

1/Housing Guidelines

Tecniplast's Product Compliance with International Guidelines

Because caging equipment is one of the most important elements in the physical and social environment of the animals used in experimental procedures, Tecniplast has developed, with customers' valued help, the largest range of cages meeting or exceeding current rules and guidelines:

EU Guidelines:

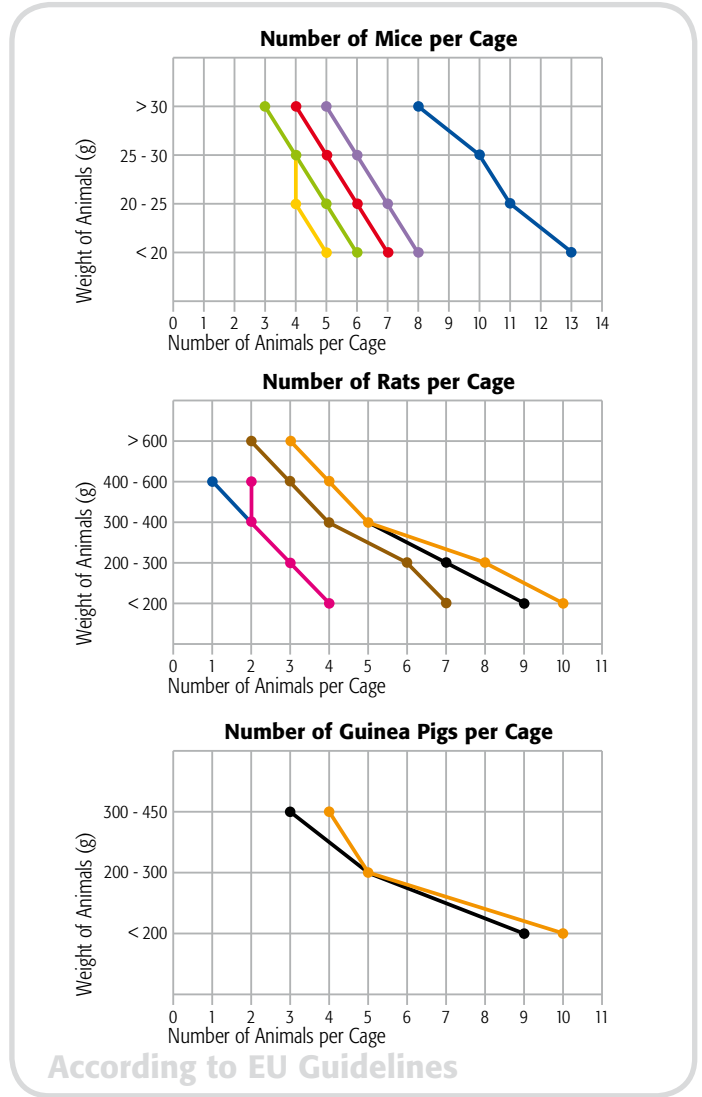
Requirements for Establishments and for the Care and Accomodation of Animals, Annex III of the Directive 2010/63/EU of the European Parliament and of the Council on the protection of animals used for scientific purposes, 22 September 2010.

USA Guidelines:

Guide for the Care and Use of Laboratory Animals, Institute of Laboratory Animal Research, Division on Earth and Life Studies, National Research Council, National Academy Press, Washington D.C. 2011.

UK Guidelines:

Code of Practice for the Housing and Care of Animals, used in Scientific Procedures, Home Office Animals (Scientific Procedures), ACT 1986.



