SARTORIUS

Product Datasheet

Reuse Line Hollow Fiber Modules

Low Binding m-PES Membrane Enables Reliable Crossflow, High Product Flux and Easy Cleaning.

Executive Summary

Reuse Line hollow fiber modules offers a modified poly-ethersulfone (m-PES) membrane which is gentle on your cells, biomolecules and viruses. Generate high yields and low hold-up volumes. Reuse Line modules provide a linear and predictive scale-up process from laboratory to pilot-scale to manufacturing scale by using matching materials, fluid-path length, and performance characteristics. Reuse Line modules are fully scalable from batch volumes from 10 mL up to 1500 L with corresponding membrane surface areas from 0.056 ft^2 (0.0052 m^2) up to 166.0 ft^2 (15.42 m^2). Due to the inhouse production of the membrane the Reuse Line can offer you a high batch-to-batch consistency. Reuse Line hollow fiber modules can be sanitized and cleaned in 0.5 - 1.0 N NaOH, and stored in 0.1 N NaOH between uses.

Unique Selling Points

For those applications where cleaning and Reuse is warranted, the Reuse Line hollow fiber modules offer:

- Self-contained
- Membrane offering from 3 kD to 750 kD MWCO and from 0.1 µm to 0.65 µm pore size
- Easy and reliable scale up and scale down
- Low hold up volume.
- High product flux and total capacity
- Robust, strong, multi-use hollow fiber membranes
- Low binding m-PES membrane – high yield and easy to clean

Relevant Applications

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

Technical Specifications

Attribute	Reuse Line Modules
Bio compatibility	The module as assembled is USP Class VI compliant
Membrane	Modified Polyethersulfone (m-PES)
Housing	White Polysulfone
Encapsulant	Medical Grade Epoxy

Name	Scale	Fiber Length	Dimensions in inches (cm)	Membrane surface area ft^2 (m^2)*	Recommended batch volume per module	Connections	
						Feed | Retentate	Feed | Retentate
Discover	Lab	12 inch	0.38 × 12.88 (0.95 × 32.72)	0.056 (0.0052)	10 - 250 mL	Luer Lock	Luer Lock
		24 inch	0.38 × 24.38 (0.95 × 61.93)	0.115 (0.0107)	50 - 400 mL		
		41 inch	0.38 × 41.8 (0.95 × 106.2)	0.208 (0.0193)	80 - 850 mL		
Explorer	Lab	12 inch	0.5 × 12.3 (1.3 × 31.2)	0.17 (0.0155)	150 - 175 mL	½-inch TC	3⁄16-inch Hose Barb
		24 inch	0.5 × 23.8 (1.3 × 60.5)	0.35 (0.0321)	250 - 1,500 mL		
		41 inch	0.5 × 41.8 (1.3 × 106.2)	0.62 (0.0579)	300 - 3,000 mL		
Researcher	Lab | Pilot	12 inch	0.75 × 12.3 (1.91 × 31.2)	0.48 (0.0444)	400 - 2,000 mL	¾-inch TC	⅜-inch Hose Barb
		24 inch	0.75 × 23.66 (1.91 × 60.1)	1.01 (0.0940)	700 - 4,000 mL		
		41 inch	0.75 × 41.8 (1.91 × 106.1)	1.85 (0.1716)	1,000 - 8,000 mL		

