



3 INNOVATIVE APPLICATIONS
FOR PNEUMATIC VALVES

Humphrey[®]



Used in thousands of products, assets, and manufacturing processes, pneumatic valves are everywhere.

As an integral component in a diverse range of systems, pneumatic valves stand out for their reliability, effectiveness, and adaptability.

With a long history in manufacturing, you may think that every application for pneumatic valves has already been employed. However, several examples demonstrate that pneumatic valves are the subject of continued evolution and innovation.



Precise Selectable Flow Control

New solenoid valve options are opening up possibilities through proportional control of flow. By varying the input current to the solenoid, **proportional valves** can control output flow with a high degree of precision.

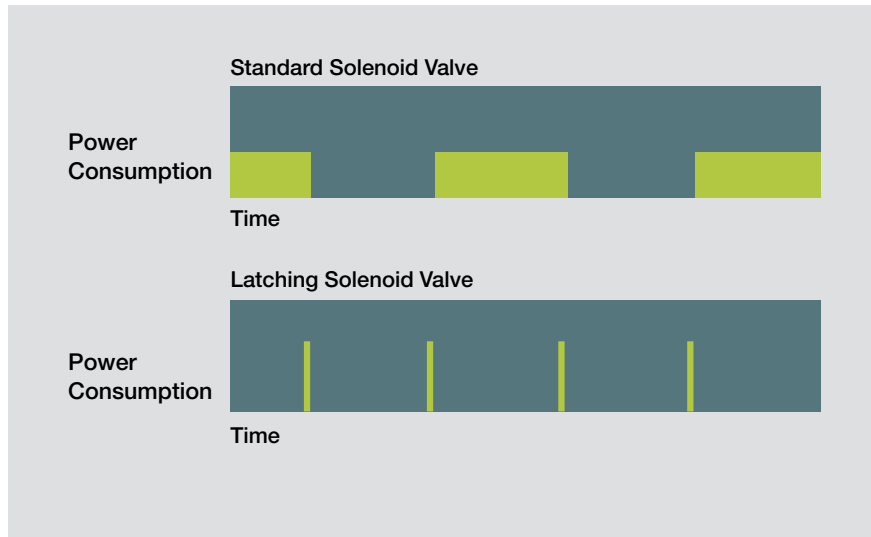
With a wide range of available sizes and flow rate ranges, proportional valves are finding a variety of applications. Smaller valves are used in fixed and portable respirators and ventilators, while larger valves are currently used in textile, semiconductor, and pharmaceutical processing.



Improved Efficiency through Latching Valves

New solenoid valve designs are also helping to reduce power consumption and heat generation for many products and processes. While standard solenoid valves require continuous power to hold the valve in position, **latching solenoid valves** only consume power when switching from one state to the other.

Latching valves are currently used in gas chromatography, irrigation, and other applications requiring continuous, power-free operation and minimal heat generation.



A More Versatile Check Valve

Long used in industrial processes, hydraulics, and safety applications, check valves or non-return valves are used to ensure flow of a liquid or gas in only one direction.

One less-common type of **pneumatic check valves** feature a third pneumatic port used to override the checking function and allow flow in both directions when pressurized. This allows operators to situationally override the normal one-directional operation of the check valve.



Innovation happens when creativity is supported by passion and expertise. At Humphrey Products, we strive to support product design teams with our considerable expertise in pneumatic and fluid valve design and manufacturing.

Through 100 years of service, Humphrey has grown into a leader in pneumatic and fluid valves, tailoring valves for unique solutions, and even engineering fluid handling systems. Humphrey and our network of authorized stocking distributors are trusted collaborators to organizations around the world. Discover how our expertise and dedication to service can help conquer tomorrow's challenges. Get in touch by calling 1-800-477-8707 or find a distributor by visiting **www.humphrey-products.com**.

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