

CLIPPARD APPLICATION IDEAS

Limb Positioning Equipment Assists Surgeons

During elbow, hand and shoulder procedures, surgeons often require the patient's arm to remain raised and precisely positioned. New pneumatically-powered articulating equipment can support and provide traction for the heaviest limbs, thereby eliminating the need for an additional surgical aide during the procedure. Positioning is instantaneously controlled by the surgeon by use of a foot pedal. Clippard's stainless steel cylinders provide the force in an intensifier circuit that unlocks the mechanical mechanisms for this innovative medical engineering company.

Man Your Stations!

In R/C (radio controlled) combat, hobbyists from around the world build, fight and sink 1/144 scale model warships. Ships are armed with CO-powered cannons that blast steel ball bearings at their enemies. Water pumps are used to control battle damage. As long as you can pump any incoming water out of your vessel, you should stay afloat.

Clippard is the preferred supplier of pilot actuators, 2- and 3-way valves, manifolds, check valves, cylinders, regulators, toggle valves, cam actuators and much more to the novice in the R/C Warship, Submarine and Airplane fields. When your vessel measures only 5' long, you need the most versatile, reliable miniature parts available. "We all love the hobby. Therefore we must all love Clippard parts."

"Clippard parts have been used in R/C Model Warships, literally for decades. They have stood the test of time—that's why they are still used almost exclusively in all formats and scales".
Big Gun, Small Gun, 1/144, 1/96, and 1/72.

Clippard Helps Keep Your Vehicle Clean!

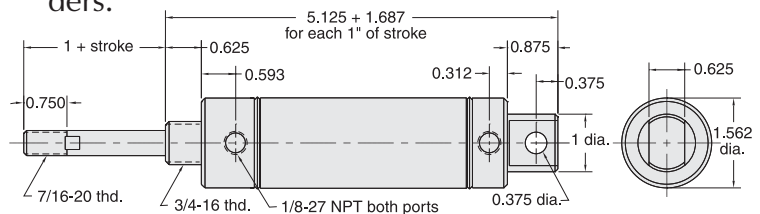
Clippard's Circuit Boards and R-701 Modular Valves are used in many commercial car washes to control the output of soap.

Lion (or Lying) Breath!

Lion Labs, based in the United Kingdom, makes a breathalyzer system which is a portable device that measures the alcohol content in the breath of a suspected violator. Lion Labs uses Clippard low pressure switches to sense and measure the volume of air exhaled to ensure the breath is strong enough to be legally tested.

Cylinders Keep the Presses Moving Smoothly

An international supplier of advanced technology web offset press systems for newspaper and commercial printing improves customer's operations and bottom line with Clippard's help. As constant paper tension control is imperative to web press operations, Clippard helps to provide that tension with our 1 - 1 1/2" stroke air cylinders.



Clippard Valves Used in Mystic Tan® Tanning Process

What is Mystic Tan? The Mystic Tan™ UV-free spray-on tanning booth is designed to deliver a customized sunless tanning application to each customer based on their body size, skin type, and desired color. A perfectly uniform, natural-looking tan takes less than 60 seconds!

Customers enter the booth and are sprayed with a precise amount of polarized tanning myst. The body's magnetic properties attract the micromyst particles to every exposed surface of the skin.

Mystic Tan uses a special rolled construction cylinder from Clippard to dispense the myst.

Did you know . . . that Clippard valves were used to flex the pirate cats' muscles in the Broadway play— "Cats"?

Portable Oxygen Therapy

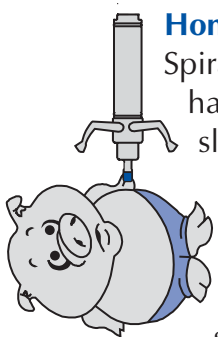
Puritan Bennett manufacturers portable liquid oxygen units which provide long-term oxygen patients the freedom to lead active, healthier lifestyles. These personal oxygen systems are small and lightweight, provide approximately 8.5 hours of use (at 2 lpm), and are refillable from a stationary reservoir. Clippard [MCV check valve](#) controls oxygen delivery.

Sewing with Clippard

At one time, the rug tufting industry was large users of Clippard cylinders and valves. Because of rising labor costs, many floor covering manufacturing facilities left North America for less expensive production means.

