

New  
Product

# Valufit® Welded - PE Series

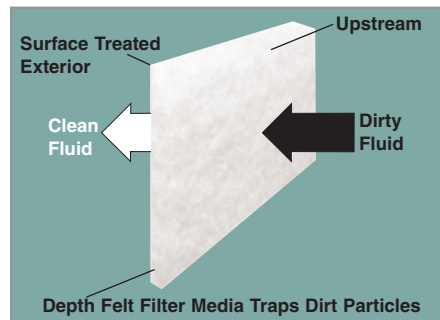
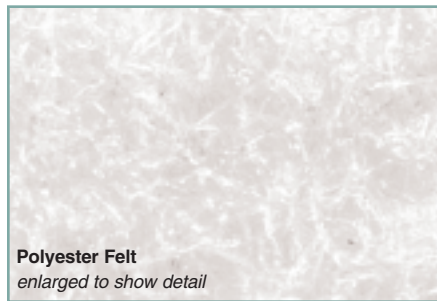
## Low-cost, Polyester Felt Liquid Filter Bags

### Features & Highlights

- High quality disposable filter bag provides efficient filtration at high flow rates, with low pressure drops
- An excellent pre-filter for removal of large particles in liquids of all viscosities
- Single-Layer, Depth Loading Filter Bag fits most standard-sized housings
- Thermally and chemically compatible in a broad range of applications
- No silicone is used in manufacturing or in materials of construction
- Rounded bottom to conform to the shape of our Support Basket
- Embossed with Micron Rating for easy identification
- Nominal Retention ratings from 1 to 200 microns

### Filter Bag Materials

Valufit Welded filter bags are manufactured from a single layer of self-supported polyester needled felt. The bags are ultrasonically welded; as a result, higher efficiencies are achieved due to the absence of sewn seams. The exterior surface of the bag is treated to minimize downstream fiber migration. Our *Zero-Bypass®* sealing collar is also made of polyester and is designed to provide a positive compression seal in *Over-The-Top®* design vessels. Operating on the principle of depth filtration, Valufit Welded Liquid Filter Bags are ideal for removing both solids and gelatinous particles from liquids with varying viscosities.



### Nominal Micron Retention Ratings

Valufit Welded	1	5	10	25	50	100	200
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### Materials of Construction

**Filter Media:** 100% Polyester Needle Felt  
**Zero-Bypass® Collar:** 100% Polyester, 7.125" OD

**Maximum Recommended Flow Rate (water):**  
**Size #1:** 65gpm **Size #2:** 120gpm

**Available Filter Bag Sizes:**  
**Size #1:** 7" dia. x 16" long **Size #2:** 7" dia. x 33" long

**Maximum Operating Temperature:** 250°F  
**Maximum Operating Differential Pressure:** 30psi

Valufit® Welded Liquid Filter Bags must be used in an appropriate support basket.

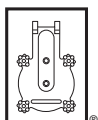


With over 40 years of industry experience, *Filtration Systems* has earned its reputation as a market leader, manufacturing filtration products of superior design and quality. Complimenting our extensive line of filter housings and high performance media, we are pleased to introduce our newest product line, Valufit® Welded Liquid Filter Bags.

### Distinct Design Advantages

- **Fully Welded Construction**  
Ultrasonically welded seams prevent solids, larger than the micron rating of the media, from bypassing the filter bag. Conventional filter bags are sewn, allowing particles to bypass through the needle holes of seams.
- **Zero-Bypass® Bag Collar**  
The *Zero-Bypass®* collar provides a positive compression seal, when used in a *Filtration Systems* filter vessel. When the filter bag is under elevated pressure, the flanged bag collar prevents bypass of unfiltered liquid.
- **Elevated Filter Bag Handles**  
A dual handle lift-out, located above the liquid level, eliminates contact with dirt and unfiltered materials and allows quick filter bag removal for replacement.

