

Investigator24 Steamer

Autoclavable, Gamma Irradiated Hollow Fiber Cartridges

Easy and Reliable



Investigator Steamer hollow fiber membrane products incorporate our latest glycerin free low extractables, heat resistant modified polyethersulfone (m-PES) membrane technology. All **Steamer** products are gamma irradiated and ready to use without any tedious pre-rinse. The **Steamer** HF cartridges are the product of choice for perfusion applications. They can be repetitively autoclaved in an ATF perfusion unit or as a stand alone HF cartridge. Please contact us for the correct **Steamer** product for ATF 2-10 models at experttalk@WaterSep.net. The **Investigator Steamer** is also available as a single use assembly for crossflow perfusion applications.

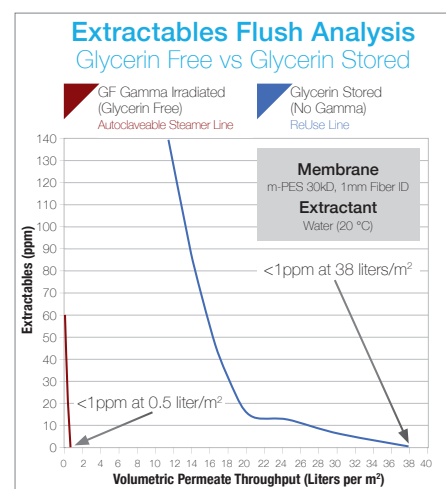
The extractables level for the **Investigator Steamer** is approximately 80x less than a glycerin conditioned membrane, see [Extractables Flush Analysis](#). After a quick buffer conditioning the HF cartridge is ready to be used or autoclaved. For autoclaving directions, please see the Steamer Validation Guide at www.WaterSep.net.

The **Investigator24 Steamer** crossflow hollow fiber membrane cartridges are positioned between the **Researcher Steamer** and the production scale **mini-BioProducer Steamer** cartridges. With a membrane surface area of 27 cm², the **Investigator24 Steamer** can accommodate batch volumes that range from 2L to 12L with a typical permeate flow rate of 8-16 L/hr for ultrafiltration applications and 5-11 L/hr for microfiltration applications.

The **Investigator24 Steamer** hollow fiber cartridge products are in most applications superior to conventional techniques, like centrifugation, depth filters, cassette crossflow systems or dialysis bags.

The **Investigator24 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 24" (60 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.

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ORDERING INFORMATION

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

Investigator24 Steamer HF Cartridge

0.5 mm ID*

AU XXX 05INV24 S3, 3/pkg

AU XXX 05INV24 S6, 6/pkg

*Not made in 0.65 μ m

1.0 mm ID

AU XXX 10INV24 S3, 3/pkg

AU XXX 10INV24 S6, 6/pkg

2.0 mm ID*

AU XXX 20INV24 S3, 3/pkg

AU XXX 20INV24 S6, 6/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

SPECIFICATIONS

Cartridge Dimensions

1.32" (3.34 cm) x 23.50" (59.70 cm)

Membrane Surface Area

2.90 ft² (0.27 m²)

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

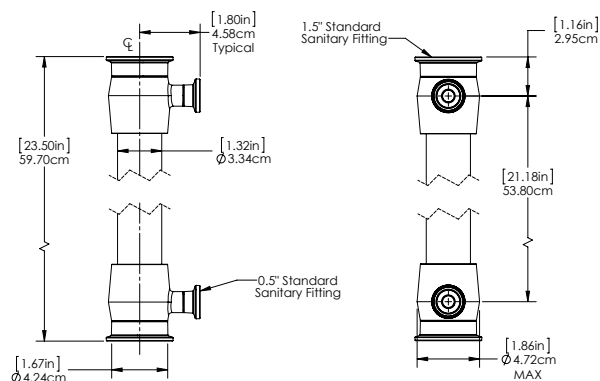
CONNECTIONS

Feed/Retentate

1.5" TC Standard Sanitary Fitting

Permeate

0.5" TC Standard Sanitary Fitting



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