

rovatti pompe

Products you can rely on

I EN F D ES

Manuale d'uso e manutenzione

Instructions for use and maintenance

Manuel d'utilisation et d'entretien

Betriebs-und Wartungsanleitung

Manual de uso y mantenimiento

Pompe orizzontali monostadio e multistadio

Horizontal single-stage and multistage pumps

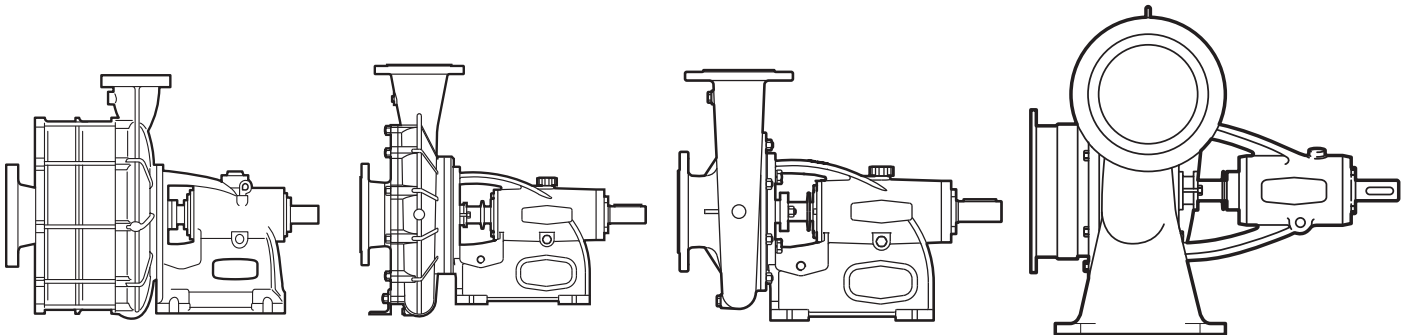
Pompes horizontales monocellulaires et multicellulaires

Horizontale eistufige und mehrstufige Kreiselpumpen

Bombas horizontales monocelulares y multicelulares

Serie - Series - Série - Baureihe - Serie

S - SQ - SP - SK



TRADUZIONE DELLE ISTRUZIONI ORIGINALI

ORIGINAL INSTRUCTIONS

TRADUCTION DES INSTRUCTIONS ORIGINALES

ÜBERSETZUNG DER ORIGINALANLEITUNG

TRADUCCIÓN DE LAS INSTRUCCIONES ORIGINALES

Index

1. Machine identification	16
1.1 Manufacturer's identification.....	16
1.2 Identification	16
1.3 Identification plate	16
2. Description of the manual.....	16
2.1 Introduction	16
2.2 Purpose of the manual	16
2.3 Update procedure	16
3. Preliminary information.....	17
3.1 Standard references.....	17
3.2 Simbology.....	17
3.3 General warnigs	17
3.4 Operators skills.....	17
3.5 Protective equipment required	17
3.6 Residual risks	18
3.7 Prohibitions.....	18
3.8 Noise level.....	18
3.9 Unintented and/or improper uses	18
3.10 Warranty.....	18
4. Description of the machine.....	19
4.1 Purpose of the machine	19
4.2 Use conditions.....	19
4.3 General characteristics.....	20
4.4 Pumps identification	21
5. Transport, handling and storage.....	21
5.1 Transport and handling	21
5.2 Storage.....	21
5.3 Packing disposal	21
6. Installation	22
6.1 Inspections before installation	22
6.2 Installation	23
7. Starting	23
7.1 Preliminary information before starting.....	23
7.2 Bearings lubrication.....	23
7.3 Starting	23
8. Maintenance	25
8.1 Bearings lubrication.....	25
9. Off service and demolition.....	25
10. Spare parts	25
11. Troubleshooting.....	26

1. Machine identification

1.1 Manufacturer's identification

Manufacturer	Rovatti A. & Figli Pompe S.p.a.
Address	42042 Fabbrico (Reggio Emilia) - Italy Tel. +39 0522 66 50 00 Fax + 39 0522 66 50 20 mail info@rovatti.it www.rovatti.it

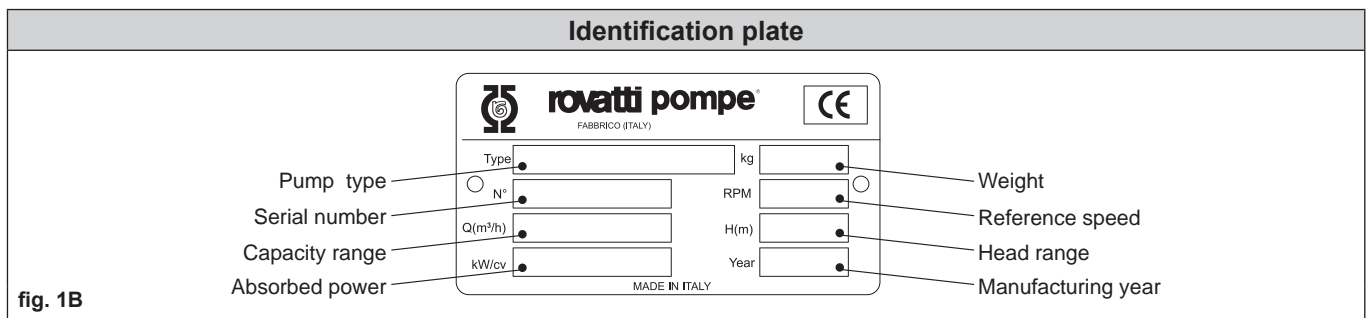
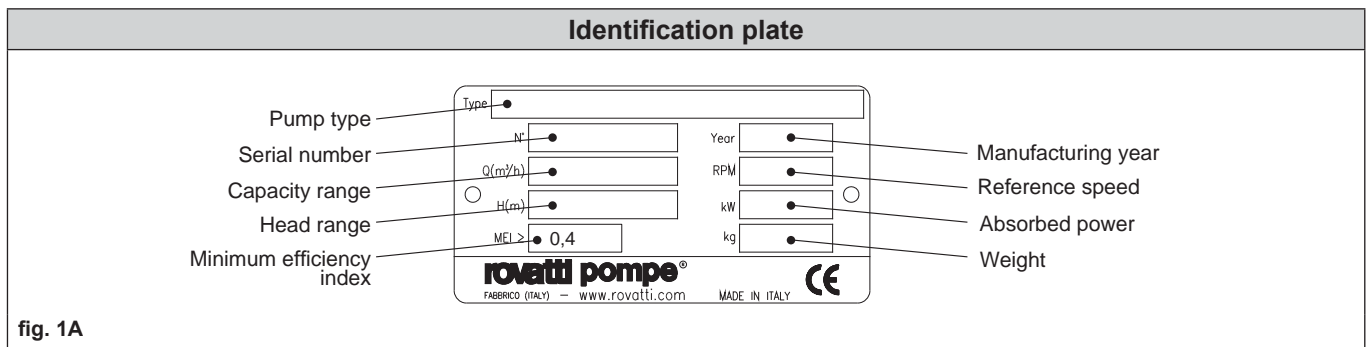
1.2 Identification

This manual describes the operating instructions relative to:

- Horizontal single-stage bareshaft pumps **S** series;
- Horizontal single-stage bareshaft pumps **SQ** series;
- Horizontal single-stage bareshaft pumps **SP** series;
- Horizontal multistage bareshaft pumps **SK** series.

1.3 Identification plate

All the products described in this manual are provided with an identification plate (fig. 1A - 1B) reporting the characteristic data. In case of request for warranty it's important to inform the manufacturer of all characteristic data.



2. Description of the manual

2.1 Introduction

The good functioning of the product, its reliability and life depend on the severe respect of the present prescriptions by the installer and the end user. Read carefully and take note of prescriptions, suggestions and indications necessary for a correct use.

2.2 Purpose of the manual

This manual has been prepared considering the needs of the user that bought our product. You can find topics and instructions illustrating the correct use of the product in order to maintain unchanged during the time the characteristics, the functionality and the quality of the product. The instructions for use contained in the present manual refer to products in standard execution and functioning in normal conditions; therefore, for the use of a pump-motor unit, the present instructions must be integrated with the documentation provided with the motor/engine. Keep this manual and any eventual further documentation in a suitable place easy to be reached by the operators when necessary.

2.3 Update procedure

Revisions and modifications of the manual will be applied by **Rovatti A. & Figli Pompe s.p.a.** without prior notice. When the manual is updated, the new version is attached to the sold product and from that moment the old version is no longer valid.

3. Preliminary information




3.1 Standard references

The machines described in this manual have been designed and manufactured in compliance with:

Machine Directive 2006/42/CE
ErP 2009/125/CE Directive
Regulation EU 547/2012
Standard EN-ISO 12100
EN809

3.2 Simbology

Below are listed the symbols used in this manual to ensure safety for persons, machines and all electrical and mechanical equipment:

	Generical danger	The non observance of the prescription involves the risk of damages to persons and/or things
	Electric danger	The non observance of the prescription involves electric shock risk
	Technical danger	The non observance of the prescription involves the risk of technical damages to the product and/or to the installation

3.3 General warnigs



Operations reported in this manual, with particular reference to **transport, installation, electrical and mechanical connections, starting, maintenance or off-service operations** must be carried out by skilled personnel well experienced with the rules concerning safety of the working environment and who has taken vision and carefully verified the content of this manual and/or any other documentation enclosed to the product. It must also be considered and followed any more restrictive local regulations.

