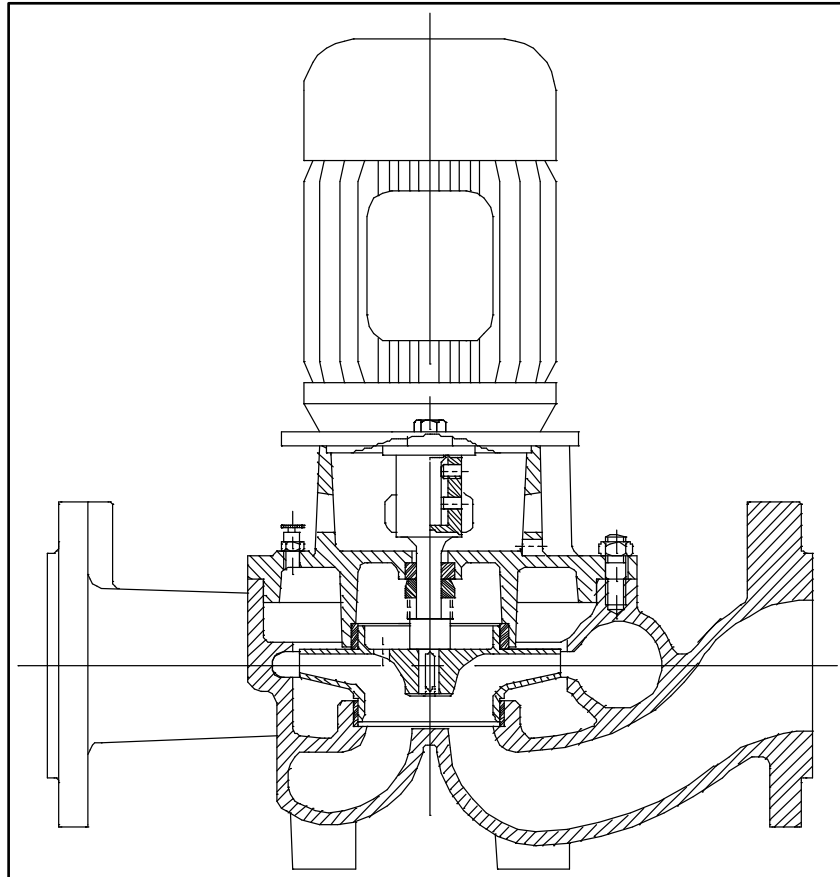


DESMI in-line centrifugal pump PVLN,PVLB,PVLS and PVLJ



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Special pump No.....

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1. PRODUCT DESCRIPTION

These operation and maintenance instructions apply to the pump series PVLN, PVLB, PVLS, and PVLJ.

The pumps are manufactured in sizes ranging from 25 mm to 200 mm flanges. The pumps are centrifugal pumps "in-line type", i.e. the suction and pressure flanges have a common centre line and the same dimensions.

The pumps are driven by an electric motor which may be a standard AC motor or a DC motor. The impeller is mounted on the motor shaft at a shaft extension. The pumps are equipped with a mechanical seal shaft and have holes in the bracket for inspection of leaks. Very big holes are provided with a fixed guard.

2. TECHNICAL DATA

The pumps are divided into two groups. The item number of one of the groups is of the type PVLNXXXX.XX-0XX, whereas the other group has a 6-digit item number of the type 69 XX XX. As regards pumps with item number 69 XX XX – see page 6.

2.1. TECHNICAL DATA FOR PUMPS WITH ITEM NUMBER PVLNXXXX.XX-0XX

The material combination appears from the pump type and is expressed by the last 3 figures, for example PVLN0080.21-004.

There are 5 standard material combinations 001, 002, 003, 004 and 005.

PVLN 1025/PVLN 1040

Material Code	Impeller	Elastomer
001/005	Rg5	EP-rubber
002/003	Rg5	Nitrile rubber
004	Rgl0	Nitrile rubber

PVLN1050...PVLN2200

Material Code	Impeller	Seal Rings	Elastomer	Stop Rings
001	GG20	Rg5	EP-rubber	Rg5
002	Rg5	Rg5	EP-rubber	Rg5
003	GG20	Rg5	Nitrile rubber	Rg5
004	GG20	Stainless ¹⁾	Nitrile rubber	Stainless ¹⁾
005	Rgl0	Stainless ¹⁾	Nitrile rubber	Stainless ¹⁾

¹⁾Stainless steel DIN designation X5CrNiMo17133.

Pump casing and top piece GG20.

Pump shaft stainless steel DIN designation X8CrNiMo275.

Size	Material Code	Field of Application
PVLN1025/1040	001 002 005	Pumping of clean water and weak aqueous solutions of non-aggressive chemicals
PVLN1050. ...2200	001	

Size	Material Code	Field of Application
PVLN1025/1040	001 002 005	Same application as above, but where there is a risk of rusting at the impeller because of a long standstill.
PVLN1050. ...2200	002	

Size	Material Code	Field of Application
PVLN1025/1040	001 002 005	Brine, glycol, softened chloric fresh water for swimming baths.
PVLN1050...2200	003	

Size	Material Code	Field of Application
PVLN1025/1040	003 004	Soda lye (004 for PH< 9 only).
PVLN1050. ...2200	004	

Size	Material Code	Field of Application
PVLN1025/1040	003 004	Chloric saline water for Swimming baths.
PVLN1050...2200	005	

Permissible temperatures from -30°C to +120°C. EP - rubber cannot be used for mineral oils/grease. Apart from the above material codes the pumps are available in special material combinations for other liquids. Material codes higher than 005 are used for special material combinations. For special codes fill in the following:

Pump type :

Pump No. :

Application :

Comments :

When using the pump for other media the operator is responsible for checking that the specified materials in the pumps are in order. In case of doubt, contact the supplier.

