

# CELL & GENE THERAPY ISOLATORS

OUR SOLUTIONS FOR ALL CGMP MANUFACTURING PROCEDURES  
IN ADVANCED CELL THERAPIES



*Segregated environments for  
cell processing and expansion, tissue engineering,  
gene therapy*

# CELL & GENE THERAPY ISOLATORS

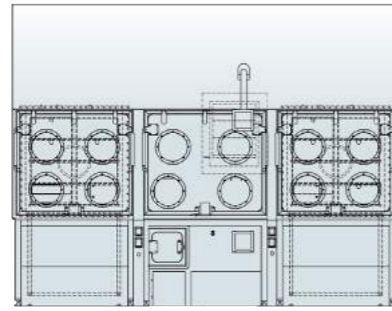


Designed according to the highest pharmaceutical standard, our isolators for cell cultures and related activities represent the best option to move forward into this field assuring the best product quality with reduced costs of implementation in your existing laboratory.

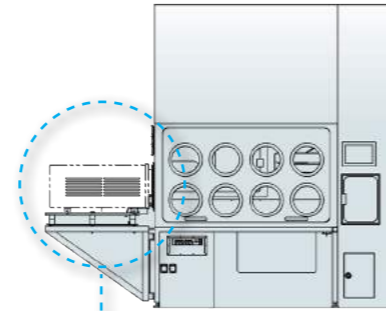
## Different approaches

Based on the stage of development or number of patients different approaches can reflect into different configurations.

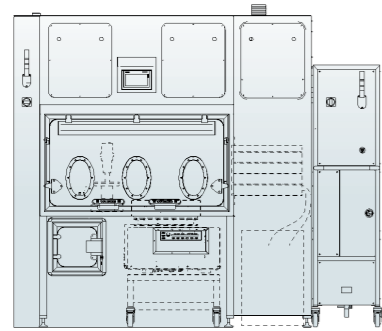
Customized solution can be also developed according to customer and process needs



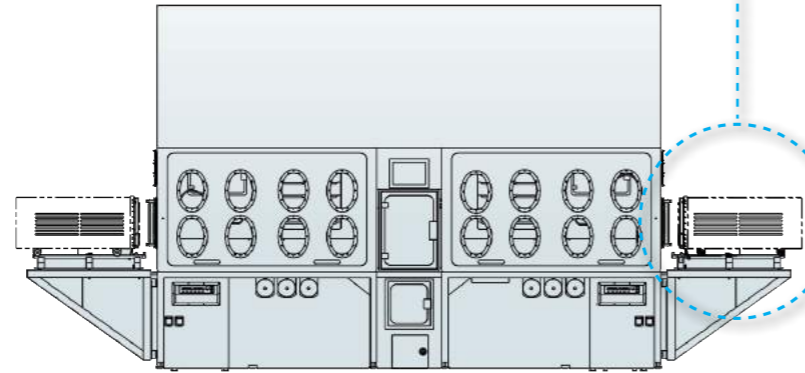
Modular Workstation with Fixed Incubators



Single Chamber with Flexycult Incubators



Compact Workstation with Fixed Incubators



Double Chamber with Flexycult (ready for scale up)

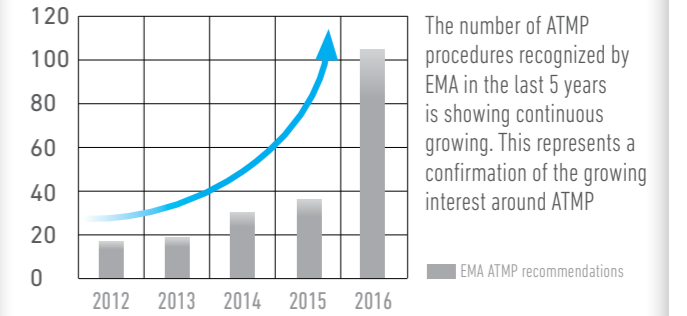
**FLEXYCULT™**  
Modular Incubation System for Advanced Therapy Labs



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## State of the art and challenges

### EMA ATMP recommendations



### Pre-Market

1. Persevering through lengthy developmental timelines
2. Navigating the regulatory environment

### Post-Market

1. Securing reasonable reimbursement
2. Encouraging adoption

### Manufacturing



1. Scaling up production
2. Addressing distribution logistics
3. Managing cost of goods sold at scale

Similar to any new drug, the development of ATMP represents a challenge in several aspects of the process to reach the commercialization. From the manufacturing stand point Isolation Technology offers currently the best solution as far as reliability, low cost of implementation and sterility assurance of the product.

