

# LABORATORY CABINETS

VWR 



# MINIFLO DUE - TYPE 60

## COMPACT VERTICAL LAMINAR FLOW CABINET

### DESIGNED FOR MICROBIOLOGICAL AND PCR PROCEDURES

A very compact size (footprint 73x61 cm), for small laboratory or dedicated product protection procedures. Built in UV-lamp and UV-timer giving a decontamination cycle opportunity.

#### PRODUCT PROTECTION

MiniFLO DUE offers a better proven level of ISO Class 5 product protection (Class 100/3.5 – FS209E) due to the high efficiency filtration system and the true vertical laminar airflow covering the entire work zone.

#### UTILITIES

Front cover with a double-flap for easily access to the work zone.

A decontamination shelf is placed on the back wall, close to the UV lamp, for most effective sterilization. A pass-through flap on the back wall giving you the possibility to introduce power supply general devices.

#### EASY TO CLEAN

The stainless steel work surface is scratchproof, chemically resistant and easily cleanable with a variety of sterilizing agents.

#### SAFETY COVER

Constructed of 5mm UV-adsorbing beta radiation polycarbonate, provides superior operator protection. A reliable interlock safety system prevents activation of the UV-lamp unless the safety cover is closed and will deactivate the UV lamp if the cover is opened.

#### ERGONOMIC

The ergonomically sloped front cover, the side glass walls and the warm white fluorescent lighting provide superior visibility of the work zone. White non-reflective back wall will not cause glare and increase uniform overall lighting levels in the work zone.

The stainless steel surface presents an in front rounded edge to ensure maximum comfort for the operator's arm during extended hours work.



# MINIFLO DUE - TYPE 60

COMPACT VERTICAL LAMINAR FLOW CABINET



## MINIFLO DUE - type 60 COMPACT VERTICAL LAMINAR FLOW CABINET

### AIRFLOW system

Room air is taken from the top of the cabinet through a disposable pre-filter trapping larger particles and prolonging the life of the main filter.

Air is forced evenly through a HEPA filter resulting in a stream of clean, vertical, laminar air flushing all contaminants from the work zone.

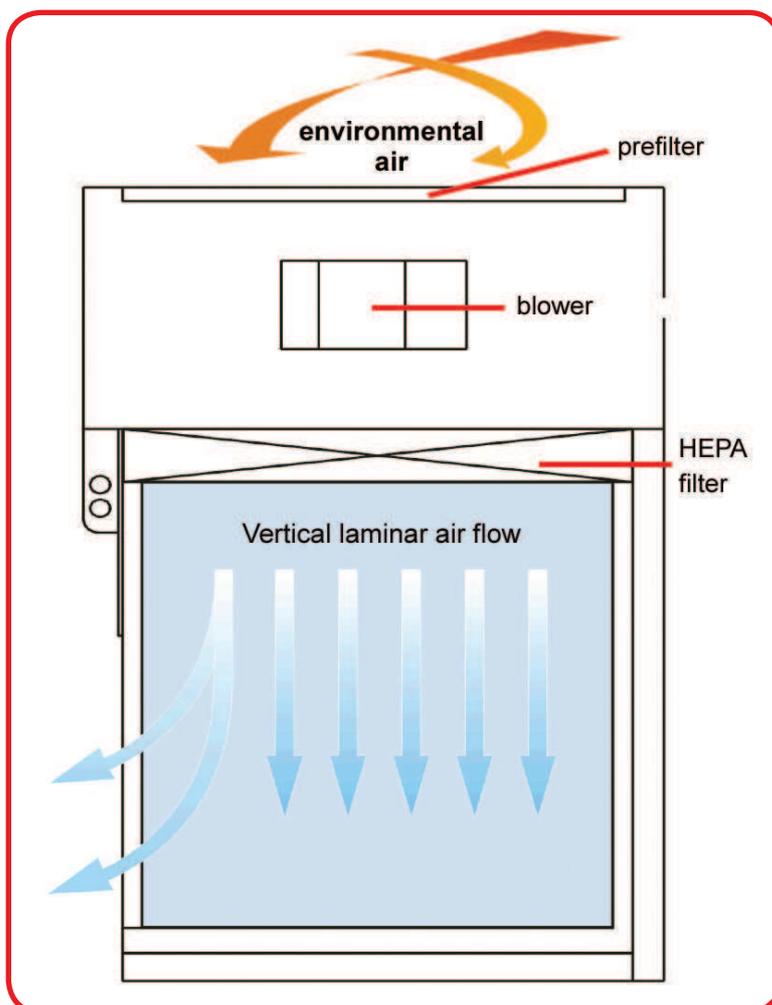
The purified air travels across the work zone in a vertical (unidirectional) stream and is exhausted through the open front of the cabinet.

