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INSTRUCTION MANUAL FOR COOLING PUMPS TYPE SQ (Immersion range), TR (Transfer range)

CE MARKING: This is the Manufacturer's synthetic declaration that the product totally satisfics community legislative requirements (89/392 EEC directive and subsequent modifications). Its function is therefore to assure the public authorities of the EEC countries that these legislative obligations have been fulfilled.

GENERAL INSTRUCTIONS: This manual is a necessary integration at the machine described in Fig. 1 and must be read carefully before carrying out any operation. It has to be kept for future references. Sacemi Srl cannot be held responsible for any incoveniences, breakages or accidents caused by the non respect or non observance of the instructions contained in this manual. Any use or operation of the machine not stated in this instructions hand-book has to be considered incorrect and/or improper. Performance data and other details are given in Tab. I.

CARE OF MACHINE: The machine must be stored in a closed environment to protect it from atmospherical agents (i.e. rain, snow, etc.) which could damage the electric parts. Storage temperature must never exceed -20 °C +50 °C.

USE: Sacemi centrifugal electric pumps are designed for circulating liquids in general, cooling mixtures in particular, expecially for use on machine tools of all kinds. They cannot be used with inflammable liquids (i.e. gas oil, solvents) or aggressive liquids (i.e. acids, alcaline solutions) or liquids producing harmfull gases. The liquid must not exceed a viscosity of 11.8 cSt (2 E) or a maximum temperature of 70 °C.

INSTALLATION: For a correct installation of the cooling pumps type SQ (immersion range), TR (transfer range) electric pumps must be used appropriate screws fixed on the tank leaving minimum distance from the bottom of the tank as shown in fig. 1. To reduce the problem of instability of the TR type electric pump, connect rigid pipes. It is advisable to use adequate seals in all pipe connections between the inlet pipes and the outlet pipes. The diameter of the outlet connections is given in Tab. 1. To avoid useless load losses do not use delivery pipes with an inferior diameter to the one of the pump outlet. The qualified technician before carrying out the electric connection has to be sure that the frequency of the power are equivalent to the data given on the nameplate. The cables used for the electric connection must be proportionate to the current rata specified on the nameplate and the arrangement of the finks should correspond to the wiring diagram given inside the terminal board cover. Make sure that the pump turns correctly in the dircetion of the arrow clearly impressed on the body pump. The machine must not be installed in an explosive area (the motor is not flame-proof) and the machine must be protected from atmospherical agents (See care of the machine).

INSTRUCTIONS FOR USE: For the correct operation of the machine the axis must always stand in a vertical position. Surrounding temperature must never exceed -20 °C +40 °C. Although the electric pumps have been designed to tolerate even high levels of impurities in the liquids we still recommend arranging for adeguate decanting areas (e.g. by dividing tank into compartments) following the installations instructions. Should a leakage of the liquid appear at the entrance of the axis to the shell due to a fault in the seal, stop the machine and check the damaged part. In the event of an electrical fault on a single phase motor machine, call in a qualified technician because the operator could be liable to electrostatic phenomena if he comes int contact with the conmections (due to the condenser). It is advisable to wear suitable gloves when handling the motor for very long operations as the casing can reach a temperature of 70°C. The level of the acoustic pressure is given in Tab. 1.

MAITENANCE: No particular maitenance operation is required other than the regular cleaning of the pump impeller and shell (Fig. 1) depending on the amount of impunty in the liquid. Follow instructions shown in Fig. 1 for the replacement of the replacement of the bearings and/or seals. The bearings can be found in the catalogue, whereas the seals have to be ordered directly from the manufacturer. All maitenance operations must be carried out by a qualified technician. Make sure that the machine is still and disconneeted from the power supply and that all parts have been re-assembled before turning on. For operations concerning electrical connection of the pumps bear in mind the instructions.

