

Industry

Building Technologies

For the trade press

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High-value HVAC valves from Siemens with further improvements

Siemens significantly extended its proven range of standard valves of the 21, 31 and 40 series with flanged connections for use in HVAC plant. The new valves added to the range offer higher flow rates and – together with the existing range – afford finer gradation of the volumetric flow, also resulting in improved control performance and lower energy consumption.

The standard 2-port valves VVF21, VVF31 and VVF40 and standard 3-port valves VXF21, VXF31 and VXF40 with flanged connections and linear actuators for closed circuits and pressure classes PN 6, PN 10 and PN 16 plus nominal sizes DN 15 through DN 150 have proven their worth in heating, ventilation and air conditioning (HVAC) plant and for heat generation and heat distribution.

Good control performance brings cost advantages

Using hydraulic simulation, Siemens engineers precisely determined the flow conditions at extremely high flow velocities and pressures representing 160 m water column to find the best flow path geometry, aimed at avoiding flow noise, extending life expectancy and increasing the volumetric flow. As a result, the range of valves was significantly extended by introducing additional valves with higher flow rates at the beginning of 2008 (k_{VS} values increased by up to 30 percent). Together with the existing valves, the new valves afford a finer gradation. This leads to better control performance which, in addition to enhanced comfort, contributes to lower energy consumption and cost advantages.

Thanks to the higher k_{VS} values, a smaller valve actuator will often do, thus offering attractive savings. For example, to handle a k_{VS} value of 100 m³/h, a new VXF40.80-100 valve with an electrohydraulic SKD62 or electromotoric SQX62 actuator can be used in place of an VXF40.100 with SKC62. The new product combinations are much more favorably priced.

High-value design

The sealing gland – one of the most important parts of any valve – must be absolutely tight, even after millions of valve strokes. In addition, it must facilitate the transfer of force from the actuator to the valve plug with a resistance as small and constant as possible. To accomplish this, Siemens introduced silikon-free and environment-compatible lubricants at the beginning of 2008. These lubricants are suited for temperatures up to 150 °C while ensuring long service life – another factor extending the area of application.

Recently, the valve bodies' coat of lacquer was improved in a number of steps through the introduction of high-grade, ecologically optimized lacquer suited for use in rough environmental conditions. Robust packaging based on a completely new packaging concept protects the valves with a weight of up to 135 kg on their sometimes extremely long shipping routes to all parts of the world.

Right selection made easy

For optimum selection of the valves and actuators during the planning process, the Easy VASP™ valve and actuator selection program is available. In addition, the electronic HIT program for the selection of matching actuators and field devices was recently introduced. Also, the popular Acvatix™ valve slide rule can still be used to find the best valve for a host of applications – fast and accurately.

Press photos



2-port valve VVF.40,65



**3-port valve VXF40.80-100
with electrohydraulic
actuator SKD**



**3-port valve VXF40.80-100
with electromotoric
actuator SQX**

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