

SubMittal

***Prepared For : Nanuet Union Free School District
Barr Middle School, High School
Lombardo***

<i>Submittal#</i>	<i>Item</i>	<i>Supplier</i>
<i>----- 7pages</i>	<i>Chemical Water Treatment</i>	<i>GRS Services Inc 22 West gate Drive Glenwood,NJ 07418 Phone : 908415-6894 Contact: Martin Larsen</i>

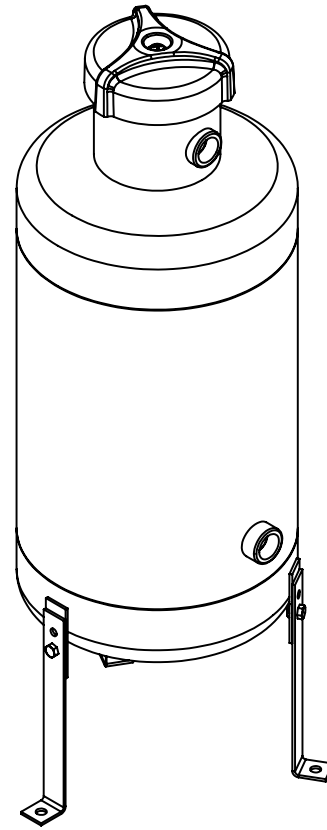
Attached please find our submittal for the water treatment.

- 1)- ByPass Filter Feeder***
- 2)- Boiler Conductivity Controller & Solenoid Valve***
- 3)- Chemical Pump & Tank***
- 4)- Service Calls (service report)***
- 5)-Selcor45 -cleaner***
- 6)-Nitrite inhibitor CLT-120***
- 7)- Company Brochure (service report)***
- 8)- Cleaning procedure-GRS***

***Martin Larsen (Cell Phone-908-415-6894)
GRS Inc***

Bypass Feeder

Chemical Addition and Filtering



Key Features

- Powder Coated
- Handle-top filter holder
- Full bottom drain
- Flat and dome bottom models
- Custom configurations
- Adjustable leg kit
- ACME cap

Application

Bypass Feeders are designed to provide a dependable means of introducing treatment chemicals into hot and cold water or other liquid streams with a large filtration capacity.

Bypass Feeders have a simple design that provides easy installation and operation with precise filtering capabilities. The course ACME thread cap design provides better sealing and quick opening.

Build a Model

Select the desired capacity, bottom, and filter, plus any options.
(Example: BF-05DX)

Capacity _____
 02 = 2 gallon
 05 = 5 gallon
 12 = 12 gallon

Bottom _____
 D = Dome with legs and bottom port
 F = Flat

Filter _____
 X = no filter
 1 = 10" cartridge filter holder (20 micron hot filter included)
 2 = 18" bag filter basket (25 micron bag included)
 3 = 18" bag filter basket (5 micron bag included)
 4 = 18" bag filter basket (no handle or filter)

Accessory Kits

BFK-ISOVALVES	¾" brass isolation valves w/ unions & nipples
BFK-DBDRAIN	¾" brass drain valve & fittings for dome bottom
BFK-FBDRAIN	¾" brass drain valve & fittings for flat bottom
BFK-GAUGEX	¾" cross w/ 0-300 psi gauge, sample/relief valve 180°F & fittings
BFK-FUNASM	¾" tee, isolation valve and funnel

Parts

BF-BAG0518	18" x 3" bag filter, 05 micron
BF-BAG2518	18" x 3" bag filter, 25 micron
BF-BGCAGE18	Bypass feeder SS bag filter cage, 18"
BF-BGCAGE18-F	Bypass feeder SS bag filter cage, no handle
BF-CF05-10	10" cold water cartridge filter, 05 micron
BF-CF20-10	10" cold water filter, 20 micron
BF-HF05-10	10" hot water cartridge filter, 05 micron
BF-HF20-10	10" hot water filter, 20 micron
BF-CFCAGE10	Bypass feeder SS cartridge filter holder, 10"
BF-CAP	Bypass feeder cap assembly
BF-FUNNEL	Poly funnel with ¾" MNPT
BF-LEGS	Bypass feeder leg kit
BF-ORING	Bypass feeder cap o-ring
BF-PG	0-300 psi pressure gauge
BF-PLATE	Bypass feeder cap plate
FLOW-2HT	¾" flow indicator; 145 psi, 212°F max
SFS-BV	¼" brass bleed valve, 180°F max

