

**reflex**

Thinking solutions.

# Servitec Mini

Vacuum spray-tube degassing for small and medium-sized systems

With easy  
app\*  
control!

→ Reliable and permanent degassing system with app control

→ Long-term system safety thanks to excellent water quality

→ Save up to 10.6% energy and optimise heat transfer

\* With **Reflex Control Smart**, the Servitec Mini can now be operated via smartphone: quick and easy commissioning, parameterization of degassing mode (continuous or interval degassing, idle mode, number of cycles inc. weekdays and time), maintaining and troubleshooting assistant, display of system pressure, software updates for system control, display of fault messages.

Learn more at: [www.servitec-mini.com](http://www.servitec-mini.com)

Reflex Winkelmann GmbH • Gersteinstraße 19 • 59227 Ahlen, Germany • +49 2382 7069-0 • [info@reflex.de](mailto:info@reflex.de)

# Servitec Mini

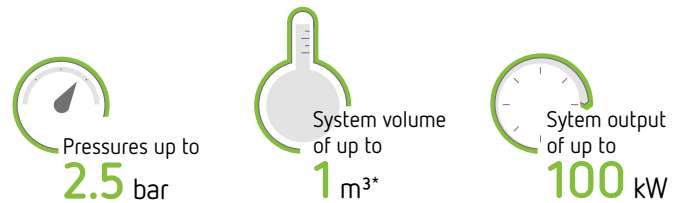


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## Vacuum spray-tube degassing for small and medium-sized systems

### Scope of application

- Small and medium-sized systems such as family houses and apartment blocks, schools, public facilities or in small businesses
- Extremely simple and cost-effective plug and play system to optimize primary circulation upstream of heat generators using heat exchangers
- Decentralised degassing system for problematic strands
- Commissioning of panel heating and cooling system as an innovative replacement for costly rinsing at high pressure to remove air and gas pockets



### Background

The influence of water quality has a huge impact on the operating behaviour of water heating and cooling systems. Only systems that are running to the best of their capacity function efficiently and economically. With its high level of efficiency when it comes to degassing the system water, the Reflex Servitec Mini makes a significant contribution in this regard as the hydraulic balancing is perfected. This results in optimised system hydraulics with a gas-free heat transfer medium for efficient heat transfer as well as a longer service life of the heating and cooling system. There is no need for an expensive decentralised ventilation.

Automatic water make-up can be realised independently by using Reflex Fillcontrol Plus Compact.

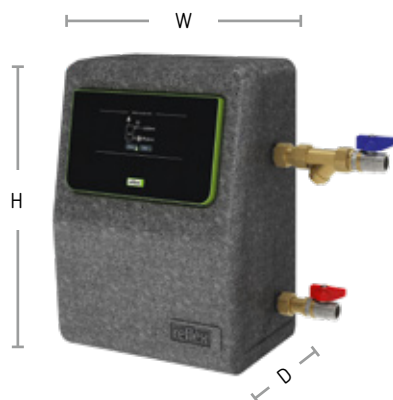
### How it works

A vacuum spray tube is used to de-gas system water.

1. Gas rich system water is sprayed through a nozzle into the spray pipe.
2. A pump sucks the water out of the spray tube and pumps it back into the system.
3. The configuration ensures that the pump extracts more water from the pipe than can flow in through the nozzle. This creates a vacuum in the spray pipe, which causes the degassing effect.
4. When the pump is turned off, water flows into the spray pipe and pushes the extracted gas out through the automatic air vent.

The medium, which is now undersaturated, is able to absorb new gases from the system once again, thereby steadily reducing the gas concentration in the entire facility network.

### Technical Features



- Max. operating pressure: 4 bar
- Operating pressure: 0.5 to 2.5 bar
- Max. operating temperature: 60 °C
- Max. ambient temperature: 0 to 45 °C
- Power supply: 230 V / 50 Hz
- Electr. power consumption: 0.06 kW
- Nominal current: < 0.3 A
- Connections: G ½"
- System volume VA: 1 m³\*

Type	Art. No.	PU	Material group	Height H [mm]	Width W [mm]	Depth D [mm]	System volume VA [m³]	Operating pressure [bar]	Weight [kg]
2.5 bar 60°C Mini	8835800	1	28	420	295	220	1.0	0.5-2.5	5.60

\* The value applies to the pure water content of the heating surfaces and distribution pipes and can be supplemented by a buffer tank of up to 1,000 litres.

# Reflex Servitec Mini, compact vacuum spray tube degassing in automatic mode

Article number: 8835800



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## Features

Type	Mini
Max. system volume	1 m <sup>3</sup>
Max. perm. operating temperature	60 °C
Working pressure	0,5 - 2,5 bar
Max. perm. operating pressure	4 bar
Max. sound pressure level	55 dB(A)
Electric connection	230V/50Hz
Pressure side connection	G 1/2"
Connection outflow side	G 1/2"
Separation level, dissolved gases to	90 %
Max. partial volume flow network	0,050 m <sup>3</sup> /h
Rated electrical current	0,30 A
Max. electrical rated power	0,06 kW
Height	420 mm
Width	295 mm
Depth	220 mm
Weight	5,60 kg

## Description

### Reflex Servitec

Vacuum spray tube degassing for system degassing in sealed heating and chilled water systems, configured as a fully automatic multi-function unit with auto-stop operation and automatic hydraulic compensation of the degassing process and monitoring of the make-up request.

Suitable for the media water and water/glycol mixtures up to a mixing ratio of 50/50%.

Functional unit comprising hydraulic part designed for wall mounting and electronic, ergonomically arranged Control Smart controller with CE marking.

Degassing takes place within the hydraulic part using a diaphragm pump in conjunction with a vertically arranged brass vacuum spray tube. This is equipped with a vacuum spray nozzle, dipstick-tube degassing unit and pressure monitoring. To protect it against dirt, the unit as a whole is located in a housing made from expanded polypropylene with an opening maintenance cover.

The Control Smart controller is integrated in a robust plastic housing in which both the power and communication electronics and the control panel with dirt-resistant plastic foil keyboard are housed. Bluetooth is integrated as standard as a communications interface. The controller has a fully automatic microprocessor controller with time function, differentiating error and parameter memory, LED display of the operating modes and general error messaging, visualisation of

the control states for system pressure and all relevant operating and fault messages using the Control Smart App via Bluetooth communication.

Control Smart enables convenient wireless operation via Bluetooth using an app for smartphones and tablets running either iOS or Android to provide simple commissioning as well as visualisation of system operation. The following functions are available:

- Automatic setting of the time and date
- Setting and adjusting the minimum operating pressure p0
- Switch-on times for permanent and interval degassing can be freely specified and entered by the operator
- Free configuration of day of the week and time for interval degassing operating mode including a summer function
- Status, warning and error display relating to facility pressure and operating states including diagnostic instructions and handling recommendations
- Automatic software updates

Control unit completely assembled and wired ready for connection according to VDE regulations, mains power cable and mains plug, system connections by means of integrated shut-off valves.

Method of functioning in optimised operation with cycles for continuous and interval degassing. Actuation takes place via an integrated system pressure inter-

pretation unit with automatic interruption and fault messaging upon exceeding of the running time and/or the number of cycles. Documentation and control of the entire system in respect of the above mentioned parameters.

