



Worldwide Distribution Network

Clippard pneumatic control devices are distributed worldwide via a network of professional sales and engineering specialists. Each Clippard Distributor is ready and eager to assist you with numerous solutions to save you time, money and headaches. Clippard's quality, performance, service, reliability and outstanding value, coupled with our knowledgeable Distributor Specialists are ready to serve you.

For a distributor in your area, visit www.clippard.com/distributors today!

Distributed by:

www.clippard.com

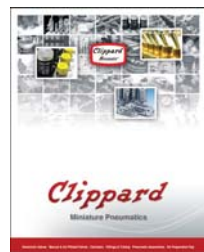
- On-Line Technical Support • Part Number Search
- Product Descriptions & Photos • 2D & 3D CAD Models
- Order Catalogs & Literature • Simple Product Navigation
- Product Configurators • E-Commerce
- Application Ideas • Catalog & Literature PDF Files
- Distributor Contacts • Calculators • New Product Announcements
- Company Contact Information



Quality People
Quality Products!

Corporate Manufacturing & Sales Headquarters
Clippard Instrument Laboratory, Inc.
7390 Colerain Avenue • Cincinnati, OH 45239
1-877-245-6247 • 513-521-4261 • 513-521-4464 Fax

European Distribution & Technical Support Center
Parc Scientifique Einstein
Rue de Bosquet 6
B-1348 Louvain-La-Neuve, Belgium
+32 10 45 21 34 • +32 10 45 25 26 Fax



Full-Line Pneumatic Products Catalog



Scientific Products Catalogs

Catalogs for a variety of languages available.

Clippard

Wire leads to be
7" ± 1/8" with
crimped terminal
10258333-2

"Cleaned for Oxygen
Service" internal
components

5-volt coil less
than 0.5 watt

OUTLET
#10-32 THD.
Stainless Steel
coil housing

Brass base (no
plating needed)

FKM seats

Mounting
holes

Integrated needle
valve for precise
flow control

Toggle-operated
manual by-pass
valve in base

CUSTOM er solutions



www.clippard.com



The Clippard Advantage

Clippard Instrument Laboratory provides thousands of standard and special pneumatic products to design engineers and manufacturers around the world. Clippard has a unique advantage by providing custom products and value-added assemblies based on the most successful miniature pneumatic line in the world.

Clippard is well-known as a quality manufacturer.

However, there is much more to the story. True craftsmanship used in the Minimatic® line is not limited by a numbers standard. Customers have long recognized the partnership they have with the Clippard organization, and have grown to appreciate the high standards self-imposed in the manufacture and testing of each valve and cylinder. Every employee at Clippard is devoted and empowered to provide you with the best product available.



CNC Swiss Turning Centers

Quality People delivering the highest Quality Products!



Cincinnati, Ohio

Fairfield, Ohio

Brussels, Belgium

“Pioneers of miniature pneumatic valves, cylinders and fittings”

William L. Clippard, Jr. founded Clippard Instrument Laboratory in 1941. The initial product line consisted of electrical test equipment, magnetic windings and radio frequency coils. The first miniature fluid power devices designed and built by Clippard were for use in the manufacture of this equipment.

In the early 1950's, Mr. Clippard introduced Minimatic components as a new product line. His first spring-return, rolled construction air cylinder had a 3/8" bore and a 1/2" stroke. Mr. Clippard fabricated the original leather packings from old shoe tongues.

He also created the now standard #10-32 threaded ports, and introduced this new size cylinder and valve port to the market. As #10-32 fittings gained acceptance, they also became the standard for miniature valves. More component types and sizes were added as new markets developed around these popular products.

The need for miniature pneumatics was so widespread that the Minimatic line rapidly became Clippard's primary product line, and remains so today.



Engineering your need with a team approach

Complete SOLUTIONS

Your Need!

- ✓ Design & Engineering
- ✓ Material Selection
- ✓ Production Processes
- ✓ Assembly & Test
- ✓ Finished Product

Your Solution!

flexibility



24/7 automated precision CNCs are set-up and operated by our highly-trained staff

innovation

A variety of capabilities and flexibility allow us to respond to your demands



knowledge

craftsmanship

Unparalleled assembly experience stemming from years of producing thousands of standard and custom pneumatic products



100% testing, KanBan Inventory Systems, and a world-class distribution network



experience



Electronic Valves

Clippard Mouse Series Electronic Valves

- ✓ Functional Simplicity—One Moving Part!
- ✓ 1,000,000,000 Cycle Life
- ✓ Fast Response
- ✓ Quiet Operation
- ✓ Industry Standard for Leak-Free Operation
- ✓ Low Power



EV Series Spider Valves
Clippard's best selling electronic valves. Billions of cycles, low power, fast response, and incredible reliability.