Specifications

Pressure

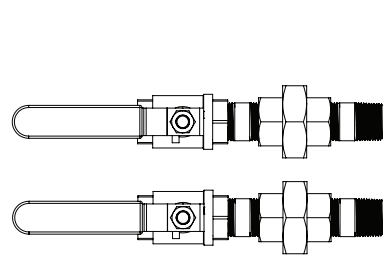
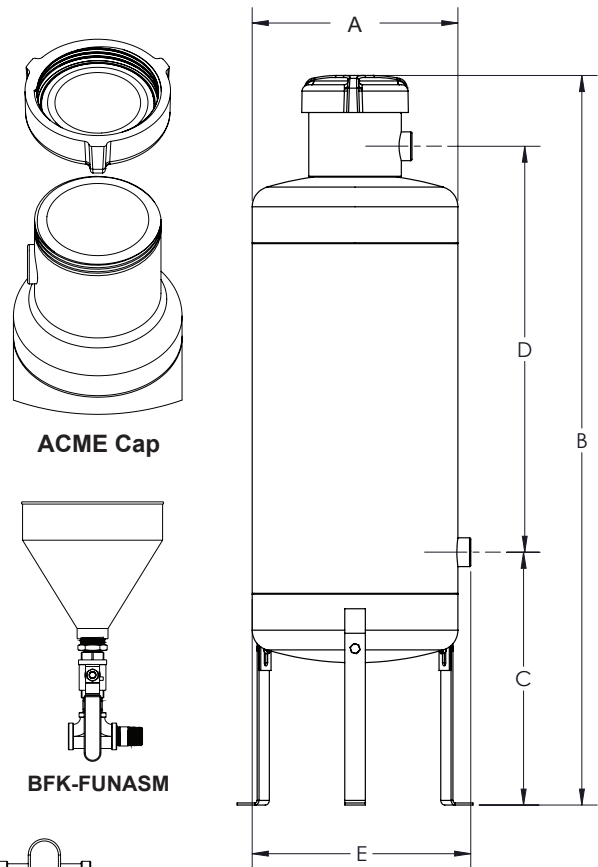
200 psi (13.6 bar) @ 225 °F (107.2 °C)
 300 psi (20.6 bar) @ 150 °F (65.5 °C)

Shipping Weight (approximately)

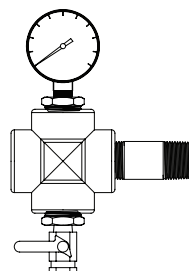
2 gallon (including legs)	= 24.5 lbs (11.11 kg)
5 gallon (including legs)	= 35.5 lbs (16.1 kg)
12 gallon (including legs)	= 52 lbs (23.59 kg)
Basket	= 0.6 lb (0.27 kg)
Filter Holder	= 0.85 lb (0.39 kg)

Dimensions

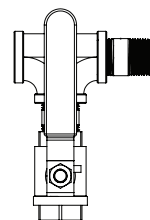
Model	A	B	C	D	E
BF-02D	6"	34"	10.8"	19.7"	6.6"
BF-02F	6"	26.7"	3.6"	19.7"	6.6"
BF-05D	10"	35.5"	12.3"	19.8"	10.6"
BF-05F	10"	27.5"	4.3"	19.8"	10.6"
BF-12D	10"	49.5"	12.3"	37.2"	10.6"
BF-12F	10"	45"	4.3"	37.2"	10.6"



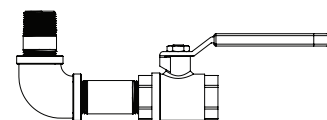
BFK-ISOVALVES



BFK-GAUGEX



BFK-FBDRAIN



BFK-DBDRAIN

Get the Advantage





Product Identification: CLT-120

Industrial Water Treatment Compound

Closed Recirculating Water Loop Corrosion & Scale Inhibitor

Description

CLT-120 is a concentrated liquid borate/nitrite, scale/corrosion inhibitor and dispersant. CLT-120 is formulated to provide complete protection of closed-loop systems either during the initial pretreatment phase or during normal operation.

Advantages

CLT-120 is an effective product to provide corrosion protection to ferrous and yellow-metal alloys. The corrosion inhibitors in CLT-120 will maintain effective corrosion protection and mitigate the formation of scale and deposits when used as directed. In high hardness waters, the polymeric dispersants and sequestrants contained in CLT-120 will prevent the formation of troublesome carbonate and phosphate scales.

Directions

For the pretreatment of new systems, add 5 gallons of CLT-120 per 1000 gallons of system volume (1200 ppm nitrite by test). Recirculate the system for 48 to 72 hours then bleed the system to city water quality to remove oil/grease, mill scale, and dirt/debris. For cleaned systems, add 2.5 gallons of CLT-120 per 1000 gallons of system volume (600 ppm nitrite by test). Verify test components on a monthly basis. Systems with leaks may require more frequent testing. All systems may require the addition of a suitable biocide to prevent microbiological slime growth in the system.

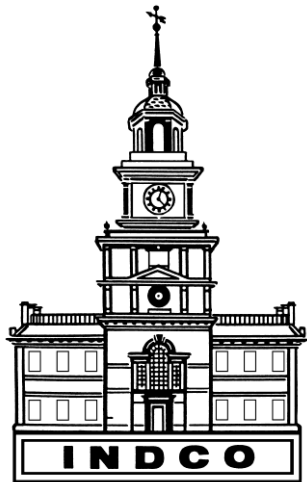
Caution

This product contains potassium hydroxide. This product can be corrosive to the skin and eyes. Avoid contact with the skin and eyes. If eye contact occurs, flush with water for 15 minutes. Get prompt medical attention if irritation occurs. If skin contact occurs, remove contaminated clothing. Flush with clear water. If irritation occurs, consult a physician. Do not take internally. If swallowed, do not induce vomiting. Drink large volumes of water and seek medical attention immediately. **KEEP OUT OF REACH OF CHILDREN.**

Container Disposal: Triple rinse container and offer for recycling or disposal according to local regulations.

