Introduction
FSI’s PolyWeld® filter bags hold a distinct advantage over all types of needle-sewn bags. The welded seams completely eliminate the possibility of unfiltered liquid bypass occurring due to needle holes. The result is a tighter seam, higher bag efficiencies and improved finish product yields. In addition, the fused edges of our PolyWeld bag provide a fiber-free finish and virtually eliminate unwanted fiber migration. Since the PolyWeld bag is not constructed with thread, the possibility of silicone contamination from this source is also removed. FSI’s PolyWeld filter bags are available in several different media: standard polypropylene felt, extended life polypropylene felt, and standard polyester felt.

Features of PolyWeld® Construction:
- A welded seam means no thread, and therefore, no additional source of silicone or other contaminants.

Polyloc® Ring
The top, together with the Polyloc® snap-fit ring, creates a hermetic seal within a vessel housing to prevent liquid bypass. The patented Polyloc ring fits securely over the lip of the restraining basket, eliminating the sealing concerns of ordinary steel ring bags. It is available in polypropylene, polyester and nylon materials. To facilitate bag removal, handles are built into the Polyloc ring. They provide a more stable grip to help prevent spillage during bag changeover.

The snap-fit ring can be installed in any new FSI FSPN/ BFN series housings, as well as previously installed FSP or FSPN housings. Made of 316SS, Teflon® coated, it is available for size 1 and 2 filter bags.

The patented Polyloc® ring provides complete hermetic sealing, as these diagrams demonstrate. The one-piece molded top is heat welded to the media to further eliminate needle holes.
### Tables of Bag Sizes and Other Data

#### Sample How to Order

**Example:** BPONG10P2PWE

<table>
<thead>
<tr>
<th>Type of Filter:</th>
<th>Material:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Micron Rating:</th>
<th>Cover:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Size:</th>
<th>Ring:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Suffix:</th>
<th>(eg: WE = Welded seam construction)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** A sample How To Order chart is depicted above to show how FSI part numbers are determined. Please refer to the specific How To Order chart for each section to determine the actual part number.

#### Filter Fabric Qualities

<table>
<thead>
<tr>
<th>Fabric</th>
<th>Cotton</th>
<th>Polyester</th>
<th>Glass</th>
<th>Nylon</th>
<th>Nomex</th>
<th>Polypropylene</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific Gravity</td>
<td>1.55</td>
<td>1.38</td>
<td>2.56</td>
<td>1.14</td>
<td>1.14</td>
<td>0.9</td>
</tr>
<tr>
<td>Abrasion &amp; Flex</td>
<td>Fair</td>
<td>VeryGood</td>
<td>Poor</td>
<td>Excellent</td>
<td>VeryGood</td>
<td>VeryGood</td>
</tr>
<tr>
<td>Weak Acids</td>
<td>Poor</td>
<td>VeryGood</td>
<td>Excellent</td>
<td>Fair</td>
<td>Fair</td>
<td>Excellent</td>
</tr>
<tr>
<td>Strong Acids</td>
<td>Poor</td>
<td>Good</td>
<td>Good</td>
<td>Poor</td>
<td>Poor</td>
<td>Excellent</td>
</tr>
<tr>
<td>Weak Alkali</td>
<td>Excellent</td>
<td>Good</td>
<td>Fair</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
</tr>
<tr>
<td>Strong Alkali</td>
<td>Excellent</td>
<td>Poor</td>
<td>Poor</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
</tr>
<tr>
<td>Solvents</td>
<td>Good</td>
<td>Good</td>
<td>Excellent</td>
<td>Good</td>
<td>Good</td>
<td>Fair</td>
</tr>
<tr>
<td>Temp. (F˚)</td>
<td>200 - 240˚</td>
<td>275 - 325˚</td>
<td>600˚</td>
<td>300˚</td>
<td>450˚</td>
<td>220˚</td>
</tr>
</tbody>
</table>

