

ECOS TRIM 180

Workstation for cutting of histological specimens

Code

525180ETI

The picture above shows the product, but it is only an example of its dimensions and accessories in equipment.

Description

The Ecos Trim hood has been projected to protect the operator during cutting operations of histological specimens. During these operations, the user could be exposed to harmful vapours contained in samples handled for cutting.

The Ecos Trim hood is a ventilated workstation with all standard features necessary to work on histological specimens: bar-type grating planes with basins automatic washing, sink for water, basin for polluted waste liquids in tank, mixer with double jet extractable shower and sinks, trolley for tanks and hood ventilation control system.

Composition



- ① **Ventilated hood** **52CEA180I**
- The structure is made of stainless steel with dimensions 1850x750x1470 mm (WxDxH) complete with side walls and stratified glasses, filter box and motor cover.
- ② **Operator control plane with LCD display**
- Console with LCD display membrane keyboard and electric box with relè control sheet and automatic release protection switches.
- ③ **Electric sockets**
- Sockets groups (n.2) protected by a plastic cover with Ip 65 door, and by automatic release switches.
- ④ **Glass rolling gate**
- 6 mm hardened glass rolling gate, sliding on complete safety guides made of polypropylene of motorized roller with position sensor.
- ⑤ **Trolley for tanks** **52CMP0010**
- Trolley made of stainless steel AISI 304 on rolls to formalin fill and drain tanks containment.
- ⑥ **Tubular structure made of stainless steel AISI 304** **52ST180BA01**
- Support standard structure for hood with dimensions 1850x750x860 mm (WxDxH) equipped with modular shoulders and crossbars:
- Side shoulders made of stainless steel, dimensions 50x50, thickness 2 mm, anti-corrosion treated;
 - Support crossbars made of stainless steel, dimensions 40x40, thickness 2 mm, anti-corrosion treated;
 - Equipped with rubber pressure foots recordable for instrument setup.
- ⑦ **Pressing plane made of stainless steel AISI 304** **52P180PL01**
- Pressing plane made of stainless steel AISI 304 with satin treatment, with retaining edge and two working planes.
- ⑧ **Cutting bar** **52CMP0510**
- Cutting bar for histological samples, made of white polypropylene, equipped with scales made of stainless steel.
- ⑨ **Bracket with lamp** **52ME180I**
- Bracket made of stainless steel AISI 304 with treatment for hood with dimensions 1850 with neon lamp.
- ⑩ **Fumes expulsion**

Ventilated expulsion fumes of hood with arrangement for canalisation towards the external atmosphere.

Ventilation

Harmful substance vapours are suctioned by openings located at the working plane and on the top of the hood compartment.

Ecos Trim Advanced Hood has an electronic control on ventilated flows, in a way to optimize and make them more effective. In the picture below, you can see a ventilation simulation obtained with heavy vapours. Operating parameters concerning ventilated flows are visualized on panel control display.



Tests on suctioned flows

Filtering batteries are placed inside the ventilation box. The Ecos Trim Advance Hood can have charcoal filters and optionally absolute filters (HEPA). For an easy and safe replacement, all filters are placed inside the hood opening.

The ventilator can be located both inside the hood (for an easy and economic solution), or it can be distance-installed when a silent place is demanded or when canalisation system has particular dimensions.

Filtering batteries

Filtering batteries are composed by different filters, pre-filters made of fibre, charcoal filters and HEPA. Dusts with large and medium sizes are retained by pre-filters made of synthetic fibre. The second level is composed by charcoals activated according to neutralizing substances (xylol, formalin, alcohols).

The filtering batteries have a shelf-life in accordance with absorbed chemical agent quantity. The third level is composed by an absolute filter with molecular filtration called HEPA.

Charcoal filtering batteries

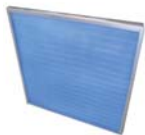
Specific to formalin absorption

(52FIL180CAF)

For generic use of alcohol and xylol

(52FIL180CAG)

Pre-filter made
of synthetic fiber



Filtering batteries first level is composed by parts made of synthetic fiber, suitable to remove larger dust particles.

The use of these filters (dim. 500x510 mm) avoid early charcoal filters obstruction. In this way increase the shelf-life and the efficacy of charcoal micrograins in the second level.

Charcoal filters



The second filtering level is equipped by charcoal 100 kg cells activated during chemical process. The micrograins in these cells can filter the air from harmful or toxic vapour, as formaldehyde and other kind of products used in pathological anatomy field.

Filtering battery with HEPA absolute filters

(52FIL180H)



Optionally is available a third filtering level composed by absolute filters or HEPA, with 99,97% efficiency. They can filter particles with 3 micron dimensions.

HEPA filters can be installed inside the hood or in alternative in a separate ventilation box, located near ventilation motor.

