

part of **AVIDITY** Science



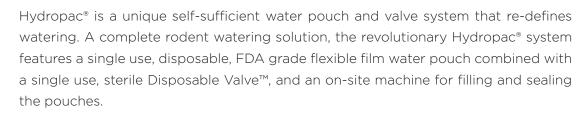






WATERING FOR TODAY

Historically, automatic watering or water bottles have been the only viable options for rodent populations. Now there's a better way to manage animal watering.





- The Hydropac® Alternative Watering System Delivers Incredible Savings in Costs, Space, Inventory, Labor and Energy Usage.
- Actual Time and Motion Studies have Proven a Per Diem Cost Reduction of Over 75%.
- Single Use Hydropac® Pouch and Sterile Disposable Valve™ Reduces Scientific Variables, Ergonomic Issues and Increases Productivity.
- Tested and Proven, the Hydropac® Disposable Valve™ Works with Mice, Rats, Hamsters and Guinea Pigs.
- Maintain Sterile Water in Pouches While in Use with Animals for 2 Weeks.
- Unlike Sipper Tubes, Cage Movement and Animal Activity Does Not Cause Valves to Leak or Drip. Now Your Animals Remain Drier, with Reduced Ammonia Levels, Extending the Time Between Necessary Cage Changes and Useful Cage Life.
- Eliminate the Need to Autoclave Water by Producing Sterile Pouches Through Integration with the Manifold Unit with Water Treatment Proportioner and Ultra Filtration Systems.
- The Hydropac® System Offers a Convenient and Reliable Method of Preparing and Storing an Emergency Water Supply.













WATER PURE AND SIMPLE

Now there's a better way to manage animal watering for your rodents. It dramatically reduces cost, complexity, saves facility space and keeps your animals healthier, drier and happier.













- Reliable, efficient, computer controlled operation
- Produces 600 pouches an hour (10 per minute)
- Ergonomic touch screen control panel
- Produces 13 oz. or 8 oz. filled pouches (384 or 236 ml)
- Portable and easily moved around facility
- Numerous built-in engineering safety features
- · No special water hookups needed

Support equipment options: Manifold Unit with Water Treatment Proportioner and Ultra Filtration Systems, Tote Conveyor, Tote Transport Cart, Pouch Disposal Unit

WATER REQUIREMENTS

When joined with the Manifold Unit, the water connection is a 3/4" (19 mm) diameter inlet IPS (International Pipe Standard) carrying facility water supply. The AWS-2500 requires a minimum of 3 gallons (30.28 liters), up to a maximum of 11 gallons (41.63 liters) water per minute @ 40 PSI (lbs per square inch).

When the AWS-2500 is used without a Manifold Unit and relies upon water in the room as the source, the connection requires a 3/8 OD x 1/4 ID flex line with 1/4 NPT (National Pipe Thread) industrial shape quick disconnect plug (male) from facility treated water supply. Maximum pressure: 20 PSI (lbs per square inch).

POWER REQUIREMENTS

120 VAC 50/60 Hz single-phase power, requiring a 120 VAC dedicated 20-amp circuit, 3 wire plus ground.



The Hydropac™ AWS-2500 Pouch Machine is an automatic packaging machine that produces water filled Hydropac™ Pouches using specially formulated Hydroseal™ Pouch Film. Filled pouches are a convenient, reliable and economical drinking water source for virtually all research rodents, and can be stored for extended periods, while maintaining water quality.

Producing up to 600 pouches an hour (10 per minute), the machine is operated through a user friendly, Touch Screen Control Panel. Water pouch size is selectable. Make either 13 oz. (384 ml) or 8 oz. (236 ml) pouches in any quantities you choose. An ideal system component, the optional Manifold Unit with Water Treatment Proportioner and Ultra Filtration Systems (Catalog #HYP-5122) helps provide consistent water pressure for the AWS-2500 to maintain pouch production and meet the water quality and microbial protection levels your research protocols require. The Water Treatment Proportioner provides a precise, simple and reliable method for in-line nijection of additives and biological controls, and the Ultra Filtration System provides the option of removing virtually all microbes from facility water. Completing the system, a comprehensive range of optional support equipment provides reliable, highly efficient, and ergonomic methods of production, distribution and disposal of Hydropac™ Pouches.



