



Engineered Water Systems

- Manufacturer and Distributor
- Solutions for Corrosive and High Purity Fluid Handling Applications
- In-House Engineering, CAD, and PLC Programming Services
- UL508A, UL698A, & NNNY Certified Control Panel Fabrication
- Thermoplastic and Metal Fabrication
- Turnkey Product Solutions
- Complete Field Services & Preventive Maintenance



BurtProcess Equipment

Company Overview

Founded in 1970 Burt Process Equipment is a worldwide leader in the design, manufacturing, and distribution of high purity and corrosion resistant equipment, systems and services. BPE provides proven solutions for many industries including the life science, semiconductor, chemical processing, institutional, and academic markets.



Products

- pH Neutralization Systems
- Wastewater Treatment
- Filtration Equipment
- High Purity Water Generation Equipment
- Rainwater Reclamation Systems
- Custom Plastic and Stainless Steel Fabrications
- UL Listed Custom Control Panels
- Chemical Feed Systems
- Wet Process Benches
- Pump Transfer Stations
- Tanks and Mixers
- Process Instrumentation and Controls

Services

- System Engineering & Design
- Skid Mounted Equipment
- Turnkey Installations and Upgrades
- Controls Integration
- Start-up, Testing, Training
- Documentation
- Maintenance & Technical Support
- Instrumentation Calibration
- Pump Equipment Repair
- Transportation & Rigging



PROCESS EQUIPMENT 100 Overlook Drive, Hamden, CT 06514

Engineering and Design Capabilities



Engineering and Design Capabilities

Burt Process Equipment takes a hands-on approach with our clients in developing proven industrial systems. Our highly qualified staff includes mechanical, chemical, and electrical engineers as well as project managers, programmers and CAD designers to offer complete engineering and development services. We offer turnkey assistance from the first call, where our application and design engineers work with you to develop specifications and solutions specifically designed for your needs. Customized equipment is our specialty and our engineers work with our clients every step of the way, providing:

- Preliminary Site Reviews
- Process Design
- Specification Writing
- CAD Drawings Including 3-D System Design
- Project Management
- Complete Mechanical Design
- Electrical Designs to Meet UL and NFPA Standards
- Software Development in Both PLC and PC Platforms
- Complete FAT and SAT Testing

pH Neutralization Systems

PHX pH Plus

Burt Process Equipment's pH Plus Family of advanced pH adjustment modules and systems represent the industries' best and most complete line of pH monitoring and controlling equipment. The pH Plus Series is the result of forty-three years of experience and engineering development in the field of industrial wastewater treatment.

System Features

- PLC/HMI Control for Setpoints and Status
- Customer Specified PLC/HMI Capabilities
- Optional UL508A Listed Controls

System Features

- PHX Single Reagent Systems
- Flow Monitoring Equipment
- Batch Collection Tanks
- Pump Transfer Stations
- Liquid Level Controllers
- Secondary Containment



ACS Assured Compliance

The Assured Compliance System (ACS) treats continuous flow streams employing hybrid batch technology developed by Burt Process Equipment, the leader in pH neutralization systems for over forty-three years.

Unlike typical continuous flow systems, the ACS provides assurance of a properly treated waste stream through the use of freeboard and flow diversion should an out of range pH condition occur.

System Features

- Flow Rate of Up to 300 GPM and a pH of 1-14
- Assured Compliance Control Technology
- Passive Equalization Chamber
- Multi-Chamber Treatment Tank
- Heavy-Duty Gear Mixer
- Recirculation Loop Reagent Injection
- Recirculation Loop Flow Fault Detection
- Easily Maintained Wet-Tap with Self-Cleaning pH Probe
- High Efficiency Proportional Metering Pumps
- Large Out of Spec Retention Volume



Available Options

- Single or Dual Stage Treatment
- Additional Diversion Storage Tanks
- Pump Transfer Lift Stations
- Instantaneous & Total Flow Monitors
- Effluent Temperature Monitor
- Redundant pH Probes
- Passive Tank pH Adjustment
- Full Range of Analytical Monitors
- PLC Control Packages
- Effluent Sampling Systems
- HMI/SCADA Interface
- Touch Screen Monitors and Controls
- Bulk Reagent Transfer Systems