HMIS Rating: Health = 2, Flammability = 0, Reactivity = 1, PPE = C

Selecor 45



Cleaner for closed systems

Use 1-2% of total water volume

Use under direction of a trained water treatment service person.



Warning: Eye and skin irritant.

First Aid

EYES – Immediately flush with water. If irritation persists, see a doctor.

SKIN – Wash with water. **INGESTION** – Drink water and see a doctor.

INHALATION – If breathing problems develop, move person to fresh air.

Storage: Keep container closed when not in use. Store away from foodstuffs, and between 40-100 deg F. Do not reuse container. Dispose of container in accordance with all applicable federal, state, and local regulations.

Net Contents: 5 Gallons

Keep Out of Reach of Children

INDCO Inc. Gloucester City, NJ 08030
856-456-6100

Glen River Services

FIELD SERVICE REPORT

PLANT

DATE

ADDRESS

INTERVIEWED

NAME

TITLE

COPY TO

Quantities in ppm except pH-17.1 parts per million equal 1 grain per U.S. gal.

WATER SAMPLE	TOTAL HARDNESS AS CaCO ₃	CALCIUM HARDNESS AS CaCO ₃	ALKALINITY AS CaCO ₃			CHLORIDE AS Cl	PHOSPHATE AS PO ₄	SULFITE EXCESS AS SO ₃	TDS		pH	INHIBITOR
			PHENOL	TOTAL	HYDRATE							
RECOMMENDED LIMITS	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
RECOMMENDED LIMITS	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO

CHEMICALS USED DAILY

FORMULA

DOSAGE

ALWAYS WEAR GLOVES AND GOGGLES WHEN HANDLING CHEMICALS

CHEMICALS ON HAND ▶

___ lbs. of No. ___

___ lbs. of No. ___

___ lbs. of No. ___

___ lbs. of No. ___

___ lbs. of No. ___

FINDINGS:

RECOMMENDATIONS:

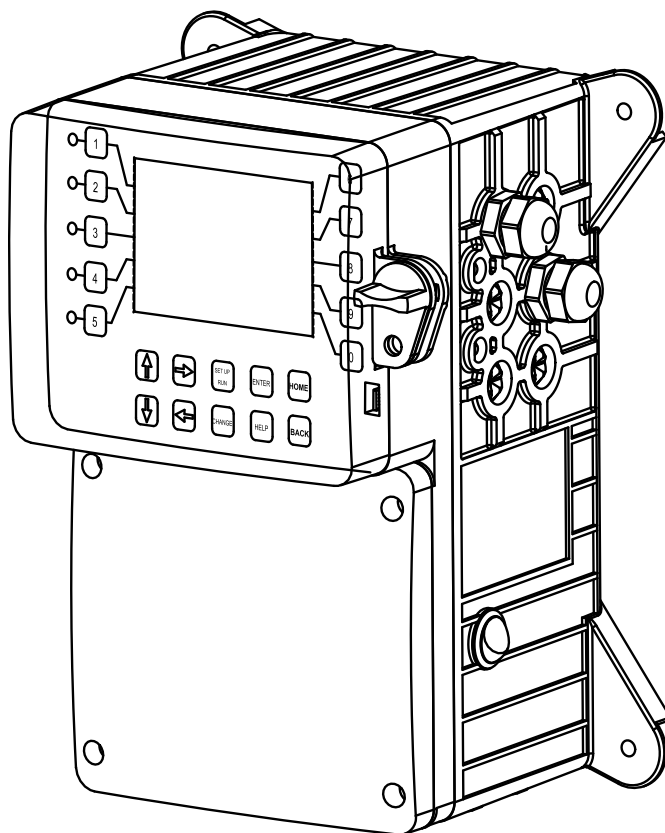
CONSEQUENCES:

SERVICE
ENGINEER

MegaTron^{XS} Controller

Microprocessor Control of:

- Conductivity
- pH
- ORP
- Chemical Feed
- Biocide Feed
- Service Reports
- 4-20mA In & Outs



Key Features

- Customizable LCD Display
- On Board History Graphs
- Simple ATM Style Menu
- One Point Calibration
- Internet Communications Option
- 5 Assignable Relays
- Relay Test Keys
- Customizable Notepad
- Multi-Level Security Code
- LSI or RSI Index with pH
- 2 Year Replacement Warranty
- USB History Access

Application

MegaTron XS controllers combine industry leading user-friendliness, affordability and capability in one compact controller.

