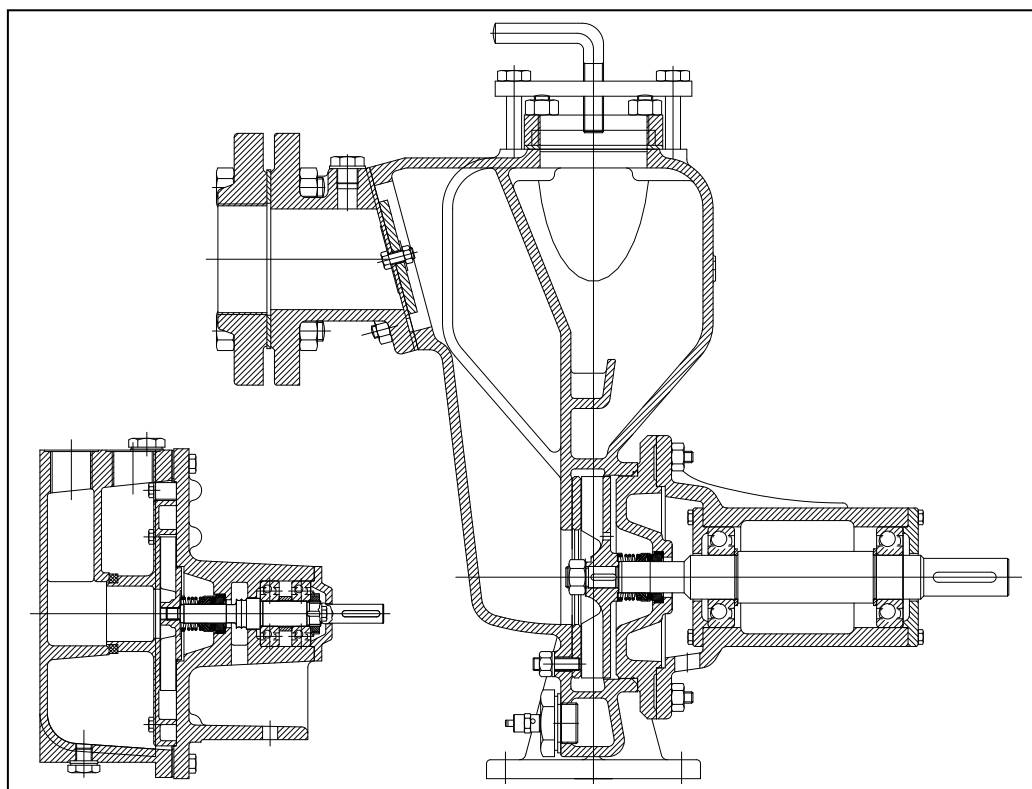


OPERATION AND MAINTENANCE INSTRUCTIONS

DESMI self-priming centrifugal pump TYPE SA



DESMI 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

Special pump No.....

Manual: T1345	Language: English	Revision: E (06/10)
------------------	----------------------	------------------------

TABLE OF CONTENTS	PAGE
1. PRODUCT DESCRIPTION	3
1.1 DELIVERY.....	3
2. TECHNICAL DATA	3
2.1 EXPLANATION OF THE TYPE NUMBER	3
2.2 TECHNICAL DESCRIPTION	5
3. INSTALLATION	6
3.1 MOUNTING/FASTENING	6
3.2 WIRING.....	6
4. TRANSPORT/ STORAGE	7
5. INSPECTING THE PUMP	7
5.1 INSPECTION	7
5.2 FITTING SHAFT SEAL.....	7
5.3 SHAFT	8
5.4 ALIGNING COUPLING	8
6. FROST PROTECTION	9
7. DISMANTLING.....	9
8. START-UP	9
8.1 STARTING	9
9. SYSTEM BALANCING	10
10. INSPECTION AND MAINTENANCE	13
10.1 DRAINING THE PUMP	13
10.2 BEARINGS.....	13
11. REPAIRS - ORDERING SPARE PARTS	13
12. OPERATING DATA	14
13. EU DECLARATION OF CONFORMITY	15

1. PRODUCT DESCRIPTION

These operation and maintenance instructions apply to the DESMI SA-pump series. The pumps are available in the sizes 3/4" BSP, 1" BSP, 1.5" BSP, 2" BSP, 2.5" BSP, 3" BSP, 4" BSP, 6" BSP, and ø200 welding flange on the pressure flange.

DESMI SA is a single-stage self-priming centrifugal pump with stainless steel shaft, and mechanical shaft seal. The SA-pump is further equipped with a semi-open impeller, which does not choke as easily as a closed impeller.

The pump is suited for clean and polluted liquids with temperatures between 0 and 80°C. With special shaft seal up to 140°C.

The suction branch of the pump is mounted well above impeller inlet. This is an advantage as the pump will not - in case of a clack flap leakage - lose all the priming water and consequently the priming ability.

The pump has heavy shaft and bearing design which provide a long life even in case of belt drive and diesel engine operation.

As the pump is self-priming, a foot valve will not be necessary on the suction line, just as the pump, contrary to ordinary centrifugal pumps, will resume pumping if, for a short moment, the liquid has been lowered to a level below the suction pipe.

The pump is particularly suitable for the pumping of water in connection with e.g. cooling of diesel engines, as bilge pump, ballast pump, irrigation, washing plants, air conditioning, cooling systems, and sanitary systems, etc. Furthermore, in the majority of cases where the transport of liquid is required within industry.

The pump must not be used in explosive zones, unless it is equipped with a special motor (EX).

1.1 DELIVERY

- Check on receipt that the delivery is complete and undamaged.
- Defects and damages, if any, to be reported to the carrier and the supplier immediately in order that a claim can be advanced.

2. TECHNICAL DATA

The pumps are manufactured in various material combinations which appear from the type number on the name plate. See below.

2.1 EXPLANATION OF THE TYPE NUMBER

All the SA-pumps are provided with a name plate. The type number indicated on the name plate is built up as follows:

SA-XXX-YYY-ZZ-MRO

XXX,YYY,ZZ : Pump size where

XXX : Suction branch diameter.

YYY : Standard impeller diameter.

ZZ : Height of the impeller blades.

M : The material combination of the pump.

R : The assembly combination of the pump.

O : The direction of rotation of the pump, anti-clockwise/clockwise.

M may be the following:

A : Standard. casing: GG20. Impeller/wear plate: RG5.

B : Standard. casing: GG20. Impeller/wear plate: SIS 2332.

C : All cast iron.

D : Casing: RG5. Impeller/wear plate: RG5.

E : All stainless material.

F : All aluminium.

The pumps are available in other material combinations at request.

R may be the following:

01 : Flange-mounted with magnetic clutch and pulley.

02 : Flange-mounted with electric motor.

03 : Flange-mounted with hydraulic motor, or with petrol or diesel engine.

04 : Mounted with manual disengaging clutch and pulley.

05 : Mounted with manual disengaging clutch for direct coupling.

06 : Mounted on base frame with V-belt drive.

07 : Mounted on base frame with petrol or diesel engine, or with hydraulic or electric motor.

08 : Mounted on a trolley with petrol or diesel engine, or with hydraulic or electric motor.

09 : With bare shaft end.

10 : Special-tailored according to task.

Before putting a pump into operation, the suitability of the material combination of the pump must always be taken into consideration. In case of doubt, contact the supplier.

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

Pumps in material combination D are primarily used for sea water.

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

Pump No. :

Pump type :

Application :

Comment :

2.2 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 of the motor appears from the instruction manual for the motor.

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

All pumps from size SA35 (inclusive) are equipped with a relief valve, see paragraph 8.

The permissible loads on the flanges are indicated in the following table:

Pump	Fv (N)	Fh (N)	3 F (N)	3 Mt (Nm)
SA-20-90	500	400	640	80
SA-25-122	650	500	820	100
SA-35-135	900	700	1140	140
SA-50-180	1250	950	1550	170
SA-65-250	1350	1000	1700	250
SA-80-160	1450	1050	1800	270
SA-80-220	1450	1050	1800	270
SA-100-235	1800	1250	2200	470
SA-125-235	3300	2000	3850	1020
SA-150-260	4500	2900	5350	1550
SA-200-320	5000	3250	5950	1750

Fv : The max. permissible sum of the vertical forces on the two flanges.

Fh : The max. permissible sum of the horizontal forces on the two flanges.

3 F : The vectorial sum of the two forces Fv and Fh.

3 Mt : The max. permissible sum of the torques on the two flanges.

In connection with the permissible loads on the flanges the following is to be observed:

$$\left(\frac{\sum F_{calc}}{\sum F} \right)^2 + \left(\frac{\sum M_{calc}}{\sum M_t} \right)^2 < 2$$

where index "calc" is the values calculated by the user.

3 . INSTALLATION

3.1 MOUNTING/FASTENING

The pump should be mounted and fastened on a solid base plate with a flat and horizontal surface to avoid distortion. Check that the centre line of the shaft is horizontal.

The max. permissible loads on the flanges stated in paragraph 2.2. are to be observed.

When mounting a V-belt pulley on the pump an H7 bore is recommended. To facilitate the mounting, the hub on the V-belt pulley can be heated to abt. 100°C, after which the V-belt pulley is easily lead over the shaft towards the shoulder. Alternatively, a V-belt pulley may be mounted with a TAPER LOCK bush.

When dimensioning the V-belt drive it is important to follow the rules of the DESMI nomograms for the pump size in question - contact DESMI.

The suction line to the pump is to be mounted carefully, so that it is absolutely tight, as even small leakages may impede the priming. When pumping polluted liquids a strainer is necessary. The strainer must be equipped with a sieve, the passage area of which is to be 3 x the area of the suction pipe. The mesh size is to be 1-3 mm smaller than the height of the impeller blades of the pump in question.

The pipes are to be arranged in such a way that stresses resulting from fluctuations in temperature will not have any effect on the pump. Because of the priming of the pump the pressure pipe is to be arranged so that water locks in the pipe are avoided. If the pump is to be driven by a motor through a flexible coupling, motor and coupling are to be placed on a common base plate. In this connection the following must be observed:

- Avoid distortion of the base plate.
- Avoid distortion of the piping system.
- Check carefully that pump and motor are aligned accurately.



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

When connecting the pump and a prime mover the power transmission is to be equipped with a guard in accordance with the provisions of the COUNCIL DIRECTIVE OF June 14, 1989, on the safety of machines.

3.2 WIRING



Wiring to be carried out by authorised skilled workmen according to the rules and regulations in force.

4. TRANSPORT/ STORAGE

The weights of the pumps (in A09 combination) are stated in the following table:

Pump	Weight kg	Pump	Weight kg
SA-20-90	15	SA-80-220	125
SA-25-122	20	SA-100-235	125
SA-35-135	30	SA-125-235	125
SA-50-180	39	SA-150-260	215
SA-65-250	105	SA-200-320	500
SA-80-160	75		

Lift the pump by placing the rope around it and see to it that the pump is balanced.

The rope must not bear against sharp edges and corners.

Lifting eyes might be mounted in the pump and used instead. The pump weights appear from the above table.

Before shipment the pump is to be fastened securely on a pallet or the like.

The pump is to be stored in a dry area.

5. INSPECTING THE PUMP**5.1 INSPECTION**

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

- Wear plate/impeller : Max. clearance 0.4 - 0.5 mm.
- Shaft seal/rear cover : Check seat for flatness and cracks.
Check rubber parts for elasticity.
- Bearings : Replace in case of wear and noise.

5.2 FITTING SHAFT SEAL

Before fitting the seat, clean the recess in the intermediate cover. When fitting the seat, remove the protective coating without scratching the lapped surface. Dip the outer rubber ring of the seat in olive oil (or another neutral oil). Now press the seat into place with the fingers, and check that all parts are correctly imbedded.

If it is necessary to use fitting tools, protect the sliding surface of the seat to prevent it from being scratched or cut. Lubricate the inner diameter of the rubber bellows on the slide ring with olive oil and push it over the shaft.

The use of a 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 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.

If the pump is equipped with a shaft seal type different from a rubber bellows seal, contact DESMI and ask for an installation instruction.