### AIR CLEANLINESS

Better than Class 5 ISO 14644.1; Class 100/3.5 US FS209E.

### FILTRATION

Pre-filter - washable and reusable polyurethane fibers with an efficiency of 20% HEPA filter fully compliant EN1822 requirements.



MINIFLO DUE - Type 60		Accessories	
<b>Catalog Number</b>	48172	<b>Support stand with caster wheels</b>	48168 - working area height 72 cm
<b>External dimension (cm)</b>	73x62x95 h	<b>Service fixture</b>	external supply
<b>Internal dimension (cm)</b>	63x53x55x h	<b>Electrical Socket Outlets</b>	external supply
<b>Noise level</b>	< 59	<b>Germicidal UV Lamp</b>	included as standard
<b>Light intensity</b>	> 800 lux	<b>Timer UV</b>	included as standard
<b>Net weight</b>	60 kg	<b>Trasparent front cover</b>	constructed of 5 mm UV - adsorbing beta radiation polycarbonate included as standard
<b>Shipping weight</b>	97 kg		
<b>Shipping dimension (cm)</b>	83x73x112 h		
<b>Power Supply</b>	220 V - 50 Hz - 120 W		

# MINIFLO DUE - TYPE I 20

## VERTICAL LAMINAR FLOW CABINET

### THE STANDARD SIZE CABINET

To be use wherever and whenever you need a very clean work area for product protection against airborne contaminant. Working area W 112 x d 51 (cm).

Easy to use, to be placed on bench or stand with castor wheels.

#### PRODUCT

##### PROTECTION

Miniflo Due offers a better proven level of ISO Class 5 product protection (Class 100/3.5 - FS209E) due to the high efficiency filtration system and the true vertical laminar airflow covering the entire work zone.

##### EASY TO CLEAN

The stainless steel work surface is scratchproof, chemically resistant and easily cleanable with a variety of sterilizing agents.



##### AIR FLOW CONTROL

The digital display indicate cabinet fan setting as controlled by the blower speed controller. Operator easily adjust the blower in order to maintain optimum performance depending of HEPA filter lifetime. The control panel presents switches to operate the fluorescent light, the sockets and the optional UV lamp.

##### ERGONOMIC

The stainless steel surface presents an in front rounded edge to ensure maximum comfort for the operator's arm during extended hours work. The glass side walls and the warm white fluorescent lighting provide superior visibility of the work zone.

White non-reflective back wall will not cause glare and increase uniform overall lighting levels in the work zone.

##### UTILITIES

Two electrical socket outlets are provided as standard features on back walls.

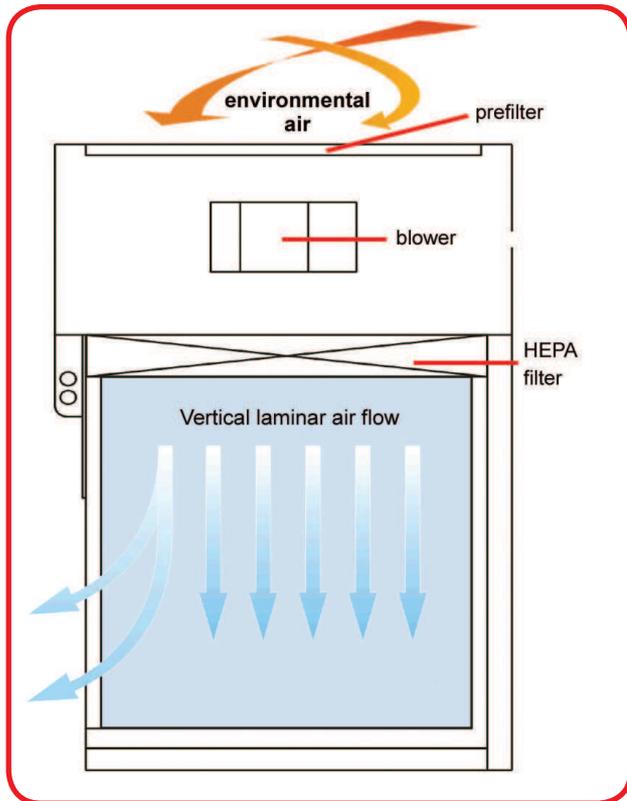
Two staggered service fixture provisions on each side wall (air tap, vacuum tap, gas tap).

