

BIOBAN 42 - 78



Introduction

Designed for the situation where is requested the operator, product and environmental protection from dangerous effects due to uncontrolled diffusion of air-transported contaminants and, in the same time, to avoid any biological interference from the environmental to the product during its handling.

Applications

Normally used in laboratory of microbiology, virology, haematology and cell culture.

Furthermore, used in innovative fields of scientific research and above all in the manipulation of:

- Recombinant DNA
- Oncogenic Virus
- Pathogenic agents

For a correct use and application of the cabinet here described, it is necessary to refer to the appropriate standard norm and rules in force in the country where the cabinet is used.

Definition

BIOBAN cabinets produced by ALS are designed as Class II type A cabinets to fulfil the above-described application.

Class II as designed with a frontal working opening for the aspiration of 30% of the total air involved, at a minimum velocity of 0,40 m/s, and the remaining 70% is recirculated through a HEPA filter in the working chamber, with a mean laminar flow velocity of 0,40 m/s (as defined by European standard EN 12469).

Type A1 as, according to NSF 49 (U.S.A.) rules, designed to safely exhaust the amount of air from the front barrier in the room.

Performances

BIOBAN cabinets produced by ALS are designed and manufactured to fulfil and satisfy the European Norm EN12469.

Product Protection

Sterility in the working area higher than ISO 5 class according to ISO EN 14644-1 @ 0,3 and 0,5 µm particles size (Class 100/M3.5 according to Federal Standard 209E).

Operator and Environmental Protection

By exhausting air through H14 HEPA filters with efficiency 99,995% MPPS as per EN 1822 (EU14 with efficiency 99,999% tested with DOP/DOS @ 0.3 µm).

Norms and Directives

The apparatus is developed in agreement with the following directives:

- 2006/42/EC Machinery Directive (when available)
- 2004/108/EC Electromagnetic Compatibility Directive (EMC)
- 2006/95/EC Low Voltage Directive (LVD)
- EN ISO 12100 Safety of machinery - General principles for design - Risk assessment and risk reduction
- EN 61010-1 Safety prescriptions for electronic measuring, control and laboratory equipment - general prescriptions
- EN 61326-1 Electrical equipment for measurement, control and laboratory use - EMC requirements
- EN 12469 Performance criteria for microbiological safety cabinets

IMPORTANT !!

The apparatus doesn't reenter in the field of application of the directive CEE 93/42 about the medical devices, as it is deduced by the definition of "medical Device" at the art. 1 point 2 of the same directive.

ALS is not responsible for damages to people or things caused by an improper use of the system and, particularly, from the non-observance of the instruction of use and maintenance that accompany the same.

Technical Specification

Back panel in stainless steel AISI 304L "2B" finishing, thickness 12/10.

Working surface in stainless steel AISI 304L "2B" finishing, divided in sectors removable and autoclavable (4 sectors for mod. 48 and 6 sectors for mod. 72), available both in perforated and solid version.

Sidewalls in toughened safety glass.

Lighting on working surface by means of fluorescent lighting fitted in non-contaminated area.

Construction structure in steel epoxy-polyester powder coated, resistant to the most common industrial disinfectants.

Ventilation system by means of n°1 motor blower dedicated to the one-way airflow in the working chamber, equal to 70% of the total involved air and to exhaust the remaining 30%.

The motor blower is centrifugal type, direct driven motor with double aspiration and protection factor IP55.

Air filtration, both recirculate and exhaust air by means of **H14 HEPA filters with efficiency 99,995% MPPS as per EN 1822 (EU14 with efficiency 99,999% tested with DOP/DOS @ 0.3 µm)**. Both filters will be tested with scanning method for integrity with DOP/DOS test.

UV germicidal lamp on back stainless steel panel.

Command and Controls

Air ventilation control by means of automatic regulation of the revolution velocity of the motor blower. One high-resolution flow rate volumetric device, directly interfaced to microprocessor, achieves the automatic regulation. The microprocessor guarantees the activity of the motor blower and controls the optimal function even in presence of effects caused by progressive clogging of the HEPA filters.

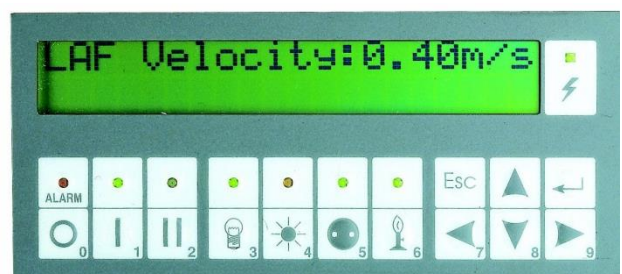
Alarm device optical (red signal light visible from working position and display message) and acoustic (buzzer) type, activated, at real time, by the microprocessor, showing the kind of alarm on a wide alpha numeric display.

