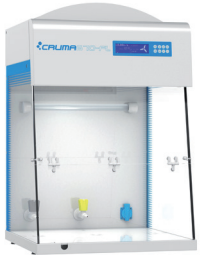
Vertical laminar flow CABINETS

CLASSIC

Unassembled models 670FL and **870FL**



670FL



870FL

PLUG&PLAY

Assembled models FL-1 and **FL-2**

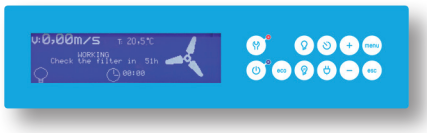


FL-1



FL-2

NEW FEATURES

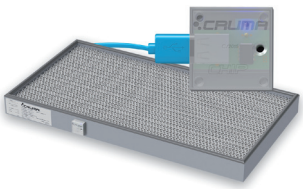


More information on the new LCD display

- √ New size 127x34mm display
- √ Type of filter installed, working hours, expiration date and next revision date
- √ Countdown timer, clock and calendar

New features and components

- √ Initial cycle flow adequacy and final purge cycle
- √ Fault LED LED illumination
- √ Control of air flow via Microprocessor
- √ HEPA filters with electronic chip
- √ LED illumination

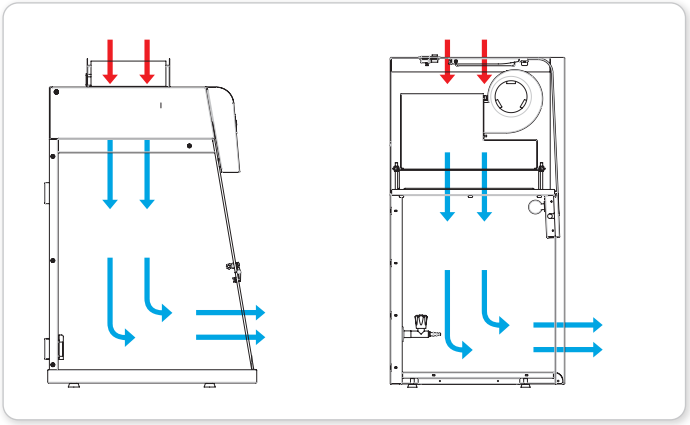


New alarms and scheduled warnings

- √ Next validation warning
- √ Few hours of filter life warning
- √ Countdown timer warning
- √ Expired filter alarm by hours & by date
- √ Equipment without filter alarm

USES

- √ Laboratory food industries in general
- √ Transfer of drugs in the pharmacy department
- √ Hematology and clinical analysis
- √ Filled with antibiotics and injectable drugs (except cytostatic) microscopic analysis
- √ Tissue culture bags reconstitution of parenteral methods of assisted fertilization techniques
- √ Micropropagation
- √ Plant cell cultures
- √ Water quality control
- √ Manufacturing of electronic devices...



To ensure the reliability of the tests, it is paramount to avoid the contamination of the work performed inside the cabinet. To create this sterile environment, the air flow generated in Cruma vertical and horizontal laminar flow cabinets is according to ISO class 5 (former Class 100).

In **FL** models the air flow goes through a **HEPA H-14** filter (manufactured according to EN-1822 regulation) at a constant speed, crosses the cabinet in laminar state and in a vertical direction, generating a sterile area Class 100 (according to the American Federal Standard 209E and equivalent to the rule ISO Class 5) and protecting the sample from external contamination and cross contamination between samples.

Filtering system of one stage with a minimum efficiency of 99,995%for particles of 0,3 **µm** in the upper part and with extraction of 100% of the air flow to the exterior.

SERIAL EQUIPMENT

Electronic circuit with large-format LCD screen	Security levels: level 1 users and level 2 advance (for maintenance)
Door open photocell	Electronic device with door open alarm
Electronic control device for filters replacement	The filters incorporate a microchip with miniUSB connection that identifies the type of filter, expiration date and serial no.
Lighting	High intensity, low consumption LED tube - 15 W / 1500 lx (for Classic) or LED tube - 9 W / 850 lx (for P&P)
UV lamp	UV-C germicidal lamp - 15 W
Digital timer with audible alarm	For monitoring and alerting work performed in the cabinet or laboratory
Clock and calendar	Date and time display
Working surface 1	Spill retention tray (2-10 liters) with working surface in white tempered glass
Fluid connection	Gas tap placed in the internal of the cabinet
G4 Prefilter	Prefilter blanket of synthetic biofibers class G4 for atmospheric dust retention
Switched electrical outlet	Internal socket for connecting auxiliary equipment, such as a centrifuges
Warranty	10 years



