



EFFECTIVE LIQUID FILTRATION SOLUTIONS

Stackable Media Filters

12" SAND MEDIA FILTERS



Breakthrough Design offers:

**Improved Filtration Design by
taking less water from the process
during back flush**

**Ideal for poor water as this multiple
small tank approach allows for high
frequency or continuous back flush**

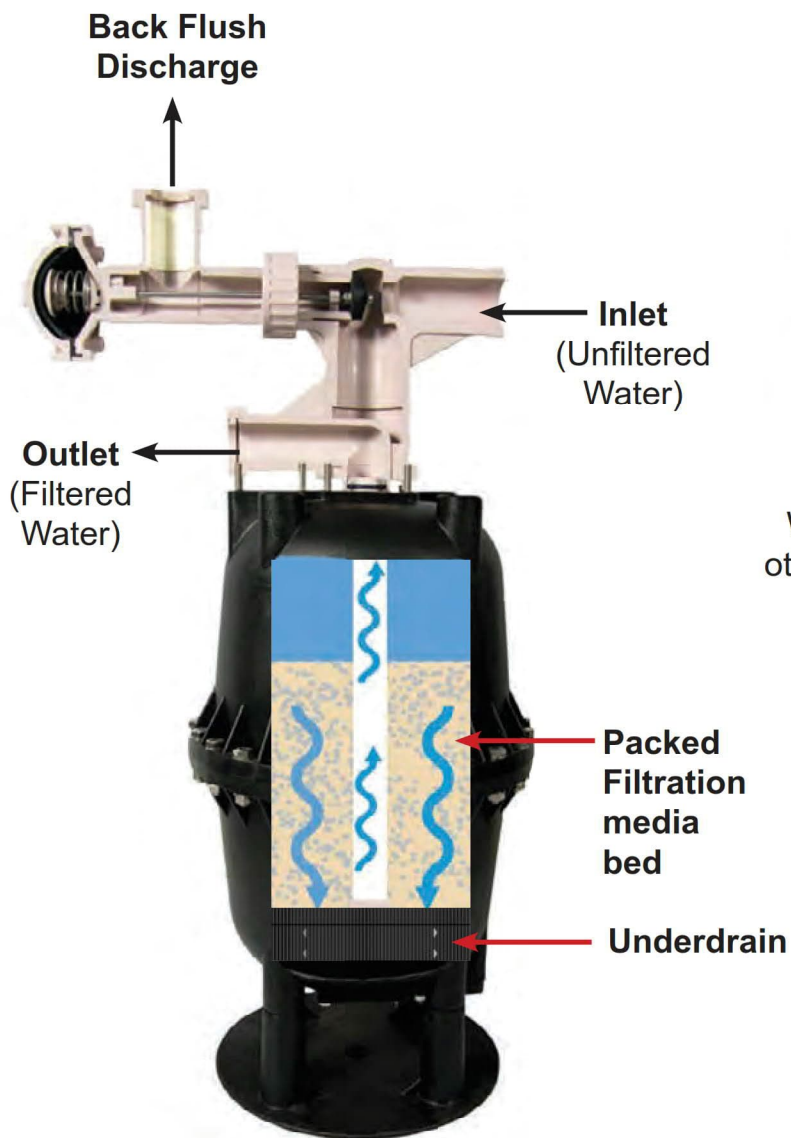
**Innovative underdrain design
requires 60% less filter media**

