

▲ BioProducer™ 41 Steamer

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



The **BioProducer™ 41 Steamer** is an autoclavable, gamma irradiated, reusable hollow fiber cartridge made with WaterSep's low binding, glycerin free modified polyethersulfone (m-PES) membrane which provides a process flux and product recovery that exceeds other crossflow 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.

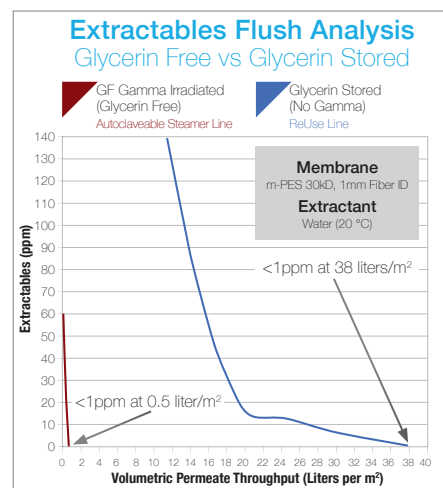
The **BioProducer™ Steamer** production scale hollow fiber cartridges are designed for biopharmaceutical concentration/diafiltration and clarification unit operations. With a surface area of 5.0 m², the **BioProducer™ 41 Steamer** HF cartridge can accommodate batch volumes between 100L and 500L with a typical permeate flow rate of 150-300 L/hr for ultrafiltration applications and 100-200 L/hr for microfiltration applications.

The **BioProducer™ 41 Steamer** hollow fiber cartridge products are in most applications superior to conventional techniques, like centrifugation, depth filters or UF/DF cassettes.

The **BioProducer™ 41 Steamer** hollow fiber cartridges are offered with the same path length as other high performance WaterSep HF cartridges, which makes scale up and scale down easy and predictable.

The **BioProducer™ 41 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.
- 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 assemblies can be autoclaved simultaneously.
- Production scale **aseptic operations** or any other sterile application requiring autoclaving.
- Rapid clarification of volumes from 100L to 500L of **cell culture, fermentation solutions** and **virus/vaccine suspensions**.
- Concentration and diafiltration of **monoclonal antibodies, enzymes, blood components** and other **proteins**.

BioProducer™ 41 Steamer

ORDERING INFORMATION

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

BioProducer™ 41 Steamer HF Cartridge

0.5 mm ID

AU XXX 05PRO41 S3, 3/pkg

AU XXX 05PRO41 S6, 6/pkg

1.0 mm ID

AU XXX 10PRO41 S3, 3/pkg

AU XXX 10PRO41S6, 6/pkg

2.0 mm ID*

AU XXX 20PRO41 S3, 3/pkg

AU XXX 20PRO41 S6, 6/pk

*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

3.50" (8.89 cm) x 44.49" (113 cm)

Membrane Surface Area

53.8 ft² (5.0 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

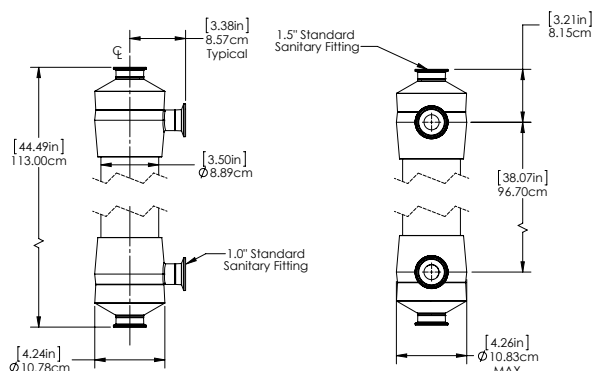
CONNECTIONS

Feed/Retentate

1.5" TC Standard Sanitary Fitting

Permeate

1.0" TC Standard Sanitary Fitting



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