#### Filter Bag Data

<table>
<thead>
<tr>
<th>Bag Size</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface Area Per Bag (ft²/m²)</td>
<td>2.0/</td>
<td>4.4/</td>
<td>0.5/</td>
<td>1.0/</td>
</tr>
<tr>
<td>Volume Per Bag (gal*filter)</td>
<td>0.19</td>
<td>0.41</td>
<td>0.05</td>
<td>0.9</td>
</tr>
<tr>
<td>Bag Diameter (inch/cm)</td>
<td>7.0/</td>
<td>7.0/</td>
<td>4.0/</td>
<td>4.0/</td>
</tr>
<tr>
<td>Bag Length (inch/cm)</td>
<td>17.8</td>
<td>17.8</td>
<td>10.2</td>
<td>10.2</td>
</tr>
<tr>
<td>FSI Filter Vessel Model Number</td>
<td>FSPN-40</td>
<td>FSPN-85</td>
<td>FSPN-20</td>
<td>FSPN-35</td>
</tr>
<tr>
<td>and all multi-hole vessels</td>
<td>FBN-11</td>
<td>FSPN-250</td>
<td>FBN-13</td>
<td>FBN-14</td>
</tr>
</tbody>
</table>

#### Micron Availability

| Fiber | Material | 001 | 003 | 005 | 010 | 015 | 025 | 035 | 050 | 075 | 100 | 150 | 200 | 250 | 300 | 400 | 600 | 700 | 800 | 1000 |
|-------|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Polypropylene | Microfiber | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● |
| Polypropylene | Monofilament Mesh | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● |
| Polypropylene | Monofilament Mesh | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● |
| Polypropylene | Multifilament Mesh | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● |
| Polyester | Monofilament Mesh | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● |
| Polyester | Multifilament Mesh | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● | ● ● |
STANDARD FILTER BAGS

FSI Felt Bags are the Answer

When it comes to felt filter bags, FSI has the answer. Our years of experience give us an advantage over our competitors, and our felt filter bags show it. Our felt bags are designed to withstand higher solid loading, and are suitable for applications using vessel or open filtration systems.

FSI’s “Comprehensive Manufacturing Control” philosophy insures that we will maintain our status as the industry leader in all phases of the filter business. Our integrated technology and superior control over our manufacturing and quality leads to consistent performance. With FSI filter bags, you can count on what you are getting.

We start with the finest material possible. FSI produces the felt material used in our felt filter bags in-house, guaranteeing the highest quality. Our Extended Life filter bag provides superior filtration of all sized particles over traditional filter bags, as well as up to twice the dirt holding capacity of a standard filter bag.

Features:

- We offer a full line of felt materials and micron ratings.
- Conventional sewn bags or the PolyWeld® welded seam bags available.
- Conventional bag rings or the FSI Polyloc® ring available on most bags.
- Heavy Duty and Extended Life designs available to suit your filtration needs.

Standard Bag Sizes

**SIZE 1:**

DIAMETER: 7” (17.8 cm)

LENGTH: 16” (40.65 cm)

COMPATIBLE WITH FSI FILTER MODEL

FSP/FSPN-40, and the BFN-11.

**SIZE 2:**

DIAMETER: 7” (17.8 cm)

LENGTH: 32” (81.3 cm)

COMPATIBLE WITH FSI FILTER MODELS

FSP/FSPN-85, FSP/FSPN-250, the BFN-12, and all multi-hole vessels.

Polymicro® material is a specially designed melt-blown polypropylene fiber with excellent oil-absorbing characteristics.

Synthetic felts provide depth filtration and higher solid loading capacity than comparable mesh fabric bags.

Our no-bypass welded seams eliminate the possibility of fluid bypass through needle holes. We provide a variety of glazed and singed finishes to inhibit fiber migration. FSI also offers polypropylene and polyester inserted felts. These inserted felts include a reinforcing scrim needleed inside the felt material, to provide added strength and durability.
Providing Consistent Performance

The FSI PONG filter bag is one of the most versatile and popular bags on the market. Made from a non-inserted polypropylene felt with a glazed surface finish, the standard bag incorporates the PolyWeld® welded seam design. The Polyloc® ring provides hermetic sealing, preventing steel ring bypass problems. And the welded seam eliminates unfiltered liquid bypass occurring due to needle holes. The PENG filter bag is made from non-inserted polyester, and can be ordered with the polyester Polyloc ring.

These bags come in a variety of sizes and ring seals to suit your vessel requirements.

Standard Bag Sizes (Continued)

**SIZE 3:**
- Diameter: 4" (10.2 cm)
- Length: 8.25" (20.9 cm)

**SIZE 4:**
- Diameter: 4" (10.2 cm)
- Length: 14" (35.5 cm)
- Compatible with FSI Filter Model FSP/FSPN-35 and the BFN-14.

