Specification Sheet



Servitec Vacuum Degassing:

Reflex Servitec vacuum spray tube degassing unit with integrated automatic refill for closed heating or chilled water circuits which are equipped with pressurization units as well as installations with static pre charged expansion vessels.
Active and central degassing of the installation according to the principle of vacuum spray tube degassing. Unit existing of a hydraulic part and a Reflex Control Basic operating unit. It is featuring an "auto-setup" function including a self-optimizing operation.
The de aerator eliminates entirely the free gases in the installation and withdraws up to 90% of the dissolved gases of the installation water. The vacuum degassing of a partial flow of the installation water is processed according to an optimised time schedule with selectable degassing programmes.

After a period of continuous degassing (adjustable and depending on the installation volume) at the start up, the control switches automatically to an economic mode (interval degassing).
The floor standing (wall mounting possibility for type 35 only) hydraulic component is standard provided with a discharge and with isolating lockshield ball valves on all connection pipes. Both the inlet line equipped with a strainer and the supply for the integrated automatic water make-up are connected to a three-way electrically actuated fail safe ball valve.

Possibility to connect the make-up supply to the water mains or to a break tank (eventually also for glycol mixture make-up). The vacuum spray tube, which has an optimal diameter/height ratio, is manufactured from stainless steel and has EC approval mark. The multistage pump discharge is connected to a modulating electrically actuated ball valve with position optimisation through the microprocessor control.

The Reflex Control Basic is integrated in a sturdy pre wired plastic cabinet which has IP 54 protection class and in which all electric and electronic components are integrated. The control panel is consisting of a display and a membrane keyboard which is insensitive to dirt. The Control Basic is a fully automatic freely programmable microprocessor control unit. On the two-line LCD screen, operation mode, failures and system pressure are indicated in plain text. (16 language display). Also two function-LED indicate the unit to be in automatic mode and malfunction. The control features a parameter- and error memory. This way it is possible to display in chronological order the last 20 error messages with indication of date and time.

The control as standard is provided with:
-RS 485 Interface for transfer of complete operation information to a BMS e.g. by use of a bus module or for data exchange between multiple Reflex control units
-a volt free output for common fault message.
-an input terminal for evaluation of a contact water meter pulse

The control is reading the system pressure via a pressure transducer-The degassing of a partial flow of the installation water is processed according to an optimised time schedule with selectable degassing programmes. After a period of continuous degassing (adjustable and depending on the installation volume) at the start up, the control switches automatically to an economic mode (interval degassing).
When the water make-up is activated, error message will be triggered if the water make-up cycle goes over a time limit and/or if the number of make-up cycles is exceeded over a given period. This will result in an error message in both cases and interruption.
In case the water supply line is fitted with a contact water meter, also the total added water volume is indicated on the display and an error message is activated in the event of overshooting the maximum

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make-up volume (added up). This is also the case when the established input make-up quantity is exceeded against an input volume in one filling cycle, or if the make-up system because of malfunction lets water through without being activated by the control

The microprocessor control is mounted in a pre-wired cabinet which has IP 54 protection class. On the LCD screen operation mode, failures and system pressure (only in case of installations equipped with traditional vessels) are indicated in plain text. Also two function-LED indicate the unit to be in automatic mode and malfunction. The control features a parameter- and error memory. This way it is possible to display in chronological order the last 20 error messages with indication of date and time. The control as standard is provided with a volt free output for common fault or via a RS485 cable interface(option) it is possible to transfer complete operation information to a BMS.

The Servitec has a dual program operational as follows: Level Control Mode / Magcontrol Mode. Levelcontrol Mode Program is used for mainly degassing function combined with a Variomat Pressurisation System Installation - but can be used for water make up if used with a Reflexomat Compessor Pressurisation System .

Magcontrol Mode Program: To be used as a Pressure unit in conjunction with pre charge expansion vessel where the Servitec will keep the pressure in the system – mainly for smaller volume systems as more economic.

Models: Standard Type	30	35	60	75	95
Working Pressure max bar	2.0	2.5	4.5	5.4	7.2

suitable for systems of 220 cubic mtr. And 12,000 ltr for Servitec 30 (wall mounted)

Bigger options available in either function depending on system volumes and pressure requirements.

Power: 230V 50Hx 1 Phase

The Servitec Vacuum Degasser is installed into closed loop systems to improve the efficiency of the system by elimination of free air, micro-bubble and saturated gases from the system media. The elimination on oxygen (stops corrosion early) and mainly Nitrogen to improve the efficiency of the pumps by having gas free media protecting seals and creating a more efficient media effectiveness. Since the Servitec also takes out the oxygen then chemical treatment in the form of inhibitors is not required thus possibly avoiding foaming in the system.

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