EU Guidelines: Min. Floor Area and Height

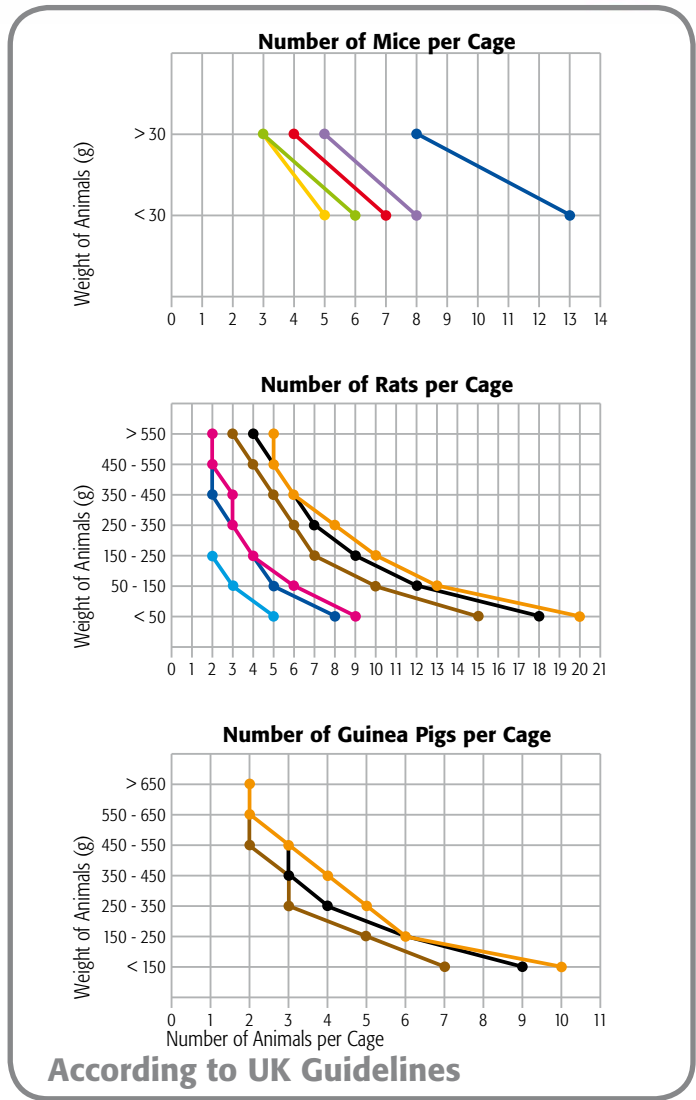
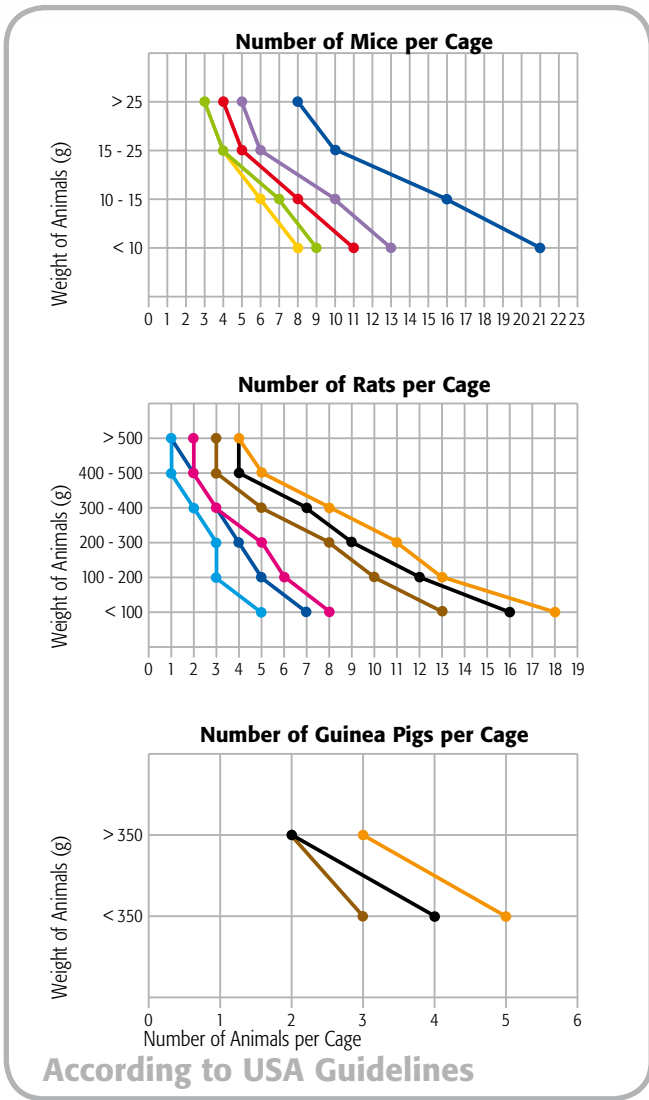
| Species | Body Weight (g) | Minimum Enclosure Size (cm ²) | Floor Area per Animal (cm ²) | Minimum Enclosure Height (cm) |
|-------------|-----------------|---|--|-------------------------------|
| Mice | < 20 | 330 | 60 | 12 |
| | 20 - 25 | 330 | 70 | 12 |
| | 25 - 30 | 330 | 80 | 12 |
| | > 30 | 330 | 100 | 12 |
| Rats | < 200 | 800 | 200 | 18 |
| | 200 - 300 | 800 | 250 | 18 |
| | 300 - 400 | 800 | 350 | 18 |
| | 400 - 600 | 800 | 450 | 18 |
| | > 600 | 1500 | 600 | 18 |
| Hamsters | < 60 | 800 | 150 | 14 |
| | 60 - 100 | 800 | 200 | 14 |
| | > 100 | 800 | 250 | 14 |
| Guinea Pigs | < 200 | 1800 | 200 | 23 |
| | 200 - 300 | 1800 | 350 | 23 |
| | 300 - 450 | 1800 | 500 | 23 |
| | 450 - 700 | 2500 | 700 | 23 |
| | > 700 | 2500 | 900 | 23 |

