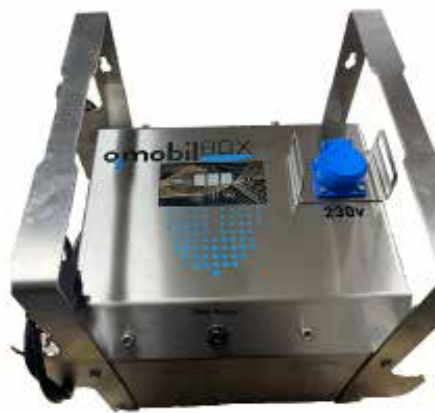


omobilBOX



OSMOBIL BOX

Translation of the original operating instructions in English

**Current version as of February 2024.
All previous versions are replaced by this one.**



OSMOBIL BOX

Technical data:

Inlet water pressure	max. 6,0 bar
Temperature Inlet water	8° - 25° C
Suitable inlet water	Municipal water acc. German drinking water ordinance
Ambient temperature	3° - 40° C
Mains connection	230 V and 50 Hz
Dimensions in cm (HxWxD)	approx. 33x38x31
Weight (dry)	approx. 11,5 kg



EC Declaration of Conformity

We hereby declare that the mobile reverse osmosis system „OSMOBIL BOX“, with regard to its design and construction, complies with the applicable EC directives in the manner marketed by our company.

Any change to the system that has not been agreed with our company will invalidate this declaration.

Applicable EC Directive:

EC Machinery Directive (2006/42/EC)

Manufacturer: VF Reinigungstechnik
Blankenfohrweg 11
32139 Spenge
Tel. 05225.86367-15

Designation of the plant: OSMOBIL BOX
Serial number: see type plate

Signatory: Tobias Becker (Managing Partner)

Date/Signature of the manufacturer: 27.02.2024

A handwritten signature in black ink, appearing to read 'Tobias Becker', written over a horizontal line.

Table of contents

1 General and overview

1.1 Introduction

1.2 Overview

1.3 Function

2 Practical use

2.1 Installation

2.2 Switching on the Box

2.3 Tank sensor

2.4 Does your water unit have a Fi switch?

3 PPM meter

3.1 Function

3.2 Overview - Control Panel

3.3 Operation

4 Special Instructions for Filling Heating Systems

4.1 VDI 2035 Standard & Water Quality for Special Cases

4.2 PH value

5 Warranty

1 General and overview

1.1 Introduction

Dear user,

herewith you receive the manual for your new control unit for water systems of the „OS-MOBIL BOX“. It describes in simple terms the basic functions and components of the unit. In addition, it provides important information for your safety as a user and to avoid misuse and damage to the unit or the environment.

Attention: Please read the instructions completely and carefully. This will prevent damage and misuse! The appliance may only be operated by competent persons who have read these instructions.

1.2 Overview - frontal view

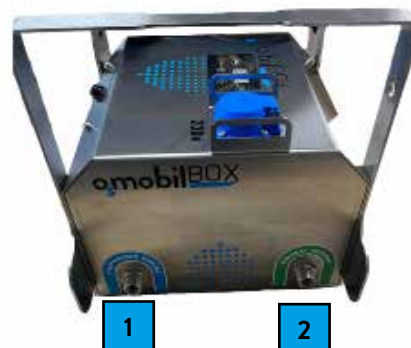
- 1: 230 V power connection
- 2: PPM measuring device
- 3: Tank sensor connection



1.2 Overview - Lateral view

- 1: City water inlet
- 2: Permeate outlet

(on the other side of the BOX are „City water outlet“ and „Permeate inlet“)



1.3 Function

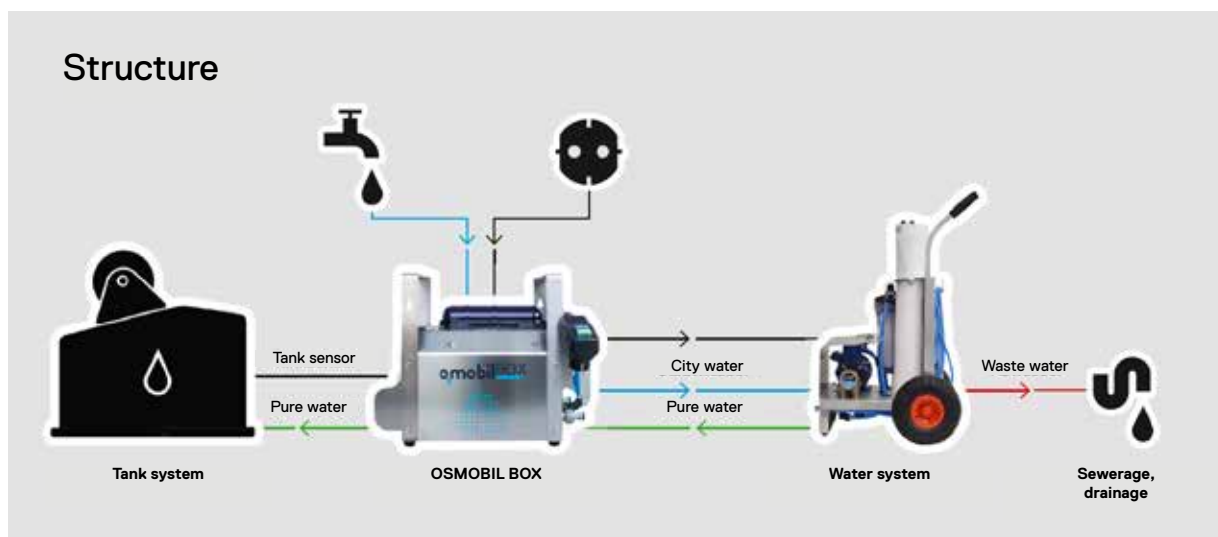
The OSMOBIL BOX is a control device that can be used to automate the filling of tank systems with pure water. In conjunction with a tank sensor, the OSMOBIL BOX switches off the water and power supply for the respective water unit when a desired fill level is reached.

