

CHEMICAL SYSTEMS CONTROL

THE LAB SPECIALISTS

IRISH MANUFACTURER EST. 1980







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ABOUT US



i Chemical Systems Control was founded in 1980 with a vision of providing laboratories & medical facilities with high quality yet cost effective Fume Cupboard solutions tailored to their individual needs. Over the last 40 years, we have achieved consistent growth in all aspects of our business. Our investment in our staff has laid the foundations for successful partnerships with our clients and business partners alike.

Today, our core objective remains the same but our Product Portfolio has changed to meet the expectations and requirements of existing and new business clients. Our products and solutions are unrivalled as we enter new geographical markets with our custom fit Furniture range. Our ChemFlow fume cupboards are EN 14175 Certified, a must for energy efficiency and safety.

We are Ireland's leading manufacturer of Fume Cupboards. We are market leaders in cutting edge technology but as a wholly Irish owned organisation we offer that personal touch on support services that allows our clients to concentrate on their core business.

Our production facility and office in Ashbourne, Co Meath, provides a complete range of services and solutions that can be tailored to your specific needs. All products are manufactured to the highest standards using the best quality durable materials. Our highly trained and skilled team focus on our main priority, customer satisfaction. And in March 2020, CSC achieved the ISO 9001, 14001 and 45001, reaffirming our commitment to excellence.



Certificate of Registration of Quality Management System to

I.S. EN ISO 9001:2015

EQA (Ireland) Limited certifies that

Chemical Systems Control

116 Ashbourne Industrial Estate
Ashbourne
Co. Meath

has been assessed and is in compliance with the provisions of the above standard in respect of the scope of operations listed below and is hereby included in the EQA directory of certificated organisations

Design, Manufacture, Supply, Installation and Calibration of Fume Cupboards
Design, Manufacture Supply and Installation of Laboratory Furniture, Chemical Storage, Extraction Systems and Laboratory Equipment

Signed: DIRECTOR DATE: 30th March 2020
on behalf of EQA (Ireland) Limited

Registration Number Q4575 valid until 3rd March 2023

Date of initial award of certification: 30th March 2020
Date of renewal of certification: 30th March 2020
Date of expiry of previous certification: Initial Certification

and is issued subject to the regulations, and within the accredited scope, of

EQA (Ireland) Limited
Office A, 2nd Floor
Citywest Shopping Centre
Citywest Business Park
Dublin 24
Ireland



Certificate of Registration of Environmental Management System to

I.S. EN ISO 14001:2015

EQA (Ireland) Limited certifies that

Chemical Systems Control

116 Ashbourne Industrial Estate
Ashbourne
Co. Meath

has been assessed and is in compliance with the provisions of the above standard in respect of the scope of operations listed below and is hereby included in the EQA directory of certificated organisations

Design, Manufacture, Supply, Installation and Calibration of Fume Cupboards
Design, Manufacture Supply and Installation of Laboratory Furniture, Chemical Storage, Extraction Systems and Laboratory Equipment

Signed: DIRECTOR DATE: 30th March 2020
on behalf of EQA (Ireland) Limited

Registration Number E4575 valid until 3rd March 2023

Date of initial award of certification: 30th March 2020
Date of renewal of certification: 30th March 2020
Date of expiry of previous certification: Initial Certification

and is issued subject to the regulations, and within the accredited scope, of

EQA (Ireland) Limited
Office A, 2nd Floor
Citywest Shopping Centre
Citywest Business Park
Dublin 24
Ireland



Certificate of Registration Occupational Health and Safety Management Systems

I.S. ISO 45001:2018

EQA (Ireland) Limited certifies that

Chemical Systems Control

116 Ashbourne Industrial Estate
Ashbourne
Co. Meath

has been assessed and is in compliance with the provisions of the above standard in respect of the scope of operations listed below and is hereby included in the EQA directory of certificated organisations

Design, Manufacture, Supply, Installation and Calibration of Fume Cupboards
Design, Manufacture Supply and Installation of Laboratory Furniture, Chemical Storage, Extraction Systems and Laboratory Equipment

Signed: DIRECTOR DATE: 30th March 2020
on behalf of EQA (Ireland) Limited

Registration Number OHSAS4575 valid until 3rd March 2023

Date of initial award of certification: 30th March 2020
Date of renewal of certification: 30th March 2020
Date of expiry of previous certification: Initial Certification

and is issued subject to the regulations, and within the accredited scope, of

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Office A, 2nd Floor
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Dublin 24
Ireland





CHEM FLOW





FUME CUPBOARD RANGE

CHEM FLOW



CSC has spent the last 40 years researching, developing and perfecting the ChemFlow range of fume cupboards. We have created a range to suit all labs and applications with models including Bench Mounted, Scrubber, Walk-in, Lower Floor, Nano and School type. Our dedication to user safety and customer satisfaction has driven the evolution of the ChemFlow.



The unique design of our fume cupboards is unparalleled. The outer shell is manufactured from high quality chemical resistant PVC which significantly increases the lifespan of the fume cupboard. The main chamber is manufactured from compact laminate as standard.

Our modbus monitor is an advanced microprocessor controlled safety monitoring system designed to suit a wide range of fume cupboards.

The ChemFlow was the first fume cupboard to achieve the original BSEN7258 standard in 1990 and today holds the EN14175 Parts 1-7 Certification.



CHEMFLOW BENCH MOUNTED

The CHEMFLOW Bench Mounted fume cupboard is suited to general laboratory use and can be tailored to suit a customer's exact requirements. Its design provides a safe working environment, ensuring maximum efficiency whilst providing a safe, noise tolerant environment for the operator as they work. Manufactured as standard from 6mm thick, chemical resistant PVC, they are virtually corrosion-proof, ensuring safety and an increased product life span. Our CHEMFLOW fume cupboards are certified to the EN 14175 standard.



Key Features:

- Corrosion Resistant PVC
- High Quality Material
- 16mm Trespa TopLab Plus Worktop
- 6mm Anti Corrosive Compact Laminate Lining
- 6mm Toughened Vertical Glass Sash
- Fail Safe Counter Balance Sash
- AirFlow Modbus Monitor & Controller
- Gas, Water & Drip Cup Fixtures
- Full Automatic Sash with Energy Save Options
- 1 Year Warranty*
- Manufactured in Ireland

*The standard 1-year warranty can be extended to 2 years if a CSC service contract is purchased with the Fume Cupboard

