

PGF Series

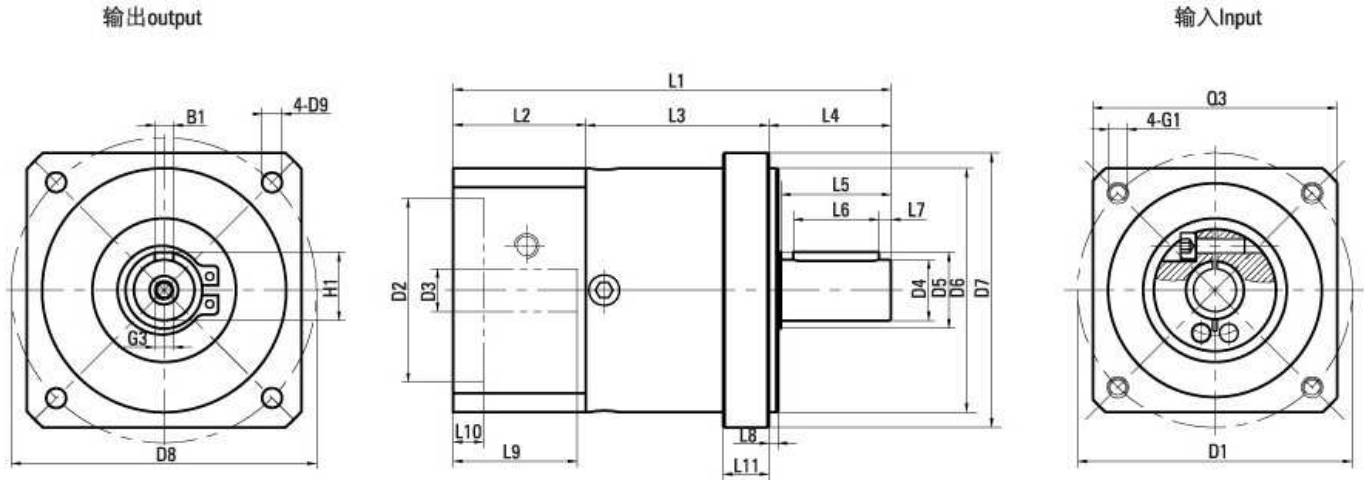
Square Flange Output High Precision Gearbox



