FIGURA 1

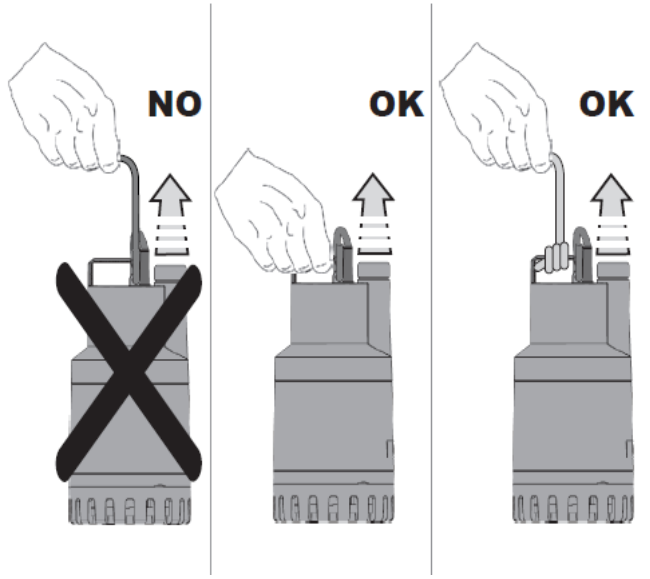


FIGURA 2

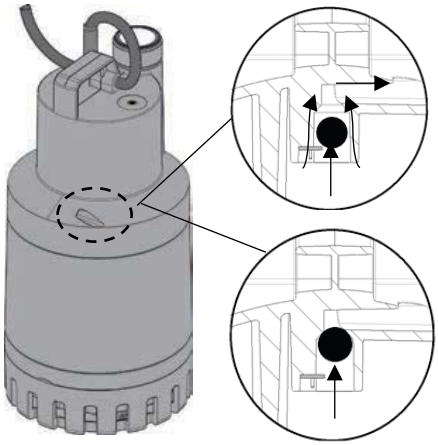


FIGURA 3

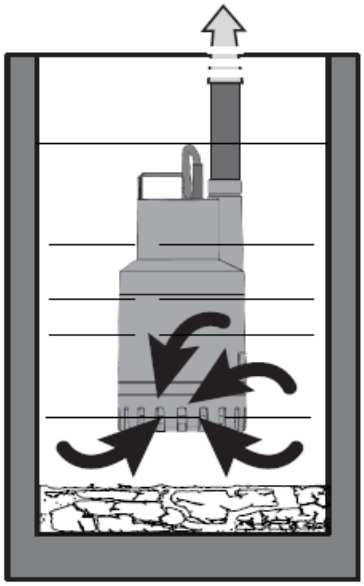


FIGURA 4

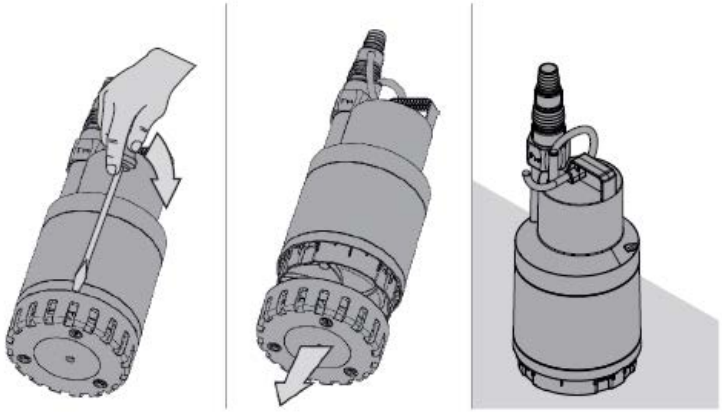


FIGURA 5

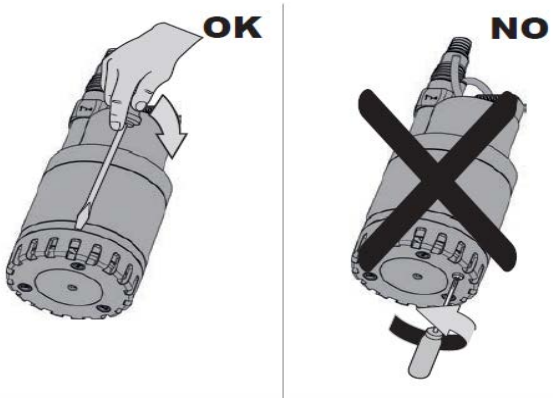


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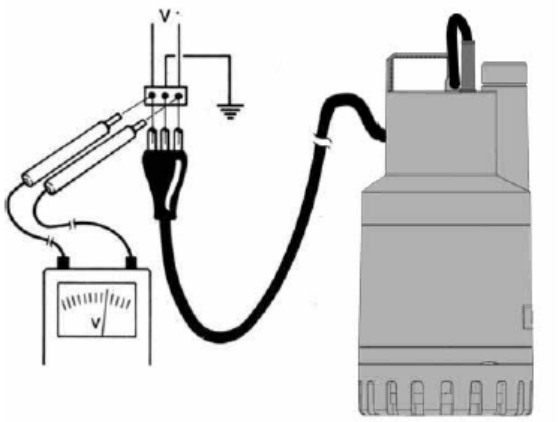