HOW TO ORDER

Example: BPONG10P2PC

**Type of Filter:**
- B = Bag

**Material:**
- PE = Felt, Polyester
- PO = Felt, Polypropylene
- HT = Felt, High Temp.
- TFE = Felt, Teflon
- N = Felt, Nylon

- N = Non-inserted felt
- I = Inserted felt
- G = Glazed finish (felt)
- F = Fuzzy finish (polyester felt only)

**Micron Rating:**
- PO: 1, 3, 5, 10, 25, 50, and 100
- PE: 1, 3, 5, 10, 25, 50, 75, 100, 200
  (refer to Pg. 11 for other felt materials)

**Cover:**
- P = Plain (no cover)
- PEM = Polyester multifilament
- NMO = Nylon monofilament

**Size:**
- 1: 7" x 16"
- 2: 7" x 32"
- 3: 4" x 8.25"
- 4: 4" x 14"
- 5*: 6 1/4" x 34"
- 6*: 6 1/4" x 16 1/4"
- 7*: 5 1/4" x 16"
- 8*: 5 1/4" x 22"
- 9*: 5 1/4" x 33"

**Ring:**
- P = Polyloc
- PE = Polyester Polyloc
- N = Nylon Polyloc
- C = Cuno
- S = Snap fit metal
- SSS = Stainless steel snap fit
- CO = Commercial steel ring
- COP = Commercial plastic ring
- RP = Ronningen-Petter snap fit
- RPP = Ronningen-Petter plastic ring
- RPF = Ronningen-Petter flange

**Suffix:**
- WE** = Welded seam construction
- A = Auto construction
- LOOPS = Loops
- C = Cotton handle
- N = Nylon handle
- W = DI Washed
- R = Reverse collar

**NOTE:**
- * = Sizes 5, 6, available with S ring only.
- ** = Available in Sizes 1 and 2, Polypropylene and Polyester non-inserted only.
The Extended Life Filter Bag (POEX/PEEX)

Introduction
The Extended Life filter bag (POEX and PEEX) provides outstanding performance on many types of contaminants such as gels, particles with wide ranges of sizes and particles with various irregular shapes. The coarse pre-filtering layer is designed to provide long service life, capturing a large amount of contaminants without excess surface loading. The POEX has been field-proven to hold up to twice the amount of contaminants as a standard felt bag, reducing waste volume and bag changes. The Extended Life filter bag is ideal for automotive coatings, chemicals, resins, edible oils and other fluid applications.

Features:
- With a coarse inner layer, a graded pore structure and much greater depth than a standard filter bag, the composite bag design captures a wide range of contaminant particle sizes.
- Twice the standard dirt holding capacity of traditional felt bags provides longer service life, fewer change-outs and reduced waste.

How to Order

<table>
<thead>
<tr>
<th>Example</th>
<th>BPOEX 10P2PWE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Filter:</td>
<td>B = Bag</td>
</tr>
<tr>
<td>Material:</td>
<td>PEEX = Polyester extended life felt POEX = Polypropylene extended life felt</td>
</tr>
<tr>
<td>Micron Rating:</td>
<td>5, 10, 25, 50 and 100</td>
</tr>
<tr>
<td>Cover:</td>
<td>P = Plain (no cover)</td>
</tr>
<tr>
<td>Size:</td>
<td>1: 7” x 16” 2: 7” x 32”</td>
</tr>
<tr>
<td>Ring:</td>
<td>P = Polyloc PE = Polyester Polyloc COP = Commercial plastic ring S = Snap fit (available with sewn seams only)</td>
</tr>
<tr>
<td>Suffix:</td>
<td>WE = Welded seam construction</td>
</tr>
</tbody>
</table>

- PolyWeld® seam construction in combination with the hermetically sealing Polyloc® top to eliminate liquid bypass.
- Glazed finish to virtually eliminate unwanted fiber migration.

Standard Bag Sizes
#1: 7” dia. x 16” long
#2: 7” dia. x 32” long
Suggested differential pressures:
- 35 PSIG maximum – dirty
- 10 – 15 PSIG optimum change out
- 1 – 3 PSIG initial
Operating temp.: 200°F max. – polypropylene
**Introduction**

The Polymicro® Microfiber Filter Bag (POMF) provides outstanding performance on contaminant applications where the minimalization of particle travel is important. The POMF contains three layers: a pre-filtering layer that removes coarse debris; the primary layer, composed of micro pores (for efficient particle retention); and an outer cover that prevents fiber migration. The finish-free fibers are non-foaming, which is ideal for food, beverage, water, chemical and coatings applications.

