



ALPINA



ALPINA
THE PRODUCER
OF THE LAMINAR FLOW CABINETS
AND LABORATORY EQUIPMENT

LABORATORY PRODUCTS:

Vertical laminar air flow - K series

Laminar flow cabinet S100 PCR - DNA testing

Horizontal laminar flow air flow - H series

Class 2 biological safety cabinet - BIO series

HEATING OVENS

18

YEARS OF EXPERIENCE
IN PRODUCTION



ISO 9001:2008
TUV RHEINLAND
ID 0000045372



OWN RESEARCH
LABORATORY



ALPINA is the biggest producer of the laminar flow cabinets in Poland. The story begins in 2000, when we produced our first laminar flow cabinet.

Nowadays, we have in our offer more than 20 models of the laminar flow cabinets, pharmaceutical blenders, heating ovens, fume cupboard and containers for the medicines and ointments. We export our products to European, Asian and American markets.

Quality and safety of our products is our priority, thus as only one producer of the laminar flow cabinets in Poland we have certificate of biological safety according to norm PN-EN 12469 issued by TUV Rheinland for all produced II class of Biological Safety Cabinets.

As the third laboratory in Poland we obtained accreditation of Polish Accreditation Centre for testing of the laminar flow cabinets and filters. Thus, the accreditation granted by PCA is a confirmation of the highest quality of service, personnel expertise and meet the standards of the norm PN-EN ISO/IEC 17025/2005. The subject of tests might be the laminar flow cabinets, clean rooms, operating rooms, ventilator with filters.

The junction of the highest technology, technical knowledge, modern design and also expertise of the personnel guarantee the highest quality of our products.

Maciej Mixtacki





ALPINA

Table of content

Vertical laminar air flow - K series	4 - 11
Laminar flow cabinet S100 PCR - DNA test	12 - 13
Horizontal laminar flow air flow - H series	14 - 19
Class 2 biological safety cabinet - BIO series	20 - 27
Heating ovens - EASYLINE	28 - 30

K-series laminar flow cabinets-visualisation of used solutions



Touch control panel

To provide more comfortable work each of the functions is controlled by dedicated button and menu is available in many languages.

Steering of the cabinet is possible even in the gloves and due to pictographic icons service of menu is very easy and intuitive.



The sensor of air flow inside the cabinet

- cabinet equipped with the air flow sensor is available as option,
- correction of air flow +/- 10%,
- actual value of air flow and temperature inside the working space are displayed on the main screen.



No-worktop version

Cabinet without worktop available as option.



UV-lamp

UV-lamp is placed in the cabinet's back and provide disinfection and sterile conditions of work inside.



Electrical socket

Single socket outside the working space on the cabinet's walls.



Dedicated table - comfortable and stable laboratory bench

- steel "C" construction, made of the highest quality materials,
- worktop is made of stainless steel to specific model,
- height of the table is adjusted to the sitting work,
- table stands are colour-compatible with laminar cabinets of ALPINA.

K-series cabinets with vertical air flow

K-series cabinets

1. SILENT WORK - FROM 49 dB



Comfortable work is ensured by the silent-running, electronically controlled fans type EC. Moreover, specially designed distribution system of air inside the cabinet provides parallel air flow.

2. EASYTOUCH – TOUCH CONTROL PANEL



To provide more comfortable work each of the functions is controlled by dedicated button and menu is available in many languages.

Steering of the cabinet is possible even in the gloves and due to pictographic icons service of menu is very easy and intuitive.

3. LOW POWER CONSUMPTION



Application of the newest ventilators EC type and cost-effective illumination reduced the electrical energy consumption about 76% in the work mode. The power consumption in the laminar flow cabinet K-700 during work without illumination is 19 Watt. Whereas, in the model K-1000 power consumption is 28 Watt, which is one of the best result in the sector.

4. UV-LAMP 15 WATT



Permanently fitted UV-lamp guarantee full disinfection of cabinet's interior and providing sterile conditions of work. There is a possibility to programming time of work UV-lamp up to 9 hours and 50 minutes. After finishing, lamp is switched off automatically. The laminar cabinets are equipped in the time counter of UV-lamp as standard.

5. WIDE RANGE OF SIZE FROM 50 CM EVEN TO 160 CM



K-series cabinets are produced in different size from 50 cm (model K-500) up to 160 cm (model K-1600). According to customer's request our design office is able to carry out any modification not only of dimensions but concerning functionality with accordance to presented requirements.

6. HEPA FILTER 99,995 % FOR MPPS



The highest quality filters assembled in the cabinets are fully controlled and tested in own research lab and give a guarantee of proper air purity in the work environment. The chamber is equipped in HEPA filter monitoring system to control its effectiveness.

K-series cabinets - characteristic

- vertical laminar air flow within the range of 0,28 to 0,36 m/s or upon instructions,
- air flow control by sensor or voltage system with possible correction +/- 10% by user,
- silent-running ventilators,
- HEPA filter H-14 and additional preliminary polyamide filter EU (G3) class according to norm PN-EN 779,
- automatic filter compensation ensures constant and safe velocity of air flow in the cabinet,
- permanently fitted UV lamp in the upper-back part of the working space, protected from accidental switching on during operation,
- digital timer of the cabinet and UV lamp operation,
- energy-saving LED lamp in the working space,
- worktop made of stainless steel,
- single or double power socket on the cabinet's housing,
- additional equipment such as vacuum.

