

ANIMAL SOLUTIONS

LIGHTING CONTROL

**ENVIRONMENTAL
MONITORING**

AUTOMATED WATERING

V.2 WIRELESS

VALIDATION



Rees Scientific

REES SCIENTIFIC Animal Solutions

Animal Room Monitoring – Independent, Validated, Networked or Web based, Centron Environmental Monitoring System offers a monitoring system designed to meet your critical AAALAC and GxP regulations. Monitor temperature, humidity, light, air flow and more in your Animal Holding Rooms, Walk-in Cold Rooms, Feed Storage as well as critical lab equipment.

A single Centron system can monitor a diverse facility with multiple locations while it provides instant data access and sophisticated analysis right from your desktop computer.

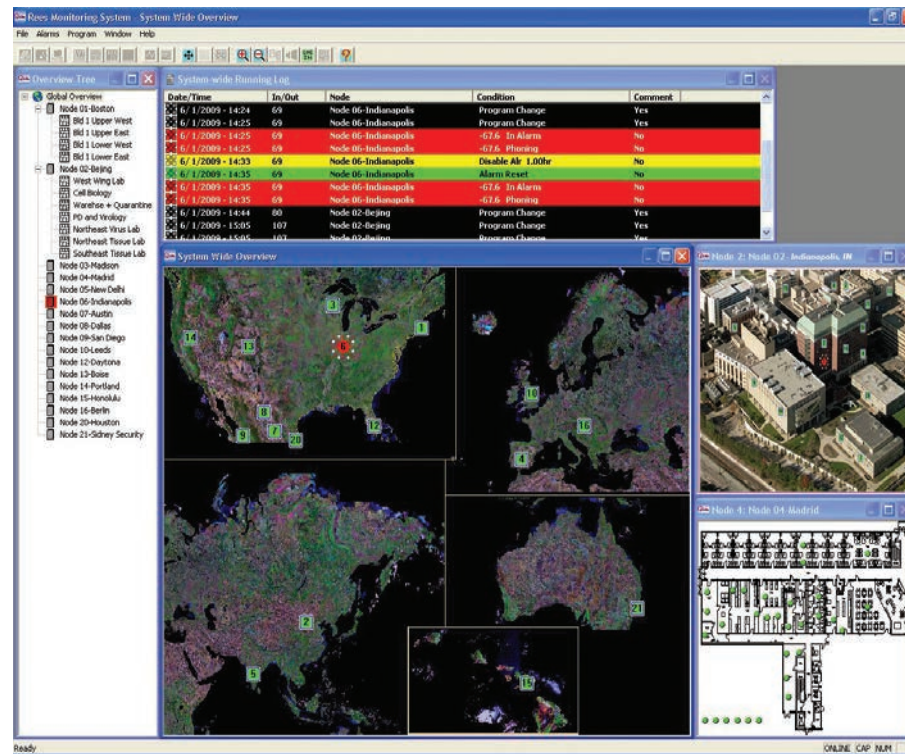
Wireless and/or Hardwired Sensors

Designed to work with all Centron systems, wireless sensors are ideal for animal holding rooms and clean rooms where conduit is required as well as temporary or rented facilities where you are not permitted to run data lines.

Remote locations can be economically monitored using our device that is capable of buffering data in case communications to the system are disrupted.

Hard Wired system includes:

- Multiplex Remote Panels
- Data Buffering
- Network Capabilities
- Trouble Alarms



V.2 Wireless includes:

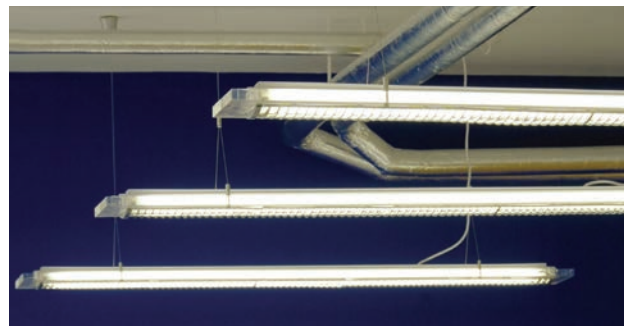
- Data Buffering
- Low Battery Alarm
- Local Alarm Capabilities
- Self-Healing Mesh Network



Lighting Control

Alarm, record and control your facility's animal room lighting by establishing simple schedules based on time and date. Confirm that lighting control is performing properly from anywhere.