The noise level for the airborne noise appears from the following list. The values indicated are measured as middle values at a distance of 1 m from the machine surface in free field approx. 1.5 m above the base plate. The sound pressure levels are general directional values which cannot be regarded as guarantee values for each individual pump, as the sound level of a pump is to a large extent dependent on the installation method and the operating conditions. The measuring comprise the pump including the motor.

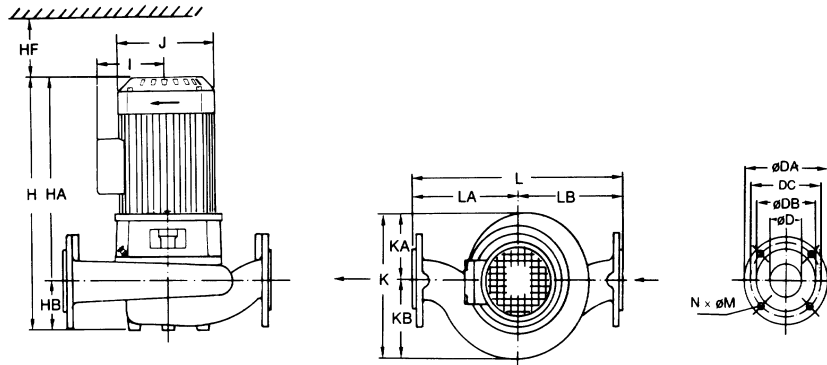
Sound pressure level for the PVLN-pumps:

PVLN Type	dB(a)
1050.81	40
1050.61	47
1050.27	70
1050.22	78
1050.21	80
1065.61	47
1065.42	53
1065.41	55
2065.23	81
2065.22	83
1065.21	84
0080.61	52
0080.42	56
0080.41	57
0080.22	80
0080.21	81
2080.42	58
2080.41	62
2080.23	40
2080.22	84
2080.21	84
1100.61	58

PVLN Type	dB(a)
1100.41	71
2100.61	64
2100.41	72
2125.62	68
2125.44	74
2125.43	76
2125.42	77
2125.41	78
2150.82	69
2150.62	73
2150.61	74
2150.43	78
2150.42	79
2150.41	80
2200.82	70
2200.81	71
2200.62	74
2200.61	76
2200.44	79
2200.43	80
2200.42	81
2200.41	82

Environment: The pumps are as a standard equipped with motors with protection class IP54, which means that the motor is protected against penetrating dust and that water without pressure does not damage the motor. The motors are dimensioned for an ambient temperature of 40°C. Pumps installed in explosive areas must be equipped with explosion-proof motors. The pump capacity is stamped on the name plate.

The weight and dimensions of the pump appear from the following table.
The weight comprises an AC motor in cast iron.



	Type	TN	Flange	TN	D	DA	DB	DC	H	HA	HB	HF	I	J	K	KA	KB	L	LA	LB	NxM	Weight
					mm	mm	mm	mm	Max. mm	Max. mm	mm	Min. mm	Max. mm	Max. mm	mm	mm	mm	mm	mm	mm	mm	
1	1025.21	10	1" 25 mm	10	25	115	68	85	434	374	60	60	150	186	202	101	101	300	150	150	4xø14	30 kg
	1025.22	10		10					409	349			150	186								30 kg
	1025.23	10		10					397	337			137	162								30 kg
2	1025.41	10	1" 25 mm	10	25	115	68	85	382	322	60	60	127	140	202	101	101	300	150	150	4xø14	25 kg
	1025.42	10		10					382	302			127	140								25 kg
3	1025.61	10	1" 25 mm	10	25	115	68	85	360	300	60	60	127	140	202	101	101	300	150	150	4xø14	25 kg
4	1040.21	10	1 1/2" 40 mm	10	40	150	88	110	568	488	80	60	166	224	224	105	119	350	175	175	4xø18	50-55 kg
	1040.22	10		10					487	407			154	200								45-50 kg
	1040.23	10		10					457	377			150	186								40-45 kg
5	1040.41	10	1 1/2" 40 mm	10	40	150	88	110	400	320	80	60	137	162	224	105	119	350	175	175	4xø18	35 kg
	1040.42	10		10					405	325			127	140								30 kg
	1040.43	10		10					405	325			127	140								30 kg
6	1040.61	10	1 1/2" 40 mm	10	40	150	88	110	383	303	80	60	127	140	224	105	119	350	175	175	4xø18	30 kg
	1040.62	10		10					383	303			127	140								30 kg
	1040.63	10		10					383	303			127	140								30 kg
7	1050.21	10	2" 50 mm	10	50	165	102	125	649	559	90	110	184	249	265	125	140	400	200	200	4xø18	75-90 kg
	1050.22	10		10					576	486			166	224								60-70 kg
	1050.23	10		10					545	455			154	200								55-65 kg
	1050.27	10		10					510	420			150	186								50-55 kg
	1050.28	10		10					485	395			150	186								45-50 kg
8	1050.41	10	2" 50 mm	10	50	165	102	125	460	370	90	110	137	162	265	125	140	400	200	200	4xø18	40 kg
	1050.42	10		10					460	370			137	162								40 kg
	1050.43	10		10					460	370			137	162								40 kg
9	1050.61	10	2" 50 mm	10	50	165	102	125	460	370	90	110	137	162	265	125	140	400	200	200	4xø18	40 kg
10	1065.41	10	2 1/2" 65 mm	10	65	185	122	145	470	370	100	110	137	162	285	130	155	440	220	220	4xø18	50 kg
	1065.42	10		10					470	370			137	162								45 kg
	1065.61	10		10					470	370			137	162								50 kg
11	2065.21	10	2 1/2" 65 mm	10	65	185	122	145	815	705	110	125	242	313	350	175	175	450	225	225	4xø18	150-195 kg
	2065.22	10		10					815	705			224	305								145-155 kg
	2065.23	10		10					658	548			184	249								100-115 kg
12	2065.41	10	2 1/2" 65 mm	10	65	185	122	145	564	454	110	125	154	200	350	175	175	450	225	225	4xø18	90-95 kg
13	0080.21	10	3" 80 mm	10	80	200	138	160	699	579	120	120	184	249	320	150	170	480	240	240	8xø18	90-105 kg
	0080.22	10		10					679	559			184	249								85-100 kg
	0080.23	10		10					642	522			166	224								75-80 kg
14	0080.41	10	3" 80 mm	10	80	200	138	160	530	410	120	120	150	186	320	150	170	480	240	240	8xø18	60-65 kg
	0080.42	10		10					505	385			150	186								55-60 kg
	0080.43	10		10					492	372			137	162								50-55 kg
	0080.61	10		10					490	370			137	162								50-55 kg

