

## **Animal Watering Solutions**

Edstrom is the world leader in animal watering solutions since 1969.

Leading research institutions, breeders, and pharmaceutical firms have come to rely on Edstrom. Our expertise in engineering, water purification and treatment, and vivarium planning allows us to offer a comprehensive solution for your facility. Each Edstrom system is custom designed based on water quality, facility size, room layout, and animal species. We design and manufacture the complete automated watering solution for your vivarium.

No other water delivery method has the proven track record of quality, dependability and consistency of an Edstrom Automated Watering System.





What would our lives be like without medical research? What if there weren't people like you, passionately laying the groundwork for revolutionary breakthroughs?

Your daily work is at the forefront of scientific discovery, saving lives and advancing human understanding. Facilities such as yours have been the victorious battleground over debilitating diseases like smallpox and polio. The future holds great hope for curing epidemics such as cancer and AIDS. You and your staff have a mission of developing and maintaining a facility equal to the task of conquering these challenges. You deserve a partner that is singularly dedicated to your mission.

The work you perform should be conducted in a vivarium that integrates modern technology, exceptional efficiency, and strict variable control. Edstrom shares your dedication to creating and managing a world-class vivarium that delivers accurate and consistent results for every study.

# The safest, most reliable method of water delivery is automated

An Edstrom Automated Watering System is the safest, most reliable method for providing high quality drinking water to all your research animals. Each product is specifically designed and rigorously tested to ensure animal safety. The foundation of every Edstrom watering system is absolute dependability.

Edstrom is a leader in the industry with drinking valve innovations that ensure animals and cages stay dry. Our proven shielded drinking valve is used to water millions of mice and rats in ventilated cages. These valves have an exceptional record of reliability and are easy for animals to use.

The unique, patented design of the Edstrom drinking valve utilizes precision-manufactured parts including a guard to protect the stem from accidental movement, a shield to help prevent bedding from entering the valve, and an o-ring and diaphragm to provide the sealing force to deliver water on demand. Every Edstrom drinking valve is manufactured and tested under strict quality control at our facility in Waterford, Wisconsin.

Do you transport bottles or bags from a central location?

Do you have ergonomic issues in your facility?

Would you rather spend your operational budget on higher value work?

Edstrom automated watering eliminates repetitive, time-consuming tasks so staff can devote time to more important work. Our system automates water delivery to your animals, eliminating the need to manually transport water. Other water delivery methods pose a significant risk of ergonomic injury because they involve heavy lifting and repetitive motion. This can lead to missed work and expensive worker's compensation claims. The loss of experienced staff disrupts activities in the animal facility, which detracts from the quality and consistency of animal care. Automated watering eliminates ergonomic risks, ultimately creating a better working environment for everyone.

One of the best investments a vivarium can make is an Edstrom Automated Watering System. An automated watering system generates significant cost savings over its life and in most cases will pay for itself within two to five years. These savings can result in reduced overhead costs, increased profits, and lower per diem rates. No animal watering method is more efficient or cost effective.

#### **Highest Quality Materials**

We use only the highest quality materials, such as 316 stainless steel and silicone that withstand the rigors of sanitization and water treatment. Our valves are precisely manufactured, calibrated, and individually tested.

Water bottles are 6 times more likely to cause animal death, based on an independent study.

#### Percent Morbidity

Water Bottle .0200% Edstrom Drinking Valve .0031%



#### Edstrom innovations include:

- Patented shielded drinking valve used in ventilated caging systems
- Patented Clean Joint<sup>™</sup> fitting to reduce bacterial growth
- Watering system control and monitoring
- Environmental monitoring software with lighting control

#### Start with superior water purification & treatment

The water your animals consume may contain variables that can greatly impact your research results. Your facility's incoming water supply may be contaminated with particulates, dissolved ions, organics, bacteria and other microorganisms. Therefore, controlling water quality is as important as controlling lighting, feed, and air.

The Edstrom solution starts with superior water treatment and purification and is accessed through a drinking valve that does not allow backflow contamination, ensuring every drink an animal takes is clean and fresh. Our full line of water treatment and purification systems is specifically designed to provide exceptional water quality, regardless of the condition of your incoming water.



#### Patented Clean Joint™ technology

Our stainless steel distribution piping utilizes Edstrom patented Clean Joint™ technology to eliminate dead spaces where water can become stagnant and form bacteria. A Clean Joint is a unique pipe fitting that is superior to sanitary fittings used in pharmaceutical manufacturing and the food industry. In contrast, plastic system fittings are typically glued, contaminating the water and creating crevices for bacteria to hide behind.

Each state of the art Edstrom Automated Watering System is individually engineered to deliver consistent, high quality, variable-free drinking water to every animal in the vivarium – 24 hours a day, 7 days a week.

## **Edstrom Automated Watering Systems**

Each Edstrom automated water system is custom designed based on water quality, facility size, room layout, and animal species. Designs available include:

• Flushing
• Recirculation
• Hybrid

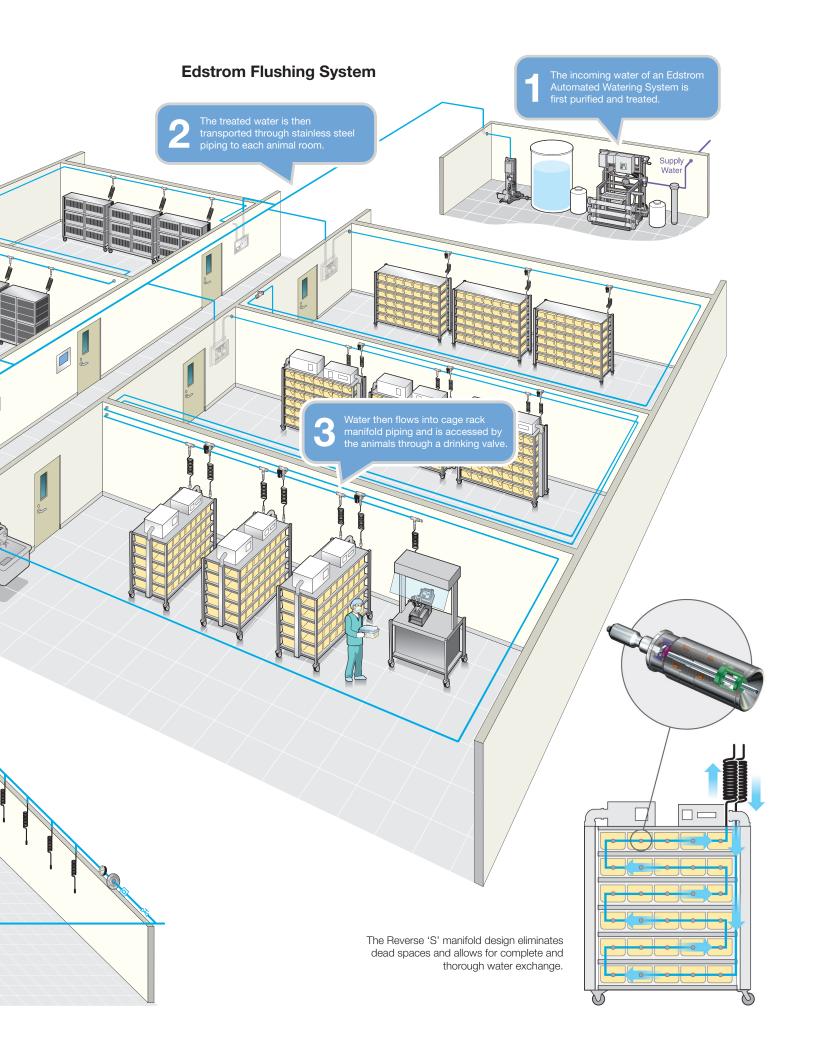
#### **Edstrom Recirculation System**

Through the Rack Recirculation

Room Recirculation

Supply Water

Supply Header





#### **Edstrom water purification and treatment**

Delivering high quality drinking water to your animals begins with proper purification and treatment. Edstrom offers many different methods for purifying and treating animal drinking water depending on your current water conditions and the outcome you desire. We offer Reverse Osmosis and Ultrafilter based purification systems that provide you with variable-free water. We also provide chlorine and acid injection systems to help maintain a clean watering system.



#### Monitoring and Control - Pulse CMC™

An Edstrom Automated Watering System has monitoring and controlling features built in to ensure animal safety. The entire system is monitored starting at the point of purification all the way to the drinking valve. The system continuously monitors water pressure and flow. If an irregular flow or pressure condition is detected, the system will alarm to notify personnel to take immediate corrective action. Complete monitoring of the automated watering system verifies system performance and keeps all parameters under control, safeguarding your animals and research.



#### Sipper Sack. - Individual Cage Watering

Are you looking for an easier way to dose animals? Are you interested in measuring water consumption? Special circumstances like these require an individual watering device. Sipper Sack is a flexible, ergonomically smart system for watering individual cages of mice or rats. The Sipper Sack utilizes a sterile, disposable, plastic bag with a reusable, autoclavable, stainless steel drinking valve. Bags are filled conveniently at the point-of-use in each animal room.

### Your needs are unique.

#### FloSense™ Water Flow Detection

FloSense<sup>™</sup> is the next-level of assurance in automated watering from the industry leader in worry-free animal watering. No matter what type of mouse rack, FloSense is designed to fit and keep you informed in the event a flow condition changes. FloSense can quickly and easily be added to an existing Edstrom automated watering system.















#### Drinking valves to suit your species

Edstrom has a drinking device for almost every animal in the vivarium. Whether you have mice, rats, dogs, guinea pigs, primates, hogs, birds, cats, rabbits, etc., we have drinking valves to suit the species. Animals simply bite, lick, or nose the stem of the valve and water flows out at a controlled rate appropriate for the species. When the animal releases the stem, water flow immediately stops.



#### A partner at every step of the process

We understand the challenges involved in building and operating an animal facility. Edstrom will partner with you at every step of the process to manage the design and development of your vivarium. Our experienced sales and engineering staff assist with layout and design to ensure ease of use and maximum efficiency. Project managers keep your project on schedule and on budget. Our highly trained installation team ensures your system is installed precisely. Edstrom meets the needs of all sizes and types of facilities with an expandable system designed to grow as your facility grows.

#### Nothing routine about our service

Edstrom Professional Service Agreements ensure continued, long-term performance of your watering system and provide you peace of mind that your system will perform as intended. Our specially trained and certified technicians keep Edstrom equipment running smoothly for years to come. We are proactive in providing excellent and responsive service to meet your maintenance needs. Our technicians understand animal facility operations and work to minimize interruptions in your normal daily procedures.





#### Your path begins here

When the time comes to build, add-on or renovate, call Edstrom for assistance in planning for the critical monitoring and animal watering needs of your vivarium. Our extensive experience with lighting, environmental monitoring and animal watering systems make our engineering and sales representatives the perfect asset to help ensure the success of your project from concept to completion. We work closely with architects, planners, cage manufacturers and engineering firms to seamlessly develop the perfect solution for your world-class vivarium.

Edstrom has installed and maintained thousands of automated watering systems throughout the world. Each of these facilities is a testament to the exceptional quality and reliability that we bring to our ongoing partnership with a vivarium.

We invite you to begin your path to a more efficient, consistent and ergonomic vivarium with an Edstrom Automated Watering System.



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Our Quality Management System is Certified to ISO 9001