

# PHARMACEUTICAL MANUFACTURING

Industry Collection



**Monmouth<sup>+</sup>  
Scientific**

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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, we employ cutting-edge technologies and innovative engineering to ensure that our products consume minimal energy while delivering optimal performance.

Our specialised *Pharmaceutical Manufacturing Industry Collection* has been expertly developed to offer a range of products that enable the safe use of powders, chemicals and biohazard materials linked to the research and production of pharmaceuticals.

In an evolving market, we help our clients maintain optimal standards whilst providing the best protection for your personnel and applications.

From powder containment systems and ISO Class cleanrooms to fume cupboard and biological safety solutions, we are a trusted partner to research and manufacturing in the pharmaceutical sector.

# Circulaire® Powder Containment Cabinet



RECIRCULATING TECHNOLOGY



ENERGY EFFICIENT



REAR PLENUM AIR EXTRACTION



CONTROL MEDIUM TO HEAVY POWDERS



HIGH QUALITY HEPA FILTERS



OPTIONAL STAINLESS STEEL CONSTRUCTION



The Circulaire® Powder Containment Cabinet is designed to contain powders whilst supporting the sensitivity of micro and semi-micro balances. Operating personnel and the surrounding environment are effectively protected whilst accurate measurements are achieved.

## PRECISE WEIGHING & PERSONAL PROTECTION

The well-lit, transparent working area and ergonomic design provide a comfortable working environment whilst a protective flow of air into the cabinet is maintained. Additionally, a stable ceramic work surface and low vibration conditions ensures no impact to the use of precision balances.

Recirculating technology and two consecutive HEPA H14 filters retain particles from the working area, ensuring that cabinets do not require linking to traditional ducting. This allows for easy manoeuvrability and repositioning whilst ensuring low energy consumption.

Additionally, the cabinet uses a high efficiency fan and LED lighting together with an ECO mode for even further power savings.

## Product Specification (W x D x H)

Model	PCC90	PCC120	PCC150
External Dimensions	926mm x 803mm x 971mm	1226mm x 803mm x 971mm	1526mm x 803mm x 971mm
Work Dimensions	880mm x 510mm x 600mm	1180mm x 510mm x 600mm	1480mm x 510mm x 600mm
Air Volume	375m <sup>3</sup> /hr	504m <sup>3</sup> /hr	720m <sup>3</sup> /hr
Air Velocity	0.4 m/s		
Primary Filter	2no. U15 HEPA Filter - 99.9995% efficient at 0.3µm		
Secondary Filter	Optional Activated Carbon		
Power Consumption	150 watts (Max.)	200 watts (Max.)	250 watts (Max.)
Sound Level	Circa. 50dB		

# Circulaire<sup>®</sup> Powder Containment Booth



**RECIRCULATING TECHNOLOGY**



**ENERGY EFFICIENT**



**REAR PLENUM AIR EXTRACTION**



**CONTROL MEDIUM TO HEAVY POWDERS**



**HIGH QUALITY HEPA FILTERS**



**OPTIONAL STAINLESS STEEL CONSTRUCTION**



PCB1800

The Circulaire<sup>®</sup> Powder Containment Booth offers first class operator protection from both powders and particulates.

## FIRST CLASS OPERATOR PROTECTION

The booth is designed specifically for control of powders whilst dispensing from drums to a balance or smaller container.

The unit's open front design allows for very easy access to the working area for the transfer and maneuvering of a range of differing size drums whilst the high velocity rear extraction offers excellent containment, filtering air up to 1350m<sup>3</sup>/hr at an air velocity of up to 0.9m/s.

The 1800mm wide booth is 2600mm high and utilises H14 HEPA Filters, 99.997% efficient @ 0.3µm, to meet COSHH compliance. The system is designed for a 950mm high work surface (not included), for balance placement on one side, the opposite side will be left open.