Monitoring with alarms of the following parameters:

- Exhaust flow rate out of the pre-set range;
- Laminar air flow rate out of the pre-set range;
- Failure of the motor blower;
- Front window in wrong position;

Alpha numeric display showing:

- Laminar air flow speed in m/s;
- Date and time
- Hours counters for cabinet life
- UV Lamp run hours
- HEPA filters run hours
- Date of last HEPA filters change
- Date of last service
- Date of last power failure
- Change language
- Change password
- Setting UV timer program
- Setting MSC decontamination program



Tests control

Each cabinet is tested in our **Quality Control Dept.**, with the use of certified instrumentation and according to our internal quality as required by ISO 9001 certification.

On request validation test at site with IQ/OQ protocols are available

Standard features

- Fluorescent lighting
- Standard Italian and German duplex electric socket 4A IP 55 (internal back panel-right side).
- DOP/DOS 100% test inlet hose-barb port (internal under worktop - left side)
- 3 holes (19 mm diameter) on both side windows (for fluid taps installation or other connections) with plastic caps.
- UV germicidal lamp 30 W on back stainless steel panel wavelength 253.7 nm (UV-C).

Optional features

- Steel support stand epoxy polyester coated
- Chest of 3 drawers on pivoting wheels in steel epoxy coated
- Additional electrical power socket (right or left internal side)
- Bunsen burner with automatic switch ignition
- Bunsen burner with automatic foot switch ignition
- Gas manual tap manufactured in compliance with UNI/CIG regulations. Tap is provided with the automatic safety valve for interruption in case of electric blackout and/or air velocity out of pre-set range. Terminal connection for 6 mm diameter gas line.
- Vacuum air manual tap.
- Compressed air manual tap
- Nitrogen manual tap
- Interface RS 485

Maintenance

The replacement of filters can be done from the front of the cabinet. Any other maintenance activity (control of the electric board, replacement of fluorescent lamp) can be done from the front in non-contaminated area.

Technical characteristics

Model	Unit	BIOBAN 48	BIOBAN 72
Code	--	ST-003034000	ST-003035000
Overall dimensions (WxDxH)	mm	1332x790x1475	1942x790x1525
Safe working area dimensions (WxDxH)	mm	1188x500x650	1785x500x650
Package dimensions (WxDxH)	mm	1430x980x1760	2010x980x1760
Max front opening	mm	470	530
Front opening height	mm	190	190
Net weight	Kg	230	315
Ventilation system data			
Exhaust flow rate	m ³ /h	360	540
Recirculated flow rate	m ³ /h	1050	1575
Heat emission at 25 °C ⁽¹⁾	Kcal/h	400	480
Noise level	dB (A)	<58	<58
Lighting	Lux	720	850
Service fluids			
Max pressure air / nitrogen / compressed CO ₂	Bar	4	4
Max gas pressure for Bunsen burner	Mbar	20	20
Electrical Data			
Voltage	V	230VAC F+N+P.E.	230VAC F+N+P.E.
Frequency	Hz	50	50
Absorption ⁽²⁾	A	8	10
Electrical classification (with feeding cable)		1	1
Protection category		IP20	IP20
Power socket (protected by a single fuse 4A)		2P+T250V 10/16A IP55	2P+T250V 10/16A IP55
Fluorescent lamps	W	1x36	1x58