FIGURA 7

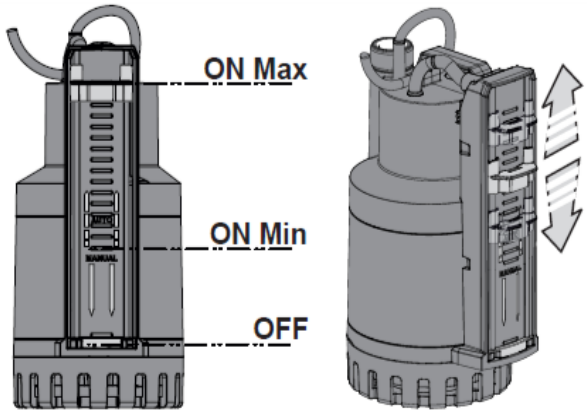


FIGURA 8

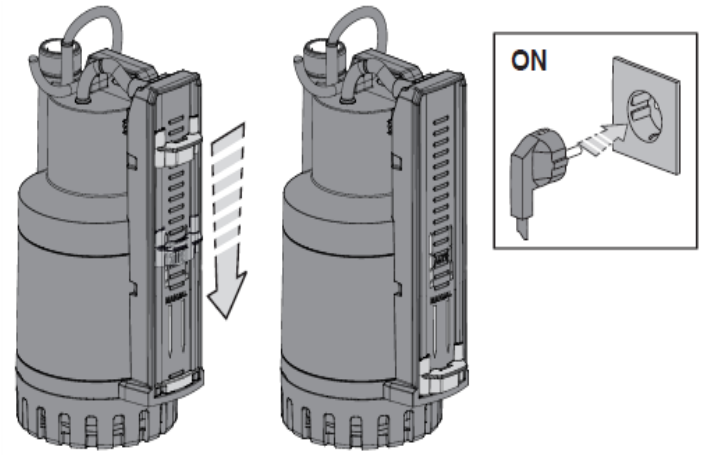


FIGURA 9a

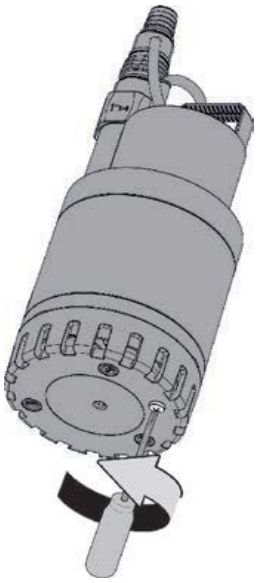


FIGURA 9b

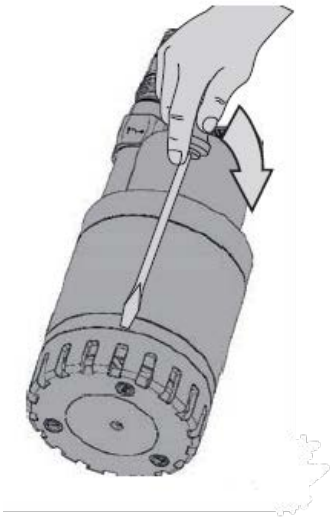


FIGURA 9c

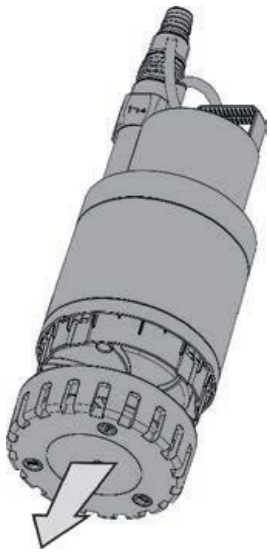


FIGURA 10

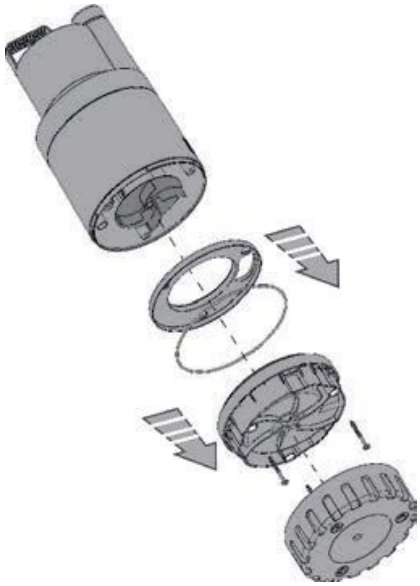


FIGURA 11

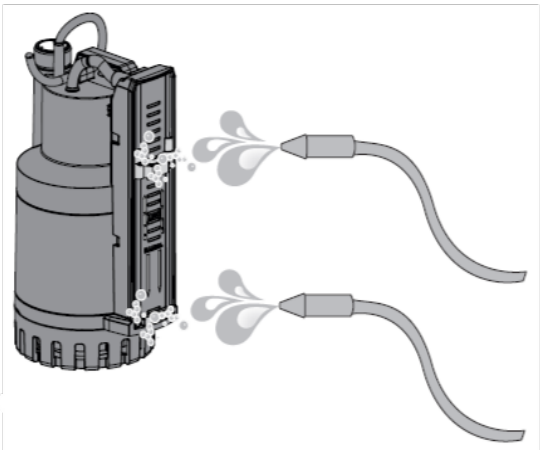


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KEY

The following symbols have been used in the discussion:



Situation of general danger. Failure to respect the instructions that follow may cause harm to persons and property.

WARNINGS

Failure to respect the safety regulations not only causes risk to personal safety and damage to the equipment, but invalidates every right to assistance under guarantee.

1. APPLICATIONS

The pumps in the NOVA UP series are of the submersible type, designed and made for pumping cloudy water without fibres, prevalently for domestic uses of fixed applications, with manual or automatic operation, for drying basements and garages subject to flooding, for pumping drainage wells, pumping rainwater collecting traps or infiltrations from roof gutters, etc.

Thanks to their compact and handy shape, they are also used for particular applications as portable pumps for emergency situations such as for drawing water from tanks or rivers, draining swimming pools and fountains, excavations or underpasses. Also suitable for gardening and general hobby activity.



These pumps cannot be used in swimming pools, ponds or basins where people are present, or for pumping hydrocarbons (petrol, diesel fuel, combustible oils, solvents, etc.) in accordance with the accident-prevention regulations in force.



Correct operation of the pump could be altered by dirty water or water with extreme pH values (too high or too low).

2. PUMPED LIQUIDS

	NOVA UP
Fresh water:	●
Rainwater:	●
Clear waste water:	●
Sewage:	
Foul waste water containing solid bodies with long fibres:	
Fountain water:	●
River or lake water:	●

Model	P1 (W)	Ampere (A)	Volt (V)	Hz	H max (m)	Flow max (m3/h)
NOVA UP MAE 300	380	1,5	220-240	50	7	9,9
NOVA UP MAE 600	770	3,5	220-240	50	9,5	13,8

3. TECHNICAL DATA AND LIMITATIONS OF USE

- Supply voltage: see electrical data plate
- Delayed line fuses: indicative values (Ampere)

