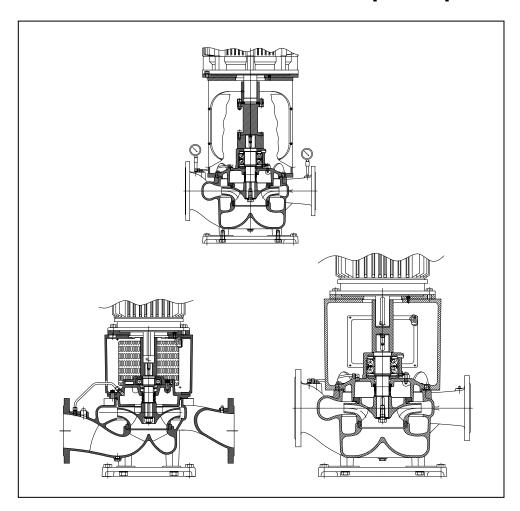


INSTRUCTIONS FOR SPARE PARTS

Spare parts for DESMI vertical "in-line" centrifugal pump NSL Monobloc and NSL Compact Spacer



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Special pump No.



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1. DISMANTLING (02 COMBINATION) NSL MONOBLOC

1.1 ACCESS TO IMPELLER

The numbers in brackets refer to the position numbers on the assembly drawing.

ø215/265

Remove guards (28). Remove Allen screws (22) which hold the shaft seal cover (18) and the motor bracket (20) to the pump casing (1). Dismantle copper pipe (58). Remove motor bracket and motor. Loosen shaft seal cover (18) from pump casing by means of the two M12 bolts in the threaded holes in the shaft seal cover. The shaft seal cover with shaft and impeller can now be lifted up allowing inspection of the impeller.

ø330/415/418/525

Remove guards (28). Remove set screws (64) which hold the motor bracket (20) to the pump casing (1). Dismantle copper pipe (58). Remove motor bracket and motor. Remove set screws (22) with washers (23), which hold the shaft seal cover (18) to the pump casing. Loosen the shaft seal cover from the pump casing by means of the pointed screws (86). The shaft seal cover with shaft and impeller can now be lifted up allowing inspection of the impeller.

1.2 DISMANTLING SHAFT SEAL

ø215/265

Pull the shaft seal cover off the motor bracket, by which the coupling (19) is pulled off the motor shaft. Remove nut (6). Pull off the impeller (5) and remove sunk key (9). Remove Allen screws (16), which hold the bearing cover (15) to the shaft seal cover, pull shaft seal cover and bearing cover apart, by which shaft seal (10) and water deflector (11) are pulled off the shaft.

ø330/415/418/525

Remove set screw (6). Pull off the impeller, and remove sunk key (9). Remove set screws (16), which hold the bearing cover (15) to the shaft seal cover, pull shaft seal cover and bearing cover apart, by which the shaft seal (10) is pulled off the shaft.

1.3 DISMANTLING SEAT

Press out the seat from behind the shaft seal cover.

1.4 DISMANTLING BEARING

Before dismantling bearing, remove ring lock (12). Pull the shaft/coupling out of the bearing cover and press the bearing out of the bearing cover.

1.5 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.

- 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.

1.6 DISMANTLING COUPLING

It is not necessary to remove the coupling in the 02-combination during normal maintenance.



Dismantle the coupling by removing the pointed screw (73) and pull off the coupling. If the coupling is removed on the assembled pump, take care that the bearing is not damaged by pulling too hard on the coupling. If the coupling is removed after dismantling the pump, fix the shaft at the thread at the opposite shaft end, while the coupling is pulled off. The coupling might be heated to facilitate dismantling.

2. ASSEMBLING

2.1 FITTING SEALING RINGS

When fitted, the sealing ring (4) is to bear against the shoulder of the pump casing.

ø330/415/418/525

When fitted the sealing ring (27) is to bear against the shoulder of the shaft seal cover (20).

2.2 FITTING BEARING

Place the support disc (14) (grease valve ring in ø330/415/525 with angular ball bearings) in the bearing cover and press the bearing into place in the bearing cover. Lead the shaft through the bearing cover, support disc and bearing, and press the bearing into place up against the support disc. Fit ring lock (12).

