ALLERGEN™ CONTAINMENT SOLUTION

- **High protection against allergens and contaminants**
- **Spacious working area**
- **High cleanability and visibility**
- **Microprocessor controls and safety alarms**

"Tecniplast offers a wide range of solutions for allergen containment curing bedding disposal operations of both small and big rodents cage".

LAMINAR FLOW

TECNIPLAST®
innovation through passion℠

1/High Protection Against Allergens and Contaminants

DS36: the bedding disposal station designed to protect the operator against exposure to allergens and from airborne contaminants generated during bedding disposal operations.

2/Safety

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.

3/Spacious Working Area in a Compact and Ergonomic Design

DS36 provides maximum operator comfort and free motion thanks to its spacious access opening. The working chamber accommodates large cages as well as smaller cages.

4/High Cleanability and Visibility

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.

5/Ease of Use with the Slide Reduction Funnel

DS36 features a waste bag trolley and a sliding reduction funnel allowing the operator to simplify waste bag removal under constant protection.

6/Two Levels of Pre-filtrations: Extended HEPA Filter Life

A protective net for pre-filters, extend the pre-filters lifespan and protect them. The first level consists of two "G4" pre-filters with an average arrestance of Am=90% (Average synthetic dust weight arrestance) which trap large particulates. The second level is achieved by two rigid bag "F7" pre-filters with an elevated contact surface and an efficiency of 80% < Em<90% (Average atmospheric dust spot efficiency) on fine dusts. These filters are located behind the stainless steel swing panel that protects them from possible damage Thanks to this high efficiency of pre-filtration the inner duct of the cabinet stays very clean, thus prolonging HEPA filter life.

7/Microprocessor Controls and Safety Alarms

The machine is provided with an eye-level touch pad membrane control system featuring a microprocessor which automatically controls and keeps a suitable velocity of the air curtain. An acoustic and optical alarm system indicates the alarm conditions, reducing the risk for the operator and the environment from potentially hazardous micro-organisms, in line with the European Machinery Directive and International Standards.

8/Accessories

Polyethylene bin with S/S trolley with a larger base to guarantee more stability.
Stainless steel waste bag trolley with hinged opening to remove the bag from the front.

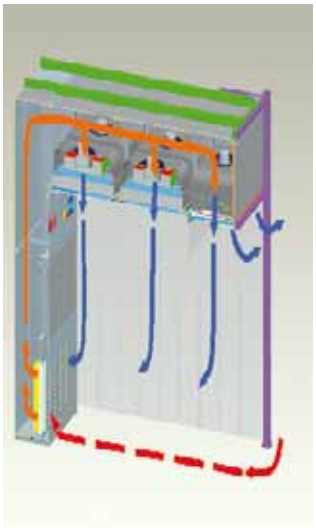
9/Possibility of Integration with IWT Bedding Handling System

The laminar flow cabinet can be integrated with a bedding disposal system developed by IWT to ensure totally smooth and simple material disposal and dispensing operations, cutting operator exposure and effort to a minimum.

DS36™
ALLERGEN CONTAINMENT SOLUTION

High Protection Against Allergens and Containments 1

Safety 2



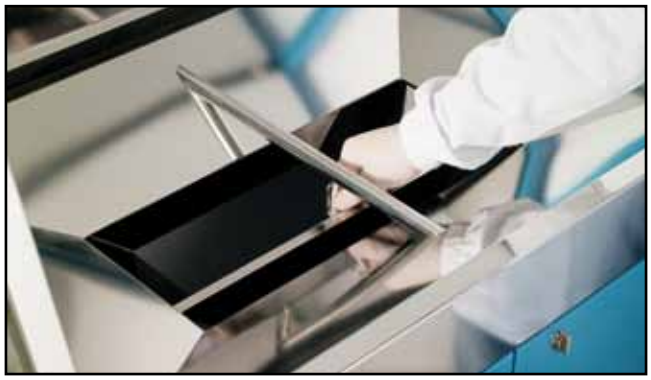
Environment Air

Pre-filtered Air

HEPA filtered Air

Spacious Working Area 3

Ease of Use with the Slide Reduction Funnel 5



Two Level of Pre-filtrations 6

TECHNICAL SHEET

External Dimensions (W x D x H):
1244 x 881 x 1997 mm • 49 x 34 5/8 x 78 5/8 inch

