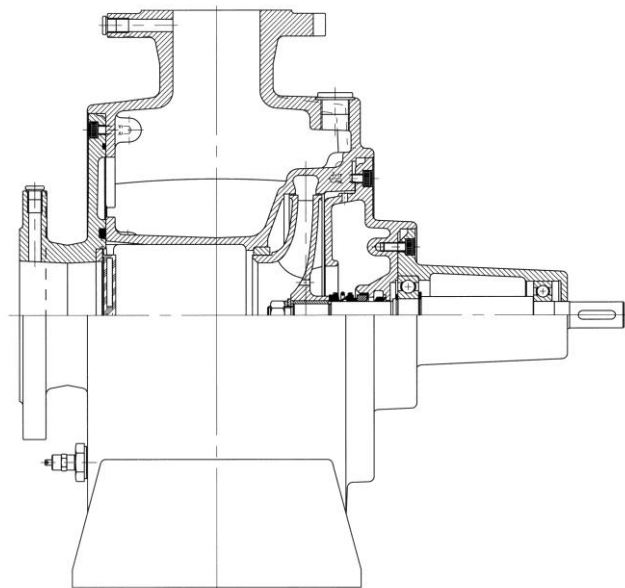


INSTRUCTION FOR SPARE PARTS

SPARE PARTS FOR DESMI self-priming centrifugal pump MODULAR S-N



DESMI PUMPING TECHNOLOGY A/S
Tagholm 1 – DK-9400 Nørresundby – Denmark

Tel.: +45 96 32 81 11
Fax: +45 98 17 54 99
E-mail: desmi@desmi.com
Internet: www.desmi.com

Manual: T1511	Language: English	Revision: (03/10)
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DISMANTLING

5.1 ACCESS TO IMPELLER AND SHAFT SEAL

Remove Allen screws (22), which hold the shaft seal cover to the pump casing, and pull the bearing housing to remove the complete bearing housing with impeller, bearings, and shaft.

Only S32-25-110N and S50-32-135N:

Remove Allen screw (22) which holds the bearing housing to the pump casing and pull the bearing housing with impeller and guide vane piece out of the pump casing.

Then remove Allen screw (29) (only S32-25-110N), and guide vane piece and guide ring can be dismantled from the bearing housing.

5.2 DISMANTLING SHAFT SEAL

Remove nut (6). Pull off the impeller. Remove Allen screws (19), which hold the bearing housing to the shaft seal cover. Pull shaft seal cover and bearing housing apart, by which shaft seal and water deflector are pulled off the shaft.

Only S32-25-110N and S50-32-135N:

Unscrew impeller. Dismantle the oil seal ring (31) by puncturing the front to permit the oil seal ring to be pulled out with a hook. The oil seal ring cannot be used again. Dismantle the ring lock (30), and the shaft with bearings can be pulled out of the bearing housing. At the same time, the shaft seal and the water deflector are pulled off the shaft.

5.3 DISMANTLING SEAT

Press out the seat from behind the shaft seal cover (the bearing housing in S32-25-110N and S50-32-135N).

5.4 DISMANTLING SHAFT WITH BEARINGS

Before dismantling the shaft with bearings, remove the sunk key (16). The shaft can now be pulled out of the bearing housing allowing inspection of the bearings.

5.5 INSPECTION

When the pump has been dismantled, check the following parts for wear and damage:

- Sealing ring/impeller: Max. clearance 0.4-0.5 mm measured in radius.
(There is no sealing ring in S32-25-110N and S50-32-135N)
- Shaft seal/shaft seal cover: Check the seat for flatness and cracks.
Check the rubber parts for elasticity.
- Bearings: Replace in case of wear and noise.
- Non-return flap: Check for cracks and hardness

6. ASSEMBLING

6.1 FITTING SEALING RING IN PUMP CASING

When fitted, the sealing ring is to bear against the shoulder of the pump casing.