Movilair



Tubular

OPTIONAL EQUIPMENT

Movilair	Stand with wheels and inner tray made of steel coated with anti-corrosive epoxy resin.
Tubular support	Stand made of steel coated with anti-corrosive epoxy resin
Switched electrical outlet	Additional switched electrical outlet
Fluid connections	Additional gas or vacuum tap
Power supply	On request available for 110 V / 127 V

STRUCTURE

Metal parts	Made of 1.2 mm galvanized steel coated with anti-corrosive thermoplastic resin hardened at 200 °C.
Doors	Made of transparent methyl methacrylate (PPMA) 6 mm thick. Light transmission of 93%.

VERTICAL LAMINAR FLOW FOR SAMPLE PROTECTION

CRUMA 670 FL



The CRUMA vertical laminar flow hood with ISO Class 5 air purity creates a sterile environment free of particles and/or microorganisms that ensures the reliability of any test inside the hood. It incorporates a HEPA H-14 absolute filter whose minimum efficiency is of 99.995% for particles of 0.3 µm, and a 15W UV germicide lamp designed to decontaminate the hood before and after each use.

It includes **new important technical features** in order to satisfy the operator in his everyday task and his protection at work, taking care of the environment as well. All this with the same quality as always and up to 10 years guarantee.

TECHNICAL FEATURES

Number of filters		1
Number of IP44 fans		1
Average face velocity		0,35 m/s
Total electrical power consumption		75 W
Power supply [1]		220-240 V / 50-60 Hz
LED light level		1300 lx
UV germicidal lamp		15W
Noise level		55 ± 3 dB
Packaging: 100% recycled wooden box with international phytosanitary certificate	Volume	0,28 m^3
	Weight	65 Kg

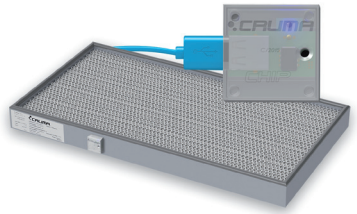
[1] On request available for 110 V / 127 V.

SIZES (MM)

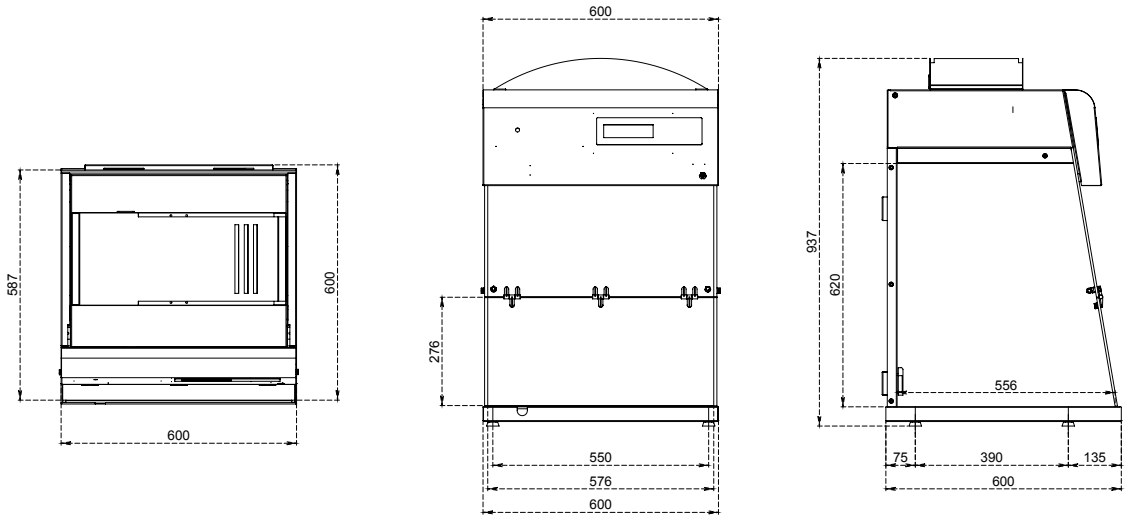
External			Internal		
Width	Depth	Height	Width	Depth	Height
600	600	1137	576	560	636

Filters with microchip and USB connection,
intelligent filtering

Information storage and interaction with the alarm system.



