

# SPACE & AEROSPACE

Industry Collection



**Monmouth**  
**Scientific**

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PART OF THE  **SDI**GROUP



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# THE MARKET LEADER IN *CLEAN AIR SOLUTIONS*

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## Clean Environments **for a Sustainable Future**

**At Monmouth Scientific we create Clean Environments to help Scientists and Technicians work Safely & Effectively.**

Environmentally Responsible and Sustainable Recirculating Technology is the core of our expertise.

A UK Market Leader in Clean Air Solutions and at the forefront of the industry, we employ cutting-edge technologies and innovative engineering, to ensure that our solutions consume minimal energy while delivering optimal performance.

Our specialised *Space & Aerospace Industry Collection* has been expertly developed with a focus on reliability, accuracy, and technological prowess, to empower scientists, engineers, and researchers in their quest to push the boundaries of space exploration and aviation, contributing significantly to the ongoing progress of these dynamic fields.

Our offering caters to the diverse needs of the Space and Aerospace industry with state-of-the-art clean air technology ensuring pristine conditions for sensitive experiments.

# Aluminium Modular Cleanroom



**RAPID ASSEMBLY**



**ENERGY EFFICIENCY**



**CUSTOM-BUILD SPECIFICATIONS**



**ISO CLEAN ENVIRONMENT**



**HIGH QUALITY HEPA FILTERS**



**MODULAR LAYOUTS**



**Our custom-built, ISO Class Aluminium Modular Cleanrooms create controlled manufacturing environments, providing you with a clean working area, classified for your process and application.**

## **MODULAR, EXPANDABLE & ADAPTABLE**

Constructed from free-standing aluminium framework and assembled on site in just a few hours. Extra smooth aluminium surfaces and 45° angles ensure the prevention of particle buildup.

Each Aluminium Modular Cleanroom is entirely bespoke, allowing us to accommodate sizes from small to large scale constructions.

Clean Air Modules (CAM) use H14 HEPA filters with 99.97 % efficiency at 0.3 microns to create a positive pressure and clean air environment within the room. A variety of levels of cleanliness can be achieved in accordance with ISO Cleanroom Standards.

The construction is lightweight and can be dismantled and relocated if required. With a choice of different size standard elements, a variety of working areas can be constructed. Panel walling is constructed from aluminium composite and window panes from non-break polycarbonate.

The Cleanrooms can be built with or without changing/entrance areas constructed as sliding doors, hinged doors, strip curtains or a combination of the three. Transfer hatches can be built in to allow the safe and easy passing of items into the clean air environment.