6.2 FITTING SHAFT WITH BEARINGS

Lead shaft with bearings into the bearing housing. Fit sunk key (16). (Fit ring lock (30) and a new oil seal ring (31) in S32-25-110N or S50-32-135N).

6.3 FITTING WATER DEFLECTOR

Assemble the bearing housing and the shaft seal cover. Lead the water deflector over the shaft until it touches the shaft seal cover and then further 1-1.5 mm into the shaft seal cover (the bearing housing in S32-25-110N or

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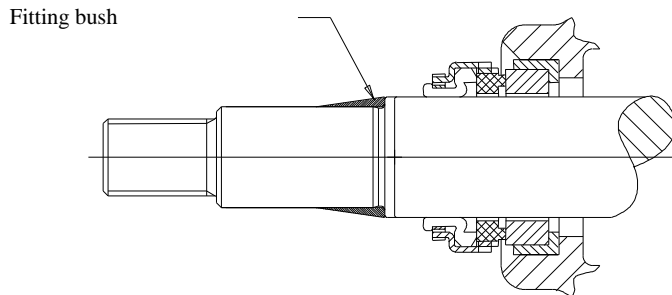
Tagholm 1
9400 Nørresundby – Dänemark
Tlf. nr.: +45 96 32 81 11
Fax +45 98 17 54 99
E-mail: desmi@desmi.com

www.desmi.com

S50-32-135N).

6.4 FITTING SHAFT SEAL

Before fitting the seat, clean the recess in the shaft seal cover (bearing housing in S32-25-110N and S50-32-135N). When fitting the seat, remove the protective coating, if any, without scratching the lapped surface. Dip the outer rubber ring of the seat into soapy water. Now press the seat into place with the fingers and check that all parts are correctly imbedded. If it is necessary to use tools for assembling, then protect the sliding surface of the seat to prevent it from being scratched or cut. Lubricate the inner diameter of the slide ring rubber bellows with soapy water and push it over the shaft. The use of a fitting bush as shown on the below assembly drawing is recommended to avoid that the rubber bellows is cut. Push the slide ring over the shaft with the hand. If the rubber bellows is tight, use a fitting tool and take care that the slide ring is not damaged.



If the carbon ring is not fixed, it is important to check that it is fitted correctly, i.e. the chamfered/lapped side is to face the seat. The carbon ring can be held by a little grease.

When using oil on the shaft, the bellows will settle and seat in about 15 minutes, and until then tightness should not be expected. After start, check by viewing the leak hole that there are no leaks.

6.5 FITTING IMPELLER

Fit the sunk key in the shaft and lead the impeller towards the shoulder of the shaft. Take care that the ring at the end of the shaft seal spring locates in the recess of the impeller. Secure the impeller with a washer and a nut.

Only S32-25-110N and S50-32-135N:

Apply LOCTITE 270 or similar to the thread on the shaft. Screw the impeller towards the shoulder of the shaft. Take care that the ring at the end of the shaft seal spring locates in the recess of the impeller.

6.6 FITTING GUIDE RING AND GUIDE VANE PIECE (ONLY S32-25-110N)

Place the guide ring (35) in the recess of the bearing housing. Fit and fasten the guide vane piece on the guide ring. Note that the flat part of the inlet neck of the guide vane piece is to face upwards, i.e. opposite of the drain passage for the shaft seal in the bearing housing. If the shaft cannot rotate freely, dismantle the guide vane piece again, and place a shim (34) between bearing housing and guide ring.

6.7 FITTING BEARING HOUSING AND SHAFT SEAL COVER

Place the gasket between pump casing and shaft seal cover on the shaft seal cover where it can be held with a little grease. Lead bearing housing with shaft seal cover into place and fasten. Note that the drain hole for the shaft seal faces downwards.

