

RECOMMENDATIONS DURING INSTALLATION AND TROUBLESHOOTING

TROUBLESHOOTING

- **The pump does not stop:**
 - check valcotakcontrol is installed as indicated in figures 1-2
 - check for any and excessive leaks in the water supply system
 - check the foot valve moves freely and is not blocked
 - **The pump starts and stops continually:**
 - intake less than flow meter sensitivity limit
 - check for any leaks in the water supply system
 - **The pump does not start:**
 - check that the pump has not shut down due to a malfunction, red indicator on, and return to normal operation by pressing the reset button.
 - check the minimum restart pressure setting Pmin (it must exceed the pressure supplied by the column of water in the system).
 - check that the pump is not blocked
 - check the green indicator light to ensure that the power supply is on.
 - **VALCOTANKONTROL indicates a malfunction in the water supply, but there is water in the tank or well:**
 - reset the pump by pressing the reset button.
- If the problem persists:**
- check that the pump is properly primed
 - check that the pump reaches the minimum pressure set Pstart + 0,5 bar
 - check that the inlet pipe is not blocked or the filter is covered.

SAFETY PRECAUTIONS

- Not following the here under safety precautions can cause mortal wounds, damage to things and property and make the tank useless.
- The pre-charge pressure must not be brought to values that are superior to those indicated on the tank label.
- It is forbidden to perforate, flame weld, or open for any reason, the expansion and/or pressure tanks.
- The expansion and/or pressure tanks must not be tampered with while functioning. It must not function at temperatures over those indicated on the label.
- It is forbidden to use the expansion and/or pressure tanks differently from those indicated in this paper.
- VALCOTANKONTROL are tested, checked and packaged before sent out.
- The manufacturer is not responsible in any way to damage caused by transport or incorrect movement of the tank if adequate means were not used to guarantee the integrity of the product and safety of the persons directly involved or nearby.
- The manufacturer of VALCOTANKONTROL, does not accept any responsibility for damage caused to persons, places or things, which derive from the improper use, installation and/or functioning of the product or connected system.

TECHNICAL CHARACTERISTICS

| | |
|------------------------|--------------------------|
| SUPPLY VOLTAGE | 220 V.a.c. |
| FREQUENCY | 50 Hz |
| MAX OPERATING POWER | 1,47 KW 2 Hp - 10(8)A |
| PROTECTION LEVEL | IP 55 |
| MAX WATER PRESSURE | 8 bar |
| MAX FLOW RATE | 100 l/min |
| MAX WATER TEMPERATURE | 35°C |
| MAX ROOM TEMPERATURE | 0 -40°C |
| START - UP PRESSURE | 1,5 bar |
| MIN. PRESSURE REQUIRED | Start pressure + 0.5 bar |
| PRE CHARGE | 1,2 bar * |
| PRE CHARGE MAX | 2,5 bar |

* : Must be checked at least once a year

GUARANTEE

VALCOTANKONTROL is guaranteed free of manufacturing faults, both in the hydraulic and in the electronic parts. Any faulty devices will be replaced, subject to control by the manufacturer. The guarantee is valid for a period of 2 years months as from the date of production, which is printed on the label housed in the body of the device.

CONFORMITY DECLARATION

VALCO declares on its own that its device is in conformity with the directive EN 60730-1 and following amendments into force on 13/04/2004, in subject of electric devices of control for domestic use or similar. It is also in conformity with what foreseen in subject of electromagnetic compatibility nowadays into force 73/23/EEC.

VALCO declares, under its own responsibility, that the expansion and/or booster tanks of its own production, having the CE mark and accompanied by the present declaration, conform to the essential safety requirements that are stated in the Directive 97/23/EC of the European Parliament and European Union Council, of 29 May 1997, with the organization of the states in regards to matters of pressure equipment; according to form D1 for category I and II and form B+D for categories 111 and IV and for the regulations, of the present EN13831.

ref. F12VTK12

HEAD OFFICE, WORKS, PUMP & MOTOR TEST LABORATORY, PUMP & MOTOR RESEARCH CENTRE, PUMPS & WATER HANDLING UNIVERSITY



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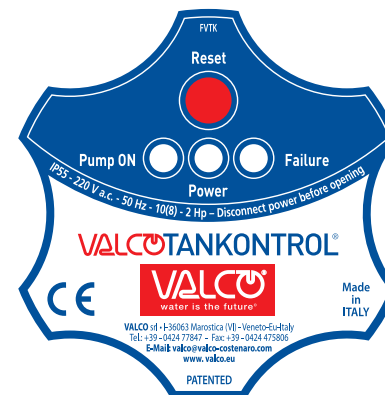


PUMPS, MOTORS and CONTROLS MANUFACTURING

USEFUL PRODUCTS FOR PROGRESS, PROSPERITY AND PEACE®

ESTABLISHED IN 1976

Made in ITALY



VALCOTANKONTROL®

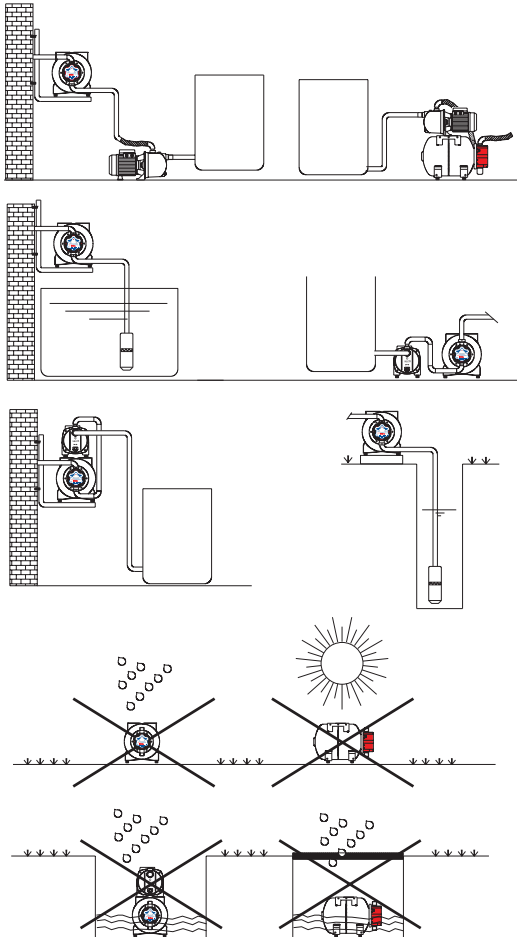
Pumpcontroller with water reserve

INSTRUCTIONS FOR USE - INSTALLATION ADVICE

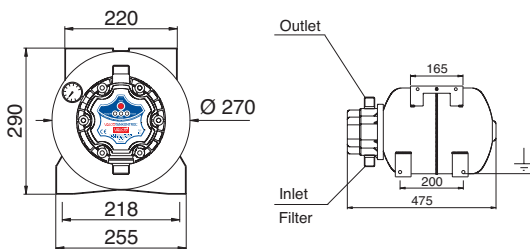
These user instructions have been drawn up in order to guarantee a reliable set-up of VALCOTANKONTROL, if they are carefully followed the will ensure a perfect device operates an extended working life.

VALCOTANKONTROL must not be used by person who are not familiar with the instructions given below. You are recommended to contact a reliable plumber and electrician.

Installation - Fig. 1



Flow - only vertical - Fig. 2



SAFETY REGULATIONS

WARNING: VALCOTANKONTROL must only be used with regulation wiring systems. Please contact a reliable electrician.

- The main power supply and current type must correspond to the indications on the VALCOTANKONTROL rating plate.
- For the use VALCOTANKONTROL must only be connected to a wiring system fitted with $I \Delta n = 30$ mA emergency cut-out.
- Before using VALCOTANKONTROL, disconnect the device from the power supply (disconnect from the wiring system), green indicator light off
- During assembly, take particular care if there are any children present.
- Please remember that, according to the law on legal responsibility for products, the manufacturer declines all responsibility for damage caused by the device in case of:
 - A) unauthorized repairs not carried out in our service centres
 - B) use of non-original spare parts
 - C) no correct use
 - D) wrong or scarce maintenance

OPERATION

- VALCOTANKONTROL is an electronic autocontrol able to manage the operation of the pump when the consumer opens and closes a water use. When the pump is on VALCOTANKONTROL maintains it turned on up to 10 sec. after the cessation of the request of water supply. The volume of the water accumulation compensates or annuls the water leakages drastically reducing the number of the pump start-up.
- VALCOTANKONTROL can be fitted to any water system. It is equipped with an adjustable restart pressure switch (Pmin) which allows the pump start pressure to be set at a value between 1 and 2,5 bar.
- VALCOTANKONTROL flow meter offers protection against dry running of the pump, as it shuts the pump itself down when no water is present in the system (red indicator on). In the event of a temporary power failure, VALCOTANKONTROL will reset automatically when the power supply is restored.