**Features:**

- The hydrophobic surfaces adsorb oil from air, gas and aqueous streams.
- Microfiber offers product cleanliness, higher through-put and longer service life.
- 80% + void volume means longer service life, higher contaminant loading and reduced waste loads.
- POMF 1A, 2A, 10A and 25A bags are made from FDA-compliant materials (OA bags also include an additional layer of oil removing material).

**HOW TO ORDER**

Example: **BPOMF10AP2P**

- **Type of Filter:** B = Bag
- **Material:** POMF = Polypropylene microfiber
- **Micron Rating:**
  - 1A: 1 micron
  - 2A: 2 micron
  - 10A: 10 micron
  - 25A: 25 micron
  - 90A: 90 micron
  - OA: Special purpose 25 micron
- **Cover:** P = Plain (no cover)
- **Size:**
  - 1: 7” x 16”
  - 2: 7” x 32”
  - 3: 4” x 8.25”
  - 4: 4” x 14”
- **Ring:**
  - P = Polyloc
  - S = Snap fit
  - RPP = Ronningen-Petter plastic ring
  - CO = Commercial steel ring
  - COP = Commercial plastic ring

- The unit compacts to small volume to reduce disposal cost, or can be incinerated.
- The dimensionally stable material provides more consistent performance.
- The Polyloc® top is standard on the FSI filter bag, creating a hermetic seal within a vessel housing to prevent liquid bypass.

**Standard Bag Sizes**

- **#1:** 7” dia. x 16” long, 65 GPM
- **#2:** 7” dia. x 32” long, 125 GPM
- **#3:** 4” dia. x 8.25” long, 20 GPM
- **#4:** 4” dia. x 14” long, 35 GPM
  (with Polyloc or steel snap ring)

Suggested differential pressures:

- 35 PSIG maximum – dirty
- 10 – 15 PSIG optimum change out
- 1 – 3 PSIG initial

Operating temp.: 200°F max. – polypropylene
POLYMICRO® SEAMLESS FILTER BAGS (BOS)

Introduction

The Polymicro® seamless filter bag (BOS), constructed entirely without seams, is composed of continuous length microfibers which vary in diameter throughout the length of the filter medium. This unique property develops a higher efficiency, graded pore-size distribution for absolute filtration.

The reason this bag is so unique is due to its construction. The Polymicro® seamless bag is a hybrid, combining the best features of filter cartridges and conventional filter bags. The result is superior depth, pore gradient and of course, its seamless construction. This, coupled with the classic advantages of filter bags – lower pressure drop, higher throughput and easier change-out – result in lower operating costs.

Thermally bonded microfibers create a seamless filter bag that has exceptionally low tensile strength, providing superior resistance to channeling, unloading, bypass and other forms of traditional leakage that result from pulsating water (i.e. water hammer or cold starts). The benefits of using this advanced filter bag are larger dirt holding capacity, longer service life and more precise particle retention. All of FSI’s Polymicro® seamless filter bags have a durable multifilament mesh cover that provides structural support and abrasion resistance and facilitates installation and removal from the filter housing.

We manufacture the Polymicro® seamless bag from 100% polypropylene resin. This eliminates any need for fiber bonding agents such as resins and adhesives. FSI’s seamless filter bags are free of foreign substances which could contaminate your process fluid.

Standard on the Polymicro® seamless filter bag is the Polyloc® ring, sonically welded to the filter bag, providing a hermetic seal between the bag and the housing.

The Polymicro® seamless filter bag is an ideal product for use in a wide variety of high-purity applications, including edible oil, soft drinks, sugar syrup, paints, coatings, plating solutions, inks, cosmetics, pharmaceuticals, potable water and electronic-grade water used in semiconductor manufacturing. Overall, the finest filter bag you can buy.

Features:

• Seamless construction offers the unequalled benefit of eliminating fluid bypass through needle holes.
• The hydrophobic surfaces adsorb oil from air, gas and aqueous streams.
• The microfiber-graded pore design provides longer service life, higher dirt load and lower initial pressure drop.
• The dimensionally stable material provides more consistent performance.
• FSI’s pure fibers contain no sizing, bonding adhesive, resin or silicone, making them FDA compliant with a lower TOC content and a faster rinse-in to 18 MEGOHM.
• The unit compacts to small volume to reduce disposal cost, or can be incinerated.
• The Polyloc® top is standard on the FSI filter bag, creating a hermetic seal within a vessel housing to prevent liquid bypass.
POLYMICRO SEAMLESS FILTER BAGS (BOS)

FSI thoroughly tests the Polymicro® seamless(BOS) filter bag to ensure consistent quality and accurate filtration ratings. The integrity of the manufacturing process and the reliability of the BOS bag provides you with the assurance that the same high quality will extend to your product. This bag is designed for use in an FSI basket only.

