SMC's Flow and Pressure Valve Reduces Air Consumption by up to 40%

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The recent introduction of SMC's new flow and pressure valves in the AS-R and AS-Q series respectively, once again highlights the automation specialist's commitment to energy savings. Customers can now enjoy a cut in internal air consumption by up to 25% when using the AS-R pressure valve and an AS-Q flow valve on their cylinders.

Product Manager for SMC Pneumatics, Brian Abbott explains just some of the benefits of using the AS-R and AS-Q series in applications: "Among the many tangible benefits, using these valves helps to shorten the response time of the return stroke and harmonises stroke movements to prevent a harsh jerky start,"

"In pressing applications, these valves enable a rapid supply of compressed air at the end of the stroke, and the valve bodies and plug-and-socket connections can rotate 360° to ensure fast and easy installation."

Energy savings in the compressed air system

SMC's range of pressure and flow valves includes six AS-R and five AS-Q models. "SMC supplies these in R1/8, R1/4, R3/8 and R1/2 connection sizes and for hose diameters ranging from 6 to 12 mm," says Abbott.

"Customers are able to choose between the new AS-R series with its fixed 2 bar supply pressure and the older ASR valves with fixed or variable set pressures depending on the application where pressures are adjusted manually using a handle with a three-part scale".

The pressure valve and flow valve is mounted together on cylinders. The AS-Q flow valve is installed on the working stroke side and the AS-R pressure valve on the return stroke side. "The two valve series have similar designs: the pressure valves consist of regulator, with a check valve and a throttle check valve. The flow valves in the AS-Q series contain a quick supply valve, an exhaust valve and a throttle check valve".

The bigger the cylinder, the greater the savings

AS-R/AS-Q valves are recommended for cylinders with a diameter of 32mm up to 125mm bore, and an inlet pressure of at least 3 bar; "What's truly of value to customers is that savings actually increase with bigger cylinders or higher air consumption levels and larger pressure differences between the working and return strokes,"