Constant monitoring presenting real parameters of the cabinet's functionality and steering system overseeing errors provides safety maintenance of the appliance.

Warranty period: 24 months.

Certificate of products

CE Declaration

The cabinet is produced according to ISO 9001- Certified Quality Management System

Each cabinet is tested in the factory's laboratory maintained according to norm PN-EN ISO 17025:2005.

Following parameters are being tested:

- air flow velocity,
- particle content,
- homogeneity of filter material - leak test,
- tightness of filter fitting,
- deviation of laminar air stream.

Factory test report is attached to each cabinet.

Laminar flow cabinet K-700



External dimensions width/depth/height in mm		719/500/780
Internal dimensions width/depth/height in mm		688/490/500
Number of fans pcs		1
Adjustable air flow m/s		0,26 - 0,38
Number of filters pcs	Pre-filter:	1
	HEPA:	1
Effectiveness of filters		> 99,995 % for MPPS - H14
Level of acoustic pressure according to PN-EN ISO 11201 in dB		< 49
Lighting lux		> 1000
Power consumption in Watt	Work with light on:	< 33
	Work without light off:	< 19
	Rated power:	201
Power of UV lamp in Watt		15
Number of electric socket standard in pcs		1
Control panel with touch screen available languages		English, German, Spanish, Polish
Construction of cabinet	Worktop:	stainless steel 1.4301
	External housing:	steel DC01, powder coated RAL 7035
	Front protective cover:	optional - polycarbonate
Gas valve, vacuum or air		option
Equipment weight in kg		55
Power supply 1-phase		230V / 50Hz

Laminar flow cabinet K1000



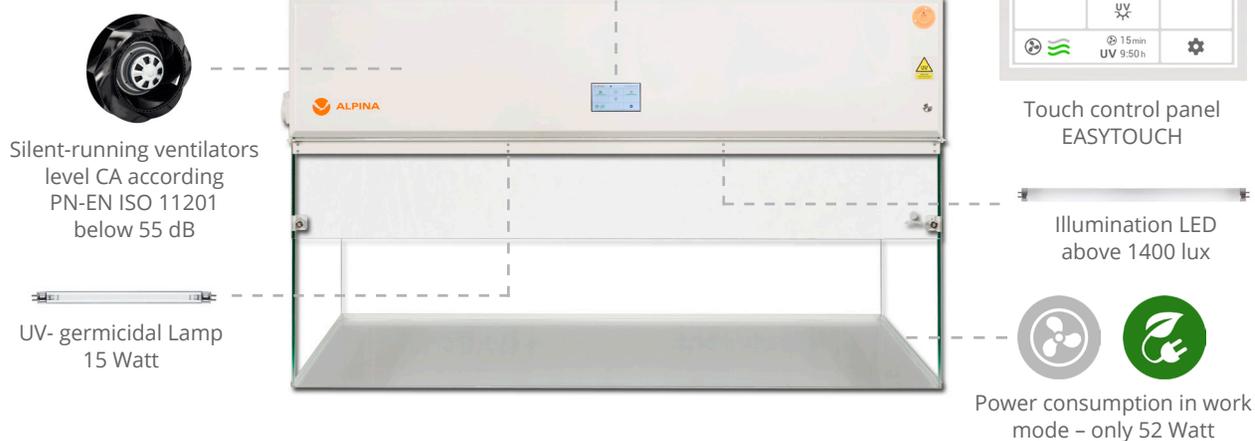
External dimensions width/depth/height in mm		1019/500/780
Internal dimensions width/depth/height in mm		988/490/500
Number of fans pcs		2
Adjustable air flow m/s		0,26 - 0,38
Number of filters pcs	Pre-filter:	1
	HEPA:	1
Effectiveness of filters		> 99,995 % for MPPS - H14
Level of acoustic pressure according to PN-EN ISO 11201 in dB		< 52
Lighting lux		> 1200
Power consumption in Watt	Work with light:	< 48
	Work without light:	< 28
	Rated power:	375
Power of UV lamp in Watt		15
Number of electric socket standard in pcs		1
Control panel with touch screen available languages		English, German, Spanish, Polish
Construction of cabinet	Worktop:	stainless steel 1.4301
	External housing:	steel DC01, powder coated RAL 7035
	Front protective cover:	optional - polycarbonate
Gas valve, vacuum or air		option
Equipment weight in kg		81
Power supply 1-phase		230V / 50Hz

Laminar flow cabinet K1300



External dimensions width/depth/height in mm		1319/500/780
Internal dimensions width/depth/height in mm		1288/490/500
Number of fans pcs		2
Adjustable air flow m/s		0,26 - 0,38
Number of filters pcs	Pre-filter:	1
	HEPA:	1
Effectiveness of filters		> 99,995 % for MPPS - H14
Level of acoustic pressure according to PN-EN ISO 11201 in dB		< 54
Lighting lux		> 1350
Power consumption in Watt	Work with light:	< 62
	Work without light:	< 44
	Rated power:	378
Power of UV lamp in Watt		15
Number of electric socket standard in pcs		1
Control panel with touch screen available languages		English, German, Spanish, Polish
Construction of cabinet	Worktop:	stainless steel 1.4301
	External housing:	steel DC01, powder coated RAL 7035
	Front protective cover:	optional - polycarbonate
Gas valve, vacuum or air		option
Equipment weight in kg		99
Power supply 1-phase		230V / 50Hz

