Condensate pump NTH 360

Instruction Manual

1. Description and range of application

Fully automatic condensate removal pump designed to remove condensate from furnace burners, gas or oil condensing boilers, air conditioners, refrigeration display cabinets and de-humidifiers where drainage by gravity is not possible.

WARNING: Regulations of water authorities or other relevant authorities must be obeyed when condensate is being disposed of. Condensate from condensing boilers being operated with standard heating-oil (not low on sulphur) may not be disposed of into the canalization without being neutralized. This is also true for condensing boiler systems exceeding 200 KW.

2. Technical Data

Motor power output: P2 = 80 Watt	Max. flow: 360 l/h
Voltage: 230 V – 50 Hz	Max. head: 5,2 m WS
Nominal current: 0,6 A	Max. liquid temperature: 50° C
Operational voltage: 230 V – 50 Hz	3/8“ connection with 9 mm hose connector
Protection: IP 20	Weight: app. 2,5 kg
RPM: 2780	Cable with plug: Length 2,0 m

3. Scope of delivery

Ready to plug in pump with 2 metre power cable and signalling cable, inlet adapter, check valve, discharge tubing (6m) which is to be connected to the outlet side and instruction manual.

4. Installation and start up

WARNING: Read instructions completely prior to installing, operating or servicing the pump! The installation may only be performed by a qualified person.

Check content for completeness and eventual damage prior to operation. Inform your dealer immediately in case of any deficiency.

Never transport or remove the pump from the packaging by holding on to the cable!

An orderly grounded mains supply and residual current circuit-breaker of max. 30mA disconnecting all phases is required for the operation of the pump. Already existing outlets are to be checked for the existence of a residual current circuit-breaker. Ensure that power cord is NOT plugged in when performing any type of work on the pump.

4.1 Installation and inlet connection

The pump must be level (either on the floor or mounted on the wall) to ensure a proper operation.

The pump must be installed ensuring that it can not tilt and that it is properly mounted!

The pump should be mounted close to the condensate drainage of the unit to be drained. The connections from the unit to the pump are not included. Please ensure to use corrosion-resistant and acid-resistant material when choosing the drainage pipes (e.g. PVC, PE, stainless-steel).

Condensate from condensing boilers is very aggressive and corrosive!

A standard high-temperature plastic wastewater tube (50mm) may directly be connected to one of the three inlets by means of the supplied inlet adapter (see figure 2). Other pipes or tubing with a smaller diameter may be safely fixed by running cable straps through the two holes in the adapter and firmly tightening them.

Figure 1 - Inlet adapter

Figure 2: Inserted inlet adapter

Figure 3

Under no circumstances may pipes or tubes be inserted into the tank because this may lead to pump failure since the integrated float switch may be blocked!
Standard condensing boilers are equipped with a siphon trap. This must in all cases be filled with water prior to operation of the boiler and condensate pump. Failure to do so may result in acidic gases reaching the pump and therefore destroying it!

4.2 Pressure connection

The pressure port is equipped with a check valve. PVC tubing with an inner diameter of 9mm is to be tightly connected to the pressure port, see figure 3.
The PVC-tubing is to be secured with a hose clamp avoiding any kinks, ties and connected to the drain pipe of the canalization.
In case of an installation in the basement below the level of backed-up water (locally defined; generally the upper edge of the street) it must be ensured that the pressure piping is lead above this level and then connected downward to the drain pipe.

WARNING: In case of non-observance the basement may be flooded in the event of a flow back from the canalization!

4.3 Signalling cable

In addition to the power cord (POWER), the pump is also equipped with a signalling cable (ALARM). See figure 4

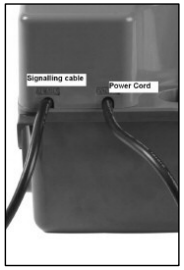

Figure 4 - Inlet adapter

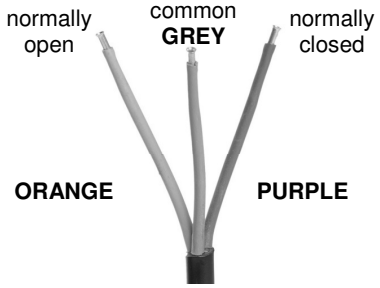

Figure 5 - Contact configuration, signalling cable

The signalling cable (dry contact) must be used to either conduct a safety shutdown of the condensing boiler (COM and NO) or to activate an external low voltage alarm system (COM and NC). See figure 5 for contact configuration. To avoid water damages due to a defective pump this contact has to be contacted in any case otherwise all kind of claims will expire.