Standard Configurations

Model	1200	1500	1800	2000	2400
External Dimensions (WxDxH)	1200x900x2375	1500x900 x2375	1800x900 x2375	2000x900 x2375	2400x900 x2375
Working Dimensions (WxDxH)	880x720x1100	1180 x720x1100	1480x720 x1100	1680 x720x1100	2080x720 x1100
6mm PVC Outer Skin	✓	✓	✓	✓	✓
Compact Laminate Lining	✓	✓	✓	✓	✓
400 / 500 LUX Lighting	✓	✓	✓	✓	✓
220v 50Hz Mains Power	✓	✓	✓	✓	✓
Epoxy Resin Worktop	Optional	Optional	Optional	Optional	Optional
6mm PVC Outer Skin	✓	✓	✓	✓	✓
CSC Modbus 2200 Airflow Monitor	✓	✓	✓	✓	✓
6mm Toughened Glass Sash	✓	✓	✓	✓	✓
Standard Sash Opening 500mm	✓	✓	✓	✓	✓
Trespa Toplab Plus Worktop	✓	✓	✓	✓	✓
Epoxy Steel Frame	✓	✓	✓	✓	✓
Recommended Exhaust Volume	0.22m ³ /sec	0.295m ³ /sec	0.370m ³ /sec	0.420m ³ /sec	0.520m ³ /sec
Diameter of Exhaust Outlet	200Ø	250Ø	315Ø	315Ø	2x 250Ø
Vulcathene Drip Cup	1	1	1	2	2
Twin Electrical Sockets	2	2	1	2	2
Gas	1	1	1	1	1
Water	1	1	1	2	2

CHEMFLOW SCRUBBER

For laboratories where acids such as Perchloric, hydrofluoric, and other water soluble acids are used we offer our CHEMFLOW Scrubber cupboard with inbuilt scrubbing system. By employing our unique tellerette filled scrubbing chamber at the rear of the fume cupboard with its patented water wash down demister jets we can scrub the exhaust fumes with a high efficiency. We include a recirculation tank and pump and include the option of a neutralisation tank and dosing system which will allow the waste water to be returned to the town's waste system subject to local regulations. Manufactured as standard from 6mm thick, chemical resistant PVC, they are virtually corrosion-proof, ensuring safety and an increased product life span. Our CHEMFLOW fume cupboards are certified with the EN 14175 standard.



Key Features:

- Corrosion Resistant PVC
- High Quality Material
- 6mm Anti Corrosive Compact Laminate Lining
- 6mm Toughened Vertical Glass Sash
- Fail Safe Counter Balance Sash
- AirFlow Modbus Monitor & Controller
- Gas, Water & Drip Cup Fixtures
- Includes Recirculation Tank & Pump
- 1 Year Warranty*
- Manufactured in Ireland

**The standard 1-year warranty can be extended to 2 years if a CSC service contract is purchased with the Fume Cupboard*

Standard Configurations

Model	1200	1500	1800	2000	2400
External Dimensions (WxDxH)	1200x1120x2375	1500x1120 x2375	1800x1120 x2375	2000x1120 x2375	2400x1120 x2375
Working Dimensions (WxDxH)	880x720x1100	1180 x720x1100	1480x720 x1100	1680x720x1100	2080x720 x1100
6mm PVC Outer Skin	✓	✓	✓	✓	✓
Compact Laminate Lining	✓	✓	✓	✓	✓
400 / 500 LUX Lighting	✓	✓	✓	✓	✓
220v 50Hz Mains Power	✓	✓	✓	✓	✓
Epoxy Resin Worktop	Optional	Optional	Optional	Optional	Optional
Polypropylene Base	Optional	Optional	Optional	Optional	Optional
6mm PVC Outer Skin	✓	✓	✓	✓	✓
CSC Modbus 2200 Airflow Monitor	✓	✓	✓	✓	✓
6mm Toughened Glass Sash	*Standard	*Standard	*Standard	*Standard	*Standard
6mm Clear Polycarbonate Sash	*Optional	*Optional	*Optional	*Optional	*Optional
Standard Sash Opening 500mm	✓	✓	✓	✓	✓
Trespa Toplab Plus Worktop	✓	✓	✓	✓	✓
Epoxy Steel Frame	✓	✓	✓	✓	✓
Recommended Exhaust Volume	0.22m ³ /sec	0.295m ³ /sec	0.370m ³ /sec	0.420m ³ /sec	0.520m ³ /sec
Diameter of Exhaust Outlet	200Ø	250Ø	315Ø	315Ø	2x 250Ø
Vulcathene Drip Cup	1	1	1	2	2
Twin Electrical Sockets	1	1	2	2	2
Gas	1	1	1	2	2
Water	1	1	1	2	2

**The specification of Fume Cupboard Sash will depend on the intended chemical usage. For example, a scrubber using hydrofluoric acid will require a polycarbonate sash.*



CHEMFLOW WALK-IN

The CHEMFLOW Walk In fume cupboard is suited to general laboratory use and can be tailored to suit a customer's exact requirements. Its design provides a safe working environment, ensuring maximum efficiency whilst providing a safe, noise tolerant environment for the operator as they work. Our ability to custom build our fume cupboards means we can manufacture bespoke sizes up to 3000 wide x 2500 deep x 3500 high, ideal for specialised drug manufacturing processes. Manufactured as standard from 6mm thick, chemical resistant PVC, they are virtually corrosion-proof, ensuring safety and an increased product life span. Our CHEMFLOW Walk-In fume cupboards are manufactured and containment tested in accordance to EN 14175 standard.



Key Features:

- Key Features:
- Corrosion Resistant PVC
- High Quality Material
- 6mm Anti Corrosive Compact Laminate Lining
- 6mm Toughened Vertical Glass Sash
- Fail Safe Counter Balance Sash
- AirFlow Modbus Monitor & Controller
- Gas, Water & Drip Cup Fixtures
- Custom Sizes Available
- 1 Year Warranty*
- Manufactured in Ireland

*The standard 1-year warranty can be extended to 2 years if a CSC service contract is purchased with the Fume Cupboard.

Standard Configurations

Model	1200	1500	1800	2000	2400
External Dimensions (WxDxH)	1200x1000x2375	1500x1000 x2375	1800x1000 x2375	2000x1000 x2375	2400x1000 x2375
Working Dimensions (WxDxH)	880x720x2100	1180 x720x2100	1480x720 x2100	1680x720x2100	2080x720 x2100
6mm PVC Outer Skin	✓	✓	✓	✓	✓
Compact Laminate Lining	✓	✓	✓	✓	✓
400 / 500 LUX Lighting	✓	✓	✓	✓	✓
220v 50Hz Mains Power	✓	✓	✓	✓	✓
Epoxy Resin Worktop	Optional	Optional	Optional	Optional	Optional
6mm PVC Outer Skin	✓	✓	✓	✓	✓
CSC Modbus 2200 Airflow Monitor	✓	✓	✓	✓	✓
6mm Toughened Glass Sash	✓	✓	✓	✓	✓
Standard Sash Opening	On Request	On Request	On Request	On Request	On Request
Trespa Toplab Plus Worktop	Optional	Optional	Optional	Optional	Optional
Epoxy Steel Frame	N/A	N/A	N/A	N/A	N/A
Recommended Exhaust Volume	0.264m ³ /sec	0.354m ³ /sec	0.440m ³ /sec	0.500m ³ /sec	0.620m ³ /sec
Diameter of Exhaust Outlet	200Ø	250Ø	250Ø	250Ø	2x 200Ø
Vulcathene Drip Cup	1	1	1	1	2
Twin Electrical Sockets	2	2	2	2	2
Gas	1	1	1	1	1
Water	1	1	1	1	2

CHEMFLOW LOWER FLOOR

The CHEMFLOW Lowered Floor fume cupboard is manufactured as standard from 6mm thick fabricated sheet PVC. Ideally suited to large distillation or bulky apparatus operations. Manufactured to meet and surpass the recommendations' laid down in the EN 14175 fume cupboard standards. As per the data information below, our flexibility allows us to meet your exact requirements regarding height, widths and depths of fume cupboard. Sizes above 2000mm in width require a change to a polycarbonate sash.



