

COMPACT TCB

Pleated Membrane Filter Capsules



Compact TCB microfiltration membrane capsules are fully disposable filter units for small scale air and gas processing applications. They are ready-to-use, avoiding the need to purchase or maintain filter housings and are easy to change-out with minimum downtime. The filtration unit is permanently enclosed inside the capsule shell to minimise post-use cleaning and operator exposure to process fluids.

Compact TCB capsules are only available with PTFE membranes providing excellent flowrates and chemical compatibility. They are offered with a range of inlet/outlet connections to suit most process systems.

Product Features

- Thermally bonded and adhesive free construction
- Capsules can be autoclaved multiple times
- Materials meet US FDA CFR Title 21 requirements
- All materials are listed in European Commission Regulation EU/10/2011, Annex 1
- Available in a range of grades and pore sizes
- Manufactured in clean room facilities under ISO quality system



Features and Benefits

- Fully disposable unit avoids the need to purchase a filter housing
- Ready to use for easy filter change-out and minimum downtime
- Enclosed filter unit minimises operator exposure and post-use cleaning
- Wide range of inlet and outlet connections available so suitable for most process systems
- All capsules fitted with 1/4" female luer locks and caps to allow efficient venting
- All polymer construction
- Capsules can be autoclaved multiple times to extend lifetime and reduce consumable spend
- PTFE membranes providing excellent flowrates and chemical compatibility

Industries and Applications

- Development and pilot plant applications
- Equipment requiring filtration of air and gas
- Venting and process air filtration
- Manufacturers of small or medium size batches of products where batch to batch cleaning is an issue
- Multi-purpose plants where flexibility is needed



Compact TCB Technical Data

Dimensions

Outside Diameter: 66mm
Typical Surface Area: 0.05m²

Sterilisation and Sanitisation

Steam: 121°C for 25 Cycles of 30 mins each
Chemical Sanitisation: Using standard concentrations of hydrogen peroxide, peracetic acid, sodium hypochlorite & other selected chemicals.

Maximum Operating Conditions

Maximum Temperature: 43°C @ 2.0 bar
Maximum Pressure: 5.5 Bar @ 20°C (Liquid)
4.1 Bar @ 20°C (Gas)
Max Differential Pressure: 3.4 Bar @ 20°C (Forward Flow)
2.7 Bar @ 20°C (Reverse Flow)

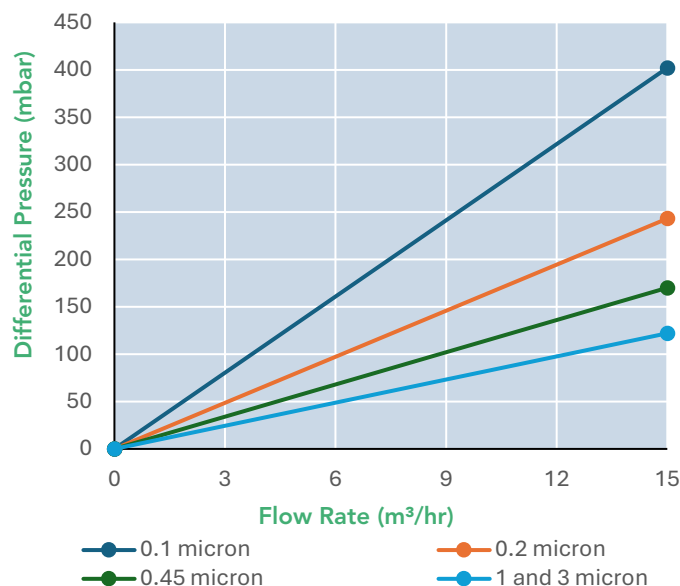
Recommended change-out differential pressure: 2.5 Bar

Materials of Construction

Membrane: Polytetrafluoroethylene (PTFE)
Membrane Support: Polypropylene
Assembly: Polypropylene

All Compact capsules are manufactured under strict control with batch number identification, giving full traceability on all components.

Flow Rates for Air



Tested at ambient temperature using a Compact capsule filter with ½" sanitary inlet & outlet ports. Rates will vary with based on the port configuration.

Integrity Test Specifications

Micron rating (µm)	Minimum Bubble Point	
	bar	psi
0.1	1.52	22
0.2	1.24	18
0.45	0.62	9
1.0	0.41	6
3.0	0.14	2

Ordering Guide

16TC	B	001 -	C2	J	J	A
Media	Grade	Micron Rating (µm)	Length	inlet	outlet	Branding
16TC – PTFE	B - Biological	001 - 0.1 002 - 0.2 004 - 0.45 010 - 1.0 030 - 3.0	C2 - 2" Compact 6mm hose barb (73mm) C2 - 2" Compact 12mm hose barb (89mm) C2 - 2" ½" Sanitary (99mm) C2 - 2" Luer Lok (64mm)	H - 3mm Hosebarb Straight I - 6mm Hosebarb Straight J - 12mm Hosebarb Straight K - ½" Sanitary Flange BS4825 L - Luer-Lok	H - 3mm Hosebarb Straight I - 6mm Hosebarb Straight J - 12mm Hosebarb Straight K - ½" Sanitary Flange BS4825 L - Luer-Lok	A - Amazon

Example: 16TCB001C2JJA = PTFE Media, general grade, 001 micron rating, compact 12mm hosebarb inlet & outlet.

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