

# **Controller Catalog**



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**Restocking Charge** - All items accepted for credit are subject to a restocking fee of 25% of the original sale price. All items returned for credit must be new, unused, undamaged equipment less than 3 months old that is still in production.

**Minimum Order** - There is a minimum net order amount of \$30.00, excluding shipping.

**Please Note -** Possession of price list does not ensure right to purchase direct. Due to continuous improvement of products, prices subject to change without notice.

#### Web Advantage

Get the optional internet communications card and Web Advantage lets you constantly stay connected to your unit over the internet and get emailed reports automatically sent to you at no charge.

Web Advantage is a totally secure server dedicated to keeping track of all of your internet connected MegaTron units. Any MegaTron equipped with an internet connection option will be monitored 24 hours a day by Web Advantage providing you constant, real time information. Web Advantage allows you to change settings, generate history reports automatically and select who to send email alarm notifications to, should Web Advantage detect any system conditions outside your parameters.

#### **WEBADV-RTF**

Access to Web Advantage has no annual fee! There is simply a connection fee to establish ownership rights. The initial connection fee is included free with the purchase of a MegaTron with communications, giving the original buyer ownership rights also. If a MegaTron's ownership changes from the original buyer, the transfer fee will be charged to establish new ownership rights.

#### **WEBADV-XSCLOUD**

XS controllers not on the web and purchased without a communications card can have their USB downloaded data stored on WebAdvantage for a one-time setup charge.

#### **WEBADV-MTCLOUD**

For non-web connected MT controllers, virtual hosting on WebAdvantage and history uploading.

#### WEBADV-API

Advantage Controls offers a number of different options for customers to access historical data directly from WebAdvantage via API queries from their own managed system.

#### WEBADV-API-??

#### **MyTechReports**

MyTech Reports is a web-based reporting service that works to keep track of all your service reporting needs. The MyTechReports service allows water treaters and their partners to work together and act on data, from saving lab results and controller data to storing documents such as inspection videos, training material, SDS/PDS sheets, and more. The mobile app is available on Android and iOS., enabling employees to quickly access information from one location. A free trial is available, as well as packaged offerings to meet any business' needs. Monthly usage fees start as low as \$85 for a single employee.

### MegaTron MT Controllers

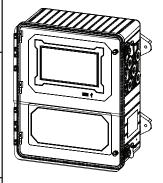
A single MT unit can control 1 to 4 systems and have up to 20 control relays. To build a model pick the function(s) needed by the type of probe. Add the code for each function you need for a system. For a multiple system controller list all of the functions of the first system followed by a dash then the functions for the next system. If system two is the same as the first just put (–X2). If the systems 2, 3 and 4 are the same as the first put a (-X4). After all system(s) functions use another dash and list all of the unit options needed. Example: MTCPF3E-CF3E-N4

#### MegaTron XS Controllers

MegaTron XS units have all the features and functions of the larger MegaTron units in a smaller enclosure with just 5 control relays. To build a model pick the function(s) needed by the type of probe. If building a dual boiler unit put a – after the first system and list the system selections for the second system followed by the whole unit option. Example: XSB2F3-B2-H

<del></del>
Conductivity Control (1 per system max)
C = TE-4A Standard Tower probe
C0 = Tower Conductivity no probe
C1 = TE-4ASS Standard Tower probe w/ SS tips 120 PSI (8.2 bar) @ 125°F (51.6°C)
C3 = AH-4ASS 1" MNPT
C5 = DC-4ASS tank mount
C8 = AL-4RTD pure water, ½" MNPT, RTD temp 100 PSI (6.8 bar) @ 212°F (100°C)
C10= DI-4A, 1" MNPT
C11 = CS-4ASS corporation stop probe
C12= AL-4ASS pure water, ½" MNPT, thermistor100 PSI (6.8 bar) @ 212°F (100°C)
B = BE-34BC boiler probe, thermistor, 1" cross 250 PSI (17.2 bar) @ 400°F (204.4°C)
B0 = Boiler conductivity, no probe; no temp comp.
B1 = BE-4RTDC boiler probe, RTD temp, 1" cross 250 PSI (17.2 bar) @ 400°F (204.4°C)
B2 = BE-32C probe, no temp comp., 1" cross 250 PSI (17.2 bar) @ 400°F (204.4°C)
B7 = BE-32-SC probe, no temp comp. ¾" cross 250 PSI (17.2 bar) @ 400°F (204.4°C)
B9 = Boiler conductivity with RTD temp; no probe
D = DI-27-4A high conductivity range
D1 = TE-4A high conductivity range (0-50,000) 120 PSI (8.2 bar) @ 125°F (51.6°C)
3 , 3 (10 4 5)
Make-up / Miscellaneous Conductivity (max of 1 per system and must have C or D option)
M = DI-4A Standard Make-up
MA = Alias make-up input of other make-up reading
M0 = Make-up / miscellaneous conductivity no probe
M1 = DI-4ASS
M3 = AH-4ASS 1" MNPT probe
M4 = TE-4A PVC <sup>3</sup> / <sub>4</sub> " slip tee design
M6 = CS-4ASS corporation stop probe
100 - 00-4A00 corporation stop probe701 of (0.1 bar) @ 1401 (00 0)
pH Control (1 per system max) For dual set point use Q instead of P.
P = TPE-21 Standard Tower
P0 = pH Control no probe
P2 = TPE-21 w/ pre amp
P4 = Tank mounted probe (PE-21 with DPE)
P5 = Tank mount w/ pre amp (PE-21, DPE & RTP-4)
P8 = PE-21SS stainless steel probe ½" MNPT 200 PSI (13.8 bar) @ 180°F (82.2°C)
P9 = PE-21SS with pre amp
P11 = PE-11 low ionic probe, ½" MNPT 50 PSI (3.4 bar) @ 180°F (82.2°C)
P12= PE-11 w/ pre amp
P15= PE-21CS Corp-stop w/ pre amp, 1" FNPT 100 PSI (6.8 bar) @ 165°F (73.8°C)
ORP Control (1 per system max)
R = TOE-21 Standard Tower
R0 = ORP Control no probe
R2 = TOE-21 with preamp
R4 = Tank mounted probe (OE-21 with DPE)
R5 = Tank mounted ORP w/ pre amp (OE-21, DPE & RTP-4)
R8 = OE-21SS stainless steel probe ½" MNPT200 PSI (13.8 bar) @ 180°F (82.2°C)
R15= OE-21CS Corp-stop w/ pre amp, 1" FNPT100 PSI (6.8 bar) @ 180°F (82.2°C)
Temperature Control (2 max / system – Each conductivity uses up one)
T = TC-1 Standard Tower
T2 = High temp probe
Feed Timers (max of 5 per system: 28-Day, Pulse, %, Recycle, Limit or Post Event)
F1 to F5 (F4 = Four feed timers)
Flow Switches
E = Standard float style switch PVC assembly120 PSI (8.2 bar) @ 125°F (51.6°C)
E3 = Paddle flow switch PVC assembly 120 PSI (8.2 bar) @ 125°F (51.6°C)
E4 = Paddle flow switch PVC unassembled, 10' cord 120 PSI (8.2 bar) @ 125°F (51.6°C)
E5 - Paddle switch brass assem (order rated probes) 250 PSI (17.2 bar) @ 75°E (23.8°C)

After all System Card features are selected go to the next page for whole unit options.



MegaTron MT touch screen units include:

- Communication card
- Built in Wi-Fi
- All card expansion slots

E5 = Paddle switch brass assem. (order rated probes).. 250 PSI (17.2 bar) @ 75°F (23.8°C)

E6 = Flow switch connection only with cable

#### MegaTron MT Whole Unit Options

A = Conduit connections, 120-volt relay cards A1 = Liquid tights only with 120-volt relay cards

A3 = Liquid tights only with CE mark, 240 volt relay cards

A5 = Prewired power cord to On/Off; 120-volt relay boards have no power

A6 = Korean power cord, no pigtails, 240 volt relay cards
A7 = Australian power cord, no pigtails, 240 volt relay cards

A8 = Prewired USA power cord with 1/2" conduit relay connections; 120-volt

A9 = Prewired USA power cord; no relay board(s)

H11 = Internet card with CAT5 connection and Modbus TCP/IP

H15 = Dual networks with WebAdv via TCP/IP or Wi-fi and Modbus via TCP/IP

H21 = Internet card with CAT5 connection and BACnet TCP/IP

H25 = Dual networks with WebAdv via TCP/IP or Wi-fi and BACnet via TCP/IP
H26 = Dual networks with WebAdv via TCP/IP or Wi-fi and BACnet read/write via TCP/IP

K = Additional control relays (K, K2, K3 ....) don't exceed 20 relays total

N4 = Four 4-20mA Inputs N8 = Eight 4-20mA Inputs

N12 = Twelve 4-20mA inputs (only 4 mA outputs available with N12) N16 = Sixteen 4-20mA inputs (no mA outputs available with N16)

O4 = Four 4-20mA Isolated Outputs O8 = Eight 4-20mA Isolated Outputs

V4 = Additional 24 VDC power supply in lower section

W = 10 auxiliary flow meter inputs

Y = ETL Agency Listing

Z = Black cover instead of clear

1. Pre-wired 4-20mA input cables w/ external connector ordered below.

2. See pages 28-30 for fluorometer, free chlorine, level, and other sensors.

3. See page 36 for cell router and service for connection to Internet.....



#### MegaTron MT Parts

Notes:

MG-RL-05 Replacement relay card with 5 relays MG-RL-05-BOX Complete remote relay box with 5 relays

MG-RL-CPLR Relay card ribbon cable to wire cable adapter inside controller

MG-PWR Power supply board

MT-BATTERY MT battery MT-DOOR Clear cover

MT-PANEL-SCREW MT front panel SS thumb screw

MT-PANEL-MOUNT MT front panel thumb screw mounting base MT-PANEL-HINGE MT front panel hinge base, pin and screw

MG-FUSE-PAK (5) 2.5 amp fuses

MT-ICM-11 Modbus communications card MT-ICM-21 Bacnet communications card

MG-CAT5 CAT 5 cable from internal communications card

MT-MAO-4
4-20mA output card with 4 outputs
MT-MAO-8
4-20mA output card with 8 outputs
MT-MAI-4
4-20mA input card with 4 inputs
MT-MAI-8
4-20mA input card with 8 inputs

MT-MAIO-4 4-20 input & output card with 4 inputs and 4 outputs

WIFI-MODULE Wi-fi module for MT and XS-capable units MT-PSDC24 24 VDC supply for MT accessories

MT-AUXFLOW-W 10 auxiliary flow meter inputs

AUXFLOW-WIRE Auxiliary flow meter input cable with 3 pin Molex

MT-SYS- Replacement system card

Add all desired system function codes from unit model numbering system.

CABLE-7P-2 Prewired 2 conductor cable to mA input and 12VDC power with 7 pin connector, 6'
CABLE-7P-2A Prewired 2 conductor cable to mA input and no voltage and 7 pin connector, 6'
CABLE-7P-4 Prewired 4 conductor cable to mA input and 12VDC power with 7 pin connector, 6'

#### MegaTron MT Field Upgrades

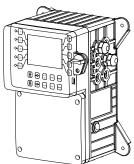
MegaTron MT units may be upgraded to add functions and features depending on desired additions and original option configuration. Contact the factory with the model and serial number of the unit and the additions for more details.

### Build a MegaTron

Model XS \_\_\_\_ -\_\_-\_\_\_

Conductivity Con	
	TE-4A Standard Tower probe
	Tower Conductivity no probe
C1 =	TE-4ASS Standard Tower probe w/ SS tips120 PSI (8.2 bar) @ 125°F (51.6°C)
	AH-4ASS 1" MNPT
	DC-4ASS tank mount
	AL-4RTD pure water, ½" MNPT, RTD temp 100 PSI (6.8 bar) @ 212°F (100°C)
	DI-4A, 1" MNPT
	CS-4ASS corporation stop probe
	AL-4ASS pure water, ½" MNPT, thermistor100 PSI (6.8 bar) @ 212°F (100°C)
	BE-34BC boiler probe, thermistor, 1" cross250 PSI (17.2 bar) @ 400°F (204.4°C)
	Boiler conductivity, no probe; no temp comp.
	BE-4RTDC boiler probe, RTD temp, 1" cross250 PSI (17.2 bar) @ 400°F (204.4°C)
	BE-32C probe, no temp comp, 1" cross250 PSI (17.2 bar) @ 400°F (204.4°C)
	BE-4RTD-SC boiler probe, RTD temp, ¾" cross 250 PSI (17.2 bar) @ 400°F (204.4°C)
	BE-32-SC probe, no temp comp. 3/4" cross250 PSI (17.2 bar) @ 400°F (204.4°C)
	Boiler conductivity with RTD temp; no probe
	DI-27-4A high conductivity range
D1 =	TE-4A high conductivity range (0-50,000)120 PSI (8.2 bar) @ 125°F (51.6°C)
Maka un / Minaell	Conductivity (may of 4 non-cystom and myst bays C on D ontion)
	aneous Conductivity (max of 1 per system and must have C or D option)  DI-4A Standard Make-up120 PSI (8.2 bar) @ 125°F (51.6°C)
	Make-up / miscellaneous conductivity no probe
	DI-4ASS
	TE-4A PVC 3/4" slip tee design
	CS-4ASS corporation stop probe
1010 -	C3-4A33 Corporation stop probe
nH Control (1 per	system max) For dual set point use Q instead of P.
	TPE-21 Standard Tower
	pH Control no probe
	TPE-21 w/ pre amp
	Tank mounted probe (PE-21 with DPE)
	Tank mount w/ pre amp (PE-21, DPE & RTP-4)140°F (60°C)
P8 =	PE-21SS stainless steel probe ½" MNPT200 PSI (13.8 bar) @ 180°F (82.2°C)
	PE-21SS with pre amp
	PE-11 low ionic probe, ½" MNPT50 PSI (3.5 bar) @ 180°F (82.2°C)
	PE-11 w/ pre amp
	PE-21CS Corp-stop w/ pre amp, 1" FNPT100 PSI (6.8 bar) @ 165°F (73.7°C)
ORP Control (1 pe	er controller)
	TOE-21 Standard Tower
R0 =	` , ,
R2 =	TOE-21 with preamp100 PSI (6.8 bar) @ 140°F (60°C)
	Tank mounted probe (OE-21 with DPE)140°F (60°C)
R5 =	Tank mounted ORP w/ pre amp (OE-21, DPE & RTP-4)140°F (60°C)
R8 =	OE-21SS stainless steel probe ½" MNPT200 PSI (13.8 bar) @ 180°F (82.2°C)
R15=	OE-21CS Corp-stop w/ pre amp, 1" FNPT100 PSI (6.8 bar) @ 180°F (82.2°C)
	of 5 per controller: 28-Day, Pulse, %, Recycle, Limit or Post Event ————————————————————————————————————
F1 to	F5 (F4 = Four feed timers)
Flow Switches —	
E =	
E3 =	
	Paddle flow switch PVC unassembled, 10' cord120 PSI (8.2 bar) @ 125°F (51.6°C)
	Paddle switch brass assem. (order rated probes)250 PSI (17.2 bar) @ 75°F (23.8°C)
	Flow switch connection only with cable
	Standard float switch PVC unassem., 10' cord120 PSI (8.2 bar) @ 125°F (51.6°C)

After Single System Card features are selected go to the next page for whole unit options.



The MegaTronXS comes standard with 5 control relays and digital inputs, 2 water meter inputs and can have communications, 4-20mA and many other options.

