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# Single Use Gamma Irradiated Hollow Fiber Cartridges. Easy and Reliable



The mini-BioProducer Green hollow fiber cartridges are designed for pilot and production scale production and are the perfect tools for process development. With a surface area of 1.30 m², the mini-BioProducer24 Green HF cartridge can accommodate batch volumes between 10L and 100L with a typical permeate flow rate of 39 to 78 L/hr for ultrafiltration applications and 26 to 52 L/hr for microfiltration applications.

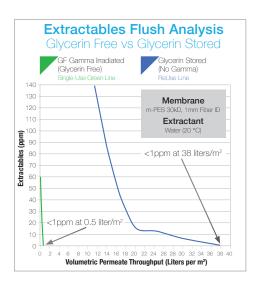
The mini-BioProducer Green cartridges utilize WaterSep's antifouling, low binding, modified polyethersulfone membrane (m-PES) which provides a process flux and product recovery that often exceeds other crossflow devices.

The mini-BioProducer24 Green 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.

Mini-BioProducer Green cartridges are also offered as part of fully integrated open architecture single use crossflow assemblies available with pressure sensors, flow meters, pumps, aseptic connectors and/or bags.

The mini-BioProducer24 Green cartridges offer a true single use crossflow system that provides:

- Significant cost savings over traditional cassette formats.
- Gamma irradiated ready to use no pre-rinse.
- No humectants 80% less extractables, see Extractables Flush Analysis.
- No need for time-consuming cleaning validation.
- · Reduced risk of cross contamination.
- Consistent membrane performance batch to batch.
- Self-contained no assembly no expensive hardware – no membrane installation.
- Every HF cartridge is integrity tested and has an individual lot number for easy traceability.



#### TYPICAL APPLICATIONS

- Clarification of mammalian/CHO cell cultures and maximizing protein recovery.
- **Cell-harvest**. (Excellent results have been achieved with both *E. Coli* whole cells and *E. Coli* lysates, as well as other microbial process streams.)
- Concentration and purification of vaccines.
- Concentration and diafiltration of gene therapy products.
- Concentration/diafiltration of monoclonal antibodies, recombinant proteins, biological macromolecules and peptides.

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#### ORDERING INFORMATION

Place orders online at <a href="www.watersep.net">www.watersep.net</a>, or email purchase orders to <a href="mailto:orders@watersep.net">orders@watersep.net</a>, sales order confirmation to follow.

#### mini-BioProducer24 Green HF Cartridge

0.5 mm Fiber ID\* SU XXX 05MPR24 S3, 3/pkg SU XXX 05MPR24 S6, 6/pkg \*Not available in 0.65  $\mu$ m

1.0 mm Fiber ID SU XXX 10MPR24 S3, 3/pkg SU XXX 10MPR24 S6, 6/pkg 13.99 ft<sup>2</sup> (1.30 m<sup>2</sup>)

2.0 mm Fiber ID\* SU XXX 20MPR24 S3, 3/pkg SU XXX 20MPR24 S6, 6/pkg \*Available in 10K, 50K, 300K - 750K and 0.1  $\mu$ m - 0.45  $\mu$ m

#### 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 2.70" (6.86 cm) x 26.50" (67.30 cm)

Membrane Surface Area 13.99 ft<sup>2</sup> (1.30m<sup>2</sup>)

Molecular Weight Cut-off 3K, 5K, 10K, 30K, 50K, 100K, 300K, 500K, 750K

Membrane Pore Size 0.1  $\mu$ m, 0.2  $\mu$ m and 0.45  $\mu$ m, 0.65  $\mu$ 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)

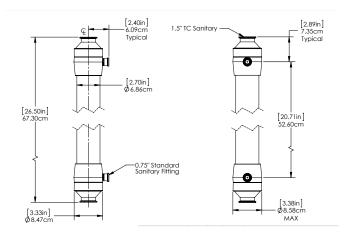
Housing White Polysulfone

Encapsulant Epoxy

#### CONNECTIONS

Feed/Retentate 1.5" TC Standard Sanitary Fitting

Permeate 0.75" TC Standard Sanitary Fitting



Technical Support: <a href="mailto:experttalk@watersep.net">experttalk@watersep.net</a> or call 508.970.0089 x 204.