

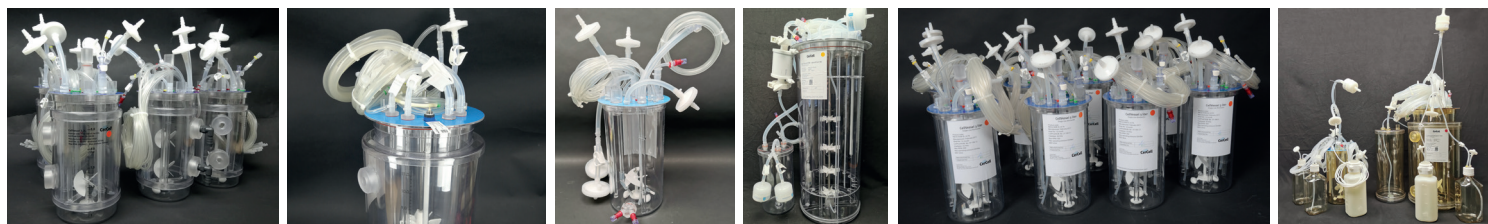
# CerCell<sup>®</sup> batch SUB's or SUM's

## Tight controlled, customizable, scalable – from 50 ml and up

Keywords: Single-Use-Bioreactor, customized, scalable

Author: Kevin Klein, email [kevin.klein@cercell.com](mailto:kevin.klein@cercell.com) – ver 1.6 – 2025

Whichever need you may have: batch Single-Use-Bioreactor (SUB), Single-Use-Fermenter (SUF), Single-Use-Mixer (SUM) in the range of 50 ml to 25 liter Working-Volume (WV). Customized means designed and manufactured to your needs, including Single-Use-Sensor's (SUS), assembly with all hose's, connector's, bottle's, etc. Dual film bagged, high precision E-beam irradiated and ready-to-use.



Above various SUBs and SUFs for thermal control by electrical blankets or liquid jackets. Media connections at bottom or head plate. Any impeller or turbine one can imagine. Any hose and bottle assembly as needed.



Various mini-SUBs with as low as 50 ml Working-Volume in a 150 ml Vessel Volume SUB. Several sizes which adapt to any PCS brand in the market most often with Magnetic-Bottom-Drive on a Magnetic-Stirrer-Table (MST) from CerCell adapting to any servo motor. Off course with pre-installed Single-Use-Sensors (SUS) as needed.



All CerCell's products are scalable ... above shown a 13 and a 3.2 liter LowRider perfusion SUBs with bottom outlet as the perfect connection for centrifugal SUPs. The SUB with Magnetic-Bottom-Drive mounted on Magnetic-Stirrer-Table (MST) protecting the lightweight SUB by isolating the heavy servo motor from the SUB = safety. A 3.2 liter SUB with liquid bottom outlet equipped with the InCyte ARC biomass sensor connected to the pre-installed Hamilton Single-Use-Sensor patch. Kevin illustrates the enormous weight differences of similar Vessel Volume (VV) glass-steel STR and CerCell SUB.



Process-Control-Systems (PCS) are available from a range of suppliers all difficult to customize for alternative operation of SUBs, SUFs, SUMs, P-SUBs. Cronus-PCS is the only open-platform PCS able to operate without proprietary limitations. Find Cronus DIY build-up units for: dynamic agitation (with Power Number), thermal control with full PID access, multi sensor transmitter, multiple digital Mass-Flow-Sensors, advanced pump drives for perfusion and conveying, general fluid control.

Our PCS is fully customizable and any user can design the setup for a simple or advanced process. Simple for one purpose like mRNA mixing or more advanced like one or more batch, fed-batch, fermentation fully handled from A-to-B and supervised by Lucullus or Delta-V software.

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