- Materials to produce 72,000 Hydropac[™] Pouch and sterile Disposable Valve[™] assemblies
- Compact storage footprint of 14.67 sq. ft. (1.36 sq. m)

The AWS-5000 Master Carton provides materials to produce 72,000 Hydropac™ Pouch and sterile Disposable Valve™ assemblies. Each Master Carton includes twelve (12) rolls of Hydroseal™ Pouch Film and 72,000 valves. Individual rolls of pouch film are wrapped in a plastic bag and further protected by plastic end caps. The sterile (gamma irradiated) Disposable Valve™ is packaged in 100-count disposable plastic trays, 60 trays per box, and twelve boxes per Master Carton. The Master Carton ships on a convenient thermoplastic base pallet for stable mobility. Measuring 44-inches wide by 48-inches deep by 61-inches high, the Master Carton with shipping pallet stores in less than 15 square feet (14.67 sq. ft. / 1.36 sq. m) of space. A Hydropac™ Film Roll Lift Unit is available to transport and position film for easy loading onto a Pouch Machine.

Support equipment option: Hydropac™ Film Roll Lift Unit



Master Carton for AWS-2500 Pouch Machine

Catalog #HYP-2520



- Materials to produce 18,000 Hydropac[™] Pouch and sterile
- Disposable Valve™ assemblies Compact storage footprint of 8.34 sq. ft. (.77 sq.m)

The AWS-5000 Master Carton provides materials to produce 72,000 Hydropac™ Pouch and sterile Disposable Valve™ assemblies. Each Master Carton includes twelve (12) rolls of Hydroseal™ Pouch Film and 72,000 valves. Individual rolls of pouch film are wrapped in a plastic bag and further protected by plastic end caps. The sterile (gamma irradiated) Disposable Valve™ is packaged in 100-count disposable plastic trays, 60 trays per box, and twelve boxes per Master Carton. The Master Carton ships on a convenient thermoplastic base pallet for stable mobility. Measuring 44-inches wide by 48-inches deep by 61-inches high, the Master Carton with shipping pallet stores in less than 15 square feet (14.67 sq. ft. / 1.36 sq. m) of space. A Hydropac™ Film Roll Lift Unit is available to transport and position film for easy loading onto a Pouch Machine.



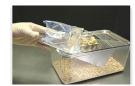
- · Sterile, single-use valve minimizes cross-contamination risk
- For mice, rats, hamsters and guinea pigs
- Weanlings access water with only 2 grams of pressure
- · Drip-free, patented design keeps cages drier
- Requires "no priming"
- · Quick and easy installation
- 100 per disposable tray
- Works with Hydropac™ Modular Diet Delivery Systems
- Fits a wide variety of wire bar lid designs (with adapter)

The Hydropac™ sterile (gamma irradiated) Disposable Valve™ delivers water from Hydropac™ Pouches to laboratory rodents. This patented, single-use, drip-free valve minimizes the potential for cross-contamination, conserves water and helps keep cages drier. With a 2-gram actuation force, guinea pigs, rats, hamsters, mice and even weanlings readily access water at will. Designed for use in Hydropac™ Modular Diet Delivery Systems, you can also use the Disposable Valve™ with a wide variety of wire bar lids (adapter required). To install, just press a valve into place and you're ready to install a Hydropac™ Pouch. As the tip of the valve pierces the specially formulated Hydroseal™ Pouch material, it creates a drip-free seal.











Hydroseal™ Pouch Film





- AWS-5000 film roll yields approximately 6,000 water filled Hydropac™ Pouches
- AWS-2500 film roll yields approximately 2,000 water filled Hydropac™ Pouches
- Specially formulated (FDA-grade) for reliable performance
- Allows easy observations of pouch contents
- Pouches are ergonomic to handle and store compactly
- Allows easy dosing and sampling with Silicone Patch Compliant with US guidelines for direct food contact
- Film loads in minutes onto Pouch Machine
- AWS-5000 Support equipment option: Hydropac™ Film Roll Lift Unit