Standard UV light Retrofit Kit provision.

**pbi brand the simplest and convenient solution**

# MINIFLO DUE -TYPE 120

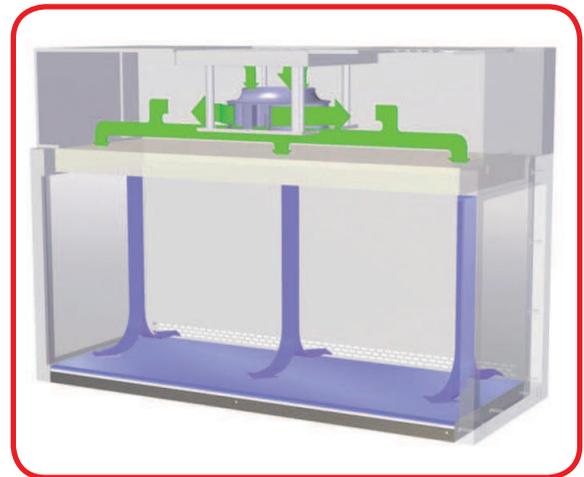
VERTICAL LAMINAR FLOW CABINET



## MINIFLO DUE - type 120 VERTICAL LAMINAR FLOW CABINET

### AIRFLOW and FILTRATION SYSTEM

Room air is taken from the top of the cabinet through a disposable pre-filter with 20% efficiency, trapping larger particles and prolonging the life of the main filter. Air is forced evenly through a HEPA filter resulting in a stream of clean, vertical, laminar air within the main chamber with a velocity of 0.45 m/s (90 fpm), flushing all contaminants from the work zone. The purified air travels across the work zone in a vertical (unidirectional) stream and is exhausted through the entire open front of the cabinet and through Auto-Purge slots in the back wall. The Auto-Purge slots are designed to eliminate air turbulence and dead-air corners in the work zone.



### LAMINAR FLOW CONTROL SYSTEM

The digital display indicate cabinet fan setting as controlled by the blower speed controller. Operator easily adjust the blower in order to maintain optimum performance depending of HEPA filter life-time. The control panel presents switches to operate the fluorescent light, the sockets and the optional UV-lamp.



MINIFLO DUE - Type 120		Accessories	
<b>Catalog Number</b>	48171	<b>Support stand with caster wheels</b>	48178 - working area height 72 cm
<b>External dimension (cm)</b>	122x63x92 h	<b>Fitting for VACUUM</b>	48187
<b>Internal dimension (cm)</b>	112x51x53 h	<b>Fitting for GAS</b>	48186
<b>Noise level</b>	< 62	<b>Fitting for AIR</b>	48188
<b>Light intensity</b>	> 800 lux	<b>Electrical Socket Outlets</b>	TWO as standard
<b>Net weight</b>	100 kg	<b>Germicidal UV Lamp</b>	48185
<b>Shipping weight</b>	150 kg	<b>Trasparent front cover</b>	48173 (recommended when UV is used)
<b>Shipping dimension (cm)</b>	145x75x110 h		
<b>Power Supply</b>	220 V - 50 Hz - 180 W		

# BLUstream Horizontal

## HORIZONTAL LAMINAR FLOW CABINET

### THE BEST PRODUCT PROTECTION

Air quality Class 4 - ISO 14644.1 (Class 10 - FS 209E). Airflow monitoring and alarm warns of deviations from normal velocities. Prepared for easy installation of optional service fittings.

#### PRODUCT PROTECTION

Audible and visual alarms ensure product protection by alerting the user in the event of low airflow.

#### UTILITIES

Two staggered service fixture provisions on each side wall (air tap, vacuum tap, gas tap). Two electrical socket outlets provisions upper right side. Standard UV light Retrofit Kit provision.

#### EASY TO CLEAN

The stainless steel work surface is scratch-proof, chemically resistant and easily cleanable with a variety of sterilizing agents.

