

# CRUMA P-2

To protect the operator during powder weighing operations, Cruma designed a new cabinet with double HEPA filtration for the retention of particles of 0.3 microns or larger: a main filter H-14 and exhaust safety filter H-14. Optionally it can be configured with an activated exhaust carbon filter instead of the H-14 filter.

Weighing operations must be performed in a controlled environment that eliminates any risk of operator exposure to manipulated products and guarantee the level of precision required by the applications of drug companies.

**CERTIFIED** –Made in Barcelona and certified by an external laboratory according to international standards, and complying with the criteria of ISO 9001 standard.

**PLUG&PLAY** –It is sent from our warehouse assembled, and when unpacked it just needs to be connected to a plug.

**FLEXIBLE** –It can be used in hard-to-duct areas such as the center or bottom level of multi-level buildings.

**TURNKEY** –Installation expenses are far less than traditional hoods because no ductwork and remote blower are required.

**GREEN & SUSTAINABLE** –Unlike traditional fume hoods, costly tempered room air is not exhausted from the laboratory, resulting in lower energy costs.



## NEW FEATURES



### More information on the new LCD display

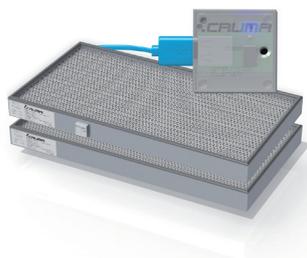
- ✓ New size 127x34mm display
- ✓ Air speed continuously monitored
- ✓ Type of filter installed, working hours, expiration date and next revision date
- ✓ Open door warning through electronic photocell
- ✓ Countdown timer
- ✓ Clock and calendar

### New features and components

- ✓ Initial air flow cycle adequacy and final purge cycle
- ✓ Fault LED
- ✓ Control of air flow through Microprocessor
- ✓ Filters with electronic chip
- ✓ Internal temperature sensor

### New alarms and scheduled warnings

- ✓ Open door warning
- ✓ Open door in off mode warning
- ✓ Next validation warning
- ✓ Few hours of filter life warning
- ✓ Countdown timer warning
- ✓ Expired filter alarm (by hours)
- ✓ Expired filter alarm (by date)
- ✓ Temperature alarm
- ✓ Equipment without filter alarm
- ✓ Low barrier alarm



## USES

- ✓ Analysis laboratories
- ✓ Research laboratories
- ✓ Quality control laboratories
- ✓ Clinical laboratories, etc...

...in short, in any laboratory.

## TECHNICAL FEATURES

Number of filtration columns	1
Number of filters	2
Number of IP44 fans	1
Average volume of treated air	160 m <sup>3</sup> /h
Average face velocity	0,35 m/s
Internal volume of the cabinet	0,376 m <sup>3</sup>
Renewals inside the cabinet / min	8,3
Total electrical power consumption	50 W
Voltage-Frequency	110-220 V - 50-60 Hz
LED light intensity	1200 lux
Noise level	55 dB
<b>Packaging:</b> 100% recycled wooden box with international phytosanitary certificate	Volume 0,95 m <sup>3</sup> Weight 142 Kg

## SIZES (mm)

External			Internal		
Width	Depth	Height	Width	Depth	Height
1200	600	1137	1110	541	611

It is not a typographical error,  
**7 year warranty**

Because we are convinced of the quality of our products.



\*More information  
[www.cruma.es](http://www.cruma.es)

Well done, well shipped.  
**Our responsible packaging**

Wood box 100% recyclable with international phytosanitary certificate.

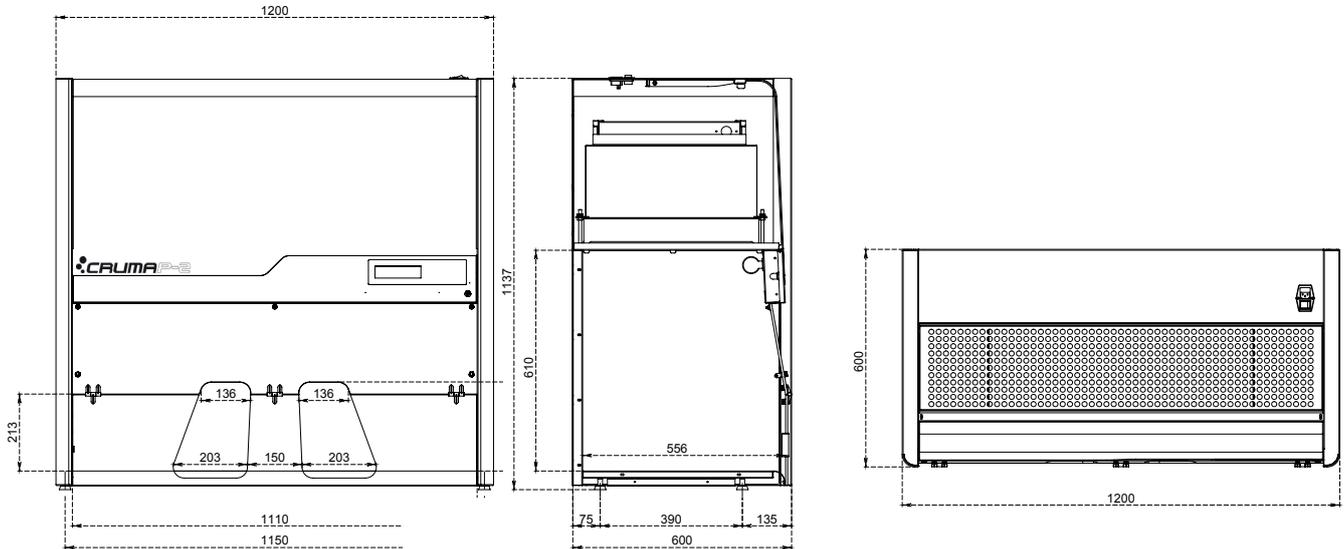


Do you need help or  
**technical assistance?**

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)