For dual boiler units select the features for system 1 followed by a dash then system 2's probe option and E6 option if desired. ie: XSB2F3E6-B2E6-H

# MegaTron Whole Unit Options

A = Conduit connections, 120-volt relay cards A1 = Liquid tights only with 120-volt relay cards

A3 = Liquid tights only with CE mark, 240-volt relay cards
A4 = Prewired USA power cord all relays dry contact

A5 = Prewired power cord to On/Off; 120-volt relay boards have no power

A6 = Korean power cord, no pigtails, 240-volt relay cards
A7 = Australian power cord, no pigtails, 240 volt relay cards

A8 = Prewired USA power cord with 1/2" conduit relay connections; 120-volt

A9 = Prewired USA power cord; no relay board(s)

A11 = 240 relay board with USA plugs

H = Internet card with CAT5 connection and Wi-Fi
 H2 = Internet card with CAT5 connection, no Wi-Fi

H11 = Internet card with CAT5 connection and Modbus TCP/IP H21 = Internet card with CAT5 connection and BACnet TCP/IP

H22 = Communications card with CAT5 connection and BACnet read/write via TCP/IP

N4 = Four 4-20mA Isolated Inputs

N8 = Eight 4-20mA isolated inputs (O4 option not available)

O4 = Four 4-20mA Isolated Outputs

V = 5 VDC output with water meter connections for paddle wheel flow meters
 V2 = 12 VDC output with water meter connections for paddle wheel flow meters

W1 = 1 auxiliary flow input for a bleed flow alarm

W4 = 4 auxiliary flow meter inputs

Y = ETL Agency Listing

Z = Black cover instead of clear

1. Pre-wired 4-20mA input cables w/ external connector ordered below.

2. See pages 28-30 for fluorometer, free chlorine, level, and other sensors.

3. See page 36 for cell router and service for connection to Internet.....





Notes:

MG-RL-05 Replacement relay card with 5 relays

MG-PWR Power supply board

XS-KEYPAD-ASM Keypad and display panel assembly (no display)

XS-DISPLAY-ASM Display panel assembly complete

DOOR Clear cover

XS-ICM-00 Internet communications card for "H" option MG-CAT5 CAT 5 cable from internal communications card

XS-MAO-4 4-20mA output card with 4 outputs
XS-MAI-4 4-20mA input card with 4 inputs
XS-MAI-8 4-20mA input card with 8 inputs

XS-MAIO-4 4-20mA card with 4 inputs and 4 outputs
WIFI-MODULE Wi-Fi module only for MT and XS-capable units

XS-AUXFLOW-W4 4 auxiliary flow meter inputs
XS-USB-ASM USB board and cable for front panel

AUXFLOW-WIRE Auxiliary flow meter input cable with 3 pin Molex

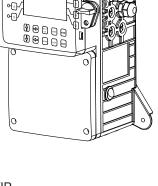
XS-BATTERY XS battery

XS-SYS- Replacement system card

Add all desired system function codes from unit model numbering system

CABLE-7P-2 Prewired 2 conductor cable to mA input and 12VDC power with 7 pin connector, 6'
CABLE-7P-2A Prewired 2 conductor cable to mA input and no voltage and 7 pin connector, 6'
CABLE-7P-4 Prewired 4 conductor cable to mA input and 12VDC power with 7 pin connector, 6'

Note: The prewired input cables simplify connecting to external 4-20mA signal sources that need 12 VDC power on the loop (i.e. fluorometers, level sensors and other specialty probes).



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#### **NanoTron Controller**

The NanoTron compact units are designed to automate various applications. Simple step through menu provides user-defined configuration.

**Note:** All NanoTron units have 2 control relays max, except for corrosion units have 1 powered relay and 1 dry contact relay



	Model <b>NANO-</b>
Conductivity Control & 1 Feed Timer	
C = TE-4A Standard Tower probe	120 PSI (8.2 bar) @ 125°F (51.6°C)
C0 = Tower Conductivity no probe	
C1 = TE-4ASS Standard Tower probe w/ SS tips	120 PSI (8.2 bar) @ 125°F (51.6°C)
C3 = AH-4ASS 1" MNPT	
C5 = DC-4ASS tank mount	190°F (87.7°C)
B0 = Boiler conductivity no probe	` ,
B2 = BE-32C probe, no temp comp, 1" cross	250 PSI (17.2 bar) @ 400°F (204.4°C)
	Model NANO- N
mA Input & 1 Feed Timer	
N = One mA input & output with 24 VDC	
	Madal NANO
nH or OPP Control 9 4 Food Timer	Model <b>NANO-</b>
pH or ORP Control & 1 Feed Timer  P = TPE-21 Standard Tower	
P0 = pH Control no probe	100 F31 (0.0 Dai) (W 140 F (00 C)
P4 = Tank mounted probe (PE-21 with DPE)	140°F (60°C)
P8 = PE-21SS stainless steel probe ½" MNPT	
P11 = PE-11 low ionic probe, ½" MNPT	
R = TOE-21 Standard Tower	
R0 = ORP Control no probe	
R4 = Tank mounted probe (OE-21 with DPE)	
R8 = OE-21SS stainless steel probe ½" MNPT	200 PSI (13.8 bar) @ 180°F (82.2°C)
	Model NANO-F2 -
Two Selectable Feed Timers (28-Day, Pulse, Recycle	or Post Timer) —
<b>Two Selectable Feed Timers</b> (28-Day, Pulse, Recycle F2	. — –
· · · · · · · · · · · · · · · · · · ·	or Post Timer) ————————————————————————————————————
F2	or Post Timer) — Model NANO
F2  Corrosion Monitor with 4-20mA Output of Corrosion	or Post Timer) — Model NANO
F2  Corrosion Monitor with 4-20mA Output of Corrosion M2 = Corrosion monitor, no sensor body	or Post Timer) — — — — — — — — — — — — — — — — — — —
F2  Corrosion Monitor with 4-20mA Output of Corrosion M2 = Corrosion monitor, no sensor body M21 = Corr. monitor w/ PVC quick release probe body, <sup>3</sup> / <sub>4</sub> " to	Model NANO • & Pitting ————————————————————————————————————
F2  Corrosion Monitor with 4-20mA Output of Corrosion M2 = Corrosion monitor, no sensor body	Model NANO n & Pitting ————————————————————————————————————
Corrosion Monitor with 4-20mA Output of Corrosion  M2 = Corrosion monitor, no sensor body  M21 = Corr. monitor w/ PVC quick release probe body, <sup>3</sup> / <sub>4</sub> " to  M22 = Corr. monitor w/ 1" SS threaded probe body  NOTE: Corrosion sensor tips available at the bottom of page	Model NANO n & Pitting ————————————————————————————————————
Corrosion Monitor with 4-20mA Output of Corrosion  M2 = Corrosion monitor, no sensor body  M21 = Corr. monitor w/ PVC quick release probe body, <sup>3</sup> / <sub>4</sub> " to M22 = Corr. monitor w/ 1" SS threaded probe body  NOTE: Corrosion sensor tips available at the bottom of pa	Model NANO n & Pitting ————————————————————————————————————
Corrosion Monitor with 4-20mA Output of Corrosion  M2 = Corrosion monitor, no sensor body  M21 = Corr. monitor w/ PVC quick release probe body, <sup>3</sup> / <sub>4</sub> " to M22 = Corr. monitor w/ 1" SS threaded probe body  NOTE: Corrosion sensor tips available at the bottom of pa  Options  A = 120-volt conduit connections	Model NANO n & Pitting ————————————————————————————————————
Corrosion Monitor with 4-20mA Output of Corrosion  M2 = Corrosion monitor, no sensor body  M21 = Corr. monitor w/ PVC quick release probe body, <sup>3</sup> / <sub>4</sub> " to M22 = Corr. monitor w/ 1" SS threaded probe body  NOTE: Corrosion sensor tips available at the bottom of pa  Options  A = 120-volt conduit connections  A3 = Liquid tights only with CE mark, 240-volt relays	Model NANO n & Pitting ————————————————————————————————————
Corrosion Monitor with 4-20mA Output of Corrosion  M2 = Corrosion monitor, no sensor body  M21 = Corr. monitor w/ PVC quick release probe body, <sup>3</sup> / <sub>4</sub> " to  M22 = Corr. monitor w/ 1" SS threaded probe body  NOTE: Corrosion sensor tips available at the bottom of pa  Options  A = 120-volt conduit connections  A3 = Liquid tights only with CE mark, 240-volt relays	Model NANO n & Pitting ————————————————————————————————————
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Corrosion Monitor with 4-20mA Output of Corrosion  M2 = Corrosion monitor, no sensor body  M21 = Corr. monitor w/ PVC quick release probe body, ¾" to M22 = Corr. monitor w/ 1" SS threaded probe body	Model NANO  1 & Pitting  ee140 PSI (9.7 bar) @ 75°F (23.8°C)200 PSI (13.8 bar) @ 200°F (93.3°C) age 13. 120 PSI (8.2 bar) @ 125°F (51.6°C)120 PSI (8.2 bar) @ 125°F (51.6°C)120 PSI (8.2 bar) @ 125°F (51.6°C)
Corrosion Monitor with 4-20mA Output of Corrosion  M2 = Corrosion monitor, no sensor body  M21 = Corr. monitor w/ PVC quick release probe body, ¾" to M22 = Corr. monitor w/ 1" SS threaded probe body	Model NANO  1 & Pitting  ee140 PSI (9.7 bar) @ 75°F (23.8°C)200 PSI (13.8 bar) @ 200°F (93.3°C) age 13. 120 PSI (8.2 bar) @ 125°F (51.6°C)120 PSI (8.2 bar) @ 125°F (51.6°C)120 PSI (8.2 bar) @ 125°F (51.6°C)
Corrosion Monitor with 4-20mA Output of Corrosion  M2 = Corrosion monitor, no sensor body  M21 = Corr. monitor w/ PVC quick release probe body, ¾" to M22 = Corr. monitor w/ 1" SS threaded probe body	Model NANO  n & Pitting  ee140 PSI (9.7 bar) @ 75°F (23.8°C) 200 PSI (13.8 bar) @ 200°F (93.3°C) age 13. 120 PSI (8.2 bar) @ 125°F (51.6°C)120 PSI (8.2 bar) @ 125°F (51.6°C)120 PSI (8.2 bar) @ 125°F (51.6°C)120 PSI (8.2 bar) @ 125°F (51.6°C)
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Corrosion Monitor with 4-20mA Output of Corrosion  M2 = Corrosion monitor, no sensor body  M21 = Corr. monitor w/ PVC quick release probe body, ¾" to M22 = Corr. monitor w/ 1" SS threaded probe body	Model NANO  n & Pitting  ee140 PSI (9.7 bar) @ 75°F (23.8°C) 200 PSI (13.8 bar) @ 200°F (93.3°C) age 13. 120 PSI (8.2 bar) @ 125°F (51.6°C)120 PSI (8.2 bar) @ 125°F (51.6°C)120 PSI (8.2 bar) @ 125°F (51.6°C)250 PSI (17.2 bar) @ 75°F (23.8°C)120 PSI (8.2 bar) @ 125°F (51.6°C)
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Corrosion Monitor with 4-20mA Output of Corrosion  M2 = Corrosion monitor, no sensor body  M21 = Corr. monitor w/ PVC quick release probe body, ¾" to M22 = Corr. monitor w/ 1" SS threaded probe body	Model NANO
Corrosion Monitor with 4-20mA Output of Corrosion  M2 = Corrosion monitor, no sensor body  M21 = Corr. monitor w/ PVC quick release probe body, ¾" to M22 = Corr. monitor w/ 1" SS threaded probe body	Model NANO

#### MicroTron Controller

The next generation of MicroTron controllers can control tower or other system functions including: conductivity and a variety of selectable chemical feed timers. Each system control function drives a relay. MicroTrons come with four (4) relay outputs. Choose a base model and add desired options.



Build a Model MICRO-\_\_ \_ - \_ \_ \_

C = C0 = C1 = C3 =	er Conductivity Control & 3 Feed Timers  TE-4A Standard Tower probe	120 PSI (8.2 bar) @ 125°F (51.6°C) 120 PSI (8.2 bar) @ 125°F (51.6°C) 250 PSI (17.2 bar) @ 140°F (60°C)
		Model MICRO-F4
Four S F4	Selectable Feed Timers (28-DAY, PULSE, RECY	CLE or POST TIMER)
A =	= 100-240 volt conduit connections	
	= Liquid tights only with CE mark, 100-240 volt	
	Korean power cord, no pigtails, 240 volt relay card	
	= Australian power cord (240 VAC)	120 DSL (9.2 hor) @ 125°F (51.6°C)
E3 =	<ul> <li>Standard float style switch PVC assembly</li> <li>Paddle flow switch PVC assembly</li> </ul>	
E4 =	<del>-</del>	
E5 =		
	Flow switch connection only with cable	200 : 0: (:::2 20.) @ : 0 : (20.0 0)
	= Standard float switch PVC unassembled, 10' cord	120 PSI (8.2 bar) @ 125°F (51.6°C)
E11 =		

#### **Miscellaneous Controller Parts**

**BOXFLOWCLIP-1** Flow clip assembly for SS/XS controllers

Black cover instead of clear

BOXFLOWCLIP-75 Flow clip assembly for MicroTron, NANO option W and 2EZ controllers

CORD-POWER Power Cord -8 foot with plug 8" cord with Molded Receptacle

DOOR Clear Lexan cover for enclosure (SS, XS, Micro, NANO option W & 2EZ)

DOOR-Z Black cover for SS, XS, Micro, 2EZ & NANO option W Controllers

MICRO-KEYPAD Replacement keypad for MICRO-C/F4

MG-FUSE-PAK (5) 2.5 amp fuses (for all MegaTron and MicroTron relay boards)

SS-COVER Lower cover on SS & XS enclosures

SS-LATCH Replacement latch for SS, XS, MicroTron, NANO option W and analog units

1A0A000078 MG/SS battery

1A1T000084 Micro and NANO battery

**1A5B000337** Relay output Fuse 5 x 20 MM, 5 AMP for NanoTron units

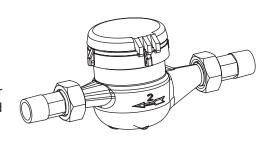
**1A9A00017** %" liquid tight

1A9A000243A %" liquid tight to ½" FNPT conduit

#### **COOLING TOWER ACCESSORIES**

#### **Contacting Head Water Meters**

Contacting head brass water meters provide an electrical dry contact out for proportional control based on water flow when used with a pulse activated timer or pump.



#### Cold Water Meters 105°F Max

Part Number	Pipe Size	Gallons per Contact	PSI Max	Flow Range GPM	Shipping Wt. (lbs)
AWM-075	3/4"	10	150	0.5-20	4
AWM-100	1"	10	150	1-50	7
AWM-150	1½"	10	150	1.5-100	15
AWM-200	2"	10	150	2-130	17
AWR-2T	2"	100	230	2-400	30
AWR-3T-G100	3"	100	230	3-550	38
AWR-4T-G100	4"	100	230	5-1,250	45

AWM Options	Description
-1	Provides 1 GPC instead of 10 GPC
-A	Removes reed switch (still contacting head)
-M	Metric (liter) units of measure

#### **Water Meter Accessories**

AW-RS Reed Switch for meter

**AWM-SS-3** Isolated Signal Splitter, 3 outputs needs 24 VDC to power **AWM-SS-3A** Isolated Signal Splitter, 3 outputs with plug in power supply

**AWM-SS-4A** Signal Splitter, 3 isolated and 1 dry contact (N.O. and N.C.) with power supply

**PD-1** Pulse Divider

**RCT-NANO** Powered remote totalizer (1 or 2 water meters); 120-volts

AW-2-GASKET Coupling gaskets for ¾" meter
Coupling gaskets for 1" meter
Coupling gaskets for 1.5" meter

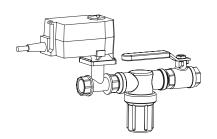
#### Bleed-Off Piping Assemblies....Make Maintenance Easy!