Researcher XL	Lab | Pilot	12 inch	0.75 × 12.3 (1.91 × 31.2)	0.66 (0.0617)	0.56 - 2.8 L	¾-inch TC	⅜-inch Hose Barb
		24 inch	0.75 × 23.66 (1.91 × 60.1)	1.41 (0.1305)	0.98 - 5.6 L		
		41 inch	0.75 × 41.8 (1.91 × 106.1)	2.57 (0.2383)	1.4 - 11.2 L		
Investigator	Lab | Pilot	12 inch	1.32 × 12.01 (3.34 × 30.5)	1.4 (0.13)	1 - 6 L	1.5-inch TC	½-inch TC
		24 inch	1.32 × 23.5 (3.34 × 59.7)	3.0 (0.28)	2 - 12 L		
		41 inch	1.32 × 41.5 (3.34 × 105.4)	5.4 (0.51)	3 - 25 L		
mini-Bioproducer	Pilot | Production	12 inch	2.70 × 15.0 (6.86 × 38.1)	6.6 (0.61)	5 - 50 L	1.5-inch TC	0.75-inch TC
		24 inch	2.70 × 26.5 (6.86 × 67.3)	14.5 (1.35)	10 - 100 L		
		41 inch	2.70 × 44.5 (6.86 × 113)	26.9 (2.50)	25 - 250 L		
Bioproducer	Production	12 inch	3.50 × 15.0 (8.89 × 38.1)	13.1 (1.21)	25 - 100 L	1.5-inch TC	1-inch TC
		24 inch	3.50 × 28.5 (8.89 × 67.3)	29.0 (2.69)	50 - 250 L		
		41 inch	3.50 × 44.49 (8.89 × 113)	53.8 (5.00)	100 - 500 L		
Maximizer	Production	24 inch	4.62 × 28.8 (11.73 × 73.15)	58.4 (5.42)	100 - 500 L	2-inch TC	1-inch TC
		41 inch	4.62 × 46.5 (11.73 × 118.1)	104.9 (9.74)	250 - 1,000 L		
Grand XL (only with 1.0 and 2.0 mm Fiber IDs)	Production	24 inch	6.64 × 32.65 (16.88 × 82.93)	87.2 (8.10)	250 - 800 L	2.5-inch TC or 6-inch TC	1-inch TC
		43 inch	6.015 × 51.65 (16.88 × 131.19)	166.0 (15.42)	400 - 1,500 L		

*Membrane surface valid for all fiber IDs. For number of fibers per module please consider the Validation Guide.

Available MWCO and Pore Sizes for Different Fiber IDs

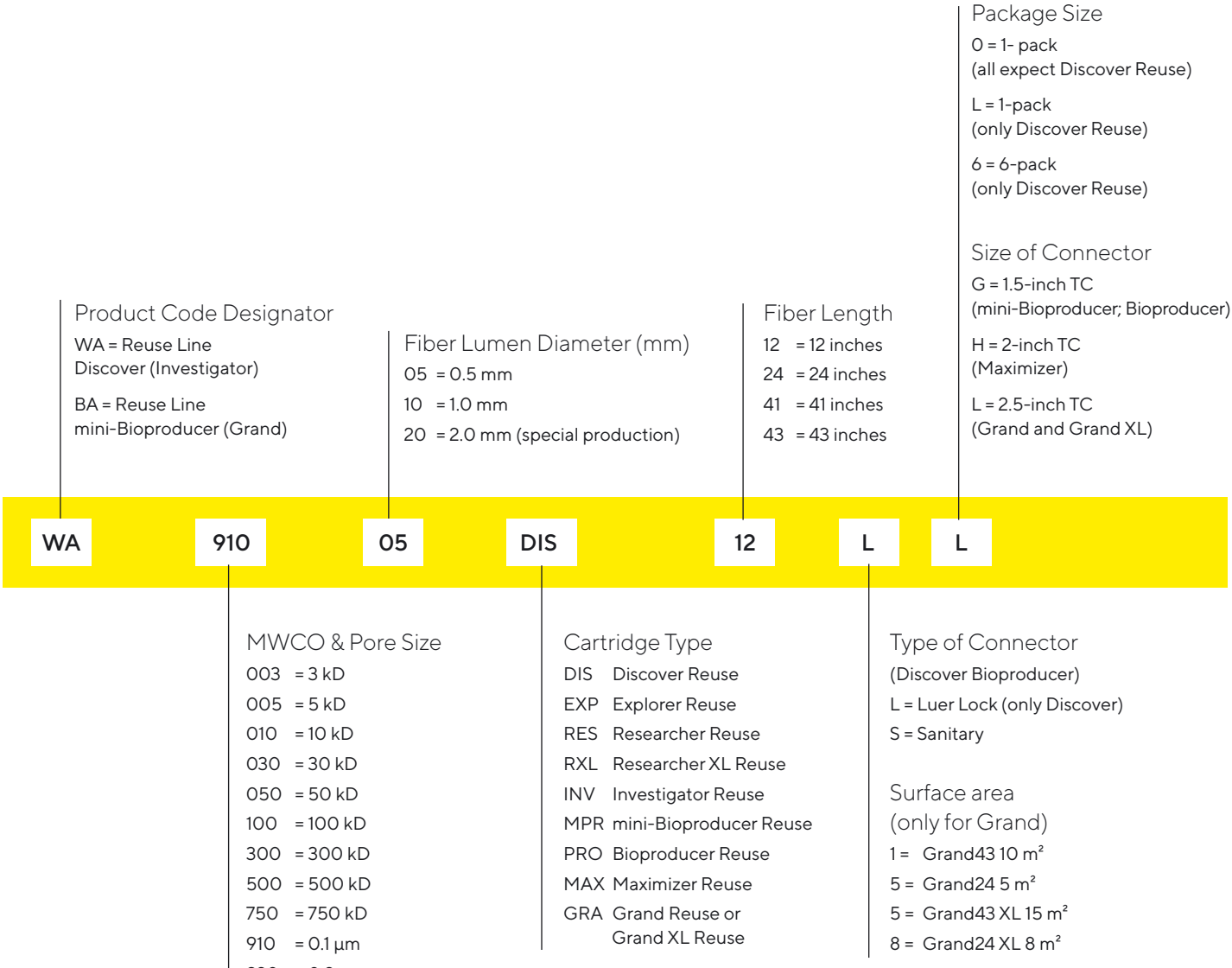
The tables stated below are valid for all sizes and lengths, if not stated otherwise.