	Type	TN	Flange	TN	D	DA	DB	DC	H	HA	HB	HF	I	J	K	KA	KB	L	LA	LB	NxM	Weight
					mm	mm	mm	mm	Max. mm	Max. mm	mm	Min. Mm	Max. mm	Max. mm	mm	mm	mm	mm	mm	mm	mm	
15	2080.21	10	3" 80 mm	10	80	200	138	160	882	752	130	120	255	330	380	175	205	540	260	280	8xø18	180-220 kg
	2080.22	10		10					830	700			242	313								155-200 kg
	2080.23	10		10					830	700			224	305								150-165 kg
16	2080.41	10	3" 80 mm	10	80	200	138	160	579	449	130	120	154	200	380	175	205	540	260	280	8xø18	80-85 kg
	2080.42	10		10					579	449			154	200								75-80 kg
17	1100.41	10	4" 100 mm	10	100	220	158	180	631	486	145	125	166	224	375	170	205	590	270	320	8xø18	90-100 kg
	1100.42	10		10					600	455			154	200								80-90 kg
	1100.61	10		10					555	410			150	186								75-80 kg
	1100.81	10		10					555	410			150	186								75-80 kg
18	2100.41	10	4" 100 mm	10	100	220	158	180	699	559	140	125	184	249	430	195	235	620	300	320	8xø18	115-125 kg
	2100.61	10		10					699	559			184	249								90-95 kg
19	2125.41	10	5" 125 mm	10	125	250	188	210	1035	835	200	170	255	351	460	205	255	800	400	400	8xø18	300-315 kg
	2125.42	10		10					977	777			255	330								265-300 kg
	2125.43	10		10					930	730			224	305								240-255 kg
	2125.44	10		10					822	622			205	260								190-210 kg
	2125.45	10		10					781	581			184	249								180-190 kg
20	2125.62	10	5" 125 mm	10	125	250	188	210	701	501	200	170	166	224	460	205	255	800	400	400	8xø18	165-170 kg
21	2150.41	6	6" 150 mm	10	150	285	212	240	1123	963	160	175	327	392	625	285	340	925	475	450	8xø22	465-490 kg
	2150.42	6		10					1070	910			261	351								410-425 kg
	2150.43	6		10					1070	910			255	351								395-410 kg
	2150.44	6		10					1012	852			255	330								355-390 kg
22	2150.61	6	6" 150 mm	10	150	285	212	240	960	800	160	175	224	305	625	285	340	925	475	450	8xø22	335-350 kg
	2150.62	6		10					857	697			205	260								790-310 kg
23	2150.82	6	6" 150 mm	10	150	285	212	240	857	697	160	175	205	260	625	285	340	925	475	450	8xø22	290-300 kg
24	2200.41	6	8" 200 mm	10	200	340	268	295	1291	1101	190	190	345	442	710	310	400	1095	565	530	8xø22	665-730 kg
	2200.42	6		10					1278	1088			345	442								605-655 kg
	2200.43	6		10					1174	984			327	392								550-575 kg
	2200.44	6		10					1130	940			261	351								505-520 kg
	2200.45	6		10					1130	940			255	351								485-500 kg
25	2200.61	6	8" 200 mm	10	200	340	268	295	1072	882	190	190	255	330	710	310	400	1095	565	530	8xø22	460-480 kg
	2200.62	6		10					1020	830			224	305								440-455 kg
26	2200.81	6	8" 200 mm	10	200	340	268	295	1020	830	190	190	224	305	710	310	400	1095	565	530	8xø22	430-445 kg
	2200.82	6		10					1020	830			224	305								415-430 kg
	2200.83	6		10					956	766			205	260								400-410 kg

2.2. TECHNICAL DATA FOR PUMPS WITH ITEM NUMBER 69 XX XX

The pumps are manufactured in various material combinations, which appear from the type designation on the nameplate. See below.

2.3. EXPLANATION OF THE TYPE DESIGNATION

All PVLN pumps are provided with a nameplate. The type designation indicated on the nameplate is built up as follows:

PVLNYYXX/MR-Z

XX: Pressure branch diameter

M: The material combination of the pump

R: The assembly combination of the pump

Z: Other variants

M may be the following:

A: Casing and shaft seal cover : Cast iron + cast iron alloy. Impeller and sealing rings: Bronze (Rg10)

D: Casing and shaft seal cover : Bronze (Rg5). Impeller and sealing rings: Bronze (Rg10)

E: Special materials

The pumps can be delivered in other material combinations according to agreement with the supplier.

R may be the following:

12: Monobloc, without bearing in the pump

Z may be the following:

- i : PN16 flanges
- j : PN25 flanges
- k : Special flange
- l : Other shaft seal
- m : BS flanges
- n : ANSI flanges
- o : Shockproof design
- p : Other design
- q : JIS flanges

Any use of the pump is to be evaluated on the basis of the materials used in the pump. In case of doubt, contact the supplier.

Pumps in material combinations A are primarily used for fresh water.

Pumps in material combination D are primarily used for seawater.

If the pumps are designed for special purposes the following is to be indicated:

Pump No. :

Pump type :

Application :

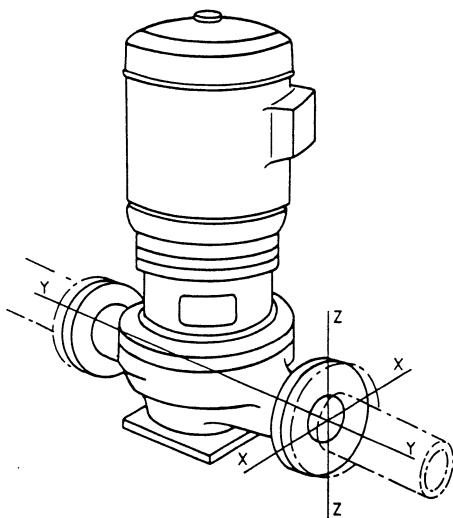
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2.4. 2.4 TECHNICAL DESCRIPTION

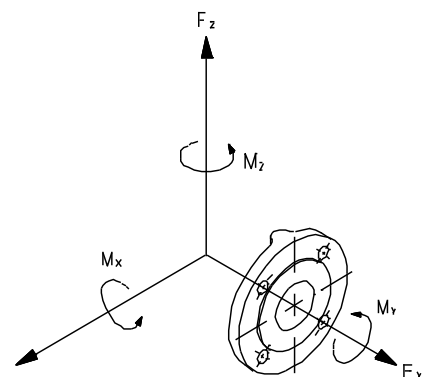
The noise level indicated is the airborne noise including the motor. The noise depends on the motor type supplied, as the noise from the pump can be calculated as the noise level of the motor + 2dB(A). The noise level is for pumps with electric motors.

The capacity of the pump appears from the nameplate on the pump. If the pump has been delivered without motor, the pump capacity is to be indicated on the plate when mounting the motor.

The permissible loads on the flanges appear from the following table. The values apply to standard pumps in bronze (Rg5) and cast iron (GG20). As to pumps in SG iron (GGG40) the values are to be increased by factor 1.5.



Permissible loads and torques on pump flanges:



Piping	DN	Forces (N)				Torques (Nm)			
	mm	F _y	F _z	F _x	∑F	M _y	M _z	M _x	∑M
Horizontal pipeline at right angles to the shaft	25	250	320	250	480	300	150	260	420
	40	400	500	400	750	400	200	300 350	550
	50	500	600	550	1000	450	250	380	600
	65	650	840	750	1340	510	310		700
Suction and pressure flanges above level of installation	80	800	950	850	1500	550	350	400	750
	100	1000	1250	1150	2000	650	400	500 650	900 1150
	125	1250	1600	1430	2500	830	520		
	150	1500	1900	1700	2950	1000	650	800	1400
	200	2000	2520	2200	3920	1330	860	1060	1860

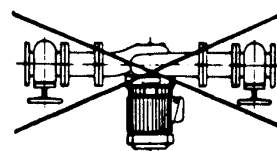
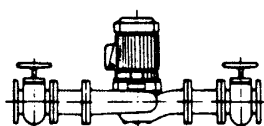
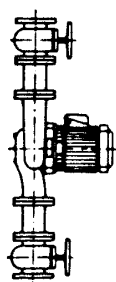
In connection with the permissible loads on the flanges indicated in the above table there is the following limitation:

$$\left(\frac{\sum F_{\text{calculated}}}{\sum F_{\text{Max.permissible}}} \right)^2 + \left(\frac{\sum M_{\text{calculated}}}{\sum M_{\text{Max.permissible}}} \right)^2 < 2$$

3. INSTALLATION

Insert the pump in the pipeline in the same way as a valve. The pump can be inserted in both horizontal and vertical pipes, but not in a horizontal pipe if the motor is placed below horizontal level. The max. loads on the flanges appear from the technical description.

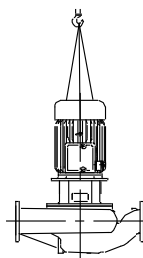
When installing the pump check that it is earthed to avoid an electrical potential in the pump.



At installations pumping hot or very cold liquids the operator must be aware that it is dangerous to touch the pump surface, and he is to take the necessary safety measures.

4. TRANSPORT/STORAGE

The pumps are to be lifted as shown. The weights of the pumps are stated in the technical description. Before shipment the pump is to be fastened securely on a pallet or the like. The centre of gravity will be on the centre line of the motor. The pump is to be stored in a dry area.



5. START-UP



Before starting the pump for the first time check that the electrical data of the motor correspond to the network.

Connect the motor according to the wiring diagram in the cover of the terminal box and provide it with a motor protection according to the rules. The motor protection to be adjusted in accordance with the supplier's instructions. The work is to be carried out by skilled workmen and is to observe the rules and regulations in force.

In order to protect the shaft seal the pump must never run dry.

If there is a positive suction lift, open the valve on the suction side of the pump and evacuate the air through the air vent screw (5). If there is no positive suction lift, the plant must be equipped with a foot valve or a non-return valve on the suction side.

Prime the pump while the air vent screw (5) is kept open. When the pump has been filled with water, and the air has been evacuated, the system can be started. Check the direction of rotation. If the direction is incorrect interchange 2 of the power cords. The direction of rotation is indicated by an arrow. Make sure the bearings are running correctly and that they do not become warm.

6. SYSTEM BALANCING

Adapt pressure and water quantity to the requirements by regulating a valve on the pressure side of the pump - never on the suction side as this may cause cavitation.

FAULT	CAUSE	REMEDY
The pump has no or too low capacity	<ol style="list-style-type: none"> 1. Wrong direction of rotation 2. Piping system choked 3. The pump is choked 4. Suction line leaks, pump takes air 5. Suction lift too high 6. Pump and piping system wrongly dimensioned 	<p>Change direction of rotation to clockwise when viewed from shaft end Clean or replace</p> <p>Clean the pump Find the leakage, repair the fault, non-return valve not submerged</p> <p>Check data sheet Q/H curve and NPSH or contact DESMI As 5</p>
The pump uses too much power	<ol style="list-style-type: none"> 1. Counter-pressure too low 2. The liquid is heavier than water 3. Foreign body in pump 4. Electric motor is running on 2 phases 	<p>Insert orifice plate or check valve, contact DESMI</p> <p>Contact DESMI Dismantle the pump, remove the cause</p> <p>Check fuses, cable connection and cable</p>
The pump makes noise	<ol style="list-style-type: none"> 1. Cavitation in pump 	<p>Suction lift too high/Suction line wrongly dimensioned/Liquid temperature too high</p>

7. MAINTENANCE

The motors for small pumps are equipped with ball bearings lubricated for life and, therefore, they do not require any attention.

As far as the big pumps are concerned, follow the lubricating prescription indicated on the motor.

During long periods of standstill it will be an advantage to start the pump every week or every two weeks. Check the shaft seal for leaks at regular intervals.

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.



The cable connections to be dismantled by skilled workmen.

9. REPAIRS

The following parts are exposed to wear: Shaft seal (22), impeller (2), seal rings (16 and 17) and the ball bearings of the motor.

9.1. REPLACING THE IMPELLER (2)

Close the valves on both sides of the pump. Loosen the nuts (15) and dismantle the top piece from the pump casing. Remove the screw (20) and take off the impeller (2). Fit the new impeller.

9.2. REPLACING SEAL RINGS (16 AND 17)

Please notice that PVLN1025 & 1040 do not have seal rings. When motor and pump have been separated, the seal ring (17) in the pump casing (1) can be pulled out.

In order to replace the upper seal ring (16) it is necessary first to dismantle the impeller. Press the new seal rings into place with an even push all over the face of the ring. Normal diameter difference between seal ring and impeller 0.3-0.4 mm.

9.3. REPLACING SHAFT SEAL (22)

Dismantling as described in paragraph 9.1.

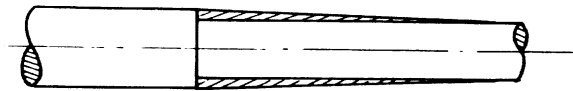
When the impeller has been dismantled, remove the key (19) and then the space bushing (21) which is locked with a pointed screw. Please notice that PVLN1025 & 1040 do not have the space bushing – but instead a spring holder not retained by a pointed screw. The sealing element itself can now be pulled off the shaft.

Remove the seat ring from the top piece by pressing with a pair of screwdrivers or the like under the collar

off the seat. If the seat cannot be removed, dismantle the top piece (4) from the motor (9) to permit pressing from the back.

Clean the bore for seat and shaft thoroughly of dirt and rust. Remove persistent coatings, if any, by grinding the shaft lightly with very fine emery cloth.

Grease the new seat ring and the inserted O-ring well with glycerine - not oil - and press it into place in the casing. Check that the seat is fitted correctly by knocking lightly with a piece of wood. The seat ring is to be treated very carefully to prevent the sliding surface from being scratched. It is necessary to use a conical bush as shown below to prevent the rubber bellows from being damaged during mounting.



Grease the back of the carbon ring with glycerine to ensure that it stays in its correct place during the mounting. Grease the shaft, the conical bush and the rubber bellows amply with glycerine.

Press the shaft seal on to the shaft until it resists. Press the driving ring only,

Finally place the space bush (21) on the shaft and lock it with the pointed screw. Please again notice that PVLN1025 & 1040 do not have the space bushing – but instead a spring holder not retained by a pointed screw

When the pump has been mounted, ventilate the pump casing carefully before putting the pump into operation.

When the pump has been running for 1-2 min., ventilate it again, after which it can start normal operation.

Do not forget to check the direction of rotation if there is a risk that the power cords to motor have been exchanged.

9.4. REPLACING BALL BEARINGS IN MOTOR

The ball bearing in the front bearing of the motor can be replaced without disassembling the pump.

If the ball bearing in the rear bearing of the motor is to be replaced, it is necessary to disassemble the pump and dismantle the pump shaft (as described in paragraph 9.1):

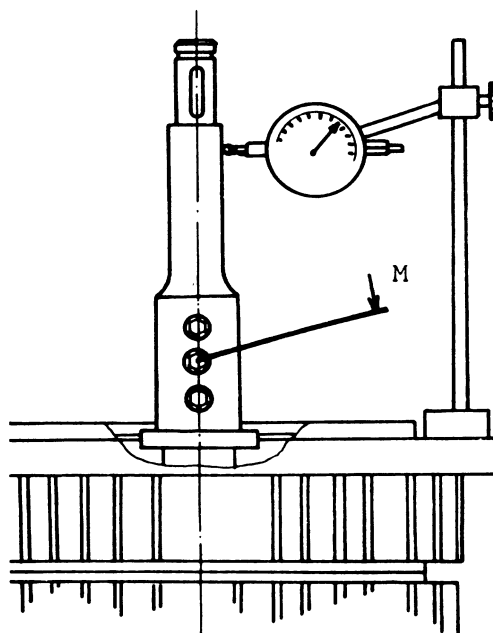
Dismantle the top piece (4) from the motor (9). Remove the pointed screws (11) in the pump shaft (6), the pump shaft can now be pulled off the motor shaft.