ø330/415/418/525

Fit cover under bearing (26).

2.3 FITTING WATER DEFLECTOR

ø215/265

Assemble bearing cover and shaft seal cover. Lead the water deflector (11) over the shaft until it touches the shaft seal cover and then further 1-1.5 mm into the shaft seal cover. Do not fasten bearing cover and electric motor until the motor has been mounted and the shaft can rotate freely without noise.

ø330/415/418/525

Lead the water deflector (11) over the shaft until it touches the cover under bearing (26) and then further 1-1.5 mm towards the cover under bearing. Assemble bearing cover and shaft seal cover. Do not fasten bearing cover and electric motor until the motor has been mounted and the shaft can rotate freely without noise.

2.4 FITTING SHAFT SEAL

Before fitting the seat, clean the recess in the shaft seal cover or the motor bracket (Ø215/265 in 12-combination). When fitting the seat, remove the protective coating 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 surface of the slide ring rubber bellows with soapy water and push it over the shaft. The use of a conical fitting bush as shown on the 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 soapy water on the shaft, the bellows will settle and seat in abt. 15 minutes, and until then tightness should not be expected. After start, check by viewing the leak hole that there are no leaks.

2.5 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 washers (7 and 8) and a nut (Ø215/265) or a set screw (Ø330/415/525) or a nut and stud (300-418/350-525).

2.7 SHAFT

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

2.8 FITTING COUPLING

Fit sunk key (76). If the coupling is fitted on the assembled pump, take care that you do not damage the bearing by pressing the coupling too hard. The coupling might be heated to facilitate the fitting. If the coupling is fitted before assembling the pump, the shaft must be supported at the opposite shaft end while the coupling is pressed into place. When the coupling bears against the shoulder of the pump shaft, fit the pointed screw.

3. DISMANTLING (16 COMBINATION) NSL COMPACT SPACER

3.1 ACCESS TO IMPELLER

The numbers in brackets refer to the position numbers on the assembly drawing.

Dismantle guard (69). Dismantle copper pipe (58). Dismantle Allen screws (76) and (80). Remove coupling discs (74) between spacer and coupling part motor (71). Dismantle Allen screws (77). Loosen spacer (72) from coupling part pump (70) by means of the pointed screws (36). Now remove spacer. If additional space is required for dismantling, loosen coupling part pump (70) and coupling part motor (71) at pointed screws (73) and pull off. A gentle heating of the pump and motor coupling parts may facilitate the dismantling.

Remove the screws (22) that keep the shaft seal cover (18) to the pump casing (1). Loosen shaft seal cover (18) from pump casing by means of the pointed screws (86) in the shaft seal cover. The shaft seal cover with shaft and impeller can now be lifted up allowing inspection of the impeller.

3.2 DISMANTLING SHAFT SEAL

ø215/265

Remove nut (6). Pull off the impeller (5) and remove sunk key (9). Remove Allen screws (19), which hold the bearing cover (15) to the shaft seal cover, pull shaft seal cover and bearing cover apart, by which shaft seal (10) and water deflector (11) are pulled off the shaft.

ø330/415

Remove set screw (6). Pull off the impeller (5) and remove sunk key (9). Remove set screws (19), which hold the bearing cover (15) to the shaft seal cover, pull shaft seal cover and bearing cover apart, by which the shaft seal (10) is pulled off the shaft.

3.3 DISMANTLING SEAT

Press out the seat from behind the shaft seal cover (18).

3.4 DISMANTLING BEARING

Before dismantling bearing, remove ring lock (12). Pull shaft with coupling out of the bearing cover



and press out the bearing.

3.5 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.

- 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.

4. ASSEMBLING

4.1 FITTING SEALING RINGS

When fitted, the sealing ring (4) has to bear against the shoulder of the pump casing.

ø330/415

When fitted the sealing ring (27) has to bear against the shoulder of the shaft seal cover (20).

4.2 FITTING BEARING

Place the support disc (14) (grease valve ring in ø330/415 with angular ball bearings) in the bearing cover and press the bearing into place in the bearing cover. Lead the shaft through the bearing cover, support disc and bearing, and press the bearing into place up against the support disc. Fit ring lock (12).