	MWCO								
Fiber ID	**3 kD**	**5 kD**	**10 kD**	**30 kD**	**50 kD**	**100 kD**	**300 kD**	**500 kD**	**750 kD**
0.5 mm**	■	■	■	■	■	■	■	■	■
1.0 mm	■	■	■	■	■	■	■	■	■
2.0 mm			■		■		■	■	■

	Pore size			
Fiber ID	**0.1 µm**	**0.2 µm**	**0.45 µm**	**0.65 µm**
0.5 mm**	■	■	■	■
1.0 mm	■	■	■	■
2.0 mm	■	■	■	■

** Not available for Grand XL

Ordering Information

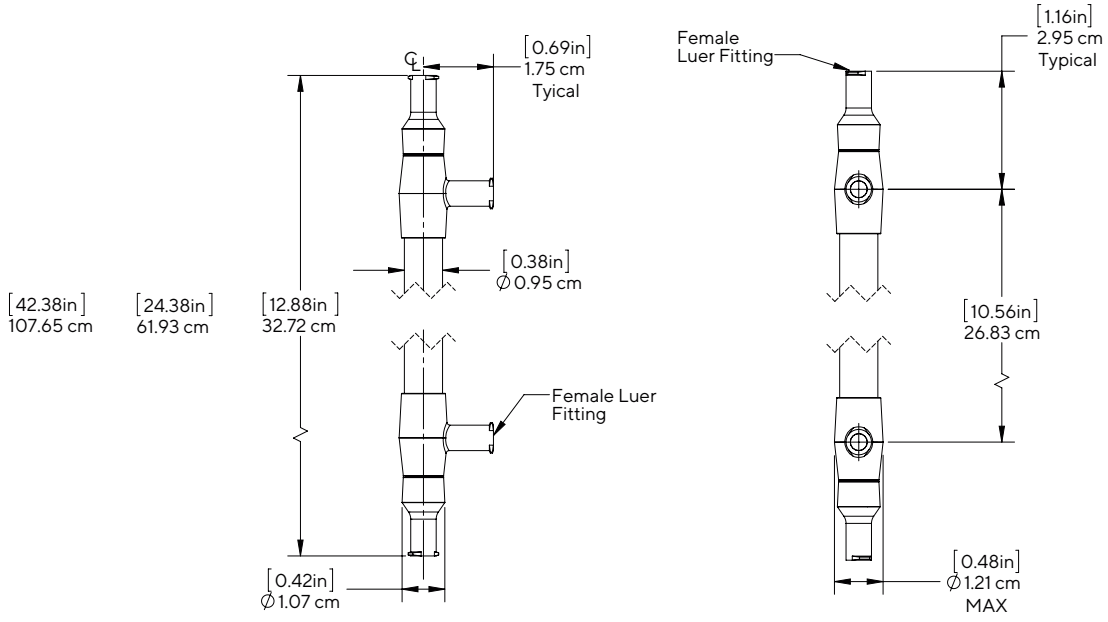


Please consult the specification table on page 3 to learn more about the possible combinations.

