No:	MC-01	
110.		

SUBMITTAL COVERSHEET Nanuet UFSD -Phase 3 Projects

Architect: Owner: **Construction Manager: KSQ Architects** Nanuet Union Free School District Jacobs 215 W 40th Street,15th Floor 101 Church Street One Penn Plaza, 54th floor Nanuet, NY 10954 New York, NY 10019 New York, NY 10018 Contractor: Joe Lombardo Plumbing & Heating of Rockland Inc Contract: Ron Lombardo 845-357-6537 321 Spook Rock Road Suite 109A Address: Telephone: Fax: 845-357-8529 Suffern, New York 10901 Nanuet Union Free School District Phase 3 Bond Projects @ Barr Middle School & Nanuet High School **School Name:** Re-submittal: [] No [] Yes **Type of Submittal:** [] Shop Drawings [] Product Data [] Schedule [] Sample [] Test Report [] Certificate [] Color Sample [] Warranty **Submittal Description:** WATER TREATMENT SYSTEMS Manufacturer: GLENRIVER SERVICES Subcontractor/ Supplier: References: Spec. Section No.: <u>232500</u> Drawing No(s): _____ Rm. or Detail No(s): _____ Paragraph: Architect's/ Engineer's Review Stamp Contractor Review Statement: These documents have been checked for accuracy and coordinated with job conditions and Contract requirements by this office and have been found to comply with the provisions of the Contract Documents. 2-8-24 Ronald J. Lombardo Name: Date: Company Name: Joe Lombardo Plumbing & Heating of Rockland Inc. Remarks:

SubMittal

Contact: Martin Larsen

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

Submittal# Item Supplier
------ Chemical Water Treatment GRS Services Inc
7pages 22 West gate Drive
Glenwood,NJ 07418
Phone: 908415-6894

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

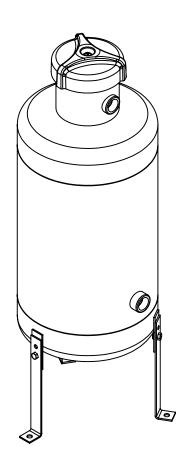
Martin Larsen (Cell Phone-908-415-6894) GRS Inc



Data Sheet—

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)

BF-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 3/4" brass isolation valves w/ unions & nipples **BFK-DBDRAIN** 3/4" brass drain valve & fittings for dome bottom 3/4" brass drain valve & fittings for flat bottom **BFK-FBDRAIN BFK-GAUGEX** 3/4" cross w/ 0-300 psi gauge, sample/relief

valve 180°F & fittings

BFK-FUNASM 3/4" tee, isolation valve and funnel

Parts

BF-BAG0518 18" x 3" bag filter, 05 micron 18" x 3" bag filter, 25 micron BF-BAG2518

BF-BGCAGE18 Bypass feeder SS bag filter cage, 18" Bypass feeder SS bag filter cage, no handle BF-BGCAGE18-F 10" cold water cartridge filter, 05 micron BF-CF05-10

10" cold water filter, 20 micron BF-CF20-10

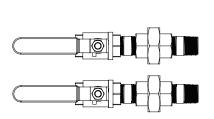
BF-HF05-10 10" hot water cartridge filter, 05 micron

10" hot water filter, 20 micron BF-HF20-10

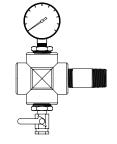
Bypass feeder SS cartridge filter holder, 10" BF-CFCAGE10

BF-CAP Bypass feeder cap assembly **BF-FUNNEL** Poly funnel with 3/4" MNPT Bypass feeder leg kit **BF-LEGS BF-ORING** Bypass feeder cap o-ring BF-PG 0-300 psi pressure gauge Bypass feeder cap plate **BF-PLATE**

3/4" flow indicator; 145 psi, 212°F max FLOW-2HT SFS-BV 1/4" brass bleed valve, 180°F max



BFK-ISOVALVES Get the Advantage



BFK-GAUGEX

Specifications

Pressure

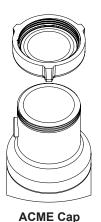
200 psi (13.6 bar) @ 225 °F (107.2 °C) 300 psi (20.6 bar) @ 150 °F (65.5 °C)

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) = 0.6 lb (0.27 kg)Basket Filter Holder = 0.85 lb (0.39 kg)

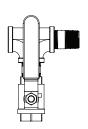
Dimensions

Model	Α	В	С	D	Е
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"