ø330/415

Fit cover under bearing (26).

4.3 FITTING WATER DEFLECTOR

ø215/265

Assemble bearing cover and shaft seal cover. Lead the water deflector (11) over the shaft until it touches the shaft seal cover and then further 1-1.5 mm into the shaft seal cover. Do not fasten bearing cover and electric motor until motor and coupling have been mounted and the shaft can rotate freely without noise.

ø330/415

Lead the water deflector (11) over the shaft until it touches the cover under bearing (26) and then further 1-1.5 mm towards the cover under bearing. Assemble bearing cover and shaft seal cover. Do not fasten bearing cover and electric motor until motor and coupling have been mounted and the shaft can rotate freely without noise.

4.4 FITTING SHAFT SEAL

Pay attention to the rubber type of which the shaft seal bellows has been made. Standard is NITRILE, however EPDM may also be used. EPDM will be damaged by mineral grease. For EPDM use soft soap or silicone grease. Before fitting the seat, clean the recess in the shaft seal cover. Dip the outer rubber ring of the seat into soapy water or apply silicone grease. 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 surface of the slide ring rubber bellows with soapy water and push it over the shaft. The use of a conical fitting bush as shown on the 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 soapy water 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 in bearing cover/shaft seal cover that there are no leaks.

4.5 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 washers (7 and 8) and a nut (Ø215/265) or a set screw (Ø330/415). Secure set screw (6) or nut (6) with a removable screw locking agent, e.g. Loctite 243 or Omnifit 40M. Tighten according to below table.

4.6 FITTING SHAFT SEAL COVER

Place the O-ring (21) between pump casing and shaft seal cover in the O-ring groove and hold it with a little grease. However, check the material of the O-ring first. As standard the material is NITRILE, but it may be EPDM which will be damaged by mineral grease. Use soft soap or silicone grease for EPDM. Fit and fasten shaft seal cover or motor bracket, mounted with the electric motor, in the pump casing. Screw the pointed screws (86) back into the shaft seal cover before tightening. Tighten the screws in the shaft seal cover according to below table. Fit copper pipe (58).

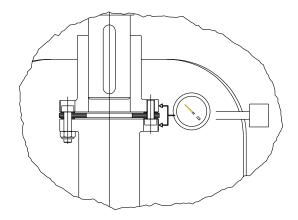
4.7 FITTING COUPLING

Fit sunk key (16) and motor shaft sunk key. Lead coupling part pump (70) against the shoulder of the shaft (17) and tighten by means of pointed screw (73). Mount coupling part motor (71). Do not tighten the pointed screw (73) into the coupling part motor until the remaining parts of the coupling have been mounted and tightened. Mount spacer (72) by means of Allen screws (77). Secure the screws with a removable screw locking agent.

Mount coupling discs (74) and washer (78) between spacer and coupling part motor by means of Allen screws (76), pinch nuts (79) and Allen screws (80). Secure screws with a removable screw locking agent. Turn the shaft a couple of times while tightening each screw slightly until coupling discs and coupling part motor have come into place. Now tighten Allen screws and pointed screw (73) in coupling part motor.

Check radial runout on the flanges, where the coupling plates are mounted, by means of a measuring gauge fixed to the motor bracket - see below drawing. After tightening-up the Allen screws (76 and 80) check that the radial runout does not exceed 0.1 mm. A larger runout may result in pump vibrations, increased bearing load and/or the impeller getting into contact with the pump sealing ring(s).





Tighten Allen screws in the coupling according to below table.

Screw dimension	Moment in Nm
M8	8
M10	15
M12	27
M16	65
M20	127

4.8 SHAFT

When the pump has been assembled, check that the shaft rotates freely and without noise.

5. FROST PROTECTION

Pumps which are not in operation during frost periods are to be drained to avoid frost damage. Remove the plug (3) at the bottom to empty the pump. Alternatively, it is possible to use anti-freeze liquids in normal constructions.

6. 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.