Model	Line fuses 220-240V 50Hz
NOVA UP 600 MAE	4
NOVA UP 300 MAE	2

- Grade of motor protection: IP68
- Protection rating: F
- Storage temperature: -10°C +40°C
- Range of temperature of the fluid: from 0°C to 35°C according to EN 60335-2-41 for domestic use
- Maximum immersion: 7m (with 10 metre cable)
- Max. granulometry: 10 mm

Model	Minimum draught depth	Max. Granulometry
NOVA UP MAE 300	60 mm 50 mm (without filter)	10 mm
NOVA UP MAE 600	70 mm 50 mm (without filter)	

The pump which does not stand on a base cannot support the weight of the pipes, which must be supported in some other way.

4. MANAGEMENT

4.1 Storage

All the pumps must be stored in a dry covered place, with possible constant air humidity, free from vibrations and dust.
They are supplied in their original pack in which they must remain until the time of installation.

4.2 Transport

Avoid subjecting the products to needless impacts and collisions.

4.3 Weight

The adhesive plate on the packaging indicates the total weight of the pump.

5. WARNINGS

- Use in cellars, basements, etc. is allowed only if the electric system is in possession of safety precautions in accordance with the regulations in force.
- The pump is provided with a carrying handle which can also be used to lower it into wells or deep excavations by means of a rope. (Fig.1, page 1)

The pumps must never be carried, lifted or allowed to operate suspended from the power cable.

- If the power supply cable is damaged in any way it must be replaced and not repaired. Skilled personnel must therefore be employed, in possession of the technical qualifications required by the Regulations in force.
- Qualified personnel must be employed also for electrical repairs which, if badly carried out, could cause damage and accidents.
- The pump must never be allowed to run when dry.
- The Manufacturer does not vouch for the correct operation of the pump if it has been tampered with or modified.
- On the body there is a venting hole to avoid phenomena of cavitation when starting the pump. It is therefore normal for a small amount of water to come out of the pump during operation. (Fig.2, page 1).
- The sealing device contains lubricant which is non-toxic but which may alter the characteristics of the water, in the case of pure water, if the pump were to have any leaks.

6. INSTALLATION

- If the bottom of the trap where the pump is to work is particularly dirty, a support should be provided on which to place the pump so as to avoid blocking of the suction grid. (Fig.3, page 1)
- It is advisable to use pipes having an internal diameter of 30 mm, to avoid the decrease of pump performance and the possibility of blocking.
- Totally immerse the pump in the water.
- Ensure that the minimum dimensions of the trap in which it is housed are as in the following table:

	Base dimensions (mm)	Height (mm)
NOVA UP MAE 300	400x400	560
NOVA UP MAE 600	400x400	600

- The dimensions of the trap must always be in relation to the quantity of water arriving and to the flow of the pump, so as not to subject the motor to excessive starts.

The pump must be installed in vertical position!

6.1 "Zero" Suction

In models where it is allowed, it is possible to reduce the minimum suction level (see chap. 3), removing the filter as indicated in the Figure 4 (page 1).

The "Zero" suction function is allowed only in models where there is no fixing screw on the filter. (Fig.5, page 1).

7. ELECTRICAL CONNECTION

Always respect the safety regulations!
Ensure that the mains voltage corresponds to the value indicated on the data plate and THAT IT IS POSSIBLE TO MAKE A GOOD EARTH CONNECTION. (Fig. 6, page 1)

- It is recommended to equip fixed pumping stations with a device with a differential trip current lower than 30 mA.

- The single-phase motors are equipped with built-in thermal overload protection and can be connected directly to the mains. NB: if the motor is overloaded it stops automatically. Once it has cooled it starts again automatically without requiring any manual intervention.
- Do not damage or cut the power supply cable. If this should occur, have the repair or replacement carried out by specialised, qualified personnel.

The length of the power cable on the pump limits the maximum depth of immersion in use of the pump.

8. START-UP

The pump has an adjustable electronic level sensor for operation in automatic (Fig.7, page 2) or manual mode (Fig.8, pag.2).
By shifting the cursor (in 10 mm steps) to one of the available positions on the ON-AUTOMATIC SCALE (Fig. 7) it is possible to choose the water level at which the pump is to be started.

