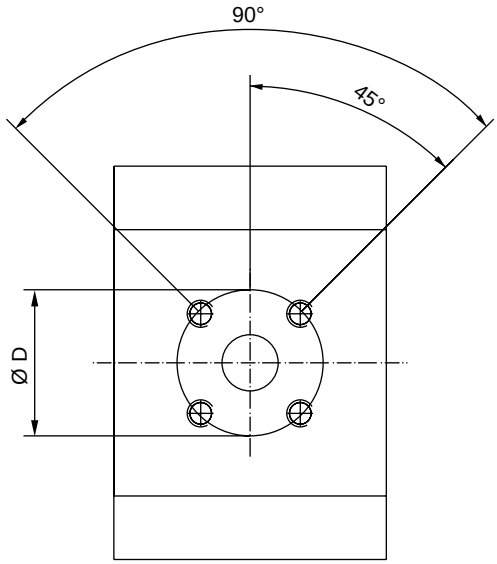
**Code G**
Metric straight thread

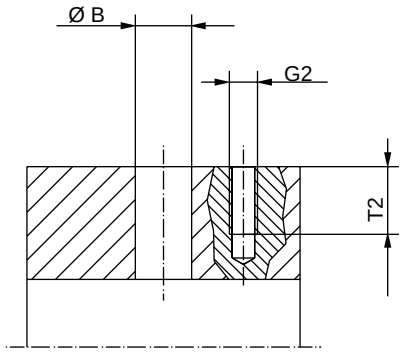



**Code D**
SAE straight thread




**Code J**
European flange

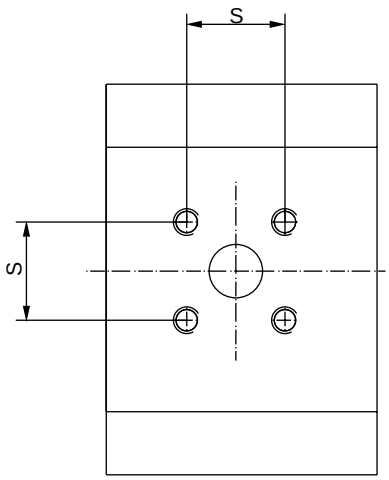



**PGP/PGM 505**

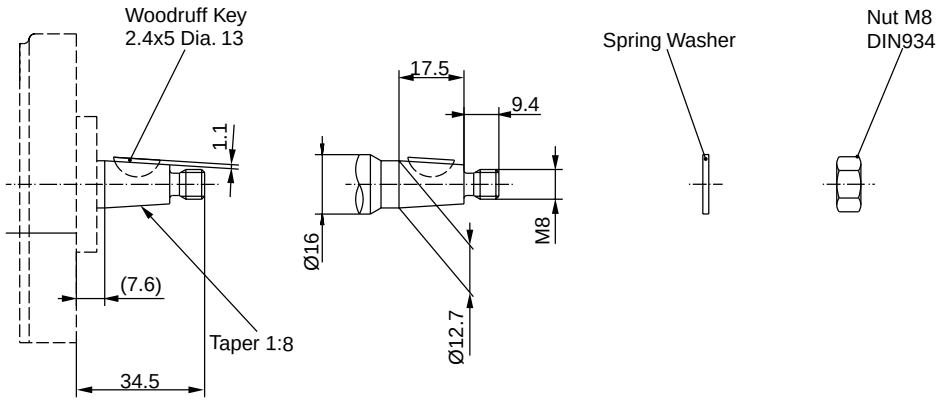
| Code | G1 | G2 | T1 | ∅ B | ∅ D | S | T2 |
|---|---|---|---|---|---|---|---|
| | Thread | Thread | Dimensions | | | | |
| **C2** | 3/8-18 NPT | | 16.0 | | | | |
| **C3** | 1/2-14 NPT | | 20.8 | | | | |
| **D2** | 9/16-18 UNF | | 12.7 | | | | |
| **D3** | 3/4-16 UNF | | 14.3 | | | | |
| **D4** | 7/8-14 UNF | | 16.7 | | | | |
| **D5** | 1 1/16-12 UN | | 19.0 | | | | |
| **E1** | 1/4-19 BSP | | 12.0 | | | | |
| **E2** | 3/8-19 BSP | | 12.0 | | | | |
| **E3** | 1/2-14 BSP | | 14.0 | | | | |
| **E5** | 3/4-14 BSP | | 16.0 | | | | |
| **G1** | M 14x1.5 | | 12.0 | | | | |
| **G3** | M 18x1.5 | | 12.0 | | | | |
| **G4** | M 22x1.5 | | 14.0 | | | | |
| **J3** | | M6 | | 8.0 | 30.0 | | 12.0 |
| **J4** | | M6 | | 12.0 | 30.0 | | 12.0 |
| **J5** | | M6 | | 15.0 | 35.0 | | 12.5 |
| **J7** | | M6 | | 20.0 | 40.0 | | 13.0 |
| **K5** | | 1/4UNC | 14.2 | | | 25.15 | 13.0 |

**Code K**
4-Bolt flange

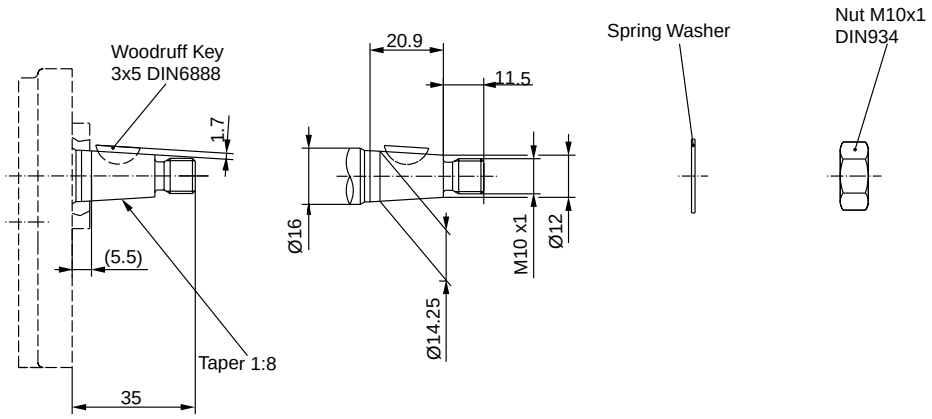


## PGP/PGM 505 Drive Shaft

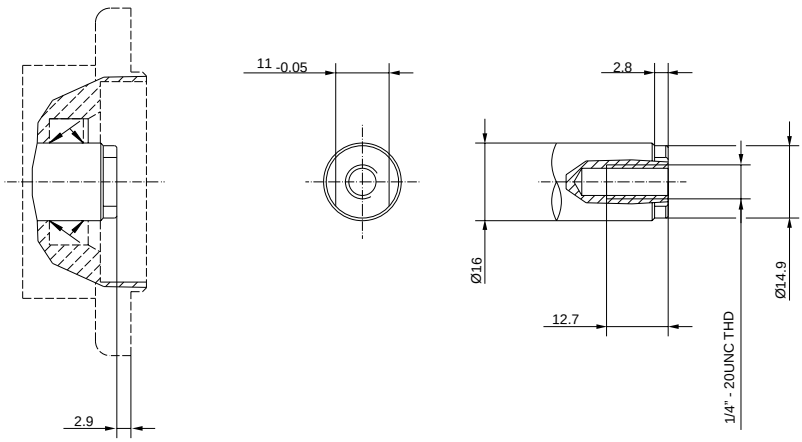
### Code Q1



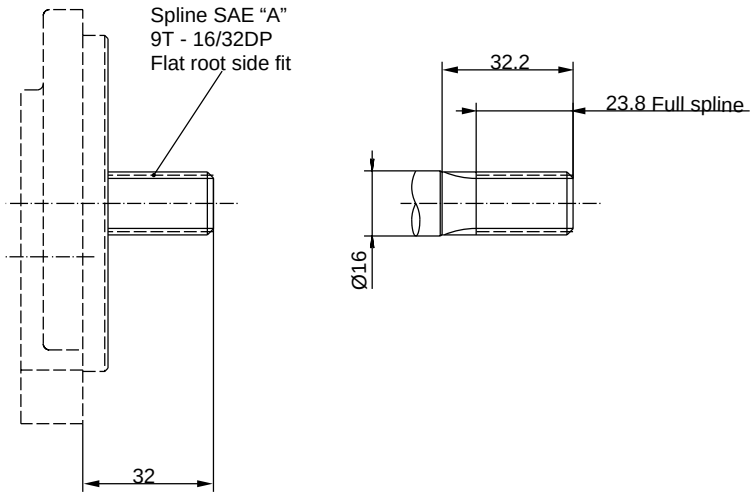

### Code Q2




### Code V4

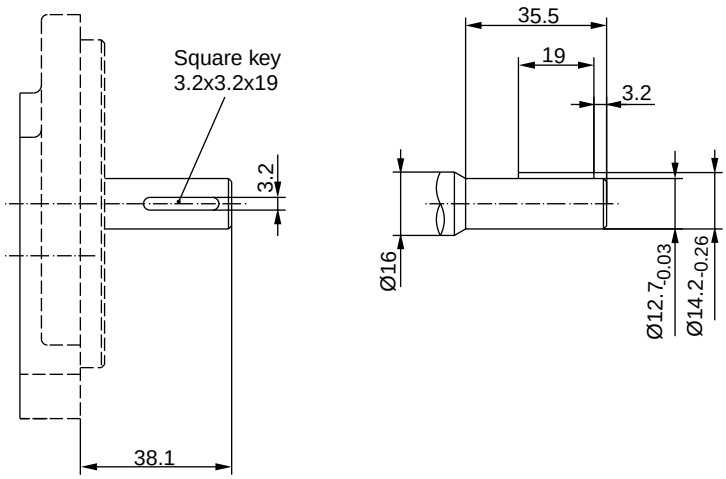



### Code A1

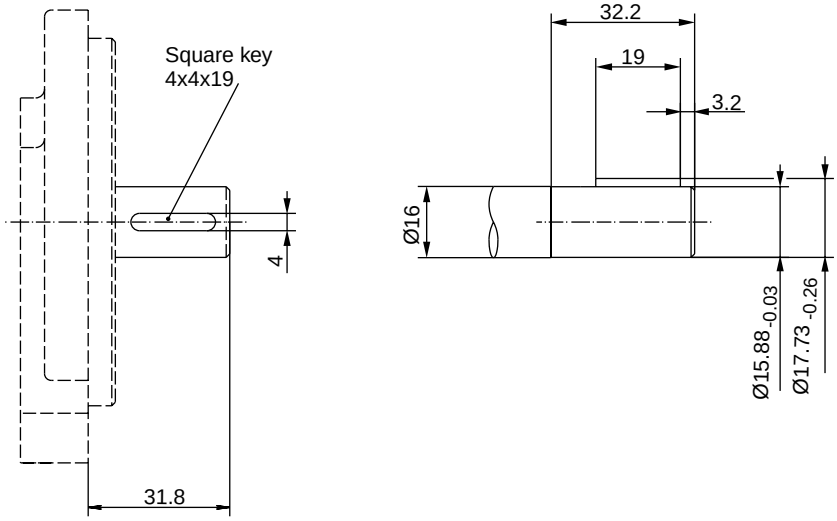


## PGP/PGM 505 Drive Shaft

### Code J1




### Code K1




## PGP/PGM 505 - Shaft Load Capacity

| Code | Description | | Torque Rating [Nm] |
|---|---|---|---|
| **A1** | 9T,16/32DP, 32L, SAE“A“ | spline | 108 |
| **J1** | Ø12.7, 3.2 KEY, no thread, 38L | parallel | 43 |
| **J2** | Ø13.45, 3.2 KEY,10-32UNF, 33.3L | parallel | 52 |
| **K1** | Ø15.88, 4.0 KEY, no thread, 32L, SAE“A“ | parallel | 85 |
| **Q1** | Ø12.70, 7.6L, 2.4 KEY, M8x1.25 | taper 1:8 | 43 |
| **Q2** | Ø14.25, 5.5L, 3.0 KEY, M10x1 | taper 1:8 | 68 |
| **V4** | 11x2.8,1/4UNF for flange code A1 | tang drive | 44 |

$$\text{Torque [Nm]} = \frac{\text{Displacement [cm}^3\text{/rev] x Pressure [bar]}}{57.2}$$

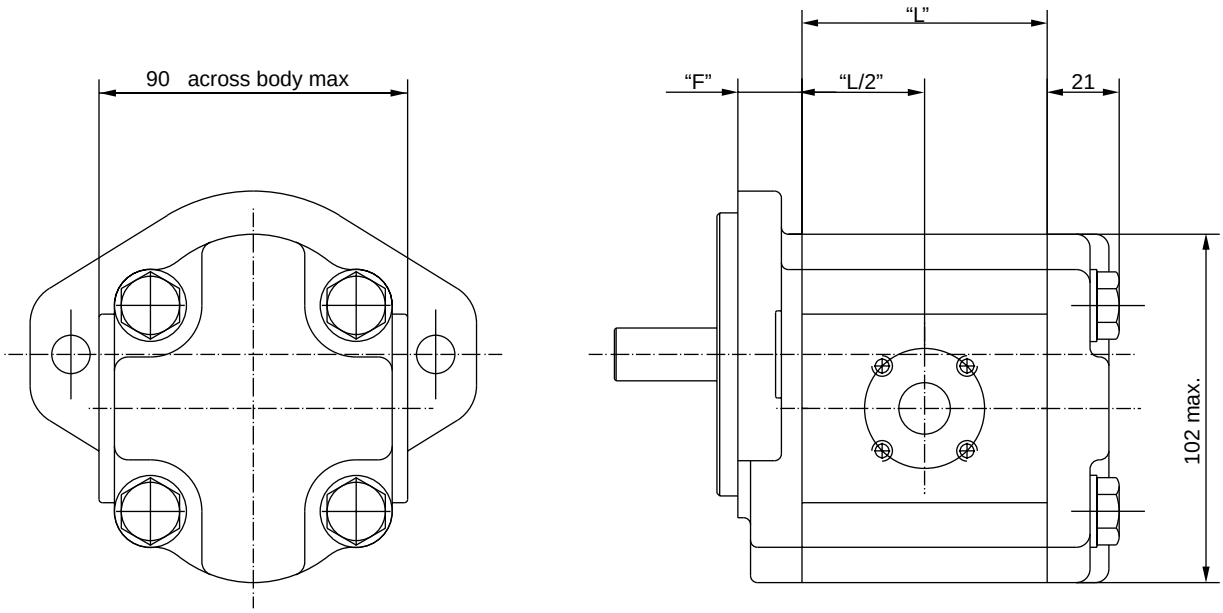
## PGP/PGM 511 Dimensions

## PGP/PGM 511 Specification - Standard Displacements

| Pump Displacement | Code | 0060 | 0080 | 0100 | 0110 | 0140 | 0160 | 0190 | 0230 | 0270 | 0310 | 0330 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | cm³/rev | 6.0 | 8.0 | 10.0 | 11.0 | 14.0 | 16.0 | 19.0 | 23.0 | 27.0 | 31.0 | 33.0 |
| **Continous Pressure** | bar | 275 | 275 | 275 | 275 | 275 | 275 | 275 | 235 | 200 | 195 | 185 |
| **Intermittent Pressure** | bar | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 255 | 220 | 215 | 210 |
| **Minimum Speed** @ Max. outlet pressure | rpm | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 |
| **Maximum Speed** @ 0 Inlet & Max. outlet pressure | rpm | 4000 | 4000 | 3600 | 3600 | 3300 | 3000 | 3000 | 2800 | 2400 | 2300 | 2200 |
| **Pump Input Power** @ Max. Pressure and 1500 rpm | kW | 4.5 | 6.0 | 7.5 | 8.3 | 10.5 | 12.0 | 14.3 | 14.7 | 14.9 | 16.7 | 17.3 |
| **Dimension "L"** | mm | 51.8 | 54.9 | 57.9 | 59.4 | 64.0 | 67.0 | 71.6 | 77.6 | 83.7 | 89.8 | 92.8 |
| **Approximate Weight**[1)] | kg | 3.40 | 3.47 | 3.55 | 3.57 | 3.71 | 3.79 | 3.91 | 4.06 | 4.21 | 4.37 | 4.45 |

