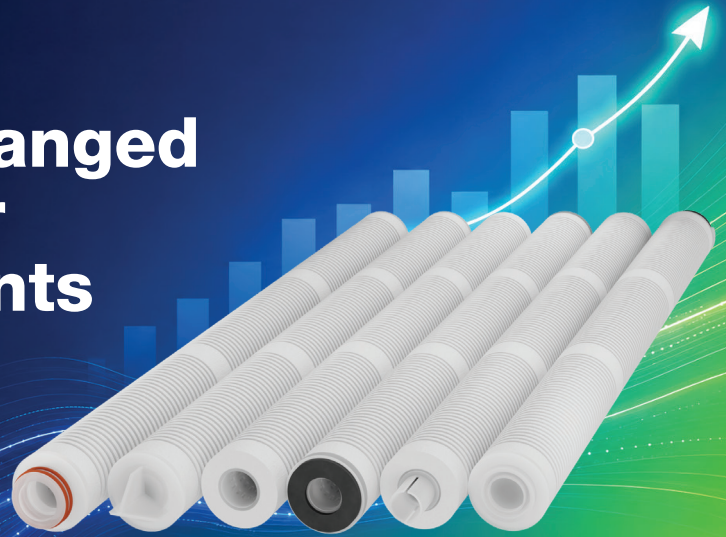


GLOBAL FILTER GRTB-SERIES

When Filters Are Changed Dozens of Times per Day, Changeout Events Become the Cost.

A lower cost cartridge is not always the lower-cost cartridge when it has to be changed repeatedly.



In high-changeout applications, the true cost of filtration is not only the cartridge price. It is the repeated changeout event: technician time, system interruption, used-filter handling, disposal, documentation, restart, and the risk of disrupting production.



GRTB does not need to be cheaper per cartridge. It needs to reduce changeout frequency enough to lower cost per usable service hour.

**75/Day**

Example baseline
changeout frequency
used in the ROI model

**13,688**

Potential fewer
changeout events/year
at 2.0x life

**2.0x-2.5x**

Target range for a
strong service-life
savings case



Unit Price vs. Event Cost

Every changeout can add costs that do not show up on the cartridge invoice.

- ✓ Technician time and maintenance attention
- ✓ Housing open/close cycles and restart checks
- ✓ Used-filter handling, disposal, and documentation
- ✓ Downtime risk or process interruption exposure
- ✓ More interventions and more opportunities for error

COST COMPARISON SNAPSHOT

The required service-life improvement changes depending on what costs are included.

The ROI analysis shows that the break-even threshold drops quickly when labor and interruption are counted

Life factor needed to justify conversion

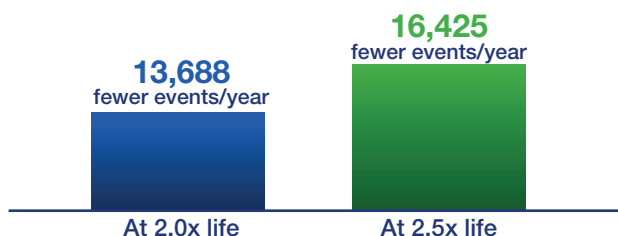
■ Break-even ■ ~20% savings



Cost model	Break-even life factor	Life factor for ~20% savings
Consumables only	2.01x	2.51x
Consumables + 10 minutes burden labor	1.43x	1.79x
Consumables + labor + conservative interruption proxy	1.07x	1.33x

Example: Fewer changeout events at 75 per day

At 75 changeouts per day, extending life by 2.0x can eliminate approximately **13,688** changeout events per year. At 2.5x life, that increases to approximately **16,425** fewer changeout events per year.



Controlled 5µm testing demonstrated extended service life versus GCTB, while maintaining consistent retention and showing lower initial pressure drop in the tested flow range.



Application results can vary by contaminant type, flow rate, process conditions, and changeout criteria. The strongest approach is to define the life-factor threshold required for ROI, then validate it through a structured customer trial.



A longer-lasting filter means the customer does not just buy fewer filters - they perform fewer changeouts.



Build the ROI Around *Your Process*

Global Filter can help review your current changeout frequency, labor assumptions, cartridge usage, and downtime risk to determine whether longer service life could lower your total filtration cost.