Laminar flow cabinet K1600



External dimensions width/depth/height in mm		1624/633/718
Internal dimensions width/depth/height in mm		1588/625/500
Number of fans pcs		3
Adjustable air flow m/s		0,26 - 0,38
Number of filters pcs	Pre-filter:	1
	HEPA:	1
Effectiveness of filters		> 99,995 % for MPPS - H14
Level of acoustic pressure according to PN-EN ISO 11201 in dB		< 55
Lighting lux		> 1400
Power consumption in Watt	Work with light:	< 72
	Work without light:	< 52
	Rated power:	554
Power of UV lamp in Watt		15
Number of electric socket standard in pcs		2
Control panel with touch screen available languages		English, German, Spanish, Polish
Construction of cabinet	Worktop:	stainless steel 1.4301
	External housing:	steel DC01, powder coated RAL 7035
	Front protective cover:	optional - polycarbonate
Gas valve, vacuum or air		option
Equipment weight in kg		127
Power supply 1-phase		230V / 50Hz

Laminar flow cabinet K500



External dimensions width/depth/height in mm		515/500/815
Internal dimensions width/depth/height in mm		480/430/520
Number of fans pcs		1
Adjustable air flow m/s		0,20 - 0,50
Number of filters pcs	Pre-filter:	1
	HEPA:	1
Effectiveness of HEPA filters		> 99,995 % for MPPS - H14
Level of acoustic pressure according to PN-EN ISO 11201 in dB		< 55
Lighting lux		> 600
Power consumption in Watt	Work with light:	< 97
	Work without light:	< 83
	Rated power:	239
Number of electric socket standard in pcs		option
Construction of cabinet	Worktop:	stainless steel 1.4301
	External housing:	steel DC01, powder coated RAL 7035
	Front protective cover:	optional - polycarbonate
Equipment weight in kg		36
Power supply 1-phase		230V / 50Hz

S100 – laminar flow cabinet - visualisation if used solutions



Touch control panel

To provide more comfortable work each of the functions is controlled by dedicated button and menu is available in many languages.

Steering of the cabinet is possible even in the gloves and due to pictographic icons service of menu is very easy and intuitive.



Additional UV lamp in the compression chamber

S100 is equipped in two additional UV lamps (15 Watt) in the compression chamber what guarantees a sterile air flow provided to the working space and sterile conditions inside the laminar flow cabinet.



Protective glass

Specially designed and folding in half cover protects the working area before accidental impurities.



Electrical socket

A single electrical socket placed outside working space, on the housing.



Air-flow sensor

A sensor of air flow is available as option and its current value is displayed on the main control panel.



Dedicated table - option

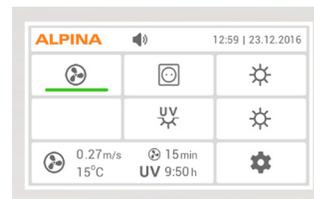
- steel "C" construction, made of the highest quality materials,
- worktop is made of stainless steel,
- height of the table is comfortable to the sitting work,
- upon Customer's request we are able to make size and coloristic modifications

Laminar flow cabinet S-100 PCR dedicated to DNA tests



External dimensions width/depth/height in mm		1030/738/1000
Internal dimensions width/depth/height in mm		980/690/650
Number of fans pcs		2
Adjustable air flow m/s		0,26 - 0,38
Number of filters pcs	Pre-filter:	1
	HEPA:	1
Effectiveness of HEPA filters		> 99,995 % for MPPS - H14
Level of acoustic pressure according to PN-EN ISO 11201 in dB		< 55
Lighting lux		> 1200
Power consumption in Watt	Work with light:	< 53
	Work without light:	< 38
	Rated power:	405
Power of UV lamp in Watt		3 x 15
Number of electric socket standard in pcs		1
Control panel with touch screen available languages		English, German, Spanish, Polish
Construction of cabinet	Worktop:	stainless steel 1.4301
	External housing:	steel DC01, powder coated RAL 7035
	Front protective cover:	optional - polycarbonate
Gas valve, vacuum or air		option
Equipment weight in kg		88
Power supply 1-phase		230V / 50Hz

H-series laminar - flow cabinets-visualisation of used solutions



Touch control panel

To provide more comfortable work each of the functions is controlled by dedicated button and menu is available in many languages.

Steering of the cabinet is possible even in the gloves and due to pictographic icons service of menu is very easy and intuitive.



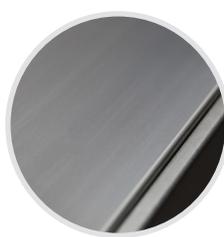
Dedicated table - option

- steel "C" construction, made of the highest quality materials,
- worktop is made of stainless steel,
- height of the table is comfortable to the sitting work,
- upon Customer's request we are able to make size and coloristic modifications.



