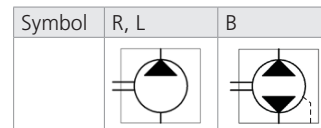


Technical Features

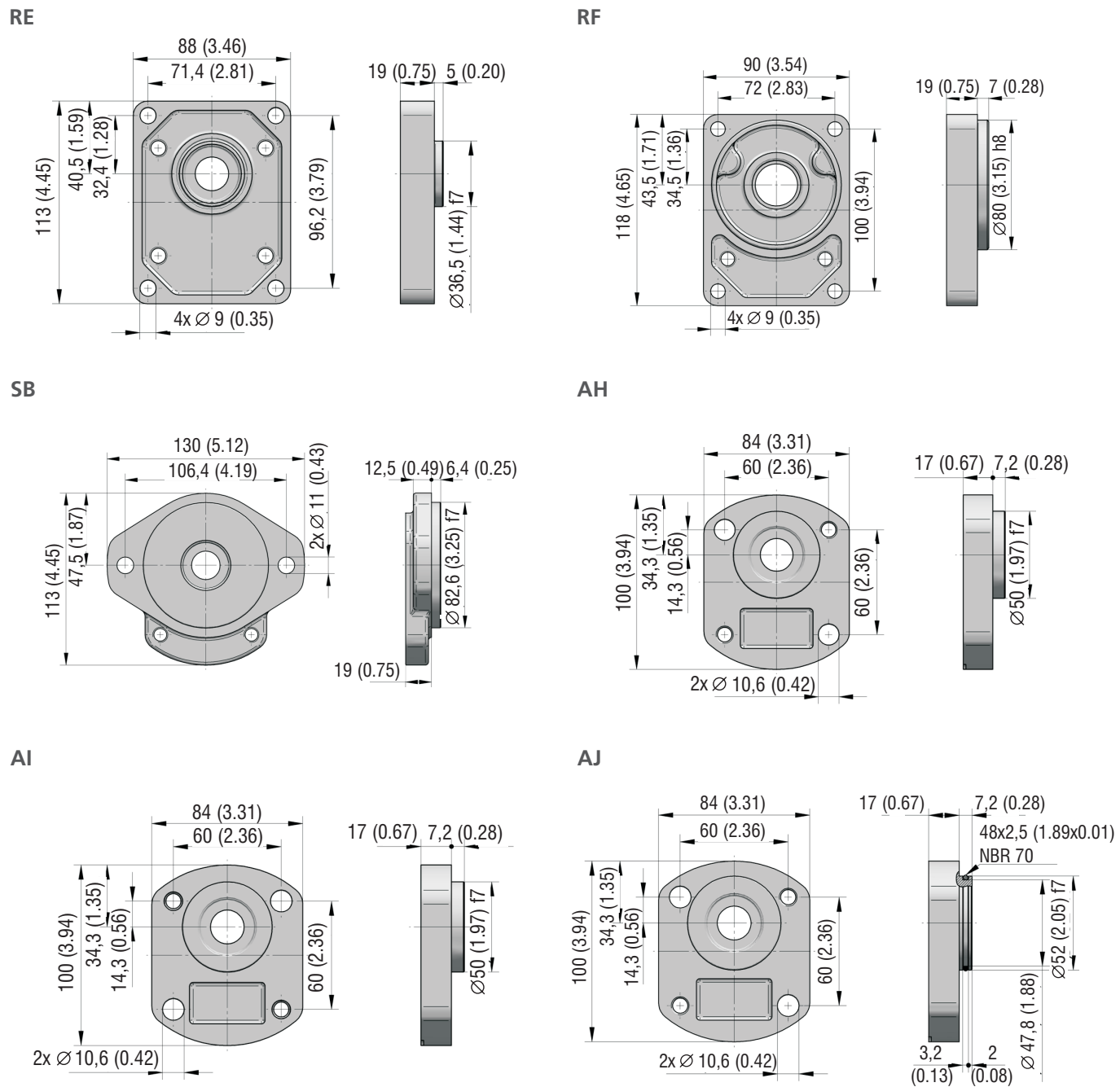

- › Operating pressure 270 bar, Peak pressure 300 bar
- › Cost effective design for circuits with a lower operating pressure
- › High quality aluminum alloys pump with axial play compensation
- › Service life for 1800 operation hours
- › Volumetric efficiency up to 96%
- › International standard flanges acc.to SAE, ISO, DIN, GOST


