



Features:

- Filters down to 4-5 Microns
- Automatic / Programmable filter cleaning cycles
- Flexsol 3000™ lined
- Utilizes NSF Listed Perlite filter media

Functions:

- Operates on the premise of surface filtration (10x the surface area of a sand filter)
- Incorporates bump mechanism to extend filter cycles
- Includes vacuum transfer system to ease media handling

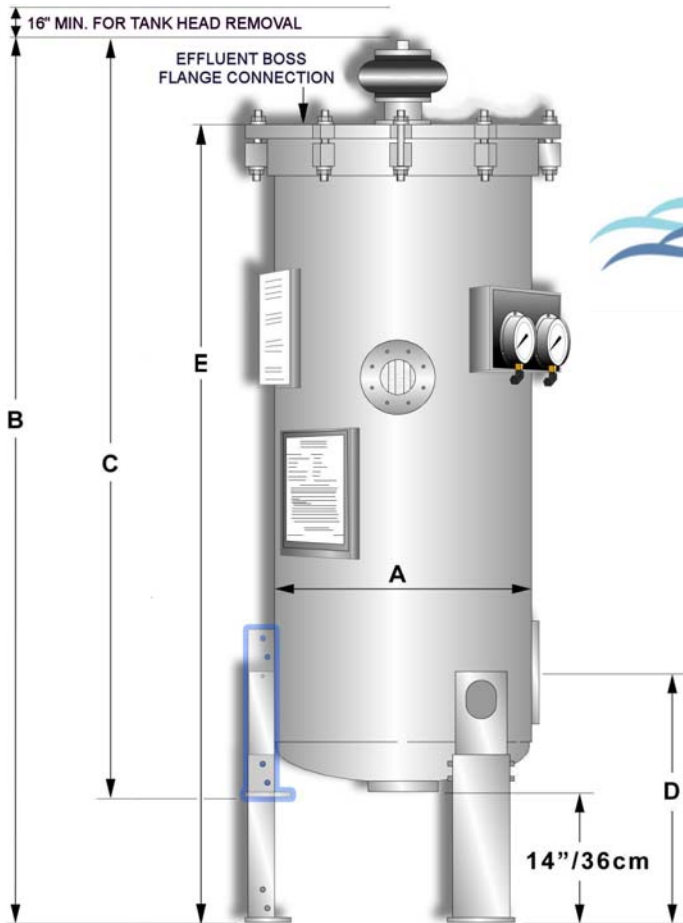
Benefits:

- Saves significant construction space / cost
- Improves water quality especially with heavy bather loads
- Reduces head loss (vs. sand) to save motor horsepower operational cost
- Saves millions of gallons of water annually along with chemicals, energy and waste
- Extends filter cycles for maximum particle removal
- Better turbidity removal than sand or D.E. filters

R-9/28/07

Defender Automatic Regenerative Media Filters

Filter Model Sizing Information, Dimensions & Capacities



- Tabulated data represents standard non-ASME construction.
- Consult Neptune~Benson for verification on ASME certified and custom fabricated vessels.
- All systems have collapsible legs for shipping purposes.
- Outside dimension of the tank equals A + 6" (A + 15.25 cm).
- Head and shell material to be ¼" thick carbon steel.
- Tanks to be lined with Flexsol 3000™.

| Model Number | A | | B | | C* | | D | | E | | Upper Head Weight | | Head & Tubes Weight | | Tank Ship Weight | | Operating Weight | |
|---------------|----|-------|-------|-------|-------|-------|------|------|-------|-------|-------------------|-----|---------------------|------|------------------|------|------------------|------|
| | in | cm | in | cm | in | cm | in | cm | in | cm | lb | kg | lb | kg | lb | kg | lb | kg |
| SP-27-48-487 | 27 | 68.5 | 95 | 241.5 | 81.5 | 207 | 27.5 | 70 | 86 | 218.5 | 350 | 159 | 660 | 300 | 1650 | 749 | 2970 | 1348 |
| SP-33-48-732 | 33 | 84 | 102.5 | 260.5 | 89 | 226 | 31.5 | 80 | 93.5 | 237.5 | 475 | 216 | 790 | 359 | 1800 | 817 | 3880 | 1760 |
| SP-41-48-1038 | 41 | 104 | 107 | 272 | 93.5 | 237.5 | 35.5 | 90 | 97.5 | 247.5 | 750 | 341 | 1265 | 574 | 2350 | 1066 | 6019 | 2731 |
| SP-49-48-1548 | 49 | 124.5 | 111 | 282 | 97.5 | 247.5 | 36 | 91.5 | 101.5 | 256 | 1085 | 493 | 1920 | 871 | 3320 | 1506 | 8437 | 3827 |
| SP-55-48-2076 | 55 | 140 | 116 | 294.5 | 102.5 | 260.5 | 39 | 99 | 105.5 | 268 | 1385 | 629 | 2300 | 1044 | 3850 | 1747 | 10847 | 4921 |

*Add 6"/153cm to "C" dimension to calculate shipping height.

