

CELL EXPANSION SYSTEM

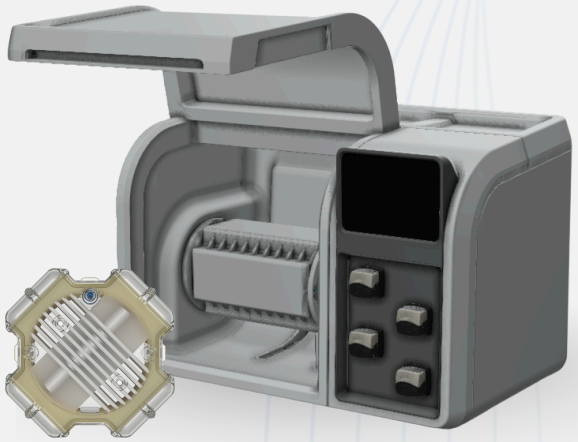
ATB 2100

ATB CELL EXPANSION SYSTEM

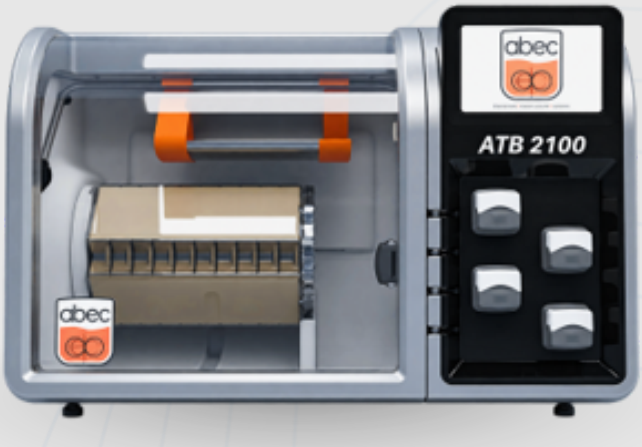
SEAMLESS SCALABILITY FOR CELL THERAPIES

Advanced Therapy Bioreactor (ATB)

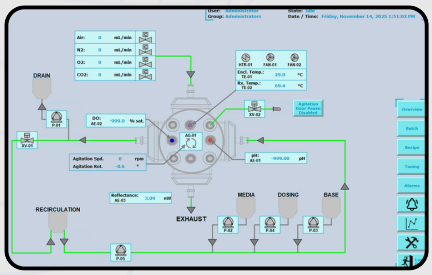
- Functionally closed and fully automated
- cGMP and Part 11 CFR compliant
- Online Monitoring
- Run Reports



The ATB Controller

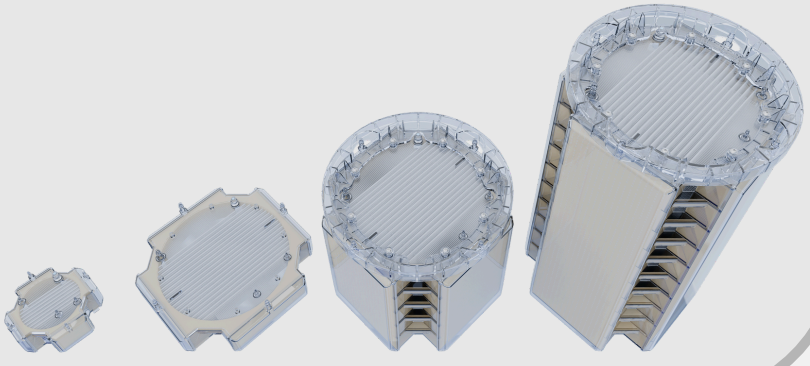


Software Interface

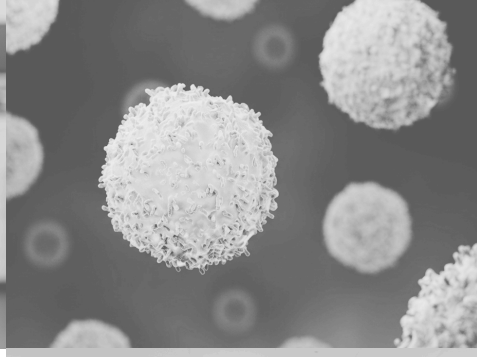


Bioreactor Range Designed for Scalability

The bioreactor range showing 0.2L, 1L, 5L, and 10L options. The ratios between hollow fiber surface area and bioreactor volume remain constant across scales, ensuring consistent conditions for cells.