Legend for EU, USA and UK Guidelines

- 1144B
- 1145T
- 1264C
- 1284L
- 1290D*/1291H**
- 2150E
- 2154F
- 1500U**
- 1354G
- 2000P

* With Raised Wire Lid
for Rats after EU and USA Guidelines

** Raised Lid Available
for Rats and Guinea Pigs after UK Guidelines



**USA Guidelines:
Min. Floor Area and Height**

| Species | Weight (g) | Floor Area per Animal (cm ² /inch ²) | Minimum Height (cm/inch) |
|-------------|------------|---|--------------------------|
| Mice | < 10 | 38/6 | 12/5 |
| | 10 - 15 | 51/8 | 12/5 |
| | 15 - 25 | 77/12 | 12/5 |
| | > 25 | > 96 ≥ 15 | 12/5 |
| Rats | < 100 | 109/17 | 17/7 |
| | 100 - 200 | 148/23 | 17/7 |
| | 200 - 300 | 187/29 | 17/7 |
| | 300 - 400 | 258/40 | 17/7 |
| | 400 - 500 | 387/60 | 17/7 |
| | > 500 | > 451 ≥ 70 | 17/7 |
| Hamsters | < 60 | 64/10 | 15/6 |
| | 60 - 80 | 83/13 | 15/6 |
| | 80 - 100 | 103/16 | 15/6 |
| | > 100 | > 122 ≥ 19 | 15/6 |
| Guinea Pigs | < 350 | 387/60 | 17/7 |
| | > 350 | > 651 ≥ 101 | 17/7 |

**UK Guidelines:
Min. Floor Area and Height**

| Species | Weight of Animal (g) | Minimum Floor Area per Animal when Housed in Groups (cm ²) | Minimum Floor Area per Animal when Housed Singly (cm ²) | Minimum Height (cm) |
|-------------|----------------------|--|---|---------------------|
| Mice | < 30 | 60 | 200 | 12 |
| | > 30 | 100 | 200 | 12 |
| Rats | < 50 | 100 | 500 | 18 |
| | 50 - 150 | 150 | 500 | 18 |
| | 150 - 250 | 200 | 500 | 18 |
| | 250 - 350 | 250 | 700 | 20 |
| | 350 - 450 | 300 | 700 | 20 |
| | 450 - 550 | 350 | 700 | 20 |
| > 550 | 400 | 800 | 20 | |
| Hamsters | < 60 | 80 | 300 | 15 |
| | 60 - 90 | 100 | 300 | 15 |
| | 90 - 120 | 120 | 300 | 15 |
| | > 120 | 165 | 300 | 15 |
| Guinea Pigs | < 150 | 200 | 700 | 20 |
| | 150 - 250 | 300 | 700 | 20 |
| | 250 - 350 | 400 | 900 | 20 |
| | 350 - 450 | 500 | 900 | 23 |
| | 450 - 550 | 600 | 900 | 23 |
| | 550 - 650 | 700 | 1000 | 23 |
| > 650 | 750 | 1250 | 23 | |

2/Cage Body Selection

Tecniplast cage bodies are designed to facilitate animal welfare, meet research requirements and minimize experimental variables.

The following cage body selection is grouped by species.

Please note that the dimensions are in the following order:

L x W x H (Length x Width x Height)

Plastic Selection

Polycarbonate (PC):

This plastic is transparent with exceptional impact strength and heat resistance. It can be autoclaved at 121°C/250° F.