Proportional Spider Valves
The EVP series valves provide air or gas flow control, and vary the flow output based on the electric current input. Ideal for pressure control applications too.



Analytical EV Series Spider Valves
These valves are ultrasonically-cleaned, assembled, inspected and tested in an enclosed controlled area for the special needs of the analytical industry.



ES Series Spider Valves
30 percent smaller than the EV series valves. Manifold mount only.



Oxygen Clean EV Series Spider Valves
These valves are ultrasonically-cleaned, assembled, inspected and tested in an enclosed controlled area for Oxygen use.



Intrinsically Safe Spider Valves
Same design as the EV series. Designed for use in Intrinsically Safe applications.



ECN, EVN, ETN Series Spider Valves
Normally-Open, manifold mount to allow Normally-Closed and Normally-Open valves on the same manifold.



EM Series Spider Valves
Same EV valve technology. Small size with high flow. Compact manifold spacing.

U.S. Patents 3,921,670, 6,220,569

Custom Products Create SOLUTIONS

If you need a product that fits your application perfectly, Clippard has the capability to design or modify one of its products to suit your exact needs. We understand that a standard catalog product may be close but not be exactly what you need. We have the ability and capacity to give you what you want. Our Engineering Department has designed tens of thousands of special variations, modifications or completely special valves, cylinders, fittings and assemblies.



With years of engineering and technical experience, Clippard continues to be a leader in manufacturing special products for a broad spectrum of industries.



“Cleaned for Oxygen Service” Valve with Safety Override
Clippard's engineering expertise solved challenges for this Oxygen conserver application. Clippard integrated a miniature needle valve and toggle override into a special base using our popular electronic valve. Quiet, small, economical, extremely long life.



Tight Assemblies
Cartridge design is desirable for integrating valves into compact assemblies. This EVP proportional valve is calibrated to meet the customer's flow range and maintain “zero” leak rate, and is incorporated into the OEM's manifold.

Compactness and ease-of-installation is critical for this customer's need. Clippard's Stud Mount series valve is adapted to meet the need for an inline-mounted gas valve.



10 mm Valves
Clippard's smallest electronic valves come with manual overrides and work with air, gas, and other compatible fluids.



15 mm Valves
These direct-acting valves are offered in AC and DC voltages, and work with vacuum to over 150 psig.



Maximatic® Direct-Acting Valves
Single-solenoid, spring return poppet-type valves available as either 2-way or 3-way models up to 1/4" NPT.



Maximatic® 3-Way & 4-Way Valves
Available in a variety of sizes and voltages, in stock for immediate delivery.

Clippard's Electronic Valves are incredibly flexible from a production standpoint. Just let us know what you need.



- Custom Voltage
- Custom Flow Rate
- Custom Max Pressure/ Vacuum

Custom Ports & Connectors



This application requires a special connection to a MAPP gas canister. The valve is tested for response time and flow rate, which delivers a consistent amount of gas each cycle.

Not your every day 10 or 15 mm valves!
Specially-designed high-flow 2-way valves that can pass twice as much gas or liquid flow than other valves.



Integrated Solutions
How else can we make it easy? This application requires special pressure decay testing and the assembly of customer specified fittings, connector and special labeling.





Mechanically-Actuated Control Valves

Clippard Minimatic® control valves are available in poppet or spool design; 2-way, 3-way, or 4-way functions, in sizes from #3-56 and #10-32 through 1/8" NPT ports; and for pressures to 300 psig.



Stem Valves

Stem valves are mechanically-actuated 2-way, 3-way or 4-way air valves with brass bodies for actuation with push buttons, air pilot actuators, cam followers, and a variety of other methods.



Toggle Valves

Clippard has the largest variety of high-quality toggle valves in industry today.



Push Button Actuators

Offering versatility throughout the valve line, these actuators are usable with a large variety of Clippard control valves.



Air Switches

These air-actuated electrical switches are offered in a variety of pressure ranges.



Air Actuators

Air pilot any stem-actuated valve. Choose from multiple pressure ranges.



Check Valves

Clippard Minimatic check valves are found in thousands of applications across hundreds of industries.



Regulators

Robust, durable, and miniature! High quality, as you expect from Clippard.



Flow Controls

Miniature in size, and available with a variety of tapered needles for proper flow control for your application.