5.3 SHAFT

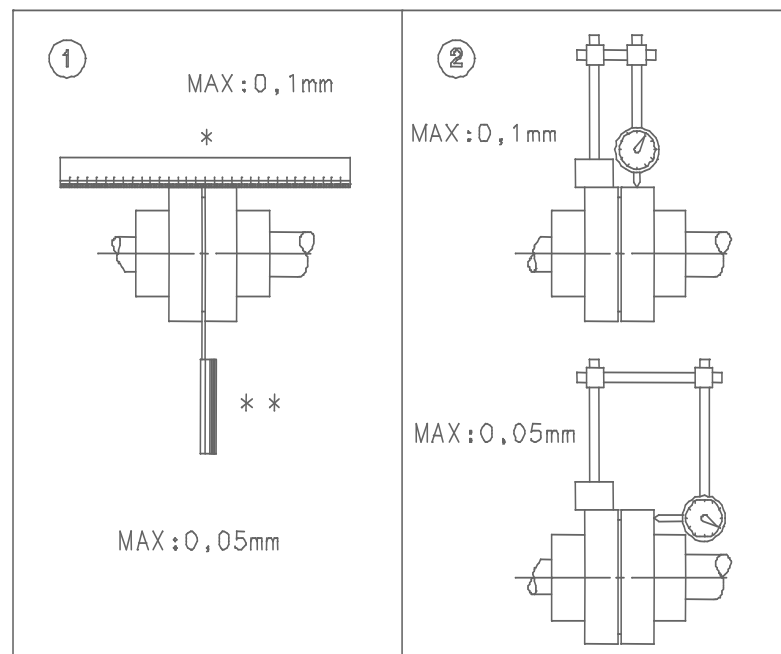
When the pump has been assembled, check that the shaft rotates freely.

5.4 ALIGNING COUPLING

In order to avoid break-downs of a pump coupled to a motor on the same base plate through a flexible coupling, the following should be observed:

1. Avoid distortion of the base plate.
2. Avoid distortion in the piping system.
3. Check on the coupling that pump and motor are aligned accurately.

Below please find 2 proposals for alignment. The deviations mentioned cover a complete revolution



of the coupling. The distance between the coupling halves is to be between 2 and 4 mm.

- * : Steel ruler.
- ** : Thickness gauge.

6. FROST PROTECTION

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

7. 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.

8. START-UP



A self-priming centrifugal pump will not function until the pump casing has been filled with liquid. Remove the plug at the top of the pump casing and fill the pump with cold liquid. Fit the plug and the pump is ready for service.

The liquid also serves as coolant for the shaft seal. Consequently, the pump must under no circumstances be started before it has been primed with liquid. Furthermore, the pump must never run dry.

WARNING

For safety reasons the pump is only allowed to operate against a closed discharge valve for a short time (max. 5-10 minutes and at a max. temperature of 130°C). To protect the pump against unintentional operation it is equipped with a relief valve which opens at a pre-set pressure.

Be careful: When the valve opens, the escaping liquid will be hot.

The relief valve must in **no** circumstances be removed or re-adjusted !

As regards maintenance of the relief valve - see paragraph 10.

8.1 STARTING

Before starting the pump check that

- the shaft rotates freely without jarring sounds.
- the pump casing is filled with liquid.

Start the pump for a moment to check the direction of rotation. If the direction is correct (i.e. in the direction of the arrow), the pump may be started.

9. SYSTEM BALANCING

It is often difficult to calculate a manometric delivery head in advance. It is, however, decisively important to the quantity of liquid delivered.

A considerably smaller delivery head than expected will increase the quantity of liquid delivered, causing increased power consumption and perhaps cavitation in pump and piping. In the pump the impeller may show signs of heavy erosion caused by cavitation (corrosion) which may at times render an impeller unfit for use in a very short time. Not unusually do similar erosions occur in pipe bends and valves elsewhere in the piping system.

Therefore, after start-up, it is necessary to check either the quantity of liquid delivered or the power consumption of the pump e.g. by measuring the current intensity of the connected motor. Together with a reading of the differential pressure the quantity of water delivered can be determined against the characteristics of the pump.

Should the pump not function as intended, please proceed according to the fault-finding list. Bear in mind, though, that the pump was carefully checked and tested at the factory and that the majority of faults stem from the piping system.

FAULT	CAUSE	REMEDY
The pump does not prime	<ol style="list-style-type: none"> 1. The pump is not filled with liquid 2. Leaking non-return valve in pump 3. Wrong direction of rotation 4. Air is drawn in because of too little liquid or leaking suction line 5. Liquid lock in outlet line 6. Temperature of liquid too high 7. Air cannot escape on pressure side 	<p>Fill pump casing with liquid</p> <p>Remove foreign body in pump/Remove any coating on mating faces</p> <p>Change direction of rotation</p> <p>Lower suction pipe/Tighten suction line</p> <p>Change the pressure line so that the air can pass out freely</p> <p>Replace liquid in pump casing/Wrong dimensioning/</p> <p>Contact DESMI</p> <p>Ventilate the system</p>

<p>The pump has no or too low capacity</p>	<ol style="list-style-type: none">1. Wrong direction of rotation2. Piping system choked3. The pump is choked4. Suction line leaks, pump takes air5. Suction lift too high6. Pump and piping system wrongly dimensioned7. RPM too low	<p>Change direction of rotation to clockwise when viewed from shaft end (the direction of the arrow) Clean or replace Clean the pump Find the leakage, repair the fault, non-return valve not submerged Check data sheet Q/H curve and NPSH or contact DESMI As 5</p> <p>Fit smaller V-belt pulley on pump. Change RPM of electric motor</p>
--	--	--

FAULT	CAUSE	REMEDY
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 5. RPM too high 6. Pump and electric motor not aligned. 	<p>Insert orifice plate or check valve/Contact DESMI Contact DESMI</p> <p>Dismantle the pump, remove the cause Check fuses, cable connection, and cable</p> <p>Fit bigger V-belt pulley on pump. Change RPM of electric motor. Align unit (see para. about alignment)</p>
The pump capacity is unstable	<ol style="list-style-type: none"> 1. Suction line leaks 2. Air pockets in suction line 3. The pump takes air 	<p>Tighten suction line Normally the disappear in a short time Liquid reservoir emptied/ Suction line not sufficiently submerged</p>
The pump makes noise	<ol style="list-style-type: none"> 1. Cavitation in pump 2. Incorrect alignment 3. Defective bearings 	<p>Suction lift too high/ Suction line wrongly dimensioned/Liquid temperature too high. Align the pump and motor (see para. about alignment) Replace bearings</p>

10. INSPECTION AND MAINTENANCE

- Before any inspection of the pump, check that the unit cannot be started unintentionally.
- The system is to be without pressure and drained of liquid.
- The repairman must be familiar with the type of liquid which has been pumped as well as with the safety measures he is to take when handling the liquid.
- Inspect the shaft seal for leaks at regular intervals.
- Activate the relief valve at regular intervals in order to check the function. If the valve is choked, replace or clean it, if possible.

10.1 DRAINING THE PUMP

When the piping system has been drained, note that there is still some liquid left in the pump. Remove the remaining liquid by dismantling the pipe plug at the bottom of the pump.

10.2 BEARINGS

The pump is equipped with ball bearings which were lubricated for life before leaving the factory. Therefore, they require no attention but are to be replaced in case of noise or bearing wear. Place a bead of grease on the sides of cleaned or newly mounted bearings. As far as semi-closed bearings are concerned, place grease on the open side of the bearing only.

A recommended grease quality on a lithium-basis is used:

ESSO	Beacon 2
BP	Energol EP grease 2
Shell	Alvania grease 2
Mobil	Mobil lux grease EP 2 or Mobil plex 47
Castrol	Spherol AP2
Texaco	Multifak EP 2
Q8	Rembrandt EP 2 and Rubens
Statoil	Statoil Uniway U2

11. REPAIRS - ORDERING SPARE PARTS

When ordering spare parts please always state pump type and pump No. (appears on the name plate of the pump). See also spare parts drawing with item Nos.

12. OPERATING DATA

The following working pressures are allowed:

PUMP	SA-20-90	SA-25-122	SA-35-135	SA-50-180	SA-65-250/6-8	SA-65-250/17
PRESSUR E [bar]	4	4	4	5.5	8	6
PUMP	SA-80-160	SA-80-220	SA-100-235	SA-125-235	SA-150-260	SA-200-320
PRESSUR E [bar]	5.5	8	5	5	5	5

The above-mentioned max. working pressure is **NOT** valid for pumps approved by a classification society. Pumps approved by classification societies have been pressure tested according to the requirements of these societies, i.e. a test pressure of 1.5 x the permissible working pressure. The test pressure is stated in the test certificate and stamped into the discharge flange of the pump.

The following max. numbers of revolutions are allowed for SA-pumps with full impeller diameter:

Pump	Max. Number of Revolutions	Pump	Max. Number of Revolutions
SA-20-90/9	3500 RPM	SA-65-250/17	2500 RPM
SA-25-122/12	3500 RPM	SA-80-160/17	3500 RPM
SA-35-135/12	3500 RPM	SA-80-220/17	3500 RPM
SA-50-180/4	3500 RPM	SA-100-235/28	2500 RPM
SA-50-180/6	2900 RPM	SA-125-235/32,5	2500 RPM
SA-50-180/8	2500 RPM *	SA-150-260/33	2200 RPM
SA-65-250/6	3500 RPM	SA-200-320/50	2000 RPM
SA-65-250/8	3500 RPM		

* SA-50-180/8 is, however, allowed to run at max. 3000 RPM when used as a fire pump.

The capacities of the pumps appear on the name plates.

13. EU DECLARATION OF CONFORMITY

DESMI A/S, hereby declare that our pumps of the SA type 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 294:1994	Safety of machinery. Safety distances to prevent danger zones being reached by the upper limbs
EN 809 + A1	Pumps and pump units for liquids – Common safety requirements
EN 12162:2001	Liquid pumps – Safety requirements – Procedure for hydrostatic testing
EN 60204-1:2006	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.

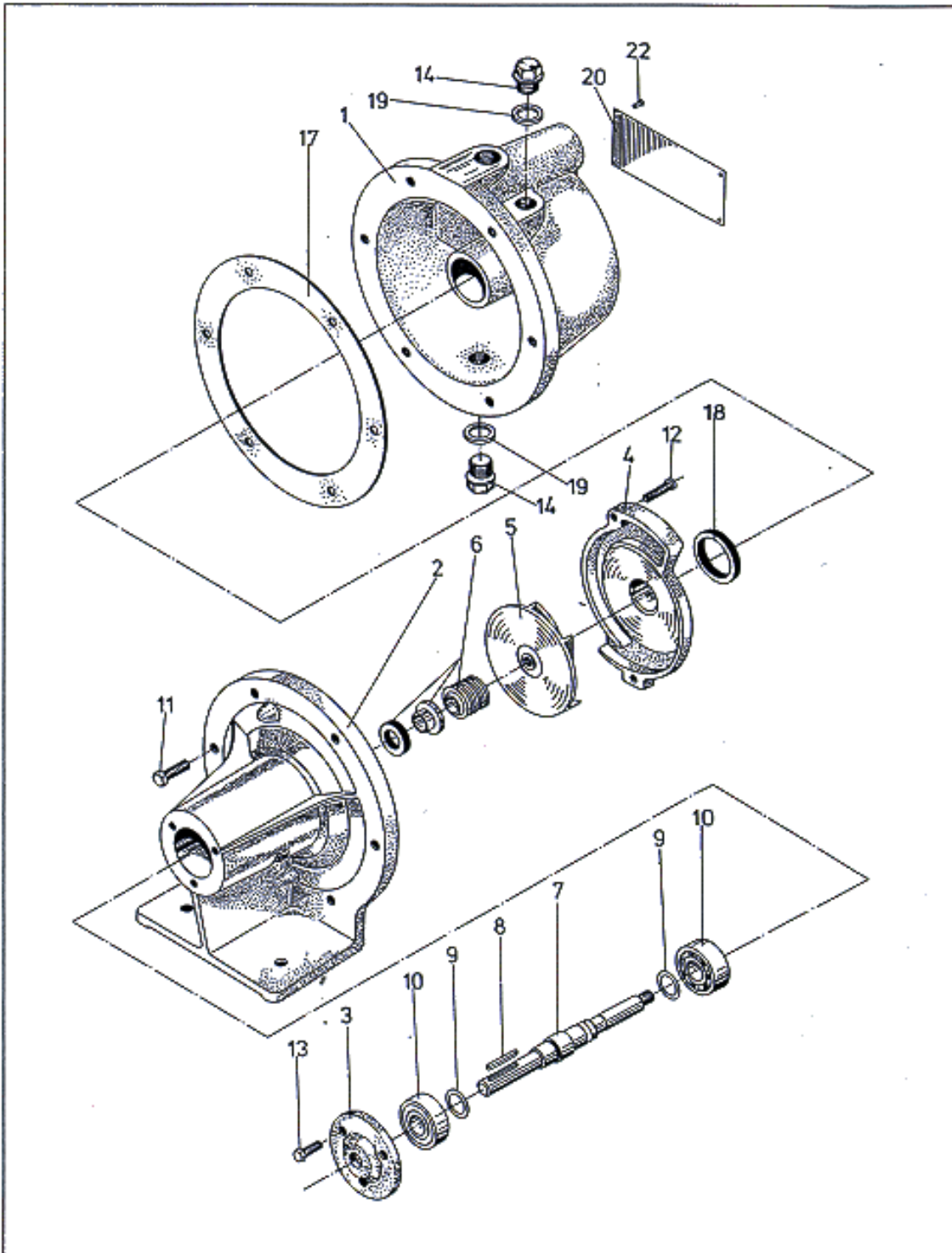
Pumps delivered by us without prime movers (as partly completed machinery) must only be used when the prime mover and the connection between prime mover and pump comply with the above requirements.