[1)] Single pump with Flange Q1 and Port end cover B1

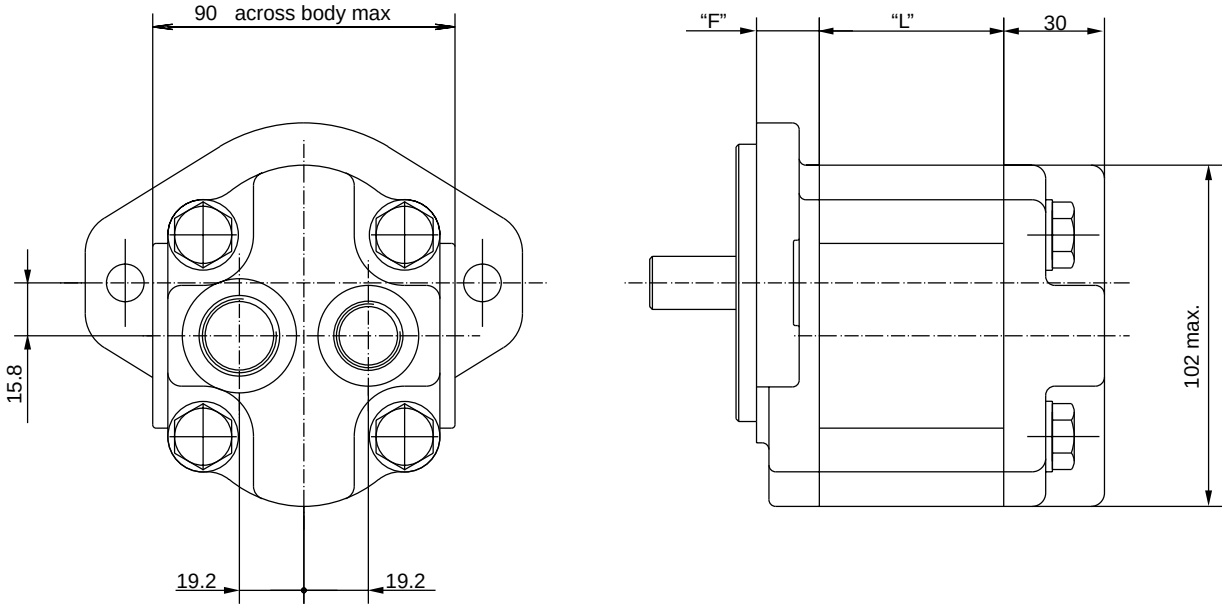
## Single Unit PGP/PGM 511




**Dimension "F"** see flanges
**Dimension "L"** see table

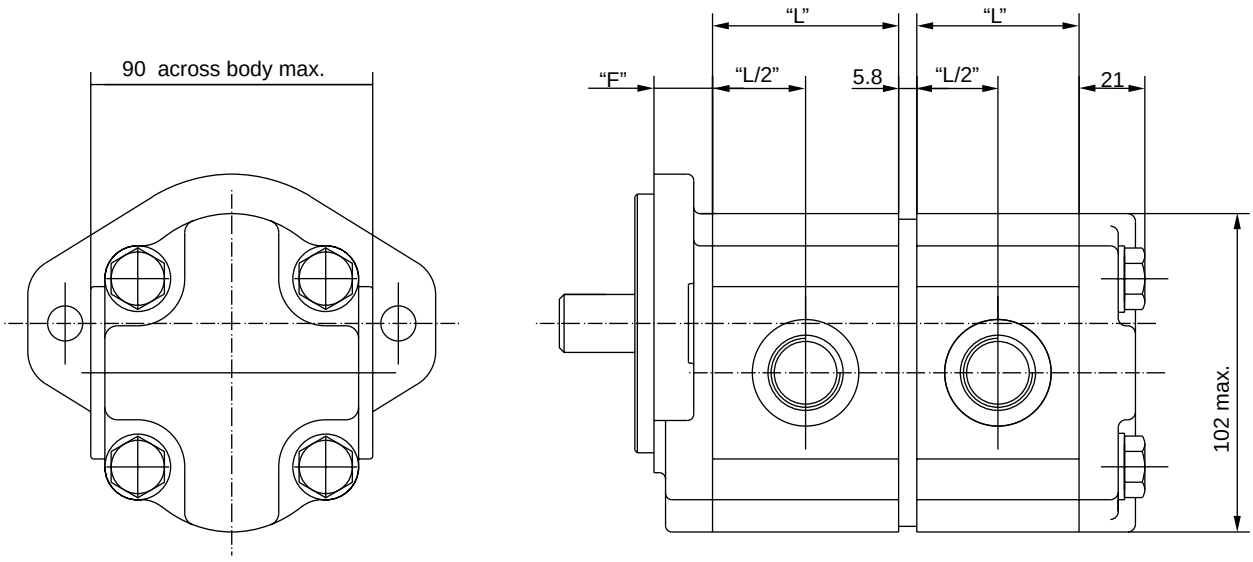
## PGP/PGM 511 Dimensions

### Single Unit PGP/PGM 511 with rear ports




**Dimension "F"** see flanges
**Dimension "L"** see table

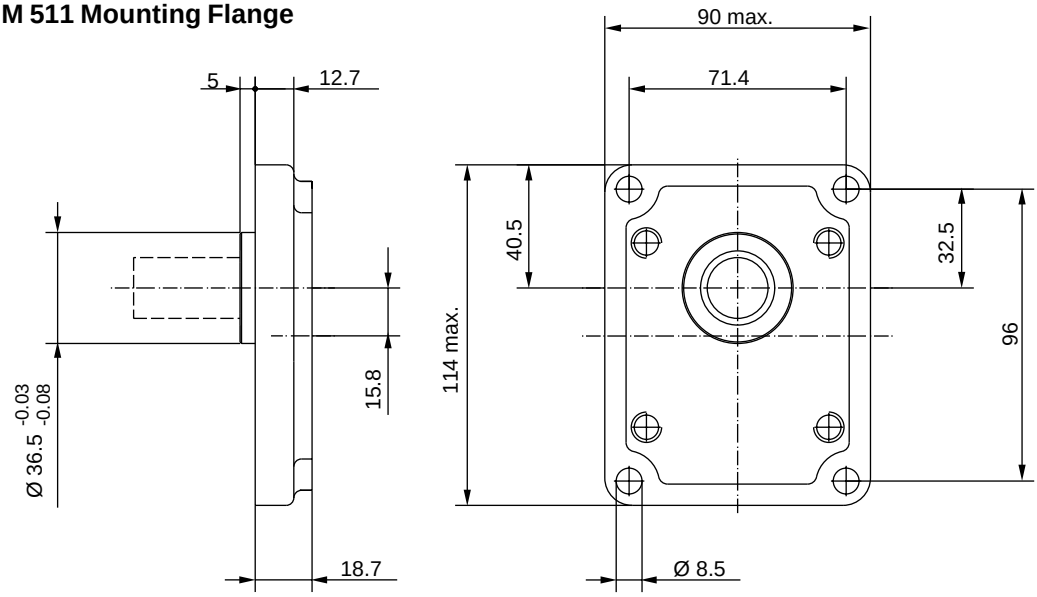
### Tandem Unit PGP/PGM 511



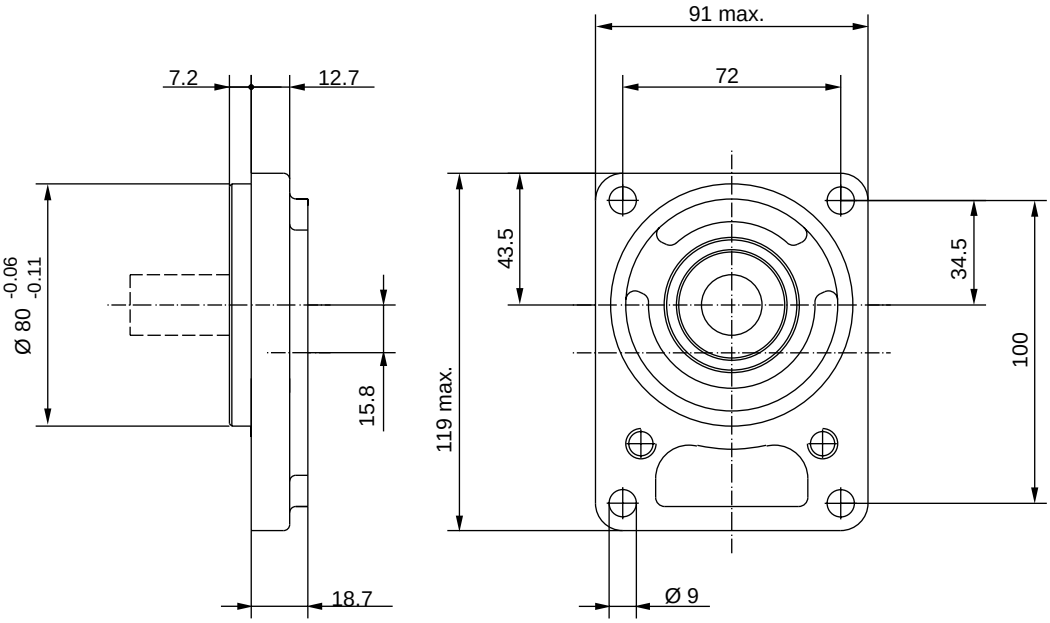

**Dimension "F"** see flanges
**Dimension "L"** see table

## PGP/PGM 511 Mounting Flange

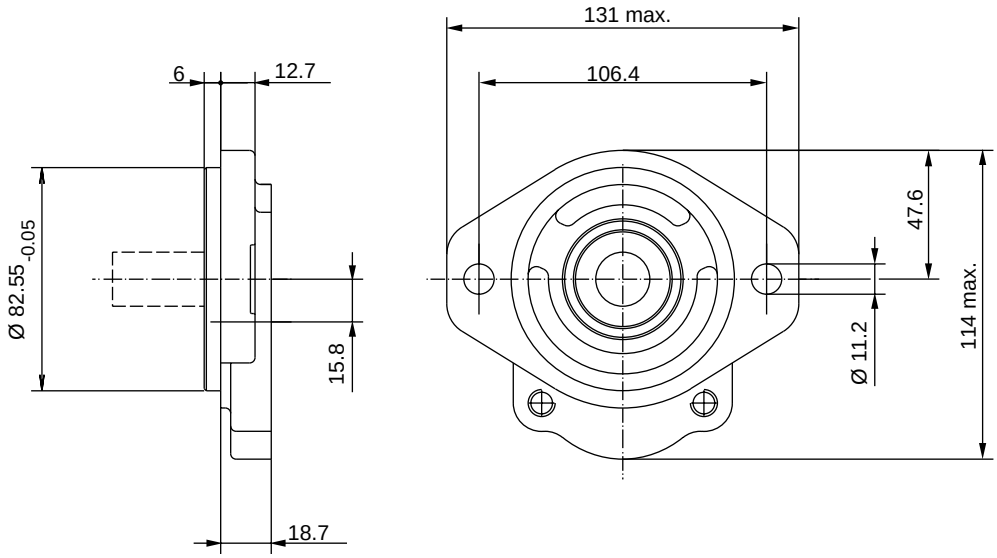
### Code D3




### Code D4

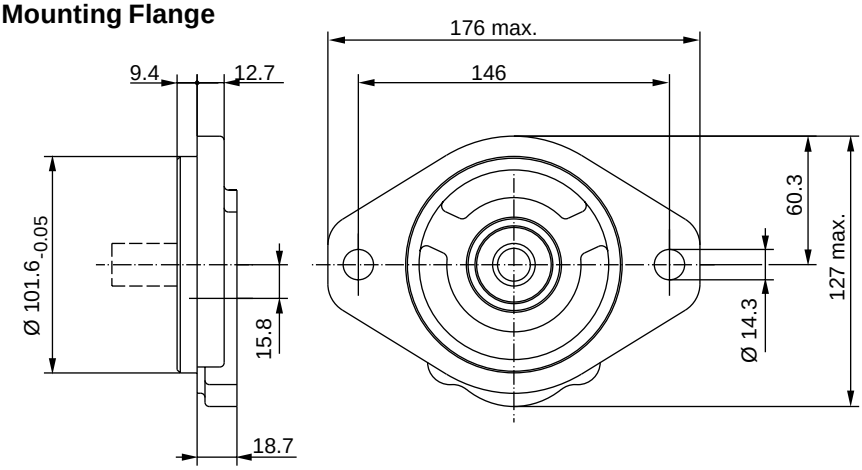



### Code H2

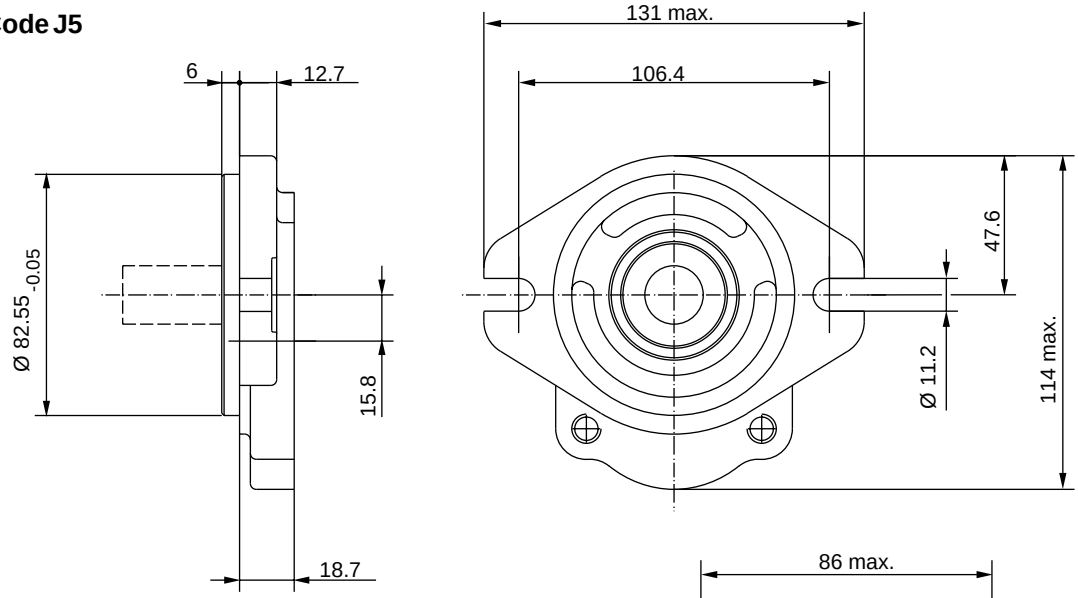


## PGP/PGM 505 Mounting Flange

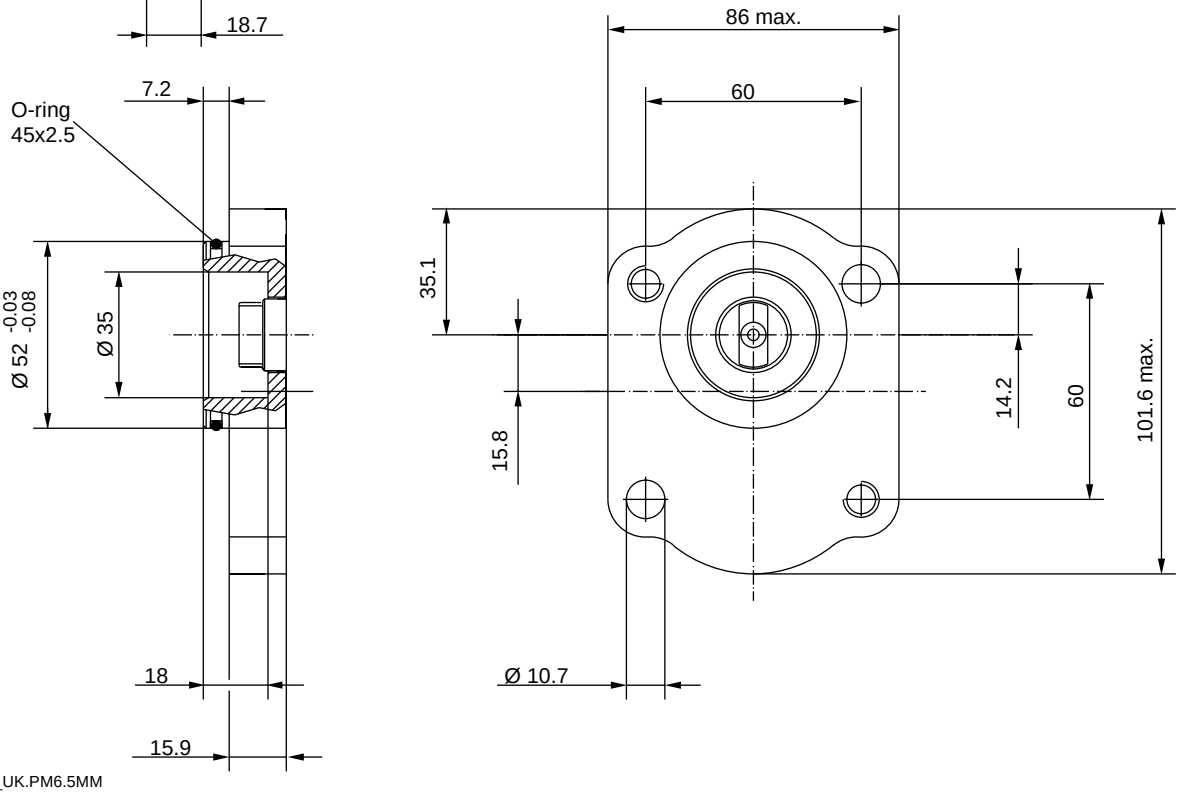
### Code H3




### Code J5



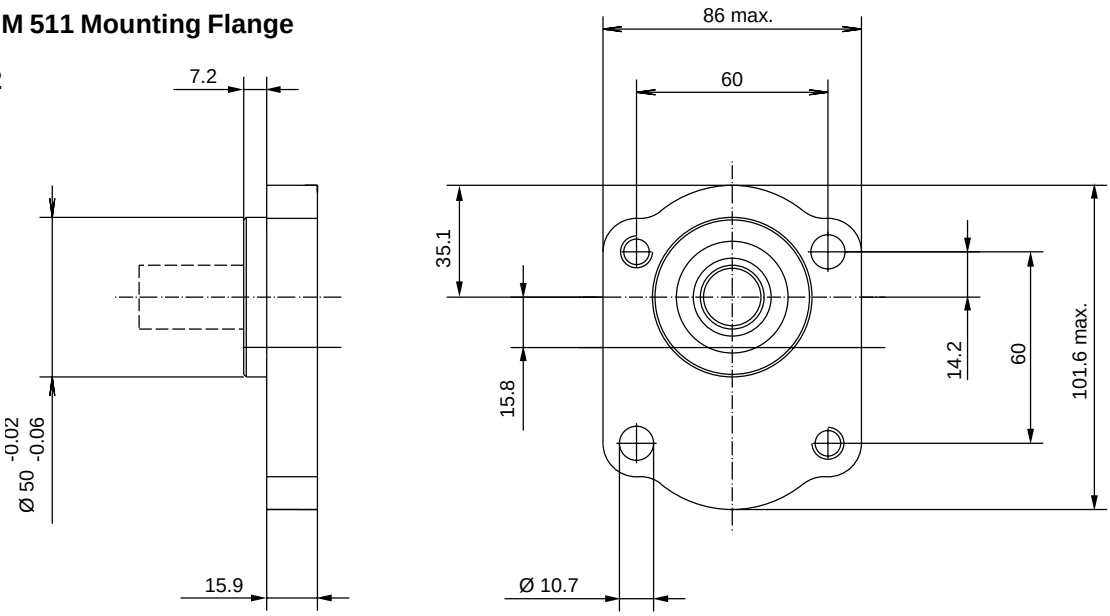

### Code Q1



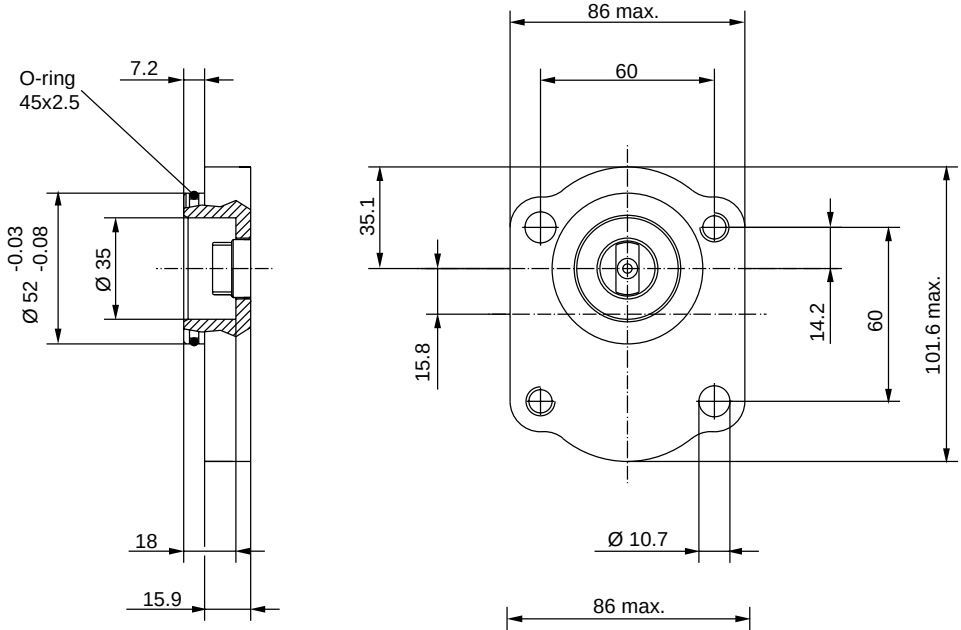

PI PG 300-600_UK.PM6.5MM

## PGP/PGM 511 Mounting Flange

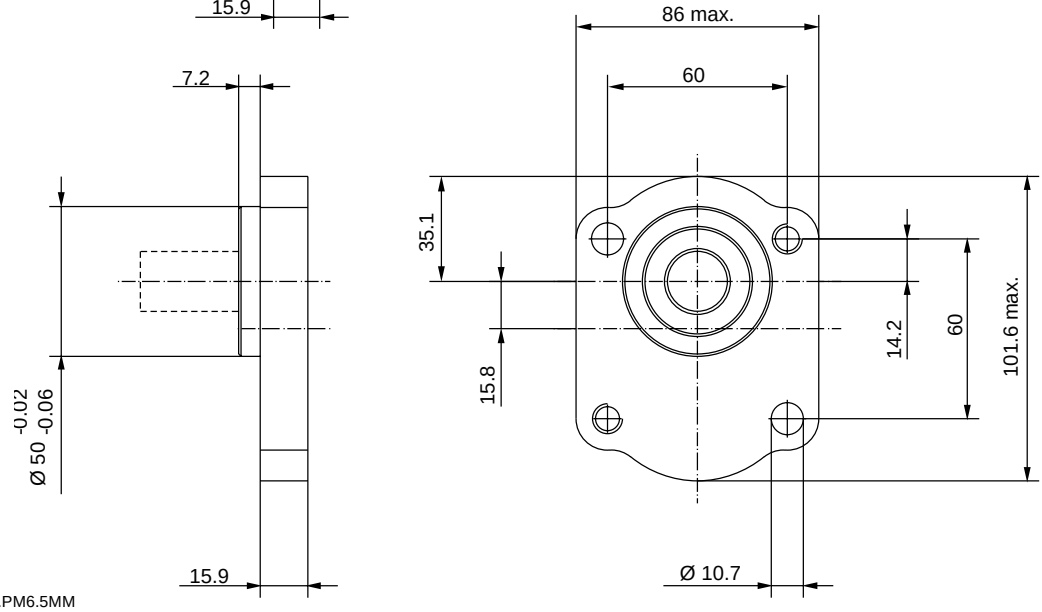
### Code Q2




### Code Q3

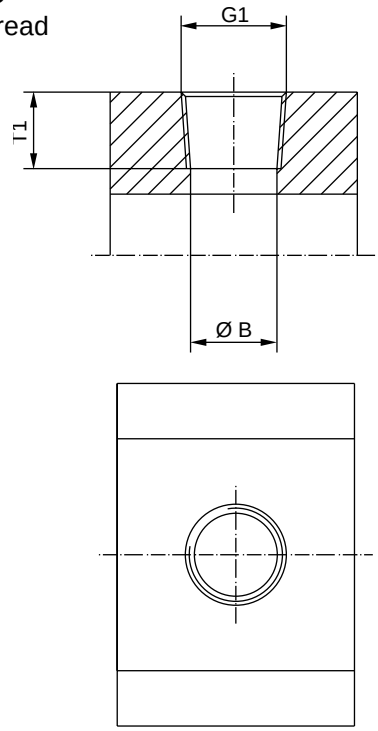



### Code Q4



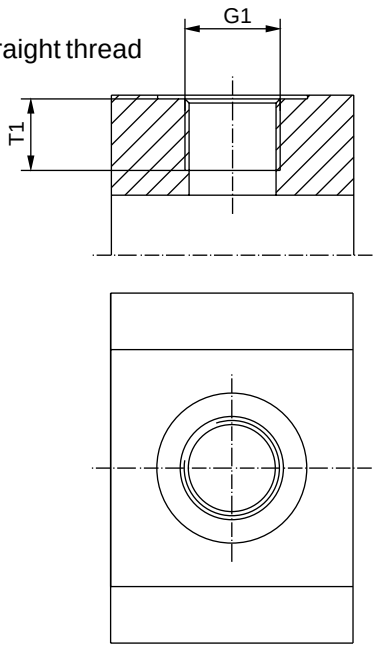
