

CellRetention-250-Modular kit SUBmerged™ ATF

World's most efficient Perfusion-SUB

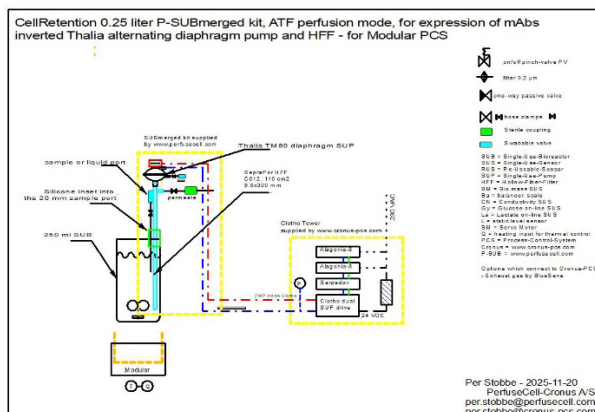
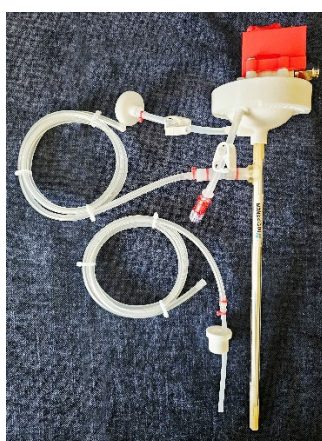
This unique setup SUBmerge the Hollow-Fiber-Filter inside the Single-Use-Bioreactor with the integrated inverted diaphragm Single-Use-Pump on top of the HFF. Extra ordinary benefits are:

Avoid fouling – avoid dead volume – avoid cell death – reduce shear force stress

The kit offer variable, selectable broth velocity ranging 0 – 10 m/s so fouling is regularly flushed out of the HFF and back into the SUB by the Thalia pump. SUBmerged HFF eliminate any need for hoses and connectors thus no dead volume. The inverted pump by nature cannot retain cells. SUBmerged has no fluid path restrictions and shear force stress is thus also eliminated.

General features of CellRetention SUBmerged-250 P-SUB:

- The Thalia diaphragm pump is directly integrated with the Meissner SeptraPor C012 HFF
- SUB Working Volume range from 80 to 150 ml for >100 mio/CHO/cell/ml cell density
- Pumped volume and velocity accurately measured – no guessing.
- The complete and pre-assembled kit packed in dual film bags and precision irradiated.



LASER sensor mounted in the red bracket above the dome of the Thalia TM80 pump. The P-SUBmerged ATF SUB is driven by Modular and supplied with complete hose set for easy installation. Center photo show the kit and the CAD illustrates the practical setup.

The CellRetention-250 is from birth a kit to be SUBmerged into the 250 ml SUB under the hood at end-user site. The batch SUB parts is driven by Modular and Thalia SUP by the Clotho Drive Unit. The diaphragm SUP and operate with 1-50 ml/stroke capacity, 0-18 strokes/min and measure conveyed volume and velocity with 1 % accuracy.

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