

 **AMELICOR**
The Core of Better Future

 |  | **MCRT**

Laminar
Flow
Devices












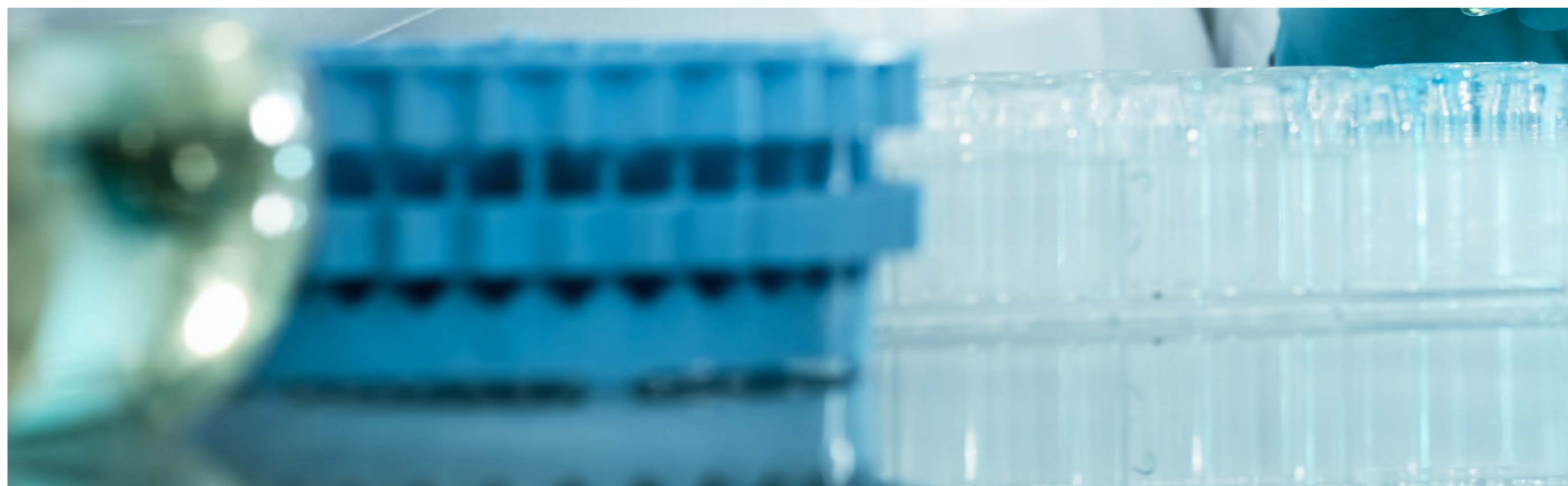


Laminar flow devices

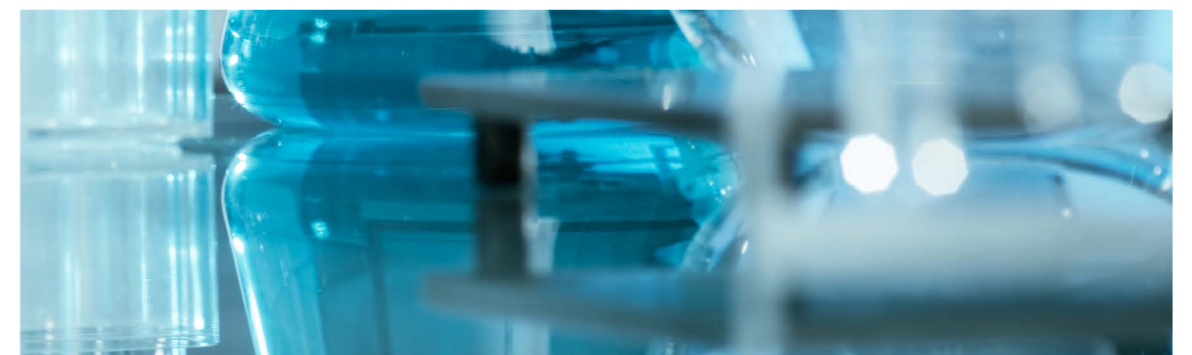
Laminar flow devices are an integral part of every laboratory and pharmaceutical production facility. Devices are protecting the operator, the work object and working environment from possible contamination or biologically hazardous materials (biohazard) during the study or work with micro-organisms. The devices are produced in accordance with EU GMP and ISO standards and validated with supporting IQ/OQ/FAT/SAT documentation. All devices can work 24/7.

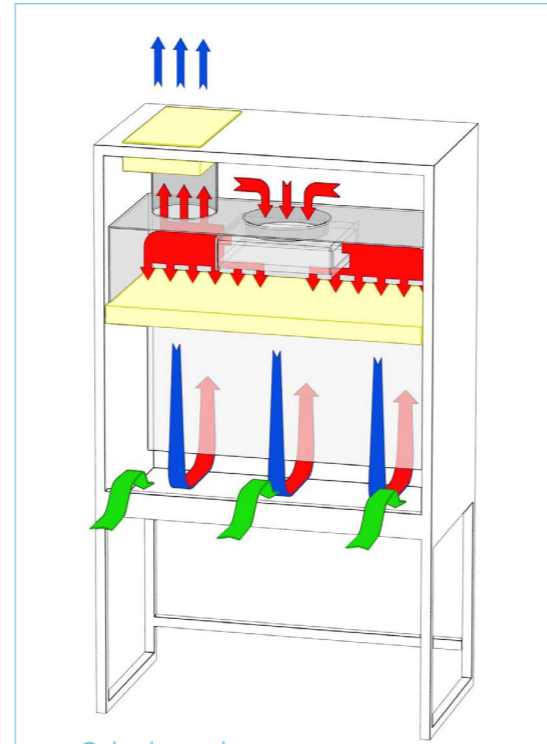
Icon legend:

	Laminar air flow		Polished surface		PVC curtain
	Vertical or horizontal air flow		Satin surface		Electrical lifting of front protective glass
	Nozzle rotation in all directions		Glass panel		Air, Gas, Water and/or Vacuum media connections
	0.25-0.45 m/s air flow velocity		Prefilter G4 (EN 779)		Low noise
	Air velocity setting option		Perforated steel		El. socket 230 V built inside the workspace
	Safe operator working environment		HEPA H14 efficiency 99,995% MPPS		Bactericide UV sterilization light
	Protection of open pharmaceutical substances		Microprocessor controlled parameters from control panel		Heating plate 22°C-45°C or adjustable
	Protection of booth surroundings		Work hours counter		Microscope attachment plate
	Efficiency 99,995% MPPS according to EN 1822 standard		UV light hours counter		Microscope
	ISO class 5-8 according to U.S.F.S. 209 E		Sound alarm		Wheel option
	GMP class A-D		Visual alarm		Other RAL colors on request
	Product made out of aluminum sheet (Al) or galvanized steel sheet (Fe)		Fluo or LED lamp >500 or >750 lux		Ventilated space
	Product made out of 304 stainless steel sheet		Standing work area		Electrical interlock (mechanical interlock on request)
	Powder coated or PVC coated		Sitting work area		Other dimensions on request
	Magnetic door lock		Pressure gauge or pressure sensor		Panic button



