

▲ BioProducer12 Steamer

Autoclavable, Gamma Irradiated Hollow Fiber Cartridges. Easy and Reliable



The **BioProducer12 Steamer** is an 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. **BioProducer Steamer** cartridges are ready to use without any pre-rinse or sanitization, or can be autoclaved as is, or in an assembly.

WaterSep's **BioProducer Steamer** cartridges are true plug-and-play, crossflow filtration at its best - connect, use and discard, or clean with 0.5 - 1.0 M NaOH and re-use.

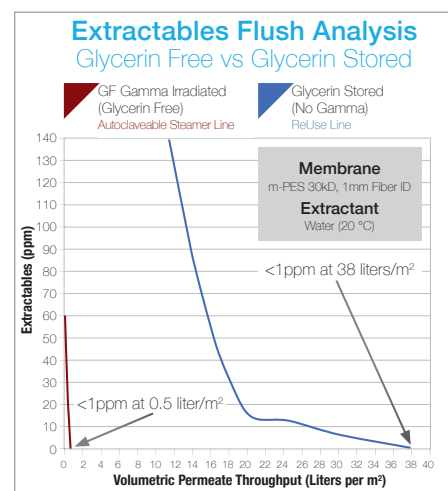
The **BioProducer Steamer** production scale hollow fiber cartridges are designed for biopharmaceutical concentration/diafiltration and clarification unit operations. With a membrane surface area of 1.3 m², the **BioProducer12 Steamer** HF cartridge can accommodate batch volumes between 25L and 100L with a typical permeate flow rate of 39-78 L/hr for ultrafiltration applications and 26-52 L/hr for microfiltration applications.

The **BioProducer12 Steamer** hollow fiber cartridge products are in most applications superior to conventional techniques, like centrifugation, depth filters or UF/DF cassettes.

The **BioProducer12 Steamer** hollow fiber cartridges are offered with the same path length as other high performance WaterSep HF cartridges, which makes scale up easy and predictable.

The **BioProducer12 Steamer** cartridges offer a true single use crossflow system that is:

- Gamma irradiated - ready to use - no rinse.
- Humectant free - 80% less extractables, see [Extractables Flush Analysis](#).
- No 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 crossflow perfusion system. Bioreactor and **Steamer** hollow fiber assembly can be autoclaved simultaneously.
- Small to medium scale **aseptic operations** or any other sterile application requiring autoclaving.
- 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**.

BioProducer12 Steamer

ORDERING INFORMATION

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

BioProducer12 Steamer HF Cartridge

0.5 mm ID*

AU XXX 05PRO12 S3, 3/pkg

AU XXX 05PRO12 S6, 6/pkg

*Not available in 0.65 μ m

1.0 mm ID

AU XXX 10PRO12 S3, 3/pkg

AU XXX 10PRO12 S6, 6/pkg

2.0 mm ID*

AU XXX 20PRO12 S3, 3/pkg

AU XXX 20PRO12 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

3.50" (8.89 cm) x 15.00" (38.10 cm)

Membrane Surface Area

13.99 ft² (1.30 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

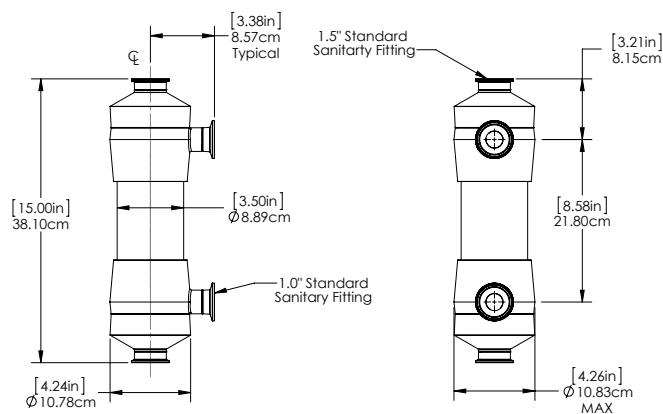
CONNECTIONS

Feed/Retentate

1.5" TC Standard Sanitary Fitting

Permeate

1.0" TC Standard Sanitary Fitting



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