



Air Engineering and Supply

In partnership with ***Clippard***



Air Engineering and Supply

Air Engineering and Supply Receives Two Clippard Awards in 2017 For Outstanding Sales And Growth Achievement

Air Engineering and Supply, a major Midwest distributor of Fluid Power and Pneumatic components and value-added assemblies, received two awards for outstanding sales and growth from Clippard Instrument Laboratory, Inc., of Cincinnati, Ohio.

Outstanding Sales And Growth Achievement

David Maurer, president of Air Engineering and Supply received two awards from Chris Shockley regional manager from Clippard Instrument Laboratory, Inc.

Air Engineering and Supply's first award, called the Golden Sales Award, was for achieving third highest overall product sales among all Clippard distributors nationally for the year 2017. The second award, called the Achiever Award, was for achieving the second highest overall product sales growth among all Clippard distributors nationally for 2017.

Air Engineering and Supply has partnered with Clippard as both a distributor and systems integrator using Clippard's valves, cylinders, fittings and other components. These products are mechanically sized correctly for each application and provided to end-user manufacturers for accurate motion control in a wide range of applications and industries.

Mr. Maurer stated, "these awards exemplify the skilled teamwork by Air Engineering and Supply employees to provide solutions for our growing customer network. Together with Clippard's superior products, we are able to form strong and lasting partnerships with our customers that generate growth."

Large Local Inventory

Air Engineering and Supply has a large, local inventory. This allows us to provide same day shipping on thousands of items and could save you money on shipping costs.

We are willing to work with our customers to help manage their inventory levels by stocking frequently purchased items at our location. We are constantly evaluating our stocking levels to determine if we are providing our customers with the best service possible. If we don't have an item in stock our extensive relationships with vendors from around the country allow us to get the items quickly.

Pneumatic Value Added/Kitting, Sub Assembly and Complete Assembly

Air Engineering and Supply has been the premier distributor for Pneumatic components and products in the Midwest for over 60 years.

With that kind of experience, we have become experts at kitting, sub assembly and complete assembly applications. Combining multiple products under one part number enables you to order, receive, stock, and pay for large line item orders easily and efficiently. This is especially useful when groups of products go directly to production as sub-assemblies or kits. By taking advantage of our experience in producing mechanical assemblies you can save your staff valuable time assembling individually purchased components into sub-assemblies.

What can we do for you?

- **Challenge us with your problems**

Call Toll Free 800.332.4181

- **Visit our online web store**

www.airengr.com

Clippard

Clippard is a third-generation family-owned and operated company. We have been proudly manufacturing in the United States of America for more than 75 years. Although many things have changed since our founder Leonard Clippard first began making coils out of his home in 1941, the fundamental principles he instilled in his company have endured. Our motto "Quality People, Quality Products" emphasizes the importance we place on relationships. Putting people over products was important to Leonard and it's a philosophy that remains deeply embedded in our company culture. This extends not just to our employees but to our customers, our distributors, our suppliers, and our community.

It is this unique culture that has allowed us to rise above our competition—a culture rooted deeply in our company's rich history, strengthened by our values, and cultivated by the efforts of many dedicated people over the years. Though it may be difficult to describe, it is unmistakably felt. Let us show you what it means to work with Clippard.



To learn more about Clippard's history, visit clippard.com/link/history

CLIPPARD'S CREDO

We are engaged in honorable work, providing the world with useful, productive, affordable products.

We do this with the distinction of a long reputation for quality, service, performance, and value.

We deal fairly. We keep our word.

We understand profit is a vehicle to our purposes and not our only purpose.

We support our community.

We enjoy what we do. We are good at it.

We are getting better all the time.

We are grateful to God for our blessings.

We respect and encourage each other.

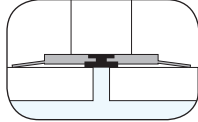
We show pride in our work.

We are Clippard.



TECHNOLOGY

Spider



Invented and patented by Clippard, this deceptively simple design features only one moving part with a mere 0.007" of travel. The spider is an armature spring that undergoes a variety of proprietary processes, including the individual calibration of each spider to its valve. Clippard's experience, quality, and specialized processes surrounding spider technology have led EV valves to become the industry standard for valve life, reliability, response, and extremely low leak rates.

Primary Benefits:

- High reliability
- Exceptional life
- Extremely low leak
- High speed



EV Series
EVP Proportional



DV Series
DVP Proportional



ST/SV Series

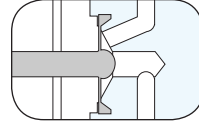


EM Series



ES Series

Diaphragm



Diaphragm valves provide media isolation characteristics to handle a variety of applications where system protection and/or media compatibility are important. Clippard's NIV series valves take this technology to the next level with a highly inert, all-PTFE flow path with no elastomers. Unlike many other PTFE valves, this truly includes all wetted areas—meaning not only a PTFE valve body, but also a PTFE diaphragm.

Primary Benefits:

- Isolation valves
- Single wetted material (PTFE)
- Low leak
- No elastomers

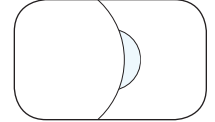


NIV Series
NIV Manifold Mount



NIV Gradient Series

Ceramic



There are stringent and challenging applications that require isolation valve characteristics, but also require a higher level of control beyond the digital on/off valve. Clippard's new patented ceramic technology is the first to provide precise proportional control combined with isolation valve attributes that design engineers need. This single material (ceramic) isolation valve is scalable in its offering of proportional flow control, from microliters up to higher flow applications in a miniature package.

