



**FILTER SPECIALISTS, INC.**  
Innovative Solutions. Clear Results.



## ***Liquid Filter Bags***

# FSI Filter Bags for Consistent Performance

## Our exclusive advanced design makes the difference

FSI Polyloc® bags employ patented design features for added convenience and positive sealing. The Polyloc top, together with the Polyloc Snap-fit Ring, creates a hermetic seal within the vessel housing to prevent liquid bypass. The PolyWeld® welded seam design eliminates unfiltered liquid bypass occurring due to needle holes. The Snap-fit Ring can be installed in any new FSI FSPN/BFN series housing, as well as previously installed FS/FSPN housings. Polyloc bags are fully combustible. FSI offers a full line of single- and multi-layer bags. Covers and fiber-free finishes are available. Call us for your special applications. Our sales engineers analyze your filtration needs fully before making any product suggestions. And our nationwide distribution network facilitates quick response to your order.

**BUILT-IN HANDLES**  
speed and simplify bag installation and removal

**PATENTED POLYLOC**  
one-piece molded top heat welded to metal to eliminate needle holes

**FSI CONVENTIONAL STEEL RING BAGS**  
are manufactured in all popular sizes to fit most vessels

**WELDED SEAMS**  
eliminate the possibility of unfiltered liquid bypass common in needle-sewn bags

**SURFACE TREATMENT**  
to reduce fibermigration

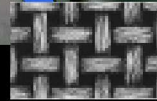
**GLAZED AND SINGED FINISHES**  
are available to inhibit fiber migration



**POLYMERIC MATERIAL**  
is a specially designed melt blown polypropylene fiber with excellent oil absorbing characteristics.



**SYNTHETIC FELTS**  
provide depth filtration and higher solids loading capacity than comparable mesh fabric bags.



**MULTIFILAMENT MESH**  
is a woven fabric. Each thread of the fabric consists of many smaller diameter threads twisted together. Makes a low cost, disposable bag.



**MONOFILAMENT MESH**  
is a woven fabric with evenly spaced holes. Each thread is a single filament. Excellent strength. No fiber migration.

## 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 Polyloc® ring and is available with the PolyWeld® welded seam design. The PENG filterbag is made from non-inserted polyester, and can be ordered with the polyester Polyloc ring.

Filter Fabric Properties Physical - Chemical - Temperature

Fabric	Specific Gravity	Tensile Strength	Attrition & Pile	Weak Acids	Strong Acids	Weak Alkali	Strong Alkali	Solvents	Temperature F
Polyester	1.38	65-124	Very Good	Very Good	Good	Good	Good	Good	25° - 35°
Nylon	1.14	89-128	Excellent	Nil	Good	Excellent	Excellent	Good	25° - 33°
Nomex	1.34	89-128	Very Good	Nil	Good	Excellent	Excellent	Good	40° - 60°
Polypropylene	0.91	35-65	Very Good	Excellent	Excellent	Excellent	Excellent	Nil	20° - 200°
Teflon®	2.3	0	Good	Excellent	Excellent	Excellent	Excellent	Very Good	40° - 330°

THIS GUIDE CONTAINS GENERAL INFORMATION. ACTUAL USE OR DATA SHOULD BE PERFORMED WHEREVER POSSIBLE.



## **PolyWeld® Liquid Filter Bags Reduce Contaminant Leaks and Fiber Migration**

**These photos clearly demonstrate the dramatic advantage of the PolyWeld liquid filter bag over conventional sewn seam bags.**

THE POLYWELD BAG'S welded seams completely eliminate the possibility of unfiltered liquid bypass occurring due to needle holes.

The benefits are a tighter seam, higher bag efficiencies and improved finished product yields. Additionally, the fused edges of the PolyWeld bag provide a fiber-free finish and virtually eliminate fiber migration. FSI offers the PolyWeld liquid filter bag in two filter media—standard polypropylene felt and polyester felt.

FSI has again demonstrated why it continues as a leader in the liquid filtration industry with its PolyWeld liquid filter bag, the superior performer for your critical liquid filtering applications.



Conventional sewn seams contain needle holes that measure up to 1200 microns. These large holes allow unfiltered liquid to bypass the filter media completely.

As loading in the sewn bag rises, increased pressure accelerates the leakage of contaminants through the bag's sewn seams.



By welding each bag seam together, this exclusive FSI positive heat-sealing process eliminates all needle holes that allow impurities to escape.



FSI's industry standard, patented, Polyloc® one-piece molded top provides a more positive seal than sewn ring top bags and features built-in handles for faster, easier installation and removal.

(Left) 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.



## High Performance Filtration Products



BOS MAX uses innovative construction and an advanced design to provide extended life and increased efficiency.

The answer to high performance filtration products can be seen in FSI's BOS, BOS MAX, MAX PONG, POEX and PEEEX Filter Bags. The Polymicro seamless filter bag (BOS) is composed of continuous length microfibers, which vary in diameter throughout the depth of the filter medium. These microfibers are thermally bonded to 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. This unique property develops a higher efficiency, graded pore-size distribution for absolute filtration.

This seamless feature is also found on the FSI Heavy Duty Extended Life Filter Bag (BOS MAX). This bag uses innovative construction and an advanced design to provide extended life and increased efficiency. This filter bag is ideal for high-purity applications, edible oils and syrups, paints, chemicals, coolants, pharmaceuticals and many water applications.