**Lowest pressure required at 15 psi
allows for energy saving irrigation
designs**

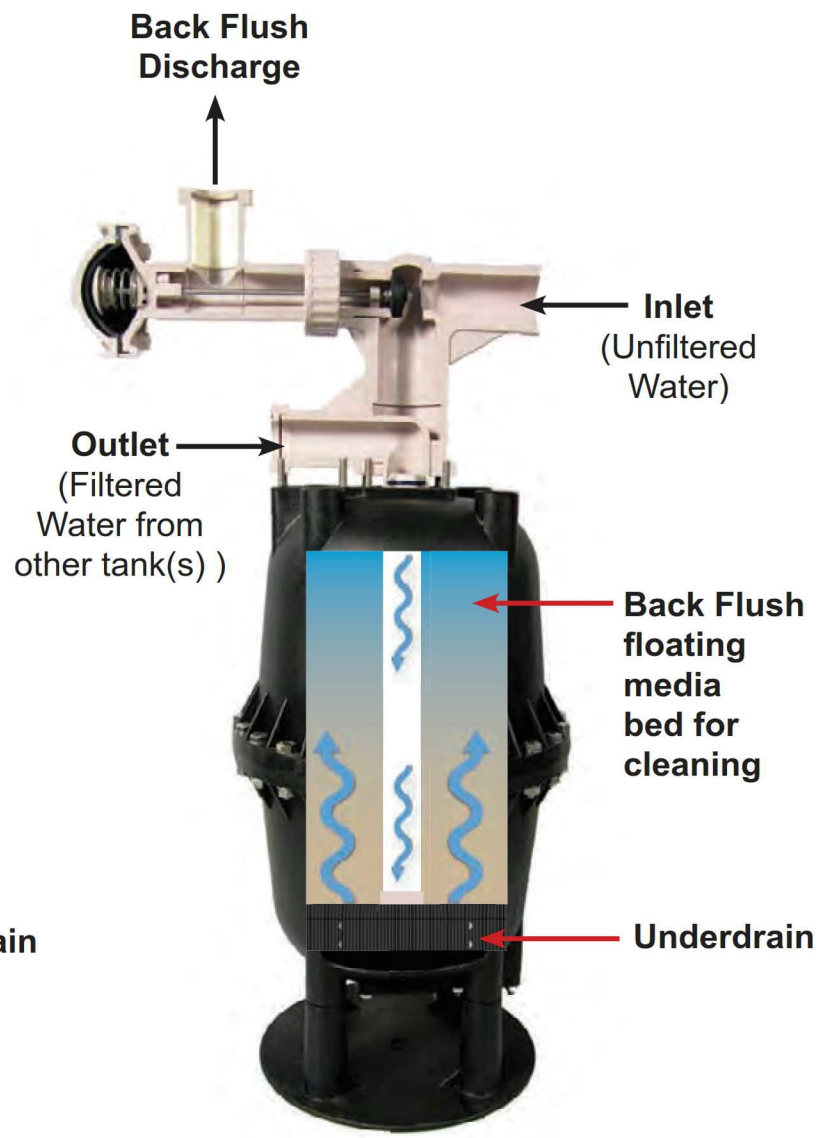


SMF Filters

FILTRATION MODE



BACK FLUSH MODE



- Light Weight No Rust - Glass Filled Nylon and UVR PVC Construction
- Modular Design - 15-25GPM per Tank - Add as Many Tanks as Needed
- Minimal Back Flush Water - Individual Back Flush Valves
- Two Wire Back Flush Controller - 96 Station Back Flush Controller
- Pressure Differential Switch included on all Automatic Systems
- Tanks are Stackable - Smaller Footprint
- No Pressure Sustaining Valves Needed for Back Flush - Saves Extra \$
- No Forklifts Needed - Easy Installation - Quick Installation
- Only 5 Gallons of Media Per Tank - 70 Pounds
- Available with Groove Inlet/Outlet or Union Connections
- Supplied with Air Relief Valves and Pressure Gauges
- Back Flush Water Recovery System Available
- Minimum System Pressure to Operate Back Flush Valves is only 15 psi

FULL VERTICAL UNDERDRAIN



AUTOMATIC SYSTEMS INCLUDE: BACKFLUSH CONTROLLER AND PD SWITCH



**Utilizes “Two Wire” technology
for control of all valves**



**Pressure Differential
Switch**

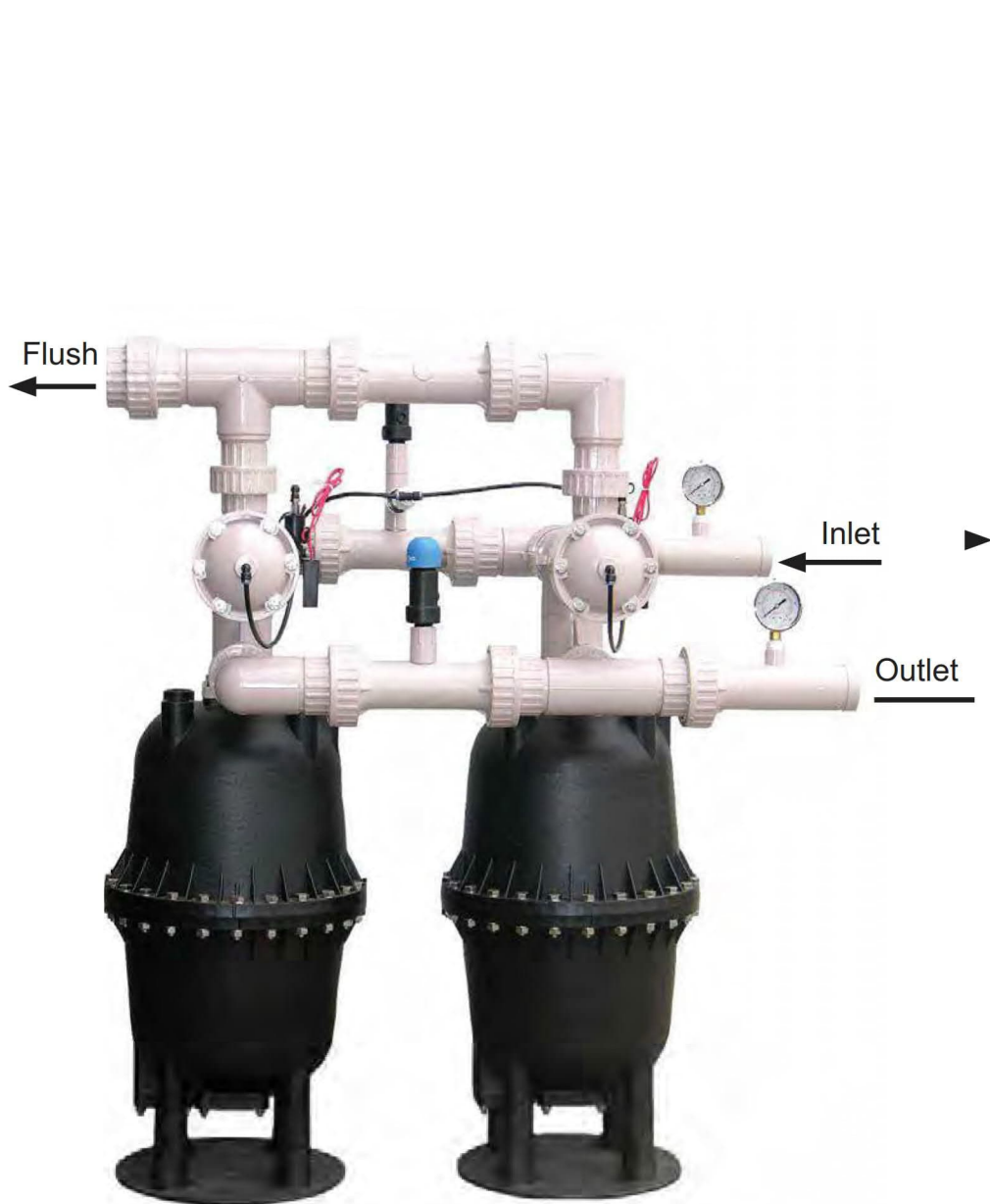
SMF Sand Media Filter Back Flush Controller

A Back Flush Controller specifically designed for back flushing multiple Sand Media Filters incorporating the following user friendly features.

1. Can control up to 96 separate Back Flush valves.
2. Adjustable Back Flush duration from 15 to 180 seconds in 12 second increments or from 180 to 300 seconds in 30 second increments
3. A dwell time between each filter Back Flush can be set from 15 to 180 seconds.
4. Flushing frequency can be set from 1 to 16 hours in 1 hour increments or 16 to 24 hours in 2 hour increments.
5. May initiate a manual flush cycle anytime with a push of a button.
6. The controller can initiate a Back Flush cycle using the Water Tool pressure differential switch (part# SMFA-151). A Pressure Differential switch is shipped standard with all “Automatic filter systems”
7. Controller will display the number of actual Back Flush cycles during a re-settable time period.
8. Utilizing “Logic Two Wire Technology” makes for a cost effective and efficient installation or system expansion.