When assembling the pump again, check the motor shaft for damages in the form of marks, burrs, or upsetting of the shaft end.

Damages, if any, are to be remedied by means of a file and fine emery cloth. This work has to be done very carefully, especially on new motors, the shaft ends of which are often damaged during transport. If this is not done carefully, the throw will be bigger than permitted and/or the pump shaft will scratch the motor shaft when fitted.

Normally, the pump shaft is to go relatively smoothly on the motor shaft (manually or by means of light strokes with a plastic hammer).

Tighten the pointed screws (the one in the middle first) in accordance with the torque indicated in the table (page 12) and finally check that the throw stays within the indicated limits by means of an indicator clock.



10. TESTING

After each repair check that the motor rotates easily before connecting the current. Also remember to check the direction of rotation and to ventilate the pump.

Pump Type	Puller	M: Tightening Torque	Max. Throw
PVLN1025.61/62 PVLN1025.41/42 PVLN1025.21/22/23		4 Nm 4 Nm 6 Nm	60 µm 60 µm 60 µm
PVLN1040.61/62/63 PVLN1040.42/43 PVLN1040.41 PVLN1040.21/22/23		4 Nm 4 Nm 6 Nm 6 Nm	60 µm 60 µm 60 µm 60 µm
PVLN1050.61/81 PVLN1050.41/42/43 PVLN1050.27/28 PVLN1050.22/23 PVLN1050.21	SK 336 SK 336 SK 337 SK 337 SK 338	6 Nm 6 Nm 18 Nm 18 Nm 30 Nm	60 µm 60 µm 60 µm 60 µm 70 µm
PVLN1065.61 PVLN1065.41/42	SK 336 SK 336	6 Nm 6 Nm	60 µm 60 µm
PVLN2065.41/42 PVLN2065.23 PVLN2065.21/22	SK 337 SK 338 SK 338	18 Nm 30 Nm 60 Nm	70 µm 70 µm 70 µm
PVLN0080.43/61 PVLN0080.42 PVLN0080.23/41 PVLN0080.21/22	SK 336 SK 336 SK 337 SK 338	6 Nm 18 Nm 18 Nm 30 Nm	60 µm 60 µm 60 µm 70 µm

Pump Type	Puller	M: Tightening Torque	Max. Throw
PVLN2080.41/42 PVLN2080.21/22/23	SK 337 SK 338	18 Nm 60 Nm	60 µm 70 µm
PVLN1100.41/61 PVLN2100.61 PVLN2100.41	SK 337 SK 337 SK 338	18 Nm 18 Nm 30 Nm	60 µm 60 µm 70 µm
PVLN2125.62 PVLN2125.44/45 PVLN2125.41/42/43	SK 339 SK 339 SK 340	18 Nm 30 Nm 60 Nm	60 µm 70 µm 70 µm
PVLN2150.62/82 PVLN2150.44/61 PVLN2150.42/43 PVLN2150.41	SK 339 SK 340 SK 340 SK 340	30 Nm 60 Nm 60 Nm 150 Nm	70 µm 70 µm 70 µm 80 µm
PVLN2200.83 PVLN2200.81/82 PVLN2200.61/62 PVLN2200.44/45 PVLN2200.41/42/43	SK 339 SK 340 SK 340 SK 340 SK 340	30 Nm 60 Nm 60 Nm 60 Nm 150 Nm	70 µm 70 µm 70 µm 70 µm 80 µm

Pumps with item number 69 XX XX:

Motor Size	Puller	M: Tightening Torque	Max. Throw
IEC 71		4 Nm	60 µm
IEC 80	SK 336	6 Nm	60 µm
IEC 90	SK 336	6 Nm	60 µm
IEC 100/112	SK 337	18 Nm	60 µm
IEC 132	SK 338	30 Nm	60 µm
IEC 160		60 Nm	70 µm

11. EU DECLARATION OF CONFORMITY

DESMI PUMPING TECHNOLOGY A/S, hereby declare that our pumps of the type PVLN, PVLB, PVLS and PVLJ are manufactured in conformity with the following essential safety and health requirements in the COUNCIL DIRECTIVE 2006/42/EC on machines, Annex 1.

The following harmonized standards have been used:

EN/ISO 13857:2008	Safety of machinery. Safety distances to prevent danger zones being reached by the upper limbs
EN 809:1998 + A1:2009	Pumps and pump units for liquids – Common safety requirements
EN12162:2001+A1:2009	Liquid pumps – Safety requirements – Procedure for hydrostatic testing
EN 60204-1:2006/A1:2009	Safety of machinery – Electrical equipment of machines (item 4, General requirements)

Pumps delivered by us connected with prime movers are CE-marked and comply with the above requirements.

Pumps delivered by us without prime movers (as partly completed machinery) must only be used when the prime mover and the connection between prime mover and pump comply with the above requirements.