Overview

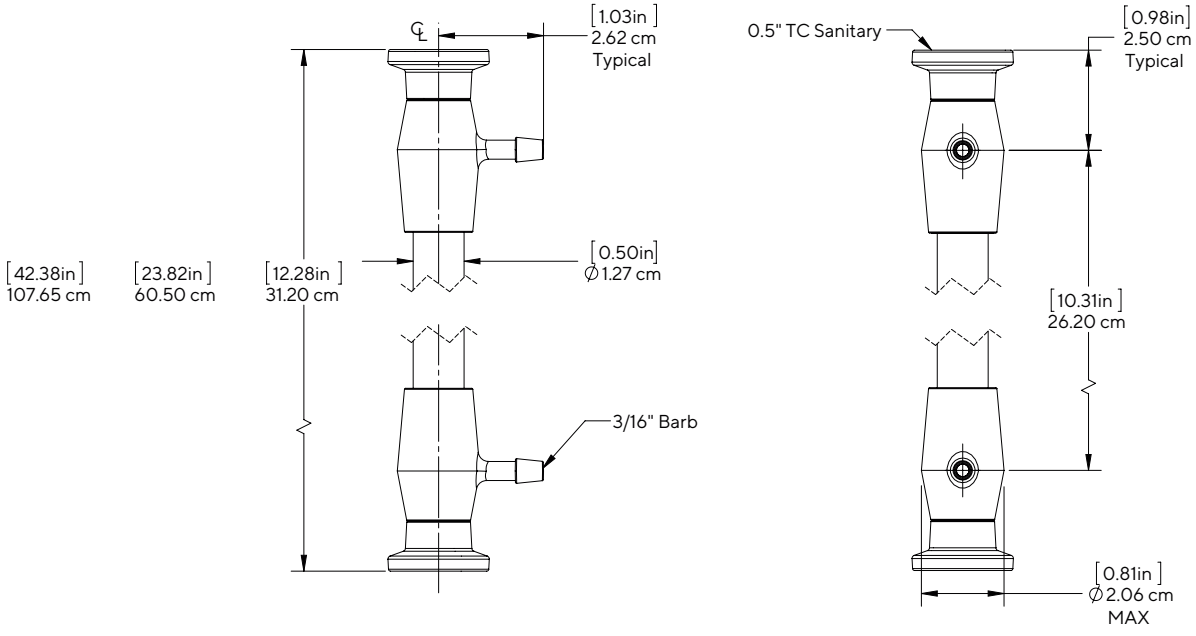
Discover

Exact length for different Fiber length: 12, 24 or 41 inch



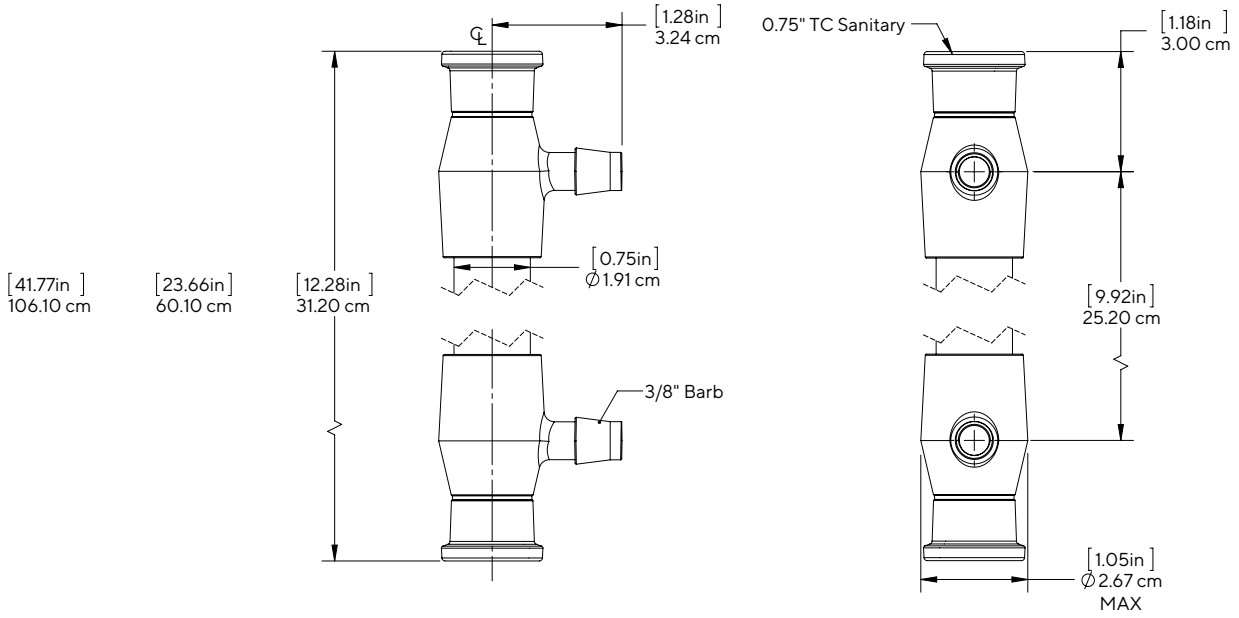
Explorer

Exact length for different Fiber length: 12, 24 or 41 inch



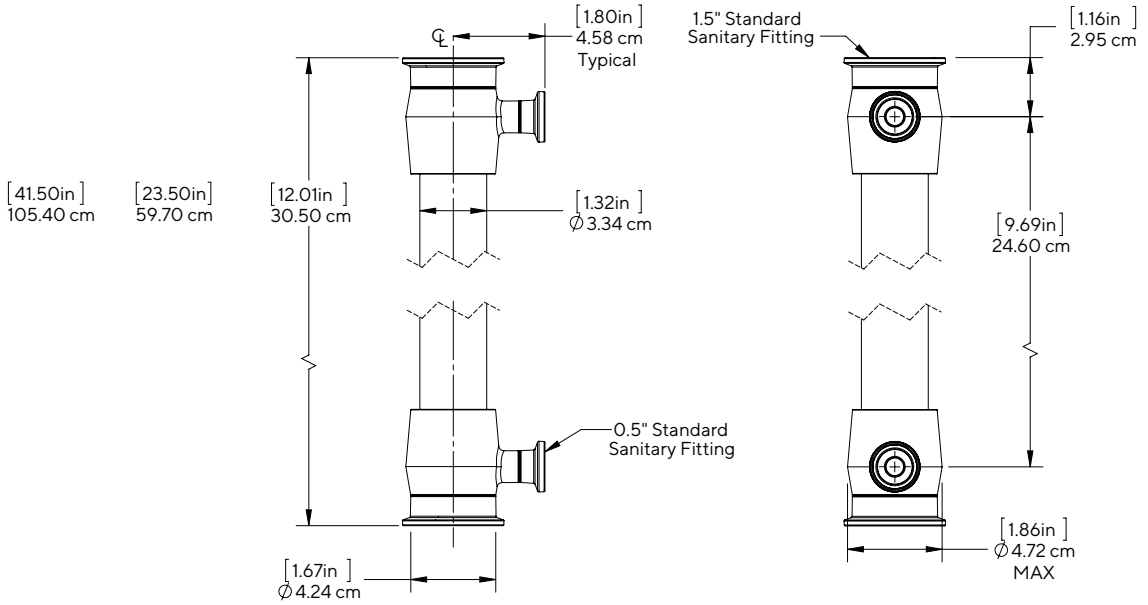
Researcher & Researcher XL