Laminar net

Specially designed net with proper distribution of the inlet holes controls air flow inside the cabinet.



Worktop

Worktop is made of stainless steel. Special holes allow to quick disassembly in order to make a disinfection of the surface below the top.



UV lamp

Permanently fitted UV lamp guarantees a disinfection of the cabinet's interior what provides sterile conditions of work.



Pull-out UV lamp

- Permanently fitted 30 Watt UV-lamp (H-120 model) and 36 Watt (H150 & H180) guarantees a disinfection of interior and sterile conditions of work,
- UV lamp is able to be programmed even to 9 hours and 50 minutes. After finishing of process is automatically switched off.

Laminar horizontal airflow cabinet

H-series cabinets

1. SILENT WORK- FROM 49 dB



Comfortable work is ensured by the silent-running fans, electronically controlled fans type EC. Moreover, specially designed distribution system of air inside the cabinet provides parallel air flow.

2. LAMINAR NET



Specially designed net with proper distribution of the inlet holes controls air flow inside the cabinet. The laminar net is wonderful protection for HEPA filter in case of accidental damage.

3. LOW POWER CONSUMPTION



Application of the newest ventilators EC type and cost-effective illumination reduced the electrical energy consumption about 76% in the work mode. The power consumption in the laminar flow cabinet H-120 without any light is 55 Watt. Whereas, with the 1 lamp on is 69 Watt, which is one of the best result in the sector.

4. TOUCH CONTROL PANEL



To provide more comfortable work each of the functions is controlled by dedicated button and menu is available in many languages. Steering of the cabinet is possible even in the gloves and due to pictographic icons service of menu is very easy and intuitive.

5. WIDE RANGE OF SIZE- FROM 120 CM TO 180 CM



K-series cabinets are produced in different size from 50 cm (model K-500) up to 160 cm (model K-1600). According to customer's request our design office is able to carry out any modification not only of dimensions but concerning functionality with accordance to presented requirements.

6. UV LAMP



Permanently fitted 30 Watt UV-lamp (H-120 model) and 36 Watt (H150 & H180) guarantees a disinfection of interior and sterile conditions of work UV lamp is able to be programmed even to 9 hours and 50 minutes. After finishing of process is automatically switched off.

H-series cabinets - characteristic

- horizontal laminar air flow within the range of 0,28 to 0,36 m/s or upon instructions,
- air flow control by sensor,
- silent-running ventilators,
- HEPA filter H-14 and additional preliminary polyamide filter EU (G3) class according to norm PN-EN 779,
- automatic filter compensation ensures constant and safe velocity of air flow in the cabinet, digital timer of the cabinet and UV lamp operation,
- permanently fitted UV lamp in the upper-back part of the working space, protected from accidental switching on during operation,
- energy-saving LED lamp in the working space,
- laminar net inside to protect HEPA and provide parallel air flow,
- worktop made of stainless steel,
- sides of the cabinet with glass windows,
- electrical sockets,
- additional equipment such as vacuum, air, gas valves and lockable castors are available as option.

Constant monitoring presenting real parameters of the cabinet's functionality and steering system overseeing errors provides safety maintenance of the appliance.

Warranty period: 24 months.

Certificate of products

CE Declaration.

The cabinet is produced according to ISO 9001- Certified Quality Management System.

Each cabinet is tested in the factory's laboratory maintained according to norm PN-EN ISO 17025:2005.

Following parameters are being tested:

- air flow velocity,
- particle content,
- homogeneity of filter material - leak test,
- tightness of filter fitting,
- deviation of laminar air stream.

Factory test report is attached to each cabinet.

Horizontal laminar-flow cabinet H120



Touch control panel
EASYTOUCH



UV-germicidal Lamp
30 Watt



Silent-running ventilators
level CA according
PN-EN ISO 11201 below 49 dB



Illumination LED above
1200 lux or 3250 lux



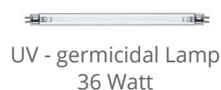
Power consumption in work
mode – only 55 Watt

External dimensions width/depth/height in mm		1250 / 790 / 950
Internal dimensions width/depth/height in mm		1190 / 630 / 600
Number of fans pcs		2
Number of plates in worktop pcs		1
Adjustable air flow m/s		0,26 - 0,38
Number of filters pcs	Pre-filter:	1
	HEPA:	1
Effectiveness of filters		> 99,995 % for MPPS - H14
Level of acoustic pressure according to PN-EN ISO 11201 in dB		< 49
Lighting lux		mode 1 > 1400, mode 2 > 3250
Power consumption in Watt	Work without light:	55
	Work with one light:	69
	Work with two lights:	84
	Rated power:	420
Power of UV lamp in Watt		30
Number of electric socket standard in pcs		2
Control panel with touch screen available languages		English, German, Spanish, Polish
Gas valve, vacuum or air		option
Construction of cabinet	Worktop, plates, side:	stainless steel 1.4301
	External housing:	steel DC01, powder coated RAL 7035
	Side glass:	safety glass
Equipment weight in kg		116