3.4 Operators skills

Below are listed the operators skills:






Generic operator	Not skilled personnel, who can drive the machine using the controls on the push-button panel; simply re-start or re-set the machine after forced interruption.
Mechanical maintener	Skilled engineer who can drive the machine in normal conditions; operate on the mechanical components for setting, maintenance and repairs, if any. He's not allowed to operate on the electric system when live.
Electrical maintener	Skilled engineer who can drive the machine in normal conditions; make all electric operations necessary to setting, maintenance and repair. He can operate inside control and jack boxes, when live.
Rovatti technical operator	Skilled engineer. He's available for clients directly by Rovatti A. & Figli Pompe Spa or by one of their agent, when particularly difficult operations are required.

3.5 Protective equipment required



During installation, maintenance or off-service operations all individual protective devices are necessary to operate in safety conditions (proper gloves, clothes, protection masks, etc.). To prevent accidents be sure that unauthorized persons cannot approaching or standing in dangerous areas.

3.6 Risidual risks

  Danger due to moving mechanical components	<p>Hazard of getting caught and drawn into machine pinch points by loose clothing that become entangled. Pinch points are represented by all rotating or revolving parts and by power transmission apparatus. Follow lockout procedure before servicing. Do not operate without proper protective guards. Stay clear of the machine area while operating</p>
 Danger due to edges and angles	<p>Whenever possible we have provided for corner guards and eliminated protruding parts. Use proper protective guards, like gloves, eye-glasses etc. during maintenance and cleaning operations</p>
 Danger due to electric hazard	<p>The terminal block connecting the electric network to general panel remains live also when in stand-by for servicing operation. Before making any connection or maintenance on these parts disconnect electric power from network supply cable to the machine. We recommend to mount a disconnecting switch upstream in order to insulate the power supply, to ensure safety maintenance operations</p>
 Danger due to thermal hazard	<p>Thermal hazards on this type of machine are concentrated determined areas. While operating the temperature of these areas can reach and exceed 50° C. Avoid any direct contact with these components. Wait for complete cooling oin order to prevent burns</p>

3.7 Prohibitions

In particular, employees must not:



- mount on the pump to prevent falls;
- remove or modify without authorization any security device, security signal or security control;
- perform operations on its own initiative that could compromise the safety of themselves or other operators;
- wear bracelets, rings and necklaces that can be hanged or dragged by moving parts, creating danger conditions;
- use the machinery if there is any malfunction;
- apply any precarious repairs.

3.8 Noise level

The acustic pressure levels of the products, properly installed and functioning within the use limits foreseen in the relative technical catalog are reported on the annex.

3.9 Unintented and/or improper uses

Do not use the machine in the following conditions:



- waterless;
- without the protection grids properly installed;
- exceeding the limits specified on the identification plate;
- for pumping different liquids from those specified in the relative catalog.



Do not use the machine for different purposes than those specified in the relative product catalog. Any different use from those specified in the relative product catalog is to be considered improper and therefore potentially dangerous to the safety of workers, as well as to invalidate the contractual warranty.

3.10 Warranty

Warranty of the products are subject to **ROVATTI A. & FIGLI POMPE S.p.A. general sale conditions**. For more information about Rovatti terms and conditions, plase visit "www.rovatti.it". Warranty is recognized when all mechanical, hydraulic, electric norms and correct use indicated on the present manual are respected.

4. Description of the machine

4.1 Purpose of the machine

The machines described in this manual are widely used in water supply, firefighting, conditioning systems, cooling water systems, general industry, irrigation systems, washdown systems, pressure boosting and snow making systems.

4.2 Use conditions

For the machines described in this manual it is necessary to respect the following use limits:

Max pumped liquid temperature	90°C
Max. solids contents	40 g/m³
Max running time with closed delivery (Q = 0)	2 min.
Max speed	See tab. 1 and tab. 2
Max. operating pressure *	See tab. 1 and tab. 2
Max. suction pressure	See tab. 1 and tab. 2

Pump (single-stage models)	Max speed [min ⁻¹]	Max. suction pressure [bar]	Max. operating pressure * [bar]
SN200	1800	1	5
S250	1750	1	4
S1Q80	2300	2	6
S2Q100A	2300	2	6
S3QN150	2500	2	6
S1P50K	2900	4	12
S1P65A	2900	4	12
S2P65	2900	4	12
S2P65K	2900	4	12
S2P80A	2900	4	10
S2P85	2900	4	10
S2P80K	2900	4	10
S3P80AM	2900	4	10
S2P100B	2900	4	10
S2P100A	2900	4	10
S3P100M	2900	4	10
S3P105	2600	6	16
S3P100K	2600	6	16
S3P125	2900	4	12
S3P125K	2000	6	16
S3P125KA	2200	6	16
S4P125K	2400	6	16
S4P125KA	2600	6	16
S3P150K	2000	6	16
S4P150K	2400	6	16
S3P150KA	2200	6	16
S4P150KA	2600	6	16

tab. 1

* Including suction pressure

Pump (multistage models)	Max speed [min ⁻¹]	Max. suction pressure [bar]	Max. operating pressure * [bar]
S1K50/2	2900	6	18
S1K50/3	2900	6	18
S1K50/4	2900	6	18
S2K65/2	2900	6	20
S2K65/3	2600	6	20
S3K65/3	2900	6	20
S3K65/4	2300	6	20
S2K80/2	2900	6	20
S2K80/3	2600	6	20
S3K80/3	2900	6	20
S3K80/4	2300	6	20
S3K100/2	2300	6	18
S3K100/3	2000	6	18
S3K100/4	1450	6	18
S3K100H/2	2300	6	18
S3K100H/3	2000	6	18
S4K125/2	1800	4	18
S4K125/3	1600	4	18
S4K125/2A	2200	4	18
S4K125/3A	1800	4	18
S4K150/2	1800	4	18
S4K150/3	1600	4	18
S4K150/2A	1800	4	18
S4K150/3A	1600	4	18
SK65-22/2	3500	6	22
SK65-32/2	3500	6	22
SK65-42/2	3500	6	22
SK80-45/2	3500	6	26
SK80-60/2	3500	6	26
SK80-90/2	3500	6	26
SK100-120/2	2900	6	27
SK100-160/2	2900	6	27
SK150-200/2	2000	6	27
SK150-240/2	2000	6	27
SK150-280/2	2000	6	27

tab. 2

* Including suction pressure



The presence of abrasive substances causes wearing and premature deterioration of the internal components of the pump. The presence of pollutants, such as residues of hydrocarbon, solvents, detergives, natural gas, may cause heavy damages producing the blowing of the rubber components (bearings, wear rings) and even the consequent pump rotor locking.



In case of use in conditions different from the suggested ones or constructive modifications made without previous authorization, warranty foreseen in the general sale conditions will be no longer valid and the manufacturer will not be responsible of eventual damages caused to persons, animals or things.

4.3 General characteristics

The machines described in this manual are characterized by robust construction, operational reliability, safe working conditions and are suitable for pumping non-abrasive, chemically and mechanically non-aggressive waters.

4.4 Pumps identification

The machines described in this manual are available in several versions, indicated by the designation of the pump:

Support type							
S	SN	S1	S2	S3	SR3	S4	
Series							
Q		QN		P		K	
Support size (for SK series)							
1		2		3		4	
Nominal Ø suction port [mm]							
50 ÷ 250							
Version (for SQ e SP series)							
A	AM	B	K	KA	M		
Nominal capacity in m ³ /h (for SK Europa)							
22 ÷ 280							
/N° of stages (for multistage series)							
2 ÷ 10							
Impeller size							
E	F	G	H	I	L	M	N O

Example: S3K100/3F

5. Transport, handling and storage

5.1 Transport and handling

When packed, the products described in this manual can be moved with a forklift but in case it is possible to move them even with a crane. Once unpacked, identify the weights of the product (detectable on the identification plates) and use the lifting hooks points **fig. 2 ÷ 5**.



To reduce risks during lifting and handling operations, be sure to operate in safety conditions checking that equipments are complying with safety norms and are suitable for the weights, dimensions and shape of the product. **Handle the product with protective gloves avoiding cut risks to hands. When lifting and placing the product be sure of its stability before releasing the lifting equipment.**

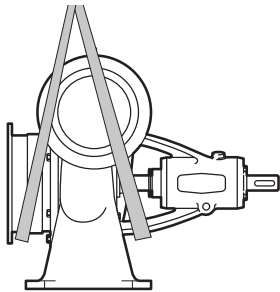
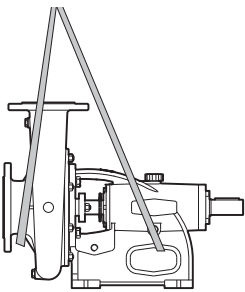
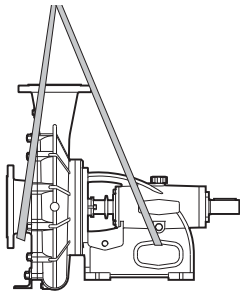
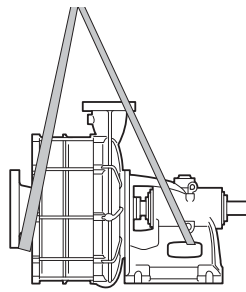
5.2 Storage



The products described in this manual must be stored in covered and dry rooms. **In case of a long storage period (over 3 months) and/or storage in conditions with low ambient temperature, you should empty the pump (the water may freeze and cause serious damages) and protect it with special product against oxidation and rotate periodically by hand the shaft to avoid the possible locking of the same.**

5.3 Packing disposal

The products described in this manual are normally packed in wooden boxes that must be disposed as prescribed by the local regulations prevailing in the country in which the disposal occurs. For further informations contact the relevant authorities.