Add a strainer and isolation valve to your bleed valve!

A adds poly strainer & brass isolation valve

A1 adds metal y-strainer & brass isolation valve

A4 adds poly y-strainer with flush & brass iso valve



#### **ABC Ball Valves**

(	Motor o	pen,	ca	pacitor	return)	Max.	Temp	140°F

Part	Size	PSI Max
ABC-1/4	1/4"	225
ABC-½	1/2"	225
ABC-¾	3/4"	225
ABC-1	1"	225

J	(	Conduit	junction	box	attach	ıed
---	---	---------	----------	-----	--------	-----

- J1 Conduit junction box & USA power cord
- J2 Conduit junction box with 1/2 FNPT port
- S Cover (must have J option)

#### **Brass Motorized Ball Valves**

Full Port

#### (Power open, spring return) Max. Temp 250°F

Part	Size	CV	PSI Max
ABS-1/2	1/2"	11	130
ABS-¾	3/4"	25	130
ABS-1	1"	50	100
ABS-11/2	1-1/2"	170	70
ABS-2	2"	250	70

## Belimo power open, spring return ball valve Full Port (Power open, spring return) Max. Temp 212°F

(. o op.	···, •p····g ··		
Part	Size	CV	PSI Max
ABV-½	1/2"	10	175
ABV-¾	3/4"	14	175
ABV-1	1"	30	175

W Weather shield for ABS & ABV valves, poly

#### **ASCO - Brass Solenoid Valves**

#### Max. Temp 125°F

Part	Size	PSI Max
ASCO-1/2	1/2"	150
ASCO-3/4	3/4"	150
ASCO-1	1"	125

Brass Solenoid Valves			Zero PSI	Differential
Max. Temp	140°F			
Part	Size	PSI Max	CV	
SO-1/2	1/2"	145	4.2	
SO-¾	3/4"	145	10.5	
SO-1	1"	145	12.9	
SO-1½	1-1/2"	145	35.1	
SGO -½	1/2"	200	2.8	
SGO-3/4	3/4"	200	2.8	
SGO-1	1"	200	8.3	

#### **GE-SO Solenoid Valves**

#### (Basic solenoid operated) Max. Temp 140°F

Part	Size	PSI Max
GE-SO-1/2	1/2"	140
GE-SO-¾	3/4"	140
GE-SO-1	1"	140

#### **Valve Options and Parts**

P Pre-wired with an 8' cord

C For conduit connections

L UL Listed valves

SGO-1/2-Kit

SGO-¾-Kit

H-CONN Connector for SO Valves

H-CONN-G Connector for SG Valves

F3 3 GPM PVC flow control

F5 5 GPM PVC flow control

Add -24V for 24 Volt or -230V for 230 Volt

ABS-SHIELD-ASM

ABV-SHIELD-ASM

U Adds 3/4" PVC union isolation valve before valve\*

U2 Adds 3/4" PVC union on both sides of valve

\*Must include pre-wire option

SEE ADDITIONAL PLUMBING PARTS ON PAGES 13, 32 AND 33.

#### **Corrosion Coupon Racks**

Advantage coupon racks are mounted on a polyethylene panel with inlet and outlet ball valves for easy installation. Standard 3/4" & 1" PVC models use our unique quick disconnect coupon holders.

Note: Options selected may reduce pressure ratings.

<b>Note:</b> Options selected may reduce pressure ratings.	
<sup>3</sup> ⁄ <sub>4</sub> "PVC Sch 80 120PSI (8.27bar) @ 125°F (51°C)	<sup>3</sup> / <sub>4</sub> " Black Iron 185PSI (12.7bar) @ 300°F (148°C)
MODEL	ACR-15
ACR-10	ACR-25
ACR-20	ACR-35
ACR-30	ACR-45
ACR-40	ACR-55
ACR-50	ACR-65
ACR-60	
	1 " Black Iron 185PSI (12.7bar) @ 300°F (148°C)
1"PVC Sch 80 120PSI (8.27bar) @ 125°F (51°C)	ACR-18
ACR-11	ACR-28
ACR-21	ACR-38
ACR-31	ACR-48
ACR-41	ACR-58
ACR-51	ACR-68
ACR-61	
3/4" 304SS 185PSI (12.7bar) @ 300°F (148°C)	
ACR-19	
ACR-29	
ACR-39	
ACR-49	
ACR-59	
ACR-69	
Options	0
A Flow control orifice, 3 GPM	. = / /
B-2 Flow indicator 8.5" long 1-10 GPM, 230 psi @ 300	F (not recommended for PVC racks)

- B-7 Flow indicator 7.5" long, 1-10 GPM 100 PSI @ 125°F max
- CEFGHFlow control orifice, 5 GPM Sample tee with valve
- Back flow check valve
- Basket strainer (120 PSI @ 80°F max)
- Steel Y-strainer
- H1 Poly Y-strainer with flush valve (YP-3/4-SP)
- J Provide clear PVC piping over coupon - price is per coupon
- Κ Omit 3/4" ball Valves
- Omit 1" ball Valves K-1
- K2 PVC true union isolation valves (3/4")
- PVC true union isolation valves (1") K3
- K4 Brass isolation valves on PVC racks
- K5 3/4" SS isolation valves on PVC racks
- 3/4" FNPT for use with corrosion probes. Includes pipe plug for 3/4" & 1" PVC racks only L
- 3/4" PVC quick release corrosion tee for 3/4" & 1" PVC racks only L1
- L2 1" FNPT tee for high temp corrosion sensor
- M Mounting rails (add to poly panel)
- M1 Mounting rails (instead of poly panel)
- Ν ½" blue poly
- R22 (2) 3/4" SS injection tees
- R3 3 PVC quick release probe tees 3/4" - for 3/4" PVC racks only
- 3/4" removable section of black iron pipe, 6" long
- S1 1" removable section of black iron pipe, 6" long
- S2 3/4" removable section of SS pipe, 6" long Т Extends metal racks mounting brackets by 3/4"
- U No poly panel partially assembled with mounting brackets

#### **Coupon Rack Parts**

ACR-CH Complete 3/4" PVC holder and quick release tee ACR-CH-1 1" male slip PVC quick release holder (no tee) ACR-CH-1-T Complete 1" slip PVC quick release holder and tee

1/2" PVC Coupon Holder ACR-CH½ ACR-CHB Black Iron Coupon Holder 3/4" ACR-CH-QH Complete 3/4" PVC Holder; no tee

**ACR-NHW** Nylon Hardware

ACR-CHSS Coupon Holder 3/4" MNPT, 304 Stainless Steel

PVC Ball Valve for ACR BV-3/4 **BV-1-PVC** 1" PVC Ball Valve for ACR CKV-3/4PP Backcheck, 3/4" FNPT, poly

Backcheck, 3/4" FNPT, stainless steel CKV-3/4SS

CKV-1PP Backcheck, 1" FNPT, poly

CLAMP-3/4 3/4" pipe clamp (includes both sides)

O-Ring Seal for Holder E-30-PH

Flow Indicator, 3/4" MNPT, 7.5" long, 100 PSI and 125°F FLOW-75-10A

Flow Indicator, 3/4" MNPT, 9.5" long FLOW-3/4

FLOW-3/4-BR Flow Indicator, 3/4" MNPT, 9.5" long with brass fittings Flow Indicator, 3/4" MNPT, 230 PSI and 300°F max FLOW-2HT

Flow Indicator, 3/4" MNPT, 7.5" long, 100 PSI and 125°F max with flow switch FLOW-75-10AFS

FLOW-75-SWITCH Switch for FLOW-75-10AFS

F-4411V O-ring for all flow indicators except FLOW-2HT

Set of 2 O-rings for FLOW-2HT 2HT-ORINGS Flow Restrictor - 3 GPM, Brass OR3-BE OR3-BE-P Flow Restrictor - 3 GPM. PVC Flow Restrictor - 5 GPM, Brass OR5-BE OR5-BE-P Flow Restrictor - 5 GPM, PVC Flow Restrictor - 8 GPM, Brass OR8-BE Flow Restrictor - 8 GPM, PVC OR8-BE-P Flow Restrictor - 10 GPM, Brass OR10-BE

Coupon Holder T only T-C

T-ADAPT Quick disconnect coupon opening to 1" slip adaptor Removable mild steel pipe, 3/4"-12" plus unions SPOOL-075-M Removable PVC pipe, 3/4"x12" plus unions SPOOL-075-P

#### **Corrosion Rack & Monitor Parts**

#### Coupons **AMS** Mild Steel

ACO Copper

304 Stainless Steel AS4 316 Stainless Steel AS5

ANK Nickel Brass ABR ABA Aluminum Galvanized Steel AGS

Scale Coupon

ASC-5 316 Stainless Steel

Note: Additional coupon materials and styles available.

Consult factory for details.

#### **Corrosion Tips**

CE-MS Pair of Mild Steel CE-CO Pair of Copper

Pair of Brass (Admiralty) CE-BR CE-CN Pair of Cupro-Nickel CE-AL Pair of Aluminum CE-SS-304L Pair of 304SS CE-SS-316L Pair of 316SS

COR-TEST-MS5

Corrosion test plug (5 ml/yr)

#### **Corrosion Sensor Body**

CE-BODY-1 PVC 3/4" quick release tee 1" MNPT SS and CPVC CE-BODY-2

CE-BODY-3 3/4" MNPT CPVC

### **Corrosion Loop Guard**

L = Clear pipe over holders on PVC

P1 = 2 pump shelf w/ SS brackets

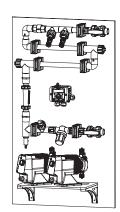
**P** = 2 pump shelf

Q = Poly back check Q1 = 3/4" SS back check

120 PSI (8.2 bar) @ 80° (26.6°C)

CLG units provide a professional approach to corrosion monitoring and control. Combined with separately-ordered, real-time NANO-M corrosion monitors and/or other feed equipment for automated feed of closed loop treatment. All models included isolation and sample valves mounted on white poly.

Select loop material based on required temperature and pressure rating. PVC has a max rating of 120 PSI (8.2 bar) @ 125° F (51.67°C) Iron and SS have a max of 185 PSI (12.7 bar) @ 300°F (148.9°C) Options selected will lower max ratings.



Model **CLG** - \_\_\_ \_\_ \_\_

			Model GEG	
Loop Material and # of Cou 3/4" PVC	pons ———— 1" PVC	3/4" Iron	1" Iron	1" SS
2 holders <b>A2</b> 3 holders <b>A3</b> 4 holders <b>A4</b> 5 holders <b>A5</b>	A12 A13 A14 A15	A22 A23 A24 A25	A32 A33 A34 A35	A52 A53 A54 A55
Corrosion Sensor Ports B = (2) quick release ¾" B1 = (2) quick release 1" F B2 = (2) 1" FNPT ports in	PVC		FNPT ports in 1" ir FNPT port in 1" SS	
Controller Space & Mount C0 = No controller space C1 = Room for 1 NanoTro C2 = Room for 2 NanoTro	n	C3 = Room	oumps separately) n for 3 NanoTrons n for 1 MegaTron X	
Sensor Tees  D = (1) ¾" PVC quick rele  D2 = (2) ¾" PVC quick rele  D3 = (1) 1" Iron tee  D4 = (2) 1" Iron tees		D5 = (1) 1" D6 = (2) 1" D7 = (2) 3/4"		, (1) flow tee
Strainer Options  E = 3/4" basket  E1 = 3/4" flushable y  E2 = 1" basket  E3 = 3/4" Black iron		<b>E5</b> = 10" pc	oly filter cold (¾") oly filter hot (¾") S strainer (120 PSI ar basket	@ 160°F)
Flow Indicator 1-10 GPM F = 3/4" 100 PSI @ 125°F F3 = 3/4" w/ flow switch		<b>F2</b> = <sup>3</sup> / <sub>4</sub> " 23	0 PSI @ 300°F	
Flow Restrictor 1-10 GPM G = 3/4" PVC 3 GPM G1 = 3/4" PVC 5 GPM			ass 3 GPM ass 5 GPM	
<b>Loop Direction</b> : Standard i	s in and out on the (1 = Left to Right	right. K4 = Right	to Left	
Injection 3/4" PVC N1= 1 tee N2= 2 tees	1" PVC N11 N12	3/4" Black Iron N21 N22	1" Iron N31 N32	3/4" SS — N41 N42
Options				

14

**R** = Mounting rails

**S** = Electrical junction box

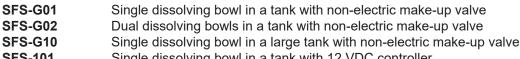
 $U = \frac{1}{2}$ " blue poly panel

**W** = Free standing legs

#### **Solid Feed Systems**

SFS solid feed systems include a dissolving bowl with a 0.6 GPM at 10 PSI spray nozzle; shut-off valves on inlet water and pump suction connection, pressure regulator, solenoid, Y-strainer and level switches (most models).

120-volt units have a test switch, LED for power and control with a lockable cover.