CONNECTING TO THE WATER SUPPLY

INSTALL POSITIONING THE INLET AND THE OUTLET IN VERTICAL POSITION ONLY

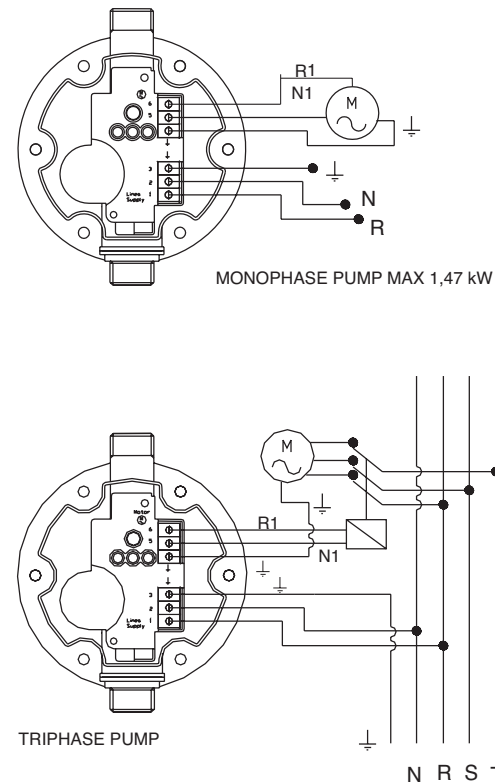
Before installation, check that the direction of flow is the one indicated in figures 1-2 and that there are no outlets between the pump and VALCOTANKONTROL.

1. VALCOTANKONTROL must always be installed on the delivery side of the pump, as illustrated in figures 1-2.
2. Do not fit non-return valves on the VALCOTANKONTROL outflow.
3. When taking in water from a well or tank underneath the pump, always fit a non return valve on the pump intake pipe.
4. If the pump develops a maximum pressure of over 8 (eight) bar, it will be necessary to fit a pressure reduction unit in front of device.

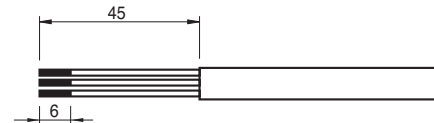
STARTING PRESSURE REGULATION

(if it is necessary a minimum starting pressure from 1,5 bar)
Contact technical service of the Valco company.

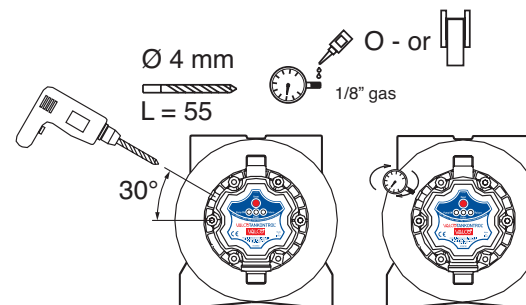
Electric information - Fig. 3



Electric cable preparation - Fig. 4



Manometer - Fig. 5



ELECTRICAL CONNECTION

- Electrical connection of VALCOTANKONTROL must be in compliance with current regulations. To access the terminal box, unscrew the 4 (four) screws on the outside, which unlock the cover in place. Before doing this, ensure the pump and VALCOTANKONTROL are isolated from the power supply.
- Connection must be conform with the indications given in figures 3-4. Incorrect connection may render the electronic circuit unusable.
- The main power cables used must comply with requirements for the maximum current foreseen for the device 10(8)A.
- To guarantee the seal on wiring box, the use of cables with a minimum external diameter of 7 mm and maximum external diameter of 9 mm is obligatory. During installation of the cable, great care must be taken to ensure that the YELLOW/GREEN wires are only connected to the earthing system.
- VALCOTANKONTROL can also be used with a three-phase or single-phase pump motor, with an absorption exceeding 10(8)A, using an auxiliary remote switch. In this case the connections must be made as shown in the wiring diagram in figures 3-4.
- After connecting the wires to the terminal board, ensure that the cable clamp seal and toothed washer have been positioned correctly, and tighten the lock nut.
- After checking that the seal is properly positioned, close the cover again and lock the 4 (four) screws.
- Connect the plug to a power socket properly earthed and other safeties foreseen by the normative into force; now VALCOTANKONTROL is ready to operate.
- Once VALCOTANKONTROL has been connected to the water and power supplies, the pump must be correctly primed, as indicated in the pump manufacturer's instructions.
- Connect the plug to the power socket, so that the following indicator lights remain on: green - POWER ON light, device under tension; yellow - MOTOR light, pump on.
- The pump will work for a few seconds (approximately 10) to allow the system to fill the pipe and raise the pressure in the installation to the correct level.
- Should this time be insufficient, so that the pump has difficulty in priming, VALCOTANKONTROL will stop the pump and the red - FAILURE indicator will light up. In this case, press the RESET button and wait, with the tap open, until the pump has primed properly and the whole system is under pressure. Release the RESET button and turn off the tap.
- At this point the pump will be controlled automatically by VALCOTANKONTROL.