## SERIAL EQUIPMENT

Electronic circuit with large format LCD screen	Security levels: level 1 for users and level 2 for maintenance users
Electronic anemometer device	Electronic sensor monitoring continuously air face velocity
Photocell sensor device for open door detection	Electric device with open door alarm
Electronic control device for filters replacement	The filters incorporate a chip with USB connection that identifies the type of filter installed the expiry date
Illumination	LED Tube high light intensity and low power consumption - 9W - 850 lm
Electronic cronometre with audible alarm	To program the work inside the fume hood
Clock and calendar	Display of date and time
Working surface 1	Spill retention tray (2-10 liters) with working surface in white tempered glass
Switched electrical outlet	Electrical socket placed on the inside of the cabinet to connect a weighing balance.
Warranty	7 years

## OPTIONAL EQUIPMENT

Movilair	Stand with wheels and internal tray in Epoxy coated steel
Tubular steel stand	Support stand in Epoxy coated steel
Working surface 2	Granite or marble stone base to minimize any type of vibration
Voltage / Frequency	125 V / 50 Hz

## MAIN STRUCTURE

Metal parts	1.2 mm galvanized coated steel with anti acid polymer resin powder heat-hardened at 200 °C
Doors	Transparent polymethylmethacrylate 6 mm thick (light transmission of 93%)

## FILTER TYPES

<b>Type A</b>	For <b>organic vapors</b> such as ketones, ethers, alcohols, xylenes ... Eventually it can be used for inorganic acids, but only if used in small quantities because this activated carbon is not impregnated and the excess of acid vapors could saturate it quickly.	<b>Type K</b>	For <b>NH<sub>3</sub> vapors and amines</b> ; also good for other organic compounds. Carbon with metal salt complexes impregnation.
<b>Type BE</b>	For <b>inorganic acid vapors</b> as H <sub>2</sub> SO <sub>4</sub> , HCl, HNO <sub>3</sub> , and volatile sulfur compounds such as H <sub>2</sub> S, SO <sub>2</sub> , ... It can be used with organic vapors because the activated carbon incorporates impregnation of metal compounds and neutralizing salts. It is also suitable to filter organic and inorganic compounds when they are in similar proportions.	<b>Type ABEK</b>	<b>Mixed type</b> to be used when the ratios between organic, inorganic and NH <sub>3</sub> /amines are similar.
<b>Type F</b>	For <b>formaldehyde vapors</b> and derivatives; also good for other organic compounds. Carbon impregnated with KI leads, so that it should never be used with inorganic acid vapors.	<b>Type D</b>	<b>HEPA H-14</b> filter (High Efficiency Particulate Air, according to EN-1822: 2010) for filtering dust and smoke particles.

## POWDER FILTRATION COLUMN

<b>Type DG</b> Handling of powder with molecular safety filter	
<b>Type DD</b> Handling of powder with safety filter HEPA-H14	



Fan



Molecular filter



HEPA-H14 Filter

## ACCORDING TO STANDARDS

<b>Cabinets / Fume Hoods</b>	AFNOR NF X 15-211:2009 (France) BS EN 14175:2012 BS 7989: 2001 (UK)
<b>Filters</b>	UNE EN ISO 16890:2017 UNE EN 14387:2004 A1:2008 EN-1822:2010 (HEPA & ULPA Filters) EN ISO 14644-1:2015 (Gas Filters)
<b>Quality</b>	UNE EN ISO 9001:2015

Filters with microchip and USB connection,  
*intelligent filtering*Information storage and interaction  
with the alarm system.

We recognise our responsibility  
and dependence towards a healthy environment and,  
therefore, we destinate more than 7% of our annual budget in  
innovating and developing new products for the lab operator

our **7%** engagement

**CRUMA**  
PLUG&PLAY RANGE



G-1



G-2



G-3



G-4



G-5

**CRUMA**  
CLASSIC RANGE



B70



B70



B950



B1010



B1200



ECO



**CRUMA**  
VENTED STORAGE  
CUPBOARDS

2010

**CRUMA**  
POWDER CABINETS



P-1



P-2

**CRUMA**  
PCR CABINET



PCR

**CRUMA**  
CO<sub>2</sub> INCUBATOR



INCUBATOR

**CRUMA**  
LAMINAR FLOW CABINETS



B70FL



B70FL



FL1



FL2



H2-1



H2-2

**CRUMA**  
BIOSAFETY CABINETS



BIO-1



BIO-2



VIRUSFREE



CYTO-2&3

DISTRIBUTED BY: