



Akiki Engineering Est.

*Water & Steam Experts*



## 1.5. Disinfection Catalogue

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## Chemical Dosing Pump



Akiki Engineering Disinfection Series Chemical Dosing Pump Metering Injectors are well suited to a variety of water and wastewater treatment applications. C-1500N Series feature Blue-Whites exclusive Heavy Duty Head with Bullet Cartridge Valves constructed of tough PVDF. Each valve has two ceramic checks double sealed with high grade Viton and TEE/P o-rings. The double ball valve design provides enhanced priming, and is exceptional for purging air and gas. The STANDARD c-1500N has a dial-type, top mounted output control. Deluxe units have a built-in percentage controller; both the stroke of the diaphragm and the controller can be adjusted.

Akiki Engineering units provide excellent accuracy when metering small amounts of chemical. They have a diaphragm 50 % smaller than Standard C-1500Ns. the MICRO-FEED option is available on either the standard or deluxe models. Whichever C-1500N unit you choose you know you'll be getting superior features, materials and performance.

### Applications:

- Water treatment and conditioning
- Soap, wax and detergent injection
- Wastewater treatment
- Biocide feed
- Rural water systems
- Cooling tower and boiler water treatment
- Fertilizer and nutrient injection
- Swimming pool chlorination/ pH control
- Wherever a tough dependable injector is needed

### Features:

- Superior pump head design
- Field serviceable
- All ball bearing gear motor for smooth, powerful operation plus, permanent lubrication
- Pump head design and material options
- Electronic and mechanical output controllers
- Quick adjusting output mechanisms
- Voltage options
- Efficient, dependable design- each unit factory tested
- Private labeling for volume purchasers
- 3/8" ODx" ID Tubing connections
- Backed by an excellent limited warranty and, a nationwide network of factory authorized warranty service centers

### Operating Specifications:

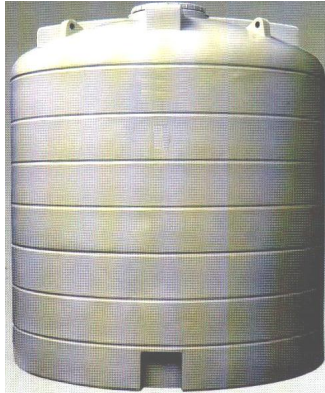
- Max. Working Pressure: 125 psig/8.6 bar (most models)
- Max. Fluid Temperature: 130 F/54 C
- Ambient Temp Range: 14 to 110 F/-10 to 43 C
- Max Viscosity: 1,000 Centipoise
- Max Suction Lift: 10 ft.Water
- Output Accuracy: +/- 10 % of maximum(water 0 psig, 5" suction lift)
- Turndown Ratio: 20:1
- Turndown Ratio: 400: 1 with optional 5 second or 60 second timer
- Duty Cycle: Continuous
- Enclosure: Acceptable for outdoor use. NEMA 3R (IP23)
- Power Requirement: Standard 115V/60Hz-45 Watts, Optional: 220V / 50Hz , 24V / 60Hz, 230V / 60Hz
- Amperage Draw: 115V / 60Hz starting 74, running 45
- Amperage Draw: 230V / 60Hz starting 36, running 21
- Amperage Draw: 24V /60Hz starting 3.4, running 2.0
- Amperage Draw: 220V/ 50Hz starting .31, running .19
- Dimensions: 9-1/16" Hx4-1/2" Wx5-3/4" D
- Shipping Weight: 8 lbs/ 3.64 kg
- Note: 220V / 50Hz units deliver approximately 20 % less output

### Options:

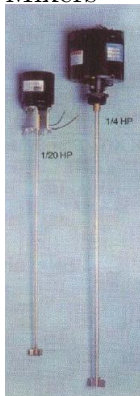
- Deluxe Models Feature Dual Control, Stroke length adjustment and Timer
- Additional options are available on demand.

## Chemical Tank & Mixers

Chemical Tank



Mixers



### Mixers

Akiki Engineering's Mixers are excellent for use with Akiki Engineering chemical feed systems in tanks up to 500 Liters, making them an essential accessory for many applications.

Mixers for larger tanks are available upon request of the customer.

### Chemical Tank Applications:

- Corrosive and non corrosive chemical solutions
- Storage tank

### Chemical Tank Features:

- Materials: Polyethylene (tank / cover)
- Stand: welded steel
- Tube guide: PVC
- Strong & Durable
- Hygienic
- Light Weight
- Maintenance Free
- Hermetically Sealed
- Weather Resistant
- Resistant to UV Light
- Resistant to Stress, Cracking, & Corrosion
- Provided With Inlet & Outlet Connections
- Available in white transparent or in grey opaque
- Inert against chemicals

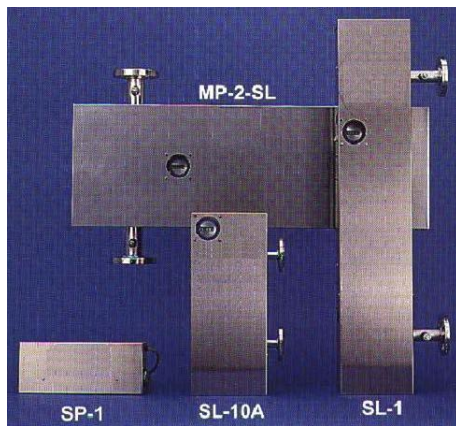
### Mixers Features:

- Stainless steel shaft / impeller
- Bracket mount
- Mixer Motor: 1/3 hp
- Voltage: 115V / 60Hz , 230V/ 60Hz, 220V/ 50Hz

### Chemical Tank Options:

- Graduated

## UV Units - Low Flow



The Disinfection Series UV units provide compact design and economical ultra-violet treatment for low-flow applications, such as laboratory and medical facility water, pharmaceutical make-up processes, final electronic rinsing and recirculation loops, to name a few.

