

HTD



DESCALING PUMP

Instructions Manual
Use and Maintenance


HYDROCARE

Dear Customer, thank you for choosing a HYDROCARE descaling pump.

MANUAL

This manual is a safe guide for the use of the pump. Please read it carefully in all its parts before use.

This manual contains important information for the proper working and use of the equipment

HYDROCARE reserve the right to introduce any future changes without notice or replacement.

PRELIMINARY INSPECTION

Upon receipt of the pump, take it out from the carton and check it is in perfect condition. Also check that the data on the rating plate correspond to required ones. For any problem, immediately contact the supplier specifying the kind of fault.



In case of doubt about the safety of the machine, do not use it.

DESCRIPTION

Vertical axis pumps with tank for descaling heat exchangers, pipes, coils and any similar scaled situation.

Pumps are supplied ready to use, in strong carton boxes with related user's manual.

Below are the main deposits which can be removed with these pumps:

- scale deposits
- calcium and silica deposits.

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1 - REGULATIONS – CE MARK

Declaration of Conformity

The pumps are in conformity with the following European Directives, Laws and Regulations:

Low Voltage Directive:

73/23/EEC assimilated with E.O. no. 791 dated 18/10/77

93/68/EEC assimilated with E.O. no. 626 dated 25/11/96

Electromagnetic Compatibility Directive:

89/336/EEC assimilated with E.O. no. 476 dated 04/12/92

92/31/EEC assimilated with E.O. no. 476 dated 04/12/92

93/68/EEC assimilated with E.O. no. 615 dated 12/11/96

93/97/EEC assimilated with E.O. no. 615 dated 12/11/96



Directives RoHS and WEEE:

02/98/EEC assimilated with E.O. no. 151 dated 25/07/05

02/96/EEC assimilated with E.O. no. 151 dated 25/07/05

QUALITY

HYDROCARE equipments are manufactured with high-quality acid-resistant materials and submitted to severe operating tests.

Follow these instructions to avoid any operating and servicing problems.

2 - THE ADVANTAGES OF THE PUMPS WITH FLOW REVERSER

Time and, above all, temperature increase make calcium salts, usually present in water, precipitate in the form of microcrystals and settle on metallic surfaces of pipes, plant coils and heat exchangers, thus reducing flow rate and thermal efficiency.

To restore the original plant performance it is necessary to carry out a descaling with specific products and equipments.

The **flow reverser device** attacks scale on both sides, thus making descaling particularly fast (as the normal dissolving action is combined with the detachment in flakes of the scale, made friable from the double attack) and effective, even when pipes and exchangers are almost totally clogged.

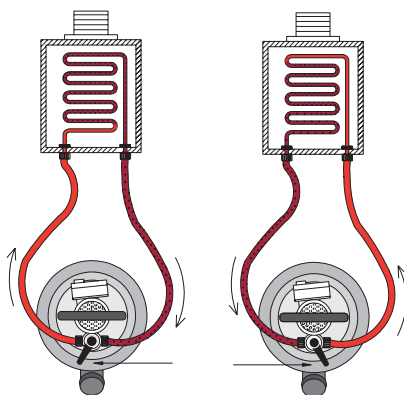


fig. 1 -
Clockwise
circulation

fig. 2 -
Counterclockwise
circulation

3 - TECHNICAL SPECIFICATIONS

DESCALING PUMPS (with flow reverser)

Code	12103016
Item	BOY HDP 15
Tank	15
Dimensions (cm)	15x48
Weight (kg)	8,2
Head (w.c.m.)**	10
Max flow rate (l/min)*	40
Hp	0,17
Notes	Vertical axis pump to descale coils, heat exchangers, boilers, etc.

* Data referred to the pump body outlet.

** w.c.m. = water column meters

4 - CUSTOMER SERVICE

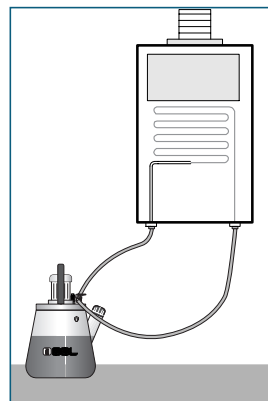
For technical assistance please directly turn to your dealer or installer from which you have purchased the unit.

For enquiries on spare parts, please specify model of pump, item code, description and number of pieces desired.

5 - USE

5.1 HOW TO PREPARE THE PUMP AND CHECK THE SEAL

- Fill the tank with enough water to ensure that the pump rotor housing is submerged during operation.
- Screw the outer ends of the flexible hoses securely to the exchanger to be descaled.
- Connect the power cable to a single-phase 230 V power supply.
- Switch on the pump and check the seal of the hose fittings on the exchanger and on the pump. In case of leaks of liquid, check hoses and fittings and replace the defective components, if necessary.
- When seal is safe, switch off the pump.
- If necessary, add more acid by referring to the dilution specified in the data sheet of the product.



