

Sephara

The revolutionary in-situ filtration probe based on Securecell's proprietary silicon membrane technology for precise size cut off (0.2 to 32 µm)

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Securecell, the pioneer in bioprocess automation and digitalization, will expand its product portfolio with Sephara, offering great value to perfusion processes at the benchtop scale, among other applications.

Sephara has the potential to fundamentally change the way how bioreactor sampling and sample processing is being conducted, and thereby offering a powerful tool for supporting QbD strategies by moving classical downstream functions close to the process and the product.

Sephara's innovative in-situ filtration probe portfolio includes a selection of membranes with different defined pore sizes from 0.2 to 32 μ m allowing for clear size cut-off. Based on its material property and chemical surface modification, the membrane is characterized by the absence of unwanted effects such as clogging and fouling. Sephara comes along with Securecell's precise gravimetric liquid mass flow control.

The different pore diameters are tailored to various applications. For example, the Sephara probe containing a membrane with a 32 μ m pore size can be used in processes where single cells need to be continuously separated from cells growing

as aggregates or adherently on microcarriers.

Within gene therapy or vaccine research environments, as for instance in the current pursuit of a COVID-19 vaccine, a simple harvest of viral particles would ask for the 2.2 μ m membrane.

The minuscule active surface of a Sephara membrane (1 cm^2) provides a filtration rate of 1 ml per minute generating a filtrate volume of 1.5 l per day in a continuos perfusion set-up. With this in-situ filtration capacity, Sephara has the potential to replace fiber-based benchtop solutions for the development of continuous processes to separate mAbs or exosomes from cells.

Sephara will be available for testing purposes in Q4-2020.

Securecell's existing platforms and its upcoming portfolio, addition of which Sephara is part, addresses the needs for robust and precise process control.

For further details, visit <u>www.securecell.ch</u> where additional information and latest webinars can be downloaded, covering Lucullus[®] PIMS in process digitalization and Numera[®] PAT for automated sampling and sample processing.

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