SIZES (mm)



VERTICAL LAMINAR FLOW FOR SAMPLE PROTECTION

CRUMA 870 FL



The CRUMA vertical laminar flow hood with ISO Class 5 air purity creates a sterile environment free of particles and/or microorganisms that ensures the reliability of any test inside the hood. It incorporates a HEPA H-14 absolute filter whose minimum efficiency is of 99.995% for particles of 0.3 µm, and a 15W UV germicide lamp designed to decontaminate the hood before and after each use.

It includes **new important technical features** in order to satisfy the operator in his everyday task and his protection at work, taking care of the environment as well. All this with the same quality as always and up to 10 years guarantee.

TECHNICAL FEATURES

Number of filters		1
Number of IP44 fans		1
Average face velocity		0,35 m/s
Total electrical power consumption		100 W
Power supply [1]		220-240 V / 50-60 Hz
LED light level		1100 lx
UV germicidal lamp		15W
Noise level		55 ± 3 dB
Packaging: 100% recycled wooden box with international phytosanitary certificate	Volume	0,56 m^3
	Weight	92 Kg

[1] On request available for 110 V / 127 V.

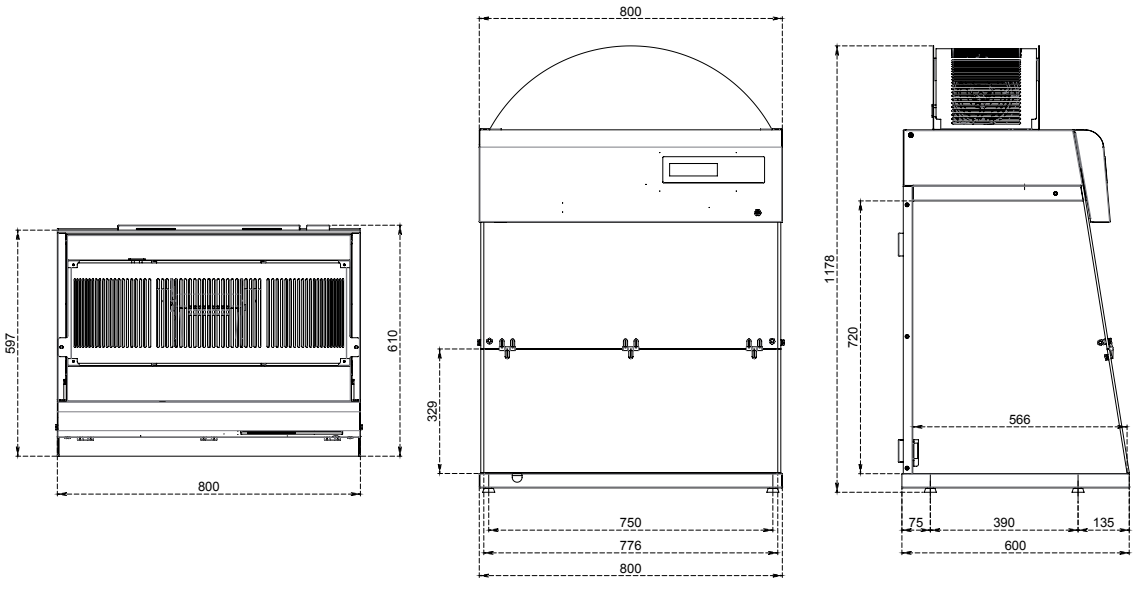
SIZES (MM)

External			Internal		
Width	Depth	Height	Width	Depth	Height
800	600	1178	776	563	735



Contact your distributor or call us if you have any questions or need technical support, spare parts, maintenance service... **+34 93 370 61 62**

SIZES (mm)



VERTICAL LAMINAR FLOW FOR SAMPLE PROTECTION

CRUMA FL-1

Cruma breaks with the tradition of removable laminar flow cabinets offering the new **Cruma FL-1**, an innovative cabinet whole body.

Furthermore, the new **Cruma FL-1** cabinet combines a striking and unique exterior design with the best technology and internal innovation. However, to meet the operator in his everyday work and protect it in their work caring for the environment.

All that, just to satisfy the operator in their everyday work while protecting them and looking after the environment.