Units can be configured to control a wide range of digital and analog inputs. Advanced relay logic and customization let you configure a unit to meet your specific system needs.

XS units can control cooling tower, boiler, waste water and other industrial applications plus provide web-based communications and reporting with WebAdvantage.

Build a Model

The model number starts with XS followed by the code for each function needed for the first system. (XSCPF3E)

Once the main control functions have been selected, insert another - and list the desired common options. (XSCPF5-H1).

Conductivity Control

B2 = **BE-32 Standard Boiler probe**
C = **TE-4A Standard Tower probe**

Make-up / Misc. Conductivity

M = **DI-4A Standard Make-up probe**
M9 = **Floor drain conductivity alarm sensor**

PH Control

P = **TPE-21 Standard Tower probe**

ORP Control

R = **TOE-21 Standard ORP probe**

Feed Timers (max of 5 per system)

F3 = **3 selectable feed timers**
F5 = **5 selectable feed timers**

Flow Switch

E = **Flow Switch**

OPTIONS

- A** - Conduit connection
- A3** - Conduit with CE approval
- H** - Internet card w/ CAT5 connection and Wi-fi
Cellular options available. Consult factory.
- H11** - Internet card w/ CAT5 and Modbus TCP/IP
- H21** - Internet card w/ CAT5 and BACnet TCP/IP
- N4** - (4) 4-20mA Inputs
- N8** - (8) 4-20mA Inputs (O4 option not available)
- O4** - (4) 4-20mA Outputs
- W1** - (1) auxiliary flow input for a bleed flow alarm
- W4** - (4) Auxiliary flow meter inputs
- Y** - Agency Approval (ETL, US&C)

NOTES:

1. Timers selectable (pulse, %, post bleed, recycle or 28-day). Each system has 2 water meter inputs.
2. All expansion slots provided.
3. MegaTron XS controllers can have 4 probes max.
4. MegaTron XS controllers have 5 relays max.
5. Boiler conductivity should only be used on continuous or surface lines; not bottom blowdown lines.
6. LSI or RSI index included with pH if unit has tower conductivity.
7. Dual boiler unit model (i.e. XSB2F3-B2-H1)

Contact the factory for a complete option list.

Specifications

Electrical

- **Input:** 95-240 VAC, 50/60 Hz
- **Control:** Equal to input voltage (95-240VAC) fused at 2.5A per relay

Prewired units are supplied with an 8' (248.84 cm) power cord and 8" (20.32 cm) output receptacles.

Operational

- **Display:** 240 x 128 Graphic LCD
- **Conductivity Control:** uS/cm, mS/Cm, PPM scales with ranges up to 50,000 depending on sensor selection. Boiler sampling: continuous, timed or sample and hold.
- **pH:** 0-14 scale
- **ORP:** +/- 1000 millivolts scale
The ORP setpoint can be tied to an optional 28-day feed timer as an override.
- **Accuracy:** +/- 1%
- **Feed Timers are all selectable from:**
Pulse - water meter activated w/accumulator
Recycle - OFF and ON cycle; HH:MM:SS
Limit - Limits feed with bleed
Post - 1-100% of post bleed or other time with an over all limit.
28 Day - biocide timer.

Enclosure

Heavy duty NEMA 4X style high impact
ABS with padlockable gasketed
Lexan viewing door.

Environment

Ambient temperature: 0° to 125°F (-17 to 52°C)
Relative humidity: 0 to 100%

Electrodes

Tower Standard electrodes are supplied in 3/4" (1.91 cm) SCH 80 PVC female slip tees with quick release nut.

- **Conductivity:** TE-4A 150 psi (10.3 bar) / 140°F (60°C) Max
- **pH:** TPE-21 100 psi (6.8 bar) / 140°F (60°C) Max
- **ORP:** TOE-21 100 psi (6.8 bar) / 140°F (60°C) Max
- **Temperature:** TC-1 150 psi (10.3 bar) / 140°F (60°C) Max

Boiler Conductivity electrodes are supplied with 1" (2.54 cm) MNPT XS threads.

- **Conductivity:** BE-32 250 psi @ 400°F / 350 psig @ 265°F PEEK core

Shipping Weight: Approximately 8 lbs. (3.62 kg)

Dimensions:

W 10" (28.4 cm) x H 12" (30.5 cm) x D 7.25" (18.4 cm)

Get the Advantage



4700 Harold-Abitz Dr
Muskogee, OK 74403
800-743-7431 Phone
888-686-6212 Fax
www.advantagecontrols.com

Bleed-Off Valves

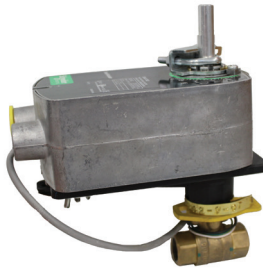
For Cooling Towers

ABS

Fully ported ball valves motorized open spring return.