S series	SQ series	SP series	SK series
			
fig. 2	fig. 3	fig. 4	fig. 5

6. Installation

6.1 Inspections before installation

After receiving the product ensure that during transport has not been damaged and that the data reported on the identification plate of the product correspond to the submitted order.



For the pumps described in this manual is only provide the horizontal installation (fig. 6). Ensure that pump and motor are correctly aligned and re-check the alignment after a short operational period (rectify if necessary). A wrong alignment causes serious damage both for pump and motor (fig. 7 and tab 3). Before installing the pump be sure that the rotating components rotate freely. Be sure that the support base is solid, regular and adequate to the pump's weight (refer to the identification plate).

Typical installation

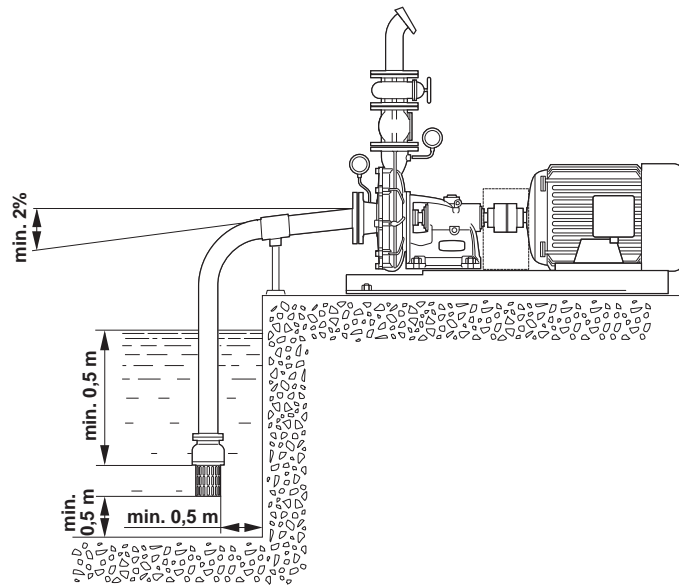


fig. 6

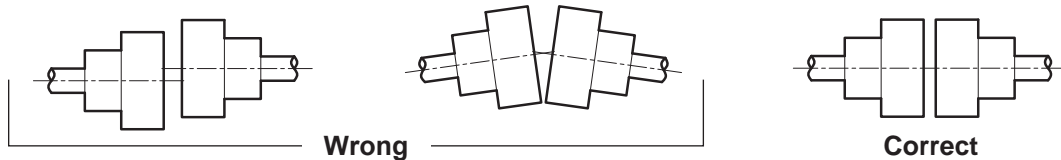


fig. 7

Misalignment tolerances for Rovatti standard coupling

Coupling type RB	3÷20	27	40÷145	180÷330	550÷770
	Radial misalignment K [mm]	0,1	0,14	0,3	0,4
Coupling type RB	3÷8	14÷55	88÷180	250÷330	550÷770
	Axial misalignment F [mm]	2÷3	3÷4	3÷5	5÷6

tab. 3

6.2 Installation

The machines described in this manual can be driven by electric motor or thermic engine through elastic coupling. When the pumps are coupled with electric motor, the motor is in compliance with "IEC 34-7, IEC 72"- standards.



For installation with electric motor the site chosen must be well ventilated, protected from severe weather and must ensure environmental conditions according to the protection degree and the cooling need of the electric motor. In the choice of the installation place keep in mind any future maintenance need which may require the motor disassembly. **For the installation keep a free space behind the motor at least equal to the height of the motor; this will allow an air circulation able to ensure the correct motor cooling.**



For installation with thermic engine the site chosen for the must be well ventilated and the discharge of the engine must be placed outside the environment. **Leave a space around the unit equal to the volume of the same; this will allow an air circulation able to ensure the correct engine cooling.**

In order to reduce head losses the suction pipe should be of limited length (max $8 \div 10$ m) and with a diameter larger than the pump inlet. Distance between pump and water level shouldn't be more than $4 \div 6$ m when using pump at the best efficiency point. The value of the suction head "Ha" added to head losses should satisfy the NPSH required by the pump. **Use suitable supports and fixing brackets for the suction and delivery pipes in order to avoid pump damages. Suction and delivery pipes must be correctly mounted and must not be subject to stress during pump operation.**



Ensure in suction that:

- NPSH available is 1 meter approx. higher than the NPSH requested by the pump and that friction losses in suction pipe, bends, foot valve and filter do not exceed 1 meter.
- Suction pipe has a diameter larger than the inlet of pump and that the horizontal section of the suction pipe does not exceed a gradient of 2%.
- All joints are perfectly airtight.
- Anchorages and supports to prevent damages and possible breakage of suction flange are properly secured.
- Foot valve is vertically positioned and equipped with adequate sized grid to protect against possible obstructions (free surface of filter must be minimum twice suction pipeline surface).
- The suction pipe has not narrow bends and diameter variations.

Ensure in delivery that:

- All pipes and fittings are adequately dimensioned to reduce pressure losses and to withstand the maximum operating pressure of the pump.
- A gate valve is fitted to regulate delivery flow.
- The suction pipe has not narrow bends and diameter variations.
- Anchorages and supports to prevent damages and possible breakage of delivery flange are properly secured.

7. Starting

7.1 Preliminary information before starting



The starting of the pump-motor unit must be performed by qualified and experienced personnel. For starting operations you must also refer to the documentation provided with the motor. Before starting the pump-motor unit, carry out a final check on hydraulic connections, electric equipments and relevant ratings. Never run the pump without water; dry functioning, even brief, can destroy the hydraulic components.



Activate all security procedures and check the efficiency of the protections. Isolate the area within a radius of 2 metres avoiding access to unauthorized persons.

7.2 Bearings lubrication



The pumps described in this manual are available in 2 different executions. While the pumps with grease lubricated bearings do not require preventive checks, **pumps with oil lubricated bearings are supplied without oil and, before starting, it is necessary to proceed with oil filling. The quantity and type of oil to be used are given in tab. 4.**

7.3 Starting

To correctly start the pump-motor unit, proceed as follows:

- Carefully fill the pump body and the suction pipes checking that no air is trapped inside. If possible turn the shaft manually maneuvering the coupling.
- Start the pump-motor unit with gate valve slightly open.
- With running pump gradually open the gate valve to obtain the desired operating performance.
- On pumps equipped with gland packing, make sure that the packing leaks approx. 20 to 60 drops per minute to allow adequate cooling and shaft lubrication. If necessary, adjust the flow slowly and progressively loosening or tightening the packing nuts (this adjustment must be performed with running pump) **being careful not to touch moving parts.**



The pump operation must stay within the limits and must take place without abnormal vibration and noise. Maintain the data provided on the operating plate. The use of the pump with different data can cause irreparable damage.

Pump	Oil quantity [ml]		Oil type		
			Ambient temperature up to 35 °	Ambient temperature over 35 °	Arab countries
SN200			SAE 10W/20	SAE 30	SAE 15W/50
S250					
S1Q80	140				
S2Q100A	250				
S3QN150	380				
S1P50K	140				
S1P65A	140				
S2P65	250				
S2P65K	250				
S2P80A	250				
S2P85	250				
S2P80K	250				
S3P80AM	380				
S2P100B	250				
S2P100A	250				
S3P100M	380				
S3P105	380				
S3P100K	380				
S3P125	380				
S3P125K	380				
S3P125KA	380				
S4P125K	870				
S4P125KA	870				
S3P150K	380				
S4P150K	870				
S3P150KA	380				
S4P150KA	870				
S1K50/2	140				
S1K50/3	140				
S1K50/4	140				
S2K65/2	250				
S2K65/3	250				
S3K65/3	380				
S3K65/4	380				
S2K80/2	250				
S2K80/3	250				
S3K80/3	380				
S3K80/4	380				
S3K100/2	380				
S3K100/3	380				
S3K100/4	380				
S3K100H/2	380				
S3K100H/3	380				
S4K125/2	870				
S4K125/3	870				
S4K125/2A	870				
S4K125/3A	870				
S4K150/2	870				
S4K150/3	870				
S4K150/2A	870				
S4K150/3A	870				
SK65-22	250				
SK65-32	250				
SK65-42	250				
SK80-45	380				
SK80-60	380				
SK80-90	380				
SK100-120	380 (for S3RK version)	870 (for S4K version)			
SK100-160	380 (for S3RK version)	870 (for S4K version)			
SK150-200	870				
SK150-240	870				
SK150-280	870				

tab. 4

8. Maintenance

8.1 Bearings lubrication

For pumps provided with oil lubrication bearings you must provide oil replacement after the first 80 hours of operation. It is necessary to repeat this operation every 400 / 1000 operation hours. Provide oil replacement also in case of sudden oil lowering. For oil replacement refer to tab. 4.

DON'T WASTE THE ENVIRONMENT WITH OUT OF USE OIL.



When the pump remains inactive for a long period (especially during cold seasons), drain out the water from the drainage plug in order to prevent freezing damages. It is advisable to protect the rotating internal parts with antirust oil (without solvent) and, when possible, rotate periodically by hand the pump shaft.

9. Off service and demolition

In case of dismantling and demolition, the pump components are not so dangerous and do not require special precautions. In order to facilitate recycling, all materials composing electrical system and thermoplastic components shall be separated from the machine.

