



Easy to install,  
commission and control

Lowers  
operating costs

Increases energy efficiency  
in heating and cooling

# TTM NoXygen® M650

Removes harmful gases in hydronic systems and automatically refills the system with water

TTM NoXygen® M650 is a fully automatic vacuum degasser for heating and cooling systems. Energy losses, corrosion and sound problems in the systems are mainly caused by a high gas concentration in the system fluid.

TTM NoXygen® M650 is provided with an automatic water-refilling system. When the gases are eliminated by degassing the hydronic system, the system pressure decreases, and the unit automatically refills the system with dilution water until the pre-set system pressure is obtained. The displays on the unit show how much water that has been filled into the system.

TTM NoXygen® M650 prevents above stated problems by using an effective method that keeps the system free of gases that gives higher energy efficiency, lower maintenance cost and longer lifetime of the system components. TTM NoXygen® can be installed in both existing and new systems.

TTM NoXygen® is environmentally assessed according to a Swedish Standard.



**NoXygen®**  
**Degasser**

#### Installation benefits:

- Easy to install, commission and control
- Quick degassing function
- Automatically refills the HVAC system
- Can be installed in both small and large systems.

#### Operational benefits:

- Reduces operating costs
- Prevents corrosion of system components
- No need to vent radiators
- Increases energy efficiency of heating and cooling systems
- Minimises noise problems in heating and cooling systems
- Stable and easy adjustment
- Removes gases from the system fluid
- Prevents degradation of refrigerant liquids.

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TTM NoXygen® takes out and treats a partial stream that is pumped from the main fluid conduit and processed with a strong underpressure in the NoXygen unit between -0.7 and -0.9 bars. The gases are released by the pressure reduction and are led out through a gas-release valve. The fluid is then returned to the main conduit.

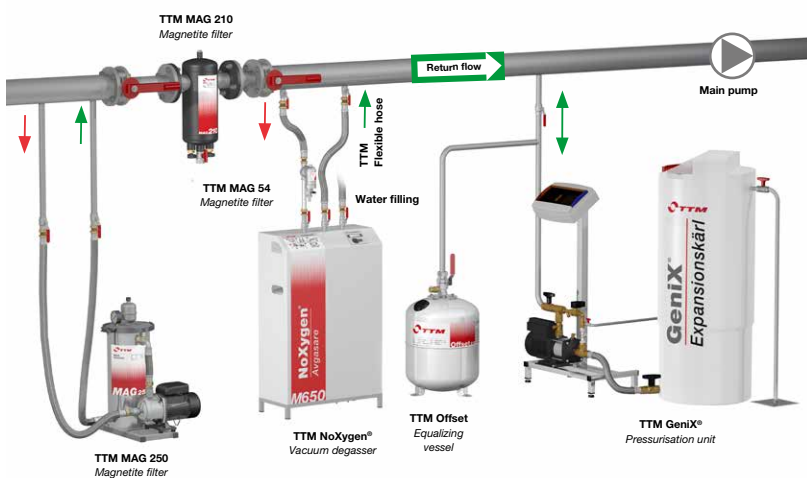
TTM NoXygen® M650 is provided with an automatic water-filling system that compensates for the reduction in volume that occurs when removing gasses. The filling of dilution water occurs automatically when the pressure in the device falls below the set reference value. As a safety measure, NoXygen will emit an alarm signal upon each refilling as an indication that that water is being introduced into the system.

TTM NoXygen® is very easy to install, commission and operate. Operation is monitored by a control unit where 2 pushes of a button is enough to start the operating mode. TTM NoXygen® starts in manual operation and after 30 days it automatically switch to a timer mode.

There is an option to select manual operation between 1-30 days before. TTM NoXygen® switches over to timer operation. Time operation can be selected using three different starting times: 9:00 am, 1:00 pm or 7:00 pm. In most cases, one hour of operation per day is fully sufficient to keep the gas concentration in the fluid at a low level. Timer operation can be chosen for operating times of 1-8 hours.

## Options

## TTM NoXygen® M650



### TTM MAG 76

- Magnetite trap/particle filter. **Art. no: 506188**

### TTM MAG 54

- Magnetite trap/particle filter. **Art. no: 514428**

### TTM Flexible steel-wound

- Flexible steel-wound connection hose. 2 st 1,5 m, connection dim. DN15. **Art. no: 505440**

### TTM Offset

- TTM Offset prevents the pump expansion system turning on and off and generating noise in the system on the premises. **Art. no: 508410**

## Tekniska data

## TTM NoXygen® M650

System pressure standard, total pressure at the connection point, max.	+5,0 bar
Media temperature	0 – +70 °C
Ambient temperature	0 – +40 °C
Capacity, degassed fluid	min. 135 l/h
Vacuum capacity during degassing	Down to -0,9
Pressure class	PN 10
Media	Water without chemical additives
Connection dimension	DN15
Electrical data	1~230 V, 50 Hz
External fuse	10 A
Nominal power	0,75 kW
Voltage	1~230 V, 50 Hz
Nominal current	5,0 A
Connection to DUC	Switching potential-free contact
Class of protection	IP44
Noise Level	61 dB
Weight	29 kg
Art. no.	509561