Akiki Engineering provides Disinfection Series UV units which produce little change in water temperature, even after prolonged periods of no water flow, making them ideal for such applications such as water for vending machines.

The Disinfection Series UV units may also be configured for TOC reduction or ozone destruction applications found in high purity or ultrapure water processes.

### Applications:

- Drinking Water
- Ice-Making
- Car Wash Water Reclamation
- Rinse Waters
- Biomedical Applications
- Laboratory Applications
- Photography
- Pharmaceutical Production
- Water used in chemical processes
- Cosmetics
- Restaurants
- Metal Plating Applications

### Features:

- UV intensity sensor is optional on some models
- Stainless steel that has been electropolished and passivated is available on some models
- Validated UV lamps are available on some models
- Quick lamp change-out time
- Compact design

## Operating Specifications:

- Standard water temperature range 350F to 1000F (20C to 380C)
- Standard operating pressure up to 120 PSIG (8.3 bar)

## Options:

- Temperature Safety Control
- High Pressure Model (Up To 150 PSIG)
- Sanitary Fittings
- Lamp Out Alert (LOA)
- UV optical sensor
- High Water Temperature Models (>100F/38C)
- Signal Conversion
- ARC Detection Circuit



## UV Units - Indoor Use



The Disinfection Series UV units utilize a compact integrated design, incorporating both the UV treatment chamber and electrical cabinet base, where all electrical components and instrumentation are located. These compact one-piece UV units are engineered for indoor installations and controlled operating environments.

Akiki Engineering provides Disinfection Series UV units which are being used in laboratory, hospital, and hotel installations, as well as cosmetic, pharmaceutical, and semiconductor manufacturing processes to name a few water treatment applications.

UV disinfection flow rates for the eleven standard IU models range from 40 to 630 GPM (9.1 to 143.2 m<sup>3</sup>/hr), with TOC reduction and ozone destruction configuration also available.

### Applications:

- Drinking Water
- Ice-Making
- Car Wash Water Reclamation
- Rinse Waters
- Biomedical Applications
- Laboratory Applications
- Photography
- Pharmaceutical Production
- Water used in chemical processes
- Cosmetics
- Restaurants
- Metal Plating Applications

### Features:

- Stainless steel treatment chamber
- Stainless steel cabinet housing

### Operating Specifications:

- Standard water temperature range 350F to 1000F (20C to 380C)
- Standard operating pressure up to 120 PSIG (8.3 bar)

### Options:

- Temperature Safety Control
- High Pressure Model (Up To 150 PSIG)
- Sanitary Fittings
- Lamp Out Alert (LOA)
- Internal Finish
- Endplate-Mounted 360 UV Intensity Sensor
- 4-20 mA Output Signal

## UV Units - T Series



Ultraviolet disinfection systems channel water past submerged lamps that emit lethal doses of UV energy, destroying any pathogens. The strength of a dose is a product of the UV light intensity and exposure time.

Not only is it safe and highly effective, UV does not change the taste, color, or odor in water. It simply removes the risk of illness caused by microbial contamination, making water safe to drink or use commercially.

When bacteria, viruses, and other microorganisms are exposed to germicidal UV light at a particular wavelength (243.7 nanometers), their reproductive capabilities are destroyed, which means that they are inactivated and no longer pose a threat to human health.

### Applications:

- Drinking Water
- Ice-Making
- Car Wash Water Reclamation
- Rinse Waters
- Biomedical Applications
- Laboratory Applications
- Photography
- Pharmaceutical Production
- Water used in chemical processes
- Cosmetics
- Restaurants
- Metal Plating Applications

### Features:

- **High Output UV Lamp:** The UV light is generated from a low-pressure, high-output lamp making it possible to treat a given amount of water with smaller, more efficient units.
- **A Unique Water Chamber Design:** AT Series' unique water chamber optimizes hydraulic performance and increases disinfection efficiency, thus maximizing exposure to the penetrating light and offering to treat flow up to 178 liters/minute
- **New Power Supply Technology:** Advances in electronic technologies have allowed the AT series power supply to withstand voltage fluctuations while ensuring continuous disinfection by maintaining lamp intensity.
- System that shows you how many months the lamp has been in use
- Audible/Visual Lamp Failure Alarm
- New UV Intensity Monitoring Device

### Operating Specifications:

- Maximum Operating Pressure: 125 psi
- Control Module: 7x8x6 cm

### Options:

- Solenoid Valve
- Flow restrictor
- Remote Options Cord