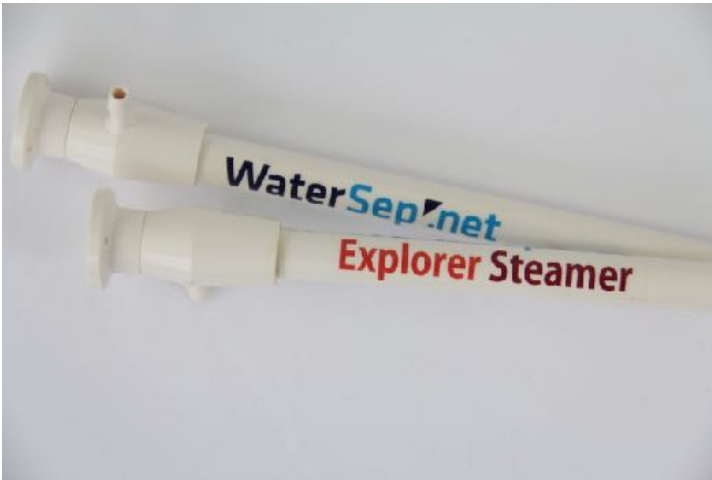


Explorer12 Steamer

Autoclavable, Gamma Irradiated
Hollow Fiber Cartridges
Easy and Reliable



The **Explorer12 Steamer** is a small to laboratory-sized autoclavable, gamma irradiated, re-usable hollow fiber cartridge, made with WaterSep's low binding, glycerin free modified PES membrane (m-PES) which provides a process flux and product recovery that exceeds other cross flow devices. **Explorer12 Steamer** cartridges are ready to use without any pre-rinse or sanitization, or can be autoclaved as is, or in an assembly.

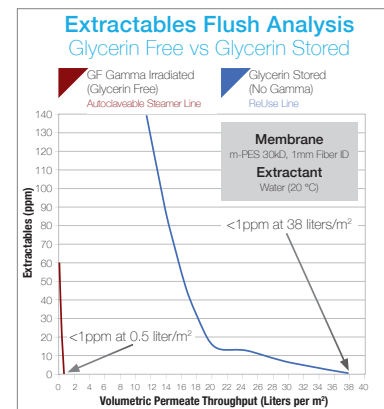
WaterSep's **Steamer Line** is true plug-and-play, at its best - connect, use and discard, or clean with 0.5-1.0 M NaOH and re-use. The extractable level is approximately 80x less than a glycerin conditioned membrane, see [Extractables Flush Analysis](#). After a quick buffer conditioning the HF cartridge is ready to be used or autoclaved. For autoclaving directions, please see the Steamer Validation Guide at www.watersep.net

The **Explorer Steamer** hollow fiber membrane cartridges are designed for small to laboratory scale biopharmaceutical laboratory applications for. Volumes that range from 150 ml to 750 ml. The **Explorer12 Steamer** cartridges have a membrane surface area of 155 cm², providing atypical permeate flow rate of 47 to 93 ml/hr for ultrafiltration applications and 31 to 62 ml/hr for microfiltration applications

The **Explorer12 Steamer** hollow fiber membrane cartridge systems are in most applications superior to conventional techniques, like centrifugation, depth filters, stirred cells or dialysis bags.

The **Explorer12 Steamer** cartridges offer true ready to use crossflow filtration that is:

- Gamma irradiated - ready to use - no rinse.
- Humectant free - 80% less extractables, see [Extractables Flush Analysis](#).
- Free of time-consuming cleaning validation.
- At a reduced risk of cross contamination.
- Consistent, membrane performance batch to batch.
- Self-contained and requires no assembly, no expensive hardware and no membrane installation.
- Significantly less expensive than traditional cassette formats.
- Offered in the same path length as all other WaterSep 12" (30 cm) hollow fiber cartridges for exact and predictable scale up and scale down.
- Every HF cartridge is integrity tested and has an individual lot number for easy traceability.



TYPICAL APPLICATIONS

- **Cell perfusion** with an ATF system or conventional pump operated perfusion. (Bioreactor and **Steamer** hollow fiber assemblies can be autoclaved simultaneously.)
- Small **aseptic/sterile UF-MF applications** where autoclaving is required.
- Rapid clarification of small volumes of **cell culture, fermentation solutions and virus/vaccine suspensions**.
- Concentration and diafiltration of **monoclonal antibodies, enzymes, blood components** and other proteins.
- Preparative biopharmaceutical work.

Explorer12 Steamer

ORDERING INFORMATION

Place orders online at www.watersep.net, or email purchase orders to orders@watersep.net, sales order confirmation to follow.

Explorer12 Steamer HF Cartridge

0.5 mm ID*

AU XXX 05EXP12 L6, 6/pkg

AU XXX 05EXP12 LD, 12/pkg

*Not available in 0.65 μ m

1.0 mm ID

AU XXX 10EXP12 L6, 6/pkg

AU XXX 10EXP12 LD, 12/pkg

2.0 mm ID*

AU XXX 20EXP12 L6, 6/pkg

AU XXX 20EXP12 LD, 12/pkg

*Available in 10K, 50K, 300K - 750K and 0.1 μ m - 0.45 μ m

Replace XXX with:

003 for 3K	100 for 100K	910 for 0.1 μ m
005 for 5K	300 for 300K	920 for 0.2 μ m
010 for 10K	500 for 500K.	945 for 0.45 μ m
030 for 30K	750 for 750K	965 for 0.65 μ m
050 for 50K		

SPECIFICATIONS

Cartridge Dimensions
0.38" (0.95 cm) x 12" (305 mm)

Membrane Surface Area
0.056 ft² (52 cm²)

Molecular Weight Cut-off
3K, 5K, 10K, 30K, 50K, 100K, 300K, 500K, 750K

Membrane Pore Size
0.1 μ m, 0.2 μ m and 0.45 μ m, 0.65 μ m

Fiber ID
0.5 mm, 1.0 mm, 2.0 mm

MATERIALS OF CONSTRUCTION

The cartridge as assembled is USP Class VI compliant.

Membrane:
Modified Polyethersulfone (m-PES)

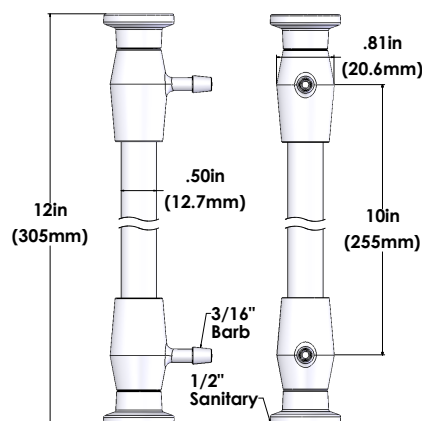
Housing:
White Polysulfone

Encapsulant:
Epoxy

CONNECTIONS

Feed/Retentate
Female Luer Fitting

Permeate
Female Luer Fitting



Technical Support: experttalk@watersep.net
or call 508.970.0089 x 204.