INFORMATION TO USERS - under Article 13 of Law 25, July 2005, n° 151 "Implementation of Directives 2002/95/EC, 2002/96/EC and 2003/108/EC: Restriction of the use of certain Hazardous Substances in electrical and electronic equipment and Waste of Electrical and Electronic Equipment"

Suitable separate collection, followed by decommissioned pump recycling, treatment and environmentally-sound disposal, helps to avoid possible negative effects on health and the environment and promotes re-use and/or recycling of the materials of which the equipment is made. Owners who dispose of the product illegally will be liable to the administrative penalties envisaged by the regulations in force. In case of off service and demolition, follow scrupulously the local antipollution norms. Proceed to the differentiated disposals according to the following brief list of the different materials composing the pumps in the standard version.

Support - Pump body - Impeller - Diffuser	Cast iron
Shaft - Screws	Steel

DON'T WASTE THE ENVIRONMENT WITH OUT OF USE MATERIALS

10. Spare parts

In order to see spare parts tables or to order spare parts please refer to the spare parts catalog "Rovatti Spares Pro" available on www.rovatti.it.

11. Troubleshooting



It is important to always check that the installation complies with current regulations and that the operating conditions comply with the specifications for which the pump was purchased (refer to the identification plate fixed on the machine). The following is a diagram indicating the most frequent faults and their possible causes / remedies. For any further information contact the Rovatti Service Centres.

Faults	Possible causes	Remedies
Insufficient capacity	Inadequate pump or pipeline	Contact the installer of the pumping unit
	Pump or pipeline inadequately filled or with airpockets	Eliminate air from pump and pipeline
	Excessive suction head	Contact the installer of the pumping unit
	Worn hydraulic components	Contact Assistance Service
	Incorrect pumped liquid	Stop the pumping unit and contact Assistance Service
Inexistent flow	Inadequate pump or pipeline	Contact the installer of the pumping unit
	Pump or pipeline inadequately filled or with airpockets	Eliminate air from pump and pipeline
	Excessive suction head	Contact the installer of the pumping unit
Water leakages from and gaskets	Worn or damaged gaskets	Contact Assistance Service for gaskets replacement
Water leakages from pump shaft seal	Gland packing insufficiently tightened or too worn	Check the gland packing condition and tightening
	Damaged mechanical seal	Contact Assistance Service for replacement
	Gland packing in unsuitable material	Contact Assistance Service for replacement
Noise or vibrations	Pump or pipeline inadequately filled or with air pockets	Eliminate air from pump and pipeline
	Excessive suction head	Contact the installer of the pumping unit
	Excessive wearing of hydraulic components	Contact Assistance Service
	Pump and motor misaligned or wrongly coupled	Contact the installer of the pumping unit
	Vibrations due to pipe resonance	Contact the installer of the pumping unit
	Missing bearings lubrication	Check oil quantity and integrate if necessary
	Unbalanced rotor	Contact Assistance Service
Defective or worn bearings	Contact Assistance Service for replacement	
Pump overheating	Gland packing too tightened	Loosen the gland packing
	Insufficient capacity	Open the discharge valve to increase the capacity
Bearings overheating	Excessive wearing of hydraulic components	Contact Assistance Service
	Pump and motor misaligned or wrongly coupled	Contact the installer of the pumping unit
	Insufficient/excessive bearings lubrication	Check oil quantity and integrate if necessary
Sudden oil level lowering	Damaged bearing or wear ring	Stop the pumping unit and contact Assistance Service

Appendice - Annex - Annexe - Anhang - Anexo

Livello di pressione sonora media ad 1 metro di distanza dalla pompa in campo libero

Average sound pressure level at 1-metre distance from the pump in an open field

Niveau de pression sonore moyenne à 1 mètre de distance de la pompe en champ libre

Durchschnittlicher Geräuschpegel der installierten Pumpe gemessen in ca. 1 m Entfernung im freien Feld

Nivel de presión acústica mediana a 1 metro de distancia de la bomba en campo libre

Serie - Series - Série - Baureihe - Serie S - SQ - SP		
Potenza motore - Motor power Puissance moteur Motorleistung - Potencia del motor [kW]	2900 min ⁻¹ db [A]	1450 min ⁻¹ db [A]
1,1	< 70	< 70
1,5	< 70	< 70
2,2	< 70	< 70
3	< 70	< 70
4	< 70	< 70
5,5	< 70	< 70
7,5	< 70	< 70
9,2	< 70	< 70
11	< 70	< 70
15	70	< 70
18,5	71	< 70
22	71	< 70
30	72	70
37	73	72
45	75	72
55	76	73
75	77	74
90	77	74
110	78	75
132	78	76

Serie - Series - Série - Baureihe - Serie SK		
Potenza motore - Motor power Puissance moteur Motorleistung - Potencia del motor [kW]	2900 min ⁻¹ db [A]	1450 min ⁻¹ db [A]
1,1	< 70	< 70
1,5	< 70	< 70
2,2	< 70	< 70
3	< 70	< 70
4	< 70	< 70
5,5	< 70	< 70
7,5	< 70	< 70
9,2	70	< 70
11	70	< 70
15	71	< 70
18,5	72	70
22	73	71
30	74	72
37	75	73
45	76	74
55	76	75
75	77	76
90	77	76
110	78	77
132	78	77

Incrementare i valori: + 3db (per 3500 min⁻¹); + 1 db (per 1750 min⁻¹)

Increase the values: + 3db (for 3500 min⁻¹); + 1 db (for 1750 min⁻¹)

Augmenter les valeurs + 3dB (pour 3500 min⁻¹); + 1 dB (pour 1750 min⁻¹)

Erhöhen Sie die Werte: + 3db (für 3500 min⁻¹); + 1 db (für 1750 min⁻¹)

Aumente los valores: + 3db (para 3500 min⁻¹); + 1 db (para 1750 min⁻¹)

Se il livello di rumorosità deve essere garantito, aggiungere +3db per tolleranze di misura e costruttive

If the noise level is to be guaranteed, please add +3db for measure or constructive tolerance

Si le niveau sonore doit être garanti, ajouter +3db pour tolérances de mesure et de construction

Muss der geräuschpegel gewährleistet werden, so sind 3 db als toleranz für messung und konstruktion hinzuzufügen

Si se debe garantizar el nivel sonoro, sumar + 3 db en concepto de tolerancia de medición y/o construcción

Appendice - Annex - Annexe - Anhang - Anexo

Livello di pressione sonora media ad 1 metro di distanza dalla pompa in campo libero

Average sound pressure level at 1-metre distance from the pump in an open field

Niveau de pression sonore moyenne à 1 mètre de distance de la pompe en champ libre

Durchschnittlicher Geräuschpegel der installierten Pumpe gemessen in ca. 1 m Entfernung im freien Feld

Nivel de presión acústica mediana a 1 metro de distancia de la bomba en campo libre

Serie - Series - Série - Baureihe - Serie SK Europa		
Potenza motore - Motor power Puissance moteur Motorleistung - Potencia del motor [kW]	2900 min ⁻¹ db [A]	1450 min ⁻¹ db [A]
11	< 70	< 70
15	< 70	< 70
22	< 70	< 70
3	< 70	< 70
4	< 70	< 70
55	< 70	< 70
75	< 70	< 70
92	< 70	< 70
11	< 70	< 70
15	< 70	< 70
185	< 70	< 70
22	70	< 70
30	71	< 70
37	72	70
45	73	71
55	73	72
75	74	73
90	74	73
110	75	74
132	75	74
162	75	75

Incrementare i valori: + 3db (per 3500 min⁻¹); + 1 db (per 1750 min⁻¹)

Increase the values: + 3db (for 3500 min⁻¹); + 1 db (for 1750 min⁻¹)

Augmenter les valeurs + 3dB (pour 3500 min⁻¹); + 1 dB (pour 1750 min⁻¹)

Erhöhen Sie die Werte: + 3db (für 3500 min⁻¹); + 1 db (für 1750 min⁻¹)

Aumente los valores: + 3db (para 3500 min⁻¹); + 1 db (para 1750 min⁻¹)

Se il livello di rumorosità deve essere garantito, aggiungere +3db per tolleranze di misura e costruttive

If the noise level is to be guaranteed, please add +3db for measure or constructive tolerance

Si le niveau sonore doit être garantié, ajouter +3db pour tolérances de mesure et de construction

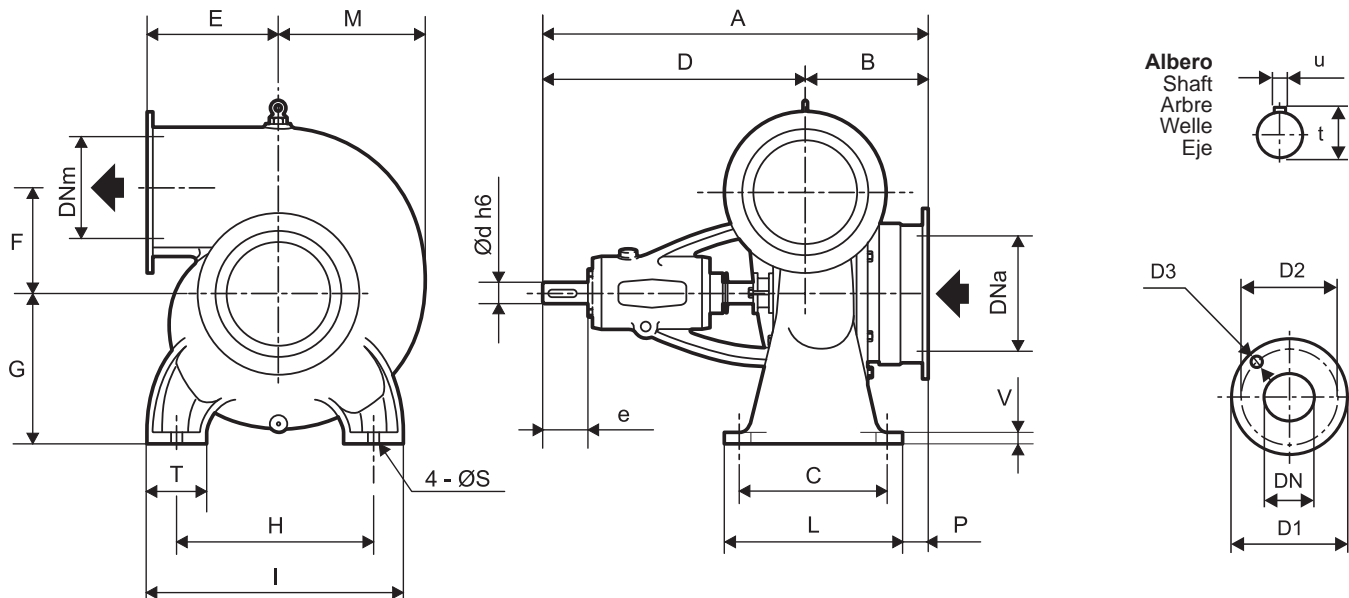
Muss der geräuschpegel gewährleistet werden, so sind 3 db als toleranz für messung und konstruktion hinzuzufügen

