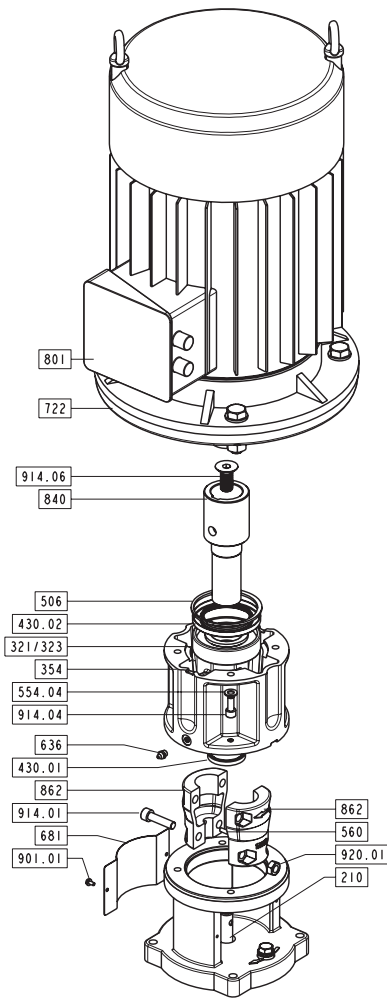


Assembly instructions

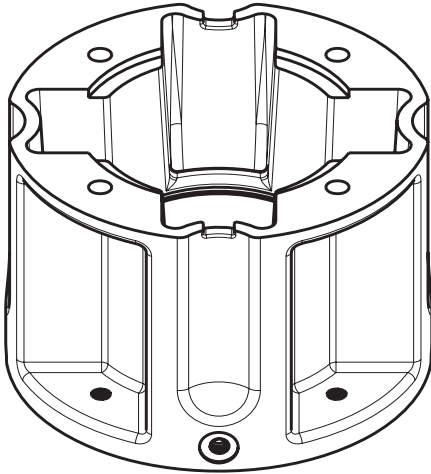
Thrust bearing housing
series: DPV(S) / DPVCF / DPLHS



1 Instructions for mounting a thrust bearing housing

1.1 Thrust bearing housing

200611072005



Thrust bearing housing

The standard DP-Pumps motors are specially designed to drive the pump. When a standard IEC or NEMA norm motor has to be installed (or a special motor to fulfill the applications requirement, like explosion proof, high efficiency) a special bearing housing must be installed to relieve the motor of the axial force created by the pump.



ATTENTION
This option is not applicable for pump model DPVE.



ATTENTION
Only a motor with a standard key can be installed with a thrust bearing housing.



ATTENTION
There is no need to change the motor stool of the pump. The bearing flange can be mounted on the standard motor stool of the pump.

1.1.1 Dimensions and weights.

The total height increase of the pump will be 113.5 mm / 4.47 inch. The weight of the thrust bearing housing kits are given in the table below:

Table 1: weight of the thrust bearing housings kits

Frame size	Motor-shaft	Kit art. nr.	Weight [kg]	Weight [lbs]
132	38	18708020	7.97	17.57
160	42	18708021	8.25	18.19
180	48	18708022	9.30	20.50
200	55	18708023	9.44	20.81

20050227-B

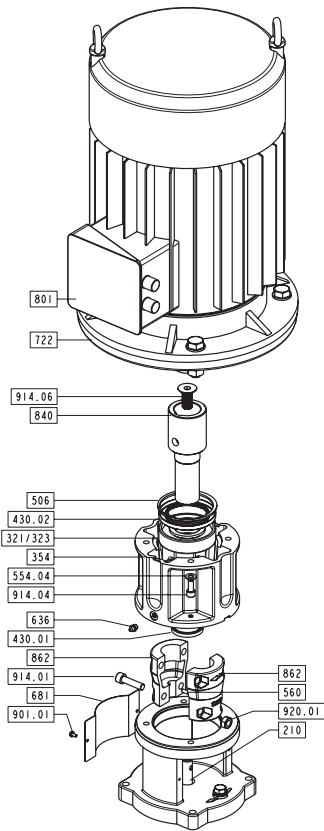
1.2 Mounting the thrust bearing housing on the pump

To simplify motor shaft / key way positioning it is recommendable to disassemble the motor adapter flange from the pump motor stool (341) and mount this on the motor itself before mounting the motor on the thrust bearing flange.