Standard Bag Sizes

#1: 7” dia. x 16” long
#2: 7” dia. x 32” long
(all with Polyloc ring)

Suggested differential pressures:
35 PSIG maximum – dirty
10 – 15 PSIG optimum change out
1 – 3 PSIG initial

Operating temp.: 200°F max. – polypropylene

Micron Ratings

<table>
<thead>
<tr>
<th>Part #</th>
<th>98% Efficiency (Absolute)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOS 3</td>
<td>3 µm</td>
</tr>
<tr>
<td>BOS 5</td>
<td>5 µm</td>
</tr>
<tr>
<td>BOS 10</td>
<td>10 µm</td>
</tr>
<tr>
<td>BOS 25</td>
<td>25 µm</td>
</tr>
<tr>
<td>BOS 35</td>
<td>35 µm</td>
</tr>
<tr>
<td>BOS 50</td>
<td>50 µm</td>
</tr>
<tr>
<td>BOS 75</td>
<td>75 µm</td>
</tr>
<tr>
<td>BOS 100</td>
<td>100 µm</td>
</tr>
</tbody>
</table>

HOW TO ORDER

Example: BOS5PM2P

Material: BOS = Polymicro seamless
Micron Rating: 3, 5, 10, 25, 35, 50, 75 and 100
Cover: PMO = Polypropylene
        PM = Polyester
        Standard
Size: #1: 7” x 16”
      #2: 7” x 32”
Ring: P = Polyloc
BOS MAX HEAVY DUTY EXTENDED LIFE FILTER BAGS

Introduction
The Heavy Duty Extended Life filter bag (BOSMAX) uses innovative construction and an advanced design to provide extended life and increased efficiency. A semi-rigid, graded density cartridge inserted in a layered, graded-pore bag structure utilizes increased thickness for much greater depth filtration than conventional filter bags, and up to four times more than even our standard BOS bag. The Heavy Duty Extended Life filter bag is ideal for high-purity applications, edible oils and syrups, paints, chemicals, coolants, pharmaceuticals and many water applications.

Features:
- Seamless construction eliminates unfiltered bypass through needle holes.
- Microfiber cartridge insert creates a larger dirt holding capacity and longer service life, while absorbing smaller particles and filtering a wider range of particle sizes.
- FSI’s pure 100% polypropylene fibers contain no sizing, bonding adhesive, resin or silicone, making them FDA compliant with a lower TOC content and a faster rinse-in to 18 MEGOHM.

Micron Ratings

<table>
<thead>
<tr>
<th>Part #</th>
<th>98% Efficiency (Absolute)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOS 3</td>
<td>3 µm</td>
</tr>
<tr>
<td>BOS 5</td>
<td>5 µm</td>
</tr>
<tr>
<td>BOS 10</td>
<td>10 µm</td>
</tr>
<tr>
<td>BOS 25</td>
<td>25 µm</td>
</tr>
<tr>
<td>BOS 35</td>
<td>35 µm</td>
</tr>
<tr>
<td>BOS 50</td>
<td>50 µm</td>
</tr>
<tr>
<td>BOS 75</td>
<td>75 µm</td>
</tr>
<tr>
<td>BOS 100</td>
<td>100 µm</td>
</tr>
</tbody>
</table>

HOW TO ORDER

Example: BOS5PM2PMAX

- Material: BOS = Polymicro seamless
- Micron Rating: 3, 5, 10, 25, 35, 50, 75 and 100
- Cover: PM = Standard polyester multifilament
- PMO = Polypropylene multifilament
- Size: 1: 7” x 16”
  2: 7” x 32”
- Ring: P = Polyloc
- Suffix: MAX = Maximum life

- Durable multifilament mesh cover provides abrasion resistance and easier installation and removal from filter housing.
- The Polyloc® top is standard on the FSI filter bag, creating a hermetic seal within a vessel housing to prevent liquid bypass.