Air-Piloted Valves

Clippard's Maximatic® line provides high flow for industrial applications, very economical prices, and fast delivery.

MARKETS

air quality monitoring • anesthesia • blood pressure monitoring
breathalyzer systems • dental equipment • gas analytical
gas chromatography/mass spectrometry • gas monitors
leak testing • liquid transfer • material handling
medical analysis equipment • oxygen equipment
oxygen therapy • packaging • paintball equipment
liquid dispensing

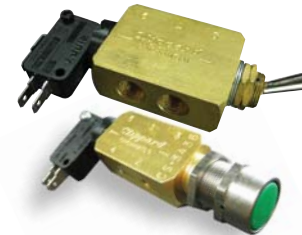
CUSTOMer SOLUTIONS



Clippard's unparalleled history in providing new and innovative products continues today with advanced manufacturing machines and techniques, experienced design and application engineers, and a work force that is not only experienced, but one that genuinely wants to exceed the customer's expectations. We take great satisfaction in shipping you a quality product.



In system subassemblies, manifold-mounted components are desirable for any integrator. In this design, Clippard utilizes the miniature regulator series and an air-piloted 2-way valve mounted on a manifold adjacent to our electronic valve.



A combination assembly using a toggle or push button operator and Clippard's pressure-actuated electrical switches provides a simultaneous air and electrical output.



A valve used in dental applications features ports located straight out of the back for ease-of-assembly in a tight space. It also incorporates a special toggle to match the customers' aesthetic requirements.



This air-piloted valve is designed for a water application where limited space is available.



Cartridge Versions

A 3-way cartridge toggle valve allows all flow paths to be routed through a manifold. Cartridge valves can save space, and are ideal for integrating into plastic molded units.



Simple, Small & Robust!

This stainless steel check valve meets unique customers' need at an affordable price.

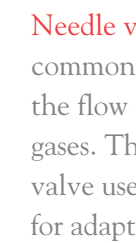


Use any combination of Clippard's electronic valves to actuate any Clippard control valve with an external supply.



Specials!

Clippard has been and still is a pioneer in miniature pneumatics. This cartridge 2-way valve is small and packs a lot of flow into a very small package. If you don't see what you need in our standard catalog, just call us.



Needle valves

are common in controlling the flow of fluids and gases. This special needle valve uses a "D" stem for adapting to standard panel knobs. It also incorporates a special left-handed thread to provide a more intuitive clockwise movement to increase flow.



Alternate materials, seals and/or lubrication for specific applications are common (and welcomed) requests at Clippard. Stainless steel, aluminum, plastic or brass. All available, just ask!



Additional Product Lines



Air Cylinders

Clippard pneumatic cylinders are available in stainless steel, brass, and aluminum, and are available in 12 bore sizes with strokes up to 40". For harsh environments, the CR series product line is also offered.

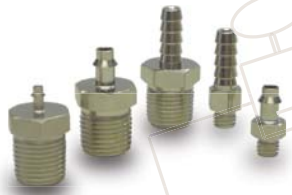
Modular Valves

Available in industry's largest variety of directional, flow, pressure and special control valves, each Modular valve is encased in a body designed to mount and link together with a simple piping system. They are the supreme "plug and play" device for pneumatic control applications.



Brass Fittings

Clippard brass fittings include thread sizes #3-56, #10-32, 1/16" and 1/8" NPT. Clippard provides a comprehensive offering of over 50 styles.



Push-Quick Fittings

Push-quick fittings speed tube insertion for assembling pneumatic circuits. The fittings provide a simple method to connect pneumatic components and accept a variety of flexible tubing.



Hose & Tubing

Clippard offers an extensive variety of miniature hose and tubing from copper and nylon to flexible polyurethane, vinyl and Buna-N. Sizes include 1/8", 1/4", 5/32", 6 mm, 8 mm, 3/8" and 1/2" OD in various styles.



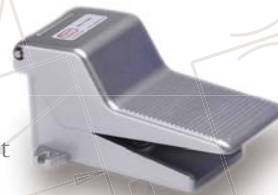
Maximatic® FRLs

Clippard's Maximatic line includes a complete series of FRLs with five different sizes from #10-32 to 1" NPT of Filters, Regulators, Lubricators and combination units.



Foot Pedal Valves

Hands-free touch-of-toe operation of endless types of automated and semi-automated machinery and equipment through use of Clippard's foot pedal valves.



Manifolds

Manifolds provide a convenient means for locating multiple pneumatic products in a centralized location. Benefits include lower cost, more compact design, single-or double-side mounting, and a variety of materials.