SFS-101 Single dissolving bowl in a tank with 12 VDC controller

Single dissolving bowl and tank with 120 VAC controller on panel **SFS-105** 

**SFS-10** Dissolving bowl with 120-volt solenoid, pressure regulator, no tank or controller **SFS-20** Two dissolving bowls with one 120-volt solenoid, regulator, no tank or controller Dissolving bowl with battery powered timer valve, regulator and gauge on panel SFS-T01

Tank and bowl (no plumbing) for liquid concentration SFS-DF1

**Options** 

Conduit connections Α

A2 240 volt with conduit connections (not available on 101's) 240/120 wall adapter for SFS-101 with international plugs А3

В1 Back check in pump suction line

1" FNPT port on the top of the tank for conductivity probe D

D2 Adjustable level wand for external monitoring

D3 ½" Liquid tight in bowl with SFS-E4A conductivity probe

10' of 3/4" I.D. clear tubing for overflow Ε

G Blue back panel for 105

Н High Level Alarm Cut-off with LED and Alarm Relay Output on 120-volt models

Adds a high-level cut-off to SFS-101 controller H2

H3 High alarm with cut-off and second brass solenoid N.O. on 120-volt units

J Low pressure spray nozzle (30-45 PSI)

K Gray dissolving tank

Provide 120-volt level controller for remote mounting with SFS-101 L

Ρ Non Advantage Controls metering pump mounting adaptor

Viton seats in electric solenoid valve V

W Adjustable wands

Partial PVC piping instead of brass on G01 & G02

#### APTech Ultra-M

SFS-ULTRA-M Single dissolving system with non-electric float

### **Mounting Panels for SFS Feeders**

SFS-PANEL-2 1/2" blue poly panel for 2 SFS-G01, or 101 (34" x 24") 1/2" blue poly panel for 3 SFS-G01, or 101 (46" x 24") SFS-PANEL-3 SFS-PANEL-31 1/2" blue poly panel for 1 SFS-G02 and 2 SFS-G01 or 101

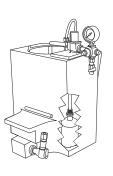
1/2" blue poly panel for 3 SFS-G02 (60" x 24") SFS-PANEL-32

SFS-PANEL-41 1/2" blue poly panel for 3 SFS-G01 & G02 (72" x 24")

#### **Options for SFS-PANEL**

3/4" PVC freshwater header with shut-off Α D 3/4" PVC overflow to drain header

W Free standing leg kit





#### Solid Feed Systems - continued

**Parts** 

R00223 SS wall mounting bracket for SFS-G01, 101, 105 and DF1

R00339 SS wall mounting bracket for SFS-G02 and G10

SFS-BV Brass Inlet Valve

SFS-C01 12-volt controller for 101 and 201 models

SFS-CV-1/4 1/4" brass check valve

SFS-DB-1 Dissolving Bowl (Advantage PVC bowl assembly)
SFS-DB-1D3 Dissolving bowl with ½" liquid tight for SFS-E4A probe

SFS-DB-ARM-1 Spray arm for dissolving bowl (Advantage PVC spray arm assembly)

SFS-DB-DF1 Dissolving bowl with piercing stem for concentrates SFS-E4A Special conductivity probe for SFS-G01(02) models

SFS-FLOAT Non-electric float bottle

SFS-FV-G01 Non-electric fill valve for G01, no float SFS-FV-G02 Non-electric fill valve for G02, no float

SFS-LF Individual float switch for electric float switches

SFS-LF-1 1 Level Float Assembly SFS-LF-2 2 Level Float Assembly SFS-LF-2-FH01 Level wands for SFS-FH01 SFS-LF-3 3 Level Float Assembly

SFS-LF-G01 Level float and inlet valve assembly for SFS-G01 (no gauge, regulator, or strainer)
SFS-LF-G02 Level float and inlet valve assembly for SFS-G02 (no gauge, regulator, or strainer)

SFS-NHW Set of 4 nylon bolts & washers for valve panel on G01 & G02

SFS-PA-101M Plumbing assembly for 101M (solenoid, inlet valve, pressure regulator & gauge)
SFS-PA-105M Plumbing assembly for 105M (solenoid, inlet valve, pressure regulator & gauge)

SFS-PA-G01 Plumbing assembly for G01 (inlet, y-strainer, pressure regulator & gauge)

SFS-PA-G01-Y Plumbing assembly with Y options

SFS-PA-G02 Plumbing assembly for G02 (inlet, y-strainer, pressure regulator & gauge)

SFS-PG Pressure Gauge

SFS-PG-Y ABS body pressure gauge SFS-PR Pressure Regulator

SFS-SB-12V Brass solenoid valve with y-strainer 12-volt D.C. SFS-SB-120V Brass solenoid valve with y-strainer 120-volt A.C.

SFS-SB-KIT Repair kit for 12V or 120V solenoid valves

SFS-SUCTION Outlet pump suction assembly

SFS-SUCTION-25 Outlet pump suction assembly with 1/4" tubing connection

SFS-SUCTION-SS 3/6" tubing connection with SS ball valve SFS-TANK-101 Replacement tank for the SFS-101

SFS-TANK-205 Tank only for 205

SFS-TANK-G01 Replacement tank for the SFS-G01 SFS-TANK-G02 Replacement tank for the SFS-G02

SFS-TIP-LP Low pressure spray tip

SFS-WT Wall transformer for 12 volt D.C. models

SFS-Y Y-strainer on SFS plumbing

1A2A000122 Pump mounting t-nut for G01, 101 tanks

1P1P000228 1/4" FNPT x 3/8" tubing

1P1P000229 1/4" NPT to 1/4" tubing connector

1S1F000001 Overflow tubing

2C4A000051 ½" MNPT to ¼" FNPT reducer for pump suction on tank

2C4A000056 Overflow elbow

2C4A000059 Replacement spray nozzle 2C4A000060 ½" tubing x ¼" MNPT connector

2C4A000087 Replacement panel for SFS-G01 valve holder

2C4A000090 1/4" MNPT x garden hose female (for use with SFS-T01)

#### **Prefabricated Systems**

#### **Wall Mounts**

Full size wall mounts for a controller, 1-4 plumbing loops, pumps and accessories make a professional installation easy.

Build one to your specs on page 18. Start with WM and code for number of plumbing loops and panel material desired, "WM2". Then select options A-J for each loop. If additional loops are the same, use a -X2, X3 or X4. After all loops are built, list whole unit options: WM2-AB3D3FJ-X2.



- **NOTE**: 1. Multi-loop panels come in sections.
  - 2. Option "H" on wall mount units are not available on multi-loop panels.
  - 3. Multi-loops will have loop1 in/out right, loop2 in/out left, loop3 in/out right and loop4 in/out left unless K options are used.



Controller mount boards are a low-cost option making installation fast and easy on compact poly boards for controller and sample stream assemblies.

Build one to your specs on page 19.

#### **Fully Enclosed Cabinets**

The FE series of fully enclosed pre-fabs provide a safe and secure professional installation that saves time and money while protecting your water treatment equipment from the elements and tampering.

Build one to your specs on page 20.

#### All Prefabs Please Note:

- Controller, pumps, and bleed valves are ordered separately. Panel dimensions may vary depending upon options and controller selections.
- If ordering option "C" for probes, a ¾" PVC 90° flow tee is automatically included on ¾" & 1" PVC loops. If a 1" PVC straight flow tee is needed, add a 1 to start the # sequence (i.e. C12 for 1" flow tee and two 3/4" probe tees) If no 3/4" PVC 90° flow tee is desired, add a 0 to start the # sequence (i.e. C02).

Note: The option "C" should only be used if the number of probe tees desired is different than what the

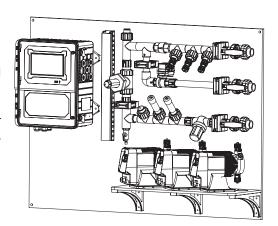
controller on the order comes with or if no controller is on the order. The option "C" used will reflect the total number of tees included (i.e. C3 will provide three probe tees on the prefab not counting the flow switch tee).

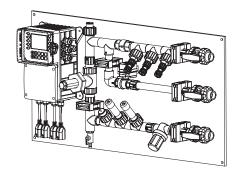
Additional pump shelf brackets options on WM, CM, and FE models.

If SS brackets are desired for poly pump shelf, use the following codes:

DD1 1 pump DD2 2 pumps DD3 3 pumps 4 pumps DD4 DD5 5 pumps

NOTE: If Pulsatron Series A+, C+, C mounting pattern is needed, add a "2" to the end of the "D" selection.







#### **Wall Mounts**

Model WM **Number of Plumbing Loops** on 3/8" White Poly Panel (add to base) 1, 2, 3, or 4 Number of Plumbing Loops on ½" Blue Panel (add to base) 21, 22, 23, or 24 Loop Material With valves, strainer, back check and sample (\*no strainer & check) - $A = \frac{3}{4}$ " PVC A0 = no loop**A1** = 1" PVC  $A2 = \frac{3}{4}$ " Black iron **A3** =  $\frac{3}{4}$ " Copper A4 = 1" Black iron A7 = 3/4" SS valves on PVC loop A6 = 3/4" brass valves on PVC loop Injection 3/4" PVC 1" PVC 1" CPVC 3/4" Black Iron 1" Iron **B1** = 1 tee **B11 B21 B31 B41 B2** = 2 tees **B12 B22 B32 B42** B3 = 3 tees**B13 B23 B33 B43 B4** = 4 tees **B14 B24 B34 B44** Probe Tees (only if different than controller ordered, reflects total number of tees - see page 17) -3/4" PVC Quick Release 1" Black Iron 1" PVC Quick Release **C1** = 1 tee **C21** C41 **C2** = 2 tees **C22** C42 C3 = 3 teesC23 C43 Pump Mounting Shelf (add a "1" after number for blank shelf) -**D1** = Shelf for 1 **D2** = Shelf for 2 D3 = Shelf for 3 **D4** = Shelf or 4 **D5** = Shelf for 5 **D6** = Shelf for 6 **Strainer Options** (3/4" basket strainer included as standard) –  $E = \frac{3}{4}$ " flushable **E2** =  $\frac{3}{4}$ " 10" filter housing **E4** = 1" basket strainer E5 = 3/4" Black Iron Strainer **E6** = 1" Clear basket Flow Indicator 1-10 GPM —  $F = \frac{3}{4}$ " 100 PSI  $F2 = \frac{3}{4}$ " 230 PSI  $F3 = \frac{3}{4}$ " 100 PSI with flow switch Coupons 3/4" PVC 1" PVC 3/4" Black Iron -**G2** = 2 Stations **G12** = 2 Stations **G22** = 2 Stations **G4** = 4 Stations **G14** = 4 Stations G24 = 4 Stations Add "L" to get clear PVC over coupon **Solid Feeder** (order SFS separately / D1 or D2 available with H1 / no D option with H2) — **H3** = For 3 SFS-?01's **H1** = For a SFS-?01 **H2** = For 2 SFS-?01's **J** = Bleed off leg with shut-off valve (order bleed valve separate) J1 = Bleed off leg with shut-off valve & 3/4" water meter (order bleed valve separate) Loop Direction: Standard is in/out Right; dual is (1) In/Out Right and (1) In/Out Left -K = In/Out Left **K1** = Left to Right **K2** = In/Out Bottom **K3** = In/Out Top **K4** = Right to Left Corrosion Sensor Tees 90° - $M1 = 1 PVC \frac{3}{4}$ " **M11** = 1 PVC 1" **M21** = 1 Iron 1" M31 = 1 FNPT PVC 1"  $M2 = 2 PVC \frac{3}{4}$ " M12 = 2 PVC 1" **M22** = 2 Iron 1" M32 = 2 FNPT PVC 1" **Controller Mount Area** (only needed if ordered without a controller) -N4 = Micro / Nano-W N = MegaTron XS N1 = MegaTron MT **N5** = NanoTron N6 = R pumpWhole Pre-Fab Options -**P1** = 1.75" wire channel vs 1.25" **S** = Electrical junction box S2= Electrical box and wiring for non-USA **R** = Mounting rails (required w/ H's) **T** = Weather shield 37" wide max **W** = Free standing leg kit Y = Non ACI equip to be supplied **X** = Circulation pump (4 GPM)

#### **Controller Mount Boards**

Y = Non ACI equip to be supplied

Model CM Board Dimensions and Loop Options -**00** = Partially assembled plumbing only, no panel 05 = 24" wide x 20" tall board for single loop only, no controller mount area 10 = 34" wide x 20" tall board for single controller and loop Note: Panel sizes vary depending on options **Loop Material** With isolation valve and sample port **A1** = 1" PVC A0 = no loop $A = \frac{3}{4}$ " PVC A4 = 1" Black iron A6 = 3/4" brass valves on PVC loop A7 = 3/4" SS valves on PVC loop  $A9 = \frac{3}{4}$ " SS loop Injection Tees 1" PVC 3/4" PVC 1" CPVC 1" Iron 3/4" SS **B1** = 1 tee **B11 B21 B41 B51 B2** = 2 tees **B12 B22 B42 B52 B3** = 3 tees **B13 B23 B43 B53 B4** = 4 tees **B14 B24 B44 B54 Probe Tees** (only if different than controller ordered, reflects total number of tees - see page 17) 3/4" PVC Quick Release 1" PVC Quick Release 1" Black Iron 1" SS **C1** = 1 tee C21 C41 C51 C42 **C2** = 2 tees **C22** C52 C3 = 3 teesC23 C43 C53 Pump Mounting Shelf (shelf adds 16" to height; add a "1" after number for blank shelf) -D2 = 2 pumpD3 = 3 pumpD4 = 4 pumpStrainer Options (Not included as standard) -E = 3/4" Basket **E1** =  $\frac{3}{4}$ " Flushable Y **E2** = 10" Filter Housing E4 = 1" Basket Strainer **E6** = 1" Clear Basket E7 = 3/4" SS Strainer Flow Indicator 1-10 GPM -F = 3/4" 100 PSI F2 = 3/4" 230 PSI  $F3 = \frac{3}{4}$ " 100 PSI with flow switch 3/4" Black Iron 3/4" PVC 1" PVC Coupons **G12** = 2 Stations **G22** = 2 Stations **G2** = 2 Stations **G4** = 4 Stations **G14** = 4 Stations G24 = 4 Stations Add "L" to get clear PVC over coupon. Coupon stations increase panel height. **J** = Bleed off leg with shut-off valve (order bleed valve separately) J5 = PVC bleed leg, 3/4" with bypass and two isolation valves (order bleed valve separately) **J9** = 304 SS bleed off leg with shut-off valve (order bleed valve separately) **Loop Direction**: Standard is water in and out on the right. -**K** = In/Out Left **K1** = Left to Right **K2** = In/Out Bottom **K3** = In/Out Top **K4** = Right to Left Corrosion Sensor Tees 90° - $M1 = 1 PVC \frac{3}{4}$ " **M11** = 1 PVC 1" **M21** = 1 Iron 1" **M31** = 1 FNPT PVC 1"  $M2 = 2 PVC \frac{3}{4}$ " M12 = 2 PVC 1"M22 = 2 Iron 1" **M32** = 2 FNPT PVC 1" Controller Mount Area (only needed if ordered without a controller) -N = MegaTron XS N1 = MegaTron MT N4 = Micro / Nano-W **N5** = NanoTron N6 = R Pump Q = Backcheck (3/4" POLY) **Q1** = 3/4" SS Backcheck ——— Whole Pre-Fab Options -**P1 =** 1.75" wire channel vs 1.25" **S** = Electrical junction box **R** = Mounting rails **S2** = Electrical box and wiring for non-USA **T** = Weather shield (37" wide max)  $U = \frac{1}{2}$ " Blue poly panel

**X** = Circulation pump (4 GPM)

### **Fully Enclosed Cabinets**

		Mod	el <b>FE</b>	
Enclosure Type 3 = Metal 48"W x 36"H x	16"D with key lock double	doors		
Loop Material with valves  A = 3/4" PVC  A2 = 3/4" Black iron  A6 = 3/4" brass valves on I	s, strainer, back check and $\mathbf{A0} = \text{no loop}$ $\mathbf{A3} = \frac{3}{4}\text{" Coppe}$	sample (*no strainer &	<b>A1</b> = 1" PVC <b>A4</b> = 1" Black	iron
Injection 3/4" PVC B1 = 1 tee B2 = 2 tees B3 = 3 tees B4 = 4 tees	1" PVC B11 B12 B13 B14	1" CPVC B21 B22 B23 B24	3/4" B3 B3: B3: B3-	2
Probe Tees (only if differer 3/4" PVC Quick Release C1 = 1 tee C2 = 2 tees C3 = 3 tees			s - see page 17) 1" Black Iron C41 C42 C43	
Pump Mounting Shelf (a D1 = 1 pump	add a "1" after number for <b>D2</b> = 2 pump	blank shelf) ———— D3 = 3 pump	D4	= 4 pump
Strainer Options (¾" bas E = ¾" flushable	sket strainer included as s <b>E4</b> = 1" Basket		<b>E6</b> = 1" Clear I	Basket
Flow Indicator 1-10 GPN F = 3/4" 100 PSI F3 = 3/4" 100 PSI with flow		<b>F2</b> = 3/4" 230 PS	l	
Corrosion Coupon Stati 3/4" PVC G2 = 2 Stations Add "L" to get clear PVC of	1" PVC G12 = 2 Station	,	3/4" Black Iron G22 = 2 Statio	
Solid Feeder (order SFS H1 = For a SFS-?01	separately; no D or G opt <b>H2</b> = For 2 SFS		or controller with <b>H3</b> = For 3 SF	
J = Bleed off leg with shut-off valve (order bleed valve separately)				
<b>Loop Direction</b> : Standar <b>K</b> = In/Out Left <b>K1</b> =			s = In/Out Top	K4 = Right to Left
	90°	M21 = 1 Iron 1" M22 = 2 Iron 1"	<b>M31</b> = 1 FNI <b>M32</b> = 2 FNI	
Controller Mount Area ( N = MegaTron XS	only needed if ordered wit <b>N1</b> = MegaTron MT	hout a controller) —— <b>N4</b> = Micro / Nar	no-W <b>N5</b>	= NanoTron
Whole Pre-Fab Options P1 = 1.75" wire channel v S = Electrical junction box S1=Electrical box with light X = Circulation pump (4 0 W = Free standing leg kit	s 1.25" c nt kit	R = Mounting ra U = Strainer ext V = Window(left V1 = Window(rig Y = Non ACI equ	ernal mount kit door)	pplied