Polycarbonate (PC)

1
Year
Warranty*

H-TEMP Polysulfone (PSU):

This plastic is highly resistant, it can be autoclaved at 134°C/273°F. Considering an average of one autoclaving cycle per week, the three-year of warranty corresponds to at least 150 cycles.



H-TEMP Polysulfone (PSU)

3
Years
Warranty*

*Please refer to the Tecniplast warranty documents.



1144B

332 x 150 x 130 mm
floor area 335 cm²



1145T

369 x 156 x 132 mm
floor area 435 cm²

Plastic Selection

| Cage Body | Polycarbonate | H-Temp |
|-----------|---------------|--------|
| 1144B | -001 | -00SU |
| 1145T | -001 | -00SU |
| 1264C | -001 | -00SU |
| 1284L | -001 | -00SU |
| 1290D | -001 | -00SU |
| 1291H | -001 | -00SU |
| 2150E | -001 | -00SU |
| 2154F | -001 | -00SU |
| 1500U | -001 | -00SU |
| 1354G | -001 | - |
| 2000P | -001 | -00SU |

For Automatic Watering option, please contact your Tecniplast sales representative.

Legend

Mice • Rats/Hamsters • Guinea Pigs



1291H Euro

425 x
floor



1500U Eurostandard Type IV S

480 x 375 x 210 mm
floor area 1500 cm²



1264C Eurostandard Type II

267 x 207 x 140 mm
floor area 370 cm²



1284L Eurostandard Type II L

365 x 207 x 140 mm
floor area 530 cm²



1290D Eurostandard Type III

425 x 266 x 155 mm
floor area 820 cm²



Eurostandard Type III H

425 x 266 x 185 mm
floor area 800 cm²



2150E

355 x 235 x 190 mm
floor area 580 cm²



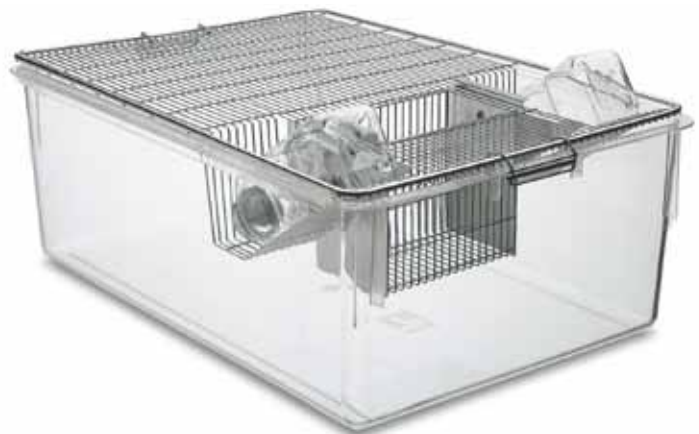
2154F

480 x 265 x 210 mm
floor area 940 cm²



1354G Eurostandard Type IV

595 x 380 x 200 mm
floor area 1820 cm²



2000P

610 x 435 x 215 mm
floor area 2065 cm²

3/Lid Selection

Tecniplast uses only first choice certified AISI 304 Stainless Steel. Guaranteed uniform quality with minimal dirt traps and excellent stackability for ease of handling and storage. Designed to ensure perfect fit and positive locking, throughout the complete product range. For different species, different lid designs are used.

Warning: DO NOT autoclave lids -014/-114/-123 on cage body (irrespective of material) as spring-clip may cause cage-wall warping!

3.1/Wire Lid

Inner Fitting Lid

The inner fitting lid is compatible with filter tops.

Series -016/-116/-015/-115

Standard lid with built-in u-shaped feed hopper and hinged divider which collapses to allow nesting of lids. Features solid sheet sides, swing-clip lock and bottle protection washer, designed to prevent chewing of non-metal tops. Series -015/-016 is without hinged divider and can be equipped with removable divider.

Series -014/-114

Same features like as series -116. The difference is the spring-clip closure. Series -014 is without hinged divider and can be equipped with removable divider.

Outer Fitting Lid

The outer fitting lid is not compatible with filter tops.

Series -012

With built-in u-shaped feed hopper, solid sheet sides, swing-clip lock and push-pull action for quick access to cage occupants. The series can be equipped with removable divider.

