

Avantor® Unveils Next-Generation Sterile Sampling Platform and PUPSIT Assemblies

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Integrated sterile sampling and PUPSIT solutions streamline bioprocessing, enhance flexibility, and reduce risk while accelerating in-process decisions

RADNOR, Pa., Oct. 30, 2025 /PRNewswire/ -- **Avantor, Inc.** (NYSE: AVTR), a leading global provider of mission-critical products and services to customers in the life sciences and advanced technologies industries, today announced the launch of its pre-engineered PUPSIT (pre-use, post-sterilization integrity testing) assemblies and comprehensive sterile sampling suite. Designed to simplify qualification steps, reduce contamination risk, and support faster in-process decisions, the new suite of products gives manufacturers greater flexibility in how they configure, operate, and scale their bioprocesses.

Avantor's sterile sampling suite addresses common bioproduction needs through modular, multi-sample configurations that minimize line breaks and operator intervention. Standardized bills of materials and documentation streamline setup and qualification, while closed-path designs protect sample integrity. By tailoring components and connection formats to each process, customers can standardize across sites and scales, reducing variability and the need for custom engineering.

The suite includes:

- NBSS (Needle-Based Sampling System): Enables closed, aseptic sampling from stainless-steel vessels using a needle interface.
- NFSS (Needle-Free Sampling System): A closed, needle-free alternative that enhances operator safety and ease of use while maintaining sampling accuracy and efficiency. Both NBSS and NFSS support multi-sample formats and flexible collection options including bags, bottles, and conical tubes.

- EVSS (Exact Volume Sampling System): Provides closed, precise small-volume sampling ideal for cell and gene therapy applications where accuracy and material conservation are essential.
- OmniTop: Offers weld-on or aseptic connection to process vessels with flexible chamber options, supporting routine sampling requirements with added versatility.

Avantor's pre-engineered, configurable PUPSIT assemblies integrate supplier-agnostic components that connect seamlessly with common filtration trains. By standardizing integrity testing after sterilization and maintaining closed flow paths, these assemblies simplify implementation, reduce setup variability, and minimize the need for ad hoc rigging — helping manufacturers streamline PUPSIT qualification while maintaining full compliance.

Together, the sterile sampling suite and PUPSIT assemblies create a consistent, closed pathway from vessel to filter to sample, helping biomanufacturers protect product quality, improve operational safety, reduce risk, and accelerate decision-making across single-use and hybrid facilities, from clinical to commercial scale.

"Biopharmaceutical manufacturers need solutions that are configurable, easy to implement, and consistently perform across scales," said Benoit Gourdier, Executive Vice President, Bioscience Production, Avantor. "The new products we highlighted at CPHI meet these core needs—from established biologics to emerging advanced therapies—helping customers strengthen process control and bring therapies to patients with greater reliability and speed."

The newly launched NFSS and EVSS, combined with existing OmniTop and NBSS, makes Avantor's sampling platform one of the most comprehensive solutions for any bioprocessing sampling application. Contact your Avantor representative or visit [Avantorsciences.com](https://www.avantorsciences.com) for more information.

About Avantor

Avantor® is a leading life science tools company and global provider of mission-critical products and services to the life sciences and advanced technology industries. We work side-by-side with customers at every step of the scientific journey to enable breakthroughs in medicine, healthcare, and technology. Our portfolio is used in virtually every stage of the most important research, development and production activities at more than 300,000 customer locations in 180 countries. For more information, visit [avantorsciences.com](https://www.avantorsciences.com) and find us on [LinkedIn](#), [X \(Twitter\)](#) and [Facebook](#).

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