TECHNICAL FEATURES

Number of filters		1
Number of IP44 fans		1
Average face velocity		0,40 m/s
Total electrical power consumption		90 W
Power supply [1]		220-240 V / 50-60 Hz
LED light level		1100 lx
UV germicidal lamp		15W
Noise level		55 ± 3 dB
Packaging: 100% recycled wooden box with international phytosanitary certificate	Volume	0,74 m^3
	Weight	112 Kg

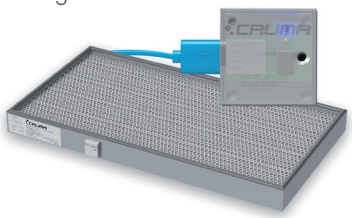
[1] On request available for 110 V / 127 V.

SIZES (MM)

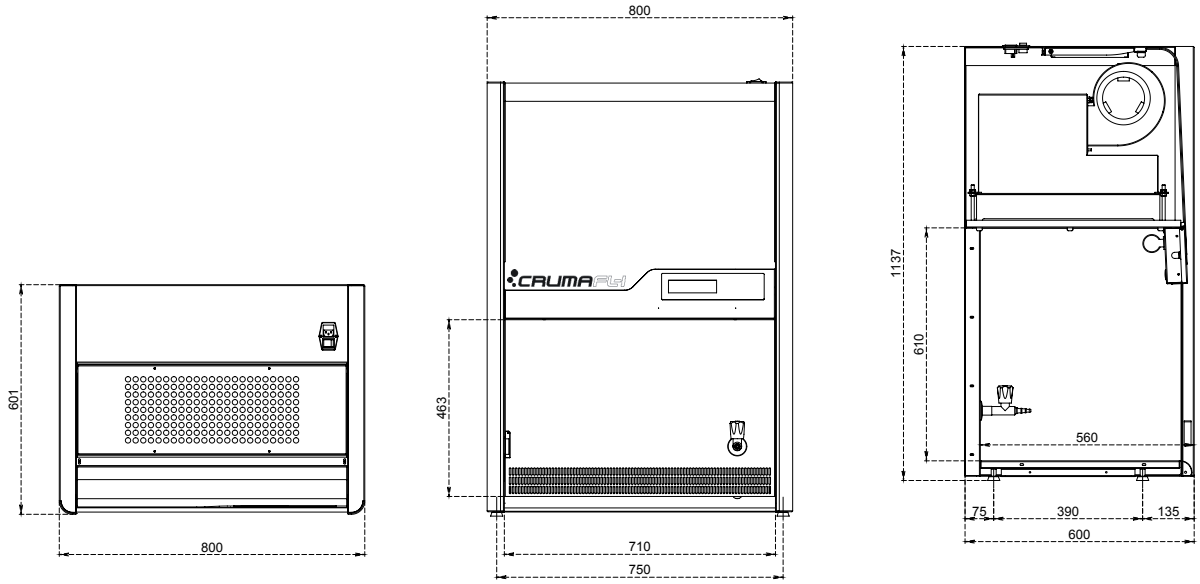
External			Internal		
Width	Depth	Height	Width	Depth	Height
800	**600**	**1137**	**710**	**560**	**610**

Filters with microchip and USB connection, *intelligent filtering*

Information storage and interaction with the alarm system.



SIZES (mm)



VERTICAL LAMINAR FLOW FOR SAMPLE PROTECTION

CRUMA FL-2

Cruma breaks with the tradition of removable laminar flow cabinets offering the new **Cruma FL-2**, an innovative cabinet whole body.

Furthermore, the new **Cruma FL-2** cabinet combines a striking and unique exterior design with the best technology and internal innovation. However, to meet the operator in his everyday work and protect it in their work caring for the environment.

All that, just to satisfy the operator in their everyday work while protecting them and looking after the environment.



TECHNICAL FEATURES

Number of filters		1
Number of IP44 fans		1
Average face velocity		0,45 m/s
Total electrical power consumption		105 W
Power supply [1]		220-240 V / 50-60 Hz
LED light level		900 lx
UV germicidal lamp		15W
Noise level		55 ± 3 dB
Packaging: 100% recycled wooden box with international phytosanitary certificate	Volume	1,06 m³
	Weight	142 Kg

[1] On request available for 110 V / 127 V.

SIZES (MM)

External			Internal		
Width	Depth	Height	Width	Depth	Height
1200	600	1137	1110	541	610



Contact your distributor or call us if you have any questions or need technical support, spare parts, maintenance service... **+34 93 370 61 62**

SIZES (mm)

