

Investigator™ 24 Steamer

Autoclavable, Gamma Irradiated Hollow Fiber Cartridges Large Capacity – Superior Yield



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.

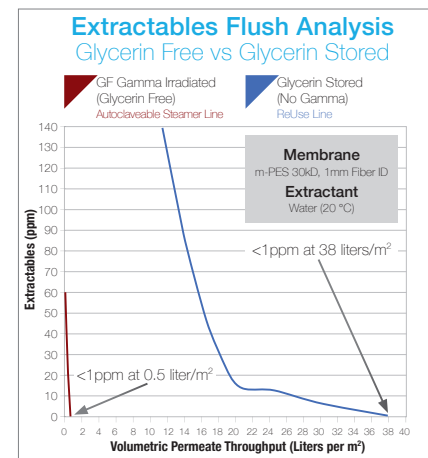
The extractables level for the **Investigator™ Steamer** is approximately 80x less than a glycerin conditioned membrane, see [Extractables Flush Analysis](#). After a quick buffer conditioning the HF cartridge is ready to be used or autoclaved. For autoclaving directions, please see the **Steamer** Validation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

The **Investigator™ 24 Steamer** crossflow hollow fiber membrane cartridges are positioned between the pilot scale **Researcher Steamer** and the production scale **mini-BioProducer Steamer** cartridges. With a membrane surface area of 0.28 m², the **Investigator™ 24 Steamer** can accommodate batch volumes that range from 2L to 12L with a typical permeate flow rate of 8-17 L/hr for ultrafiltration applications and 5-11 L/hr for microfiltration applications.

The **Investigator™ 24 Steamer** hollow fiber cartridge products are in most applications superior to conventional techniques, like centrifugation, depth filters, cassette crossflow systems or dialysis bags.

The **Investigator™ 24 Steamer** cartridges offer true ready to use crossflow filtration that is:

- Gamma irradiated - ready to use - no pre-rinse required.
- Humectant free - 80x 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.)
- Pilot scale **aseptic/sterile UF-MF applications** where autoclaving is required.
- Rapid clarification of small volumes ranging from 2L to 12L of **cell culture, fermentation solutions and virus/vaccine suspensions**.
- Concentration and diafiltration of **monoclonal antibodies, enzymes, blood components and other proteins**.

Investigator™ 24 Steamer

ORDERING INFORMATION

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

Investigator™ 24 Steamer HF Cartridge

0.5 mm ID

AU XXX 05INV24 S3, 3/pkg

AU XXX 05INV24 S6, 6/pkg

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 μm - 0.45 μm

Replace XXX with:

003 for 3K

050 for 50K

750 for 750K

005 for 5K

100 for 100K

910 for 0.1 μm

010 for 10K

300 for 300K

920 for 0.2 μm

030 for 30K

500 for 500K

945 for 0.45 μm

SPECIFICATIONS

Cartridge Dimensions

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

Membrane Surface Area

3.0 ft² (0.28 m²)

Molecular Weight Cut-off

3K, 5K, 10K, 30K, 50K, 100K, 300K, 500K, 750K

Membrane Pore Size

0.1 μm , 0.2 μm and 0.45 μm ,

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:

Medical Grade Epoxy

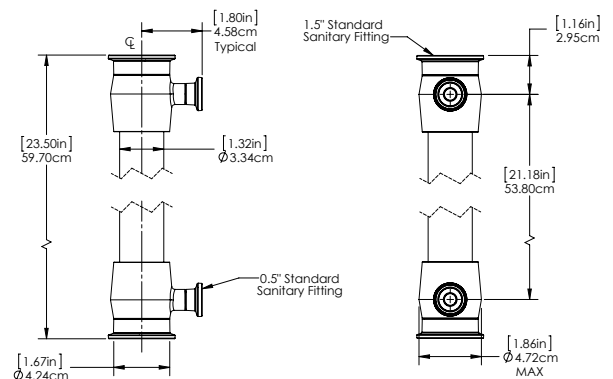
CONNECTIONS

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.