Exact length for different Fiber length: 12, 24 or 41 inch



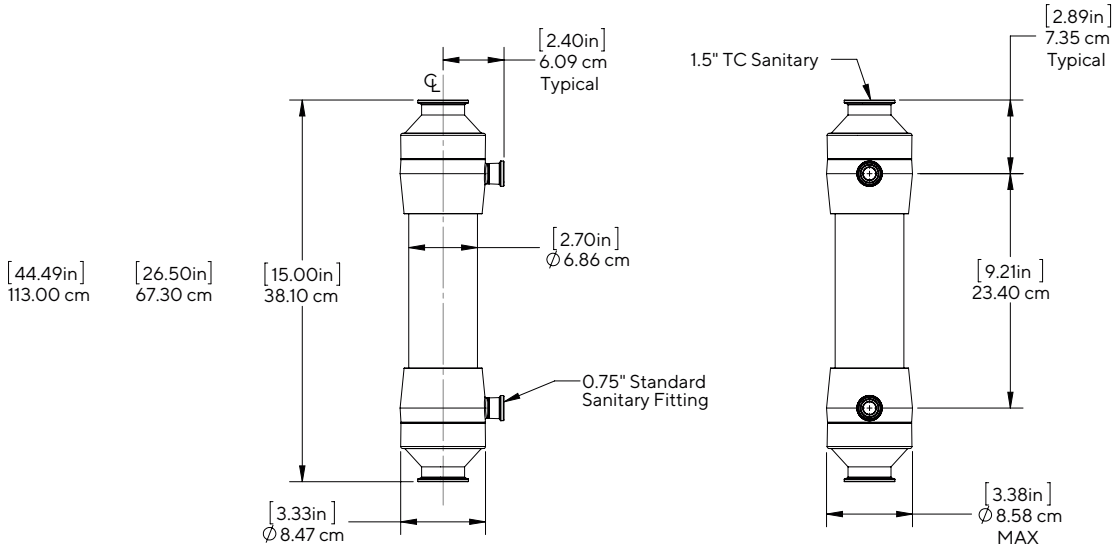
Investigator

Exact length for different Fiber length: 12, 24 or 41 inch



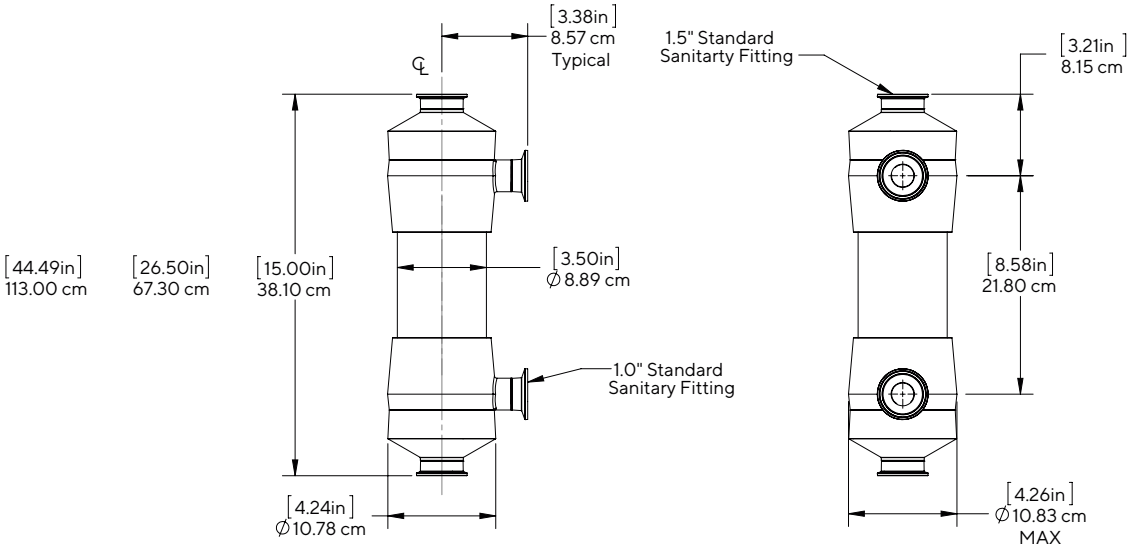
mini-Bioproducer

Exact length for different Fiber length: 12, 24 or 41 inch



