# PTFE (Poly Tetra Fluoro Ethylene)
# Filter Cartridge

FILTER CONCEPT®
www.filter-concept.com

PTFE Cartridges are made up of poly tetrafluroethylene. PTFE is characterized by high chemical inertness. These are specifically designed for sterile filtration applications of liquid, air & gas streams. They are certified bio safe, non pyrogenic & fully validated to pharmaceutical standards. PTFE and polypropylene, the unique two materials used in cartridge manufacturing are chemically inert, not shedding and biologically safe according to F.D.A., USP and EEC requirements for pharmaceutical and food contact use. PTFE cartridge membrane is used in filtering the highly corrosive solutions such as strong acids, base solution and solvents. The membrane has about 80 – 95 % porosity & uniform pore size distribution. Moreover, the filtration area of each cartridge is as high as 0.7 $m^2$. Therefore it offers high flow rate, low pressure drop & long service life. These can be steam sterilized directly or reverse as per standard operating data.

## Features & Benefits

- PTFE membrane has excellent chemical resistance
- End caps and connectors are sealed by thermal bond, free from binder.
- Low pressure drop and high flow rate due to high filtration area of 0.7 $m^2$ Per 10" cartridge
- Inherently hydrophobic expanded PTFE micro porous membrane for broad chemical compatibility & to prevent moisture obstruction in venting & wet air filtration
- Absolute rated & precisely controlled pore size distribution for superior & constant bacterial retention
- Autoclave or in situ steam sterilization features
- Integrity test is possible
- FDA approved

## Technical Specifications

| | |
|---|---|
| • Sizes | 10", 20", 30", 40" Long |
| • Micron Rating | 0.05, 0.1, 0.2, 0.45, 1 Micron |
| • Filtration Area | More Than 0.7 $m^2$ Per 10" cartridge |
| • Outer Diameter | 69 mm |
| • Inner Diameter | 28 mm |

## Configuration

- Double Open Type (DOE Type)
- Code 7S (226 'O' Ring Design / Bayonet)
- Code 7F (226 'O' Ring Design / Flat)
- Code 3S (222 'O' Ring Design / Bayonet)
- Code 3F (222 'O' Ring Design / Flat)

## Construction

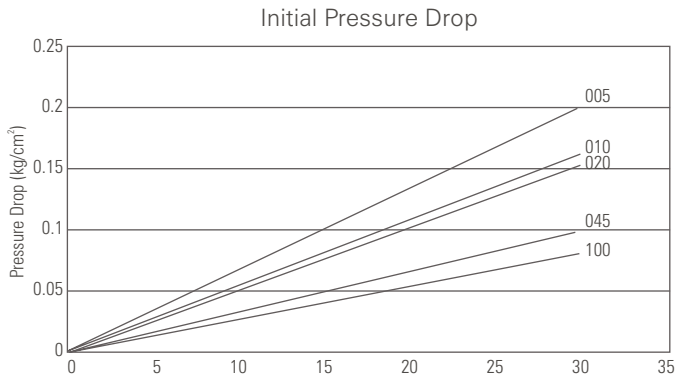
| | |
|---|---|
| • Filter Media | 100 % PTFE (Poly Tetrafluroethlene) Membrane |
| • Support Media | Polypropylene fiber |
| • Inner Core | High strength polypropylene |
| • Outer Core | High strength polypropylene |
| • End Caps | High strength polypropylene |
| • O Ring / Gaskets | EPDM / Buna N / Silicone / Viton |

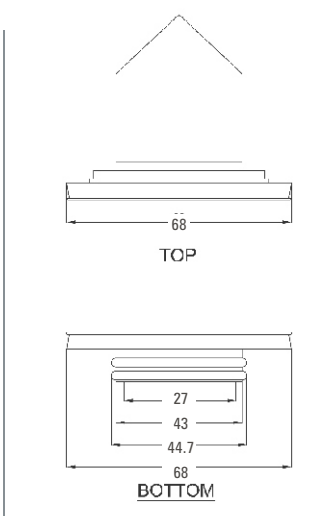
## Applications

| Pharmaceuticals |
|---|
| • Sterilization of inlet & exhaust flow |
| • Vent filter |
| • Gas purification (like nitrogen & others) |
| • Compressed air (sterile grade) |
| • Acid / Solvents & base filtration |
| • Wet etching process |

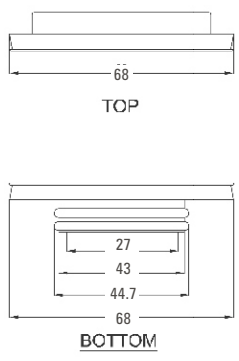
| Electronics Industries |
|---|
| • Semi conductors |
| • CD- R & DVD – R factory |
| • Fine filtration of DI water |
| • Photoelectron chemical filtration |

Initial Pressure Drop

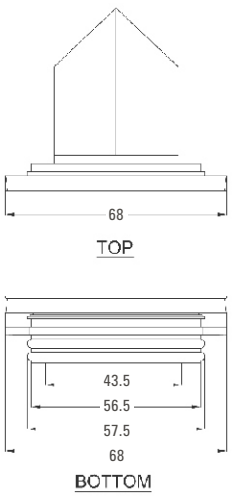


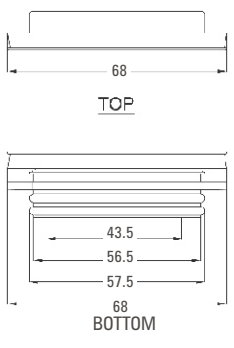

222 O'RING
WITH BAYONET DESIGN




222 O'RING
WITH FLAT DESIGN




226 O'RING
WITH BAYONET DESIGN




226 O'RING
WITH FLAT DESIGN