Series -025

Flat lid without feed hopper. Designed for use with post-surgery animals or infusion work.

3.2/Raised Wire Lid

These lids are specially designed for housing rats and guinea pigs. Please note that raised wire lids are not compatible with filter tops, except 2000P -224.

Raised Wire Lid with Built-in U-Shaped Feed Hopper

Series -123

Standard lid with hinged divider which collapses to allow nesting. Features solid sheet sides and front spring-clip closure.

Series -120/-117

Lid with hinged divider which collapses to allow nesting of lids. Features solid sheet sides and swing-clip lock. External fitting, with push-pull action for easy access to cage occupants.

Raised Wire Lid with Drop-In Hopper

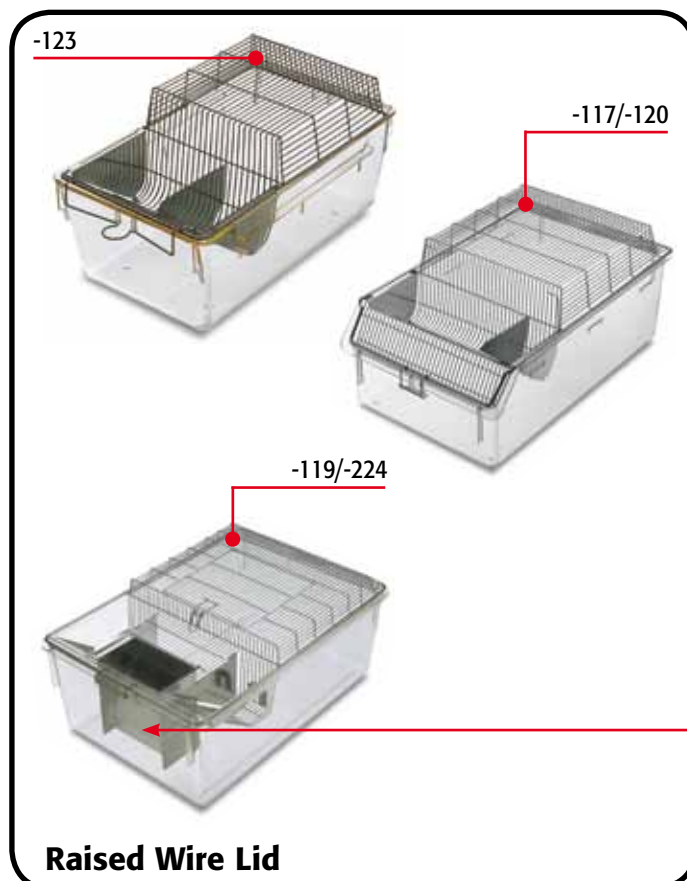
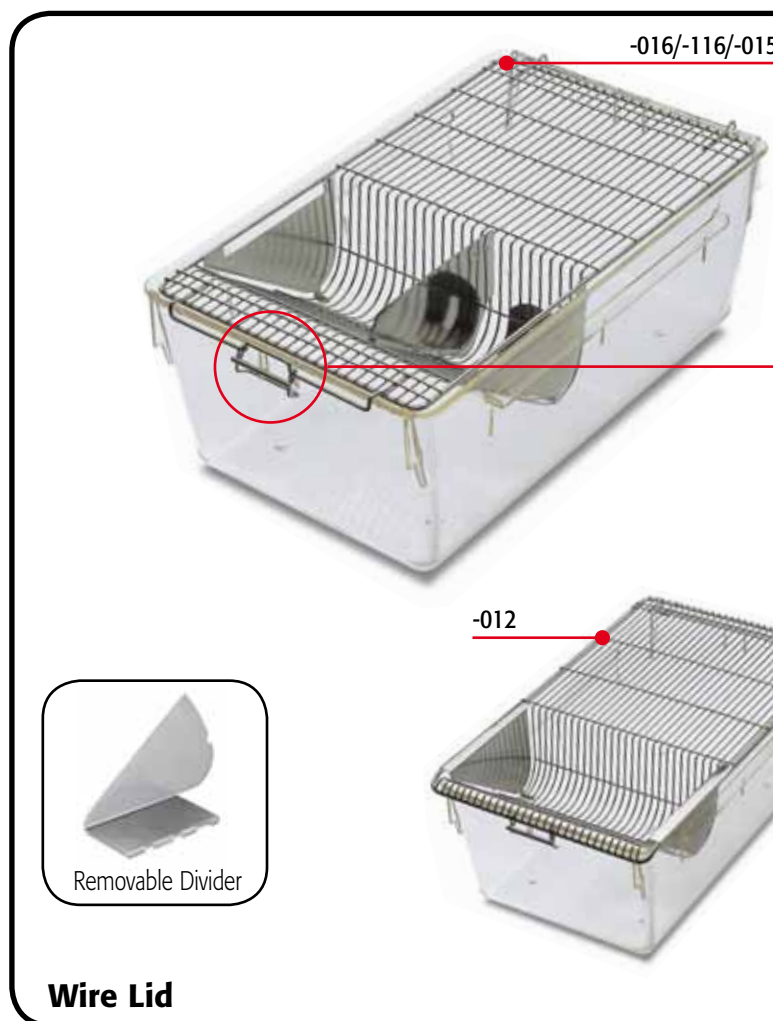
Drop-In hopper to be ordered separately.