All these easy to use features are in a simple Dial and Button format.

2 TANK HORIZONTAL / 2 TANK VERTICAL



30-50 GPM
113-190 L/M



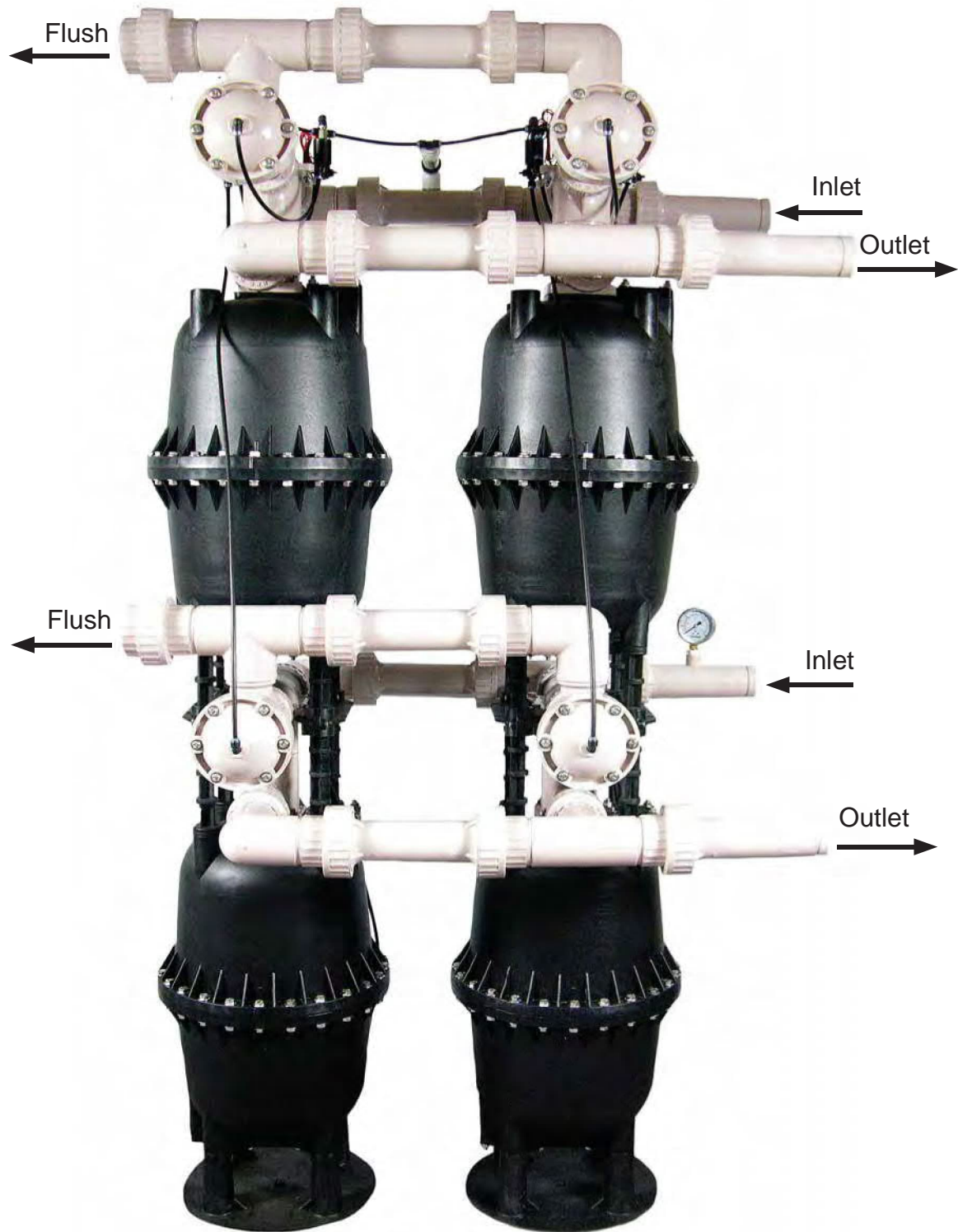
30-50 GPM
113-190 L/M

3 TANK HORIZONTAL



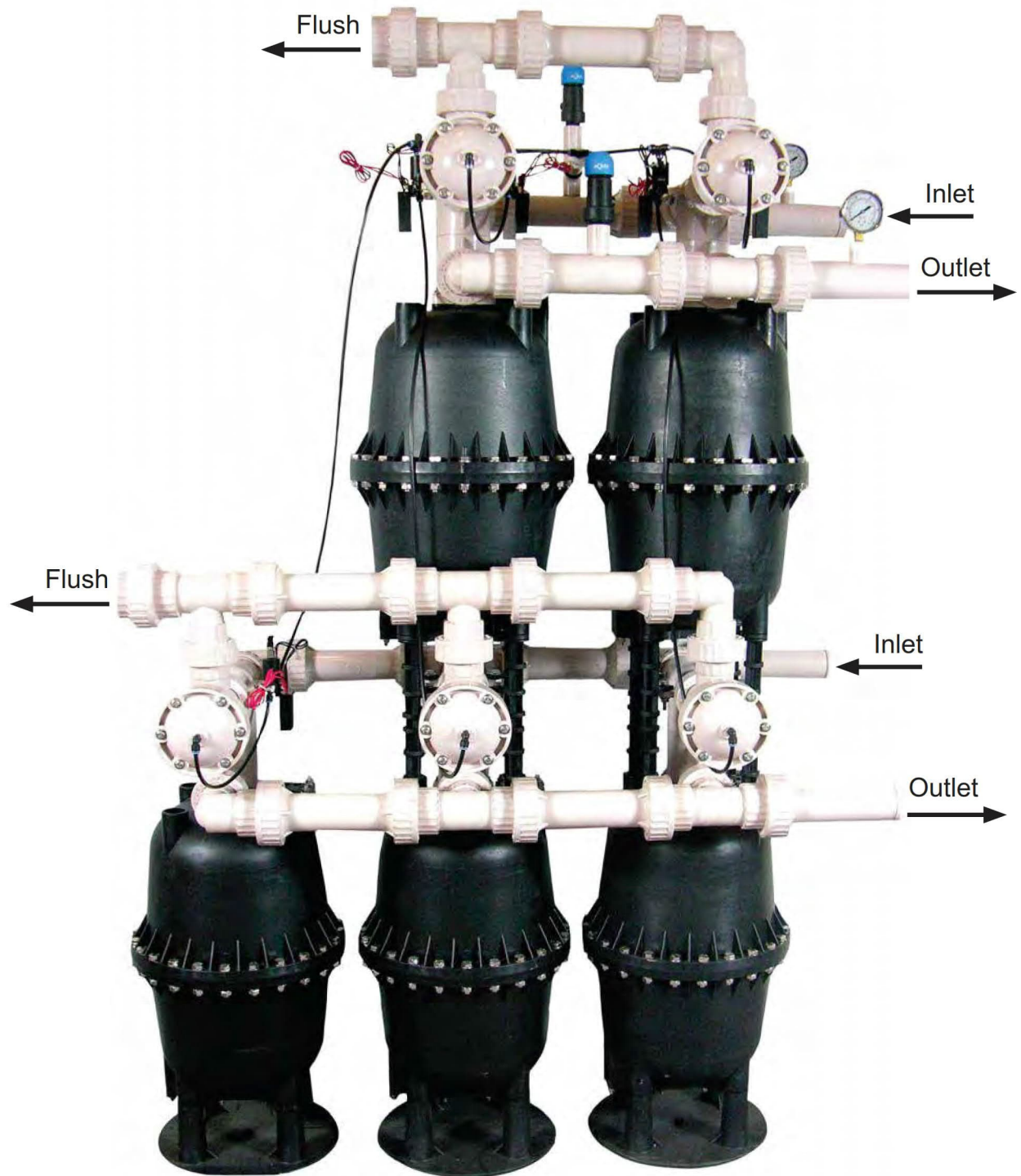
45-75 GPM
170-284 L/M

4 TANK HORIZONTAL STACKED



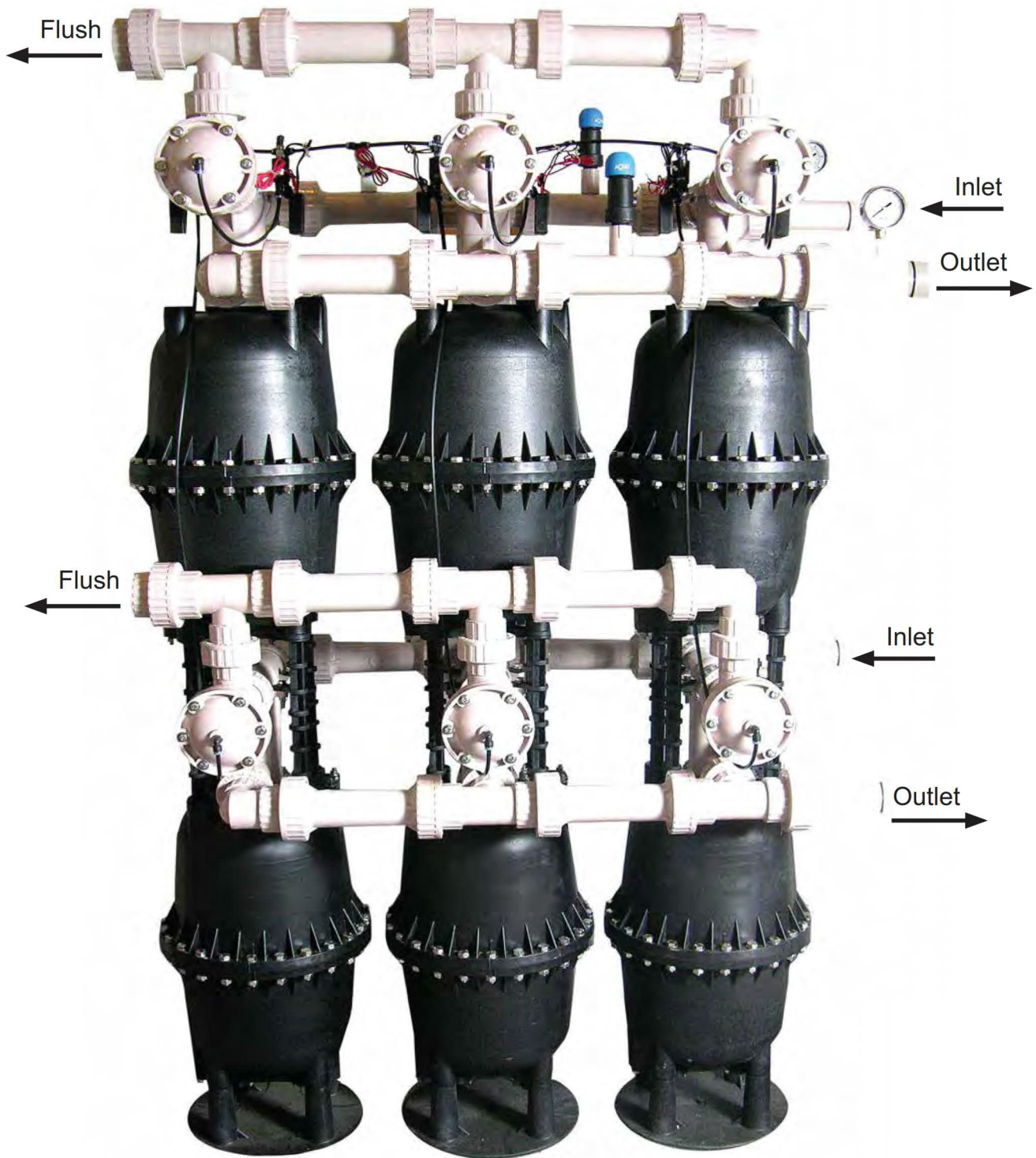
60-100 GPM
227-379 L/M

5 TANK HORIZONTAL STACKED



75-125 GPM
284-473 L/M

6 TANK HORIZONTAL STACKED



90-150 GPM
340-567 L/M

MULTIPLE TANKS IN UNITS OF 6 OR MORE MANIFOLDS AVAILABLE

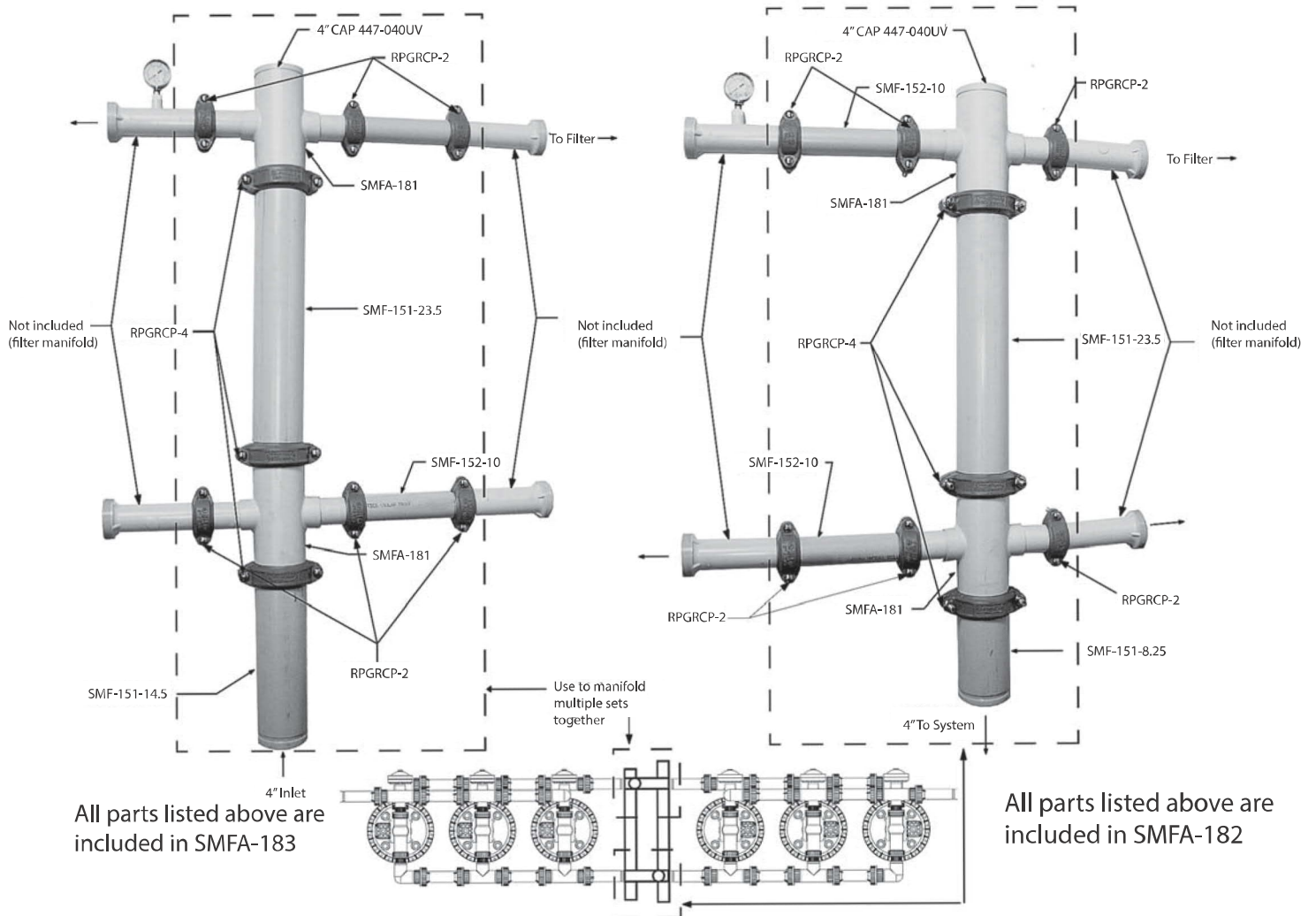


**90-150 GPM
340-567 L/M**

OPTIONAL MANIFOLDS AVAILABLE

INLET MANIFOLD SMF-183

DISCHARGE MANIFOLD SMF-182



TECHNICAL INFORMATION

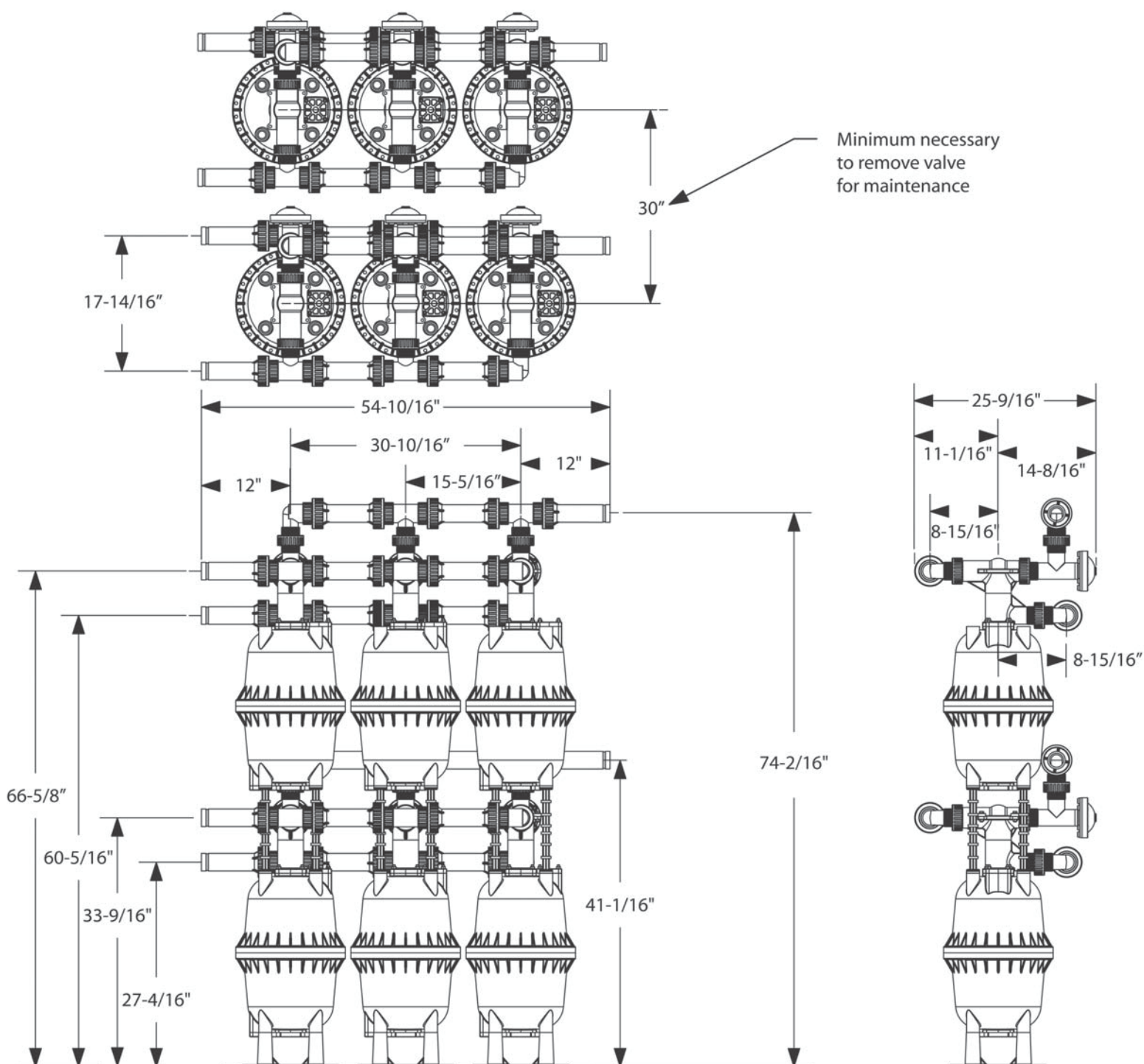
| | FILTERED PARTICLE SIZE (MICRONS) | VOLUME OF MEDIA PER TANK | BACK WASH FLOW (GPM/LPM) | | MAX FLOW RATE PER TANK* |
|-----------------------|---|--------------------------------|-----------------------------|-------------------|----------------------------|
| | | | 10% EXPANSION | 35% EXPANSION | |
| #12 SILICA SAND | ~40μ | 5gal | 25 GPM 95 LPM | 40 GPM 151 LPM | 25 GPM |
| #16 SILICA SAND | ~30μ | 5gal | 12 GPM 45 LPM | 25 GPM 95 LPM | 25 GPM |
| #20 SILICA SAND | ~20μ | 5gal | 9 GPM 34 LPM | 15 GPM 57 LPM | 20 GPM |
| 14x40 MESH ZEOLITE | <5μ | 5gal | 7 GPM 26 LPM | 15 GPM 57 LPM | 13 GPM |

*MAXIMUM RECOMMENDED FLOW RATE FOR MEDIA TO ACHIEVE OPTIMAL EFFECTIVE FILTRATION
(EXCEEDING MAX FLOW RATE WILL INCREASE PRESSURE DIFFERENTIAL AND DECREASE FILTRATION PERFORMANCE.)

| PRESSURE DROP COMPARISON CHART - 5 GALLONS OF MEDIA APPROX. 6" BELOW TOP | | | | | |
|--|---------------------|---------|----------|----------|----------|
| FLOW RATE GALLONS PER MIN | PRESSURE LOSS (PSI) | | | | |
| | GLASS | ZEOLITE | #20 SAND | #16 SAND | #12 SAND |
| 15 | 1.5 | 1.5 | 1.5 | 1.0 | 1.0 |
| 20 | 2.0 | 2.5* | 3.0 | 2.0 | 1.5 |
| 25 | 3.5* | 3.5* | 4.0* | 3.0 | 2.5 |
| 30* | 5.0* | 4.5* | 5.0* | 4.5* | 4.0* |

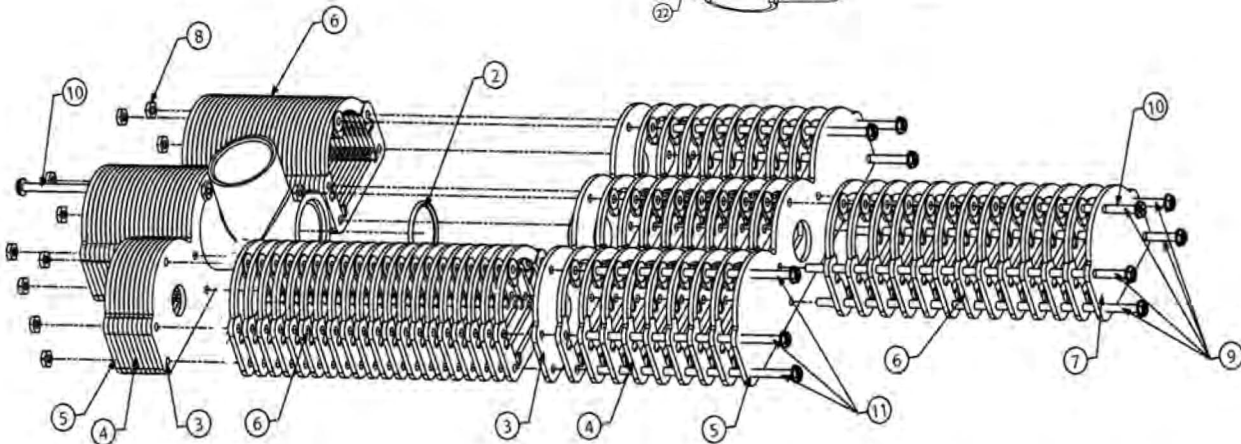
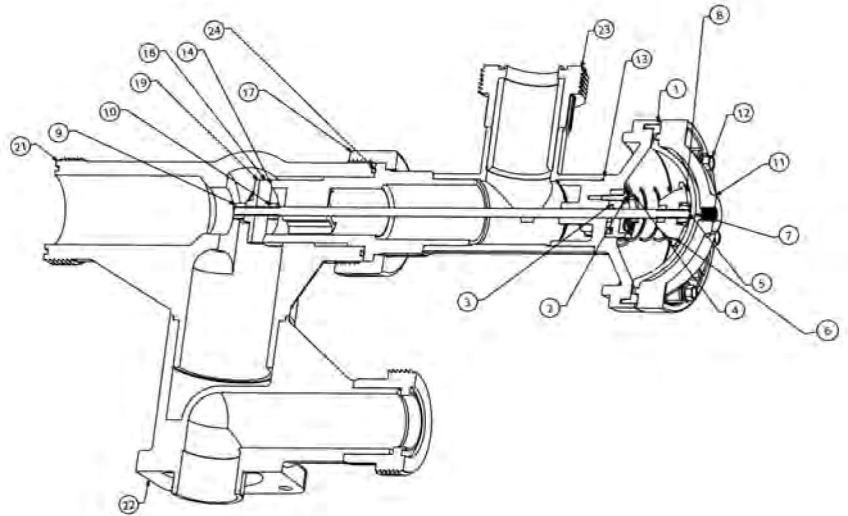
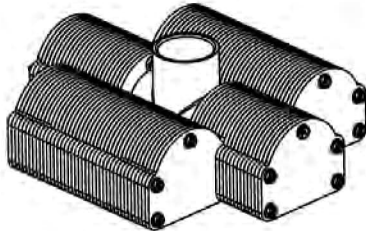
*NOT RECOMMENDED