Primary Benefits:

- Proportional isolation
- Excellent resolution
- Low leak port
- Wide media capabilities

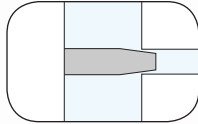


EIV Series Proportional



For more information, visit: clippard.com/link/technology

Needle



Manual needle valves provide simple proportional flow control. Clippard's SCPV series blends the linear and robust flow characteristics of needle valves with a stepper motor, delivering outstanding controllability for proportional applications. By only using power on a position or state change, this technology provides power savings and allows engineers to maintain a specific flow rate or orifice opening while consuming zero power.

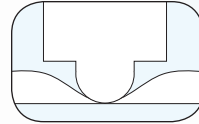
Primary Benefits:

- Less than 2% hysteresis
- Large flow capability
- Extremely repeatable
- Very linear



SCPV Series Manifold
SCPV Series Cartridge

Pinch



Available in electronic or pneumatic versions, Clippard pinch valves provide a completely unobstructed flow path with zero dead volume. This makes them ideal for handling a variety of media, including whole blood or viscous fluids containing particulate matter that would wreak havoc in other valves. The tubing is also easily removed and replaced, an important benefit for applications with strict hygiene requirements.

Primary Benefits:

- Isolation valve
- Laminar flow
- Wide media spectrum
- Zero internal/dead volume

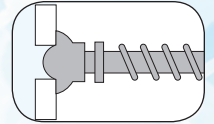


NPV Series 2-Way
NPV Series 3-Way



NPP Series

Plunger



The most common poppet technology in the valve market place, this proven design is ideal for less demanding applications. Plunger-style solenoid valves can offer a great value, providing fast response times and relatively long life at a great price. These designs are commonly utilized in applications where mounting multiple valves on a manifold together reduce the number of fittings, overall package size, and total cost.

Primary Benefits:

- Lower cost
- Wide flow range
- Robust design
- Proven technology



10 mm Series

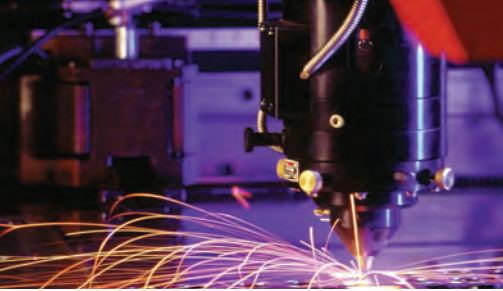


15 mm Series



MME Series





Cordis

Precise, linear pressure control within a closed-loop system with ultra high resolution and repeatability

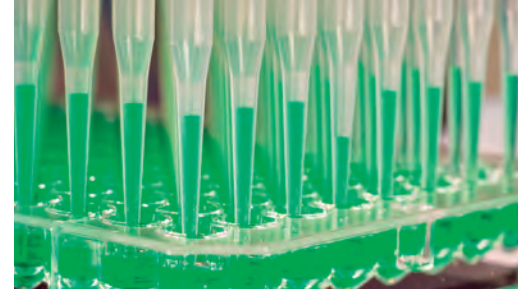
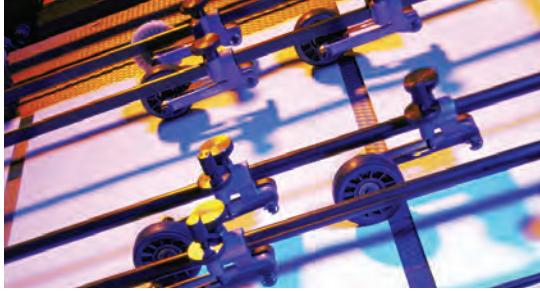
The Clippard Cordis is a revolutionary microcontroller primed for escape velocity from a proportional control market that has grown stagnant. Built with the highest quality Clippard EVP and DVP proportional valves at its heart, the Cordis is designed to outperform the competition in every way. With unparalleled performance and flexibility not possible with current analog proportional controllers, the Cordis makes everything from calibration to sensor variety acceptance to future development opportunities more accessible and less complicated. The future of proportional control has arrived, and it's digital.

Primary Benefits:

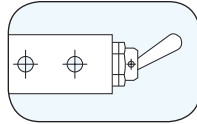
- **Smooth linear control**
- **Integrated internal or external sensor feedback**
- **Multiple flow configurations**
- **Static or dynamic applications with the same proportional control**
- **Proportional fill and bleed control**
- **Customizable pressure ranges and mounting options**

For more information, visit: clippard.com/link/cordis

Typical Response Time	<20 ms (application dependent)
Accuracy	±0.25% of full scale
Resolution	≤5 mV
Max. Hysteresis	±0.05% of full scale
Linearity	±0.05% of full scale



Directional Control Valves



Toggle and stem valves, limit valves, lever valves, foot pedal actuated valves, palm button valves, and more.

Toggle Valves

Stem Valves

Cartridge Valves

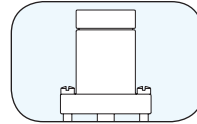
Sleeve Valves

Push Button Actuators

Foot Pedal Valves

Lever Valves

Air Pilot Valves



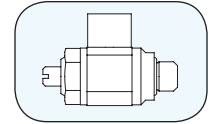
The force output of an air pilot is much more powerful than that produced from electrical solenoids or actuators, making air pilot valves ideal for higher air flow and/or lower power applications.

Low Pressure Valves

Maximatic® Valves

Modular Valves

Control Valves



Available in many different configurations and functions. Sizes range from #3-56 and #10-32 through 3/8" NPT ports, for pressures to 300 psig pneumatic.