Key Features:

- Corrosion Resistant PVC
- High Quality Material
- 16mm Trespa TopLab Plus Worktop
- 6mm Anti Corrosive Compact Laminate Lining
- 6mm Toughened Vertical Glass Sash
- Fail Safe Counter Balance Sash
- AirFlow Modbus Monitor & Controller
- Gas, Water & Drip Cup Fixtures
- Full Automatic Sash with Energy Save Options
- 1 Year Warranty*
- Manufactured in Ireland
-

*The standard 1-year warranty can be extended to 2 years if a CSC service contract is purchased with the Fume Cupboard

Standard Configurations

Model	1200	1500	1800	2000	2400
External Dimensions (WxDxH)	1200x900x2375	1500x900 x2375	1800x900 x2375	2000x900 x2375	2400x900 x2375
Working Dimensions (WxDxH)	880x720x1100	1180 x720x1100	1480x720 x1100	1680 x720x1100	2080x720 x1100
6mm PVC Outer Skin	✓	✓	✓	✓	✓
Compact Laminate Lining	✓	✓	✓	✓	✓
400 / 500 LUX Lighting	✓	✓	✓	✓	✓
220v 50Hz Mains Power	✓	✓	✓	✓	✓
Epoxy Resin Worktop	Optional	Optional	Optional	Optional	Optional
6mm PVC Outer Skin	✓	✓	✓	✓	✓
CSC Modbus 2200 Airflow Monitor	✓	✓	✓	✓	✓
6mm Toughened Glass Sash	✓	✓	✓	✓	✓
Standard Sash Opening 500mm	✓	✓	✓	✓	✓
Trespa Toplab Plus Worktop	✓	✓	✓	✓	✓
Epoxy Steel Frame	✓	✓	✓	✓	✓
Recommended Exhaust Volume	0.22m ³ /sec	0.295m ³ /sec	0.370m ³ /sec	0.420m ³ /sec	0.520m ³ /sec
Diameter of Exhaust Outlet	200Ø	250Ø	315Ø	315Ø	2x 250Ø
Vulcathene Drip Cup	1	1	1	2	2
Twin Electrical Sockets	1	1	2	2	2
Gas	1	1	1	1	1
Water	1	1	1	2	2

CHEMFLOW NANO

The CHEMFLOW NANO fume cupboard has been designed after much research and consultation with scientists to overcome safety concerns from working with nano particles in fume cupboards. The fume cupboard includes an inbuilt safe-change Hepa filter which is located in an easily accessible location for maintenance purposes. Our unique design limits the working area of the worktop to a “safe zone” as recommended by the scientific community. Available in our standard sizes as per the attached data sheet but our flexibility allows us to meet customer requirements regarding height widths and depths of fume cupboards. Designed to meet and surpass the recommendations’ laid down in the EN 14175 fume cupboard standards.



Key Features:

- Corrosion Resistant PVC
- High Quality Material
- 6mm Anti Corrosive Compact Laminate Lining
- 6mm Toughened Vertical Glass Sash
- Unique Safe Zone Design
- Fail Safe Counter Balance Sash
- AirFlow Modbus Monitor & Controller
- Gas, Water & Drip Cup Fixtures
- Custom Sizes Available
- 1 Year Warranty*
- Manufactured in Ireland

*The standard 1-year warranty can be extended to 2 years if a CSC service contract is purchased with the Fume Cupboard

Standard Configurations

Model	1200	1500	1800	2000	2400
External Dimensions (WxDxH)	1200x1120x2375	1500x1120 x2375	1800x1120 x2375	2000x1120 x2375	2400x1120 x2375
Working Dimensions (WxDxH)	880x720x1100	1180 x720x1100	1480x720 x1100	1680x720x1100	2080x720 x1100
6mm PVC Outer Skin	✓	✓	✓	✓	✓
Compact Laminate Lining	✓	✓	✓	✓	✓
400 / 500 LUX Lighting	✓	✓	✓	✓	✓
220v 50Hz Mains Power	✓	✓	✓	✓	✓
Epoxy Resin Worktop	Optional	Optional	Optional	Optional	Optional
6mm PVC Outer Skin	✓	✓	✓	✓	✓
CSC Modbus 2200 Airflow Monitor	✓	✓	✓	✓	✓
6mm Toughened Glass Sash	✓	✓	✓	✓	✓
Standard Sash Opening 500mm	✓	✓	✓	✓	✓
Trespa Toplab Plus Worktop	✓	✓	✓	✓	✓
Epoxy Steel Frame	✓	✓	✓	✓	✓
Recommended Exhaust Volume	0.22m ³ /sec	0.295m ³ /sec	0.370m ³ /sec	0.420m ³ /sec	0.520m ³ /sec
Diameter of Exhaust Outlet	200Ø	250Ø	315Ø	315Ø	2x 250Ø
Vulcathene Drip Cup	1	1	2	2	2
Twin Electrical Sockets	1	1	2	2	2
Gas	1	1	2	2	2
Water	1	1	2	2	2

CHEMFLOW EDUFLOW

The Eduflow Fume Cupboard has been designed to assist the teaching of science subjects primarily in second level schools. Our unique rear viewing panel design maintains the requirements and performance of EN 14175 while increasing viewing capability for students. The size of the Eduflow fume cupboard is ideally suited to the classroom and meets with the Department of Education new fume cupboard design requirements.



Key Features:

- Corrosion Resistant PVC
- High Quality Material
- 16mm Trespa TopLab Plus Worktop
- 6mm Anti Corrosive Compact Laminate Lining
- 6mm Toughened Vertical Glass Sash
- Fail Safe Counter Balance Sash
- AirFlow Modbus Monitor & Controller
- Gas, Water & Drip Cup Fixtures
- 1 Year Warranty*
- Manufactured in Ireland

*The standard 1-year warranty can be extended to 2 years if a CSC service contract is purchased with the Fume Cupboard