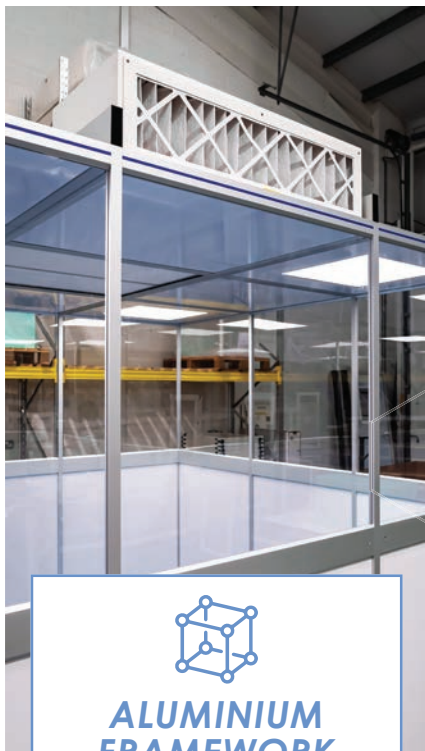
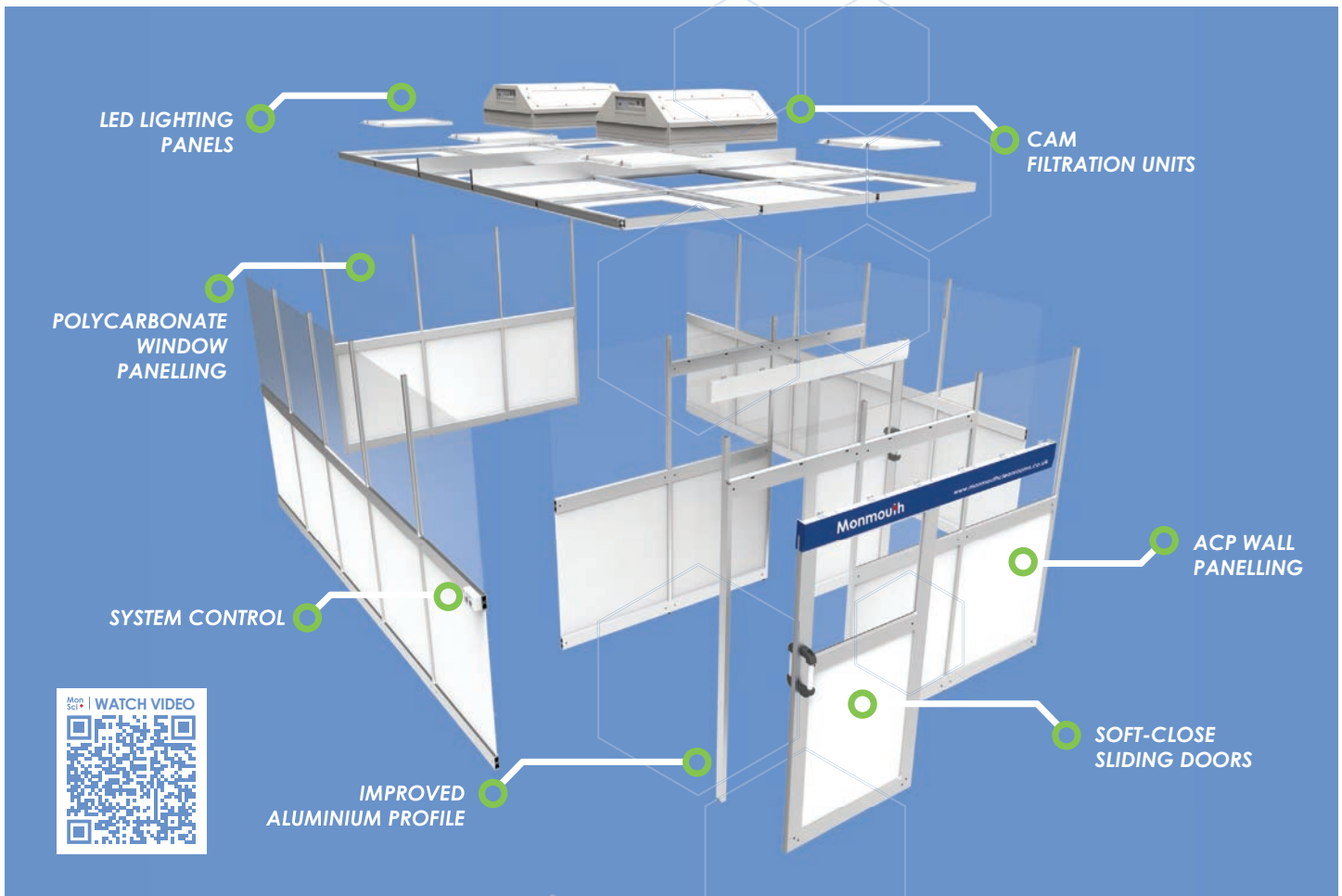
## **Product Specification (W x D x H)**

\*ALSO MANUFACTURED TO CUSTOM SIZE REQUIREMENTS AND AVAILABLE WITH OPTIONAL CHANGING ATRIUMS

Model*	4M MODULE	6M MODULE	9M MODULE	12M MODULE
External Dimensions	2000mm x 2000mm x 2350mm	3000mm x 2000mm x 2350mm	3000mm x 3000mm x 2350mm	4000mm x 3000mm x 2350mm

Primary Filter

H14 HEPA Filter - 99.97% efficient at 0.3µm



**ALUMINIUM FRAMEWORK**

Constructed from smooth profiles and free of horizontal surfaces, significantly reducing particulate build-up.



**FUTURE PROOF CONSTRUCTION**

Lightweight, modular construction can be expanded, reduced, dismantled and relocated easily and quickly at any time.



**THE HIGHEST QUALITY**

Conforms fully to BS EN 14644 certification and offer air cleanliness levels from ISO Classes 6-9.

# Circulaire® Laminar Flow Cabinet



RECIRCULATING TECHNOLOGY



LOW ENERGY EFFICIENCY



ISO 4 CLEAN ENVIRONMENT



HIGH QUALITY ULPA FILTERS



VERTICAL AIRFLOW CABINET



HORIZONTAL AIRFLOW CABINET



Circulaire® Vertical and Horizontal Laminar Flow Cabinets offer clean air to ISO Class 4 using ULPA particulate filters protecting samples and sensitive processes from particle contamination.

## CONTAMINATION FREE ENVIRONMENTS

The workstations create a controlled, ultra-clean airflow that moves in a unidirectional manner, minimising the risk of contaminants entering the working area.

Air is initially drawn through an easy-change, high-quality EU4 pre-filter to remove all gross particulate before being pushed through a U15 ULPA filter, removing 99.9995% of all particles at 0.12 µm in size.

## Product Specification (W x D x H)

Model	VLFT1000	VLFT1200	VLFT1500	VLFT1800	HLFT1000	HLFT1200	HLFT1500	HLFT1800
External Dimensions	1000mm x 650mm x 1255mm	1200mm x 650mm x 1255mm	1500mm x 650mm x 1255mm	1800mm x 650mm x 1255mm	1000mm x 721mm x 1166mm	1200mm x 721mm x 1166mm	1500mm x 721mm x 1166mm	1800mm x 721mm x 1166mm
Internal Dimensions	984mm x 648mm x 730mm	1184mm x 648mm x 730mm	1484mm x 648mm x 730mm	1784mm x 648mm x 730mm	984mm x 540mm x 715mm	1184mm x 540mm x 715mm	1484mm x 540mm x 715mm	1784mm x 540mm x 715mm
Air Cleanliness	>ISO Class 4 (Class10)							
Laminar Flow	Vertical				Horizontal			
Airflow	850m³/hr	1050m³/hr	1325m³/hr	1600m³/hr	950m³/hr	1175m³/hr	1325m³/hr	1600m³/hr
Airflow Speed	0.4m/s							
Primary Filter	U15 ULPA - 99.9995% efficient at 0.12µm							
Power Consumption	65 watts	70 watts	80 watts	90 watts	65 watts	70 watts	80 watts	90 watts
Sound Level	circa. 51db(A)	circa. 52db(A)	circa. 54db(A)	circa. 54db(A)	circa. 50db(A)	circa. 52db(A)	circa. 54db(A)	circa. 54db(A)

# Circulaire® Stainless Steel Laminar Flow Cabinet



RECIRCULATING TECHNOLOGY



ENERGY EFFICIENT



ISO 4 CLEAN ENVIRONMENT



HIGH QUALITY ULPA FILTERS



VERTICAL/HORIZONTAL AIRFLOW OPTIONS



316 STAINLESS STEEL MANUFACTURE



VLFT-SS1000

Designed to meet the exacting demands of modern engineering and research facilities, our Stainless Steel Laminar Flow Cabinets are produced with both horizontal and vertical airflow to offer unparalleled performance, reliability, and protection for your valuable experiments and processes.

## CONTROLLED ENVIRONMENTS FOR OPTIMAL PRECISION

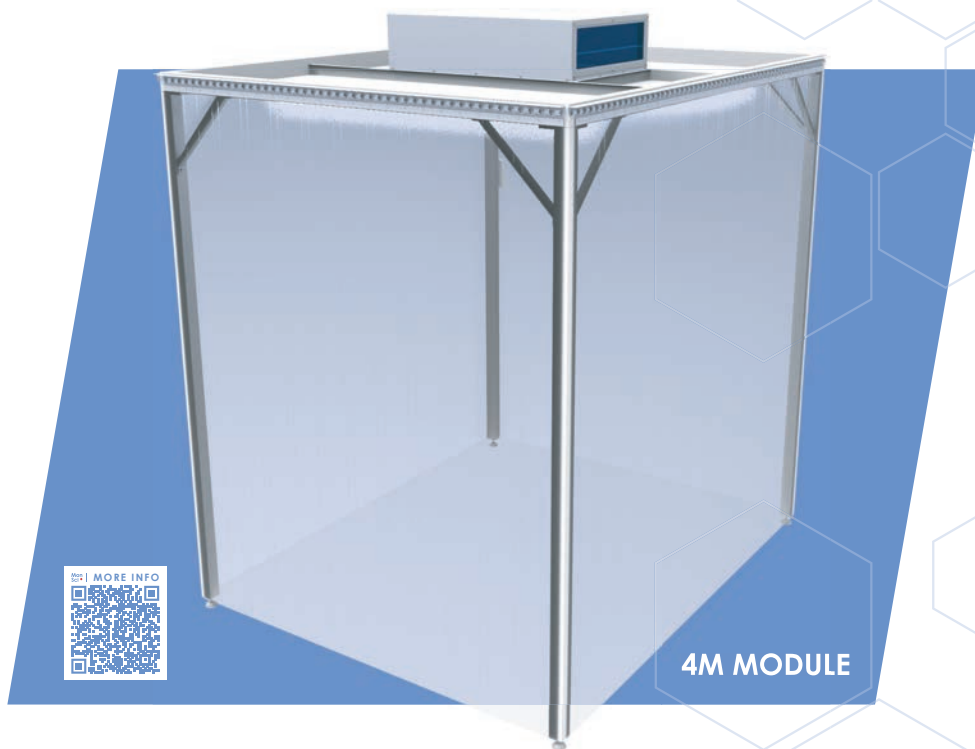
Manufactured from 316 Grade Stainless Steel, our Laminar Flow Cabinets create an ISO Class 4 sterile environment and guaranteed corrosion resistance.

Suitable for a wide range of applications, including component and electrical assembly the workstations are equipped with ultra-low particulate air (ULPA) filters to guarantee a consistent supply of filtered air.

## Product Specification (W x D x H)

Model	VLFT-SS1000	VLFT-SS1200	VLFT-SS1500	VLFT-SS1800	HLFT-SS1000	HLFT-SS1200	HLFT-SS1500	HLFT-SS1800
External Dimensions	1000mm x 650mm x 1255mm	1200mm x 650mm x 1255mm	1500mm x 650mm x 1255mm	1800mm x 650mm x 1255mm	1000mm x 721mm x 1166mm	1200mm x 721mm x 1166mm	1500mm x 721mm x 1166mm	1800mm x 721mm x 1166mm
Internal Dimensions	984mm x 648mm x 730mm	1184mm x 648mm x 730mm	1484mm x 648mm x 730mm	1784mm x 648mm x 730mm	984mm x 540mm x 715mm	1184mm x 540mm x 715mm	1484mm x 540mm x 715mm	1784mm x 540mm x 715mm
Air Cleanliness	>ISO Class 4 (Class10)							
Laminar Flow	Vertical				Horizontal			
Airflow	850m <sup>3</sup> /hr	1050m <sup>3</sup> /hr	1325m <sup>3</sup> /hr	1600m <sup>3</sup> /hr	950m <sup>3</sup> /hr	1175m <sup>3</sup> /hr	1325m <sup>3</sup> /hr	1600m <sup>3</sup> /hr
Airflow Speed	0.4m/s							
Primary Filter	U15 ULPA - 99.9995% efficient at 0.12µm							
Power Consumption	65 watts	70 watts	80 watts	90 watts	65 watts	70 watts	80 watts	90 watts
Sound Level	circa, 51db(A)	circa, 52db(A)	circa, 54db(A)		circa, 50db(A)	circa, 52db(A)	circa, 54db(A)	

# Flexible Wall Clean Canopy



**RAPID ASSEMBLY**



**ENERGY EFFICIENCY**



**CUSTOM-BUILD SPECIFICATIONS**



**ISO CLEAN ENVIRONMENT**



**HIGH QUALITY HEPA FILTERS**



**MOBILE FUNCTIONALITY**



**Our Flexible Wall Clean Air Canopies provide an exceptional level of flexibility and adaptability, offering cleanliness levels between ISO Class 6 and 9.**

## **MOBILE FUNCTIONALITY & ISO CLEANLINESS**

Supplied with ceiling mounted Clean Air Module (CAM) filtration units, calibrated to recirculate air back into the working area, air is drawn through a HEPA filter (99.97% efficient at 0.3 microns) creating a positive pressure and clean air environment.

The frame is available with adjustable feet for permanently locating in a fixed area, or mounted on lockable wheels, making it easily manoeuvrable over equipment when necessary. Furthermore, the frame can be suspended from a ceiling or framework above to give unhindered access to the working area. Each unit also has its own speed controller fitted.

## **Product Specification** (W x D x H)

*\*ALSO MANUFACTURED TO CUSTOM SIZE REQUIREMENTS*

Model*	4M MODULE	6M MODULE	9M MODULE
External Dimensions	2000mm x 2000mm x 2350mm	3000mm x 2000mm x 2350mm	3000mm x 3000mm x 2350mm

Primary Filter

H14 HEPA Filter - 99.97% efficient at 0.3µm



# Clean Tent



**RAPID ASSEMBLY**



**ENERGY EFFICIENCY**



**ISO CLASS ENVIRONMENT**



**MOBILE FUNCTIONALITY**



**HIGH QUALITY ULPA FILTERS**



**FULLY PORTABLE**



CLT675

The Clean Tent offers a unique and flexible solution for creating controlled environments. A portable ISO 5 system that allows a working area to be quickly reconfigured, immediately adding cleanroom capacity wherever it is required.

## INNOVATIVE DESIGN CONCEPT IN CLEANROOM TECHNOLOGY

Intended for users that require temporary cleanroom facilities, the solution is engineered for easy manoeuvrability and high performance.

The ISO Class 5 environment ensures the controlled environment necessary for critical operations. ULPA (Ultra-Low Particulate Air) filters effectively remove particles down to 0.12 microns with an efficiency of 99.9995% minimising the risk of contamination during sensitive operations.

Designed for easy installation and portability. They are lightweight and modular, allowing for quick setup and dismantling as needed. During transport or when in storage the tent fits neatly into a Tent Bag and a ULPA Bag protects the fan filter unit including the ULPA and pre-filters.

## Product Specification (W x D x H)

Model	CLT675	CLT750	CLT1700
External Dimensions	3650mm x 2500mm x 2150mm	4250mm x 2500mm x 2150mm	6100mm x 2500mm x 2150mm
Working Dimensions	3050mm x 2500mm x 2150mm	3650mm x 2500mm x 2150mm	4900mm x 3650mm x 2150mm
Change Area Dimensions	600mm x 2500mm x 2150mm	600mm x 2500mm x 2150mm	1200mm x 3650mm x 2150mm
ISO Class	ISO Class 5 Environment		
Primary Filter	U15 ULPA - 99.9995% efficient at 0.12µm		

# Circulaire® Recirculating Fume Cupboard



RECIRCULATING TECHNOLOGY



ENERGY EFFICIENCY



ULTRA DEEP CARBON FILTERS



AUTOMATIC AIRFLOW COMPENSATION



TOUCH SCREEN INTERFACE



AIRFLOW SAFETY MONITORING



CTPRO1100

The Circulaire® Recirculating Fume Cupboard feature the very latest in air filtration technology, can be installed anywhere within your workspace and thanks to our advanced carbon technology, require no ducting to an external environment.

## MAXIMUM FILTRATION EFFICIENCY

Airflow is guided towards the interior in order to prevent released aerosols from leaving the controlled working area. Our range of Activated Carbon Filters have a high retention capacity to effectively trap solvent vapours at the source.

Recirculating clean air back into your laboratory or working environment ensures that non-ducted solutions are more environmentally friendly than a ducted option, and the impact of exhausting fumes to the outside atmosphere is substantially reduced.

## Product Specification (W x D x H) \*CTPRO - 1345MM HIGH + SLIDING SASH & LARGE TOUCHSCREEN

Model	CT800	CT1100	CT1400	CT1800
External Dimensions*	800mm x 700mm x 1284mm	1100mm x 700mm x 1284mm	1400mm x 700mm x 1284mm	1800mm x 700mm x 1284mm
Internal Dimensions	784mm x 650mm x 840mm	1084mm x 650mm x 840mm	1384mm x 650mm x 840mm	1784mm x 650mm x 840mm
Face Velocity	0.55m/sec - Automatically Maintained			
Airflow	300m <sup>3</sup> /hr	475m <sup>3</sup> /hr	650m <sup>3</sup> /hr	890m <sup>3</sup> /hr
Primary Filter	Large Capacity CARBON or HEPA			
Power Consumption	57 watts	100 watts	110 watts	160 watts
Sound Level	circa. 48db(A)	circa. 54db(A)		circa. 55db(A)

# Monmouth Scientific

CLEAN ENVIRONMENTS  
FOR A SUSTAINABLE FUTURE



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