Microbiological safety cabinets

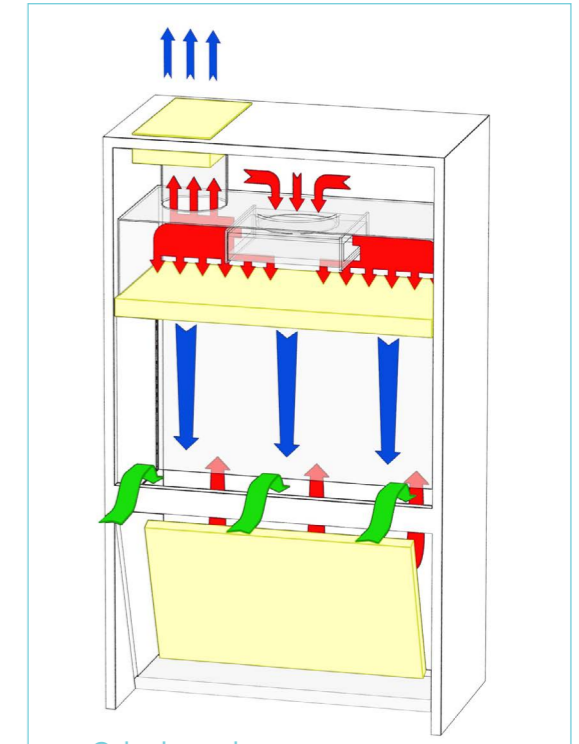




Color legend:
 ● Contaminated air
 ● Filtered air
 ● Ambient air
 ● HEPA filter

KTB-NS

Laminar air flows into the workspace and provides absolutely clean work zone. Both exhaust and contaminated air pass through main and outer HEPA filters. Compatible with 1, 2, 3 biocontamination levels.



Color legend:
 ● Contaminated air
 ● Filtered air
 ● Ambient air
 ● HEPA filter

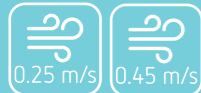
KTB-VS

Laminar air flows into the workspace and provides absolutely clean work zone. Both exhaust and contaminated air pass through main and outer HEPA filters. HEPA prefilters installed under the working table. Protection of the repairer. 1,2,3 biocontamination levels.

Type of laminar flow:



Air flow velocity:



Protection type:



Standards:



Material (housing):



Material (workspace):



Material (options):



Standard options:



Other options:



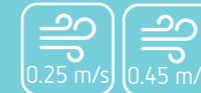
Other options:



Type of laminar flow:



Air flow velocity:



Protection type:



Standards:



Material (housing):



Material (workspace):



Material (options):



Standard options:



Other options:

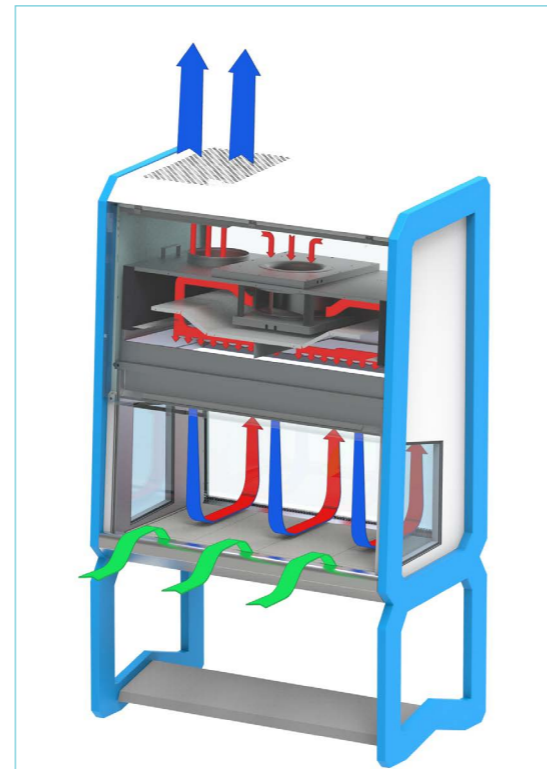
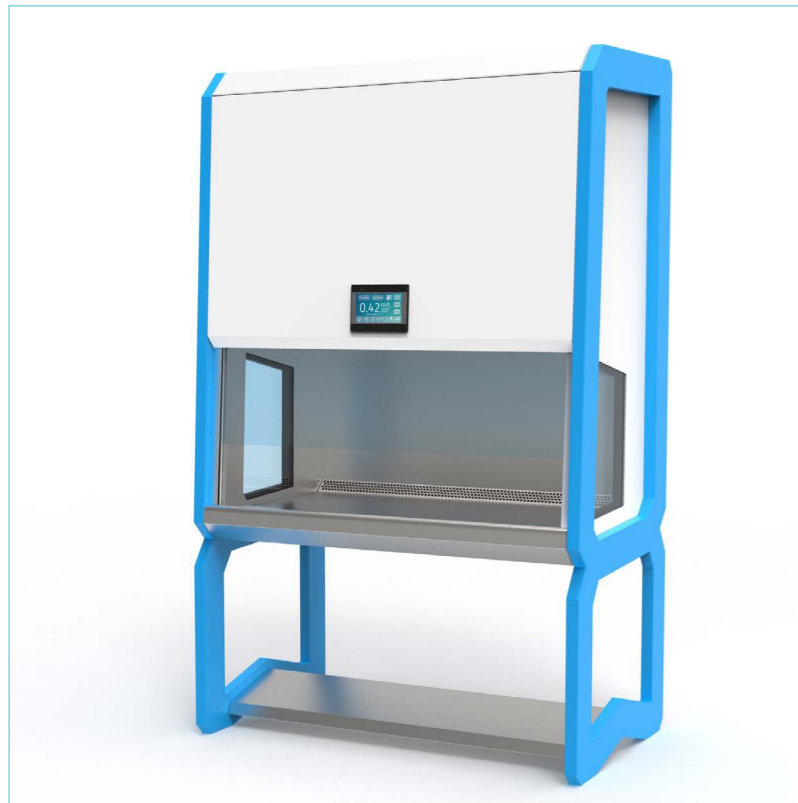


Other options:



Type	KTB-NS I	KTB-NS II	KTB-NS III	KTB-NS IV
Outer dimensions (mm)	1030x825x2200	1335x825x2200	1640x825x2200	1945x825x2200
Workspace dim. (mm)	885x610x650	1190x610x650	1495x610x650	1800x610x650
Max. connected power (W)	1800	1800	1850	1850
Max. power on socket (W)	920	920	920	920
Voltage / Frequency (V/Hz)	230/50	230/50	230/50	230/50
Weight (kg)	270	300	320	350

Type	KTB-VS I	KTB-VS II	KTB-VS III	KTB-VS IV
Outer dimensions (mm)	1030x825x2200	1335x825x2200	1640x825x2200	1945x825x2200
Workspace dim. (mm)	885x610x620	1190x610x620	1495x610x620	1800 x 610 x 620
Max. connected power (W)	1800	1800	1850	1850
Max. power on socket (W)	920	920	920	920
Voltage / Frequency (V/Hz)	230/50	230/50	230/50	230/50
Weight (kg)	270	300	320	350



Color legend:

- Contaminated air
- Filtered air
- Ambient air

KTB-NS

Laminar air flows into the workspace and provides absolutely clean work zone. Both exhaust and contaminated air pass through main and outer HEPA filters. Compatible with 1, 2, 3 biocontamination levels.