Max Fluid Temp. 250°F
1/2" 0-130 PSI
3/4" 0-130 PSI
1" 0-100 PSI
Valve Body Brass
Ball & Stem Chrome Plated
Seals Teflon
Shipping Weight 6 lbs.
Standard Electrical 120 VAC
Sizes Available .1/2", 3/4", 1", 1 1/2", 2"

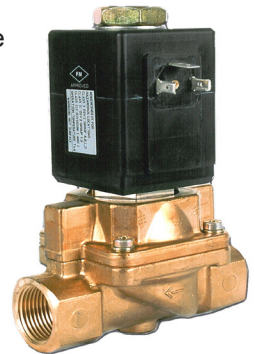
*Use weather shield for outdoor.



SO

Solenoid operated diaphragm valve

Max Fluid Temp. 140°F
Pressure 0-230 PSI
Valve Body Brass
Seat Viton
Shipping Weight 3 lbs.
Standard Electrical 120 VAC
Sizes Available 1/2", 3/4", & 1"



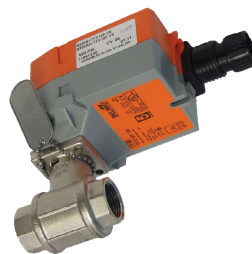
ABV

Fully ported ball valves motorized open spring return.

Max Fluid Temp. 212°F
1/2" 0-150 PSI
3/4" 0-150 PSI
1" 0-150 PSI
1 1/2" 0-150 PSI
2" 0-150 PSI

Valve Body Nickel Plated Brass
Ball & Stem.. Chrome Plated Brass
Seals Teflon
Shipping Weight 6 lbs.
Standard Electrical 120 VAC
Sizes Available 1/2", 3/4", 1", & 2"

*Use weather shield for outdoor



GE-SO

Basic solenoid operated diaphragm valve.

Max Fluid Temp. 140°F
Pressure 0-140 PSI
Seat Viton
Shipping Weight 3 lbs.
Standard Electrical 120 VAC
GE-SO Sizes 1/2", 3/4", & 1"



ABC

Ball valves motorized open capacitor return.

Max Temp. 140°F
Pressure 0-225 PSI
Valve Body .. Chrome Plated Brass
Ball & Stem PVC Coated Brass
Seals EPDM
Shipping Weight 3 lbs.
Standard Electrical 95-250 VAC
Sizes Available 1/4", 1/2", 3/4", & 1"

**Shown with Option J



**

SGO / SG2

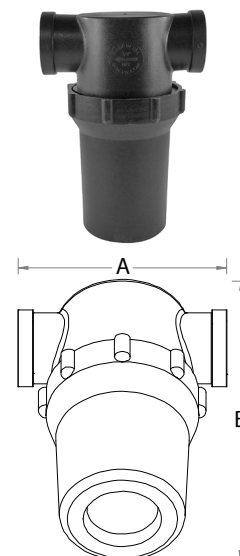
Solenoid operated diaphragm valve.
 Max Fluid Temp 140°F
 SGO 0-200 PSI
 SG2 *2-300 PSI
 Valve Body Brass
 Seat Viton
 Shipping Weight 3 lbs.
 Standard Electrical 120 VAC
 SGO Sizes ½", ¾", & 1"
 SG2 Sizes ½", ¾", 1", 1½", & 2"
 *SG2-½" 300 psi
 *SG2-¾ and 1" 230 psi
 *SG2-1.5 and 2" 150 psi



INLINE BASKET STRAINER

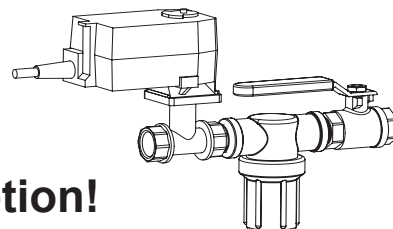
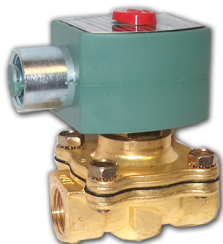
Steel mesh filter (20×20)
 Max Fluid Temp 120°F
 Max Pressure 120 PSI
 Head Polypropylene
 Bowl Nylon
 O-Ring EPDM

Model	A	B
BL- ¾- BLK	3½"	5"
BL-1	5"	6"
BL-1-CL (Clear)	5"	6"



ASCO

Solenoid operated diaphragm valve.
 Max Fluid Temp 125°F
 ½" & ¾" 0-150 PSI
 1" 0-125 PSI
 Valve Body Brass
 Seat Buna N
 Shipping Weight 5 lbs.
 Standard Electrical 120 VAC
 Sizes Available ½", ¾", & 1"



Make installations easy with an assembly option!

Advantage Controls offers a wide range of electrically activated valves for bleed-off of cooling tower water to complement your controller selection.

Choose from solenoid valves, motor open-spring or capacitor return ball valves or paddle valves.

Make maintenance easy by turning your selected bleed-off valve into a pre-assembled bleed-off assembly complete with shut-off valve and strainer with option A.

Pick your valve then make it a complete bleed-off assembly with option A.

