ESCO VACCIXCELL
ADHERENT BIOPROCESSING SPECIALIST

Cradle™ PRO-ISO

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Introduction

Specially designed for Cradle™ Pro- Iso , the Esco Shaking CO_2 incubator integrates CelCradle™ technologies. Sleek and reliable Esco CO_2 incubator offers the best temperature and CO_2 concentration control providing superior protection for your cell culture. Shaking function with tide-motion bioreactor helps semi-automated seeding process with up to 98% seeding rate. Optional centrifuge enables to finalize entire cell processing steps inside closed isolator system.

Cradle™ Pro-Iso includes single-use, ready-to-use bioreactor called CelCradle™ capable of high density cell culture. CelCradle™ bioreactor is designed based on the concept of bellow-induced intermittent flow of media and air through matrices, where cells resides. Because of its high efficiency in nutrient and oxygen transfer with low shear force, high aeration and foam-free culture environment, one Celcradle bottle (100 ml matrix volume) is capable of producing cell mass comparable to up to 20 roller bottle-850cm^2.

Applications

- Protein Production
- Virus Production
- Vaccine Research
- Monoclonal Antibody Production
- Cell Bank
- Autologous Celll Therapy: Personal bioreactor
- Allogenic Cell Therapy
- Phase III Vaccine Production Small Scale

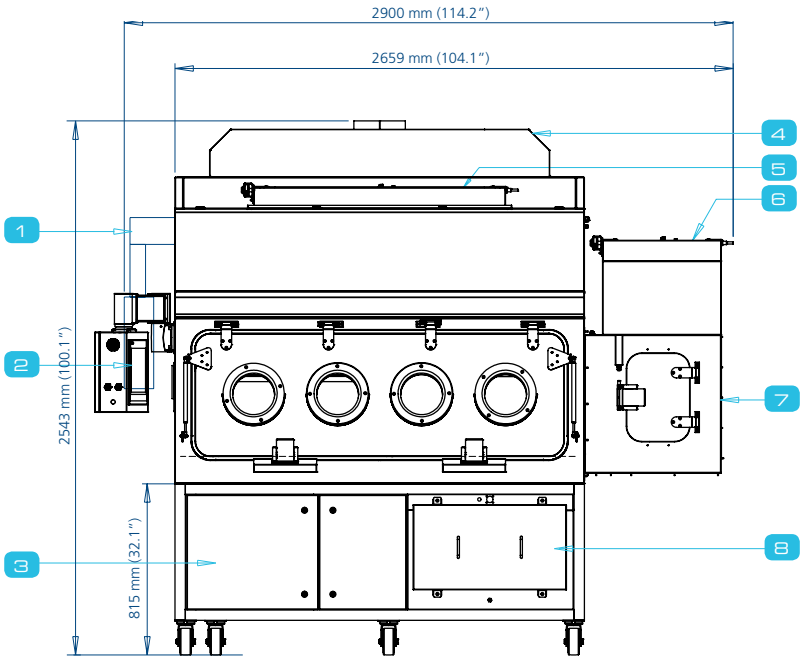
Features

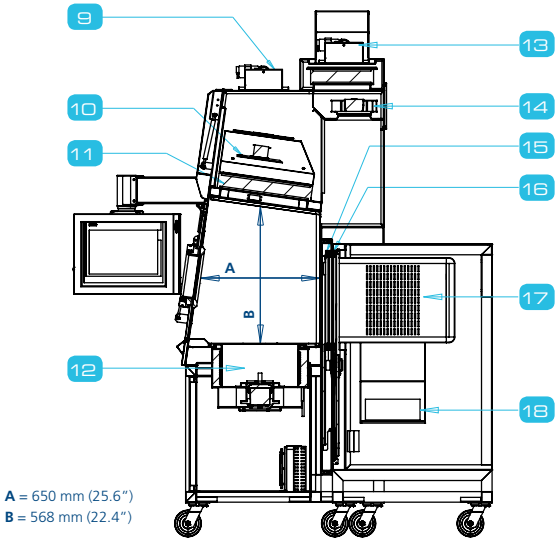
Cradle™ Pro: Shaking CO_2 incubator + Celcradle™ Bioreactor