Software based and centralized, the Centron eliminates the need for unreliable mechanical timers and reduces labor costs by eliminating the need to manually check each room twice a day.



Automated Watering Solutions – 28 years of experience monitoring environmental conditions in laboratories has given us tremendous insight into other areas of research facilities. Working with our clients, we have designed our Automated Watering Solutions.

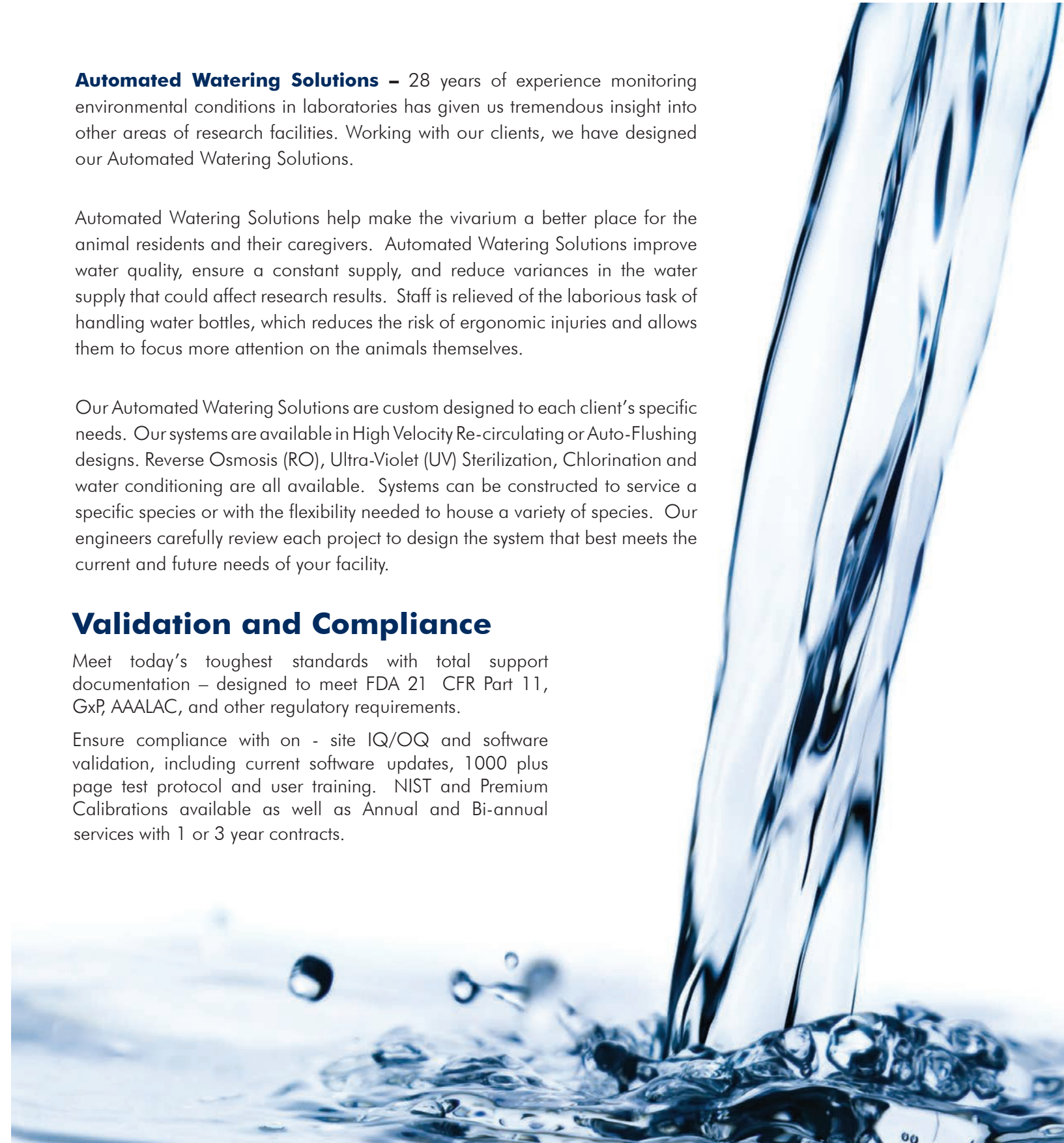
Automated Watering Solutions help make the vivarium a better place for the animal residents and their caregivers. Automated Watering Solutions improve water quality, ensure a constant supply, and reduce variances in the water supply that could affect research results. Staff is relieved of the laborious task of handling water bottles, which reduces the risk of ergonomic injuries and allows them to focus more attention on the animals themselves.