#### **EVC Systems**

Model **EVC** -Controller Selection -1 = Nano-C control with 1 timer **3** = Micro-C control with 3 timers **5** = Conductivity probe tee plugged, no controller **Board Selection -**X - No board A - EVC on blue panel with no pump shelf **B** - EVC on blue panel with 1 pump shelf; 33"x 18" C - EVC on blue panel with 3 pump shelf; 42"x 24" Pump Selection (Individually boxed) -**X** - No pumps 1 - One 15 GPD pump 2 - One 30 GPD pump 3 - Three 15 GPD pumps 4 - Three 30 GPD pumps

Water Meter Selection (Individually boxed) -

X - No water meter
A - ¾" water meter
B - 1" water meter

EVC-1XXX-K2
Depicted

A = 120VAC conduit
A3 = 220VAC liquid tights
B = Black cover on EVC
S = <sup>3</sup>/<sub>4</sub>" PVC sample tee & valve (loose with no board)

K1 = In left out right plumbingK2 = Removes isolation valve and adds return tee for continuous sampling

**J** = GE-SO-3/4P instead of ABC-3/4

#### Flow-Box

Advantage PVC ¾" flow assemble in NEMA 4X style plastic enclosure with clear hinged lid, lockable SS latch. Dimensions: 16.5" W x 13.5" H x 8.75" D

## **FLOW-BOX** Flow tee and 3 quick release probe tees **Options**

**B** Black cover

J Two probe tees, bleed leg with union, no valve

J1 Two probe tees, bleed leg with ABC-3/4J1 and unions

**J2** Two probe tees, bleed leg with ABV-3/4P and unions

**K** Right-to-left plumbing

Sample tee, 3/4" and sample valve shipped loose

**Q** Back check, 3/4" poly shipped loose

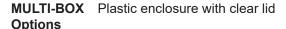
V2 Two 3/4" brass isolation valves and PVC nipples shipped loose

V3 Three 3/4" brass isolation valves and PVC nipples shipped loose

#### **Multi-Box**

Multiple use NEMA 4X style plastic enclosure with a clear hinged lid, lockable stainless steel latch, liquid tights knock-outs and external mounting feet.

Outer Dimensions: 16.5" H x 13.5" W x 8.75" D Inner Dimensions: 14.25" H x 10" W x 7.5" D



B Black coverG Grommet package

P Back panel, ½" blue poly inside box for mounting items
X Mount separately ordered controller or pump in box

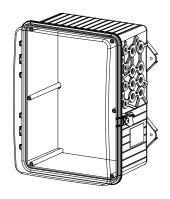
#### Small Mounting Panels (No plumbing)

**SS-CMB** = Mounting panel for XS controllers

**SS-CMB-U** = Mounting panel for XS controllers, blue

MT-CMB = Mounting panel for MT controllers
NANO-CMB = Mounting panel for Nano controllers





#### **Glycol Feeder for Closed Loop Systems**

Model GF -

#### Tank Selection

**1** = 55 GAL (208L) poly **2** = 100 GAL (378L) poly

3 = 30 GAL (113L) poly

**4** = 50 GAL (189L) carbon steel

**7** = 150 GAL (567L) poly

#### Stand Selection -

A = Powder coated steel stand

**B** = Powder coated steel stand + mixer bracket

**D** = Portable stand with built in rollers

#### Pump Selection -

\*Dual pump sys. require 2 pump selections (i.e. -11)

0 = No pump

1 = 2.0 GPM at 150 PSI; ½ HP 2 = 3.3 GPM at 150 PSI; ½ HP 3 = 5.5 GPM at 100 PSI; ½ HP

4 = 10 GPM at 100 PSI; 1 HP

#### **Pump Configuration** -

A = Standard configuration

**B** = Alternating pumps for single loops (requires 2 pump selections)

**C** = Pump plumbed for transfer duty into tank

#### Loop Selection

\*Dual loop sys. require 2 loop selections (i.e. -11)

0 = No loop

1 = Sch 80 PVC loop; 100 PSI max; 100°F max 2 = Copper/brass loop; 100 PSI max; 180°F max

3 = Carbon steel loop; 100 PSI max

#### **Control Selection**

M = NANO w/ alarm buzzer & contact, ETL, 0-100 PSI sensor, single loop

**G** = XS controller w/ ETL listing, pressure sensor for single loop

**H** = XS controller w/ ETL listing, pressure sensors for dual loop

**D** = Pressure transducer, level wand and pump starter relay for use with separately ordered MegaTron with 4-20mA input ability (per loop)

**E** = Manual pump control; no pressure switch or level wand

#### Options -

1 = 240 VAC

**5** = Position back check to use tank for expansion

**C1** = Communications card Internet (XS controller only)

C11 = Communications card w/ Modbus TCP/IP

C12 = Communications card w/ Bacnet TCP/IP (read only)

C22 = Communications card w/ Bacnet (read/write)

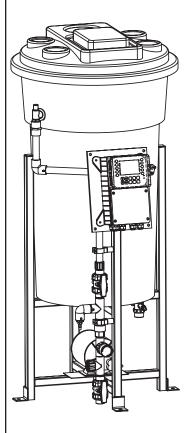
H = 0-200 PSI pressure transducer and gauge (per loop)

M = Mixer controls (order mixer separate)

M1 = Mixer controls with ½₀ HP bung mount mixer

O4 = Four 4-20mA outputs (XS controller only)

**S** = ON/OFF switch (included on control options E, G, & H)



#### **Glycol Feeder Parts**

1A2A000011 Fuse 12A 250V slow blow ceramic (for glycol feeders)
GFPUMP-1 2.0 gpm @ 150 psi glycol pump, ⅓ HP, 115/230V
GFPUMP-2 3.3 gpm @ 150 psi glycol pump, ⅙ HP, 115/230V
GFPUMP-3 5.5 gpm @ 100 psi glycol pump, ⅙ HP, 115/230V
GFPUMP-4 10 gpm @ 100 psi glycol pump, 1 HP, 115V

GF-1-SUCTION Includes ½" strainer and ¾" tubing GF-2-SUCTION Includes ½" strainer and ½" tubing GF-4-SUCTION Includes ¾" strainer and ¾" tubing

AGF-APCT-55 Replacement 55-gallon tank for glycol feeder AGF-ATS-5 Replacement 5-gallon tank for glycol feeder

AGF-BLS 1/4" Bowl strainer for suction side of pump of old-style pumps

AGF-LPS Mechanical pressure switch (8-23 PSI)

AGF-PG Pressure gauge 0-100
AGF-PG-200 Pressure gauge 0-200
AGF-PRV Pressure relief valve (brass)

AGF-PS Mechanical pressure switch (30-50 PSI)

AGF-PTD Pressure transducer for (2 wire 4-20 mA 0-100 PSI)
AGF-PTD-200 Pressure transducer (2 wire 4-20 mA 0-200 PSI)

AGF-SUCTION Pump suction assembly; ¼" shut-off and strainer for ¾" tubing on old-style pumps

ALL-S42 Low level wand adjustable to 42"

CKV-3/4PP Back Check Valve

GF-NANO-M NANO style glycol controller, single loop, buzzer

GF-XSG XS glycol controller single loop GF-XSH XS glycol controller dual loop

NANO-GF-PANEL Replacement front logic panel only for GF-NANO-M

Replacement plumbing assemblies can be ordered for glycol feeders by putting a prefix of **PA** in front of the glycol feeder model number (i.e. **PAGF-1A1A1A**). It will include isolation valves, pressure gauge, pressure relief valve and back check (the pressure transducer AGF-PTD is not included).

### **Economy Glycol Feeder**

EGF glycol systems feed systems provide a compact wall-mountable tank with 30 GPD @ 100 PSI pump with prime function, 6-30 PSI switch, low level shut-off, pressure gauge, and  $\frac{1}{4}$  brass plumbing in one economical package.



**EGF-05** 5-gallon feeder with 30 GPD @ 100 PSI pump 10-gallon feeder with 30 GPD @ 100 PSI pump

**Options** 

A2 240 volt no plug

B 15 GPD @ 150 PSI pump

C Red pumping housing (instead of green)
C1 Blue pump housing (instead of green)
P High pressure switch 20-120 PSI

**Parts** 

SFS-SUCTION Cutlet pump suction assembly

SFS-BV Brass inlet ball valve
EGF-SWITCH30 6-30 psi pressure switch
EGF-SWITCH120 20-120 psi pressure switch

SFS-PG 0-100 psi gauge EGF-LF-1 Low level switch

R00223 SS wall bracket for EGF-05 R00339 SS wall bracket for EGF-10

#### **Bypass Feeders**

**BFK-FBDRAIN** 

**BFK-DBDRAIN** 

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 are rated to 300 PSI (20.7 bar) and 200°F (93.3°C). The coarse ACME thread cap design provides better sealing and guick opening.

Model Number (Example: BF-05DX) BF-Capacity -02 2 gallon 05 = 5 gallon 12 12 gallon Bottom -Dome with legs and bottom port D F Flat Filter -X = No filter 1 10" cartridge filter holder (20 micron hot filter included) 18" bag filter basket (25 micron bag included) 2 3 18" bag filter basket (5 micron bag included) 4 18" bag filter basket with no handle or filter **Accessory Kits BFK-ISOVALVES** 3/4" brass isolation valves with unions and nipples 3/4" brass drain valve and fittings for dome bottom **BFK-DBDRAIN** 3/4" brass drain valve and fittings for flat bottom **BFK-FBDRAIN** 3/4" cross with 0-300 psi gauge, sample valve 180°F and fittings **BFK-GAUGEX BFK-FUNASM** 3/4" tee isolation valve and funnel **Parts BF-BAG0118** 18" x 3" bag filter, 01 micron, 325°F 18" x 3" bag filter, 05 micron, 325°F **BF-BAG0518** 18" x 3" bag filter, 25 micron, 325°F **BF-BAG2518** 18" x 3" bag filter, 50 micron, 325°F **BF-BAG5018** Bypass feeder SS bag filter cage, 18" **BF-BGCAGE18 BF-BGCAGE18-F** Bypass feeder SS bag filter cage, no handle 10" cold water cartridge filter, 05 micron, 120°F BF-CF05-10 BF-CF20-10 10" cold water filter, 20 micron, 120°F 10" hot water cartridge filter, SS core, 05 micron, 200°F BF-HF05-10 10" hot water filter, SS core, 20 micron, 200°F BF-HF20-10 **BF-CFCAGE10** Bypass feeder SS cartridge filter holder, 10" Bypass feeder cap assembly **BF-CAP BF-FUNNEL** Poly funnel with 3/4" MNPT Bypass feeder leg kit **BF-LEGS** Bypass feeder cap O-ring **BF-ORING BF-PG** 0-300 psi pressure gauge Bypass feeder cap plate **BF-PLATE FLOW-2HT** 3/4" flow indicator; 230 psi, 300°F max **ACME** cap SFS-BV 1/4" brass bleed valve, 180°F max

**BFK-ISOVALVES** 

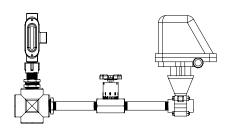
**BFK-GAUGEX** 

**BFK-FUNASM** 

#### **BOILER ACCESSORIES**

#### **Build Your Own Boiler Valve Package**

With the AVP valve package, select the blowdown valve and flow restrictor that meets your boiler application's requirements and Advantage Controls will preassemble it with a probe cross (probe not included) to insure that you get a correct plumbing configuration.



Model AVP-

#### **ELECTRIC BLOWDOWN VALVE**

30 = MBWB- $\frac{1}{2}$  motorized ball valve SS, 360° actuator, 0-450 min/max PSI diff 40 = MBWA- $\frac{1}{2}$  motorized ball valve SS, 90° actuator, 0-450 min/max PSI diff

60 = SOB-1/2 brass solenoid valve, 0-140 min/max PSI diff

#### FLOW RESTRICTING DEVICE -

00 = AOU-1 orifice union with 4 plates, 1000 PSI max 30 = NFC-½ flow control valve, 5000 PSI max

Adds second flow restricting device for continuous sampling

#### Options -

A1	Adds second NFC-½ in bypass plus a ¾" flush valve
С	3/4" probe tee instead of 1"
F	Add a ¾" flush ball valve on bottom of probe cross
Y1	Add ¾" Y-strainer with flush valve before blowdown valve
Р	Mount AVP and separately ordered controller onto poly board and pre-wire
P1	Mount AVP and separately ordered controller & sample cooler onto poly board and pre-wire

#### **Boiler Valve Stands**

BVS boiler pre-fab systems include a MBWB- $\frac{1}{2}$  blowdown valve, NFC- $\frac{1}{2}$  throttling valve, 1" probe cross,  $\frac{3}{4}$ " flush valve on bottom of cross,  $\frac{1}{2}$ " blue poly panel (30"W x 16"H) for separately ordered controller, pre-wiring of probe and blowdown valve to controller, 6' tall powder coated steel legs with floor mounts.

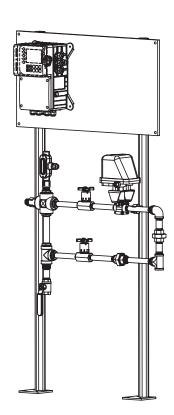
BVS-30-30

#### **Options**

Options	
В	Bypass line with second NFC-1/2
D	Adds a second sample stream & valves
С	Continuous configuration w/ second NFC-1/2
C1	Continuous configuration w/ second NFC-1/2 & MBWB-1/2
K4	Plumbing right to left
Р	3/4" probe cross instead of 1" cross
S	Sample cooler (not pre-plumbed)
S2	Sample cooler with hot inlet plumbed
L	Second ½" blue poly panel on lower section

#### Notes:

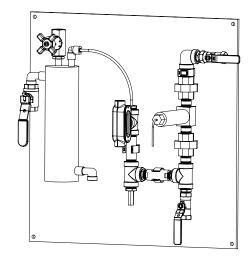
If ordering a two sample stream stand and the bypass option (B) is desired, order it twice.