Slip-On Fittings

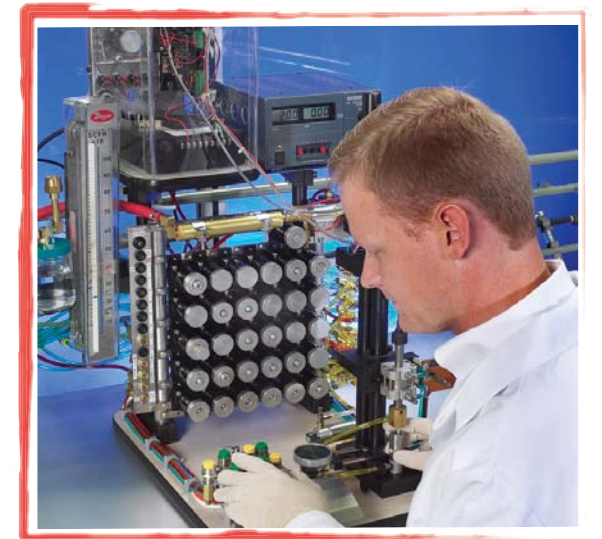
Minimatic slip-on fittings provide a flexible, easy alternative to ferrule and push-to-connect fittings. The compact design of the fittings are ideal for applications where convenience and size are considerations.



aerospace • agriculture • analytical • animatronics
automation • automotive • dairy • electronics
food & beverage • HVAC machinery • medical • mining
packaging • pharmaceutical • printing • process • recreation
semiconductor • textile • transportation

Custom PRODUCTS

Clippard offers expertise in a wide variety of markets and applications. From Analytical to Printing, Assembly to Packaging, our products are engineered to the exact specifications you require. Supported by a platform of over 5,000 standard products, as well as customized solutions, we have the capability to provide you with a full range of products designed to meet the demands of your unique application.



Bleed Valve

This miniature device is a vent or bleed valve that uses a tire stem valve in a small panel-mounted body with integral hose barb.



Positioning or Ejecting

Clippard has developed a variety of miniature cartridge cylinders for compact applications where positioning or ejecting of parts is needed.



Standard fittings don't always fit!

Clippard manufactures custom fittings to meet your exact requirements.



Valve/Push Button

This custom valve was developed using Clippard's standard 2012 air-piloted valve and a red panel-mounted push button. This combination provides 22 scfm and a low force direct actuation.



Circuit Control

Venturi systems can be an essential part of control circuits that utilize vacuum. Clippard developed this unit to complete a control circuit that contains 100% Clippard products.



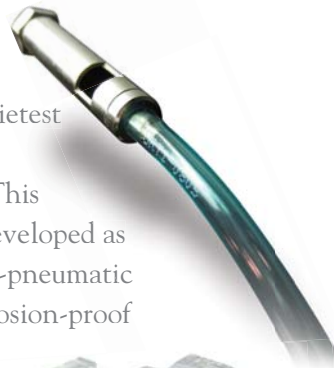
Custom Cylinders

"Twice the force in half the size" was the goal for one custom cylinder. Multiple cylinder positions, or multiplied force can be achieved with this design.



Warning!

Clippard's electronic valves are some of the quietest on the market, but not everyone needs silence. This pneumatic whistle was developed as a warning signal in an all-pneumatic system design for an explosion-proof environment.



Speedy Circuit Assembly

You can have a faster, more dependable way to produce multiples of the same pneumatic circuit. This system enables speedy assembly while assuring accurate connections. By utilizing Clippard's unique manufacturing process, these clear acrylic subplates provide sealed passageways between valves without the need for gaskets, clamps, or piping. It's the fastest, most efficient circuit system available.

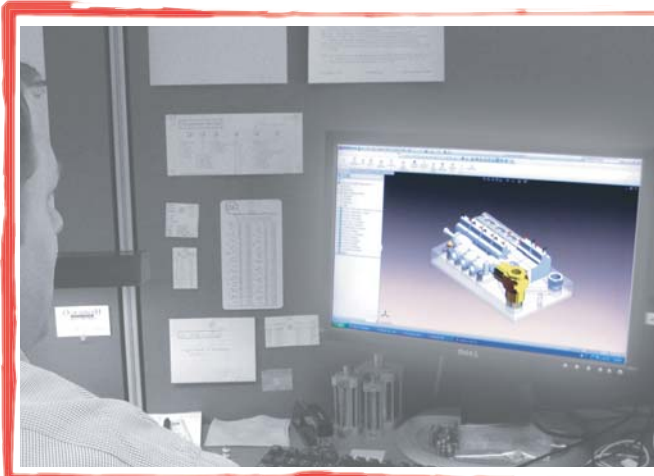


Clippard produced the first rolled-construction cylinder in 1949. Since then, we have produced thousands of special configurations from cartridge designs to low break-away miniature cylinders.

