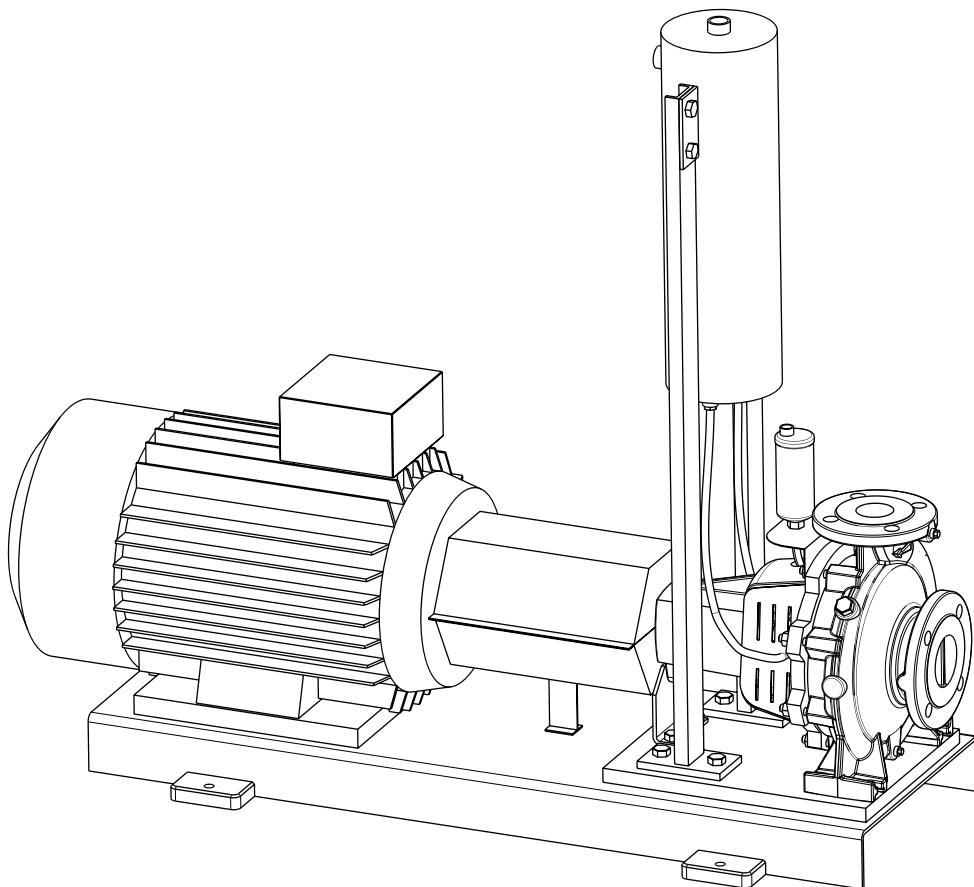


NK, NKG High Temperature

GB Installation and operating instructions





Before beginning installation procedures, these installation and operating instructions should be studied carefully. The installation and operation should also be in accordance with local regulations and accepted codes of good practice.

1. General description

NK, NKG High Temperature pumps are NK or NKG pumps equipped with a Burgmann Cartex DE shaft seal. This shaft seal enables pump operation at liquid temperatures up to 160°C.