#### **Boiler Trace Panels**

Panels includes the following items mounted on a ½" blue poly panel:

- LBC-SS sample cooler
- · Pressure relief valve on cooled sample
- NFC-½ throttling valve on boiler water inlet
- Non-electric sample temperature shut-off valve PVC plumbing after the sample cooler is only rated to 100 PSI at 120°F
- Cold water inlet has no automatic valve, cold water will always run through sample cooler
- Desired controller and trace sensor to be ordered as separate line items
- Controller must have temperature / conductivity sensor for cooled trace sample line if operating electric valve on hot inlet



Model **BTP** 

#### Board -

- 00 = Plumbing only, no panel
- 05 = Board with no space for controller (32"H x 26"W)
- 10 = Board with space for controller (32"H x 38"W)

#### Inlet Boiler Water Valve Shut-Off -

- X = No inlet sample shut-off
- 30 = MBWB-1/2 motorized ball valve (450 PSI max)
- 60 = SOB-1/2 solenoid valve (140 PSI max)
- 70 = SOB-1/2 solenoid valve on cooled sample outlet

#### **Additional Probe Tees**

- X = No cooled sample sensor tees
- 1 = One 3/4" SS conductivity probe tee, mounted vertical
- 2 = Two 3/4" PVC quick release probe tees, mounted horizontal
- 3 = Three 3/4" PVC quick release probe tees
- 4 = Two  $\frac{3}{4}$ " SS tees
- 5 = Three 3/4" SS tees

#### **Options**

- A = Isolation valve on cold water inlet to sample cooler
- C = Cold water solenoid valve SO-½-P in inlet to sample cooler
- D = No sample cooler
- F = Low flow paddle switch in 3/4" PVC tee
- N = No temperature control valve
- R = Mounting rails
- S = Indicates BTP is to be mounted on separately ordered BVS prefab
- T = LD2 trace sensor tee only plugged (not needed if sensor is on order)
- T1 = Pyxis trace sensor tee only plugged (not needed if sensor is on order)
- $U = \frac{3}{4}$ " SS unions on both sides of trace sensor
- W = Free standing legs

#### **Boiler Solenoid Valves**

 SOB-1/2
 ½" Valve, 0-140 PSI, rated to 356°F

 SOB-3/4
 ¾" Valve, 0-140 PSI, rated to 356°F

 SGB-1/2
 ½" Valve, 13-140 PSI, rated to 350°F

 SGB-3/4
 ¾" Valve, 13-140 PSI, rated to 350°F

#### Motorized Ball Valves, 0-450 PSI, Rated to 459° With 360° Electric Actuators

MBWB-1/2 ½" Valve With 1036 Actuator MBWB-3/4 ¾" Valve With 1036 Actuator MBWB-1 1" Valve With 1036 Actuator

#### Motorized Ball Valves, 0-450 PSI, Rated to 459° With Heavy Duty 90° Electric Actuators

MBWA-1/2 ½" Valve With 1075 Actuator MBWA-3/4 ¾" Valve With 1075 Actuator MBWA-1 1" Valve With 1075 Actuator

#### **Motorized Ball Valve Parts**

MWB 1036 Actuator Only MWA 1075 Actuator Only

AWS-1/2 1/2" Valve Only, carbon steel body, 316 SS stem & ball 3/4" Valve Only, carbon steel body, 316 SS stem & ball

MWBS Micro switch for activator

#### **Boiler Rated Needle Control Valves with position indicator**

**NFC-1/2** 1/2" 5,000 PSI **NFC-3/4** 3/4" 5,000 PSI

#### **Orifice Unions**

**AOU-1** 1" Forged Steel Orifice Union with 4 Orifice Plates - 1,000 PSI

**AOUP** Set of 4 Stainless Steel Orifice Plates

Includes 1/8", 3/16", 1/4", 5/16" Orifice Sizes.

AOUP-1 1" Blank Plate, SS

#### Diverter Valves, Carbon Steel Body, Teflon Seals

MBWD-1/2 ½" MBWD-3/4 ¾" MBWD-1 1"

#### Sample Coolers and Parts

LBC-SS SS Sample Cooler With 316 SS Tubing, Tube & Connections

Plain 1/4" OD Tube End (2500 PSI Hot Coil / 250 PSI on Cold Shell)

PRV-SS-¼ 1/4" SS pressure relief valve, relieves at 100 PSI TCV-050-SS100 1/2" SS temperature control valve, closed at 110° F

Advantage Controls can help you source other valves and sizes not shown here.

#### Specialty Sensors

#### **Pyxis Fluorometer**

Model STA-Optics -= PTSA optics (0-300 ppb), CPVC, 100 psi 500 **500SS** = PTSA optics (0-300 ppb), SS, 290 psi (no tee) = Fluorescein optics (0-60 ppb), CPVC, 100 psi 525 525H = Fluorescein optics (0-500 ppb), CPVC, 100 psi **525SS** = Fluorescein optics (0-60 ppb), SS, 290 psi (no tee) = PTSA and tagged polymer (2 outputs\*\*), CPVC, 100 psi 588 730 = Turbidity optics (0-100 NTU), CPVC, 100 psi 730B = Turbidity optics (0-1000 NTU), CPVC, 100 psi **772TP** = DO (0.004-20 mg/l PPM) and temperature (2 outputs\*\*), CPVC, 100 psi Wiring -

1 = Standard 50" quick release cable with stripped ends

2 = 50" quick release cable with one mA pre-wired to separately order Advantage controller

3 = 50" quick release cable with two mA's pre-wired to separately order Advantage controller \*\* use wiring option 3 on dual output sensors if the second mA output is to be wired.

#### Pre-Fab -

X = Probe and tee not installed

Y = Probe and tee pre-installed in controller or prefab plumbing (must have Advantage controller or prefab ordered as separate line item on same order)

U = SS probe pre-installed with SS unions on either side

#### Parts & Accessories

PYXIS-T-N-PLUG Pyxis PVC tee and plug is separately ordered controller or prefab Pyxis PVC sensor adaptor, 1.5" MNPT by sensor port opening **PYXIS-T-ADAPT** Pyxis PVC tee nut **PYXIS-NUT PYXIS-PLUG** Pyxis PVC tee sensor port plug MA-150 Pyxis PVC tee o-ring Bluetooth programming box with 7-pin connectors for 500 and 730 sensors MA-WB MA-CR Bluetooth programming box with 8-pin connectors for 525, 588 and 772 sensors SP-350 Handheld PTSA only tester SP-380 Handheld PTSA, Fluorescein tester SP-400 Handheld PTSA and Conductivity SP-710 Handheld PTSA, pH, ORP, Cond, Temp, and Total Chlorine SP-910 Handheld PTSA, Fluorescein and Colorimeter PTSA-100-P 100 ppb PTSA test solution, 500 ml PTSA-300-P 300 ppb PTSA test solution, 500 ml 100ppb PTSA and 1,000 µS/cm test solution, 500 ml PTSA-1010-P ST-SER-01 STA sensor cleaning kit and solution, 500 ml 50 ppb Fluorescein test solution, 500 ml FLUOR-50-P NTU-50-P 50 NTU test solution, 500 ml

#### **Pressure Reducing Flow Assembly for Fluorometer**

Assembly includes 1/4" NPT inlet valve, low flow switch, pressure regulator, pressure gauge, inlet max 250 PSI @ 150°F, 0-1 gpm flow indicator and 1/4" tubing to drain mounted on small blue panel. Order the desired sensor separately.

PRFA-01-T	Flow assembly with Turner tee
PRFA-01-P	Flow assembly with Pyxis tee0

#### **Options**

Adds sample cooler before flow indicator Н

T Adds 110°F temp shut off valve

Υ Mount assembly on separately ordered pre-fab

#### Oxidizer Sensors with Clean and Dirty Water Flow Cells

Oxidizer Type

XXXXX = No sensor

FCLSS = Free chlorine & pH SS sensor (40-104°F, 30 PSI, 0.25 GPM max)

CLOSS = CLO2 & pH SS sensor (40-104°F, 30 PSI, 0.25 GPM max)

Flow Cell -

Χ No flow cell

1 Self cleaning flow cell only (for tower water)

2 Self cleaning flow cell with 24 VDC power supply (for tower water)

Clean water single sensor flow cell with no cleaning motor or brush for clean water

Wiring -

X = No pre-wiring 3 = No pre-wiring w/ bluetooth module 1 = Oxidizer mA output pre-wired 4 = Ox mA pre-wired w/ bluetooth module 2 = Oxidizer & pH mA output pre-wired 5 = Ox & pH pre-wired w/ bluetooth module

**Plumbing** (1, 2, & 3 include pressure regulator, gauge and 0-1 GPM flow indicator) –

No plumbing X =

Pre-plumbed on a separate pre-fab 1

Pre-plumbed on small, white, poly panel (no space for monitor/controller)

Pre-plumbed with all fixtures on blue poly with room for separately ordered controller

**Replacement Parts** 

A-EH-765 = Replacement sensor tip for STA-FCLS or STA-CLOSS sensor

A-FRP-300-1 = Replacement brush

= 0-1 GPM flow indicator with 1/4" FNPT connections FLOW-25-01

FLOW25-MOUNT = FLOW-24-01 aluminum mounting bracket

SFS-PR = 1/4" FNPT pressure regulator WG-PG = 0-30 PSI pressure gauge

#### **Little Dipper 2 Fluorometer by Turner Designs**

Model LD2820

A = PTSA optics (0-300 ppb), PVC, 100 PSI

1 = Standard 55" quick release cable with stripped ends

2 = 55" quick release cable pre-wired to separately order Advantage controller

3 = 72" quick release cable pre-wiring to separately order Advantage controller

Pre-Fab \_\_\_\_

**X** = Probe and tee not installed

Y = Probe and tee pre-installed in controller or pre-fab plumbing (must have Advantage controller or pre-fab ordered as separate line item on same order)

**Z** = Probe and tee pre-installed like option Y plus plug for tee

#### **Parts and Accessories**

Hand held LD2 fluorometer with PTSA optics LD2-CHECK-A

Calibration cable and power supply LD2-2820-505 LD2-2820-510 Replacement tee and nut (1" FNPT) Replacement nut for LD2 probe LD2-NUT Replacement cable, 4-20mA; 62" LD2-021-2800 Replacement cable, 4-20mA, 180" LD2-CABLE-180 Calibration tee with 1" FNPT plugs LD2-CAL-T

Replacement O-ring LD2-O-ring LD2-PLUG Plug for LD2 tee

LD2-RPK Plumbing Kit to replace original tee (tee not included) LD2-TMP LD2 tee and plug installed in separately ordered prefab

PTSA-100 100 ppb PTSA test solution, 1 liter 300 ppb PTSA test solution. 1 liter PTSA-300

#### **EchoPod Drum Level Sensors**



DL 10-45-K	Pre-Calibrated to a 45" tall drum
DL 10-40-K	Pre-Calibrated to a 40" tall drum
DL 10-35-K	Pre-Calibrated to a 35" tall drum
DL 10-30-K	Pre-Calibrated to a 30" tall drum
DL 10-25-K	Pre-Calibrated to a 25" tall drum
DL 10-00-K	No pre-calibration 0-49"
DL 24-00-K	No pre-calibration 0-9.8'

Note: EchoPods require a 24 VDC supply like the PSDC-24-Q4 below.

#### **EchoPod Parts**

L199-2001 USB fob for programming

**2C4A-116** Replacement 2" to 1" reducer bushing (new sensor includes one) CABLE-FOB-7P Cable to connect DL10/24's with K option to programming fob

#### **Optical Leak Detection Sensor**

LO10-1305 Optical leak sensor, PP, 3/4" MNPT, 12-36 VDC powered with dry contact

#### **DC Power Supply**

**PSDC-24-Q** 90-264 VAC to 24 VDC power supply (with connections for 1-4 sensors)

**PSDC-24-Q4**90-264 VAC to 24 VDC power supply (with connection and CABLE-7P-2 for 1-4 sensors) **PSDC-24-Q4W4**90-264 VAC to 24 VDC power supply (with connection and CABLE-7P-2 for 4 sensors)

mounted in a MICRO-BOX with 4 pigtails wired to terminal for external power.

#### Individual Free Chlorine & CLO2 Sensors (not the same as the STA style on page 29)

**WG-FC02-ASM** 0-2 PPM free chlorine sensor and flow assembly

(flow cell, flow indicator, regulator, gauge and mounting board) 10 PSI max

**WG-FC05-ASM** 0-5 PPM free chlorine sensor and flow assembly

(flow cell, flow indicator, regulator, gauge and mounting board) 10 PSI max

WG-CLD02-ASM 0-2 PPM CLO2 sensor and flow assembly WG-CLD10-ASM 0-10 PPM CLO2 sensor and flow assembly

WG-FC02
0-2 PPM free chlorine sensor only, 10 PSI and 0.2 GPM
WG-FC05
0-5 PPM free chlorine sensor only, 10 PSI and 0.2 GPM
WG-CLD02
0-2 PPM CLO2 sensor only, 10 PSI and 0.2 GPM
WG-CLD10
0-10 PPM CLO2 sensor only, 10 PSI and 0.2 GPM

WG-FL-ASM Flow assembly and board without probe

#### **Options**

**H** Adds a sample cooler to flow assembly

P Adds PSDC-24 power supply & output wiring to controller

Mounts separately-ordered controller on panel with sensor / no isolation valves

#### **Replacement Parts**

FLOW-25-01 0-1 GPM flow indicator with 1/4" FNPT connections

SFS-PR ¼" FNPT pressure regulator
WG-FLOW Flow tee only for WG sensors
WG-O-RING O-ring for WG sensors

WG-FC-4015
WG-PG
WG-PTD
WG-FCLA-5017
Refill solution (two 30ml bottles)
0-30 PSI pressure gauge
Pressure transducer 0-100 PSI
3 polishing squares for cathode

WG-FCLA-5018 1 replacement cap and relief band, 2 refill solutions and syringes, 3 polishing squares

#### **Tower Conductivity Replacement Probes**

#### **Quick Release Style**

<b>E-2-10</b> Non-Temperature Compensated F	robe (A Minus Standard Replacement 10' cord)
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E-3A-10 Probe, 3-wire with 10' Cord (Standard on original Analog Models)

Probe, 4-wire with 10' cord (Standard Replacement MegaTron, MicroTrons and 2EZ) E-4A-10

Stainless Steel electrodes, with 10' cord A Range Temperature Compensation E-4ASS-10

For the probe and tee assembly add the "T" prefix.

#### **Threaded Mount Probes**

AH-4ASS	1" MNPT SS bushing, conductivity probe	250 PSI (17.2 bar) @ 140°F (60°C)
AH-4BSS	1" MNPT SS bushing, conductivity probe	250 PSI (17.2 bar) @ 140°F (60°C)

#### **Special Type Probes**

DC-4A	,	Tank mounted probe, CPVC	= (87.7°C)
DC-4ASS		Tank mounted, SS tips, CPVC	= (87.7°C)
CS-4ASS		Corporation stop probe, 1" valve PVC75 PSI (5.1 bar) @ 140	)°F (60°C)
DI-4A		Direct insertion probe, 1" MNPT & quick release 120 PSI (8.2 bar) @ 125°F	F (51.6°C)
DI-27-4A		High conductivity probe with 1" quick release 120 PSI (8.2 bar) @ 125°F	= (51.6°C)
AL-4RTD		Pure water probe with RTD temp, 1/2" MNPT100 PSI (6.8 bar) @ 212°	F (100°C)
AL-4ASS-1	0	Pure water probe with thermistor, ½" MNPT100 PSI (6.8 bar) @ 212°	F (100°C)

Note: For conductivity probes with longer wires, see page 37.