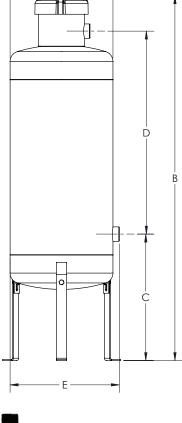


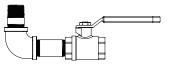


BFK-FUNASM



BFK-FBDRAIN





BFK-DBDRAIN

Advantage Controls

4700 Harold Abitz Dr Muskogee, OK 74403 918-686-6211 phone 888-686-6212 fax www.advantagecontrols.com



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

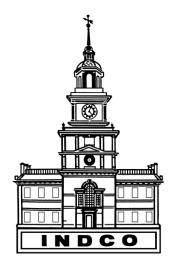
For the pretreatment of new systems, add 5 gallons of CLT-120 per 1000 gallons of system volume (1200 ppm nitrite by test). Recirculate the system for 48 to 72 hours then bleed the system to city water quality to remove oil/grease, mill scale, and dirt/debris. For cleaned systems, add 2.5 gallons of 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 develops, 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	AME		TITL	E	COP'	Y TO						
Quantitie	s in ppm	except p	pH-17.1	parts pe	er millio	n equal	1 grain n	erllS (
WATER SAMPLE	TOTAL	CALCIUM HARDNESS AS	<i>p</i>	ALKALINIT AS CaCO	Υ	CHLORIDE AS GI		SULFITE EXCESS AS	TUS		рН	INHIBITO
	Cacos	CaCO ₃	PHENOL	IATAL	HYDRATE			SO ₃			ļ	-
										 		<u> </u>

RECOMMENDED LIMITS	ТО	то	то	ТО	ТО	то	то	то	ТО	то	то	то
			·									
RECOMMENDED LIMITS	то	то	то	ТО	то	то	ТО	то	ТО	ТО	ТО	то
				<u> </u>	CHE	MICALS USE	D DAILY	FORM	IULA		DOSAGE	
ALWAYS	WEAR	GLOVE	ES AN	D GOG	L—GLES	WHEN	HAND		HEMI	CALS		
CHEMICALS ON HAND ► Ib		_/				os. of No.		Ibs. of		JAEG	lbs. of No.	
FINDINGS:			·	-								
RECOMMENDATIONS: _			-									-
								······································			······································	_
CONSEQUENCES:												- -
					SERV	/ICE . NEER	***************************************					
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Data Sheet-

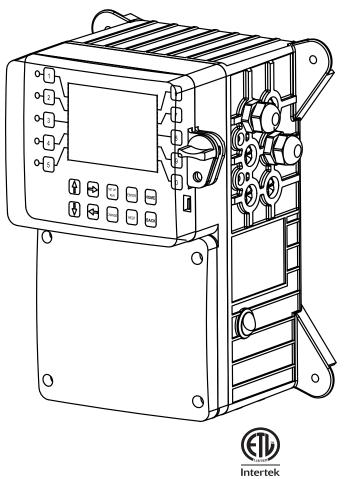
MegaTron X Controller

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

BE-32 Standard Boiler probe

C = TE-4A Standard Tower probe

Make-up / Misc. Conductivity

M = DI-4A Standard Make-up probeM9 = 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

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:

- 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.
- 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



-Data Sheet—

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", 11/2", 2"
*Use weather shield	d for outdoor.



SO

hragm valve
140°F
0-230 PSI
Brass
Viton
3 lbs.
120 VAC
1/2", 3/4", &1"



ABV

Fully ported ball valves motorized open spring return.

Max Fluid Temp212°F
1/2"0-150 PSI
3/4" 0-150 PSI
1"0-150 PSI
1½"0-150 PSI
2"0-150 PSI
Valve Body Nickel Plated Brass
Ball & StemChrome Plated Brass
Seals Teflon
Shipping Weight 6 lbs.
Standard Electrical120 VAC
Sizes Available1/2", 3/4", 1", & 2"
*Use weather shield for outdoor



GE-SO

Basic solenoid operated diaphragm valve.

vaive.	
Max Fluid Temp	140°F
Pressure	
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.

return.
Max Temp 140°F
Pressure0-225 PSI
Valve Body Chrome Plated Brass
Ball & StemPVC Coated Brass
Seals EPDM
Shipping Weight 3 lbs.
Standard Electrical95-250 VAC
Sizes Available 1/4", 1/2", 3/4", & 1"
**Shown with Option J



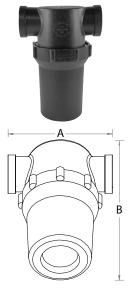
SGO / SG2

000/002	
Solenoid operated diapl	hragm valve
Max Fluid Temp	140°F
SGO	
SG2	*2-300 PSI
Valve Body	Brass
Seat	
Shipping Weight	3 lbs.
Standard Electrical	
SGO Sizes	′2", ³⁄4", & 1"
SG2 Sizes ½", ¾",1"	", 1½", & 2"
*SG2-½"	300 psi
*SG2-¾ and 1"	
*SG2-1.5 and 2"	
	•