Technical Data

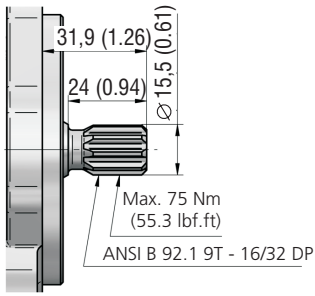
| Nominal Size Parameters | Symbol | Unit | Displacement | | | | | | | | | | | | | |
|-------------------------|-----------------|--------------------|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | 3 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 25 | 28 | 30 |
| Actual displacement | V _g | [in ³] | 0.183 | 0.244 | 0.366 | 0.488 | 0.610 | 0.732 | 0.854 | 0.976 | 1.098 | 1.220 | 1.343 | 1.526 | 1.709 | 1.831 |
| Rotation speed | nominal | n _n | 1500 | | | | | | | | | | | | | |
| | minimum | n _{min} | 800 | 600 | | | 500 | | | | 400 | | | | | |
| | maximum | n _{max} | 4000 | | | 3500 | 3000 | | 4000 | | 3600 | 3200 | 3000 | | 2500 | |
| Pressure at inlet* | minimum | p _{1min} | -0,3 (-4.4 PSI) | | | | | | | | | | | | | |
| | maximum | p _{1max} | 0,5 (7.3 PSI) | | | | | | | | | | | | | |
| Pressure at outlet** | max. continuous | p _{2n} | 270 | | | | 250 | | | | 220 | | 200 | 180 | 160 | |
| | | [PSI] | 3916 | | | | 3626 | | | | 3191 | | 2901 | 2611 | 2321 | |
| | maximum | p _{2max} | 285 | | | | 265 | | | | 235 | | 215 | 190 | 170 | |
| | | [PSI] | 4134 | | | | 3844 | | | | 3408 | | 3118 | 2756 | 2466 | |
| | peak | p ₃ | 300 | | | | 280 | | | | 250 | | 230 | 200 | 180 | |
| | | [PSI] | 4351 | | | | 4061 | | | | 3626 | | 3336 | 2901 | 2611 | |
| Weight | m | [kg] | 2,6 | 2,63 | 2,65 | 2,75 | 2,8 | 2,95 | 3,03 | 3,1 | 3,22 | 3,35 | 3,4 | 3,5 | 3,8 | 3,97 |
| | | [lbs] | 5.73 | 5.80 | 5.84 | 6.06 | 6.17 | 6.50 | 6.68 | 6.83 | 7.10 | 7.39 | 7.50 | 7.72 | 8.38 | 8.75 |

- 1) *Inlet pressure in the reversible design can be up to **p₁ = p_{2n} - 70 bar max.** External drainage must be used in case of the reversible design.
- 2) **Outlet pressure in the reversible design is 10% lower than shown in the table (depending on operating conditions).
- 3) **p_{2n}** maximum continuous pressure - maximum working pressure, at which the pump can be operated without time limitation.
- 4) **p_{2max}** maximum pressure - maximum pressure permissible for a short time, max. 20 s.
- 5) **p₃** peak pressure - short-time pressure (fractions of a second) arising in case of a sudden change of the operating mode; any excess of this pressure during operation is impermissible.