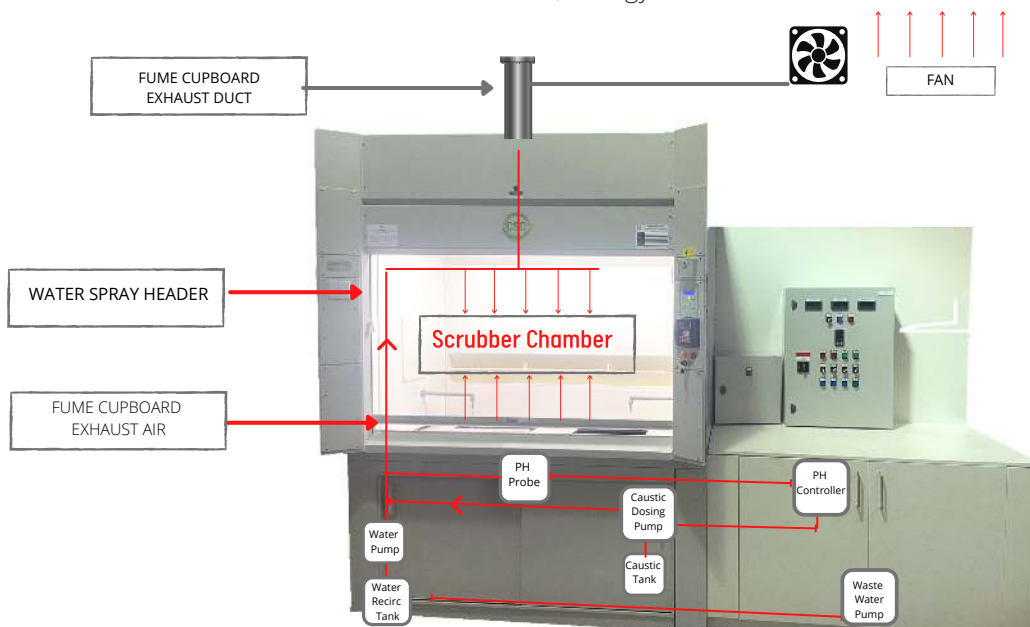
Standard Configurations

Model	1200	1500
External Dimensions (WxDxH)	1200x750x2375	1500x750 x2375
Working Dimensions (WxDxH)	880x570x1100	1180x570x1100
6mm PVC Outer Skin	✓	✓
Compact Laminate Lining	✓	✓
400 / 500 LUX Lighting	✓	✓
220v 50Hz Mains Power	✓	✓
Epoxy Resin Worktop	Optional	Optional
6mm PVC Outer Skin	✓	✓
CSC Modbus 2200 Airflow Monitor	✓	✓
6mm Toughened Glass Sash	✓	✓
Standard Sash Opening 500mm	✓	✓
Trespa Toplab Plus Worktop	✓	✓
MDF Cupboard Frame	✓	✓
Recommended Exhaust Volume	0.22m ³ /sec	0.295m ³ /sec
Diameter of Exhaust Outlet	200Ø	200Ø
Vulcathene Drip Cup	1	1
Twin Electrical Sockets	1	1
Gas	1	1
Water	1	1



CHEMFLOW FULLY AUTOMATED

- Outer shell manufactured from chemical resistance 6mm thick PVC.
- Inner linings manufactured from 6 mm polypropylene (PP).
- Worktop manufactured from 20 mm Polypropylene with a anti spill marine edge on all sides.
- Mounted on an epoxy coated steel frame support.
- Sliding Sash is manufactured from polycarbonate 6mm thick and is fitted with an aerodynamic finger pull for ease of opening/closing.
- Services of 1 x water, & 1 x Gas from the TOF range of laboratory fittings are fitted through removable service panels allowing for full flexibility.
- Electrical Sockets x 2 (switched Neon Type, 1No. Each side) and Light switch (fixed spur Led type) are profiled to achieve top line aesthetics and aerodynamic effect, are fitted through removable service panels allowing for full flexibility.
- Electrical and mechanical services are prewired and pre-plumbed for convenient termination by others.
- Digital Airflow Controller module with audio/visual alarm for low airflow and high sash position is included as standard. This controller will control the automatic sash, energy save functions and fan on/off if fitted.



- Inbuilt acid scrubber with caustic auto dosing system using Deionized water
- Our unique deionized water spray and "Tellerette Packed Chamber" integral to the back of the fume cupboard efficiently scrubs the acid fumes from the exhausted air by using our specially designed water spray header.
- The water used for spraying the acid is deionized by our Reverse Osmosis system.
- This is achieved by treating the water to a point that the conductivity is below 20 microsegments you eliminate 99% of the contaminants from the supply thereby allowing the caustic to do its job more efficiently and greatly reducing the chemical side effects on the unit and its component parts.
- The scrubbing water is collected in a recirculation tank positioned below the fume cupboard.
- The PH water in the spray system is continually monitored and neutralized using our caustic dosing system periodically by our fully automated auto dosing system.
- The use of DI water prevents the problem of caustic solidifying in the system and clogging up pumps, fans and valves.
- This recirculation tank and pump, caustic dosing and R/O components are housed in an acid proof PVC cabinet under the fume cupboard.

CHEMFLOW NEW AIRFLOW MONITOR



FEATURES:-

- Master Control & Indicator Module
- Air Velocity Sensor
- Sash Control Module
- Passive Infra-Red Detector
- Personnel Detector
- BMS Output Module
- Digital Display
- Automatic On/Off Switch
- Sash Control
- Passive Infra-Red Detector
- Temperature Sensor
- Time & Date
- Built in Audible Alarm
- Readable Log
- User Friendly
- Easy Programming Access at Front of Fume Cupboard
- Designed and Manufactured in Ireland
- 12 Months Warranty

*Concept design

CSC ModBus AirFlow Sensor Airflow through the fume cupboard is measured by a thermal anemometer. A custom designed platinum on ceramic sensor element is heated to a fixed temperature, above ambient, and placed in the airstream. Airflow past the sensor tends to cool the element. An electronic bridge circuit acts to restore the temperature to the fixed value. The rate at which heat is removed from the sensor element is directly related to the velocity of the airflow. The power required to maintain the element temperature constant is measured. This measurement is processed, calibrated, and output on the ModBus for use by all other modules.





Our ability to custom build our fume cupboards means we can manufacture bespoke sizes up to 3000 wide x 2500 deep x 3500 high, ideal for specialized drug manufacturing processes.

CHEMFLOW ENHANCEMENTS



FUME CUPBOARD ENHANCEMENTS ECOFLOW ENERGY SAVE



CSC's research and development team has developed an energy efficient feature which can be installed on any of our Fume Cupboards. EcoFlow is designed to reduce energy consumption by approx. 51%.*

The Chemflow air velocity monitor reads the air velocity entering the fume cupboard to within 1% accuracy. It communicates this data by means of a 2-10 volt signal to the actuator on the motorised damper. The actuator responds to this information by modulating the damper to the position corresponding to the voltage signal level.

The airflow monitor has a pre-set target velocity typically 0.5m/sec. When the sash is raised or lowered the Chemflow monitor reads the changing velocity of the air passing through the sash opening.

The Chemflow monitor sends a voltage signal to the actuator to adjust the damper to a position that corresponds to a velocity across the sash opening of the preset target velocity.

The requirement however for a minimum purge of air through the fume cupboard prevents the reduction of air through the fume cupboard from falling below 33% of its initial air volume.