When processed through either the AWS-5000 or the AWS-2500 Pouch Machine, Hydroseal™ Pouch Film forms, fills and hermetically seals ready-to-use individual water pouches. Each 12-1/8" (308 mm for the AWS-5000) wide roll yields approximately 6,000 individual pouches with 13 oz. (384 ml) or 8 oz. (236 ml) of water. Each 7-3/4" (196.9 mm for the AWS-2500) diameter roll yields approximately 2,000 individual pouches with 13 oz. (384 ml) or 8 oz. (236 ml) of water. Specially formulated, Hydroseal™ Pouch Film provides exceptional sealing, flexibility, transparency and strength. Pouches are ergonomic to handle, allow easy visual inspection of water levels and store compactly. Dosing or sampling pouch contents is quick and easy with a Silicone Patch and syringe. For larger scale dosing, the in-line Water Treatment Proportioner offers precise administering of additives directly into the source water.



Manifold Unit with Manifold Unit Proportioner and Ultra Filtration Systems

Catalog #HYP-5122



- All materials meet FDA requirements for food and beverage applications
- Dimensions: 31 ½" wide by 31 ½" deep by 79" high
- (800.1 by 800.1 by 2006.6 mm)
- 14-gallon non-corrosive metal / rubber diaphragm bladder tank for water storage
- 27-gallon polyethylene water capture / drainage tank 10-gallon protective, non-corrosive pre-dilution tank for water storage
- Pressure gauges to monitor water flow
- Compact design connects easily to facility water source Pressure regulator prevents overpressure conditions
- Solenoid Valve ensures water shut-off in the event of a power disruption

Provides clean, reliable drinking water for research animals with a multi-barrier approach that includes filtering facility water and treating water with chemical additives. The Manifold Unit with Water Treatment Proportioner and Ultra Filtration Systems permits precise injection of chemical additives and provides ultra-filtration to meet the most demanding research protocols.

Operating with water flowing through the Manifold Unit, the Water Treatment Proportioner provides a precise, reliable, non-electric method for in-line injection of any liquid, such as diluted chlorine or other chemical additives. A 10-micron pre-filter, included with the Manifold Unit, conditions facility water as it flows into the unit. Three optional filters step down from 1.2-microns, to 0.2 microns, and finally to a 0.1 sub-micron ultra filter, which removes virtually all microbes from facility water.

Water pressure may fluctuate according to the demands of usage throughout the facility, and a water pressure regulator and flow rate controller help the Manifold Unit provide consistent water pressure for Hydropac™ Pouch production. Required for the high production volumes of the AWS-5000 Hydropac™ Pouch Machine and beneficial for pouch production in any environment, the Manifold Unit with Water Treatment Proportioner and Ultra Filtration Systems is optional for the compact, mobile AWS-2500.



Manifold Unit Replacement Filters

10 micron Catalog #HYP-5109 / 1.2 micron Catalog #HYP-5110 0.2 micron Catalog #HYP-5111 / 0.1 micron Catalog #HYP-5112



- All materials meet FDA requirements for food and beverage applications
- Filter Dimensions: 2½-inch diameter by 10-inches long (63.5 by 254 mm)
- Filters withstand autoclaving for 30 minutes at 121° C under no end load conditions
- Filter housings installed for optional 1.2 micron, 0.2 micron and 0.1 micron filters
- Filters must be purchased separately

Materials:

Filter Media: Highly Asymmetric Polysulfone Membrane Support Material: Polypropylene core

Gaskets / O-rings: Silicone Elastomer

Offering superior flow rates and long service life, the Manifold Unit high purity water filters are made from asymmetric polysulfone membrane media, and have an absolute rating of greater than 99.9% efficiency. Four protective polypropylene filter cartridges house filter grades varying from 10 micron to 0.1 micron.

Film Roll Lift Unit for AWS-5000 Pouch Machine

Catalog #HYP-5102



- Cordless, operation with rechargeable battery
- Provides excellent stability and mobility
- Cradles film and permits access to film core during installation
- Foot operated central braking rear casters and swivel front casters
- Stainless Steel overall construction
- For use with the AWS-5000 Pouch Machine

The Hydropac™ Film Roll Lift Unit lifts, transports and positions Hydroseal™ Pouch Film for easy loading onto the AWS-5000 Pouch Machine. The unit provides excellent stability and powerful electric lift operation. Rear casters feature a central foot operated braking system with directional locking or wheel locking. An on-board rechargeable battery powers the cordless electrical lift, and large casters provide easy mobility over a wide range of floor surfaces.



