## CellRetention™ - fully assembled

World's most efficient Perfusion-SUB

Perfusion-SUB for cultivation of 100 mio/CHO/cell/ml by cell retention in perfusion setup.

The P-SUB integrates a Single-Use-Bioreactor (SUB) and a Single-Use-Pump (A-SUE) with the HFF (Hollow-Fiber-Filter) and Single-Use-Sensors. Operating principle is pulsating-Tangential-Flow (PTF) for extended HFF lifetime.

General features of CellMembra™-3200 P-SUB:

- Designed for parallel operation in various applications and setup.
- Minimum Working Volume 400 ml maximum 2.000 ml
- Supplied with Single-Use-Sensors (SUS)
- Exchanged volume and obtained velocity accurately measured no guessing.
- The complete and pre-assembled unit packed in dual film bags and precision irradiated forget the autoclave.







Photos show the 3200 size package. Red Laser sensor mounted in a Re-Usable-Bracket above the dome of the Thalia-30 pump inside the black foot. From <a href="www.perfusecell.com">www.perfusecell.com</a> we see Sarpedon air-reservoir at bottom and on top Clotho Drive Units for A-SUE control. The P-SUB is driven by Magnetic-Stirrer-Table (MST) easy to integrate for thermal control with the Heating-Support-Foot.

The CellRetention™-3200 is from birth a P-SUB by integrating both the SUB, HFF, SUP, SUS in one package. The shown version features pre-installed DO, pH, level SUS and optional horizontally mounted PICO bio-mass Single-Use-Sensor.

The Thalia-100 A-SUE driven by the Clotho Drive Unit offer; a 1-100 ml/stroke capacity, able to convey alternating 2.000 ml/min forth and back, via 0-20 strokes/min and measure conveyed volume and velocity with 1% accuracy.

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