

Assembly Instructions

ZF-Servoplan PGE - Planetary Gearboxes



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General:

A torsionally rigid and backlash free connection between motor and gearbox can quickly and easily be achieved by using the following assembly instructions.

Note: Please only use motors with a flange face and run out accuracy class DIN 42955 N or DIN 42955 R.

To avoid misalignment inside the power train, the PGE utilizes our new "open centering" design making the laborious task of centering with the flange and pilot obsolete. Simply slip the gearbox hollow shaft (6) over the motor shaft, tighten the clamping bolt (7) on the compression coupling (5), and attach the gearbox to the motor using the mounting holes (10).

The PGE planetary gearboxes are maintenance free and have lifetime lubrication.

Motor Mounting Instructions:

1. If the motor shaft has a key (2), remove it. For applications with motor speeds over 3000 rpm, we recommend using a half key to completely fill the key way. The key may not stand out above the height of the motor shaft.
2. Remove vent plug (3) on the adapter flange (4) and put it aside, reserving it for later use.
3. Turn the compression coupling (5) until the head of the clamping bolt (7) is visible through the access hole.
4. Examine all contact surfaces on the motor flange and the adapter flange (4) to ensure they are clean and grease free. Also inspect the motor shaft and the hub to ensure they are free from damage (burrs, scoring, etc.).
5. Place motor (1) vertically on the work surface and secure it from falling. Ensure that the key way in the motor shaft is positioned opposite the slit in the compression coupling when assembled.
6. If a reduction bushing is used, ensure the slit in the bushing is aligned with the compression coupling slit.
7. If the PGE is too heavy to lift manually, a suitable hoisting machine should be used. Slip gearbox hollow shaft (6) over motor shaft until the adapter flange mates with the motor flange over its **entire surface**. Do **not** strike the gearbox or use excessive force to ensure a good fit.
8. Tighten the clamping bolt (7) to the prescribed torque (see table tightening torque) using a suitable torque wrench (9).
9. Then bolt PGE and motor together using the mounting holes (8) in the adapter flange. The bolts must be diagonally transferred and uniformly tightened.
10. Insert access hole plug (3) into adapter flange (4).

Note: Failure to follow assembly instructions may lead to gearbox and/or motor damage and will void any warranty either explicit or implied.

tightening torque for the clamping bolt (7)	
clamping screw DIN 912	tightening torque
M3	2,1 Nm
M4	4,2 Nm
M5	8,3 Nm
M8	43 Nm