Standard Bag Sizes

#1: 7” dia. x 16” long
#2: 7” dia. x 32” long
Suggested differential pressures:
- 35 PSIG maximum – dirty
- 10 – 15 PSIG optimum change out
- 1 – 3 PSIG initial

Operating temp.: 200°F max. – polypropylene
**Max Pong Heavy Duty Extended Life Filter Bags**

**Introduction**

The PONG Heavy Duty Extended Life filter bag (MAX PONG) is the leader in high-efficiency, low-cost filtration. Its seamless micro-fiber graded density cartridge insert removes trace oils that frequently occur in process fluids, and provides four times the dirt-holding capacity of conventional polypropylene bags. Combined with its welded seam felt cover and Polyloc® ring for elimination of unfiltered bypass, it becomes the perfect choice for uses where longer-lasting, higher-efficiency filter bags are needed. The MAX PONG Heavy Duty Extended Life filter bag is ideal for continuous flow applications such as e-coat and phosphate baths, and batch applications including oils, edible oils and syrups, or any final or polishing filter requirements.

**Features:**

- Welded seam construction eliminates unfiltered bypass through needle holes.
- Seamless microfiber graded density cartridge insert creates a larger dirt holding capacity and longer service life, while absorbing smaller particles and filtering a wider range of particle sizes.
- FSI’s 100% pure polypropylene felt contains no sizing, bonding adhesive, resin, lubricant, silicone or antistatic chemicals, making it FDA compliant and non foaming with a lower pressure drop.
- The non-inserted glaze finish inhibits fiber migration.
- The Polyloc® top is standard on the FSI filter bag, creating a hermetic seal within a vessel housing to prevent liquid bypass.

**Standard Bag Sizes**

<table>
<thead>
<tr>
<th>Size</th>
<th>Dia.</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>7”</td>
<td>x 16”</td>
</tr>
<tr>
<td>#2</td>
<td>7”</td>
<td>x 32”</td>
</tr>
</tbody>
</table>

Suggested flow and pressure drop:

- Size #1: 45 GPM maximum
- Size #2: 85 GPM maximum
- 35 PSIG maximum – dirty

Operating temp.: 200°F max. – polypropylene

---

**HOW TO ORDER**

Example: BMAXPONG52PWE

<table>
<thead>
<tr>
<th>Type of Filter:</th>
<th>B = Bag</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefix:</td>
<td>MAX = Maximum life</td>
</tr>
<tr>
<td>Material:</td>
<td>PONG = Polypropylene non-inserted felt</td>
</tr>
<tr>
<td>Micron Rating:</td>
<td>1, 5, 10, 25, 50, 75 and 100</td>
</tr>
<tr>
<td>Size:</td>
<td>1: 7” x 16”</td>
</tr>
<tr>
<td></td>
<td>2: 7” x 32”</td>
</tr>
<tr>
<td>Ring:</td>
<td>P = Polyloc</td>
</tr>
<tr>
<td>Suffix:</td>
<td>WE = Welded seam construction</td>
</tr>
</tbody>
</table>
**Introduction**

The PolyWeld® Monofilament Mesh Filter Bag (NMO) is constructed using a woven fabric. Each thread is a single filament, providing excellent strength with no fiber migration. The fabric is designed with evenly-spaced holes. The monofilament yarn used in the fabric is extremely abrasion resistant, resistant to a broad range of chemicals, unaffected by metal fatigue or corrosion, has no loose fibers and boasts high tensile strength.

**Features:**
- Welded seam construction (size 3 & 4 bags) eliminates fluid bypass through needle holes.
- Uniform mesh openings provide precise filtration.
- The mesh filaments will not shift or deform under pressure.
- The scoured finish means higher purity that is oil and lubricant free.
- The dimensionally stable material provides consistent performance.
- The unit compacts to small volume to reduce disposal cost.
- Smooth fiber surface provides excellent cake release and superior resistance to binding.
- The Polyloc® top is standard on the FSI filter bag, creating a hermetic seal within a vessel housing to prevent liquid bypass.

