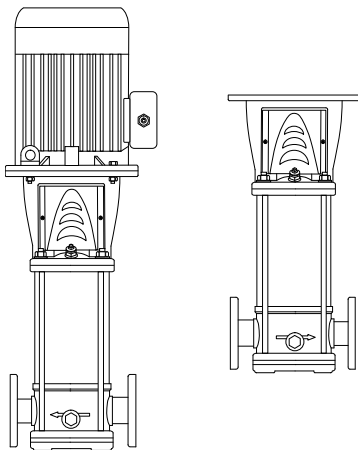


**e-SV 1-3-5-10-15-
22-33-46-66-92-125**



Applicare l'adesivo di codice a barre targhetta qui

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it	Manuale di installazione, uso e manutenzione	pl	Instalacja, eksploatacja i konserwacja
en	Installation, Operation, and Maintenance Manual	cs	Instalace, provoz a údržba
fr	Installation, fonctionnement et entretien	sk	Inštalácia, prevádzka a údržba
de	Montage, Betrieb und Wartung	hu	Beszereles, működtetés és karbantartás
es	Instalación, funcionamiento y mantenimiento	ro	Instalarea, exploatarea și întreținerea
pt	Instalação, Operação e Manutenção	bg	Инсталиране, Експлоатация и Обслужване
nl	Installatie, bediening en onderhoud	sl	Navodila za vgradnjo, delovanje in vzdrževanje
da	Installation, drift og vedligeholdelse	hr	Instaliranje, rad i održavanje
no	Installasjon, drift og vedlikehold	sr	Instaliranje, rad i održavanje
sv	Installations-, drift- och underhållsmanual	el	Εγκατάσταση, λειτουργία και συντήρηση
fi	Asennus, käyttö ja huolto	tr	Kurulum, Çalıştırma ve Bakım
is	Uppsetning, rekstur og viðhald	ru	Установка, эксплуатация и техобслуживание
et	Paigaldus, käitamine ja hooldus	uk	Встановлення, експлуатація та техобслуговування
lv	Uzstādīšana, ekspluatācija un apkope	ar	التركيب والتشغيل والصيانة
lt	Montavimas, eksploatavimas ir techninė priežiūra		



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1 Introduction and Safety

1.1 Introduction

Purpose of this manual

The purpose of this manual is to provide necessary information for:

- Installation
- Operation
- Maintenance



CAUTION:

Read this manual carefully before installing and using the product. Improper use of the product can cause personal injury and damage to property, and may void the warranty.

NOTICE:

Save this manual for future reference, and keep it readily available at the location of the unit.

1.1.1 Inexperienced users



WARNING:

This product is intended to be operated by qualified personnel only.

Be aware of the following precautions:

- Persons with diminished capacities should not operate the product unless they are supervised or have been properly trained by a professional.
- Children must be supervised to ensure that they do not play on or around the product.

1.2 Safety terminology and symbols

About safety messages

It is extremely important that you read, understand, and follow the safety messages and regulations carefully before handling the product. They are published to help prevent these hazards:

- Personal accidents and health problems
- Damage to the product
- Product malfunction

Hazard levels

Hazard level	Indication
DANGER:	A hazardous situation which, if not avoided, will result in death or serious injury
WARNING:	A hazardous situation which, if not avoided, could result in death or serious injury
CAUTION:	A hazardous situation which, if not avoided, could result in minor or moderate injury
NOTICE:	<ul style="list-style-type: none"> • A potential situation which, if not avoided, could result in undesirable conditions • A practice not related to personal injury

Hazard categories

Hazard categories can either fall under hazard levels or let specific symbols replace the ordinary hazard level symbols.

Electrical hazards are indicated by the following specific symbol:



WARNING:

These are examples of other categories that can occur. They fall under the ordinary hazard levels and may use complementing symbols:

- Crush hazard
- Cutting hazard
- Arc flash hazard

Hot surface hazard

Hot surface hazards are indicated by a specific symbol that replaces the typical hazard level symbols:



CAUTION:

Description of user and installer symbols

Specific information for personnel in charge of installing the product in the system (plumbing and/or electrical aspects) or in charge of maintenance.
Specific information for users of the product.

Instructions

The instructions and warnings that are provided in this manual concern the standard version, as described in the sales document. Special version pumps may be supplied with supplementary instruction leaflets. Refer to sales contract for any modifications or special version characteristics. For instructions, situations, or events that is not considered in this manual or the sales document, contact the nearest Lowara Service Center.

1.3 Disposal of packaging and product

Observe the local regulations and codes in force regarding sorted waste disposal.

1.4 Warranty

For information about warranty, see the sales contract.

1.5 Spare parts



WARNING:

Only use original spare parts to replace any worn or faulty components. The use of unsuitable spare parts may cause malfunctions, damage, and injuries as well as void the guarantee.



CAUTION:

Always specify the exact product type and part number when requesting technical information or spare parts from the Sales and Service Department.

For more information about the product's spare parts, see *Figure 25*, *Figure 26*, or *Figure 27*.

1.6 EC DECLARATION OF CONFORMITY (TRANSLATION)

LOWARA SRL UNIPERSONALE, WITH HEADQUARTERS IN VIA VITTORIO LOMBARDI 14 - 36075 MONTECCHIO MAGGIORE VI - ITALIA, HEREBY DECLARES THAT THE FOLLOWING PRODUCT:

ELECTRIC PUMP UNIT (SEE LABEL ON FIRST PAGE)

FULFILLS THE RELEVANT PROVISIONS OF THE FOLLOWING EUROPEAN DIRECTIVES:

- MACHINERY DIRECTIVE: 2006/42/EC (THE TECHNICAL FILE IS AVAILABLE FROM LOWARA SRL UNIPERSONALE).
- ELECTROMAGNETIC COMPATIBILITY 2004/108/EC
- ECO-DESIGN 2009/125/CE, REGULATION (EC) 640/2009 (3 ~, 50 Hz, $P_N \geq 0,75$ kW) IF IE2 or IE3 MARKED

AND THE FOLLOWING TECHNICAL STANDARDS

- EN 809, EN 60335-1, EN 60335-2-41, EN 62233
- EN 61000-6-1:2007, EN 61000-6-3:2007
- EN 60034-30

PUMP (SEE LABEL ON THE FIRST PAGE)

FULFILS THE RELEVANT PROVISIONS OF THE FOLLOWING EUROPEAN DIRECTIVES:

- MACHINERY 2006/42/EC (THE TECHNICAL FILE IS AVAILABLE FROM LOWARA SRL UNIPERSONALE).

AND OF THE FOLLOWING TECHNICAL STANDARDS:

- EN 809

MONTECCHIO MAGGIORE, 16.06.2011

AMEDEO VALENTE

(DIRECTOR OF ENGINEERING AND R&D)

rev.01

Lowara is a trademark of Lowara srl Unipersonale, subsidiary of Xylem Inc.

2 Transportation and Storage

2.1 Inspect the delivery

1. Check the outside of the package for evident signs of damage.
2. Notify our distributor within eight days of the delivery date, if the product bears visible signs of damage.

Unpack the unit

1. Follow applicable step:
 - If the unit is packed in a carton, remove the staples and open the carton.
 - If the unit is packed in a wooden crate, open the cover while paying attention to the nails and straps.
2. Remove the securing screws or the straps from the wooden base.

Inspect the unit

1. Remove packing materials from the product. Dispose of all packing materials in accordance with local regulations.
2. Inspect the product to determine if any parts have been damaged or are missing.
3. If applicable, unfasten the product by removing any screws, bolts, or straps. For your personal safety, be careful when you handle nails and straps.
4. Contact your Sales and Service Department if anything is out of order.

2.2 Transportation guidelines

Precautions



WARNING:

- Observe accident prevention regulations in force.
- Crush hazard. The unit and the components can be heavy. Use proper lifting methods and wear steel-toed shoes at all times.

Check the gross weight that is indicated on the package in order to select proper lifting equipment.

Position and fastening

The unit can be transported either horizontally or vertically. Make sure that the unit is securely fastened during transportation, and cannot roll or fall over.



WARNING:

Do not use eyebolts screwed on the motor for handling the whole electric pump unit.

- Use straps surrounding the motor if the power of the motor is between 0.25 kW and 4.0 kW.
- Use ropes or straps that are linked to the two flanges (eye bolts if provided) located near the mating zone between the motor and pump, if the power of the motor is between 5.5 kW and 55.0 kW.
- Eyebolts screwed onto the motor may be exclusively used to handle the individual motor or, in case of a not balanced distribution of weights, to partially lift the unit vertically starting from a horizontal displacement.
- To move the pump unit only, use straps firmly linked to the motor adapter.

For more information about how to securely harness the unit, see *Figure 4*.

Unit without motor

If the unit is not delivered with a motor, the calibrated fork-shaped shim is already inserted between the adapter and the transmission coupling. The

shim is inserted to keep the impeller stack in the correct axial position. In order to prevent damage during transportation the shaft is also held into place with expanded polystyrene and plastic straps.

The bolt and nuts used to fasten the motor are not included. For more information about how to couple the motor, see *Figure 23*.



WARNING:

A pump and motor that are purchased separately and then coupled together results in a new machine under the Machinery directive 2006/42/EC. The person making the coupling is responsible for all safety aspects of the combined unit.

2.3 Storage guidelines

Storage location

The product must be stored in a covered and dry location free from heat, dirt, and vibrations.

NOTICE:

- Protect the product against humidity, heat sources, and mechanical damage.
- Do not place heavy weights on the packed product.

Ambient temperature

The product must be stored at an ambient temperature from -5°C to +40°C (23°F to 104°F).

3 Product Description

3.1 Pump design

This is a vertical, multistage, non-self priming pump, which can be coupled to standard electric motors. The pump can be used to pump:

- Cold water
- Warm water

The metallic parts of the pump that come in contact with water are made of the following:

Series	Material
1, 3, 5, 10, 15, 22	Stainless steel
33, 46, 66, 92, 125	Stainless steel and cast iron A special version is available where all parts are made of stainless steel.

The SV pumps 1, 3, 5, 10, 15, and 22 are available in different versions according to the position of the suction and delivery ports and the shape of the connection flange.

The product can be supplied as a pump unit (pump and electric motor) or only as a pump.

NOTICE:

If you have purchased a pump without motor, make sure that the motor is suitable for coupling to the pump.

Mechanical seal

Series	Basic characteristics
1, 3, 5	Nominal diameter 12 mm (0.47 in.), unbalanced, right hand rotation, K version (EN 12756)
10, 15, 22	Nominal diameter 16 mm (0.63 in.), unbalanced, right hand rotation, K version (EN 12756) Balanced with motor power ≥ 5 kW
33, 46, 66, 92, 125	Nominal diameter 22 mm (0.86 in.), balanced, right hand rotation, K version (EN 12756)

Intended use

The pump is suitable for:

- Civil and industrial water distribution systems
- Irrigation (for example, agriculture and sporting facilities)
- Water treatment
- Boiler feed
- Washing plants
- Cooling (for example, air conditioning and refrigeration)
- Fire fighting applications

Improper use



WARNING:
Improper use of the pump may create dangerous conditions and cause personal injury and damage to property.

An improper use of the product leads to the loss of the warranty.

Examples of improper use:

- Liquids not compatible with the pump construction materials
- Hazardous liquids (such as toxic, explosive, flammable, or corrosive liquids)
- Potable liquids other than water (for example, wine or milk)

Examples of improper installation:

- Hazardous locations (such as explosive, or corrosive atmospheres).
- Location where the air temperature is very high or there is poor ventilation.
- Outdoor installations where there is no protection against rain or freezing temperatures.



DANGER:
Do not use this pump to handle flammable and/or explosive liquids.

NOTICE:

- Do not use this pump to handle liquids containing abrasive, solid, or fibrous substances.
- Do not use the pump for flow rates beyond the specified flow rates on the data plate.

Special applications

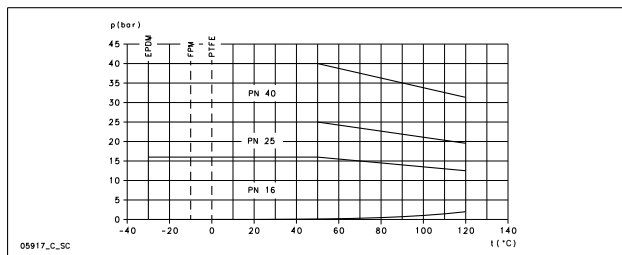
Contact the Sales and Service Department in the following cases:

- If the density and/or viscosity value of the pumped liquid exceeds the value of water, such as water with glycol; as it may require a more powerful motor.
- If the pumped liquid is chemically treated (for example softened, deionized, demineralized etc).
- If the pump will be installed horizontally, a special version and mounting brackets must be requested.
- Any situation that is different from the ones that is described and relate to the nature of the liquid.

3.2 Application limits

Maximum working pressure

This flow chart shows the maximum working pressure depending on the pump model and the temperature of the pumped liquid.



The following formula is valid for motors that are provided with the drive-end bearing axially locked (such as the Lowara standard motors for e-SV), see Figure 6. For other situations, contact the Sales and Service Department.

$$P_{1max} + P_{max} \leq PN$$

- P_{1max} Maximum inlet pressure
- P_{max} Maximum pressure generated by the pump
- PN Maximum operating pressure

Liquid temperature intervals

Version	Gasket	Minimum	Maximum ⁵	Maximum
Standard	EPDM	-30°C (-22°F)	90°C (194°F)	120°C (248°F)
Special	FPM (FKM)	-10°C (14°F)	90°C (194°F)	120°C ⁶ (248°F)
Special	PTFE	0°C (32°F)	90°C (194°F)	120°C (248°F)

For special requirements, contact the Sales and Service Department.

Maximum number of starts per hour

This table shows the number of starts allowed per hour for motors supplied by Lowara:

kW	0.25 - 3.00	4.00 - 7.50	11.0 - 15.0	18.5 - 22.0	30.0 - 37.0	45.0	55.0
Starts per hour	60	40	30	24	16	8	4

NOTICE:

If you use a different motor from the standard one supplied with the electric-pump, check the relevant instructions to find out the permitted number of starts per hour.

3.3 Data plate

The data plate is a metal label that is located on the adaptor. The data plate lists key product specifications. For more information, see Figure 1.

The data plate provides information regarding the material of the gasket and the mechanical seal. For information about how to interpret the code on the data plate, see Figure 2.

Product denomination

See Figure 3 for an explanation of the identification code for the pump and for an example.

WRAS label - Installation Requirements and Notes (for UK market only)

A WRAS label on the pump means it is a Water Regulations Advisory Scheme approved product. This product is suited to be used with cold potable water for human consumption. For more information, refer to IRNs R001 and R420 in the WRAS Water Fittings and Materials Directory (www.wras.co.uk).

IMQ or TUV or IRAM or other marks (for electric pump only)

Unless otherwise specified, for products with a mark of electrical-related safety approval, the approval refers exclusively to the electrical pump.

4 Installation



Precautions



- WARNING:**
- Observe accident prevention regulations in force.
 - Use suitable equipment and protection.
 - Always refer to the local and/or national regulations, legislation, and codes in force regarding the selection of the installation site, and water and power connections.



- WARNING:**
- Make sure that all connections are performed by qualified installation technicians and in compliance with the regulations in force.
 - Before starting work on the unit, make sure that the unit and the control panel are isolated from the power supply and cannot be energized. This applies to the control circuit as well.

⁵ EN 60335-2-41 is the norm about electric-related safety pumps for household and similar applications
⁶ Maximum 100°C for water

4.1 Earthing grounding



WARNING:

- Always connect the external protection conductor to earth (ground) terminal before making other electrical connections.
- You must earth (ground) all electrical equipment. This applies to the pump equipment, the driver, and any monitoring equipment. Test the earth (ground) lead to verify that it is connected correctly.
- If the motor cable is jerked loose by mistake, the earth (ground) conductor should be the last conductor to come loose from its terminal. Make sure that the earth (ground) conductor is longer than the phase conductors. This applies to both ends of the motor cable.
- Add additional protection against lethal shock. Install a high-sensitivity differential switch (30 mA) [residual current device RCD].

4.2 Facility requirements

4.2.1 Pump location



DANGER:

Do not use this pump in environments that may contain flammable/explosive or chemically aggressive gasses or powders.

Guidelines

Observe the following guidelines regarding the location of the product:

- Make sure that no obstructions hinder the normal flow of the cooling air that is delivered by the motor fan.
- Make sure that the installation area is protected from any fluid leaks, or flooding.
- If possible, place the pump slightly higher than the floor level.
- The ambient temperature must be between 0°C (+32°F) and +40°C (+104°F).
- The relative humidity of the ambient air must be less than 50% at +40°C (+104°F).
- Contact the Sales and Service Department if:
 - The relative air humidity conditions exceed the guidelines.
 - The room temperature exceeds +40°C (+104°F).
 - The unit is located more than 1000 m (3000 ft) above the sea level. The motor performance may need to be de-rated or replaced with a more powerful motor.

For information about which value to de-rate the motor with, see *Table 8*.

Pump positions and clearance

NOTICE:

Horizontal mounting of the pump requires special adaptation.

Provide adequate light and clearance around the pump. Make sure that it is easily accessible for installation and maintenance operations.

Installation above liquid source (suction lift)

The theoretical maximum suction height of any pump is 10.33m. In practice, the following affect the suction capacity of the pump:

- Temperature of the liquid
- Elevation above the sea level (in an open system)
- System pressure (in a closed system)
- Resistance of the pipes
- Own intrinsic flow resistance of the pump
- Height differences

The following equation is used to calculate the maximum height above the liquid level which the pump can be installed:

$$(p_b * 10.2 - Z) \geq NPSH + H_f + H_v + 0.5$$

p_b Barometric pressure in bar (in closed system is system pressure)

NPSH Value in meter of the pump intrinsic flow resistance

H_f Total losses in meters caused by passage of liquid in the suction pipe of the pump

H_v Steam pressure in meters that correspond to the temperature of the liquid T °C

0.5 Recommended safety margin (m)

Z Maximum height at which the pump can be installed (m)

For more information, see *Figure 7*.

(p_b*10.2 - Z) must always be a positive number.

For more information about the performance, see *Figure 5*.

NOTICE:

Do not exceed the pumps suction capacity as this could cause cavitation and damage the pump.

4.2.2 Piping requirements

Precautions



WARNING:

- Use pipes suited to the maximum working pressure of the pump. Failure to do so can cause the system to rupture, with the risk of injury.
- Make sure that all connections are performed by qualified installation technicians and in compliance with the regulations in force.

NOTICE:

Observe all regulations issued by the municipal authorities if the pump is connected to the municipal water system. If required by the authorities, install appropriate backflow-prevention device on the suction side.

Suction and discharge piping checklist

Check that the following requirements are met:

- All piping is independently supported, piping must not place a burden on the unit.
- Flexible pipes or unions are used, in order to avoid transmission of pump vibrations to the pipes and vice versa.
- Use wide bends, avoid using elbows which cause excessive flow resistance.
- The suction piping is perfectly sealed and airtight.
- If the pump is used in an open circuit, then the diameter of the suction pipe is suited to the installation conditions. The suction pipe must not be smaller than the diameter of the suction port.
- If the suction piping must be larger than the suction side of the pump, then an eccentric pipe reducer is installed.
- If the pump is placed above liquid level, a foot valve is installed at the end of the suction piping.
- The foot valve is fully immersed into the liquid so that air cannot enter through the suction vortex, when the liquid is at the minimum level and the pump is installed above the liquid source.
- Appropriately sized on-off valves are installed on the suction piping and on the delivery piping (downstream to the check valve) for regulation of the pump capacity, for pump inspection, and for maintenance.
- In order to prevent back flow into the pump when pump is turned off a check valve is installed on the delivery piping.



WARNING:

Do not use the on-off valve on the discharge side in the closed position in order to throttle the pump for more than a few seconds. If the pump must operate with the discharge side closed for more than a few seconds, a bypass circuit must be installed to prevent overheating of the water inside the pump.

For illustrations that show the piping requirements, see *Figure 12*.

4.3 Electrical requirements

- The local regulations in force overrule these specified requirements.
- In the case of fire fighting systems (hydrants and/or sprinklers), check the local regulations in force.

Electrical connection checklist

Check that the following requirements are met:

- The electrical leads are protected from high temperature, vibrations, and collisions.
- The power supply line is provided with:
 - A short-circuit protection device
 - A high-sensitivity differential switch (30 mA) [residual current device RCD] to provide additional protection against electric shock
 - A mains isolator switch with a contact gap of at least 3 mm

The electrical control panel checklist

NOTICE:

The control panel must match the ratings of the electric pump. Improper combinations could fail to guarantee the protection of the motor.

Check that the following requirements are met:

- The control panel must protect the motor against overload and short-circuit.
- Install the correct overload protection (thermal relay or motor protector).

Pump Type	Protection
Single phase standard electric pump ≤ 1,5 kW	<ul style="list-style-type: none"> • Built-in automatic reset thermal-amperometric protection (motor protector) • Short circuit protection (must be supplied by the installer)⁷
Three phase electric pump and other single phase pumps ⁸	<ul style="list-style-type: none"> • Thermal protection (must be supplied by the installer) • Short circuit protection (must be supplied by the installer)

- The control panel must be equipped with a dry-running protection system to which a pressure switch, float switch, probes, or other suitable device is connected.
- The following devices are recommended for use on the suction side of the pump:
 - When the water is pumped from a water system, use a pressure switch.
 - When the water is pumped from a storage tank or reservoir, use a float switch or probes.
- When thermal relays are used, relays that are sensitive to phase failure are recommended.

The motor checklist



WARNING:

- Read the operating instructions in order to ensure whether a protection device is provided if another motor other than the standard is used.
- If the motor is equipped with automatic thermal protectors, be aware of the risk of unexpected starts in connection to overload. Do not use such motors for fire-fighting applications and sprinkler systems.

NOTICE:

- Only use dynamically balanced motors with a half-sized key in the shaft extension (IEC 60034-14) and with normal vibration rate (N).
- The mains voltage and frequency must agree with the specifications on the data plate.
- Only use single-phase or three-phase motors whose size and power comply with the European standards.

In general, motors can operate under the following mains voltage tolerances:

Frequency Hz	Phase ~	UN [V] ± %
50	1	220 – 240 ± 6
	3	230/400 ± 10
		400/690 ± 10
60	1	220 – 230 ± 6
	3	220/380 ± 5
		380/660 ± 10

Use cable according to rules with 3 leads (2+earth/ground) for single phase versions and with 4 leads (3+earth/ground) for three phase version.

Electric pump with motor:

Type	Cable gland Outer cable diameter range in mm		
	M20 x 1.5, 6–12	M25 x 1.5, 13–18	M32 x 1.5, 18–25
SM	X	–	–
PLM	X	X	X
LLM	X	X	X

4.4 Install the pump

4.4.1 Mechanical installation

For information about the pump base and anchor holes, see *Figure 13*.

1. Put the pump onto the concrete foundation or equivalent metal structure.
If the transmission of vibrations can be disturbing, provide vibration-damping supports between the pump and the foundation.
2. Remove the plugs covering the ports.
3. Align the pump and piping flanges on both sides of the pump. Check the alignment of the bolts.
4. Fasten the piping with bolts to the pump. Do not force the piping into place.
5. Anchor the pump securely with bolts to the concrete foundation or metal structure.

4.4.2 Electrical installation

1. To facilitate the connection, the motor can be rotated to obtain the most convenient position for the connection:
 - a) Remove the four bolts that attach the motor to the pump.
 - b) Rotate the motor to the desired position. Do not remove the coupling between the motor shaft and the pump shaft.
 - c) Replace the four bolts and tighten them.
2. Remove the screws of the terminal box cover.
3. Connect and fasten the power cables according to the applicable wiring diagram.
For wiring diagrams, see *Figure 14*. The diagrams are also available on the back of the terminal box cover.
 - a) Connect the earth (ground) lead.
Make sure that the earth (ground) lead is longer than the phase leads.
 - b) Connect the phase leads.
4. Replace the terminal box cover.

NOTICE:

Tighten the cable glands carefully to ensure protection against cable slipping and humidity entering the terminal box.

5. If the motor is not equipped with automatic reset thermal protection, then adjust the overload protection according to the list below.
 - If the motor is used with full load, then set the value to the nominal current value of electric pump (data plate)
 - If the motor is used with partial load, then set the value to the operating current (for example measured with a current pincer).
 - If the pump has a star-delta starting system, then adjust the thermal relay to 58% of the nominal current or operating current (only for three-phase motors).

5 Commissioning, Startup, Operation, and Shutdown



Precautions



WARNING:

- Make sure that the drained liquid does not cause damage or injuries.
- The motor protectors can cause the motor to restart unexpectedly. This could result in serious injury.
- Never operate the pump without the coupling guard correctly installed.



CAUTION:

- The outer surfaces of the pump and motor can exceed 40°C (104°F) during operation. Do not touch with any part of the body without protective gear.
- Do not put any combustible material near the pump.

⁷ fuses aM (motor starting), or magneto-thermal switch with curve C and Icn ≥ 4,5 kA or other equivalent device.

⁸ Overload thermal relay with operation class 10A + fuses aM (motor starting) or motor protection magneto-thermal switch with operation class 10A.

NOTICE:

- Never operate the pump below the minimum rated flow, when dry, or without prime.
- Never operate the pump with the delivery ON-OFF valve closed for longer than a few seconds.
- Never operate the pump with the suction ON-OFF valve closed.
- To prevent overheating of the internal pump-components, make sure that a minimum water flow is always guaranteed when the pump is running. If this cannot be achieved, then a bypass or re-circulate line is recommended. Refer to the minimal nominal flow rate values given in the Appendix.
- Do not expose an idle pump to freezing conditions. Drain all liquid that is inside the pump. Failure to do so can cause liquid to freeze and damage the pump.
- The sum of the pressure on the suction side (water mains, gravity tank) and the maximum pressure that is delivered by the pump must not exceed the maximum working pressure allowed (nominal pressure PN) for the pump.
- Do not use the pump if cavitation occurs. Cavitation can damage the internal components.
- If you pump hot water, you must guarantee a minimum pressure on the suction side to prevent cavitation.

Noise level

For information about noise levels emitted by units equipped with a Lowara supplied motor, see *Table 10*.

5.1 Prime the pump

For information about plug placement, see *Figure 15*.

Installations with liquid level above the pump (suction head)

For an illustration that shows the pump parts, see *Figure 16*.

1. Close the on-off valve located downstream from the pump. Select the applicable steps:
2. Series 1, 3, 5:
 - a) Loosen the drain plug pin (2).
 - b) Remove the fill and vent plug (1) and open the on-off valve upstream until the water flows out of the hole.
 - c) Tighten the drain plug pin (2).
 - d) Replace the fill and vent plug (1).
3. Series 10, 15, 22, 33, 46, 66, 92, 125:
 - a) Remove the fill and vent plug (1) and open the on/off valve upstream until the water flows out of the hole.
 - b) Close the fill and vent plug (1). Fill plug (3) can be used instead of (1).

Installations with liquid level below the pump (suction lift)

For an illustration that shows the pump parts, see *Figure 17*.