Si se debe garantizar el nivel sonoro, sumar + 3 db en concepto de tolerancia de medición y/o construcción

Appendice - Annex - Annexe - Anhang - Anexo

Dimensioni di ingombro in mm e peso in kg
 Overall dimensions in mm and weight in kg
 Dimensions en mm et masse en kg
 Abmessungen in mm, Gewicht in kg
 Medidas en mm, peso en kg

S



Pompa Pump Pompe Pumpe Bomba	DNa	PN	DNm	PN	A	B	C	D	E	F	G	H	I	L	M	N	P	S	T	V	d	e	u	t	Peso Weight Masse Gewicht Peso
SN200	200	6	200	6	630	183	230	447	255	190	255	370	460	280	245	-	43	19	90	30	38	80	10	41	114
S250	250	6	250	6	747	248	270	499	310	270	315	520	620	320	350	-	65	25	100	30	42	110	12	46	215

Flangia aspirante Suction flange Bride d'aspiration Saugstutzen Brida aspiración					
DNa	PN	D1	D2	D3	Fori Holes Perçages Löker Agujeros
200	6	320	280	19	8
250	6	375	335	19	12

Flangia premente Delivery flange Bride de refoulement Druckstutzen Brida impulsión					
DNm	PN	D1	D2	D3	Fori Holes Perçages Löker Agujeros
200	6	320	280	19	8
250	6	375	335	19	12

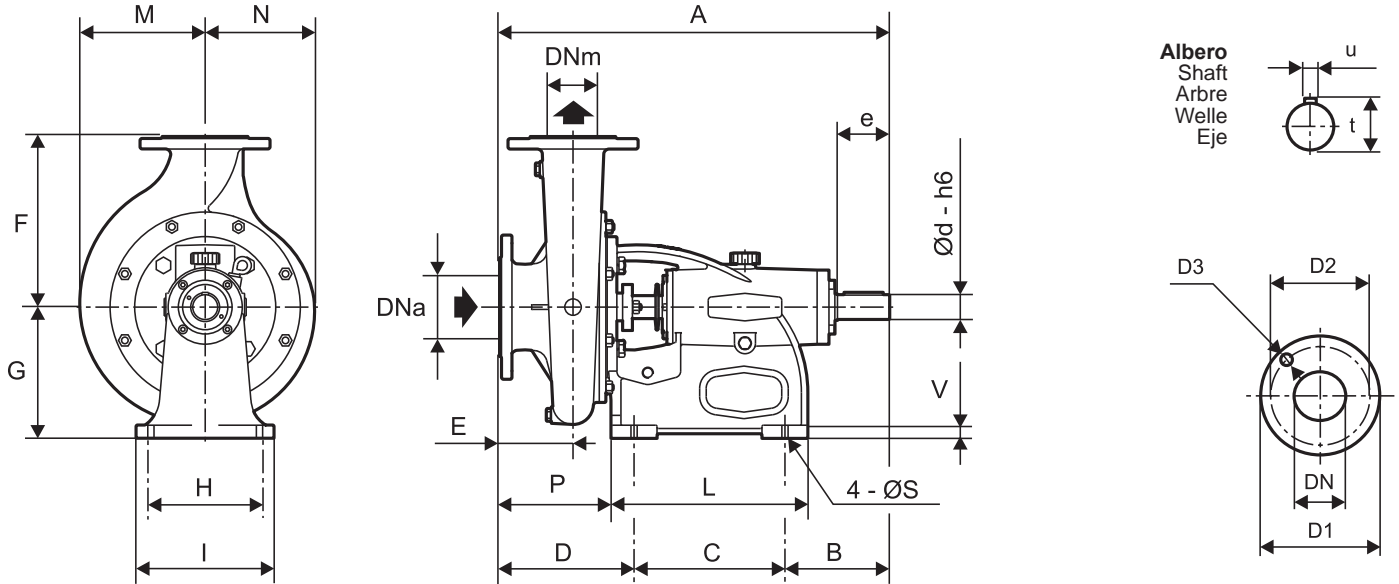
Pompe orizzontali monostadio e multistadio
 Horizontal single-stage and multistage pumps
 Pompes horizontales monocellulaires et multicellulaires
 Horizontale eistufige und mehrstufige Kreiselpumpen
 Bombas horizontales monocelulares y multicelulares

Manuale d'uso e manutenzione
 Instructions for use and maintenance
 Manuel d'utilisation et d'entretien
 Betriebs- und Wartungsanleitung
 Manual de uso y mantenimiento

Appendice - Annex - Annexe - Anhang - Anexo

Dimensioni di ingombro in mm e peso in kg
 Overall dimensions in mm and weight in kg
 Dimensions en mm et masse en kg
 Abmessungen in mm, Gewicht in kg
 Medidas en mm, peso en kg

SQ



Pompa Pump Pompe Pumpe Bomba	DNa	PN	DNm	PN	A	B	C	D	E	F	G	H	I	L	M	N	P	S	T	V	d	e	u	t	Peso Weight Masse Gewicht Peso
S1Q80	80	10	65	16	420	101	140	179	105	195	140	125	155	190	153	135	154	14	-	15	20	45	6	23	33
S2Q100A	100	10	80	16	491	119	175	197	110	230	160	145	175	235	177,5	165	167	16	-	17	25	60	8	28	45
S3QN150	150	-	125	-	654	148	230	276	140	315	208	175	210	300	230	185	241	19	-	20	38	80	10	42	80

Flangia aspirante
 Suction flange
 Bride d'aspiration
 Saugstutzen
 Brida aspiración

DNa	PN	D1	D2	D3	Fori Holes Perçages Löker Agujeros
80	10	200	160	19	8
100	10	220	180	19	8
150	-	285	240	19	8

Flangia premente
 Delivery flange
 Bride de refoulement
 Druckstutzen
 Brida impulsión

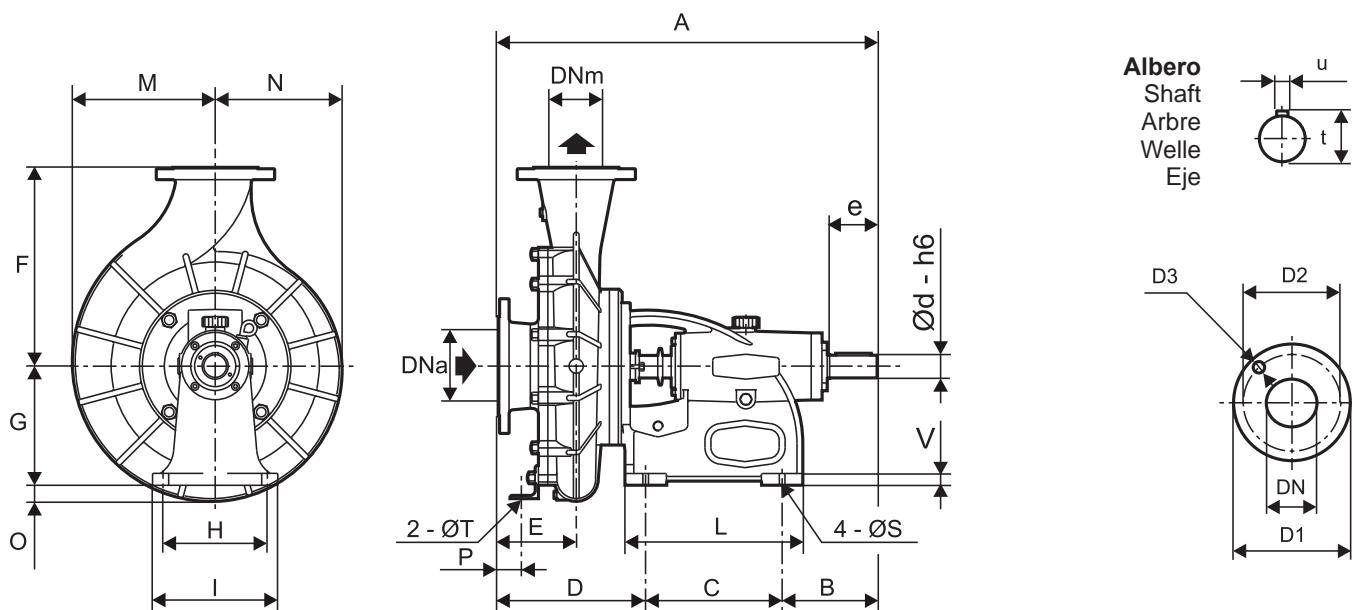
DNm	PN	D1	D2	D3	Fori Holes Perçages Löker Agujeros
65	10	185	145	19	4
80	10	200	160	19	8
125	-	250	210	19	8