7. START-UP

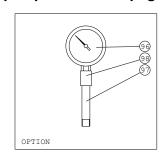


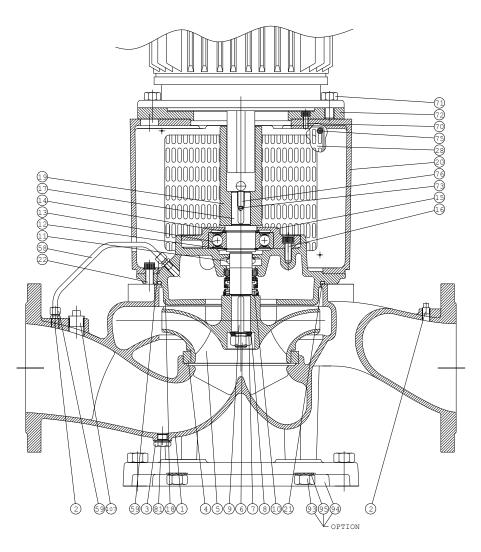
A centrifugal pump will not function until it has been filled with liquid between the foot valve and somewhat above the impeller of the pump.

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



8. ASSEMBLY DRAWING Ø215/265 02-COMB. 9. SPARE PARTS LIST Ø215/265 02-COMB. See Ø330/415/525 pump on the next pages

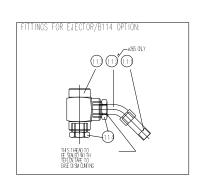


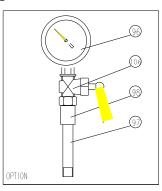


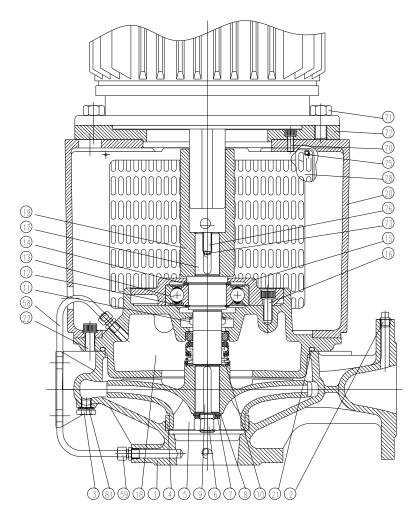
- 1 Pump casing
- 2 Pipe plug
- 3 Pipe plug
- 4 Sealing ring
- 5 Impeller
- 6 Nut
- 7 Spring collar
- 8 Washer
- 9 Sunk key
- 10 Shaft seal
- 11 Water deflector
- 12 Ring lock
- 13 Ball bearing
- 14 Support disc
- 15 Bearing cover
- 16 Allen screw
- 17 Shaft
- 18 Shaft seal cover
- 19 Coupling
- 20 Motor bracket
- 21 O-ring
- 22 Allen screw
- 28 Guard
- 58 Copper pipe
- 59 Hexagon nipple
- 70 Allen screw
- 71 Set screw
- 72 Intermediate flange
- 73 Pointed screw
- 75 INSEX-screw
- 76 Sunk key
- 81 Sealing washer
- 93 Set screw
- 94 Base plate
- 95 Lock washer
- 96 Manometer
- 97 Nipple
- 98 Sleeve
- 107 Pipe plug



8A. ASSEMBLY DRAWING Ø215/265 02-COMB. 9A. SPARE PARTS LIST NSLV IN Ø215/265 02-COMB. See Ø330/415/525 pump on the next pages