SYSTEM DIMENSIONS



AUTO FLUSH VALVE

UNDERDRAIN



UNDERDRAIN

| ITEM #. | QTY. | PART #. | DESCRIPTION |
|---------|------|---------|--------------------------------|
| 1 | 1 | SMF-154 | UNDERDRAIN TEE |
| 2 | 2 | SMF-155 | UNDERDRAIN O-RING # 219 |
| 3 | 2 | SMF-134 | TRIPLE OPEN SEGMENT W / NIPPLE |
| 4 | 16 | SMF-133 | TRIPLE OPEN SEGMENT |
| 5 | 2 | SMF-132 | TRIPLE CLOSED / OPEN SEGMENT |
| 6 | 64 | SMF-131 | SMALL OPEN SEGMENT |
| 7 | 2 | SMF-130 | SMALL CLOSED SEGMENT |
| 8 | 12 | SMF-144 | SEGMENT NUT 10-32 |
| 9 | 4 | SMF-135 | SEGMENT BOLT # 10-32 X 10.187 |
| 10 | 2 | SMF-136 | SEGMENT BOLT # 10-32 X 3.750 |
| 11 | 6 | SMF-137 | SEGMENT BOLT # 10-32 X 6.250 |

AUTO FLUSH VALVE

| ITEM #. | QTY. | PART #. | DESCRIPTION |
|---------|------|---------|------------------------------|
| 1 | 1 | SMF-133 | BACK FLUSH LOWER BODY |
| 2 | 3 | 391-400 | SS SCREWS |
| 3 | 1 | SMF-115 | #202 - BACK FLUSH O-RING |
| 4 | 1 | SMF-116 | BACK FLUSH SEAT |
| 5 | 1 | SMF-111 | 1/4" SS ROD |
| 6 | 1 | SMF-117 | BACK FLUSH SPRING |
| 7 | 1 | 391-200 | 2" BACK FLUSH DIAPHRAGM |
| 8 | 1 | SMF-120 | DIAPHRAGM SUPPORT |
| 9 | 2 | SMF-145 | 1/4"-28 SS NYLON NUT |
| 10 | 2 | 300-604 | 1/4"-28 SS NUT |
| 11 | 1 | SMF-114 | BACK FLUSH UPPER BODY |
| 12 | 6 | SMF-146 | BACK FLUSH BOLT |
| 13 | 1 | SMF-127 | 1 1/2" UVR SCH 80 TEE |
| 14 | 1 | SMF-112 | BACK FLUSH ADAPTER |
| 15 | 1 | SMF-121 | 1 1/2" X 2" ADAPTER |
| 17 | 1 | SMF-118 | 1 1/2" UNION NUT |
| 18 | 1 | SMF-109 | DIAPHRAGM SEAT |
| 19 | 1 | SMF-108 | SEAT RETAINER |
| 20 | 6 | 391-210 | BRASS INSERT |
| 21 | 1 | SMF-107 | VALVE UPPER BODY |
| 22 | 1 | SMF-106 | VALVE LOWER BODY |
| 23 | 2 | SMF-119 | 1 1/2" UNION MALE THREAD |
| 24 | 1 | SMF-159 | VALVE UPPER BODY O-RING #227 |

Ordering Information

PART #REFERENCE

H = Horizontal tank layout

V = Vertical stacking of tanks

G = Grooved inlet and outlet connections

U = Union inlet and outlet connections

A = Automatic back flush with controller and decoder included

M = Manual (no automatic back flush controller)

| Part # | Description | Inlet/Outlet | Back Flush | Flow GPM | Flow L/M |
|------------|--|--------------|------------|----------|----------|
| SMF-2HGA | 2 Tank Horizontal | Groove | Automatic | 30-50 | 113-190 |
| SMF-2HGM | 2 Tank Horizontal | Groove | Manual | 30-50 | 113-190 |
| SMF-2HUA | 2 Tank Horizontal | Union | Automatic | 30-50 | 113-190 |
| SMF-2HUM | 2 Tank Horizontal | Union | Manual | 30-50 | 113-190 |
| SMF-2VUA | 2 Tank Vertical | Union | Automatic | 30-50 | 113-190 |
| SMF-2VUM | 2 Tank Vertical | Union | Manual | 30-50 | 113-190 |
| SMF-3HGA | 3 Tank Horizontal | Groove | Automatic | 45-75 | 170-284 |
| SMF-3HGM | 3 Tank Horizontal | Groove | Manual | 45-75 | 170-284 |
| SMF-3HUA | 3 Tank Horizontal | Union | Automatic | 45-75 | 170-284 |
| SMF-3HUM | 3 Tank Horizontal | Union | Manual | 45-75 | 170-284 |
| SMF-4HGA | 4 Tank Horizontal Stacked | Groove | Automatic | 60-100 | 227-379 |
| SMF-4HGM | 4 Tank Horizontal Stacked | Groove | Manual | 60-100 | 227-379 |
| SMF-4HUA | 4 Tank Horizontal Stacked | Union | Automatic | 60-100 | 227-379 |
| SMF-4HUM | 4 Tank Horizontal Stacked | Union | Manual | 60-100 | 227-379 |
| SMF-5HGA | 5 Tank Horizontal Stacked | Groove | Automatic | 75-125 | 284-473 |
| SMF-5HGM | 5 Tank Horizontal Stacked | Groove | Manual | 75-125 | 284-473 |
| SMF-5HUA | 5 Tank Horizontal Stacked | Union | Automatic | 75-125 | 284-473 |
| SMF-5HUM | 5 Tank Horizontal Stacked | Union | Manual | 75-125 | 284-473 |
| SMF-6HGA | 6 Tank Horizontal Stacked | Groove | Automatic | 90-150 | 340-567 |
| SMF-6HGM | 6 Tank Horizontal Stacked | Groove | Manual | 90-150 | 340-567 |
| SMF-6HUA | 6 Tank Horizontal Stacked | Union | Automatic | 90-150 | 340-567 |
| SMF-6HUM | 6 Tank Horizontal Stacked | Union | Manual | 90-150 | 340-567 |
| SMFA-150D | Automatic Decoder for Manual Back Flush Conversion to Automatic | | | | |
| SMFA-150PD | Back Flush Controller 2 - 99 Tanks : Includes Ad, Pressure Differential Switch | | | | |