## PGP/PGM 511 Porting

**Code C**
NPT thread

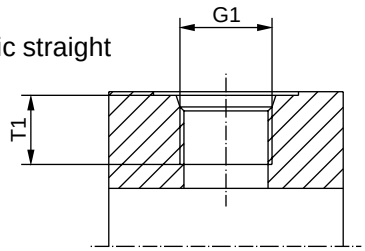



| Code | G1 | T1 |
|---|---|---|
| | Thread | Dimensions |
| **C2** | 3/8-18 NPT | 16.0 |
| **C3** | 1/2-14 NPT | 20.8 |
| **D2** | 9/16-18 UNF | 12.7 |
| **D3** | 3/4-16 UNF | 14.3 |
| **D4** | 7/8-14 UNF | 16.7 |
| **D5** | 1 1/16-12 UN | 19.0 |
| **D6** | 1 5/16-12 UN | 19.0 |
| **D7** | 1 5/8-12 UN | 19.0 |
| **D8** | 1 7/8-12 UN | 19.0 |
| **E2** | 3/8-19 BSP | 12.0 |
| **E3** | 1/2-14 BSP | 14.0 |
| **E4** | 5/8-14 BSP | 16.3 |
| **E5** | 3/4-16 BSP | 16.0 |
| **E6** | 1-11 BSP | 18.0 |
| **E7** | 1 1/4-11 BSP | 20.0 |
| **E8** | 1 1/2-11 BSP | 22.0 |
| **G1** | M 14x1.5 | 12.0 |
| **G3** | M 18x1.5 | 12.0 |
| **G4** | M 22x1.5 | 14.0 |
| **G5** | M 26x1.5 | 16.0 |
| **G7** | M 30x1.5 | 12.0 |
| **G8** | M 33x2 | 18.0 |
| **H1** | M 14x1.5 w/o | 11.5 |
| **H2** | M 16x1.5 w/o | 13.0 |
| **H3** | M 18x1.5 w/o | 14.5 |
| **H4** | M 22x1.5 w/o | 15.5 |
| **H6** | M 27x2 w/o | 19.0 |
| **H8** | M 33x2 w/o | 19.0 |

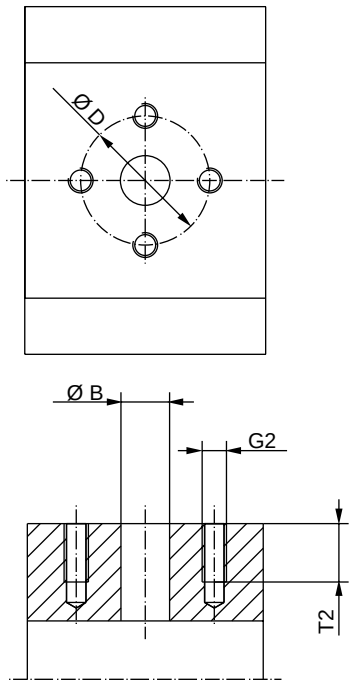
**Code E**
British Standard Pipe
**Code G**
Metric straight thread