Chamber Dimensions (W x D x H):
1000 x 580 x 600 mm • 39 1/8 x 22 7/8 x 23 5/8 inch

Access Opening (W x H):
984 x 600 mm • 38 3/4 x 23 5/8 inch

Weight:
226 kg • 498.24 lb

Electrical Supply:
230 V - 50/60 Hz • 100/115 V - 50/60 Hz

Power Consumption:
1.0 KVA

Control:
Microprocessor driven (automatic constant flow rate and filter load compensation) with control panel

Air Barrier Velocity:
≥ 0.60 m/s (average)

Waste Bag Trolley volume:
60 litres

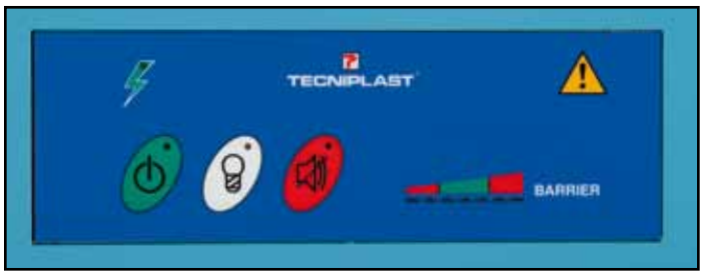
H14 HEPA Filter efficiency (EN1822):
99.995% at the most penetrating particle size

F7 Rigid Bag Filter Efficiency:
85% (average atmospheric dust spot efficiency)

G4 Prefilters Arrestance:
≤ 90% (average synthetic dust weight arrestance)

Note: The cabinet is available in epoxy coated steel or stainless steel version

Microprocessor Controls and Safety Alarms 7



Accessories 8

1/High Protection from Exposure to Allergens

The "DS72" is designed to manage and control the levels of contamination generated during the dumping of big rodent cage bedding and animal waste, providing personnel and environmental protection from allergens and airborne contaminants inside the cabinet.

2/Safety

In both sides the air from the environment is drawn into the front access opening of the station at an average speed of 0.6 m/s and pass through a double pre-filtration system and a HEPA filter before being exhausted. 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. 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.

3/Double Working - side for Optimal Containment

It features an accessible workplace, open on the front side, with Integrated exhaust air filtered system.The working area is divided in two sides: one side for carrying out the dumping of bedding and animal waste operations into dedicated containers. The other side for the positioning of the trolleys to hold cages and trays to be dumped.

4/High Cleanability and Visibility

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.

5/Ease of Use with the Slide Reduction Funnel

DS36 features a waste bag trolley and a sliding reduction funnel allowing the operator to simplify waste bag removal under constant protection.

6/Microprocessor Controls and Safety Alarms

The machine is provided with a control system featuring a microprocessor which automatically controls and keeps a suitable velocity of the air curtain. An acoustic and optical alarm system indicates the alarm conditions, reducing the risk for the operator and the environment from potentially hazardous micro-organisms, in line with the European Machinery Directive and International Standards.

7/Two Levels of Pre-filtrations: Extended HEPA Filter Life

The first level consists of two "G4" pre-filters with an average arrestance of Am=90% (Average synthetic dust weight arrestance) which trap large particulates.

The second level is achieved by two rigid bag "F7" pre-filters with an elevated contact surface and an efficiency of 80% < Em<90% (Average atmospheric dust spot efficiency) on fine dusts.

These filters are located behind the stainless steel swing panel that protects them from possible damage. Thanks to this high efficiency of pre-filtration, HEPA filter life and thus reliability is extended.

8/Accessories

Mobile funnel which provides maximum operator comfort and protection during bedding disposal operation. Stainless steel waste bag trolley with hinged opening to remove the bag from the front Pallet Trolley with allergen lid designed to optimize the material flows through the facilities.

Lifter in order to provide the operator with an ergonomic solution for lifting the dirty cages.