1. Open the on-off valve located upstream from the pump and close the on-off valve downstream. Select the applicable steps:
2. Series 1, 3, 5:
 - a) Loosen the drain plug pin (2).
 - b) Remove the fill and vent plug (1) and use a funnel to fill the pump until water flows out of the hole.
 - c) Replace the fill and vent plug (1).
 - d) Tighten the drain plug pin (2).
3. Series 10, 15, 22, 33, 46, 66, 92, 125:
 - a) Remove the fill and vent plug (1) and use a funnel (4) to fill the pump until water flows out of the hole.
 - b) Replace the fill and vent plug (1). Fill plug (3) can be used instead of (1).

5.2 Check the rotation direction (three-phase motor)

Follow this procedure before startup.

1. Locate the arrows on the adaptor or the motor fan cover to determine the correct rotation direction.
2. Start the motor.
3. Quickly check the direction of rotation through the coupling guard or through the motor fan cover.
4. Stop the motor.
5. If the rotation direction is incorrect, do as follows:
 - a) Disconnect the power supply.
 - b) In the terminal board of the motor or in the electric control panel, exchange the position of two of the three wires of the supply cable. For the wiring diagrams, see *Figure 14*.
 - c) Check the direction of rotation again.

5.3 Start the pump

Before starting the pump, make sure that:

- The pump is correctly connected to the power supply.
- The pump is correctly primed according to instruction in the *Prime the pump*.
- The on-off valve located downstream from the pump is closed.
 1. Start the motor.
 2. Gradually open the on-off valve on the discharge side of the pump. At the expected operating conditions, the pump must run smoothly and quietly. If not, refer to *Troubleshooting*.

6 Maintenance



Precautions



WARNING:

Disconnect and lock out electrical power before installing or servicing the pump.



WARNING:

- Maintenance and service must be performed by skilled and qualified personnel only.
- Observe accident prevention regulations in force.
- Use suitable equipment and protection.
- Make sure that the drained liquid does not cause damage or injuries.

6.1 Service

The pump does not require any scheduled routine maintenance. If the user wishes to schedule regular maintenance deadlines, they are dependent on the type of pumped liquid and on the operating conditions of the pump.

Contact the Sales and Service Department for any requests or information regarding routine maintenance or service.

Extraordinary maintenance may be necessary to clean the liquid end and/or replace worn parts.

6.2 Torque values

For information about torque values, see *Table 18*, *Table 19*, or *Table 20*.

For information about the applicable thrust and torques on the flanges by the piping, see *Figure 21*.

6.3 Replace the electric motor

The pump is supplied with a calibrated fork-shaped shim designed to facilitate the motor coupling and replacement operations.

- See instructions about how to replace the motor in *Figure 23*. If the calibrated fork-shaped shim is not available use a 5 ± 0.1 mm (0.2 ± 0.004 in.) shim.

6.4 Replace the mechanical seal

Series	Instruction
1, 3, 5	Contact the Sales and Service Department.
10, 15, 22: ≤ 4 kW	Contact the Sales and Service Department.
10, 15, 22: > 4 kW	See the instructions in <i>Figure 24</i> . Use alcohol for cleaning and lubrication.
33, 46, 66, 92, 125	See the instructions in <i>Figure 24</i> . Use alcohol for cleaning and lubrication.

7 Troubleshooting

7.1 Troubleshooting for users



The main switch is on, but the electric pump does not start.

Cause	Remedy
The thermal protector incorporated in the pump (if any) has tripped.	Wait until the pump has cooled down. The thermal protector will automatically reset.

Cause	Remedy
The protective device against dry running has tripped.	Check the water level in the tank, or the mains pressure.

The electric pump starts, but the thermal protection trips a varying time after.

Cause	Remedy
There are foreign objects (solids or fibrous substances) inside the pump which have jammed the impeller.	Contact the Sales and Service Department.
The pump is overloaded because it is pumping liquid that is too dense and viscous.	Check the actual power requirements based on the characteristics of the pumped liquid and then contact the Sales and Service Department.

The pump runs but delivers too little or no water.

Cause	Remedy
The pump is clogged.	Contact the Sales and Service Department.

The troubleshooting instructions in the tables below are for installers only.

7.2 The main switch is on, but the electric pump does not start



Cause	Remedy
There is no power supply.	<ul style="list-style-type: none"> Restore the power supply. Make sure all electrical connections to the power supply are intact.
The thermal protector incorporated in the pump (if any) has tripped.	Wait until the pump has cooled down. The thermal protector will automatically reset.
The thermal relay or motor protector in the electric control panel has tripped.	Reset the thermal protection.
The protective device against dry running has tripped.	Check the: <ul style="list-style-type: none"> water level in the tank, or the mains pressure protective device and its connecting cables
The fuses for the pump or auxiliary circuits are blown.	Replace the fuses.

7.3 The electric pump starts, but the thermal protector trips or the fuses blow immediately after



Cause	Remedy
The power supply cable is damaged.	Check the cable and replace as necessary.
The thermal protection or fuses are not suited for the motor current.	Check the components and replace as necessary.
The electric motor is short circuit.	Check the components and replace as necessary.
The motor overloads.	Check the operating conditions of the pump and reset the protection.

7.4 The electric pump starts, but the thermal protector trips or the fuses blow a short time after



Cause	Remedy
The electrical panel is situated in an excessively heated area or is exposed to direct sunlight.	Protect the electrical panel from heat source and direct sunlight.
The power supply voltage is not within the working limits of the motor.	Check the operating conditions of the motor.
A power phase is missing.	Check the <ul style="list-style-type: none"> power supply electrical connection

7.5 The electric pump starts, but the thermal protector trips a varying time after



Cause	Remedy
There are foreign objects (solids or fibrous substances) inside the pump which have jammed the impeller.	Contact the Sales and Service Department.
The pumps delivery rate is higher than the limits specified on the data plate.	Partially close the on-off valve down stream until the delivery rate is equal or less than the limits specified on the data plate.
The pump is overloaded because it is pumping liquid that is too dense and viscous.	Check the actual power requirements based on the characteristics of the pumped liquid and replace the motor accordingly.
The motor bearings are worn.	Contact the Sales and Service Department.

7.6 The electric pump starts, but the system's general protection is activated



Cause	Remedy
A short circuit in the electrical system.	Check the electrical system.

7.7 The electric pump starts, but the system's residual current device (RCD) is activated



Cause	Remedy
There is an earth (ground) leakage.	Check the insulation of the electrical system components.

7.8 The pump runs but delivers too little or no water



Cause	Remedy
There is air inside the pump or the piping.	<ul style="list-style-type: none"> Bleed the air
The pump is not correctly primed.	Stop the pump and repeat the prime procedure. If the problem continues: <ul style="list-style-type: none"> Check that the mechanical seal is not leaking. Check the suction pipe for perfect tightness. Replace any valves that are leaking.
The throttling on the delivery side is too extensive.	Open the valve.
Valves are locked in closed or partially closed position.	Disassemble and clean the valves.
The pump is clogged.	Contact the Sales and Service Department.
The piping is clogged.	Check and clean the pipes.
The rotation direction of the impeller is wrong (three-phase version).	Change the position of two of the phases on the terminal board of the motor or in the electric control panel.
The suction lift is too high or the flow resistance in the suction pipes is too great.	Check the operating conditions of the pump. If necessary, do the following: <ul style="list-style-type: none"> Decrease the suction lift Increase the diameter of the suction pipe

7.9 The electric pump stops, and then rotates in the wrong direction



Cause	Remedy
There is a leakage in one or both of the following components: <ul style="list-style-type: none"> The suction pipe The foot valve or the check valve 	Repair or replace the faulty component.
There is air in the suction pipe.	Bleed the air.

7.10 The pump starts up too frequently



Cause	Remedy
There is a leakage in one or both of the following components: <ul style="list-style-type: none"> • The suction pipe • The foot valve or the check valve 	Repair or replace the faulty component.
There is a ruptured membrane or no air pre-charge in the pressure tank.	See the relevant instructions in the pressure tank manual.

7.11 The pump vibrates and generates too much noise

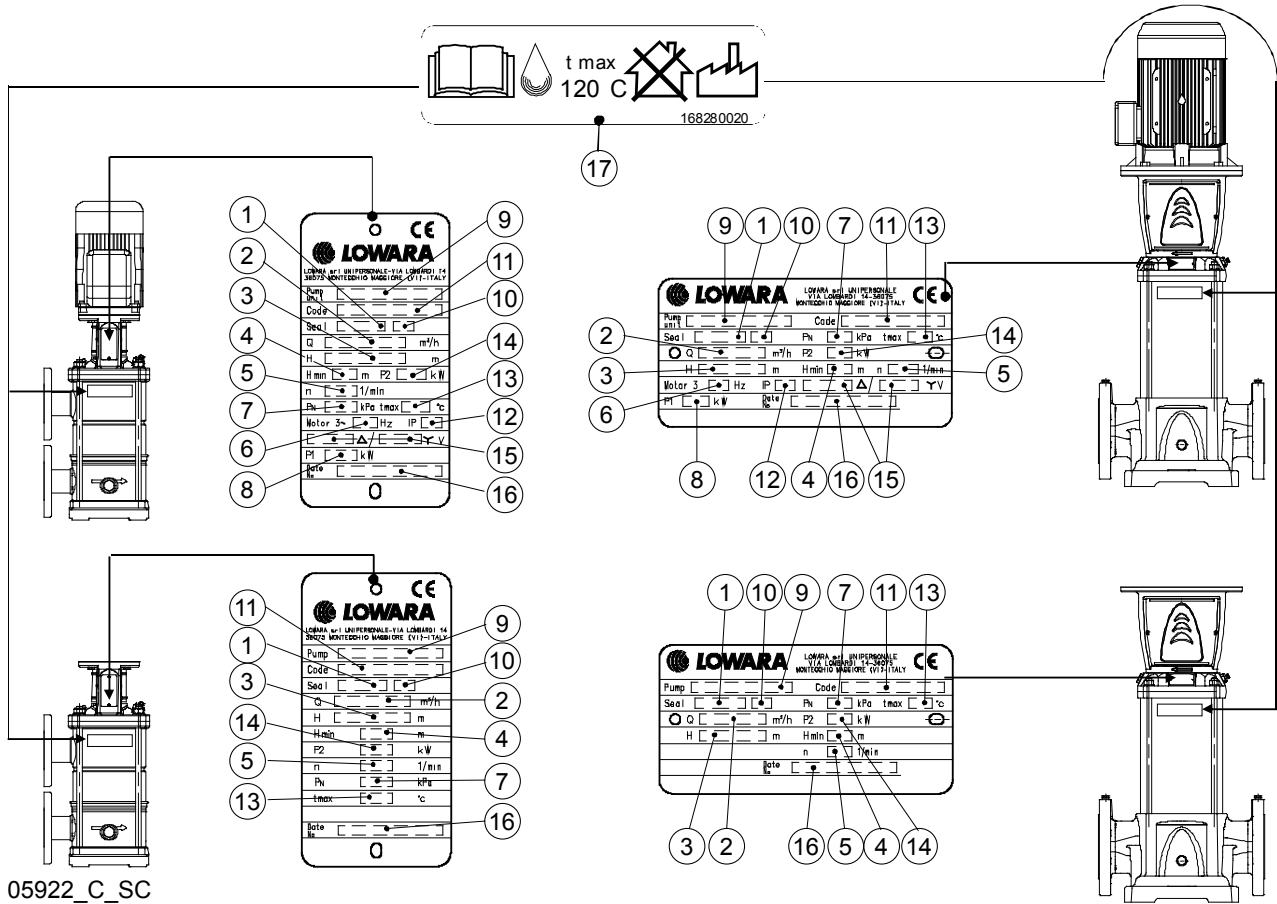


Cause	Remedy
Pump cavitation	Reduce the required flow rate by partially closing the on-off valve downstream from the pump. If the problem persists check the operating conditions of the pump (for example height difference, flow resistance, liquid temperature).
The motor bearings are worn.	Contact the Sales and Service Department.
There are foreign objects inside the pump.	Contact the Sales and Service Department.

For any other situation, refer to the Sales and Service Department.

Appendice tecnica — Technical appendix — Annexe technique — Technischer Anhang — Apéndice técnico — Anexo técnico — Technische bijlage — Teknisk bilag — Teknisk vedlegg — Tekniska appendix — Tekninen liite — Tæknilegur viðauki — Tehniline lisa — Tehniskais pielikums — Techninių duomenų priedas — Dodatek Dane techniczne — Technický dodatek — Technická príloha — Műszaki adatok függeléke — Anexă tehnică — Техническое приложение — Tehnična priloga — Tehnički dodatak — Tehnički dodatak — Τεχνικό παράρτημα — Teknik ek — Техническое приложение — Технічний додаток — الملحق الفني

1.



05922_C_SC

Italiano

1. Codice identificativo materiali tenuta meccanica
2. Campo della portata
3. Campo della prevalenza
4. Prevalenza minima (IEC 60335-2-41)
5. Velocità di rotazione
6. Frequenza
7. Pressione massima d'esercizio
8. Potenza assorbita elettropompa
9. Tipo elettropompa/pompa
10. Codice identificativo materiale o-ring
11. Codice prodotto
12. Classe di protezione
13. Temperatura massima d'esercizio del liquido (per utilizzi secondo EN 60335-2-41)
14. Potenza nominale motore
15. Campo delle tensioni nominali
16. Numero di serie (data + numero progressivo)
17. Temperatura massima d'esercizio del liquido (per utilizzi diversi da quelli della EN 60335-2-41)

English

1. Mechanical seal material identification code
2. Capacity range
3. Head range
4. Minimum head (IEC 60335-2-41)
5. Speed
6. Frequency
7. Maximum operating pressure
8. Electric pump unit absorbed power
9. Pump/electric pump unit type
10. O-ring material identification code
11. Electric pump unit/ pump part number
12. Protection class
13. Maximum operating liquid temperature (uses as IEC 60335-2-41)
14. Motor nominal power
15. Rated voltage range
16. Serial number (date + progressive number)
17. Maximum operating liquid temperature (uses other than IEC 60335-2-41)

Français

1. Code d'identification de matériau de joint mécanique
2. Plage de capacité
3. Plage de hauteur manométrique
4. Hauteur manométrique minimale (CEI 60335-2-41)
5. Vitesse
6. Fréquence
7. Pression maximale de fonctionnement
8. Puissance absorbée par le groupe de pompage électrique
9. Type de groupe de pompage électrique
10. Code d'identification de matériau de joint torique
11. Référence de pompe/groupe de pompage électrique
12. Classe de protection
13. Température maximale du liquide en fonctionnement (selon CEI 60335-2-41)
14. Puissance nominale du moteur
15. Plage de tension nominale
16. Numéro de série (date + numéro incrémental)
17. Température maximale du liquide en fonctionnement (utilisation autre que selon CEI 60335-2-41)

Ελληνικά

1. Κωδικός αναγνώρισης υλικού μηχανικής στεγανοποίησης
2. Εύρος χωρητικότητας
3. Εύρος κεφαλής
4. Ελάχιστη κεφαλή (IEC 60335-2-41)
5. Αρ. στρωφών
6. Συχνότητα
7. Μέγιστη λειτουργική πίεση
8. Μονάδα ηλεκτρικής αντλίας που απορροφά ρεύμα
9. Τύπος μονάδας αντλίας/ηλεκτρικής αντλίας
10. Κωδικός αναγνώρισης υλικού κυλινδρικού δακτυλίου
11. Μονάδα ηλεκτρικής αντλίας/αριθμός εξαρτήματος αντλίας
12. Κλάση προστασίας
13. Μέγιστη λειτουργική θερμοκρασία υγρού (χρησιμοποιεί ως IEC 60335-2-41)
14. Ονομαστικό ρεύμα κινητήρα
15. Εύρος ονομαστικής τάσης
16. Αριθμός σειράς (ημερομηνία + προοδευτικός αριθμός)
17. Μέγιστη λειτουργική θερμοκρασία υγρού (χρησιμοποιεί άλλη από την IEC 60335-2-41)

Türkçe

1. Mekanik kapama malzemesi tanımlama kodu
2. Kapasite aralığı
3. Kafa aralığı
4. Minimum kafa (IEC 60335-2-41)
5. Hız
6. Frekans
7. Maksimum çalışma basıncı
8. Elektrikli pompa ünitesi kullanılan güç
9. Pompa/elektrikli pompa ünitesi tipi
10. O-ring malzemesi tanımlama kodu
11. Elektrikli pompa ünitesi/ pompa parça numarası
12. Koruma sınıfı
13. Maksimum çalışma sıvısı sıcaklığı (IEC 60335-2-41 olarak kullanılır)
14. Nominal motor gücü
15. Ölçülen voltaj aralığı
16. Seri numarası (tarih + ilerleyen numara)
17. Maksimum çalışma sıvısı sıcaklığı (IEC 60335-2-41 dışındakini kullanır)

Русский

1. Идентификационный код материала механического уплотнения
2. Диапазон мощности
3. Диапазон напора
4. Минимальный напор (IEC 60335-2-41)
5. Частота вращения
6. Частота
7. Максимальное рабочее давление
8. Поглощаемая мощность электрической насосной установки
9. Тип насоса / электрической насосной установки
10. Идентификационный код материала уплотнительного кольца круглого сечения
11. Номер детали узла электрического насоса/ насоса
12. Класс защиты
13. Максимальная температура рабочей жидкости (используется как IEC 60335-2-41)
14. Номинальная мощность двигателя
15. Номинальный диапазон напряжения
16. Серийный номер (дата + номер по порядку)
17. Максимальная температура рабочей жидкости (используется кроме IEC 60335-2-41)

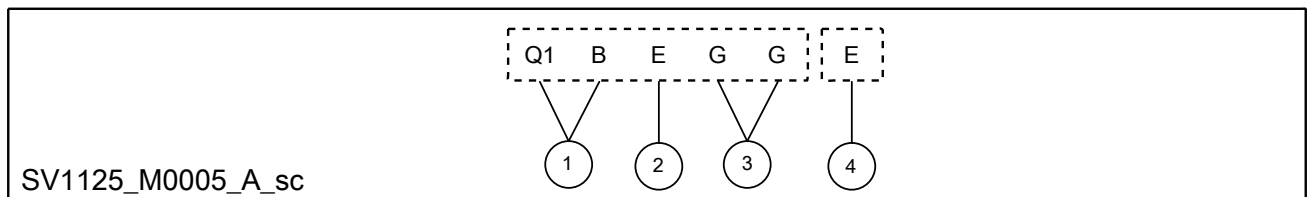
Αγγλίσκκα

1. Идентификационный код материала механического уплотнения
2. Диапазон мощности
3. Диапазон напоры
4. Минимальный напор (IEC 60335-2-41)
5. Швидкість
6. Частота
7. Максимальный рабочий тиск
8. Потужність агрегату електричного насоса, що поглинається
9. Тип насоса/электричної насосної установки
10. Идентификационный код материала уплотнительного кольца круглого перетину
11. Номер детали узла електричного насоса/ насоса
12. Клас захисту
13. Максимальна температура робочої ріднини (використовується як IEC 60335-2-41)
14. Номинальна потужність двигуна
15. Номинальный диапазон напруги
16. Серийный номер (дата + номер по порядку)
17. Максимальна температура робочої ріднини (використовується крім IEC 60335-2-41)

العربية

1. كود تعريف مواد مانع التسرب الميكانيكي
2. نطاق السعة
3. نطاق الرأس
4. الحد الأدنى للرأس (IEC 60335-2-41)
5. السرعة
6. التردد
7. الحد الأقصى لضغط التشغيل
8. الطاقة الممتصة لوحدّة المضخة الكهربائية
9. المضخة/نوع وحدّة المضخة الكهربائية
10. كود تعريف مواد الحلقة الدائرية
11. رقم القطعة لوحدّة المضخة الكهربائية/المضخة
12. فئة الحماية
13. الحد الأقصى لدرجة حرارة سائل التشغيل (استخدامات مثل IEC 60335-2-41)
14. الطاقة الاسمية للموتور
15. نطاق الجهد المقدر
16. الرقم التسلسلي (التاريخ + الرقم التدممي)
17. الحد الأقصى لدرجة حرارة سائل التشغيل (استخدامات أخرى خلاف IEC 60335-2-41)

2.



Italiano

1. Tenuta meccanica
 - A Carbone impregnato di metallo
 - B Carbonio impregnato con resina
 - C Carbonio impregnato con resina speciale
 - Q1 Carburo di silicio
2.
 - E EPDM
 - T PTFE
 - V FPM (FKM)

English

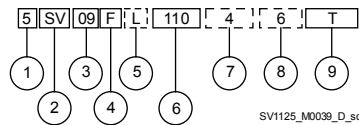
1. Mechanical Seal
 - A Metal impregnated carbon
 - B Resin impregnated carbon
 - C Special resin impregnated carbon
 - Q1 Silicon carbide
2.
 - E EPDM
 - T PTFE
 - V FPM (FKM)
3.
 - G 1,4401 (AISI 316)
4. Other o-ring gaskets
 - E EPDM
 - T PTFE
 - V FPM (FKM)

Français

1. Joint mécanique
 - A Carbone à imprégnation métallique
 - B Carbone imprégné de résine
 - C Carbone imprégné de résine spéciale
 - Q1 Carbure de silicium
2.
 - E EPDM
 - T PTFE
 - V FPM (FKM)
3.
 - G 1,4401 (AISI 316)
4. Autres joints toriques
 - E EPDM
 - T PTFE
 - V FPM (FKM)

3.	G	1.4401 (AISI 316)	(AISI 316) 1.4401	G	.3
4.	Інші кільцеві ущільнення		الجوانات الدائرية الأخرى		.4
	E	EPDM		EPDM	E
	T	PTFE		PTFE	T
	V	FPM (FKM)		(FPM (FKM	V

3.



Italiano

- Portata nominale in m³/h
 - Nome della serie
 - Numero di giranti
 - 8/2A** 8 giranti, 2 con diametro esterno ridotto
 - A o B** Tipo di riduzione
 - 1, 3, 5, 10, 15, 22
 - F** AISI 304, flange tonde (PN25)
 - T** AISI 304, flange ovali (PN16)
 - R** AISI 304, bocche sovrapposte, flange tonde (PPN25)
 - N** AISI 316, flange tonde (PN25)
 - V** AISI 316, giunti Victaulic® (PN25)
 - P** AISI 316, giunti Victaulic® (PN40)
 - C** AISI 316, giunti clamp DIN 32676 (PN25)
 - K** AISI 316, giunti filettati DIN 11851 (PN25)
 - 33, 46, 66, 92, 125
 - G** AISI 304/Ghisa, flange tonde
 - N** AISI 316, flange tonde
 - P** AISI 316, flange tonde (PN 40)
 - 1, 3, 5, 10, 15, 22
 - Assente** Versione standard
 - L** basso NPSH, flange tonde, PN25 (versione F, N)
 - H** Alta temperatura, 150°C, flange tonde, PN25 (versione F, N)
 - B** Alta temperatura, 180°C, flange tonde, PN25 (versione N)
 - E** Passivato ed elettrolucidato (versione N, V, C, K)
 - 33, 46, 66, 92, 125
 - Assente** Versione standard
 - L** basso NPSH, flange tonde (versione G, N)
 - H** Alta temperatura, 150°C, flange tonde, PN25 (versione G, N)
 - B** Alta temperatura, 180°C, flange tonde, PN25 (versione N)
 - E** Passivato ed elettrolucidato (versione N)
 - Potenza nominale del motore (kW x 10)
 - Assente** 2 poli
 - 4** 4 poli
 - Assente** 50 Hz
 - 6** 60 Hz
 - M** Monofase
 - T** Trifase
- Victaulic® is a trademark of Victaulic Company.

English

- Flow rate in m³/h
 - Series name
 - Number of impellers
 - 8/2A** 8 impellers, 2 with outer diameter reduced
 - A or B** Reduction type
 - 1, 3, 5, 10, 15, 22
 - F** AISI 304, round flanges (PN25)
 - T** AISI 304, oval flanges (PN16)
 - R** AISI 304, discharge port above suction, round flanges (PPN25)
 - N** AISI 316, round flanges (PN25)
 - V** AISI 316, Victaulic® couplings (PN25)
 - P** AISI 316, Victaulic® couplings (PN40)
 - C** AISI 316, clamp couplings DIN32676 (PN25)
 - K** AISI 316, threaded couplings DIN11851 (PN25)
 - 33, 46, 66, 92, 125
 - G** AISI 304/Cast Iron, round flanges
 - N** AISI 316, round flanges
 - P** AISI 316, round flanges (PN40)
 - 1, 3, 5, 10, 15, 22
 - Blank** Standard version
 - L** Low NPSH, round flanges, PN25 (F, N versions)
 - H** High temperature, 150°C, round flanges, PN25 (F, N versions)
 - B** High temperature, 180°C, round flanges, PN25 (N version)
 - E** Passivated and electro-polished (N, V, C, K versions)
 - 33, 46, 66, 92, 125
 - Blank** Standard version
 - L** Low NPSH, round flanges (G, N versions)
 - H** High temperature, 150°C, round flanges, PN25 (G, N versions)
 - B** High temperature, 180°C, round flanges, PN25 (N version)
 - E** Passivated and electro-polished (N version)
 - Rated motor power (kW x 10)
 - Blank** 2-pole
 - 4** 4-pole
 - Blank** 50 Hz
 - 6** 60 Hz
 - M** Single-phase
 - T** Three-phase
- Victaulic® is a trademark of Victaulic Company.