S32-25-110N:

Place the gasket (21) between pump casing and bearing housing on the bearing housing. Check that the non-return flap is placed correctly in the pump casing. Lead the bearing housing into place and fasten. Note that the drain passage for the shaft seal faces downwards.

S50-32-135N:

Place the gasket (21) between pump casing and bearing housing on the bearing housing. Lead the bearing housing into place and fasten. Note that the drain passage for the shaft seal faces downwards. If the shaft cannot rotate freely, dismantle the bearing housing again, and place an extra gasket (21) between bearing housing and

pump casing.

6.8 SHAFT

When the pump has been assembled, check that the shaft rotates freely.

8. DISMANTLING



Before dismantling the pump make sure that it has stopped. Empty the pump of liquid before it is dismantled from the piping system. If the pump has been pumping dangerous liquids you are to be aware of this and take the necessary safety measures. If the pump has been pumping hot liquids, take great care that it is drained before it is removed from the piping system. If the pump has been pumping cold or very hot liquids, be aware that touching the pump surface is dangerous. Therefore, the necessary precautionary measures must be taken.

9. START-UP

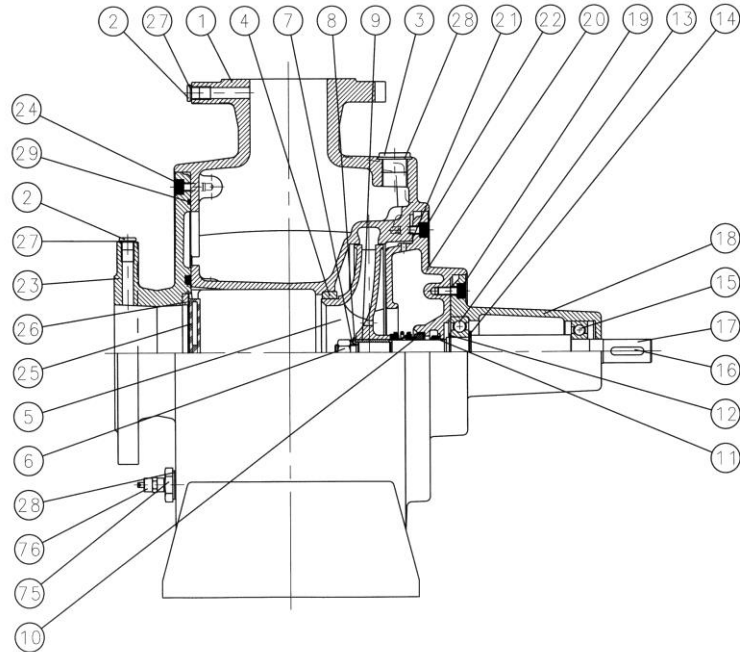


A self-priming centrifugal pump will not function until the pump casing has been filled with liquid.

The liquid also serves as coolant for the shaft seal. In order to protect the shaft seal the pump must not run dry.

15. ASSEMBLY DRAWINGS

Assembly drawings of S32-25-110N and S50-32-135N are shown on the next pages.



16. SPARE PARTS LISTS

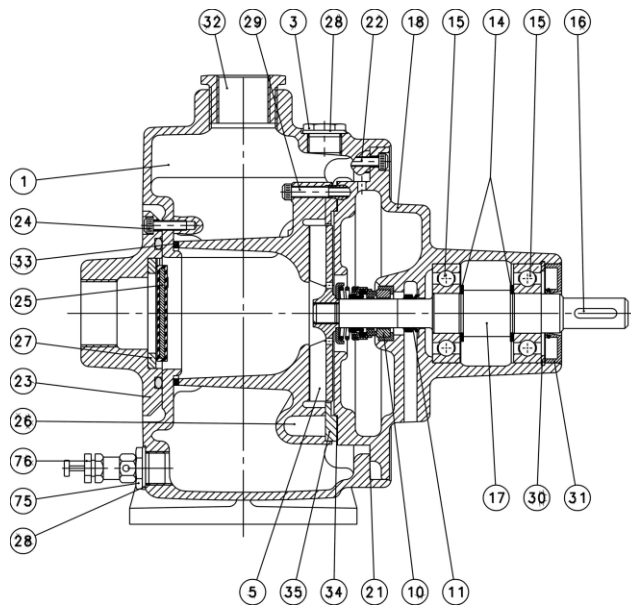
Spare parts lists for S32-25-110N and S50-32-135N are shown on the next pages.

