



DUCTLESS FUME HOODS labopur® NF X 15-211 - MAY 2009 - CLASS 2

NF X 15-211 class 2

WHY SHALL WE USE AN ENCLOSURE WITH RECIRCULATING AIR FILTRATION SYSTEM?

When you are using chemicals, your health might be in danger due to the emanation of harmful and toxic vapors. To protect yourself and your close environment, you must manipulate your products in an enclosure using recirculating air filtration (formerly Enclosure for Toxics using Recirculating Air Filtration or ETRAF) equipped with a molecular filter or either particulate filter (HEPA filter) or both filters.

WHY SHALL WE CHOOSE AN **ENCLOSURE LABOPUR® WITH RECIRCULATING AIR FILTRATION?**

Following its wide experience with safety cabinets and storage of dangerous products, ECOSAFE-leading manufacturer of safety cabinets-uses its entire technical knowledge to design and manufacture its fume hoods LABOPUR®. Made in EU, the ductless fume hoods LABOPUR® stand out by a high manufacturing quality and finition. The entire process being controlled with the European standard ISO 9001 -2008.

Ductless fume hoods LABOPUR® provides the user a secured work space for the repetitive manipulations of small chemicals quantities. The dangerous vapours are confined in the enclosure, then cleaned while entering the active charcoal filter. Finally, dangerous vapors are rejected in the atmosphere without danger for the environment. Thus, the user's health is protected.



H122Z + BB12 + TR12 + 2 x (CORG201 + SH200 + HEP 200)



CERTIFICATION

Ductless fume hoods LABOPUR® were approved to the NF X 15-211 - may 2009 norm, by independent laboratories:

• The laboratory has approved the filtration part of the NF X 15-211.

- the containment part of the NF X 15-211 norm.
- the filter tightness and integrity testing (HEPA filter).

LABOPUR® ductless fume hoods are controlled according to quality process and procedures defined by the repository of international quality standard ISO 9001-2008, at the end of the assembly line and before their shipping to the user in order to assure a perfect functioning and efficiency.

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NORMS

NF X 15-211French norm- may 2009:

NF X 15-211 French norm is the most demanding regulation today. It garantees to the use a full safety allowing the user to focus on his manipulations.

NF X 15-211 class 2

Enclosures for toxic LABOPUR® using recirculating air filtration are classified according to 2 security levels :

- class 1: enclosure with safety reserve
- class 2: enclosure without safety reserve, the most common

Enclosures LABOPUR® using reciiculating air filtration belongs to the class 2 :

- P type: particle filtration
- V type: vapors
- PV type: particle & vapors filtration

Ductless fume hoods LABOPUR® are recirculating air filtration enclosures from the class 2 which could be fitted, depending on the model, with filter for particles or for vapors or both.

To be in as per this standard, air filtration fume hood LABOPUR® have to meet multiple criteria (summary) :

· the enclosure must be provided with a ventilation device to maintain the air speed with a rate between 0,4 m/s and 0,6 m/s.

• rejection, dowstream the filter, of 50% of the VLEP (occupational exposure limit value) of toxics treated in the enclosure in the duration of normal filter use.

independent laboratory.

• the class 2 enclosure have to be equipped with a sound or visual alarm activated every 60 working hours and also a sampling outlet device.

• the class 2 enclosures must not reject more than 50% of the VME downstream the filter during the detection test.

• the enclosure must have been tested by an approved and

Labopur: ▲ H092Z + 2(CORG201 + HEP200 + SH200) (Bench not included)





NF x 15-211

You will also find in this chapter :

labopur® Ductless Fume Hoods	NF X 15-211 - may 2009	Range H	
labopur® Ductless fume hoods for powders	NF X 15-211 - may 2009	Range H	
labopur® Ductless fume hoods for dangerous powders and vapours	NF X 15-211 - may 2009	Range H	
Labopur® Ductless fume hoods with external connection		Range H	
labopur® Ductless Fume Hoods and Storage Cabinets - PMSF	NF X 15-211 - may 2009	Range H	
Laminar flow clean benches, vertical	EN 12469 - ISO 14644-1	Range H	
Ductless fume hood and storage cabinet with recirculating air: PMSF	EN 12469 - ISO 14644-1	Range H	
Labopur® Filtering Ventilation Safety Cabinets	NF X 15-211 - may 2009	Range 12.X	
(Active coal filters absorbtion's capacity and filtration system tested and certified NF X 15-211)		- T	
Labopur® Filtering Ventilation Safety Cabinets	NF X 15-211 - may 2009	Range 14.X	
(Active coal filters absorbtion's capacity and filtration system tested and certified NF X 15-211)			
Ventilation Safety Cabinets		Range 12	
Ventilation Safety Cabinets	EN 11470-1	Range 3030.x	
labopur® Recycling Air Box	NF X 15-211 - may 2009	Range H	
(Active coal filters absorbtion's capacity and filtration system tested and certified NF X 15-211)			
Atex ventilation boxes « with filter option »	ATEX Zone II	Range V	
Ventilation and filtration boxes	ISO 3744	Range V	





