

Researcher41 Steamer

Autoclaved, Gamma Irradiated Hollow Fiber Cartridges Easy and Reliable



Researcher 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/ATF applications. They can be repetitively autoclaved in an ATF perfusion unit or as a stand alone HF cartridge and of course also in a tubing assembly. Please contact us for the correct **Steamer** product for ATF 2-10 models at experttalk@WaterSep.net.

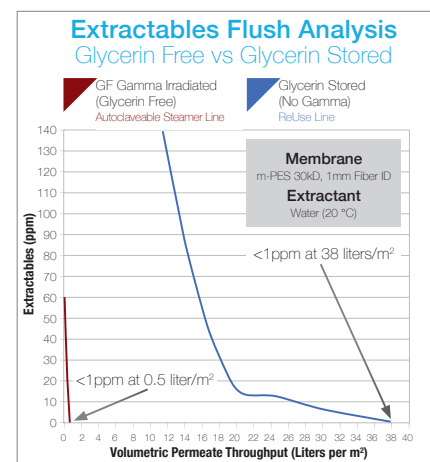
The extractables level for the **Researcher Steamer** is approximately 80x less than a glycerin conditioned membrane, see [Extractables Flush Analysis](#). After a quick buffer conditioning the HF cartridge is ready to be used or autoclaved. For autoclaving directions, please see the Steamer Validation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

The **Researcher Steamer** crossflow hollow fiber membrane cartridges are positioned between the laboratory scale **Explorer Steamer** and the pilot scale **Investigator Steamer** cartridges. With a surface area of 1,750 cm², the **Researcher41 Steamer** are the perfect choice for perfusion applications, small aseptic processes and preparative biopharmaceutical work with sample volumes between 1,000 ml up to 8,000 ml with a typical permeate flow rate of 5.2 to 10 L/hr for ultrafiltration applications and 3.4 to 6.9 L/hr for microfiltration applications.

Offered in the same path length as all other WaterSep 41" hollow fiber cartridges for exact and predicable scale up and down.

The **Researcher41 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.
- 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.

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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.

Researcher41 Steamer HF Cartridge

0.5 mm ID*

AU XXX 05RES41 S3, 3/pkg

AU XXX 05RES41 S6, 6/pkg

*Not made in 0.65 μm

1.0 mm ID

AU XXX 10RES41 S3, 3/pkg

AU XXX 10RES41 S6, 6/pkg

2.0 mm ID*

AU XXX 20RES41 S3, 3/pkg

AU XXX 20RES41 S6, 6/pkg

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

Replace XXX with:

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

SPECIFICATIONS

Cartridge Dimensions

0.75" (1.91 cm) x 41.77" (106.10 cm)

Membrane Surface Area

1.85 ft² (1,720 cm²)

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 , 0.65 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

Epoxy

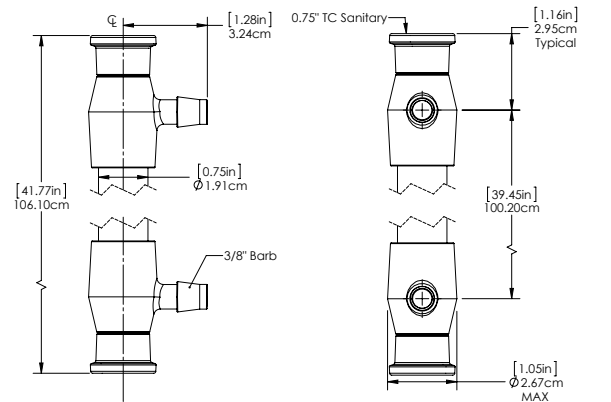
CONNECTIONS

Feed/Retentate

0.75" TC Standard Sanitary Fitting

Permeate

3/8" Barb



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