

CENTRITECH® LAB III



Features:

- Automated continuous separation
- High cell viability
- Sterile, disposable separation insert
- No rotating seals
- No cleaning or sterilization required
- Easy process scale-up
- Simple and reproducible operation
- Reduced validation procedures
- Separation and removal of dead cells
- PLC with color touch screen control panel
- Password protected user levels
- Remote monitoring/operation via Ethernet Option
- Flow rates ranging from 0.5 to 10.8 liters per hour
- Variable g force up to 253 x g
- Fits on a lab bench
- Noise level <62 dBA
- Five modes of operation - manual, pump, intermittent pump, valve and feed

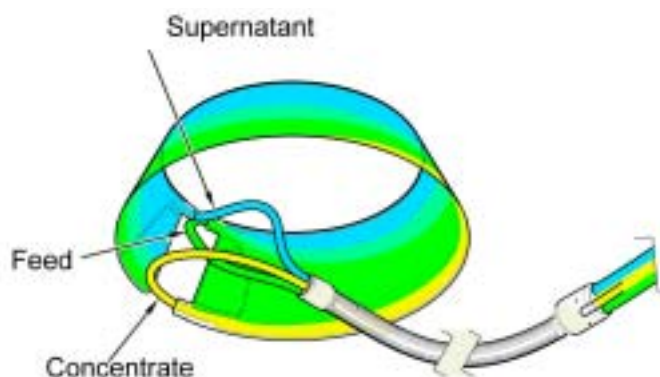
Barry-Wehmiller

CENTRITECH® LAB III

Product Overview

Separation is a fundamental operation of cell culture systems. Clarifying media and recycling cells for perfusion bioreactors, harvesting cells, classifying and washing cells are operations that are improved by the use of the unique technology delivered by the PneumaticScaleAngelus CENTRITECH LAB III Separation System.

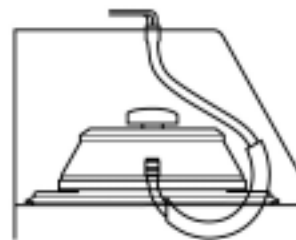
Mammalian and insect cells are especially fragile and susceptible to shear forces. The CENTRITECH System provides a low-shear technology to improve the yield in perfusion, harvesting or other cell processing applications. Unlike filtration systems which inherently clog or foul, CENTRITECH Systems provide reproducible, steady-state operation.



Sterile Separation Insert

Separation takes place in a presterilized insert. Process contact surfaces are constructed from USP Class VI pharmaceutical grade materials. Once the insert is installed and tubing connected using aseptic technique or sterile welding, the system is closed, offering a high degree of aseptic reliability without the need for CIP or SIP.

In the Lab III System, the cell suspension is fed into an inlet at the top of one end of the insert and the cells are centrifugally separated from the media. Clarified supernatant exits from an outlet at the top of the other end and cell concentrate is discharged from an outlet at the bottom of the insert.



The inverted question mark configuration of the disposable separation insert's tubing permits one end of the tube to be rotated while the other end is fixed, eliminating the need for rotating seals.

CENTRITECH LAB III Systems offer flexibility for your application. Control over both pumps (time and flow rate for feed and discharge) as well as centrifugal forces assure that you are able to optimize and automate the operation for your specific cell line and application.

Some examples are:

- Mammalian cell lines
 - CHO
 - HEK 293
 - Hybridoma
 - Microcarrier-based systems
 - Jurkatt
 - Myeloma
 - HeLa
 - Hepatocytes
- Primary cells
 - Islets
 - Stem Cells
- Insect cells
 - Sf9, Sf21, High-Five

Processes developed at the research or pilot scale on the LAB III system are convertible to the Centritech CELL System, the larger floor model, making scale-up from pilot to full production very easy.

Electrical Requirements

200-240V, 50/60Hz, single phase 10A (current draw 5A split equally between centrifuge and flow module.)

Plug: NEMA 6P, 3-prong
 Receptacle: NEMA 6-15R
CE Rated

	Depth	Width	Height	Weight
Control Module	325 mm 12.8 in	245 mm 9.6 in	315 mm 12.4 in	14 kg 30.9 lbs
Flow Module	436 mm 17.2 in	180 mm 7.1 in	415 mm 16.1 in	15 kg 33.1 lbs
Centrifuge Module	630 mm 34.8 in	360 mm 14.2 in	410 mm 16.1 in	15 kg 94.8 lbs

For more information, please contact your CARR Representative at the Clearwater location below.

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