Prior to mounting the motor (with pre-mounted adapter flange), the thrust bearing housing has to be installed and the hydraulic assembly has to be adjusted.

1.2.1 Installing the bearing flange on pumps, supplied without motor and with a standard mechanical seal.

© 2019/11/07/2020



20050761

1. Remove the coupling guards (681) and the coupling shells (862).
2. Thoroughly clean the motor stool (341), the shaft (210), the coupling shell (862) and the shaft of the coupling (840).
3. Place the thrust bearing housing (354) on the motor stool (341).
4. Loosely fasten the coupling shells (862) with the coupling pin (560) on the shaft (210). Use the hexagon socket head cap screw (914.01) and the nut (920.01) for this purpose.
5. Tighten the lower bolts of the coupling shells (862) so far that the coupling slightly clamps around the shaft of the coupling (840).
6. Lift the pump assembly and coupling to the maximum upwards position and mark the shaft. For this purpose put a tyre lever under the coupling.



ATTENTION

For thrust bearing housings meant for motors of 11kW or higher, block the shaft of the coupling (840) when adjustments are made to the coupling. This ensures that the shaft of the coupling (840) will not come out of its bearings.



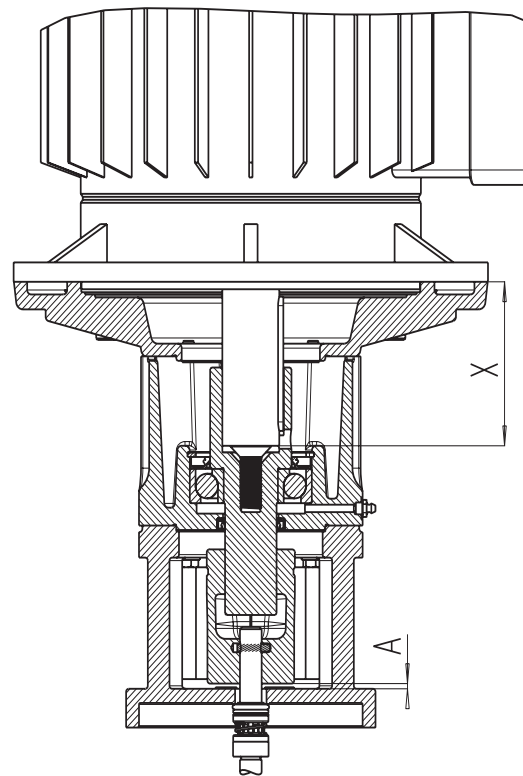
WARNING

Correct seal tension max. -1 mm lower than the maximum upwards position!

7. Position the pump assembly 1mm lower (A) than the maximum upwards position as mentioned earlier (See fig. 1).

Fig 1.

© 2019/11/07/2020



20050227-B

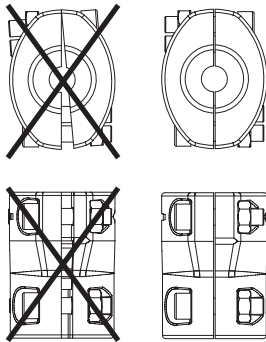
8. Fully tighten the coupling to the correct torque and make sure that the clearances of the coupling halves are equally divided (See fig. 2).