**Code D**
SAE straight thread
**Code H**
ISO metric straight

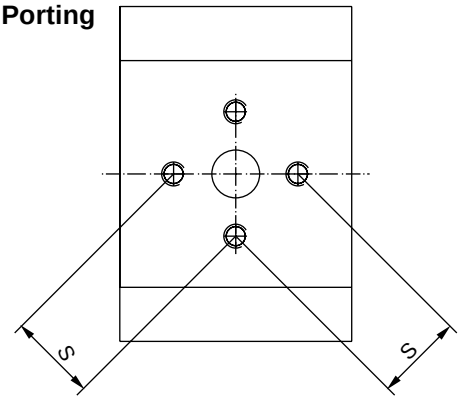



**Code L**
4-Bolt flange



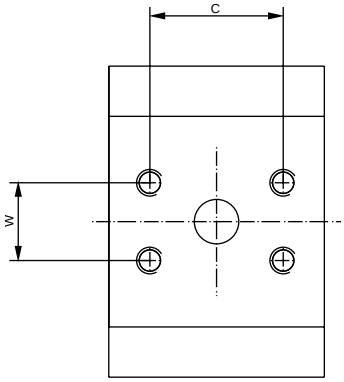
## PGP/PGM 511 Porting

**Code M**
4-Bolt flange

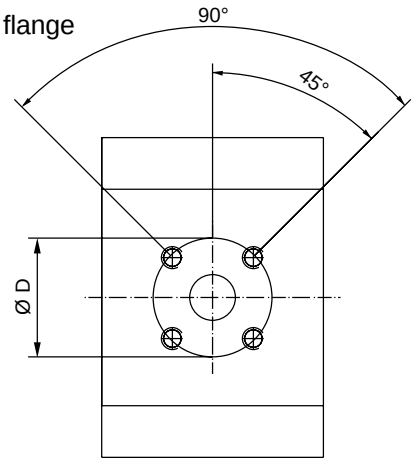


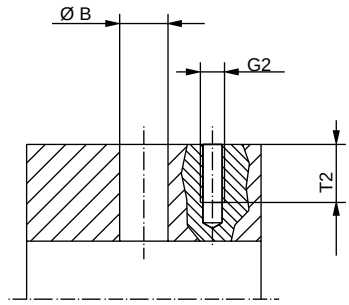

**Code N**
SAE Split flange

**Code P**
SAE Split flange
metric thread



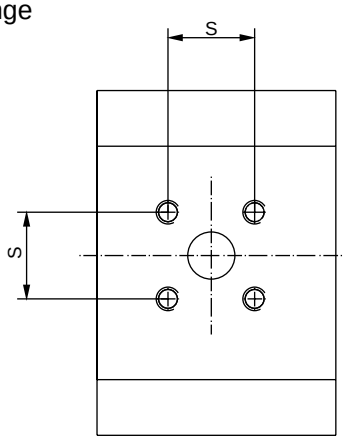

**Code J**
European flange

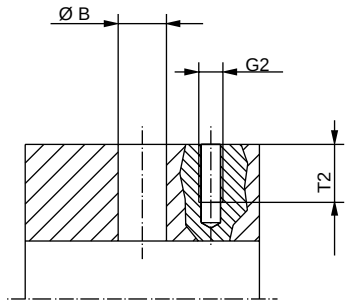



| Code | G2 | ∅ B | ∅ D | S | C | W | T2 |
|---|---|---|---|---|---|---|---|
| | Thread | Dimensions | | | | | |
| **J3** | M6 | 8.0 | 30.0 | | | | 12.0 |
| **J4** | M6 | 12.0 | 30.0 | | | | 12.0 |
| **J5** | M6 | 15.0 | 35.0 | | | | 12.5 |
| **J6** | M8 | 15.0 | 40.0 | | | | 15.0 |
| **J7** | M6 | 20.0 | 40.0 | | | | 13.0 |
| **J8** | M8 | 18.0 | 55.0 | | | | 15.0 |
| **J9** | M8 | 26.0 | 55.0 | | | | 15.0 |
| **K1** | 5/16-18 UNF | 19.0 | | 30.48 | | | 15.0 |
| **K2** | M8 | 19.0 | | 30.48 | | | 15.0 |
| **K3** | M6 | 19.0 | | 32.00 | | | 13.0 |
| **K4** | M6 | 16.0 | | 25.15 | | | 13.0 |
| **L1** | M6 | 13.0 | 30.0 | | | | 13.0 |
| **L2** | M8 | 19.0 | 40.0 | | | | 15.0 |
| **L3** | M10 | 27.0 | 51.0 | | | | 18.0 |
| **L4** | 1/4-20 UNF | 13.0 | 30.0 | | | | 13.0 |
| **L5** | 5/16-18 UNF | 19.0 | 40.0 | | | | 15.0 |
| **L6** | 3/8-16 UNF | 27.0 | 51.0 | | | | 18.0 |
| **M1** | M6 | 15.0 | | 30.16 | | | 13.0 |
| **M2** | 1/4-20 UNF | 15.0 | | 30.16 | | | 13.0 |
| **M3** | 1/4-20 UNF | 14.2 | | 35.57 | | | 13.0 |
| **N1** | 5/16-18 UNC | 12.7 | | | 38.10 | 17.48 | 15.0 |
| **N2** | 3/8-16 UNC | 19.0 | | | 47.63 | 22.23 | 14.0 |
| **N3** | 3/8-16 UNC | 25.4 | | | 52.37 | 26.19 | 20.6 |
| **N4** | 7/16-14 UNC | 31.8 | | | 58.72 | 30.17 | 20.6 |
| **P1** | M8 | 12.7 | | | 38.10 | 17.48 | 15.0 |
| **P2** | M10 | 19.0 | | | 47.63 | 22.23 | 20.6 |
| **P3** | M10 | 25.4 | | | 52.37 | 26.19 | 21.4 |
| **P4** | M10 | 31.8 | | | 58.72 | 30.17 | 20.6 |
| **P5** | M12 | 38.1 | | | 69.82 | 35.71 | 20.6 |