Type	KTB-NS I	KTB-NS II	KTB-NS III	KTB-NS IV
Outer dimensions (mm)	1055x800x2100	1360x800x2100	1665x800x2100	1970x800x2100
Workspace dim. (mm)	885x620x660	1190x620x660	1495x620x660	1800x620x660
Max. connected power (W)	1800	1800	1850	1850
Max. power on socket (W)	920	920	920	920
Voltage / Frequency (V/Hz)	230/50	230/50	230/50	230/50
Weight (kg)	270	300	320	350
Nominal current [A]	7,8	7,8	9	9
Nominal socket current [A]	4	4	4	4

Type of laminar flow:

Material (housing): Material (workspace): Material (options):

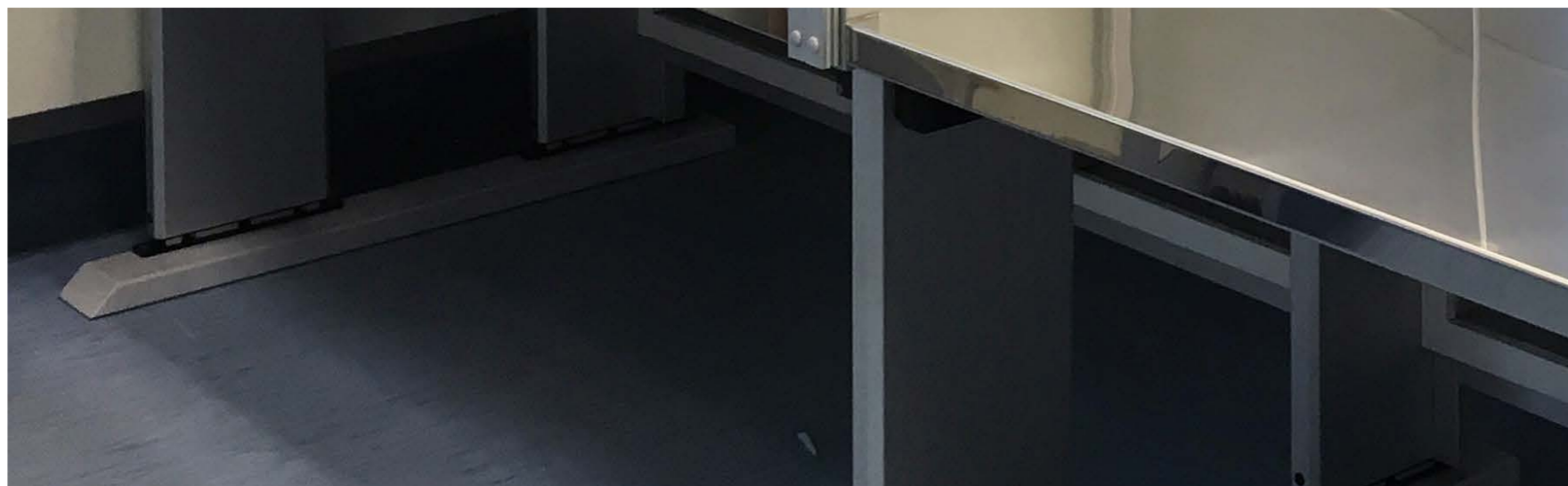
Air flow velocity:

Protection type:

Standards:

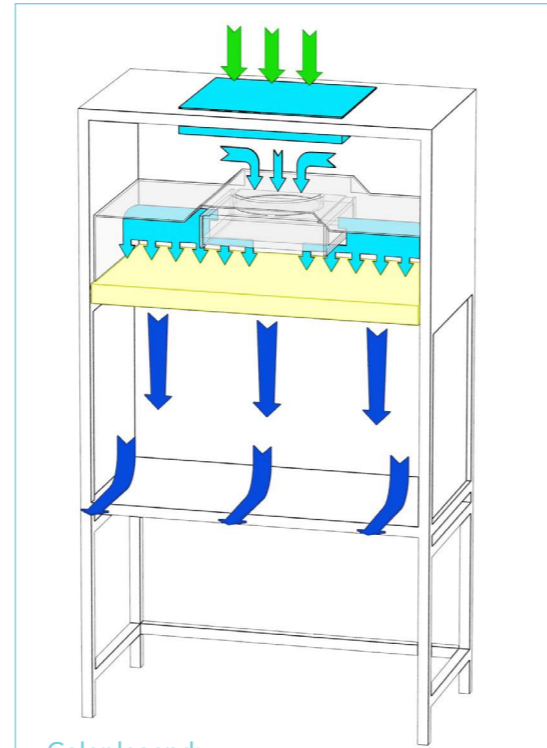
Other options:





Laminar flow cabinets

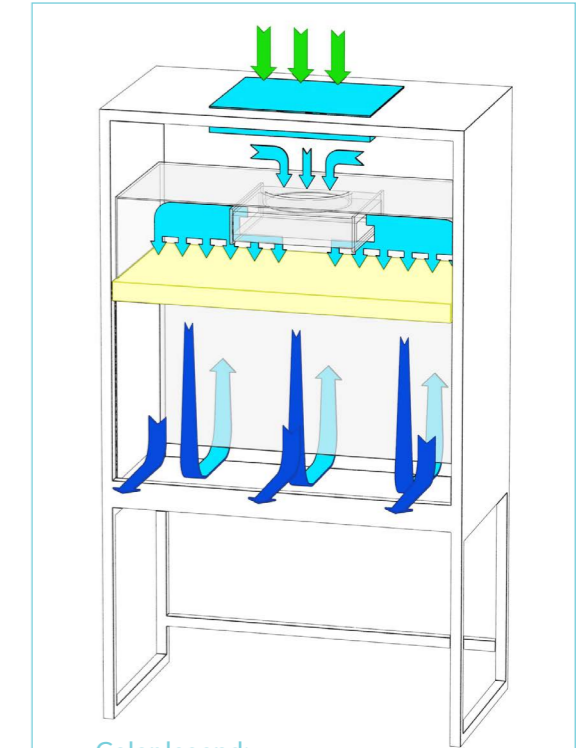




Color legend:
 ● Prefiltered air
 ● Filtered air
 ● Ambient air
 ● HEPA filter

KTV-A

Laminar flow hood takes the air through prefilter G4 that holds larger particles. The fan directs air to the HEPA absolute filter. Air flows into the workspace and provides air cleanliness.



Color legend:
 ● Prefiltered air
 ● Filtered air
 ● Ambient air
 ● HEPA filter

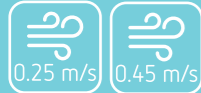
KTV-S

Laminar flow hood takes the air through prefilter G4 that holds larger particles. The fan directs air to the HEPA absolute filter. Air flows into the workspace and provides air cleanliness. Recirculation system through G4 prefilter.

