



ALLERGEN CONTAINMENT SOLUTIONS

TECNIPLAST OFFERS A WIDE RANGE OF SOLUTION FOR ALLERGEN CONTAINMENT DURING BEDDING DISPOSAL OPERATIONS OF BOTH SMALL AND BIG RODENTS CAGE!

DS36 BEDDING DISPOSAL STATION

DS36: THE BEDDING DISPOSAL STATION DESIGNED TO PROTECT THE OPERATOR AGAINST EXPOSURE TO ALLERGENS AND FROM AIRBORNE CONTAMINANTS GENERATED DURING BEDDING DISPOSAL OPERATIONS.



TWO LEVELS OF PRE-FILTRATION:

The first level is achieved by two "G4" pre-filters with an average arrestance of $Am=95\%$ (Average synthetic dust weight arrestance) which trap large particulates. These pre-filters are located behind the stainless steel swing panel that protects them from possible damage due to direct contact with the animal cage inside the working area.

The second level is achieved by a rigid bag "F7" pre-filter immediately behind the "G4" pre-filters. The rigid bag filter, thanks to the high filtration surface and the low pressure, provides an elevated contact surface for the containment of fine dusts. The efficiency of the rigid bag pre-filter is $Em=85\%$ (Average atmospheric dust spot efficiency). Thanks to this high efficiency of pre-filtration the inner duct of the cabinet stays very clean, thus prolonging HEPA filter life.

1) Open the swinging panel for ease of access to pre-filter housing for changing from within the unit whilst protected by the flow.



2) 1st level including 2 pre-filters (G4 efficiency).



3) 2nd level including 1 rigid bag filter (F7 efficiency).

- DS36 provides maximum operator comfort thanks to its spacious access opening.
- DS36 is a compact mobile system for disposing dirty mice and rats bedding, easily transportable through doorways and fitting snugly even in the smallest spaces.
- DS36 features a waste bag trolley and a sliding reduction funnel allowing the operator to simplify waste bag removal under constant protection.



- Environment Air
- Pre-Filtered Air
- HEPA filtered Air

FUNCTIONAL DESCRIPTION:

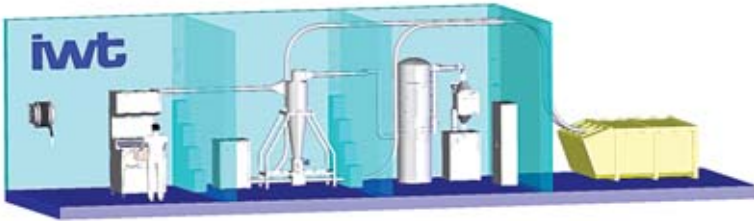
- The air from the environment is drawn into the front access opening of the station at an average speed of 0.6 m/s creating a uniform barrier.
- Thanks to the high velocity of the air, close to the emission point, air-borne bedding dusts are captured precisely and led to the exhaust air system.
- The air curtain protects the personnel and the surrounding room from bedding emissions in order to guarantee the optimal protection of people and room from allergens.
- Before being exhausted, the air is drawn through a pre-filter, a bag-filter and a HEPA filter.

POSSIBILITY OF INTEGRATION WITH IWT BEDDING HANDLING SYSTEM!



9BHSWB

Bedding disposal system with discharge unit made of standard Euro trolley and waste bag inside.



9BHSWS

Bedding disposal system with discharge unit made of standard NON-reinforced container.

DS36 - TECHNICAL SPECIFICATIONS AND DIMENSIONS

Code N.	9STPGDS36
Electrical supply	230 V/50 Hz - 115 V/60 Hz
External dimensions	1100 x 870 x 1985 mm (w x d x h)
Chamber dimensions	1000 x 630 x 710 mm (w x d x h)
Weight	190 Kg
HEPA filter efficiency H-14 EN 1822 (MPPS)	99.995%
Pre-filters "G4" (2 pcs)	Am = 95% (Average synthetic dust weight arrestance)
Rigid bag pre-filter "F7"	Am = 85% (Average atmospheric dust spot efficiency)
Exhaust air volume	1350 ± 10% m³/h
Power	4.5 A
Power consumption	1,0 KVA
Noise level	60 dB(A)
Air curtain velocity	≥ 0.60 m/s
Waste bag trolley volume	60 Litres

DS72 BEDDING DISPOSAL STATION

The "DS72" is designed to manage and control the levels of contamination generated during the dumping of big rodent cage bedding and animal waste.