Pressure Regulators

Check Valves

Exhaust Valves

Shuttle Valves

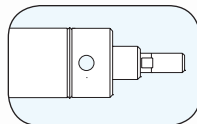
Flow Controls

Needle Valves

Sensors & Air Indicators

Air to Electric Switches

Cylinders



In the early 1950s, Clippard introduced miniature pneumatic cylinders and valves to the industry. No other manufacturer can match Clippard's level of experience or knowledge of miniature components.

Custom Cylinders

Stainless Steel Cylinders

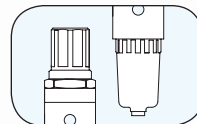
All Stainless Steel Cylinders

Corrosion Resistant Cylinders

Brass Cylinders

Air Volume Tanks

Air Prep Equipment



FRLs condition and prepare compressed air for use in fluid power systems. Pneumatic applications with properly conditioned air will operate longer, cost less, and improve system efficiency.

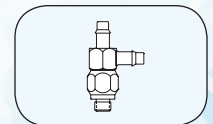
Filters

Regulators

Lubricators

Gauges

Fittings & Tubing



Clippard precision fittings save time, space, and money when designing pneumatic circuits. Choose from a large variety of hose and tubing as well—from nylon to flexible urethane and vinyl.

Push-Quick Fittings

Barb Fittings

Mufflers

Manifolds

Quick-Connect Fittings

Hose & Tubing

Custom Manifolds

ADVANCED TESTING



State-of-the-art clean room facilities achieve ISO 8 (standard 146-441) to particle class 100,000 (FS 209) to provide the specialized cleaning processes your application requires.

In the manufacturing industry, testing products is key. If a component doesn't work or is produced incorrectly, it will impact the entire system it's placed in. Not only have we always tested 100% of the products we manufacture, but testing is at the core of who we are. In 1941, Leonard Clippard invented the first miniature pneumatic cylinder for the purpose of automating test fixtures. Our company has grown from the need for testing. Later, we developed the revolutionary valve concept that became—and remains—the industry standard for leak testing.

Systems across a variety of industries require quick, accurate testing methods which has led to the widespread use of Clippard components. We have become experts in the design and development of leak testing equipment which we use throughout our manufacturing process to test not only the standard catalog products we manufacture, but also a wide variety of custom products and assemblies which are, in fact, at the heart of many leading leak test manufacturer's devices.

SPECIAL CLEANING

Do you have an application which requires special cleaning for its manufacture, assembly or testing? Clippard is able to provide a wide range of special cleaning, inspection, and testing options for components or assemblies.

INCLUDING

- Ultrasonic cleaning of component parts
- Testing using high purity compressed nitrogen in place of standard shop air
- Helium leak testing for ultra low leak requirements
- Baking of seals in order to outgas chemicals
- Inspection of cleaned parts under ultraviolet light to detect oil or fibers
- Inspection of cleaned parts under microscopes
- Use of alternate lubricants/sealants or the exclusion of lubricants/sealants from the assembly process
- Special packaging of parts to ensure cleanliness
- Clean room facilities meet ISO 8 (standard 146-441) to particle class 100,000 (FS 209)

Call **877-245-6247** today to discuss how we can accommodate your unique needs.



Analytical valve sub-assembly with custom acrylic manifold

100% Tested

All of the valves Clippard manufactures are 100% tested, as are all of our sub-assemblies. In addition to the standard tests that we perform, we are also able to provide custom testing to meet the special requirements of your application.

Advanced Leak Testing Capabilities

Understandably, manufacturers of leak decay testing equipment have especially high standards for the valves they use. However, low leak valves are critical in other situations as well—such as for performing chemical analysis, controlling a flammable gas, or achieving a particular level of vacuum. When your application is very sensitive to leaks, Clippard utilizes advanced leak testing capabilities such as pressure decay testing and helium leak detection to ensure that your valves meet your stringent requirements.

State-of-the-Art Clean Room Facilities

Within each of our manufacturing facilities, Clippard has separate enclosed, controlled clean room environments for the assembly, inspection, and testing of sensitive valves and equipment. These areas are specially designed for the pharmacy and biotech industries, featuring positive pressure HEPA filtration systems, airlock isolation enclosures, a vacuum system for cleaning of assembly and testing nests, rigorous cleaning procedures, and special dress requirements. The combination of these efforts results in a high tech, isolated environment which achieves particle counts meeting ISO 8 (standard 14644-1) to particle class 100,000 (FS 209), providing you with the specialized cleaning processes your application requires.

Production Engineering

Clippard is dedicated to continuous improvement and our production engineering team plays an important role in that. As new technologies become available, our team is able to design and implement new fixtures and testing equipment to streamline processes and automation. These efforts translate to lower costs and faster production times for our customers—a benefit that is compounded for modified or custom products and assemblies, allowing Clippard to provide phenomenal production timelines.

High Tech Gauge Labs

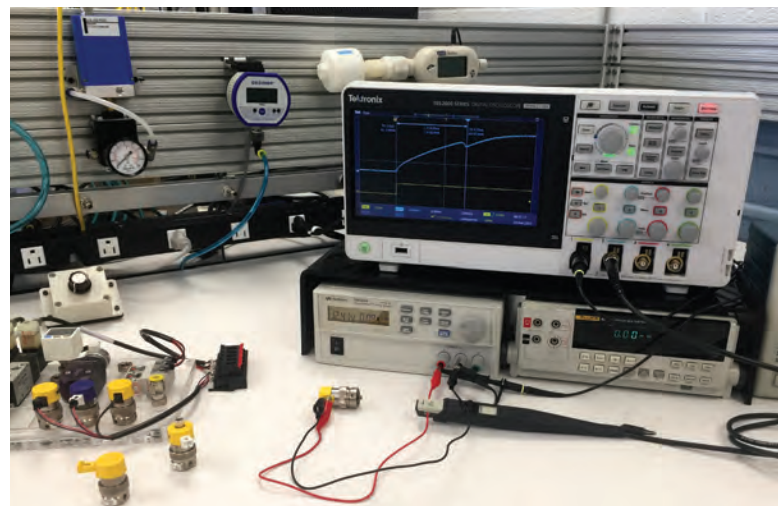
Each of Clippard's manufacturing facilities include high-tech labs equipped with ScienScope VisionWare and Oasis computerized comparators. This enables quick, detailed inspections yielding critical information quickly and efficiently. You can rest assured that we're prepared and ready to assist you if the need arises.