High Purity Water



RODI High Purity Water

Burt Process Equipment's PurePlus family of ultra-pure water systems is a complete line of generation and distribution equipment. The advanced skid-mounted modules offer a prepackaged high purity solution. The PurePlus line is a result of forty-three years of evolution and Burt Process Equipment's expertise in the application of state of the art equipment and materials for high purity and chemical applications. Water Generation grades include USP, Electronic, ASTM/NCCLS/CAP Lab, and Others.

We have successfully installed RODI water systems in these markets:

- Pharmaceutical Manufacturers
- Life Science Research Facilities
- Biomedical and Clinical Laboratories
- Semiconductor Fabrication Plants
- Printed Circuit Board Manufacturers
- Food and Beverage Processing
- Metal Finishing Industry
- Hospitals and Institutions
- Education Facilities
- Power Generation Plants

Features & Options

- Fusion welded and sanitary polypropylene and PVDF piping
- High-pressure stainless-steel reverse osmosis pressure vessels with performance membranes
- Pharmaceutical and electronics grade filter elements
- Pretreatment water softening and carbon treatment
- PLC controls with optional web interface
- Proprietary ultra-pure storage vessel
- Continuous storage tank level measurement
- Precision controlled nitrogen tank blanketing for 18.3 MOhm applications
- Ultraviolet bacteria and TOC reduction
- Low resistivity alarm/diverter valve
- Ethernet and modem options for remote access
- Ethernet and Modem Options for Remote Access



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RainEx Rainwater Reclamation



RainEx Rainwater Reclamation

Burt Process Equipment's RainEx product line is a key component in achieving Green building status through LEED certification. The result of over forty-three years of fluid handling and engineered systems experience the RainEx line of reclamation systems provides prepackaged solutions for rainwater recycling. Combining skid mounted tanks, pumps, filtration, sanitization, and electrical controls, the RainEx series gives customers a complete treatment package for use in recycled applications for irrigation, flushing fixtures, and cooling tower make-up.

RainEx systems are meeting the **GREEN** needs of:

- Schools and Universities
- Office Buildings
- Hotels
- Data Centers
- Government Facilities
- Industrial Plants

System Features

- Prepackaged and Factory Tested Design for Reduced Installation Costs
- High Quality Piping and Valves to Meet Local Plumbing Codes
- Stainless Steel or PVC Filtration Systems
- Sanitization via Ultraviolet or Chemical Injection for Flushing Fixture Use
- Touch Screen and PLC Automatic Controls for Ease of Use
- Pigmented Storage Tanks to Minimize Bacterial Growth
- Optional Dye Injection for Flushing Fixtures
- Optional In-line pH Adjustment
- On Site Start-Up and Training by a Factory Trained Field Service Technician



Engineered and supported by
ARCSA accredited professionals.



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Control Panels and Lift Stations



Control Panels

In 2002, Burt Process Equipment, Inc. received our UL508A, UL698A, & NNNY certifications from Underwriters Laboratories. The UL 508A Standard is used to evaluate Enclosed Industrial Control Panels and certifies that the components and construction comply with the applicable NEC, ANSI/NFPA 70 guidelines. The certification ensures that a panel marked with the UL label is built with UL listed or UL recognized components and that the construction is compliant with the type requirement for the enclosure.

System Features

- NEMA Enclosures
- High Quality Components
- Audible/Visual Alarms
- Main Panel Power Switch and Indicating Light
- IEC or NEMA Motor Starters
- Ethernet and Modem Options for Remote Access
- PLC Based Control with Optional Web Interface
- Equipment Running Lights and Operators

Pump Lift Stations

Classic Series Pump Lift Stations are designed for applications where gravity drainage is not an option.