The DS72 is designed for:

- Personnel protection from allergens and airborne contaminants inside the cabinet.
- Environmental protection from contaminants contained within the cabinet.

Accessible workplace, open on the front side, with integrated exhaust air filtered system.

A stable air curtain is set up by specially shaped exhaust air system, installed in the rear wall of the working area.

Thanks to the high velocity of the air, close to the emission point, air-borne dusts are captured precisely and funnelled to the exhaust air system.

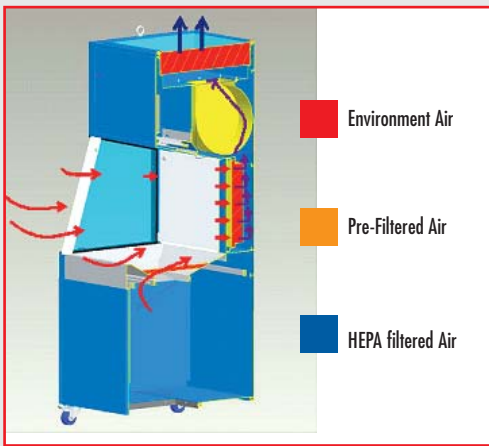


MAIN FEATURES:

- Accessible workplace, open on the front side, allows the operator to handle cages of different sizes!
- Working chamber made of stainless steel is easy to clean and less subject to accidental denting or scratching.
- Clear Lexan® side panels allow good visibility.
- Easy access pre-filter from within the working area via hinged stainless steel and Exhaust HEPA filtration system positioned in the upper part of the unit guarantee easy access for maintenance.
- Front control panel with membrane keyboard and electroluminescent graphic display, controlled by a micro-processor.
- Electric components outside the contaminated area allow maintenance without the need of decontaminating the station.



Lifter available as an option.



The air curtain protects the personnel and the surrounding room from emissions released from the bedding in order to guarantee the optimal personnel and room protection from allergens. Air is forced through two levels of pre-filtration.

- 1st level including 4, G4 efficiency pre-filters
- 2nd level including 2, F7 efficiency rigid back filters

Following this, the air is drawn in by inlet fans through the final HEPA filter (Efficiency H14), and the total air flow is exhausted into the room.

The corresponding amount of air is drawn in through the front opening, thus creating the necessary containment curtain giving the required protection to the operator and environment.



DS72 - TECHNICAL SPECIFICATIONS AND DIMENSIONS

DIMENSIONS	
External dimensions	2225 x 880 x 2110 mm (w x d x h)
Internal dimensions	2065 x 624 x 1600 mm (w x d x h)
Weight	420 Kg
FAN: CENTRIFUGAL TIPE DOUBLE ASPIRATION AND VARIABLE SPEED	
Maximum throughput	~ 2600 m ³ /h
POWER CONSUMPTION	
Power supply	230 V/50 Hz - 115 V - 60 Hz
Ampere	7,5 A - 18 A
Installed power	1,8 KVA
FILTER	
Pre-filter (type "G4")	480 x 400 x 23 mm
Pocket filter (type "F7")	762 x 457 x 75 mm
Dimensions of the exhaust HEPA filter H-14	610 x 915 x 115 mm
NOISE LEVEL	
	< 65 dB(A)

DS₁₀₀

BEDDING
DISPOSAL STATION

The DS100 is a bedding disposal station designed to manage and control the levels of contamination generated during the dumping of big rodent cage bedding and animal waste.

It features an accessible workplace, open on the front side, with integrated exhaust air filtered system. The working area is divided in two sides:

- right side: for carrying out the dumping of bedding and animal waste operations into dedicated containers.
- left side: for the positioning of the trolleys to hold cages and trays to be dumped.

The stable air curtain is set up by specially shaped exhaust air system, installed in the rear wall of the working area. Thanks to the high velocity of the air, close to the emission point, air-borne dusts are captured precisely and funnelled to the exhaust air system.

On the left side of the working area, a curtain of sucked air creates a barrier against the spread of particulate aerosols generated from the dirty bedding contained in the cages or trays placed on the trolleys.

TWO LEVELS OF PRE-FILTRATIONS:

The air curtain protects the personnel and the surrounding room from emissions released from the bedding in order to guarantee the optimal personnel and room protection from allergens.