This initial volume is calculated as being the volume through the fume cupboard at a sash opening of 0.5m at a velocity of 0.5m/sec by the internal width of the fume cupboard. I.e. $0.5 \times 0.5 \times$ internal width of the fume cupboard. The minimum volume therefore is $0.33 \times 0.5 \times 0.5$ internal width of the fume cupboard.

The Chemflow monitor prevents the volume from going below the minimum required by pre-setting a minimum volume within the tracking program. This ensures that the containment and purge levels of the fume cupboards are maintained at a safe operating level at all times.

The energy cost saving in operating this system is dependent on the vigilance of the operator in lowering the sash to its minimum position when the fume cupboard is in operation as best practice advises. The energy savings can be further improved by the use of an automatic sash operating system.

This system uses a PIR indicator to detect movement at the fume cupboard work area. If no movement is detected after a pre-set period of time (3 minutes) the sash will automatically close and the fume cupboard extract will set back to its minimum volume condition.

FUME CUPBOARD ENHANCEMENTS FIRE SUPPRESSION



FUME CUPBOARD ENHANCEMENTS

FIRE SUPPRESSION

CSC's fire suppression system brings the ultimate fire prevention feature to our range of fume cupboards. Using a proprietary continuous linear sensor tube, the FireDetec system reliably detects and actuates release of the extinguishing agent using pneumatic technology. It is more flexible, space efficient and cost effective versus alternative mechanical or electronic systems.



- Quick & easy installation directly inside the Fume Cupboards: The flexible sensor tubing is easily installed inside the enclosure - directly above the working area where a fire could start. When in service, the tubing is pressurized with dry nitrogen to 16 bar. The dynamics of pressurization make the tubing more reactive to heat.
- Quick detection: If a flame-up occurs, the heat of the fire causes the pressurized sensor tube to burst at the hottest spot (approx. 110°C)
- Quick suppression: The sudden tube depressurization actuates the special pressure differential valve and instantly floods the entire cabinet area with ABC 90 dry chemical within 60 seconds. The fire is quickly suppressed just moments after it begins, minimizing damage and downtime.
- Retrofitting: The FireDETEC can be retrofitted to existing fume cupboards.

A COMPLETE SYSTEM USING ABC 90 DRY CHEMICAL AGENT

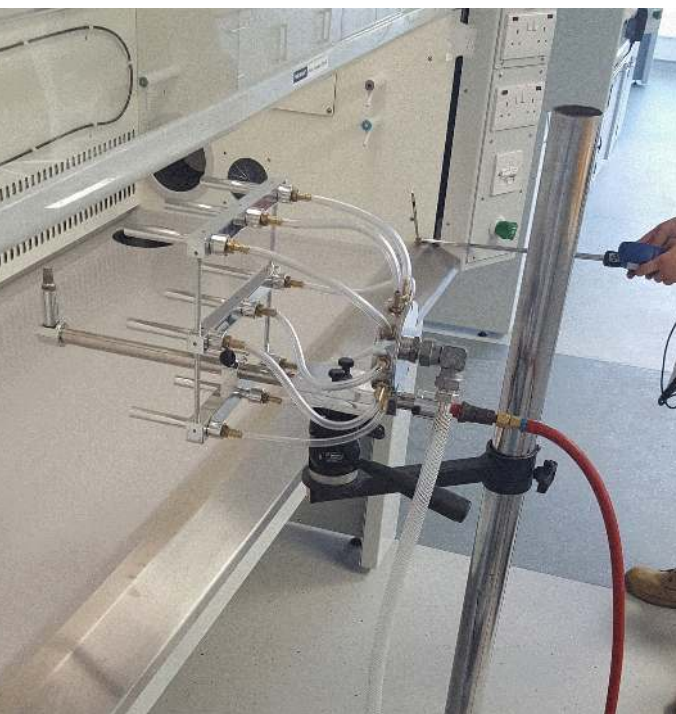




FUME CUPBOARD RANGE

CHEMFLOW SERVICING

A huge priority in any laboratory is the safety of its employees. Regular servicing and calibration of laboratory equipment is essential to maintain the efficiency. It is important that full safety checks and preventative maintenance is carried out to fume cupboards as often as deemed necessary. By its very definition, a fume cupboard is a protective environment, safeguarding the user and their surroundings.



Regular checks and servicing ensure the efficiency of a Fume Cupboard. The main function of any Fume Cupboard is to provide a safe working environment, ensuring maximum efficiency whilst providing a safe, noise tolerant environment for the operator as they work. Regular checks, servicing and calibration is recommended for Fume Cupboards to ensure continued operator and laboratory safety. Failure to do so increases the risk of accidental injuries and equipment failures. Well maintained Fume Cupboards will work more efficiently and the lifespan of the unit will be extended.

CSC provides equipment maintenance & servicing for a wide range of laboratory equipment:

- All types of Fume Cupboard
- Biological Safety Cabinets
- Chemical Storage Units
- LEV Arms
- Extraction Systems

We also provide additional services such as:

- Commissioning of new or modified fume cupboards
- Fume Cupboard airflow monitor & controller calibration
- Face and duct velocity testing
- Fume extract fan belt replacement and re-tensioning
- Fume cupboard filter disposal and replacement
- Rebalancing of fume extract systems
- Fume cupboard alterations and repairs
- Preventative Maintenance Agreements
- Containment Testing SF6





EXFLOW EXTRACTION



EXTRACTION SYSTEMS



EX FLOW



CSC manufactures an extensive range of customized ductwork using quality PVC & PPs materials. We also carry a wide range of Hoka and Dekka products.

These include:

PVC Fittings Duct

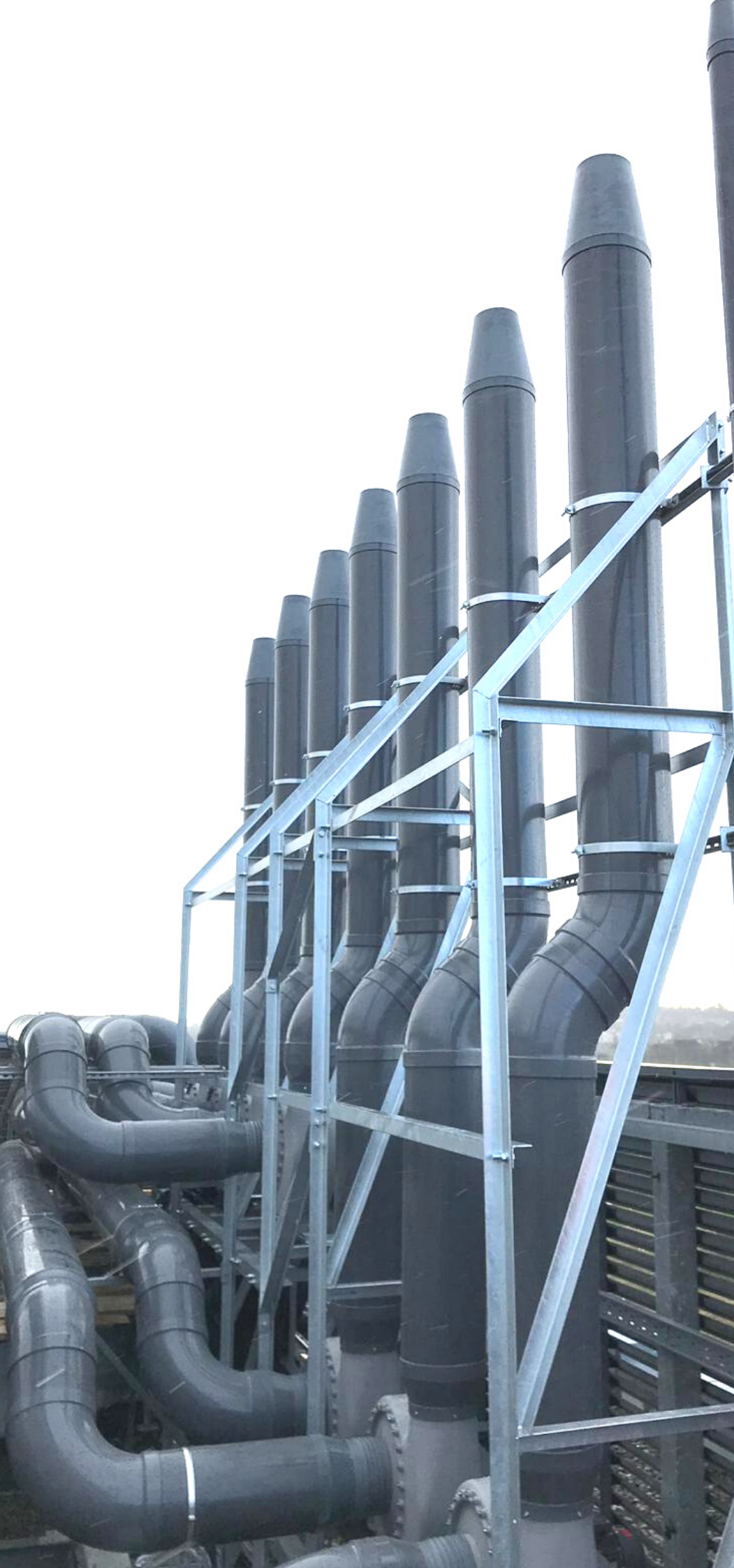
- Collars
- Reducers
- 45°/90° Bends
- Dampers
- Saddles
- Flange
- And More.....

PPs Fittings Duct

- Collars
- Reducers
- 45°/90° Bends
- Damper
- Saddles
- Flange
- And More.....

We also provide a wide range of chemically resistant fans manufactured from Polypropylene and PVC. Our range can accommodate volumes up to up to 3417 m³/hr +. Our team are available to discuss your project needs.





LAB FLOW





LAB FURNITURE RANGE

LAB FLOW



The success of our LabFlow Laboratory furniture has been remarkable. Our reputation is built on our high quality products which we tailor to our clients individual requirements. Our dedication to quality ensures that we only select the best material available from around the world.

With expertise in custom designed laboratory solutions and a range that includes laminate and stainless steel furniture, CSC are the experts in high quality laboratory design and installation.

As different laboratories have different requirements, whether pharmacy, computer, chemistry or bioscience, CSC has designed and developed a Laminate range to provide a flexible and adaptable laboratory system.

Available in fixed, suspended and mobile options, careful attention to detail and an understanding of the requirements of users in situations with perimeter and peninsular layouts and including various re-agent shelves, ensures that CSC maintains a leading position in laboratory design and installation.

Our dedication to quality is proven in our choice of materials. The LabFlow worktop is made from Trespa TopLab Plus. Made specifically for use in laboratory furniture, Trespa TopLabPLUS combines high aesthetics with top performance in quality, safety and hygiene.

Trespa TopLabPLUS is used extensively for laboratory worktops where the material should not influence the outcome of experiments and/or work in progress.

Trespa TopLabPLUS looks good and stays looking good due to its chemical resistance whilst offering the highest possible standards of hygiene, strength and durability as well as environmentally sustainable properties.

CSC also offers epoxy resin options as part of our bespoke range.







GO

FLOW



GO FLOW



CSC brings mobile labs to a new standard with the GoFlow turnkey solution.



Our new portable modular lab containers are an ideal solution. Designed to provide additional space, allowing clients to expand their labs quickly, safely and cost effectively. The design can be tailored to suit clients specifications and industry.

These versatile units are pre-plumbed and pre-wired allowing for fast installation and connection to local services



ENDLESS POSSIBILITIES



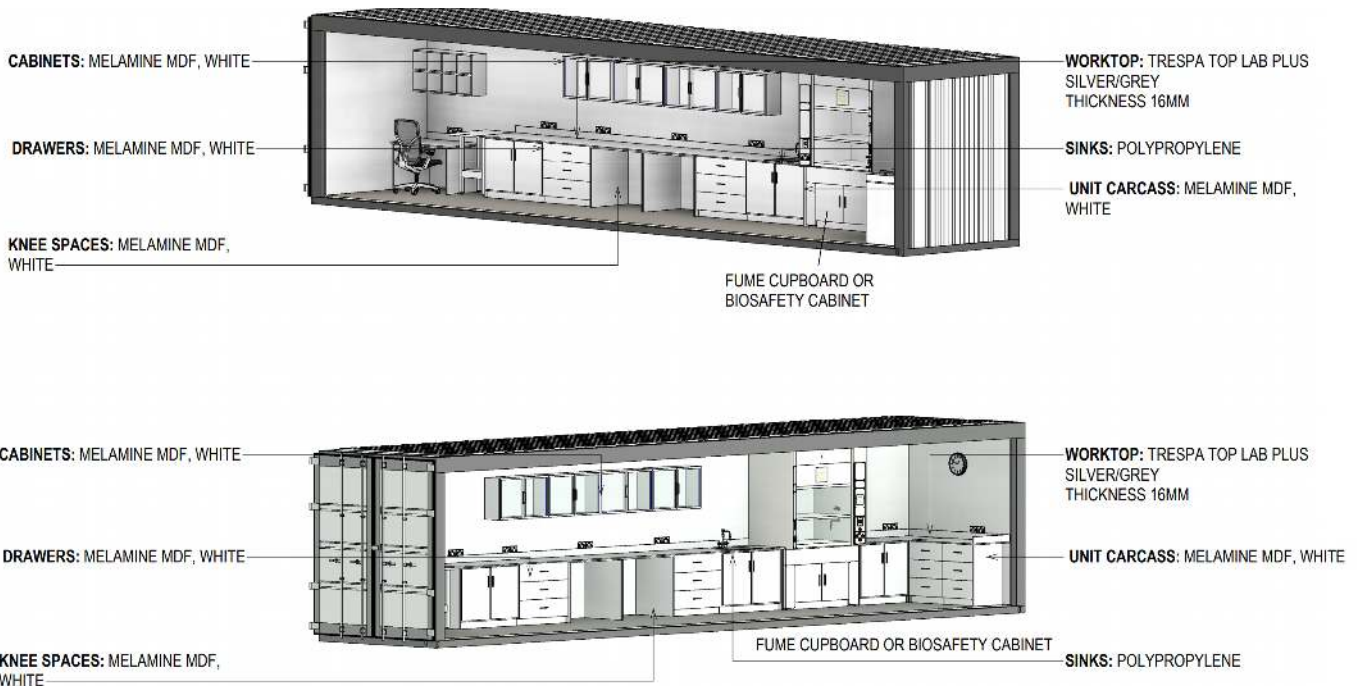
PORTABLE LAB CONTAINER SOLUTIONS

GOFLOW LAB



Our dedication to quality is proven in our choice of materials. The LabFlow worktop is made from chemical resistant Trespa TopLab Plus. Made specifically for use in laboratory furniture, Trespa TopLab PLUS combines high aesthetics with top performance in quality, safety and hygiene.