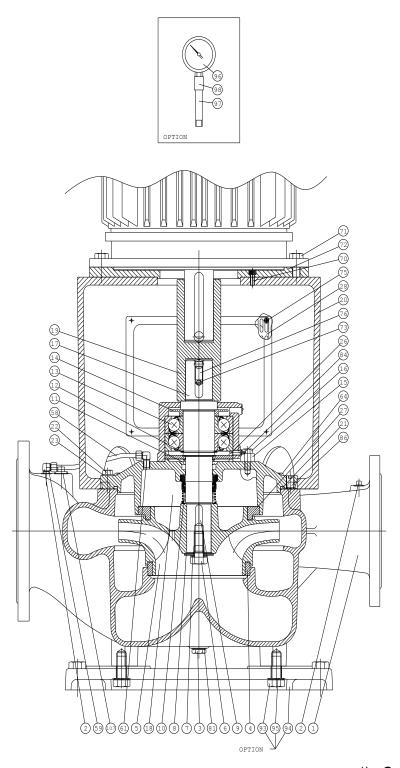


- 1 Pump casing
- 2 Pipe plug
- 3 Pipe plug
- 4 Sealing ring
- 5 Impeller
- 6 Nut
- 7 Spring collar
- 8 Washer
- 9 Sunk key
- 10 Shaft seal
- 11 Water deflector
- 12 Ring lock
- 13 Ball bearing
- 14 Support disc
- 15 Bearing cover
- 16 Allen screw
- 17 Shaft
- 18 Shaft seal cover
- 19 Coupling
- 20 Motor bracket
- 21 O-ring
- 22 Allen screw
- 28 Guard
- 58 Copper pipe
- 59 Hexagon nipple
- 70 Allen screw
- 71 Set screw
- 72 Intermediate flange
- 73 Pointed screw
- 75 INSEX-screw
- 76 Sunk key
- 81 Sealing washer
- 96 Manometer
- 97 Nipple
- 98 Sleeve
- 106 Valve (optional)



10. ASSY. DRAWING Ø330/415/525 02-COMB.

11. SPARE PARTS LIST Ø330/415/525 02-COMB.

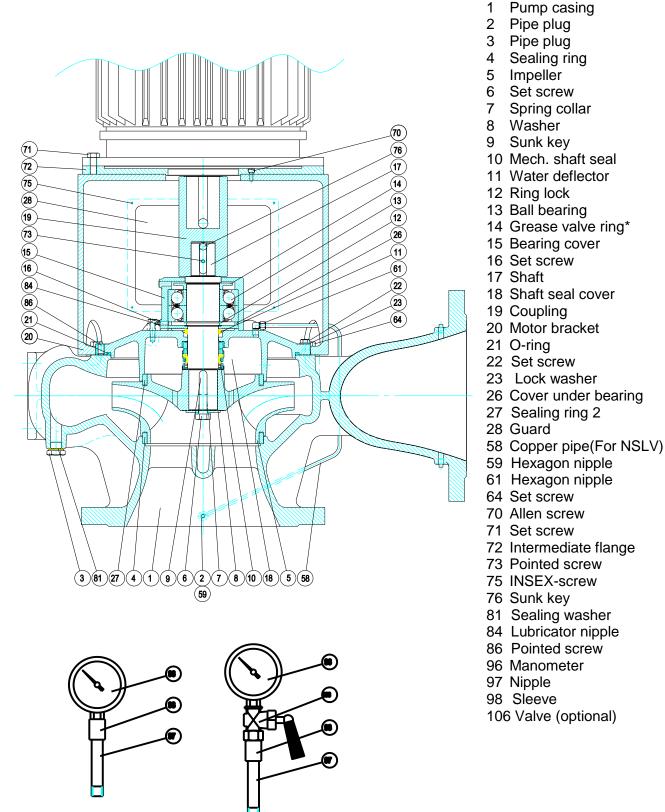


- 1 Pump casing
- 2 Pipe plug
- 3 Pipe plug
- 4 Sealing ring
- 5 Impeller
- 6 Set screw
- 7 Spring collar
- 8 Washer
- 9 Sunk key
- 10 Mech. shaft seal
- 11 Water deflector
- 12 Ring lock
- 13 Ball bearing
- 14 Grease valve ring*
- 15 Bearing cover
- 16 Set screw
- 17 Shaft
- 18 Shaft seal cover
- 19 Coupling
- 20 Motor bracket
- 21 O-ring
- 22 Set screw
- 23 Lock washer
- 26 Cover under bearing
- 27 Sealing ring 2
- 28 Guard
- 58 Copper pipe
- 59 Hexagon nipple
- 61 Hexagon nipple
- 64 Set screw
- 70 Allen screw
- 71 Set screw
- 72 Intermediate flange
- 73 Pointed screw
- 75 INSEX-screw
- 76 Sunk key
- 81 Sealing washer
- 84 Lubricator nipple
- 86 Pointed screw
- 93 Set screw
- 94 Base plate
- 95 Lock washer
- 96 Manometer
- 97 Nipple
- 98 Sleeve
- 107 Pipe plug