Maintenance

a) Smontare la chiocciola (1)
a) Take off the shell (1)
a) Das Spiralegehaeuse demontieren

b) Togliere la girante (interna alla chiocciola)
b) Take out the pump impeller (inside the shell)
b) Den Lauufer abnehmen (nnere des spiralgehaeuse)

c) Sostituire la tenuta meccanica (8)
c) Replace the mechanical seal (8)
c) Die mechanische Dichtung ersetzen

d) Smontare il coperchio del motore (9)
d) Take off motor cover (9)
d) den Motor abdecken (9)

e) Estrarre l'asse dalla parte superiore del motore ed eseguire la sostituzione dei cuscinetti
e) Take out axis from the top side of the motor and replace the ball bearnings
e) Die achse aus dem Oberteil des Motorzen abziehen

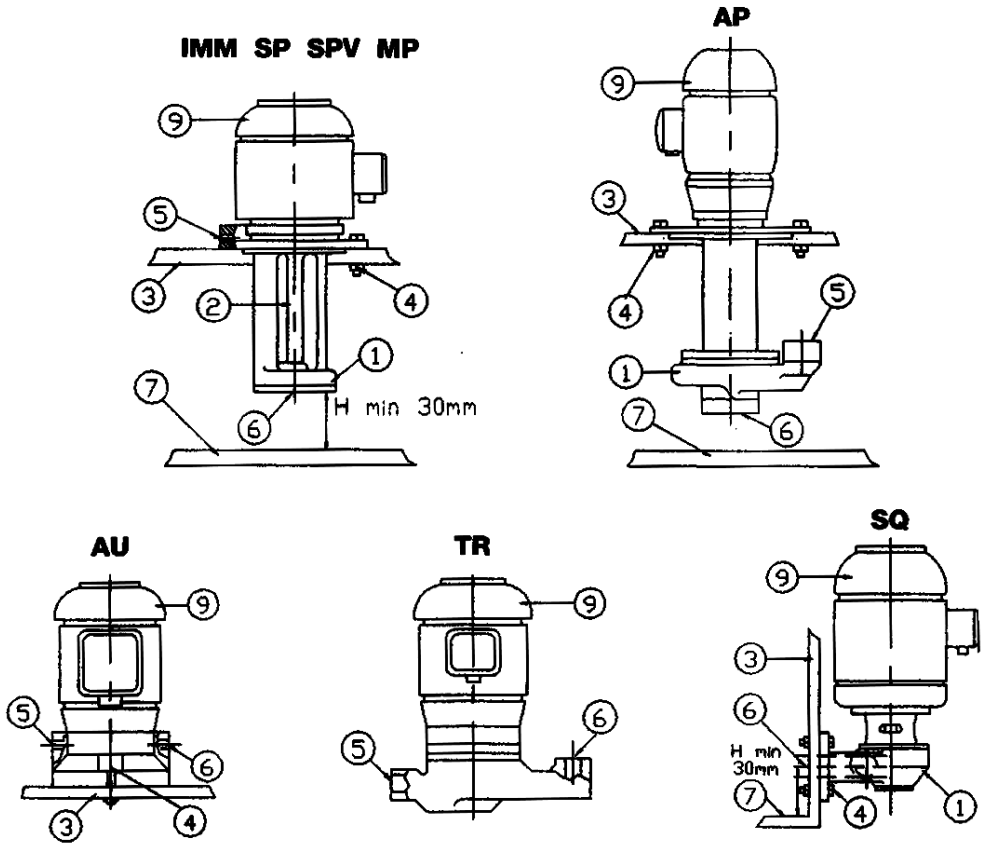

Fig. 1: Descrizione macchine, installazione e operazioni di manutenzione.
Fig. 1: Description of machine, installation and maintenance procedures.
Bild 1: Bescreibung der Maschine, Installierung und Instandhaltungsarbeiten.