Trespa TopLab PLUS is used extensively for laboratory worktops where the material should not influence the outcome of experiments and/or working progress. Trespa TopLab PLUS looks good and stays looking good whilst offering the highest possible standards of hygiene, strength and durability as well as environmentally sustainable properties.



CHEMICAL STORAGE



SOLVENT STORAGE



TALL STORAGE

Our tall solvent units provide safe and approved storage of hazardous materials in work rooms. Certified to both EN 14470-1 and EN 14727 ratings, these units come standard with a 5yr warranty. We carry a wide variety of models and sizes; the models below are our most popular.

- Corrosion-protected assembly of safety elements
- Air damped door closing, door open arrest system (optional)
- GS-approved with 50,000 non-wearing open-close cycles
- Integrated air ducts ready for connection (NW75) to a technical exhaust system
- Protection against unauthorised use lockable doors with cylinder lock
- Ideal for the storage of flammable, aggressive hazardous substances
- Tray shelves with chemical resistant surface lamination and removable sump made of PE
- Bottom collecting sump made of PE Drawers
- High storage capacity
- Furnace tested (type test) in accordance with EN 14470-1
- Fire resistance 90 minutes
- GS approval, CE conformity



UNDERBENCH STORAGE

Our underbench solvent units provide safe and approved storage of hazardous materials in work rooms. The large door opening angle (135 degrees) makes removal or storage of containers convenient and safe. The outer shell is made of sheet steel. The unit features lockable doors and spigot for extraction at the back (outer diameter 75 mm).

- Convenient handling – doors can be opened with minimal effort
- Safe access to all containers – interior of the cabinet is completely visible, 135° opening of the wing doors
- Convenient – doors remain open in any position
- Safety – door(s) are self-closing in the event of fire
- No unauthorised use – doors are lockable with cylinder locking and locking state indicator (red/green)
- Flexible and mobile – optionally castors with plinth
- Integrated air ducts ready for connection (NW 75)
- Maximised interior height
- Furnace tested (type test) in accordance with EN 14470-1
- Fire resistance 90 minutes
- GS approval, CE conformity

ASECOS NEW ION-LINE SAFETY STORAGE



ION-CHARGE-90

ION-STORE-90

ION-CHARGE-90 Range

In active storage, lithium-ion batteries or battery packs are charged in a cabinet with a charger or partially discharged (60 - 70%). Heat is generated when a lithium-ion battery charges. If this heat output is too high, a fire may occur, for instance, if the lithium battery, the charger, or the connection cable is defective. Another major danger is the risk of thermal runaway of lithium-ion batteries, for instance, caused by internal short circuits.

CONCLUSION: *The risk increases when lithium-ion batteries are left unattended to charge outside of work hours. We recommend active storage in the Asecos BATTERY CHARGE safety storage cabinets.*

ION-STORE-90 Range

In passive storage, new or used lithium-ion batteries are stored over a certain time period.

TIP: *We recommend that new and used lithium-ion batteries are stored separately (different storage levels) in the BATTERY STORE or BATTERY STORE PRO safety storage cabinets.*

[Click Here For Full ION-LINE Catalogue](#)





ACID STORAGE

The LabFlow UnderBench Acid Storage unit provides safe and approved storage of corrosive chemicals. Our cabinets are manufactured from PVC light grey RAL 7035 with an extract air inlet to the rear of unit. The cabinet is designed with 170 degree Wing Doors making interior fully visible. Our standard cabinet comes with: 1 no. Shelf, 1 no. Spillage pump, and 1 no. Perforated Plate Insert. The approx cabinet weight is 100kg. This item is a bespoke product. Contact our design team for more options.



- Corrosion Resistant PVC
- High Quality Material
- Shelf Load Capacity Approx. 30kg
- Non Metallic / Corrosive Free
- Customised Product
- 1 Year Warranty
- Manufactured in Ireland

BIOSAFETY CABINETS



BIOSAFETY CABINETS

LAMINAR FLOW



The air flow in the Bio II is completely recycled through the perforated grills around the work surface and the operator protection is made by air streaming in front of the work surface: about 30% of the air flow is thrown through a second HEPA filter.



Features

- Easy start-up
- Painted epoxy steel frame
- Perforated Stainless Steel Work Surface (304L) / 3 elements
- Removable front grill
- Reclining front window
- HEPA Filter H14 (with laminator)
- Electrical Plug on the right side
- Easy Maintenance By Front Access
- ECM Fan - Automatic Regulation
- Low sound level
- LCD screen (velocity, clogging state, alarms display)
- In Accordance with EN 12469.

Dimensions (mm)	BIO II 9 (3ft)		BIO II 12 (4ft)	
	Effective	Overall	Effective	Overall
Width	919	922	1226	1229
Height	Max: 500	1080	Max: 500	1080
Dept.	495	640	495	640
Weight (kg)	120		150	
Power (w)	1500			
Front Aperture	Closed: 183	Open: 405	Closed: 183	Open: 405
Overall Height on standard bench: 1890mm				

BIOSAFETY CABINETS

LAMINAR FLOW



The Optigel laminar airflow prevents cross-contamination. The new design provides maximum user space and comfort. Its horizontal flow of air enables the fitting of extra shelves inside the cabinet without obstructing the flow. The cabinet is equipped with a gel sealant system that enables faster and safer changing of the main filter. The CPT digital panel provides full data and control over cabinet features.

The Optigel provides a clean air working area class 100 (ISO 5). The air is constantly blown horizontally through a HEPA filter into the working area to protect the product. The Optigel has a DC motor with ECM technology: Energy consumption reduction of 40%.