#### FRONT PANEL CONTROL

A bright, easy-to-read, LED display provides continuous monitoring of cabinet airflow. Color coded indicator lamps display green for fan operation, fluorescent lights and electrical outlet; and red for caution (UV lamp ON).

#### USER FRIENDLY CONTROL SYSTEM

Microprocessor-based control system supervises all cabinet functions.

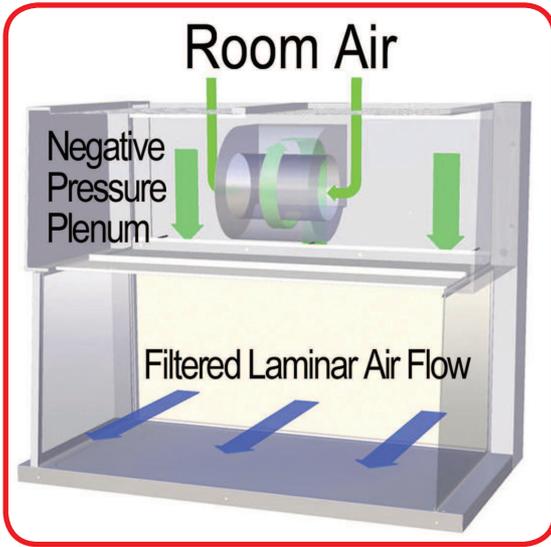
#### ERGONOMIC

The glass side walls and the warm white fluorescent lighting provide superior visibility of the work zone.



# BLUstream Horizontal

HORIZONTAL LAMINAR FLOW CABINET



## BLUstream - Horizontal HORIZONTAL LAMINAR FLOW CABINET

### AIRFLOW and FILTRATION SYSTEM

Room air is taken in from the top of the cabinet through a disposable pre-filter with 85% arrestance; this serves to trap larger particles and increase the life of the main filter.

Air is forced evenly across the HEPA filter; the result is a stream of clean laminar air within the work zone; this dilutes and flushes all airborne contaminants from the interior.

A nominal filter face velocity of 0.45 m/s ensures that there is a sufficient number of air changes within the enclosed area of the cabinet in order to maintain cleanliness.

The purified air travels across the internal work zone of the cabinet in a horizontal, unidirectional stream and leaves the main work chamber across the entire open front of the cabinet.

## FRONT PANEL CONTROL

The microprocessor-based control system supervises all cabinet functions. A bright, easy-to-read, LED display provides continuous monitoring of cabinet airflow. Audible and visual alarms ensure product protection by alerting the user in the event of low airflow.



MODEL	BLUstream H 120	BLUstream H 180
Catalog Number	48144	48146
External dimension (cm)	134x75x111 h	195x75x118 h
Internal dimension (cm)	118x60x75 h	174x60x57 h
Noise level	< 60	< 60
Light intensity	> 1600 lux	> 1600 lux
Net weight	150 kg	190 kg
Shipping weight	160 kg	260 kg
Shipping dimension (cm)	143x86x146 h	205x86x150 h
Power Supply	220 V - 50 Hz; 390 W	220 V - 50 Hz; 850 W
Accessories	BLUstream H 120	BLUstream H 180
Support stand with caster wheels	48178 - working area height 72 cm	non available
Stand with levelling feet (70-78 cm)	48190	48195
Fitting for VACUUM	48187	48187
Fitting for GAS	48186	48186
Fitting for AIR	48188	48188
Electrical Socket Outlets	48189	48189
Germicidal UV Lamp	48185	48185
Transparent front cover (recommended when UV lamp is used)	48145	48147

# BLUspace Luce

CLASS II, BIOLOGICAL SAFETY CABINET FOR PRODUCT, OPERATOR AND ENVIRONMENT PROTECTION

## SAFETY AND PERSONAL COMFORT

EN12469-2000 standard compliance. Air quality Class 5 - ISO 14644.1 (Class 100 - FS 209E).

Microprocessor Control Alarm, Monitoring System. Comfortable Ergonomic Design.

Prepared for easy installation of optional service fittings.

### ANGLED FRONT

Provide superior visibility and improves reach into the work area.

### CONTROL PANEL

Angled down for easy-access by the operator.

### SLIDING FRONT SASH

Opening allows for easier access into the work zone.

### MULTI-PIECE TRAY

Easy to lift and remove for decontamination and sterilization.