Support disc in light bearing housing



10A. ASSY. DRAWING Ø330/415/525 02-COMB. 11A. SPARE PARTS LIST Ø330/415/525 02-COMB. NSLV IN Ø330/415 02-COMB

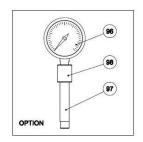


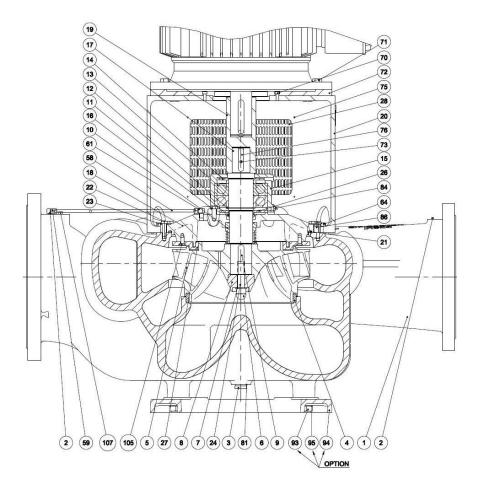
DESMI PUMPING TECHNOLOGY A/S



12. ASSY. DRAWING 300-418 02-COMB.

13. SPARE PARTS LIST 300-418 02-COMB.

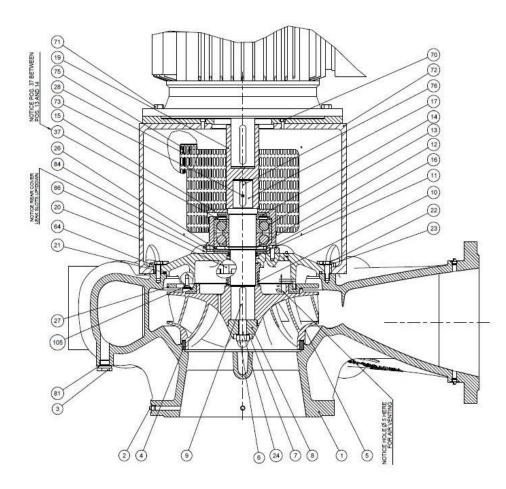




- 1 Pump casing
- 2 Pipe plug
- 3 Pipe plug
- 4 Sealing ring
- 5 Impeller
- 6 Cap nut
- 7 Spring washer
- 8 Inlet cone
- 9 Sunk key
- 10 Mech. shaft seal
- 11 Water deflector
- 12 Ring lock
- 13 Ball bearing
- 14 Grease valve ring
- 15 Bearing cover
- 16 Set screw
- 17 Shaft
- 18 Shaft seal cover
- 19 Coupling
- 20 Motor bracket
- 21 O-ring
- 22 Set screw
- 23 Lock washer
- 24 Stud
- 26 Cover under bearing
- 27 Sealing ring 2
- 28 Guard
- 58 Copper pipe
- 59 Hexagon nipple
- 61 Hexagon nipple
- 64 Set screw
- 70 Allen screw
- 71 Set screw
- 72 Intermediate flange
- 73 Pointed screw
- 75 INSEX-screw
- 76 Sunk key
- 81 Sealing washer
- 84 Lubricator nipple
- 86 Pointed screw
- 93 Set screw
- 94 Base plate
- 95 Lock washer
- 96 Manometer
- 97 Nipple
- 98 Sleeve
- 105 Countersunk screw
- 107 Pipe PLUG