Table 2: Torques

Material	Dimensions	Torques[Nm]
Cast iron	M8	30
Cast iron	M10	70

Fig 2

245712032004

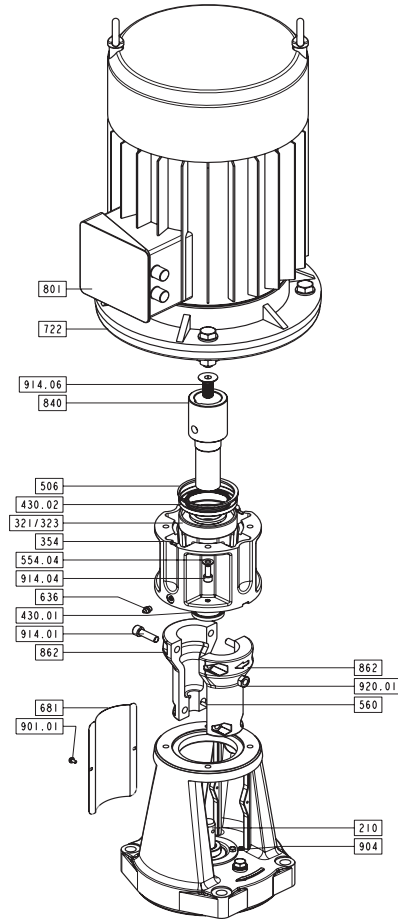


ID 2457/12032004

9. Measure the motor shaft (length X).
10. Before adjusting the bolt (914.06) inside the shaft bush of the coupling (840) make sure to use loctite on the thread of the bolt to make sure the bolt stays secured in the correct position.
11. Adjust the bolt (914.06) inside the shaft bush of the coupling (840) to create the length X + 1mm. This extra millimetre is necessary to provide the required axial play.
12. Put the motor shaft with the key in the shaft of the coupling (840).
13. Mount the motor (with the pre-assembled adapter flange).
14. Attach the coupling guards (681) with the hexagon head bolts (901.01) to the motor stool(341).
15. Connect the electricity supply to the motor.

1.2.2 Installing the bearing flange on pumps, supplied without motor and with a cartridge seal.

© 2040/1072005



20050761

1. Remove the coupling guards (681) and the coupling shells (862).
2. Thoroughly clean the motor stool (341), the shaft (210), coupling shells (862) and the shaft of the coupling (840).
3. Place the thrust bearing housing (354) on the motor stool (341).
4. Loosely fasten the coupling shells (862) with the coupling pin (560) on the shaft (210). Use the hexagon socket head cap screw (914.01) and the nut (920.01) for this purpose.
5. Loosen the three cartridge grub screws (904) one turn.
6. Push the hydraulic pump assembly in the lowest position.

7. Tighten the three cartridge bolts (904) firmly to the shaft.
8. Tighten the lower bolts of the coupling shell (862) so far that the coupling slightly clamps around the shaft of the coupling (840).
9. Lift the pump assembly and coupling to the maximum upwards position and mark the shaft. For this purpose put a tyre lever under the coupling.



ATTENTION

For thrust bearing housings meant for motors of 11 kW or higher, block the shaft when adjustments are made to the coupling. This ensures that the shaft will not come out of its bearings.



WARNING

Correct seal tension max. -1 mm lower than the maximum upwards position!

10. Position the pump assembly 1mm lower (A) than the maximum upwards position as mentioned earlier (See fig. 1).
11. Fully tighten the coupling to the correct torque (see point 8 of the previous paragraph) and make sure that the clearances of the coupling halves are equally divided. (See fig.2).
12. Measure the motor shaft (length X).
13. Before adjusting the bolt (914.06) inside the shaft bush of the coupling (840) make sure to use loctite on the thread of the bolt to make sure the bolt stays secured in the correct position.
14. Adjust the bolt (914.06) inside the shaft bush of the coupling (840) to create the length $X + 1\text{mm}$. This extra millimetre is necessary to provide the required axial play.
15. Put the motor shaft with the key in the shaft of the coupling (840).
16. Mount the motor (with the pre-assembled adapter flange).
17. Attach the coupling guards (681) with the hexagon head bolts (901.01) to the motor stool (341).
18. Connect the electricity supply to the motor.



dp pumps

dp pumps
P.O. Box 28
2400 AA Alphen aan den Rijn
The Netherlands

t +31 172 48 83 25
f +31 172 46 89 30

dp@dp-pumps.com
www.dp-pumps.com

03-2008

BE00000297