- Our fume hoods have been approved within the standard NF X 5-211 by an independent laboratory.

- Vapors are confined in the manipulation enclosure after being eliminated through the molecular filter.
- A front sampling outlet allows you a fast and reliable control of the filter saturation.
- A warning lamp located in facade informs you of the good functionning of the system of ventilation/filtration.
- Silent electric fan according to E.U specifications.
- A front control window indicates immediately if the filter is in place and well adapted to your work.

Save time and energy :

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- Our hoods are delivered ready to use (already mounted). All you have to do is to plug them to a power supply device.

- No connecting evacuation, no civil engineering needed (if the hood is fitted with a filter).

- It is not necessary to heat or cool the air within the workroom.

Confort of use:

- The transparent wall sides of the fume hood offer an optimal lighting of the work-top and a direct sight of the working products.

- The ergonomic hand traps or trapezoidal opening allow secure and easy manipulations in the enclosure.
- Protective caps allow you to insert the power cables of your devices into the fume hoods.
- Silent fan allows you to focus on your work.
- Easy replacement of the active coal-based filter in a short time.

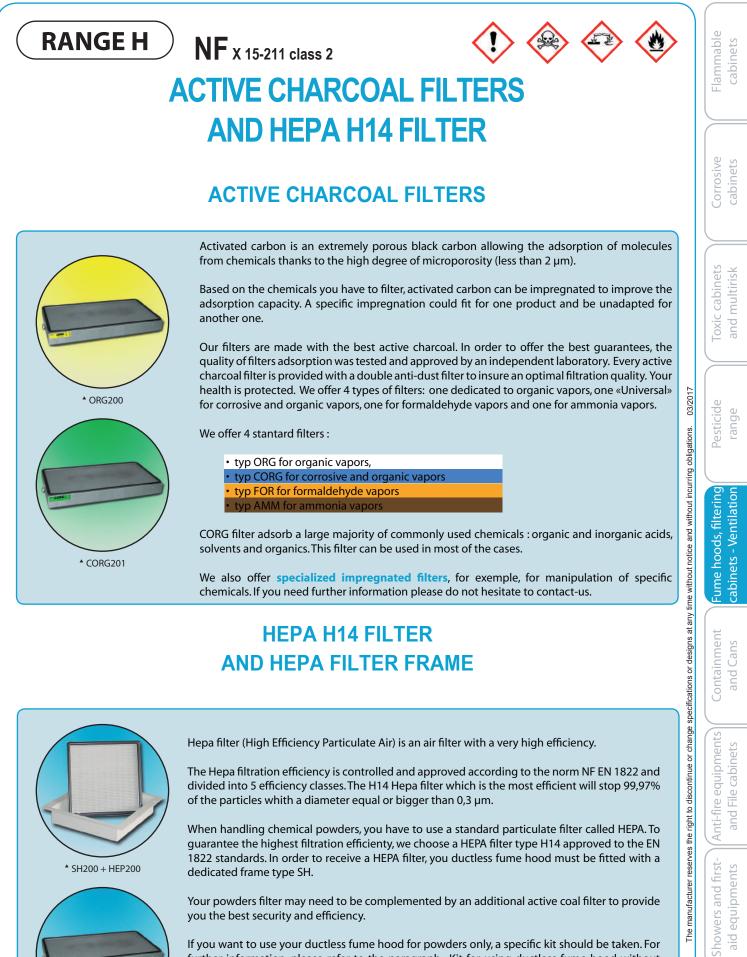
- White epoxy painting RAL 9010 and Blue 5015, with high resistance against chemicals.
- PMMA glazed walls.
- Average air speed at the front: 0.5 m / s
- Voltage: 220-240 volts
- Electrical power: 10 W
- Intensity: 0.1 A
- Sound level of fan (excluding airflow): 57 dB (A)
- Flow rate: 170 m3 / h