Rigorous Quality Control

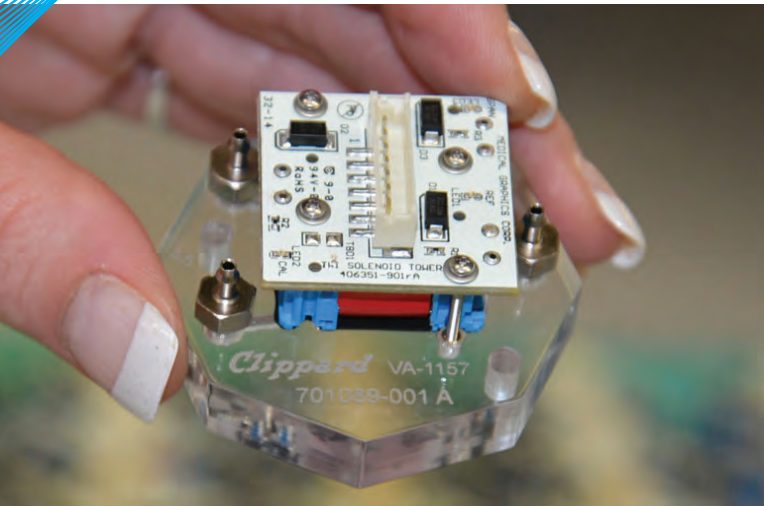
As a family-owned company, we take a special kind of pride in what the Clippard name represents. This is why Clippard has always gone to great lengths to ensure that our products are of the best possible quality. In fact, as far as quality standards go, returns of 3.4% PPM (parts per million) are considered to be world class. Clippard's most recent annual PPM was 0.465%—less than half a percentage point!



ABOVE: Performing helium leak detection test; BELOW: Custom testing station

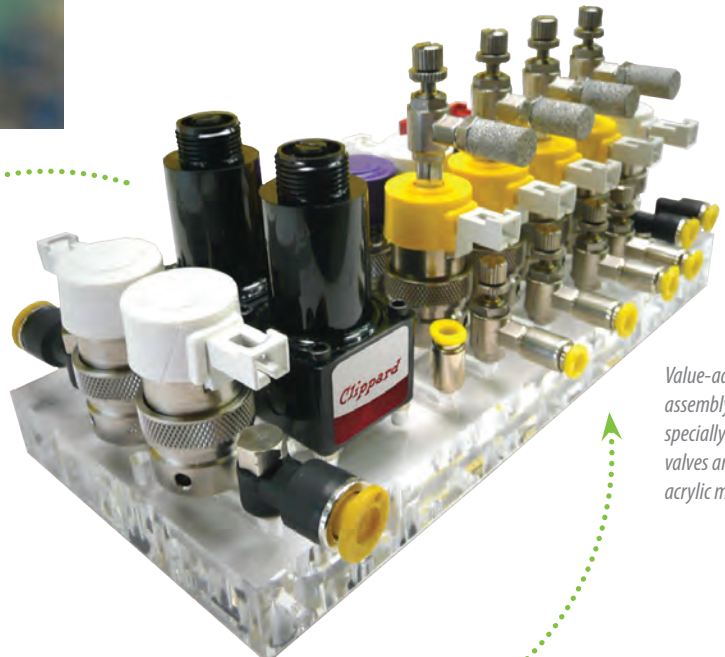


INNOVATIVE SOLUTIONS



Value-added sub-assembly with custom acrylic manifold

Designing efficient systems involves much more than simply understanding a few basic principles. There is a true art to balancing the specific requirements of an application in order to achieve the desired goals in the best possible way. Help us understand the unique needs of your application and together, we'll develop something that surpasses what any of us could have done alone.



Value-added assembly with specially calibrated valves and custom acrylic manifold

You & Your Team



Application



Specifications



Expertise

Clippard

SUPERIOR SUPPORT



Experience



Support



Value



Quality



Reliability



Leak Rate



Testing

"I have always thought of pneumatics as an art rather than a science. It's both, certainly, because it involves precision in the production. But all the creativity comes in the application."

WILLIAM L. CLIPPARD, III

TOGETHER, WE CAN DO MORE.

CUSTOMIZATION OPTIONS

- Manifold materials
- Seal materials
- Flow & pressure ranges
- Voltage/power requirements
- Electrical connections & wire harness PCBs
- Ports/connectors
- Mounting configurations
- Oxygen clean services
- Pressure decay & helium leak testing
- Easy-to-install compact assemblies
- Assembly of other components—including customer-specified products, fittings, connectors, labeling, etc.