Options

A adds poly strainer and shut-off
A1 adds metal y-strainer and shut-off
A4 adds poly y-strainer w/ flush and shut-off

Get the Advantage

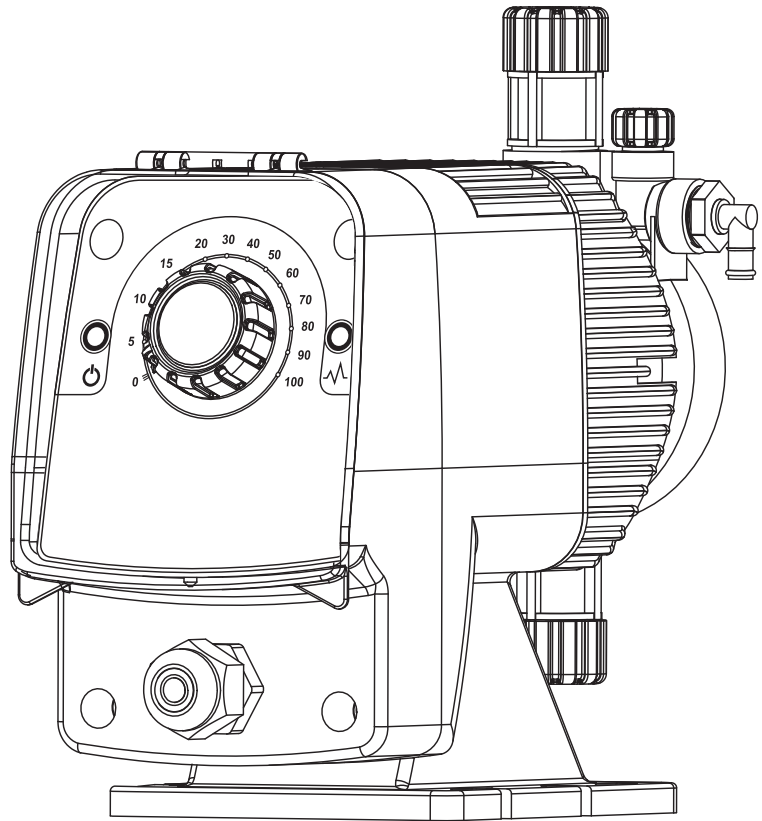
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 Muskogee, OK 74403
 800-743-7431 phone
 888-686-6212 fax
www.advantagecontrols.com



MicroLinx Series M

Electronic Metering Pump

***Digitally
Accurate
Speed
Adjustment***



Key Features

- NEMA 4X Style Enclosure
- Guided Double Ball Checks
- Circuit Voltage Protection
- Thermal Overload Protection
- Priming / Degassing Valve
- LED Indicating Lights
- Splash Cover Over Controls
- 2 Year Warranty

Application

MicroLinx Series M pumps provide a reliable, affordable product addition for a wide variety of applications.

Precise metering is achieved with guided double ball checks, including foot and injection assemblies.

Manual stroke speed of 0-200 strokes per minute provides a wide turn down capability of outputs up to 45 GPD and 300 PSI.

Build a Model

Model M _ _ _ _ - _ _ _ _

Build your model number by selecting one code from each step. Example: M30X1-KFC1

Step 1.... Output (Maximum)

- 05 = 5 GPD (18.9 LPD) at 300 PSI (20.6 bar)
- 12 = 12 GPD (45.4 LPD) at 250 PSI (17.2 bar)
- 15 = 15 GPD (56.7 LPD) at 150 PSI (10.3 bar)
- 30 = 30 GPD (113.5 LPD) at 100 PSI (6.8 bar)
- 45 = 45 GPD (170.3 LPD) at 75 PSI (5.1 bar)

Step 2.....Control Options

- X = Standard Control
- E = External Auto-Stop

Step 3Voltage

- 1 = 120 VAC, USA plug and agency approvals
- 2 = 120-220 VAC, no plug

Step 4 ... Head & Fittings, Seat & Ball

- KFC = Kynar, Teflon, ceramic
- KHC = Kynar, hypalon, ceramic
- KVC = Kynar, viton, ceramic
- DVC = Kynar (degassing), viton, ceramic
- SFSP = Stainless, Teflon, stainless, 1/4" MNPT

Notes:

1. Degassing heads are only available on 150, 100, and 75 PSI models.
2. S-head option only comes with Teflon seat and SS ball, and does not include a foot or injection valve or any tubing.

Step 5 ... Connections (PVDF only)

- 1 = 3/8" tubing rated to 200 PSI (13.7 bar)
- 2 = 1/4" tubing rated to 300 PSI (20.6 bar)
- 4 = 1/4" black UV tubing rated to 300 PSI (20.6 bar)
- R = 1/4" FNPT
- U = 3/8" black UV tubing rated to 200 PSI (13.7 bar)
- V = 3/8" tubing rated to 200 PSI (13.7 bar), clear suction

Note: Tubing selection may impact pump rating.

For other options, see Price List or consult factory.

