

PATENTED · PATENTED DESIGN



- **Patented radial cage sealing means no need for latches:**
the best ergonomics with maximum protection
- **Limited air speed for stress and anxiety-free animals:**
maximized animal welfare
- **Great visibility and easy access to the cage:**
quick daily check and cage change procedures
- **Prearranged for the coming digital revolution**



HOUSING

TECNIPLAST
innovation through passion SM

Introduction

The Sealsafe® PLUS range of IVC products features a PATENTED cage design, consisting of a soft silicone gasket that protrudes radially all around the cage base rim: a perfect sealing is simply achieved by placing the top on the cage body, through the radial interference between gasket and cage top. Consequently, the vertical compression (commonly provided by the use of latches) of the silicone gasket between cage base and top is not required:

- no latches for the best ergonomics
- no need for latches to achieve excellent containment and high protection

1/Protection for Operators and Animals

- PATENTED cage sealing design: **optimal seal and protection without need for latches.**
- Multiple sealed cage: silicon gasketed valves (not invasive to the cage), bottle cap, cage base and filter retainer ensure **maximum sealing.**
- Large Microbiological filter (VFE* $\geq 99.999987\%$, BFE* $\geq 99.9999937\%$) at cage level, ensures optimal gas exchange as well as an **ideal protection also during procedures or in case of power failure.**
- DOP tested Air Handling Unit's HEPA Filters provide **high protection against bacteria, viruses and allergens.**

*VFE: Virus Filtration Efficiency. BFE: Bacteria Filtration Efficiency.

2/Animal Welfare

- Air inlet and outlet valves in the top: **no air drafts at animal level, avoiding risk of stress and heat loss**, as reported in the scientific literature.
- Stand-alone Air Handling Unit: Easy, Smart and Sky Flow provide safe ventilation **without transmitting vibrations** to the rack, ensuring **standardization of the experiment.** The system is independently certified by TÜV.

3/Ergonomics

- No latches for a **faster cage change**, while **protection is always ensured** by the patented cage sealing. Ideal for Automation.
- Half length wire bar lid: easy access for a **quicker cage change**, minimizing the risk of musculoskeletal disorders as well as reducing the cage weight.
- Great visibility-focused design and Automatic Visual Docking Indicator with Cage Self-Locking System to help operators perform a **quicker daily check.**
- External self-centering water bottle: **quicker bottle change** without removing the cage from the rack.

4/Low Running Costs

- Ten-row racks under 2 meters high in a small footprint for **maximized density**: optimized floor area usage with consequent **reduction of the facility running costs.**
- Stand-alone air handling unit can manage up to 4 single sided racks (or 2 double-sided): **energy saving with lower maintenance costs.**
- ECM DC-Blowers means **low power consumption and less maintenance.**
- Quick daily check, easy access to the cage and quicker bottle change mean **low labour costs.**

5/Digital Ready

The new DGM™ rack is fully compatible with state-of-the-art and future technologies such as:

- Digital Ventilated Cage (DVC™): a revolutionary technology able to enhance standardization and reduce running costs through the optimization of the facility cage-related operations and management.
- Inventory Stand Alone Module (DVC-INVENTORY™): the unique system able to automatically perform accurate "Real Time Census", occupancy and location of all your cages.
- Leak Detection System (LDS™): the smart system able to detect at the earliest stage any cage flooding due to Automatic Watering System valves failure, thus providing additional safety for the animals and reliability of the research.