CAPABILITIES

- Expert In-house machining
- Vast network of outside vendors
- High capacity production & assembly
- Oxygen & analytical cleaning
- Pneumatic assemblies & sub systems
- Custom manifold designs
- Manifold manufacturing & assemblies
- Pneumatic circuit design
- IPC-A-620 certified ISO quality systems
- Fitting & tubing harness assemblies
- Component kitting
- Specialized testing
- KanBan services
- Private labeling

Connecting Engineers with Engineers

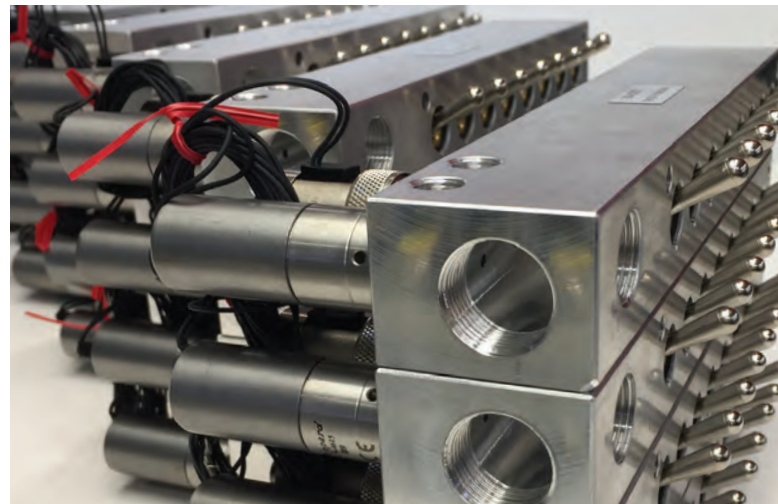
Our sales team and distributors are invaluable in their own right, but our engineers don't like having to relay information through other people any more than yours do. Whenever possible, we prefer to get your technical people speaking directly to ours. This enables more efficient communication and has proven to be one of the best ways to shorten project timelines and ensure mutual success.

Application Engineering

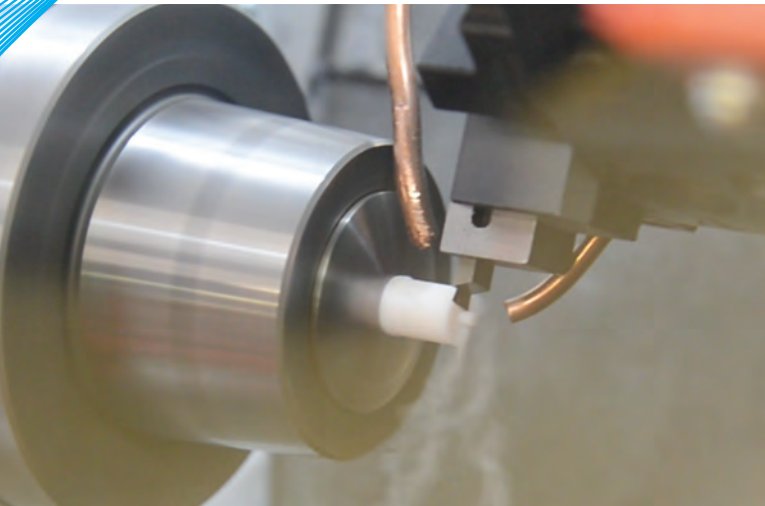
We love a good challenge and take great pride in helping customers like you design better products. Smaller, faster, lighter—what are you trying to accomplish? We can help with anything from modified standard products to special manifolds to completely custom products designed for specific, unique applications. Together, we ensure that products are designed for robust performance and manufacturability to keep your project moving along quickly and efficiently.



BELOW: Value-added assembly with custom aluminum manifold



PRECISION MACHINING



Manufacturing PTFE valve diaphragm—finished piece shown on opposite page

As a family-owned company, we take a special kind of pride in what the Clippard name represents. This is why Clippard has always gone to great lengths to ensure that our products are of the best possible quality. Regardless of whether your application requires a few million cycles or over a billion, you can trust that the same care and precision went into the design, manufacture, and assembly of each and every Clippard product. This is achieved through dedicated excellence in design, manufacturing, and craftsmanship.

"We are always trying to improve upon all our processes here. We embrace new technology. We're always striving to make things faster, more efficient, higher quality."

BRIAN KETTERING

AUTOMATION SPECIALIST • EMPLOYEE SINCE 2001

PROBLEM

The OEM felt that their assembly process was too labor-intensive—it involved threading four manifold blocks together with studs and installing additional hardware (toggle valves and nozzles). They were experiencing issues—such as misalignment of the manifold blocks and leakage—and having difficulties with the assembly, routine maintenance, and servicing. Another issue for this application was the aesthetics of the manifold blocks. Each block was a slightly different color—none matched exactly. The OEM sought a company who could machine a manifold from a single block of Delrin. However, other manufacturers told them this was impossible due to the length and small diameter of the hole needed through the middle of the block.

SOLUTION

Using a proprietary machining method, Clippard was able to drill this OEM's "impossible" hole and machine a manifold for them from a single block of Delrin®. This greatly improved the aesthetic appeal of their machine and also solved many of the other problems they had been experiencing. The new Clippard manifold is much easier to assemble, with higher quality threads and milled edges which are not sharp.

During the course of the project, Clippard's engineers had the opportunity to work directly with the OEM's engineers. This led to more productive conversations which in this case uncovered other issues that were causing the OEM to experience high scrap rates. Although outside of the scope of the project, Clippard was able to provide valuable advice regarding tool improvements.

Ultimately, Clippard's solution saved this OEM time and money by reducing their assembly, cleaning, and inspection time, improving the quality of their system, and decreasing their scrap rates.