Nørresundby, June 1, 2010



Kurt Bech Christensen
Technical Director

DESMI A/S
Tagholm 1
9400 Nørresundby

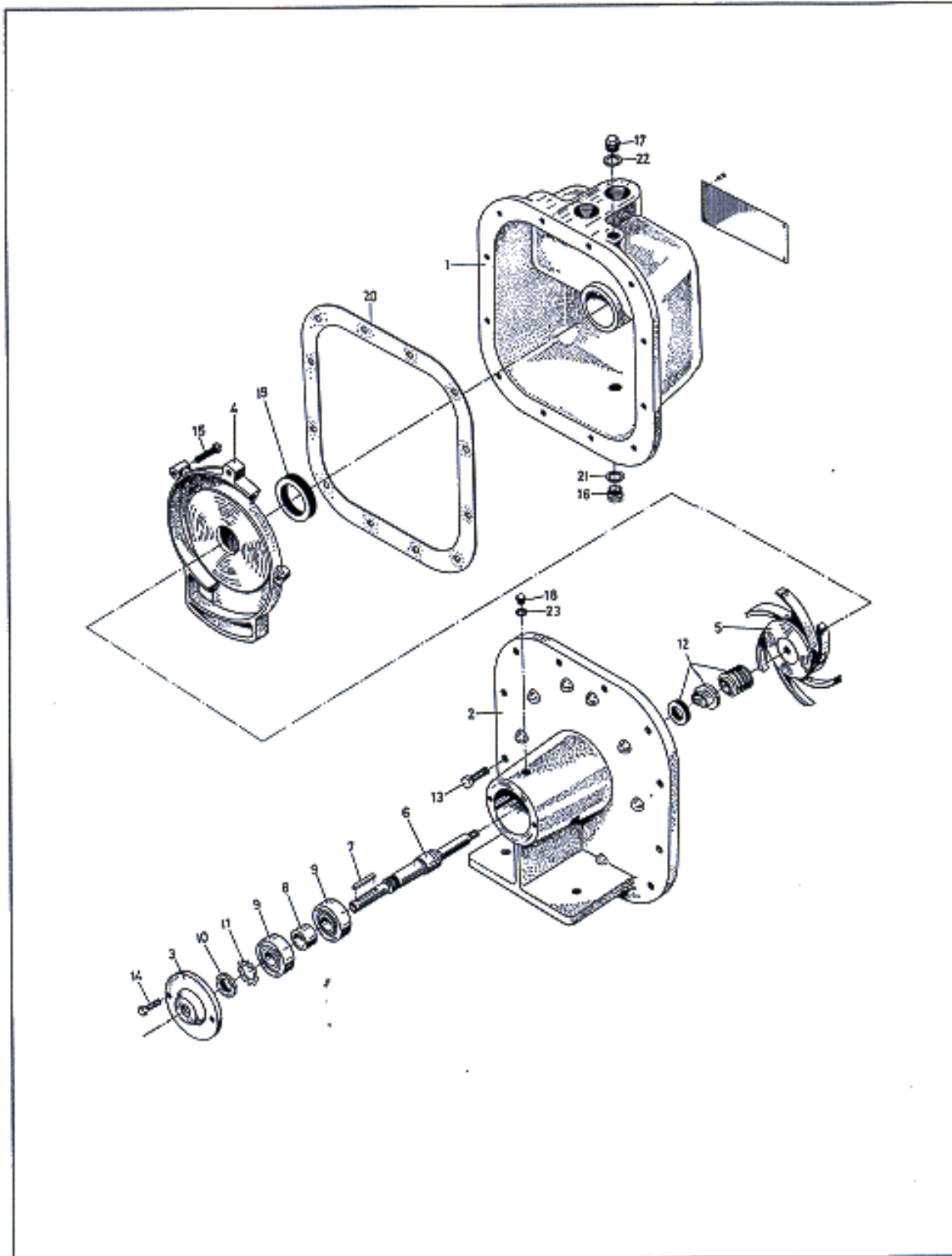


 <p>A/S De Smithske P.O.Box 226 DK-9100 Nørresundby, Denmark. Phone: +45 98 17 81 55 Telex: 6 96 20 Telefax: +45 98 17 54 99</p>	<p>SA-20-90/9</p>	<p>40 16 40a</p>
	<p>RESERVEDELSTEGNING</p>	<p>side 1 of 2 sider</p>
	<p>SPARE PARTS DRAWING</p>	<p>Dato 94.12.21</p>
	<p>ERSATZTEIL-ZEICHNUNG</p>	<p>Udført af JU</p>

Subject to alterations

ALL RIGHTS RESERVED © DESMI

SA-20-90/9				
Pos. Item No.	Antal Qty Anzahl	Benævnelse	Designation	Benennung
1	1	Pumpehus	Pump casing	Pumpengehäuse
2	1	Lejesokkel	Bearing housing	Lagergehäuse
3	1	Lejedæksel	Cover	Lagerdeckel
4	1	Ledeapparat	Guide vane piece	Leitrad
5	1	Løbehjul	Impeller	Lauftrad
6	1	Mek. tætning	Mech. shaft seal	Gleitringdichtung
7	1	Aksel	Shaft	Welle
8	1	Feder 5x5x30	Sunk key 5x5x30	Passfeder 5x5x30
9	2	SS skive 20x28x2	SS washer 20x28x2	SS Scheibe 20x28x2
10	2	Kugleleje 6204 RS	Ball bearing 6204 RS	Kugellager 6204 RS
11	6	Sætskrue M8x25	Set screw M8x25	Setzschraube M8x25
12	2	Sætskrue M6x 25	Set screw M6x25	Setzschraube M6x25
13	3	Sætskrue M6x16	Set screw M6x16	Setzschraube M6x16
14	2	Rørprop 1/2" RG	Pipe plug 1/2@ BSP	Stopfen 1/2@ R
17	1	Pakning	Gasket	Dichtung
18	1	Pakning	Gasket	Dichtung
19	2	Dowty selon 1/2@ RG	Dowty selon 1/2@ BSP	Dowty selon 1/2@ R



A/S De Smithske

P.O. Box 226 DK-9400 Nørresundby, Denmark.
 Phone: +45 98 17 81 11 Telex: 6 96 20
 Telefax: +45 98 17 34 88

SA-25-122/12

RESERVEDELSTEGNING
 SPARE PARTS DRAWING
 ERSATZTEIL-ZEICHNUNG

40 07 01a

side 1 of 2 sider

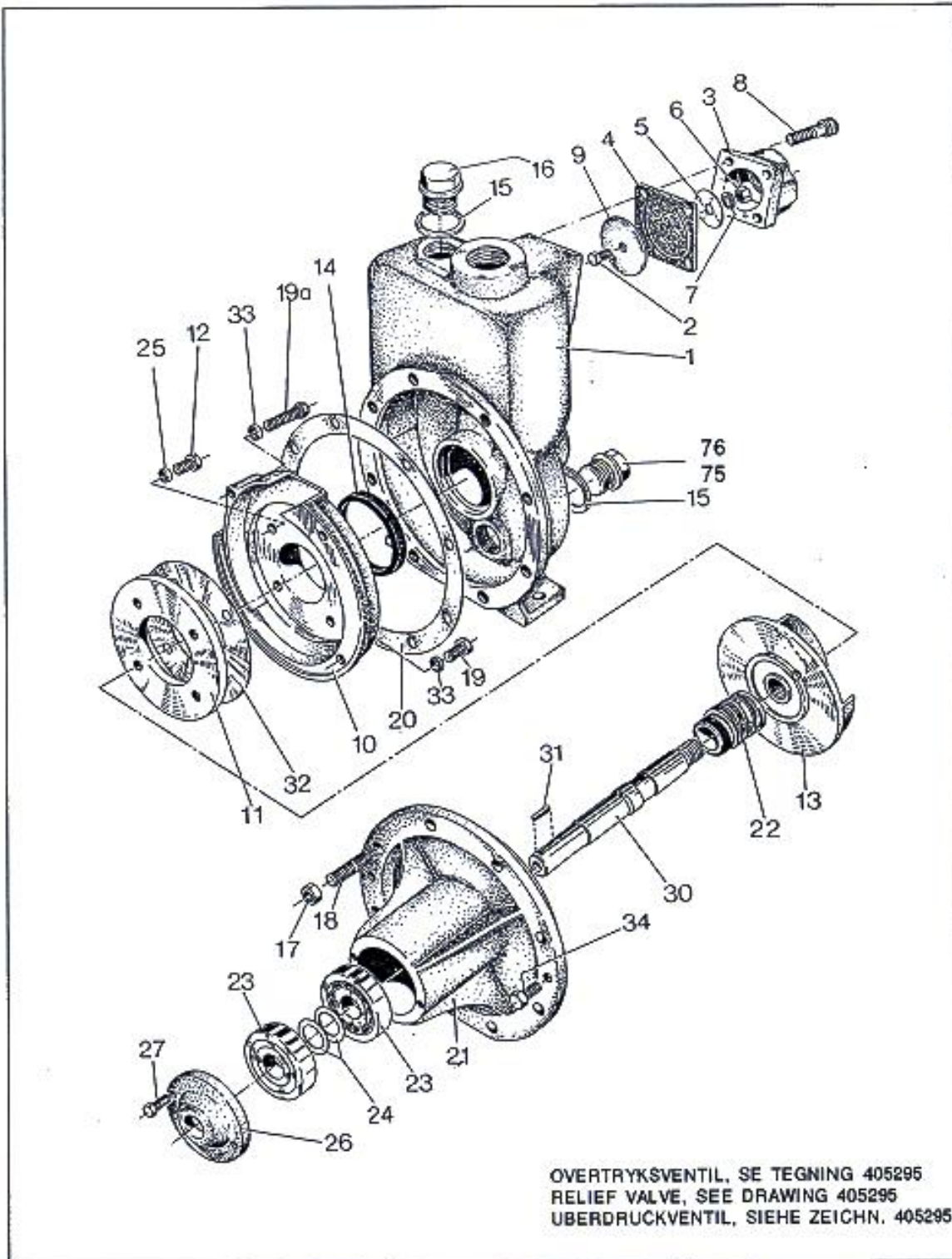
Date 94.12.21

Udført af JJ

Subject to alterations

ALL RIGHTS RESERVED © DESMI

SA-25-122/12				
Pos. Item No.	Antal Qty Anzahl	Benævnelse	Designation	Benennung
1	1	Pumpehus	Pump casing	Pumpengehäuse
2	1	Lejekonsol	Bearing housing	Lagergehäuse
3	1	Lejedæksel	Cover	Lagerdeckel
4	1	Ledeapparat	Guide vane piece	Leitrad
5	1	Løbehjul	Impeller	Lauftrad
6	1	Aksel	Shaft	Welle
7	1	Pasfeder	Sunk key	Passfeder
8	1	Afstandsring	Distance sleeve	Distanzbuchse
9	1	Kugleleje 6304 RS	Ball bearing 6304 RS	Kugellager 6304 RS
10	1	Låsemøtrik KM 4	Lock nut KM 4	Sicherungsmutter KM 4
11	1	Låseblek MB 4	Lock washer MB 4	Sicherungsblech MB 4
12	1	Akseltætning ø15	Mech. shaft seal ø15	Gleitringdichtung ø15
13	12	Sætskrue 5/16" WGx25	Set screw 5/16" BSWx25	Schraube 5/16" x25
14	2	Sætskrue 1/4" WGx15	Set screw 1/4" BSWx15	Schraube 1/4" x15
15	4	Sætskrue 1/4" WGx25	Set screw 1/4" BSWx25	Schraube 1/4" x25
16	1	Rørprop 1/4" RG	Pipe plug 1/4" BSP	Stopfen R 1/4"
17	1	Rørprop 3/8" RG	Pipe plug 3/8" BSP	Stopfen R 3/8"
18	1	Rørprop 1/8" RG	Pipe plug 1/8" BSP	Stopfen R 1/8"
19	1	Pakring f. ledeapparat	Packing ring	Dichtung für Leitrad
20	1	Flangepakning	Gasket	Dichtung
21	1	Dowty selon 1/4" RG	Dowty selon 1/4" BSP	Dowty selon R 1/4"
22	1	Dowty selon 3/8" RG	Dowty selon 3/8" BSP	Dowty selon R 3/8"
23	1	Dowty selon 1/8" RG	Dowty selon 1/8" BSP	Dowty selon R 1/8"