### FRONT ARMREST

Raised above the work zone to improve comfort and to minimize blockage of IN FLOW grille.

### FILTRATION SYSTEM

Main supply filter and exhaust filter provide 99,999% efficiency for particle size of 0.1 to 0.3  $\mu\text{m}$ .

### FRONT PANEL INSTRUCTIONS

According to EN17025.

### TWO PLUGGED SERVICE

Provisions on each side, for easy installation of optional gas, vacuum, air fittings. Two electrical outlet retrofit kit provision.

### TEMPERED GLASS SIDES

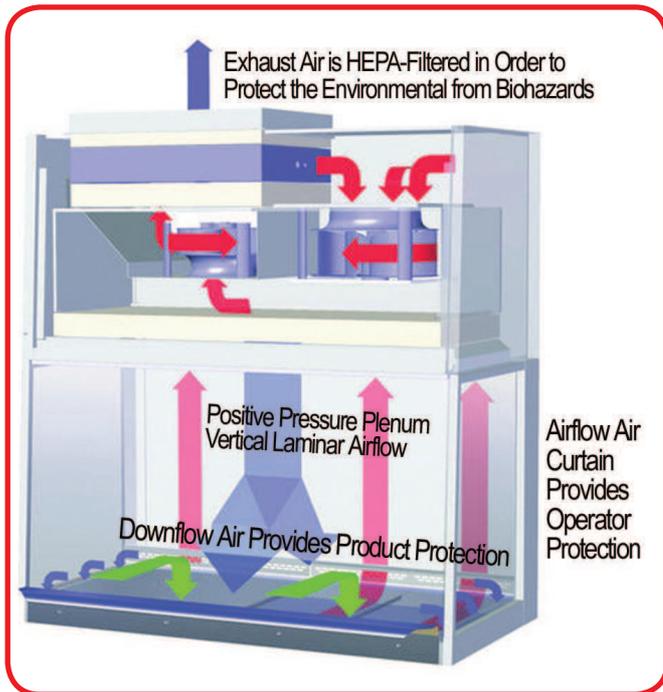
Deliver uniform lighting to the work surface.



**the safety solution for life science laboratories**

# BLUspace Luce

CLASS II, BIOLOGICAL SAFETY CABINET



## BLUspace Luce BIOLOGICAL SAFETY CABINET

### AIRFLOW PATTERN

BLUspace Luce is a Class II Biological Safety Cabinet with partial recycle of filtered air (about 70% of total air volume) and partial exhaust of filtered air to the outside (about 30% of total air volume).

The amount of exhausted air is compensated by an equal amount of air, defined as "barrier protection", that is regained by the front opening of the work space.

Environment protection is guaranteed by means of the absolute filtration of the exhaust air through the HEPA filter conforming to the requirements of EN 1822-1.



MODEL	BLUspace Luce			
	Type 90	Type 120	Type 150	Type 180
Catalog Number	48193	48184	48155	48194
Standard features	Microprocessor controlled – Control panel with alphanumeric display – Acoustic and visual alarms – Programmable UV light timer - Fluorescent lamp – Sliding front sash – Multi-piece work surface – No welded joints drain pan			
Cabinet construction	Main body: electrogalvanized steel with oven-baked epoxy powder coated Work zone: stainless steel 304 4B finish Side walls: UV adsorbing tempered glass, 5 mm colorless and transparent			
External dimension (cm)	104x78x136 h	134x78x136 h	165x78x136 h	195x78x136 h
Internal dimension (cm)	96x56x67 h	127x56x67 h	157x56x67 h	188x56x67 h
IN FLOW velocity	0,45 m/sec			
DOWN FLOW velocity	0,30 m/sec			
Noise level (dBA)	< 61	< 62	< 62	< 63
Light intensity	> 1130 lux	> 1280 lux	> 1050 lux	> 1220 lux
Net weight	190 kg	225 kg	260 kg	310 kg
Shipping weight	230 kg	280 kg	325 kg	360 kg
Shipping dimension (cm)	114x86x172 h	144x86x165 h	175x86x165 h	206x86x168 h
Power Supply	220V 50 Hz - 300W	220V 50 Hz - 300W	220V 50 Hz - 300W	220V 50 Hz - 550W