Tote Container

10 per carton • Catalog #HYP-5201 / 200 per pallet • Catalog #HYP-5202



- Convenient storage or transport of 30 pouches per Tote
- · Totes are translucent, stackable and nest compactly
- Tote footprint: 1.15 sq. ft. (.107 m2)
- · Locking tabs for optional locking

Each Tote Container stores up to 30 water filled Hydropac™ Pouches, providing a convenient, compact and ergonomic method for managing large or small watering needs. Totes stack securely, nest efficiently when empty and are made from translucent polypropyl-ene for easy visibility of contents. Totes include a two-flap interlocking cover attached with stainless steel hinges and reinforced tabs for optional locking. Filled pouches can be stored in Totes for extended periods while maintaining water quality-a convenient method for maintaining emergency supplies. Designed for easy maneuvering within a facility, Tote Transport Carts are available for efficiently transporting filled Totes. A Tote Conveyor is also available to provide an adjustable height staging platform for collecting pouches from a Pouch Conveyor as they are produced by the AWS-5000 Pouch Machine, streamlining the production process. Tote Contain-ers can be purchased 10 per carton (Catalog #HYP-5201) or 200 per pallet (Catalog #HYP-5202).



Tote Transport Cart 12 & 18 Tote Capacity

Catalog #HYP-5200 / Catalog #HYP-5205



- Efficient and easy to maneuver
- Stainless steel construction with adjustable side rails
- Platform area is 10" (254 mm) height above finished floor

Tote Transport Carts efficiently transport Tote Containers filled with Hydropac™ Pouches throughout a facility and are available in two models, one holding a maximum of 12 Totes (Catalog #HYP-5200, up to 360 total Pouches), and the second holding a maximum of 18 Totes (Catalog #HYP-5205, up to 540 total Pouches). The compact design and high quality 6-inch casters (two with brakes) provide easy maneuverability. Adjustable side rails offer easy access for loading and unloading and help protect Totes during transit.

Dimensions:

53-5/8" wide x 25-1/2" deep x 39-1/4" high (1489 x 647.7 x 996.9 mm)

Cart weight:

120 lbs (54.4 kg) load capacity 540 lbs (245 kg)

Dimensions:

37-5/8" wide x 25-1/2" deep x 39-1/4" high (955.7 x 647.7 x 996.9 mm)

Cart weight:

96 lbs (43.5 kg) load capacity 400 lbs (181.4 kg)



- Automates collection/dispensing Hydropac™ Pouches
- Supports efficient, ergonomic production
- Easy to maintain no oil or lubrication needed
- Securely anchors to AWS-5000 Pouch Machine
- Constructed from lightweight, durable, high impact materials
- Support equipment options: Tote Conveyor, Tote Transport
- · Cart and Tote Container

Power Requirements:

Electrical: 220 VAC 50/60 Hz single-phase power, $\frac{1}{4}$ Hp (.19 kW) 43 RPM, 2.5 amps, connection to Pouch Machine.

The Pouch Conveyor is a motorized incline conveyor that automates the process of collecting and dispensing Hydropac™ Pouches during production. Securely attached to the AWS-5000 Pouch Machine producing 1,800 pouches an hour (30 per minute), the Pouch Conveyor operates in combination with a Tote Conveyor and Tote Containers to help provide an ergonomic and highly efficient pouch production process. The design of the AWS-5000 Pouch Machine provides a power outlet for connecting the Pouch Conveyor. Synchronized with the Pouch Machine, the motor speed of the Pouch Conveyor provides efficient collection of the pouches. Operating in conjunction with the Pouch Machine, a built-in safety feature will automatically stop the Conveyor, in the event of an interruption to pouch production.





- Platform for collecting Pouches into Tote Containers
- Adjustable height for efficient, ergonomic production
- Tote Conveyors easily combine in tandem
- · Easy to maintain no oil or lubrication needed
- Securely anchors to Pouch Conveyor
- Stainless steel construction
- Support equipment options: Pouch Conveyor, Tote Container and Tote Transfer Cart

The Tote Conveyor provides a height adjustable staging area for collecting filled Hydropac™ Pouches into Tote Containers. Designed to work in combination with the AWS-5000 Pouch Machine and Pouch Conveyor, rollers on the Tote Conveyor create an ergonomic surface for the filling and staging of Tote Containers. With a production rate of 1,800 pouches an hour, each Tote reaches its capacity of 30 pouches in one minute. Several Tote Containers can be staged on a single Conveyor before being moved onto a Tote Transfer Cart. Attach multiple Conveyors in sequence for extending a continuous platform as desired.



The Hydropac™ Pouch Disposal Unit is a hydraulically driven machine used to reduce the volume of bulky used disposable valves and pouches that may be partially filled with water. The machine must only be set up and operated inside of a building and not outdoors. The Pouch Disposal Unit offers a cost and environmentally efficient method for the handling and the recycling of used Hydropac™ Pouches and Valves. The front loading hydraulically driven machine is used to reduce the volume of used pouches and valves by creating a small and tight bundle for easy disposal. The bundles are easily dumped from the machine's trash cube for disposal.

- Designed specifically for the compaction of Hydropac™ used Pouches with Disposable Valves™. Use of machine to compact other materials will void warranty.
- High volume of used Pouches with Valves reduced to a small size
- · No Mesh Disposable Bag needed
- Easy to operate, push button controls
- · Automatic collection and drainage of unused water remaining in pouches
- Includes PVC drain hose 1.8 m long, 50 mm internal diameter
- Includes Safety Stop button for emergency shut down
- Cycle Time: 11 15 seconds
- Size of the unit: 57 x 57 x 181 cm (LxWxH)
- · Weight; 236 kg





- High performance stainless steel
- 72,000 Pouches cycle life
- · Double taper serrated edge
- Easy replacement without tools
- Available in quantities of 5 per box

The Pouch Knife provides precise separation of Hydroseal™ Pouch Film material during operation of the AWS-5000 Pouch Machine. Featuring a double taper serrated edge, this stainless steel knife is specially designed to consistently provide efficient pouch film separations. The knife is plated with a hard titanium nitrate coating for extended long life. Quick release mounting fasteners allow easy knife replacement without tools and assure proper positioning when installed. The recommended useful life is 72,000 separation cycles.





- For injection of liquid into a pouch
- For withdrawal of liquid from a pouch
- Self sealing material
- · Convenient and simple to use

The Silicone Patch provides a quick and convenient method for sample withdrawal or injecting precise doses of liquid into Hydropac™ Pouches with a syringe. When pierced by a syringe needle, the material self-seals and remains sealed after removal of the needle. Each patch includes a Food and Drug Administration grade adhesive (outer ring) on one side. The center area is free of adhesive, allowing a syringe to only penetrate the patch and pouch film materials. Apply multiple patches for multiple injections or withdrawals. Patches simply remain with the pouch for disposal. The Silicone Patch is available in quantities of 1,000 per carton.





- Dimensions for AWS-5000:
- 1-inch diameter by 35-inches long
- (25.4 diameter by 889 mm)
- Dimensions for AWS-2500:
- 1-inch diameter by 24.75-inches long
- (25.4 diameter by 628.7 mm)
- Material: Type 304 stainless steel and aluminum Brake wheel is welded to shaft
- Only left end retainer is removed for loading roll of Hydroseal™ Pouch Film
- Stainless steel Allen Head set screw locks retainers in position

The Film Roll Shaft with Retainers secures the roll of Hydroseal™ Pouch Film material in a consistent aligned position as it is pulled through the Pouch Machine's forming head assembly during the water filling cycle. The stainless steel shaft and anodized aluminum retainers resist corrosion.



Hydropac[™] Modular Diet Delivery Systems include plastic molded wells to hold a water-filled Hydropac[™] Pouch with sterile Disposable Valve[™]. Each well in a Modular Diet Delivery System includes a stainless steel eyelet grommet for installing a Disposable Valve[™] and either a 13 oz. or 8 oz. (384 ml or 236 ml) pouch. These systems are available in clear Polycarbonate or translucent Zyfone[™] material, allowing easy visual inspection of water levels.

Super Mouse 750™

Holds 460 grams of food with stainless steel mouse feeder attachment

Super Mouse 1800™

Holds 775 grams of food with stainless steel mouse feeder attachment

One Cage™

Holds 540 grams of food with choice of interchangeable stainless steel feeder attachments. (Rat feeder shown. Mouse and guinea pig feeders are available.)

One Cage 2100™

Holds 545 grams of food with choice of interchangeable stainless steel feeder attachments. (Rat feeder shown. Mouse and guinea pig feeders are available.)

Super Rat 1400™

Holds 545 grams of food with choice of interchangeable stainless steel feeder attachments. (Rat feeder shown. Mouse and guinea pig feeders are available.)



Polycarbonate Wire Bar Lid Adapter Zeone™ Wire Bare Lid Adapter

Polycarbonite Lid Adapter - Catalog #HYP-5306PC / Zeone™ Adapter Catalog #HYP-5306ZF



- Adapts wire bar lids for use with Hydropac[™] Pouches
- For mice, rats, hamsters and guinea pigs
- Allows easy visual inspection of water levels

The Wire Bar Lid Adapter is a receptacle that allows a wide variety of wire bar lids to accept either a 13 oz. or 8 oz. (384 ml or 236 ml) water filled Hydropac™ Pouch and sterile Disposable Valve™. This design protects the pouch material from animal access. A stainless steel grommet secures the valve into place, while a self-centering rib positions the valve between lid wires. With only 2-grams of pressure, mice, rats, hamsters and guinea pigs easily access water from the Disposable Valve™. Molded in either clear Polycarbonate or translucent Zyfone™ material for easy visual inspection of water levels. Adapters are stackable, nest compactly and attach directly to wire bar lids. Wire Bar Lid Adapters are available in quantities of 100 per carton.



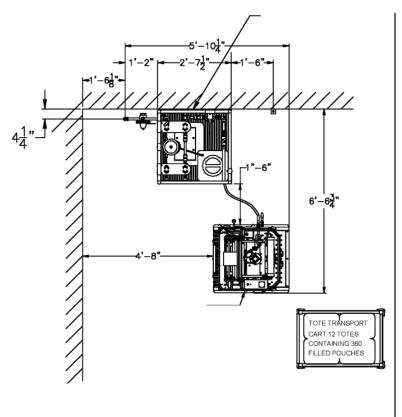
AWS-2500 Pouch Machine Configurations

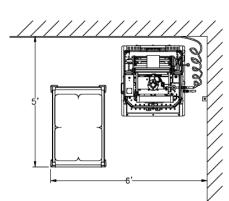
OPTIMAL

AWS-2500 Configuration WITH Manifold Unit Option

OPTIMAL

AWS-2500 Configuration WITHOUT Manifold Unit Option





REQUIREMENTS

Dimensions:

- 28.875" wide x 32.625" deep x 76.00" high (733 x 829 x 1930.4 mm)
- Weight: 750 lbs (483 kg)
- AWS-2500 Recommended Work Area: 5 feet wide x 6 feet deep (1.5 x 1.8 meters).

Power Requirements:

- 120 VAC 50/60 Hz single-phase power, requiring a dedicated 120 VAC 20 amp circuit.
- Water Supply Requirement (when used with HYP-2122 Manifold Unit): Connection 3/4" (19 mm) diameter inlet IPS (International Pipe Standard) facility water supply. Requires 3 gallons (11.36 liters) minimum, 11 gallons (41.63 liters) maximum of water per minute @ 40 PSI (lbs per square inch).
- Water Supply Requirement (when used without a manifold unit): 3/8" OD x 1/4" ID flex line with 1/4" NPT (National
- Pipe Thread) industrial shape quick disconnect plug (male) from facility treated water supply. Maximum pressure 30 PSI (lbs per square inch).
- AWS-2500 Pouch Machine produces 240-600 pouches per hour. Pouch Machine must be level during operation.



AWS-2500 Pouch Machine