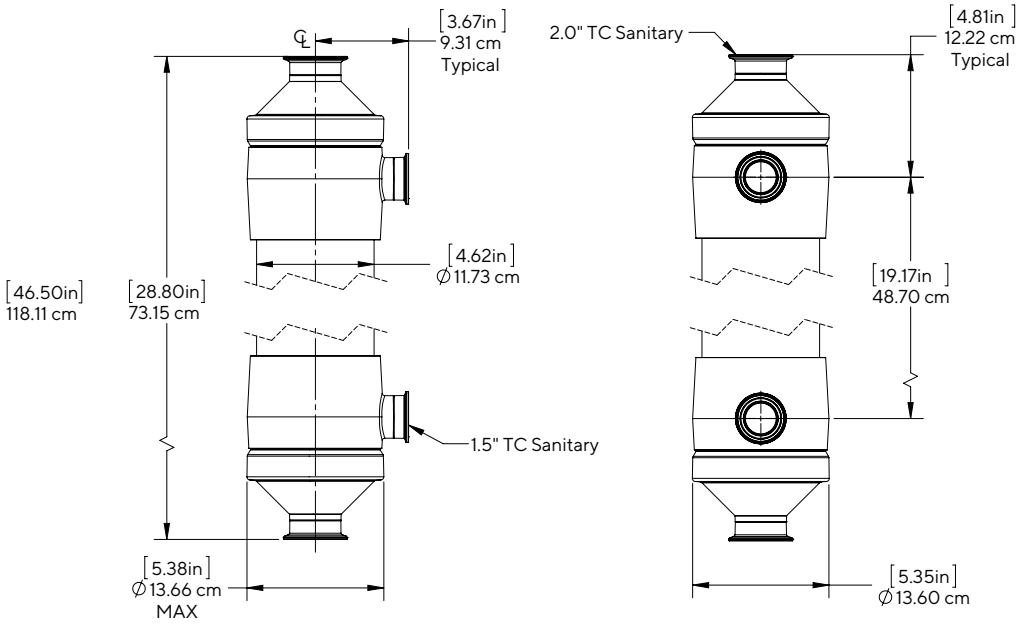
Bioproducer

Exact length for different Fiber length: 12, 24 or 41 inch



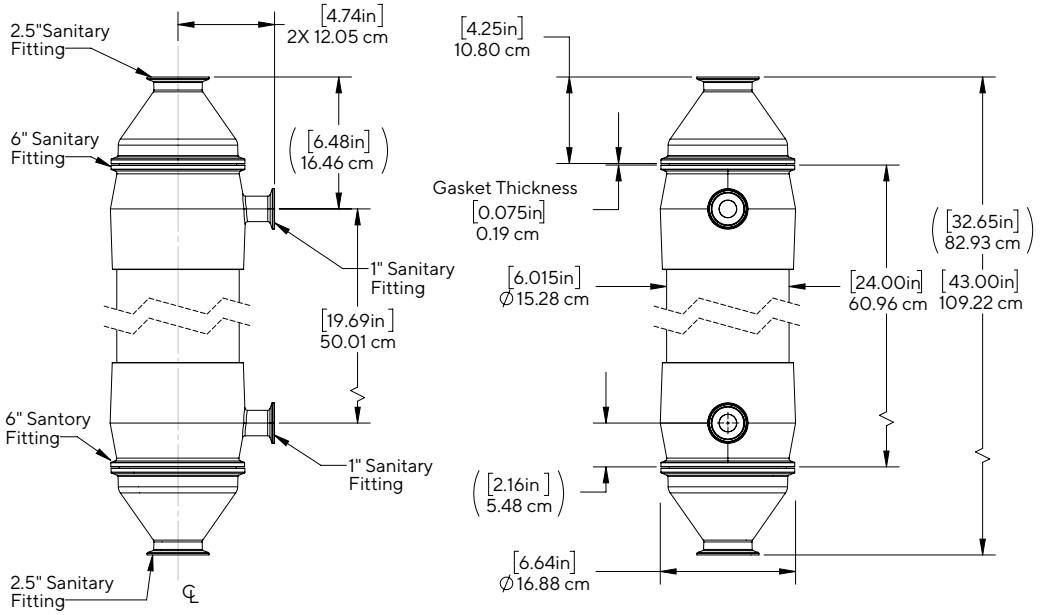
Maximizer

Exact length for different Fiber length: 24 or 41 inch



Grand XL

Exact length for different Fiber length: 24 or 43 inch



Germany
Sartorius Stedim Biotech GmbH
August-Spindler-Strasse 11
37079 Goettingen
Phone +49 551 308 0

USA
Sartorius Stedim North America Inc.
565 Johnson Avenue
Bohemia, NY 11716
Toll-Free +1 800 368 7178

For further contacts, visit
www.sartorius.com

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