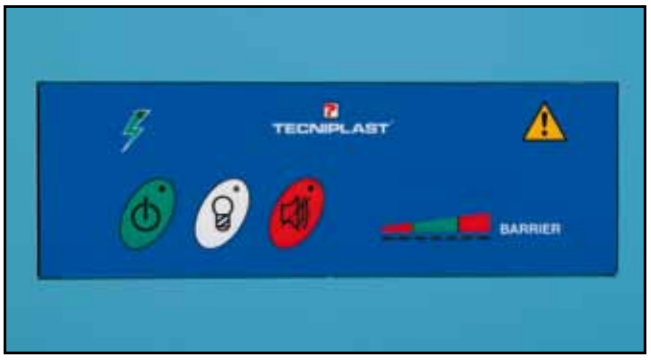
DS72™
ALLERGEN CONTAINMENT SOLUTION

High Protection & Safety **1&2**

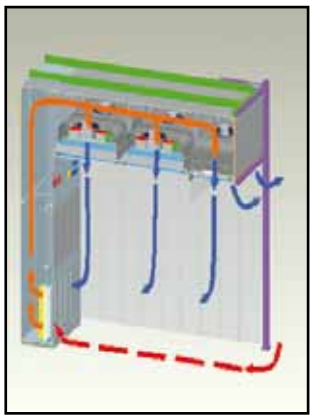
Double working-side/High Cleanability & Visibility **3&4**

Ease of Use with the Slide Reduction Funnel 5

Microprocessor Controls and Safety Alarms 6



Two Level of Pre-filtrations 7



Environment Air

Pre-filtered Air

HEPA filtered Air

TECHNICAL SHEET

External Dimensions (W x D x H):
2225 x 873 x 2111 mm • 87 5/8 x 34 3/8 x 83 1/8 inch

Chamber Dimensions (W x D x H):
2095 x 624 x 1612 mm • 82 4/8 x 24 5/8 x 63 4/8 inch

Fobile Funnel (W x D x H):
980 x 746 x 1000 mm • 38 5/8 x 29 3/8 x 39 3/8 inch

Weight:
420 kg • 925.94 lb

Electrical Supply:
230 V - 50/60 Hz • 100/115 V - 50/60 Hz

Power Consumption:
1.7 KVA

Control:
Microprocessor driven (automatic constant flow rate and filter load compensation) with control panel

Air Barrier Velocity:
≥ 0.55 m/s (average)

Waste Bag Trolley volume:
60 litres

H14 HEPA Filter efficiency (EN1822):
99.995% at the most penetrating particle size

F7 Rigid Bag Filter Efficiency:
85% (average atmospheric dust spot efficiency)

G4 Prefilters Arrestance:
≤ 90% (average synthetic dust weight arrestance)

Note: The cabinet is available in epoxy coated steel or stainless steel version

Accessories 8

1/High Protection from Exposure to Allergens

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, providing personnel and environmental protection from allergens and airborne contaminants inside the cabinet.

2/Double Working - side for Optimal Containment

It features an accessible workplace, open on the front side, with integrated exhaust air filtered system. The working area is divided in two sides: the right side for carrying out the dumping of bedding and animal waste operations into dedicated containers. The left side for the positioning of the trolleys to hold cages and trays to be dumped.

3/Safety

In both sides the air from the environment is drawn into the front access opening of the station at an average speed of 0.6 m/s and pass through a double pre-filtration system and a HEPA filter before being exhausted. 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.

4/Two Levels of Pre-filtrations: Extended HEPA Filter Life

The first level consists of two "G4" pre-filters with an average arrestance of Am=90% (Average synthetic dust weight arrestance) which trap large particulates.

The second level is achieved by two rigid bag "F7" pre-filters with an elevated contact surface and an efficiency of 80% < Em<90% (Average atmospheric dust spot efficiency) on fine dusts.

These filters are located behind the stainless steel swing panel that protects them from possible damage. Thanks to this high efficiency of pre-filtration, HEPA filter life and thus reliability is extended.

5/Microprocessor Controls and Safety Alarms

The machine is provided with a control system featuring a microprocessor which automatically controls and keeps a suitable velocity of the air curtain.

An acoustic and optical alarm system indicates the alarm conditions, reducing the risk for the operator and the environment from potentially hazardous micro-organisms, in line with the European Machinery Directive and International Standards.

6/Accessories

Trolley designed to accommodate the dirty animal trays to empty.

Stainless steel waste bag trolley with hinged opening to remove the bag from the front.