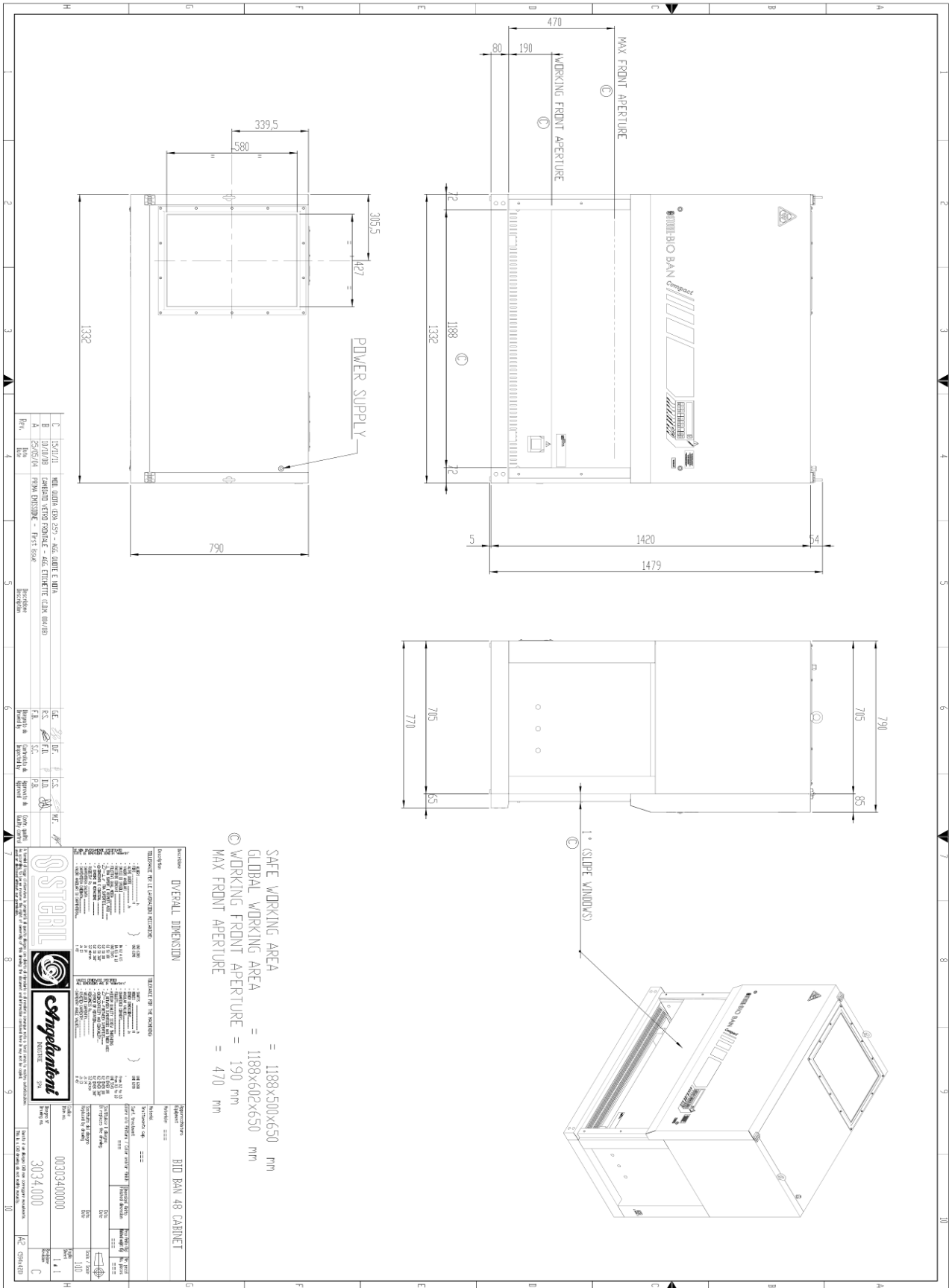
⁽¹⁾ Valid for cabinets recirculating air in environment

⁽²⁾ This value includes the max absorption of power socket equal to 4A.

Other technical data

Product Name	BIOBAN series STERIL™ is a brand name who belong to ANGELANTONI Group.
Manufacturer	Angelantoni Life Science S.r.l. Loc. Cimacolle, 464 06056 Massa Martana (PG) - Italy
CE marking ref.	MACHINERY DIRECTIVE 2006/42/CE (if applicable) EMC DIRECTIVE 2004/108/CE LOW TENSION DIRECTIVE 2006/95/CE EN 12100, EN 61326-1, EN 12469, EN61010-1, 2011/65UE.
Power supply	208 – 253 VAC 50 Hz single phase
Ambient conditions of use	Temperature: +10° ~ +32° C Relative humidity: 30 ~ 85% without condensation
Stocking condition	Temperature: +2° ~ + 50° C Relative humidity: 20 ~ 80% without condensation
Alarms types	Acoustic and Optical
In case of power black-out	System OFF
Warranty	Twenty-four months from shipping date (valid on defective spare parts only)