Please refer to the instruction manual of the condensing boiler for the connection as a safety shutdown or to the manual of the alarm system for the connection as an alarm.

4.4 Testing

WARNING: Pull out the tab before testing or operating (see figure6)

The operation of the pump can be tested by activating the test-switch without filling the tank by using a screwdriver. Insert the screwdriver in the respective opening to activate the switch and start the pump. The switch is deactivated by removing the screwdriver and the pump stops (see figure 7). This test is only to be conducted briefly for a couple of seconds to avoid the pump from being damaged due to running dry.
It is imperative to remove the screwdriver again!

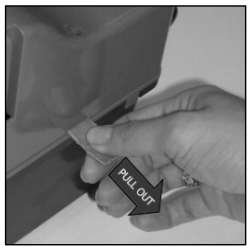

Figure 6

Figure 7

Figure 8

5. Limitation of use and improper operation:

WARNING: This pump **may not to be used** for waste water, in particular liquids containing solids liquids with abrasive content as well as **flammable and explosive** liquids.

6. Maintenance

WARNING: Ensure that the power is disconnected before performing any service or maintenance!

The proper function of the pump, its wear parts and its product life are mainly dependant on regular servicing and maintenance of this unit. Particulates settle on the bottom of the tank in the course of time. This sediment can lead to pump clogging and block the float switch. It is therefore recommended to service the pump, piping, inlets and pressure port biannually and, if necessary, clean the respective areas and parts. This is especially necessary in connection with the general maintenance of the heating system prior to the start of the heating period. In the course of time and especially after longer standstill period particulates, at times highly acidic, can affect or destroy parts of the tank.
The upper part of the pump can be removed without the use of tools by carefully moving the 4 laces on the upper part of the pump outward (see figure 8). The upper part can then completely be removed and the float switch and the bottom part of the pump body as well as the tank (bottom part) are freely accessible. These parts can now be washed with warm water and mild soap. After cleaning, place the upper part on the lower (tank) part. A latching can be heard. Connect the pump to the mains and fill water into the tank through one of the inlets. After having filled the tank with about 1.5 l the system will start automatically and discharge the water into the canalization.

WARNING: All points pertaining to installation and start up (see point 4) must be observed when pump is returned to service.

WARNING: Unit must be disconnected from the power source before servicing or performing pump maintenance!

7 . Warranty

The warranty period for this product is 24 months from date of purchase. Proof of purchase must be provided.
Any material or manufacturing defect within this timeframe will be rectified or repaired free of cost. Any damage resulting from misuse, in particular non-observance of the instruction manual and excessive wear and tear is excluded from warrantee. Any unauthorized modifications or opening of the product will void the warranty.

8. Troubleshooting

Problem	Probable Cause	Remedy
Low flow rate	Outlet piping clogged or kinked	Clean / remove kink
	Check valve contaminated	Clean
	Head to large	Reduce head
Motor is idle or does not start	No voltage present	Check power supply
	Plug not plugged in	Plug in plug
	Pump blocked by mud or solids	Clean tank and pump body
	Defective motor	Replacement by qualified personnel
	Defective electronics	Replacement by qualified personnel
Motor running, pump does not deliver	Outlet piping clogged or kinked	Clean / remove kink
	Check valve contaminated	Clean
Pump does not operate automatically	Float switch contaminated	Clean
	Micro-switch defective	Replacement by qualified personnel

9. Decleration of conformity

This declaration is valid for the following product:

Device type: Condensate-Pump NTH 360 WG6, NTH360 BLUE, NTH360 RED

CE

We hereby declare that the product is in conformity with the provisions of the **Machinery Directive (73/23/EEC)**.

The following norms have been taken as a reference with respect to the electromagnetic compatibility (89/336/CEE):

EN 50081 – 1 and EN 50081 – 2

This declaration is made by:

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