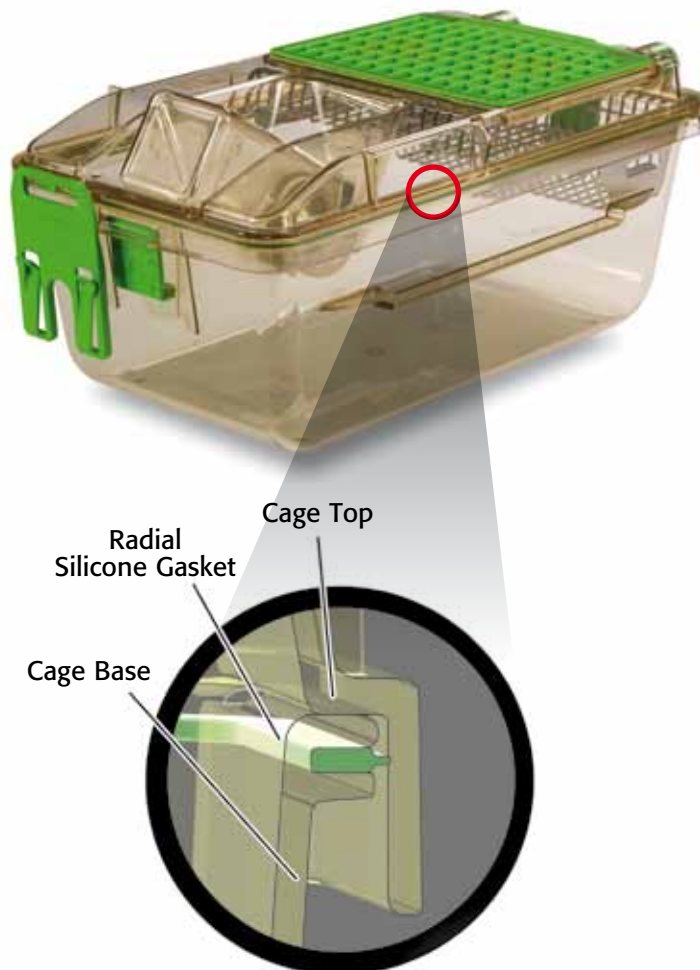


HOUSING

DGM
Digital Ready IVC

Protection for Operators and Animals

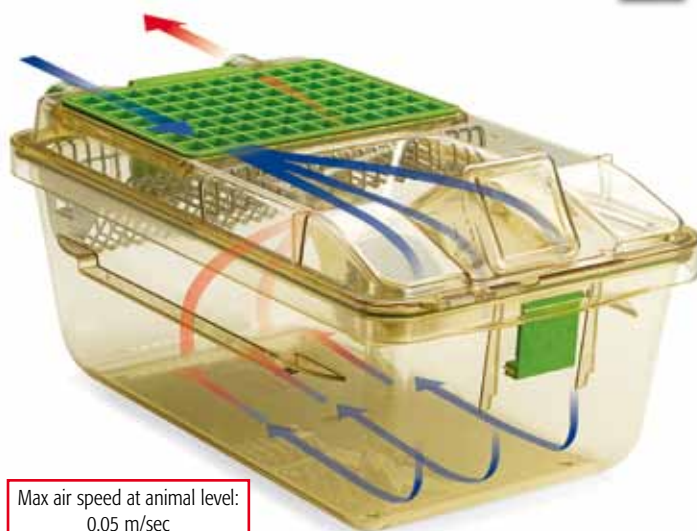
1



Patented cage design / Gasket-top perfect adherence:
sealing with no need for vertical compression

Animal Welfare

2



Air inlet/outlet on the top

Ergonomics

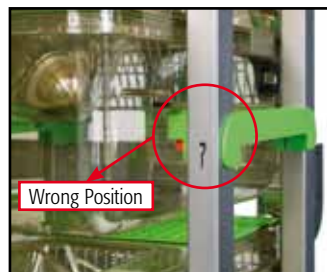
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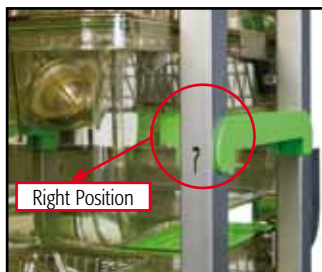
Latches-free cage



Half length lid



Wrong Position



Right Position

Automatic Visual Docking Indicator

Low Running Costs

4



- Multilinking: one AHU serves up to four racks.
- Safe for animals/operators/ environment.
- Energy-saving and Eco-compatible.
- Light and ergonomic.
- User friendly.
- High monitoring and security: Remote Alarm System (RAS) and Wireless Data Management (WDM).



No blower-related vibrations; maximized density

TECHNICAL SHEET

GM500 cage

Floor Area:

501 cm² • 77.66 sq inch

Overall Dimensions (W x D x H):

391 x 199 x 160 (172*) mm • 15.40 x 7.83 x 6.30 (6.79*) inch

*With water bottle

Plastic Type:

H-TEMP (Polysulfone) / Clear H-TEMP: 3 years warranty

X-TEMP (Polyphenilsulfone): 8 years warranty

Patented Cage Body:

Radial silicon gasket (occlusive seal); Simmetric (no back no front)

Lid:

Half wire bar lid style

Feeder Capacity:

0.5 l • 16.91 fl oz (US) • 17.60 fl oz (UK)

Top:

Filter retainer with silicon gasket; self-centering indentation for external water bottle

Water Bottle:

260 ml • 8.80 oz (US) • 9.15 oz (UK) capacity

External with o-ring for perfect sealing

Cage Filter Efficiency:

Microbiological filter

Bacterial Filtration Efficiency (BFE) ≥ 99.9999937%

Virus Filtration Efficiency (VFE) ≥ 99.999987%

DGM rack

Cat. N.	Configuration	Species	Overall Dimensions (L x W x H) - mm / inch
DGM54	54 cages (6 w x 9 h) Single sided	Mouse	1314 x 500 x 1872 (1950*) / 51.73 x 19.69 x 73.71 (76.78*)
DGM60	60 cages (6 w x 10 h) Single sided	Mouse	1314 x 500 x 1998 (2076*) / 51.73 x 19.69 x 78.66 (81.74*)
DGM63	63 cages (7 w x 9 h) Single sided	Mouse	1528 x 500 x 1872 (1950*) / 60.16 x 19.69 x 73.71 (76.78*)
DGM70	70 cages (7 w x 10 h) Single sided	Mouse	1528 x 500 x 1998 (2076*) / 60.16 x 19.69 x 78.66 (81.74*)
DGM72	72 cages (8 w x 9 h) Single sided	Mouse	1742 x 500 x 1872 (1950*) / 68.58 x 19.69 x 73.71 (76.78*)
DGM80	80 cages (8 w x 10 h) Single sided	Mouse	1742 x 500 x 1998 (2076*) / 68.58 x 19.69 x 78.66 (81.74*)
DGM108	108 cages (6 w x 9 h) Double sided	Mouse	1314 x 888 x 1858 (1955*) / 51.73 x 34.96 x 73.16 (76.95*)
DGM120	120 cages (6 w x 10 h) Double sided	Mouse	1314 x 888 x 1984 (2081*) / 51.73 x 34.96 x 78.11 (81.91*)
DGM126	126 cages (7 w x 9 h) Double sided	Mouse	1528 x 888 x 1858 (1955*) / 60.16 x 34.96 x 73.16 (76.95*)
DGM140	140 cages (7 w x 10 h) Double sided	Mouse	1528 x 888 x 1984 (2081*) / 60.16 x 34.96 x 78.11 (81.91*)
DGM144	144 cages (8 w x 9 h) Double sided	Mouse	1742 x 888 x 1858 (1955*) / 68.58 x 34.96 x 73.16 (76.95*)
DGM160	160 cages (8 w x 10 h) Double sided	Mouse	1742 x 888 x 1984 (2081*) / 68.58 x 34.96 x 78.11 (81.91*)

* With easily removable supply plenum

Options

For Cage:

- Cage body with grommet, for auto watering
- "Unihand" Cage body (button free in the front) for single hand procedures
- "Unihand" Cage body with grommet, for auto watering
- Full length wire bar lid with food hopper and bottle in the front, internal bottle
- Full length wire bar lid with external bottle in the front and food hopper in the back
- Flat top without bottle indentation, for auto watering
- Top with depression for disposable water pouches
- Vertical or Horizontal flip up plastic card holder
- Raised floor grid

For Rack:

- Rack with automatic watering system
- Quick disconnecting magnetic joints (connecting AHU to rack or rack to rack)
- Flexible hoses (available in several lengths)

Accessories

- Mouse Balcony
- Mouse Loft
- Mouse House

ENVIRONMENTAL SUSTAINABILITY: MINIMIZE IMPACT MAXIMIZING VALUE

What Tecniplast did to become leader in sustainability:

Company:

- Quality Management System Certification according to ISO 9001 and Environmental Management System Certification according to ISO 14001.
- Certified Environmental Report according to Eni Foundation Enrico Mattei Guidelines.

Products:

- Life Cycle Assessment (LCA) according to ISO 14040 and ISO 14044.
- Carbon Footprint according to PAS 2050.
- Environmental Data Sheet according to ISO 14025.
- Contribution to credits under the LEED rating system.



TECNIPLAST®



Related Products

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



CS5 Evo GP

changing station. Compact, ergonomic and light double-side mobile Changing Station that allows the user to easily move the cabinet inside the animal room.



Logistic trolleys

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



Atlantis Rack Washer:

designed specifically to meet the throughput needs of medium to large size facilities, these machines will live up to your highest expectations in terms of maximum cleaning efficiency, safety, environmental impact and quality construction.