Custom Delrin® manifold

Advanced Manufacturing Capabilities

Clippard has two ISO 9001:2015 certified manufacturing facilities in Ohio ready to produce what you need, when you need it. Each facility is outfitted with state-of-the-art equipment to ensure the tightest tolerances for the highest quality products. This includes 12-axis precision CNC Swiss machines, CNC milling centers, CNC turning centers, high production multi-spindle machines, CNC wire EDM technology, and numerous post-finishing processes, including thermal deburring.

Lights Out Program

With Clippard's "Lights Out" program, production runs 24 hours a day, 7 days a week to produce more product for you in less time.

In-House Tool & Die Department

Clippard strives to maximize efficiency wherever possible. By creating our own tooling and dies, we eliminate the need to outsource for fixtures and tooling. This enables us to provide you with shorter production timelines and reduced costs.

Thermal Deburring

Thorough deburring of manufactured product is critical to the performance of individual components and systems. This is why Clippard utilizes a special thermal deburring process to remove burrs, flashings, and hidden contaminants from machined components. The process involves placing components in a chamber pressurized with natural gas, initiating a controlled combustion that dissolves small burrs and particles.

Custom Laser Marking

Clippard offers custom laser etching and engraving on a wide variety of materials. This is ideal for branding your products with your company logo or for labeling components to aid with installation and maintenance.

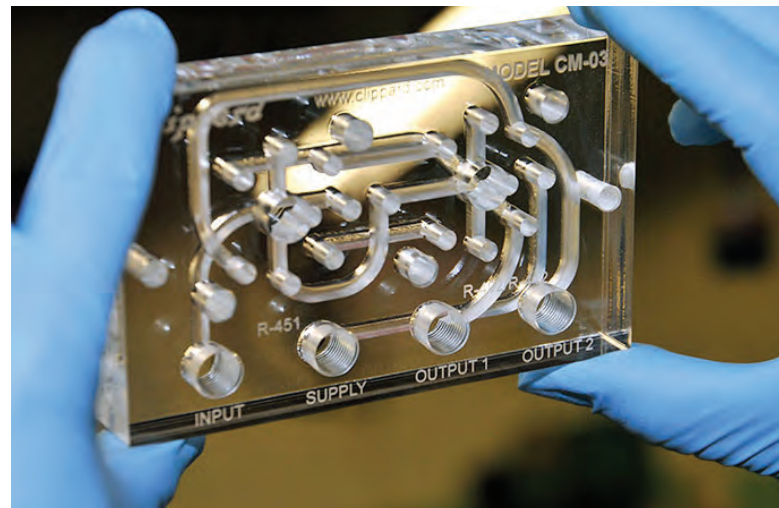
Anodizing & Electroless Nickel Plating

When aluminum products are anodized, a protective layer of aluminum oxide provides added corrosion and abrasion resistance. Brass products can be electroless nickel plated to improve friction and corrosion resistance.



Precision machined components (shown actual size)

Did you know? Clippard machines and assembles more than 35,000 of these tiny brass poppets each month and processes over a half million of these spiders each year.



Custom acrylic subplate

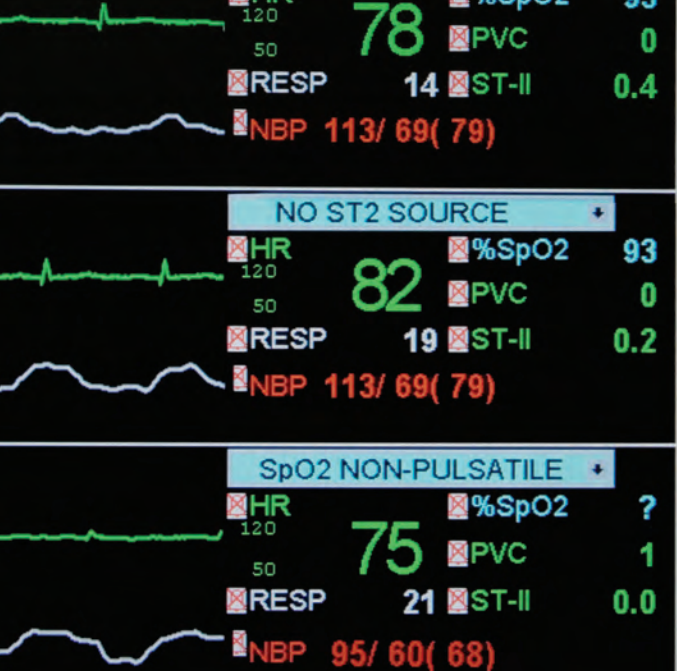
Application Engineering

Clippard knows that when we design products that can be manufactured quickly and efficiently, we help you keep your costs lower. This is why our design engineers always work closely with our manufacturing departments. Together, we ensure that your products are designed for manufacturability and keep your project moving along quickly and efficiently.

Variety of Materials

Clippard's production team is highly skilled and has extensive experience machining a wide variety of materials, including:

- Acrylic
- Aluminum
- Brass
- Delrin®
- PEEK
- PTFE
- Stainless Steel
- Ultem®



PROBLEM

Medical equipment manufacturers are often looking to design smaller, more portable systems. This presents unique challenges with regard to power requirements, size, and weight. Reliability can also be critical, as it can quite literally be a matter of life or death. Equipment being used in the field must not only be precise and accurate, but also robust and durable. These types of systems—and their components—must be designed and assembled to withstand rough handling, such as what might occur during an emergency situation or while treating a patient in the back of an ambulance or helicopter.

SOLUTION

The OEM's primary concern was to improve the overall accuracy and precision of their system, a problem which was easily solved by replacing select components with Clippard valves. Clippard then designed a special manifold which allowed the new valves to be mounted alongside the system's other components. This new all-in-one solution provided a significant reduction in leak points, thereby enhancing the system's overall reliability.