Type of laminar flow:



Air flow velocity:



Protection type:



Standards:



Material (housing):



Material (workspace):



Material (options):



Standard options:



Other options:



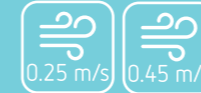
Other options:



Type of laminar flow:



Air flow velocity:



Protection type:



Standards:



Material (housing):



Material (workspace):



Material (options):



Standard options:



Other options:

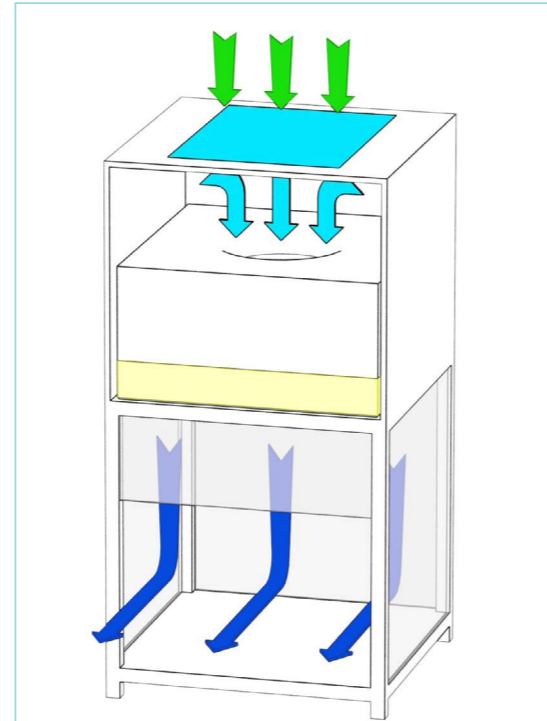


Other options:



Type	KTV-A I	KTV-A II	KTV-A III	KTV-A IV
Outer dimensions (mm)	970x750x2040	1275x750x2040	1580x750x2040	1885x750x2040
Workspace dim. (mm)	925x600x650	1230x600x650	1535x600x650	1840x600x650
Max. connected power (W)	450	520	650	750
Max. power on socket (W)	920	920	920	920
Voltage / Frequency (V/Hz)	230/50	230/50	230/50	230/50
Weight (kg)	74	85	102	120

Type	KTV-S I	KTV-S II	KTV-S III	KTV-S IV
Outer dimensions (mm)	1030x825x220	1335x825x2200	1640x825x2200	1945x825x2200
Workspace dim. (mm)	885x610x620	1190x610x620	1495x610x620	1800x610x620
Max. connected power (W)	1800	1800	1850	1850
Max. power on socket (W)	920	920	920	920
Voltage / Frequency (V/Hz)	230/50	230/50	230/50	230/50
Weight (kg)	270	300	320	350



Color legend:
● Prefiltered air
● Filtered air
● Ambient air
● HEPA filter

KTP-A The hood takes the air through prefilter G4 that holds larger particles. The fan directs air to the HEPA absolute filter. Air flows into the workspace and provides air cleanliness.

Type of laminar flow:



Air flow velocity:



Protection type:



Standards:



Material (housing):



Material (workspace):



Material (options):



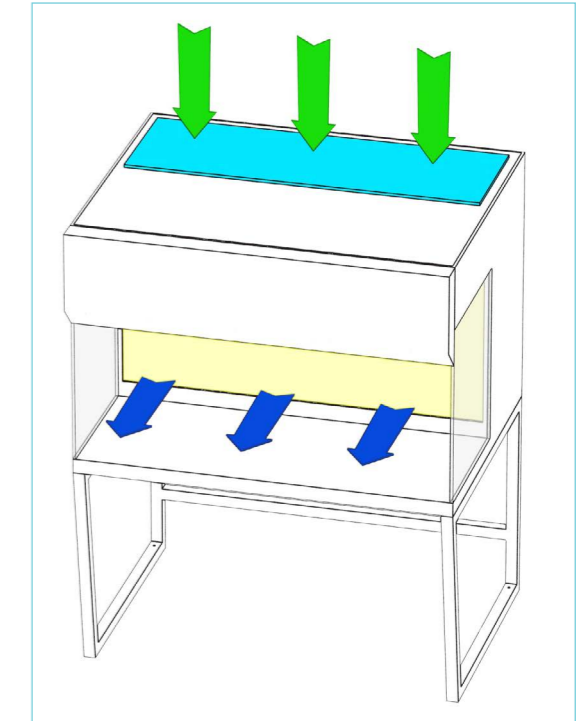
Standard options:



Other options:



Type	KTP-A II	KTP-A IV
Outer dimensions (mm)	494x556x950	647x711x950
Workspace dim. (mm)	457x455x470	610x610x470
Max. connected power (W)	1800	1800
Max. power on socket (W)	920	920
Voltage / Frequency (V/Hz)	230/50	230/50
Weight (kg)	40	50



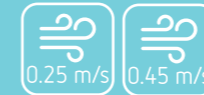
Color legend:
● Prefiltered air
● Filtered air
● Ambient air
● HEPA filter

KTH-S The hood takes the air through prefilter G4 that holds larger particles. The fan directs air to the HEPA absolute filter. Air flows into the workspace and provides air cleanliness.

Type of laminar flow:



Air flow velocity:



Protection type:



Standards:



Material (housing):



Material (workspace):



Material (options):



Standard options:



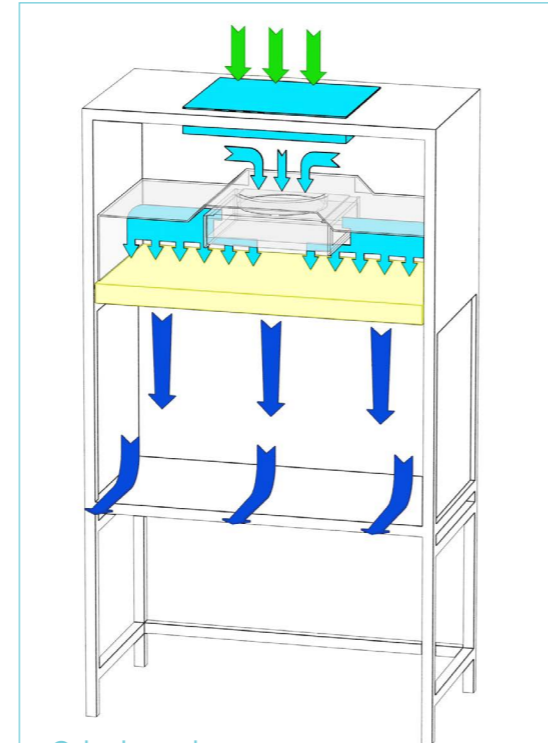
Other options:



Other options:



Type	KTH-S I	KTV-S II	KTV-S III	KTV-S IV
Outer dimensions (mm)	970x1025x880	1275x1025x880	1580x1025x880	1885x1025x880
Workspace dim. (mm)	940x500x610	1245x500x610	1550x550x610	1855x500x610
Max. connected power (W)	1600	1600	1650	1650
Max. power on socket (W)	920	920	920	920
Voltage / Frequency (V/Hz)	230/50	230/50	230/50	230/50
Weight (kg)	200	255	285	315



Color legend:
● Prefiltered air
● Filtered air
● Ambient air
● HEPA filter

IVF The hood takes the air through prefilter G4 that holds larger particles. The fan directs air to the HEPA absolute filter. Air flows into the workspace and provides air cleanliness of high degree.