Appendice - Annex - Annexe - Anhang - Anexo

Dimensioni di ingombro in mm e peso in kg

Overall dimensions in mm and weight in kg
 Dimensions en mm et masse en kg
 Abmessungen in mm, Gewicht in kg
 Medidas en mm, peso en kg

SP



Pompa Pump Pompe Pumpe Bomba	DNa	PN	DNm	PN	A	B	C	D	E	F	G	H	I	L	M	N	O	P	S	T	V	d	e	u	t	Peso Weight Masse Gewicht Peso
S1P50K	50	10	40	10-16*	429	106	140	183	104	180	140	125	155	190	146	134	-	-	14	-	15	24	50	8	27	34
S1P65	65	10	50	10-16*	402	100	140	162	90	170	140	125	155	190	138	124	-	-	14	-	15	20	45	6	23	29
S2P65	65	10	50	10-16*	460	119	175	166	95	210	160	145	175	235	169	157	-	-	16	-	17	25	60	8	28	41
S2P65K	65	10	50	10-16*	495	119	175	201	110	240	160	145	175	235	177	165	10	-	16	-	17	28	60	8	31	51
S2P80A	80	10	65	10-16*	480	119	175	186	105	195	160	145	175	235	153	135	-	-	16	-	17	25	60	8	28	43
S2P85	80	10	65	10-16*	481	119	175	187	105	210	160	145	175	235	168	150	-	-	16	-	17	25	60	8	28	44
S2P80K	80	10	65	10-16*	502	119	175	208	115	260	160	145	175	235	191	174	21	-	16	-	17	28	60	8	31	53
S3P80AM	80	10	65	10-16*	552	149	230	173	105	250	200	175	210	300	195	179	-	-	19	-	20	32	80	10	35,5	61
S2P100B/A	100	10	80	10-16*	491	119	175	197	110	230	160	145	175	235	178	165	-	-	16	-	17	25	60	8	28	45
S3P100M	100	10	80	10-16*	582	149	230	203	110	260	200	175	210	300	213	181	-	-	19	-	20	32	80	10	35,5	62
S3P105	100	10	80	10-16*	589	148	230	211	110	290	200	175	210	300	220	200	-	-	19	-	20	38	80	10	41,5	76
S3P100K	100	10	80	10-16*	619	148	230	241	140	330	200	175	210	300	240	220	25	-	19	-	20	38	80	10	41,5	87
S3P125	125	10	100	10-16*	605	148	230	227	120	280	200	175	210	300	201	222	-	-	19	-	20	38	80	10	41,5	78
S3P125K/KA	125	10	100	10-16*	681	160	230	253	155	400	200	175	210	300	286	266	80	38	19	18	20	38	80	10	41,5	135
S4P125K/KA	125	10	100	10-16*	782	197	300	285	155	400	280	240	285	400	286	266	-	-	24	-	30	48	110	12	52	168
S3P150K/KA	150	10	125	10-16*	691	160	230	259	165	420	200	175	210	300	310	275	94	42	19	18	20	38	80	10	41,5	168
S4P150K/KA	150	10	125	10-16*	792	197	300	295	165	420	280	240	285	400	310	275	14	-	24	-	30	48	110	12	52	201

Flangia aspirante
 Suction flange
 Bride d'aspiration
 Saugstutzen
 Brida aspiración

DNa	PN	D1	D2	D3	Fori Holes Perçages Löker Agujeros
50	10	165	125	19	4
65	10	185	145	19	4
80	10	200	160	19	8
100	10	220	180	19	8
125	10	250	210	19	8
150	10	285	240	19	8

Flangia premente
 Delivery flange
 Bride de refoulement
 Druckstutzen
 Brida impulsión

DNm	PN	D1	D2	D3	Fori Holes Perçages Löker Agujeros
40	10-16*	150	110	19	4
50	10-16*	165	125	19	4
65	10-16*	185	145	19	4
80	10-16*	200	160	19	8
100	10-16*	220	180	19	8
125	10-16*	250	210	19	8

* Variabile in base alla pressione d'esercizio

* Depending on the operating pressure

* Selon la pression de service

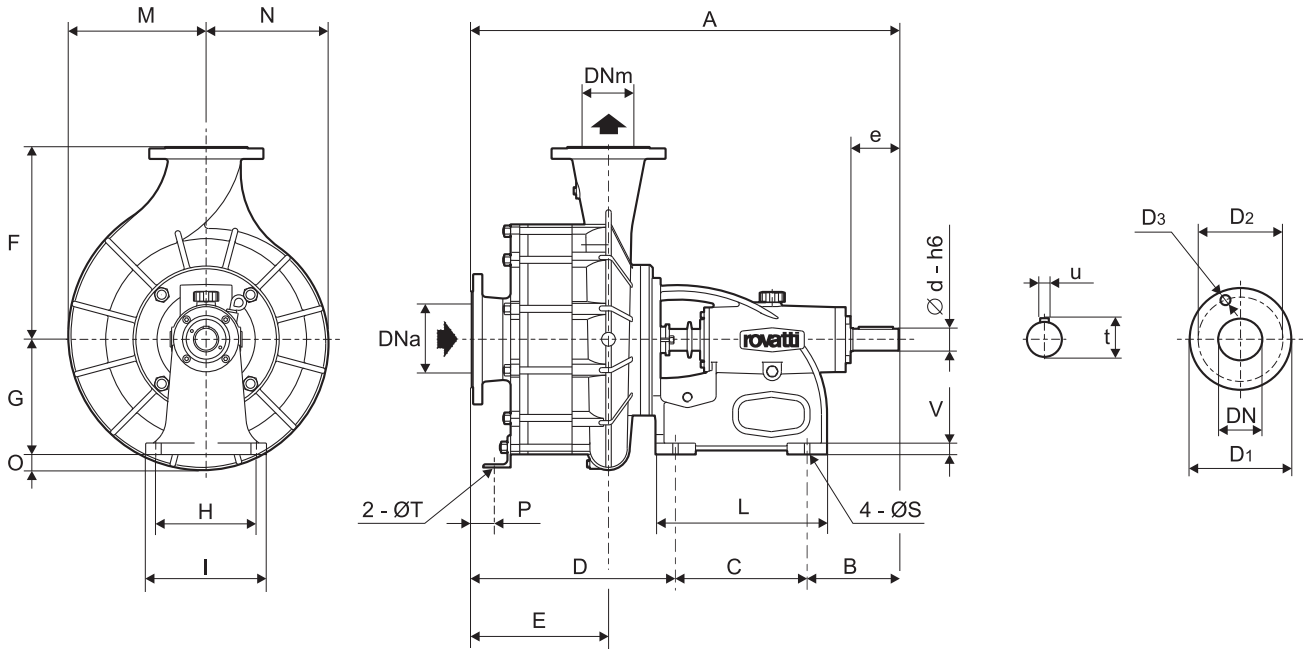
* Abhängig von den Druck

* Varía con la presión

Appendice - Annex - Annexe - Anhang - Anexo

Dimensioni di ingombro in mm e peso in kg
 Overall dimensions in mm and weight in kg
 Dimensions en mm et masse en kg
 Abmessungen in mm, Gewicht in kg
 Medidas en mm, peso en kg

SK



Pompa Pump Pompe Pumpe Bomba	DNa	DNm	A	B	C	D	E	F	G	H	I	L	M	N	O	P	S	T	V	d	e	u	t	Peso Weight Masse Gewicht Peso
S1K50/2	50	40	494	106	140	248	169	180	140	125	155	190	146	134	-	-	14	-	15	24	50	8	27	45
S1K50/3	50	40	559	106	140	313	234	180	140	125	155	190	146	134	-	32	14	12	15	24	50	8	27	56
S1K50/4	50	40	624	106	140	378	299	180	140	125	155	190	146	134	-	32	14	12	15	24	50	8	27	67
S2K65/2	65	50	575	119	175	281	190	240	160	145	175	235	177	165	10	-	16	-	17	28	60	8	31	68
S2K65/3	65	50	655	119	175	361	270	240	160	145	175	235	177	165	10	32	16	14	17	28	60	8	31	85
S3K65/3	65	50	773	148	230	395	270	240	200	175	210	300	177	165	-	32	19	14	20	32	80	10	35,5	105
S3K65/4	65	50	853	148	230	475	350	240	200	175	210	300	177	165	-	32	19	14	20	32	80	10	35,5	123
S2K80/2	80	65	582	119	175	288	195	260	160	145	175	235	191	174	21	-	16	-	17	28	60	8	31	71
S2K80/3	80	65	662	119	175	368	275	260	160	145	175	235	191	174	21	33	16	14	17	28	60	8	31	89
S3K80/3	80	65	780	148	230	402	275	260	200	175	210	300	191	174	-	33	19	14	20	32	80	10	35,5	111
S3K80/4	80	65	860	148	230	482	355	260	200	175	210	300	191	174	-	33	19	14	20	32	80	10	35,5	129
S3K100/2	100	80	716	148	230	338	237	330	200	175	210	300	240	220	25	-	19	-	20	38	80	10	41,7	118
S3K100/3	100	80	813	148	230	435	334	330	200	175	210	300	240	220	25	51	19	16	20	38	80	10	41,7	149
S3K100/4	100	80	1073	197	300	576	431	330	280	240	285	400	240	220	-	51	24	16	30	48	110	12	52	240
S3K100H/2	100	80	716	148	230	338	237	330	200	175	210	300	240	220	25	-	19	-	20	38	80	10	41,7	118
S3K100H/3	100	80	813	148	230	435	334	330	200	175	210	300	240	220	25	51	19	16	20	38	80	10	41,7	149
S4K125/2	125	100	907	197	300	410	280	400	280	240	285	400	286	266	-	-	24	-	30	48	110	12	52	236
S4K125/3	125	100	1032	197	300	535	405	400	280	240	285	400	286	266	-	38	24	18	30	48	110	12	52	303
S4K125/2A	125	100	907	197	300	410	280	400	280	240	285	400	286	266	-	-	24	-	30	48	110	12	52	236
S4K125/3A	125	100	1032	197	300	535	405	400	280	240	285	400	286	266	-	38	24	18	30	48	110	12	52	303
S4K150/2	150	125	922	197	300	425	295	420	280	240	285	400	310	275	14	-	24	-	30	48	110	12	52	263
S4K150/3	150	125	1052	197	300	555	425	420	280	240	285	400	310	275	14	42	24	18	30	48	110	12	52	328
S4K150/2A	150	125	922	197	300	425	295	420	280	240	285	400	310	275	14	-	24	-	30	48	110	12	52	263
S4K150/3A	150	125	1052	197	300	555	425	420	280	240	285	400	310	275	14	42	24	18	30	48	110	12	52	328

