

CPKNO-CHs

Supplementary Operating Manual



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Supplementary Operating Manual CPKNO-CHs

Original operating manual

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Contents

1	Supplementary Operating Manual	4
1.1	General.....	4
1.2	Water cooling	4
1.3	Cooling of the bearing bracket	4
1.4	Heating.....	4
1.5	General assembly drawing with list of components	6

1 Supplementary Operating Manual

1.1 General

This supplementary operating manual accompanies the installation/operating manual. All information contained in the installation/operating manual must be observed.

Table 1: Relevant operating manuals

Type series	Reference number of the installation/operating manual
CPKNO	2730.88

1.2 Water cooling

	CAUTION
	<p>Deposit-forming, aggressive cooling water Damage to the pump! ▷ Observe the cooling water quality.</p>

Observe the following quality data of the cooling water:

- Not deposit-forming
- Not aggressive
- Free from suspended solids
- Hardness on average 5 °dH (~1 mmol/l)
- pH > 8
- Conditioned and neutral with regard to mechanical corrosion
- Inlet temperature t_{in} =10 to 30 °C
 Outlet temperature t_{out} = 45 °C max.

1.3 Cooling of the bearing bracket

If the pump is permanently heated during standstill (above 185 °C), the bearing bracket has to be cooled.

The following values are required for cooling the bearing bracket:

- Cooling liquid pressure: 6 bar max.
- Cooling liquid quantity: see table below.

Table 2: Cooling liquid quantities for cooling the bearing assembly

Bearing bracket	Cooling liquid quantity [l/min]
UP02	5
UP03	6
UP04	8
UP05	10

1.4 Heating

	CAUTION
	<p>Lack of heating medium Damage to the pump! ▷ Provide sufficient quantities of a suitable heating medium.</p>

	<p style="background-color: #FFD700; margin: 0;">CAUTION</p> <p>Time for warming up the pump too short Damage to the pump!</p> <p>▷ Check that the pump is sufficiently warmed up throughout.</p>
	<p style="background-color: #FFD700; margin: 0;">CAUTION</p> <p>Impermissibly high temperature of the heating medium Fluid handled or heating medium could escape!</p> <p>▷ Observe the application limits of the heating media.</p>
	<p style="background-color: #FF4500; margin: 0;">⚠ DANGER</p> <p>Excessive surface temperature Explosion hazard! Risk of burns!</p> <p>▷ Observe the permissible temperature classes.</p>

Table 3: Temperature limits for heating with hot water or thermal oil

Design	Hot water / saturated steam		Thermal oil	
	t _{max} [°C]	p _{max} [bar]	t _{max} [°C]	p _{max} [bar]
Standard design; lantern JL 1040 ¹⁾ , O-ring EPDM	183	10	-	-
Lantern JS 1025 ²⁾ ; profile joint PTFE/steel alloy	250	20 ³⁾	300	6
Welded casing cover	300	20 ³⁾	300	6

1) GJL-250 to EN 1561
 2) GJS-400-18-LT to EN 1563
 3) Except for sizes 250-315, 80-400 and 200-400: p_{max}= 12 bar; contact KSB.