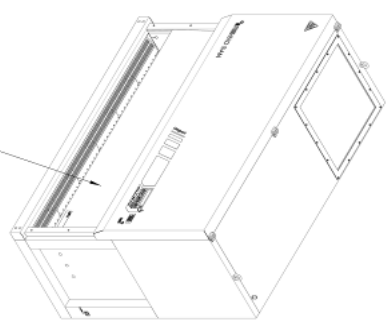
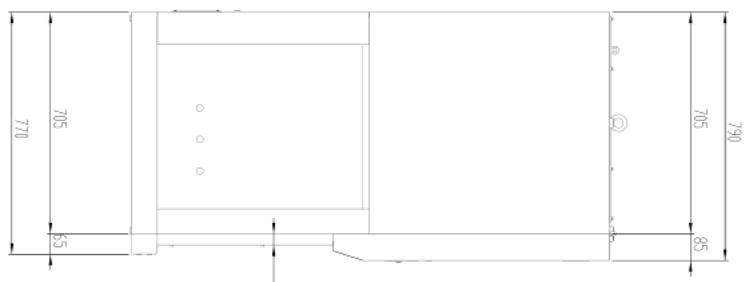
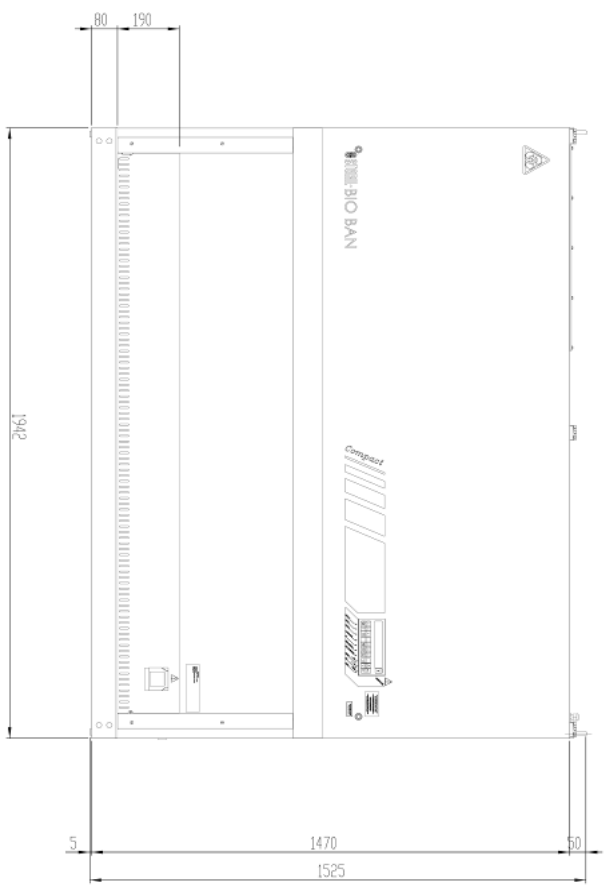
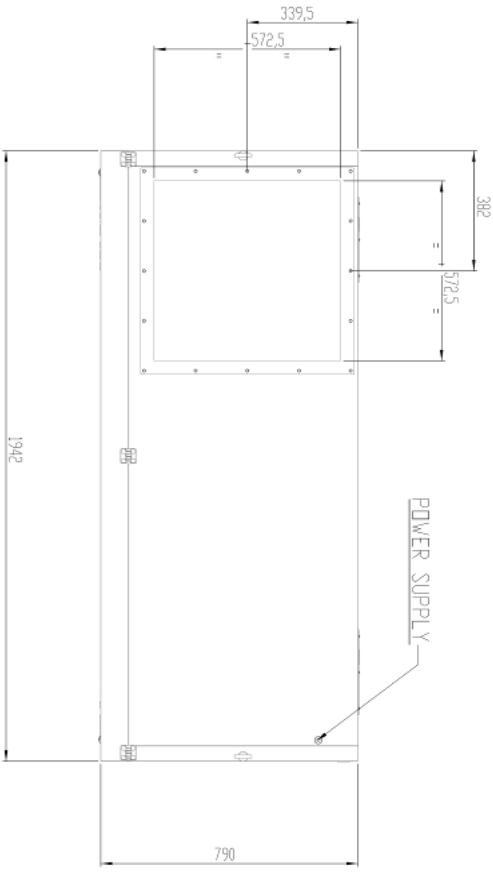
Reference layout



SAFE WORKING AREA = 1188x500x650 mm
 GLOBAL WORKING AREA = 1188x612x650 mm
 WORKING FRONT APERTURE = 190 mm
 MAX FRONT APERTURE = 470 mm

Rev.	Rev. No.	Rev. Description
C	15/11/11	MOD. COMP. GEN. 25° - AGG. QUOTE E. QUOTE
B	10/11/08	PRODOTTO PER RIFORME - AGG. ELEMENTI CLARI 08/10/08
A	23/05/04	PRIMA PRODUZIONE - EPR1 880x6

DESCRIZIONE		MATERIE PLASTICHE		COPERTURE		COPERTURE		COPERTURE	
BID BAN 48 CABINET		ABS		ABS		ABS		ABS	
0030340000		3034.000		3034.000		3034.000		3034.000	



SAFE WORKING AREA = 1785x500x650 mm
 GLOBAL WORKING AREA = 1785x602x650 mm
 MAX FRONT APERTURE = 530 mm

REV.	DATE	DESCRIPTION	BY	CHK.	APP.
B	19-12-2018	MODIFICAZIONE SECONDO CLM 001/19	RS	F.D.	D.L.
A	22-12-18	PRIMA EMISSIONE	R.S.	S.C.	B.H.

BIO BAN 72 CABINET		APPROVED FOR CONSTRUCTION	
OVERALL DIMENSION		SIGNATURE	
CODE = 00303500000		MATERIAL	
MATERIAL		FINISHING	
FINISHING		SCALE	
SCALE		SHEET	
SHEET		REV.	

STABIL

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DWG. N° 3035.000

1 of 2