MICROPURE® FILTRATION

Tank Vent Filters

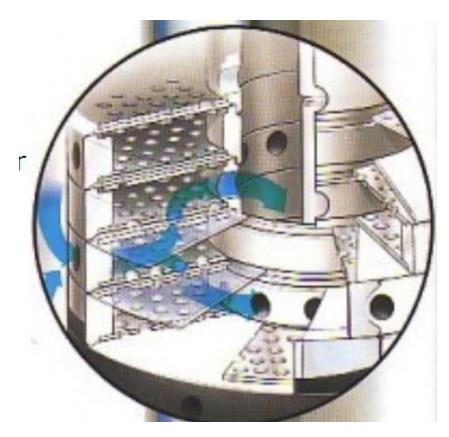


Segmented Filtration Design

- Different than typical cartridge style element
- Element Built with Modular SS support Discs
- Filtration Media Sandwiched in between Discs
- Unit Held Together by compression
- Only Filtration Media is replaced.

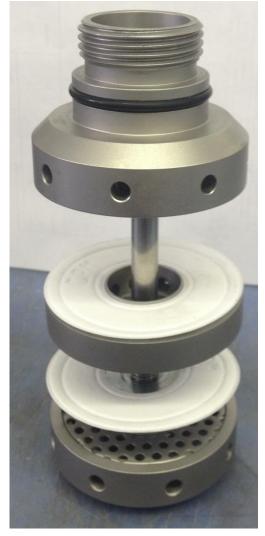


Flow through filter



Air flow is bidirectional

- Air enters element through holes in disc
- Air goes up or down through filtration surface
- Air exits adjacent disc through opposite sided holes



2 Layer element with media

Advantages of Segmented Filtration

- High Quality Materials
 - Robust stainless steel construction
 - Media made from PTFE and polypropylene
 - High Temperature and Pressure Resistance
- Unique Design
 - Ability for Bi-directional flow
 - Autoclave Sterilization possible
 - CIP or SIP possible
 - Compact Design

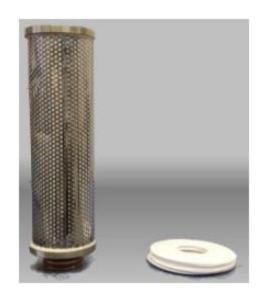
Advantages of Segmented Filtration

- Economical
 - Life of media
 - 150 cleanings or 1 year under normal working conditions
 - Cost of media
 - Fraction to conventional cartridges
 - Reduced Inventory Space
 - Quick Return on Investment and Low Cost of Ownership

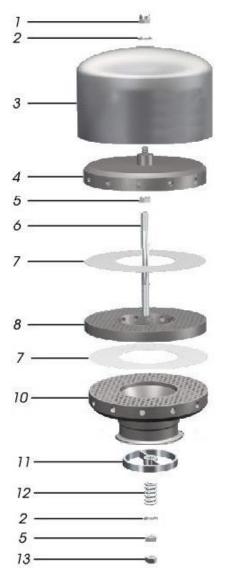
Advantages of Segmented Filtration

- Environmentally Friendly
 - Less filter changes per year
 - Less waste being thrown away.