STANDARD EQUIPMENT:

- 4 covers for feed and fluid going through
- Air Flow Controller
- Timer
- Sampling outlet
- Transparent rear wall

OPTIONAL EQUIPMENT:

- Manual pump to determine saturation of filters: PMAF
- Reactive Tubes
 - TROR: Pack of 10 «organic» reactive tubes
 - TRAC: Pack of 10 «corrosive» reactive tubes
 - TROA: Set of 5 «organic» and 5 corrosive reactive tubes
- A retention tank integrated under the work-top allows to get back liquids in case of accidental droppings.



Your powders filter may need to be complemented by an additional active coal filter to provide you the best security and efficiency.

If you want to use your ductless fume hood for powders only, a specific kit should be taken. For further information, please refer to the paragraph «Kit for using ductless fume hood without active charcoal filter».

N.B. : We deliver ductless fume hood only with either an activated carbon filter or a connecting kit for use without actived carbon filter (CAR).

CAR200

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NF X 15-211 class 2



STANDARD EQUIPMENTS

FILTRALARM

Available as a standard feature on all Labopur Fumehoods with ventilation / filtration system, the filteralarm allows to measure the airflow in the filter thanks to an electronic chip, to detect and warn you of clogging of the filter or any anomaly of the airflow by a visual and audio signal. Furthermore, this controller's new generation can also display the hour counter.

AIR VELOMETER

According to the French standard NF X 15-211, your hood is supplied with an air velometer. It allows you to check permanently the velocity of the air in facade and verify that the fume hood works in depression guaranteeing the flow of vapors through the filter.

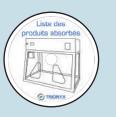
PROTECTIVE CAPS

All of our fume hoods are equipped with protective caps allowing to easily insert power cable supplies or gas for instance.

TIMER

The stantard timer supplied with your hood indicates you, all the time, the total use duration of your hood. After programming, every 60 hours, a sound alarm invites you to check the saturation of the active coal filter.





OPTIONAL EQUIPMENTS

TRANSPARENT WALLS

Our fume hoods are delivered with transparent walls on every face offering you a clear working area.

SAMPLING OUTLET

A front sampling outlet gives you the opportunity to check quickly and in a reliable way the saturation level of your active charcoal filter, thanks to the manual pump and reactive tubes.

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ADSORBED PRODUCTS BOOKLET

Following the standard NF X 15-211, your hood is delivered with a CD-Rom information guide regarding the adsorption capacity of the active coal filter in relation with various chemicals.

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MELAMINE BASED WOOD WORK-TOP

Manufactured in melamine based wood, it offers an excellent resistance to chemicals attacks.



RETENTION TANK A retention tank is placed under

each work-top being part of the fume hood. In case of leak or of accidental revearsal, treated liquids are retained. To clean it, you just need to lift the work-top and use an «absorbent».

MANUAL PUMP AND REACTIVE TUBES TAKE CARE OF YOUR HEALTH!

Check your active coal filter saturation thanks to the manual pump and reactive tubes. We offer you a wide range of reactive tubes depending on your products used.

LIGHTING

We offer you a LED which is integrated into the enclosure while being outside the handling zone. IP65 - 10W - 4200K



TEMPERED GLASS WORK TOP.

Willing to treat extremly agressive products? Choose a tempered glass work-top instead of a H.P.L. top (in standard within the LABO-PUR hoods).

ACTIVE COAL FILTERS AND HEPA H14 FILTERS

The fume hoods are delivered without active coal filters and/or HEPA H14 filters. You must select one depending on your chemicals used. Consult our active coal filters selection guide.





