



# SAUTER Compact ASV115

VAV control system for the control and monitoring  
of critical environments.



## Customised air-conditioning for the **pharmaceutical industry and R&D** with intelligent solutions from SAUTER.

### **Proven technologies and energy-efficient solutions from the specialists.**

For many decades, SAUTER has set the standard with a plethora of technical options in building automation for the pharmaceutical industry, universities, research institutes and hospitals. With our experience and our extensive references all around the world, we are proficient project partners for the planning, implementation and operation of clean rooms and laboratories. In addition, we are always striving towards improved energy efficiency, which means that SAUTER systems are cost-effective and environmentally-friendly solutions.

# Where **clean rooms** have to be securely integrated into a building management system: SAUTER's system expertise.

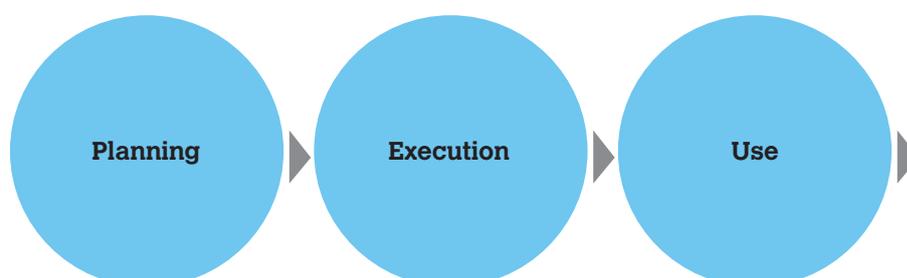


## **SAUTER integrates without the need for interfaces.**

Clean rooms, laboratories and fume cupboards cannot and should not be regarded in isolation. Their control is invariably part of a master building management system, irrespective of whether this is run electronically or pneumatically. As a specialist, SAUTER can guarantee the interface-free integration of the sub-system into the overall system.

## **The perfect symbiosis of consultancy, product and service.**

In order to guarantee the highest possible level of security, comfort and visible energy efficiency in buildings with specific requirements, SAUTER advises its customers right from the initial planning phase. This helps to set up systems and put them into operation more quickly and more economically. It goes without saying that SAUTER provides services that comply with GMP and FDA standards with regard to system qualification. The same applies to the dependable quality of each component. Each one of them fulfils the requirements of the system, comes from our own production facilities and is more than worthy of bearing a coveted seal of approval: 'Made in Switzerland'.





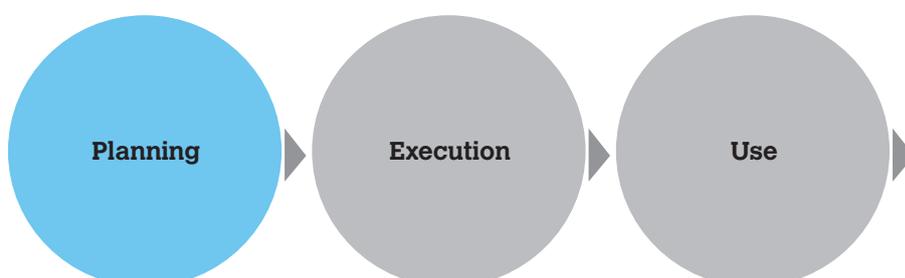
## A simple solution for complex requirements: **SAUTER ASV115** in clean rooms, laboratories and fume cupboards.

### **SAUTER expertise: the specialist for critical environments.**

When it is a question of volume flow control in so-called 'critical environments', the highest possible level of expertise is demanded for system planning and the selection of suitable components. Because of its many years of experience, SAUTER is known throughout the world as the proven specialist for the control of critical applications – in both research and production areas of the pharmaceutical industry, as well as in universities, research institutes and hospitals.

### **Rapid implementation, rapid control – with universal technology.**

The control of room pressure, laboratories and fume cupboards demands fast control loops to be able to satisfy the stringent requirements of the user and to fulfil statutory regulations. With the Compact ASV 115 from SAUTER, a solution is provided for VAV control that is based on an integrated system with easy installation and the use of standardised, fully tested applications. This simplifies and accelerates all the processes from planning to commissioning. In addition, reliable monitoring and trouble-free maintenance are guaranteed throughout the entire period of use.