Description of machine

(2) Asse	(2) Axis	(2) Achsis
(3) Parete serbatoio	(3) Tank Wall	(3) Behaulterwand
(4) Viti di fissaggio	(4) Screws	(4) Festigungsschrauben
(5) Foro mandata	(5) Delivery outlet	(5) Auslassouffnung
(6) foro aspirazione	(6) Suction outlet	(6) Einlassouffnung
(7) Fondo serbatoio	(7) Tank buttom	(7) Behaulterboden

INSTRUCTION MANUAL FOR COOLING PUMPS TYPE IMM-MP-SP-SPV (Immersion range), AP (High pressure range), AU (Self-priming range)

CE MARKING: This is the Manufacturer's synthetic declaration that the product totally satisfies community legislative requirements (89/392 EEC directive and subsequent modifications). Its function is therefore to assure the public authorities of the EEC countries that these legislative obligations have been fulfilled.

GENERAL INSTRUCTIONS: This manual is a necessary integration at the machine described in Fig. 1 and must be read carefully before carrying out any operation. It has to be kept for future references. Sacemi Srl cannot be held responsible for any incoveniences, breakages or accidents caused by the non respect or non observance of the instructions contained in this manual. Any use or operation of the machine not stated in this instructions hand-book has to be considered incorrect and/or improper. Performance data and other details are given in Tab. 1.

CARE OF MACHINE: The machine must be stored in a closedenvironment to protect it from atmospherical agents (i.e. rain, snow, etc.) which could damage the electric parts. Storage temperature must never exceed -20 °C +50 °C.

USE: Sacemi centrifugal electric pumps are designed for circulating liquids in general, cooling mixtures in particular, expecially for use on machine tools of all kinds. They cannot be used with infammable liquids (i.e. gas oil, solvents) or aggressive liquids (i.e. acids, alcaline solutions) or liquids producing harmfull gases. The liquid must not exceed a viscosity of 11.8 cSt (2 E) or a maximum temperature of 70 °C.

INSTALLATION: For a correct installation of the IMM-SP (immersion range), AP (high pressure range), electric pumps mist be used appropriate screws fixed on the tank leaving a minimum distrance from the bottom of the tank as shown in fig. 1. It is advisable to fit adequate seals on the outlet pipes. The diameter of the outlet connections is given in Tab. 1. To avoid useless load losses do not use outlet pipes with a diameter inferior at the outlet pole of the pump. The qualified technician, before carrying out the electric connection, has to be sure that the voltage and the frequency of the power are equivalent to the data given on the nameplate. The cables used for the electric connection must be proportionate to the current rata specifed on the nameplate and the arrangement of the links should correspond to the wiring diagram given inside the terminal board cover. Make sure that the pump turns correctly in the direction of the arrow clearly impressed on the body pump. The machine must not be installed in an explosive area (the motor is not flame-proot) and the machine must be protected from atmospherical agents (See care of the machine).

INSTRUCTIONS FOR USE: For the correct operation of the machine the axis must always stand in a vertical position. Surrounding temperature must never exceed -20 °C +40 °C. Although the electric pumps have been designed to tolerate even high levels of impurities in the liquids we still recommend arranging for adeguate decanting areas (e.g. by dividing tank into compartments) following the installations instructions. It is essential for the self-priming electric pumps that the liquid contains no impurities and when it is used for the first time, the pump needs to be initially primed by filling either the suction or delivery pipe. In the event of an electrical fault on a single phase motor machine, call in a qualified technician because the operator could be liable to electrostatic phenomena if he comes int contact with the connections (due to the condenser). It is advisable to wear suitable gloves when handling the motor for very long operations as the casing can reach a temperature of 70 °C. The level of the acoustic pressure is given in Tab. 1.