The new manifold provided a footprint which was so much smaller and more compact that it led the OEM to develop a new version of their own product. The new unit not only provided enhanced accuracy and precision, but was also smaller in size and lighter in weight.



**HOW MUCH MORE
COULD WE DO TOGETHER?**

877-245-6247

PROBLEM

Any component which fails prematurely presents obvious problems. Therefore, in an effort to reduce down time and costly maintenance, manufacturers often seek components with longer lifespans. In this case, the equipment required numerous high flow valves which were failing to provide sufficient longevity. Maintenance was becoming prohibitively costly as technicians were having to routinely replace valves, a process which, due to the size of the equipment, had to be performed on-site.

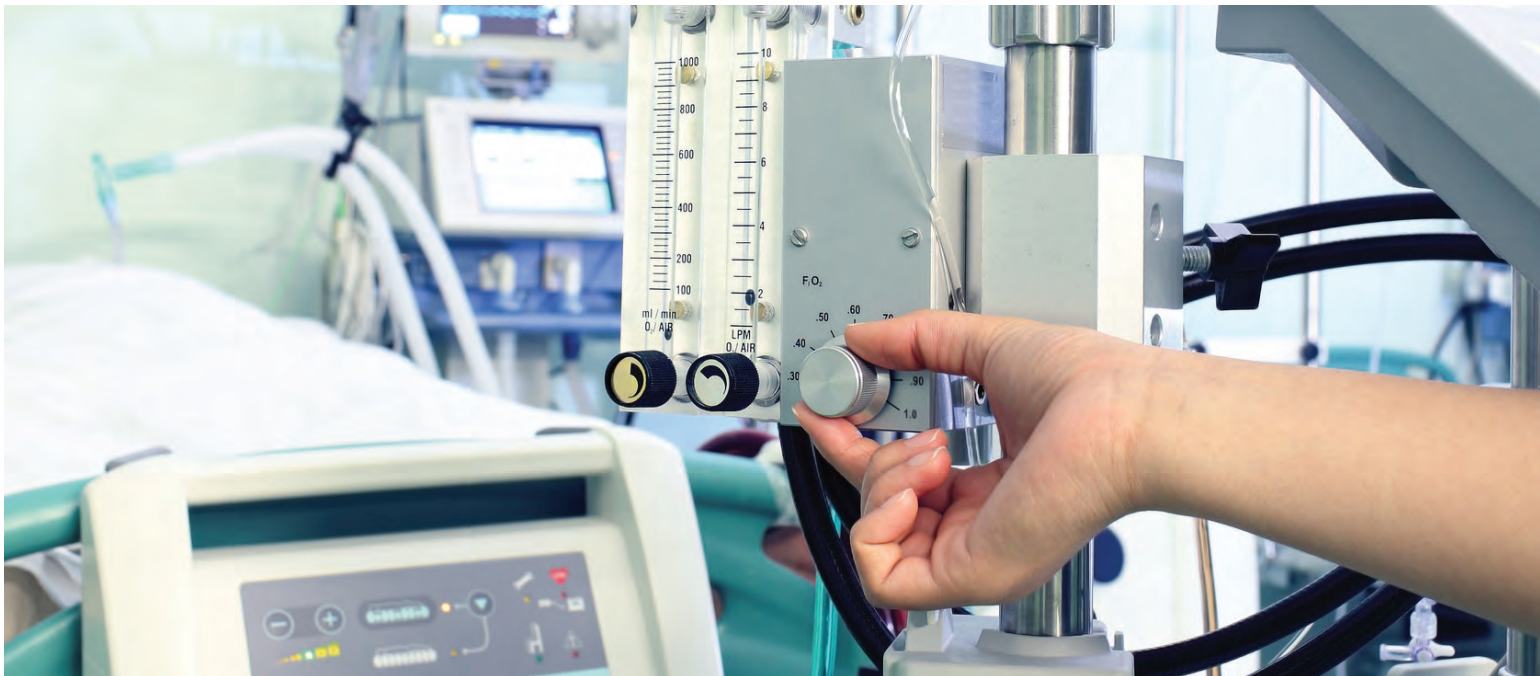
SOLUTION

The OEM's primary concern was to reduce the costs required to maintain their equipment. The first step toward solving this was to replace the existing valves with Clippard DV valves. With a lifespan of over a billion cycles, this switch significantly reduced the number of service calls technicians had to make. As an added bonus, the new valves also provided lower power consumption and higher flow rates.

Along with the new DV valves, Clippard designed a special new manifold. With all the valves mounted together in a single, compact block, it became much quicker and easier to remove the entire valve system. This further reduced maintenance time by enabling technicians easier access to other components within the system.

Clippard

TOGETHER, WE CAN DO MORE.





PROBLEM

Highly specialized equipment often presents very specific design challenges. This can be especially true in laboratory or analytical environments where the optimization of new equipment requires special components that are able to meet unique demands such as specific pressure, flow, and heat requirements. This OEM's system was leaking, but the fix would not be simple. Their application included a long list of critical specifications. On top of needing to maintain an existing footprint, the system also needed to minimize internal volume, could not generate much heat, and had to control a precise flow at a very specific pressure.