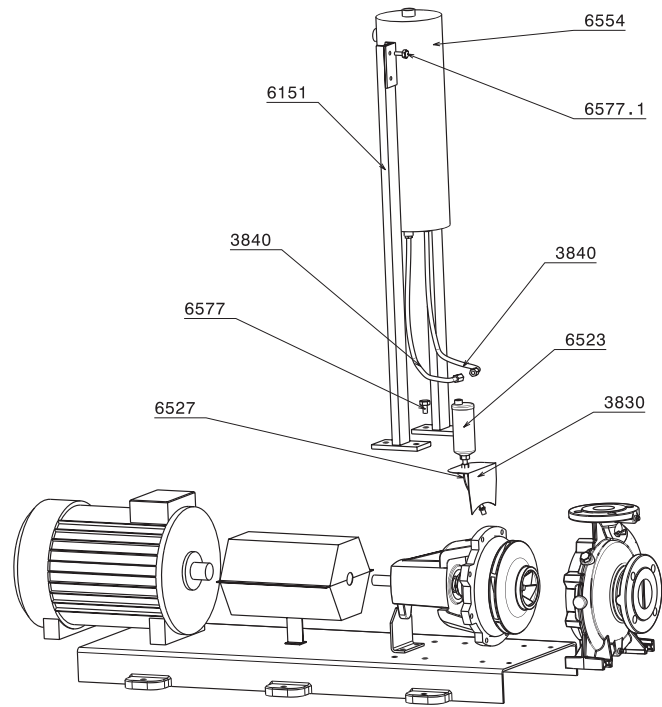
NK, NKG pumps with Cartex DE shaft seal are recommended for:

- boiler water
- condensate
- district heating water.

2. Further installation and operating instructions

See the installation and operating instructions of the standard pump.

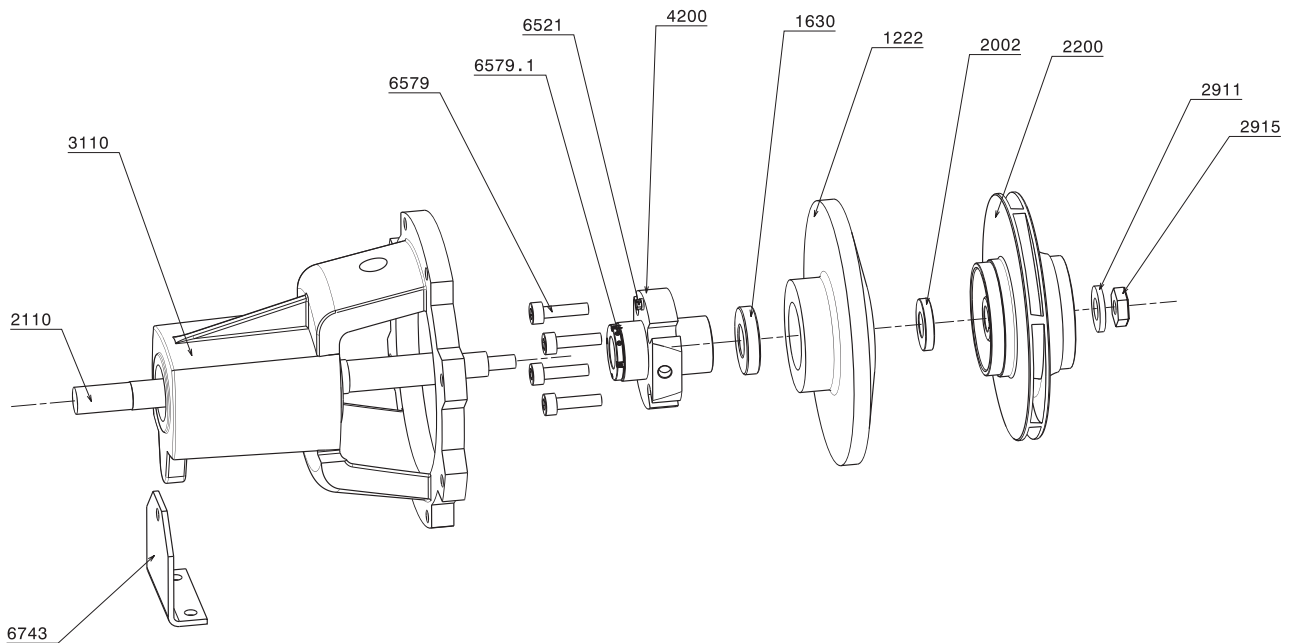
3. Exploded views



TM02 8091 4603

Fig. 1 Exploded view of complete pump

Pos.	Description	Pos.	Description	Pos.	Description
3830	Bracket	6523	Air-release valve	6577	Hexagon head screw
3840	Lubricating pipe	6527	Breather pipe	6577.1	Hexagon head screw
6151	Support frame	6554	Cooling liquid tank		