Horizontal laminar-flow cabinet H150



Touch control panel
EASYTOUCH



UV - germicidal Lamp
36 Watt



Silent-running ventilators
level CA according
PN-EN ISO 11201 below 53 dB



Illumination LED above
1450 lux or 3400 lux



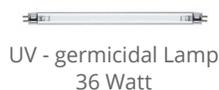
Power consumption in work
mode - only 71 Watt

External dimensions width/depth/height in mm		1550 / 790 / 970
Internal dimensions width/depth/height in mm		1490 / 610 / 595
Number of fans pcs		3
Number of plates in worktop pcs		1
Adjustable air flow m/s		0,26 - 0,38
Number of filters pcs	Pre-filter:	1
	HEPA:	1
Effectiveness of filters		> 99,995 % for MPPS - H14
Level of acoustic pressure according to PN-EN ISO 11201 in dB		< 53
Lighting lux		mode 1 > 1450, mode 2 > 3400
Power consumption in Watt	Work without light:	71
	Work with one light:	94
	Work with two lights:	118
	Rated power:	602
Power of UV lamp in Watt		36
Number of electric socket standard in pcs		2
Control panel with touch screen available languages		English, German, Spanish, Polish
Gas valve, vacuum or air		option
Construction of cabinet	Worktop, plates, side:	stainless steel 1.4301
	External housing:	steel DC01, powder coated RAL 7035
	Side glass:	safety glass
Equipment weight in kg		147

Horizontal laminar-flow cabinet H120



Touch control panel
EASYTOUCH



UV - germicidal Lamp
36 Watt



Silent-running ventilators
level CA according
PN-EN ISO 11201 below 57 dB



Illumination LED above
1250 lux or 3050 lux



Power consumption in work
mode – only 78 Watt

External dimensions width/depth/height in mm		1850 / 790 / 950
Internal dimensions width/depth/height in mm		1790 / 630 / 600
Number of fans pcs		3
Number of plates in worktop pcs		1
Adjustable air flow m/s		0,26 - 0,38
Number of filters pcs	Pre-filter:	1
	HEPA:	1
Effectiveness of filters		> 99,995 % for MPPS - H14
Level of acoustic pressure according to PN-EN ISO 11201 in dB		< 57
Lighting lux		mode 1 > 1250, mode 2 > 3050
Power consumption in Watt	Work without light:	78
	Work with one light:	101
	Work with two lights:	125
	Rated power:	614
Power of UV lamp in Watt		36
Number of electric socket standard in pcs		2
Control panel with touch screen available languages		English, German, Spanish, Polish
Gas valve, vacuum or air		option
Construction of cabinet	Worktop, plates, side:	stainless steel 1.4301
	External housing:	steel DC01, powder coated RAL 7035
	Side glass:	safety glass
Equipment weight in kg		196

Laminar flow cabinets – II BSC - visualization of used solutions



NOVELTY !!!

7 inch diameter control panel

Intuitive system SMART-TOUCH helps the user in operation of the cabinet and achievement the desired result.

To provide more comfortable work each of the functions is controlled by dedicated button and menu is available in many languages.



Bespoke orders- made especially for you

- cabinets might be modified concerning sizes, functionality and general design,
- we carry out untypical version e. g dedicated to tests and production of radio radiopharmaceuticals.



Worktop

Various models of worktop to choose : split or unitary. It is fully made of stainless steel and easy to clean.



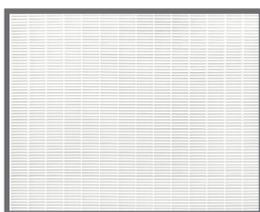
Silent-working fans

Electronically controlled fans type EC and modern system of distribution the air flow inside the cabinet provides silent and comfortable work.



Armrest

All cabinets are equipped in the removable armrest. It is advised in case of longer work with the cabinet.



Filter HEPA 99,995 % for MPPS

- the highest quality filters assembled in the cabinets are fully controlled and tested in own research lab and give a guarantee of proper air purity in the work environment.
- the chamber is equipped in HEPA filter monitoring system to control its effectiveness.

Laminar flow cabinets II Biological Safety Class

BIO series cabinets

1. CERTIFICATES



The only Polish laminar flow cabinets (BSC II) with microbiological safety certificate issued by TÜV Rheinland ID 000045372 according to PN-EN 12469:2002

2. SILENT WORK



Application of the electronically controlled fans type EC and specially designed modern system of the air's distribution inside the cabinet provide silent and comfortable work.

3. EASY STEERING SYSTEM



Intuitive steering by using touch display – 7 inch – SMART –TOUCH which is possible to use even in gloves.

To provide more comfortable work each of the functions is controlled by dedicated button without necessity to enter sub-menu.

4. ILLUMINATING ABOVE 1400 LUX



The comfort of work is provided by intensity of light min.1400 LUX and through proper placing of the light source we obtained outstanding, comfortable work environment for the eyes.

The cost-effective lighting with the proper colour provides uniform and complete illumination of the working space.

5. LOW POWER CONSUMPTION



Application of the newest ventilators EC type and cost-effective illumination reduced the electrical energy consumption by 76 % in work mode. The power consumption is BIO-100 type with a light off is only 112 Watt and with the light off which is one of the best result in the sector.

