

## Fulflo® NP Filter Vessels

■ Natural Polypropylene

*Single Cartridge Filter Vessel Series*

### Fulflo® Natural Polypropylene Vessels for High Purity Applications

Parker's Fulflo NP series vessels feature pure natural polypropylene construction. The NP series is an ideal economical alternative to stainless steel and fluoropolymer vessels for filtration of corrosive fluids. They are essential for applications and processes demanding high purity filtration. Availability of 10 inch and 20 inch lengths and both single and double-open-end seal designs adds additional versatility.

#### Markets

- Electronics
- Pharmaceutical
- Chemical Process
- Photographic
- Electroplating
- Pure Water
- Food & Beverage

#### Applications

- Electronic Grade Chemicals
- Process Gases
- Organic Solvents
- Photographic Solutions
- Inorganic Chemicals
- DI Water
- Potable & Edible Fluids



#### Features and Benefits

- Fulflo NP series vessels available in two lengths and two seal designs offer versatility.
- Several O-ring options maximize compatibility choices. Viton is standard.
- Smooth fluid contact surfaces prevent bacteria and contaminant build-up.
- U-bracket available for pipe mounting.
- Mounting bosses in head accommodate L-bracket.
- Securely retained head-to-shell O-ring ensures effective sealing by positive tangential contact and eliminates accidental misalignment.
- Positive head-to-shell "stop" prevents overtightening.
- Individual packaging ensures cleanliness until use.
- NP vessels accept all standard double-open-end and single-open-end 2-222 O-ring design Fulflo filter cartridges.
- NP vessels of pure polypropylene meet FDA requirements for edible and potable liquid filtration.
- Available with pressure relief vent or threaded vent and drain.
- Service wrenches available for easy installation.
- NP vessels totally incinerable after useful life.

Process Filtration Division



## Specifications

### Materials of Construction:

- Vessel: 100% natural FDA grade polypropylene
- Head-to-shell 2-240 O-Ring:
  - Standard (Industrial Grade): Viton
  - Optional (FDA Grade): Buna-N, EPDM, Silicone, FEP encapsulated silicone
- Pressure Relief Button O-Ring: Buna-N only

### Maximum Recommended Operating Conditions:

- Temperature: 125°F (52°C) @ 100 psi (6.9 bar)
- Pressure: 150 psi (10.3 bar) @ 75°F (22°C)
- Flow Rate: 6 gpm (23 lpm) for 10 in vessel; 12 gpm (45 lpm) for 20 in vessel

### Recommended Cartridge Dimensions:

- NP10: 2-3/8 in to 2-3/4 in O.D. x 1 in I.D. x 9-5/8 in to 9-13/16 in long
- NP20: 2-3/8 in to 2-3/4 in O.D. x 1 in I.D. x 19-7/8 in to 20-1/16 in long

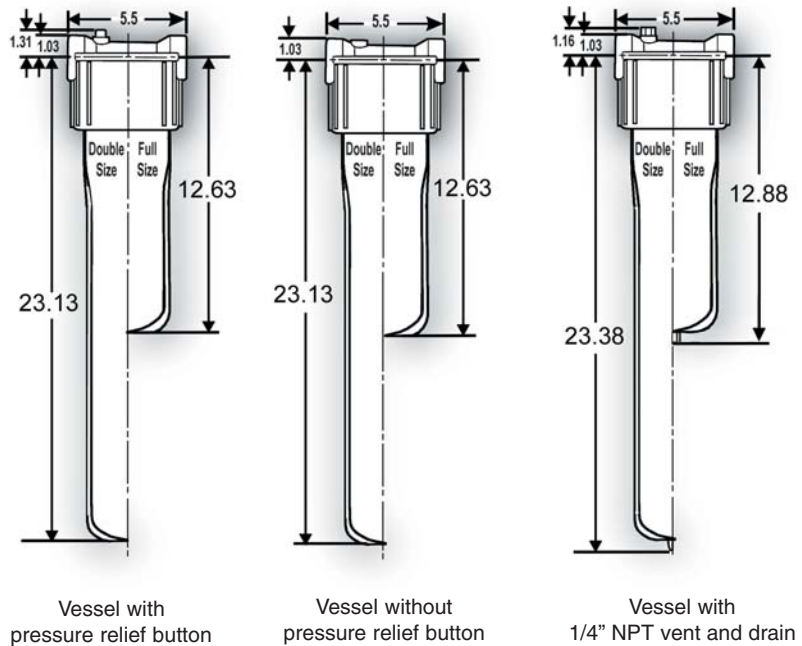
### Connection Dimensions:

- Inlet/Outlet: 3/4 in (19 mm) NPTF
- Vent/Drain: 1/4 in (6.4 mm) NPTF

### Cartridge Seal Designs:

- "TC": Single-Open-End with 222 O-ring receptacle
- "DO": Double-Open-End with knife edge seal; also accepts 213 O-ring seal cartridge (PR code)

### ■ Vessel Assembly Dimensions:



### ■ Standard Vessel Assemblies:

NP10-DO-N-V	NP20-DO-N-V
NP10-DO-R-V	NP20-DO-R-V
NP10-DO-DV-V	NP20-DO-DV-V
NP10-TC-N-V	NP20-TC-N-V
NP10-TC-R-V	NP20-TC-R-V
NP10-TC-DV-V	NP20-TC-DV-V

### ■ Compatible Semi-Conductor Chemicals (125°F max. temp.):

Acetic Acid 50%
Acetone 99.5%
Ammonium Fluoride 40%
Ammonium Hydroxide 10%
Hydrochloric Acid 37%
Hydrofluoric Acid 49%, 52%
Nitric Acid 10%
Phosphoric Acid 85%
Potassium Hydroxide 45%
Sodium Hydroxide 50%
Tetrachloroethylene 99.0%

## Ordering Information

**NP**

Vessel Type

Natural Polypropylene

**10**

Shell Length

10 = 10 in  
20 = 20 in

**TC**

Cartridge Seal Design

DO = Double-Open-End (gasket seal)  
TC = Single-Open-End (222 O-ring seal)

**DV**

Vent/Drain Options

D = 1/4 in Female NPT Drain (Plugged)  
N = No Vent, Drain or Pressure Relief Button  
R = Pressure Relief Button\*  
V = 1/4 in Female NPT Vent (Plugged)

**V**

Head-to-Shell 240 O-Ring

E = EPDM (FDA Grade)  
L = FEP/silicone (FDA grade)  
N = Buna-N (FDA Grade)  
S = Silicone (FDA Grade)  
V = Viton\*\* (Industrial Grade)

\* Pressure Relief Button ("R") not recommended for hazardous fluid applications.

\*\*A trademark of E. I. du Pont de Nemours & Co.

## Process Filtration Division