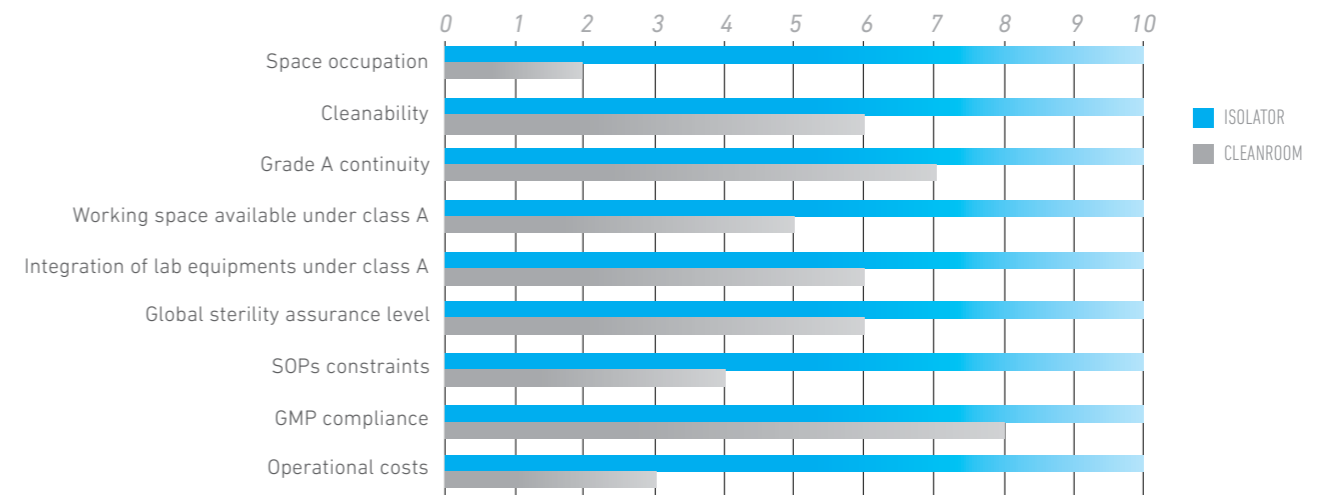
## Laboratory devices integration

In addition to the traditional accessories of isolators (such as Integrated VPHP generator, Environmental Monitoring for Viable and Non-Viable, laminar airflow sensor, ...)



1. A CO<sub>2</sub> Incubator can be integrated into the isolator, and the entire volume is accessible through sealed doors. Interior can be customized according to different culture devices to be stored inside
2. Storage area: a storage volume has been foreseen for media and other process material.
3. A Refrigerator of variable capacity according to the needs is accessible from the interior of the isolator chamber through a single door. The internal volume is then equipped with sliding trays.
4. Centrifuge: refrigerated centrifuge with air tight bucket of anodized aluminum suitable for H<sub>2</sub>O<sub>2</sub> decontamination has been integrated. Centrifuge control panel has been moved outside the clean area
5. A Transfer Hatch with rapid decon cycle is the way in and way out for the process.
6. Integrated microscope.

## Isolator vs cleanroom comparative chart (Performance comparison)



## Technical data

Material	Compact Workstation with Fixed Incubators	Modular Workstation with Fixed Incubators	Modular Workstation with Fixed Incubators	Double Chamber with Flexycult (ready for scale up)
Shell structure	AISI 316 L	AISI 316 L	AISI 316 L	AISI 316 L
Stainless steel finish	external: Scotch-Brite internal: Mirror-Brite	external: Scotch-Brite internal: Mirror-Brite	external: Scotch-Brite internal: Mirror-Brite	external: Scotch-Brite internal: Mirror-Brite
<b>Air classification</b>				
Main chamber	class A (after decontamination)	class A (after decontamination)	class A (after decontamination)	class A (after decontamination)
Pre-chamber	class A (after decontamination)	class A (after decontamination)	class A (after decontamination)	class A (after decontamination)
<b>Working internal pressure</b>				
Main chamber	50-100 Pa	50-100 Pa	50-100 Pa	50-100 Pa
Pre-chamber	25-50 Pa	25-50 Pa	25-50 Pa	25-50 Pa
<b>Filters</b>				
Main chamber	H14 inlet and outlet	H14 inlet and outlet	H14 inlet and outlet	H14 inlet and outlet
Pre-chamber	H14 inlet and outlet	H14 inlet and outlet	H14 inlet and outlet	H14 inlet and outlet
<b>Make up air flow rate</b>	280 m <sup>3</sup> /h	366 m <sup>3</sup> /h	349 m <sup>3</sup> /h	697 m <sup>3</sup> /h
<b>Overall dimensions (w x d x h)</b>	2100 x 930 x 2200 mm	3600 x 1800 x 2800 mm	2250 x 1542 x 3000 mm	4156 x 1542 x 3000 mm
<b>Internal dimensions (w x d x h)</b>	1557 x 595 x 700 mm	3440 x 903 x 600 mm	1720 x 800 x 600 mm	4100 x 941 x 550 mm
<b>Net weight</b>	1200 kg	2500 kg	1500 kg	3000 kg
<b>Utility requirements</b>				
<b>Compressed air</b>	6 bar, 25 nL/min	6 bar, 25 nL/min	6 bar, 25 nL/min	6 bar, 25 nL/min
<b>Power supply</b>				
Isolator	230V (1Ph+N+PE) 50/60Hz 32A TN-S	230V (1Ph+N+PE) 50/60Hz 32A TN-S	230V (1Ph+N+PE) 50/60Hz 32A TN-S	230V (1Ph+N+PE) 50/60Hz 32A TN-S
VPHP generator	230V (1Ph+N+PE) 50/60Hz 25A TN-S	230V (1Ph+N+PE) 50/60Hz 25A TN-S	230V (1Ph+N+PE) 50/60Hz 25A TN-S	230V (1Ph+N+PE) 50/60Hz 25A TN-S
<b>Installed power</b>	5 kW	19.5 kW	12 kW	17 kW



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