OVERTRYKSVENTIL, SE TEGNING 405295
 RELIEF VALVE, SEE DRAWING 405295
 UBERDRUCKVENTIL, SIEHE ZEICHN. 405295



A/S De Smithske

P.O. Box 226 DK-9402 Nørresundby, Denmark.
 Phone: +45 88 13 81 11 Telex: 6 96 20
 Telefax: +45 98 13 34 88

SA-35-135/12

RESERVEDELSTEGNING
 SPARE PARTS DRAWING
 ERSATZTEIL-ZEICHNUNG

40 16 42a

side 1 of 2 sider

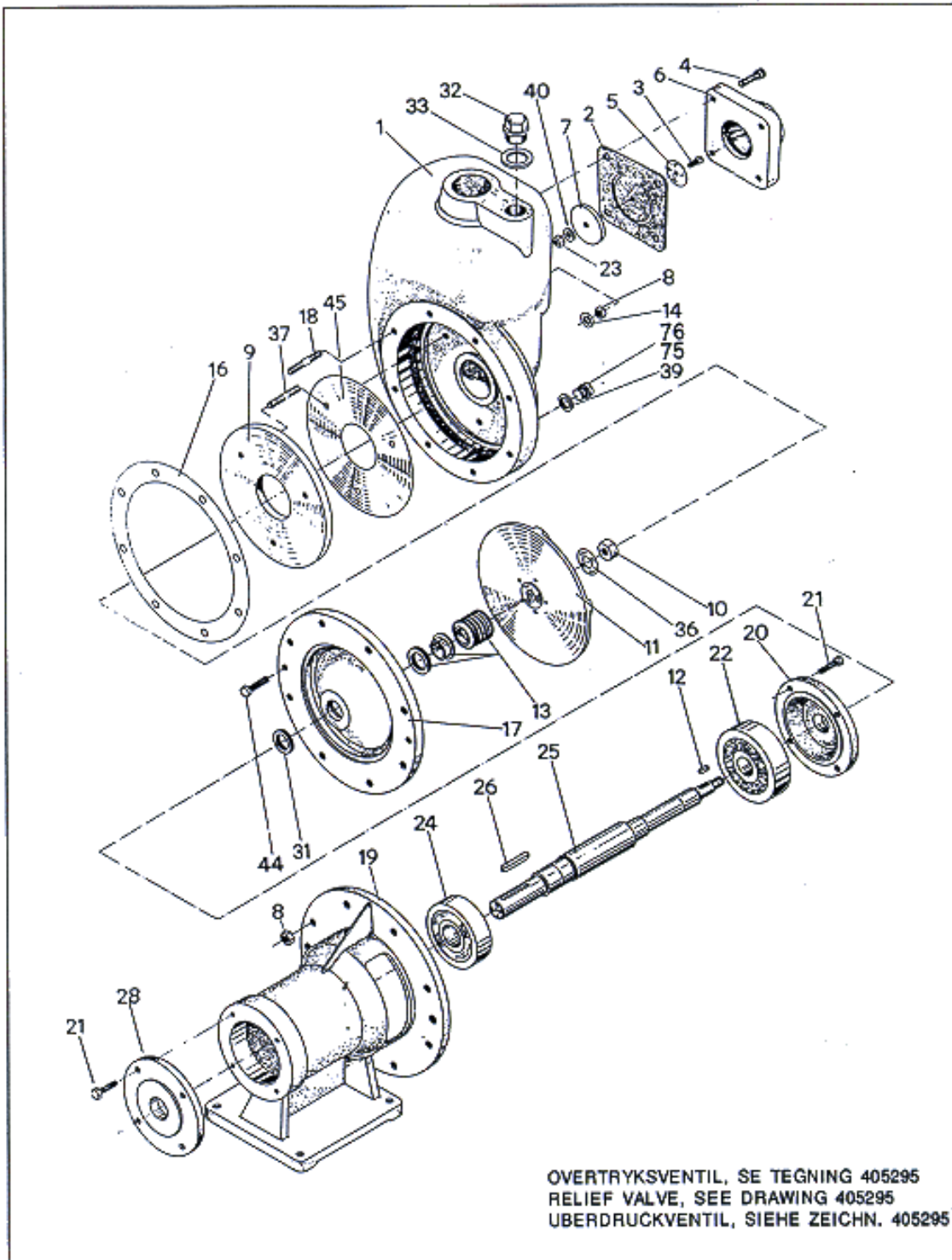
Date 94.12.21

Udført af JJ


Subject to alterations

ALL RIGHTS RESERVED © DESMI

SA-35-135/12				
Pos. Item No.	Antal Qty Anzahl	Benævnelse	Designation	Benennung
1	1	Pumpehus	Pump casing	Pumpengehäuse
2	1	Sætskrue M6x16	Set screw M6x16	Setzschraube M6x16
3	1	Sugestuds	Suction piece	Saugstutzen
4	1	Hjerteklap	Clack valve	Ventilklappe
5	1	Spændeplade	Washer	Scheibe
6	1	Møtrik M6	Nut M6	Mutter M6
7	1	Dubo ring M6	Dubo ring M6	Dubo Ring M6
8	4	Cylinderskrue M10x25	Cheese-head screw M10x25	Zylinderschraube M10x25
9	1	Hjerteklapplade	Clack valve plate	Platte für Ventilklappe
10	1	Ledeapparat	Guide vane piece	Leitrad
11	1	Slidplade	Wear plate	Schleissring
12	4	Sætskrue M6x16	Set screw M6x16	Setzschraube M6x16
13	1	Løbehjul	Impeller	Lauftrad
14	1	Pakning	Gasket	Dichtung
15	2	Dowty selon 1/2@ RG	Dowty selon 1/2@ BSP	Dowty selon 1/2@ R
16	1	Rørprop 1/2@ RG	Pipe plug 1/2@ BSP	Stopfen 1/2@ R
17	8	Møtrik M10	Nut M10	Mutter M10
18	8	Tapskrue M10x35	Stud M10x35	Stiftschraube M10x35
19	2	Sætskrue M6x20	Set screw M6x20	Setzschraube M6x20
19a	1	Sætskrue M6x40	Set screw M6x40	Setzschraube M6x40
20	1	Pakning	Gasket	Dichtung
21	1	Lejehus	Bearing housing	Lagergehäuse
22	1	Mek. tætning	Mech. shaft seal	Gleitringdichtung
23	2	Kugleleje 6304 RS	Ball bearing 6304 RS	Kugellager 6304 RS
24	2	SS skive 20x28x2	SS washer 20x28x2	SS Scheibe 20x28x2
25	4	Dubo ring M6	Dubo ring M6	Dubo Ring M6
26	1	Lejedæksel	Cover	Lagerdeckel
27	2	Sætskrue M6x16	Set screw M6x16	Setzschraube M6x16
30	1	Aksel	Shaft	Welle
31	1	Feder 6x6x30	Sunk key 6x6x30	Passfeder 6x6x30
32	2	Mellemlæg	Shim	Zwischenlage
33	3	Dubo ring M6	Dubo ring M6	Dubo Ring M6
34	2	Sætskrue M10x20	Set screw M10x20	Setzschraube M10x20
75	1	Rørprop	Pipe plug	Stopfen
76	1	Overtryksventil	Relief valve	Überdruckventil



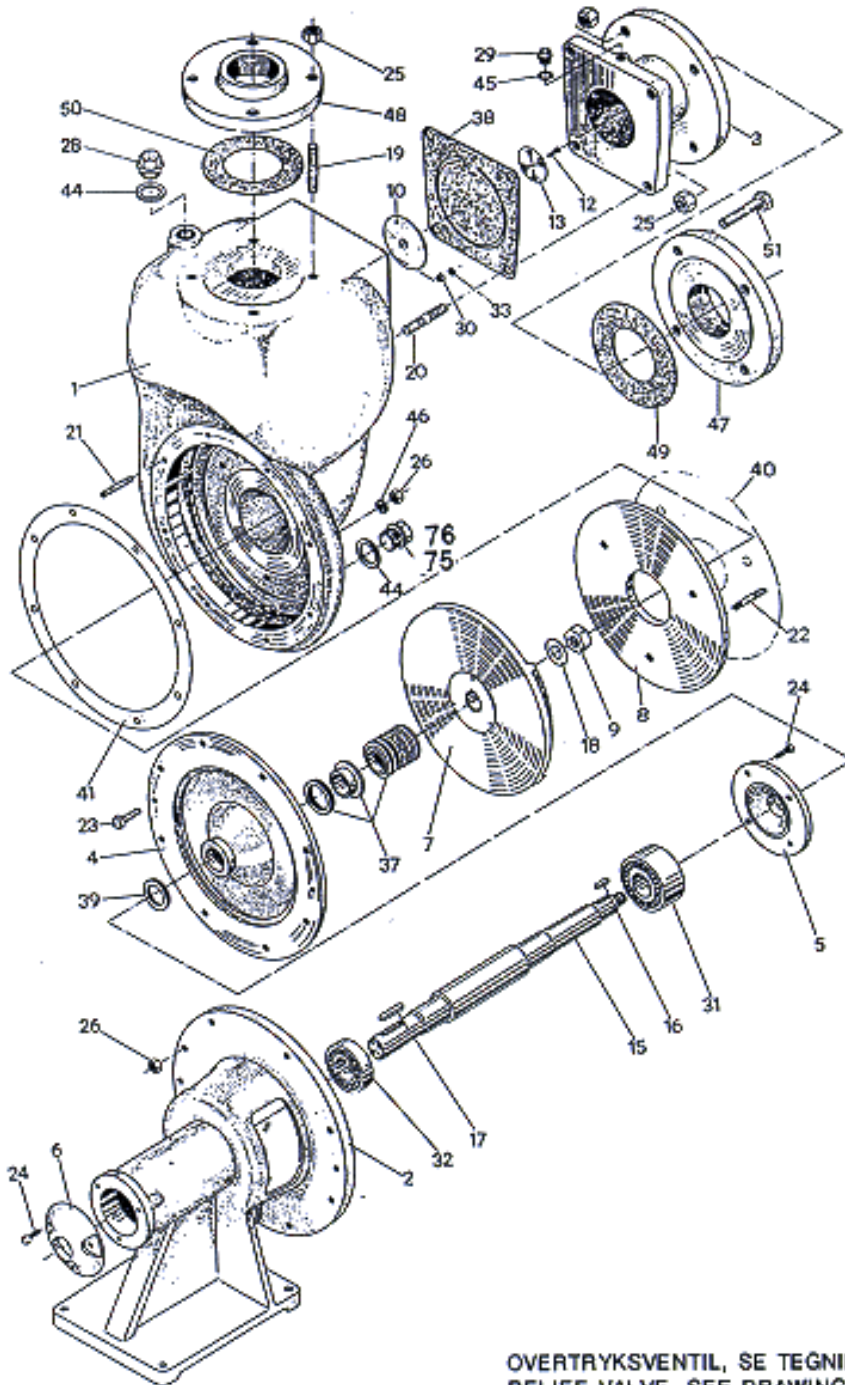
OVERTRYKSVENTIL, SE TEGNING 405295
 RELIEF VALVE, SEE DRAWING 405295
 ÜBERDRUCKVENTIL, SIEHE ZEICHN. 405295

 <p>A/S De Smithske P.O.Box 336 DK-5400 Nørresundby, Denmark. Phone: +45 88 17 81 11 Telex: 8 96 20 Telefax: +45 88 17 84 99</p>	<p>SA-50-180/4-8</p>	<p>40 16 43a</p>
	<p>RESERVEDELSTEGNING SPARE PARTS DRAWING ERSATZTEIL-ZEICHNUNG</p>	<p>side 1 of 2 sider</p>
		<p>Date 94.12.21</p>
		<p>Udført af Jø</p>

Subject to alterations

ALL RIGHTS RESERVED © DESMI

SA-50-180/4-8				
Pos. Item No.	Antal Qty Anzahl	Benævnelse	Designation	Benennung
1	1	Pumpehus	Pump casing	Pumpengehäuse
2	1	Hjerteklap	Clackvalve	Ventilklappe
3	1	Sætskrue M8x20	Set screw M8x20	Setzschraube M8x20
4	4	Cyl. skrue M10x25	Cheese-head screw M10x25	Zylinderschraube M10x25
5	1	Spændeplade	Clamp plate	Spannplatte
6	1	Sugestuds	Suction piece	Saugstutzen
7	1	Hjerteklapplade	Clack valve plate	Platte für Ventilklappe
8	8	Møtrik M10	Nut M10	Mutter M10
9	1	Slidplade	Wear plate	Schleissring
10	1	Løbehjulsmøtrik 1/4" RG	Impeller nut 1/4" BSP	Laufmutter 1/4" R
11	1	Løbehjul	Impeller	Laufrad
12	1	Feder 5x5x20	Sunk key 5x5x20	Passfeder 5x5x20
13	1	Mek. tætning	Mech. shaft seal	Gleitringdichtung
14	3	Dubo ring M10	Dubo ring M10	Dubo Ring M10
16	1	Pakning	Gasket	Dichtung
17	1	Mellemstykke	Intermediate piece	Gehäusedeckel
18	8	Tapskrue M10x50	Stud M10x50	Stiftschraube M10x50
19	1	Lejekonsol	Bearing housing	Lagerstuhl
20	1	Lejedæksel	Cover	Lagerdeckel
21	8	Sætskrue M8x20	Set screw M8x20	Setzschraube M8x20
22	1	Kugleleje 6406	Ball bearing 6406	Kugellager 6406
23	1	Møtrik M8	Nut M8	Mutter M8
24	1	Kugleleje 6307 RS	Ball bearing 6307 RS	Kugellager 6307 RS
25	1	Aksel	Shaft	Welle
26	1	Feder 7x8x45	Sunk key 7x8x45	Passfeder 7x8x45
28	1	Lejedæksel	Cover	Lagerdeckel
31	1	Afslyngningsring	Water deflector	Wasser Spritzring
32	1	Rørprop 1"RG	Pipe plug 1" RG	Stopfen 1" R
33	1	Dowty selon 1" RG	Dowty selon 1" BSP	Dowty selon 1" R
36	1	Låseblik	Lock nab	Schlossblech
37	3	Tapskrue M10x40	Stud M10x40	Stiftschraube M10x40
39	1	Dowty selon 1/2" RG	Dowty selon 1/2" BSP	Dowty selon 1/2" R
40	1	Dubo ring M8	Dubo ring M8	Dubo ring M8
44	2	Sætskrue M10x30	Set screw M10x30	Setzschraube M10x30
45	2	Mellemlæg	Shim	Zwischenlage
75	1	Rørprop 1/2" RG	Pipe plug 1/2" BSP	Stopfen 1/2" R
76	1	Overtryksventil	Relief valve	Überdruckventil



OVERTRYKSVENTIL, SE TEGNING 405295
 RELIEF VALVE, SEE DRAWING 405295
 ÜBERDRUCKVENTIL, SIEHE ZEICHN. 405295



A/S De Smithske

P.O. Box 226 DK-9400 Nørresundby, Denmark.
 Phone: +45 98 17 81 11 Telex: 6 98 29
 Telefax: +45 98 17 34 88

SA-65-250
 RESERVEDELSTEGNING
 SPARE PARTS DRAWING
 ERSATZTEIL-ZEICHNUNG

40 16 44a

side 1 of 2 sider

Date 94.12.21

Udført af JJ

Subject to alterations

ALL RIGHTS RESERVED © DESMI

DESMI A/S
 Tagholm 1
 9400 Nørresundby - Denmark
 Tel.: +45 96 32 81 11
 Fax +45 98 17 54 99
 E-mail: desmi@desmi.com

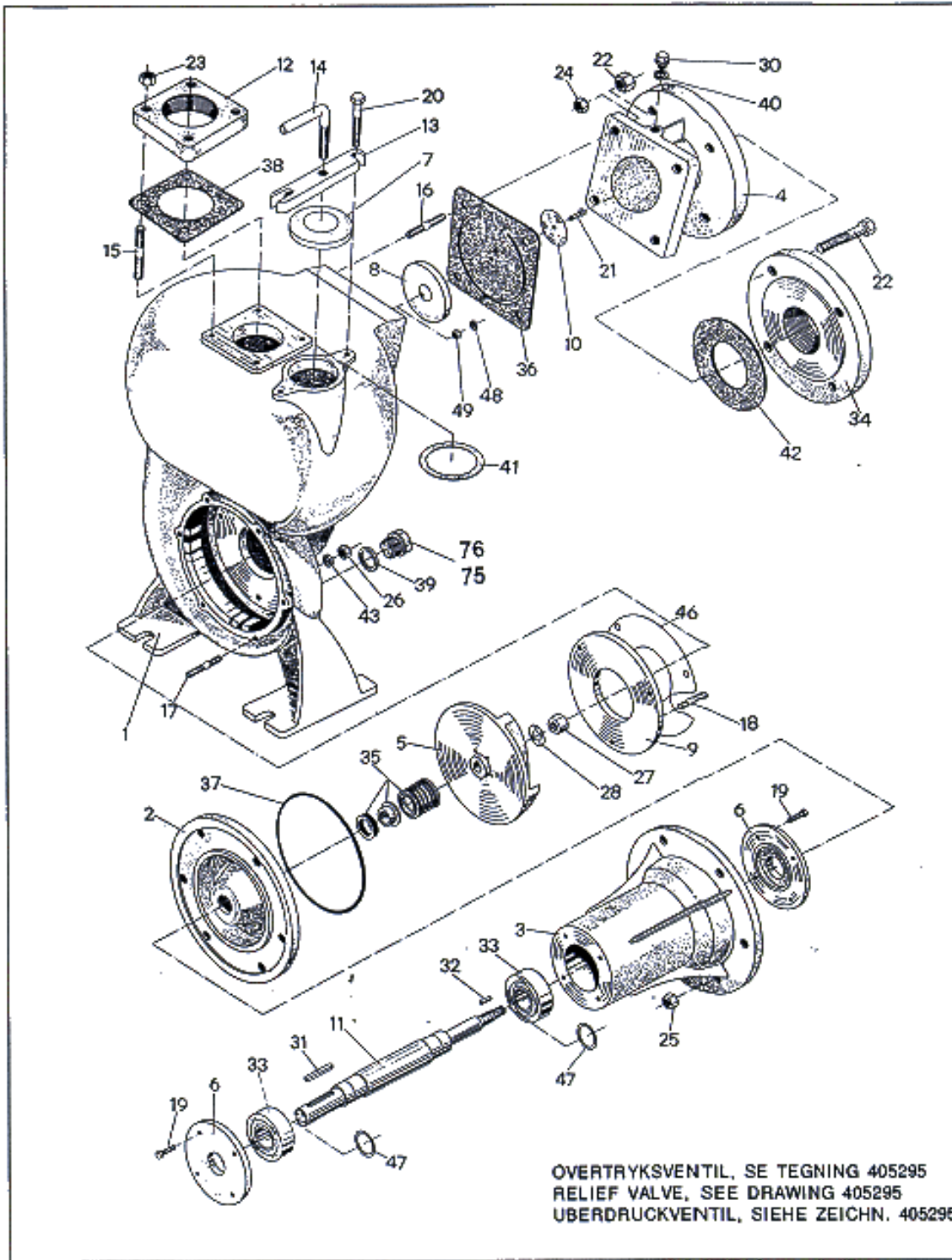
www.desmi.com

SA-65-250				
Pos. Item No.	Antal Qty Anzahl	Benævnelse	Designation	Benennung
1	1	Pumpehus	Pump casing	Pumpengehäuse
2	1	Lejekonsol	Bearing housing	Lagerstuhl
3	1	Sugestuds	Suction piece	Saugstutzen
4	1	Mellemstykke	Intermediate piece	Gehäusedeckel
5	1	Lejedæksel	Cover	Lagerdeckel
6	1	Lejedæksel	Cover	Lagerdeckel
7	1	Løbehjul	Impeller	Lauftrad
8	1	Slidplade	Wear plate	Schleissblech
9	1	Løbehjulsmøtrik	Impeller nut	Laufradmutter
10	1	Hjerteklapplade	Clack valve plate	Platte für Ventilklappe
12	1	Sætskrue M8x20	Set screw M8x20	Setzschraube M8x20
13	1	Spændeplade	Clamp plate	Spannplatte
15	1	Aksel	Shaft	Welle
16	1	Feder 8x7x25	Sunk key 8x7x25	Passfeder 8x7x25
17	1	Feder 10x8x40	Sunk key 10x8x40	Passfeder 10x8x40
18	1	Låseblik	Lock nab	Schlossblech
19	4	Tapskrue M16x70	Stud M16x70	Stiftschraube M16x70
20	4	Tapskrue M16x65	Stud M16x65	Stiftschraube M16x65
21	8	Tapskrue M10x50	Stud M10x50	Stiftschraube M10x50
22	3	Tapskrue M10x42	Stud M10x42	Stiftschraube M10x42
23	2	Sætskrue M10x40	Set screw M10x40	Setzschraube M10x40
24	7	Sætskrue M8x20	Set screw M8x20	Setzschraube M8x20
25	8	Møtrik M16	Nut M16	Mutter M16
26	8	Møtrik M10	Nut M10	Mutter M10
28	1	Rørprop 1" RG	Pipe plug 1" BSP	Stopfen 1" R
29	1	Rørprop 3/8" RG	Pipe plug 3/8" BSP	Stopfen 3/8" R
30	1	Møtrik M8	Nut M8	Mutter M8
31	1	Kugleleje 3308	Ball bearing 3308	Kugellager 3308
32	1	Kugleleje 6208 RS	Ball bearing 6208 RS	Kugellager 6208 RS
33	1	Dubo ring M8	Dubo ring M8	Dubo Ring M8
37	1	Mek. tætning	Mech. shaft seal	Gleitringdichtung
38	1	Hjerteklap	Clack valve	Ventilklappe
39	1	Afslyngningsring	Water deflector	Wasserspritzring
40	2	Mellemlæg	Shim	Zwischenlage
41	1	Pakning	Gasket	Dichtung
44	2	Dowty selon 1" RG	Dowty selon 1" BSP	Dowty selon 1" R
45	1	Dowty selon 3/8" RG	Dowty selon 3/8" BSP	Dowty selon 3/8" R
47	1	Flange 3" RG	Flange 3" BSP	Flansch 3" R
48	1	Flange 2 1/2@ RG	Flange 2 1/2@ BSP	Flansch 2 1/2@ R
49	1	Pakning	Gasket	Dichtung
50	1	Pakning	Gasket	Dichtung
51	4	Bolt M16x65	Bolt M16x65	Schraube M16x65
75	1	Rørprop	Pipe plug	Stopfen
76	1	Overtryksventil	Relief valve	Überdruckventil

DESMI A/S

Tagholm 1
 9400 Nørresundby - Denmark
 Tel.: +45 96 32 81 11
 Fax +45 98 17 54 99
 E-mail: desmi@desmi.com

www.desmi.com



A/S De Smithske

P.O. Box 338 DK-5400 Nørresundby, Denmark.
 Phone: +45 98 17 81 11 Telex: 6 46 50
 Telefax: +45 98 17 84 99