Model	ON min (cm)	ON max (cm)	OFF (cm)
NOVA UP MAE 300	10,5	25,5	6
NOVA UP MAE 600	14	29	5 (without filter)

By shifting the cursor to manual position (Fig. 8) the pump starts/stops when the plug is inserted/removed from the socket.

9. PRECAUTIONS

- RISK OF FROST: when the pump remains inactive at a temperature lower than 0°C, it is necessary to ensure that there is no water residue which could freeze, causing cracks in the plastic parts.
- If the pump has been used with substances that tend to form a deposit, rinse it after use with a powerful jet of water in order to avoid the formation of deposits or encrustations which would reduce the characteristics of the pump.
- Ensure that the float switch does not touch the walls of the trap during operation.
- Ensure that the OFF level is not too close to the suction grid, minimum height below the filter 60/70mm.

10. MAINTENANCE AND CLEANING

In normal operation the pump does not require any type of maintenance. The pump may not be dismantled except by skilled and qualified personnel, in possession of the qualifications required by the specific regulations on the subject. In any case, all repair and maintenance work must be carried out only after having disconnected the pump from the supply mains.
When restarting the pump, ensure that the suction filter is always fitted so as not to create the risk or possibility of accidental contact with moving parts. If the pump has been used with substances that tend to form a deposit, rinse it after use with a powerful jet of water.

10.1 Cleaning the suction grid

- Switch off the electric power supply to the pump.
- Drain the pump.
- On the models where it is present, unscrew the fixing screw on the filter. (Fig.9a, page 2)
- Loosen the suction grid by inserting a screwdriver between the pump jacket and the suction grid and turning it. (Fig.9b, page 2)
- Remove the suction grid. (Fig. 9c, page 2)
- Clean and reassemble the suction grid.

10.2 Cleaning the impeller (Fig.10, page 2)

- Switch off the electric power supply to the pump.
- On the models where it is present, unscrew the fixing screw on the filter (Fig.9a, page 2).
- Loosen the suction grid by inserting a screwdriver between the pump jacket and the suction grid and turning it. (Fig. 9b, page 2).
- Remove the bottom. (Fig.9c, page 2).
- Remove and clean the diaphragm.
- Wash the pump with clean water to remove possible impurities between the motor and the pump jacket.
- Clean the impeller.
- Check that the impeller can turn freely.
- Assemble the parts, proceeding in inverse order to disassembly.

10.3 Probe cleaning

- Switching off the electric power supply to the pump.
- Clean the probes with a jet of clean water (Fig.11, page 2).

11. MODIFICATIONS AND SPARE PARTS

Any modification made without prior authorisation relieves the manufacturer of all responsibility. All the spare parts used in repairs must be authentic and all accessories must be authorised by the manufacturer, in order to ensure maximum safety of the machines and of the systems in which they may be installed.

If the power supply cable of this appliance is damaged, the repair must be carried out by specialised personnel to prevent all risks.

12. TROUBLESHOOTING

FAULTS	CHECKS (possible causes)	REMEDIES
The motor does not start and does not make any noise.	A. Check that voltage is reaching the motor. B. Check the protection fuses. C. The switch is not activated by the sensor.	 B. If burnt out, change them. C. - Check that the probes are not clogged by dirt. - Increase the depth of the trap.
The pump does not deliver.	A. The suction grid or the pipes are blocked. B. The impeller is worn or blocked. C. The head required is higher than the pump's characteristics.	A. Remove the obstructions. B. Replace the impeller or remove the obstruction.
The pump does not stop.	A. The switch is not deactivated by the sensors.	A. Check that the probes are not clogged by dirt.
The flow rate is insufficient.	A. Check that the suction grid is not partially blocked. B. Check that the impeller or the delivery pipe are not partly blocked or encrusted. C. Ensure that the check valve (if contemplated) is not partially blocked.	A. Remove any obstructions. B. Remove any obstructions. C. Accurately clean the check valve.
The pump stops after having run for a short time.	A. The thermal overload protection device stops the pump.	A. Check that the fluid to be pumped is not too dense as it would cause overheating of the motor. Check that the water temperature is not too high. Check that the probes are not clogged by dirt.