Français

- Débit en m³/h
 - Nom de série
 - Nombre de roues
 - 8/2A** 8 roues, avec 2 de diamètre extérieur réduit
 - A ou B** Type de réduction
 - 1, 3, 5, 10, 15, 22
 - F** AISI 304, brides rondes (PN25)
 - T** AISI 304, brides ovales (PN16)
 - R** AISI 304, port de refoulement au-dessus de l'aspiration, brides rondes (PPN25)
 - N** AISI 316, brides rondes (PN25)
 - V** AISI 316, accouplements Victaulic® (PN25)
 - P** AISI 316, accouplements Victaulic® (PN40)
 - C** AISI 316, accouplements à collier DIN32676 (PN25)
 - K** AISI 316, accouplements filetés DIN11851 (PN25)
 - 33, 46, 66, 92, 125
 - G** AISI 304/fonte, brides rondes
 - N** AISI 316, brides rondes
 - P** AISI 316, brides rondes (PN40)
 - 1, 3, 5, 10, 15, 22
 - Vide** Version standard
 - L** Faible valeur NPSH, brides rondes, PN25 (versions F, N)
 - H** Haute température, 150 °C, brides rondes, PN25 (versions F, N)
 - B** Haute température, 180 °C, brides rondes, PN25 (version N)
 - E** Passivé avec polissage électrolytique (versions N, V, C, K)
 - 33, 46, 66, 92, 125
 - Vide** Version standard
 - L** Faible valeur NPSH, brides rondes (versions G, N)
 - H** Haute température, 150 °C, brides rondes, PN25 (versions G, N)
 - B** Haute température, 180 °C, brides rondes, PN25 (version N)
 - E** Passivé avec polissage électrolytique (version N)
 - Puissance nominale du moteur (kW x 10)
 - Vide** 2 pôles
 - 4** 4 pôles
 - Vide** 50 Hz
 - 6** 60 Hz
 - M** Monophasé
 - T** Triphasés
- Victaulic® est une marque de commerce de Victaulic Company

Deutsch

- Durchfluss in m³/h
- Name der Modellreihe
- Anzahl der Laufräder
 - 8/2A** 8 Laufräder, 2 mit verkleinertem Außendurchmesser
- A oder B** Art der Reduzierung

Español

- Caudal en m³/h
- Nombre de serie
- Número de impulsores
 - 8/2A** 8 impulsores, 2 con diámetro exterior reducido
- A o B** Tipo de reducción

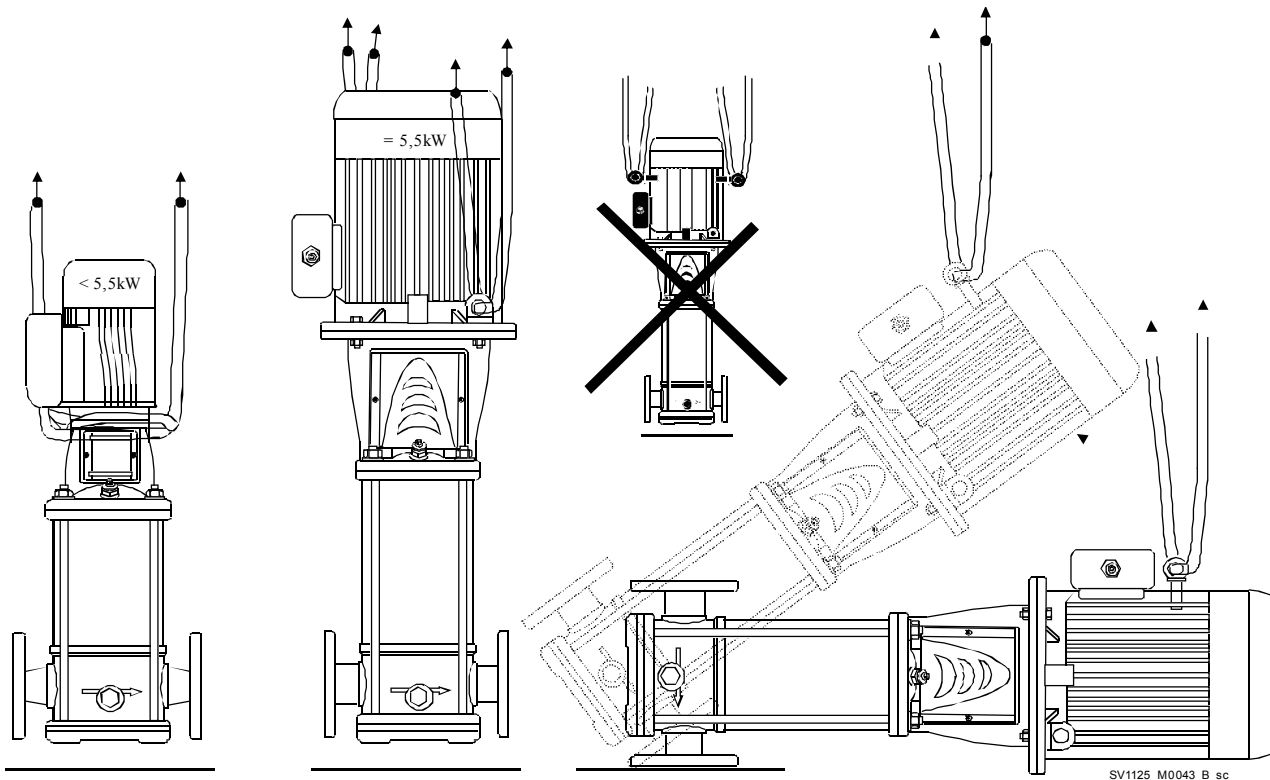
Português

- Taxa do fluxo m³/h
- Nome da série
- Número de impulsores
 - 8/2A** 8 impulsores, 2 com diâmetro exterior reduzido
- A ou B** Tipo de redução

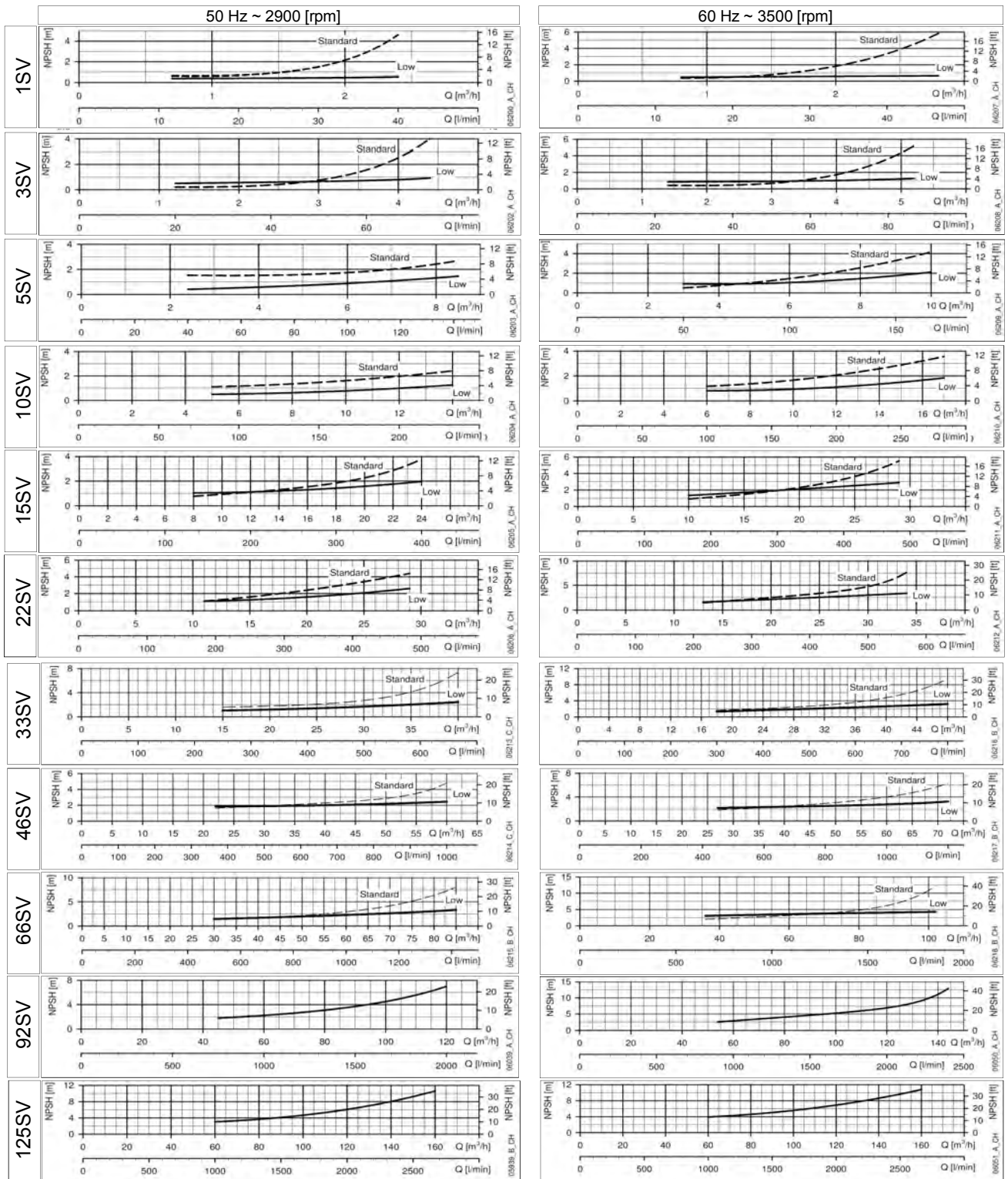
5. 1, 3, 5, 10, 15, 22 (x 10 طاقة الموتور المقدره (كيلو وات 10 x) .6
He Стандартна версія قطب-2 فارغ .7
заповнено 4-قطب 4
L Низький кавітаційний запас тиску, круглі фланці, PN25 (версії F, N) 50 هرتز 50 فارغ .8
 60 هرتز 60 6
 أحادية الطور M .9
 ثلاثية الأطوار T
- H** Висока температура, 150°C, круглі фланці, PN25 (версії F, N) Victaulic هي علامة تجارية لشركة Victaulic Company
V Висока температура, 180°C, круглі фланці, PN25 (версія N)
E Пасивовано та електропольовано (версії N, V, C, K)
- 33, 46, 66, 92, 125
- He** Стандартна версія
заповнено
L Низький кавітаційний запас тиску, круглі фланці (версії G, N)
H Висока температура, 150°C, круглі фланці, PN25 (версії G, N)
V Висока температура, 180°C, круглі фланці, PN25 (версія N)
E Пасивовано та електропольовано (версія N)
6. Номінальна потужність двигуна (кВт x 10)
 7. **He** заповнено 2 полюса
 4 4 полюса
 8. **He** заповнено 50 Гц
 6 60 Гц
 9. **M** Одна фаза
T Три фази

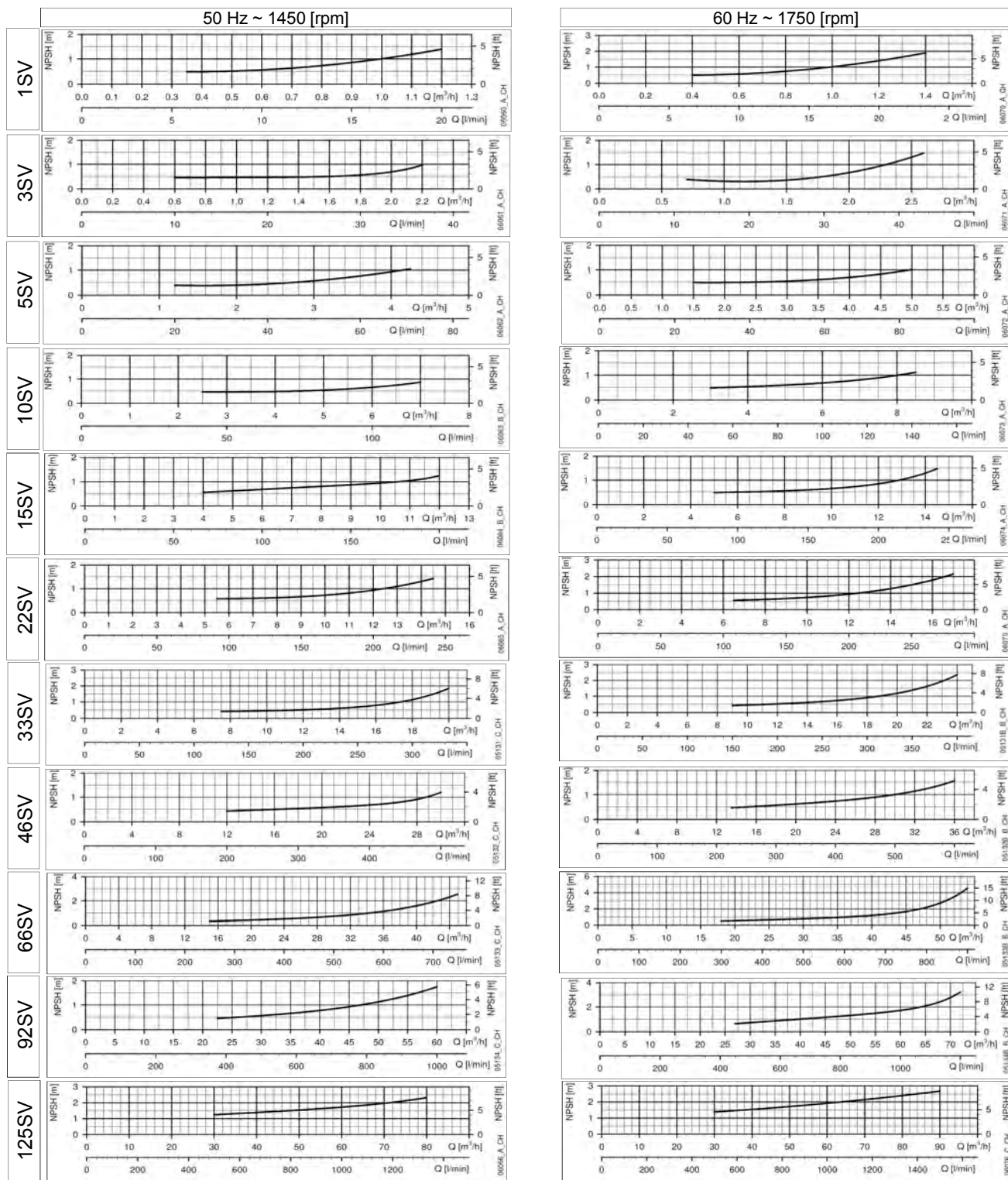
Victaulic® є торгівельною маркою компанії Victaulic Company

4.



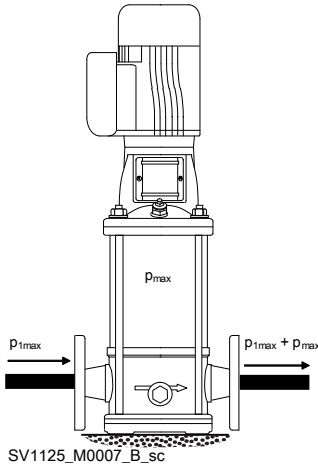
5.





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6.



7.

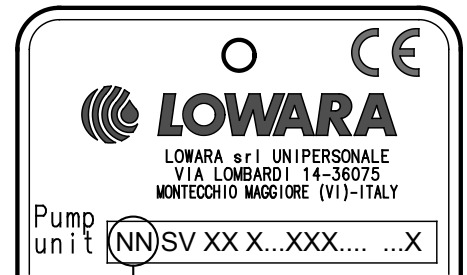
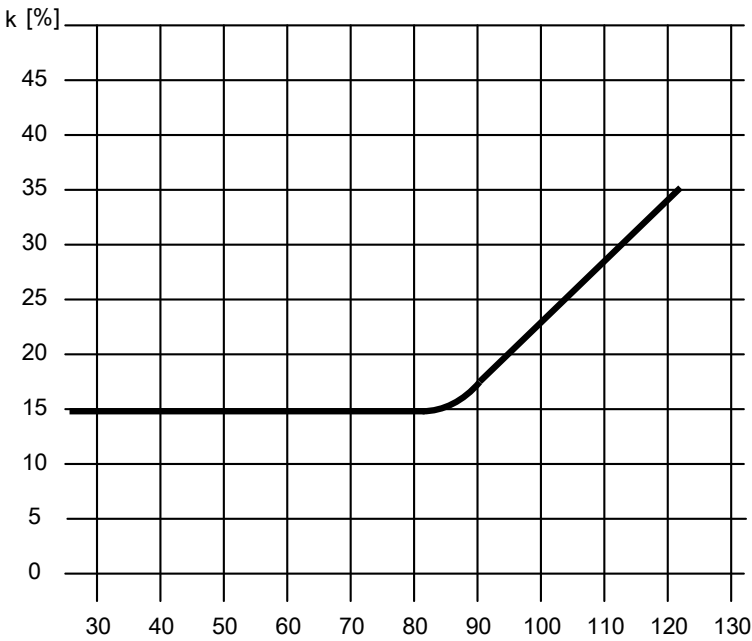
T [°C]	Hv [m]
20	0.2
30	0.4
40	0.7
50	1.2
60	2.0
70	3.1
80	4.8
90	7.1
100	10.3
110	14.6
120	20.2

SV1125_M0006_B_sc

8.

H (m)	0°C	10°C	20°C	30°C	40°C	45°C	50°C	55°C	60°C
0	1,00	1,00	1,00	1,00	1,00	0,95	0,90	0,85	0,80
500	1,00	1,00	1,00	1,00	1,00	0,95	0,90	0,85	0,80
1000	1,00	1,00	1,00	1,00	1,00	0,95	0,90	0,85	0,80
1500	0,97	0,97	0,97	0,97	0,97	0,92	0,87	0,82	0,78
2000	0,95	0,95	0,95	0,95	0,95	0,90	0,85	0,80	0,76

9.



$$Q_{min} = (NN) \cdot k \text{ [m}^3\text{/h]}$$

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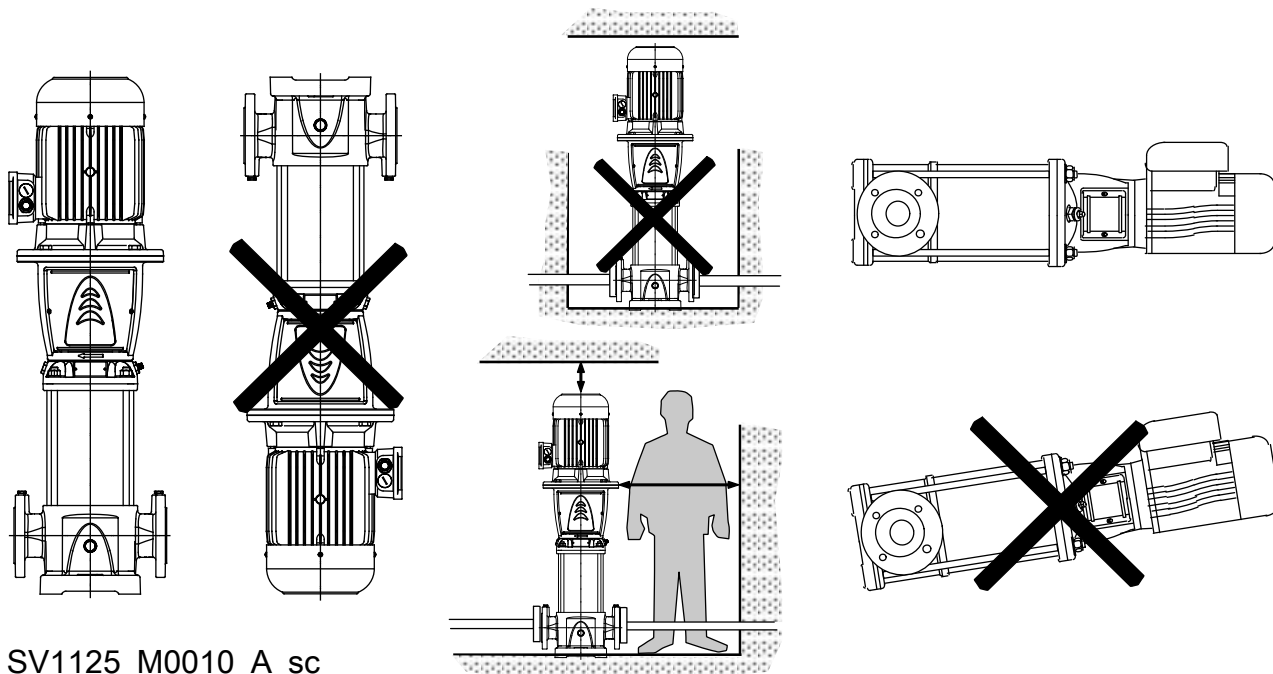
10.

P2 (kW)	dB ± 2							
	50 Hz 2900 min ⁻¹		50 Hz 1450 min ⁻¹		60 Hz 3500 min ⁻¹		60 Hz 1750 min ⁻¹	
	IEC	LpA*	IEC	LpA*	IEC	LpA*	IEC	LpA*
0,25	-	<70	71	<70	-	-	71	<70
0,37	71R	<70	71	<70	-	-	71	<70
0,55	71	<70	80	<70	71	<70	80	<70
0,75	80R	<70	80	<70	80R	<70	80	<70
1,00	80	<70	90	<70	80	<70	90	<70
1,50	90R	<70	90	<70	90R	<70	90	<70
2,20	90R	<70	100	<70	90R	70	100	<70
3,00	100R	<70	100	<70	100R	70	100	<70
4,00	112R	<70	112	<70	112R	71	112	<70

P2 (kW)	dB ± 2							
5,50	132R	<70	132	<70	132R	73	132	<70
7,50	132R	<70	132	<70	132R	73	132	<70
11,00	160R	73	-	-	160R	79	160	<70
15,00	160	75	-	-	160	80	160	<70
18,50	160	75	-	-	160	80	-	-
22,00	180R	75	-	-	180R	80	-	-
30,00	200	74	-	-	200	78	-	-
37,00	200	74	-	-	200	78	-	-
45,00	225	78	-	-	225	83	-	-
55,00	250	84	-	-	250	89	-	-

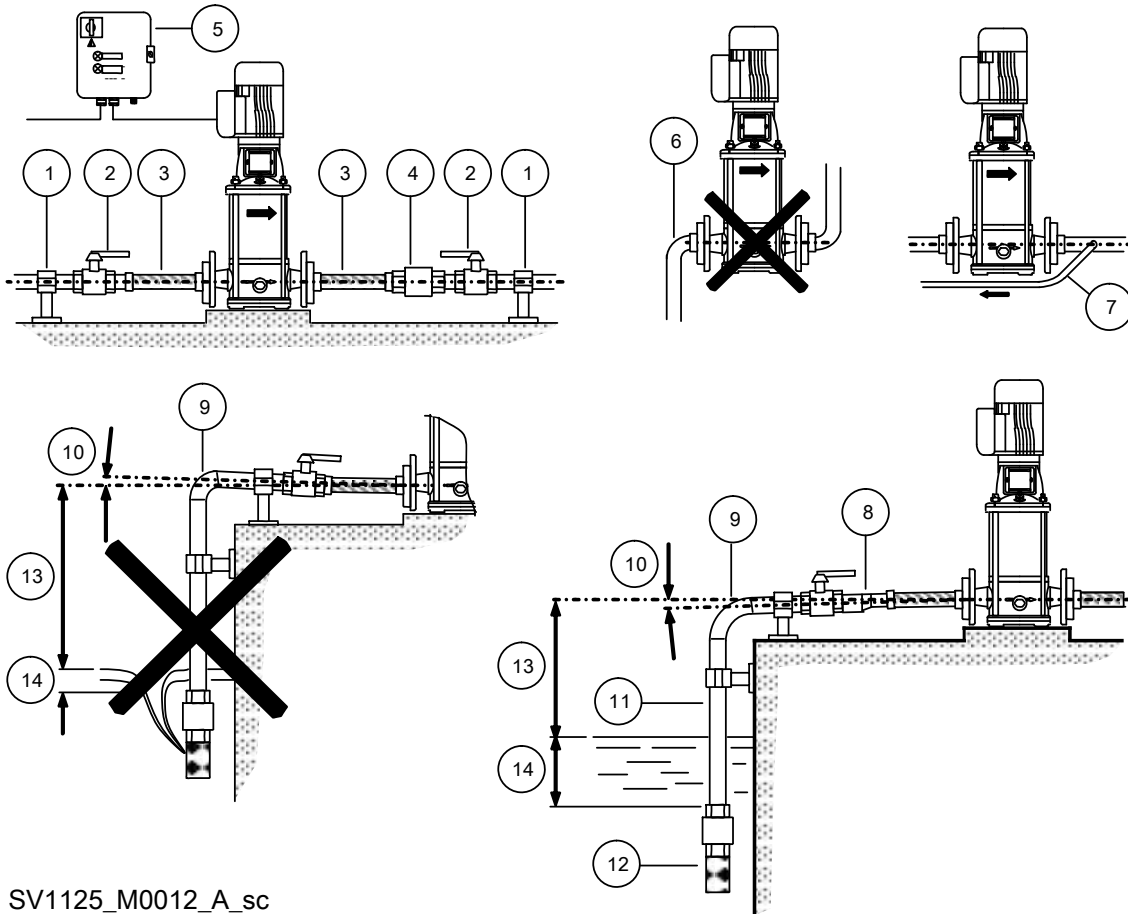
*Livello di pressione acustica misurato in campo libero a 1 m di distanza dall'elettropompa. — **Sound pressure level measured in a free field at 1 m distance from the electric pump.** — Niveau de pression acoustique mesurée en champ libre à une distance de 1 m de la pompe électrique. — Der Schalldruck wurde unter Freifeldbedingungen in einem Abstand von 1 Meter von der elektrischen Pumpe gemessen. — Nivel de presión de sonido medido en un campo libre a 1 m de distancia de la bomba eléctrica. — Nível de pressão sonora medida num campo livre a 1 m de distância da bomba eléctrica. — Geluidsdrumniveau gemeten in een vrij veld op 1 m afstand van de elektrische pomp. — Lydtryksniveaet, der måles på et frit felt ved 1 m afstand fra den elektriske pumpe. — Lydtryksnivået måles i et fritt felt 1 m fra den elektriske pumpen. — Ljudtryksnivå mätt i ett öppet område på ett avstånd på 1 m från den elektriska pumpen. — Äänenpainetaso, joka on mitattu vapaassa kentässä 1 m:n etäisyydellä sähköpumpusta. — Hjóðbrýstingur mældur á opnu svæði í 1 m fjarlægð frá rafmagnsdælunni. — Heliröhu tase möödetuna tühjal väljal 1 m kauguselt elektripumbast. — Skaņas spiediena līmenis, mērot bez ierobežojumiem, 1 m attālumā no elektriskā sūkņa. — Garso ūtampas lygis matuojamas nepriklausomoje zonoje 1 m atstumu nuo elektrinio siurblio. — Poziom ciśnienia akustycznego mierzony w warunkach pola swobodnego w odległości 1 m od pompy elektrycznej. — Hladina akustického tlaku mērená na voľnóm prostranství ve vzdálenosti 1m od elektrického čerpadla. — Hladina akustického tlaku meraná na voľnom priestranstve vo vzdialenosti 1 m od elektrického čerpadla. — Hangnyomásszint szabad térben, a szivattyútól 1 m távolságban mérve. — Nivelul de putere acustică măsurat în câmp liber la 1 m distanță de pompa electrică. — Нивото на налягане на звука, измерено в свободно поле на 1 м разстояние от електрическата помпа. — Raven zvočnega tlaka, izmerjena v prostem polju na razdalji 1 metra od električne črpalke. — Razina zvučnog tlaka izmjerena u slobodnom prostoru na udaljenosti od 1 m od električne pumpe. — То επίπεδο της πίεσης του ήχου μετρημένο σε ελεύθερο πεδίο σε απόσταση 1 m από την ηλεκτρική αντλία. — Elektrik pompasından 1 m mesafede serbest bir alanda ölçülen ses basıncı seviyesi. — Уровень давления звука измерен в свободном поле на расстоянии 1 м от электрического насоса. — Рівень тиску звуку визначено у вільному полі на відстані 1 м від електричного насоса. — مستوى الضغط المناسب المقاس في مجال خالي على مسافة 1 متر من المضخة الكهربائية .

11.



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12.