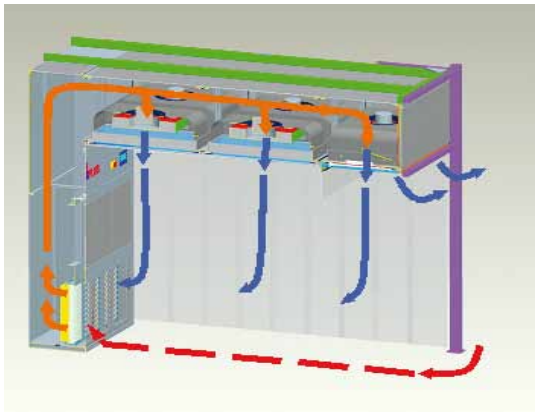
Other accessories are available upon request.

DS100™
ALLERGEN CONTAINMENT SOLUTION

High Protection from Exposure to Allergens **1**

Double Working - side for Optimal Containment **2**

Safety & Two Level of Pre-filtrations 3&4



Environment Air Pre-filtered Air HEPA filtered Air

Microprocessor Controls and Safety Alarms 5

TECHNICAL SHEET

External Dimensions (W x D x H):
2660 x 1250 x 2680 mm • 104 6/8 x 49 2/8 x 105 4/8 inch

Chamber Dimensions (W x D x H):
2480 x 1000 x 2000 mm • 97 5/8 x 39 3/8 x 78 6/8 inch

Fobile Funnel (W x D x H):
1227 x 1000 x 950 mm • 48 2/8 x 39 3/8 x 37 3/8 inch

Weight:
450 kg • 992 lb

Electrical Supply:
230 V - 50/60 Hz • 100/115 V - 50/60 Hz

Power Consumption:
1.7 KVA

Control:
Microprocessor driven (automatic constant flow rate and filter load compensation) with control panel

Waste Bag Trolley volume:
80 litres

H14 HEPA Filter efficiency (EN1822):
99.995% at the most penetrating particle size

F7 Rigid Bag Filter Efficiency:
85% (average atmospheric dust spot efficiency)

G4 Prefilters Arrestance:
≤ 90% (average synthetic dust weight arrestance)

Accessories 6

1/High Protection from Exposure to Allergens

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.

2/Safety

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. 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).

3/Microprocessor Controls and Safety Alarms

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.

4/Possibility of Integration with IWT Bedding Handling System

The DFB3Plus can be integrated with a bedding disposal system developed by IWT to ensure totally smooth and simple material disposal and dispensing operations.

Cutting operator exposure and effort to a minimum.

5/Accessories

Shredder to ensure fine shredding and to prevent clogging upstream of conveyance since the material is rendered uniform in size and weight.

Different kind of trolley to effectively accommodate any type of load and cage sizes.

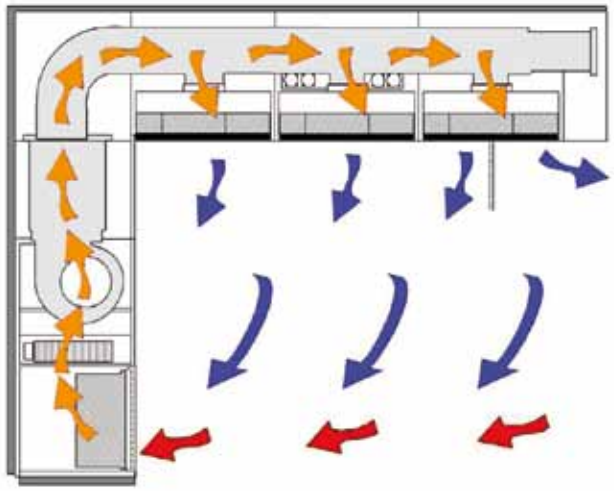
Other accessories are available upon request.