Recent efforts by one of our dedicated distributors may be turning that industry around. A new operating system, controlled totally by a PLC, has been designed to control the tension of yarn being stitched into the carpeting. It can raise and lower the height of the tuft to create carpeting that has unique patterns and designs. This system uses a special manifold of 16 ES valves, Clippard fittings, brass cylinders and quick exhaust valves.

Other possible applications—Artificial grass manufacturers? Mattress tufting? Upholstery systems?



HoneyBaked Ham

Spiral slicing is a method of cutting the ham around the bone so that all of the slices remain in place on the bone.

Any lengthwise cut releases the uniformly thick slices for serving.

Clippard cylinders and valves hold the pork precisely in place for this spinning process. *(No animals were injured during the production of this document!)*

Picture Perfect

Fletcher-Terry offers pneumatic mat cutting systems which utilize [Clippard stainless steel cylinders](#) to hold the mat board firmly in place throughout the cut. When precision really matters—Count on Clippard!

Clippard Needle Valves Keep Plants & Vegetables Moist!

A manufacturer of misting systems uses the internal parts of Clippard's [MNV-4K](#) to control the flow of water into a miniature sprayer creating a fine mist. The [MNV-4](#) cartridge enables the customer to integrate it into his manifolds and both their needle design and 80 pitch thread combine to provide a very fine resolution. These products are used in commercial green houses and in the produce department at local grocery stores.

Pad Printing

Pad printing systems are self-inking presses designed to print on objects with irregular shapes. Clippard's pneumatic circuitry assists in the process with Modular Valves, Subplates and Push buttons. Set up takes less than 60 seconds for the next run of any size product. Capable of running up to four colors.



Neuromuscular Rehabilitation Equipment

Kinetic Muscles, Inc. has developed an exercise therapy device to be used mostly by stroke patients to retrain the brain to regain motion in the limbs. The Hand Mentor encourages a patient to extend their wrist and fingers as much as possible on their own. When maximum self-extension is achieved, the Mentor will engage a pneumatic actuator which then assists with the movement to full extension. Cycle rates, length of motion and force of operation can be programmed into the unit. Kinetic Muscles utilizes [Clippard ES electronic valves](#) on a special manifold in the Mentor.



Acrylic Subplates Save Time & Headaches!

A manufacturer of prostate analysis equipment uses [Clippard's acrylic subplates](#) with numerous ES valves.

In addition to the valves, the subplate is also used to mount servo motors, actuators and supports the electronic circuit boards. Initially the customer used aluminum plates bolted together and had challenges with alignment and leakage. Clippard's acrylic solution saved this customer time and eliminated re-work!

Paint Ball Fun

Tippmann Pneumatics is a premier manufacturer of high performance paintball markers and accessories. Tippmann prides itself in its pursuit of cutting edge technology and design. So whether you are just starting out, or an advanced player, Tippmann has something to start or add to your game.

Tippmann's Response Trigger System increases the trigger speed by resetting the trigger with the excess gas during firing. This gas is used to operate a Clippard cylinder behind the trigger for resetting. The pressure on the trigger then retracts to fire the next shot. The speed is determined by the user.

Many Tippmann products have been designed to include Clippard Minimatic products to enhance the speed and performance of the equipment. Pneumatics are an essential part of all paintball equipment.

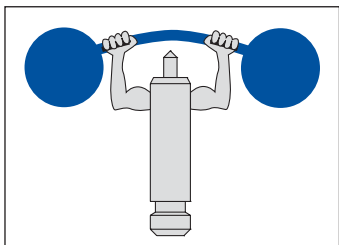
Did you know . . . that Clippard valves have appeared in such films as "Honey, I Shrank the Kids", "Die Hard II" and "Speed"?

Portable Gas Analyzers

Many manufacturers of portable and fixed gas analyzers utilize Clippard Minimatic valves and fittings. The reliable EV series valves are ideal for flow control as well as the purging of the system between samples.

Let's Get Physical!

Clippard's stainless steel cylinders were chosen by a national manufacturer of physical rehabilitation



equipment to provide exercise resistance to their patients. The customer felt that our cylinder's low friction and "drag" offered the best control and feel to the patient. The design and manufacturing method of the cylinder's front head provide unequalled concentricity, which is extremely important in low-pressure applications.