Flangia aspirante - Suction flange
 Bride d'aspiration - Saugstutzen
 Brida aspiración

DNa	PN	D1	D2	D3	Fori - Holes Perçages - Löcher Agujeros
50	10	165	125	19	4
65	10	185	145	19	4
80	10	200	160	19	8
100	10	220	180	19	8
125	10	250	210	19	8
150	10	285	240	23	8

Flangia premente - Delivery flange
 Bride de refoulement - Druckstutzen
 Brida impulsión

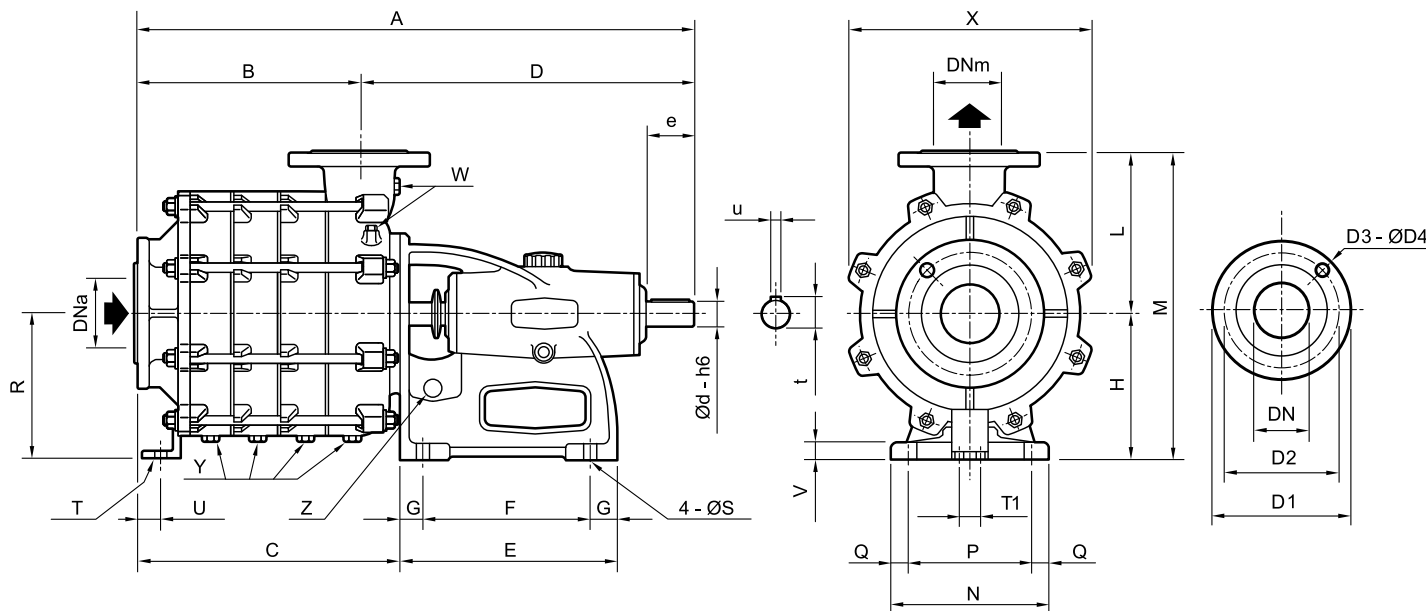
DNa	PN	D1	D2	D3	Fori - Holes Perçages - Löcher Agujeros
40	16 / 25*	150	110	19	4
50	16 / 25*	165	125	19	4
65	16	185	145	19	4
80	16 / 25*	200	160	19	8
100	16	220	180	19	8
125	16	250	210	19	8

* Variabile in base alla pressione d'esercizio
 * Depending on the operating pressure
 * Selon la pression de service
 * Abhängig von den Druck
 * Varía con la presión

Appendice - Annex - Annexe - Anhang - Anexo

Dimensioni di ingombro in mm e peso in kg
 Overall dimensions in mm and weight in kg
 Dimensions en mm et masse en kg
 Abmessungen in mm, Gewicht in kg
 Medidas en mm, peso en kg

SK Europa



Pompa Pump Pompe Pumpe Bomba	Stadi Stages Etages Stufen Etapas	DN		A	B	C	D	E	F	G	H	L	M	N	P	Q	R	S	T	T1	U	V	X	d	e	u	t	Peso Weight Masse Gewicht Peso
		DNa	DNm																									
SK65	2	65	50	569	190	245	379	235	175	30	160	190	350	175	145	15	-	16	-	-	-	17	300	28	60	8	31	53
	3	65	50	629	250	305	379	235	175	30	160	190	350	175	145	15	-	16	-	-	-	17	300	28	60	8	31	64
	4	65	50	689	310	365	379	235	175	30	160	190	350	175	145	15	160	16	14	-	35	17	300	28	60	8	31	79
	5	65	50	749	370	425	379	235	175	30	160	190	350	175	145	15	160	16	14	-	35	17	300	28	60	8	31	90
	6	65	50	809	430	485	379	235	175	30	160	190	350	175	145	15	160	16	14	-	35	17	300	28	60	8	31	101
	7	65	50	869	490	545	379	235	175	30	160	190	350	175	145	15	160	16	14	-	35	17	300	28	60	8	31	112
	8	65	50		550	605	379	235	175	30	160	190	350	175	145	15	160	16	14	-	35	17	300	28	60	8	31	123
	9	65	50	989	610	665	379	235	175	30	160	190	350	175	145	15	160	16	14	-	35	17	300	28	60	8	31	134
	10	65	50	1049	670	725	379	235	175	30	160	190	350	175	145	15	160	16	14	-	35	17	300	28	60	8	31	145
	SK80	2	80	65	676	231	274	445	300	230	35	200	220	420	210	175	17,5	-	19	-	-	-	20	332	30	68	8	33
3		80	65	746	301	344	445	300	230	35	200	220	420	210	175	17,5	200	19	14	-	33	20	332	30	68	8	33	101
4		80	65	816	371	414	445	300	230	35	200	220	420	210	175	17,5	200	19	14	-	33	20	332	30	68	8	33	118
5		80	65	886	441	484	445	300	230	35	200	220	420	210	175	17,5	200	19	14	-	33	20	332	30	68	8	33	135
6		80	65	956	511	554	445	300	230	35	200	220	420	210	175	17,5	200	19	14	-	33	20	332	30	68	8	33	152
SRK100	2	100	80	807	313	368	494	300	230	35	200	275	475	210	175	17,5	-	19	-	90	-	20	408	38	80	10	41,5	121
	3	100	80	907	413	468	494	300	230	35	200	275	475	210	175	17,5	200	19	2x12	90	70	20	408	38	80	10	41,5	154
	4	100	80	1060	413	507	647	400	300	50	280	275	555	285	240	22,5	280	24	2x12	90	70	30	408	48	110	12	51	194
SK100	4	100	80	1160	513	607	647	400	300	50	280	275	555	285	240	22,5	280	24	2x12	90	70	30	408	48	110	12	51	225
	5	100	80	1260	613	707	647	400	300	50	280	275	555	285	240	22,5	280	24	2x12	90	70	30	408	48	110	12	51	256
SK150	2	150	125	975	335	426	640	400	300	50	280	340	620	285	240	22,5	280	24	19	90	57,5	30	510	48	110	12	51	256
	3	150	125	1091	450	541	640	400	300	50	280	340	620	285	240	22,5	280	24	19	90	57,5	30	510	48	110	12	51	321
	4	150	125	1206	566	657	640	400	300	50	280	340	620	285	240	22,5	280	24	19	90	57,5	30	510	48	110	12	51	386

Flangia aspirante - Suction flange
 Bride d'aspiration - Saugstutzen
 Brida aspiración

DNa	PN	D1	D2	D3	D4
65	16	185	145	4	19
80	16	200	160	8	19
100	16	220	180	8	19
150	16	285	240	8	23

Flangia premente - Delivery flange
 Bride de refoulement - Druckstutzen
 Brida impulsión

DNa	PN	D1	D2	D3	D4
50	40	165	125	4	19
65	40	185	145	8	19
80	40	200	160	8	19
125	40	270	220	8	25


W = Riempimento pompa
 W = Pump filling
 W = Remplissage pompe
 W = Füllen der Pumpe
 W = Llenado bomba


Y = Scarico pompa
 Y = Pump drain
 Y = Vidange pompe
 Y = Pumpenablass
 Y = Descarga bomba