MAITENANCE: No particular maitenance operation is required other than the regular cleaning of the pump impeller and shell (Fig. 1) depending on the amount of impunty in the liquid. Follow instructions shown in Fig. 1 for the repalcement of the replacement of the bearings and/or seals. The bearings can be found in the catalogue, where as the seals have to be ordered directly from the manufacturer. All maitenance operations must be carried out by a qualified technician. Make sure that the machine is still and disconnected from the power supply and that all parts have been reassembled before turning on. For operations concerning electrical connection of the pumps bear in mind the instructions.

TYPE	KW	Q/BL (l/m-m)	Q/max (l/m-m)	? Att. (Inc.)	Lp (db)
AP80 A/50	1.97	190-10	20-26	1 1/4”	<70
AP80 B/100	2.19	270-10	76-26	1 1/4”	<70
AP90 A/150	2.08	300-10	110-30	1 1/4”	73
AP90/ B200	3.60	450-10	160-30	1 1/2”	75
AP100 A/300	4.43	560-10	240-34	1 1/2”	78
AP112 A/300	5.50	660-10	310-34	1 1/2”	76
AP112 B/500	6.00	715-10	280-36	2”	76
AU 56	0.16	14-0	2-12	3/8”; 1/2”	<70
AU 63	0.30	20-0	8-12	1/2”	<70
IMM 40/A	0.08	16-0	3-3	3/8”	<70
IMM 50/A	0.11	24-0	10-3	3/8”	<70
IMM 56/A	0.15	54-0	15-4	3/4”	<70
IMM 56/B	0.16	80-0	5-5	3/4”	<70
IMM 63/A	0.30	120-0	5-6	3/4”	<70
IMM 63/B	0.40	150-0	10-7	3/4”	<70
IMM 71/A	0.53	195-0	28-11	1”	<70
IMM 71/B	0.78	230-0	55-13	1”	<70
IMM 80/A	1.15	330-0	90-16	1 1/4”	<70
IMM 80/B	1.47	400-0	60-18	1 1/4”	<70
IMM 90/A	1.85	740-0	230-12	2”	73
IMM 90/B	2.80	980-0	570-12	2”	75
IMM 100/B	4.43	1200-0	450-18	2 1/2”	78
MP 63 C	0.54	112	3-16	3/4”	<70
MP 71 A	0.70	95	3-22	3/4”	<70
MP 71 B	0.95	102	5-32	3/4”	<70
MP 80 C	2.20	238	30-32	1”	<70
MP 90 B	3.60	245	10-48	1”	<70
MP 100 B	5.90	338	10-60	1 1/4”	<70
SP 12	0.15	56-0	8-4	3/4“	<70
SP 18	0.16	67-0	6-5	3/4“	<70
SP 25	0.30	85-0	5-6	3/4“	<70
SP 33	0.40	100-0	5-7	3/4”	<70
SP 50	0.53	190-0	35-11	1”	<70
SP 75	0.78	220-0	35-12	1”	<70
SP 100	1.15	300-0	60-12	1 1/4”	<70
SP 150	1.47	350-0	40-13	1 1/4“	<70
SPV 12	0.15	56-0	8-4	3/4“	<70
SPV 18	0.16	67-0	6-5	3/4“	<70
SPV 25	0.30	85-0	5-6	3/4“	<70
SPV 33	0.40	100-0	5-7	3/4“	<70
SQ 56/S	0.16	73-0	30-3	3/8” – 1/2”	<70
SQ 63/S	0.30	100-0	30-4	3/8” – 1/2”	<70
SQ 71/A	0.53	195-0	28-11	1”	<70
SQ 71/B	0.78	230-0	55-13	1”	<70
SQ 80/A	1.15	330-0	90-16	1 1/4”	<70
SQ 80/B	1.47	400-0	60-18	1 1/4”	<70
TR 71/A	0.53	125-2	3-14	1”	<70
TR 71/B	0.78	140-2	5-16	1”	<70
TR 80/A	1.15	155-2	10-22	1”	<70
TR 80/B	1.47	1802	10-24	1”	<70

Tab. 1 Technical Features and Performances