INTEGRATED SOLUTIONS

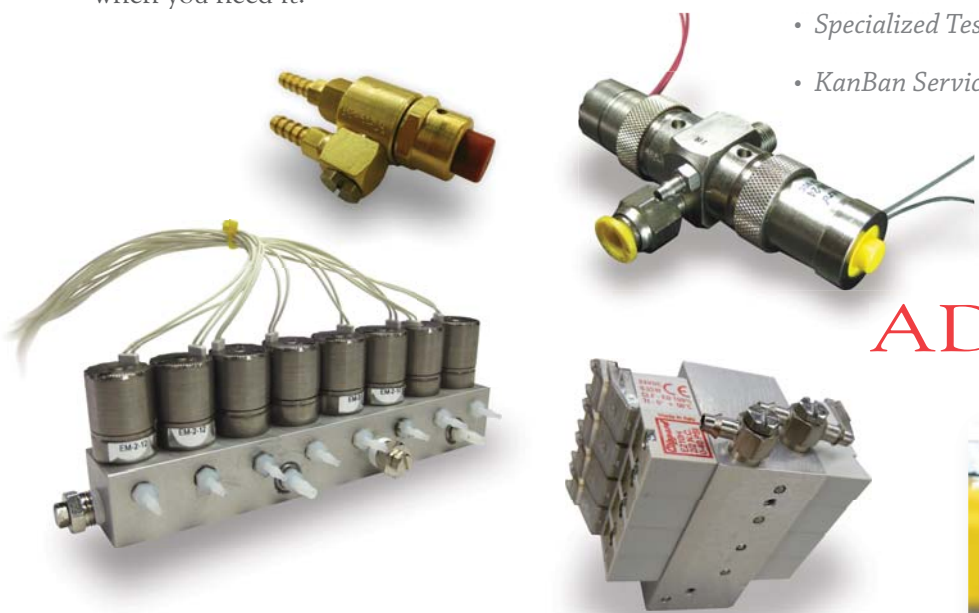
Engineered Solutions & Assemblies

We have an expansive line of components that are used in thousands of applications across many markets. It is this experience and knowledge of our own products that is now available to our customers when collaborating with Clippard to develop the right solution. Our Production, Engineering and Sales staff will come together with your organization to design, build, test and ship your pneumatic assembly when you need it.



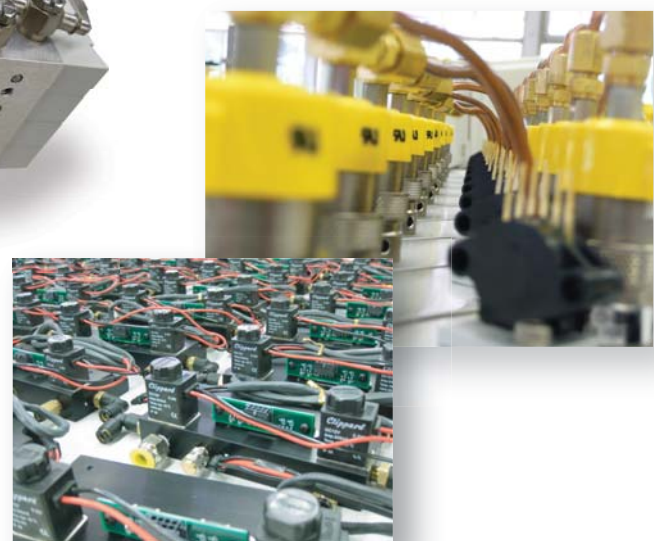
Clippard offers the following services:

- Pneumatic Assemblies
- Special Manifold Designs
- Manifold Assemblies
- Pneumatic Circuit Design
- Control Boxes
- Fitting & Tubing Harnesses
- Component Kitting
- Specialized Testing
- KanBan Services



ADDING VALUE is our business

Clippard's goal is to optimize system design, increase performance, reduce cost, and allow our customers to concentrate on their core competencies.



Value-Added Solutions for Your Pneumatic Needs



Advantages

- 100% tested sub-assemblies
- Less component stock/inventory
- Fewer vendors and purchase orders
- Requires less manufacturing time
- Increase production efficiency
- Specialized support
- Overall cost reduction
- Taking advantage of Clippard's expertise

Methodology