SA-80-160/17

RESERVEDELSTEGNING
 SPARE PARTS DRAWING
 ERSATZTEIL-ZEICHNUNG

40 16 45a

side 1 of 2 sider

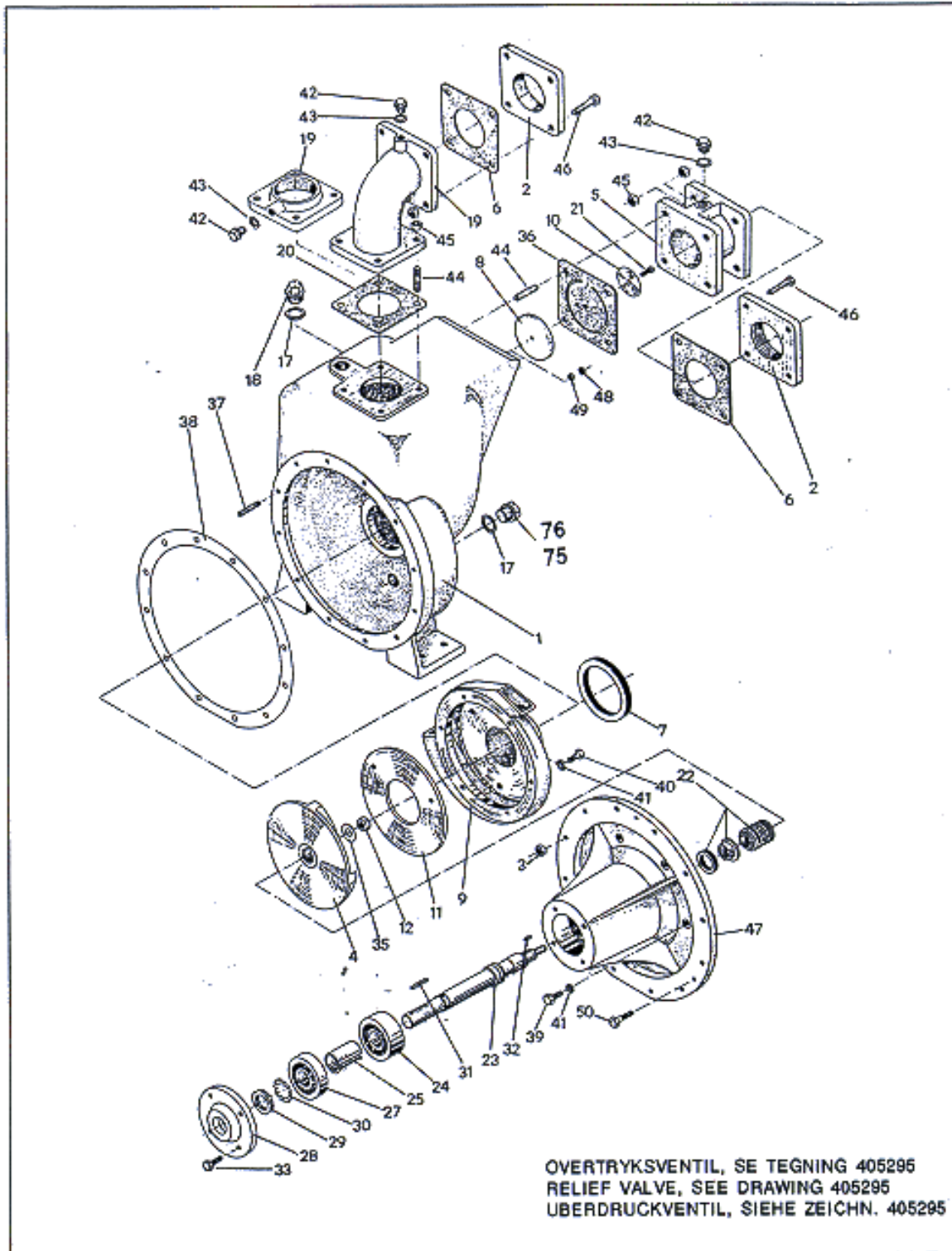
Gate 84, 12, 21

Udgift af JJ

Subject to alterations

ALL RIGHTS RESERVED © DESMI

SA-80-160/17				
Pos. Item No.	Antal Qty Anzahl	Benævnelse	Designation	Benennung
1	1	Pumpehus	Pump casing	Pumpengehäuse
2	1	Mellemstykke	Intermediate piece	Gehäusedeckel
3	1	Lejehus	Bearing housing	Lagergehäuse
4	1	Sugestuds	Suction piece	Saugstutzen
5	1	Løbehjul	Impeller	Lauftrad
6	2	Lejedæksel	Cover	Lagerdeckel
7	1	Rensedæksel	Cleaning cover	Reinigungsdeckel
8	1	Hjerteklapplade	Clack valve plate	Platte für Ventilklappe
9	1	Slidplade	Wear plate	Schleissring
10	1	Spændeplade	Clamp plate	Spannplatte
11	1	Aksel	Shaft	Welle
12	1	Flange	Flange	Flansch
13	1	Ters	Clamp	Bügel
14	1	Vinkelskrue M16x142	Tommy screw M16x142	Knebalschraube M16x42
15	4	Tapskrue M12x60	Stud M12x60	Stiftschraube M12x60
16	4	Tapskrue M12x50	Stud M12x50	Stiftschraube M12x50
17	6	Tapskrue M10x50	Stud M10x50	Stiftschraube M10x50
18	3	Tapskrue M10x40	Stud M10x40	Stiftschraube M10x40
19	8	Sætskrue M6x16	Set screw M6x16	Setzschraube M6x16
20	2	Sætskrue M12x65	Set screw M12x65	Setzschraube M12x65
21	1	Sætskrue M8x20	Set screw M8x20	Setzschraube M8x20
22	4	Maskinbolt M16x65	Bolt M16x65	Schraube M16x65
23	4	Møtrik M12	Nut M12	Mutter M12
24	4	Møtrik M12	Nut M12	Mutter M12
25	6	Møtrik M10	Nut M10	Mutter M10
26	3	Møtrik M10	Nut M10	Mutter M10
27	1	Møtrik 3/8" RG	Nut 3/8" BSP	Mutter 3/8" R
28	1	Låseblik	Lock nab	Schlossblech
30	1	Rørprop 3/8" RG	Pipe plug 3/8" BSP	Stopfen 3/8" R
31	1	Feder 8x7x50	Sunk key 8x7x50	Passfeder 8x7x50
32	1	Feder 5x5x20	Sunk key 5x5x20	Passfeder 5x5x20
33	2	Kugleleje 6307-RS	Ball bearing 6307-RS	Kugellager 6307-RS
34	1	Flange	Flange	Flansch
35	1	Mek. tætning	Mech. shaft seal	Gleitringdichtung
36	1	Hjerteklap	Clack valve	Ventilklappe
37	1	O-ring	O-ring	O-Ring
38	1	Pakning	Gasket	Dichtung
39	1	Dowty selon 1" RG	Dowty selon 1" BSP	Dowty selon 1" R
40	1	Dowty selon 3/8" RG	Dowty selon 3/8" BSP	Dowty selon 3/8" R
41	1	Pakning	Gasket	Dichtung
42	1	Pakning	Gasket	Dichtung
43	3	Dubo ring M10	Dubo ring M10	Dubo Ring M10
46	2	Mellemlæg	Shim	Zwischenlage
48	1	Dubo ring M8	Dubo ring M8	Dubo ring M8
49	1	Møtrik M8	Nut M8	Mutter M8
75	1	Rørprop 1" RG	Pipe plug 1" BSP	Stopfen 1" R
76	1	Overtryksventil	Relief valve	Überdruckventil



A/S De Smithske

P.O. Box 335 DK-8400 Nørresundby, Denmark.
 Phone: +45 98 17 81 11 Telex: 6 66 20
 Telefax: +45 88 17 54 99

SA-80-220/17

RESERVEDELSTEGNING
 SPARE PARTS DRAWING
 ERSATZTEIL-ZEICHNUNG

40 16 46a

side 1 of 2 sider

Date: 84.12.21

Udført af JJ

Subject to alterations

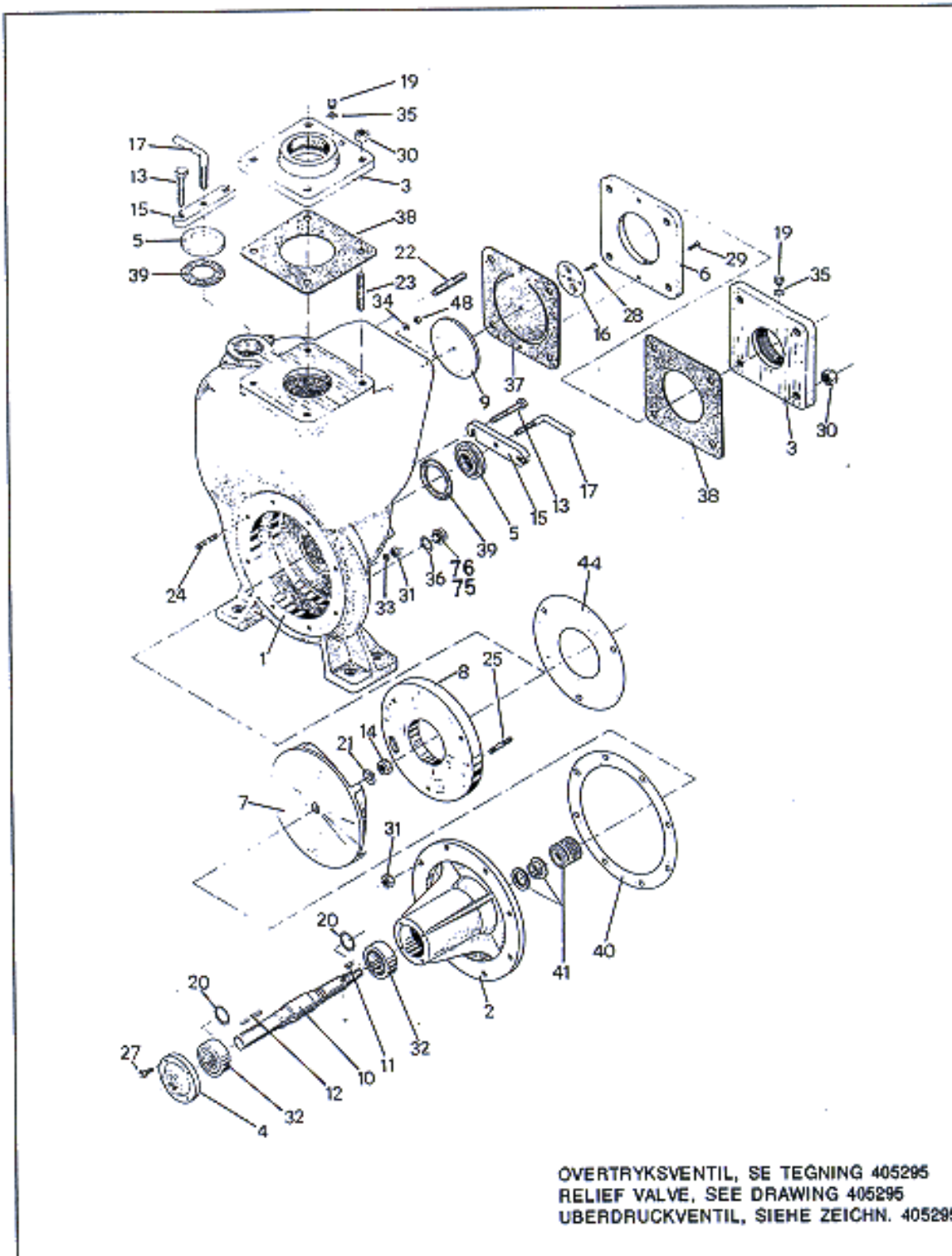
ALL RIGHTS RESERVED © DESMI

SA-80-220/17				
Pos. Item No.	Antal Qty Anzahl	Benævnelse	Designation	Benennung
1	1	Pumpehus	Pump casing	Pumpengehäuse
2	1	Flange	Flange	Flansch
3	12	Møtrik M12	Nut M12	Mutter M12
4	1	Løbehjul	Impeller	Lauftrad
5	1	Sugestuds	Suction piece	Saugstutzen
6	1	Pakning	Gasket	Dichtung
7	1	Pakning	Gasket	Dichtung
8	1	Hjerteklapplade	Clack valve plate	Platte für Ventilklappe
9	1	Ledeapparat	Guide vane piece	Leitrad
10	1	Spændeplade	Clamp plate	Spannplatte
11	1	Slidplade	Wear plate	Schleissring
12	1	Løbehjulsmøtrik	Impeller nut	Lauftradmutter
13	3	Dubo ring M10	Dubo ring M10	Dubo Ring M10
14	2	Dubo ring 1/4" RG	Dubo ring 1/4" BSP	Dubo Ring 1/4" R
15	1	Pakning	Gasket	Dichtung
16	1	Flange	Flange	Flansch
17	2	Dowty selon 1" RG	Dowty selon 1" BSP	Dowty selon 1" R
18	1	Rørprop 1" RG	Pipe plug 1" BSP	Stopfen 1" R
19	1	Afgangsbøjning	Discharge bend	Druckstutzen
20	1	Pakning	Gasket	Dichtung
21	1	Sætskrue M8x20	Set screw M8x20	Setzschraube M8x20
22	1	Mek. tætning	Mech. shaft seal	Gleitringdichtung
23	1	Aksel	Shaft	Welle
24	1	Kugleleje 3307 C3	Ball bearing 3307 C3	Kugellager 3307 C3
25	1	Afstandsøsning	Distance sleeve	Distanzbuchse
26	2	Rørprop 1/4" RG	Pipe plug 1/4" BSP	Stopfen 1/4" R
27	1	Kugleleje 6307 RS	Ball bearing 6307 RS	Kugellager 6307 RS
28	1	Lejedæksel	Cover	Lagerdeckel
29	1	Lejemøtrik KM7	Lock nut KM7	Sicherungsmutter KM7
30	1	Låseblik MB7	Lock nab MB7	Schlossblech MB7
31	1	Feder 8x7x20	Sunk key 8x7x20	Passfeder 8x7x20
32	1	Feder 8x7x45	Sunk key 8x7x45	Passfeder 8x7x45
33	4	Sætskrue M10x20	Set screw M10x20	Setzschraube M10x20
34	4	Maskinbolt M12x50	Bolt M12x50	Schraube M12x50
35	1	Låseblik	Lock nab	Schlossblech
36	1	Hjerteklap	Clack valve	Ventilklappe
37	12	Tapskrue 12x45	Stud M12x45	Stiftschraube M12x45
38	1	Pakning	Gasket	Dichtung
39	6	Sætskrue M10x30	Set screw M10x30	Setzschraube M10x30
40	3	Sætskrue M10x16	Set screw M10x16	Setzschraube M10x16
41	6	Dubo ring M10	Dubo ring M10	Dubo Ring M10
42	1	Rørprop 3/8" RG	Pipe plug 3/8" BSP	Stopfen 3/8" R
43	1	Dowty selon 3/8" RG	Dowty selon 3/8" BSP	Dowty selon 3/8" R
44	8	Tapskrue M12x45	Stud M12x45	Stiftschraube M12x45
45	8	Møtrik M12	Nut M12	Mutter M12
46	4	Maskinbolt M12x50	Bolt M12x50	Schraube M12x50
47	1	Lejehus	Bearing housing	Lagergehäuse
48	1	Dubo ring M8	Dubo ring M8	Dubo Ring M8
49	1	Møtrik M8	Nut M8	Mutter M8
50	3	Sætskrue M12x25	Set screw M12x25	Setzschraube M12x25
51	2	Mellemlæg	Shim	Zwischenlage
75	1	Rørprop	Pipe plug	Stopfen
76	1	Overtryksventil	Relief valve	Überdruckventil