SV1125_M0012_A_sc

Italiano

1. Sostegno della tubazione
2. Valvola di intercettazione
3. Tubo flessibile o giunto flessibile
4. Valvola di ritegno
5. Quadro elettrico di comando
6. Non installare gomiti vicino alla pompa
7. Circuito di by-pass
8. Riduzione eccentrica
9. Utilizzare curve ad ampio raggio
10. Pendenza positiva
11. Tubo con diametro non inferiore alla bocca di aspirazione della pompa
12. Utilizzare valvola di fondo
13. Non superare il massimo dislivello altimetrico
14. Assicurare una profondità di immersione sufficiente

English

1. Piping support
2. On-off valve
3. Flexible pipe or joint
4. Check valve
5. Control panel
6. Do not install elbows close to the pump
7. Bypass circuit
8. Eccentric reducer
9. Use wide bends
10. Positive gradient
11. Piping with equal or greater diameter than the suction port
12. Use foot valve
13. Do not exceed maximum height difference
14. Ensure adequate submersion depth

Français

1. Support de canalisations
2. Vanne d'arrêt
3. Canalisation ou raccord souple
4. Clapet antiretour
5. Panneau de commande
6. Ne pas installer de coude près de la pompe
7. Circuit de dérivation
8. Réducteur excentrique
9. Utiliser des coudes à grand rayon
10. Pente positive
11. Canalisation de diamètre égal ou supérieur à celui de l'orifice d'aspiration
12. Utiliser un clapet de pied
13. Ne pas dépasser la différence de hauteur maximale
14. S'assurer d'une profondeur d'immersion suffisante

Deutsch

1. Rohrleitungshalterung
2. Auf-/Zu-Ventil
3. Flexible(s) Rohrleitung/Anschlussstück
4. Rückschlagventil
5. Bedienfeld
6. Installieren Sie keine Bögen in der Nähe der Pumpe
7. Bypass-Kreis
8. Exzentrischer Reducer
9. Weite Bögen verwenden
10. Positive Neigung
11. Rohrleitung mit Durchmesser, der dem des Sauganschlusses entspricht oder größer ist
12. Fußventil verwenden
13. Den maximalen Höhenunterschied nicht überschreiten
14. Ausreichende Eintauchtiefe sicherstellen

Español

1. Soporte de tuberías
2. Válvula de encendido/apagado
3. Tubería o junta flexible
4. Válvula de retención
5. Panel de control
6. No instale codos cerca de la bomba
7. Circuito de derivación
8. Reductor excéntrico
9. Use flexiones amplias
10. Gradiente positiva
11. Tuberías con un diámetro igual o superior al del puerto de aspiración
12. Use una válvula de pie
13. No supere la diferencia máxima de altura
14. Asegure una profundidad de inmersión adecuada

Português

1. Suporte da tubagem
2. Válvula ligar-desligar
3. Junta ou tubagem flexível
4. Válvula de verificação
5. Painel de controlo
6. Não instale cotovelos junto da bomba
7. Circuito de bypass
8. Redutor do excêntrico
9. Utilize dobras largas
10. Gradiente positivo
11. Tubagem com diâmetro igual ou maior que a porta de sucção
12. Utilize a válvula de pé
13. Não exceda a diferença máxima da altura
14. Garanta uma profundidade de imersão adequada

Nederlands

1. Leidingsteun
2. Aan/uitklep
3. Flexibele leiding of koppelstuk
4. Keerklep
5. Bedieningspaneel

Dansk

1. Rørsupport
2. Tænd-sluk-ventil
3. Fleksibelt rør eller led
4. Kontrolventil
5. Betjeningspanel

Norsk

1. Rørstøtte
2. På-av-ventil
3. Fleksibelt rør eller kopleing
4. Tilbakeslagsventil
5. Kontrollpanel

Slovenščina

1. Cevna podpora
2. Vklonni ventil
3. Gibljive cevi ali spoji
4. Kontrolni ventil
5. Nadzorna plošča
6. Kolen ne namestite v bližino črpalke
7. Premostitveni tokokrog
8. Ekscentrični reducer
9. Uporabite široka kolena
10. Pozitiven gradient
11. Cevi z enakim ali večjim premerom kot so sesalna vrata
12. Uporabite nožni ventil
13. Ne presežite največje višinske razlike
14. Zagotovite zadostno globino potopitve

Ελληνικά

1. Στήριξη σωληνώσεων
2. Βαλβίδα διακοπής λειτουργίας (on/off)
3. Ελαμπτος σωλήνας ή σύνδεσμος
4. Βαλβίδα ελέγχου
5. Πίνακας ελέγχου
6. Μην εγκαθιστάτε γωνίες κοντά στην αντλία
7. Κύλιωμα παράκαμψης
8. Μειωτής εκκέντρου
9. Χρησιμοποιήστε φαρδιές καμπύλες
10. Θετική κλίση
11. Σωλήνωση με ίση ή μεγαλύτερη διάμετρο από τη θύρα αναρρόφησης
12. Χρησιμοποιήστε ποδοβαλβίδα
13. Μην υπερβείτε τη μέγιστη διαφορά ύψους
14. Βεβαιωθείτε ότι υπάρχει επαρκές βάθος εμβάπτισης

Английська

1. Опора трубопровода
2. Запорний (двухпозиційний) клапан
3. Гнучка труба або сполучення
4. Зворотний клапан
5. Панель керування
6. Не встановлювати повороти близько від насоса
7. Обвідний контур
8. Ексцентричний перехідник
9. НЕ використовувати круті вигини
10. Позитивний градієнт
11. Трубопровід з рівним або більшим діаметром
12. Використовувати нижній клапан
13. Не перевищувати максимальну різницю висот
14. Забезпечити відповідну глибину занурення

Hrvatski

1. Potpora cijevi
2. On-off ventil
3. Elastične cijevi ili zglobovi
4. Kontrolni ventil
5. Upravljačka ploča
6. Nemojte instalirati koljena u blizini pumpe
7. Zaobilazni krug
8. Ekscentrični reducir
9. Koristite široke zavoje
10. Pozitivni gradijent
11. Cijevi s jednakim ili većim promjerom od usisnog priključka
12. Koristite nožni ventil
13. Nemojte prekoračiti najveću visinsku razliku
14. Osigurajte odgovarajuću dubinu uranjanja

Türkçe

1. Boru desteği
2. Açma kapama valfi
3. Esnek boru ya da bağlantı
4. Kontrol vanası
5. Kumanda paneli
6. Dirsekleri pompanın yakınına kurmayın
7. Baypas devresi
8. Eksantrik redüktör
9. Geniş bükümler kullanın
10. Pozitif eğim
11. Emiş portuyla eşit çapta ya da büyük borular
12. Taban valfi kullanın
13. Maksimum yükseklik farkını aşmayın
14. Yeterli dalma derinliğini sağlayın

Srpski

1. Potpora pumpe
2. On-off ventil
3. Savitljiva cev ili zglob
4. Kontrolni ventil
5. Kontrolna tabla
6. Ne instalirajte kolena u blizini pumpe
7. Zaobilazno kolo
8. Ekscentrični reducir
9. Koristite široke zavoje
10. Pozitivni gradijent
11. Cevi sa jednakim ili većim prečnikom u odnosu na usisni priključak
12. Koristite nožni ventil
13. Nemojte prekoračivati najveću razliku u visini
14. Obezbedite odgovarajuću dubinu uranjanja

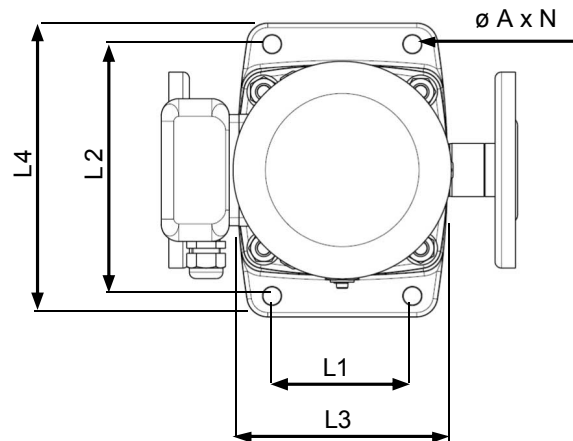
Русский

1. Опора трубопровода
2. Запорный клапан
3. Гибкая труба или соединение
4. Обратный клапан
5. Панель управления
6. Не устанавливайте повороты близко от насоса
7. Обводной контур
8. Эксцентрический переходник
9. Не используйте крутые изгибы
10. Положительный градиент
11. Трубопровод с равным или большим диаметром по сравнению с всасывающим портом
12. Использовать нижний клапан
13. Не превышать максимальную разность высот
14. Обеспечить соответствующую глубину погружения

العربية

1. سند الأنابيب
2. صمام فتح/غلق
3. أنبوبة أو وصلة مرنة
4. صمام عدم الإرجاع
5. لوحة التحكم
6. لا تقم بتركيب أنواع بالقرب من المضخة
7. تجاوز الدائرة
8. منخفض لا مركزي
9. استخدم عقدات واسعة
10. ميل إيجابي
11. أنابيب بقطر مساوي لمنفذ الشفط أو أكبر منه
12. استخدم صمام قديمي
13. لا تتجاوز الحد الأقصى للاختلاف في الارتفاع
14. تأكد من عمق الغمر المناسب

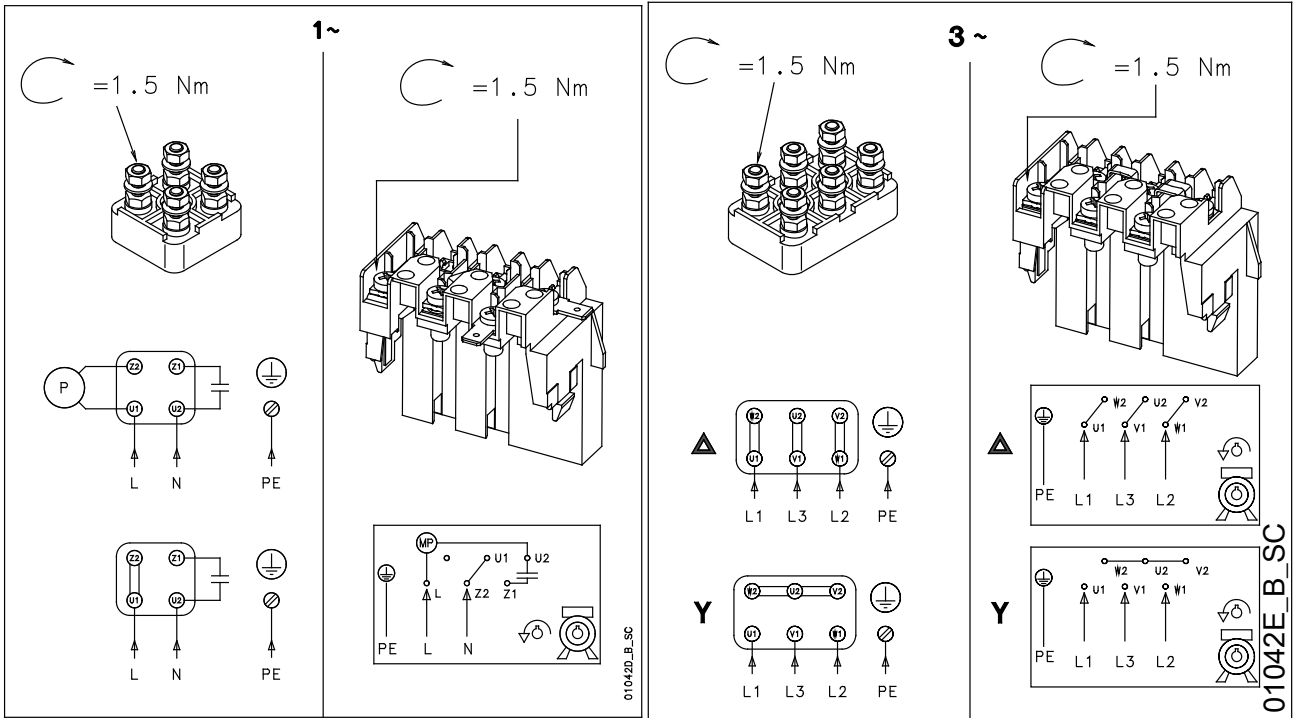
13.



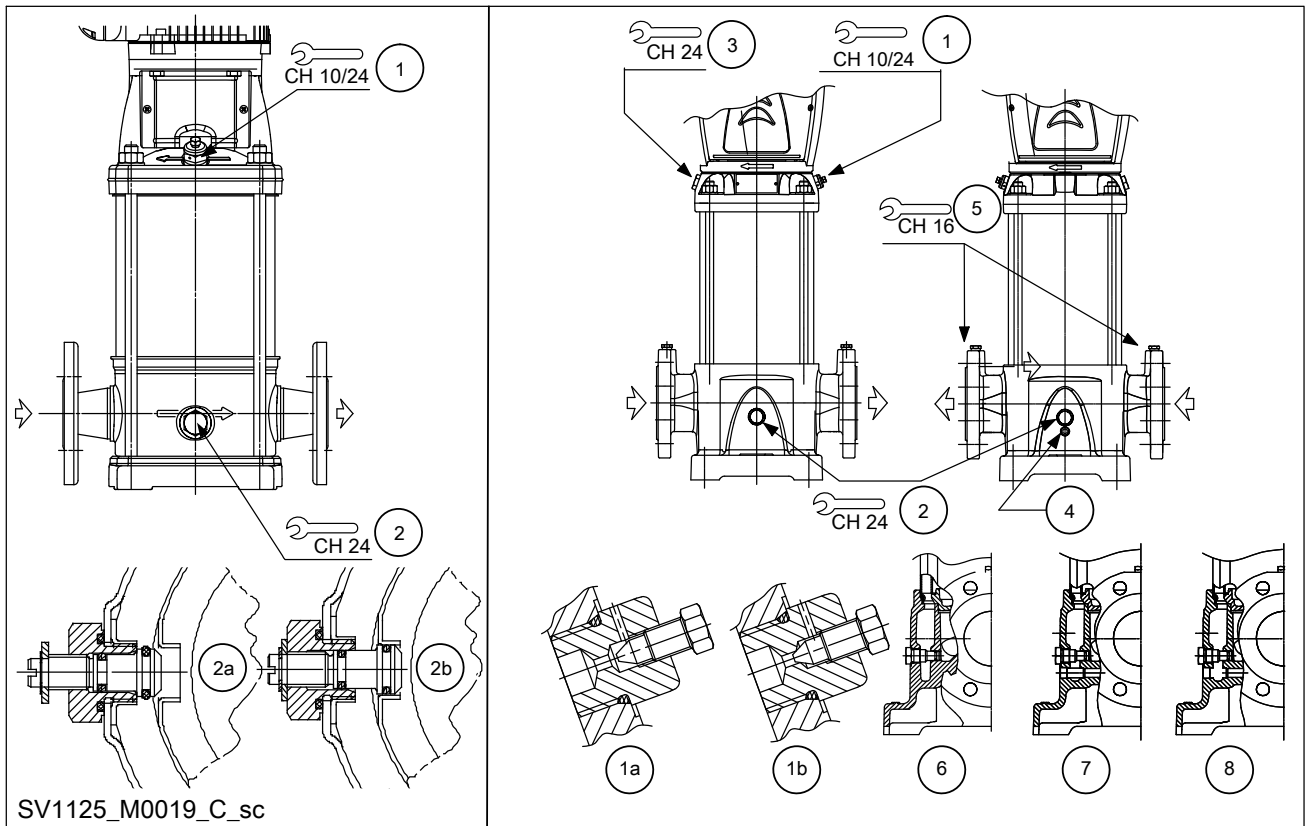
	1, 3, 5SV	10, 15, 22SV	33SV	46, 66, 92SV	125SV
	[mm]				
L1	100	130	170	190	275
L2	180	215	240	265	380
L3	150	185	220	240	330
L4	210	245	290	315	450
ØA	13		15		19
N	4				

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14.



15.



Italiano

1. Tappo di riempimento e sfiato (a: sfiato aperto, b: sfiato chiuso)
 - 1, 3, 5, 10, 15, 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
2. Tappo di scarico (a: perno centrale aperto, b: perno centrale chiuso)
 - 1, 3, 5, 10, 15 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2

English

1. Fill and vent plug (a: vent open, b: vent closed)
 - 1, 3, 5, 10, 15, 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
2. Drain plug (a: central pin open, b: central pin closed)
 - 1, 3, 5, 10, 15 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2

Français

1. Bouchon de remplissage et de mise à l'air libre (a : mise à l'air libre ouverte, b : mise à l'air libre fermée)
 - 1, 3, 5, 10, 15, 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
2. Bouchon de vidange (a : goupille centrale ouverte, b : goupille centrale fermée)
 - 1, 3, 5, 10, 15 22 SV : G 3/8
 - 33, 46, 66, 92, 125 SV : G 1/2

- | | | |
|---|--|---|
| <p>3. Tappo di riempimento</p> <ul style="list-style-type: none"> • 10, 15, 22 SV: G 3/8 • 33, 46, 66, 92, 125 SV: G 1/2 <p>4. Tappo per il tamburo, se presente (non svitare)</p> <p>5. Tappo della presa manometrica, solo 33, 46, 66, 92, 125 SV: G 3/8</p> <p>6. Versione senza tappo e tamburo, solo 33, 46, 66, 92, 125 SV</p> <p>7. Versione con tappo ma senza tamburo (non svitare), solo 33, 46, 66, 92, 125 SV</p> <p>8. Versione con tappo e tamburo (non svitare), solo 33, 46, 66, 92, 125 SV</p> | <p>3. Fill plug</p> <ul style="list-style-type: none"> • 10, 15, 22 SV: G 3/8 • 33, 46, 66, 92, 125 SV: G 1/2 <p>4. Plug for drum, if present (do not unscrew)</p> <p>5. Gauge connection plug, only 33, 46, 66, 92, 125 SV: G 3/8</p> <p>6. Version without plug and drum, only 33, 46, 66, 92, 125 SV</p> <p>7. Version with plug but no drum (do not unscrew), only 33, 46, 66, 92, 125 SV</p> <p>8. Version with plug and drum (do not unscrew), only 33, 46, 66, 92, 125 SV</p> | <p>3. Bouchon de remplissage</p> <ul style="list-style-type: none"> • 10, 15, 22 SV: G 3/8 • 33, 46, 66, 92, 125 SV: G 1/2 <p>4. Bouchon pour tambour, le cas échéant (ne pas dévisser)</p> <p>5. Bouchon de raccordement de manomètre, seulement 33, 46, 66, 92, 125 SV : G 3/8</p> <p>6. Version sans bouchon et tambour, seulement 33, 46, 66, 92, 125 SV</p> <p>7. Version avec bouchon mais sans tambour (ne pas dévisser), seulement 33, 46, 66, 92, 125 SV</p> <p>8. Version avec bouchon et tambour (ne pas dévisser), seulement 33, 46, 66, 92, 125 SV</p> |
|---|--|---|

Deutsch

- Füll- und Entlüftungsstopfen (a: Entlüftung offen, b: Entlüftung geschlossen)
 - 1, 3, 5, 10, 15, 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
- Ablassschraube (a: zentraler Stift offen, b: zentraler Stift geschlossen)
 - 1, 3, 5, 10, 15 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
- Füllstopfen
 - 10, 15, 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
- Stopfen für Trommel, wenn vorhanden (nicht herausrauben)
- Stopfen, Manometeranschluss, nur 33, 46, 66, 92, 125 SV: G 3/8
- Ausführung ohne Stopfen und Trommel, nur 33, 46, 66, 92, 125 SV
- Ausführung mit Stopfen, aber ohne Trommel (nicht abschrauben), nur 33, 46, 66, 92, 125 SV
- Ausführung mit Stopfen und Trommel (nicht abschrauben), nur 33, 46, 66, 92, 125 SV

Español

- Tapón de ventilación y llenado (a: ventilación abierta, b: ventilación cerrada)
 - 1, 3, 5, 10, 15, 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
- Tapón de vaciado (a: pasador central abierto, b: pasador central cerrado)
 - 1, 3, 5, 10, 15 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
- Tapón de llenado
 - 10, 15, 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
- Tapón para el tambor, si está presente (no desatornillar)
- Tapón de la conexión del calibrador, solamente 33, 46, 66, 92, 125 SV: G 3/8
- Versión sin tapón y tambor, solamente 33, 46, 66, 92, 125 SV
- Versión con tapón y sin tambor (no desatornillar), solamente 33, 46, 66, 92, 125 SV
- Versión con tapón y tambor (no desatornillar), solamente 33, 46, 66, 92, 125 SV

Português

- Tampão de enchimento e ventilação (a: ventilador aberto, b: ventilador fechado)
 - 1, 3, 5, 10, 15, 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
- Tampão de drenagem (a: pino central aberto, b: pino central fechado)
 - 1, 3, 5, 10, 15 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
- Tampão de enchimento
 - 10, 15, 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
- Tampão para tambor, se presente (não desparafuse)
- Tampão de ligação do calibrador, apenas 33, 46, 66, 92, 125 SV: G 3/8
- Versão sem tampão e tambor, apenas 33, 46, 66, 92, 125 SV
- Versão com tampão mas sem tambor (não desparafuse), apenas 33, 46, 66, 92, 125 SV
- Versão com tampão e tambor (não desparafuse), apenas 33, 46, 66, 92, 125 SV

Nederlands

- Vul- en ventilatieplug (a: ontluftung open, b: ontluftung gesloten)
 - 1, 3, 5, 10, 15, 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
- Afvoerplug (a: centrale pen open, b: centrale pen gesloten)
 - 1, 3, 5, 10, 15 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
- Vulplug
 - 10, 15, 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
- Plug voor drum, indien aanwezig (niet losdraaien)
- Meetkoppelingsplug, alleen 33, 46, 66, 92, 125 SV: G 3/8
- Versie zonder plug en trommel alleen 33, 46, 66, 92, 125 SV
- Versie met plug maar zonder trommel (niet losschroeven, alleen 33, 46, 66, 92, 125 SV
- Versie met plug en trommel (niet losschroeven), alleen 33, 46, 66, 92, 125 SV

Dansk

- Fyld- og ventilationsprop (a: ventil åben, b: ventil lukket)
 - 1, 3, 5, 10, 15, 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
- Tømmingsprop (a: central stift åben, b: central stift lukket)
 - 1, 3, 5, 10, 15 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
- Fyldprop
 - 10, 15, 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
- Stik til tromme, hvis den forefindes (må ikke skrues af)
- Prop til pakningsforbindelse 33, 46, 66, 92, 125 SV: G 3/8
- Versión uden prop og tromle, kun 33, 46, 66, 92, 125 SV
- Versión med prop men ingen tromle (må ikke skrues af), kun 33, 46, 66, 92, 125 SV
- Versión med prop og tromle (må ikke skrues af), kun 33, 46, 66, 92, 125 SV

Norsk

- Fyll- og ventilplugg (a: åpen ventil, b: lukket ventil)
 - 1, 3, 5, 10, 15, 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
- Dreneringsplugg (a: midtbolt åpen, b: midtbolt lukket)
 - 1, 3, 5, 10, 15 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
- Fyllplugg
 - 10, 15, 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
- Plugg til sylinder, dersom en slik finnes (ikke skru løs)
- Målkoplingsplugg, kun 33, 46, 66, 92, 125 SV: G 3/8
- Utgave uten plugg og sylinder, kun 33, 46, 66, 92, 125 SV
- Utgave med plugg, men uten sylinder (ikke skru løs), kun 33, 46, 66, 92, 125 SV
- Utgave med plugg og sylinder (ikke skru løs), kun 33, 46, 66, 92, 125 SV

Svenska

- Fyllnings- och ventilationsplugg (a: ventil öppen, b: ventil stängd)
 - 1, 3, 5, 10, 15, 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
- Avtappningsplugg (a: mittstift öppet, b: mittstift stängt)
 - 1, 3, 5, 10, 15 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
- Fyllplugg
 - 10, 15, 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
- Plugg för trumma, om sådan finns (skruva inte loss)
- Manometerledningsplugg, endast 33, 46, 66, 92, 125 SV: G 3/8
- Versión utan plugg och trumma, endast 33, 46, 66, 92, 125 SV
- Versión med plugg men utan trumma (skruva inte av), endast 33, 46, 66, 92, 125 SV
- Versión med plugg och trumma (skruva inte av), endast 33, 46, 66, 92, 125 SV

Suomi

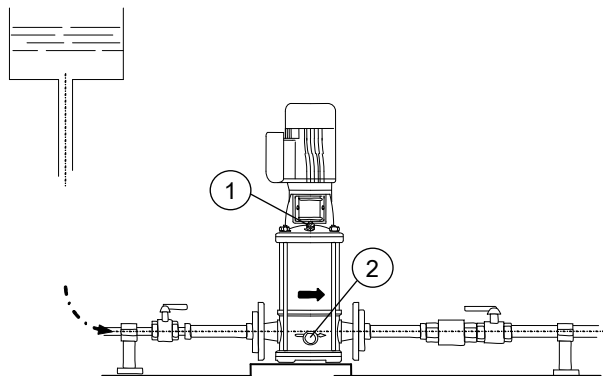
- Täyttö- ja kennotulppa (a: kenno auki, b: kenno kiinni)
 - 1, 3, 5, 10, 15, 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
- Tyhjennystulppa (a: keskitappi auki, b: keskitappi kiinni)
 - 1, 3, 5, 10, 15 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
- Täyttötulppa
 - 10, 15, 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
- Tulppa rumpua varten, jos on (älä ruuvaa irti)
- Mittaliitäntätulppa, vain 33, 46, 66, 92, 125 SV: G 3/8
- Versio ilman tulppaa ja rumpua, vain 33, 46, 66, 92, 125 SV
- Versio, jossa on tulppa mutta ei rumpua (älä ruuvaa irti), vain 33, 46, 66, 92, 125 SV
- Versio, jossa on tulppa ja rumpu (älä ruuvaa irti), vain 33, 46, 66, 92, 125 SV

Íslenska

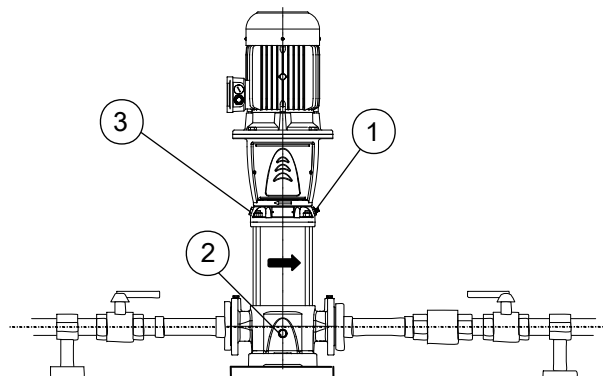
- Áfyllingar- og loftunartappi (a: loftun opin, b: loftun lokað)
 - 1, 3, 5, 10, 15, 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
- Aftöppunartappi (a: miðpinni opin, b: miðpinni lokaður)
 - 1, 3, 5, 10, 15 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
- Áfyllingartappi
 - 10, 15, 22 SV: G 3/8
 - 33, 46, 66, 92, 125 SV: G 1/2
- Tappi fyrir tunnu, ef notuð er (ekki skrúfa úr)
- Tappi fyrir mælástút, aðeins 33, 46, 66, 92, 125 SV: G 3/8
- Gerð án tappa og hólks, aðeins 33, 46, 66, 92, 125 SV
- Gerð með tappa en án hólks (ekki skrúfa af), aðeins 33, 46, 66, 92, 125 SV
- Gerð með tappa og hólk (ekki skrúfa af), aðeins 33, 46, 66, 92, 125 SV

16.

1, 3, 5SV



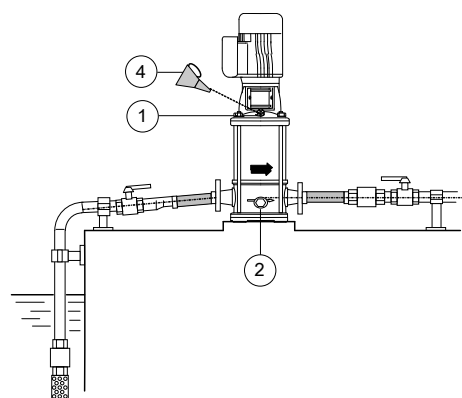
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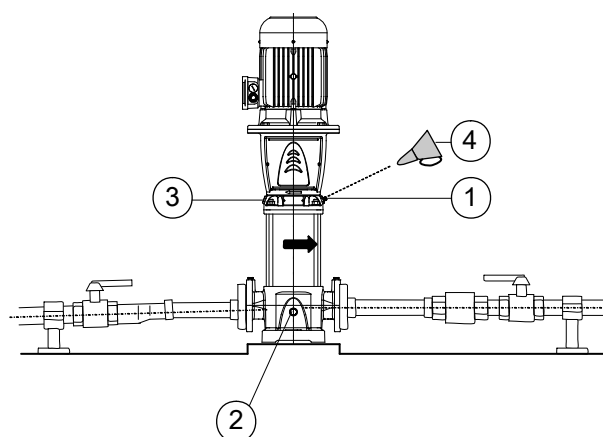
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SV1125_M0014_A_sc

17.



SV1125_M0015_A_sc



SV1125_M0015_A_sc

Italiano

1. Tappo di riempimento e sfiato
2. Tappo di scarico
3. Tappo di riempimento
4. Imbuto

English

1. Fill and vent plug
2. Drain plug
3. Fill plug
4. Funnel

Français

1. Bouchon de remplissage et de mise à l'air libre
2. Bouchon de vidange
3. Bouchon de remplissage
4. Entonnoir

Deutsch

1. Füll- und Entlüftungsstopfen
2. Ablassschraube
3. Füllstopfen
4. Trichter

Español

1. Tapón de ventilación y llenado
2. Tapón de vaciado
3. Tapón de llenado
4. Embudo

Português

1. Tampão de enchimento e ventilação
2. Tampão de drenagem
3. Tampão de enchimento
4. Funil

Nederlands

1. Vul- en ventilatieplug
2. Afvoerplug
3. Vulplug
4. Trechter

Dansk

1. Fyld- og ventilationsprop
2. Drenprop
3. Fyldprop
4. Tragt

Norsk

1. Fyll- og ventilplugg
2. Dreneringsplugg
3. Fyllplugg
4. Trakt

Svenska

1. Påfyllnings- och ventilationsplugg
2. Avtappningsplugg
3. Fyllplugg
4. Tratt

Suomi

1. Täyttö- ja kennotulppa
2. Tyhjennystulppa
3. Täyttötulppa
4. Suppilo

Íslenska

1. Áfyllingar- og loftunartappi
2. Afrennslistappi
3. Áfyllingartappi
4. Trekt

Eesti

1. Täite- ja ventilatsioonikork
2. Tühjendus kork

Latviešu

1. Uzpildes un gaisa aizgrieznis
2. Izliešanas aizbāznis

Lietuvių k.

1. Uzpildymo angos ir ventilācijas angos kamštis
2. Išleidimo angos kamštis

3. Tütekork
4. Lehter

polski

1. Korek wlewu i odpowietrzenia
2. Korek spustowy
3. Korek wlewu
4. Lejek

magyar

1. Feltöltő- és légtelenítődugó
2. Leeresztődugó
3. Töltődugó
4. Tölcsér

Slovenščina

1. Čep za zračenje in polnjenje
2. Čep odtoka
3. Čep za polnjenje
4. Lijak

Ελληνικά

1. Τάπα πλήρωσης και αέρα
2. Τάπα αποστράγγισης
3. Τάπα πλήρωσης
4. Χωνί

Английська

1. Пробка для заполнения та выпуску повітря
2. Пробка дренажного отвору
3. Заливна пробка
4. Вирва

3. Uzpildes aizgrieznis
4. Piltuve

Čeština

1. Plnicí a odvzdušňovací zátka
2. Vypouštěcí zátka
3. Plnicí zátka
4. Nálevka

Română

1. Bușon de umplere și ventilație
2. Bușon de evacuaere
3. Bușon de umplere
4. Pâlnie

Hrvatski

1. Priključak za ispunu i ventiliranje
2. Drenažni priključak
3. Priključak za ispunu
4. Ljevak

Türkçe

1. Dolum ve hava tapası
2. Tahliye tapası
3. Dolum tapası
4. Huni

3. Užpildymo angos kamštis
4. Piltuvas

Slovenčina

1. Plniaca a ventilačná zátka
2. Vypúšťacia zátka
3. Zátka plniaceho otvoru
4. Lievik

Български

1. Пробка за запълване и пробка за вентилация
2. Пробка за източване.
3. Пробка за запълване
4. Фуния

Srpski

1. Priključak za ispunu i ventiliranje
2. Drenažni priključak
3. Priključak za ispunu
4. Levak

Русский

1. Пробка для заполнения и выпуска воздуха
2. Пробка дренажного отверстия
3. Заливная пробка
4. Воронка

العربية

1. سداة تعبئة وتنفيس
2. سداة التصريف
3. سداة التعبئة
4. قمع

18.

	A		B		C		D		E		F		G		H		I	
	Ø	Nm	Ø	Nm	Ø	Nm	Ø	Nm	Ø	Nm	Ø	Nm	Ø	Nm	Ø	Nm	Ø	Nm
1SV	M8	20	M12	25	-	-	-	-	-	-	G3/8	25	-	-	M12	50	M10	30
3SV																		
5SV															M16	100		
10SV	M10	35	M14	30			M8	25									M12	50
15SV																		
22SV																		
33SV	M12	55	M16	60	M6	8	M10	35	G1/2	40	G1/2	40	R3/8	40	M16	100	-	-
46SV																		
66SV-PN16																		
66SV-PN25															M20	200		
92SV-PN16															M16	100		
92SV-PN25															M20	200		
125SV-PN16															M16	100		
125SV-PN25															M24	350		


- A** Vite bloccaggio giranti — **Impeller locking screws** — Vis d'arrêt de roue — Laufrad-Sicherungsschrauben — Tornillos de bloqueo del impulsor — Parafusos de bloqueo do impulsor — Vergrendelschroeven waaiers — Låseskruer til kompressorhjul — Låseskruer på lopehjulet — Låsskruvar för pumpshjul — Juoksupyörän lukitusruuvit — Låsskrúfur dæluhjól — Tiiviku lukustuskruvid — Darbrata stiprinājuma skrūves — Sparnuotės fiksavimo varžtai — Śruby zabezpieczające wirnika napędzanego — Zajišťovací šrouby oběžného kola — Zaisťovacie skrutky rotora — Járókereket rögzítő csavarok — Şuruburi de fixare a rotorului — Крепежни болтове на ротора — Vijaki za zaklep rotorja — Sigurnosni vijci rotora — Zavrtnji za učvršćivanje rotora — Βίδες ασφάλισης φτερωτής — Pervane kilit vidaları — Блокирующие винты крыльчатки — Гвинти блокування робочого колеса — لواب تثبيت الدفاعة
- B** Dadi tiranti — **Tie rod nuts** — Écrous de biellette — Zugstrebenmuttern — Tuercas de los tirantes — Porcas do tirante — Trekstangmøeren — Noter til gevindstang — Strekkstangmuttere — Stagbultmuttrar — Liitostangon Mutterit — Snitteinarer — Sidusvarraste mutrid — Enkura uzgriežņi — Ītempimo trauklių veržlės — Nakrętki ściagu — Matice spojovací tyče — Matice spojovacej tyče — Összekötőrud anyák — Piulite tirant — Гайки на дистанционния прът — Matice končnikov — Matice krajnice — Navrtke spone — Παξιμάδια συνδετικής ράβδου — Bağlama rodu somunları — Гайки тяги — Гайки тяги — صامولات قضيب الربط
- C** Viti piastrine bloccaggio tamburo (33, 46, 66, 92, 125 SV) e boccole diffusori (125 SV) — **Drum (33, 46, 66, 92, 125 SV) and diffuser bushings (125 SV) locking plate screws** — Vis de plaque d'arrêt de tambour (33, 46, 66, 92, 125 SV) et de bague de diffuseur (125 SV) — Trommel (33, 46, 66, 92, 125 SV)- und Diffuserbuchsen (125 SV)- Sicherungsblehschrauben — Tambor (33, 46, 66, 92, 125 SV) y tornillos de la placa de fijación de los ca-

- squillos del difusor (125 SV) — Parafusos do prato de bloqueio do casquilho do tambor (33, 46, 66, 92, 125 SV) e difusor (125 SV) — Trommel (33, 46, 66, 92, 125 SV) en lagerbussen afvoerbuis (125 SV) vergrendelplaatschroeven — Tromle (33, 46, 66, 92, 125 SV) og diffusorbøsninger (125 SV) låsepladeskruer — Cylinder (33, 46, 66, 92, 125 SV) og hylse ledeapparat (125 SV) låseplateskruer — Trumma (33, 46, 66, 92, 125 SV) och diffusörbussningar (125 SV) låsplattskruvar — Rumpu (33, 46, 66, 92, 125 SV) ja diffuusoriholkkien (125 SV) lukkolaatan ruuvit — Hólkur (33, 46, 66, 92, 125 SV) og dælhringsmúffur (125 SV) lásplötuskráfur — Vaadi (33, 46, 66, 92, 125 SV) ja difuusori läbiviikude (125 SV) lukustuskruvid — Cilindra (33, 46, 66, 92, 125 SV) un izkliedētāja bukses (125 SV) stiprinājuma plāksnes skrūves — Cilindro (33, 46, 66, 92, 125 SV) ir difuzoriaus ivorių (125 SV) fiksuojančios plokštės varžtai — Šrubby plyty ustalajacej bebnā (33, 46, 66, 92, 125 SV) i tulei dyfuzora (125 SV) — Zajist'ovaci šrouby desky bubnu (33, 46, 66, 92, 125 SV) a pouzdra difúzeru (125 SV) — Bubon (33, 46, 66, 92, 125 SV) a zaist'ujuce nastavovacie skrutky kief difuzera (125 SV) — Dob (33, 46, 66, 92, 125 SV) és diffúzor perselyek (125 SV) zárólemezcavarok — Şuruburi placă de fixare tambur (33, 46, 66, 92, 125 SV) şi lagăr difuzor (125 SV) — Барабан (33, 46, 66, 92, 125 SV) и втулки на дифузерни (125 SV) задържащи планката болтове — Vijaki za zaklepno ploščico bobna (33, 46, 66, 92, 125 SV) in puše difuzorja (125 SV) — Zavrtnji sigurnosne ploče bubnja (33, 46, 66, 92, 125 SV) i čahure difuzora (125 SV) — Zavrtnji osigurača bubnja (33, 46, 66, 92, 125 SV) i čaure difuzora (125 SV) — Βίδες ασφαλισής πλάκας τυμπάνου (33, 46, 66, 92, 125 SV) και εδράνων διάχυσης (125 SV) — Tambur (33, 46, 66, 92, 125 SV) ve difüzör burçları (125 SV) kilit plakası vidaları — Барабан (33, 46, 66, 92, 125 SV) и втулки диффузора (125 SV) винты стопорной пластины — Барабан (33, 46, 66, 92, 125 SV) и втулки диффузора (125 SV) гвинти стопорної пластини — 125, 92, 66, 46, 33) لولب لوحة التثبيت للأسطوانة (SV) 125) وجلبات المنظم (SV)
- D** Viti bloccaggio sede tenuta meccanica (33, 46, 66, 92, 125 SV) e diffusori (125 SV) — Mechanical seal housing (33, 46, 66, 92, 125 SV) and diffuser (125 SV) locking screws — Vis d'arrêt de boîtier de joint mécanique (33, 46, 66, 92, 125 SV) et de diffuseur (125 SV) — Gleitringdichtungsgehäuse (33, 46, 66, 92, 125 SV)- und Diffuser (125 SV)- Sicherungsschrauben — Carcasa del sello mecánico (33, 46, 66, 92, 125 SV) y tornillos de fijación del difusor (125 SV) — Parafusos de bloqueio do compartimento do vedante mecânico (33, 46, 66, 92, 125 SV) e difusor (125 SV) — Behuizing mechanische afdichting (33, 46, 66, 92, 125 SV) en afvoerbuis (125 SV) vergrendelschroeven — Mekanisk forseglingskabinet (33, 46, 66, 92, 125 SV) og diffusor (125 SV) låseskruer — Mekanisk tetningshus (33, 46, 66, 92, 125 SV) og ledeapparat (125 SV) låseskruer — Mekanisk tätningshus (33, 46, 66, 92, 125 SV) och diffusör (125 SV) låsskruvar — Mekaaninen tiivistekotelo (33, 46, 66, 92, 125 SV) ja diffuusorin (125 SV) lukitusruuvit — Áspéttihús (33, 46, 66, 92, 125 SV) og dælhringur (125 SV) låsskráfur — Mehaanilise tihendi ümbrise (33, 46, 66, 92, 125 SV) ja difuusori (125 SV) lukustuskruvid — Mehāniskā blīvējuma korpusa (33, 46, 66, 92, 125 SV) un uzkleidētāja (125 SV) stiprinājuma skrūves — Mechaninio sandariklio korpuso (33, 46, 66, 92, 125 SV) ir difuzoriaus (125 SV) fiksavimo varžtai — Šrubby ustalajace obudowy uszczelnienia mechanicznego (33, 46, 66, 92, 125 SV) i dyfuzora (125 SV) — Zajist'ovacie šrouby mechanických ucpávek (33, 46, 66, 92, 125 SV) a difúzeru (125 SV) — Kryt mechanického tesnenia (33, 46, 66, 92, 125 SV) a zaist'ovacie skrutky difuzera (125 SV) — Mechanikus tömítés ház (33, 46, 66, 92, 125 SV) és diffúzor (125 SV) rögzítő csavarok — Şuruburi fixare carcasa garnitură mecanică (33, 46, 66, 92, 125 SV) şi difuzor (125 SV) — Механично уплътнение (33, 46, 66, 92, 125 SV) и дифузерни (125 SV) опорни болтове — Zaklepni vijaki za ohišje mehanskega tesnila (33, 46, 66, 92, 125 SV) in difuzorja (125 SV) — Sigurnosni vijci mehaničkog zatvarača (33, 46, 66, 92, 125 SV) i difuzora (125 SV) — Sigurnosni zavrtnji kućišta mehaničkog zatvarača (33, 46, 66, 92, 125 SV) i difuzora (125 SV) — Βίδες ασφαλισής χιτωνίου μηχανικής στεγανοποίησης (33, 46, 66, 92, 125 SV) και μηχανισμού διάχυσης (125 SV) — Mekanik keçe yuvası (33, 46, 66, 92, 125 SV) ve difüzör (125 SV) kilit vidaları — Кожух механического уплотнения (33, 46, 66, 92, 125 SV) и блокирующие винты диффузора (125 SV) — Кожух механічного ущільнення (33, 46, 66, 92, 125 SV) та гвинти блокування диффузора (125 SV) — لولب تثبيت (125, 92, 66, 46, 33) مانع التسرب الميكانيكي (SV) 125) والمنظم (SV)
- E** Tappo di riempimento e sfiato — Fill and vent plug — Bouchon de remplissage et de mise à l'air libre — Füll- und Entlüftungsstopfen — Tapón de ventilación y llenado — Tampão de enchimento e ventilação — Vul- en ventilatieplug — Fyld- og ventilationsprop — Fyll- og ventilplugg — Päfyllnings- och ventilationsplugg — Täyttö- ja kennotulppa — Áfyllingar- og loftunartappi — Täite- ja ventilatisioonikork — Uzpildes un atgaisošanas aizgrieznis — Užpildymo angos ir ventilacijos angos kamštis — Korek wlewu i odpowietrzenia — Plnicí a odvodušňovací zátka — Plniaca a ventilačná zátka — Feltöltő- és légtelenítődugó — Buşon de umplere şi ventilaţie — Пробка за наливане и пробка за вентилация — Čep za zračenje in polnjenje — Priključak za ispunu i ventiliranje — Priključak za ispunu i ventiliranje — Τάπα πλήρωσης και αέρα — Dolum ve hava tapası — Пробка для заполнения и выпуска воздуха — Пробка для заповнення та випуску повітря — سدادة تعبئة وتنفيس
- F** Tappi di carico o scarico — Fill or drain plugs — Bouchon de remplissage ou de vidange — Füll- oder Ablassstopfen — Tapones de vaciado y llenado — Tampões de enchimento e drenagem — Vul- of afvoerpluggen — Fyld- eller tømningstopper — Fyll- og dreneringspluggar — Päfyllnings- eller avtappingspluggar — Täyttö- tai tyhjennystulpat — Áfyllingar eða aftöppunartappar — Täite- või tühjendusorgid — Uzpildes vai drenāžas aizgriežņi — Užpildymo angos arba išleidimo angos kamščiai — Korki wlewu lub spustu — Plnicí nebo vypouštěcí zátky — Plniace alebo vypúšťacie zátky — Feltöltő- vagy ürítődugók — Buşoane de umplere şi golire — Пробки за наливане или изпускане — Čep za polnjenje in praznjenje — Priključci za ispunu ili dreniranje — Priključci za ispunu i dreniranje — Τάπες πλήρωσης και αποστράγγισης — Dolum ve tahliye tapaları — Пробки заполнения или слива — Пробка заповнення та зливання — سدادات التعبئة أو التنفيس
- G** Tappi della presa manometrica — Gauge connection plugs — Bouchons de branchement de manomètre — Stopfen für Manometeranschluss — Tapones de la conexión del calibrador — Tampões de ligação do calibrador — Meetkoppelpluggen — Pakningsforbindelsespropper — Målekopplingspluggar — Manometerledningspluggar — Mittalitöntätulpat — Tappar á mælistúta — Mõõdiku ühendusorgid — Līmeņrāža pieslēgvieta aizgriežņi — Matuoklio jungties kamščiai — Korki przyłącza miernika — Konektory pro připojení manometru — Spojovacie kolíky merača — Műszer csatlakozási pont — Buşoane conectare aparat de măsură — Пробки при съединение с манометър — Priključki merilnika — Priključci za spajanje mjeraca — Priključci za povezivanje manometra — Τάπες ηλεκτρικής σύνδεσης — Savaş bağlantı tapaları — Пробки соединения датчика — Пробки сполучення датчика — سدادات وصلة المقياس
- H** Viti controflange tonde — Round counter flange screws — Vis de contre-bride ronde — Schrauben für runden Gegenflansch — Tornillos de la brida del contador redondo — Parafusos da flange do contador redondo — Ronde tegenflensschroeven — Runde kontraflangeskruer — Runde flensseneskruer — Flänsskruvar för rund räknare — Laskurin pyöreän laipan ruuvit — Skráfur fyrir hringlaga mótilflans — Ümarad vastasäärikute kruvid — Apaļa skaitītāja atloka skrūves — Apvalios priešpriešinės jungės varžtai — Šrubby okraglego przeciwkolnierza — Šrouby kulaté protipřiruby — Okružle skrutky obruby počítadla — Kerek ellen-karimacsavarok — Şuruburi contraflansă rotundă — Кръгли винтове на


контрафланца — Okrogli nasprotni vijaki prirobnice — Vijci prirubnice okruglog brojača — Zavrtnji prirubnice okruglog brojača —
 Στρογγυλές βίδες αντίθετης φλάντζας — Yuvarlak sayaç flanşı vidaları — Круглые винты контрафланца — Круглі гвинти контрафланця —
 لوالب بشفة عكسية مستديرة

- I** Viti controflange ovali — Oval counter flange screws — Vis de contre-bride ovale — Schrauben für ovalen Gegenflansch — Tornillos de la brida del contador ovalado — Parafusos da flange do contador oval — Ovale tegenflensschroeven — Ovale kontraflangeskruer — Ovale flenssenkeskruer — Flänsskruvar för oval räknare — Laskurin soikean läipan ruuvit — Skrufur fyrir sporöskjulaga mótfilans — Ovaalsed vastasäärikute kruvid — Ovāla skaitītāja atloka skrūves — Ovalios priešpriešinės jungės varžtai — Śruby owalnego przeciwkolnierza — Šrouby oválné protipříruby — Oválne skrutky obruby počítadla — Ovális ellen-karimacsavarok — Şuruburi contraflanşa ovală — Овални винтове на контрафланца — Ovalni nasprotni vijaki prirobnice — Vijci prirubnice ovalnog brojača — Zavrtnji prirubnice ovalnog brojača — Οβάλ βίδες αντίθετης φλάντζας — Oval sayaç flanşı vidaları — Овальные винты контрафланца — Овальні гвинти контрафланця — لوالب بشفة عكسية بيضاوية
- Ø** Diametro — Diameter — Diamètre — DURCHMESSER — Diámetro — Diámetro — doorsnede — Diameter — Diameter — Diameter — Halkaisija — Øvermål — Läbimöät — Diameters — Skersmuo — Średnica — Průměr — Priemer — Átmérő — Diametru — Диаметр — Premer — Promjer — Prečnik — Διάμετρος — Çap — Диаметр — Диаметр — القطر
- Nm**Coppia di serraggio — Driving torque — Couple d'entraînement — Antriebsdrehmoment — Par motor — Torque de accionamento — Aandrijfmoment — Drevspændingsmoment — Drivmoment — Drivande vridmoment — Käyttömomenntti — Drifsnúningsvægi — Ajamimoment — Piedziņas griezes moments — Sukimo momentas — Moment dokrečania — Hnací točivý moment — Hnací točivý moment — Meghajtó nyomaték — Cuplu activ — Движение тяга — Pogonski navor — Pogonski moment — Pogonski moment — Κινούσα ροπή — Tahrirk torqu — Крутящий момент — Крутний момент — عزم الإدارة

19.

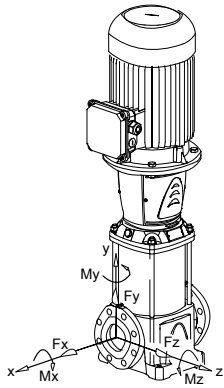
A		71	80	90	100	112	132	160	180	200	225	250
B	Ø	M6			M8		M12	M16				
	Nm	6			15		50	75				
CH		10			13		19	24				

20.

		1, 3, 5, 10, 15, 22 SV					1, 3, 5 SV	10, 15, 22 SV			33, 46, 66, 92, 125 SV							
A		71	80	90	100	112	132	132	160	90	100	112	132	160	180	200	225	250
C	Ø	M6			M8		M8	M10		M10			M12					
	Nm	15			25		25	50		50			75					
CH		5			6		6	8		8			10					

- A** Grandezza del motore — Motor size — Dimension de moteur — Motorgröße — Tamaño del motor — Dimensão do motor — Motor-grootte — Motorstørrelse — Motorstørrelse — Motorstorlek — Moottorin koko — Hreyfilsstaerð — Mootori suurus — Motora izmērs — Variklio dydis — Wielkość silnika — Velikost motoru — Vel'kost' motora — Motorméret — Dimensiune motor — Размер на мотора — Velikost motorja — Veličina motora — Veličina motora — Μέγεθος κινητήρα — Motor büyüklüğü — Типоразмер двигателя — Розмір двигуна — حجم الموتور
- B** Vite lanterna/motore — Adapter/motor screw — Vis d'adaptateur/moteur — Adapter/Motorschraube — Tornillo del motor/adaptador — Parafuso do adaptador/motor — Adapter/motorschroef — Adapter-/motorskruer — Adapter/Motorskruer — Adapter/motorskruv — Sovitin/moottorin ruuvi — Millistykki/hreyfilsskrúfa — Adapteri/mootori kruvi — Adaptera/motora skrúve — Adapterio / variklio varžtas — Śruba łącznika pośredniego/silnika — Šroub adaptéru/motoru — Skrutka adaptéra/motora — Adapter/motor csavar — Şurub adaptor/motor — Винт на адаптера/мотора — Vijak adapterja/motorja — Vijak prilagodnika/motora — Zavrtanj adaptera/motora — Βίδα προσαρμογέα/κινητήρα — Adaptör/motor vidasi — Винт адаптера/двигателя — Гвинт адаптера/двигуна — الوصلة/لولب الموتور
- C** Vite giunto — Coupling screw — Vis d'accouplement — Kupplungsschraube — Tornillo de acoplamiento — Parafuso do acoplamento — Koppelingschroef — Koblingsskruer — Koplingssskruer — Kopplingsskruv — Kytkinruuvi — Tengjaskrúfa — Ühenduslüli kruvi — Savienojuma skrūve — Movos varžtas — Śruba sprzęgła stalego — Šroub spojky — Skrutka spojky — Összekapcsoló csavar — Şurub de cuplare — Винт на куплунга — Vijak spojke — Spojni vijak — Zavrtanj spojnice — Βίδα ζεύξης — Kuplaj vidasi — Стяжной винт — Гвинт стягнення — لولب الفارنة
- Ø** Diametro — Diameter — Diamètre — DURCHMESSER — Diámetro — Diámetro — doorsnede — Diameter — Diameter — Diameter — Diameter — Halkaisija — Øvermål — Läbimöät — Diameters — Skersmuo — Średnica — Průměr — Priemer — Átmérő — Diametru — Диаметр — Premer — Promjer — Prečnik — Διάμετρος — Çap — Диаметр — Диаметр — القطر
- Nm**Coppia di serraggio — Driving torque — Couple d'entraînement — Antriebsdrehmoment — Par motor — Torque de accionamento — Aandrijfmoment — Drevspændingsmoment — Drivmoment — Drivande vridmoment — Käyttömomenntti — Drifsnúningsvægi — Ajamimoment — Piedziņas griezes moments — Sukimo momentas — Moment dokrečania — Hnací točivý moment — Hnací točivý moment — Meghajtó nyomaték — Cuplu activ — Движение тяга — Pogonski navor — Pogonski moment — Pogonski moment — Κινούσα ροπή — Tahrirk torqu — Крутящий момент — Крутний момент — عزم الإدارة

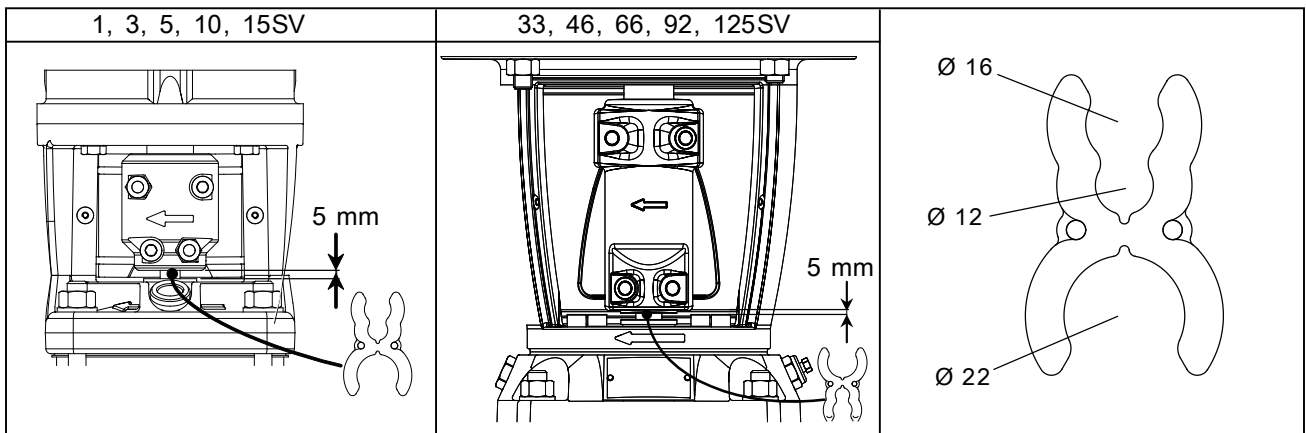
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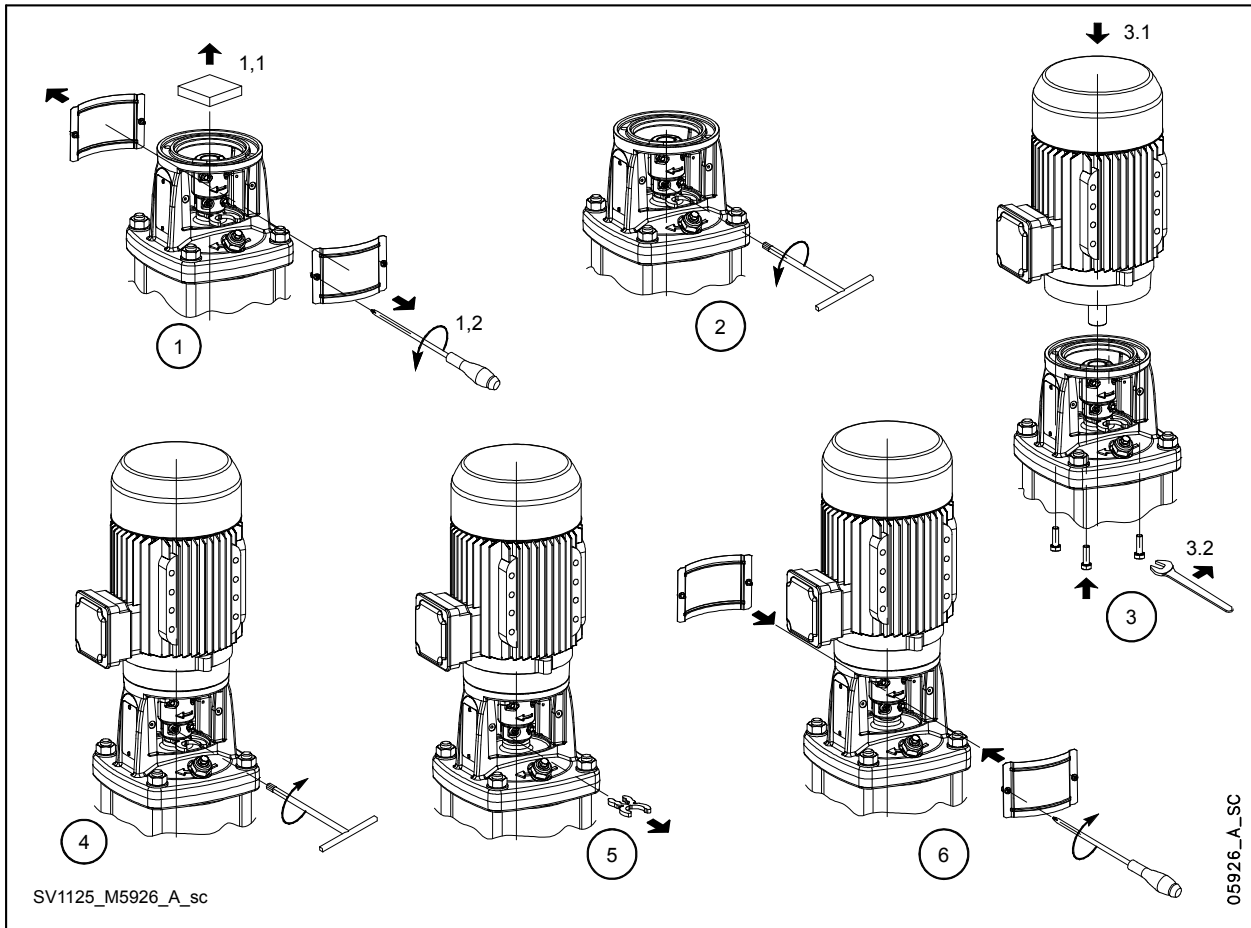
PUMP TYPE	DN	Forces (N)			Moments (Nm)		
		F _x	F _y	F _z	M _x	M _y	M _z
1-3 SV	25	200	180	230	240	160	190
5 SV	32	260	240	300	310	210	250
10 SV	40	330	300	370	390	270	310
15-22 SV	50	450	400	490	420	300	340
33 SV	65	1800	1700	2000	1500	1050	1200
46 SV	80	2250	2050	2500	1600	1150	1300
66-92 SV	100	3000	2700	3350	1750	1250	1450
125 SV	125	3700	3300	4100	2100	1500	1750

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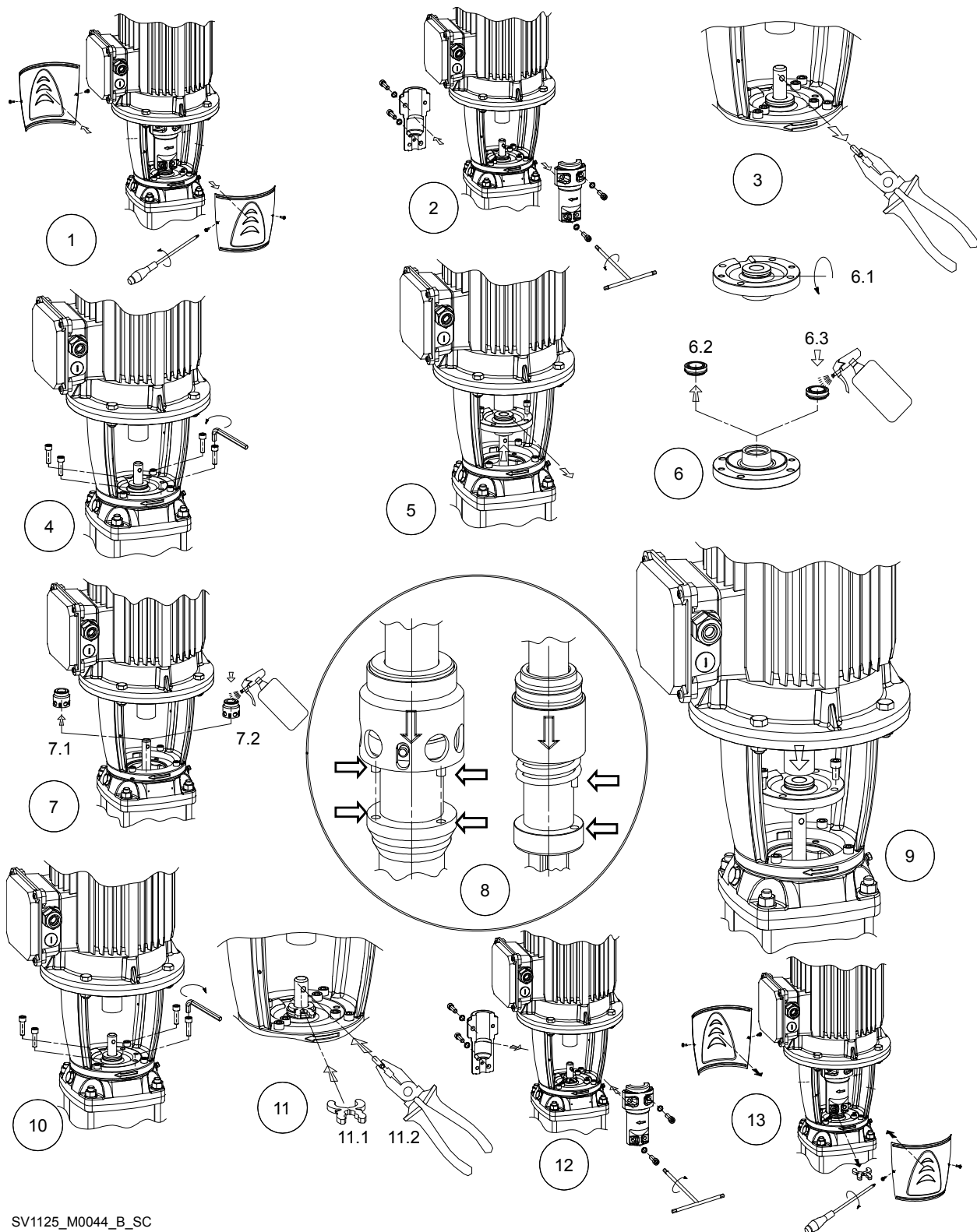
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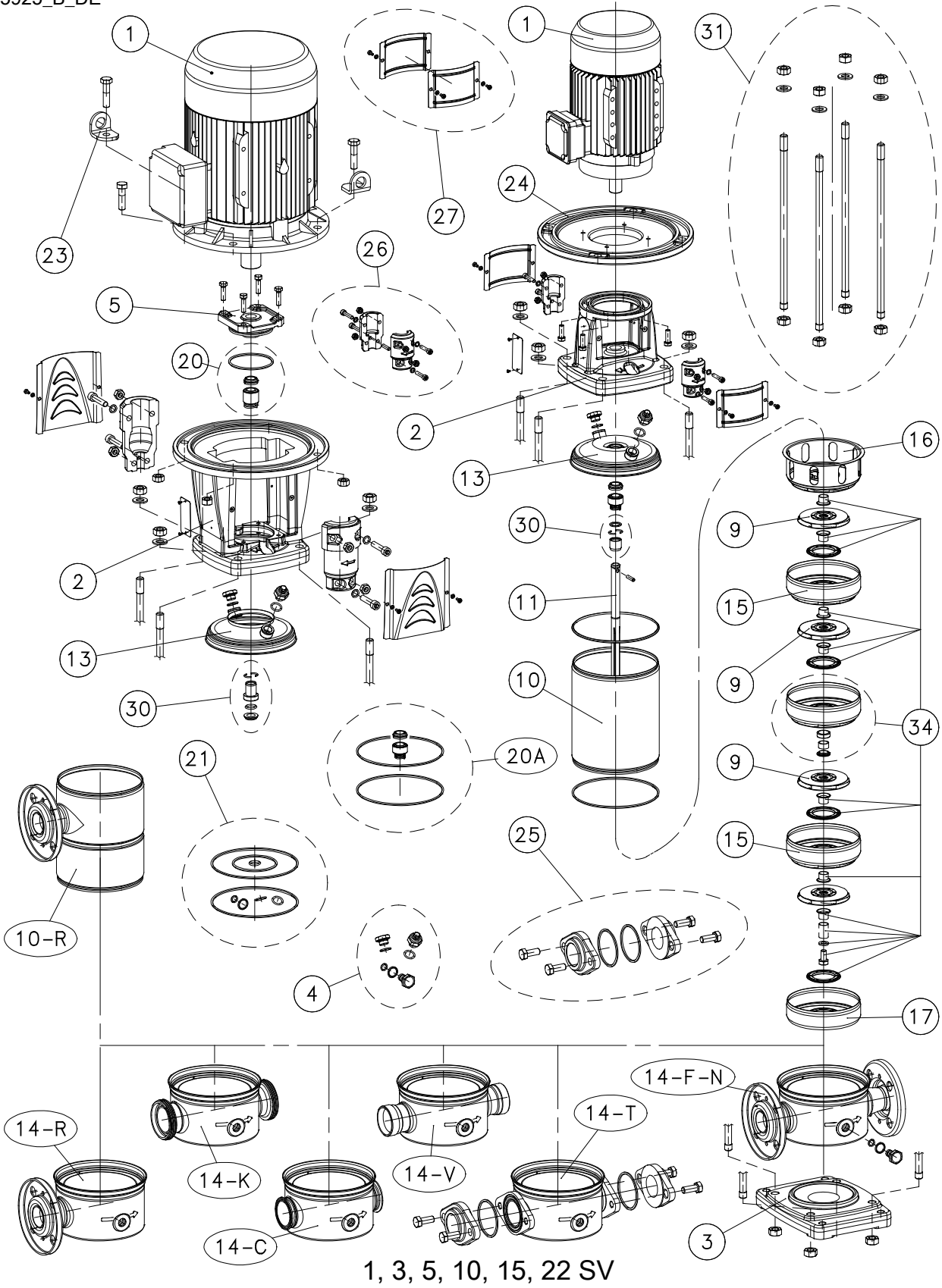
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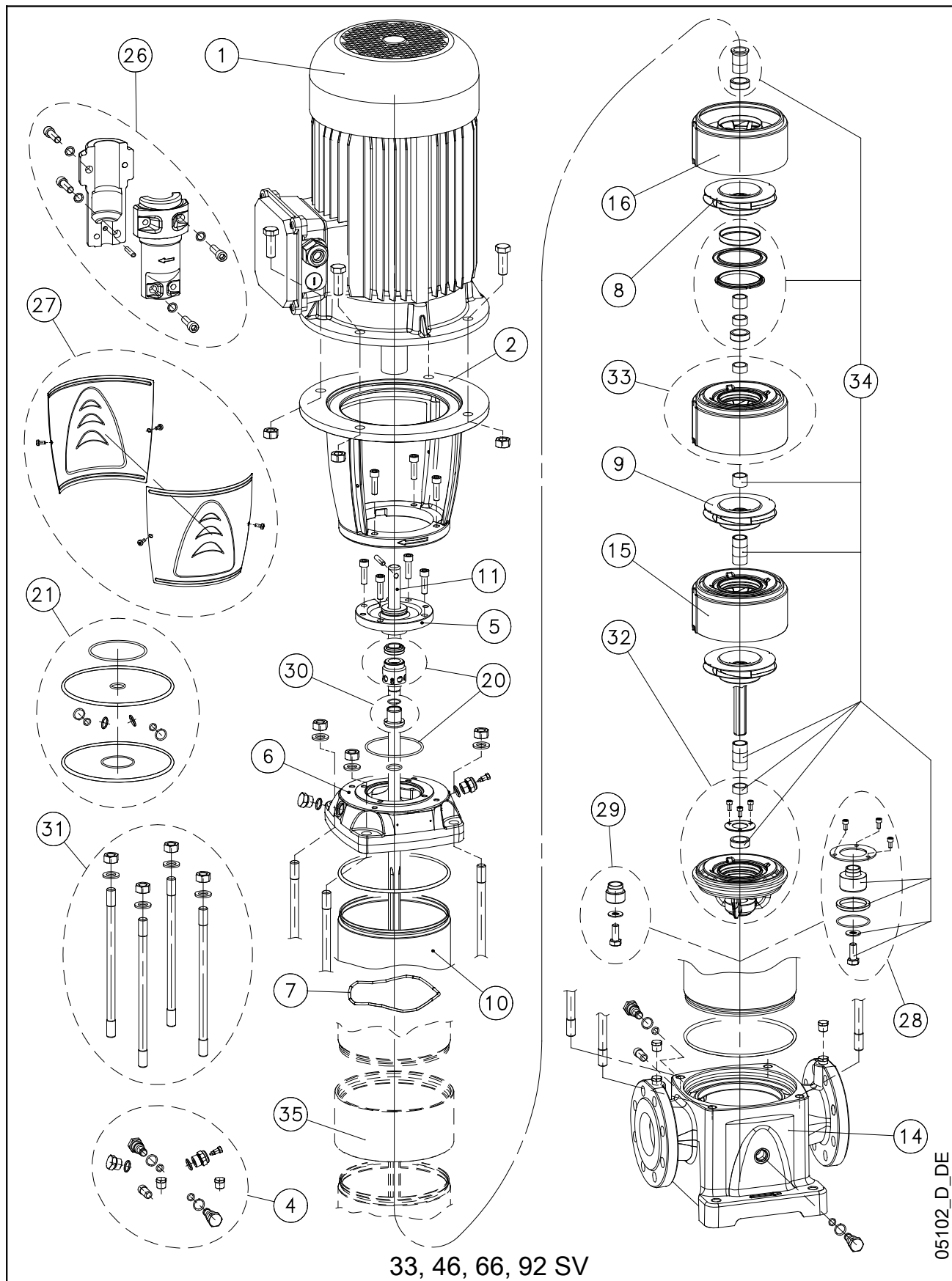
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25.

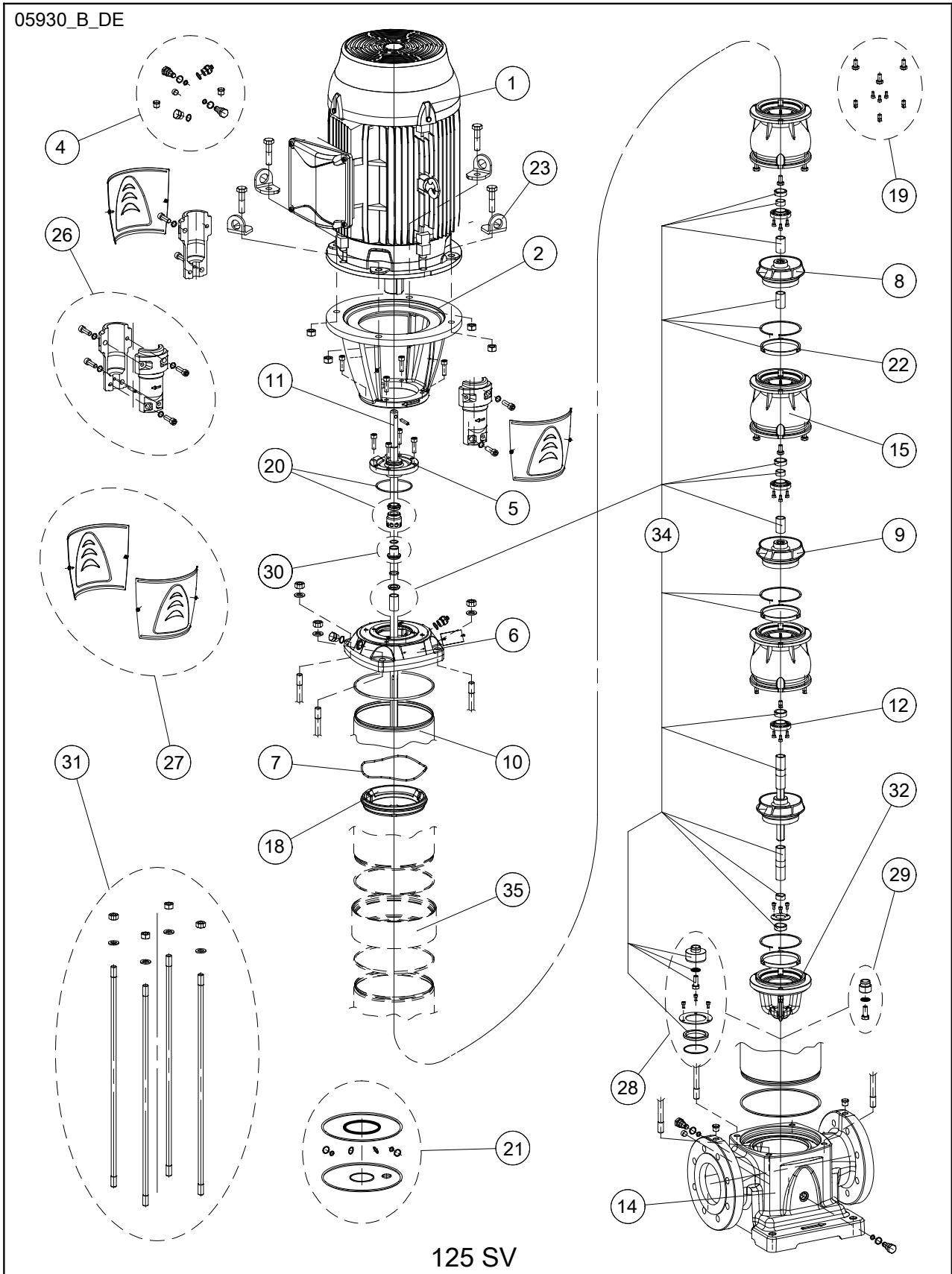
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26.



27.



- 1 Motore — Motor — Adaptateur de moteur — Motor — Motor — Motor — Motor — Motor — Motor — Motor — Moottori
 — Hreyfill — Mootor — Motors — Variklis — Silnik — Motor — Motor — Motor — Motor — Мотор — Motor — Motor
 — Motor — Κινητήρας — Motor — Двигатель — Двигун — موتور

- 2 Lanterna — Adapter — — Passstück — Adaptador — Adaptador — Adapter — Adapter — Adapter — Adapter — Sovitin — Millistykki — Adapter — Adapteris — Adapteris — Łącznik pośredni — Adaptér — Adaptér — Adapter — Adaptor — Адаптер — Adapter — Prilagodnik — Adapter — Προσαρμογέας — Adaptör — Адаптер — Адаптер — الوصلة
- 3 Base — Base — Socle — Sockel — Base — Base — Voet — Base — Sokkel — Bas — Perustus — Grunnur — Alus — Pamatne — Pagrindas — Podstawa — Základna — Základňa — Alap — Bază — Основа — Baza — Baza — Osnova — Βάση — Taban — Основание — Основа — الأساس
- 4 Kit tappo + o-ring — Plug + o-ring kit — Bouchon + kit joint torique — Stopfen + O-Ringsatz — Kit de tapón + junta tórica — Kit do tampão + o-ring — Plug + o-ring pakket — Prop + O-ringssæt — Plugg + o-ring-sett — Plugg + o-ringskit — Tulppa + O-rengassarja — Tappi + O-hringasett — Kork + O-rõnga komplekt — Aizgrieznis + blīvgredzenu komplekts — Kamščio ir O tipo žiedo rinkinys — Zestaw korka z pierścieniem uszczelniającym typu O-ring — Zátka + sestava o-kroužku — Zátka + súprava tesniaceho krúžku — Dugó + O-gyűrű készlet — Buşon + set garnitură inelară — Комплект пробка + о-пръстен — Komplet čepov in tesnilnih obročkov — Komplet priključak + o-prsten — Priključak + komplet o-prstena — Kit διακτυλίου κυκλικής διατομής — Tara + o-ring kiti — Пробка + набор уплотнений круглого сечения — Пробка + набір ущільнень круглого перетину — السدادة + طقم الحلقة الدائرية
- 5 Disco porta tenuta — Seal housing plate — Plaque de boîtier de joint — Dichtungsgehäuse-Platte — Placa de la cubierta del sello — Placa do compartimento do vedante — Plaat voor afdichtingsbehuizing — Plomberingshusplade — Tætningshusplade — Tätningshusplåt — Tiivistekotelon levy — Béttíhúsplata — Tihendi katteplaat — Blīves korpusa plāksne — Riebokšlio sandarinimo plokštelė — Plytka obudowy uszczelnienia — Deska tělesa těsnění — Platnička skrine tesnenia — Tömítésház lemez — Placă carcasă garnitură — Плоча за кожух на уплътнението — Ploščica ohišja tesnila — Brtvena ploča — Brtvena ploča — Πλακίδα μηχανικής στεγανοποίησης — Keçe yuvası plakası — Диск уплотнения — Диск ущільнення — لوح مبيت مانع التسرب
- 6 Testata superiore — Upper head — Tête supérieure — Oberer Kopf — Carga hidráulica superior — Cabeça superior — Bovenste korf — Øverste hoved — Øvre trykkhøyde — Övre huvud — Ylempi painekorkeus — Efri haus — Ülemine surukõrgus — Augšējais augstumspiediens — Viršutinė galvutė — Górna głowica — Horní hlavice — Horná hlavica — Felső nyomómagasság — Cap superior — Горна глава — Zgornja glava — Gornja glava — Gornja glava — Επάνω κεφαλή — Üst kafa — Верхняя головка — Верхня голівка — الرأس العلوي
- 7 Molla precarica diffusori — Diffusers stack spring — Ressort de pile de diffuseurs — Diffuserstapelfeder — Muelle de la pila de difusores — Mola da pilha de difusores — Diffusers stapelveer — Diffusorholdefeder — Vertikal fjær på ledeapparatet — Fjäder för diffuserarstapel — Hajottimen pakettijousi — Dreifarafjödur — Difusorite komplekti vedru — Difuzoru atspere — Difuzinio dėklo spyruoklė — Sprežyna zestawu dyfuzorów — Pružina zásobníku difúzeru — Pružina zásobníka difúzora — Diffúzor szelencerugója — Arc ansamblu difuzoare — Пружина на групата дифузери — Listnata vzmet difuzerjev — Opruga difuzora — Opruga difuzora — Ρυθμιστές προφόρτισης ελατηρίων — Difüzör yığın yayı — Пружина комплекта диффузоров — Пружина комплекту дифузорів — زبرك مكس المنظمات
- 8 Girante (diametro ridotto) — Impeller (reduced diameter) — Roue (petit diamètre) — Laufrad (reduzierter Durchmesser) — Impulsor (diámetro reducido) — Impulsor (diámetro reducido) — Rotor (verkleinde doorsnede) — Propel (reduceret diameter) — Løpehjul (reducert diameter) — Pumphjul (reducerad diameter) — Juoksupyörä (pienennetty halkaisija) — Dæluhjól (minnkað þvermál) — Tiivik (vähendatud läbimõõt) — Darbrats (samazināts diametrs) — Sparnuotė (mažesnio skersmens) — Wirnik napędzany (średnica zmniejszona) — Oběžné kolo (zmenšený průměr) — Obežné koleso (zmenšený priemer) — Járókerék (csökkentett átmérőjű) — Rotor (diámetru redus) — Ротор (намален діаметр) — Rotor (zmanjšan premer) — Rotor (smanjeni promjer) — Rotor (smanjeni prečnik) — Φτερωτή (μειωμένη διάμετρος) — Pervane (azaltılmış çap) — Крыльчатка (уменьшенный диаметр) — Крыльчатка (зменшений діаметр) — (الدفاعة قطر مخفض)
- 9 Girante (diametro nominale) — Impeller (full diameter) — Roue (grand diamètre) — Laufrad (voller Durchmesser) — Impulsor (diámetro completo) — Impulsor (diámetro total) — Rotor (volledige doorsnede) — Propel (fuld diameter) — Løpehjul (full diameter) — Pumphjul (fullständig diameter) — Juoksupyörä (täysi halkaisija) — Dæluhjól (fullt þvermál) — Tiivik (täisläbimõõt) — Darbrats (pilns diametrs) — Sparnuotė (viso skersmens) — Wirnik napędzany (pełna średnica) — Oběžné kolo (plný průměr) — Obežné koleso (plný priemer) — Járókerék (teljes átmérőjű) — Rotor (diámetru complet) — Ротор (пълен діаметр) — Rotor (cel premer) — Rotor (puni promjer) — Rotor (puni prečnik) — Φτερωτή (πλήρης διάμετρος) — Pervane (tam çap) — Крыльчатка (полный диаметр) — Крыльчатка (повний діаметр) — (الدفاعة القطر بالكامل)
- 10, Camicia — Sleeve — Manchon — Hülse — Manguito — Luva — Mof — Foring — Hylse — Hylsa — Holkki — Múffa — 10R Muhv — Uzmava — Įvorė — Tuleja — Pouzdro — Objímka — Hüvely — Manşon — Втулка — Obojka — Rukavac — Rukavac — Διακτύλιος — Kovan — Втулка — Втулка — جلبة
- 11 Albero — Shaft — Arbre — Welle — Eje — Eixo — As — Aksel — Aksel — Axel — Akseli — Skaft — Völl — Värpsta — Velenas — Wal — Hřídel — Hriadelʹ — Tengely — Ax — Вал — Gred — Osovina — Osovina — Άξονας — Mil — Вал — Вал — العمود
- 12 Coperchio per bloccaggio boccola — Bush locking cover — Capot de verrouillage de bague — Buchsensicherungsabdeckung — Cubierta de bloqueo del buje — Tampa de bloqueio do casquilho — Drukbus vergrendelkap — Dæksel til lejevøsning — Hylselåsende deksee — Låslock för bussning — Holkin lukituskansi — Læsihlíf fyrir einangrun — Hülsi lukustuskate — Ieliktna fiksācijas pārsegs — Įvorės fiksuojamasis gaubtas — Pokrywa ustalająca tulei — Uzamykací kryt pouzdra — Uzamykací kryt puzdra — Hüvelyzáró fedél — Capac fixare buçe — Капак на заключващата втулка — Zaklepni pokrov ležajne blazine — Poklorac za blokadu čahure — Poklorac za blokadu čaure — Κάλυμμα ασφάλισης διακτυλίου — Burç kilitleme kapağı — Крышка блокирования втулки — Кришка блокування втулки — غطاء تثبيت الجلبة
- 13 Disco stampato superiore con manicotti — Upper pressed holder with connections — Support embouti supérieur avec raccordements — Oberer Druck-Halter mit Anschlüssen — Soporte con presión superior con conexiones — Suporte premido superior com ligações — Bovendrukhouder met aansluitingen — Trykkeset overholder med forbindelser — Øvre presset holder med koplinger — Øvre pressad hållare med anslutningar — Ylempi puristettu pidin ja liitännät — Efrípressuhaldari með tengum — Ülemine ühendustega presshoidik — Augšējais presētais turētājs ar savienojumiem — Viršutinis prispaudžiamas laikiklis su jungtimis — Górna obsada prasowana z przyłączami — Horní lisovaný držák s připojeními

- Horný lisovaný držiak s pripojeniami — Felső nyomott tartó csatlakozókkal — Suport presat superior cu conectori — Горен пресован държач с връзки — Zgornji stisnjeni držaj s priključki — Okomito pritisnut držač s spojevima — Vertikalno pritisnut držač sa spojevima — Επάνω πρεσαριστό στήριγμα — Bağlantıları içeren üst basılı tutucu — Верхний зажатый держатель с подключениями — Верхний затиснутий тримач із підключеннями — حامل مضغوط علوي مزود بتوصيلات
- 14 Corpo pompa F, N, R, K, C, V, T — Pump body F, N, R, K, C, V, T type — Corps de pompe type F, N, R, K, C, V, T — Pumpengehäuse Ausführungen F, N, R, K, C, V, T — Cuerpo de la bomba, tipo F, N, R, K, C, V, T — Corpo da bomba do tipo F, N, R, K, C, V, T — Pomp F, N, R, K, C, V, T type — Pumpelegeme F-, N-, R-, K-, C-, V-, T-type — Pumpehus type F, N, R, K, C, V, T — Pumpkropp, typer F, N, R, K, C, V, T — Pumpun runko, tyypri F, N, R, K, C, V, T — Dælyfirbygging F, N, R, K, C, V, T type — Pumba korpuse tüüp F, N, R, K, C, V, T — Süknä korpuss F, N, R, K, C, V, T típa — Siurblio korpusas F, N, R, K, C, V, T tipas — Korpus pompy typu F, N, R, K, C, V, T — Těleso čerpadla, typ F, N, R, K, C, V, T — Telo čerpadla - typ F, N, R, K, C, V, T — F, N, R, K, C, V, T szivattyúház — Corp pompă tip F, N, R, K, C, V, T — Корпус на помпата тип F, N, R, K, C, V, T — Telo črpalke típa F, N, R, K, C, V, T — Tijelo pumpe F, N, R, K, C, V, T — Telo pumpe F, N, R, K, C, V, T — Κορμός αντλίας τύπου F, N, R, K, C, V, T — Pompa gövdesi F, N, R, K, C, V, T típi — Корпус насоса типа F, N, R, K, C, V, T — Корпус насоса типу F, N, R, K, C, V, T — جسم المضخة من النوع F· N· R· K· C· V· T
- 15 Kit diffusore — Diffuser kit — Kit de diffuseur — Diffusersatz — Kit del difusor — Kit do difusor — Diffuserpaket — Diffusersæt — Ledearrapparatsett — Diffuserarsats — Hajotinsarja — Dreifisett — Difusorikomplekt — Difuzora kompleks — Difuzorius rinkinys — Zestaw dyfuzora — Sestava difúzeru — Zostava difúzora — Diffúzorkészlet — Set difuzoare — КОМПЛЕКТ дифузер — Oprema z difuzerjem — Komplet difuzora — Komplet difuzora — Kit ροθμιστών — Difúzor kiti — КОМПЛЕКТ диффузора — КОМПЛЕКТ диффузора — طقم المنظم
- 16 Kit diffusore finale — Last stage diffuser kit — Kit de diffuseur de dernier étage — Diffusersatz, letzte Stufe — Kit del difusor de la última fase — Kit do difusor de fase final — Laatste fase diffuserpaket — Sidste stadié diffusersæt — Ledearrapparatsett til siste fase — Diffuserarsats vid sista steget — Viimeisen vaiheen hajotinsarja — Dreifisett fyrir lokastig — Viimase astme difusorikomplekt — Pēdējās pakāpes difuzora kompleks — Paskutinio etapo difuzorius rinkinys — Zestaw dyfuzora ostatniego stopnia — Poslední člunek sestavy difúzeru — Posledný článok zostavy difúzora — Utolsó szakasz diffúzorkészlete — Set difuzoare treaptă finală — КОМПЛЕКТ дифузер последен етап — Oprema z difuzerjem zadnje stopnje — Pribor završnog difuzora — Komplet završnog difuzora — Kit ροθμιστών τελευταίου στάδιου — Son aşama difúzor kiti — КОМПЛЕКТ диффузора последнего этапа — КОМПЛЕКТ диффузора останнього етапу — طقم منظم المرحلة الأخيرة
- 17 Scatola stadio iniziale — First stage box — Carter d'aspiration — Erste Stufe Diffuser — Caja de la primera fase — Caixa de fase inicial — Eerste fase doos — Boks til første stadié — Boks til første fase — Grundstegsbox — Ensimmäisen vaiheen rasia — Fyrsta þreps hringur — Esimese astme kast — Pirmās pakāpes korpuss — Pirmo etapo dėžė — Komora pierwszego stopnia — Skříň prvního stupně — Skriňa prvého stupňa — Első fokozat szekrénye — Cutie prima treaptă — Кутня першо ступалю — Škatla prve stopnje — Prvostepena kutija — Početna kutija — Κουτί πρώτου σταδίου — İlk aşama kutusu — Коробка первого этапа — Коробка першого етапу — صندوق المرحلة الأولى
- 18 Anello adattatore — Adapter ring — Bague d'adaptateur — Adapterring — Anillo del adaptador — Anel do adaptador — Adapterring — Adapterring — Adapterring — Sovitinrengas — Hringur fyrir millistykki — Adapteri røngas — Adaptera gredzens — Adapterio žiedas — Pierścień adaptera — Kroužek adaptéru — Kružok adaptéra — Adaptergyűrű — Inel adaptor — Пръстен на адаптера — Obroček adapterja — Prsten prilagodnika — Prsten adaptera — Δακτύλιος προσαρμογέα — Adaptör halkası — КОЛЬЦО адаптера — Кільце адаптера — حلقة المهایی
- 19 Kit viti diffusore — Diffuser bolts kit — Kit de vis de diffuseur — Diffuser-Schraubensatz — Kit de pernos del difusor — Kit de parafusos do difusor — Diffuser boutenpakket — Diffusorboltsæt — Ledeboltersett — Diffuserarskruvsats — Hajottimen pulttisarja — Boltasett fyrir dreifara — Difusoripoltide komplekt — Difuzora skrūvju kompleks — Difuzorius varžtų rinkinys — Zestaw śrub dyfuzora — Sestava šroubů difúzeru — Zostava skrutiek difúzora — Diffúzorsavar-készlet — Set şuruburi difuzor — КОМПЛЕКТ болтов на дифузера — Oprema z vijaki difuzerja — Komplet vijaka difuzora — Komplet zavrtinja difuzora — Kit μπουλονιών ροθμιστών — Difúzor civata kiti — КОМПЛЕКТ болтов диффузора — КОМПЛЕКТ болтів диффузора — طقم مسامير المنظم
- *20, Tenuta meccanica — Mechanical seal — Joint mécanique — Gleitringdichtung — Sello mecánico — Vedante mecânico — Mechanische
- 20A afdichting — Mekanisk akseltætning — Mekanisk tetning — Mekanisk tätning — Mekaaninen tiiviste — Velaþétti — Mehaaniline tihend — Mehāniskā blīve — Mechaninis sandariklis — Uszczelnienie mechaniczne — Mechanické těsnění — Mechanické tesnenie — Mechanikus tömítés — Garnitură mecanică — Механично уплътнение — Mehansko tesnilo — Mehanički zatvarač — Mehanički zatvarač — Μηχανική στεγανοποίηση — Mekanik keçe — Механическое уплотнение — Механічне ущільнення — مانع التسرب الميكانيكي
- *21 Kit o-ring — o-ring kit — Kit de joints toriques — O-Ringsatz — Kit de junta tórica — kit do o-ring — o-ringpakket — o-ringssæt — o-ring-sett — O-ringskit — O-rengassarja — Sett fyrir o-laga þétti — O-røngaste komplekt — blivgredzenu kompleks — O tipo žiedas — Zestaw pierścienia uszczelniającego typu O-ring — Souprava o-kroužků — Zostava o-krúžku — O-gyűrű készlet — Set inel de etanşare — КОМПЛЕКТ о-пръстен — Oprema z O-obročkom — komplet o-prstenova — komplet o-prstenova — Kit δακτυλίου κυκλικής διατομής — o-ring kiti — КОМПЛЕКТ уплотнительного кольца — КОМПЛЕКТ ущільнювального кільця — طقم الحلقة الدائرية
- 22 Anello per sede rasamento diffusore — Diffuser wear ring support ring — Bague d'appui de bague d'usure de diffuseur — Diffuser-Verschleißring-Stützring — Anillo de soporte de desgaste del difusor — Anel de suport do anel de desgaste to difusor — Diffuser sljtring draagrng — Diffusorlidring stottering — Stottering til ledeslitingen — Stödtring för diffuserarens slitring — Hajottimen kulumisrenkaan tukirengas — Stoðhringur fyrir slithring dreifara — Difusori tihendusrõnga tugirõngas — Difuzoru nodilumgredzena atbalsta gredzens — Difuzorius susidėvinčiojo žiedo atraminis žiedas — Pierścień oporowy pierścienia ciernego dyfuzora — Podpěrný kroužek kroužku opotřebení difúzeru — Podporný krúžok krúžku opotrebenia difúzora — Diffúzor kopógyűrű támasztógyűrű — Inel de suport pentru inel de uzură difuzor — Опорен пръстен на носещия пръстен на дифузера — Podporni obroček nosilnega obročka difuzerja — Potporni prsten podmetača difuzora — Potporni prsten podmetača difuzora — Δακτύλιος υποστηρίξης δακτυλίου φθοράς ροθμιστών — Difúzor aşinma halkası destek halkası — Опорное кольцо компенсационного кольца диффузора — Опорне кільце компенсаційного кільця диффузора — الحلقة الساندة للحلقة البلى بالمنظم

- 23 Anello di sollevamento — Lifting ring — Bague de levage — Hebeöse — Anillo de elevación — Anel de içamento — Hijsring — Løftering — Løftering — Lyftring — Nostorengas — Lyfþíringur — Tösteröngas — Pacelšanas gredzens — Kelimo kilpa — Pierścien nośny — Zvedací kroužek — Zdvihací kroužok — Emelőgyűrű — Inel de ridicare — Повдигащ пръстен — Obroček za dvigovanje — Prsten za podizanje — Prsten za podizanje — Δακτύλιος ανύψωσης — Kaldırma halkası — Подъемное кольцо — Підйомне кільце — حلقة الرفع
- 24 Flangia per motore — Flange for motor — Bride pour moteur — Flansch für Motor — Brida para motor — Junta do motor — Flens voor motor — Flange til motor — Motorflens — Fläns för motor — Moottorin laippa — Flangs fyrir vél — Mootori äärik — Atloks motora nostiprināšanai — Varikliui skirta jungė — Kolnierz do mocowania silnika — Příruba pro motor — Příruba pre motor — Motor karima — Flanșă pentru motor — Фланец за мотор — Prirobnica za motor — Prirubnica za motor — Prirubnica motora — Φλάντζα για κινητήρα — Motor flanşı — Фланец для двигателя — Фланец для движуна — شفة للموتور
- 25 Kit controflange ovali + o-ring (per tipo T) — Oval counterflanges + o-rings kit (for T-type) — Contre-bridés ovales + kit joint torique (pour type T) — Ovale Gegenflansche + O-Ringesatz (für T-Typ) — Kit de contrabridas ovaladas + juntas tóricas (para el tipo T) — Kit de contra-juntas ovais + o-rings (para tipo T) — Ovale tegenflenzen + o-rings pakket (voor T-type) — Ovale kontraflanger + O-ringssæt (til T-type) — Oval motflens + o-ring-sett (til T-type) — Ovale motflänsar + o-ringskit (för T-typ) — Soikeat vastalaipat + O-rengassarja (T-tyyppi) — Ávalir mótflangsar + O-hringjasett (fyrir gerð T) — Ovaalsed vastasäärikud + O-rõngaste komplekt (T-tüübi jaoks) — Ovālie kontratloki + blīvgredzenu komplekts (tipam "T") — Ovalių priedėrių jungių ir O tipo žiedo rinkinys (skirta T tipui) — Zestaw przeciwkolnierzy owalnych + pierścieni uszczelniających typu O-ring (dla typu T) — Oválné protipříruby + sestava o-kroužků (pro typ T) — Oválne protipříruby + súprava tesniacich kroužkov (pre typ T) — Ovális ellenkarima + O-gyűrű készlet (T típushoz) — Contraflanșe ovale + set garnituri inelare (pentru tipul T) — Комплект овальных контрафланцев + o-пръстени (за T-тип) — Ovale protiprirobnice in komplet tesnilnih obročkov (za T-tip) — Ovale protuprirobnice + komplet o-prstenova (za T-tip) — Ovale protivprirobnice + komplet o-prstenova (za T tip) — Οβάλ αριστερόστροφες φλάντζες + κιτ δακτύλιου κυκλικής διατομής (για τύπο T) — Oval ters flanşlar + o-ring kiti (T-tipi için) — Овальные контрфланцы + комплект уплотнительных колец (для типа T) — Овальні контрфланці + комплект ущільнюючих кілець (для типу T) — الشفات المقابلة البيضاوية + طقم الحلقات الدائرية (النوع T)
- 26 Kit coppia di semigiunti — Pair of halfcouplings kit — Kit paire de demi-accouplements — Halbkupplungspaar-Satz — kit de par de medioacoplamiento — Kit de par de meios-acoplamentos — Paar halbkopplingen pakket — Sæt med et par halvkoblinger — Sett med et par halvko-plinger — Par med halvkopplingsatser — Puolikytkinparisarja — Tvö háltengjasett — Poolühenduslülide paari komplekt — Pussavienojumu pāra komplekts — Pusinių movų poros rinkinys — Zestaw pary półsprzęgieł — Sestava páru polovičných spojiek — Zostava páru polovičných spojok — Félkapcsoló pár készlet — Set pereche de semicuplaje — Комплект двойка полукуплинги — Opreme s parom polspojk — Par kompleta poluspojki — Par kompleta poluspojnica — Кит με ζεύγος από ημισυνδέσμους πέδης — Çift yarım manşon kiti — Комплект пар полумуфт — Комплект пар напівмуфт — طقم زوج من القارات النصفية
- 27 Protezioni giunto — Coupling guards — Protecteurs d'accouplement — Kupplungsschutz — Protectores de acoplamiento — Protecções do acoplamento — Koppelingsbescherming — Koblingsvärn — Koplingsbeskyttelse — Kopplingskydd — Kytkinsuojat — Tengihlífar — Sidestuskaitsméd — Sajūga pārsegi — Movos apsaugos — Oslony sprzęgła stalego — Spojovací kryty — Ochrany spojky — Csatlakozó burkolatok — Protecții cuplaj — Защити за куплинги — Ščitnika za spoj — Zaštita spojki — Štitnik spojke — Προστατευτικά σύνδεσης — Kuplaj korumaları — Кожухи муфт — Кожухи муфт — واقيات القارنة
- 28 Kit tamburo reggispinta e bloccaggio pacco giranti — Thrust drum and impeller stack locking kit — Kit d'immobilisation de roues et butée axiale — Drucktrommel und Laufradsicherungssatz — Kit de bloqueo de la pila del impulsor y el tambor de empuje — Tambor de impulso e kit de bloqueio da pila do impulsor — Stuwdrum en waaieraccumulatie vergrendelpakket — Trykkraftstromme- og propelholderlasesæt — Trykksylindere og sett med vertikal låseinretning til løpehjulet — Låssats för trycktrumma och pumphjulsstapel — Painerumpu- ja juoksupyöräpinon lukitus-sarja — Læsissett fyrir þrýstítunnu og dæluhjólaskak — Surveaadi ja tiivikute lukustuskomplekt — Slodzes trumūla un darbrata fiksācijas komplekts — Atraminio būgno ir sparnuotės dėklo fiksavimo rinkinys — Beben oporowy i zestaw ustalający zespołu wirników — Pojistná sestava tlakového bubna a šachty obežného kola — Zaisťovacia zostava tlakového bubna a šachty obežného kolesa — Nyomóedény és járókerék egység rögzítőkészlet — Set fixare ansamblu rotor și tambur de contrapresiune — Комплект за заключване на тласкащия барабан и групата ротори — Odbojni boben in oprema za zaklep sklopa rotorja — Potisni bubanj i komplet za blokadu rotora — Potisni bubanj i komplet za blokadu rotora — Κύλινδρος προώθησης και κιτ ασφάλισης προφόρτισης πτερωτής — Itici silindir ve pervane için kilitleme kiti — Комплект фиксатора упорного барабана и пакета крыльчатки — Комплект фиксатора опорного барабана и пакета крыльчатки — طقم تثبيت الاسطوانة الدفعية ومكس الدفاعة
- 29 Kit di bloccaggio pacco giranti — Impeller stack locking kit — Kit d'immobilisation des roues — Laufradsicherungssatz — Kit de bloqueo de la pila del impulsor — Kit de bloqueio da pila do impulsor — Rotorstapelvergendelingsset — Propellerholderlasesæt — Sett med vertikal låseinretning til løpehjulet — Låssats för pumphjulsstapel — Juoksupyöräpinon lukitus-sarja — Læsissett fyrir dæluhjólaskak — Tiivikute lukustuskomplekt — Darbrata fiksācijas komplekts — Sparnuotės dėklo fiksavimo rinkinys — Zestaw ustalający zespołu wirników — Pojistná sestava šachty obežného kola — Zaisťovacia zostava šachty obežného kolesa — Járókerék egység rögzítőkészlet — Set fixare ansamblu rotor — Заключващ комплект за групата ротори — Oprema za zaklep sklopa rotorja — Komplet za blokadu rotora — Komplet za blokadu rotora — Кит ασφάλισης προφόρτισης πτερωτής — Pervane için kilitleme kiti — Комплект фиксатора пакета крыльчатки — Комплект фиксатора пакета крыльчатки — طقم تثبيت مكس الدفاعة
- 30 Kit boccole per tenute meccaniche — Mechanical seal bush kit — Kit de bague de joint mécanique — Gleitringdichtungsbuchensatz — Kit del buje del sello mecánico — Kit do casquillo do vedante mecânico — Bush kit mechanische afdichting — Mekanisk plomberingsmesneset — Mekanisk tetningshylsesett — Mekanisk tätningssningskit — Mekaaninen tiivisteholkisarja — Ásbétti múffusett — Mehaanilise tihendi hülside komplekt — Mehāniskā blīvējuma slīdgultņu buksu komplekts — Mechaninio sandariklio įvorių rinkinys — Zestaw tulei uszczelnienia mechanicznego — Sestava pouzdra mechanických ucpávek — Mechanické tesnenie — Mechanikus tömítőpersely-készlet — Set bucsőá garnitūrā mecanică — Механічно уплътнение — Sklop puše mehanskega tesnila — Komplet čahura mehaničkog zatvarača — Komplet čaure

mehaničkog zatvarača — Κιτ εδράνων μηχανικής στεγανοποίησης — Mekanik keçe burcu kiti — КОМПЛЕКТ ВТУЛКИ МЕХАНИЧЕСКОГО УПЛОТНЕНИЯ — КОМПЛЕКТ ВТУЛКИ МЕХАΝΙCΗCΟΥ ΠΥCΤΑΛΗΝΝΗC — طقم جلبة مانع التسرب الميكانيكي

- 31 Kit tiranti — Tie rods kit — Kit de biellettes — Zugstrebensatz — Kit del tirante — Kit dos tirantes — Set trekstaven — Styrestangssæt — Strekkstangsett — Dragstångssats — Laitostankosarja — Millistangasett — Sidusvarraste komplekt — Savilcēju komplekts — Ītempi-mo trauklių rinkinys — Zestaw ściągów — Sestava spojovacích tyčí — Zostava tyčí riadenia — Kapcsolódú készlet — Set tije de legătura — КОМПЛЕКТ анкерни болтове — Komplet končnikov — Komplet krajnice — Komplet spona — Κιτ με μπουλόνια σύσφιξης — Rot kolu kiti — КОМПЛЕКТ стяжек — КОМПЛЕКТ хомутив — طقم قضبان الربط
- 32 Kit supporto inferiore con boccola — Lower support and bush kit — Kit de support inférieure et bague — Untere Halterung und Buchsensatz — Kit del buje y soporte inferior — Suporte inferior e kit de casquilhos — Ondersteun en drukbus pakket — Laveste støtte- og bøsningssæt — Nedre sett og hylsesett — Sats för nedre stöd och bussning — Alatuki- ja holkkisarja — Nedri stoð og einangrunarsett — Alumine tugi ja hüülsside komplekt — Atrakšējais balsts un ieliktņu komplekts — Apatinés atramos ir įvorių rinkinys — Zestaw dolnego podparcia z tuleją — Sestava spodní podpěry a pouzdra — Zostava spodnej podpěry a puzdra — Alsó konzol és hüvelykészlet — Set buçe și suport inferior — КОМПЛЕКТ долна опора и втулка — Spodnja podpora in oprema z ležajno blazino — Komplet donje potpore i čaure — Komplet donje potpore i čaure — Χαμηλή στήριξη και κιτ στεγανοποίησης — Alt destek ve burç kiti — Нижняя опора и комплект втулки — Нижняя опора и комплект втулки — المنادة السفلية وطقم الجلب
- 33 Kit diffusore con boccola — Diffuser and bush kit — Kit diffuseur et bague — Diffuser- und Buchsensatz — Kit del buje y difusor — Difusor e kit de casquilhos — Diffuser en drukbuspakket — Diffuser- og bøsningssæt — Ledeapparat og hylsesett — Sats för diffuserare och bussning — Hajotin- ja holkkisarja — Dreifari og einangrunarsett — Difuzori ja hüülsside komplekt — Difuzoru un ieliktņu komplekts — Difuzoriaus ir įvorių rinkinys — Zestaw dyfuzora z tuleją — Sestava difūzēru a pouzdra — Zostava difūzora a puzdra — Diffúzor és hüvelykészlet — Set buçe și difuzoare — КОМПЛЕКТ диффузер и втулка — Difuzer in oprema z ležajno blazino — Komplet difuzora i čaure — Komplet difuzora i čaure — Ρυθμιστής και κιτ στεγανοποίησης — Difüzör ve burç kiti — Диффузор и комплект втулки — Диффузор и комплект втулки — المنظم وطقم الجلب
- 34 Kit parti di usura — Wear parts kit — Kit de pièces d'usure — Verschleißteilesatz — Kit de piezas con desgaste — Kit das peças de desgaste — Pakket voor versleten onderdelen — Slitagedelssæt — Sett med slitasjedeler — Slitagedelskit — Kulutusosasarja — Slithlutasett — Kulumisosade komplekt — Dilstošo elementu komplekts — Susidėvinčių dalių rinkinys — Zestaw części eksploatacyjnych — Sestava pro opotrebené součásti — Súprava pre opotrebované diely — Koróalkatrész készlet — Set piese uzate — КОМПЛЕКТ части, подложени на износване — Komplet obrabnih delov — Komplet potrošnih dijelova — Komplet potrošnih delova — Κιτ για εξαρτήματα με φθορά — Aşınma parçaları kiti — КОМПЛЕКТ изнашиваемых деталей — КОМПЛЕКТ зношуваних деталей — طقم قطع البلى
- 35 Anello per camicia — Ring for sleeve — Bague pour manchon — Ring für Hülse — Anillo para el manguito — Anel para camisa — Ring voor mof — Ring til muffe — Ring til hylse — Hylsring — Holkin rengas — Hringur fyrir múffu — Muhviröngas — Uzmavas gredzens — Įvorės žiedas — Pierścień do tulei — Kroužek pouzdra — Krúžok puzdra — Hüvelygyűrű — Inel pentru manșon — Пръстен за ръкава — Obroček za objemko — Prsten rukavca — Prsten rukavca — Δακτύλιος για περιβλήμα — Manșon halkası — Кольцо втулки — Кільце втулки — حلقة للجلبة
- * Parti di ricambio consigliate — Recommended spare parts — Pièces de rechange conseillées — Empfohlene Ersatzteile — Piezas de repuesto recomendadas — Peças sobressalentes recomendadas — Aanbevolen reserveonderdelen — Anbefalede reservedele — Anbefalte reservedeler — Rekommanderade reservdelar — Suositeltavat varaosat — Rådlagðir aukahlutir — Soovituslikud varuosad — Ieteicamās rezerves daļas — Rekomenduojamos atsarginės dalys — Zalecane części zapasowe — Dorogučené náhradní díly — Odporúčané náhradné diely — Javasolt pótalkatrészek — Piese de schimb recomandate — Препоръчвани резервни части — Priporočeni nadomestni deli — Preporučeni zamjenski dijelovi — Preporučeni rezervni delovi — Προτεινόμενα ανταλλακτικά — Önerilen yedek parçalar — Рекомендуемые запасные части — Рекомендовані запасні частини — قطع الغيار الموصى بها

28.

T				T			
50 Hz 2900 min-1				50 Hz 2900 min-1			
1~	H (m)*	3~	H (m)*	1~	H (m)*	3~	H (m)*
1SV02F003M	12,2	1SV02F003T	12,2	5SV13F022M	98,3	5SV13F022T	98,3
1SV03F003M	18	1SV03F003T	18	5SV14F022M	105,7	5SV14F022T	105,7
1SV04F003M	23,7	1SV04F003T	23,7	5SV15F022M	113,1	5SV15F022T	113,1
1SV05F003M	29,3	1SV05F003T	29,3	5SV16F022M	120,5	5SV16F022T	120,5
1SV06F003M	34,8	1SV06F003T	34,8	-	-	5SV18F030T	135,8
1SV07F003M	40,2	1SV07F003T	40,2	-	-	5SV21F030T	157,9
1SV08F005M	48,1	1SV08F005T	48,1	-	-	5SV23F040T	174,4
1SV09F005M	53,7	1SV09F005T	53,7	-	-	5SV25F040T	189,2
1SV10F005M	59,4	1SV10F005T	59,4	-	-	5SV28F040T	211,5
1SV11F005M	65,1	1SV11F005T	65,1	-	-	5SV30F055T	227
1SV12F007M	73,3	1SV12F007T	73,3	-	-	5SV33F055T	249,2
1SV13F007M	79,2	1SV13F007T	79,2	10SV01F007M	11,8	10SV01F007T	11,8
1SV15F007M	90,9	1SV15F007T	90,9	10SV02F007M	23,6	10SV02F007T	23,6
1SV17F011M	105,2	1SV17F011T	105,2	10SV03F011M	35,7	10SV03F011T	35,7
1SV19F011M	117	1SV19F011T	117	10SV04F015M	47,7	10SV04F015T	47,7
1SV22F011M	134,6	1SV22F011T	134,6	10SV05F022M	60	10SV05F022T	60
1SV25F015M	152,6	1SV25F015T	152,6	10SV06F022M	71,	10SV06F022T	71,8
1SV27F015M	164,3	1SV27F015T	164,3	-	-	10SV07F030T	83,6

T				T			
50 Hz 2900 min-1				50 Hz 2900 min-1			
1~	H (m)*	3~	H (m)*	1~	H (m)*	3~	H (m)*
1SV30F015M	181,7	1SV30F015T	181,7	-	-	10SV08F030T	95,3
1SV32F022M	197,2	1SV32F022T	197,2	-	-	10SV09F040T	106,3
1SV34F022M	209,2	1SV34F022T	209,2	-	-	10SV10F040T	118
1SV37F022M	225,9	1SV37F022T	225,9	-	-	10SV11F040T	129,6
3SV02F003M	14,9	3SV02F003T	14,9	-	-	10SV13F055T	156
3SV03F003M	22	3SV03F003T	22	-	-	10SV15F055T	179,5
3SV04F003M	28,9	3SV04F003T	28,9	-	-	10SV17F075T	205
3SV05F005M	37,2	3SV05F005T	37,2	-	-	10SV18F075T	216,9
3SV06F005M	44,4	3SV06F005T	44,4	-	-	10SV20F075T	240,6
3SV07F007M	52,5	3SV07F007T	52,5	-	-	10SV21F110T	253,6
3SV08F007M	60	3SV08F007T	60	15SV01F011M	14	15SV01F011T	14
3SV09F011M	67,7	3SV09F011T	67,7	15SV02F022M	28,7	15SV02F022T	28,7
3SV10F011M	75	3SV10F011T	75	-	-	15SV03F030T	43,3
3SV11F011M	82,3	3SV11F011T	82,3	-	-	15SV04F040T	58,4
3SV12F011M	89,6	3SV12F011T	89,6	-	-	15SV05F040T	72,7
3SV13F015M	98,1	3SV13F015T	98,1	-	-	15SV06F055T	87,6
3SV14F015M	105,6	3SV14F015T	105,6	-	-	15SV07F055T	101,9
3SV16F015M	119,9	3SV16F015T	119,9	-	-	15SV08F075T	117,4
3SV19F022M	144,3	3SV19F022T	144,3	-	-	15SV09F075T	131,9
3SV21F022M	159,3	3SV21F022T	159,3	-	-	15SV10F110T	147,7
3SV23F022M	174	3SV23F022T	174	-	-	15SV11F110T	162,3
3SV25F022M	188,5	3SV25F022T	188,5	-	-	15SV13F110T	191,3
-	-	3SV27F030T	204,4	-	-	15SV15F150T	222,1
-	-	3SV29F030T	219,3	-	-	15SV17F150T	251,6
-	-	3SV31F030T	233,8	22SV01F011M	14,7	22SV01F011T	14,7
-	-	3SV33F030T	248,5	22SV02F022M	30,4	22SV02F022T	30,4
5SV02F003M	14,8	5SV02F003T	14,8	-	-	22SV03F030T	45,4
5SV03F005M	21,8	5SV03F005T	21,8	-	-	22SV04F040T	60,9
5SV04F005M	30	5SV04F005T	30	-	-	22SV05F055T	76
5SV05F007M	38	5SV05F007T	38	-	-	22SV06F075T	93,2
5SV06F011M	45,3	5SV06F011T	45,3	-	-	22SV07F075T	108,5
5SV07F011M	52,7	5SV07F011T	52,7	-	-	22SV08F110T	124,6
5SV08F011M	60,1	5SV08F011T	60,1	-	-	22SV09F110T	140,1
5SV09F015M	68	5SV09F015T	68	-	-	22SV10F110T	155,4
5SV10F015M	75,5	5SV10F015T	75,5	-	-	22SV12F150T	186,1
5SV11F015M	82,8	5SV11F015T	82,8	-	-	22SV14F150T	216,6
5SV12F022M	90,8	5SV12F022T	90,8	-	-	22SV17F185T	263,5

T				T			
50 Hz 2900 min-1				50 Hz 1,450 min-1			
3~	H (m)*	3~	H (m)*	3~	H (m)*	3~	H (m)*
33SV1/1AG022T	17,4	46SV9/2AG300T	224,8	1SV02F0024T	3,1	22SV14F0224T	53,9
33SV1G030T	23,8	46SV9G370T	240,9	1SV05F0024T	7,7	22SV17F0304T	65,3
33SV2/2AG040T	35,1	46SV10/2AG370T	252,7	1SV08F0024T	12,2	33SV3/2AG0114T	14,4
33SV2/1AG040T	40,8	46SV10G370T	267,6	1SV11F0024T	16,7	33SV4/1AG0114T	21,8
33SV2G055T	47,8	46SV11/2AG450T	280,4	1SV15F0024T	22,6	33SV5G0154T	29,4
33SV3/2AG055T	57,7	46SV11G450T	295,5	1SV19F0024T	28,8	33SV6G0224T	35,9
33SV3/1AG075T	64,5	46SV12/2AG450T	307,3	1SV22F0024T	33,2	33SV7G0224T	41,6
33SV3G075T	71,5	46SV12G450T	321,8	1SV27F0024T	40,1	33SV8G0304T	47,9
33SV4/2AG075T	82	46SV13/2AG450T	332,5	1SV30F0024T	44,4	33SV9G0304T	53,3
33SV4/1AG110T	88,9	66SV1/1AG040T	23,8	1SV34F0024T	50	33SV10G0304T	59
33SV4G110T	95,9	66SV1G055T	29,2	1SV37F0024T	54,2	33SV11G0404T	65,7
33SV5/2AG110T	106	66SV2/2AG075T	47,5	3SV02F0024T	3,8	33SV12G0404T	71,5
33SV5/1AG110T	112,7	66SV2/1AG110T	54,2	3SV05F0024T	9,5	33SV13G0404T	77,2
33SV5G150T	120,4	66SV2G110T	60,4	3SV08F0024T	15,1	46SV2G0114T	13
33SV6/2AG150T	131,2	66SV3/2AG150T	78,4	3SV11F0024T	20,6	46SV3G0154T	19,8
33SV6/1AG150T	139,1	66SV3/1AG150T	84,7	3SV14F0024T	26,1	46SV4G0224T	26,3
33SV6G150T	145,6	66SV3G185T	91,4	3SV19F0024T	33,3	46SV5G0224T	32,6
33SV7/2AG150T	156	66SV4/2AG185T	108,9	3SV23F0024T	42,2	46SV6G0304T	39,3
33SV7/1AG185T	163,3	66SV4/1AG220T	115,2	3SV27F0034T	49,7	46SV7G0304T	45,5
33SV7G185T	170,3	66SV4G220T	121,6	3SV33F0034T	60,2	46SV8G0404T	52,5
33SV8/2AG185T	180,6	66SV5/2AG300T	139,1	5SV03F0024T	5,7	46SV9G0404T	58,9
33SV8/1AG185T	187,4	66SV5/1AG300T	145,6	5SV06F0024T	11,3	46SV10G0554T	66,2
33SV8G220T	194,1	66SV5G300T	152	5SV09F0024T	16,8	46SV11G0554T	72,6
33SV9/2AG220T	202,1	66SV6/2AG300T	169,5	5SV12F0024T	22,2	46SV12G0554T	78,9
33SV9/1AG220T	210,2	66SV6/1AG300T	176	5SV15F0034T	27,5	66SV1G0114T	7,3

T				T			
50 Hz 2900 min-1				50 Hz 1,450 min-1			
3~	H (m)*	3~	H (m)*	3~	H (m)*	3~	H (m)*
33SV9G220T	216,8	66SV6G370T	182,4	5SV18F0034T	33,1	66SV2G0154T	14,8
33SV10/2AG220T	226,4	66SV7/2AG370T	199,9	5SV21F0034T	38,4	66SV3G0224T	22,3
33SV10/1AG300T	234,5	66SV7/1AG370T	206,4	5SV25F0054T	45,3	66SV4G0304T	29,7
33SV10G300T	241,8	66SV7G450T	212,8	5SV28F0054T	51,7	66SV5G0404T	37,5
33SV11/2AG300T	252	66SV8/2AG450T	230,3	5SV33F0074T	60,5	66SV6G0404T	44,7
33SV11/1AG300T	259	66SV8/1AG450T	236,8	10SV03F0054T	9	66SV7G0554T	52,8
33SV11G300T	265,7	66SV8G450T	243,2	10SV04F0054T	12	66SV8G0554T	60,1
33SV12/2AG300T	275,9	92SV1/1AG055T	24,5	10SV06F0054T	17,9	92SV1G0114T	8,3
33SV12/1AG300T	282,8	92SV1G075T	33,5	10SV08F0054T	23,6	92SV2G0224T	16,3
33SV12G300T	289,8	92SV2/2AG110T	49,4	10SV10F0054T	28,9	92SV3G0304T	24,4
33SV13/2AG300T	300,5	92SV2G150T	67,8	10SV13F0074T	37,9	92SV4G0404T	32,9
33SV13/1AG300T	306,9	92SV3/2AG185T	82,4	10SV15F0074T	44,1	92SV5G0554T	41,6
46SV1/1AG030T	19,5	92SV3G220T	102,2	10SV17F0114T	49,6	92SV6G0554T	49,5
46SV1G040T	27,2	92SV4/2AG300T	115,7	10SV19F0114T	55,2	92SV7G0754T	58
46SV2/2AG055T	38,8	92SV4G300T	133,1	10SV21F0114T	62,8	92SV8G0754T	65,9
46SV2G075T	52,6	92SV5/2AG370T	149	15SV03F0054T	10,7	125SV1G0114T	6,9
46SV3/2AG110T	64,7	92SV5G370T	166,4	15SV05F0054T	17,8	125SV2G0224T	13,5
46SV3G110T	80,8	92SV6/2AG450T	183,3	15SV07F0074T	24,6	125SV3/3BG0224T	17,5
46SV4/2AG150T	92,4	92SV6G450T	200,9	15SV09F0114T	32,8	125SV4/4BG030T	23,3
46SV4G150T	107,3	92SV7/2AG450T	216,8	15SV11F0114T	40,1	125SV5/5AG040T	31,4
46SV5/2AG185T	117,2	125SV1G075T	27,6	15SV13F0154T	47,6	125SV6G055T	40,4
46SV5G185T	134,5	125SV2G150T	53,8	15SV15F0154T	54,8	125SV7G075T	47,1
46SV6/2AG220T	143,7	125SV3G220T	80,7	15SV17F0224T	62,5	125SV8G075T	53,8
46SV6G220T	161	125SV4G300T	107,6	22SV04F0054T	14,9		
46SV7/2AG300T	171,3	125SV5G370T	134,5	22SV06F0114T	22,6		
46SV7G300T	188,6	125SV6G450T	161,4	22SV08F0114T	30,8		
46SV8/2AG300T	198,2	125SV7G550T	188,3	22SV10F0154T	38,6		
46SV8G300T	213,1	125SV8/2AG550T	211,5	22SV12F0224T	46		

T				T			
60 Hz 3500 min-1				60 Hz 3500 min-1			
1~	H (m)*	3~	H (m)*	1~	H (m)*	3~	H (m)*
1SV02F0036M	17,4	1SV02F0036T	17,4	-	-	5SV10F0306T	109,2
1SV03F0036M	25,7	1SV03F0036T	25,7	-	-	5SV11F0306T	119,9
1SV04F0036M	33,9	1SV04F0036T	33,9	-	-	5SV12F0306T	130,6
1SV05F0056M	43,6	1SV05F0056T	43,6	-	-	5SV13F0406T	142,5
1SV06F0056M	52,1	1SV06F0056T	52,1	-	-	5SV14F0406T	153,4
1SV07F0076M	61	1SV07F0076T	61	-	-	5SV15F0406T	164,2
1SV08F0076M	69,4	1SV08F0076T	69,4	-	-	5SV16F0406T	174,9
1SV09F0076M	77,9	1SV09F0076T	77,9	-	-	5SV17F0556T	186,4
1SV10F0116M	87,6	1SV10F0116T	87,6	-	-	5SV19F0556T	208
1SV11F0116M	96,2	1SV11F0116T	96,2	-	-	5SV21F0556T	229,6
1SV12F0116M	104,7	1SV12F0116T	104,7	-	-	5SV23F0556T	251
1SV13F0116M	113,2	1SV13F0116T	113,2	10SV01F0076M	17	10SV01F0076T	17
1SV15F0156M	131,2	1SV15F0156T	131,2	10SV02F0156M	34,2	10SV02F0156T	34,2
1SV17F0156M	148,3	1SV17F0156T	148,3	10SV03F0226M	51,8	10SV03F0226T	51,8
1SV18F0226M	158,4	1SV18F0226T	158,4	-	-	10SV04F0306T	69,2
1SV20F0226M	175,7	1SV20F0226T	175,7	-	-	10SV05F0406T	87,3
1SV22F0226M	192,9	1SV22F0226T	192,9	-	-	10SV06F0406T	104,5
1SV24F0226M	210,1	1SV24F0226T	210,1	-	-	10SV07F0556T	122,1
1SV26F0226M	227,3	1SV26F0226T	227,3	-	-	10SV08F0556T	139,2
1SV28F0306M	245,4	1SV28F0306T	245,4	-	-	10SV09F0756T	157,4
3SV02F0036M	21,3	3SV02F0036T	21,3	-	-	10SV10F0756T	174,7
3SV03F0056M	32,6	3SV03F0056T	32,6	-	-	10SV11F0756T	192
3SV04F0076M	43,4	3SV04F0076T	43,4	-	-	10SV13F1106T	226,7
3SV05F0116M	54,7	3SV05F0116T	54,7	-	-	10SV15F1106T	261,2
3SV06F0116M	65,4	3SV06F0116T	65,4	15SV01F0156M	19,9	15SV01F0156T	19,9
3SV07F0116M	76,1	3SV07F0116T	76,1	-	-	15SV02F0306T	41,9
3SV08F0156M	87,2	3SV08F0156T	87,2	-	-	15SV03F0406T	63
3SV09F0156M	97,8	3SV09F0156T	97,8	-	-	15SV04F0556T	83,9
3SV10F0226M	109,5	3SV10F0226T	109,5	-	-	15SV05F0756T	105,4
3SV11F0226M	120,3	3SV11F0226T	120,3	-	-	15SV06F1106T	126,7
3SV12F0226M	131	3SV12F0226T	131	-	-	15SV07F1106T	147,6
3SV13F0226M	141,8	3SV13F0226T	141,8	-	-	15SV08F1506T	171,9
3SV14F0226M	152,5	3SV14F0226T	152,5	-	-	15SV09F1506T	193,2
-	-	3SV15F0306T	164,4	-	-	15SV10F1506T	214,4

T				T			
60 Hz 3500 min-1				60 Hz 3500 min-1			
1~	H (m)*	3~	H (m)*	1~	H (m)*	3~	H (m)*
-	-	3SV17F0306T	185,9	-	-	15SV11F1856T	236,4
-	-	3SV19F0306T	207,3	-	-	15SV12F1856T	257,8
-	-	3SV21F0406T	230,9	22SV01F0226M	22,2	22SV01F0226T	22,2
-	-	3SV23F0406T	252,5	-	-	22SV02F0406T	44,5
5SV02F0056M	21,9	5SV02F0056T	21,9	-	-	22SV03F0556T	66,7
5SV03F0076M	32,7	5SV03F0076T	32,7	-	-	22SV04F0756T	89
5SV04F0116M	43,9	5SV04F0116T	43,9	-	-	22SV05F1106T	111,5
5SV05F0156M	55	5SV05F0156T	55	-	-	22SV06F1106T	133,5
5SV06F0156M	65,9	5SV06F0156T	65,9	-	-	22SV07F1506T	156,4
5SV07F0226M	76,5	5SV07F0226T	76,5	-	-	22SV08F1506T	178,6
5SV08F0226M	87,2	5SV08F0226T	87,2	-	-	22SV09F1856T	201,3
5SV09F0226M	97,8	5SV09F0226T	97,8	-	-	22SV10F1856T	223,5

T				T			
60 Hz 3500 min-1				60 Hz 3500 min-1			
3~	H (m)*	3~	H (m)*	3~	H (m)*	3~	H (m)*
33SV1/1AG0306T	24,5	33SV7/1AG3006T	233,9	46SV5G3706T	194,6	66SV5/2AG4506T	191,9
33SV1G0556T	34,5	33SV7G3006T	243,3	46SV6/2AG3706T	210,5	66SV5/1AG4506T	202
33SV2/2AG0556T	49,6	33SV8/2AG3706T	259,3	46SV6/1AG3706T	222	66SV5G4506T	212,2
33SV2/1AG0756T	59,6	33SV8/1AG3706T	268,7	46SV6G3706T	233,6	92SV1/1AG1106T	36,4
33SV2G1106T	69,4	33SV8G3706T	278,1	46SV7/2AG4506T	250,3	92SV1G1506T	49,5
33SV3/2AG1106T	86	46SV1/1AG0556T	29,1	46SV7/1AG4506T	261,8	92SV2/2AG1856T	69,9
33SV3/1AG1106T	94,7	46SV1G0756T	39,9	46SV7G4506T	273,4	92SV2/1AG2206T	83,6
33SV3G1506T	104,2	46SV2/2AG1106T	56,7	66SV1/1AG0756T	31,4	92SV2G3006T	97,9
33SV4/2AG1506T	119,8	46SV2/1AG1106T	67,8	66SV1G1106T	43,8	92SV3/2AG3706T	117,4
33SV4/1AG1506T	128,9	46SV2G1506T	78,2	66SV2/2AG1506T	64,5	92SV3/1AG3706T	131,5
33SV4G1856T	138,3	46SV3/2AG1856T	95,5	66SV2/1AG1856T	74,9	92SV3G4506T	144,9
33SV5/2AG1856T	155,8	46SV3/1AG1856T	106,1	66SV2G1856T	85,4	92SV4/2AG4506T	163
33SV5/1AG2206T	163,9	46SV3G1856T	117,2	66SV3/2AG2206T	106,6	125SV1G1506T	40,1
33SV5G2206T	173	46SV4/2AG2206T	134,1	66SV3/1AG3006T	117,4	125SV2/2AG2206T	73
33SV6/2AG2206T	189	46SV4/1AG3006T	144,2	66SV3G3006T	127,8	125SV3/3BG3006T	101,9
33SV6/1AG3006T	199,2	46SV4G3006T	155,7	66SV4/2AG3706T	149,1	125SV3G3706T	117,5
33SV6G3006T	208,5	46SV5/2AG3006T	171,6	66SV4/1AG3706T	159,2	125SV4/4AG4506T	146,1
33SV7/2AG3006T	224,6	46SV5/1AG3006T	183,1	66SV4G3706T	169,3	125SV5/5AG5506T	182,6

T				T			
60 Hz 1,750 min-1				60 Hz 1,750 min-1			
3~	H (m)*	3~	H (m)*	3~	H (m)*	3~	H (m)*
1SV03F00246T	6,6	5SV07F00246T	18,8	22SV04F01146T	22,2	46SV11G11046T	105,7
1SV05F00246T	11	5SV09F00346T	24	22SV05F01546T	27,7	46SV12G11046T	115,3
1SV07F00246T	15,3	5SV11F00346T	29,5	22SV06F01546T	33,3	46SV13G11046T	124,9
1SV09F00246T	19,6	5SV13F00546T	34,7	22SV07F02246T	39,1	66SV1G01546T	10,8
1SV11F00246T	23,9	5SV15F00546T	40,4	22SV08F02246T	44,6	66SV2G03046T	21,1
1SV13F00246T	28,2	5SV17F00546T	45,6	22SV09F02246T	50,1	66SV3G04046T	31,4
1SV15F00246T	32,4	5SV19F00746T	50,8	22SV10F03046T	55,6	66SV4G05546T	42
1SV17F00246T	36,6	5SV21F00746T	56,7	33SV2G01146T	17	66SV5G07546T	52,5
1SV18F00246T	38,7	5SV23F00746T	61,9	33SV3G01546T	25,7	66SV6G07546T	62,7
1SV20F00246T	42,9	10SV03F00546T	13	33SV4G02246T	34	66SV7G11046T	73,2
1SV22F00246T	47	10SV05F00546T	21,6	33SV5G03046T	42,7	66SV8G11046T	83,7
1SV24F00246T	51,1	10SV07F00746T	29,9	33SV6G03046T	51,5	92SV1G01546T	11,8
1SV26F00346T	55,2	10SV09F00746T	38,5	33SV7G04046T	59,9	92SV2G03046T	23,4
1SV28F00346T	60	10SV11F01146T	47,8	33SV8G05546T	69	92SV3G05546T	35,4
3SV02F00246T	5,5	10SV13F01146T	56,2	33SV9G05546T	77,5	92SV4G07546T	47,2
3SV04F00246T	10,9	10SV15F01546T	65,1	33SV10G05546T	85,9	92SV5G07546T	58,5
3SV06F00246T	16,3	15SV03F00546T	15,4	33SV11G07546T	94,9	92SV6G11046T	70,2
3SV08F00246T	21,6	15SV04F00746T	20,6	33SV12G07546T	103,3	92SV7G11046T	81,9
3SV10F00246T	26,8	15SV05F01146T	26,2	33SV13G07546T	111,8	92SV8G15046T	93,6
3SV12F00246T	32	15SV06F01146T	31,3	46SV2G01546T	19	125SV1G02246T	10
3SV14F00346T	37,6	15SV07F01546T	36,7	46SV3G02246T	28,8	125SV2/2AG03046T	18,3
3SV15F00346T	40,4	15SV08F01546T	42,4	46SV4G03046T	37,9	125SV3/3BG04046T	25,5
3SV17F00346T	45,5	15SV09F02246T	48	46SV5G04046T	47,6	125SV4/4AG05546T	36,5
3SV19F00346T	50,7	15SV10F02246T	53,3	46SV6G05546T	57,7	125SV5/5AG07546T	45,6
3SV21F00546T	55,8	15SV11F02246T	58,5	46SV7G05546T	67,1	125SV6G11046T	58,7
3SV23F00546T	61,9	15SV12F02246T	63,8	46SV8G07546T	77	125SV7G11046T	68,5
5SV03F00246T	8,3	22SV02F00546T	11	46SV9G07546T	86,4	125SV8G15046T	78,3
5SV05F00246T	13,7	22SV03F00746T	16,5	46SV10G07546T	95,7		

- T** Tipologia — Type — Type — Тип — Tipo — Tipo — Type — Type — Type — Typ — Тыппи — Gerð — Tüüp — Típs — Típas — Typ ukladu — Typ — Typ — Típus — Tip — Тип — Vrsta — Vrsta — Tip — Τύπος — Tip — Тип — Тип — النوع
- H** Prevalenza massima — Maximum Head — Pression maximale — Maximale Förderhöhe — Cabezal máximo — Pressão máxima — Maximale hoogte — Maksimumshoved — Maks. trykkehøyde — Maximal tryckhöjd — Suurin nostokorkeus — Hámarks dæluhæð — Maksimaalne surukõrgus — Maksimālais spiediens — Didžiausia patvanka — Maksymalna wysokość podnoszenia — Maximální tlak — Maximálna výtlačná výška — Maximális nyomómagasság — Cap maxim — Максимална височина — Največja višina črpalke — Najveći tlak — Maksimalna visina — Μέγιστη κεφαλή — Maksimum Başlık — Максимальный напор — Максимальный напір — أقصى رأس
- * Si applica anche per altre versioni — Also applies to the other versions — Applicable aussi aux autres versions — Gilt auch für andere Ausführungen — También se aplica a otras versiones — Também se aplica a outras versões — Geldt ook voor de andere versies — Gælder også for de andre versioner — Gjelder også andre utgaver — Gäller även de andra versionerna — Koskee myös muita versioita — Á líka við aðrar gerðir — Kehtib ka teiste versioonide puhul — Ir spēkā arī citām versijām — Taikoma ir kitoms versijoms — Dotyczy także innych wersji — Platí i pro ostatní verze — Platí aj pre ostatné verzie — A további változatokra is érvényes — Se aplică și celorlalte versiuni — Относя се също и за другите версии — Velja tudi za druge različice — Također vrijedi za ostale verzije — Takođe važi za ostale verzije — Επίσης ισχύει στις άλλες εκδόσεις — Diğer versiyonlar için de geçerlidir — Также касается других версий — Також стосується інших версій — كما ينطبق أيضًا على الأنواع الأخرى



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