Nørresundby, March 05 2019



Henrik Mørkholt Sørensen
Managing Director

DESMI Pumping Technology A/S
Tagholm 1
9400 Nørresundby

12. INFORMATION RELEVANT FOR DISASSEMBLY OR DISPOSAL AT END-OF-LIFE

No damage materials are used in DESMI pumps – please refer to DESMI Green Passport (can be sent on request – contact a DESMI sales office) – i.e. common recycling companies can handle the disposal at end-of-life. Alternatively the pump and motor can be returned to DESMI at end-of-life for safe recycling.

13. POSITION NUMBERS – PUMP (see next pages for PVLN1025 & 1040)

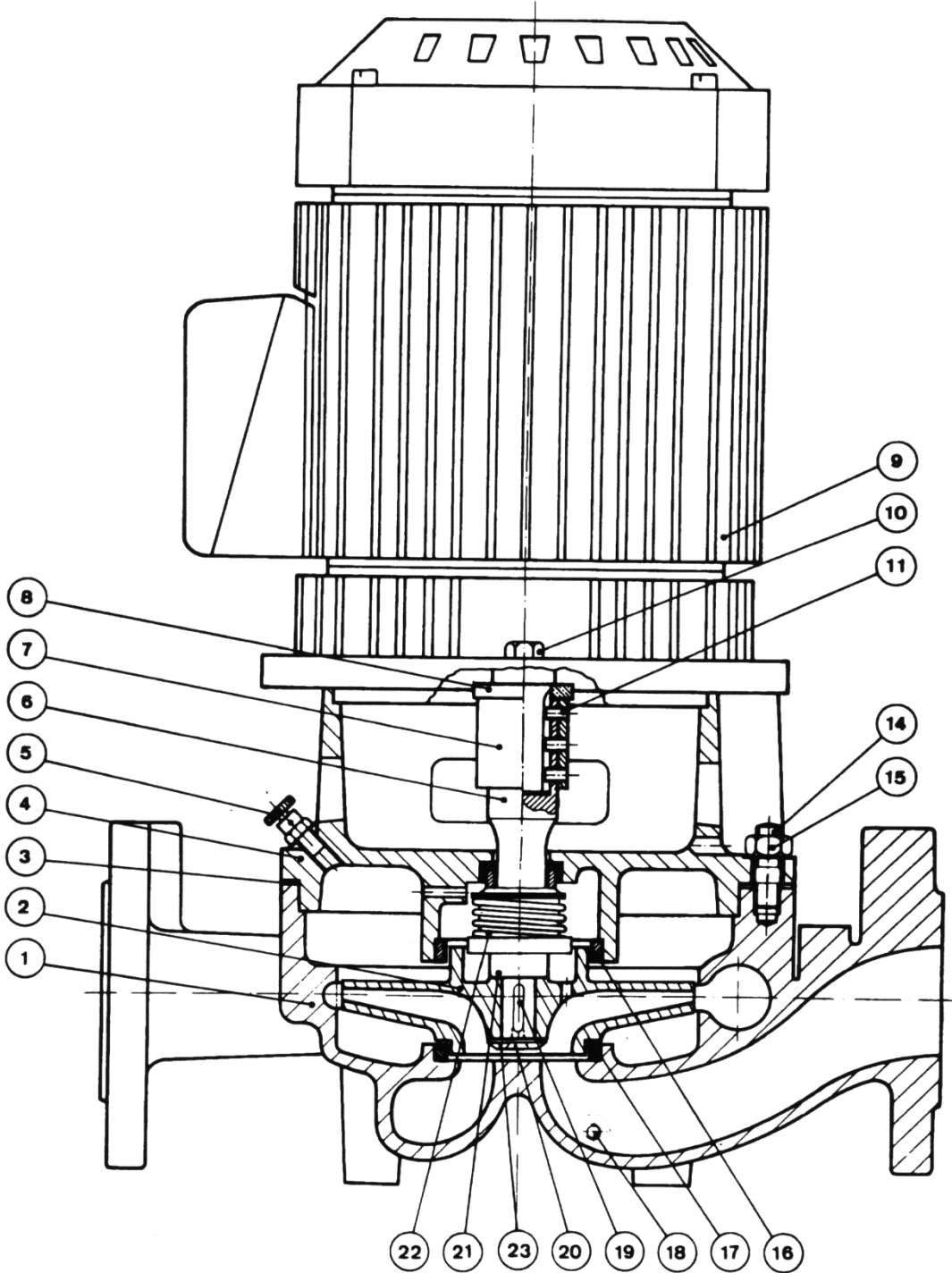
POS.	BENÆVNELSE	DESIGNATION	BEZEICHNUNG
1	Pumpehus	Pump casing	Pumpengehäuse
2	Løbehjul	Impeller	Laufgrad
3	Pakning	Gasket	Dichtung
4	Overdel	Top piece	Zwischengehäuse
5	Udluftningsventil	Air vent screw	Imbusschraube
6	Aksel	Pump shaft	Pumpenwelle
7	Akselbøsning	Shaft bush	Wellenbuchse
8	Aftrækkerflange	Dismantling flange	Abziehflansch
9	Motor	Motor	Motor
10*	Skruer	Screw	Schraube
11	Pinolskrue med krater	Pointed screw	Gewindestift
14	Pindbolt	Stud	Spannschraube
15	Møtrik	Nut	Mutter
16	Slutring, trykside	Seal ring, pressure	Spaltring druckseitig
17	Slutring, sugeside	Seal ring, suction	Spaltring saugseitig
18	Aftapningsskrue	Drain screw	Verschlussschraube
19	Pasfeder	Key	Passfeder
20	Skruer	Screw	Schraube
21	Afstandsbøsning	Space bushing	Abstandsbuchse
22	Mekanisk akseltætning	Mech. shaft seal	Gleitringdichtung
23	Spændeskive	Washer plate	Federscheibe

* Screw or stud + nut.