Type	IVF I	IVF II	IVF III	IVF IV
Outer dimensions (mm)	970x750x2140	1275x750x2140	1580x750x2140	1885x750x2140
Workspace dim. (mm)	925x600x650	1230x600x650	1535x600x650	1840x600x650
Max. connected power (W)	450	520	650	750
Max. power on socket (W)	920	920	920	920
Voltage / Frequency (V/Hz)	230/50	230/50	230/50	230/50
Weight (kg)	74	85	102	120

Type of laminar flow:

Air flow velocity:

Protection type:

Standards:

Material (housing): Fe, PC
Material (workspace): AISI 304, AISI 316
Material (options): AISI 316

Standard options:

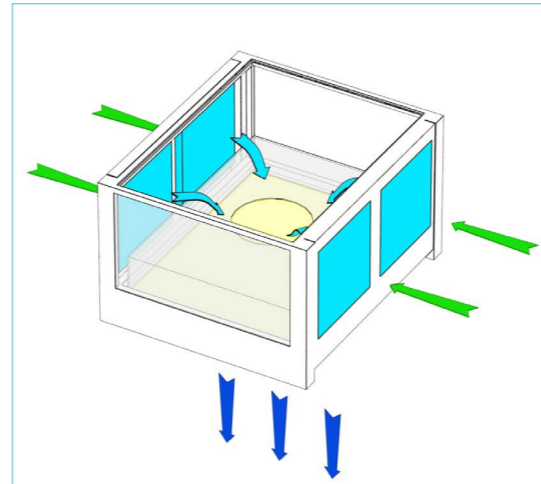
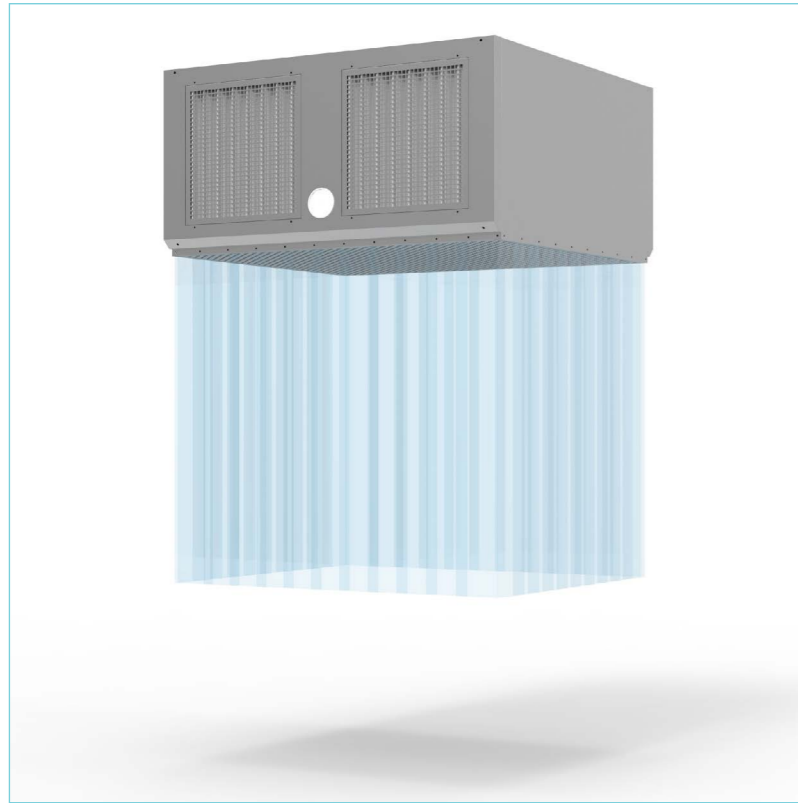
Other options:





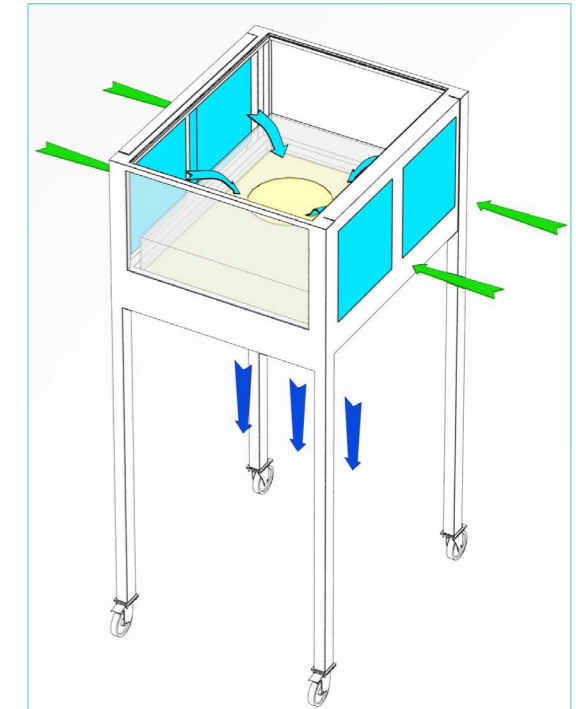
Containment booths





Color legend:
● Prefiltered air
● Filtered air
● Ambient air
● HEPA filter

KA Booth takes the air through prefilter G4 that holds larger particles. The fan directs air to the HEPA absolute filters. Laminar air flows into the workspace and provides air cleanliness of high degree. Ceiling fixing booth.



Color legend:
● Prefiltered air
● Filtered air
● Ambient air
● HEPA filter

KA Booth takes air through prefilter G4 that holds larger particles. The fan directs air to the HEPA absolute filters. Laminar air flows into the workspace and provides air cleanliness of high degree. Floor fixing booth.

Type of laminar flow:

Air flow velocity:

Protection type:

Standards:

Material:

Material (options):

Standard options:

Other options:

Type of laminar flow:

Air flow velocity:

Protection type:

Standards:

Material:

Material (options):

Standard options:

Other options:

Type	KA-1310	KA-1610	KA-1910	KA-2013	KA-2016
Outer dimensions (mm)	1327x1142x800	1632x1142x800	1937x1142x800	1984x1447x800	1984x1752x800
Workspace dim. (mm)	1327x1022x2200	1632x1022x2200	1937x1022x2200	1984x1327x2200	1984x1632x2200