1	Pump casing	*11	Water deflector	*21	Gasket
2	Pipe plug	*12	Ring lock	22	Allen screw
3	Pipe plug	*13	Ball bearing	23	Suction piece
4	Sealing ring	*14	Support disc	24	Allen screw
5	Impeller	15	Ball bearing	25	Non-return flap
*6	Nut	16	Sunk key	26	Contact ring
7	Spring collar	17	Shaft	27	Gasket
8	Washer	18	Bearing housing	28	Gasket
9	Sunk key	19	Allen screw	*29	O-ring
*10	Mechanical shaft seal	20	Shaft seal cover	75	Drain plug
				76	Relief valve

* included in the spare part kit

ASSEMBLY DRAWING S32-25-110N

Assembly drawing of S50-32-135N is shown on the next page.



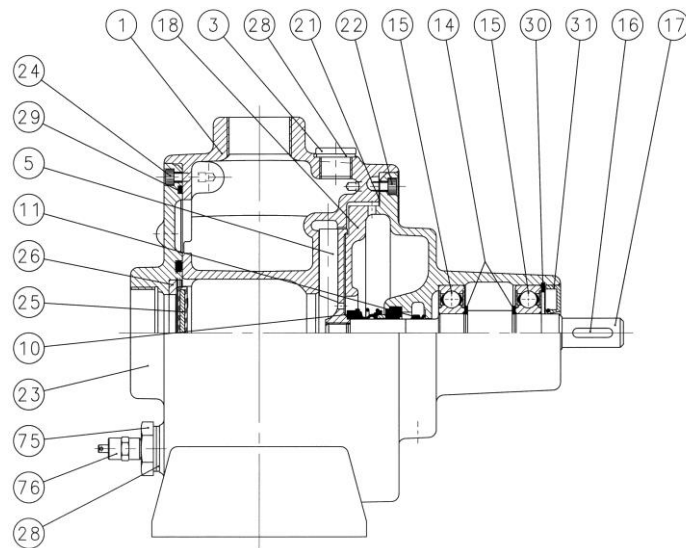
SPARE PARTS LIST S32-25-110N

Spare parts list for S50-32-135N is shown on the next page.

1 Pump casing	18 Bearing housing	29 Allen screw
3 Pipe plug	*21 Gasket	*30 Ring lock
5 Impeller	22 Allen screw	*31 Oil seal ring
*10 Mech. shaft seal	23 Suction piece	32 Reducing bush
*11 Water deflector	24 Allen screw	*33 Gasket
*14 Support disc	25 Non-return flap	*34 Shim
*15 Ball bearing	26 Guide vane piece	35 Guide ring
16 Sunk key	27 Contact ring	75 Drain plug
17 Shaft	28 Sealing washer	76 Relief valve

* included in the spare part kit

ASSEMBLY DRAWING S50-32-135N



SPARE PARTS LIST S50-32-135N

1	Pump casing	16	Sunk key	25	Non-return flap
3	Pipe plug	17	Shaft	26	Contact ring
5	Impeller	18	Bearing housing	28	Sealing washer
*10	Mech. shaft seal	*21	Gasket	*29	O-ring
*11	Water deflector	22	Allen screw	30	Ring lock
*14	Support disc	23	Suction piece	31	Oil seal ring
*15	Ball bearing	24	Allen screw	75	Drain plug
				76	Relief valve

* included in the spare part kit