The OSMOBIL BOX is a product that was developed for commercial building cleaners and heating installers. It can be connected to common mixed bed resin systems (usually without looping through the power supply) as well as to various osmosis systems (then including looping through the power supply).

2 Practical use

2.1 Installation

The following diagram is intended to illustrate how the OSMOBIL BOX is connected to your tank system and your mixed bed resin system or osmosis plant. Before a tank can be filled, everything must be set up as follows:



2.2 Switching on the Box

If the above setup is ensured and the OSMOBIL BOX is connected to the power, the supply of city water can be turned on. Please press the „F“ button on the meter to start (see point 3 PPM meter) If you are using a water system that also requires electricity, please switch this on as well. Now fill the respective tank or container. The water supply ends when the desired tank is completely full or the desired fill level of a tank system is reached. This is done by the tank sensor, which sends a corresponding signal to the OSMOBIL BOX.

When using the system on drinking water pipes, the user must ensure that the relevant tap on the building has a non-return valve to prevent water from running back into the drinking water pipe! If water sources other than municipal water are used (e.g. well water, cisterns, lake water, etc.), a water analysis must first be carried out to determine the suitability of the water for the filter system. Water qualities that deviate from city water in accordance with the German Drinking Water Ordinance can damage the system and also have a negative impact on the cleaning result.

2.3 Tank sensor

The tank sensor is mounted at the desired fill level in the respective tank and then connected to the OSMOBIL BOX (see „front view page 5, „3 / Connection tank sensor“).

To install the float, a 29 mm diameter hole must be drilled in the ceiling of the desired tank, as the float only works horizontally. Then the sensor is led from inside the tank through the drilled hole to the outside and fastened there with the existing union nut.

As soon as the sensor is connected to the OSMOBIL BOX, the OSMOBIL BOX recognises the component and regulates the switch-off via the sensor.

2.4 Does your water unit have a Fi switch?

If the water unit used with the BOX (e.g. an OSMOBIL PRO) is electrically operated (i.e. you have connected it to the power connection of the BOX) and also has a personal protection plug or Fi switch, it may be useful to dismantle it. With a personal protection switch, the BOX is able to switch off the water system. However, automatic „restarting“ is then not possible. To restart the OSMOBIL BOX, you must press the „F“ key on the meter. We will be happy to advise you on this on request!

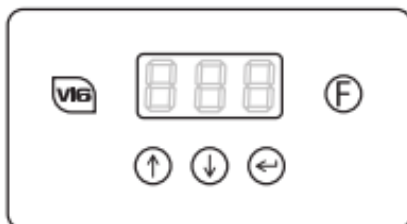
3 PPM meter

3.1 Function

The OSMOBIL BOX has a permanently installed, professional PPM measuring device with

which you can measure the conductance of the respective pure water and city water applied (see „front view page 5, „2 / PPM measuring device“). It indicates the conductance of the respective permeate.

3.2 Overview - Control panel



3.3 Operation

To switch on the PPM meter, please press the „F“ key.

To monitor the conductance, press the enter button until „TDS“ is displayed.



Press the enter button again to monitor the water temperature (in degrees Celcius). „NC“ is displayed if the probe is not connected.



To change the limit value, press and hold the down and enter keys. If the conductance rises above this value, the pump and TDS stop, „STP“ flashes on the control. This value can be set between 1 and 40 ppm with the up or down key (e.g. 5) or switched off if „OFF“ is selected.



However, we recommend switching off the limit value when working with osmosis systems.

4 Special instructions for filling heating systems

4.1 VDI 2035 standard & water quality for special cases

In order to comply with the specifications of the VDI2035 standard when filling heating systems, please note that you may need an additional filter cartridge when filling heating systems in which the smallest boiler heating surface is above 50l/kW or the total heating output is above 600kW, as the water quality for filling in these special cases must be below approx. 3 microS/cm (approx. 2 PPM).

Mixed bed resins with sufficient residual capacity usually meet this value without any problems. If you want to use an osmosis system for such special cases, you may need an additional filter. For this, please simply contact your specialist dealer.

4.2 PH value

In addition, you should measure the PH value of the heating water after filling the heating system and after a short period of operation and adjust it to the installed materials if necessary. In this regard, we refer to the specific content of VDI2035, according to which the PH value of the heating water must be adjusted to the materials primarily used. Measuring the pH value of the ultrapure water produced with a mixed-bed resin or a reverse osmosis system before introducing it into the heating system makes no sense from a practical point of view or is not possible with simple measuring methods due to the low conductivity of the water. In addition, the PH value of the ultrapure water in the air would very quickly become slightly acidic (pH value of 4-5), as the pure H₂O is able to dissolve carbon dioxide from the air, which also makes it impossible to achieve an objective measurement result. This deviation of the pH value of the ultrapure water into the acidic range does not usually happen in the heating system, as it is sealed accordingly.

In most cases, the PH value of the water introduced into a heating circuit will be in the range of 8-9 after a short period of operation. This PH value is optimal for many materials.

5 Warranty

All OSMOBIL water systems and controls are subjected to extensive quality control and testing before delivery. Even the construction of the devices is designed for unconditional reliability and durability. Should there nevertheless be any problems or a reason for complaint within the warranty period (24 months for natural persons, 12 months for tradesmen and companies), please direct the respective claim for replacement to the company VF Reinigungstechnik. Please note that the warranty only covers units that are structurally unchanged and have been operated strictly in accordance with the specifications in this manual.