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Fig. 2 Exploded view of impeller, cover, shaft seal

Pos.	Description	Pos.	Description	Pos.	Description
1222	Cover for pump housing	2911	Impeller washer	6521	Vent plug
1630	Throttling bush	2915	Lock nut	6579	Hexagon head screw
2002	Spacer ring	3110	Bearing housing	6743	Pump foot
2110	Shaft	4200	Mechanical seal	6579	Hexagon socket head screw
2200	Impeller				

4. Installation of pump with Cartex DE shaft seal

1. Install the pump, fill the system with water and vent the pump. The automatic air vent will vent the area around the shaft seal.
2. Pour the ethylene glycol supplied with the pump into the tank pos. 6554.
3. Vent the glycol system by means of the vent screw on the shaft seal pos. 6521.
4. Let the pump run for a short period and vent the system again. Repeat this 3-4 times.
5. Check that the glycol level reaches the inspection glass. Add ethylene glycol, if required.

5. Servicing the Cartex DE shaft seal

If the shaft seal is worn and becomes leaky, it can be removed and sent for renovation. If the pump is dismantled for instance for replacement of bearings, the shaft seal can be removed and fitted after replacement of bearings.

As the shaft seal is a very expensive component, it should be removed/fitted correctly according the following instructions.

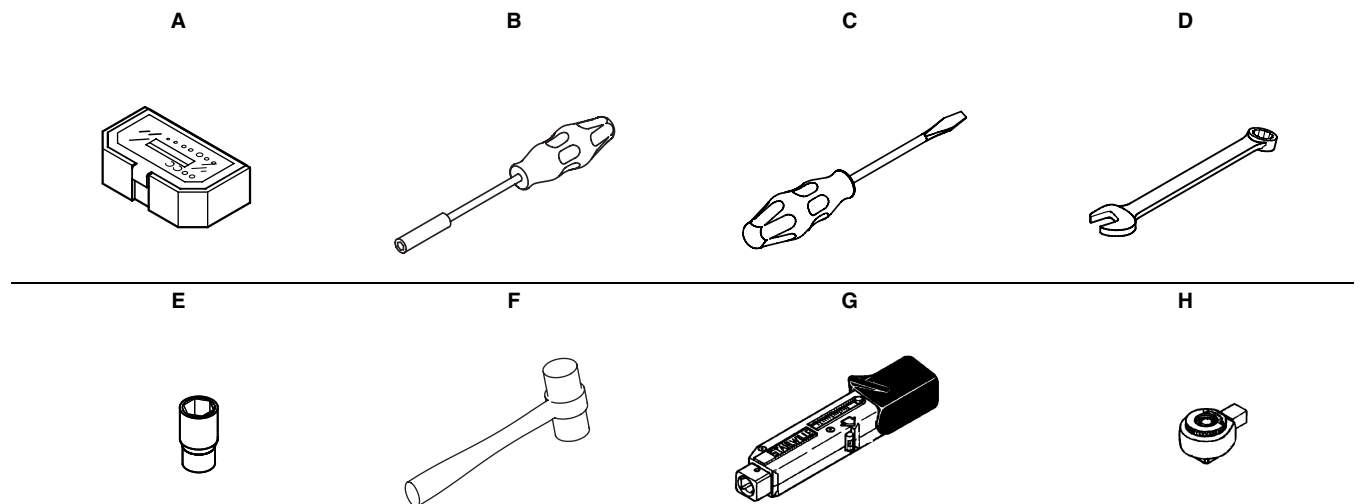
Required:

Lock tabs (three glossy and one black) and screws. They are supplied with the pump.