Protecting the User, Product & Environment

FEATURES

- Digital display control showing air velocity, inside pressure, and working fan condition
- ECM Fan technology is designed to compensate automatically for filter clogging. Consuming 30-40% less electricity
- Greater efficiency with 3 separate filters (EN-1822)
- Aluminum framed HEPA filter, efficiency H-14 (99.995%)
- Extra sterility after utilization to a level of ISO -5
- In Accordance with ISO 14644



	OPTIGEL 9		OPTIGEL 12		OPTIGEL 18	
Dimensions (mm)	Internal	Overall	Internal	Overall	Internal	Overall
Height	920	925	1225	1250	1820	1840
Width	Internal: 550 Overall: 813					
Depth	Internal: 550 Overall: 911					
Weight (kg)	1740					
Height on Stand	80		100		150	

FLOW AIR

FILTERS



FILTERS

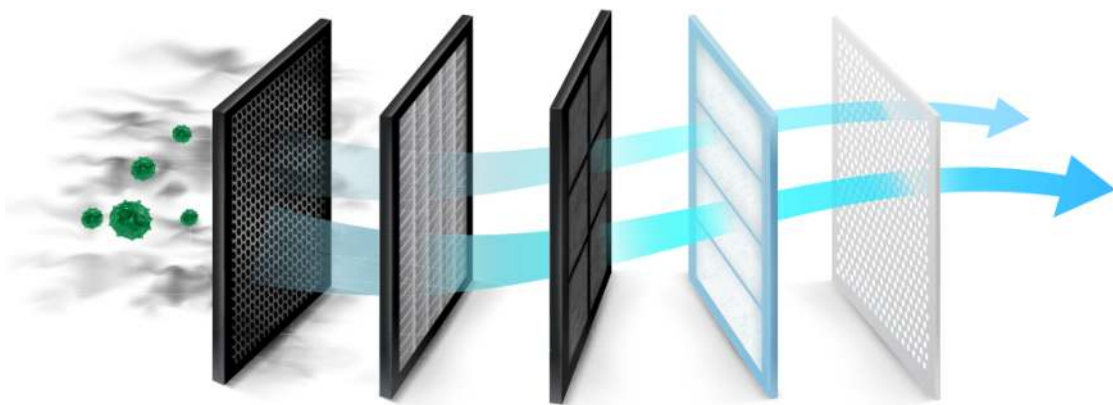


FLOW AIR FILTERS

HEPA air filters work similar to other air filters, the main difference is their higher level of air purification. HEPA stands for “**H**igh-**E**fficiency **P**articulate **A**ir” and is technically a category of air filter based on the size of particulate media and percentage of particles that can be removed from the air when passing through the filter.

A true HEPA filter can remove at least 99.7% of particles that are 0.3 microns in size or larger. Our range of Flow Air filters can achieve up to 99.999% efficiency. They can be customized with a choice of **Grid, Frame, Sealant and Efficiency** level. This filters include:

- **Rigid Pocket Filter:** The FPR is available in different efficiency rates: 65%, 85%, 95% and 98% on dust spot efficiency and 96% on DOP efficiency
- **“DH” Filter:** The mini-pleat micro fiber glass media has efficiency from H10 (DOP efficiency: 96% @ 0.3 μm) to H14 (DOP efficiency: 99.995% @ 0.3 μm)
- **M Filter:** The Micro Fiber Glass media is in accordance with efficiency standards H13 to U17 (DOP efficiency 99.999%)
- **Jet Filter:** These filters are tested in accordance with the most updated international standards the ISO 9001, US standard UL 900 and international standard EN 1822 (DOP efficiency 99.999%)



CLEAN ROOMS





CLEAN ROOM

The SBM, modular cleanroom, is the answer to growing demand from industrialists and research laboratories. The major advantage is to improve air quality without causing modifications to existing infrastructure.

CSC is able to custom produce, non-standard material and has got a professional technical team to support and help customers throughout their project.

Based on a reproducible design and precise factory preparation, the modular solution can represent, for certain project configurations, the effective alternative in terms of control (deadlines, cost, compliance) and technology by its ability to integrate and evolve.

CONSTRUCTION

The structure is assembled with aluminum profiles. Each project is studied by our engineers from the design office to guarantee rigidity, ease of assembly and modularity. Projects are followed by our design and sales support team from start to finish.

PRINCIPLE

The entire work area is swept by filtered and/or sterile air. This airflow produced, thanks to its flow speed, an overpressure in relation to the ambient environment and creates a barrier to external particles.

BENEFITS:

- Made to measure
- Capacity for improvement and modularity
- Value for money
- Completion time
- Low maintenance cost
- Does not require upstream work

Whatever the activity sectors, the quality required for the sizing of a cleanroom can only be obtained by the analysis and synthesis of technical means, in terms of the design of these areas and their future maintenance. Understanding and solving the problems posed requires an in-depth study of all the areas of contamination, whether from the inside or the outside. The study carried out takes into account production factors according to the user needs and will lead to the optimization of an architecturally designed cleanroom of which one of the main components will be the aerodynamic system necessary, among other things, of the mechanism for removing contaminants from the air but also generated by:

- Human beings
- Animals
- Equipment
- Materials
- Process

LEV ARMS





LEV ARMS

The ideal extractor for laboratory environments.

The unique joint design of the Movex ME results in a very low-pressure drop, which produces many valuable benefits:

- Energy-saving
- Lower noise levels
- Less risk of disruptive ventilation noise
- Low-pressure drop without having to use a larger dimension system
- Easy to combine with other extractors in the same ventilation system

With its uniquely designed joint construction, the Movex ME combines maximum flexibility with low-pressure drop. The air passes through the joints without creating unnecessary turbulence, thus producing an energy-saving low-pressure drop and a quieter working environment.

The Movex ME has a complete range of accessories to suit every situation, enabling you to create the optimal extractor for the evacuation of hazardous airborne gases and particulates.

The standard version is suitable for extracting most types of airborne pollutants in:

- Laboratories
- Schools, universities
- Hospitals
- The pharmaceutical industry
- Hairdressing salons
- The electronics industry



KANGO SEATING





KANGO PRO SEATING

Many staff perform tasks that require them to be particularly attentive for long periods of time. Whether standing or sitting, uncomfortable postures or muscular fatigue can adversely affect fine motor skills and concentration and exert continual stress on the spine. Indeed, back problems are one of the leading causes of lost time. However, sitting for long periods can in itself be a constraint, and may have adverse medium-term effects if a person cannot work in a comfortable seated position and change their posture regularly. Changing sitting position is important to promote blood flow and avoid fatigue in the legs and lumbar region. It also encourages the flow of nutrients in intervertebral discs.



We are well aware that it is not always easy to find a balance between comfort and optimal efficiency at the workplace. Seat heights and support positions vary widely with each person's morphology (height, weight, etc.) and depend on the type of work performed. For this reason, workers often consider their seats as belonging to them. In addition, each seat must be perfectly suited to the intended work situation. Every Kango seat has mechanical systems enabling it to be adjusted exactly to the type of work and the needs of individual users. Particular attention should therefore be paid to choosing work seats, which are long-term investments that see continuous use. The first step is to determine the most appropriate position for the type of work to be performed, then select the seat which best suits this position. A few key questions need to be asked.

COMPLETED PROJECTS





[Click here for installation Video](#)









SAMPLE CLIENT LIST



Our range of products are available to view by appointment. Many of our clients are happy to provide references or site visits upon request.

THE ULTIMATE

LABORATORY SPECIALIST

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