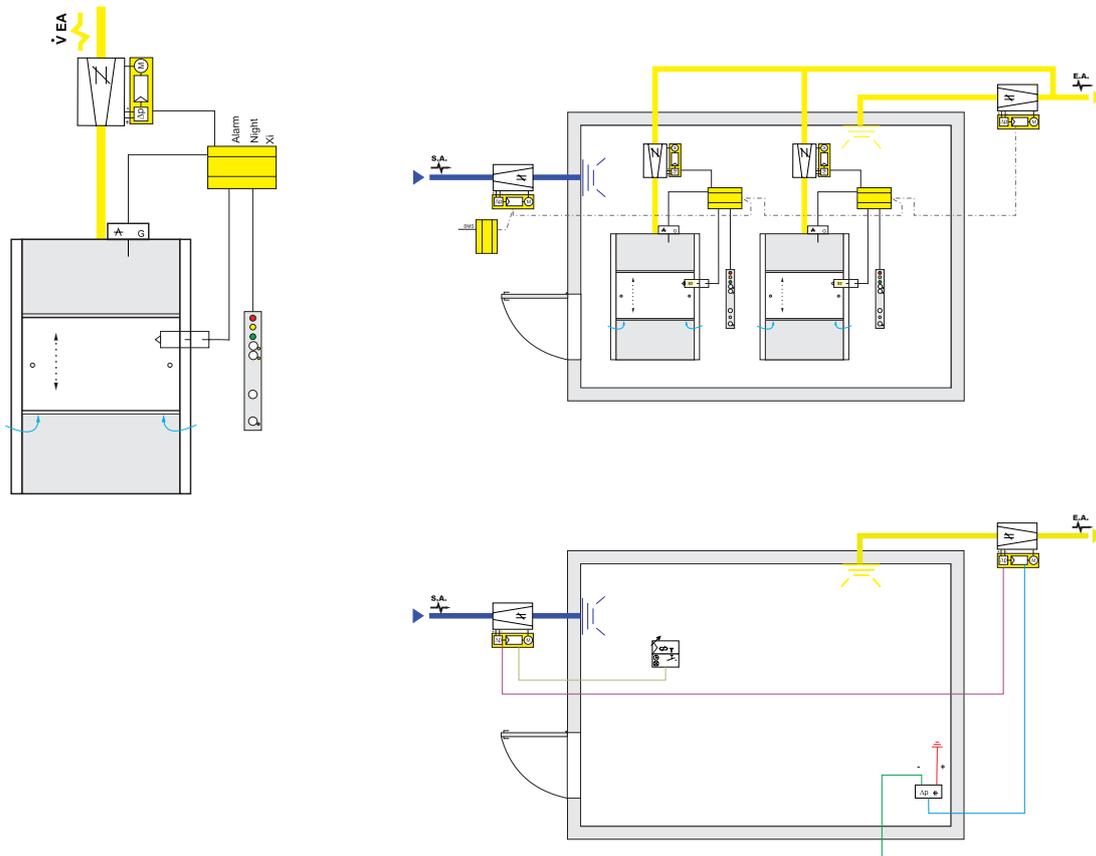


**SAUTER security for personnel and the environment – tailor-made and always ideal.**

The objective of VAV control is the comprehensive protection of laboratory personnel and the safeguarding of the smooth operation of fume cupboards. To be able to meet complex requirements, the software of the SAUTER ASV115 can be configured individually. In this respect, the ventilation of laboratories using VAV control systems is mandatory. By using special strategies to control the air quality in a laboratory, any air-borne impurities can be securely prevented.

**Positive- or negative-pressure control – completely according to your requirements.**

The solution with SAUTER VAV Compact ASV115 is designed for clean rooms with positive- or negative-pressure control using either return air or supply air. With this solution, room pressure tolerances of  $\pm 5$  Pa can be regulated with stability. Room pressure limitation is included using a cascade room pressure controller on the supply air volume controller. Here, the room pressure controller has a limitable volume flow effect of up to  $\pm 30\%$  on the volume flow controller. In this configuration, no door contacts are needed in order to freeze the room pressure control. The settling time after opening and closing a door does not exceed 15 seconds.



Perfect synthesis in a single device:  
optimal **hardware and software**  
for your application.

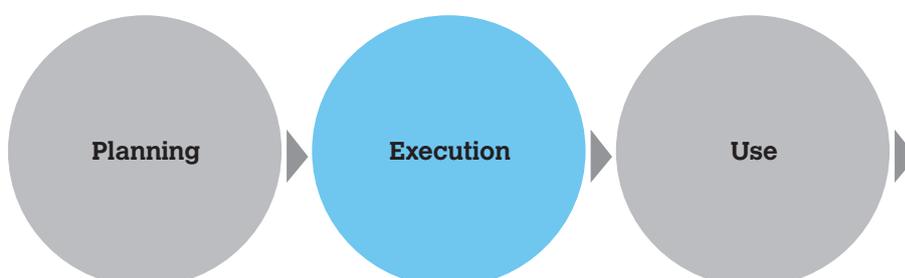


**Three into one: the SAUTER ASV115 compact VAV control system.**

Whereas the components of a VAV control system with fast damper drives traditionally had to be installed as separate units, SAUTER's ASV115 system has introduced simplification in three different ways: the sensor, controller and drive are all in a single unit – in the ASV115 compact electronic VAV controller. The application defined during system planning is downloaded onto the ASV115 using a PC.