Pos. No. refers to drawing.

When ordering spare parts please state pump number, type number as well as position numbers and designation.

14. Assembly Drawing-Pump (see next pages for PVLN1025 & 1040)



15. POSITION NUMBERS – PVLN1025 & 1040

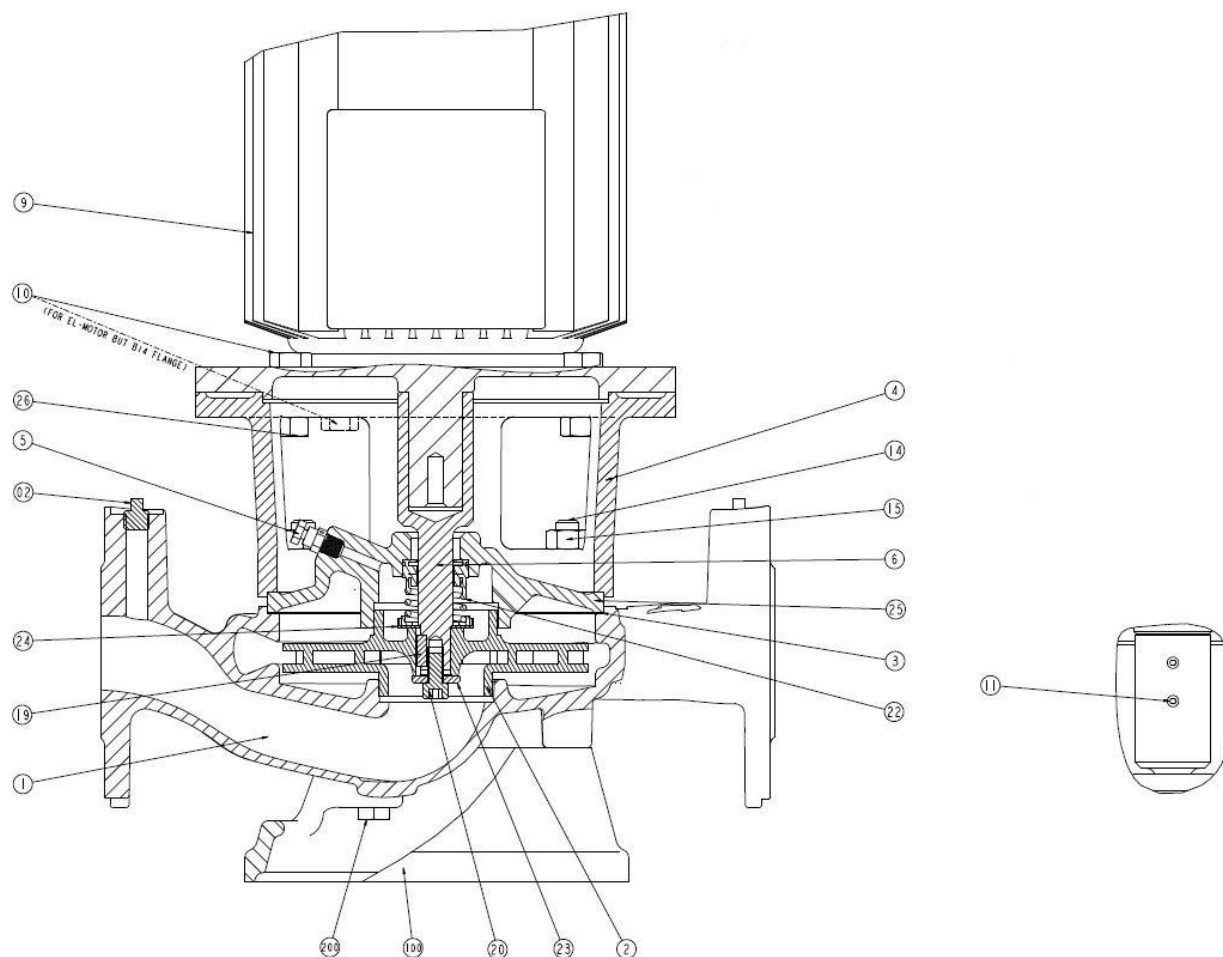
POS.	BENÆVNELSE	DESIGNATION	BEZEICHNUNG
1	Pumpehus	Pump casing	Pumpengehäuse
02	Prop	Plug	Stecker
2	Løbehjul	Impeller	Laufrad
3	Pakning	Gasket	Dichtung
4	Motorkonsol	Bracket	Halterung
5	Udluftningsventil	Air vent screw	Imbusschraube
6	Pumpe-aksel	Pump shaft	Pumpenwelle
9	Motor	Motor	Motor
10*	Skrue	Screw	Schraube
11	Pinolskrue med krater	Pointed screw	Gewindestift
14	Pindbolt	Stud	Spannschraube
15	Møtrik	Nut	Mutter
19	Pasfeder	Key	Passfeder
20	Skrue	Screw	Schraube
22	Mekanisk akseltætning	Mech. shaft seal	Gleitringdichtung
23	Spændeskive	Washer plate	Federscheibe
24	Fjederstyr	Spring holder	Federhalter
25	Bagdæksel	Cover	Abdeckung
26	Møtrik	Nut	Mutter
100	Fodplade	Base plate	Grundplatte
200	Aftapnings skrue	Drain screw	Verschlussschraube

* Screw or stud + nut.

Pos. No. refers to drawing.

When ordering spare parts please state pump number, type number as well as position numbers and designation.

16. Assembly Drawing – PVLN1025 & 1040



Pos. 26 for EL-motor but not B14 flange