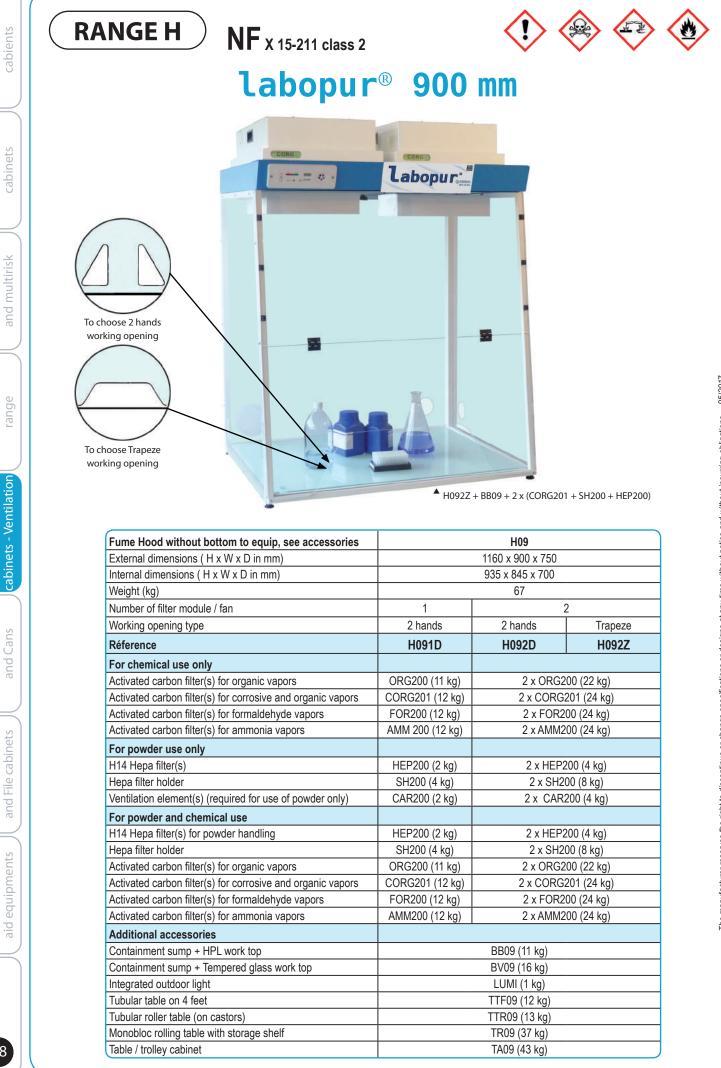


Fume Hood without bottom to equip, see accessories	H	00		
External dimensions (H x W x D in mm)	950 x 60	00 x 650		
Internal dimensions (H x W x D in mm)	735 x 54	45 x 505		
Weight (kg)	4	1		
Number of filter module / Fan		1		
Working opening type	2 hands	Trapeze		
Réference	H061D	H061Z		
For chemical use only		~		
Activated carbon filter for organic vapors	ORG20) (11 kg)		
Activated carbon filter for corrosive and organic vapors	CORG20	1 (12 kg)		
Activated carbon filter for formaldehyde vapors	FOR200) (12 kg)		
Activated carbon filter for ammonia vapors	AMM 20	0 (12 kg)		
For powder use only				
H14 Hepa filter	HEP20	0 (2 kg)		
Hepa filter holder	SH200	SH200 (4 kg)		
Ventilation element(s) (required for use of powders only)	CAR20	CAR200 (2 kg)		
For powder and chemical use				
H14 Hepa filter for powder handling	HEP20	0 (2 kg)		
Hepa filter holder	SH200) (4 kg)		
Activated carbon filter for organic vapors	ORG20	0 (11 kg)		
Activated carbon filter for corrosive and organic vapors	CORG20	1 (12 kg)		
Activated carbon filter for formaldehyde vapors	FOR200) (12 kg)		
Activated carbon filter for ammonia vapors	AMM200) (12 kg)		
Additional accessories				
Containment sump + HPL work top	BB06	(10 kg)		
Containment sump + Tempered glass work top	BV06	(15 kg)		
Integrated outdoor light	LUMI	(1 kg)		
Tubular table on 4 feet		i (9 kg)		
Tubular roller table (on castors)	TTR06	(10 kg)		
Monobloc rolling table with storage shelf	TR06 (28 kg)			
Table / trolley cabinet	TA06 ((32 kg)		

