

# Servitec S, self-optimising vacuum-spray tube degassing with make-up



## Features

Type	S
Max. system volume	6 m <sup>3</sup>
Max. system volume glycol	4 m <sup>3</sup>
max. perm. operating temperature	70 °C
operating pressure	0.5 - 4.5 bar
Max. perm. operating pressure	8 bar
minimum inlet pressure makeup	0.10 bar
Max. sound pressure level	55 dB(A)
Electric connection	230V/50Hz
Pressure side connection	G 1/2"
Connection outflow side	G 1/2"
Make-up connection	G 1/2"
Separation level, dissolved gases to	90 %
Max. partial volume flow network	0.050 m <sup>3</sup> /h
Max. volume flow makeup	0.080 m <sup>3</sup> /h
Max. electrical rated power	0.20 kW
Height	572 mm
Width	340 mm
Depth	211 mm
Weight	13.80 kg

## Description

### Servitec

Vacuum spray-tube degassing system for system and make-up water degassing in sealed heating water and cooling circuits, configured as a fully automatic multi-function unit with "auto-start" function and automatic hydraulic compensation of the degassing process as well as control and monitoring of the make-up water function.

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.

Communication electronics comprising:

- RS485 port (galvanically isolated) for the connection of optional communication components
- Including Modbus RTU protocol
- Floating output for forwarding of the group message
- Digital input for signal processing of a contact water meter
- Analogue input for measuring the conductivity
- Input for makeup functional request via external signal

Control Smart works with a plug & play function for independent system pressure detection, enabling convenient wireless operation via 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

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Thinking solutions.

- Status, warning and error display relating to facility pressure and operating conditions including diagnostic instructions and handling recommendations
- Automatic software updates

Safety and function-relevant parameters are protected against unauthorised access.

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.

Vacuum spray degassing of the content, filling and make-up water in self-optimising operation with cycles for continuous, interval and make-up degassing. Controlled make-up via reliable two-way motorised ball valve. Actuation takes place via an integrated system pressure interpretation unit or an external 230 V signal (e.g. a pressurisation station) with automatic interruption and fault messaging upon exceeding of the running time and/or the number of cycles. Alternatively, make-up can be performed from an open system separator vessel. Evaluation option provided by a contact water meter including optional possible capacity monitoring of ion exchangers in the make-up pipe. Documentation and control of the entire system in respect of the above mentioned parameters.