SARTORIUS

Press Release

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Sartorius Bioreactors Integrate Emerson Technology to Speed New Therapies to Market

- DeltaV control system natively integrated into Sartorius Biostat STR bioreactors provides a foundation for semi-autonomous operations and up to 80% less integration time

Global technology and software leader Emerson has collaborated with life science group Sartorius to natively integrate Sartorius's Biostat STR® Generation 3 family of bioreactors with Emerson's DeltaV™ distributed control system (DCS). The Biostat STR Generation 3 for Emerson's DeltaV, a variant of the Biostat STR Generation 3 family, is a pre-engineered solution that delivers intuitive connectivity for accelerating and simplifying the process of bringing therapies that improve patient quality-of-life to market.

A manufacturing plant's DCS provides critical automation of operations for faster, safer production. Life sciences companies often struggle to connect process equipment to their plant's automation system because engineering and configuring equipment is complex and time-consuming. Biostat STR Generation 3 natively integrated with a plant's DeltaV DCS eliminates this complexity for one of the most frequently used components of biopharmaceutical manufacturing. The bioreactors are specifically designed and pre-engineered with DeltaV components from the ground up by Sartorius. The configuration toolkit developed by Emerson and Sartorius has a library of templates that provide standardized configuration.

Using the library, teams can integrate bioreactors into their control system quickly and easily out of the box. Commercial manufacturing sites expect to save up to 80% of their equipment integration time, helping them take advantage of the enhanced features and diagnostics inherent in the DeltaV DCS more quickly and easily. The increased automation reduces the need for manual operation, ultimately increasing quality and speeding up time-to-market.

"One of the biggest barriers to fast delivery of new treatments is the time it takes to connect new equipment to the plant's control system," said Nathan Pettus, president of Emerson's process systems and solutions business. "Working closely with Sartorius to seamlessly incorporate our DeltaV technologies and software into Sartorius bioreactors, we jointly have made one of the most critical components of biopharmaceutical manufacturing ready to connect out of the box for faster speed-to-market."

Biostat STR Generation 3 bioreactors integrated with Emerson's DeltaV DCS are built with technologies, including DeltaV Electronic Marshalling with CHARMs devices, to reduce wiring and configuration work during installation. The bioreactors can integrate seamlessly with Emerson's DeltaV PK Controller as well as S-Series and M-Series controllers. Built-in templates provide standardized configurations for the most

common uses, allowing teams to use standard setups out of the box to bring operations online rapidly and safely and allow them to change those operations quickly to meet shifting market needs.

"The biopharmaceutical industry requires modular and scalable bioprocess equipment to help quickly and easily manufacture the treatments patients around the world are waiting for," said Mario Becker, head of bioreactor technologies at Sartorius. "By integrating Emerson software and technology into our new Biostat STR DeltaV variant, we help our customers rapidly bring their operations online while also maintaining flexibility, scalability, and the current Good Manufacturing Practice strategies that are critical to delivering high-quality treatments."

The easy configuration and integration of the Biostat STR Generation 3 bioreactors integrated with the DeltaV DCS helps life sciences manufacturers build a connected plant, a core strategy of reaching level 3 of the Biophorum Digital Plant Maturity Model. In addition, increased access to advanced automation strategies and diagnostics from the DeltaV DCS help prepare the plant for the more predictive technologies necessary to meet level 4. Each step change in digital maturity brings plants closer to autonomous operations. Plants will also gain the ability to scale more easily, as installation techniques can be quickly and intuitively replicated across multiple process areas or even multiple facilities across the globe.

About Sartorius

The Sartorius Group is a leading international partner of life sciences research and the biopharmaceutical industry. With innovative laboratory instruments and consumables, the Lab Products & Services division focuses on laboratories performing research and quality control at pharmaceutical and biopharmaceutical companies as well as academic research institutes. The Bioprocess Solutions division, with its broad product portfolio focusing on single-use solutions, helps customers manufacture biotech medications and vaccines safely, rapidly, and economically. The company, based in Goettingen, Germany, has a strong global reach with around 60 production and sales sites worldwide. Sartorius delivers significant organic growth and regularly expands its portfolio through the acquisition of complementary technologies. In fiscal 2022, the company generated sales revenue of around 4.2 billion euros. At the end of 2022, around 16,000 employees were working for customers around the globe.

About Emerson

Emerson (NYSE: EMR) is a global technology and software company providing innovative solutions for the world's essential industries. Through its leading automation portfolio, including its majority stake in AspenTech, Emerson helps hybrid, process and discrete manufacturers optimize operations, protect personnel, reduce emissions and achieve their sustainability goals. For more information, visit Emerson.com.

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