Containment and Cans Anti-fire equipments and File cabinets

Showers and firstaid equipments

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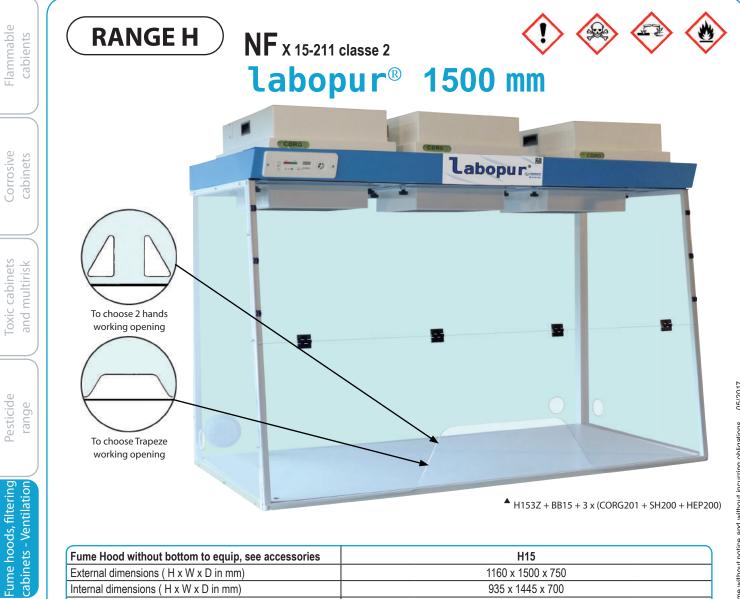
Fume Hood without bottom to equip, see accessories	H12				
External dimensions (H x W x D in mm)	1160 x 1200 x 750				
Internal dimensions (H x W x D in mm)	935 x 1145 x 700				
Weight (kg)	85				
Number of filter module / Fan	1		2		
Working opening type	2 hands	2 hands	Trapeze		
Réference	H121D	H122D	H122Z		
For chemical use only					
Activated carbon filter(s) for organic vapors	ORG200 (11 kg)	2 x ORG2	200 (22 kg)		
Activated carbon filter(s) for corrosive and organic vapors	CORG201 (12 kg)	2 x CORG	201 (24 kg)		
Activated carbon filter(s) for formaldehyde vapors	FOR200 (12 kg)	2 x FOR2	00 (24 kg)		
Activated carbon filter(s) for ammonia vapors	AMM 200 (12 kg)	2 x AMM2	200 (24 kg)		
For powder use only					
H14 Hepa filter(s)	HEP200 (2 kg)	2 x HEP2	200 (4 kg)		
Hepa filter holder	SH200 (4 kg)	2 x SH200 (8 kg)			
Ventilation element(s) (required for use of powder only)	CAR200 (2 kg)	2 x CAR200 (4 kg)			
For powder and chemical use					
H14 Hepa filter(s) for powder handling	HEP200 (2 kg)	2 x HEP2	200 (4 kg)		
Hepa filter holder	SH200 (4 kg)	2 x SH2	00 (8 kg)		
Activated carbon filter(s) for organic vapors	ORG200 (11 kg)	2 x ORG2	200 (22 kg)		
Activated carbon filter(s) for corrosive and organic vapors	CORG201 (12 kg)	2 x CORG	201 (24 kg)		
Activated carbon filter(s) for formaldehyde vapors	FOR200 (12 kg)	2 x FOR2	.00 (24 kg)		
Activated carbon filter(s) for ammonia vapors	AMM200 (12 kg)	2 x AMM2	200 (24 kg)		
Additional accessories					
Containment sump + HPL work top		BB12 (12 kg)			
Containment sump + Tempered glass work top	BV12 (17 kg)				
Integrated outdoor light	LUMI (1 kg)				
Tubular table on 4 feet	TTF12 (22 kg)				
Tubular roller table (on castors)	TTR12 (23 kg)				
Monobloc rolling table with storage shelf	TR12 (51 kg)				
Table / trolley cabinet	TA12 (54 kg)				