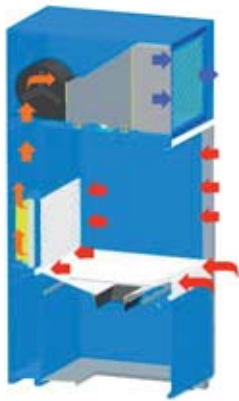
Air is forced through two levels of pre-filtration.

- 1st level including 4, G4 efficiency pre-filters
- 2nd level including 2, F7 efficiency rigid back filters

Following this, the air is drawn in by inlet fans through the final HEPA filter (Efficiency H13), and the total air flow is exhausted into the room.

The corresponding amount of air is drawn in through the front opening, thus creating the necessary containment curtain giving the required protection to the operator and environment.





- Environment Air
- Pre-Filtered Air
- HEPA filtered Air

FUNCTIONAL DESCRIPTION:

Environment air is drawn into the front access opening of the station at an average speed of 0.6 m/s thus creating a uniform barrier.

This barrier of air makes it difficult for aerosol particles, small powder-dust and odours to escape into the working environment and minimises environmental contamination.

Before being exhausted, the air is pulled through a pre-filter, a pocket filter and a HEPA filter.

DS100 - TECHNICAL SPECIFICATIONS AND DIMENSIONS

DIMENSIONS	
External dimensions	2260 x 1250 x 2860 mm (w x d x h)
Internal dimensions	2480 x 1000 x 2000 mm (w x d x h)
Weight	450 Kg
FANS	
Quantity	1 per unit
Maximum throughput	2500 m ³ /h
POWER CONSUMPTION	
Power supply	230 V/50 Hz - 115 V/60 Hz
Ampere	4.3 A
Installed power	1,8 KVA
BEDDING DISPOSAL UNIT FILTERS	
"G4" pre-filter dimensions	500 x 500 x 48 mm (w x d x h)
"F7" pocket filter dimensions	467 x 915 x 75 mm (w x d x h)
Exhaust HEPA filter dimensions	610 x 610 x 298 mm (w x d x h)
STACKING UNIT FILTERS	
Pre-filter dimensions	500 x 500 x 48 mm (w x d x h)
Exhaust HEPA filter dimensions	610 x 610 x 298 mm (w x d x h)
NOISE LEVEL	< 65 dB(A)

DFB³PLUS

The Down Flow Booth "DFB 3 PLUS" system is a containment solution for manual cage cleaning and disposal of dirty bedding.

The working area for personnel is suitable in size for the cleaning of all large cage and tray sizes, all aero allergens produced during these operations are extracted under negative pressure from within the working area.

There are no physical barriers between the operator and the disposal funnel; protection is guaranteed by the vertical laminar airflow Class ISO 5 (ISO 14644-1) within the whole of the working area.

The constant airflow pushes the hazardous dispersed dust downward in the air stream towards the collection filters.

As a result a high grade of air cleanliness is achieved at the operator's breathing height.

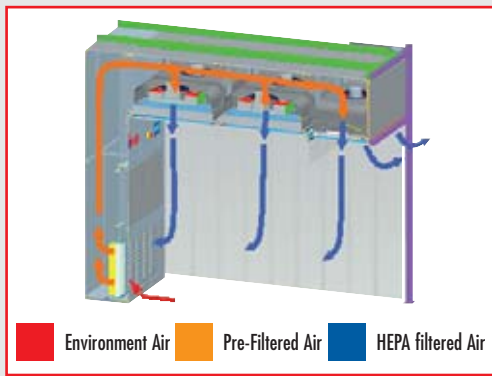


TECHNICAL FEATURES:

The DFB 3 PLUS is formed by a stainless steel, AISI 304 scotch bright finished, self supporting structure. Press-bent metal sheet with 3 mm radius curvature for easy cleaning.

- Ventilation system: ventilation is achieved by centrifugal fans complete with microprocessor controlled regulation for the automatic compensation of clogging pre-filters/filters with optimisation of the air ducts.
- Filtration system: the upper filtration area is shielded by a perforated diffuser panel made of anodised aluminium.
- Plenum: negative pressure design to prevent escape and/or by-pass of HEPA filter by contaminated air and/or dust.
- Separations of the operating area: achieved by a physical barrier of flexible PVC strip curtains (2 mm thick).