INLINE BASKET STRAINER

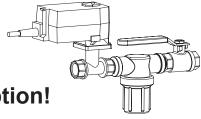
Steel mesh filter (20	×20)	
Max Fluid Temp		120°F
Max Pressure		120 PSI
Head	Polypr	opylene
Bowl		
O-Ring		. EPDM
Model	Α	В
BL- ¾- BLK	3½"	5"
BL-1	5"	6"
BL-1-CL (Clear)	5"	6"



ASCO

Solenoid operated dia	phragm valve.
Max Fluid Temp	125°F
1/2" & 3/4"	
1"	0-125 PSI
Valve Body	Brass
Seat	Buna N
Shipping Weight	5 lbs.
Standard Electrical	120 VAC
Sizes Available	.1/2", 3/4", & 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

Α.	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

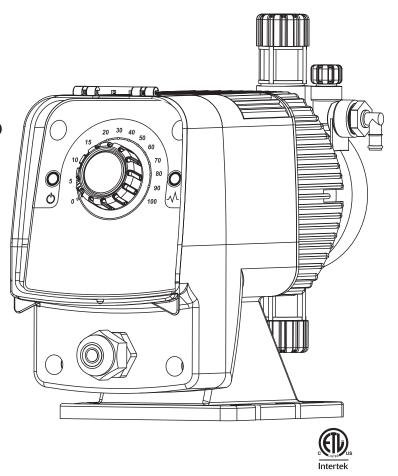


-Data Sheet—

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 3 Voltage

1 = 120 VAC, USA plug and agency approvals

2 = 120-220 VAC, no plug

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

KFC = Kynar, Teflon, ceramicKHC = Kynar, hypalon, ceramicKVC = Kynar, viton, ceramic

DVC = Kynar (degassing), viton, ceramic **SFSP** = Stainless, Teflon, stainless, ½" MNPT

Notes:

- 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 = $\frac{3}{8}$ " tubing rated to 200 PSI (13.7 bar)

 $2 = \frac{1}{4}$ " tubing rated to 300 PSI (20.6 bar)

4 = 1/4" black UV tubing rated to 300 PSI (20.6 bar)

 $\mathbf{R} = \frac{1}{4}$ " FNPT

U = ¾" 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.

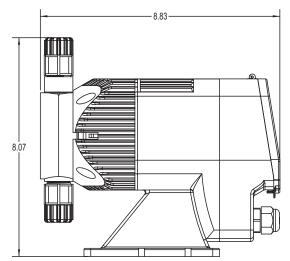
Enclosure

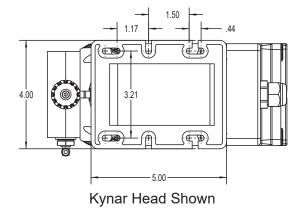
Heavy duty NEMA 4X style high impact thermoplastic with clear lexan cover.

Environment

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

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



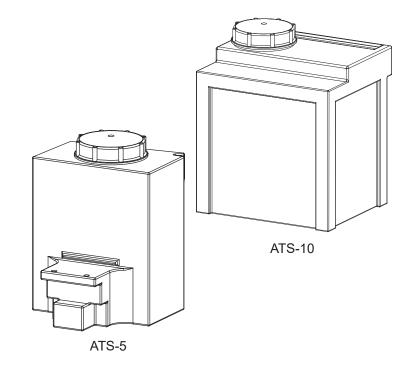




-Data Sheet—

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 weldalets 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 B2	Bulkhead fitting Kynar mounted, 3/8" tubing Bulkhead fitting Kynar mounted, 1/4" tubing
С	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)
Р	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

INSTALLATION

W

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.

Stainless Steel wall mounting bracket

Specifications

Construction

The tank is made of linear polyethylene (LLDPE) which is UV stabalized and FDA approved. It has an average wall thickness of 1/4 inch. The lid opening is 51/4" 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)

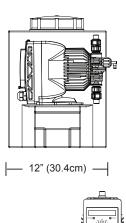
Shipping Weight

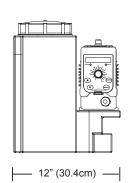
ATS-5

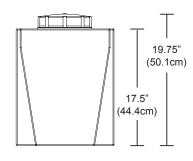
Tank only	10 lb	s
Tank and Wall Bracket	. 11.5 lb	s

ATS-10

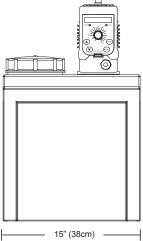
Tank only	8 lbs
Tank and Wall Bracket	9.5 lbs

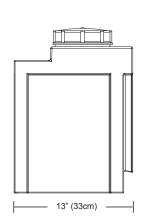


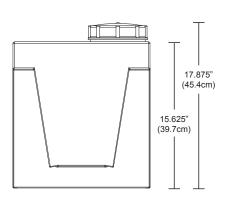




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