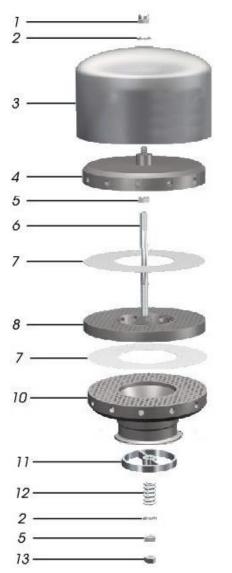


Tank Vent Filter Design

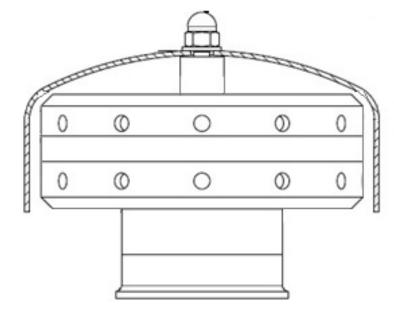




Tank Vent Filter Design

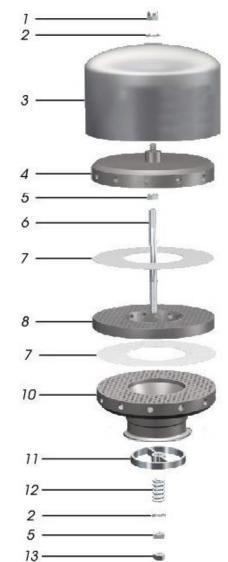






Filter Overview

| Housing Assembly | | | | |
|------------------|----------------------------------|--|--|--|
| Diagram # | Item Number | | | |
| 1 | 13 mm Acorn Nut | | | |
| 2 | 13 mm Washer | | | |
| 3 | Tank vent Hood | | | |
| 4 | End plate for tank vent filter | | | |
| 5 | 13 mm Nut | | | |
| 6 | 13 mm Threaded Rod | | | |
| 7 | Filter media | | | |
| 8 | Support Disc with interior holes | | | |
| 10 | Headplate | | | |
| 11 | Headplate insert | | | |
| 12 | Compression Spring | | | |
| 13 | 13 mm Lock Nut | | | |



Tank Vent Filter Design

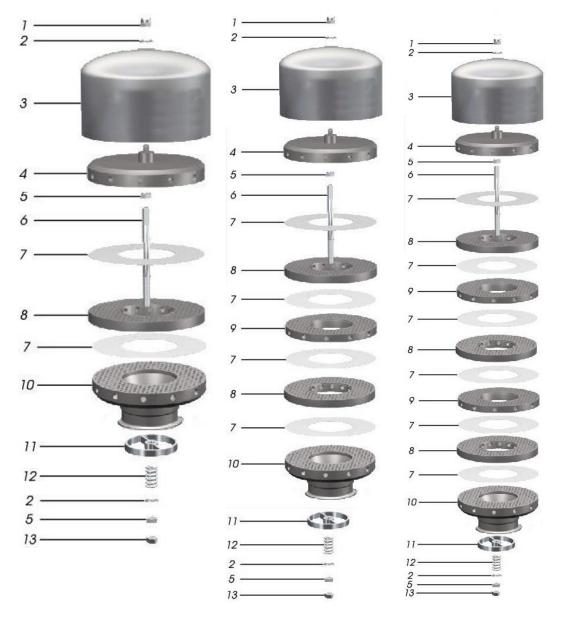
Unit Compression



Unit is compressed and held together with compression spring.

Element Stack is held secure by Threaded Rod and Nuts on both ends

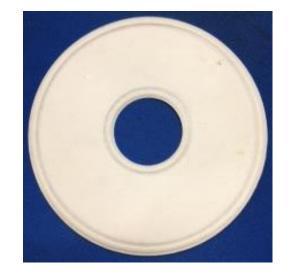
Modular Growth Capability

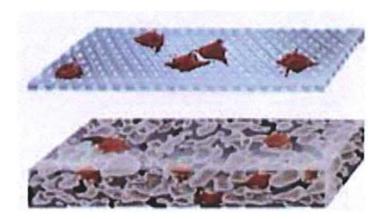


- Filter Capacity Growth can be achieved by added more support discs and filter media to your element.
- Multiple size growth is capable without buying a new housing or complete new filter.

Tank Vent Filtration Media

- Nonwoven polypropylene substrate
- Double Layer PTFE membrane
- Hydrophobic
 - No bacteria Growth possible
 - Media traps contaminates instead of absorbing
- 0.1 or 0.2 absolute micron rating standard
- Smaller micron available upon request
- High pore distribution and low PSID
 - Large surface area per inch of element height





Tank Vent Filtration Media

- Multiple sterilization methods possible
 - Steam
 - Hot air or Autoclave
 - PTFE compatible chemicals
- No deterioration or higher PSID after sterilizations
- 150 cleanings possible prior to replacement
- Simple Visual inspection of media integrity
- Quick and simple media replacement process



PSID Example Chart for BA-1404

Design PSID: $\Delta P < 0.29$

* Design flow of BA-1404*

| GPM FLOW | SCFM LOAD | % Spike from Design | PSID |
|----------|-----------|------------------------|--------|
| 150* | 20* | 0 | 0.0414 |
| 187 | 25 | 25% | 0.0518 |
| 225 | 30 | 50% | 0.0621 |
| 299 | 40 | 100% | 0.0829 |
| 374 | 50 | 150% | 0.1036 |
| 449 | 60 | 200% | 0.1243 |



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Product Line:

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