DFB3 PLUS™

ALLERGEN CONTAINMENT SOLUTION

High Protection from Exposure to Allergens 1

Safety 2



Environment Air Pre-filtered Air HEPA filtered Air

Microprocessor Controls and Safety Alarms 3

TECHNICAL SHEET

External Dimensions (W x D x H):
2980 x 3400 x 2800 mm • 117 3/8 x 133 7/8 x 110 2/8 inch

Working Area (W x D x H):
2900 x 2700 x 2100 mm • 114 1/8 x 106 2/8 x 82 5/8 inch

Weight:
1100 kg • 2425 lb

Electrical Supply:
230 V - 50/60 Hz • 100/115 V - 50/60 Hz

Maximum Power Consumption:
20 A

Control:
Microprocessor driven (automatic constant flow rate and filter load compensation) with control panel

Laminar Air Flow Velocity:
≥ 0.35 m/s (average)

H14 HEPA Filter efficiency (EN1822):
99.995% at the most penetrating particle size

F7 Rigid Bag Filter Efficiency:
85% (average atmospheric dust spot efficiency)

G4 Prefilters Arrestance:
≤ 90% (average synthetic dust weight arrestance)

Accessories 5

1/Protection from Exposure to Allergens

The AC74 is an allergen control booth that prevents allergens from spreading in the changing area, protecting both operator and environment.

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.

2/Safety

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 "G3" efficiency pre-filtering cells.

The second filtration phase features an "H13" efficiency HEPA filter.

3/Microprocessor Controls and Safety Alarms

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 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 power 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.

4/Mobility and 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.

5/Accessories

Pallet Trolley with allergen lid designed to optimize the material flows through the facilities.

Lifter in order to provide the operator with an ergonomic solution for lifting the dirty cages.

AC74™
ALLERGEN CONTAINMENT SOLUTION

High Protection from Exposure to Allergens **1**

Safety **2**

Microprocessor Controls and Safety Alarms 3

Mobility and Ergonomics 4

TECHNICAL SHEET

External Dimensions (W x D x H):
1360 x 880 x 2261 mm • 53 4/8 x 34 5/8 x 89 inch

Chamber Dimensions (W x D x H):
1250 x 660 x 1800 mm • 53 1/8 x 26 x 70 7/8 inch

Weight:
280 kg • 617.29 lb

Electrical Supply:
230 V - 50/60 Hz • 100/115 V - 50/60 Hz

Power Consumption:
1.0 KVA

Control:
Microprocessor driven (automatic constant flow rate and filter load compensation) with control panel

Barrier Air Flow Rate:
≥ 1400 m³/h

H13 HEPA Filter efficiency (EN1822):
99.95% at the most penetrating particle size

G3 Prefilters Arrestance:
≤ 80% (average synthetic dust weight arrestance)

Note: The cabinet is available in epoxy coated steel or stainless steel version

Accessories 5

Related Products

To maximise operational efficiency and learn more about these products contact your local representative.

GP Decontamination Lock. Full decontamination cycle, with 6 log reduction, in one hour all inclusive. The unit may be used with Vaporized Hydrogen Peroxide generators from different vendors, gaseous Chlorine Dioxide generators and for chemical fogging.

Sealsafe Plus: high containment, certified protection from allergens, high density and practicality of use. The IVC (r)evolution.

Logistic trolleys offer safety and ergonomic features that enable high load-density for moving cages and bottles, crates, pallets and covers.

TECNIPLAST

HEADQUARTERS
ITALY | Tel. +39 0332 809711 • www.tecniplast.it • E-mail: tecnicom@tecniplast.it

SISTER COMPANIES
AUSTRALIA/NEW ZEALAND | Tel. + 61 2 8845 6500 • www.tecniplast.it • E-mail: info@tecniplast.com.au
CHINA | Tel. + 86 21 50810920 • www.tecniplast.cn • E-mail: tecniplastchina@tecniplast.it
FRANCE | Tél. 04 72 52 94 41 • www.tecniplast.fr • E-mail: info@tecniplast.fr
GERMANY | Tel. 08805 921320 • www.tecniplast.de • E-mail: info@tecniplast.de
UNITED KINGDOM | Tel. 0845 0504556 • www.tecniplast.it • E-mail: info@tecniplastuk.com
JAPAN | Tel. + 03 5770 5375 • www.tecniplast.it • E-mail: info@tecniplastjapan.co.jp
USA/CANADA | Toll Free: 877.669.2243 • www.tecniplastusa.com • E-mail: info@tecniplastusa.com

To find your local distributor, please visit www.tecniplast.it

ISO-9001 - Cert. n° 0875

ISO-14001 - Cert. n° 0256A/0

CAT094/ING - Rev. November 2012