5.2 DESCALING

- Switch on the pump.
IMPORTANT: During use, the tank cap should remain open to allow for the passage and elimination of the gas evolved during descaling. Check that the foam level does not exceed the maximum filling level.
- Periodically move the flow reverser handle from one stop to the other. By attacking scale from both sides it is possible to clean piping which is almost totally obstructed and descaling time is considerably reduced.
- Scale removal can be considered complete when bubbles no longer form in the return pipe and the solution is still acidic.

5.3 HOW TO CLEAN THE PUMP

- After descaling REMOVE THE DESCALING LIQUID FROM THE TANK and wash out the pump by circulating clean water through it for at least 10 minutes.



PRECAUTIONS

Only use HYDROCARE chemicals in order to ensure good working and avoid damaging the equipments.

Once the lifetime of the pump has expired, do not dispose of it with household waste. The pump must be recycled in authorized centres and can be assimilated to a household appliance (RAEE norm).



During handling lift the pump and do not drag it in order to avoid damages to the tank.

Temperature of the descaling solution must never exceed 50 °C.

Flexible hoses and fittings can be damaged in time; make sure to check the seal whenever using the pump, as indicated in the pump preparation instructions.

6 - SAFETY INSTRUCTIONS

- **Before installing the motor pump, make sure the power supply is fitted with grounding and complies with the regulations.**
- **Pump must never run dry.**
- Avoid using the pump in places where there are liquids, gases, flammable powders or with risk of explosion.
- Before plugging in the pump to the outlet, make sure the switch is off.
- The outlet must be suitable for the plug of the pump. Do not use non CE-marked defective outlets.
- Use (CE) approved extensions, only if necessary.
- Do not use plug adapter. Do not carry out any modifications to the plug nor to the electrical cable.
- Pump shall always kept in perfect efficiency.
- During maintenance operations, check the switch is off and the plug is not connected.
- All maintenance operations must be carried out by the authorized Technical Assistance Service.
- Only use HYDROCARE original spare parts.
- Do not carry out any modifications to the pump if not authorized by HYDROCARE Technical Department (ask for written authorization).

- The warranty is not valid if the pump is repaired by personnel not authorized by the manufacturer, that also means operating with unsafe and potentially dangerous equipment.
- Keep children and unauthorized persons away from the pump.
- Keep the pump out of reach of children and unauthorized persons.
- Do not use the pump if tired or under the effect of alcohol, medicines or drugs.
- When using the pump, wear overalls, do not wear jewellery, keep hair away from the pump.
- When handling descaling liquids, be very careful. It is necessary to use Individual Protection Equipment (IPE).

7 - DESCALING CHEMICALS

	Copper	Steel	Stainless steel	Aluminium	Brass	Tin	Light alloys	Galvanised iron
DESCALING CHEMICALS								
BOILER CLEANER D.E. Concentrated descaling liquid with powerful reaction for systems and heat exchangers.	•	•						
BOILER CLEANER D.P. Concentrated descaling liquid (non-fuming), with degreasing action, for systems and heat exchangers.	•	•						
BOILER CLEANER P. Concentrated descaling powder (non-corrosive, non-fuming) for systems and heat exchangers.			•	•	•	•	•	
BOILER CLEANER P.Z. Concentrated descaling powder (non-corrosive, non-fuming) for systems and heat exchangers, with special zinc inhibitor.			•	•	•	•	•	•
BOILER CLEANER E. Concentrated descaling liquid with very powerful reaction for systems and heat exchangers.	•							
BOILER CLEANER L.Z. Concentrated descaling liquid (non-corrosive, non-fuming) for systems and heat exchangers, with special zinc inhibitor.	•	•	•	•	•	•	•	•
BOILER CLEANER ECO Ecological descaling liquid for systems and heat exchangers.	•	•						

9 - WARRANTY TERMS AND AFTER-SALE ASSISTANCE CONDITIONS

HYDROCARE guarantee that the equipments sold are free from designing, manufacturing and material defects, under normal operating conditions and according to the directions contained in the instructions manual supplied with the equipment.

In compliance with the directive 1999/44/CE valid in the EEC countries, the warranty rights apply only to the purchaser. The warranty supplied by HYDROCARE leaves these rights unprejudiced.

HYDROCARE., placed in Unit 11, Capital Industrial Estate, Crabtree Manorway South, Belvedere Kent SA17 6BJ, guarantee the equipments against any conformity defects appearing within 24 (twenty-four) months from the purchase date, even when warranty operations have been carried out during this period, if only proved by a document.

The warranty covers all components of the equipment and provides for the repairing or, if necessary, the free replacement of those parts that, according to your Dealer, have conformity defects.

The warranty does not cover the aesthetic parts and the parts subject to wear and tear, nor does it cover all damages or failures whose cause is not due to the manufacturer, such as: transport, wrong installation or maintenance, tampering, sudden changes of electric voltage and/or hydraulic pressure, thunderbolts, corrosions, excess of humidity, accidental bumps or events beyond our control.

The warranty is valid only if the equipments have been installed, used and properly maintained according to all directions supplied by HYDROCARE in the instructions manual attached to the equipment.

Should any conformity defects of the product be found during the warranty period, the Customer shall notify the Dealer to agree upon the terms of repairing and/or replacing of the product.

The after-sale assistance service under warranty is always supplied by your Dealer.

Claims.

For claims, please contact your dealer.