6. CLIENT'S NEEDS



The laminar flow cabinets of ALPINA might be modified concerning sizes, functionality and design as well upon special Client's request.

Laminar II safety class cabinet

- vertical laminar air flow fulfilled requirements of PN-EN 12469:2002
- HEPA filters with effectiveness 99,995 % for MPPS (outlet and carbon according to DIN 12980 for CYTO version)
- steering system SMART-TOUCH with 7 inch touch display
- automatic filter compensation ensures constant and safe speed of air flow in the cabinet
- hour timer of the cabinet and UV lamp operation.
- front window made of tempered double glass without frame, inclined at an angle of 8°, electrically raised and lowered with a possibility to close completely the workspace
- inside of the working area made of stainless steel
- sides of the workspace with windows holes (media)
- permanently fixed UV lamp in the upper part of the workspace, protected from accidental switching on during operation
- min. two power sockets inside the working space and gas, air or vacuum valves as option
- removable armrest

Constant monitoring presenting real parameters of the cabinet's functionality and steering system overseeing errors provides safety maintenance of the appliance.

Warranty period: 36 months

Certificate of products

CE Declaration.

The cabinet is produced according to ISO 9001- Certified Quality Management System and got certificate microbiological and electrical safety issued by – **TUV Rheinland ID 000045372**.

Each laminar safety cabinet is tested in the factory's laboratory maintained according to norm ISO 17025

Following parameters are being tested:

- air flow velocity
- particle content
- homogeneity of filter material - leak test
- tightness of filter fitting
- deviation of laminar air stream

Factory test report is attached to each cabinet.

II Biological Safety Class Cabinets – Technical Data Sheet

	BIO 100	BIO 130	BIO 160	BIO 190	Unit
External dimension	1040 / 790 / 2069	1340 / 790 / 2069	1640 / 790 / 2069	1960 / 790 / 2069	mm
Internal dimensions	950 / 645 / 660	1250 / 645 / 660	1561 / 645 / 660	1876 / 645 / 660	mm
Number of fans	2	3	4	4	pcs
Number of plates in worktop	3 or 1	4 or 1	5 or 1	6 or 1	pcs
Maximum height of window panel lifting during work	160 - 250				mm
Maximum height of front window panel lifting	540				mm
Air flow – adjustable	0,25 - 0,54				m/s
Number of HEPA filters	main - 1, outlet - 1				pcs
HEPA filter efficiency	> 99,995% for MPPS - H14				%
Loudness level PN-EN ISO 11201 w dB	< 49	< 53	< 56	< 57	dB
Illuminance	> 1400	> 1500	> 1600	> 1600	lux
Power consumption: Work with light and without light	112	119	156	177	Watt
	131	155	204	225	Watt
Rated power	616	792	989	989	Watt
Power of UV germicidal lamp	15	30			Watt
Number of electric sockets inside the chamber	2		4		pcs
Control panel - with touchscreen	available languages: English, German, Spanish, Polish				-
Gas, vacuum or air valve	opcjonal				-
Equipment weight	190	260	330	400	kg
Power supply	1 phase, 230V / 50Hz				-

Biological Safety Cabinet class 2 – BIO100



The cabinet is also available as CYTO version with charcoal filter - to work with cytotoxics substances.

External dimensions width/depth/height in mm		1040 / 790 / 2069
Internal dimensions width/depth/height in mm		950 / 645 / 660
Number of fans pcs		2
Number of plates in worktop pcs		3 or 1
Maximum height of window panel lifting during work mm		160 - 250
Maximum height of front window panel lifting mm		540
Air flow - adjustable m/s		0,25 - 0,54
Number of HEPA filters pcs	Main:	1
	Outlet:	1
HEPA filter efficiency		> 99,995 % for MPPS - H14
Loudness level PN-EN ISO 11201 dB		< 49
Illuminance lux		> 1400
Power consumption Watt	Work without light:	112
	Work with light:	131
	Rated power:	616
Power of UV germicidal lamp Watt		15
Number of electric sockets inside the chamber pcs		2
Control panel - with touchscreen available languages		English, German, Spanish, Polish
Gas, vacuum or air valve		option

Biological Safety Cabinet class 2 – BIO130



The cabinet is also available as CYTO version with charcoal filter - to work with cytotoxic substances.

External dimensions width/depth/height in mm		1340 / 790 / 2069
Internal dimensions width/depth/height in mm		1250 / 645 / 660
Number of fans pcs		3
Number of plates in worktop pcs		4 or 1
Maximum height of window panel lifting during work mm		160 - 250
Maximum height of front window panel lifting mm		540
Air flow – adjustable m/s		0,25 - 0,54
Number of HEPA filters pcs	Main:	1
	Outlet:	1
HEPA filter efficiency		> 99,995 % for MPPS - H14
Loudness level PN-EN ISO 11201 dB		< 53
Illuminance lux		> 1500
Power consumption Watt	Work without light:	119
	Work with light:	155
	Rated power:	792
Power of UV germicidal lamp Watt		30
Number of electric sockets inside the chamber pcs		2
Control panel - with touchscreen available languages		English, German, Spanish, Polish
Gas, vacuum or air valve		option

Biological Safety Cabinet class 2 – BIO160



The cabinet is also available as CYTO version with charcoal filter - to work with cytotoxic substances.