Z = Drenaggio perdite baderna
 Z = Stuffing box leaks drainage
 Z = Drainage des pertes du presse-étoupe
 Z = Entleerung Verluste Verpackung
 Z = Drenaje pérdidas estopada

Note - Notes - Notes - Anmerkungen - Notas

Possibili aggiornamenti senza preavviso - Revision possible without prior notice - Mises à jour éventuelles sans préavis - Techn. Änderungen vorbehalten - Posibles actualizaciones sin preaviso

	Informazioni sul prodotto in conformità al Regolamento 547/2012 recante modalità di applicazione della Direttiva 2009/125/CE in merito alle specifiche per la progettazione ecocompatibile delle pompe per acqua
▪	Indice di efficienza minima: vedere targhetta costruttiva
▪	Riferimento MEI ≥ 0,70
▪	Anno di costruzione: vedere targhetta costruttiva
▪	Nome del produttore: Rovatti A. & Figli Pompe s.p.a.
▪	Numero di iscrizione nel registro delle imprese: 00146150354
▪	Luogo di produzione: Fabbrico (Reggio Emilia) - ITALY
▪	Tipo e dimensioni prodotto: vedere targhetta costruttiva
▪	Efficienza idraulica della pompa (%) con girante tornita: vedere documentazione prodotto
▪	Curve caratteristiche della pompa, inclusa la curva di rendimento: vedere documentazione prodotto
▪	Il rendimento della pompa con una girante corretta è generalmente inferiore a quello di una pompa con girante a diametro completo. La correzione della girante viene modulata in base ad un determinato punto d'esercizio, riducendo il consumo energetico. L'indice di efficienza minimo (MEI) si riferisce alla girante a diametro completo.
▪	Il funzionamento della presente pompa per acqua con punti di funzionamento variabili può essere più efficiente ed economico se controllato, ad esempio, tramite un motore a velocità variabile che adegua il funzionamento della pompa al sistema.
▪	Informazioni utili per lo smontaggio, il riciclaggio o lo smaltimento dopo l'arresto definitivo della pompa: vedere capitolo 10 e appendice
▪	Le informazioni sull'efficienza di riferimento sono disponibili all'indirizzo www.europump.org/efficiencycharts

	Product data complies with 547/2012 Regulations according to application norms of the Directive 2009/125/EC with regard to ecodesign requirements for water pumps
▪	Minimum efficiency index: see identification plate
▪	Benchmark MEI ≥ 0,70
▪	Year of manufacture: see identification plate
▪	Manufacturer: Rovatti A. & Figli Pompe s.p.a.
▪	Commercial registration number: 00146150354
▪	Place of manufacture: Fabbrico (Reggio Emilia) - ITALY
▪	Product type and overall dimensions: see identification plate
▪	Hydraulic pump efficiency (%) with trimmed impeller: see product documentation
▪	Pump performance curves and efficiency characteristics: see product documentation
▪	The efficiency of a pump with a trimmed impeller is usually lower than that of a pump with the full impeller diameter. The trimming of the impeller will adapt the pump to a fixed duty point, leading to reduced energy consumption. The minimum efficiency index (MEI) is based on the full impeller diameter.
▪	The operation of this water pump with variable duty points may be more efficient and economic when controlled, for example, by the use of a variable speed drive that matches the pump duty to the system.
▪	Information relevant for disassembly, recycling and disposal at end-of-life: see chapter 10 and annex
▪	Information on benchmark efficiency is available at www.europump.org/efficiencycharts

	Informations réalisées en conformité avec le règlement 547/2012 mettant en oeuvre les modalités d'application de la directive 2009/125/CE en ce qui concerne les exigences d'écoconception applicables aux pompes à eau
▪	Indice de rendement minimal: voir plaque signalétique
▪	MEI de référence ≥ 0,70
▪	Année de fabrication: voir plaque signalétique
▪	Raison sociale: Rovatti A. & Figli Pompe s.p.a.
▪	Numéro d'enregistrement au registre du commerce: 00146150354
▪	Lieu de fabrication: Fabbrico (Reggio Emilia) - ITALY
▪	Type et taille du produit: voir plaque signalétique
▪	Rendement hydraulique de la pompe (%) équipée d'une roue rognée: voir la documentation du produit
▪	Courbes de fonctionnement de la pompe, comportant les caractéristiques du rendement: voir la documentation du produit
▪	Le rendement d'une pompe équipée d'une roue ajustée est généralement inférieur à celui d'une pompe dont la roue est à son diamètre maximal. Le rognage de la roue permet d'adapter le diamètre de la pompe jusqu'à un point de fonctionnement spécifié et, ainsi, de réduire la consommation d'énergie. L'indice de rendement minimal (MEI) est fondé sur le diamètre maximal de la roue.
▪	L'utilisation de la présente pompe à eau avec des points de fonctionnement variables peut s'avérer plus efficace et plus économique si un dispositif de contrôle, tel qu'un variateur de vitesse, permet d'ajuster le point de fonctionnement de la pompe au regard du système.
▪	Informations pertinentes pour le démontage, le recyclage ou l'élimination du produit en fin de vie: voir chapitre 10 et annexe
▪	Des informations relatives au rendement de référence sont disponibles à l'adresse suivante: www.europump.org/efficiencycharts

Dichiarazione CE di Conformità
EC Declaration of Conformity
Déclaration CE de Conformité
Konformitätserklärung CE
Declaración CE de Conformidad

Ai sensi dell'**allegato II A** - della Direttiva **2006/42 CE**
According to **Annex II A** - Directive **2006/42 EC**
Conformément à l'**annexe II A** - Directive **2006/42 CE**
Gemäß **Anhang II A** - Richtlinie **2006/42 CE**
De acuerdo con el **anexo II A** - Directiva **2006/42 CE**

ROVATTI A. & FIGLI POMPE S.p.a.
via Trento n° 22/24 - 42042 FABBRICO (RE) - ITALY

dichiara, sotto la propria responsabilità, che le macchine:
declare, under their responsibility, that the machines:
déclare, par la présente et sous sa propre responsabilité, que que les machines:
erklärt unter eigener Verantwortung, daß die Maschinen:
declara, bajo propia responsabilidad, que las máquinas:

SK - SK Europa - SN200 - S1P50K - S1P65A - S2P65 - S2P65K - S2P85 - S2P80K
- S3P80AM - S2P100B - S2P100A - S3P105 - S3P100K - S3P125 - S3P125KA -
S4P125KA - S3P150K - S4P150K - S3P150KA - S4P150KA

Sono conformi alla Direttiva Macchine **2006/42/CE** e, dove applicabile,
agli standard **EN-ISO 12100, EN 809**

Are in conformity with the provisions of the Machine Directive **2006/42/CE** and, where applicable,
to the standards **EN-ISO 12100, EN 809**

Sont conformes à la Directive Machines **2006/42/CE** et, le cas échéant,
aux normes **EN-ISO 12100, EN 809**

Den Richtlinien für Maschinen **2006/42/CE** und ggf.
die Normen erfüllen **EN-ISO 12100, EN 809**

Corresponde a las exigencias básicas de la Directiva Máquinas **2006/42/CE** y, si procede,
a las normas **EN-ISO 12100, EN 809**

Si rammenta che la presente dichiarazione perde validità in caso di modifiche sulla macchina eseguite senza l'approvazione scritta del fabbricante
We must inform you that this declaration becomes void in the event of any modification of the machine without prior written approval of the manufacturer
Il est rappelé que la présente déclaration perd sa validité dans le cas où ce matériel serait modifié sans l'accord écrit de la société signataire
Es wird darauf hingewiesen, dass vorliegende Erklärung ungültig wird falls Änderungen an der Maschine ohne schriftliche Genehmigung des Herstellers vorgenommen werden
Se recuerda que la presente declaración pierde su validez en caso de manipulación de la máquina sin acuerdo escrito del constructor

Fascicolo tecnico presso - Technical file at - Dossier technique auprès de - Technische Unterlagen bei - Expediente técnico en

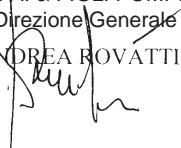
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Direzione Tecnica
TIZIANO GALAVOTTI

ROVATTI A. & FIGLI POMPE S.P.A.

Direzione Generale

ANDREA ROVATTI



**Dichiarazione CE di Conformità
EC Declaration of Conformity
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Konformitätserklärung CE
Declaración CE de Conformidad**

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According to **Annex II A** - Directive **2006/42 EC**
Conformément à l'**annexe II A** - Directive **2006/42 CE**
Gemäß **Anhang II A** - Richtlinie **2006/42 CE**
De acuerdo con el **anexo II A** - Directiva **2006/42 CE**

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declara, bajo propia responsabilidad, que las máquinas:

**S250 - S1Q80 - S2Q100A - S3QN150 - S2P80A -
S3P100M - S3P125K - S4P125K**

Sono conformi alla Direttiva Macchine **2006/42/CE**,
alla Direttiva ErP **2009/125/CE** (in riferimento al Regolamento **EU 547/2012**) e, dove applicabile,
agli standard **EN-ISO 12100, EN 809**

Are in conformity with the provisions of the Machine Directive **2006/42/CE**,
of the ErP Directive **2009/125/CE** (implemented by Regulation **EU 547/2012**) and, where applicable,
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den Richtlinien ErP **2009/125/CE** (in Bezug auf die Verordnungen **EU 547/2012**) und ggf.
die Normen erfüllen **EN-ISO 12100, EN 809**

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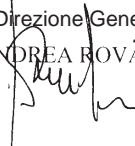
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