#### **Boiler Conductivity Replacement Probes**

BE-2	1" MNPT SS threads, PEEK core	75 PSI (5.1 bar)
BE-32	1" MNPT SS, PEEK core	250 PSI (17.2 bar) @ 400°F (204°C) / 350 PSI @ 265°F
BE-32-S	3/4" MNPT SS, PEEK core	250 PSI (17.2 bar) @ 400°F (204°C) / 350 PSI @ 265°F
BE-34B	1" MNPT SS PEEK, thermistor	250 PSI (17.2 bar) @ 400°F (204°C) / 350 PSI @ 265°F
BE-4RTD	1" MNPT SS, PEEK, RTD	250 PSI (17.2 bar) @ 400°F (204°C) / 350 PSI @ 265°F
BE-4RTD-S	3/4" MNPT SS, PEEK, RTD	250 PSI (17.2 bar) @ 400°F (204°C) / 350 PSI @ 265°F
BE-H2-S	3/4" MNPT SS, PEEK core	
BE-H4RTD-S	3/4" MNPT SS, PEEK, 4-wire RTD	
1C	1" FNPT steel cross	

3/4" FNPT steel cross for BE-4RTD-S Probe 3/4C

1. To make boiler probes a complete probe and cross assembly add a suffix of -C to the end of the Notes: part number.

2. A Range Temp Compensation = 32-140°F (0-60°C) B Range Temp Comp = 32-212°F (0-100°C)

#### pH Replacement Probes

PE-21	Flat Surface, PVC quick release, 10' lead	100 PSI (6.8 bar) @ 140°F (60°C)
PE-21SS	Double Junction, SS body, ½" MNPT	200 PSI (13.8 bar) @ 180°F (82.2°C)
PE-11	Low ionic pH 10' lead	50 PSI (3.4 bar) @ 180°F (82.2°C)
PE-21CS	Corp-stop pH sensor assembly, 1" FNPT	100 PSI (6.8 bar) @ 165°F (73.8°C)

#### **ORP Replacement Probes**

OE-21	Flat surface, PVC quick release, 10' lead	100 PSI (6.8 bar) @ 140°F (60°C)
OE-21SS	Double junction, SS body, ½" MNPT	200 PSI (13.8 bar) @ 180°F (82.2°C)
OE-11	Low ionic, ORP, 10' lead, 1/2" MNPT	50 PSI (3.4 bar) @ 180°F (82.2°C)
OE-21CS	Corp-stop ORP sensor assembly, 1" FNPT	100 PSI (6.8 bar) @ 180°F (82.2°C)

#### **Temperature Only Replacement Probes**

Thermistor temperature probe, PVC quick release .... 120 PSI (8.2 bar) @ 125°F (51.6°C)

#### **Plumbing Parts**

**BL-1** 1" Non-Clear Flushable Basket Strainer (20 mesh screen)

**BL-1-CL** 1" Clear Basket Strainer

BL-3/4-BLK 3/4" Non-Clear Plastic Basket Strainer (20 mesh screen)

**BL-3/4-BOWL** Bowl for BL-<sup>3</sup>/<sub>4</sub> Gasket for BL-<sup>3</sup>/<sub>4</sub>

**BL-3/4-SCREEN** Strainer screen for BL-¾ **FH-10-075** 10" Filter housing ¾" FNPT **GV-3/4** 3/" (200 PSI) Brass Ball Valve

PTS-3/4 3/4" Plastic Basket Strainer / Flushable PTS-1.5 1-1/2" Plastic Basket Strainer / Flushable

TU-3/4 3/4" True Union PVC Ball Valve
TU-1 1" True Union PVC Ball Valve
Y STRAINER 3/4" Black Iron 20 Mesh Screen

YP-3/4 3/4" poly Y strainer, flushable (add -SP for flush valve)

#### pH & ORP Probe Parts

**BNC-ADPT** BNC to two-wire adaptor for pH/ORP probes

**BNC-CONN** BNC connector for side of enclosure to system card

E-30-PH O-ring

FC-50P ½" MNPT gland for PE-11 probe

**DPE** Tank Mounted pH/ORP Probe Assembly (less probe), 4' long

**PE-NUT** Probe Assembly Nut

PH-EXT-10 pH Cable Extension, 10 feet PH-EXT-50 pH Cable Extension, 50 feet

RTP-3 pH Transmitter with Power Supply and Multiple Wire Connections pH Transmitter with replaceable batteries and 2 wire output T-ADAPT Quick disconnect pH/ORP probe opening to 1" slip adaptor

#### Miscellaneous PVC Quick Release Probe Assembly Parts

3/4 MNPT-KIT 2 PVC nipples, 3/4" male slip on one end and 3/4" male thread on the other end

T-3 Tee Only
T-3-CPV CPVC Tee Only

PLUG-T3 Plug for T-3 tee complete with nut, O-ring and plug

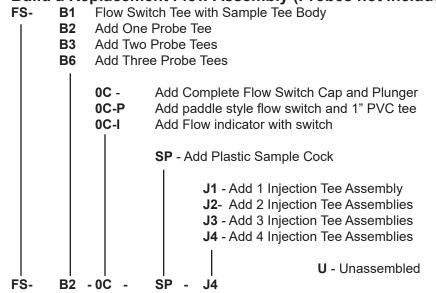
**MW-T-3** Single Probe Tee with <sup>3</sup>/<sub>4</sub>" MNPT on one end and <sup>3</sup>/<sub>4</sub>" slip on the other

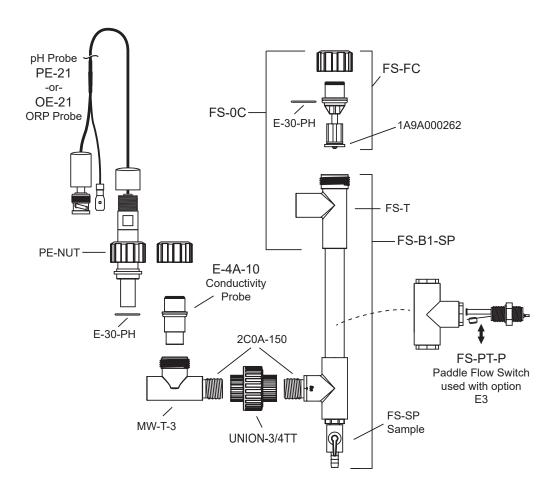
MW-T-3-2 Dual Probe Tee assembly with 3/4" MNPT on one end and 3/4" slip on the other

INJ-COL Injection tee collar

CAL-T3 Quick release 3/4" PVC tee plugged for holding calibration solution

#### **Build a Replacement Flow Assembly (Probes not Included)**





#### Flow Assembly Parts

**FS-C2** Dual read switch flow switch

FS-CPV Flow Switch - CPVC Cap and Reed Switch Complete CPVC Flow Switch Assembly FS-F2 Flow Switch - Gray Plunger and Magnet

**FS-FC** Flow Switch, PVC cap, reed switch, plunger, O-rings and float

FS-SP Sample Ball Valve - PVC

**FS-T** Flow Switch - Clear PVC Tee (add G to get Gray)

**FS-0C** Complete Clear Flow Switch Assembly (add G to get Gray)

**FS-B1-SP** Flow switch and sample tee section O-ring for older quick release probes

**E-30-PH** O-ring for flow switch and quick release probes **T-3** Probe Tee with ¾" PVC slip connections in and out

**T-3E** 3/4" Tee With Sample Port

MW-T-3 Single Probe Tee with 3/4" MNPT on one end and 3/4" slip on the other

MW-T-3-2 Dual Probe Tee assembly with ¾" MNPT on one end and ¾" slip on the other Triple Probe Tee assembly with ¾" MNPT on one end and ¾" slip on the other

2C0A-150 3/4" slip to 3/4" MNPT nipple, PVC UNION-3/4TT 3/4" PVC union, FNPT on both sides

FS-HP-075 Flow Switch - High Pressure, Brass, 250 PSI @ 220°F, 3/4" tee

FS-PT-P Paddle type flow switch with 1" PVC tee with 3/4" reducers; 150 PSI @ 75°F

**FS-PT-P1** Paddle type flow switch with 1" PVC tee (no reducers)

**FS-PT** Paddle type flow switch (no tee)

**FS-LF-P-075** 3/4" low flow paddle switch with 3/4" PVC slip tee (0.4 GPM on)

**FS-PT-CAP** Black cap for FS-PT style flow switches

FS-PT-075 3/4" MNPT paddle switch

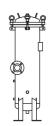
FS-PT-B-075 3/4" MNPT paddle switch with 3/4" brass tee
FS-PT-S-075 3/4" MNPT paddle switch with 3/4" iron tee
1A9A000262 Flow director for new style flow switch

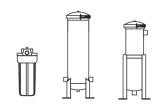
**T-FS-PT** 1" PVC tee for FS-PT

### **Filter Housings**

**HSBJ170SB-3** 

HSBJ170SB-4





# SCICLONE Series 304SS Housing with Solid Separation before Jumbo Filter

Solid Separation before	e Jumbo Fliter			
Part I	Description	Ports	Drain	Flow
SC40SB	40 single jumbo filter	2" Flange	¾" FNPT	50 gpm
SC90SB	90 single jumbo filter	2" Flange	¾" FNPT	100 gpm
SC170SB	170 single jumbo filter	2" Flange	¾" FNPT	150 gpm
SC170SB-3	170 x 3 single jumbo filter	4" Flange	1.5" FNPT	450 gpm
SC170SB-4	170 x 4 single jumbo filter	6" Flange	1.5" FNPT	600 gpm
HSBJ Series Jumbo 304 SS Filter Housing with Swing Bolts				
	40 single jumbo filter	2" FNPT	1" FNPT	50 gpm
	90 single jumbo filter	2" FNPT	1" FNPT	100 gpm
HSBJ170	170 single jumbo filter	2" FNPT	1" FNPT	150 gpm

#### **HBCJ Series Jumbo 304 SS Filter Housing with Band Clamp**

HBCJ40	40 single jumbo filter	2" FNPT	1" FNPT	50 gpm
HBCJ90	90 single jumbo filter	2" FNPT	1" FNPT	100 gpm
HBCJ170	170 single jumbo filter	2" FNPT	1" FNPT	150 gpm

4" FNPT

6" FNPT

1.5" FNPT

1.5" FNPT

450 gpm

600 gpm

#### MRH Series 2.75" Multi Round 304SS Filter Housing with Band Clamp

170 x 3 single jumbo filter

170 x 4 single jumbo filter

MRH-410-2BC	4 x 10" single 2.75" filters	2" FNPT	3/4" FNPT	28 gpm
MRH-420-2BC	4 x 20" single 2.75" filters	2" FNPT	¾" FNPT	56 gpm
MRH-510-2BC	5 x 10" single 2.75" filters	2" FNPT	¾" FNPT	35 gpm
MRH-520-2BC	5 x 20" single 2.75" filters	2" FNPT	¾" FNPT	70 gpm
MRH-530-2BC	5 x 30" single 2.75" filters	2" FNPT	¾" FNPT	105 gpm
MRH-540-2BC	5 x 40" single 2.75" filters	2" FNPT	¾" FNPT	140 gpm

#### BF Series Bag Filter Housing 304SS with Adjustable Legs

Part	Description	Ports	Vents	Flow
BF1-304-2NBC	1 x #1 bag, band clamp	2" FNPT	1/4" FNPT	90 gpm
BF2-304-2NBC	1 x #2 bag, band clamp	2" FNPT	1/4" FNPT	180 gpm
BF1-304-2N	1 x #1 bag, swing bolt	2" FNPT	1/4" FNPT	90 gpm
BF2-304-2N	1 x #2 bag, swing bolt	2" FNPT	1/4" FNPT	180 gpm

#### BF Series Bag Filter Housing Carbon Steel with Adjustable Legs

BF1-C-2N	1 x #1 bag, swing bolt	2" FNPT	1⁄4" FNP I	90 gpm
BF2-C-2N	1 x #2 bag, swing bolt	2" FNPT	1/4" FNPT	180 gpm

#### 2.5" O.D. Filter Housing 125F AND 100 PSI Max

HF5-10BLBK34PR	10" Blue Body, ¾" Black Rib Cap, PR
HF5-10CLBK34PR	10" Clear Body, ¾" Black Rib Cap, PR

**HF5-ORING** O-ring for HF5 Filter Housing **FM-20W** Bracket White, Single HF5

#### 4.5" O.D. Filter Housing 100F and 90 PSI Max

HF45-10BLBK34PR	10" Blue 4.5" Body, ¾" Black Cap, PR
HF45-10CLBK34PR	10" Clear 4.5" Body, Black Cap 3/4", PR
HF45-20BLBK10PR	20" Blue 4.5" Body, 1" Black Cap, PR
HF45-20CLBK10PR	20" Clear 4.5" Body, Black Cap 1" PR
	0

**HF45-ORING** O-ring for HF45 Filter Housing

**FM-25W** Bracket White, Single HF45 4.5" O.D. Housing

#### **Hot Water Filter Housings**

HF5HT-10RDRD34 10" Red plastic, 165°F max, 2.5"x10" filters 10" 304 SS housing, 200°F max, 4.5"x10" filters

### Replacement Filters

Replacement F				
	Ilters for BF housings Max Ten		_	
Part	Description	Micron	Case	
BAG1-5M	#1 bag, 7" x 16.5"	5 µ	50 pcs	
BAG1-25M	#1 bag, 7" x 16.5"	25 µ	50 pcs	
BAG1-50M	#1 bag, 7" x 16.5"	50 µ	50 pcs	
BAG1-75M	#1 bag, 7" x 16.5"	75 µ	50 pcs	
BAG2-5M	#2 bag, 7" x 32"	5 µ	50 pcs	
BAG2-25M	#2 bag, 7" x 32"	25 µ	50 pcs	
BAG2-50M	#2 bag, 7" x 32"	50 µ	50 pcs	
BAG2-75M	#2 bag, 7" x 32"	75 µ	50 pcs	
SDV Sorios 2.75" Dlor	ated Poly Filters with Poly Core	May Tomp 14	0°E	
SPX-275-1005	2.75" round x 9.75" long	5, wax remp 14 5 µ	40 pcs	
SPX-275-1003	2.75" round x 9.75" long	20 μ	40 pcs	
SPX-275-1050	2.75" round x 9.75" long	20 μ 50 μ	40 pcs	
SPX-275-19505	2.75" round x 19.5" long	5 μ	20 pcs	
SPX-275-19520	2.75" round x 19.5" long	20 μ	20 pcs	
SPX-275-19550	2.75" round x 19.5" long	20 μ 50 μ	20 pcs	
01 X-270-13000	2.70 Todild X 10.0 long	50 μ	20 pos	
SPX Series 4.5" Pleat	ed Poly Filters with Poly Core,	Max Temp 140	°F	
SPX-45-1005	4.5" round x 9.75" long	5 µ	12 pcs	
SPX-45-1020	4.5" round x 9.75" long	20 μ	12 pcs	
SPX-45-1050	4.5" round x 9.75" long	50 µ	12 pcs	
SPX-45-2005	4.5" round x 20" long	5 µ	6 pcs	
SPX-45-2020	4.5" round x 20" long	20 µ	6 pcs	
SPX-45-2050	4.5" round x 20" long	50 µ	6 pcs	
	g Wound Poly Filters with Poly			
SWX-25-1005	2.5" round x 10" long	5 µ	40 pcs	
SWX-25-1020	2.5" round x 10" long	20 µ	40 pcs	
SWX-25-1050	2.5" round x 10" long	50 μ	40 pcs	
SWX-25-2005	2.5" round x 20" long	5 µ	20 pcs	
SWX-25-2020	2.5" round x 20" long	20 μ	20 pcs	
SWX-25-2050	2.5" round x 20" long	50 µ	20 pcs	
SWT Series 2.5" Strin	g Wound Poly Filters with Tin	Core. Max Tem	p 200°F	
SWT-25-1005	2.5" round x 10" long	5 μ	30 pcs	
SWT-25-1010	2.5" round x 10" long	10 µ	30 pcs	
SWT-25-1020	2.5" round x 10" long	20 µ	30 pcs	
SWT-25-1050	2.5" round x 10" long	50 µ	30 pcs	
SWT-25-2005	2.5" round x 20" long	5 µ	15 pcs	
SWT-25-2020	2.5" round x 20" long	20 µ	15 pcs	
SWT-25-2050	2.5" round x 20" long	50 µ	15 pcs	
	· ·	·	·	
	umbo Cartridges for Sciclone,			
Part	Dimensions	Micron	Rcmd Flow	Max Flow
HSC-40-10	7 ¾" x 9 ¾"	10 µ	35 gpm	50 gpm
HSC-40-50	7 <sup>3</sup> ⁄ <sub>4</sub> " x 9 <sup>5</sup> ⁄ <sub>8</sub> "	50 µ	35 gpm	50 gpm
HSC-40-100	7 <sup>3</sup> ⁄ <sub>4</sub> " x 9 <sup>5</sup> ⁄ <sub>8</sub> "	100 µ	35 gpm	50 gpm
HSC-90-10	7 <sup>3</sup> ⁄ <sub>4</sub> " x 19 ½"	10 µ	70 gpm	100 gpm
HSC-90-50	7 <sup>3</sup> ⁄ <sub>4</sub> " x 19 ½"	50 µ	70 gpm	100 gpm
HSC-90-100	7 <sup>3</sup> ⁄ <sub>4</sub> " x 19 ½"	100 µ	70 gpm	100 gpm
HSC-170-10	7 <sup>3</sup> ⁄ <sub>4</sub> " x 30 <sup>3</sup> ⁄ <sub>4</sub> "	10 µ	105 gpm	150 gpm
HSC-170-50	7 <sup>3</sup> ⁄ <sub>4</sub> " x 30 <sup>3</sup> ⁄ <sub>4</sub> "	50 µ	105 gpm	150 gpm
HSC-170-100	7 ¾" x 30 ¾"	100 μ	105 gpm	150 gpm
Accessories				
		32 I ! I f .	r filter housings	with 2" ports
FHK-ISOVALVES	Two 304SS 2" ball valves and 3			po.to
FPTD-100	Two-wire 0-100 psi pressure tra	ansducer 4-20 m	A out	poi.to
FPTD-100 PG25100B	Two-wire 0-100 psi pressure tra 2.5" pressure gauge, backmou	ansducer 4-20 m nt, ¼" MNPT 0-1	A out 00 psi	posso
FPTD-100 PG25100B PG25160B	Two-wire 0-100 psi pressure tra 2.5" pressure gauge, backmou 2.5" pressure gauge, backmou	ansducer 4-20 m nt, ¼" MNPT 0-1 nt, ¼" MNPT 0-1	A out 00 psi 60 psi	perso
FPTD-100 PG25100B	Two-wire 0-100 psi pressure tra 2.5" pressure gauge, backmou	ansducer 4-20 m nt, ¼" MNPT 0-1 nt, ¼" MNPT 0-1	A out 00 psi 60 psi	2   p