Our Automated Watering Solutions are custom designed to each client's specific needs. Our systems are available in High Velocity Re-circulating or Auto-Flushing designs. Reverse Osmosis (RO), Ultra-Violet (UV) Sterilization, Chlorination and water conditioning are all available. Systems can be constructed to service a specific species or with the flexibility needed to house a variety of species. Our engineers carefully review each project to design the system that best meets the current and future needs of your facility.

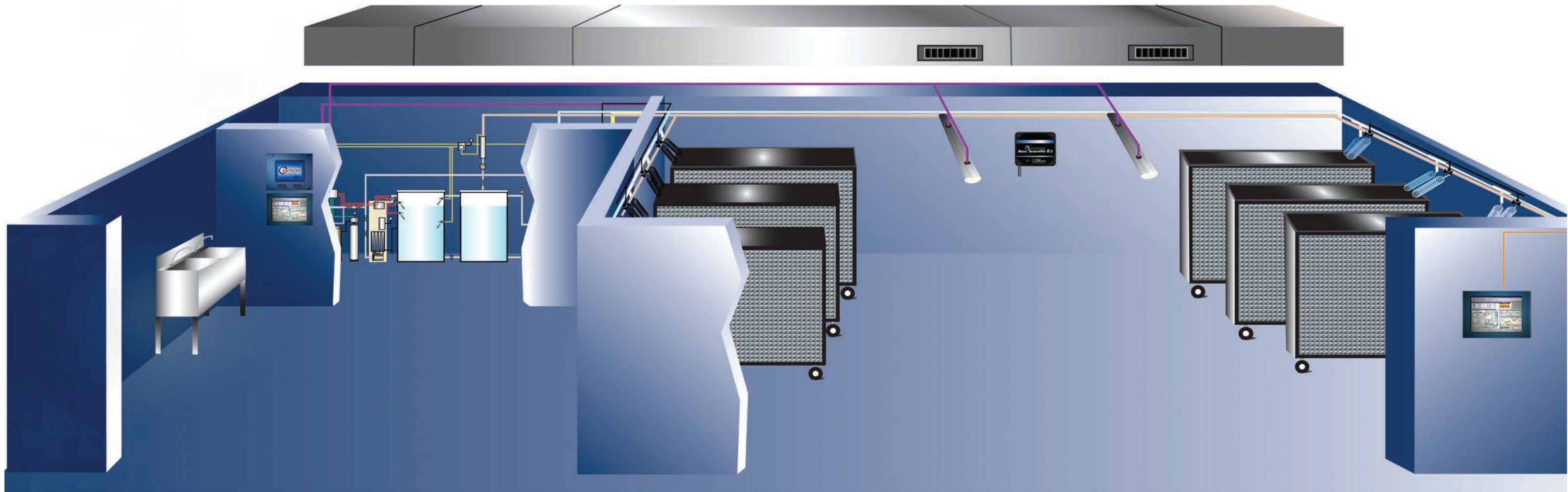
Validation and Compliance

Meet today's toughest standards with total support documentation – designed to meet FDA 21 CFR Part 11, GxP, AAALAC, and other regulatory requirements.

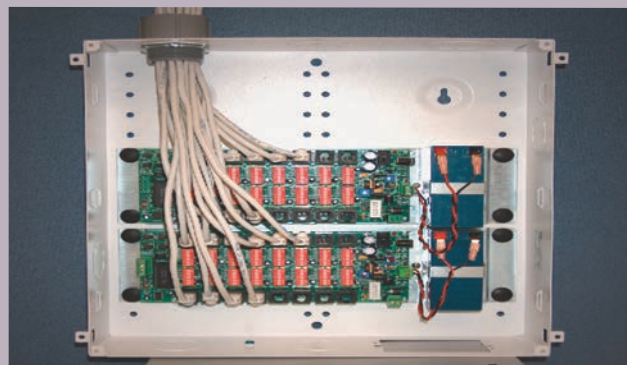
Ensure compliance with on-site IQ/OQ and software validation, including current software updates, 1000 plus page test protocol and user training. NIST and Premium Calibrations available as well as Annual and Bi-annual services with 1 or 3 year contracts.



REES SCIENTIFIC ANIMAL SOLUTIONS



CENTRON TOUCH SCREEN



MULTIPLEX REMOTE PANELS (HARDWIRED)



LIGHTING CONTROL



V.2 WIRELESS SENSOR

(Illustration shows Wireless Animal Room Sensors, Monitoring of Air Flow and Watering System)

HOW IT WORKS – High Velocity Re-Circulating

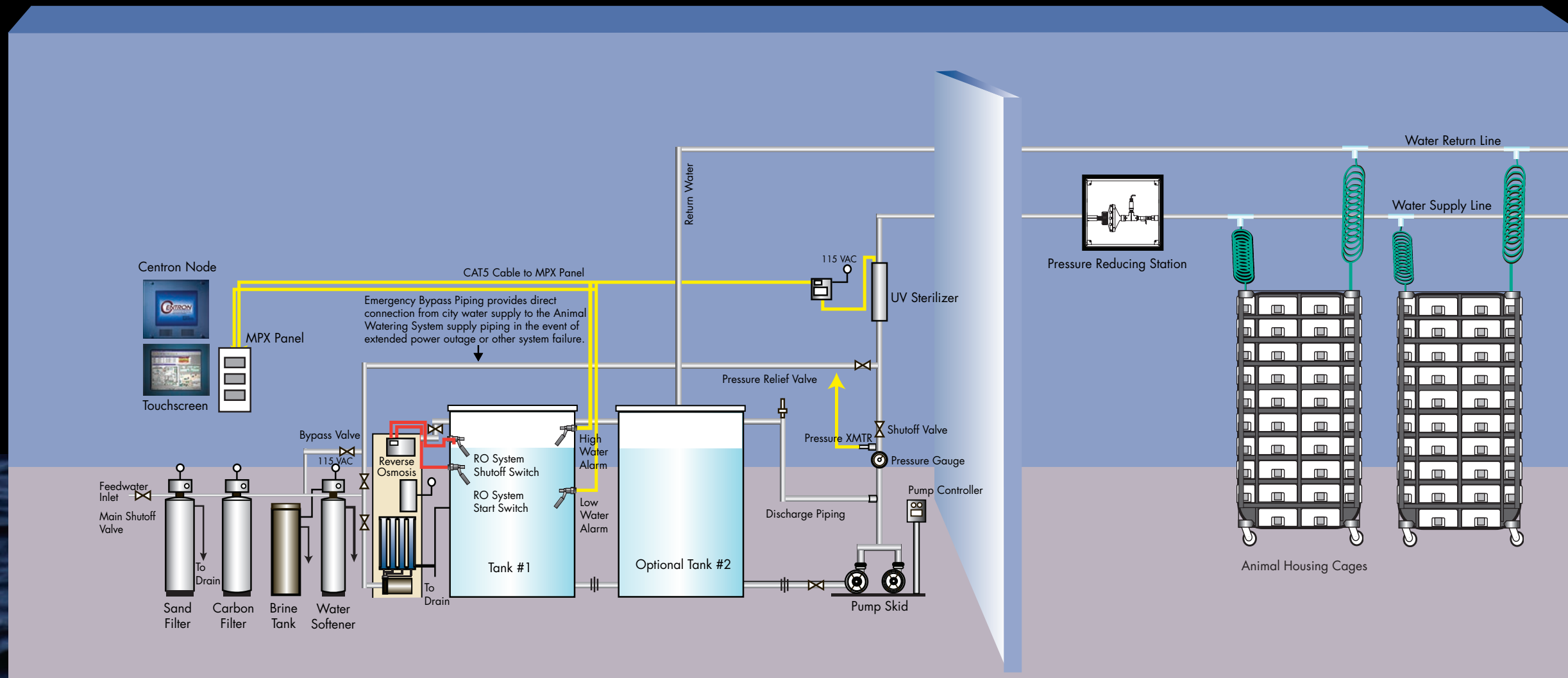
A high volume pump sends water through a large capacity UV system and out to all of the animal room corridors via a central feed pipe. This central feed pipe supplies clean water to single-stage Pressure Reducing Panels located in corridors or anterooms. Flow Control valves allow for the adjustment of the rate of flow through the room to the return line and maintain the desired pressure within the room piping.

- Easily scalable - perfect for facilities of any size
- Flexible - can accommodate a variety of species
- Eliminates costly flushing of expensive RO water
- Piping design eliminates dead legs - reducing bacteria and biofilm build-up
- High Flow Velocities in Supply and Return Piping help maintain system cleanliness

HOW IT WORKS – Auto Flushing

Single-stage Pressure Reducing Panels are combined with our output control capabilities to provide automatic flushing. A drain solenoid is installed at the end of the line. At a pre-scheduled time each day, the system will open the solenoid, flushing all of the potentially stagnant or contaminated water out of the system. Multiple flush schedules can be programmed. Single regulator design provides appropriate drinking pressure throughout the system at all times. System reliability is increased with fewer moving parts.

- Eliminates labor-intensive manual processes
- Ensures consistent flushing at the same time and pressure each day
- Increased system reliability with no possibility of leaking drinking tips caused by an over pressure condition
- Supports flow-thru-the-rack manifold flushing without the need for separate flush solenoids and expensive controllers



Regardless of which of these systems best fits your needs, our Automated Animal Watering System provides you the control and peace of mind needed to provide the animals within your facility the best environment. In addition to monitoring the room temperature, humidity, air pressure, the Centron also monitors water pressure and flow, tank level(s), power to pump, UV bulb status, chlorine concentration, and more.

316 Stainless Steel Quick Disconnects allow for easy changing of racks, manifolds and hoses. Optional cage rack flushing and hose flushing stations ensure the entire system is providing clean drinking water.

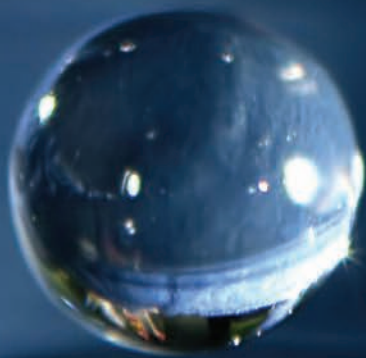
Water Purification can be achieved through the use of:

- **Reverse Osmosis**
- **Ultra-Violet (UV) Sterilization**
- **Chlorination**

Reverse Osmosis (RO) removes up to 98% of inorganics (iron, calcium, minerals and salts) and 99% of organics (waterborne pathogens, bacteria and viruses) by passing water through extremely fine filters or membranes.

Ultra-Violet (UV) sterilization removes unwanted free floating microscopic water borne bacteria, parasitic, fungal, viral, algae, and other unfriendly pathogens. Exposure to high intensity UV light alters the cell structure of these organisms, rendering them dead and eliminating their threat to the water.

Chlorination kills harmful bacteria and minimizes growth of biofilm. Our Chlorinator automatically injects Sodium Hypochlorite solution into the water storage tank to maintain a user determined Free Chlorine level which can be monitored with our optional sensor system.



For more information about
REES SCIENTIFIC
Animal Solutions

please contact your local
Rees Scientific Representative or
email: sales@reesscientific.com

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