**HOW TO ORDER**

Example: BNMO150P4PWE

<table>
<thead>
<tr>
<th>Type of Filter:</th>
<th>B = Bag</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material:</td>
<td>NMO = Mesh, Nylon monofilament</td>
</tr>
<tr>
<td>Micron Rating:</td>
<td>NMO = 1, 5, 10, 25, 35, 45, 55, 65, 75, 100, 125, 150, 175, 200, 250, 300, 400, 600, 800, 1200.</td>
</tr>
<tr>
<td>Cover:</td>
<td>P = Plain (no cover)</td>
</tr>
<tr>
<td>Size:</td>
<td>3: 4” x 6” 4: 4” x 12”</td>
</tr>
<tr>
<td>Ring:</td>
<td>P = Polyloc</td>
</tr>
<tr>
<td>Suffix:</td>
<td>WE = Welded seam construction</td>
</tr>
</tbody>
</table>

**Monofilament Mesh** is a woven fabric where each thread is a single filament, boasting excellent strength with no fiber migration.
OTHER MESH FILTER BAGS

FSI Makes Mesh Bags for all Needs
All the FSI mesh bags are constructed using a woven or knitted fabric. Whether your particular environment requires a single filament mesh that provides excellent strength with no fiber migration, or a woven multi-strand mesh designed for low-cost, disposable bags, we have your needs covered. The yarn in all of our mesh filter bags is extremely abrasion resistant, resistant to a broad range of chemicals, unaffected by metal fatigue or corrosion and boasts high tensile strength.

FSI Mesh Filter Options Include:
- Nylon monofilament (NMO) filter bags.
- Polyester multifilament (PEM) filter bags.
- Polyester monofilament (PEMO) filter bags (requires special order).
- Polypropylene monofilament (PMO)

Multifilament Mesh is a woven fabric where each strand consists of many smaller diameter threads, combines low-cost and disposability.

HOW TO ORDER

Example: BPEM100P1 P A

Type of Filter:
B = Bag

Material:
NMO = Mesh, Nylon monofilament
PEM = Mesh, Polyester multifilament
PEMO = Mesh, Polyester monofilament
PMO = Mesh, Polypropylene multifilament

Micron Rating:
NMO = 1, 5, 10, 25, 35, 45, 55, 65, 75, 100, 125, 150, 175, 200, 250, 400, 600, 800, 1200.
PEM = 75, 100, 125, 150, 200, 250, 400, 800, 1500.
PMO = 100, 150, 200, 250, 300, 600, 800.

Cover:
P = Plain (no cover)

Size:
1: 7” x 16”
2: 7” x 32”
3: 4” x 8 1/2”
4: 4” x 14”
5: 6 1/2” x 34”
6: 6 1/2” x 16 1/2”
7: 5 1/2” x 16
12X18D: 12” x 18” Drawstring
18X24D: 18” x 24” Drawstring
18X28D: 18” x 28” Drawstring

Ring:
P = Polyloc
PE = Polyester Polyloc
C = Cuno
N = Nylon Polyloc
S = Snap fit metal ring
SSS = Stainless steel snap fit
CO = Commercial steel ring
COP = Commercial plastic ring
RP = Ronningen-Petter snap fit
RPP = Ronningen-Petter plastic
RPF = Ronningen-Petter 8” Flange Ring

Suffix:
WE = Welded seam construction (available on sizes 3 & 4 NMO only)
A = Auto construction
LOOPS = Loops
C = Cotton handles
R = Reverse collar
N = Nylon handles
W = DI washed
CUSTOM FILTER BAG PRODUCTS

FSI Custom Capability

As a leader in the manufacturing of quality filtration products, FSI has the experience and insight to create specialty products for unique applications. FSI engineers assess the processing requirements of customers, so that custom designs may be created to provide accurate and efficient filtration under unusual conditions or circumstances.

FSI offers custom-sized and custom-shaped bags in a variety of materials. One of your best choices is our exclusive Polymicro® material, designed to removed tramp oil from liquids. Or you can choose any of our synthetic felt or mesh products for your filter material. Either way, you’ll have the same attention to detail and assurance of quality that comes with all of our standard filter bag products.

As one of the acknowledged leaders in bag filtration, FSI has provided more custom bag filters than any other manufacturer. From filter bags to 8x8 square filters, cone filters, and VORTI SIV screens, we specialize in custom built solutions. In addition to bag media, some of our other custom built solutions include:

- Jacketed bag filter vessels – designed to maintain the temperature of hot or cold liquids during processing.
- Portable filtration systems – self-contained units that may be installed in-line for batch processing during tank or field service.
- Duplex filter units – two units fitted together with valves to permit continuous use of either unit while servicing the other.

Please refer to the Bag Filter Vessels section for additional information on these products.

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