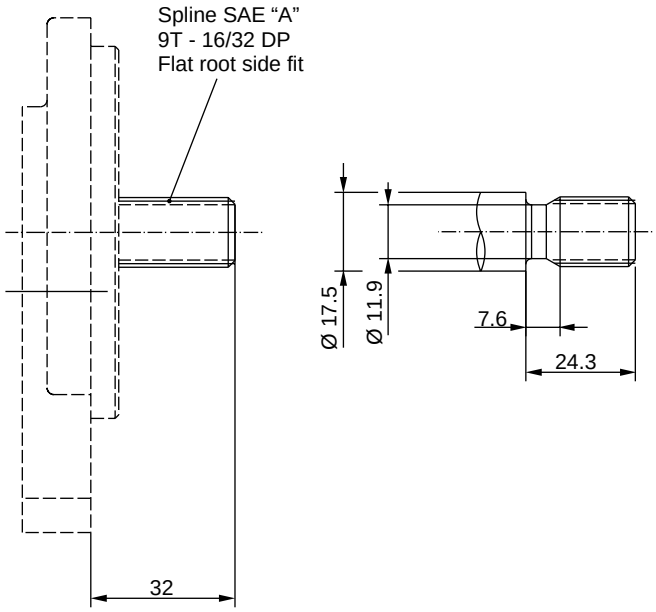
**Code K**
4-Bolt flange



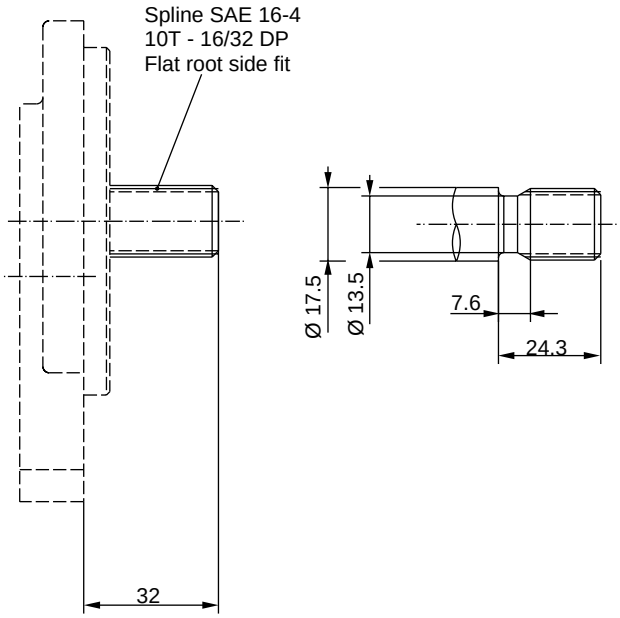



**PGP/PGM 511 Drive Shaft**

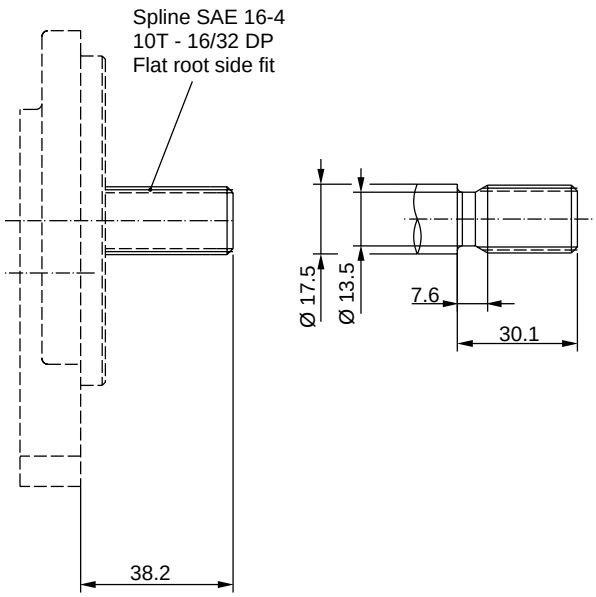
**Code A1**




**Code B1**

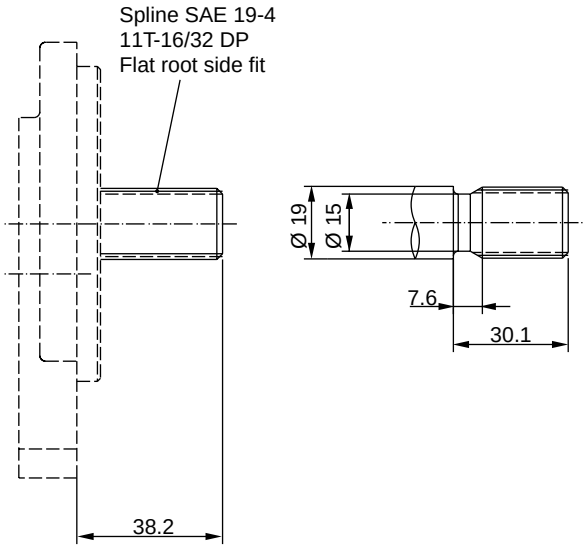



**Code B2**

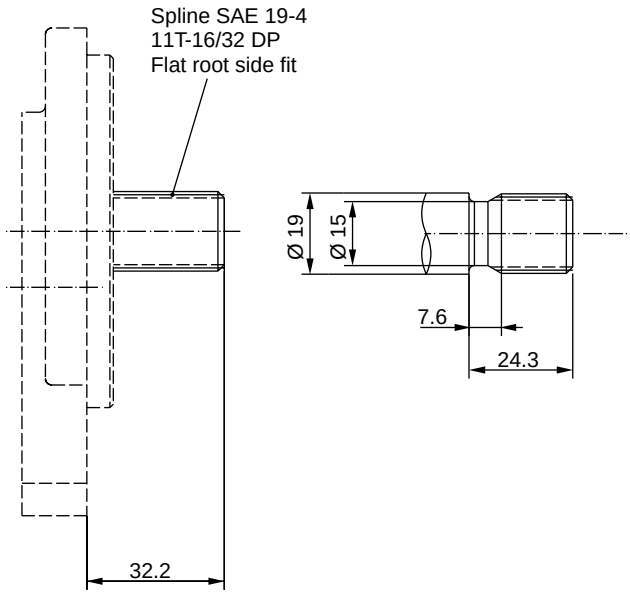


**PGP/PGM 511 Drive Shaft**

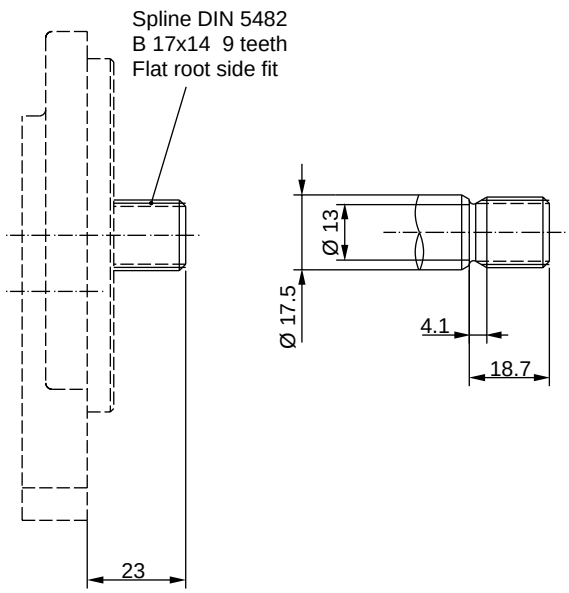
**Code C1**




**Code C2**

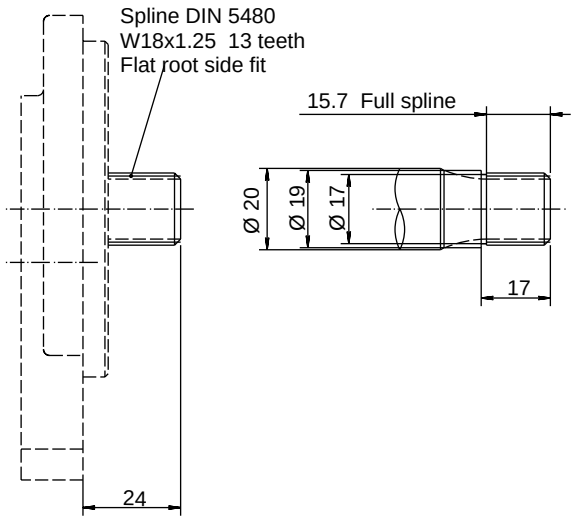



**Code F1**

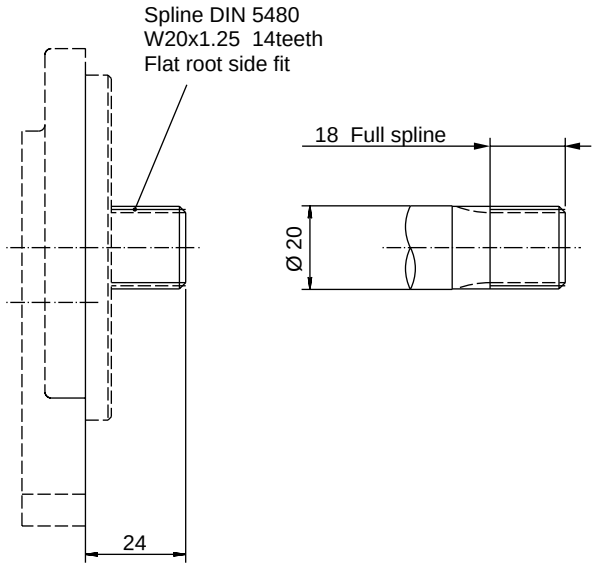


## PGP/PGM 511 Drive Shaft

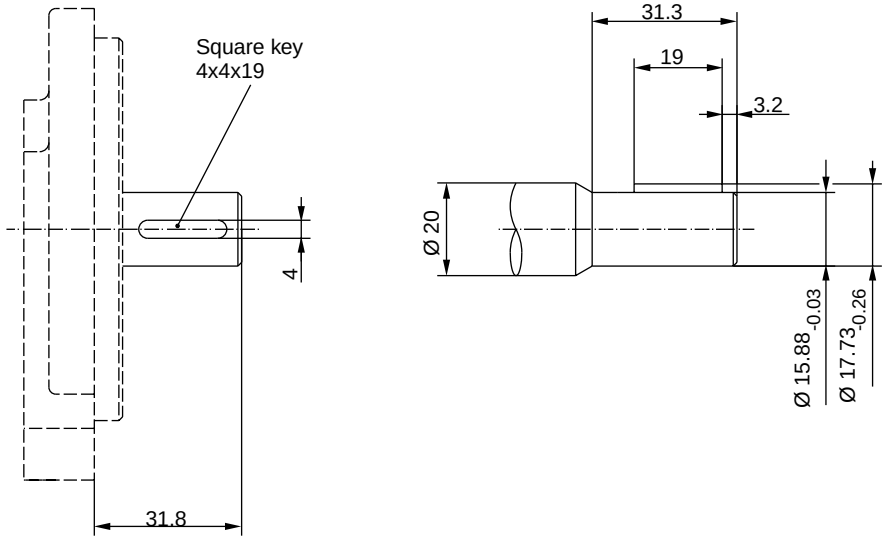
### Code F2




### Code F3

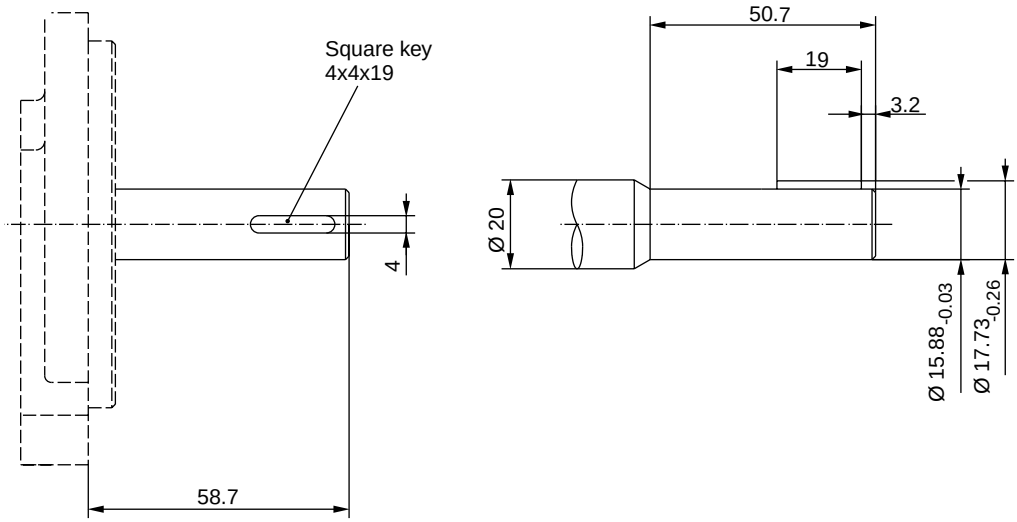



### Code K1

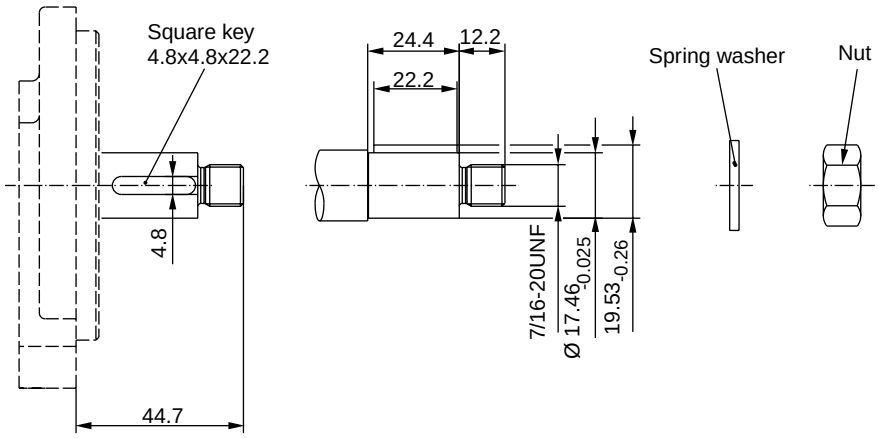


## PGP/PGM 511 Drive Shaft

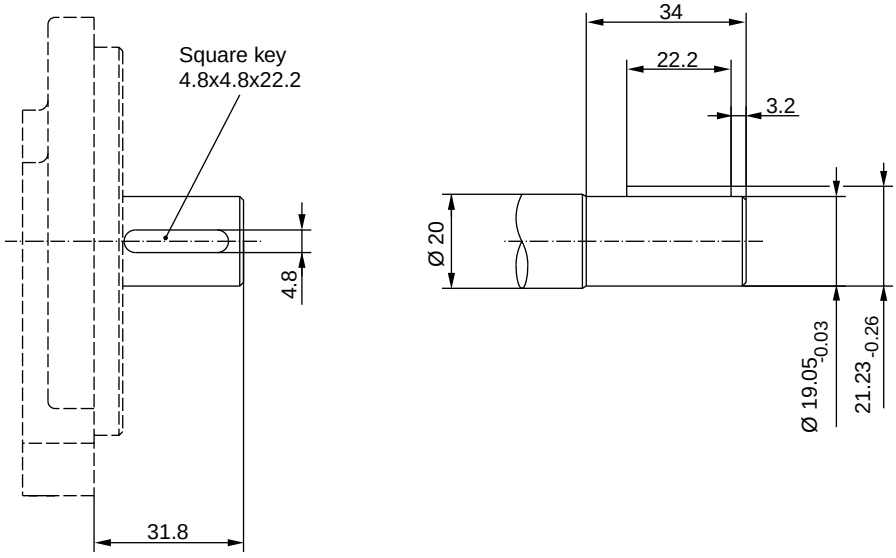
### Code K4




### Code L1

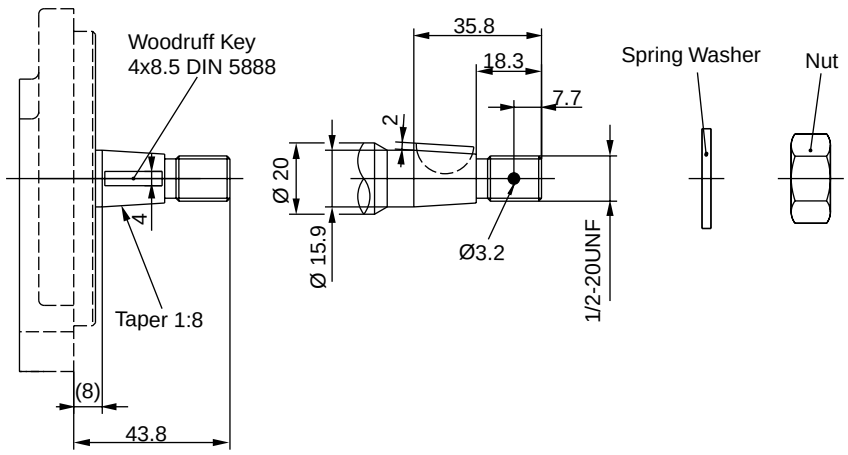



### Code L6

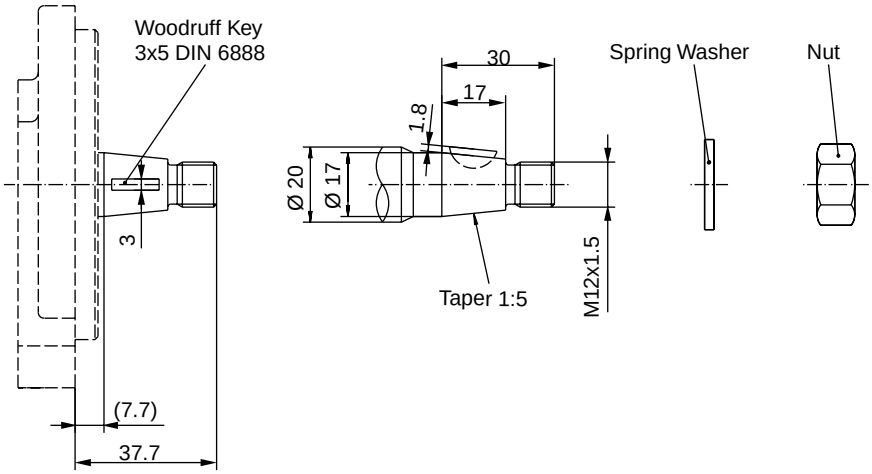


## PGP/PGM 511 Drive Shaft

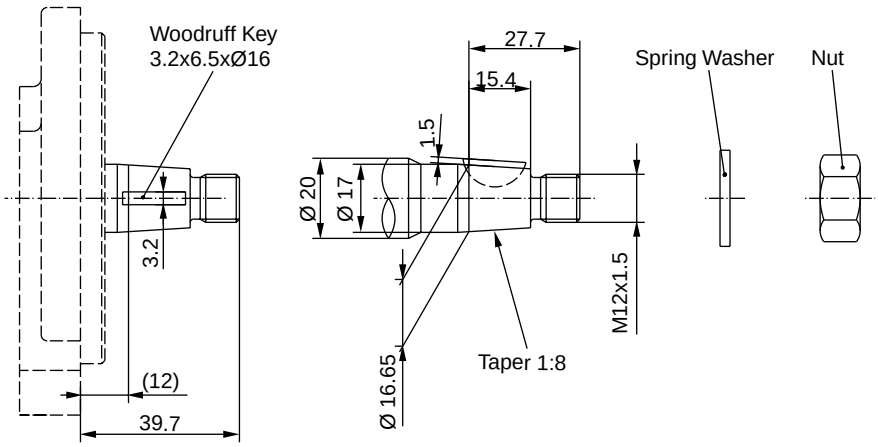
### Code R1




### Code S1

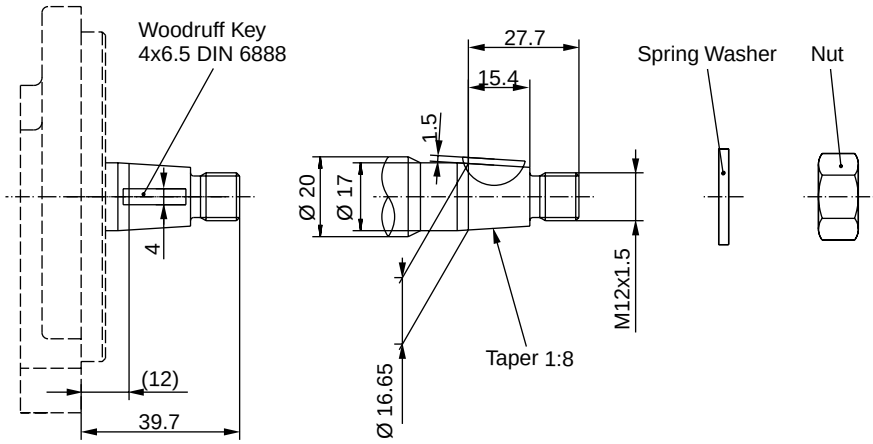



### Code S2

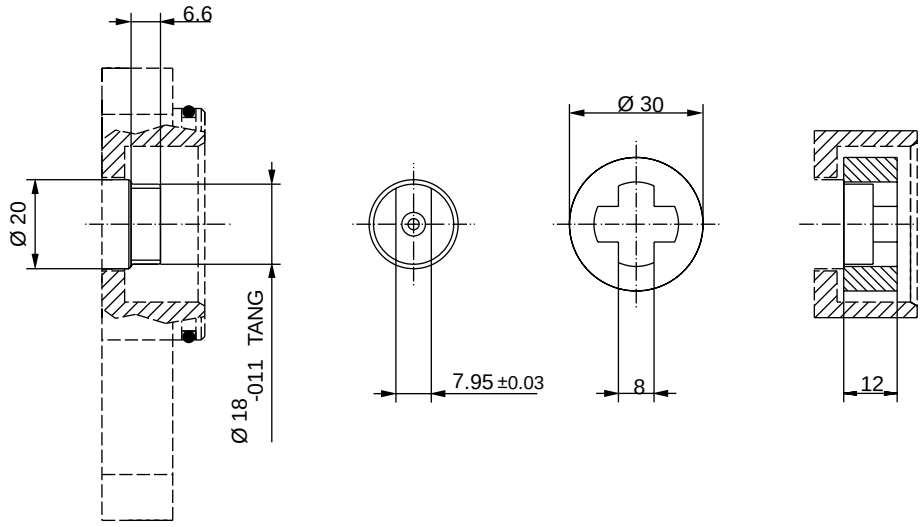


## PGP/PGM 511 Drive Shaft

### Code S4




### Code V4




## PGP/PGM 511 - Shaft Load Capacity

| Code | Description | | Torque Rating [Nm] |
|---|---|---|---|
| **A1** | 9T,16/32DP, 32L, SAE“A“ | spline | 86 |
| **B1** | 10T,16/32DP, 32L | spline | 124 |
| **B2** | 10T,16/32DP, 38.2L | spline | 124 |
| **C1** | 11T, 16/32DP, 38.2L, SAE 19-4 | spline | 184 |
| **C2** | 11T,16/32DP, 32.2L, SAE 19-4 | spline | 184 |
| **F1** | 9T,B17x14,23L, DIN 5482 | spline | 101 |
| **F2** | 13T, W18x1.25,24L, DIN 5480 | spline | 190 |
| **F3** | 14T,W20x1.25,24L, DIN 5480 | spline | 223 |
| **K1** | Ø15.88,4.0 KEY, no thread, 32L, SAE“A“ | parallel | 75 |
| **K4** | Ø15.88,3.95 KEY, no thread, 58.7L | parallel | 75 |
| **L1** | Ø17.46,4.8 KEY, 7/16UNFext, 44.2L | parallel | 112 |
| **L6** | Ø19.05,4.8 KEY, no thread, 32L, SAE 19-1 | parallel | 145 |
| **R1** | Ø15.9,8.0L, 4.0 KEY, 1/2UNF, SAE“A“ | taper 1:8 | 156 |
| **S1** | Ø17.0,7.7L, 3.0 KEY, M12x1.5 | taper 1:5 | 193 |
| **S2** | Ø16.65,12.0L,3.2 KEY, M12x1.5 | taper 1:8 | 198 |
| **S4** | Ø16.65,12.0L,4.0 KEY, M12x1.5 | taper 1:8 | 198 |
| **V5** | 8x6.5 short shaft | tang drive | 60 |

$$\text{Torque [Nm]} = \frac{\text{Displacement [cm}^3\text{/rev] x Pressure [bar]}}{57.2}$$

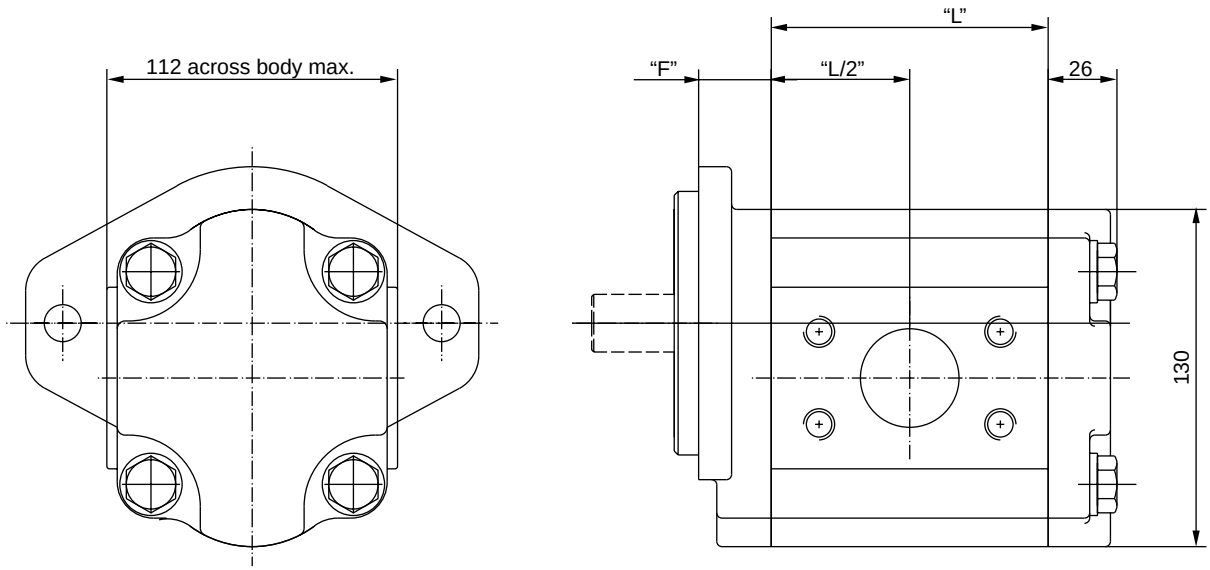
## PGP/PGM 517 Dimensions

## PGP/PGM 517 Specification - Standard Displacements

| Pump Displacement | Code | 0140 | 0160 | 0190 | 0230 | 0250 | 0280 | 0330 | 0380 | 0440 | 0520 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | cm³/rev | 14.0 | 16.0 | 19.0 | 23.0 | 25.0 | 28.0 | 33.0 | 38.0 | 44.0 | 52.0 |
| **Continous Pressure** | bar | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 220 | 200 |
| **Intermittent Pressure** | bar | 275 | 275 | 275 | 275 | 275 | 275 | 275 | 255 | 220 | 215 |
| **Minimum Speed** @ Max. outlet pressure | rpm | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 |
| **Maximum Speed** @ 0 Inlet & Max. outlet pressure | rpm | 3400 | 3400 | 3300 | 3300 | 3100 | 3100 | 3000 | 3000 | 2800 | 2700 |
| **Pump Input Power** @ Max. Pressure and 1500 rpm | kW | 9.6 | 11 | 13.1 | 15.8 | 17.2 | 19.3 | 22.7 | 26.1 | 27 | 28.6 |
| **Dimension "L"** | mm | 68.3 | 70.3 | 73.3 | 77.4 | 79.4 | 82.4 | 87.5 | 92.5 | 98.6 | 106.7 |
| **Approximate Weight**[1)] | kg | 7.92 | 8.00 | 8.12 | 8.29 | 8.37 | 8.50 | 8.70 | 8.91 | 9.16 | 9.49 |