DESMI A/S

Tagholm 1
 9400 Nørresundby - Denmark
 Tel.: +45 96 32 81 11
 Fax +45 98 17 54 99
 E-mail: desmi@desmi.com

www.desmi.com



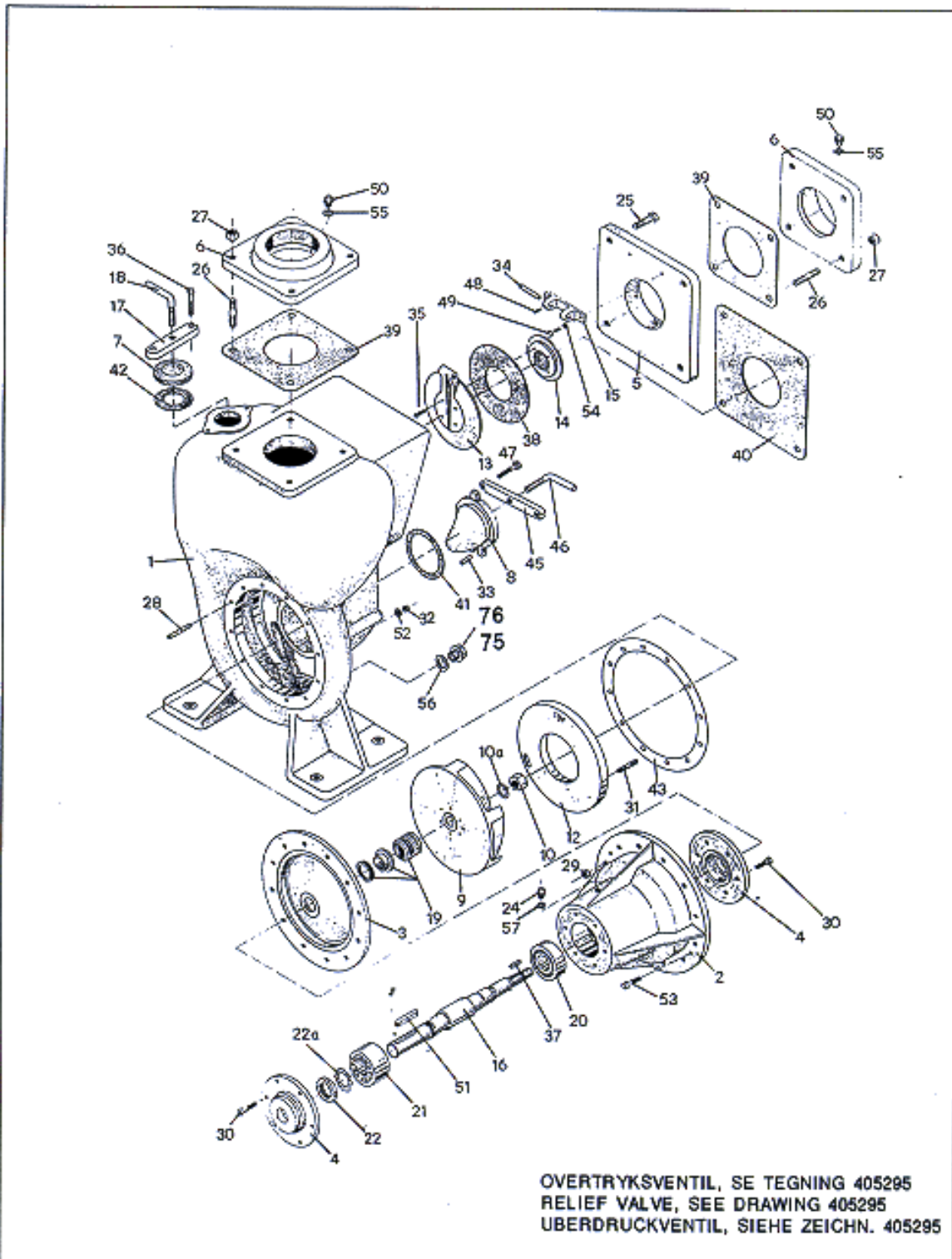
OVERTRYKSVENTIL, SE TEGNING 405295
 RELIEF VALVE, SEE DRAWING 405295
 ÜBERDRUCKVENTIL, SIEHE ZEICHN. 405295


 <p>A/S De Smithske P.O. Box 226 DN-2400 Nørresundby, Denmark. Phone: +45 98 17 81 11 Telex: 9 96 20 Telefax: +45 98 17 54 99</p>	<p>SA-100-235/28</p> <p>RESERVEDELSTEGNING SPARE PARTS DRAWING ERSATZTEIL-ZEICHNUNG</p>	<p>40 16 47a</p>
	<p>side 1 of 2 sider</p>	
	<p>Date 94.12.21</p>	
	<p>Udført af JJ</p>	

Subject to alterations


ALL RIGHTS RESERVED © DESMI

SA-100-235/28				
Pos. Item No.	Antal Qty Anzahl	Benævnelse	Designation	Benennung
1	1	Pumpehus	Pump casing	Pumpengehäuse
2	1	Lejehus	Bearing housing	Lagergehäuse
3	2	Flange	Flange	Flansch
4	1	Lejedæksel	Cover	Lagerdeckel
5	2	Rensedeæksel	Cleaning cover	Reinigungsdeckel
6	1	Melleplade	Intermediate plate	Zwischenplatte
7	1	Løbehjul	Impeller	Lauftrad
8	1	Slidplade	Wear plate	Schleissring
9	1	Hjerteklapplade	Clack valve plate	Platte für Ventilklappe
10	1	Aksel	Shaft	Welle
11	1	Feder 8x7x25	Sunk key 8x7x25	Passfeder 8x7x25
12	1	Feder 8x10x55	Sunk key 8x10x55	Passfeder 8x10x55
13	4	Maskinbolt M12x70	Bolt M12x70	Schraube M12x70
14	1	Løbehjulsmøtrik	Impeller nut	Lauftradmutter
15	2	Ters	Clamp	Bügel
16	1	Spændeplade	Clamp plate	Spannplatte
17	2	Vinkelskrue	Tommy screw	Knebelschraube
19	1	Rørprop 3/8" RG	Pipe plug 3/8" BSP	Stopfen 3/8" R
20	2	SS skive 40x50x2.5	SS washer 40x50x2.5	SS Scheibe 40x50x2,5
21	1	Låseblik	Lock nab	Schlossblech
22	4	Tapskrue M20x85	Stud M20x85	Stiftschraube M20x85
23	4	Tapskrue M20x70	Stud M20x70	Stiftschraube M20x70
24	8	Tapskrue M12x45	Stud M12x45	Stiftschraube M12x45
25	3	Tapskrue M12x55	Stud M12x55	Stiftschraube M12x55
27	4	Sætskrue M8x20	Set screw M8x20	Setzschraube M8x20
28	1	Sætskrue M8x25	Set screw M8x25	Setzschraube M8x25
29	1	Cylinderskrue M6x25	Cheese-head screw M6x25	Zylinderschraube M6x25
30	8	Møtrik M20	Nut M20	Mutter M20
31	11	Møtrik M12	Nut M12	Mutter M12
32	2	Kugleleje 6308 RS	Ball bearing 6308 RS	Kugellager 6308 RS
33	3	Dubo ring M12	Dubo ring M12	Dubo Ring M12
34	1	Dubo ring M8	Dubo ring M8	Dubo Ring M8
35	1	Dowty selon 3/8" RG	Dowty selon 3/8" BSP	Dowty selon 3/8" R
36	1	Dowty selon 1" RG	Dowty selon 1" BSP	Dowty selon 1" R
37	1	Hjerteklap	Clack valve	Ventilklappe
38	2	Pakning	Gasket	Dichtung
39	2	Pakning	Gasket	Dichtung
40	1	Pakning	Gasket	Dichtung
41	1	Mek. tætning	Mech. shaft seal	Gleitringdichtung
42	1	Afgangsbøjning	Discharge bend	Druckstutzen
43	4	Maskinbolt M20x65	Bolt M20x65	Schraube M20x65
44	2	Mellemlæg	Shim	Zwischenlage
48	1	Møtrik M8	Nut M8	Mutter M8
75	1	Rørprop 1" RG	Pipe plug 1" BSP	Stopfen 1" R
76	1	Overtryksventil	Relief valve	Überdruckventil



 <p>A/S De Smithske P.O. Box 256 DK-9400 Nørresundby, Denmark. Phone: +45 98 17 81 11 Telex: 6 66 30 Telefax: +45 98 17 34 88</p>	<h2>SA-150-260/33</h2>		<h2>40 16 48a</h2>
	RESERVEDELSLISTE SPARE PARTS LIST ERSATZTEIL-LISTE		side 2 of 2 sider
			Dato 94.12.21
			Udført af JJ