12A. ASSY. DRAWING 300-418 02-COMB. 13A. SPARE PARTS LIST 300-418 02-COMB. NSLV IN 300-418 02-COMB

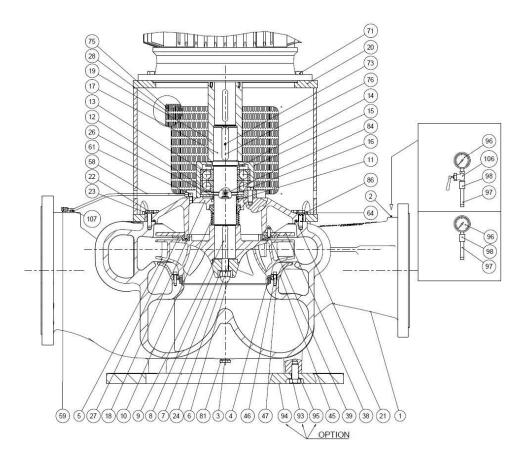


- 1 Pump casing
- 2 Pipe plug
- 3 Pipe plug
- 4 Sealing ring
- 5 Impeller
- 6 Cap screw
- 7 Spring collar
- 8 Inlet cone
- 9 Sunk key
- 10 Mech. shaft seal
- 11 Water deflector
- 12 Ring lock
- 13 Ball bearing
- 14 Grease valve ring*
- 15 Bearing cover
- 16 Set screw
- 17 Shaft
- 18 Shaft seal cover
- 19 Coupling
- 20 Motor bracket
- 21 O-ring
- 22 Set screw
- 23 Lock washer
- 26 Cover under bearing
- 27 Sealing ring 2
- 28 Guard
- 58 Copper pipe(For NSLV)
- 59 Hexagon nipple
- 61 Hexagon nipple
- 64 Set screw
- 70 Allen screw
- 71 Set screw
- 72 Intermediate flange
- 73 Pointed screw
- 75 INSEX-screw
- 76 Sunk key
- 81 Sealing washer
- 84 Lubricator nipple
- 86 Pointed screw
- 105 Countersunk screw



14. ASSY. DRAWING 350-525 02-COMB.

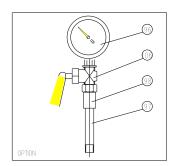
15. SPARE PARTS LIST 350-525 02-COMB.

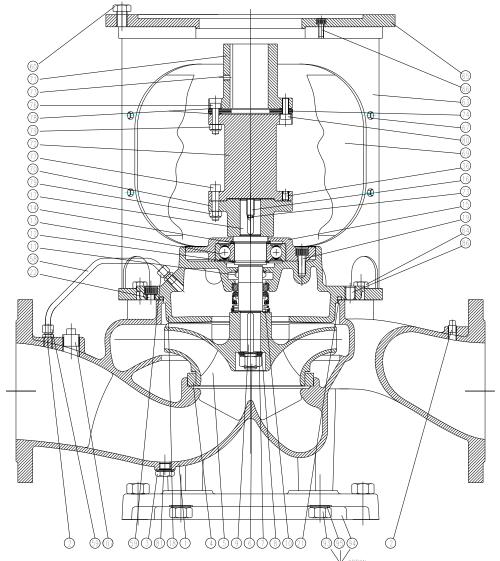


- 1 Pump casing
- 2 Pipe plug
- 3 Pipe plug
- 4 Sealing ring
- 5 Impeller
- 6 Cap nut
- 7 Spring washer
- 8 Inlet cone
- 9 Sunk key
- 10 Mech. shaft seal
- 11 Water deflector
- 12 Ring lock
- 13 Ball bearing
- 14 Grease valve ring
- 15 Bearing cover
- 16 Set screw
- 17 Shaft
- 18 Shaft seal cover
- 19 Coupling
- 20 Motor bracket
- 21 O-ring
- 22 Set screw
- 23 Lock washer
- 24 Stud
- 26 Cover under bearing
- 27 Sealing ring 2
- 28 Guard
- 38 Guard plate
- 39 Countersunk screw
- 45 Guard Plate
- 46 Screw
- 47 Washer
- 58 Copper pipe
- 59 Hexagon nipple
- 61 Hexagon nipple
- 64 Set screw
- 71 Set screw
- 73 Pointed screw
- 75 INSEX-screw
- 76 Sunk key
- 81 Sealing washer
- 84 Lubricator nipple
- 86 Pointed screw
- 93 Set screw
- 94 Base plate
- 95 Lock washer
- 96 Manometer
- 97 Nipple
- 98 Sleeve
- 107 Pipe plug