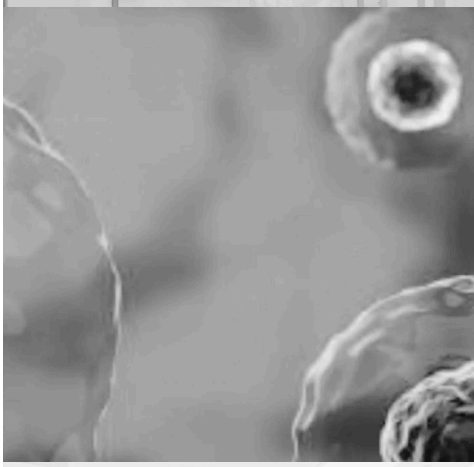
Unique Features

- Seamless Scalability on one platform.
- Streamline operations and improve process reliability with integrated monitoring and automated control of critical parameters, including pH, DO, and temperature.
- Controllable low-shear mixing supports sensitive cell cultures by minimizing stress while delivering the uniform conditions needed for consistent, high-performing processes.
- Unique oxygenation and nutrient delivery support healthier cultures, enabling higher performance and more consistent process outcomes.

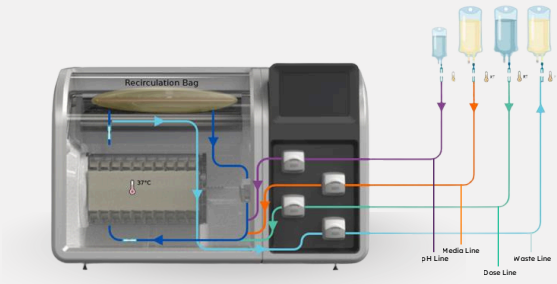


Applications

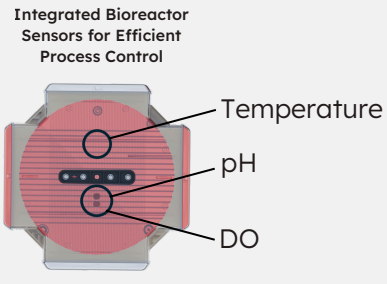
- Applicable for autologous and allogeneic cell therapies
- Capable of high density cultures with high viability
- Expansion of a wide array of suspension cell types have been tested such as T-Cells, iPSCs, NK cells, HEK293 and MSCs (via microcarriers).



ATB Controller

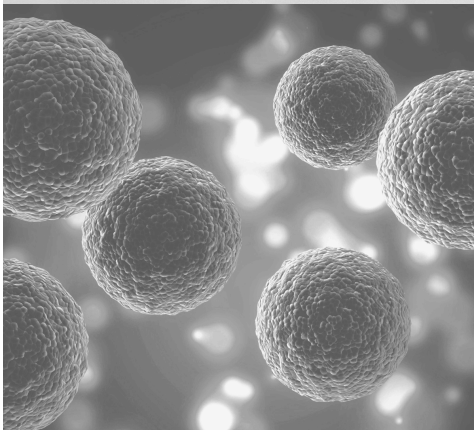


Bioreactor Sensors



(Left) Diagram detailing fluid pathways and feed options. Recirculation bag is utilized for perfusion feed, batch feed is also an option. Dose line is used for application of smaller volumes and the pH line controls to your set-point. **(Right)** Sensors on the base of each bioreactor relay information to the controller for automated environment control.

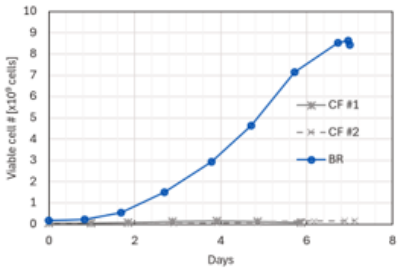




CGT Applications, Scalable, Controlled Environment

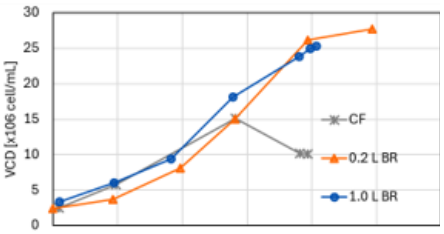
T-Cell Expansion

Robust T-Cell Expansion with high visibility and desired phenotypes



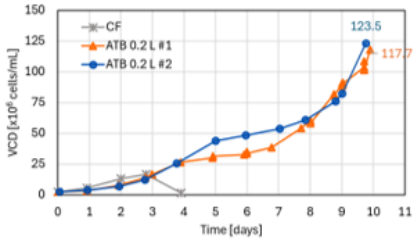
Scalability Between Bioreactor Options

CHO cells Manufactured on different sized bioreactors exhibit similar expansion kinetics



Process Control by Integrated Sensor Array

PID process control enabled high density cell expansion with CHO Cells



Since 1974, ABEC has been a leader in delivering engineered process solutions and services for manufacturing in the biotech industry. The majority of the world's pharmaceutical and biotech companies are ABEC customers; with many of today's leading therapies manufactured by processes and equipment engineered, manufactured, installed and serviced by ABEC. ABEC's unique value is based on long experience, complete in-house capabilities, a custom, flexible approach, and long-term credibility. Whether adding capacity or improving existing facilities, ABEC's turn-key solutions and support reduce overall cost and time to market while delivering maximum productivity.

To learn more about ABEC, visit abec.com or email info@abec.com.

Corporate Headquarters
3998 Schelden Circle
Bethlehem, PA 18017

P 1 610 861 4666
F 1 610 861 2636