Fig. 3 Lock tabs for shaft seal

5.1 Service tools



5.1.1 Standard tools

Pos.	Designation	For pos.	Description	Part no.
A	Bits kit ¼"	6579.1, 6579	Bit holder Straight slot 3.5 - 8 mm Hexagon 2 - 8 mm Cross head PZ 0 - 3 Cross head PH 0 - 3 Torx T-7 - T-40	SV2010
B	Holder for bits kit	A	¼"	SV2011
C	Screwdriver		Straight slot Cross head	- -
D	Ring/open-end spanner	6577, 3840, 2915	M6 - 10 mm M8 - 13 mm M12 - 19 mm ½" UNC - 19 mm M16 - 24 mm M20 - 30 mm	SV0083 SV0055 SV0054 SV0122 SV0073
E	Socket	6577, 3840, 2915	M6 - 10 mm M8 - 13 mm M12 - 19 mm ½" UNC - 19 mm M16 - 24 mm M20 - 30 mm	SV0806 SV0091 SV0267 SV0092 -
F	Plastic hammer		No. 2	SV0349

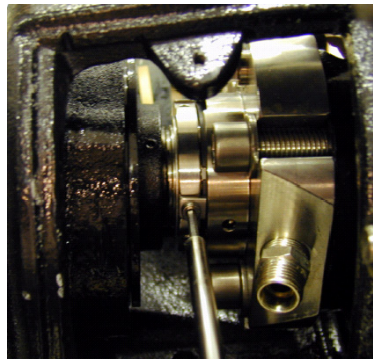
5.1.2 Torque tools

Pos.	Designation	For pos.	Description	Part no.
G	Torque wrench	H	1-6 Nm 4-20 Nm 20-100 Nm	SV0438 SV0292 SV0269
H	Ratchet insert tool	E	9 x 12, ½" x ½"	SV0295

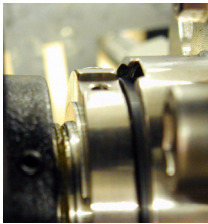
6. Removing the shaft seal

1. Shut off the isolating valves of the pump and empty the pump of pumped liquid.
2. Empty the glycol tank pos. 6554.
3. Remove the guards around the shaft seal.
4. Remove the breather pipes pos. 3840 from the shaft seal pos. 4200.
5. Remove the stand pos. 6151 with the tank pos. 6554.
6. If the pump is equipped with a spacer coupling, remove the spacer standard coupling, remove the motor.
7. Slacken the screw connecting the pump foot pos. 6743 and bearing housing pos. 3110.
8. Slacken the screws connecting the bearing housing and pump housing and remove the bearing housing complete.
9. Remove the nut pos. 2915, washer pos. 2911, impeller pos. 2200 and spacing washer pos. 2002.

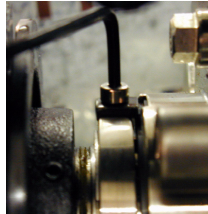
10. Fit the three glossy lock tabs in the slots in the rotating shaft seal part.



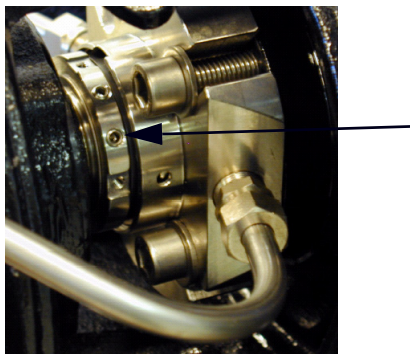
11. Turn the pump shaft so that the last slot is opposite slit in the stationary shaft seal part.



12. Fit the black lock tab with the slot against the shaft to prevent rotation.



13. Slacken the set screws pos. 6579.1.



14. Pull the cover pos. 1222 with the shaft seal pos. 4200 off the shaft.
15. Slacken the screws pos. 6579 which hold the shaft seal against the cover.
16. Remove the shaft seal from the cover.

7. Fitting the shaft seal

Proceed in the opposite order as when removing the shaft seal.

Subject to alterations.

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