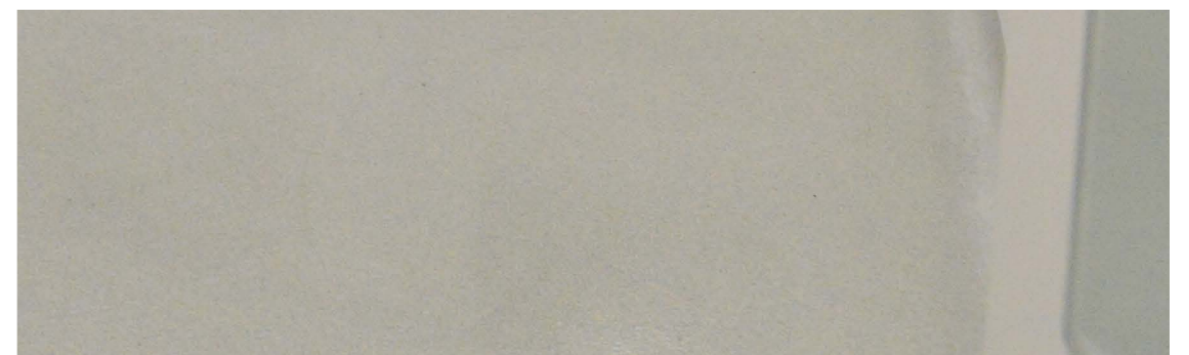
Type	KA-2019	KA-2913	KA-2916	KA-2919	KA-3913
Outer dimensions (mm)	1984x2057x2900	2946x1447x2900	2946x1752x2900	2946x2057x2900	3908x2057x2900
Workspace dim. (mm)	1984x1937x2200	2947x1327x2200	2946x1632x2200	2946x1937x2200	3908x1937x2200

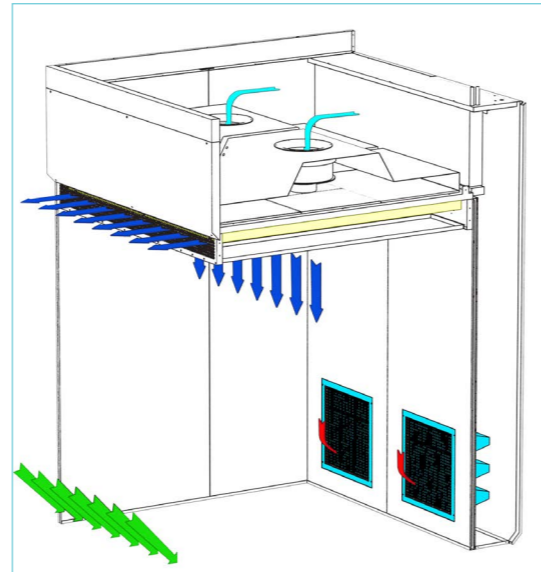
Type	KA-1310	KA-1610	KA-1910	KA-2013	KA-2016
Outer dimensions (mm)	1327x1142x3000	1632x1142x3000	1937x1142x3000	1984x1447x3000	1984x1752x3000
Workspace dim. (mm)	1327x1022x2200	1632x1022x2200	1937x1022x2200	1984x1327x2200	1984x1632x2200

Type	KA-2019	KA-2913	KA-2916	KA-2919	KA-3913
Outer dimensions (mm)	1984x2057x2900	2946x1447x2900	2946x1752x2900	2946x2057x2900	3908x2057x2900
Workspace dim. (mm)	1984x1937x2200	2947x1327x2200	2947x1632x2200	2946x1937x2200	3908x1937x2200



Weighing booths

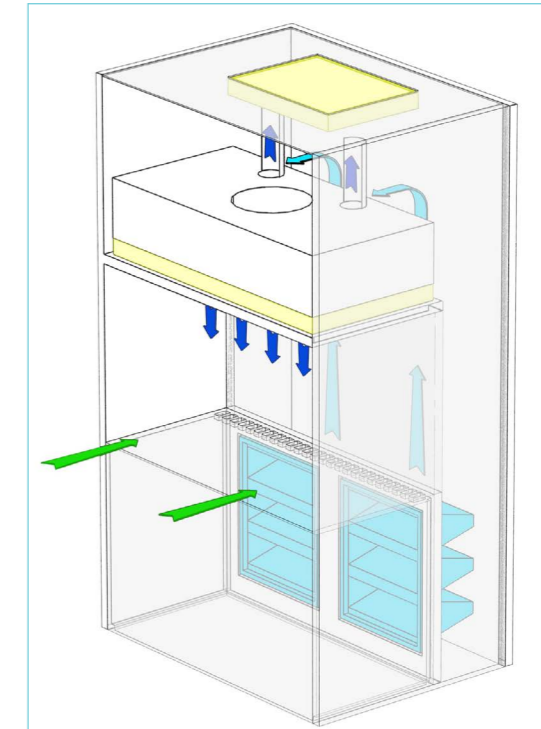




Color legend:

- Contaminated air
- Filtered air
- Ambient air
- HEPA filter
- Prefiltered air

VKA The fans direct air to the HEPA absolute filters. In a vertical laminar flow the air enters the workspace. Part of the filtered air quantity is exhausted into the room through the front grille. Air cooler installed.



Color legend:

- Prefiltered air
- Filtered air
- Ambient air
- HEPA filter

VKL The fans draw air through prefilters. 75-80% of the total air volume, in laminar flow goes into the workspace through main HEPA filter, while the rest, via exit HEPA filter, goes into the surrounding.

Type of laminar flow:



Air flow velocity:



Protection type:



Standards:



Material (workspace):



Material (options):



Standard options:



Other options:



Type of laminar flow:



Air flow velocity:



Protection type:



Standards:



Material (workspace):



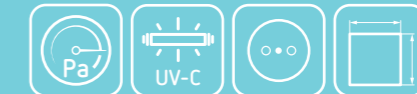
Material (options):



Standard options:



Other options:



Type	VKA 1310	VKA1610	VKA1910	VKA2013	VKA2016
Outer dimensions (mm)	1411x1475x3000	1716x1475x3000	2021x1475x3000	2088x1780x3000	2088x2175x3000
Workspace dim. (mm)	1327x1022x2200	1632x1022x2200	1937x1022x2200	2004x1327x2200	2004x1632x2200

Type	VKA 2019	VKA2913	VKA2916	VKA2919	VKA3919
Outer dimensions (mm)	2088x2480x3000	3030x1780x3000	3030x2176x3000	3030x2531x3000	3992x2531x3000
Workspace dim. (mm)	2004x1937x2200	2946x1327x2200	2946x1632x2200	2964x1937x2200	3908x1937x2200

Type	VKL I	VKL II	VKL III	VKL IV
Outer dimensions (mm)	1055x1100x2330	1360x1100x2330	1665x1100x2330	1970x1100x2330
Workspace dim. (mm)	971x630x720	1276x630x720	1581x630x720	1886x630x720
Max. connected power (W)	1800	1800	1850	1850
Max. power on socket (W)	920	920	920	920
Voltage / Frequency (V/Hz)	230/50	230/50	230/50	230/50



Pass boxes, Mist & Air showers





Material:



Material (options):



Standard options:



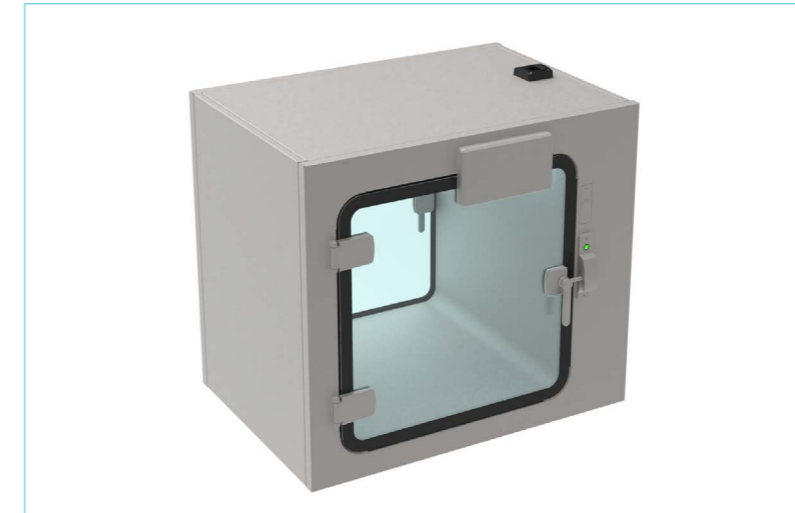
Other options:



PB-A-II

Active pass box is designed for safe transfer of materials from area to area with a built-in ventilation system for air recirculation inside the work area.