Accessories	BLUspace Luce			
	Type 90	Type 120	Type 150	Type 180
MODEL	Type 90	Type 120	Type 150	Type 180
Stand with levelling feet (70-78 cm)	48192	48190	48156	48195
Germicidal UV Lamp - 253.7 nm	48196		48185	
Fitting for VACUUM			48187	
Fitting for GAS			48186	
Fitting for AIR			48188	
Electrical Socket Outlets			89642	
29003	safety bunsen burner "Bravo-Flam" with non-touch sensor			
29092	52 g butane cartridge – six pcs			
29008	Adapter for connecting gas cartridge cat.n. 29092			
48197	Ergonomic foot rest – adjustable height			
48199	Soft armrest – easy to clean – 70 cm standard size			

# BLUbench Basic - TYPE 100/120/150/180

DUCTLESS FUME CABINET ACTIVATED CARBON FILTRATION WITH AIR RECIRCULATING DESIGN

## COMPLETE SAFETY AND LARGE WORKING SURFACE

In compliance with BS 7258 and BS 7989 – Microprocessor control – Large working surface – Models width 100, 120, 150, 180 cm.

### FILTERS FOR SPECIFIC APPLICATIONS

High efficiency pre-filter, 95% for 0.5 um particles and different impregnated carbon filters for specific chemical substances.

For operator protection against breathing toxic, irritant or allergy inducing chemicals.

### FRONT SLIDING WINDOW WITH LARGE OPENING

Counterbalanced front sash with variable working opening from 50 to 400 mm. Automatic air flow control according to different front opening. Maximum opening 700 mm provide easy access during cabinet loading and easy internal cleaning.

### BACK Baffle SYSTEM

For a better extraction of light volatile contaminants that are drawn either upwards and heavy volatile contaminants or particulates that are drawn across the work surface to the secondary extract slot.

### PLENUM WITH DYNAMIC AIR TIGHTNESS

Blower chamber made to guarantee extraction of contaminants through filters avoiding leakage.

### BLOWER HOUR METER

To help the user monitor total cabinet usage (useful information to plan filter replacement).

### PERSONNEL PROTECTION AND ENVIRONMENTALLY FRIENDLY

All toxic fumes are carbon-filtered and only clean air is recycled back to the laboratory.

### IDEAL VISIBILITY

Transparent safety glass front window and sides: provide a high degree of visibility of working area and operator comfort.

### LOW AIR INFLOW ACUSTIC AND VISUAL ALARM

For user complete safety.



# BLUbench Basic

FUME CABINET



MODEL	BLUbench Basic			
	Type 100	Type 120	Type 150	Type 180
Catalog Number	49200	49220	49250	49280
Stand code number	17432	17433	20139	17434
Standard features	Counterbalanced safety glass front sash – Lighting 800 lux – low inflow acoustic and visual alarm – stainless steel working surface with liquid containment capacity 10 litres/m <sup>2</sup>			
External dimension (cm)	100x75x150 h	120x75x150 h	150x75x150 h	180x75x150 h
Internal dimension (cm)	95x66x86 h	115x66x86 h	145x66x86 h	175x66x86 h
Working surface cm	95x60	115x60	145x60	175x60
Weight	120 kg	130 kg	160 kg	200 kg
Electrical service	230V 50Hz 700W	230V 50Hz 700W	230V 50Hz 700W	230V 50Hz 700W

Filters	BLUbench Basic			
	Type 100	Type 120	Type 150	Type 180
MODEL				
High efficiency pre-filter "PRESAFE" - box 12 pcs	16434			
Main carbon filter type H100 - 15 kg - 600x450 mm Number of filters to order – different filters for specific application	1	2	2	3
Safety Carbon Filter (optional) type H40 - 7 kg - 600x450 mm Number of filters to order - different filters for specific application	1	2	2	3

Support Stand	BLUbench Basic			
	Type 100	Type 120	Type 150	Type 180
MODEL				
Support stand with levelling feet	17432	17433	20139	17434