Standard Features

- Wide range of flows & pressures to choose from
- Smooth interior for ease of cleaning
- CPVC or polypropylene corrosion resistant pump
- Withstand temperature to 180F [PPS] or 140F [PES]
- Automatic Off/On pump control
- Rugged acid resistant construction for safety and durability

Simplex Units for applications where pump redundancy is not required. Tanks range in size from 7 to 50 gallons and are available in molded high density polyethylene (HDPE) or natural polypropylene. Covers are 1/2" thick bolt-down polypropylene.

Duplex Units for cases when pump redundancy is required for high inlet flow conditions and to eliminate downtime. Duplex Lift Stations come standard with alternating pump controls to even out wear and promote longer pump life.



Field Service & Technical Support



Field Services

- Instrumentation & Component Calibration
- PLC and PC Controls Programming
- Installation and Start-Up
- Customized User Training
- Equipment/System Troubleshooting
- Instrumentation Upgrades
- Programming Updates
- Preventive Maintenance Services
- On-Site Equipment Performance Evaluations

Working Closely with customers, our highly trained engineers will review your requirements and offer a treatment technology specifically tailored to meet your needs. From start to finish, Burt Process Equipment can provide feasibility studies, system design, fabrication, start-up, training, and service.

Installation

Our factory trained installation teams offer turnkey installation services for all of our equipment. Having installers familiar with the equipment keeps projects on schedule and within budget. We utilize state of the art welding and fabrication equipment allowing us to also field fabricate and install systems in areas where limited access had previously prohibited equipment upgrades and expansion.

Start-Up

Field start-up is included with each of our systems and provides a thorough check of all mechanical and electrical connections including any field re-assembly of modularized systems. This service ensures a smooth turnover to the owner and a speedy commissioning process. Our team also facilitates integration with other equipment along with BMS (Building Management System) and network tie-ins.

Training

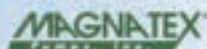
Successful equipment operation stems from experience and training. With all new equipment engineers, operators, and maintenance technicians will be trained to understand and address the theory of operation, maintenance, and troubleshooting aspects of equipment. Training is conducted on-site and can be digitally recorded for use as a refresher course or for new employees.



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Providing Solutions Since 1970
MANUFACTURER'S INDEX



Pumps

Albin
Alfa Laval
AMT
Ansimag
ARO
Blue White
Ebara
Eastern
Eclipse
ECO
Enviroflex
EVO
Finish Thompson
Fluid-O-Tech
Flux
GRI
Grundfos
Hidrostat
Ingersoll Rand
Isochem
Iwaki
Liberty Process
Lutz
LMI
March
Magnatex
Masterflex
Micropump
Milton Roy
MP Pump
Neptune
Netzsch
Oberdorfer
Pacer
Price
Pulsafeeder
Pulsatron
Q-Pumps
Sandpiper
Stenner
Thomas
Travaini
Webster
Wilden
Williams
Yamada

Motors/VFD

ABB
Baldor
Weg
AC Tech
Emotron

Tanks

Assman
Burt Process Equipment
Chem-Tainer
Nalgene
Norwesco
Peabody Engineering
Saint Gobain

Tubing, Hose & Fittings

Colder
Finger Lakes
Masterflex
Enviroflex
Rubber Fab
Saint Gobain
Tygon
TBL

Pipe, Valves & Fittings

Alfa Laval
Asahi
Georg Fischer
Griffco
Hayward
Plast-O-Matic
Sanitech
Simtech

Specialty Products

ChemPlus
Chemical Feed Systems
Lightnin Mixers
Flexicon
Fusion Mixers
Glycol Feed Systems
PolymerPlus
Polymer Feed Systems
Process Technology Heaters
Blacoh Pulsation Dampeners

Instrumentation

Aqua-Metrix
Blue White
Dwyer
Flowline
Icon
Kobold
Signet

ARO



MICROPUMP

ISOCHEM

MARCH
PUMPS



CHEM-TAINER

PULSAFEEDER



Custom Systems by Burt Process Equipment

Contact our professional staff for assistance in selecting
the proper equipment for all of your fluid handling needs.