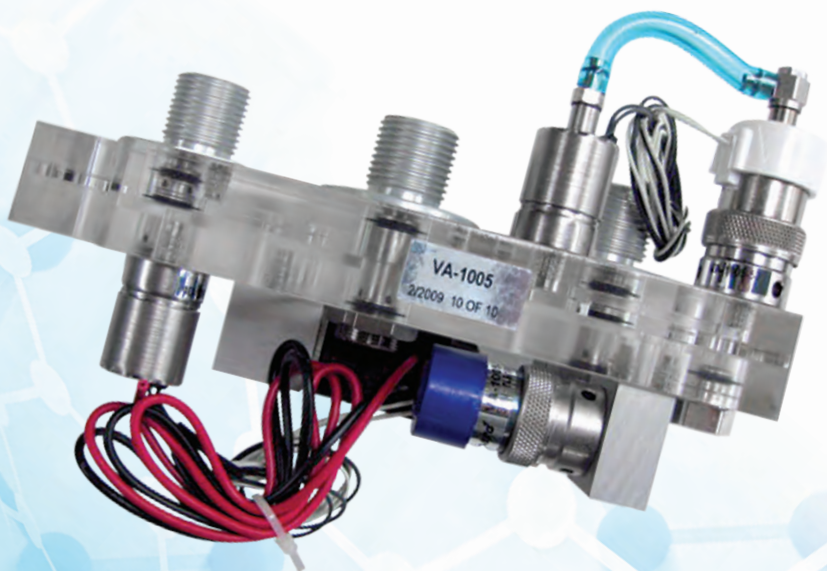
SOLUTION

While the requirements may seem daunting, this is just the type of problem that Clippard excels at solving. Our subminiature 8 mm valves provide precise, accurate flow control and generate very little heat—they were perfectly suited for this application. The OEM's existing system was leaking, so Clippard closely examined factors which could be contributing to this. Replacing the valves was a step forward, but Clippard also found that the gaskets in the existing manifold were leak points as well.

To ensure the fewest possible leak points, Clippard designed an acrylic diffusion-bonded manifold which not only eliminated the need for gaskets, but also allowed critical passages at tight tolerances. The special manifold allowed the new valves to be mounted together tightly and compactly, providing a leakproof solution with an even smaller footprint than the OEM had previously.

**HOW MUCH MORE
COULD WE DO TOGETHER?**

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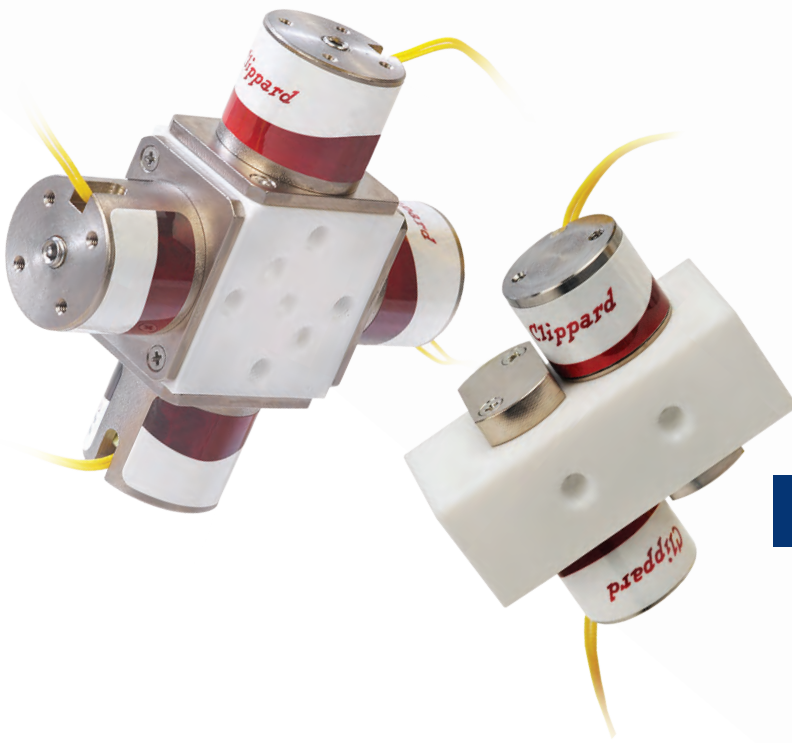
PROBLEM

Many applications require the use of media that is not well suited for standard product materials. This application utilized a special media that was not only corrosive, but also exceptionally expensive. The customer sought a valve which could tolerate the media, but an emphasis was placed on minimizing volume as well in order to reduce the overall cost incurred with running the system.

SOLUTION

One of the primary benefits of Clippard's NIV series media isolation valves is that all wetted areas of the valve are constructed of PTFE, making the valve ideal for use with corrosive media. The valve also features minimal dead volume, which was especially important to this customer who was interested in conserving as much media as possible.

Considering the customer's underlying goal, Clippard proposed an alternative solution which involved the design of a special integrated manifold. The unique new design reduced potential leak points by eliminating the need for extra fittings and reduced the overall volume of media. Off the shelf, Clippard's isolation valve met the needs of this application. However, the extra effort proved more than worthwhile.



Clippard

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PROBLEM

Separating oil, gas, and water from a tank can be a real challenge. This is especially true when all three are in a tank that is continually building internal pressure. In this application, the customer needed a way to control the pressure and allow for the separation of all three. They were looking to replace existing high-bleed controllers, such as common cantilever and torque tube level control heads, which weren't performing consistently.

SOLUTION



Clippard's straightforward design included several standard catalog components as well as parts machined specifically for the unit, all of which were incorporated into a specially-designed block manifold. Operation of the controller is actuated by a float inside the separation tank—as the liquid rises, the float moves a rod that touches the pilot actuator valve. This sends a signal to a cylinder that opens a valve and releases liquid from the tank.

With a no-bleed design, the new solution is more environmentally friendly. It is also easier to install, more accurate, more durable, and provides more cost effective operation.



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