PB-A-II	Workspace dimensions			Housing dimensions			Consumption data			
	Width [mm]	Depth [mm]	Height [mm]	Width [mm]	Depth [mm]	Height [mm]	Nominal power [W]	Lighting level [Lux]	Laminar flow [m ³ /h]	Voltage
600	600	600	600	900	640	1300	270	500	150	1~230V
750	750	750	750	1050	790	1450	270	500	150	/N/PE
900	900	900	900	1200	940	1600	270	500	460	50/60 Hz



Material:



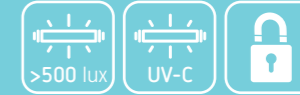
Material (options):



Standard options:



Other options:



PB-P-II

Pass box prevents disruption of the integrity of space, enabling the transfer of materials in controlled areas without the movement of personnel.

PB-P-II	Workspace dimensions			Housing dimensions			Consumption data		
	Width [mm]	Depth [mm]	Height [mm]	Width [mm]	Depth [mm]	Height [mm]	Nominal power [W]	Lighting level [Lux]	Voltage
600	600	600	600	900	640	800	100	500	1~230V
750	750	750	750	1050	790	950	100	500	/N/PE
900	900	900	900	1200	940	1100	100	500	50/60 Hz



Material:



Material (options):



Standard options:



Other options:



PB-S-II

Semi-active pass box is designed for safe transfer of materials from area to area with built in HEPA filter and connected to the facility's HVAC system.

PB-S-II	Workspace dimensions			Housing dimensions			Consumption data			
	Width [mm]	Depth [mm]	Height [mm]	Width [mm]	Depth [mm]	Height [mm]	Nominal power [W]	Lighting level [Lux]	Laminar flow [m ³ /h]	Voltage
600	600	600	600	900	640	1300	100	> 500	150	220-240V
750	750	750	750	1050	790	1450	100	> 500	150	N/PE
900	900	900	900	1200	940	1600	100	> 500	460	50/60 Hz



Material:



Material (options):



Standards:



Standard options:



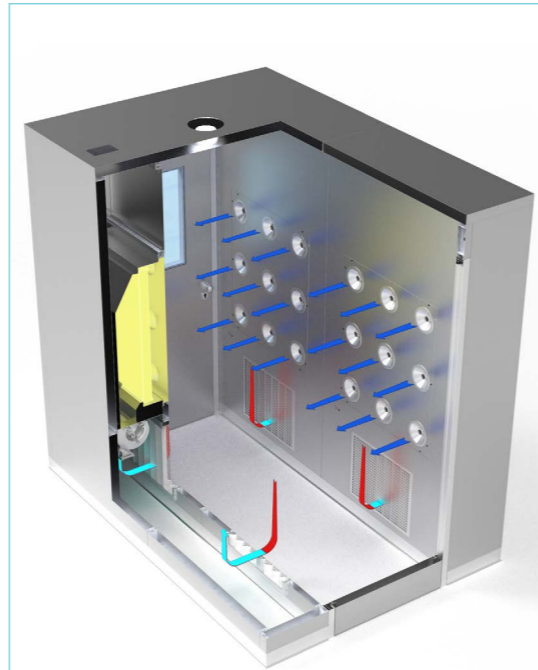
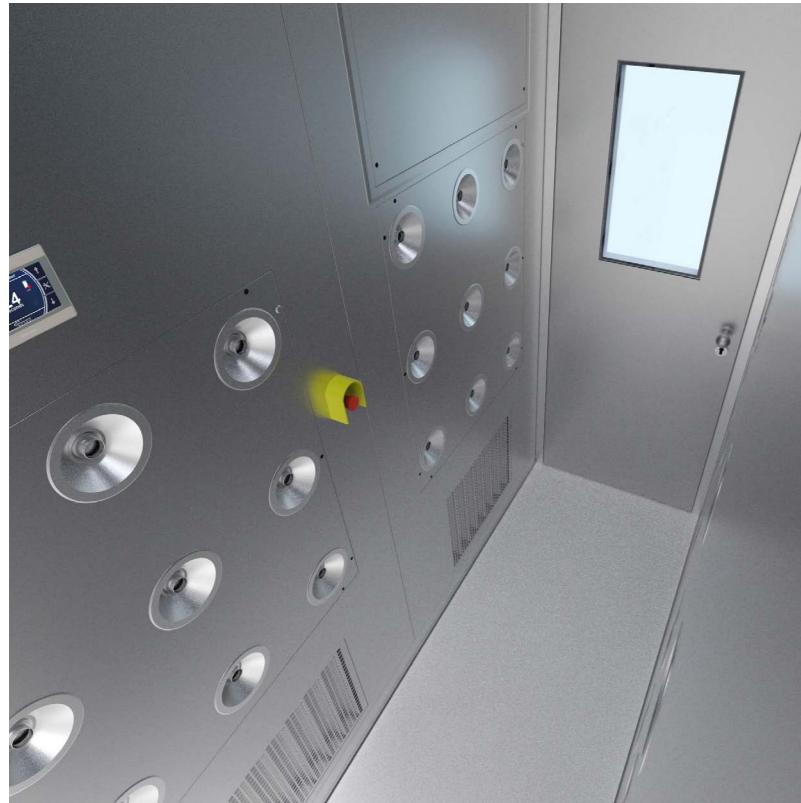
Other options:



MS

Mist shower is installed at the exit of a cleanroom. It provides automatized fog to affix any loose powders to the users garment to prevent it from becoming airborne or migrating outside of the containment area.