[1)] Single pump with Flange H3 and Port end cover B1

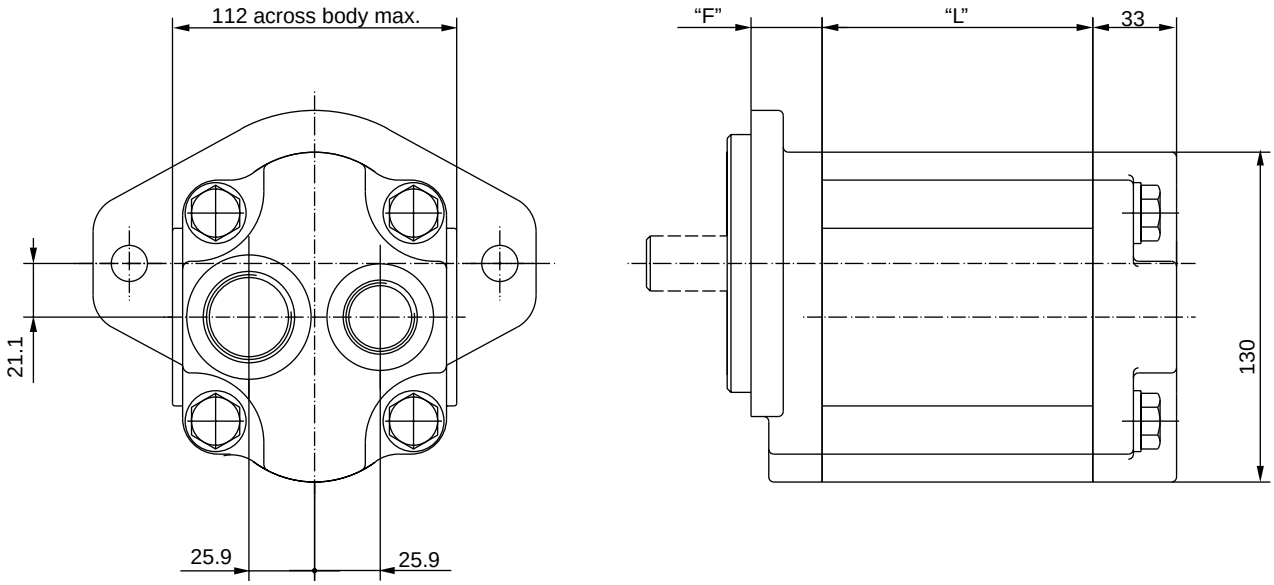
## Single Unit PGP/PGM 517




**Dimension "F"** see flanges
**Dimension "L"** see table

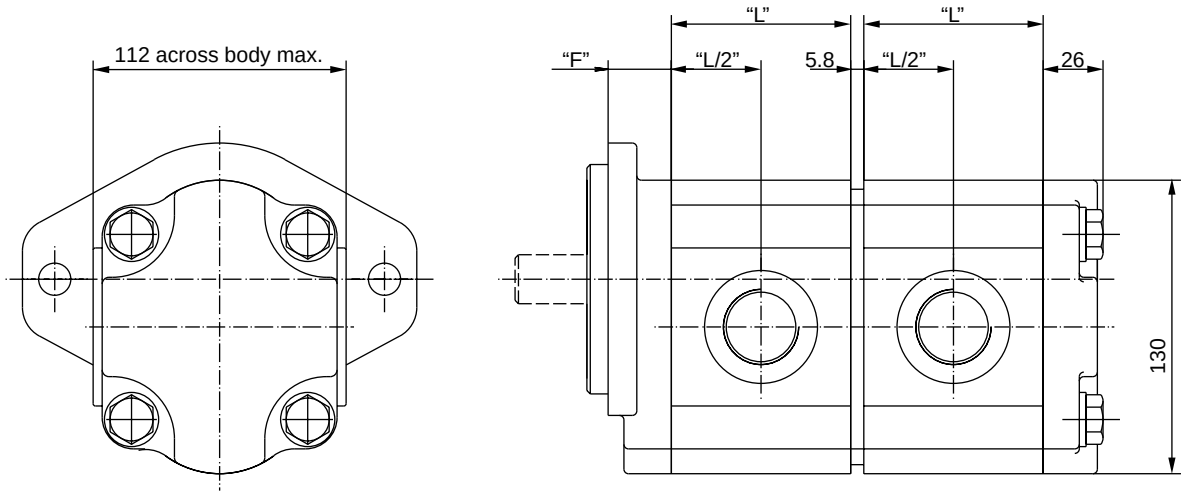
## PGP/PGM 517 Dimensions

### Single Unit PGP/PGM 517 with rear ports




**Dimension "F"** see flanges
**Dimension "L"** see table

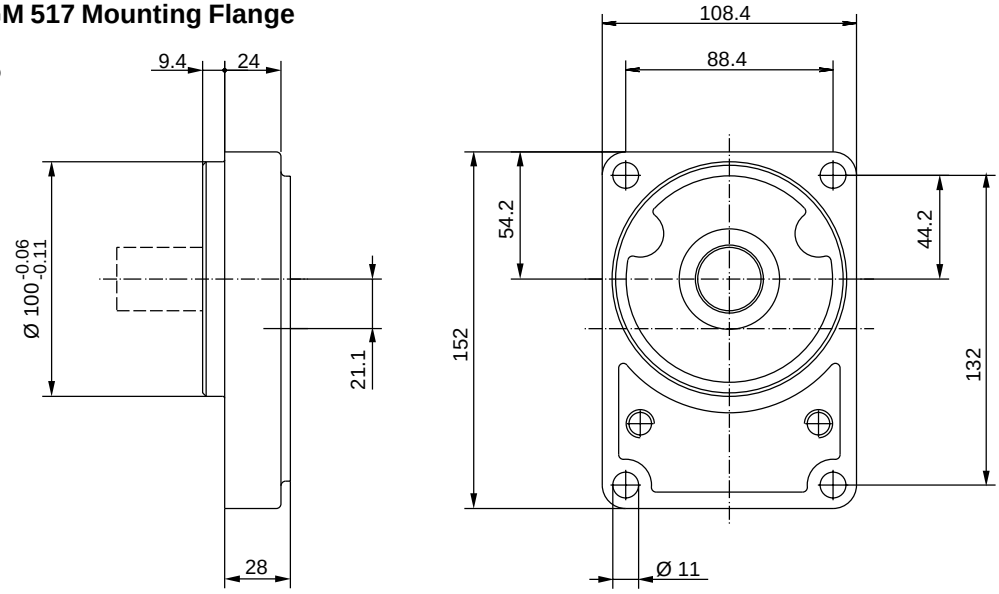
### Tandem Unit PGP/PGM 517



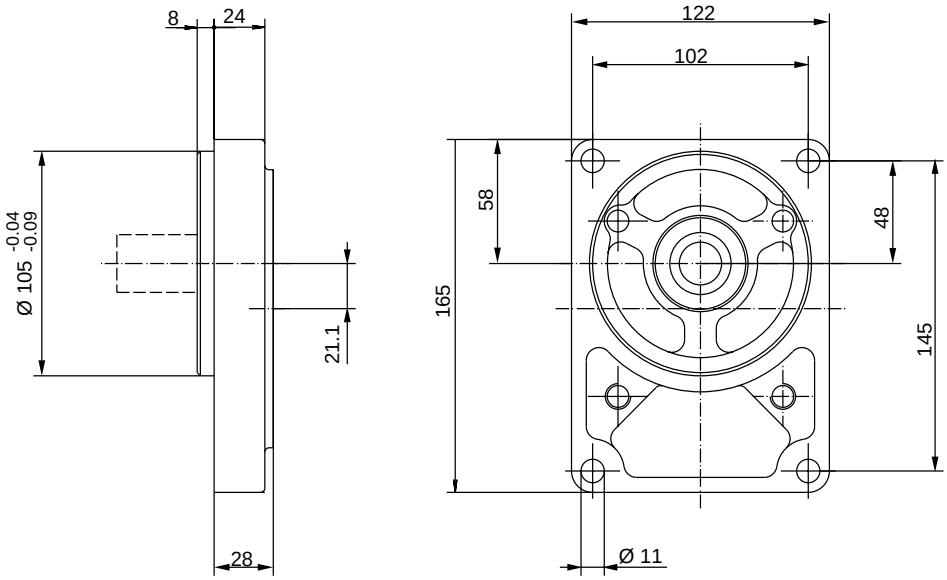

**Dimension "F"** see flanges
**Dimension "L"** see table

## PGP/PGM 517 Mounting Flange

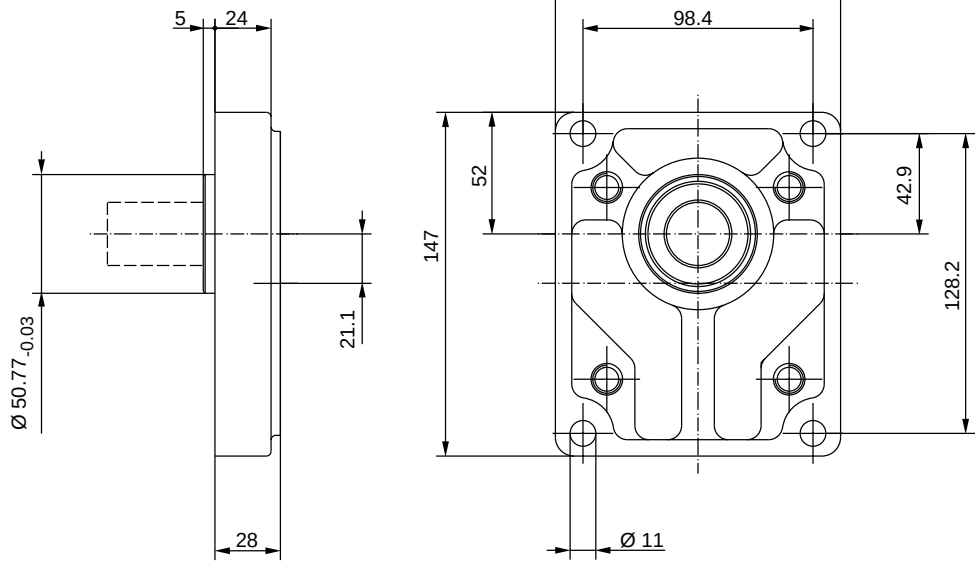
### Code D5




### Code D6

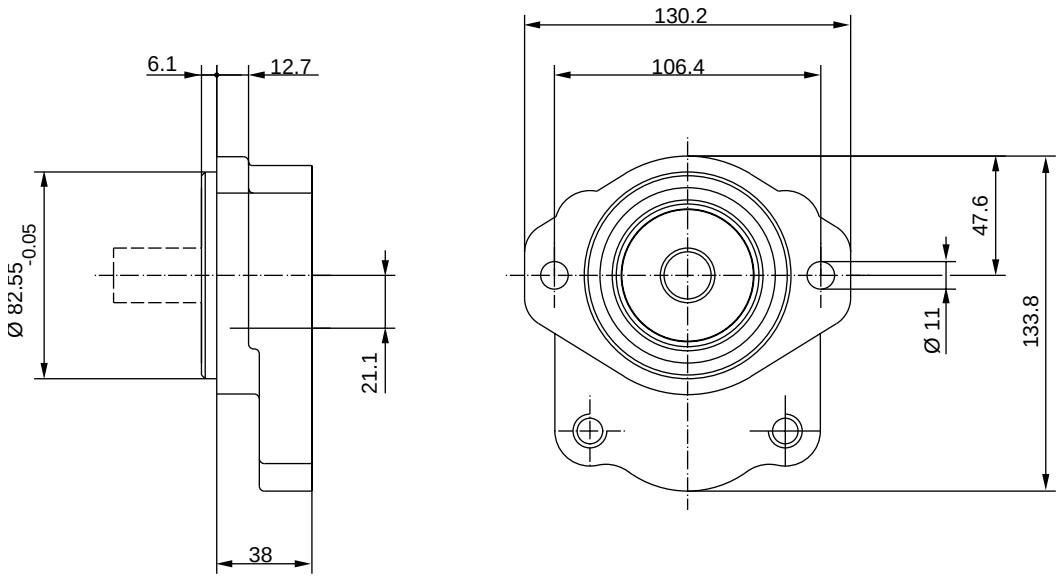



### Code D7

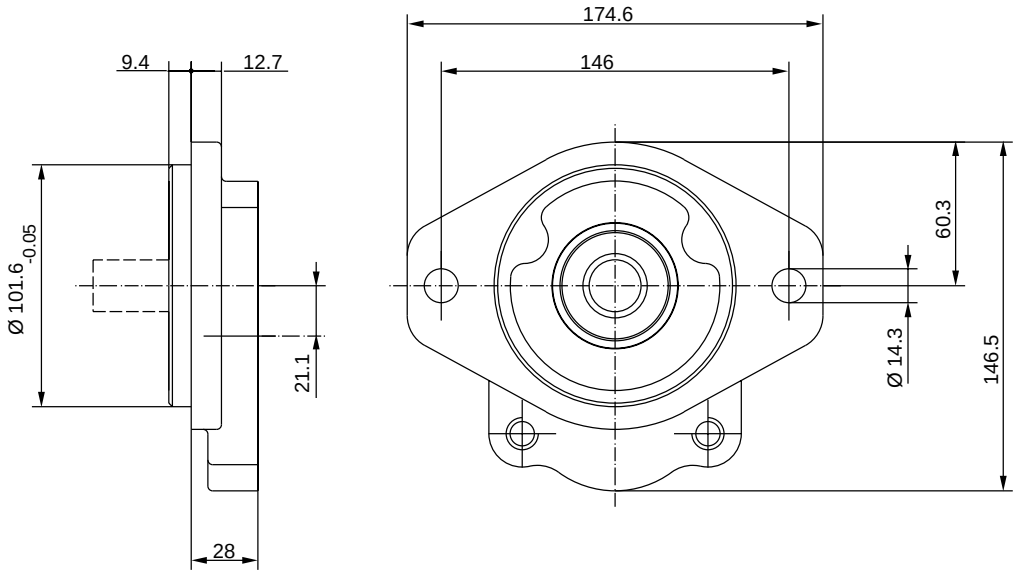


## PGP/PGM 517 Mounting Flange

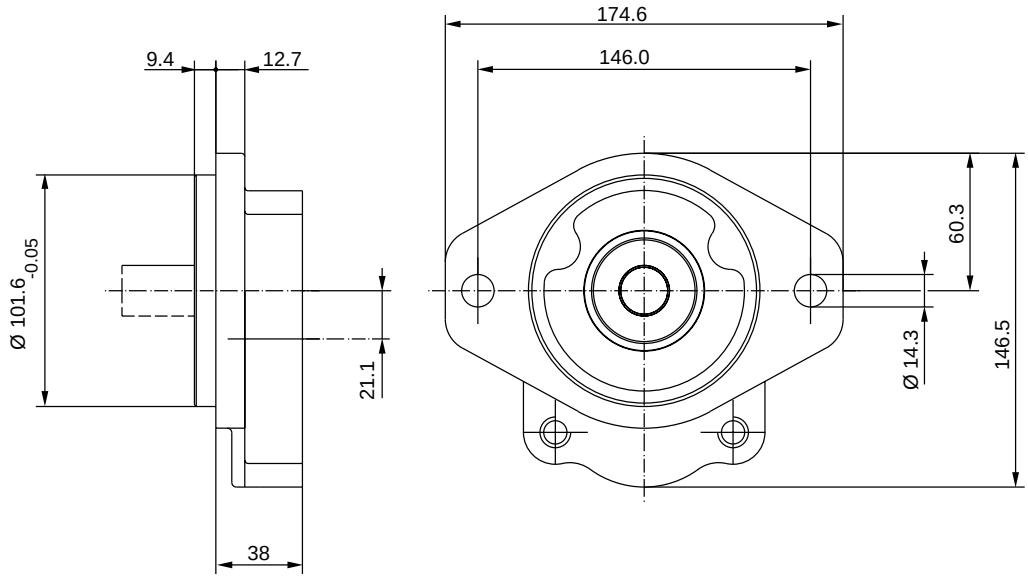
### Code H2/L2




### Code H3

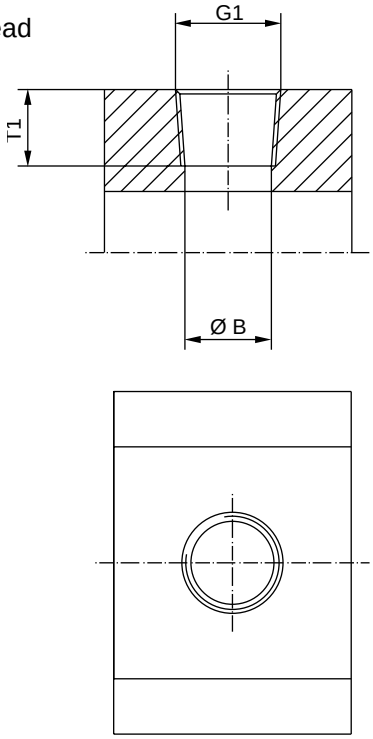



### Code L3

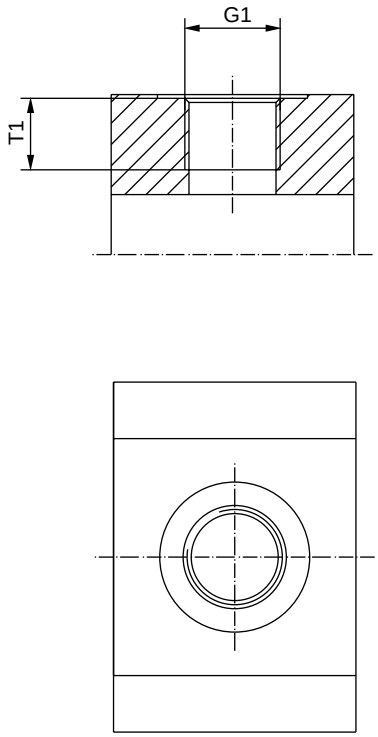


### PGP/PGM 517 Porting

**Code C**
NPT thread



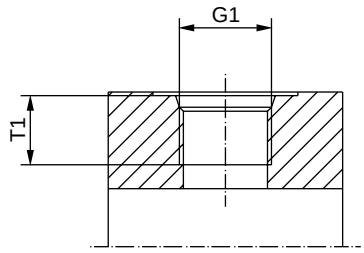

**Code E**
British Standard Pipe
**Code G**
Metric straight thread




### PGP/PGM 517

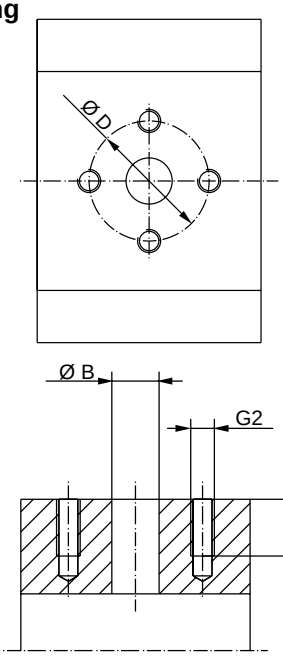
| Code | G1 | T1 |
|---|---|---|
| | Thread | Dimensions |
| **C3** | 1/2-14 NPT | 20.8 |
| **C4** | 3/4-14 NPT | 21.3 |
| **D2** | 9/16-18 UNF | 12.7 |
| **D3** | 3/4-16 UNF | 14.3 |
| **D4** | 7/8-14 UNF | 16.7 |
| **D5** | 1 1/16-12 UN | 19.0 |
| **D6** | 1 5/16-12 UN | 19.0 |
| **D7** | 1 5/8-12 UN | 19.0 |
| **D8** | 1 7/8-12 UN | 19.0 |
| **E2** | 3/8-19 BSP | 12.0 |
| **E3** | 1/2-14 BSP | 14.0 |
| **E4** | 5/8-14 BSP | 16.3 |
| **E5** | 3/4-16 BSP | 16.0 |
| **E6** | 1-11 BSP | 18.0 |
| **E7** | 1 1/4-11 BSP | 20.0 |
| **E8** | 1 1/2-11 BSP | 22.0 |
| **G4** | M 22x1.5 | 14.0 |
| **G5** | M 26x1.5 | 16.0 |
| **G7** | M 30x1.5 | 12.0 |
| **G8** | M 33x2 | 18.0 |