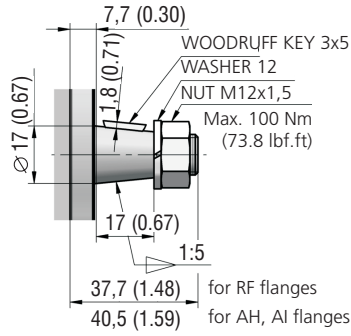
| Gear Pump / Size | | GP2L - 3 ...30 ccm |
|---|--------------------------|--|
| Volumetric efficiency | % | 89 ÷ 96 |
| Mechanical efficiency | % | 85 |
| Fluid temperature range (NBR) | °C (°F) | -20...80 (-4...176) |
| Fluid temperature range (FPM) | °C (°F) | -20...120 (-4...248) |
| Viscosity range | mm ² /s (SUS) | 20 ...80 (97 ...390), 1200 (5849) for cold start |
| Hydraulic fluid | | Hydraulic oils of power classes (HL, HLP) to DIN 51524 |
| Max. degree of fluid contamination for p ₂ ≤ 200 bar | | Class 21/18/15 acc. to ISO 4406 |
| Max. degree of fluid contamination for p ₂ ≥ 200 bar | | Class 20/17/14 acc. to ISO 4406 |



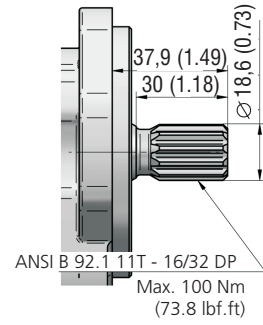
DD



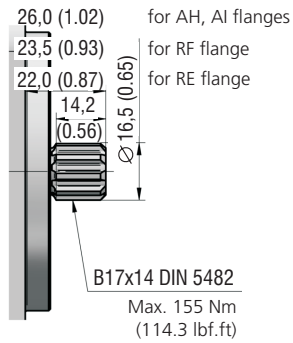
CK



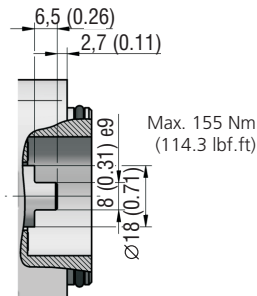
DH



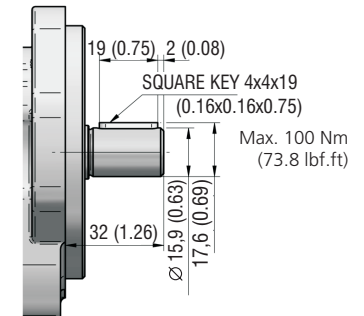
DJ



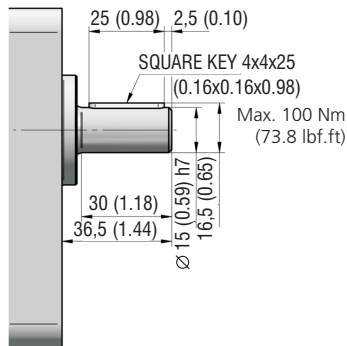
KH



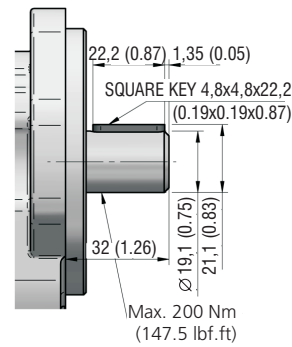
VJ

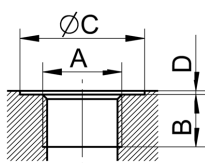


VL

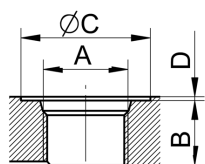


VM

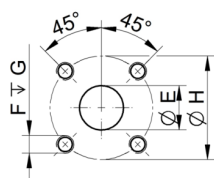


BSPP pipe thread according to ISO 228 -1


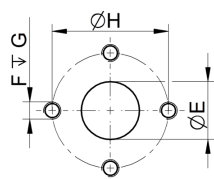
| Displacement [cm ³ (in ³)] | Inlet Code | Dimension | | | | Outlet Code | Dimension | | | |
|--|---------------|-----------|-----------|-----------|----------|----------------|-----------|-----------|-----------|----------|
| | | A | B | C | D | | A | B | C | D |
| 3-6 (0.18-0.34) | GC | G1/2 | 14 (0.55) | 33 (1.30) | 1 (0.04) | GC | G1/2 | 14 (0.55) | 33 (1.30) | 1 (0.04) |
| 8-30 (0.49-1.83) | GD | G3/4 | 16 (0.63) | 39 (1.53) | | | | | | |
| 16-30 (0.98-1.83) | GE | G1 | 18 (0.71) | 45 (1.77) | | | | | | |