**Integrated into a single system: sensors, controllers, drives and ideal interfaces.**

In order for it to operate correctly, a VAV control system needs a sensor unit, a controller and a drive. Laboratory fume cupboards also need a monitoring system, consisting of an FCIU (fume cupboard interface unit) and FCCP (fume cupboard control panel). SAUTER products that are perfectly matched to each other reduce the number of components required, which makes the handling of the entire system significantly easier.



# Latest **component technology**: reliable, precise and energy-efficient control from SAUTER.

## **Fast drive: 0 to 90° in 3 seconds.**

The ASV115 compact damper drive stands out thanks to its exceptional characteristics, even as regards its basic operation:

- Only 3 secs. running time for 90° damper angle
- Controllable running times up to 15 seconds, thanks to brushless DC motor
- With 10 Nm torque, also suitable for large volume flow boxes
- Long service life, even when subjected to heavy operation, thanks to electronic and mechanical torque limiters
- Freely configurable inputs and outputs for many different applications



## **Integrated static sensor with high level of accuracy.**

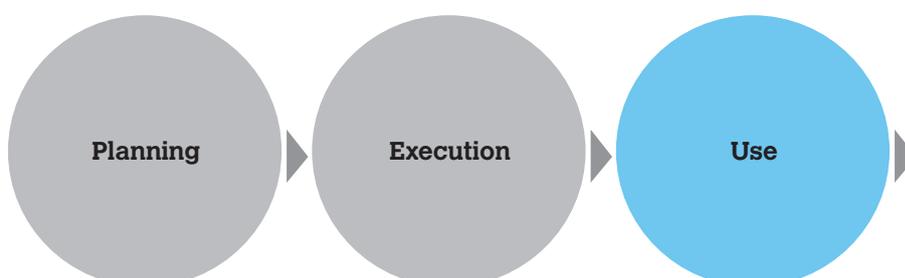
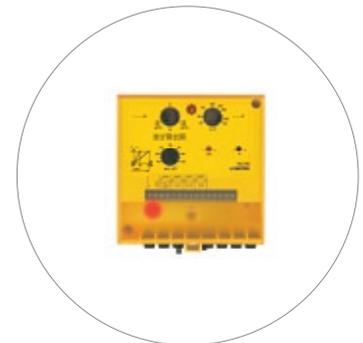
The differential pressure sensor integrated into the drive is a static sensor with a silicon membrane and capacitive measurement method:

- Thanks to the static measurement method, can also be used with contaminated return air
- Highest level of accuracy, even when used for very low differential pressures down to  $\Delta p = 1 \text{ Pa}$ , e.g. for night set-back with minimal volume flows
- Automatic positional compensation enables drive to be installed in any position
- No periodic zero balancing necessary, which prevents uncontrolled system conditions

## **High-precision room pressure controller.**

In conjunction with the ASV115 VAV controller, the RLE150F100 room pressure controller forms the perfect combination for controlling room pressures in sealed rooms:

- Measuring range adjustable from  $-20 \dots +20 \text{ Pa}$  to  $-50 \dots +50 \text{ Pa}$
- Static pressure sensor with long-term stability
- Sensor resistant to common disinfectants
- Integrated PI controllers for issuing the setpoint to the VAV controller
- Calibrated version possible
- Robust industrial version



### **Flow transducer for laboratory fume cupboards.**

The transducer is used for measuring the air inlet speed for laboratory fume cupboards with horizontal and vertical front sashes:

- Easy to install in roof of fume cupboard
- Flow measurement for air speeds up to 1 m/s
- Positive identification of the direction of flow
- Integrated particle filter to prevent contamination of the sensor element



### **Function display for fume cupboards helps to ensure your safety.**

A function display which complies with standard EN14175 is used for monitoring the safe operation of a fume cupboard. It is designed for simplicity, flexibility and maximum operating convenience:

- Can be flush-mounted in fume cupboards
- Parameterisation via connector without direct access to device
- Quick, error-free installation thanks to plug connectors



### **Front sash sensor for fume cupboards.**

The sensor detects the vertical position of the front sash on fume cupboards:

- Measuring ranges up to 1 m with excellent reproducibility
- Easy to fit onto the counterweight of the front sash
- Non-wearing measurement system
- Can be calibrated for special measuring ranges





**Systems**

**Components**

**Services**

**Facility Management**

7001087003 V5

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