■ Technical Specifications

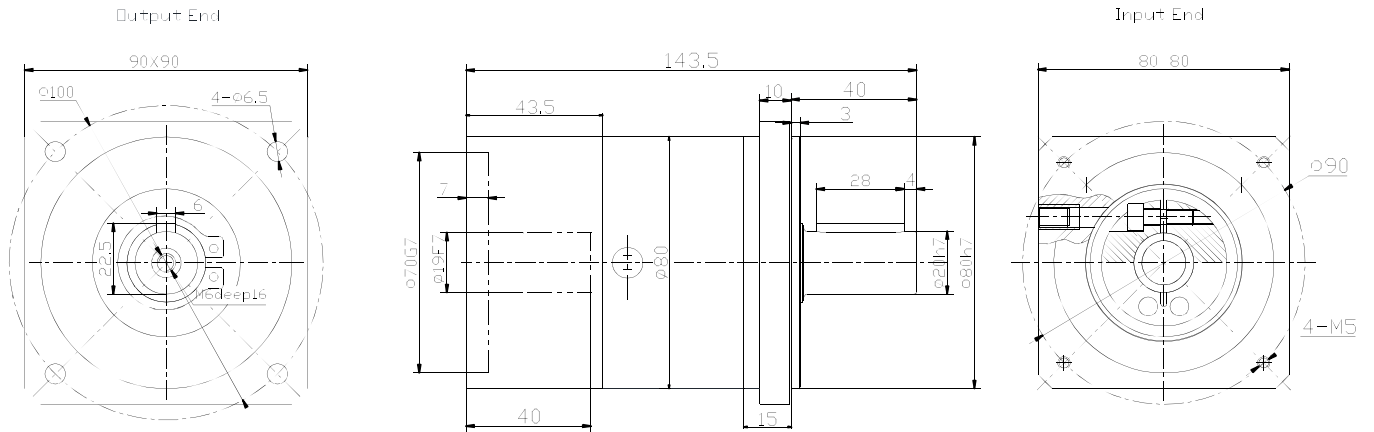
| No. of Stage | | 1 | | | 2 | | | | 3 | | | |
|------------------------------------|--------|--------------------------------|------|------|------|------|------|------|------|------|------|------|
| Gear Ratio | | 3 | 5 | 10 | 20 | 32 | 40 | 64 | 100 | 160 | 200 | 320 |
| Full Load Efficiency | | % 96 | | | % 94 | | | | %90 | | | |
| Lifetime | | 30.000 hrs | | | | | | | | | | |
| Instant Stop Torque | | 2 Times of Rated output torque | | | | | | | | | | |
| Operating Temp. | | -25 °C ~ +90 °C | | | | | | | | | | |
| Safety Grade | | IP54 | | | | | | | | | | |
| Lubrication Type | | Lifetime Lubrication | | | | | | | | | | |
| Mounting Type | | Any | | | | | | | | | | |
| Rated Admissible Torque (Nm) | PGF040 | 4.5 | 6 | 5 | 20 | 20 | 18 | 7.5 | 20 | 20 | 18 | 18 |
| | PGF060 | 12 | 16 | 15 | 44 | 44 | 40 | 18 | 44 | 44 | 40 | 40 |
| | PGF080 | 40 | 50 | 45 | 120 | 120 | 110 | 50 | 120 | 120 | 110 | 110 |
| | PGF120 | 80 | 110 | 120 | 260 | 260 | 230 | 120 | 260 | 260 | 230 | 230 |
| | PGF160 | 400 | 450 | 305 | 800 | 800 | 700 | 450 | / | / | / | / |
| Rotor Inertia (gcm ²) | PGF040 | 31 | 19 | 15 | 19 | 17 | 16 | 16 | 19 | 16 | 16 | 16 |
| | PGF060 | 135 | 78 | 54 | 75 | 64 | 64 | 64 | 75 | 64 | 64 | 64 |
| | PGF080 | 770 | 450 | 340 | 440 | 390 | 390 | 390 | 440 | 390 | 390 | 390 |
| | PGF120 | 2630 | 1530 | 1140 | 1490 | 1300 | 1300 | 1300 | 1490 | 1300 | 1300 | 1300 |
| | PGF160 | 12140 | 6070 | 3520 | 6650 | 4500 | 4500 | 4500 | / | / | / | / |
| Backlash (arc min) | PGF040 | <5 | | | <8 | | | | <10 | | | |
| | PGF060 | <3 | | | <5 | | | | <8 | | | |
| | PGF080 | <3 | | | <5 | | | | <8 | | | |
| | PGF120 | <3 | | | <5 | | | | <8 | | | |
| | PGF160 | <3 | | | <5 | | | | <8 | | | |
| Weight (Kg) | PGF040 | 0.4 | | | 0.5 | | | | 0.6 | | | |
| | PGF060 | 0.9 | | | 1.1 | | | | 1.3 | | | |
| | PGF080 | 2.1 | | | 2.6 | | | | 3.1 | | | |
| | PGF120 | 6 | | | 8 | | | | 9.5 | | | |
| | PGF160 | 18 | | | 22 | | | | / | | | |
| Max Radial Load/ Max Axial Load | PGF040 | 160 N / 160 N | | | | | | | | | | |
| | PGF060 | 340 N / 450 N | | | | | | | | | | |
| | PGF080 | 650 N / 900 N | | | | | | | | | | |
| | PGF120 | 1500 N / 2100 N | | | | | | | | | | |
| | PGF160 | 4200 N / 6000 N | | | | | | | | | | |
| Torsional Stiffness | PGF040 | 0.7 Nm / arc min | | | | | | | | | | |
| | PGF060 | 1.8 Nm / arc min | | | | | | | | | | |
| | PGF080 | 4.5 Nm / arc min | | | | | | | | | | |
| | PGF120 | 12 Nm / arc min | | | | | | | | | | |
| | PGF160 | 38 Nm/arc min | | | | | | | | | | |
| Noise | PGF040 | 55 dB(A) | | | | | | | | | | |
| | PGF060 | 58 dB(A) | | | | | | | | | | |
| | PGF080 | 60 dB(A) | | | | | | | | | | |
| | PGF120 | 65 dB(A) | | | | | | | | | | |
| | PGF160 | 70 dB(A) | | | | | | | | | | |
| Max Speed/ Recommended Speed | PGF040 | 10000 rpm / 4500 rpm | | | | | | | | | | |
| | PGF060 | 8000 rpm / 4000 rpm | | | | | | | | | | |
| | PGF080 | 6000 rpm / 4000 rpm | | | | | | | | | | |
| | PGF120 | 6000 rpm / 4000 rpm | | | | | | | | | | |
| | PGF160 | 6000 rpm / 3000 rpm | | | | | | | | | | |

Mechanical Dimension

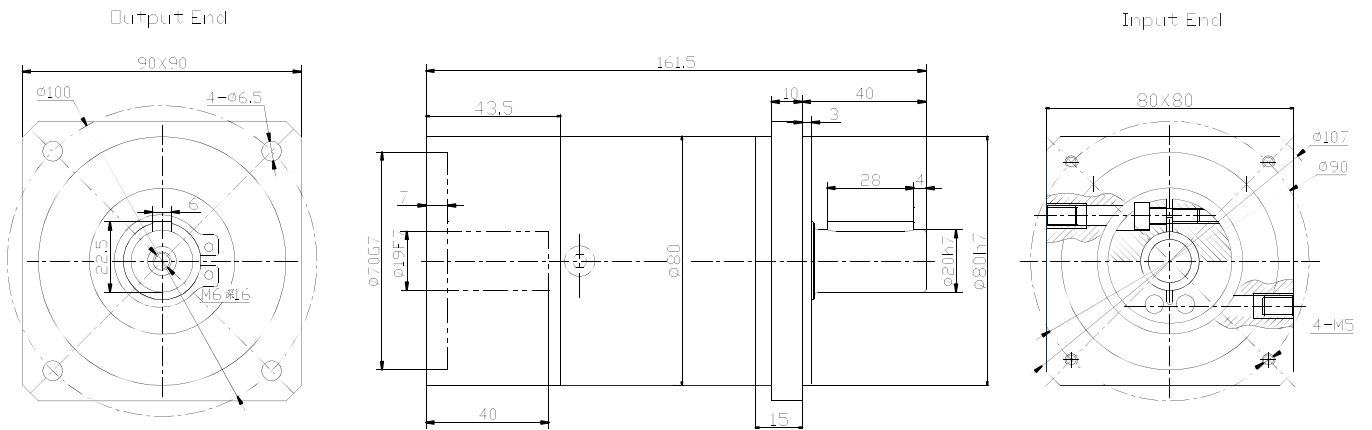


| Gearbox Model | PGF040 | | | PGF060 | | | PGF080 | | | PGF120 | | | PGF160 | |
|--------------------------------------|--------|-----|-----|--------|------|-------|--------|-------|------|---------|-------|-----|-----------|-------|
| | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 |
| L1 Overall Length | 93.5 | 106 | 119 | 113 | 126 | 138.5 | 143.5 | 161.5 | 179 | 191.5 | 221.5 | 249 | 285.5 | 335 |
| L3 Body Length | 32 | 52 | 64 | 46.5 | 59.5 | 72 | 60 | 78 | 95.5 | 73.7 | 101.5 | 129 | 104 | 153.5 |
| Output | | | | | | | | | | | | | | |
| Gearbox Model | PGF040 | | | PGF060 | | | PGF080 | | | PGF120 | | | PGF160 | |
| L4 Output Shaft Length | 26 | | | 35 | | | 40 | | | 55 | | | 87 | |
| L5 Output Length to Shaft Shoulder | 23 | | | 30.5 | | | 36 | | | 50 | | | 80 | |
| L6 Key Length | 16 | | | 25 | | | 28 | | | 40 | | | 70 | |
| L7 Key Length to Shaft End | 3.5 | | | 2.5 | | | 4 | | | 5 | | | 5 | |
| L8 Spigot Length | 2 | | | 3 | | | 3 | | | 4 | | | 5 | |
| L11 Output Flange Thickness | 6 | | | 8 | | | 10 | | | 15 | | | 15 | |
| D4 Output Shaft Diameter | Ø10 h7 | | | Ø14 h7 | | | Ø20 h7 | | | Ø25 h7 | | | Ø40 h7 | |
| D5 Shaft Shoulder Diameter | Ø12 | | | Ø17 | | | Ø25 | | | Ø35 | | | Ø55 | |
| D6 Spigot Diameter | Ø26 | | | Ø50 | | | Ø80 | | | Ø110 | | | Ø130 | |
| D7 Output Flange | □45 | | | □60 | | | □90 | | | □120 | | | □175 | |
| D8 Mounting Hole Distribution Circle | Ø50 | | | Ø70 | | | Ø100 | | | Ø130 | | | Ø185 | |
| D9 Mounting Hole | Ø3.5 | | | Ø5.5 | | | Ø6.5 | | | Ø8.5 | | | Ø11 | |
| B1 Key Width | 3 | | | 5 | | | 6 | | | 8 | | | 12 | |
| H1 Key Height | 11.2 | | | 16 | | | 22.5 | | | 28 | | | 43 | |
| G3 Center Screw Hole | M3x10 | | | M5x15 | | | M6x16 | | | M10x28 | | | M12x25 | |
| Input | | | | | | | | | | | | | | |
| L2 Input Flange Length | 28.5 | | | 31.5 | | | 43.5 | | | 63 | | | 93.5 | |
| L9 Motor Shaft Length | 26 | | | 30 | | | 40 | | | 56 | | | 79 | |
| L10 Spigot Depth | 6 | | | 5 | | | 7 | | | 10 | | | 12 | |
| D1 Mounting Hole Distribution Circle | Ø46 | | | Ø70 | | | Ø90 | | | Ø145 | | | Ø200 | |
| D2 Spigot Diameter | Ø30 h7 | | | Ø50 h7 | | | Ø70 h7 | | | Ø110 h7 | | | Ø114.3 h7 | |
| D3 Input Shaft Diameter | Ø8 | | | Ø14 | | | Ø19 | | | Ø22 | | | Ø35 | |
| G1 Mounting Screw Hole | M4x10 | | | M4x12 | | | M5x15 | | | M8x22 | | | M12x25 | |
| Q3 Input Flange | □40 | | | □60 | | | □80 | | | □130 | | | □175 | |

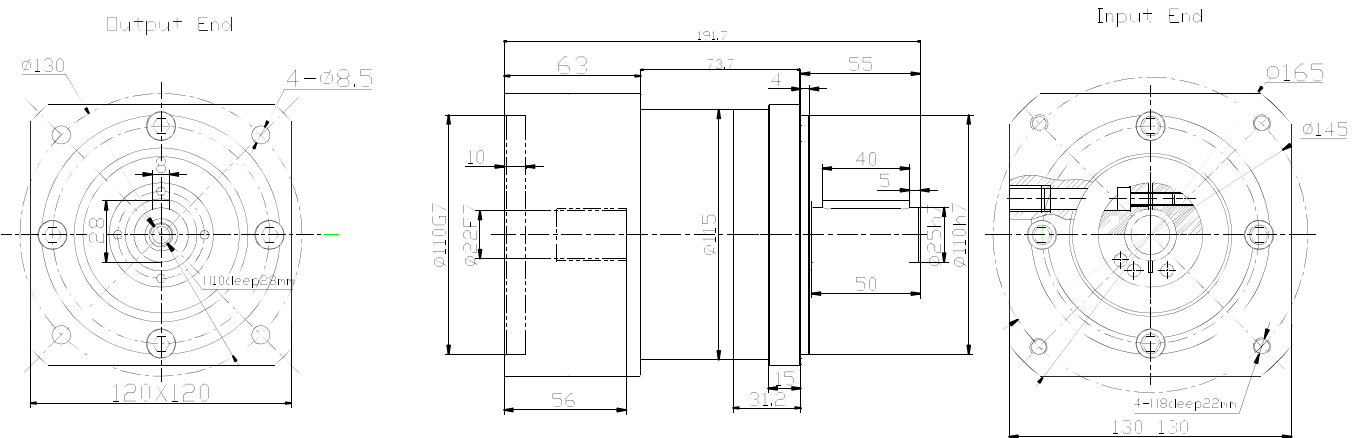
PGF080-R3/R5/R10:



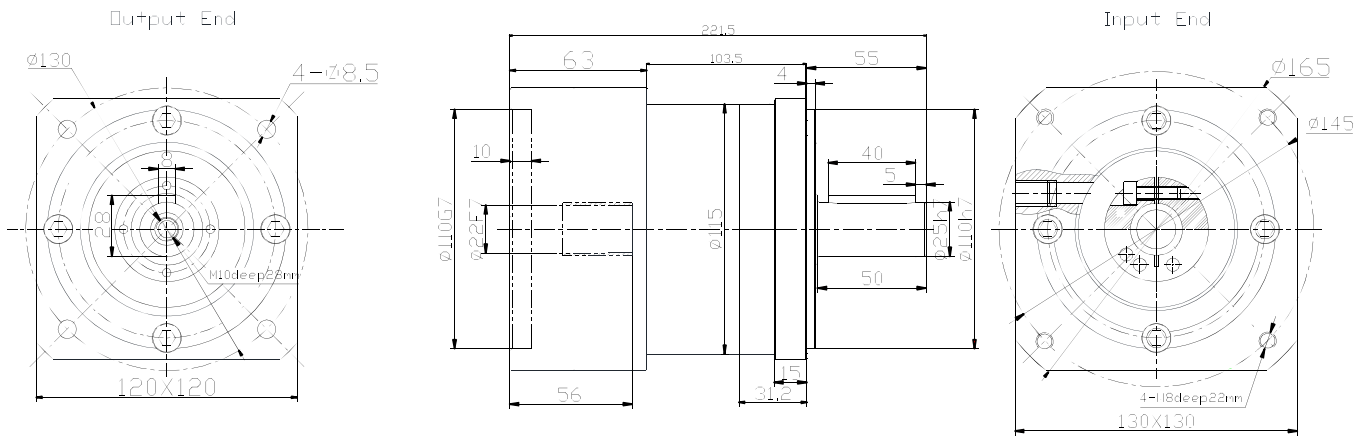
PGF080-R20/R32/R40/R64:



PGF120-R3/R5/R10:



PGF120-R20/R32/R40/R64:



PGF160-R3/R5/R10:

