

Update

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TRIO ACCESS CONTROL:

Keeping An Eye On The Door

Facility management has evolved through decades of technological, scientific, and regulatory changes, reflecting the major advancements in knowledge and growing sophistication of research methodology. Today this evolution has ushered in an increased awareness of the need for facility security.

Security, with regard to animals, facility staff and research data, means taking into account the susceptibility to any number of accidental or deliberate threats. Edstrom addresses the need for comprehensive facility security with our Trio Access Control System. Trio is distinguished by its combination of proprietary software, flexibility, unique system configurations and biometric fingerprint recognition technology.

Trio Access Control is designed to meet the access security requirements of any size facility. Three distinct technologies including a PIN, an RFID proximity card, and a matching

fingerprint profile are used in a predetermined combination to establish authentication for gaining access into secured laboratory environment. Trio provides a networked solution offering centralized management and control over zones of rooms and separate user groups. In doing so, Trio simplifies the

ACCESS EVENTS:	DOOR EVENTS:
<ul style="list-style-type: none"> • Successful Access • Invalid PIN, RFID or Fingerprint • Duress Access Occurred • Attempted Access Outside Timeband • Lockdown Mode 	<ul style="list-style-type: none"> • Door Physically Opened • Door Physically Closed • Forced Door Alarm • Exit Switch Was Pressed • Reader Unit Tamper Detec • Main Power Lost – Running On Battery

CHART OVERVIEW OF ACCESS EVENTS

process of providing access to specific doors through a time-banding feature that assigns the particular hours personnel are allowed to enter secured areas for each day of the week.

Trio's unique two-phase architecture

separates the reader unit on the outside of the door with the intelligence of the controller unit on the secure side of the door providing a simple yet highly secure solution for authentication which is impervious to wire cutting and thwarts hacking with proprietary 256 bit data encryption incorporating code hopping algorithms. This means that not only are your personnel, animals and data safe and secure, but your facility as well.

Facility managers are able to generate reports of access events and receive an alert in response to certain system conditions such as when a door is propped open, an unauthorized entry is attempted or when a duress alarm is signaled. Built-in reporting capabilities document the activity of a selected individual or, as required, down to the door, zone and user group levels thus giving management a

FEATURE INSTALLATION:

Designing for the 'Next Generation' Facility



When a Fortune Global 500 pharmaceutical company developed their next generation vivarium concept, they re-examined all of the stereotypical design considerations that have been a part of laboratory architecture for decades. Their scientists evaluated the interactions between the various disciplines of researchers as well as the configurations of the animal accommodations in accordance with their stated husbandry objectives.

The results of their forward-thinking analysis are manifested in their newly constructed animal research facility. Radical new thinking in basic laboratory design also called for a renewed examination of the methods by which the subject animal population receives its critical supply of drinking water. The company's engineers, having engaged Edstrom in several

successful projects in previous laboratory constructions, recognized that Edstrom Industries would be the perfect partner to help conceive and develop a ground breaking approach to the water purification and delivery system for their new facility.

A COLLABORATIVE METHODOLOGY

The design concept called for an alternative method based upon, but different from, their existing Automated Watering 'flushing' System (AWS). Laboratory design engineers calculated that flushing systems used about twice the volume of water as would a new recirculating system. Yet the available recirculation systems require considerable electrical energy to drive the pumps 24/7/365 that keep the water circulating. Edstrom engineers recommended

a unique hybrid solution based upon an AWS capable of water recovery; a unique concept that Edstrom had envisioned but had not yet fully engineered or developed. The concept was approved and Edstrom worked closely with the company's engineers to incorporate the system into the building infrastructure – the first of its kind.

The hybrid system operates by taking the typical Edstrom-designed on-line rack flushing system and directing reclaimable water into a capture/recovery tank for storage, briefly, until it's needed to refill the system supply tank. From the recovery tank the water is treated with an activated charcoal carbon filter and an energy-efficient Edstrom Ultra filter which requires no pumps to operate. This hybrid system has proven to be highly successful in conserving of both energy and water. Since the recovery tank is not of a continuously recirculating design, the pumps only need to run when the RO calls for the supply tank to refill – not 24/7 as in a recirculating design. In addition, less water is being drained than in a standard flush system since a large portion of the water is being resupplied.

A NOVEL APPROACH

The innovative design of the laboratory building, with extensive use of glass walls on both the exterior and the interior office spaces, also called for a new method of installing the manifolds and room piping used to deliver the treated water. A further design consideration was that the system needed to deliver water to multiple floors of the building,

NEW EDSTROM PRODUCT:

Stackable Drinking Valve Washing Tray

Easily transport and store up to 88 Edstrom A-160 valves, plus ensure proper handling through the tunnel/rack washing and cleaning process. Apply autoclave tape to the side of the tray for easy sanitization confirmation. The stackable stainless steel trays fit into a standard mouse cage, and four trays fit in an accessory basket.



GREEN INITIATIVE:

New Clam Shell for Valve Shipping

The new clear clam shell is made from recycled material and is 100% recyclable plastic. Each valve is snapped into a compartment that protects the valve during shipment. The low profile design holds 50 A-160 shielded drinking valves which are stackable for condensed storage.



and yet be flexible enough to enable easily movable and scalable header piping so that rooms could be repurposed for either office or cage space as requirements dictated. The environment within the building comprises a “multi-space” working concept, providing lab personnel with multiple working areas which may be, by turns, open, closed, private or collaborative.

Edstrom engineers tackled these difficult requirements with an ingenious approach to securing manifold and room supply piping with a specially designed standoff which was both secure yet repositionable. In addition, because the building was used to house a large variety of different species – each with varied water demands – the design of the watering system was critical to the success of the design concept. For example, in a program aimed at non-human primate enrichment, the watering system extended from cage to cage and into the common shared open rooms so that the animals could get water anywhere within the facility. The



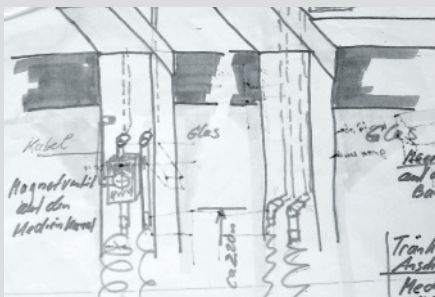
THE END OF THE INSTALLATION PROCESS WITH DRINKING VALVES CAPPED AND READY TO BE USED.

manifold system was designed for maximum flexibility to facilitate movement and changes in room usage and cage orientations. Another unique feature is an outside animal run located on the top floor of the building. The design features a pressure reducing station

on the inside and heated pipes on the outside to prevent freezing.

PRACTICAL AND COST-EFFECTIVE

Edstrom collaborated with the customer to deliver a flexible, resource-conserving, Automated Watering System which fits into the innovative new design concept for their next generation animal facility. The Edstrom hybrid watering and piping system provided the customer with an elegant, practical and cost-effective solution meeting all of their design objectives. Customer engineers and staff expressed their gratitude stating that their confidence in a partnership with Edstrom Industries was well rewarded with the unveiling of a showcase next generation facility.



PENCIL SKETCH OF RECOIL HOSE AND MANIFOLD MOUNTED TO WALL.



PHOTO OF ACTUAL RECOIL HOSE AND MANIFOLD MOUNTED TO WALL.

**ISO 9001:2008 CERTIFICATION:
Mission Accomplished**

Loyalty as documented in *Edstrom Quality Policy*:
“At Edstrom Industries, the customer is the focus of everything we do. We strive daily to meet the changing expectations of our customers. Our systems, policies, and processes are designed and continually improved to achieve the ultimate goal of Customer Satisfaction and Loyalty.”

With customer satisfaction as the backdrop to Quality at Edstrom, October 20, 2010 marked an evolution in our company. After three days of extensive auditing from QMI-SAI Global, we were notified of our recommendation for ISO9001:2008 certification. The recommendations came with no findings; a rare occurrence,

especially considering the complexity of our processes.
 Our success was predicated on our approach; a company-wide endeavor that involved everyone in the organization treating our interrelated processes as a system. We set our sights on receiving certification, but our overall goal involved building a best-in-class organization that others would use as a benchmark. And we succeeded.
 Subsequent audits to our Quality Management System will be ongoing as we continue to measure our key processes.

A New Site to See



The new Edstrom website was officially launched on May 4, 2011 with a more intuitive graphical interface, improved navigation and enhanced search capabilities. Locate products and data by Market or Solution type, use the Support tab to locate Edstrom sales personnel and support offerings in your region via an interactive world map or visit our Resources area for access to white papers, newsletters, instructional

materials, new product introductions and our calendar of events. Here you'll also find the new Document Center with access to specifications and data sheets including information of importance to Architect and Engineering firms.

Curious about your peers' experience with Edstrom products and services? Click on the Testimonials tab. With over four thousand installations in prestigious pharmaceutical, biotech, government and university research centers worldwide we have many diversified customers sharing their observations.

For our international customers, Edstrom has added dedicated multi-language pages which highlight our vivarium product categories in German, French and Chinese. We invite you to explore and to discover why Edstrom is the preferred vivarium partner for facilities around the world.

Keeping An Eye On The Door

Continued from Cover

complete overview of vivarium Access Events or Door Events. (See Overview Chart)

Facility security has become an integral component of facility management. Trio Access Control represents an advanced security methodology by which laboratories can secure the safety of staff, animals and the integrity of research data with greatly enhanced protection against incursion and an irrefutable audit trail of room access. Even if you have a security system in place, Trio can simply be added to higher criticality rooms to enhance your existing security program. Trio is an easy to administer, flexible, and reliable solution to the most challenging problems associated with facility access control.

Contact your Edstrom Sales Consultant for a demonstration.

INTRODUCTIONS:

Welcome to the Edstrom Team:



Christian Kühn

Christian Kühn joined Edstrom in May of 2011 as *Business Manager* for Central Europe.

Following his four year assignment in the Army, serving in the medical department, Christian completed his economic education and began his career in the healthcare industry with Pfizer/Sanofi Merieux in Germany. Here he served as an Area Sales Manager for more than nine years. He has an additional ten years of sales and marketing experience with European and Asian-based companies including Messerschmidt-Bölkow-Blohm.

Christian looks forward to continuing our success in establishing AWS and other Edstrom equipment in laboratories throughout Germany, Austria and Switzerland.

Christian currently lives near Munich in Southern Germany.

Oliver Boldt

Oliver Boldt joined Edstrom in April 2011 as *Director, Business Development* for Europe. Oliver was the former President of Cidercone, the company which develops the SmartLab software for animal management. Before that, Oliver worked at Nokia for more than a decade, during the formative years of cell phone technology.

Oliver is passionate about working with our clients in the laboratory market, helping them use new technology to advance their research. He has previously worked in a cooperative venture with Edstrom to development the animal management partnership.

Oliver is originally from Germany and lives now with his wife and two sons in Finland. He is a huge fan of world soccer.

James Wu

James Wu joined Edstrom in January of 2011 as *Business Manager* for South Asia. James graduated from the East China University with a major in Pharmaceutical technology and a Master's Degree of Business Administration. James currently lives in Shanghai, China.

James worked for Baxter Shanghai more than eight years, contributing first to the success of the Quality Department and then to the Production Department. James also worked for more than 3 years with the Amsino Medical Device Co, Ltd, which has headquarters located in California.

James looks to expand the presence of Edstrom' products and services in mainland China, Taiwan, South Korea and Vietnam.

Ralph Henderer

Ralph joined Edstrom in December of 2010 as *Vice President Product Management*.

Ralph completed a Bachelor of Arts degree in Business at Bethel University in St. Paul, MN. He then pursued a career in industry with a major focus on engineering. He spent several years in operations, and more than 10 years in business development, marketing and product management roles, collecting more than 25 years in roles servicing high-tech industries.

Prior to joining Edstrom, Ralph was Vice President of Product Management at Entegris, a global supplier of filtration, purification, and transport products to high technology markets such as semiconductor, data storage, and LCD displays.

A Southern California native, Ralph has lived in the Midwest since 1994.