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Fume Hood without bottom to equip, see accessories	H15					
External dimensions (H x W x D in mm)	1160 x 1500 x 750					
Internal dimensions (H x W x D in mm)	935 x 1445 x 700					
Weight (kg)			102			
Number of filter module / Fan		2		3		
Working opening type	2 hands	Trapeze	2 hands	Trapeze	Large width	
Reference	H152D	H152Z	H153D	H153Z	H153G	
For chemical use only						
Activated carbon filter(s) for organic vapors	2 x ORG2	200 (22 kg)	3	3 x ORG200 (33 k	g)	
Activated carbon filter(s) for corrosive and organic vapors	2 x CORG	201 (24 kg)	3	x CORG201 (36 I	(g)	
Activated carbon filter(s) for formaldehyde vapors	2 x FOR2	00 (24 kg)	:	3 x FOR200 (36 kg	g)	
Activated carbon filter(s) for ammonia vapors	2 x AMM2	200 (24 kg)	3 x AMM200 (36 kg)			
For powder use only						
H14 Hepa filter(s)	2 x HEP2	200 (4 kg)	3 x HEP200 (6 kg)			
Hepa filter holder	2 x SH200 (8 kg)		3 x SH200 (12 kg)			
Ventilation element(s) (required for use of powder only)			3 x CAR200 (6 kg	200 (6 kg)		
For powder and chemical use						
H14 Hepa filter(s) for powder handling	2 x HEP2	200 (4 kg)	3 x HEP200 (6 kg)			
Hepa filter holder	2 x SH200 (8 kg)		3 x SH200 (12 kg)			
Activated carbon filter(s) for organic vapors	2 x ORG200 (22 kg)		3 x ORG200 (33 kg)			
Activated carbon filter(s) for corrosive and organic vapors	2 x CORG201 (24 kg)		3 x CORG201 (36 kg)			
Activated carbon filter(s) for formaldehyde vapors	2 x FOR2	2 x FOR200 (24 kg)		3 x FOR200 (36 kg)		
Activated carbon filter(s) for ammonia vapors	2 x AMM2	200 (24 kg)	3	3 x AMM200 (36 k	g)	
Additional accessories						
Containment sump + HPL work top	BB15 (13 kg)					
Containment sump + Tempered glass work top	BV15 (18 kg)					
Integrated outdoor light	2 x LUMI (1 kg)					
Tubular table on 4 feet	TR15 (65kg)					
Tubular roller table (on castors)	TA15 (61 kg)					

Containment and Cans

Anti-fire quipments and File cabinets

RANGE H NF x 15-211 class 2 labopur[®] TABLE / TROLLEY CABINET

TABLE/TROLLEY CABINET

- Made of steel15/10th; White epoxy paint RAL 9010.
- 1 adjustable shelf.
- 1 removable base trough on the bottom.
- Self closing wing doors with handles and lock.
- Large warning labels.
- 4 swivel castors (2 with locking).

Reference	Dimensions H ⁽¹⁾ x W x D (mm)	Weight (kg)
TA06	860 x 615 x 660	32
TA09	860 x 915 x 810	43
TA12	860 x 1215 x 810	54
TA15	860 x 1515 x 810	61



TROLLEY

Reference

TR06

TR09

TR12

TR15

- Made of steel15/10th
- White epoxy paint RAL 9010.
- 1 adjustable shelf (the depth of shelf is equal to 3/4 of the depth of trolley).

Dimensions

H⁽¹⁾ x W x D (mm)

860 x 615 x 637

860 x 915 x 787

860 x 1215 x 787

860 x 1515 x 787

- 4 swivel castors (2 with locking).

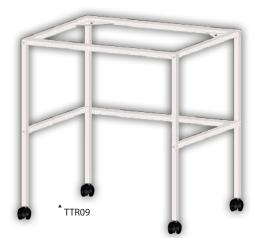


TUBULAR TABLE/TROLLEY

- Made of steel15/10th; White epoxy paint RAL 9010.

- Available with feet or with 4 swivel castors (2 with locking).

Reference	Туре	Dimensions H ⁽¹⁾ x W x D (mm)	Poids (kg)
TTF06	With feet	860 x 615 x 637	9
TTR06	With castors	800 X 615 X 637	10
TTF09	With feet	860 x 915 x 787	12
TTR09	With castors		13
TTF12	With feet	860 x1215 x 787	22
TTR12	With castors		23



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Weight

(kg)

28

37

51

65

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[•] BH09D + BB09

+ Ventilation Box CDV-A + 2 KRC Connecting Kits for Box

▲ BH09D +BB09

USE Those

These Fume Hoods are intended to be connected to an exhausting system (1) for the discharge of toxic and harmful vapors to the outside of the building (use without activated carbon filter). It is imperative to add a ventilation box - model CDV-A (to be completed with 2 connection kits reference KRC or to be connected to an adapted exhausting system).