- The control panel and the electrical box are placed on the vertical backside wall. The Control Panel gives access to any function and improves and simplifies all setting procedures, enhancing the flexibility of the system. The Supervisor's password safely defines the boundary between users; User level 1 ability to acknowledge any relevant information in real time, and Supervisors level 2 with the ability to modify the unit configuration.



POSSIBILITY OF INTEGRATION WITH IWT BEDDING HANDLING SYSTEM!



9BHSWR

Bedding disposal system with discharge unit made of reinforced container.

DFB3 - TECHNICAL SPECIFICATIONS AND DIMENSIONS

DIMENSIONS	
Overall dimensions	2140 x 3270 x 2800 mm (w x d x h)
Work area	2100 x 2100 x 2100 mm (w x d x h)
Weight	1100 Kg
FILTERS	
Class "G3" EN 779 compliant pre-filters	3
Class "F7" EN 779 compliant rigid bag pre-filters	3
H 14 dug type HEPA filters (915 x 610 x 150 mm)	8
TECHNICAL FEATURES	
Total air flow volume	7200 m ³ /h
Air flow volume with a 0,45 m/s laf	5400 m ³ /h
Exhaust air flow volume	1800 m ³ /h
POWER CONSUMPTION	
Voltage	230 V/50 Hz
Ampere	16 A
Service socket (optional) 230 V/50 Hz	Max a 16
6 fluorescent lights	30 W

AC74

THE **AC74** IS AN ALLERGEN CONTROL BOOTH THAT PREVENTS ALLERGENS FROM SPREADING IN THE CHANGING AREA, PROTECTING BOTH OPERATOR AND ENVIRONMENT.

CONFINEMENT:

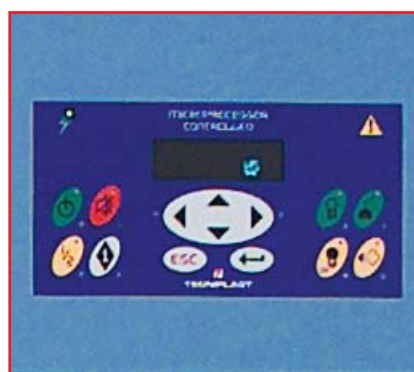
The cabinet aspirates the aerosol particulate generated during the operations of stacking cages containing dirty bedding and thus prevents the diffusion of allergens in the surrounding environment while the dirty cages are in the changing area, before being moved to the emptying/cleaning area.

FILTRATION EFFICACY:

The cabinet features two phases of filtration that guarantee an ISO 5 class (EN ISO 14 644) final HEPA filtration. The first pre-filtration phase consists of four "G 4" efficiency pre-filtering cells. The second filtration phase features an "H 13" efficiency HEPA filter.

GRAPHIC DISPLAY:

Soft touch electronic control with luminescent graphic display located in an easily accessible position. Thanks to the graphic display, a menu with diagnostics enables the operator to check the condition of the HEPA filter and receive precise updates on scheduled maintenance, the established date of replacement and the date of the last DOP test carried out. The machine is provided with a control system with a microprocessor which automatically controls the velocity of the air curtain and which constantly monitors the working conditions of the cabinet.



ALARMS:

The machine is provided with alarms that are activated when the velocity of the air curtain drops below or exceeds the set point, or when a power failure occurs (in which case, when the current comes back the machine automatically reactivates the ventilation, while the display shows the power failure and its duration). The pre-alarms give a signal 500 hours before the maintenance interventions for the HEPA filter have to be carried out.

MOBILITY/ERGONOMICS:

Without needing to be connected to the laboratory air extraction/draining system, the AC74 can be wheeled in any part of the laboratory. An electrical power socket is all that is required.



AC74 - TECHNICAL SPECIFICATIONS AND DIMENSIONS

Code N.	9CACGAC74
External dimensions	1330 x 740 x 2350 mm (w x d x h)
Chamber dimensions	1250 x 660 x 1800 mm (w x d x h)
Filter type	HEPA H 13
Air volume (Exhaust)	1600 m ³ /h
Average air velocity (open front)	0.2 m/s
Average air velocity (with trolley)	0.45 m/s
Noise level	≤ 0.56 dB(A)
Electrical supply	230 V/50 Hz
Power	3,5 A
Power consumption	0,8 KVA



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