## Product Specification (W x D x H)

Model	PCB1800
External Dimensions	1800mm x 750mm x 2600mm (Fixed) or 2735mm (Mobile)
Internal Dimensions	1700mm x 600mm x 1800mm
Air Velocity	Adjustable to 0.9m/sec
Air Volume	Adjustable to 1350m <sup>3</sup> /hr
Primary Filter	H14 HEPA Filter - 99.997% efficient at 0.3µm
Power Consumption	960 watts (Max.)
Sound Level	circa. 60db(A)



# Aluminium Modular Cleanroom



**RAPID ASSEMBLY**



**MODULAR LAYOUTS**



**ENERGY EFFICIENT**



**CUSTOM-BUILD SPECIFICATIONS**



**ISO CLEAN ENVIRONMENT**



**HIGH QUALITY HEPA FILTERS**



**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 99.997 % 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

# Circulaire® Laminar Flow Cabinet



- RECIRCULATING TECHNOLOGY** 
- ENERGY EFFICIENT** 
- ISO 4 CLEAN ENVIRONMENT** 
- HIGH QUALITY ULPA FILTERS** 
- VERTICAL OR HORIZONTAL AIRFLOWS** 
- OPTIONAL STAINLESS STEEL CONSTRUCTION** 

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 99.9998% 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
<b>External Dimensions</b>	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
<b>Internal Dimensions</b>	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
<b>Air Cleanliness</b>	>ISO Class 4 (Class10)							
<b>Airflow</b>	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
<b>Airflow Speed</b>	0.4m/s							
<b>Primary Filter</b>	U15 ULPA - 99.9998% efficient at 0.12µm							
<b>Power Consumption</b>	65 watts	70 watts	80 watts	90 watts	65 watts	70 watts	80 watts	90 watts
<b>Sound Level</b>	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® Recirculating Fume Cupboard



RECIRCULATING TECHNOLOGY



ENERGY EFFICIENT



ULTRA DEEP CARBON FILTERS



AUTOMATIC AIRFLOW COMPENSATION



TOUCH SCREEN INTERFACE



OPTIONAL STAINLESS STEEL CONSTRUCTION



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 + INCLUDES SLIDING SAFETY SASH

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)



# Circulaire® Hybrid Fume Cupboard



RECIRCULATING TECHNOLOGY



ENERGY EFFICIENT



CARBON + HEPA MULTI STAGE FILTERS



AUTOMATIC AIRFLOW COMPENSATION



TOUCH SCREEN INTERFACE



OPTIONAL STAINLESS STEEL CONSTRUCTION



The highly energy efficient Circulaire® Hybrid Fume Cupboard is setting new standards for environmentally responsible and sustainable choices in laboratory and research facilities.

## COMBINING SAFETY & SUSTAINABILITY

Our green hybrid process results in a 60% decrease in extraction of conditioned laboratory air that with ducted fume cupboards would be lost to atmosphere.

The inflow air is drawn in through the front aperture, mixing with the contaminated air from the working chamber before being drawn into the advanced multi-stage Activated Carbon/HEPA Filters.

Cleaned and free of contaminants, without contaminating the building exhaust air, airflow is then guided through internal ventilation where it is divided so just 40% is extracted to the duct extract system. The remaining 60% is recirculated back into the working chamber to provide containment and operator safety.

## Product Specification (W x D x H)

Model	HFC1200	HFC1500	HFC1800
External Dimensions	1203mm x 942mm x 2562mm	1503mm x 942mm x 2562mm	1803mm x 942mm x 2562mm
Working Dimensions	900mm x 1300mm	1200mm x 1300mm	1500mm x 1300mm
Total Airflow	389m <sup>3</sup> /hr	488m <sup>3</sup> /hr	578m <sup>3</sup> /hr
Recirculated Airflow	189m <sup>3</sup> /hr	288m <sup>3</sup> /hr	338m <sup>3</sup> /hr
Exhausted Airflow	200m <sup>3</sup> /hr	240m <sup>3</sup> /hr	240m <sup>3</sup> /hr
Filter	Activated Carbon, H14 HEPA or Activated Carbon/HEPA Combination		
Power Consumption	1.8 kw (Max.)		
Sound Level	Circa. 56dB		Circa. 55dB

# Guardian Class 2 Biological Safety Cabinet



MSC1200

**RECIRCULATING TECHNOLOGY** 

**ENERGY EFFICIENT** 

**ISO 4 CLEAN ENVIRONMENT** 

**HIGH QUALITY HEPA FILTERS** 

**HEALTH PROTECTION AGENCY TESTED** 

**OPTIONAL STAINLESS STEEL CONSTRUCTION** 

The Guardian Class 2 Biological Safety Cabinets keep your team safe while handling potentially hazardous materials.

## GUARANTEED SAMPLE, PERSONNEL & ENVIRONMENTAL PROTECTION

Our state-of-the-art biosafety solution is equipped with H14 HEPA Filters to create an ISO Class 4 Clean Environment.

Air drawn in via the front aperture into the cabinet (personnel protection) prevents aerosols generated during microbiological processes from escaping through the front opening.

HEPA-filtered, laminar airflow (sample protection) cascades from the front face of the cabinet creating an air curtain while continually flushing the enclosure of airborne particles and ensuring the sample is protected from contamination. The contaminated air makes its way into a HEPA-filter system (environmental protection) before it is safely exhausted from the enclosure.

## Product Specification (W x D x H)

\*OPTIONAL HEPA OUTLET +46MM/OPTIONAL CARBON OUTLET +55MM  
OPTIONAL DOUBLE HEPA & CARBON OUTLET +129MM

Model	MSC800	MSC1200	MSC1800
External Dimensions	800mm x 750mm x 1321mm *	1200mm x 750mm x 1321mm *	1800mm x 750mm x 1321mm *
Internal Dimensions	707mm x 510mm x 741mm	1107mm x 510mm x 741mm	1707mm x 510mm x 741mm
Air Cleanliness	ISO Class 4 (Class 10)		
Primary Filter	H14 HEPA Filter - 99.97% efficient at 0.3µm		
Power Consumption	100 watts	150 watts	320 watts
Sound Level	circa. 54dB(A)		circa. 56dB(A)

# SKAN Pure Laboratory Isolator

IN PARTNERSHIP WITH  
**skan**  
[www.skan.com](http://www.skan.com)



RECIRCULATING TECHNOLOGY 

ENERGY EFFICIENT 

ISO 5 CLEAN ENVIRONMENT 

+/- PRESSURE OPERATION 

H2O2 AUTOMATED DECONTAMINATION 

AIRFLOW SAFETY MONITORING 

The SKAN Pure Laboratory Isolator guarantees ISO Class 5 containment inside the enclosure and is ideally suited for aseptic and aseptic-toxic processes.

## CLOSED CONTAINMENT FOR SAFE HANDLING

Closed containment ensures safe handling conditions even when working with highly hazardous products and a fast, reproducible H<sub>2</sub>O<sub>2</sub> skanfog decontamination cycle enables optimum cleanliness and validation of the system.

The modular, space saving design requires no connection to HVAC due to the integrated SKAN nanox catalyst system to allow autonomous operation.

The unit has two working chamber sizes available, either with two or four glove ports. The airlock (equipped as standard with a shelf) can be available on the right, on the left or on both sides.

## Product Specification (W x D x H)

Model	PURE-2 GLOVE	PURE-4 GLOVE
External Dimensions	2811mm x 955mm x 2277mm	3300mm x 955mm x 2277mm
Internal Dimensions	1410mm x 715mm x 629mm	1895mm x 715mm x 629mm
Glove Ports	2	4
Air Volume	-60 or 60+ (TBD at Order)	
Chamber + Airlocks	Chamber + 2 x Airlocks	
Power Consumption	3800 watts (Max.)	
Sound	65db(A) (Max.)	

# Monmouth Scientific

CLEAN ENVIRONMENTS  
FOR A SUSTAINABLE FUTURE



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