Filter code numbers			
APPLICATION	Main type H100	Main type H40	Features
General purposes filter, capable to adsorb most of the aliphatic and aromatic hydrocarbons, solvents, organic vapours, aldehydes, ketones, alcohols, organic acids, esters, halides, sulphured and nitrogenous compounds, volatile odours	16432	88806	Activated carbon
Specific for ether	49001	49008	Impregnated activ. carbon
Specific for Formaldehyde e Glutaric aldehyde	16433	88807	Impregnated activ. carbon
Specific for Ammonia and Amines	49002	49009	Impregnated activ. carbon
Specific for alkali odours (urine ed excreta)	49003	49010	Impregnated activ. carbon
Specific for inorganic acids and S <sub>2</sub> O, H <sub>2</sub> SO <sub>4</sub> e HCl	42879	17584	Impregnated activ. carbon
Specific for H <sub>2</sub> S and mercaptans	37134	88808	Impregnated activ. carbon
Specific for HCN	49004	49011	Impregnated activ. carbon
Specific for prevalently acid odours (cadaverine, putrescine)	49005	49012	Impregnated activ. carbon
Specific for mercury vapours	49006	49013	Impregnated activ. carbon
Specific for iodine vapours ( <sup>125</sup> I, <sup>129</sup> I) and Metiliodide	49007	49014	Impregnated activ. carbon
Multilayer filter, wide spectrum for Educational purpose	49015	n.a.	Multilayer
Absolute filters with a 99,997% retention efficiency of particles with diam. 0,3 µm (for powder and microorganism)	32913	32913	HEPA

# BLUbench - TYPE 60

ACTIVATED CARBON FILTRATION WITH AIR RECIRCULATING DESIGN

## BLUBENCH 60 - PERSONAL CABINET

for general purpose - for safety work, everywhere, on the occasion of moderate "CHEMICAL RISK".

### **HINGED FRONT SASH WITH LARGE FRONT OPENING:**

provide easy access during cabinet loading and easy internal cleaning.

### **PERSONNEL PROTECTION AND ENVIRONMENTALLY**

**FRIENDLY:** all toxic fumes are carbon-filtered and only clean air is recycled back to the laboratory.

### **CONVENIENT RELOCATION AND MOVEMENT**

**OF CABINET:** light, compact design (External Dim. 540x670x1090 h mm) and recirculating design requires no fixed external ducting and exhaust fan.

### **SLOPED FRONT DESIGN:**

minimizes glare in the viewscreen and improves user comfort during extended operations.

### **TRANSPARENT POLYCARBONATE FRONT WINDOW**

**AND SIDES:** provide a high degree of visibility of working area and operator comfort.

### **TWO PASS-THRU FLAPS ON THE BACK WALL:**

to introduce power cables of instruments located on working surface.



Convenient accessory "Stainless steel working surface" Item 88600

Activated carbon filter with integrated pre-filter for general purpose - can be carried out from the front for easy maintenance.

#### WHAT TO ORDER

**88482** "BLUbench 60" - dim. inside 520x660x800 h mm - dim. external 540x670x1090 h mm

1/box

# BLUbench - TYPE 80 Plus

## DUCTLESS FUME CABINET

### BLUBENCH 80 PLUS - PERSONAL CABINET

filters for specific applications - for operator protection against breathing toxic, irritant or allergy-inducing chemical substances.

#### **HINGED FRONT SASH WITH LARGE FRONT OPENING:**

provide easy access during cabinet loading and easy internal cleaning.

**PERSONNEL PROTECTION AND ENVIRONMENTALLY FRIENDLY:** all toxic fumes are carbon-filtered and only clean air is recycled back to the laboratory.

#### **EASY TO MOVE AND CONVENIENT RELOCATION:**

compact design (External Dim. 800x630x1000 h mm) and recirculating design requires no fixed external ducting and exhaust fan.

**SLOPED FRONT DESIGN:** minimizes glare in the viewscreen and improves user comfort during extended operations.

**PLENUM WITH DYNAMIC AIR TIGHTNESS:** blower chamber made to guarantee extraction of contaminants through filters avoiding leakage.

**BACK BAFFLE SYSTEM:** for a better extraction of light volatile contaminants that are drawn either upwards and eavy volatile contaminants or particulates that are drawn across the work surface to the secondary extract slot.



Blower Hour Meter to help the user monitor total cabinet usage (useful information to plan filter replacement).

Filters for specific applications - high efficiency pre-filter, 95% for 0.5 um particles and different impregnated carbon filters for specific chemical substances\*

Convenient relocation by available accessory "Support Stand with Castor Wheels" Item 17431.

\* Contact our staff who will help you to choose the right filter type for your application

#### WHAT TO ORDER

**88805** "BLUbench 80 plus" - dim. inside 790x540x600 h mm - dim. external 800x630x1000 h mm

1/box