Filtration Systems



# Valufit® Welded - PE Series

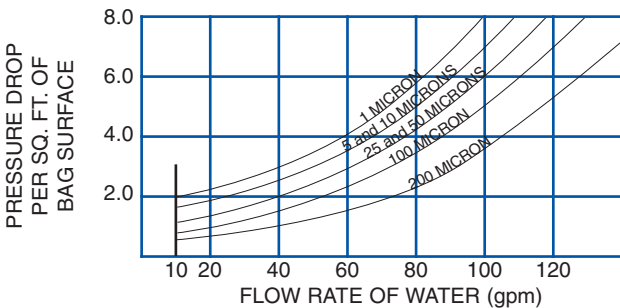
## Low-cost, Polyester Felt Liquid Filter Bags

### Applications for Valufit® Welded Liquid Filter Bags

High performance liquid filtration can be achieved with Valufit® Welded Liquid Filter Bags, where low-cost filtration is required. Our filter bags are compatible with many applications such as...

- |                 |                        |                       |                       |                   |
|-----------------|------------------------|-----------------------|-----------------------|-------------------|
| Acids and Bases | Cosmetics              | Hydraulic Fluids      | Paints and Varnishes  | Polymers          |
| Adhesives       | Cutting Fluids         | Industrial Coatings   | Paper Coatings        | Printing Inks     |
| Aerosols        | Confectionary Products | Lacquers              | Pharmaceuticals       | Reagent Chemicals |
| Amines          | Dye Stuffs             | Liquor                | Petrochemicals        | Semiconductors    |
| Bulk Chemicals  | Electric Utilities     | Liquid Detergents     | Photographic Products | Sugars            |
| Beverages       | Electroplating         | Magnetic Media        | Pigments              | Vegetable Oils    |
| Coil Coatings   | Fats and Oils          | Coatings              | Plastisols            | Water             |
| Cleaning Fluids | Fabric Coatings        | Oil Well Applications | Plating Solutions     |                   |

### Determining Pressure Drop



Surface Area (ft<sup>2</sup>):  
 Size #1: 2.2  
 Size #2: 4.4



#### STEP 1. MICRON RATING AND FLOW RATE

The graph shows the pressure drops imposed by one square foot of (clean) bag material based on various micron ratings and flow rates of water. Using the micron rating and flow, find the pressure drop.

#### STEP 2. ADJUST FOR BAG SIZE

Divide the pressure drop found in STEP 1 by the square feet of surface in the bag size.

#### STEP 3. CORRECT FOR VISCOSITY

If the viscosity of your liquid is heavier than water (1 cps), multiply your result from STEP 2 by the proper correction factor from chart at right. This should give the correct pressure drop for your application.

VISCOSITY (CPS)	CORRECTION FACTOR
50	4.5
100	8.5
200	16.6
400	27.7
800	50.0
1,000	56.2
1,500	77.2
2,000	113.6
4,000	161.0
6,000	250.0
8,000	325.0
10,000	430.0

#### STEP 4. TOTAL PRESSURE DROP

Add the pressure drop from the bag to the pressure drop of the filter vessel to determine the total pressure drop (refer to housing specifications).

#### IMPORTANT NOTE ON CHEMICAL & THERMAL COMPATIBILITY

The compatibility data presented in this brochure is for general guidance only. In most cases, the use of a specific filtering material, such as polyester, can be safely recommended without special testing. Issues of possible filter bag incompatibility, such as swelling, leaching of the filter bag material into a fluid solution, or disintegration, can only be determined by the user under actual on site operating conditions.

Factors such as degree of concentration of a substance in a fluid, temperature, and duration of filter bag exposure are also factors to be considered. Chemical and thermal compatibility are further defined to include all materials exposed to fluids, such as the filter bag, O-Rings, and filter vessel, under elevated pressure and/or temperature. If chemical and thermal compatibility is in doubt, please check with the manufacturer.

### Filter Fabric Properties (Physical-Chemical-Temperature)

Fabric	Polyester
Specific Gravity	1.38
Tensile Strength	64-124
Abrasion & Flex	Very Good
Weak Acids	Excellent
Strong Acids	Good
Weak Alkali	Good
Strong Alkali	Poor
Solvents	Good
Temperature °F	250°

### Filtration Systems

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