External dimensions width/depth/height in mm		1640 / 790 / 2069
Internal dimensions width/depth/height in mm		1561 / 645 / 660
Number of fans pcs		4
Number of plates in worktop pcs		5 or 1
Maximum height of window panel lifting during work mm		160 - 250
Maximum height of front window panel lifting mm		540
Air flow – adjustable m/s		0,25 - 0,54
Number of HEPA filters pcs	Main:	1
	Outlet:	1
HEPA filter efficiency		> 99,995 % for MPPS - H14
Loudness level PN-EN ISO 11201 dB		< 56
Illuminance lux		> 1600
Power consumption Watt	Work without light:	156
	Work with light:	204
	Rated power:	989
Power of UV germicidal lamp Watt		30
Number of electric sockets inside the chamber pcs		4
Control panel - with touchscreen available languages		English, German, Spanish, Polish
Gas, vacuum or air valve		option

Biological Safety Cabinet class 2 – BIO190



The cabinet is also available as CYTO version with charcoal filter - to work with cytotoxic substances.

External dimensions width/depth/height in mm		1960 / 790 / 2069
Internal dimensions width/depth/height in mm		1876/ 645 / 660
Number of fans pcs		4
Number of plates in worktop pcs		6 or 1
Maximum height of window panel lifting during work mm		160 - 250
Maximum height of front window panel lifting mm		540
Air flow – adjustable m/s		0,25 - 0,54
Number of HEPA filters pcs	Main:	1
	Outlet:	1
HEPA filter efficiency		> 99,995 % for MPPS - H14
Loudness level PN-EN ISO 11201 dB		< 57
Illuminance lux		> 1600
Power consumption Watt	Work without light:	177
	Work with light:	225
	Rated power:	989
Power of UV germicidal lamp Watt		30
Number of electric sockets inside the chamber pcs		4
Control panel - with touchscreen available languages		English, German, Spanish, Polish
Gas, vacuum or air valve		option

Heating ovens

1. SHORT TIME OF HEATING UP



The new designed heaters, proper insulation and steering algorithm of process allow to reach temperature -150 Celsius in less than 24 minutes and this is one of the best result in our sector.

2. INTERIOR 'S PURITY



The rounded corners were priority under designing of oven's interior. Because of safety and easy handling of a device. Thus, there are not any places or any corners allowed to keep a dirt.

3. LAYOUT OF SHELVES



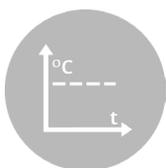
The walls of the oven provide ease in sharing of working space and possibility of placing of the products even large-size. Whereas, removable shelves provide safety carrying of the samples in and out.

4. FOUR WORKING MODES



Easy and free choice of working modes. Depending on your needs we offer four available modes: hours, circadian, continuous and a function of delay-start. A main rule of steering panel is: one touch — one function.

5. STABLE TEMPERATURE



Algorithm ALPI-TEMP controlling work of the heaters prevent before uncontrolled fluctuation of temperature. Product compliance with German norm DIN 12880:2007 provides the highest quality.

6. LOADING CAPACITY



Maximum loading capacity of the oven is 45 kg. The highest quality stainless steel and proper profile of the shelves allow for loading every shelf even up to 15 kg.

The heating ovens EASYLINE with natural convection



Standard equipment in the models EG / ET:

- **open-door sensor** – protection before uncontrolled change of temperature after opening the door,
- **one touch – one function** – user-friendly control panel and easy access to all functions,
- **monitoring of parameters** - time of work, current and set temperature are displayed on three independent screens.

Properties	EG 40	EG 53	EG 115
Range of temperature (°C)	50-250		
Volume (L)	33	53	115
Weight (kg)	33	42	64
Max. loading of oven (kg)	30	35	45
Max. loading per rack (kg)	8	10	15
Numbers of racks (standard/max.)	2/4	2/4	2/6
Effectiveness of temperature according to DIN 12880			
Spatial fluctuation of temperature from set value 150°C	+/- 3,5	+/- 3,3	+/- 3,3
Fluctuation of temperature in point from set value 150°C	+/- 0,4		
Heating up time to 150°C (min)	36	35	34
Recovery time to 150°C after opening the door by 30 second (min)	11	12	12
External dimensions			
Width (mm)	565	625	685
Height (mm)	524	614	750
Depth (mm)	594	632	750
Internal dimensions			
Width (mm)	345	405	463
Height (mm)	319	409	544
Depth (mm)	296	335	456
Performance, materials and painting			
Housing	Steel DC01, covered by powder paint RAL 7035		
Interior	Stainless Steel 1.4016		

The heating ovens EASYLINE with forced convection



Standard equipment in the models EG / ET:

- **open-door sensor** - protection before uncontrolled change of temperature after opening the door,
- **one touch – one function** - user friendly control panel and easy access to all functions,
- **monitoring of parameters** - time of work, current and set temperature are displayed on three independent screens.