#### Cell Advantage (cell router & service)

Model ROUTER -

**Router Type** 

3 = Industrial grade with built in modem with USA power supply

3A = Industrial grade with build in modem for AT&T with USA power supply
4 = Industrial grade with built in modem with international power adapters

Prepaid Cell Service -

00 = No service (SIM card required) 12 = 1 GB/ Month data for 12 months

12S = 1 GB/Month data for 12 months w/ delayed activation

24 = 1 GB/Month data for 24 months

**Parts** 

VDATA-12 1 GB/ Month data for 12 months VDATA-24 1 GB/ Month data for 24 months

R-ROUTER-3 Replacement industrial grade router only; no enclosure ROUTER-ANTENNA Replacement magnetic mount antenna for ROUTER-3

ROUTER-PBOX Install router power transformer in NANO box with 120 VAC cord

ROUTER-SWITCH-4 External Ethernet switch (4-port)

#### **Handheld Tester**

The HanTron series of handheld testers provide accurate conductivity and temperature readings of any water system sample with features normally seen on much more expensive testers including: memory for 20 readings, unit of measure selections, and temperature readings at a price comparable to older analog testers.

HT-3P = Conductivity tester



#### **Handheld Simulator**

The HanTron series of handheld signal simulators provide a convenient means of testing and calibrating multiple instrumentation signals, an efficient method for calibrating current loop devices, and simulating high impedance pH & ORP probe signals.

HT-SIM-MOP Signal simulator for calibrating and testing mA, pH, & ORP inputs

**Options** 

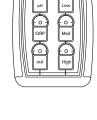
L Adds mA cable with LD2 connector
P Adds mA cable with Pyxis connector

**Parts** 

SIM-CABLE-BNC Replacement BNC cable for simulator Replacement mA output cable for simulator SIM-CABLE-LD2 Cable for mA output with LD2 connector SIM-CABLE-PYX Cable for mA output with PYXIS connector



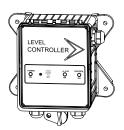
COND-PLUG-T3000 Conductivity test plug for MegaTron tower cards, 3,000 uS/cm COND-PLUG-B7800 Conductivity test plug for boiler non-temp cards, 7,800 uS/cm



#### **Liquid Level Alarm Fill Controllers**

**ALL** low-level units prevent pumps from running dry and provide an alarm LED and relay notification of the low-level condition.

FILL units automate filling of a tank with a low "ON" and high "OFF" level switch input.



**ALL-100** Designed for use with 100-gallon tank. Level controller with 60" wand

120 VAC, 60 Hz, 5-amp receptacles labeled PUMP and ALARM

**ALL-50** Designed for use with 50-gallon tank. Level controller with 42" wand

120 VAC, 60 Hz, 5-amp receptacles labeled PUMP and ALARM

**ALL-30** Designed for use with 30-gallon tank. Level controller with 30" wand

120 VAC, 60 Hz, 5-amp receptacles labeled PUMP and ALARM

ALL-C Level Controller only (less wand)
FILL-C00 Fill controller only with no level wands

FILL-C35 Fill controller only with 2 wands sized for an Advantage 35-gallon tank Fill-C55 Fill controller only with 2 wands sized for an Advantage 55-gallon tank

**Options** 

**C** 240 V

**E** Extra Output Cord

High alarm input on FILL unit with control cut-off and 120-volt alarm output (no wand)
High alarm on FILL unit with control cut-off and dry contact alarm output (no wand)

LED on Level Wand

**S** Switch for Output (ON/OFF)

V Audible Alarm with Silence Switch, 100 db

**Level Wands Only** 

ALL-S40

ALL-S42

ALL-S30

ALL-S30

ALL-S20

ALL-S20

ALL-S20

ALL-S12

Level Wand adjustable to 42" with switch contacts 28 VDC 50 mA

Level Wand adjustable to 30" with switch contacts 28 VDC 50 mA

Level Wand adjustable to 20" with switch contacts 28 VDC 50 mA

Level Wand adjustable to 12" with switch contacts 28 VDC 50 mA

A CPVC construction instead of PVC

C Prewire Level Wand to separately ordered MegaTron

**D** Level wand ¼" pipe with second liquid tight for suction tubing

#### Standard Wire Extensions for Conductivity and Flow Sensors

**WIRE-2-10C** 2 conductor, 10' extension **WIRE-2-25C** 2 conductor, 25' extension 2 conductor, 50' extension **WIRE-2-50C** 2 conductor, 100' extension WIRE-2-100C **WIRE-4-10C** 4 conductor, 10' extension **WIRE-4-25C** 4 conductor, 25' extension **WIRE-4-50C** 4 conductor, 50' extension **WIRE-4-100C** 4 conductor, 100' extension

Add an R to the end of the part number for Molex connection.

**Note:** Order controller with standard probe wire and the extension(s) desired as a separate line item. The probe wire extension will be added to the controller as a continuous length.

WIRE-2	2 Conductor Cable - 22 AWG	2.00/ft
WIRE-3	3 Conductor Cable - 22 AWG	3.00/ft
WIRE-4	4 Conductor Cable - 22 AWG	3.00/ft
WIRE-DUCT	1" x 1" wire channel duct with cover	9.00/ft

CABLE-7P-2 Prewired 2 conductor cable to mA input and 12VDC power with 7-pin connector, 6' Prewired 4 conductor cable to mA input and 12VDC power with 7-pin connector, 6' Prewired 2 conductor cable to mA input and no voltage and 7-pin connector, 6'

**CABLE-7P-EXT25** 25' extension cable with connectors **CABLE-7P-EXT50** 50' extension cable with connectors

**Note:** Add -15 to the end of CABLE part number for 15' long cable.

**Miscellaneous** 

CIRC-075 3/4" Circ pump; 4 GPM, 120 VAC pre-wired

CIRC-075-SS 3/4" Circ pump stainless steel; 10 GPM, 100 PSI, 120 VAC pre-wired

**CLAMP-ASM-3/4A** Adjustable pipe clamp assembly with bolts and t-nuts

CLIP-3/4-ASM
CLIP-1-ASM
CLIP-1-ASM
KEY-FE3

3/4" pipe mounting C clip with base
Replacement key for FE3 cabinet

MA-LOOP-ISO-1 4-20mA loop isolator

MICRO-BOX New style MicroTron box with clear cover

MINI-BUZZ Alarm buzzer in mini box with plug in transformer, 100 db MS-001 Motor Starter, 25 Amp Relay, conduit connections

MS-002 Motor Starter, 25 Amp Relay, prewired (2 male, 1 female, 13-amp cords)
MS-003 25-amp relay box, 120 pre-wired input with 2 wire dry contact output

MS-003-001 Mounts a MS-003 on poly with separately ordered NANO-F2

NANO-BOX-3 Nanotron style box with cover and 3 liquid tights %"

P6MC4 1/4" MNPT to 3/8" tubing, straight

PRV-SS-1/4 1/4" SS pressure relief valve, relieves at 100 PSI

PTD-025 0-25 PSI pressure transducer, 4-20 mA out, 12-24 VDC

**SS-MIDSECTION** Middle section of SS & XS enclosure

**1A9A00015** ½" liquid tight

**1G1F000087** 20-amp relay, 230 VAC

**1G1F000105** 25-amp relay

1M1P000043 120 VAC plugin AC adapter; 24 VDC out

**1P1P000219** Relay output Fuse 5 x 20 mm, 2.5 AMP slow blow

MegaTron Parts

MG-RL-CPLR Relay card ribbon cable to wire cable adapter inside controller

MG-RL-CPLR-EXT Relay card adapter for remote relay box

MG-PWR Power supply board MG-PROGCHIP MegaTron Program chip

MG-COVER Lower cover on MegaTron full size units

MG-KEYPAD ASM
MG-DISPLAY ASM
Keypad and display panel assembly (no display)
Display panel assembly complete with keypad

MG-DISPLAY ASMV1 Display panel assembly complete with keypad (older motherboards)

MG-DOOR Clear cover MG-FUSE-PAK (5) 2.5-amp fuses

MG-ICM-01 Internet communications card

MG-CAT5 CAT 5 cable from internal communications card

MG-MAO-3
MG-MAO-6
MG-MAI-3
MG-MAI-8
MG-AUXFLOW-W6
MG-AUXFLOW-W9
MG-AUXFLOW-W9
MG-AUXFLOW-W9
MG-AUXFLOW-W9
MG-AUXFLOW-W9

4-20mA output card with 6 outputs
4-20mA input card with 3 inputs
4-20mA input card with 8 inputs
4-20mA input card with 8 inputs
4-20mA input card with 8 inputs
4-20mA output card with 3 outputs
4-20mA output card with 3 outputs
6 outputs
4-20mA output card with 3 inputs
4-20mA input card with 3 inputs
4-20mA output card with 3 inputs
4-20mA input card with 3 inputs
4-20mA output card with 3 inputs

AUXFLOW-WIRE Auxiliary flow meter input cable with 3 pin Molex

MG-SYS- System card

Add all the desired system function codes from the unit model numbering system.

MULTI-BOX-LID Clear replacement lid for MULT, FLOW and PUMP-BOX MULTI-BOX-LID-B Black replacement lid for MULT, FLOW and PUMP-BOX

#### **Repair Options and Fees**

Advantage Controls is proud to offer a two-year warranty on all MegaTron, MicroTron, NanoTron controllers and MicroTron and MicroLinx metering pumps. Accessory items including coupon racks, pre-fabs, glycol feeders, by-pass feeders, and valves are covered for one year. If you need help with an out-of-warranty item, call our technical support staff at 918-686-6211 with the model, serial number, and problem experienced with your unit while in front of the unit. If we are unable to fix the unit through troubleshooting, an RMA number to send the unit in can be provided when a PO# is issued for the repair charges according to the table below. Any required sensors, flow switch, plumbing, or liquid ends are not included in the base repair charge and will be billed separately as needed.

HT-3P

Analog Timers, Liquid Level and Flow Controllers
MicroTron Controllers (with 1 or less probe inputs)
MegaTron MG
MegaTron MT
MegaTron XS
NanoTron timer only
NanoTron (1 sensor input)
Pumps (does not include liquid-end parts)

These prices apply to the majority of repairs, but will not include extraordinary damage, such as a destroyed enclosure or electronics damaged by water, fire or lightning.

#### Service Call

Consult factory for more details.

#### **Manufacturer's Product Warranty**

Advantage Controls warrants controller and metering pumps of its manufacture to be free of defects in material or workmanship. Liability under this policy extends for 24 months from date of installation. Warranty coverage of parts, accessories, plumbing, sensors, and any item not manufactured by Advantage Controls is limited to 12 months. Liability is limited to repair or replacement of any failed equipment or part proven defective in material or workmanship upon manufacturer's examination. Removal and installation costs are not included under this warranty. Manufacturer's liability shall never exceed the selling price of equipment or part in question. Advantage disclaims all liability for damage caused by its products by improper installation, maintenance, use or attempts to operate products beyond their intended functionality, intentionally or otherwise, or any unauthorized repair. Advantage is not responsible for damages, injuries or expense incurred through the use of its products. The above warranty is in lieu of other warranties, either expressed or implied. No agent of ours is authorized to provide any warranty other than the above.

#### 30 Day Billing Memo Policy

Advantage Controls maintains a unique factory exchange program for customers to ensure uninterrupted service with minimum downtime. If your MegaTron, MicroTron or NanoTron controller, or MicroTron or MicroLinx pump malfunctions, call 1-918-686-6211 and provide our technician with Model and Serial Number information while in front of the unit. If they are unable to diagnose and solve your problem over the phone, a replacement unit or part can be shipped on a 30-Day Billing Memo. This service requires a purchase order and/or credit card to charge, and the replacement unit is billed to your regular account for payment.

The replacement item will be billed at current list price for that model less any applicable resale discount. Upon return of your old unit, credit will be issued to your account if the unit is in warranty. If the unit is out of warranty or the damage not covered, a partial credit will be applied based upon a prorated replacement price schedule dependent on the age of the unit. Any exchange covers only the controller or pump and exchanged items are covered by the original warranty or 12 months from date exchange (whichever is longer). Electrodes and other parts and accessories are not included in any warranty period.

For for information, please visit: <a href="https://www.advantagecontrols.com/">https://www.advantagecontrols.com/</a>



### Get the Advantage in Water Treatment Equipment

Advantage Controls can give you the *Advantage* in products, knowledge and support on all of your water treatment equipment needs.

- Cooling Tower Controllers
- Boiler Blow Down Controllers
- Blow Down Valve Packages
- Solenoid Valves
- Water Meters
- Chemical Metering Pumps
- Corrosion Coupon Racks
- Chemical Solution Tanks
- Solid Feed Systems
- Feed Timers
- > Filter Equipment
- Glycol Feed Systems
- Pre Fabricated Systems