Accessories

PVDF models include everything for start-up: injection, foot and priming valve assemblies, plus suction, discharge, and prime tubing.

Visit www.advantagecontrols.com for a full listing of additional accessories including: mounting brackets, solution tanks, pump enclosures, timers, and more.

Specifications

Electrical

- Input - 110 VAC or 240 VAC @ 50/60 Hz

Operational Speed

- Stroke length adjustment - 0-100% with a maximum of 200 strokes/min.

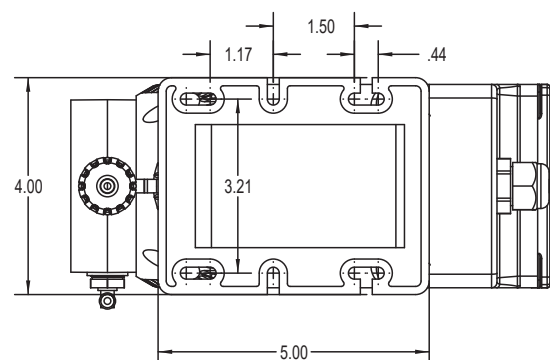
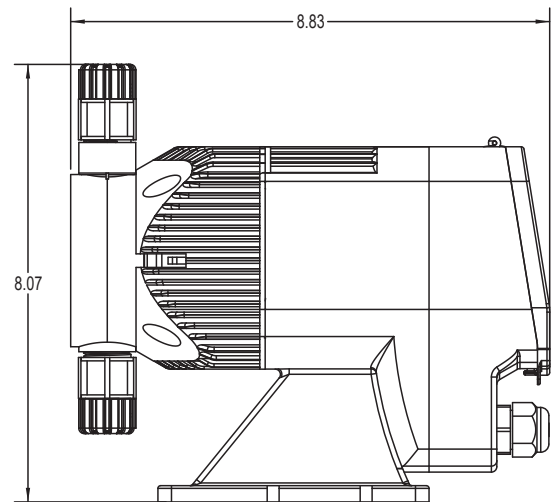
Enclosure

Heavy duty NEMA 4X style high impact thermoplastic with clear lexan cover.

Environment

- Max temperature 122°F (50°C)
- Relative humidity 0 to 85%

Shipping Weight: Approx. 10 lbs. (4.536 kg)



Kynar Head Shown

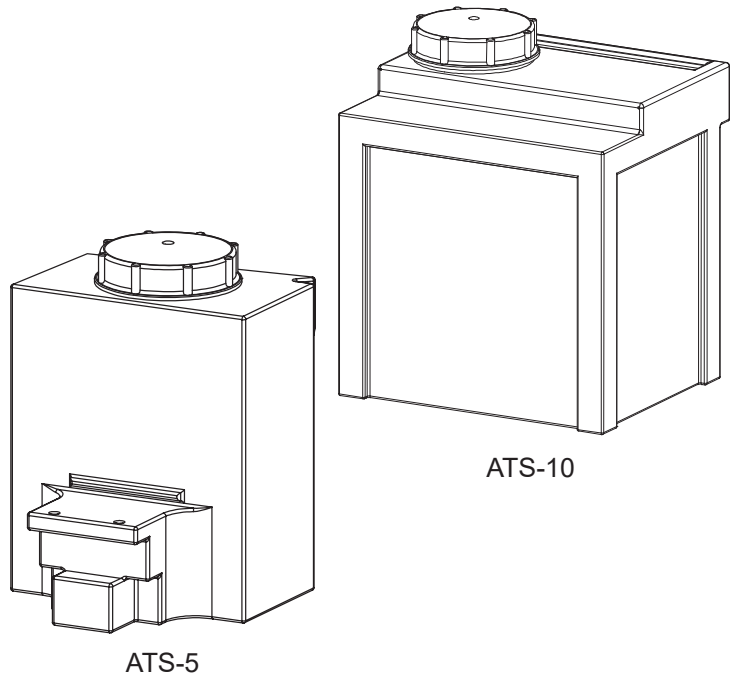
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ATS Tanks

Tank and Pump Mounting System



Key Features

- Industrial Grade Polyethylene
- 5-10 Gallon Capacity
- Convenient Pump Mounting
- Wall Mountable
- Heavy Duty Threaded Lid
- Spring Loaded Vent
- Flooded Suction
- Incremental Markings (ATS-5)
- Large Refill Opening

Application

The ATS molded tank system provides an integrated chemical metering pump mounting bracket and solution tank in one unit.

ATS tanks have a large, heavy duty, vented and threaded lid for easy refill. Optional 1/2 FNPT weldlets offer secure mounting of pump suction and return lines plus a convenient drain point.

Designed for wall mounting or free standing installations, the ATS tank system provides a safe professional installation of chemical feed systems.