UNF thread according to SAE


| Displacement [cm ³ (in ³)] | Inlet Code | Dimension | | | | Outlet Code | Dimension | | | |
|--|---------------|------------------|-----------|-----------|----------|----------------|---------------|-----------|-----------|----------|
| | | A | B | C | D | | A | B | C | D |
| ALL | UD | 7/8-14 UNF-2B | 17 (0.67) | 34 (1.34) | 1 (0.04) | UD | 7/8-14 UNF-2B | 17 (1.04) | 33 (1.30) | 1 (0.04) |
| | UE | 1-1/16-12 UNF-2B | 19 (0.75) | 41 (1.61) | | | | | | |
| | UH | 1-5/16 UNF-2B | 23 (0.91) | 49 (1.93) | | | | | | |

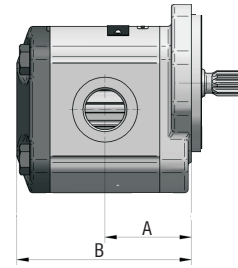
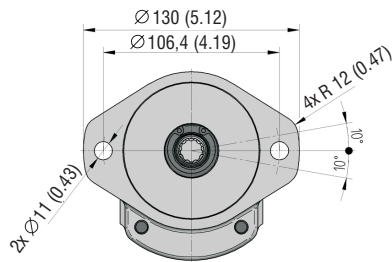
Flanged fittings according to DIN 8901/8902


| Displacement [cm ³ (in ³)] | Inlet Code | Dimension | | | | Outlet Code | Dimension | | | |
|--|---------------|-----------|----|-----------|-----------|----------------|-----------|----|-----------|-----------|
| | | E | F | G | H | | E | F | G | H |
| ALL | HF | 20 (0.79) | M6 | 13 (0.51) | 40 (1.57) | HE | 15 (0.59) | M6 | 13 (0.51) | 35 (1.38) |
| 16-30 (0.98-1.83) | HK | 25 (0.98) | M8 | 13 (0.51) | 55 (2.17) | | | | | |

Flanged fittings - „cross“


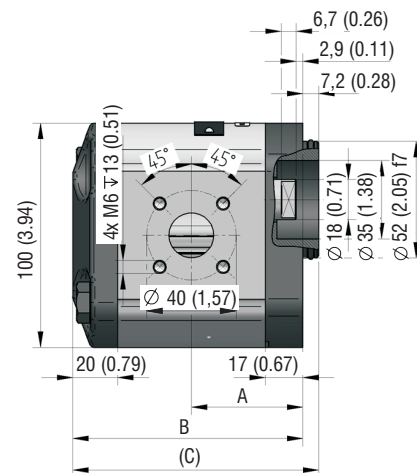
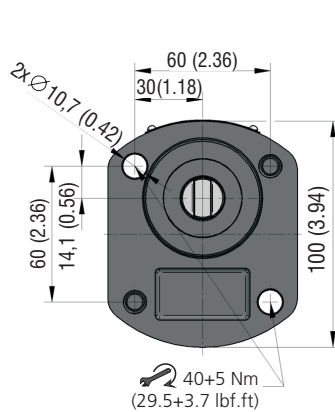
| Displacement [cm ³ (in ³)] | Inlet Code | Dimension | | | | Outlet Code | Dimension | | | |
|--|---------------|-----------|----|-----------|-----------|----------------|-------------|----|-----------|-----------|
| | | E | F | G | H | | E | F | G | H |
| ALL | KB | 20 (0.79) | M8 | 13 (0.51) | 40 (1.57) | KA | 13,5 (0.53) | M6 | 13 (0.51) | 30 (1.18) |
| | KH | 14 (0.55) | | | 38 (1.50) | | | | | 38 (1.50) |
| | KI | 19 (0.75) | | | | | | | | |