1.5 General assembly drawing with list of components

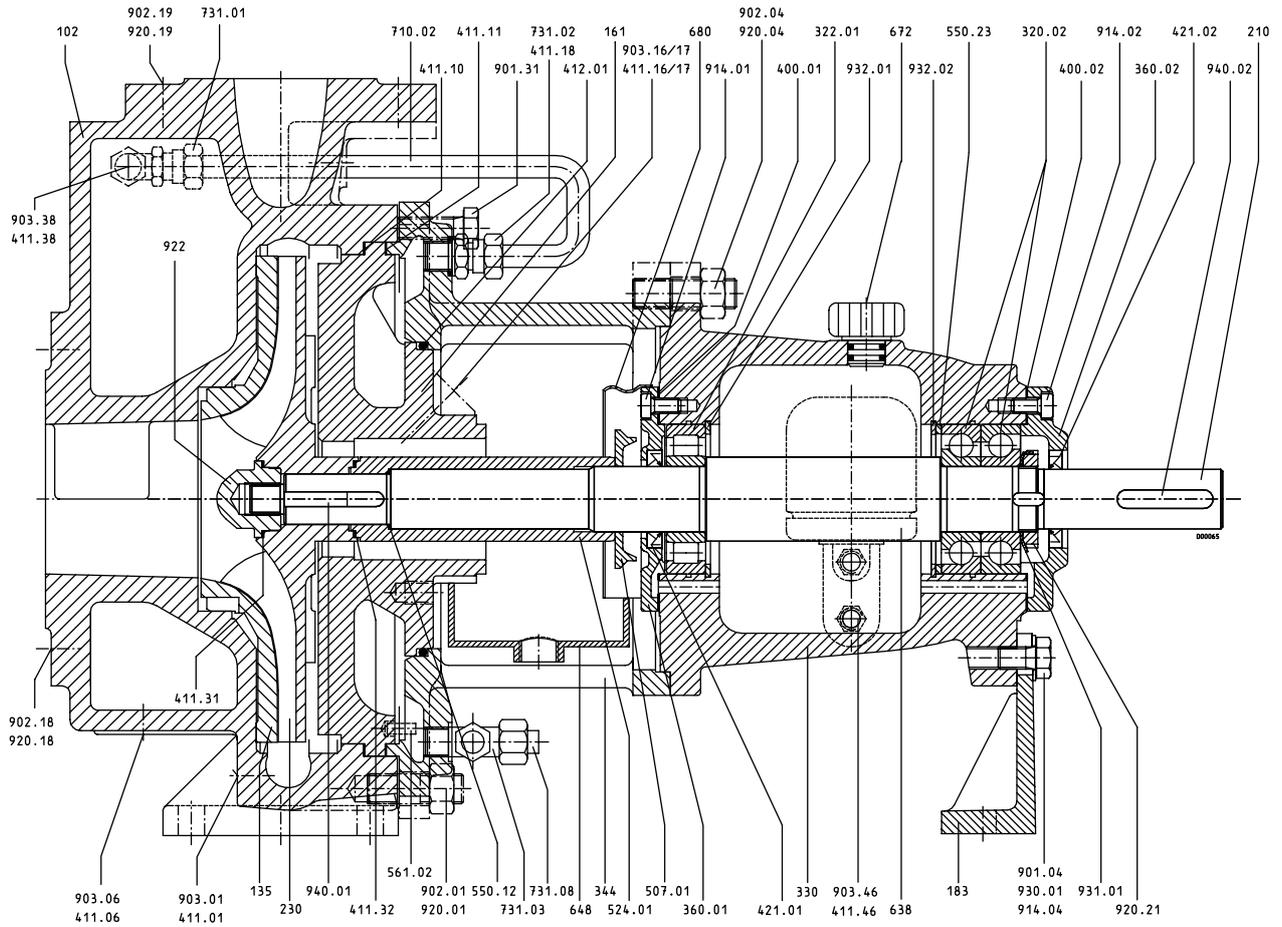


Fig. 1: General assembly drawing

Table 4: List of components

Part No.	Comprising	Description
102	135	Wear plate
	102	Volute casing
	411.01/.06/.10/.23/.38	Joint ring
	731.01	Ermeto pipe fitting
	902.01/.18/.19	Stud
	903.01/.06/.38	Screw plug
	920.01/.18/.19	Hexagon nut
161	161	Casing cover
	411.11/.16/.17	Joint ring
	412.01	O-ring
	463.01 ⁴⁾	Drip plate
	550.01 ⁴⁾	Disc
	902.02	Stud
	903.16/.17	Screw plug
210	210	Shaft
	411.31	Joint ring
	550.12	Set of adjusting washers

4) Provided on pumps with gland packing only

Part No.	Comprising	Description
210	920.21	Slotted round nut
	922	Impeller nut
	931.01	Lock washer
	940.01/.02	Key
230	230	Impeller
	411.32	Joint ring
320.02	320.02	Angular contact ball bearing
322.01	322.01	Cylindrical roller bearing
330	330	Bearing bracket
	183	Support foot
	360.01/.02	Bearing cover
	400.01/.02	Gasket
	411.02/.46	Joint ring
	421.01/.02	Lip seal
	638	Constant level oiler
	672	Vent plug
	903.46	Screw plug
	901.04	Hexagon head bolt
	914.01/.02	Hexagon socket head cap screw
	932.01/.02	Circlip
	930.01	Spring washer
344	344	Bearing bracket lantern
	411.18	Joint ring
	412.01	O-ring
	561.02	Parallel pin
	648 ⁴⁾	Drip pan
	903.18	Screw plug
	902.04	Stud
	901.31	Hexagon head bolt
	920.04	Hexagon nut
	731.02/.03/.08	Ermeto pipe fitting
360.01/.02	360.01/.02	Bearing cover
	400.01/.02	Gasket
	914.01/.02	Hexagon socket head cap screw
507.01	507.01	Thrower
524.01	524.01	Shaft protecting sleeve
	411.32	Joint ring
638	638	Constant level oiler
648 ⁴⁾	648 ⁴⁾	Drip pan
680	680	Guard
710.02	710.02	Pipe
	731.02/.03/.08	Ermeto pipe fitting
	411.18/.23	Joint ring



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