

## Grand43 & Grand43 XL ReUse ReUsable Hollow Fiber Cartridges Easy and Reliable



Offered in both 10 m<sup>2</sup> and 15 m<sup>2</sup> membrane surface areas for large scale biopharmaceutical concentration/diafiltration and clarification unit operations, the **Grand43** and **Grand43 XL ReUse** hollow fiber membrane cartridges are WaterSep's largest production scale cartridges with permeate flow rates of several thousand liters an hour with multi-cartridge set ups.

The **Grand43** and **Grand43 XL ReUse** HF cartridges are compatible with most commercially available hollow fiber cartridges of similar size (6" x 24"). The **Grand ReUse** cartridges can be retrofitted to existing large scale crossflow skids or designed-in to new processes where high product yield and process flux are essential.

WaterSep offers the **Grand43** and **Grand43 XL ReUse** HF cartridges in molecular weight cut-offs (MWCO) from 3K-750K Dalton and pore sizes from 0.1 μm to 0.45 μm.

The 10 m<sup>2</sup> **Grand43 ReUse** HF cartridge has a typical permeate flow rate between 300-600 L/hr for ultrafiltration applications and 200-400 L/hr for microfiltration applications, with batch volumes that range from 250-1000 L/hr.

The 15 m<sup>2</sup> **Grand43 XL ReUse** HF cartridge can accommodate batch volumes between 400L and 1500L, with a typical permeate flow rate of 450-900 L/hr for ultrafiltration applications and 300-600 L/hr for microfiltration applications.

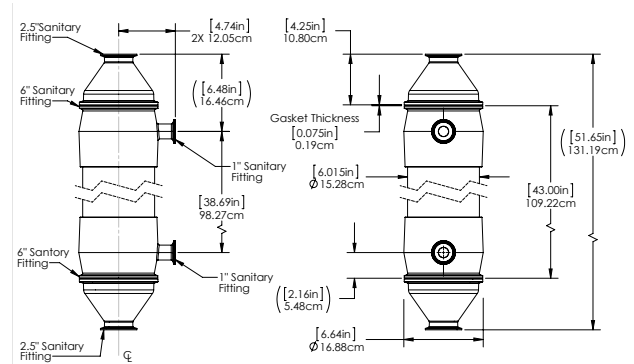
The **Grand43** and **Grand43 XL ReUse** cartridges utilize WaterSep's antifouling, low binding, modified polyethersulfone membrane (m-PES) which provides a process flux and product recovery that typically exceeds other crossflow devices.

For those applications where reuse is acceptable, the **Grand43** and **Grand43 XL ReUse** cartridges offer:

- Self-containment – no assembly – ease of use.
- High cost effectiveness (hollow fiber cartridges are up to 4x-6x less expensive in large scale formats than most cassettes and require no expensive hardware for installation).
- Gentle processing of cells, biomolecules and viruses.
- Low hold-up volume.
- High process flux, due to antifouling, low binding m-PES membrane chemistry.
- Robust, strong, multi-use hollow fiber membranes.
- High yields and easy cleaning.
- 100% integrity tested and ready to use cassettes.
- Very tight specifications and high lot-to-lot membrane consistency.
- Easy and reliable scale down.

### TYPICAL APPLICATIONS

- Clarification of **cell culture** and **fermentation suspensions** in primary recovery applications.
- **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**.



## Grand43 & Grand43 XL ReUse

### ORDERING INFORMATION

#### Grand43 ReUse HF Cartridge:

BA XXX 10GRA43 1L, 1/pkg

107.60 ft<sup>2</sup> (10 m<sup>2</sup>)

1.0 mm Fiber ID

#### Grand43 XL ReUse HF Cartridge:

BA XXX 10GRA43 5L, 1/pkg

161.40 ft<sup>2</sup> (15 m<sup>2</sup>)

1.0 mm Fiber ID

#### Grand43 ReUse HF Cartridge:

BA XXX 20GRA43 1L, 1/pkg

107.60 ft<sup>2</sup> (10 m<sup>2</sup>)

2.0 mm Fiber ID\*

#### Grand43 XL ReUse HF Cartridge:

BA XXX 20GRA43 5L, 1/pkg

161.40 ft<sup>2</sup> (15 m<sup>2</sup>)

2.0 mm Fiber ID\*

\*Available in 10K, 30K, 50K, 300K - 750K and 0.1  $\mu$ m - 0.45  $\mu$ m

Replace XXX with:

003 for 3K	050 for 50K	750 for 750K
005 for 5K	100 for 100K	910 for 0.1 $\mu$ m
010 for 10K	300 for 300K	920 for 0.2 $\mu$ m
030 for 30K	500 for 500K	945 for 0.45 $\mu$ m

Reducing Adaptors (shown in picture):

BA ADA PTGRAXX TC, 1 pkg

Includes:

(2) 6.0" (15.24 cm) x 2.5" (6.35 cm) TC adapter end caps

(2) 6.0" TC platinum cured silicone gaskets

(2) 6.0" (15.24 cm) TC stainless steel clamps

### CONNECTIONS

Feed/Retentate

6.0" TC Standard Sanitary Fitting

Reducer Adaptors

6.0" TC Standard Sanitary Fitting x 2.5" TC Standard Sanitary Fitting

Permeate

1.0" TC Standard Sanitary Fitting

### SPECIFICATIONS

Cartridge Dimensions - with adaptors

6.015" (15.28 cm) x 51.65" (131.19 cm)

Cartridge Dimensions - without adaptors

6.015" (15.28 cm) x 43" (109.22 cm)

Reducer Adaptor Dimensions

6.0" TC x 2.5" TC x 4.25" (10.80 cm) length

Membrane Surface Area (Two Choices)

107.60 ft<sup>2</sup> (10 m<sup>2</sup>)

161.40 ft<sup>2</sup> (15 m<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

Fiber ID

1.0 mm and 2.0 mm

### MATERIALS OF CONSTRUCTION

The cartridge as assembled is USP Class VI compliant.

Membrane:

Modified Polyethersulfone (m-PES)

Housing:

White Polysulfone

Adaptor:

White Polysulfone

Encapsulant:

Epoxy

Technical Support: [expertalk@watersep.net](mailto:expertalk@watersep.net)  
or call 508.970.0089 x 204.