Model

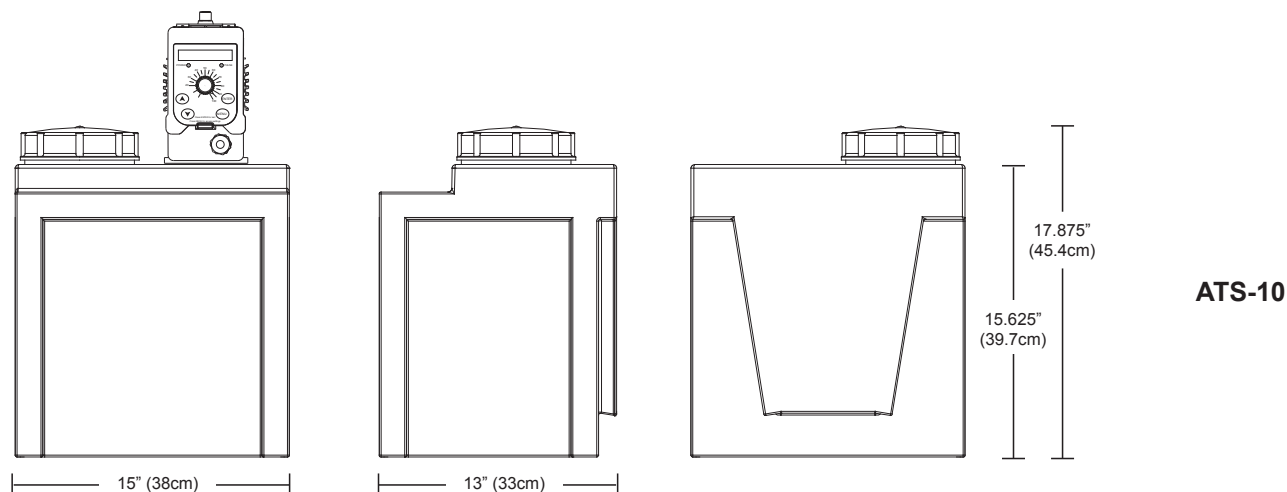
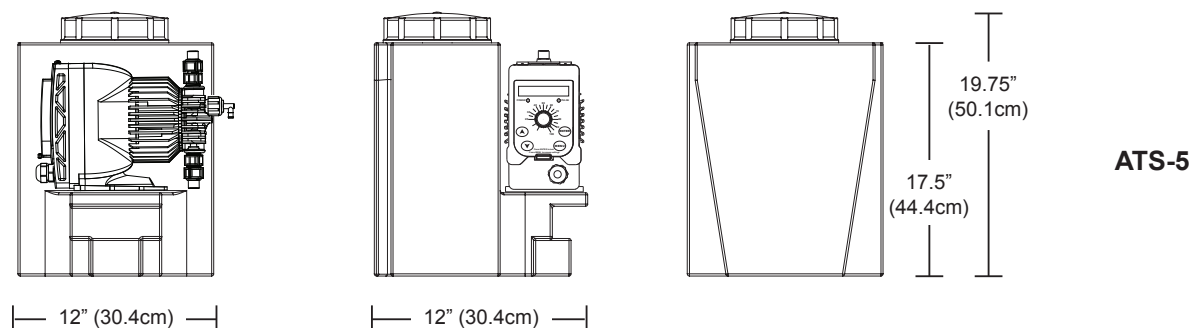
ATS-5 5 gallon tank with lid and molded-in pump shelf
ATS-10 10 gallon tank with lid

OPTIONS

- B1** Bulkhead fitting Kynar mounted, 3/8" tubing
- B2** Bulkhead fitting Kynar mounted, 1/4" tubing
- C** Controller bracket instead of pump on ATS-5
- D1** 3/8" Bulkhead fitting with PVC shut off w/ Buna seal
- D2** 1/4" Bulkhead fitting with PVC shut off w/ Buna seal
- F** Flat top with 2" bung
- L** 2" bung for level wand
- M** Premount pump (ordered separate)
- P** Non Advantage pump adapter plate
- P1** Pump mount plate for top of ATS-10
- S** MNPT drain valve
- T** Pump priming tube return fitting
- V** 1/4" solenoid valve with Y-strainer prewired 8' cord
- W** Stainless Steel wall mounting bracket

INSTALLATION

The optional wall mounting bracket (W) provides a V shaped stainless steel bracket and hardware for mounting to a wall. The tank then slips into the bracket.



Specifications

Construction

The tank is made of linear polyethylene (LLDPE) which is UV stabilized and FDA approved. It has an average wall thickness of 1/4 inch. The lid opening is 5 1/4" I.D.

Lid Polypropylene
Bulkhead (opt.) Kynar
Shut-off (opt.) PVC

Dimensions

ATS-5 (tank only):	ATS-10 (tank only):
W 12" (30.4cm)	W 15" (38cm)
H 19.75" (50.1cm)	H 17.875" (45.4cm)
D 12" (30.4cm)	D 13" (33cm)

Shipping Weight

ATS-5

Tank only 10 lbs
 Tank and Wall Bracket..... 11.5 lbs

ATS-10

Tank only 8 lbs
 Tank and Wall Bracket..... 9.5 lbs

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