| Model Number | Filter Area | | Maximum Flow Rate | | Perlite | | Tank Connections inches (imperial) | Drain Connection inches (imperial) | Tank Volume | | Tank Foot Print | |
|---------------|-----------------|----------------|-------------------|----------------------|---------|-------|------------------------------------|------------------------------------|-------------|----------------|-----------------|----------------|
| | ft ² | m ² | gpm* | m ³ /hr** | lbs | kg | | | gallons | m ³ | ft ² | m ² |
| SP-27-48-487 | 401 | 37.25 | 669 | 151.95 | 30 | 13.61 | 6 | 3 | 159 | .602 | 15 | 1.39 |
| SP-33-48-732 | 602 | 55.93 | 1005 | 228.26 | 45 | 20.41 | 8 | 3 | 250 | .946 | 20 | 1.86 |
| SP-41-48-1038 | 854 | 79.34 | 1426 | 323.89 | 64 | 29.03 | 8 | 4 | 441 | 1.669 | 30 | 2.79 |
| SP-49-48-1548 | 1274 | 118.36 | 2127 | 483.10 | 96 | 43.54 | 10 | 4 | 615 | 2.328 | 35 | 3.25 |
| SP-55-48-2076 | 1708 | 158.68 | 2852 | 647.76 | 128 | 58.06 | 12 | 4 | 841 | 3.184 | 40 | 3.72 |

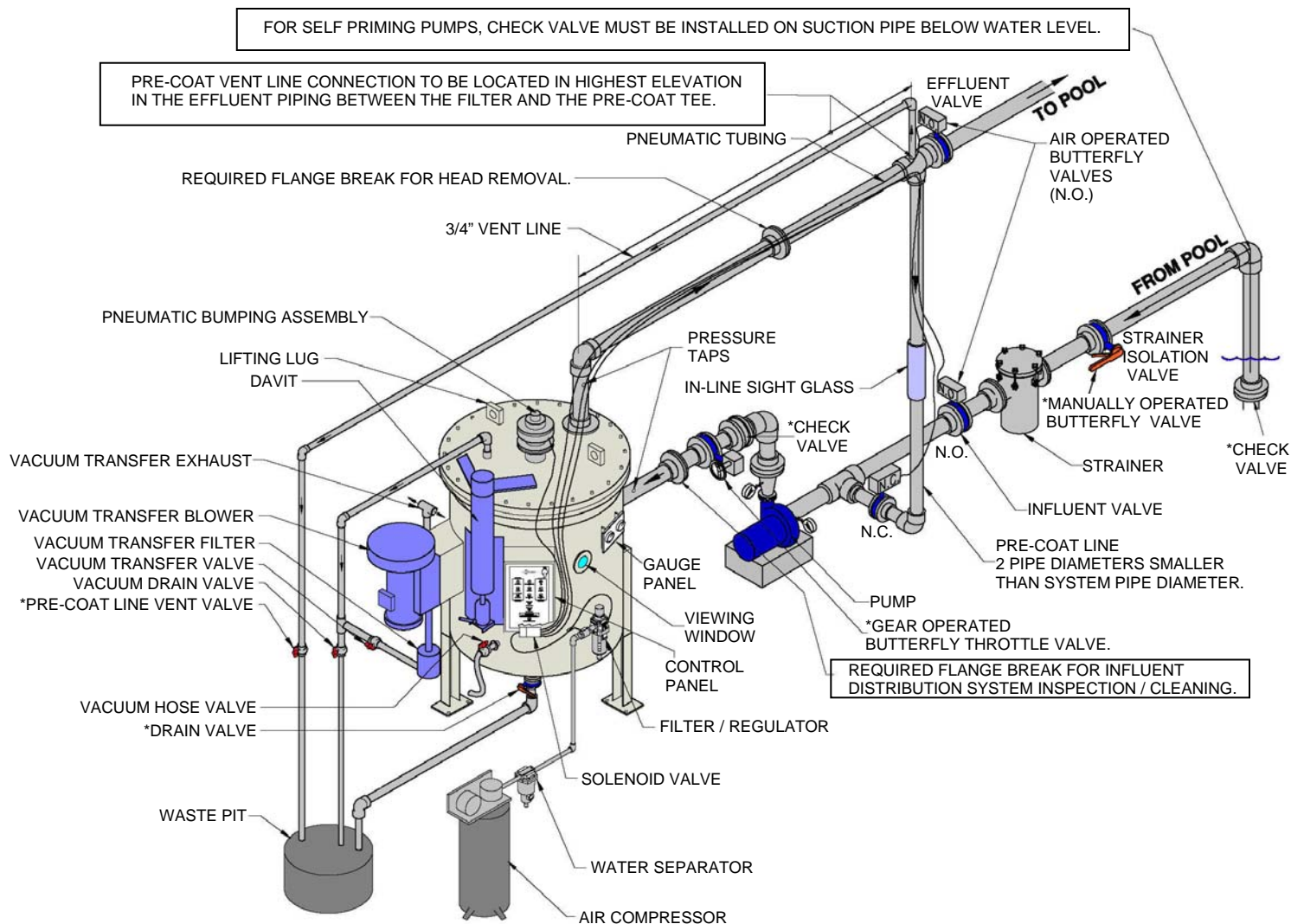
All dimensions are rounded up to the nearest ½ in. /5cm.
 Maximum Flow Rate *Based on a 1.67 gpm/ft². **Based on 4.079 m³/h / m²
 Nozzle size varies based on velocity not to exceed 10 fps or 3.048 mps

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Defender Automatic Regenerative Media Filters

System Schematic



N.O. = NORMALLY OPEN
 N.C. = NORMALLY CLOSED

* = INDICATED VALVES ARE PURCHASED SEPARATELY

R-11/7/07