| **G9** | M 42x2 | 20.0 |

**Code D**
SAE straight thread

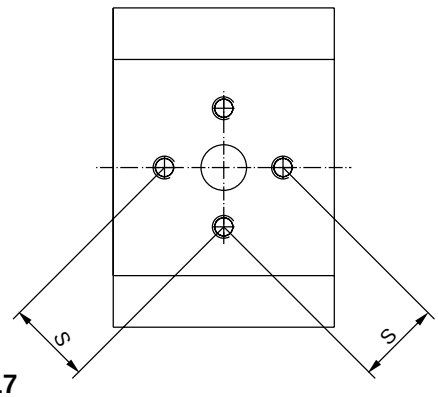


## PGP/PGM 517 Porting

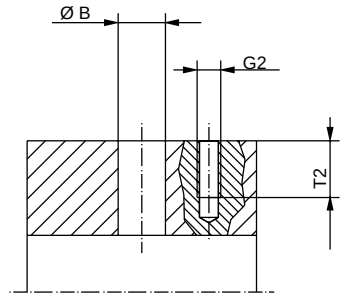
**Code L**
4-Bolt flange

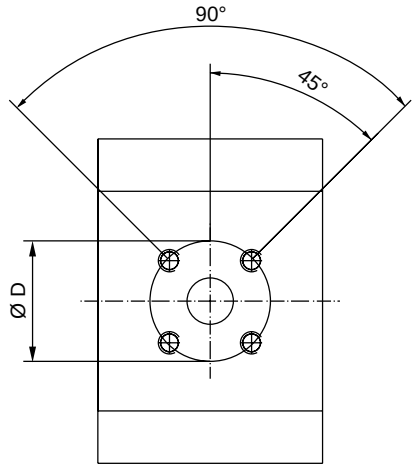



**Code M**
4-Bolt flange

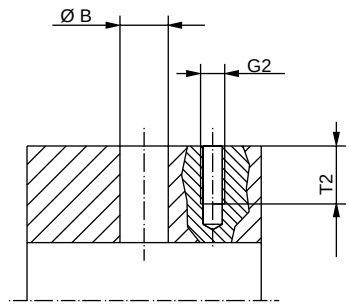


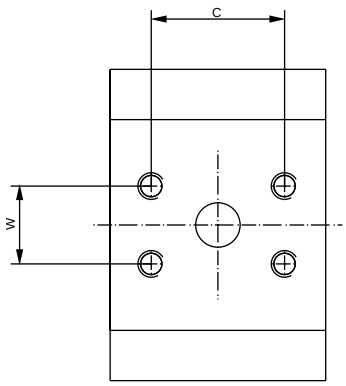

**Code J**
European flange




**Code N**
SAE split flange
**Code P**
SAE split flange metric thread



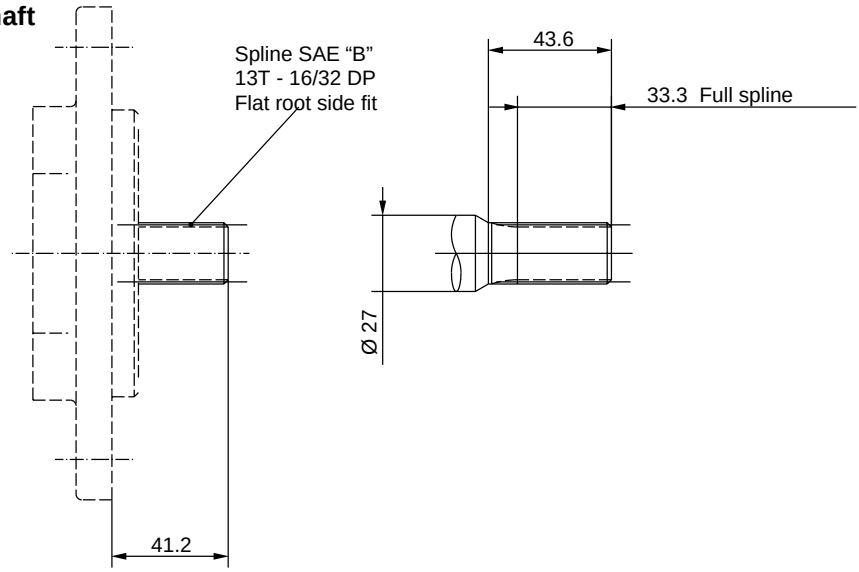




**PGP/PGM 517**

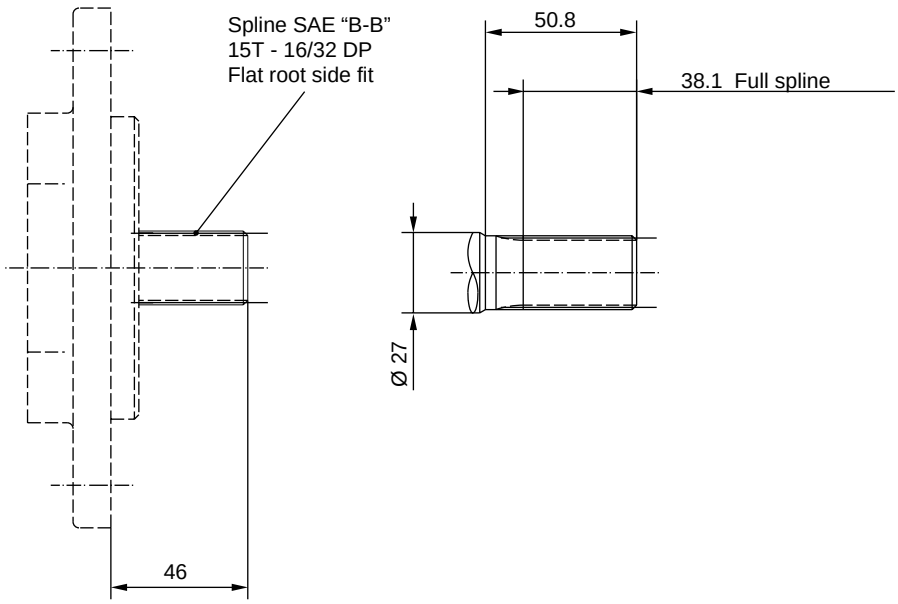
| Code | G2 | ∅ B | ∅ D | S | C | W | T2 |
|---|---|---|---|---|---|---|---|
| | Thread | Dimensions | | | | | |
| **J5** | M6 | 15.0 | 35.0 | | | | 12.5 |
| **J6** | M8 | 15.0 | 40.0 | | | | 15.0 |
| **J7** | M6 | 20.0 | 40.0 | | | | 13.0 |
| **J8** | M8 | 18.0 | 55.0 | | | | 15.0 |
| **J9** | M8 | 26.0 | 55.0 | | | | 15.0 |
| **L1** | M6 | 13.0 | 30.0 | | | | 13.0 |
| **L2** | M8 | 19.0 | 40.0 | | | | 15.0 |
| **L3** | M10 | 27.0 | 51.0 | | | | 18.0 |
| **L4** | 1/4-20 UNF | 13.0 | 30.0 | | | | 13.0 |
| **L5** | 5/16-18 UNF | 19.0 | 40.0 | | | | 15.0 |
| **L6** | 3/8-16 UNF | 27.0 | 51.0 | | | | 18.0 |
| **M4** | 5/16-18 UNF | 19.0 | | 48.1 | | | 15.0 |
| **M5** | 5/16-18 UNF | 25.4 | | 48.1 | | | 15.0 |
| **N1** | 5/16-18 UNC | 12.7 | | | 38.10 | 17.48 | 15.0 |
| **N2** | 3/8-16 UNC | 19.0 | | | 47.63 | 22.23 | 14.0 |
| **N3** | 3/8-16 UNC | 25.4 | | | 52.37 | 26.19 | 20.6 |
| **N4** | 7/16-14 UNC | 31.8 | | | 58.72 | 30.17 | 20.6 |
| **N5** | 1/2-13 UNC | 38.1 | | | 69.82 | 35.71 | 20.6 |
| **P1** | M8 | 12.7 | | | 38.10 | 17.48 | 15.0 |
| **P2** | M10 | 19.0 | | | 47.63 | 22.23 | 20.6 |
| **P3** | M10 | 25.4 | | | 52.37 | 26.19 | 21.4 |
| **P4** | M10 | 31.8 | | | 58.72 | 30.17 | 20.6 |
| **P5** | M12 | 38.1 | | | 69.82 | 35.71 | 20.6 |