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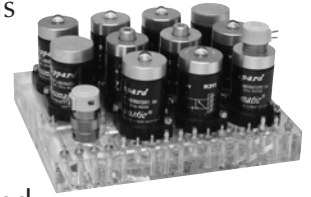
Shuttle Valves Hit the Road

Sullair's complete line of portable compressors are totally contained within a service truck's shell to provide power when needed. All units are designed for cross-mounting on utility-type trucks for total accessibility and reliability. These compressors utilize Clippard's JSV-2 poppet type shuttle valves.

Did you know . . . that Clippard products are used in the battlebot "Vlad, The Impaler"?

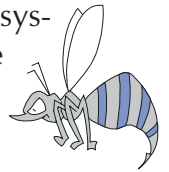
Clippard in the Laundry Business

Alliance Laundry Systems is a major manufacturer of commercial grade laundry equipment. Clippard modular valves and pneumatic circuit boards are used to control the automatic shirt presses. In addition, specialized push button actuators are used in the control panels of the equipment.



Pest Control

Propane-powered mosquito control systems operate in many backyards and outdoor businesses 24 hours a day to remove a variety of both day and night biting insects. As the insects approach the unit, they are vacuumed into a containment net and eventually dehydrate and die. Essential to the design of these systems are Clippard's high performance EV Electronic Valves which provide for long life and low power consumption.



Oil Pump

The Welker Oil Injection Pump was introduced in late 1995, and was designed to provide an automated lubrication system for turbine meter bearings. For decades, the lubrication of bearings was a labor intensive procedure. Now with the OIP system, bearings are automatically lubricated evenly and consistently, maintenance time is reduced, bearing life is increased, and accuracy is more easily maintained.

Clippard EC Series valves provide a pneumatic actuation between 15 and 100 psig.

Vacation in Disneyland with Clippard!

That's right—if you plan to visit Disneyland, chances are you will experience pneumatically-operated characters and water features that are powered by Clippard valves and cylinders.



Clippard Cylinders Serve Propane Tanks to Summer Grillers!

The next time you need to get your propane tank filled, you may be given one by Clippard valves and cylinders! In today's world of streamlining and saving time, an innovative firm has designed a self-serve system which allows buyers to get a



propane tank 24/7. Simply swipe your credit card and the holding cage will open automatically dispensing a tank. These systems are located at stores, gas stations and other shopping establishments for your convenience!

Bug Off!

If you build a home in areas with tropical climates such as Florida, Louisiana and Texas, chances are you'll be shopping for a pest defense system along with carpeting, paint and cabinetry! Clippard's client offers a patented system designed with a network of small, perforated plastic tubing installed in designated walls which links to service ports on the exterior of the home. Through these ports, technicians periodically inject pest control materials into the tubes, distributing them within the wall voids, thereby targeting the pests right where they live. The dispensing of insecticides and air is done through a special injection device with a custom nozzle, all made by Clippard.



Coffee at Clippard

To prevent burning of the coffee pots at Clippard's offices, a simple control system was designed which automatically shuts the machines off after a specific amount of time! We just have too many other things to worry about than turning off the coffee pot!

Clippard Pool Maintenance 101

When Bill Clippard, Sr. leaves for the office, the last thing he wants to worry about is whether his swimming pool is clean and operating correctly! That's why he uses Clippard valves and fittings to manage the pool's filtering system, as well as various other water features in his back yard. Plus, the use of pneumatics eliminates the potential for electric shock!

Water + Timing = Phenomenal Graphical Waterfalls!

Computer-generated graphics are created and defined by water droplets and the absence of droplets through a system designed by a Wisconsin-based firm. Droplets fall so precisely with the help of Clippard's EV valves and cylinders that they create vivid graphic images and text. Logos, promotional copy, multiple dancing ribbons, flipping squares, fish—all completely created through water and lighting. Displays range from 11-50' high and use a closed water system so that water is not wasted. The smallest holds 50 gallons and the largest about 500 gallons of water. Such advertising presentations have been used in the Olympics as well as many trade shows, conferences, tourist events, fairs, festivals and more. Clippard electronic EV valves provide the precise flow control necessary to produce such impressive, reliable results!

Pneumatic Liquid Dispenser

This device measures and dispenses precise amounts of liquids with no drip or mess. It is made entirely of Clippard components. Great for many applications!