- Specially designed incubator for usage in isolator, using Esco Technology, enables evenly heated incubation environment.
- Able to do pressure test ensures true isolated equipment and environment.
- SteriSafe ULPA filtered system, filtered gas injection lines.
- 0.22 um hydrophobic PTFE-PP filter in the Celcradle™ bottle cap.
- Individual bellow pump and shaking function allow independent use of single Celcradle™ bottle.
- Special treated matrices, BioNOC™ II, enable most anchorage-dependent cells to be cultured.
- Cells entrapped inbetween BioNOC™ II layers simplify media exchange and allow easy harvest and separation of whole cells, cell components and downstream process.
- Optional Stainless Steel 304 exterior is available.

Isolator Specifications

Note: dimensions and components may subject to change depends on further discussion.



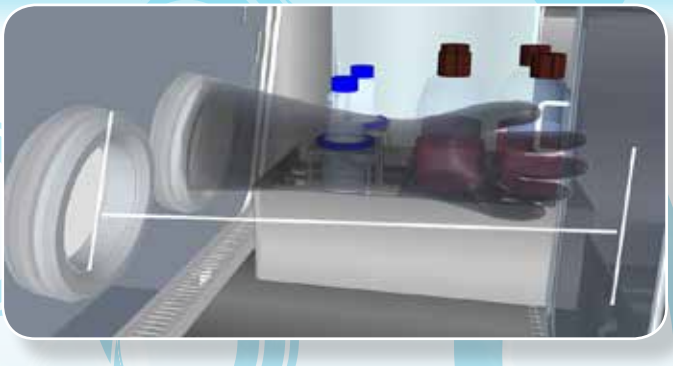


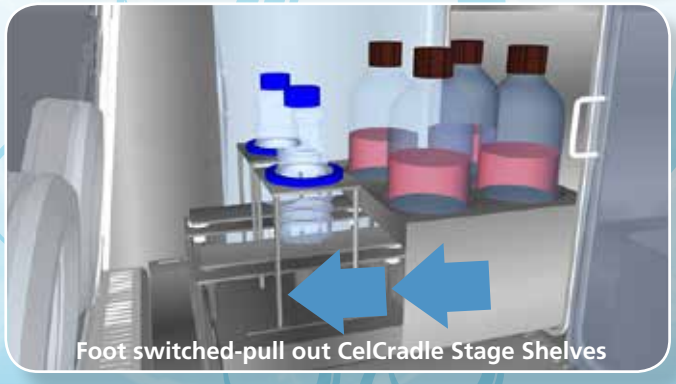
1. *Swing Arm*
2. *HMI*
3. *Compartment for Centrifuge Refrigeration*
4. *Exhaust Plenum*
5. *Intake*
6. *Passbox Intake*
7. *Passbox*
8. *Safe Change Filter*
9. *Intake Damper*
10. *Intake Blower*
11. *Intake Filter*
12. *Centrifuge*
13. *Exhaust Damper*
14. *Exhaust Blower*
15. *Sliding Door - Isolator*
16. *Sliding Door - CO_2 Incubator*
17. *Cradle™ PRO CO_2 Incubator Chamber*
18. *Safechange Filter*

Introduction

- H14 filters with a typical efficiency of 99.999% at 0.1 to 0.3 microns provide superior ISO Class 3 air cleanliness.
- Work zone and pass through chamber are under negative or positive pressure to the room in order to maintain either operator protection or product protection. In case of a breach in the barrier isolation system, there will be either or inward rush in -ve mode or outward air rush in the +ve mode.
- Robust construction and enhanced safety features qualify the Esco Pharmacy Isolator for the most demanding applications.
- Ergonomically angled front and 200mm gloveports improve reach and comfort.
- Esco ISOCIDE™ antimicrobial coating on all painted surfaces minimize contamination. Optional stainless steel 316 L surface possible.
- Cradle™ Pro - Iso is able to be customized depending on client process requirements.

Interior Views





Foot switched-pull out CelCradle Stage Shelves

Optional Devices in Esco Isolator

- Microscope to observe cells
- Centrifuge
- Liquid Transfer System
- Benchtop Filling Machine
- Biovap Biodecontamination Hydrogen Peroxide Integration
- Glove Leak Tester

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