16. ASSEMBLY DRAWING Ø215/265 17. SPARE PARTS LIST Ø215/265 See Ø330/415 pump on the next pages



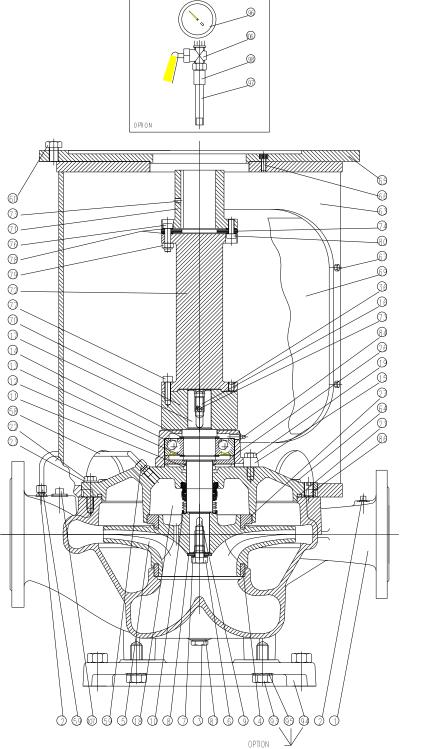


- 1 Pump casing
- 2 Pipe plug
- 3 Pipe plug
- 4 Sealing ring
- 5 Impeller
- 6 Nut
- 7 Spring collar
- 8 Washer
- 9 Sunk key
- 10 Shaft seal
- 11 Water deflector
- 12 Ring lock
- 13 Ball bearing
- 14 Support disc
- 15 Bearing cover
- 16 Sunk key
- 17 Shaft
- 18 Shaft seal cover
- 19 Allen screw
- 21 O-ring
- 22 Allen screw
- 36 Pointed screw
- 58 Copper pipe
- 59 Hexagon nipple
- 60 Set screw
- 63 Motor bracket
- 64 Set screw
- 65 Intermediate flange *)
- 66 Allen screw *)
- 67 Set screw
- 69 Guard
- 70 Coupling part pump
- 71 Coupling part motor
- 72 Spacer
- 73 Pointed screw
- 74 Coupling discs
- 76 Allen screw
- 77 Allen screw
- 78 Washer
- 79 Pinch nut
- 80 Allen screw
- 81 Sealing washer
- 86 Pointed screw
- 93 Set screw
- 94 Base plate
- 95 Lock washer
- 96 Pressure gauge
- 97 Nipple
- 98 Sleeve
- 106 Pressure gauge cock
- 107 Pipe plug
- *) Only if motor is bigger than motor bracket



18. ASSEMBLY DRAWING Ø330/415 WITH LIGHT BEARING HOUSING (80-330, 100-330, 125-330, 100-415 and 125-415)

19. SPARE PARTS LIST Ø330/415 WITH LIGHT BEARING HOUSING



- 1 Pump casing
- 2 Pipe plug
- 3 Pipe plug
- 4 Sealing ring
- 5 Impeller
- 6 Nut
- 7 Spring collar
- 8 Washer
- 9 Sunk key
- 10 Shaft seal
- 11 Water deflector
- 12 Ring lock
- 13 Ball bearing
- 14 Support disc
- 15 Bearing cover
- 16 Sunk key
- 17 Shaft
- 18 Shaft seal cover
- 19 Allen screw
- 21 O-ring
- 22 Allen screw
- 27 Sealing ring 2
- 36 Pointed screw
- 58 Copper pipe
- 59 Hexagon nipple
- 60 Set screw
- 63 Motor bracket
- 64 Set screw
- 65 Intermediate flange*)
- 66 Allen screw*)
- 67 Set screw
- 69 Guard
- 70 Coupling part pump
- 71 Coupling part motor
- 72 Spacer
- 73 Pointed screw
- 74 Coupling discs
- 76 Allen screw
- 77 Allen screw
- 78 Washer
- 79 Pinch nut
- 80 Allen screw
- 81 Sealing washer
- 86 Pointed screw
- 93 Set screw
- 94 Base plate
- 95 Lock washer
- 96 Pressure gauge
- 97 Nipple
- 98 Sleeve
- 106 Pressure gauge cock
- 107 Pipe plug

^{*)} Only if motor is bigger than motor bracket



20. ASSEMBLY DRAWING Ø330/415 WITH HEAVY BEARING HOUSING 21. SPARE PARTS LIST Ø330/415 WITH HEAVY BEARING HOUSING