The PONG Heavy Duty Extended Life Filter Bag (MAX PONG) is the leader in high efficiency, low cost filtration. The seamless cartridge insert combined with the welded seam felt cover and Polyloc ring helps to completely eliminate unfiltered bypass, provides longer life and yields four times the dirt load of conventional polypropylene bags. This filter bag is ideal for continuous flow applications such as e-coat and phosphate baths, batch applications (oils, edible oils and syrups) or any final or polishing filter requirements.

The Extended Life Filter Bags (POEX/PEEX) will provide outstanding performance on any type of contaminant (i.e. gels, particles with a wide range of sizes and particles with various and 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 and PEEEX have been proven to hold at least twice the amount of contaminants as a standard felt bag, thereby reducing waste volumes and bag changes. The Extended Life Filter Bag is ideal for automotive coatings, chemicals, resins, edible oils and other fluid applications.



MAX PONG is the leader in high efficiency, low cost filtration, and is ideal for continuous flow applications.

### HOW TO ORDER (FELT BAGS)

Example: **B P O N G 10 P 2 S C**

**Type of Filter:**  
B = Bag

**Material:**  
PE = Felt, Polyester  
PO = Felt, Polypropylene  
HT = Felt, Nomex  
TPE = Felt, Teflon®  
N = Felt, Nylon  
N = Non-inserted Felt  
I = Inserted felt  
G = Glazed Finish (Felt)  
F = Fuzzy Finish (Polyester Felt Only)  
EX = Extended Life (PO/PE Only)

**Micron Rating:**  
PONG: 1, 3, 5, 10, 25, 50, and 100  
PENG: 1, 3, 5, 10, 25, 50, 75, 100, 200  
TPE: 10, 25, 50  
HT: 5, 10, 25, 50, 100, 200  
N: 5, 10, 25, 50, 100  
POEX: 5, 10, 25, 50, 100  
PEEX: 1, 5, 10, 25, 50, 100

**Cover:**  
P = Plain (no cover)  
PEM = Polyester Multifilament  
NMO = Nylon Monofilament

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

**Ring:**  
S = Snap Fit Metal      P = Polyloc®  
SSS = Stainless Steel Snap Fit      N = Nylon Polyloc  
CO = Commercial Steel Ring      C = Cuno  
COP = Commercial Plastic Ring      PE = Polypropylene  
RP = Ronning-Petter Snap Fit      PO = Polypropylene  
RPP = Ronning-Petter Plastic Snap Fit  
RPR = Ronning-Petter Plastic Ring

**Suffix:**  
WE = Welded Seam Construction      LOOPS = Loops  
A = Auto Construction      N = Nylon Handle  
C = Cotton Handle      R = Reverse Collar  
W = DI Washed

**NOTE:** \* = Sizes 5 and 6 available with Ring only.  
\*\* = Available in sizes 1 and 2, Polyester and Polypropylene only.

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### HOW TO ORDER (MESH BAGS)

Example: **B PEM 100 P 1 P A**

**Type of Filter:**  
B = Bag

**Material:**  
NMO = Mesh, Nylon Monofilament  
PEM = Mesh, Polyester Multifilament  
PMO = Mesh, Polypropylene Multifilament

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

**Cover:**  
P = Plain (no cover)

**Size:**  
1: 7" x 16"      8: 5 1/2" x 22"  
2: 7" x 32"      9: 5 1/2" x 33"  
3: 4" x 8 1/2"      5GP: 5 Gallon Pail  
4: 4" x 14"      12X18D: 12" x 18" Drawstrng  
5: 6 7/8" x 34"      18X24D: 18" x 24" Drawstrng  
6: 6 7/8" x 16 1/2"      18X28D: 18" x 28" Drawstrng  
7: 5 1/2" x 16"

**Ring:**  
S = Snap Fit Metal Ring      P = Polypropylene Polyloc  
SSS = Stainless Steel Snap Fit      PE = Polyester Polyloc  
CO = Commercial Steel Ring      N = Nylon Polyloc  
COP = Commercial Plastic Ring      C = Cuno  
RP = Ronning-Petter Snap Fit      PO = Polypropylene  
RPP = Ronning-Petter Plastic Snap Fit  
RPR = Ronning-Petter Plastic Ring      8" Flange Ring

**Suffix:**  
WE = Welded Seam Construction      LOOPS = Loops  
A = Auto Construction      N = Nylon Handle  
C = Cotton Handle      R = Reverse Collar  
W = DI Washed

**NOTE:** \* = Available in sizes 3 and 4, NMO only.

FSI is a vertically integrated manufacturer. We control our process from fiber to finished product, ensuring better quality control. FSI's "comprehensive manufacturing control" philosophy insures that we will maintain our status as the industry leader in all phases of the filter business. For more information, technical consultation or details about our custom design capability, contact your FSI representative or our headquarters in Michigan City, Indiana.

Filter Specialists, Inc. is a leader in filtration products. FSI offers custom cartridge design and manufacturing. For more information on other products and services, visit [www.fsifilters.com](http://www.fsifilters.com) or email [sales@fsifilters.com](mailto:sales@fsifilters.com)

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