Properties	ET 40	ET 53	ET 115
Range of temperature (°C)	50-250		
Volume (L)	33	53	115
Weight (kg)	34	43	65
Max. loading of oven (kg)	30	35	45
Max. loading per rack (kg)	8	10	15
Numbers of racks (standard/max.)	2/4	2/4	2/6
Effectiveness of temperature according to DIN 12880			
Spatial fluctuation of temperature from set value 150°C	+/- 2,9	+/- 2,7	+/- 2,7
Fluctuation of temperature in point from set value 150°C	+/- 0,4	+/- 0,3	+/- 0,3
Heating up time to 150°C (min)	25	26	24
Recovery time to 150°C after oppening the door by 30 second (min)	6	7	6
External dimensions			
Width (mm)	565	625	685
Height (mm)	524	614	750
Depth (mm)	594	632	750
Internal dimensions			
Width (mm)	345	405	463
Height (mm)	319	409	544
Depth (mm)	296	335	456
Performance, materials and painting			
Housing	Steel DC01, covered by powder paint RAL 7035		
Interior	Stainless Steel 1.4016		



CERTIFICATE
no.: TM 61000226.001



ALPINA

Licence holder
ALPINA
Ul. B. Krzywoustego 9
62-510 Konin, PL

Manufacturing plant
ALPINA
Ul. Zakładowa 11b
62-510 Konin, PL

<i>Project number</i> 26100191	<i>Our reference</i> SD/39026059	<i>Certificate validity period</i> from 17.06.2015 to 16.06.2020
<i>Basis of research</i> EN 12469:2000	EN 61010-1:2010	EN 61326-1:2013

TÜV Rheinland Polska Sp. z o.o. declares that the product described below meets the requirements contained in the reference documents:

Laminar Flow Cabinet Safety Class II, type A2:

BIO100, BIO100 CYTO,
BIO130, BIO130 CYTO,
BIO160, BIO160 CYTO,
BIO190, BIO190 CYTO,

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Product certification body

Tomasz Opaszowski

Warsaw, 18.06.2015

This certificate is subject to the Certification Terms and Conditions and the ACM TRP General Transaction Conditions and applies only to the products that are compliant with the standard used for compliance assessment. This certificate does not entitle the holder to affix the CE mark. This certificate entitles the holder to affix the product with the TÜV mark.

Certificate



ALPINA

ISO 9001:2008

Certificate Registr. No. 0198 100 01630

Certificate Holder:

Zakład Sprzętu Laboratoryjnego "ALPINA" Witold Mixtacki
Ul. Krzywoustego 9
PL - 62-510 Konin

Scope: production, sales, servicing of laminar flow cabinets, laboratory equipment and air filters

Proof has been furnished by means of an audit that the requirements of ISO 9001:2008 are met.

The due date for all future audits is 17-09 (dd.mm).

Validity: The certificate is valid from 2014-10-03 until 2017-10-02.
First certification 2014

2014-10-03

Gregorz Guabka
TÜV Rheinland Polska Sp. z o.o.
ul. 17 Stycznia 56 02-146 Warszawa

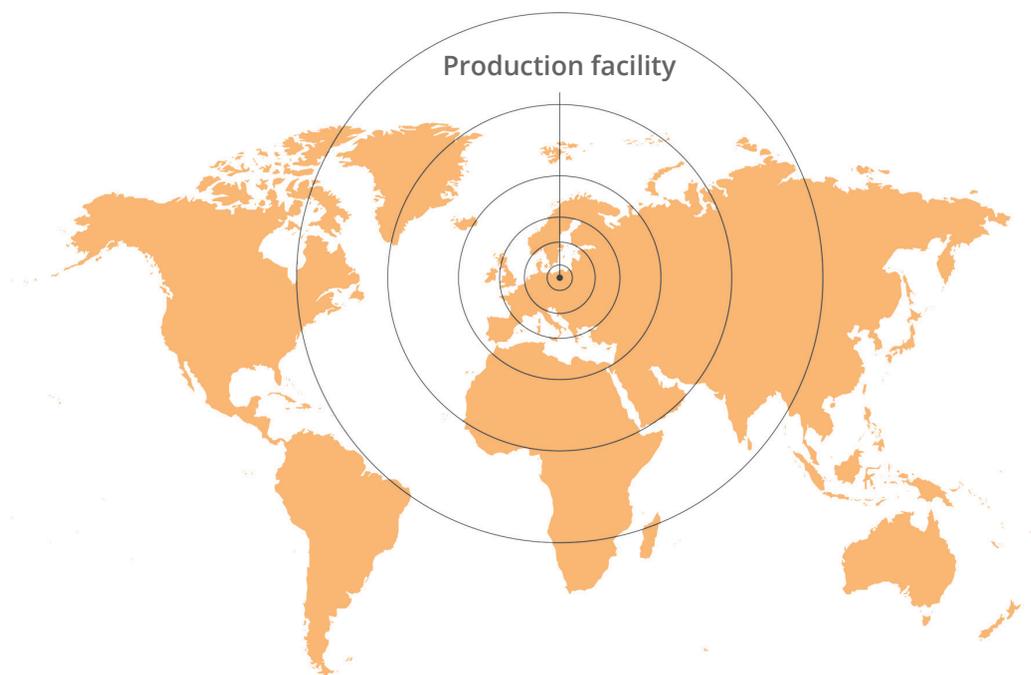





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Management System
ISO 9001:2008

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