GP2L-*R-SBDD-SG*G*-N



| Displacement [cm ³ (in ³)/rev] | A | B | Displacement [cm ³ (in ³)/rev] | A | B |
|---|-------------|--------------|---|-------------|--------------|
| 3 (0.18) | 43,6 (1.72) | 91,1 (3.59) | 16 (0.98) | 54,4 (2.14) | 112,7 (4.44) |
| 4 (0.24) | 44,4 (1.75) | 92,7 (3.65) | 18 (1.10) | 56,0 (2.20) | 116,0 (4.57) |
| 6 (0.37) | 46,0 (1.81) | 96,0 (3.78) | 20 (1.22) | 57,7 (2.27) | 119,3 (4.70) |
| 8 (0.49) | 47,7 (1.88) | 99,3 (3.91) | 22 (1.34) | 59,3 (2.33) | 122,6 (4.83) |
| 10 (0.61) | 49,3 (1.94) | 102,6 (4.04) | 25 (1.53) | 61,8 (2.43) | 127,6 (5.02) |
| 12 (0.73) | 51,0 (2.01) | 105,9 (4.17) | 28 (1.71) | 64,3 (2.53) | 132,6 (5.22) |
| 14 (0.85) | 52,7 (2.07) | 109,3 (4.30) | 30 (1.83) | 66,0 (2.60) | 135,9 (5.35) |

GP2L-*R-AJKH-SH*H*-N



| Displacement [cm ³ (in ³)/rev] | A | B | C | Displacement [cm ³ (in ³)/rev] | A | B | C |
|---|-------------|--------------|--------------|---|-------------|--------------|--------------|
| 3 (0.18) | 37,4 (1.47) | 88,6 (3.49) | 95,8 (3.77) | 16 (0.98) | 45,0 (1.77) | 110,2 (4.34) | 117,4 (4.62) |
| 4 (0.24) | 37,4 (1.47) | 90,2 (3.55) | 97,4 (3.83) | 18 (1.10) | 45,0 (1.77) | 113,5 (4.47) | 120,7 (4.75) |
| 6 (0.37) | 38,6 (1.52) | 93,5 (3.68) | 100,7 (3.96) | 20 (1.22) | 45,0 (1.77) | 116,8 (4.60) | 124,0 (4.88) |
| 8 (0.49) | 40,7 (1.60) | 96,8 (3.81) | 104,0 (4.09) | 22 (1.34) | 52,6 (2.07) | 120,1 (4.73) | 127,3 (5.01) |
| 10 (0.61) | 41,2 (1.62) | 100,1 (3.94) | 107,3 (4.22) | 25 (1.53) | 59,3 (2.33) | 125,1 (4.93) | 132,3 (5.21) |
| 12 (0.73) | 45,0 (1.77) | 103,4 (4.07) | 110,6 (4.35) | 28 (1.71) | 61,8 (2.43) | 130,1 (5.12) | 137,3 (5.41) |
| 14 (0.85) | 45,0 (1.77) | 106,8 (4.20) | 114,0 (4.49) | 30 (1.83) | 63,5 (2.50) | 133,4 (5.25) | 140,6 (5.54) |