ADVANTAGES

- Fume Hoods delivered ready to use (no assembly), to be connected only to the electrical network and to an exhausting system.

- Transparent walls on all sides offering optimal illumination on the work top and immediate visualization of the products handled.

- Ergonomic hand traps for safe and easy handling in the enclosure.

- Lids allowing the introduction of cables for power supply of equipment and fluids inside the ductless fume hood

TECHNICAL SPECIFICATIONS

- Steel construction 15 / 10th.
- White epoxy paint RAL 9010, high resistance against chemicals.
- Glass walls made of PMMA.
- 4 caps for power cable
- Transparent rear wall

ADDITIONAL ACCESSORIES

- Ventilation Box
- Connecting Kit KRC
- Melamine work top
- Tempered glass work top
- Retention tank
- Integrated outdoor light
- Fixed and rolling tables

Fume Hood without bottom to equip, see accessories	BH06		Bŀ	109	BH12		BH15		
External dimensions (H x W x D mm)	745 x 600 x 650		945 x 90	00 x 750	945 x 1200 x 750		945 x 1500 x 750		'50
Internal dimensions (H x W x D mm)	735 x 545 x 505		935 x 84	45 x 700	935 x 1145 x 700		935 x 1445 x 700		00
Weight (kg)	41		6	7	85		102		
Hand traps type	2 hands	Trapeze	2 hands	Trapeze	2 hands	Trapeze	2 hands	Trapeze	Large Width
Reference	BH06D	BH06Z	BH09D	BH09Z	BH12D	BH12Z	BH15D	BH15Z	BH15G
Additional accessories									
Containment sump + Melamine work top	BB06 (10 kg)		BB09	(11 kg)	BB12 (12 kg)		BB13 (13 kg))
Containment sump + Tempered glass work top	BV06 (15 kg)		BV09	(16 kg)	BV12 (17 kg) BV15 (1		BV15 (18 kg)		
Ventilation Box	CDV-A (8 kg)								
Connecting Kit	2 x KRC (2 kg)								

RANGE H) NF x 15-211 class 2



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DUCTLESS FUME HOOD AND STORAGE CABINET WITH RECIRCULATING AIR: PMSF

Use and store your chemicals at the same place

The storage cabinet is connected to the fume hood in order to extract and purify the fumes from both items. Thus, the vapors of the cabinet and the fume hood are **purified** while being pulled through the active charcoal filter, then rejected into the atmosphere.

The PMSF Workstation includes :

1. A DUCTLESS FUME HOOD

Tested and approved by an independent laboratory according to the new NF X 15-211 – may 2009 – Class 2 norm

Depending on the dimensions of the fume hoods, you will find different configurations in terms of number of engines and type of hand traps.

Each reference corresponds to one specific configuration.

2. AN ACTIVE COAL FILTER

To be determined according to the chemicals handled under the hood (mandatory).

- Filter «ORG200» for organic vapors

- Multi-purpose filter «CORG201» for organic and corrosive vapors

- Filter «FOR200» for formaldehyde vapors
- Filter «AMM200» for ammonia vapors

We remind you that we can offer filters for specific applications. Please contact us for further details. There can be several filters based on the number of fan in the ductless fume hood. (1 fan = 1 filter).





PMSF: H061Z + TA06 + BB06 + CORG201+ SH200 + HEP200 + KRPMSF

3. ADDITIONAL ACCESSORIES

To add to the ductless fume hood

Mandatory: The fume hoods are bottomless, and have to be equipped with Containment sump + Melamine work top or Tempered glass work top.

The reference is determined according to the choosen fume hood and the necessary work top.

Optional: We also offer an external integrated light. Depending on the configuration chosen, there may be 1 or 2 LED lights.

4. A TABLE/TROLLEY STORAGE CABINET

- Built in steel 15/10th.
- White epoxy paint RAL 9010.
- Slef closing wing doors with handles and locks.
- Large warning labels in compliance with ISO 3864,
- NFX 08.003 norms and the European directive 92/58/CEE.
- 1 adjustable shelf.
- 1 removable retention tank on the bottom.
- 4 swivel castors (2 with locking).

- High and low vents (high outlet connected to the fume hood) - KRPMSF connection kit for connecting the cabinet to the hood.

The table / cabinet reference must be choosen according to the selected hood.

Anti-fire equipments) Containment and File cabinets and Cans

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