



# Fermentation Air Filters

FOR INDUSTRIAL BIOPROCESSING

*Customer  
Conversations  
About Our  
Field Trials*





## Field Trials Overview

Gore is partnering with leading multinational producers of amino acids, enzymes, and food ingredients on field trials of the GORE® Fermentation Air Filter in the U.S., Europe, and Asia.

At one U.S. plant, a global manufacturer is conducting a multi-year, multi-phase trial of these filters in their amino acid lines.

Recently, key personnel at the plant spoke with Gore about the product, the ongoing trial, and the overall experience of partnering with Gore. While trial data and other details are proprietary, our partners were happy to share their opinions.

### GORE: At the beginning...what were your thoughts at the outset?

**PLANT ENGINEER:** “When somebody presents a new technology—one we haven’t seen before—there’s always initial skepticism. Is this reality? Can it really be done? That was the value of working with Gore in all this; we were able to address those issues individually.”

“Like the way you sat with us and discussed sterility requirements...for pharmaceutical-grade, for food-grade, for feed-grade... and the different testing protocols for aerosols, for liquid bacteria. Gore documented how many sterility cycles their filter was valid for. We had difficulty finding that kind of documentation from another manufacturer. So that opened our eyes.”

### GORE: So you’re not seeing any contamination concern with the GORE® Filters?

**PLANT MANAGER:** “They’ve been fine in our application. Again, that’s a test of time...you gain that confidence over a period of years. But I don’t think anybody here has any doubt that they work in our application.”

### GORE: What else, besides sterility, were you looking for?

**FERMENTATION SPECIALIST:** “We were intrigued to test

your pressure-drop claims. Then, when we did the initial trials, we could see the pressure-drop across the housing was literally half with the Gore product, compared to the filters we had been using. Your new filter did everything you guys said it was supposed to. We were able to see that.”

**PROCESS SUPERVISOR:** “The main reason was the pressure-drop. It was related to the physical size of our housings. We had smaller housings, and we were trying to push more air through them. We got instant improvements by putting in the new filters from Gore. It was literally a drop-in—a direct replacement. No adjustments.”

**PLANT MANAGER:** “If you’ve got this much airflow and you’ve only got this much pressure, then...you either have to make something bigger, or find something that has less pressure drop. It depends on the application, whether you are looking for higher oxygen, or lower pressure drop, or increased airflow. Maybe in new construction, this Gore product lets you design a smaller filter housing around a filter that offers a lower pressure drop, since you can get more airflow through a lesser number of filters. Maybe it could save you money.”

### GORE: How are you feeling so far about the performance reliability of the GORE® Filters?

**PLANT MANAGER:** “We steam sterilize our filters. Over time, they would lose some structural integrity. Gore said their filter with the stainless steel liner was validated for 200 SIP cycles. It solved the problem for us!”

**PLANT ENGINEER:** “I think our conclusion was the Gore filtration product was certainly just as robust and sterile, maybe even more so, than the ones we were using before.”

**PLANT MANAGER:** “Your filters in our production line are the ones we’ll base our long-term reliability decisions on. We’ve also made some overall Air Quality System improvements in the past couple years. And filtration is definitely one of those improvements.”



**GORE: What's it been like, partnering with the team from Gore on this trial?**

**FERMENTATION SPECIALIST:** “The beauty is, you guys were willing to work with us, back and forth, and set up a test on our system, and integrity-test throughout the entire process, to make sure things were working as expected.”

**PLANT MANAGER:** “Gore is second to none at providing technical support, and all the information we needed to make a quality decision about changing our filtration. It was well worth making the change to the filters from Gore.”

**PLANT ENGINEER:** “That’s one thing I wanted to say: there was very good transparency. You’re very open and communicative...nothing was being withheld from either side. Even with energy performance, I had my calculations of what I expected, and Gore had theirs, and then we compared both. Versus, in the past I have asked other companies ‘how did you come up with your answer?’ and they won’t tell me.”

**FERMENTATION SPECIALIST:** “Gore came in and took one look at our old filter set-up, and immediately saw something we could do a little differently to extend filter life. If they helped us improve a competitor’s product, we knew we would have all the support we wanted with the Gore product.”

**PLANT MANAGER:** “We know we get good technical support. If you’ve got a good product, that’s great and wonderful – but it really comes down to the service, and the people you work with. We’ve been very, very happy with that.”

“As much as you can say ‘It’s just a filter and you don’t have to worry about it’...it’s a lot easier to know that you’ve got somebody a phone call away that you can count on to help you. Yes, working with Gore has been a good relationship.”



*“Gore is second to none at providing technical support...”*



# Fermentation Air Filters

FOR INDUSTRIAL BIOPROCESSING

## About the Product

The GORE® Fermentation Air Filter helps maintain process integrity, improve throughput, and enable energy savings in air filtration for large-scale food ingredients, amino acids, enzymes, and other industrial fermentation processes. This filter's high-retention GORE™ Membrane effectively protects against sub-micron-sized bacteria and bacteriophages. At the same time, its high-airflow design significantly reduces pressure-drop across the filter.

Unlike other commercial filters, the GORE® Filter gives producers the option to “push” up to twice the volume of air – and cut processing times or boost batch yields without increasing energy costs or adding equipment. Or, producers can maintain current airflow levels with lower compressor set-points or fewer compressors – for significant energy savings.



### Gore PharmBIO Products

Our technologies, capabilities and competencies in fluoropolymer science are focused on satisfying the evolving product, regulatory and quality needs of pharmaceutical and bioprocessing customers, and medical device manufacturers.

GORE® Fermentation Air Filters for Industrial Bioprocessing, like all products in the Gore PharmBIO portfolio, are tested and manufactured under stringent quality systems. These high-performance products provide creative solutions to our customers' design, manufacturing and performance-in-use needs.

[gore.com](http://gore.com)

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