



pneumatic solutions

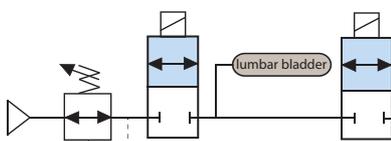


*Custom
"Fill & Bleed"
Circuit*

Long periods of sitting flatten the lumbar curve that leads to a variety of back problems. Seating that lacks proper and adjustable lumbar support and cushion bounce leave their users vulnerable to physical pain and to long-term damage.

lumbar support systems

Lumbar support systems cradle the neutral back curvature, reducing back and neck strain by promoting good posture for long hours of work or driving. This support must be dynamic enough to adapt to a number of different body shapes, while firm enough to provide effective support.



"Fill & Bleed" Circuit



A "fill and bleed" circuit is a combination of pneumatic valve

components used to inflate a volume or apparatus in one controllable function and to release or vent pressure in a second controllable function. These circuits are commonly used in applications where a particular pressure, firmness or position can be controlled with the addition or venting of pressure.

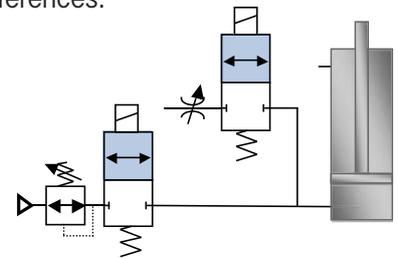


Seat Control Manifold

- Engineering application and product application expertise
- Large inventory
- Worldwide distribution
- Complete line of miniature cylinders, valves, fittings, tubing and more.

ride control systems

These systems utilize pneumatic valves that again "fill and bleed" a device that controls the cushion of the the seat. In these applications, they also incorporate a regulator that allows pressure adjustment based on variables such as weight differences.



"Fill & Bleed" Circuit with Regulator

Clippard has been successfully partnering with progressive companies in the design and development of innovate pneumatic solutions for their unique lumbar and seat support systems.

Contact Clippard to see how our engineering and application expertise can assist in the development of efficient, compact pneumatic assemblies for your next critical project.

Clippard

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pneumatic solutions

lumbar support & ride control systems

relevant products



10 mm & 15 mm Valves

These compact valves offer many features for design flexibility especially in applications with limited space. Available in 2/2 or 2/3 configurations, as Normally-Open or Normally-Closed, flow rates from 14 to 85 l/min are available dependent on the orifice size. Other features include highly-visible LED indicator light and manual override, quick response time, and multiple mounting and voltage options.



EM Stud Mount Electronic Valves

At just over an inch tall, Clippard's EM valves feature a proven design, with high flow rates (15 to 21 l/min), fast shifting speed and extremely high cycle life, making this valve a "small wonder" for air and/or gas control, pilot control, and medical applications where space is limited, but performance is not.

Pressure Regulators

Pressure regulators provide precise air regulation on pneumatic systems. Adjustable and plunger-type styles available.



The **MAR Series** offers flows of 85 l/min @ 3 bar and 142 l/min @ 7 bar, with a maximum inlet pressure of 21 bar.

Aluminum Manifolds

Manifolds are an efficient choice for grouping pneumatic components in applications where space is limited. Standard and custom designs available.



Acrylic Subplates

Clear acrylic pneumatic circuit boards are designed to provide a compact and highly-efficient pneumatic control system, with the use of Clippard products. These boards simplify assembly, reduce piping and help assure the accuracy of connections.



EV/ET/EC/EW Electronic Valves

The E Series pneumatic valves are precision-built 2/2 or 2/3 control valves utilizing a unique, patented valving system. These valves are quiet, quick and produce consistent results. They accept low voltage and current signals, and convert them into high pressure pneumatic outputs. The small size makes them ideal for medical equipment applications.



Stainless Steel Cylinders

Pneumatic cylinders feature polished I.D 304 stainless steel tubes for low friction. Available in 12 bore sizes with strokes to 40". Precision-rolled construction, clear anodized machined aluminum heads, and rods ensure long life and performance.



Needle Valves

Adjustable control needle valves restrict flow in both directions. Clippard offers many models with various needle configurations to provide coarse or fine flow adjustment. M5, 1/16" and 1/8" barbs available. Screwdriver or knurled knob adjustment.



Stepper-Controlled Needle Valve

This high-flow proportional valve features 2% hysteresis, excellent linearity and a 2 ms reaction time. A flow range of 0 to 300 slpm is standard, however this product is highly modifiable. This "SCPV" is ideal in critical applications requiring high resolution, high flow, and low hysteresis.



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Hose & Tubing