	Workspace dimensions	
	Lenght (mm)	Depth (mm)
MS 1010	1000	1000
MS 1212	1200	1200



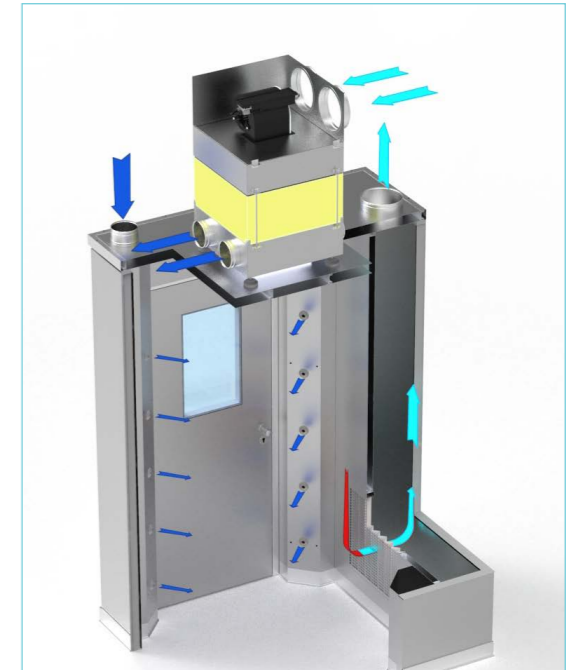
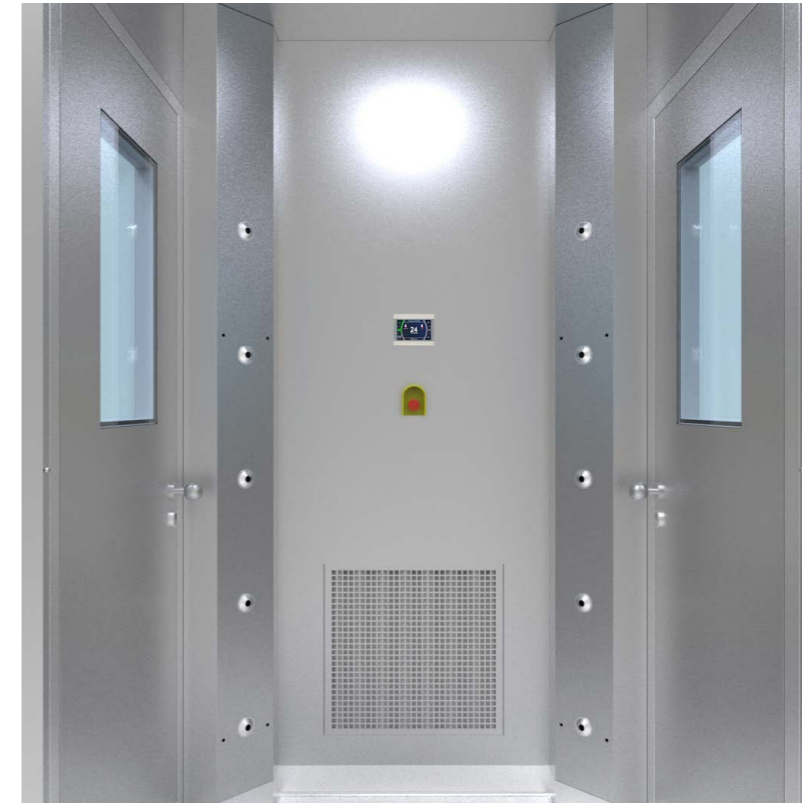
- Color legend:
- Contaminated air
 - Filtered air
 - Prefiltered air
 - HEPA filter

AT-M Air tunnel is used to remove surface deposited particles from personnel prior to entering the cleanroom. It uses a high velocity air stream to provide efficient scrubbing action of the personnel garment.

Material (outside): **Fe** **PC** Material (inside): **AISI 304** Material (options): **AISI 316** Initial air flow velocity: **20-22m/s** Standards: **EN 1822** **ISO class 5**

Standard options: **HEPA filter** **G4 filter** **LED >500 lux** **ΔPa** Other options: **M5 filter** **RAL**

Model	AT-1M	AT-2M	AT-3M	AT-4M
External dimensions (A _{out} x B _{out} x H _{out})	1900x1324x2462 mm	1900x2524x2462 mm	1900x3724x2462 mm	1900x4924x2462 mm
Internal Work Area, dimensions (A _{in} x B _{in} x H _{in})	1000x1200x2400 mm	1000x2400x2400 mm	1000x3600x2400 mm	1000x4800x2400 mm
Doors dimensions (Ax B)	Nominal dimension: 1000 x 2200 x 62 mm / Opening: 880 x 2140 mm			
Number of Nozzles	18	36	54	72
Air Shower Duration	Factory set at 30 seconds (adjustable on request)			
LED Lamp	15W x 1 pcs.	15W x 2 pcs.	15W x 3 pcs.	15W x 4 pcs.
Max. Power consumption	P max = 1,5 KW	P max = 3,2 KW	P max = 4,7 KW	P max = 6,2 KW
Supply	U =3~400V / N / PE 50 Hz	U =3~400V / N / PE 50 Hz	U =3~400V / N / PE 50 Hz	U =3~400V / N / PE 50 Hz
Max. Current	I max= 3,5 A	I max = 7A	I max = 8 A	I max = 10,5 A



- Color legend:
- Contaminated air
 - Filtered air
 - Prefiltered air
 - HEPA filter

AS Air shower is used to remove surface deposited particles from personnel prior to entering the cleanroom. It uses a high velocity air stream to provide efficient scrubbing action of the personnel garment.

Material (outside): **Fe** **PC** Material (inside): **AISI 304** Material (options): **AISI 316** Initial air flow velocity: **20-22m/s** Standards: **EN 1822** **ISO class 5**

Standard options: **HEPA filter** **G4 filter** **LED >500 lux** **ΔPa** Other options: **M5 filter** **RAL**

Model	AS - 1212	AS - 1414
External dimensions (A _{out} x B _{out} x TH _{out})	1644x1324xTotal Height / Total Height = Internal height + 1050 mm	1844x1524xTotal Height / Total Height = Internal height + 1050 mm
Internal Work Area, dimensions (A _{in} x B _{in} x H _{in})	1200x1200xInternal height	1400x1400xInternal height
Doors dimensions (Ax B)	Nominal: 700x2200x62 mm Opening: 580x2140x62 mm	Nominal: 900x2200x62 mm Opening: 780x2140x62 mm
Number of Nozzles	20	
Air Shower Duration	Factory set at 30 sec. (adjustable on request)	
LED Lamp	14,3 W x 1 pcs.	
Max. Power consumption	P max = 850 W	
Supply	U = 1~230V / N / PE 50 Hz	
Max. Current	I max = 5 A	



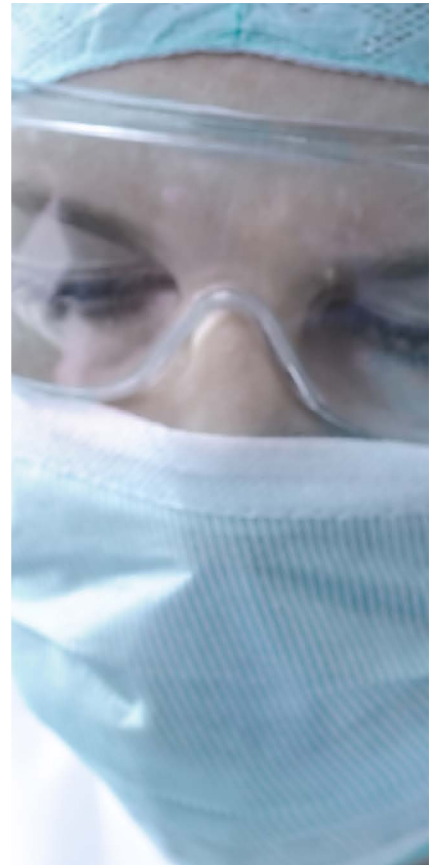
References





References





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