All of the above Modular units of the SMF filters include:

- Tanks
- Back flush valves
- Manifold fittings and Manifold pipes between tanks
- Pressure gauges
- Air release valves
- Back flush valve filter
- Bases and legs
- Site tube for back flush line
- Back flush control valve 1"

Automatic Units:

In addition to above, the automatic units include:

- Automatic 96 tank Back Flush Controller and Pressure Differential Switch with normally open contacts

Customer is responsible for:

- Media
- Piping for Inlet and Outlet Connections to Filter System
- Piping for Back Flush Discharge to desired location

Freight Terms:

Freight is FOB Factory

Filter Warranty:

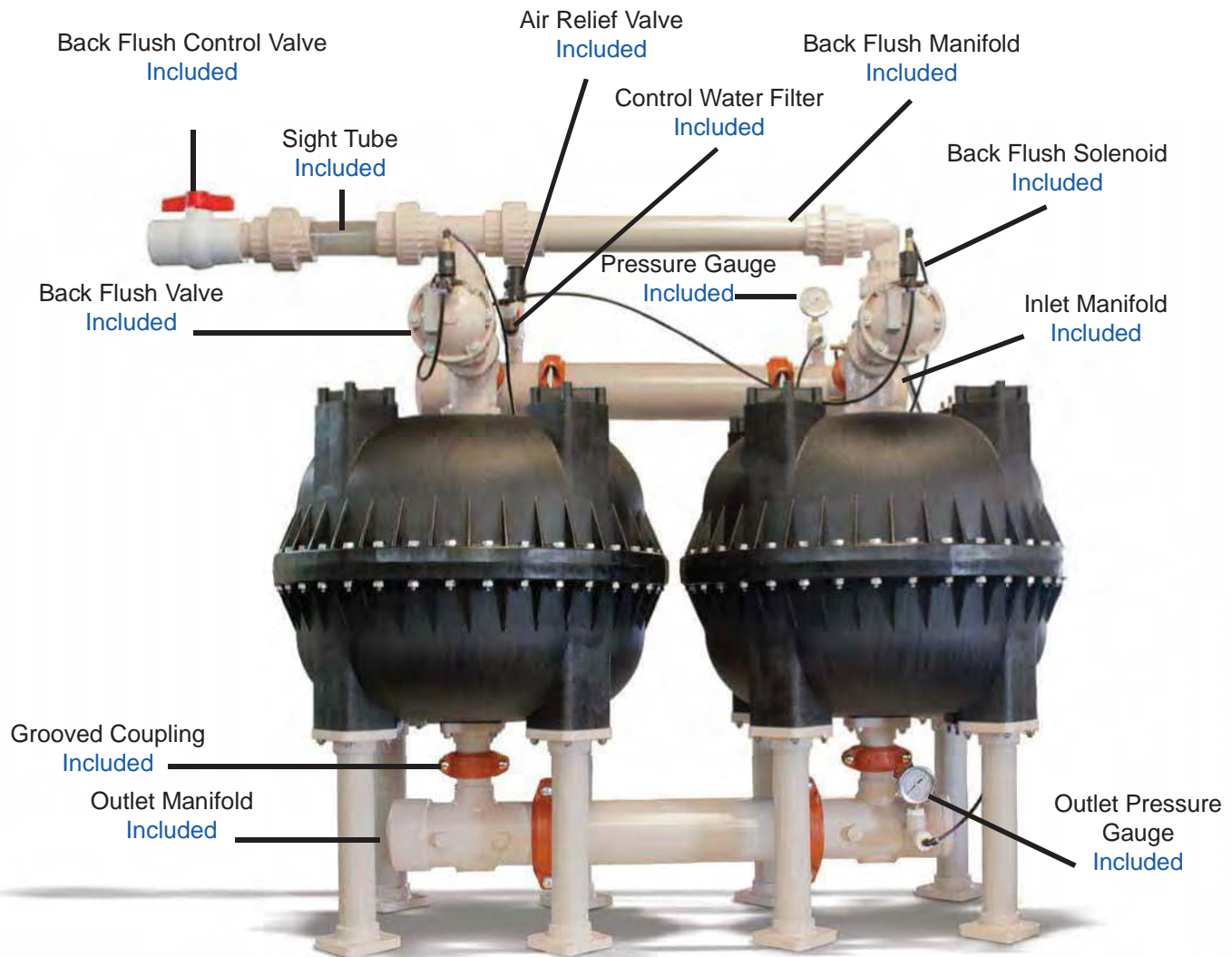
Epiphene Corporation warrants to its trade customers that its SMF Filter products will be free from defects in material and workmanship, from the original date of purchase, for a period of ONE YEAR. Within the warranty period, Epiphene Corporation, will have at its sole discretion, the option to repair or replace all or part of defective product, or refund part or the entire purchase price. Defective products must be returned, freight prepaid, at the buyers expense after such product return authorization has been given by Epiphene Corporation to the Buyer. Epiphene Corporation does not warranty any labor claims, including but not limited to labor installation removal and reinstallation of said product. Epiphene Corporation shall not be responsible or liable for any loss of profit, lost savings or loss of sales.

FOR HIGHER FLOWS... CHECK OUT THE SMF 24" SAND MEDIA FILTERS

Flow: 40 - 100 GPM per tank

Tank Pressure Rating: 80 PSI

Tank Media: 20 gallons per tank



Complete Systems, Manual or Automatic Operation



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