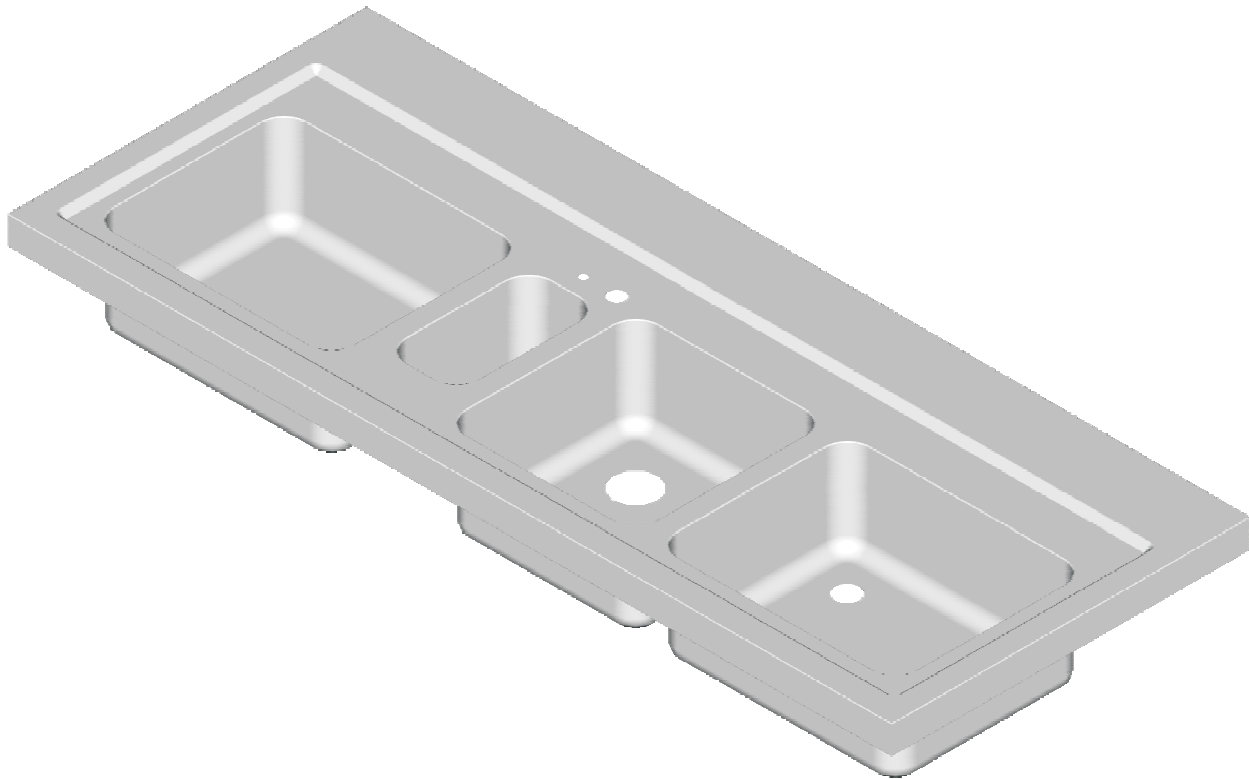
HEPA filter CLASS 2 13P2 R11 691 Filtration < 0.001% NAEL BS3928/M7605 CLASS S:



Diapath S.p.A. arranged to improve the quality of its products and its client service, adds inside its ventilated equipment a patented electronic control system available to find and store physical and chemical features of filtering batteries.

Different alarms achieve filters use or saturation grade. If safety conditions are not correct, ventilation system has an automatic block for necessary controls or maintenance. The filtering batteries must be periodically replaced with homologated, original and manufacturer-certified replacements.

Double position for specimens reducing



Double stainless steel pressing plane with satin treatment and retaining edge, dimensions 1850x750x60 mm (WxDxH) equipped with :

n.2 bar-type grating working planes, 500x400x150 mm with collecting and rinsing basins;
n.1 sink for water, dimensions 400x400x200 mm
n1 basin, 150x300x200 mm for formalin drain and water

Equipped with:

Stainless steel cover for formalin drain basin;
Mixer for hot/cold water with double jet extractable shower and pedal;
Formalin drain tank, complete with pipes connection and attacks with clutch for safety.

Level sensor for drain formalin fullness tank.

Hood support structure

Hood standard support structure, dimensions 1850x750x860mm (WxDxH), equipped with modular shoulders and crossbars:

- Side shoulders made of stainless steel, dimensions 50x50, thickness 2 mm, anti-corrosion treated;
- Support crossbars made of stainless steel, dimensions 40x40, thickness 2 mm, anti-corrosion treated;
- Equipped with rubber pressure foots recordable for instrument setup.

Regulatory Information

EN61326:2007	Measure electric equipments, control and rotating trim - Electromagnetic compatibility ordinances
EN61010-1:2001	Particular ordinances for measures electric , control and for rotating trim use
EN61010-2-101:2003	Special ordinance for medical equipment for diagnostic in vitro IVD
EN14175-1:2004	Vocabulary ventilated hoods
EN14175-2:2004	Ventilated hood: Safety requirements and performances
EN14175-3:2004	Ventilated hoods: Homologation proofs system
EN14175-4:2004	Ventilated hood: Proofs in place system
EN14175-5:2005	Ventilated hoods: Warnings for installation and maintenance
EN14175-6:2006	Chargeable air volume ventilated hoods
EN591:2001	Instruction for professional diagnostic in vitro instruments use
EN980:2004	Graphic symbols adopted for medical devices labelling

Technical Features

Dimensions WxDxH	1850 x 750 x (900+1470) Light 1730 mm Glass rolling gate opening: min 200 mm - max 500 mm Inside opening 1800x620 mm
Weight	450Kg (according to the configuration) -
Filtering battery	n. 2 dust free, made of synthetic fiber prefilters n. 2 specific or generic charcoal filter cells n. 3 HEPA filters, 99,997% efficiency (optional)
Max air range / Head	2100 mc/hour - 60 mmH ₂ O (in accordance with the hood without HEPA filters) -
Frontal max speed	h glass rolling gate 500 mm - 0.80 m/s
Speed regulation	Through operator interface electronic panel and inverter reference signal. They can be local or placed near the expulsion fumes system.
Filtering battery saturation control	Through pressure filters reading. A DPA426P data sheet is necessary.
Alarm for filters replacement	A timer counts down in hours charcoal filters shelf-life. An acoustic alarm is visualized to inform the operator.
Feeding:	230V - 50/60Hz monophas