System Examples

Semiconductor Manufacturer

Application: Waste Solvent Collection and Transfer

Details:

The system accepts waste solvent from a manufacturing process and pumps it automatically based upon level to a waste treatment system.

The system is a completely automated system and provides a double contained collection system inside a sealed enclosure.

The Unit Features:

- Air operated transfer pumps and valves suitable for hazardous environment
- Intrinsically safe instrumentation for system control
- Integral vent and flame arrester suitable for solvent vapors

Collection:

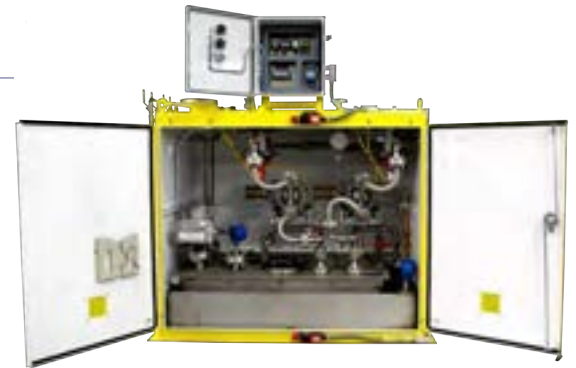
55 gallon dual 316 stainless steel drums

Instrumentation:

Intrinsically safe guided wave radar and point level switches for pump control, alarms, and leak detection in secondary containment.

Use:

Collection and transfer of solvent waste where gravity drainage cannot be utilized



Pharmaceutical

Application: Assured Compliance System (ACS) with HX Heat Exchanger

Details:

As pharmaceutical innovations grow, and the need for expanded and versatile lab space becomes more prevalent, it is important for infrastructure to be built and designed to compensate. Burt Process Equipment was approached with a unique challenge as one of largest vaccine manufactures in the world was working to build mobile laboratories and facilities, to place their scientist, researchers and medical professionals closer to the epicenter of global health issues. Burt Process partnered to provide waste treatment technologies suitable for the mobile infrastructure.

The Unit Features:

- Reduced footprint ACS pH adjustment continuous flow treatment system
- 20 minute retention time, flexible for varying waste streams
- Plate and frame heat exchanger to reduce waste temperature at 140° F
- 316SS Pump transfer stations

Treatment Tanks:

Low profile 1250 gallon PP tank with elevated pumps

Instrumentation:

Redundant pH, temperature and level sensors in each treatment tank with instrumentation fault alarms. Effluent includes redundant flow sensors and redundant waste samplers for municipal discharge verification.

Use: Pharmaceutical Wastewater Treatment



Public Health Laboratory

Application: Texas Dept. of State Health Services - Public Health Laboratory

Details:

One of the largest laboratories in the country, processing over one million samples for infectious and foodborne pathogens as well water testing for over 6800 water systems, is a critical part of the infrastructure of the Texas and the surrounding region. Burt Process Engineers developed a fully redundant batch treatment system to be located in two environmental enclosures which were installed on the outside of the building while the current treatment process was left in operation.

This offered several different advantages. First, it mitigated any interruption or construction in the lab spaces themselves. Secondly, it allowed the systems to be fully installed onsite without taking the current waste treatment system offline, allowing for a very short shutdown for final tie ins for the new system. And lastly, utilizing a batch system allowed for the redundancy to ensure proper waste treatment and allow for the operators to perform required maintenance.

The Unit Features:

- 6800 gal. double wall equalization tank for collection and transfer
- Dual 3000 gal. batch treatment systems
- Convenience outlets, and acid resistant lights
- HVAC system to maintain temperature of 70 degrees in the enclosure
- Custom built heavy duty polypropylene CSTR (continuously stirred tank reactor)
- AVS (anti vortex system) treatment tanks
- Allen Bradley Compactlogix PLC controls with integration to building management system (BMS)

Critical System Components:

- Fully redundant pH probes for increased redundancy
- Effluent flow and pH monitoring to ensure waste discharge compliance

Use:

Waste treatment system for all lab waste





BURT | PROCESS EQUIPMENT

Partners In Global Water Quality

Corporate Headquarters



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