Subject to alterations

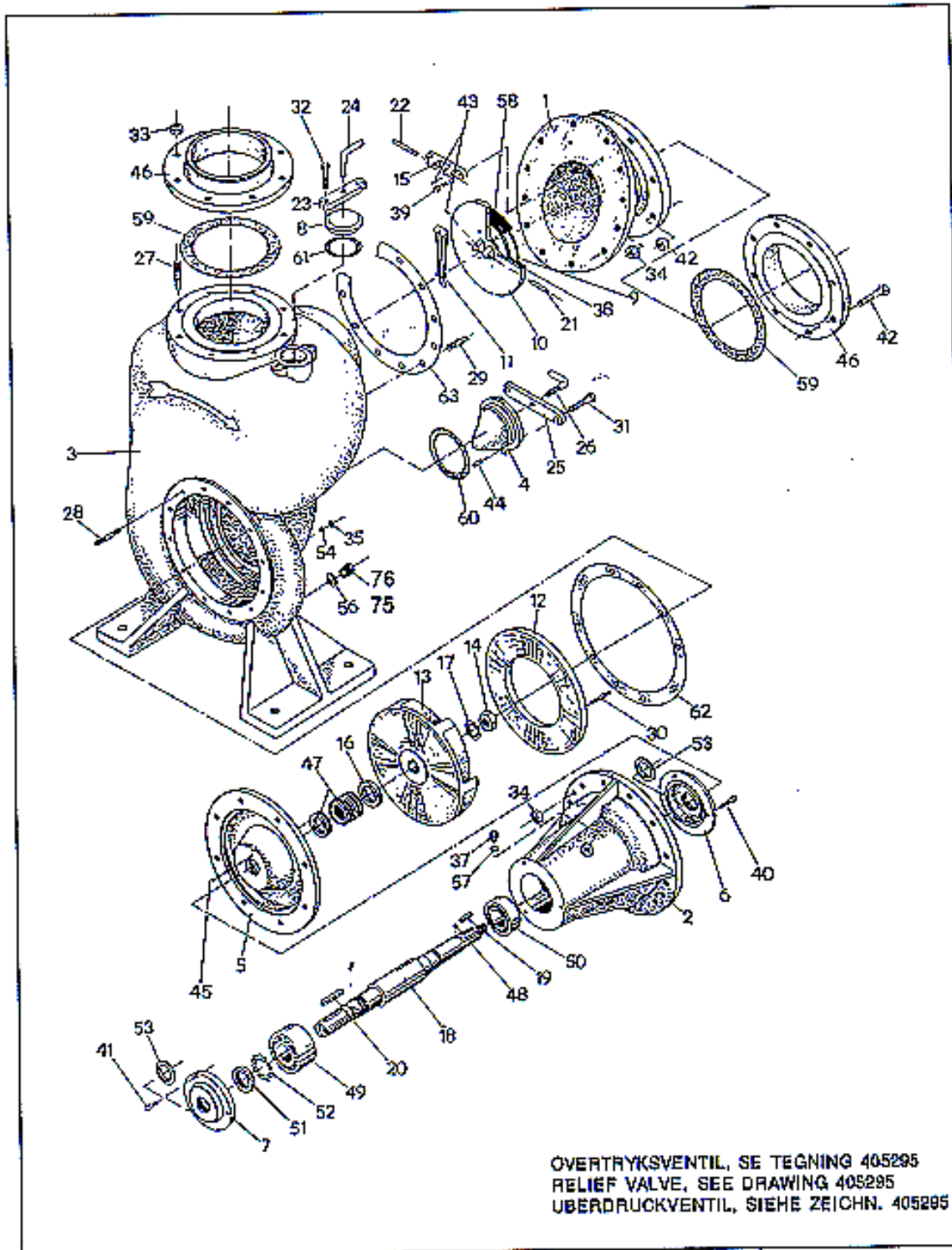
ALL RIGHTS RESERVED © 

SA-150-260/33				
Pos. Item No.	Antal Qty Anzahl	Benævnelse	Designation	Benennung
1	1	Pumpehus	Pump casing	Pumpengehäuse
2	1	Lejehus	Bearing housing	Lagergehäuse
3	1	Mellemstykke	Intermediate piece	Gehäusedeckel
4	2	Lejedæksel	Cover	Lagerdeckel
5	1	Melleplade	Intermediate piece	Zwischenplatte
6	2	Flange	Flange	Flansch
7	1	Påfyldningsdæksel	Filler cover	Auffülldeckel
8	1	Renseddæksel	Cleaning cover	Reinigungsdeckel
9	1	Løbehjul	Impeller	Laufrad
10	1	Løbehjulsmøtrik	Impeller nut	Laufradmutter
10a	1	Låseblok	Lock nab	Schlossblech
12	1	Slidplade	Wear plate	Schleissring
13	1	Kontraklap - øverst	Clack valve weight	Ventilklappe - oben
14	1	Kontraklap - nederst	Clack valve disc	Ventilklappe - unten
15	1	Lejeblok	Bearing block	Lagerbock
16	1	Aksel	Shaft	Welle
17	1	Ters	Clamp	Bügel
18	1	Vinkelskrue	Tommy screw	Knebelschraube
19	1	Mek. tætning	Mech. shaft seal	Gleitringdichtung
20	1	Kugleleje 6310 RS	Ball bearing 6310 RS	Kugellager 6310 RS
21	1	Kugleleje 3310	Ball bearing 3310	Kugellager 3310
22	1	Låsemøtrik	Lock nut	Sicherungsmutter
22a	1	Låseblok	Lock nab	Schlossblech
24	1	Rørprop 1/4" RG	Pipe plug 1/4" BSP	Stopfen 1/4" R
25	4	Sætskrue M20x55	Set screw M20x55	Setzschraube M20x55
26	8	Tapskrue M20x75	Stud M20x75	Stiftschraube M20x75
27	8	Møtrik M20	Nut M20	Mutter M20
28	12	Tapskrue M12x55	Stud M12x55	Stiftschraube M12x55
29	12	Møtrik M12	Nut M12	Mutter M12
30	6	Sætskrue M10x25	Set screw M10x25	Setzschraube M10x25
31	3	Tapskrue M12x70	Stud M12x70	Stiftschraube M12x70
32	3	Møtrik M12	Nut M12	Mutter M12
33	1	Kærvstift ø10x40	Grooved pin ø10x40	Kerbstift ø10x40
34	1	Hængseløp ø10x75	Hinge pin ø10x75	Bolzen ø10x75
35	4	Sætskrue M6x20	Set screw M6x20	Setzschraube M6x20
36	2	Sætskrue M12x70	Set screw M12x70	Setzschraube M12x70
37	1	Feder 8x7x40	Sunk key 8x7x40	Passfeder 8x7x40
38	1	Pakning	Gasket	Dichtung
39	2	Pakning	Gasket	Dichtung
40	1	Pakning	Gasket	Dichtung
41	1	Pakning	Gasket	Dichtung
42	1	Pakning	Gasket	Dichtung
43	1	Pakning	Gasket	Dichtung
45	1	Ters	Clamp	Bügel
46	1	Vinkelskrue	Tommy screw	Knebelschraube
47	2	Sætskrue M16x75	Set screw M16x75	Setzschraube M16x75
48	1	Pinolskrue M6x10	Pointed screw M6x10	Pinolschraube M6x10
49	2	Sætskrue M10x22	Set screw M10x22	Setzschraube M10x22
50	2	Rørprop 3/8" RG	Pipe plug 3/8" BSP	Stopfen 3/8" R
51	1	Feder 14x9x70	Sunk key 14x9x70	Passfeder 14x9x70
52	3	Dubo ring M12	Dubo ring M12	Dubo Ring M12
53	2	Sætskrue M12x25	Set screw M12x25	Setzschraube M12x25
54	2	Dubo ring M10	Dubo ring M10	Dubo Ring M10
55	2	Dowty selon 3/8" RG	Dowty selon 3/8" BSP	Dowty selon 3/8" R
56	1	Dowty selon 1" RG	Dowty selon 1" BSP	Dowty selon 1" R
57	2	Mellemlæg	Shim	Zwischenlage
75	1	Rørprop 1" RG	Pipe plug 1" BSP	Stopfen 1" R
76	1	Overtryksventil	Relief valve	Überdruckventil

DESMI A/S

Tagholm 1
 9400 Nørresundby - Denmark
 Tel.: +45 96 32 81 11
 Fax +45 98 17 54 99
 E-mail: desmi@desmi.com

www.desmi.com



 <p>A/S De Smithske P.O. Box 216 DK-9450 Nørresundby, Denmark. Phone: +45 98 17 51 11 Telex: S 88 30 Telefax: +45 98 13 51 59</p>	SA-200-320	40 16 49a
	RESERVEDELSTEGNING	Side 1 of 2 sider
	SPARE PARTS DRAWING	Date 94.12.21
	ERSATZTEIL-ZEICHNUNG	Udført af JJ

Subject to alterations

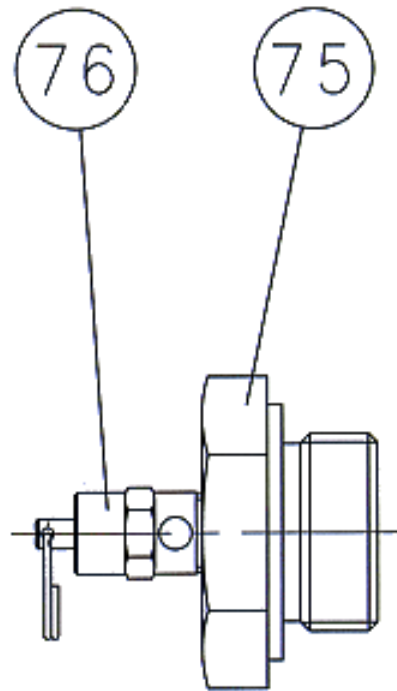
ALL RIGHTS RESERVED © DESMI


SA-200-320				
Pos. Item No.	Antal Qty Anzahl	Benævnelse	Designation	Benennung
1	1	Sugestuds	Suction piece	Saugstutzen
2	1	Lejekonsol	Bearing housing	Lagergehäuse
3	1	Pumpehus	Pump casing	Pumpengehäuse
4	1	Rensedeæksel	Hand hole cover	Putzlochdeckel
5	1	Mellemstykke	Intermediate piece	Gehäusedeckel
6	1	Lejedæksel	Cover	Lagerdeckel
7	1	Lejedæksel	Cover	Lagerdeckel
8	1	Påfyldningsdæksel	Filler cover	Auffülldeckel
9	1	Kontraklap - nederst	Clack valve disc	Ventilklappe unten
10	1	Kontraklap - øverst	Clack valve weight	Ventilklappe oben
11	1	Hængsel	Hinge	Angel
12	1	Slidplade	Wear plate	Schleissplatte
13	1	Løbehjul	Impeller	Lauftrad
14	1	Løbehjulsmøtrik 1" RG	Impeller nut 1" BSP	Lauftradmutter 1" R
15	1	Lejebuk	Bearing block	Lagerbock
16	1	Låsering	Lock ring	Sicherungsring
17	1	Sikringsblik	Lock washer	Sicherungsplatte
18	1	Aksel	Shaft	Welle
19	1	Pasfeder 14x9x55	Sunk key 14x9x55	Pasfeder 14x9x55
20	1	Pasfeder 16x10x80	Sunk key 16x10x80	Pasfeder 16x10x80
21	1	Hængseltap ø10x55	Hinge pin ø10x55	Bolzen ø10x55
22	1	Hængseltap ø12x82	Hinge pin ø12x82	Bolzen ø12x82
23	1	Ters	Clamp	Bügel
24	1	Vinkelskrue M16	Tommy screw M16	Knebelschraube M16
25	1	Ters	Clamp	Bügel
26	1	Vinkelskrue M20	Tommy screw M20	Knebelschraube M20
27	8	Tapskrue M20x85	Stud M20x85	Stiftschraube M20x85
28	12	Tapskrue M16x75	Stud M16x75	Stiftschraube M16x75
29	12	Tapskrue M16x65	Stud M16x65	Stiftschraube M16x65
30	3	Tapskrue M12x65	Stud M12x65	Stiftschraube M12x65
31	2	Sætskrue M16x100	Set screw M16x100	Schraube M16x100
32	2	Sætskrue M12x70	Set screw M12x70	Schraube M12x70
33	8	Møtrik M20	Nut M20	Mutter M20
34	24	Møtrik M16	Nut M16	Mutter M16
35	3	Møtrik M12	Nut M12	Mutter M12
37	1	Rørprop 3/8" RG	Pipe plug 3/8" BSP	Stopfen 3/8" R
39	2	Sætskrue M10x25	Set screw M10x25	Schraube M10x25
40	3	Sætskrue M8x20	Set screw M8x20	Schraube M8x20
41	3	Sætskrue M10x30	Set screw M10x30	Schraube M10x30
42	8	Maskinbolt M20x80	Bolt M20x80	Schraube M20x80
43	2	Pinolskrue M6x10	Pointed screw M6x10	Pinolschraube M6x10
44	1	Kærvstift ø10x35	Grooved pin ø10x35	Kerbstift ø10x35
45	1	Kærvstift ø4x12	Grooved pin ø4x12	Kerbstift ø4x12
46	2	Kontraflange	Counter flange	Gegenflansch
47	1	Mek. akseltætning ø55	Mech. shaft seal ø55	Gleitringdichtung ø55
48	1	Stålkugle	Steel ball	Stahlkugel
49	1	Kugleleje 3313	Ball bearing 3313	Kugellager 3313
50	1	Kugleleje 2213	Ball bearing 2213	Kugellager 2213
51	1	Låsemøtrik	Lock nut	Sicherungsmutter
52	1	Låseblik	Lock washer	Sicherungsblech
53	2	Filtring	Tightening ring	Filzring
54	3	Pakning Dubo M12	Gasket Dubo M12	Dichtung Dubo M12
55	2	Pakning Dubo M10	Gasket Dubo M10	Dichtung Dubo M10
56	1	Dowty selon 1"	Dowty selon 1"	Dowty selon 1"
57	1	Dowty selon 3/8"	Dowty selon 3/8"	Dowty selon 3/8"
58	1	Gummipakning	Rubber gasket	Gummidichtung
59	2	Gummipakning	Rubber gasket	Gummidichtung
60	1	Gummipakning	Rubber gasket	Gummidichtung
61	1	Gummipakning	Rubber gasket	Gummidichtung
62	1	Papirpakning	Paper gasket	Papierdichtung
63	1	Papirpakning	Paper gasket	Papierdichtung
75	1	Rørprop 1" RG	Pipe plug 1" BSP	Stopfen 1" R
76	1	Overtryksventil	Relief valve	Überdruckventil

DESMI A/S

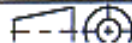
Tagholm 1
 9400 Nørresundby - Denmark
 Tel.: +45 96 32 81 11
 Fax +45 98 17 54 99
 E-mail: desmi@desmi.com

www.desmi.com



 <p>A/S De Smithske P.O. Box 326 DK-9400 Nørresundby, Denmark. Phone: +45 96 32 81 11 Telefax: +45 96 17 54 99</p>	SIKKERHEDSVENTIL OG AFTAPNINGSPROP TIL SA PUMPER RELIEF VALVE AND PLUG FOR SA PUMPS ÜBERDRUCKVENTIL UND STOPFEN FÜR SA PUMPEN	40 52 95
	Blad 1 af 1 blade	
	Dato 89.08.06	
	Udført af HSJ	Scale

Subject to alterations



ALL RIGHTS RESERVED © DESMI