**PGP/PGM 517 Drive Shaft**

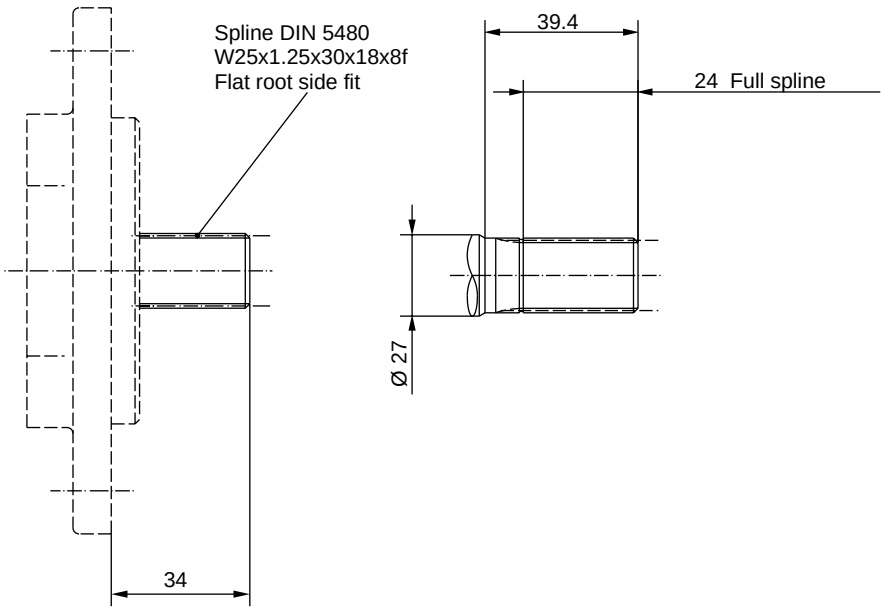
**Code D1**



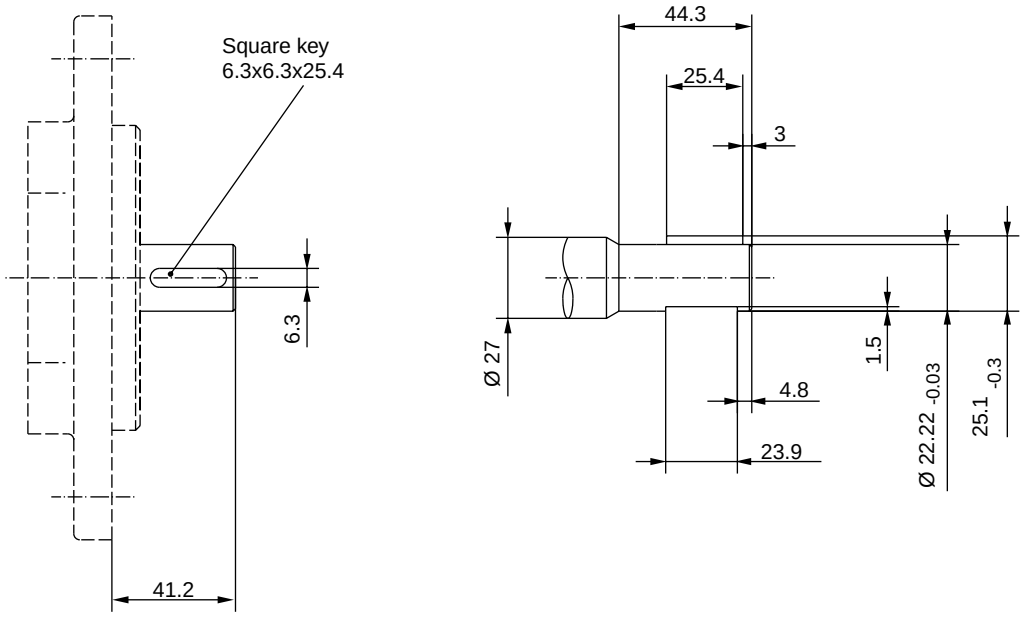

**Code E1**



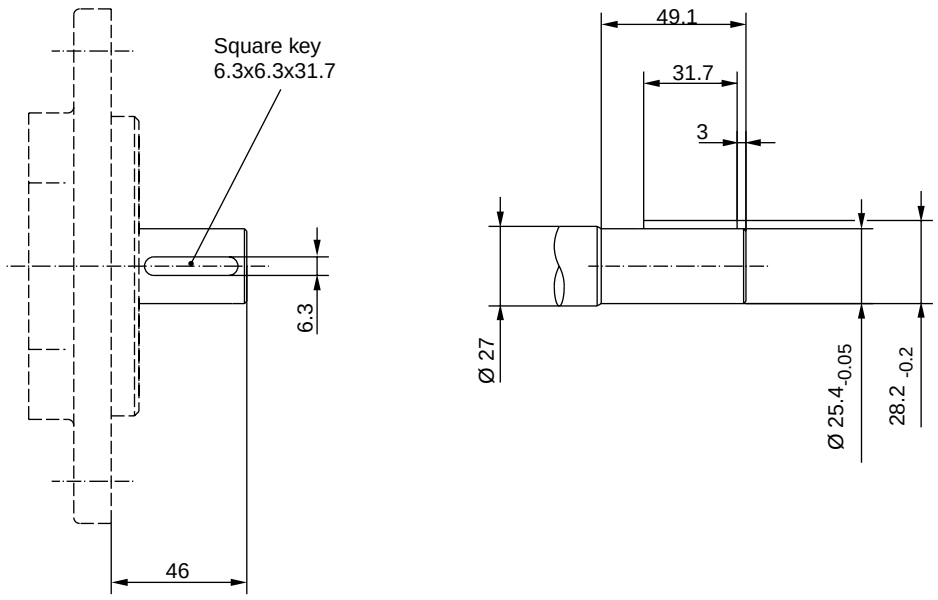

**Code F4**



**PGP/PGM 517 Drive Shaft**
**Code M1**

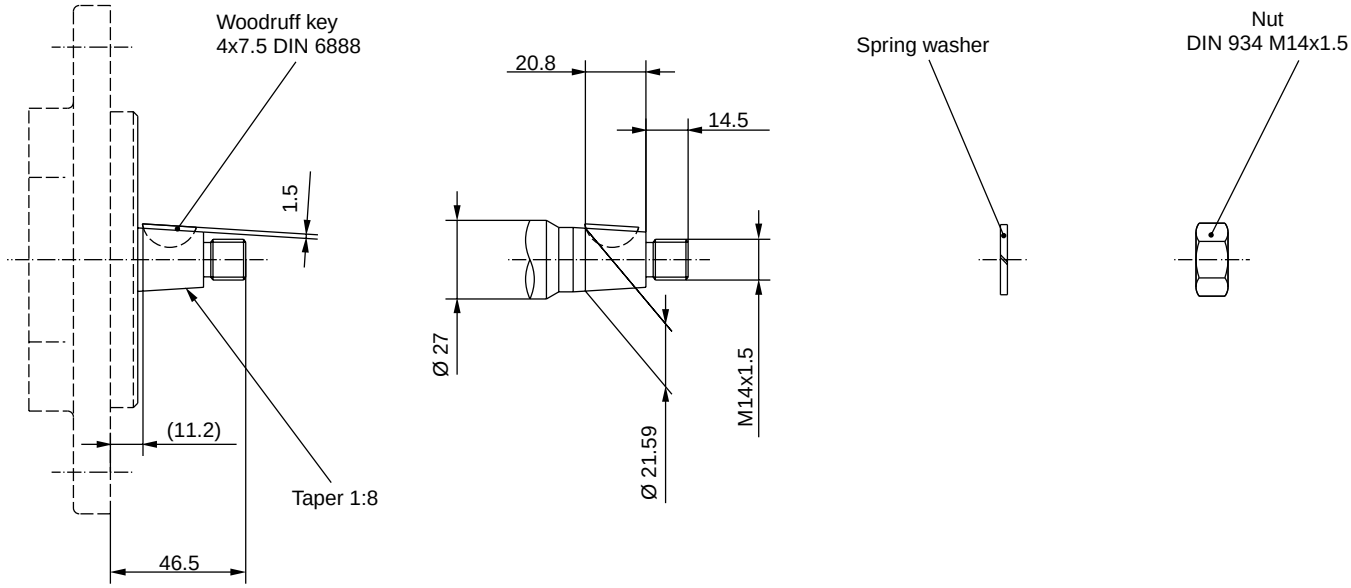



**Code M2**

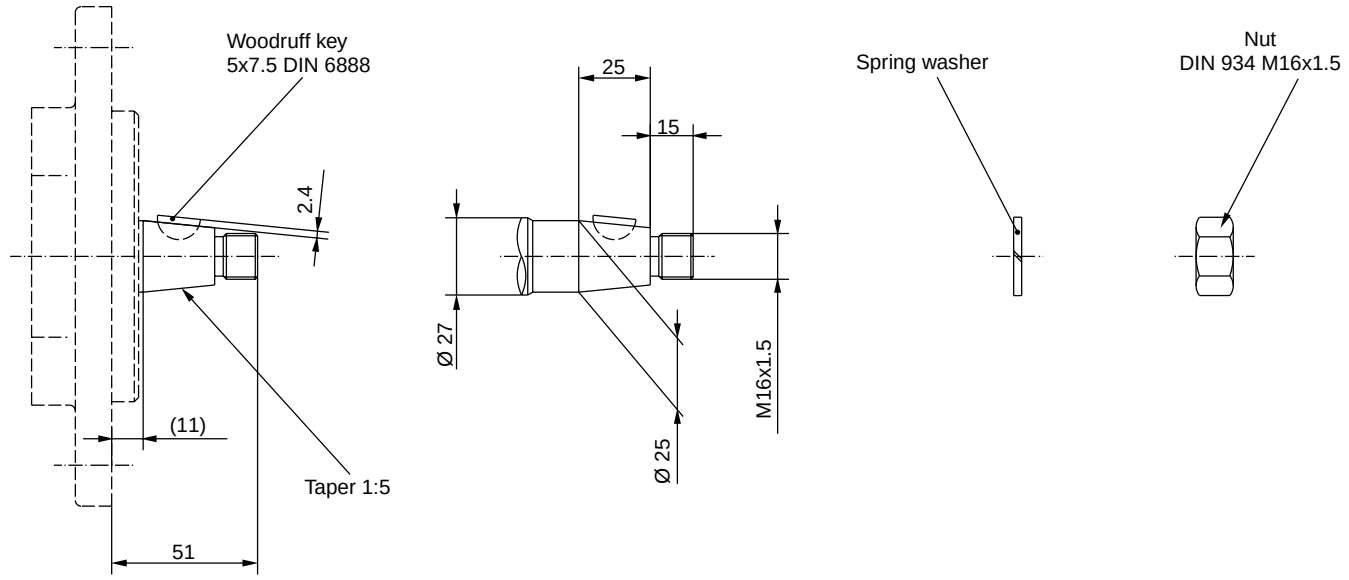


### PGP/PGM 517 Drive Shaft

**Code T1**




**Code T2**




### PGP/PGM 517 - Shaft Load Capacity

| Code | Description | | Torque Rating [Nm] |
|---|---|---|---|
| D1 | 13T,16/32DP, 41.2L, SAE“B“ | spline | 345 |
| E1 | 15T, 16/32DP, 46L, SAE“B-B“ | spline | 530 |
| F4 | 18T, W25x1.25, 34L, DIN 5480 | spline | 500 |
| M1 | Ø22.2, 6.3 KEY, no thd, 41.2L, SAE“B“ | parallel | 251 |
| M2 | Ø25.4, 6.3 KEY, no thd, 46L, SAE“B-B“ | parallel | 395 |
| T1 | Ø21.59,11.2 L,4.0 KEY, M14x1.5 | taper 1:8 | 250 |
| T2 | Ø25.0,12.0 L,5.0 KEY, M16x1.5 | taper 1:5 | 350 |

$$\text{Torque [Nm]} = \frac{\text{Displacement [cm}^3\text{/rev] x Pressure [bar]}}{57.2}$$

**Standard pump range available ex-stock**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **PGP 503 A** | 0016 | C | P2 | D1 | N | J2 | J1 | B1 | B1 |
| **PGP 503 A** | 0016 | A | P2 | D1 | N | J2 | J1 | B1 | B1 |
| **PGP 503 A** | 0025 | C | P2 | D1 | N | J4 | J3 | B1 | B1 |
| **PGP 503 A** | 0025 | A | P2 | D1 | N | J4 | J3 | B1 | B1 |
| **PGP 503 A** | 0036 | C | P2 | D1 | N | J4 | J3 | B1 | B1 |
| **PGP 503 A** | 0036 | A | P2 | D1 | N | J4 | J3 | B1 | B1 |
| **PGP 503 A** | 0058 | C | P2 | D1 | N | J4 | J3 | B1 | B1 |
| **PGP 503 A** | 0058 | A | P2 | D1 | N | J4 | J3 | B1 | B1 |
| **PGP 505 A** | 0040 | C | Q2 | D2 | N | J7 | J5 | B1 | B1 |
| **PGP 505 A** | 0040 | A | Q2 | D2 | N | J7 | J5 | B1 | B1 |
| **PGP 505 A** | 0060 | C | Q2 | D2 | N | J7 | J5 | B1 | B1 |
| **PGP 505 A** | 0060 | A | Q2 | D2 | N | J7 | J5 | B1 | B1 |
| **PGP 505 A** | 0080 | C | Q2 | D2 | N | J7 | J5 | B1 | B1 |
| **PGP 505 A** | 0080 | A | Q2 | D2 | N | J7 | J5 | B1 | B1 |
| **PGP 505 A** | 0100 | C | Q2 | D2 | N | J7 | J5 | B1 | B1 |
| **PGP 505 A** | 0100 | A | Q2 | D2 | N | J7 | J5 | B1 | B1 |
| **PGP 511 A** | 0060 | C | S4 | D3 | N | J7 | J5 | B1 | B1 |
| **PGP 511 A** | 0060 | A | S4 | D3 | N | J7 | J5 | B1 | B1 |
| **PGP 511 A** | 0120 | C | S4 | D3 | N | J7 | J5 | B1 | B1 |
| **PGP 511 A** | 0120 | A | S4 | D3 | N | J7 | J5 | B1 | B1 |
| **PGP 511 A** | 0190 | C | S4 | D3 | N | J9 | J7 | B1 | B1 |
| **PGP 511 A** | 0190 | A | S4 | D3 | N | J9 | J7 | B1 | B1 |
| **PGP 511 A** | 0270 | C | S4 | D3 | N | J9 | J7 | B1 | B1 |
| **PGP 511 A** | 0270 | A | S4 | D3 | N | J9 | J7 | B1 | B1 |
| **PGP 511 S** | 0080 | C | S4 | D3 | N | J7 | J5 | B1 | B1 |
| **PGP 511 S** | 0080 | A | S4 | D3 | N | J7 | J5 | B1 | B1 |
| **PGP 511 S** | 0120 | C | S4 | D3 | N | J7 | J5 | B1 | B1 |
| **PGP 511 S** | 0120 | A | S4 | D3 | N | J7 | J5 | B1 | B1 |
| **PGP 511 S** | 0170 | C | S4 | D3 | N | J9 | J7 | B1 | B1 |
| **PGP 511 S** | 0170 | A | S4 | D3 | N | J9 | J7 | B1 | B1 |
| **PGP 511 S** | 0250 | C | S4 | D3 | N | J9 | J7 | B1 | B1 |
| **PGP 511 S** | 0250 | A | S4 | D3 | N | J9 | J7 | B1 | B1 |
| **PGP 517 A** | 0140 | C | T1 | D5 | N | J9 | J7 | B1 | B1 |
| **PGP 517 A** | 0140 | A | T1 | D5 | N | J9 | J7 | B1 | B1 |
| **PGP 517 A** | 0250 | C | T1 | D5 | N | J9 | J7 | B1 | B1 |
| **PGP 517 A** | 0250 | A | T1 | D5 | N | J9 | J7 | B1 | B1 |
| **PGP 517 A** | 0360 | C | T1 | D5 | N | P5 | P3 | B1 | B1 |
| **PGP 517 A** | 0360 | A | T1 | D5 | N | P5 | P3 | B1 | B1 |
| **PGP 517 A** | 0500 | C | T1 | D5 | N | P5 | P3 | B1 | B1 |
| **PGP 517 A** | 0500 | A | T1 | D5 | N | P5 | P3 | B1 | B1 |