Series -119/-224

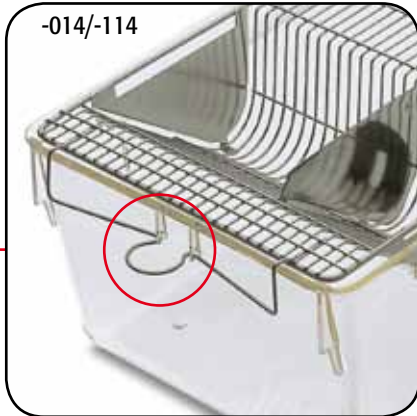
Features swing-clip lock, dual bottle depressions, allows push-pull action, plus top opening hatch for quick access to cage occupants.

Removable Divider

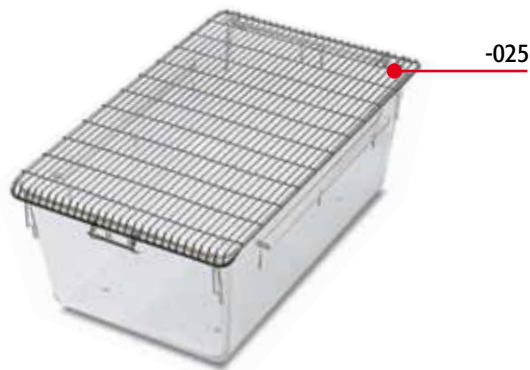
Most of the wire lids or raised wire lids, without hinged divider, can be equipped with removable dividers which have to be ordered separately. The removable divider separates the lid built-in food hopper and the bottle holder.



/-115



Difference



Wire Lid Selection and Removable Divider

| Cage Body | Inner Fitting Lid with Hinged Divider | Inner Fitting Lid without Hinged Divider | Outer Fitting Lid without Hinged Divider | Removable Divider | Flat Lid | Species |
|-----------------|---|--|--|-------------------|----------|---|
| 1144B | -116 | -016 | - | 1264C812 | - | Mice |
| 1145T | -116 | -016 | - | - | - | Mice |
| 1264C | -116 | -016 | -012 | 1264C812 | -025 | Mice |
| 1284L | -116 | -016 | - | 1264C812 | - | Mice |
| 1290D 1291H* | -116* | -016* | -012* | 1290D812* | -025* | Mice Rats ^{▲▲▲} Hamsters |
| 2150E | -114 | -014 | - | 1290D812 | - | Rats Hamsters |
| 2154F | -114 | -014 | - | 1290D812 | -025 | Rats Hamsters |
| 1500U** | -116** | -016** | - | 1400U812 | - | Rats Hamsters |
| 1354G | -115 | -015 | -012 [▲] | 1354G812 | - | Mice Rats Hamsters Guinea Pigs |
| 2000P | -214 ^{▲▲} -242 ^{***} | -014 | - | - | - | Rats Hamsters Guinea Pigs |

* 1291H to be ordered as 1290D -116/-016/-012/-812/-025

** 1500U to be ordered as 1400U -116/-016

*** 2000P -242 to be ordered with Drop-In Hopper -962 or -950

▲ Can be used with mice

▲▲ Two dividers

▲▲▲ 1290D to be ordered with Raised Wire Lid for Housing Rats

Raised Wire Lid Selection, Removable Divider and Drop-In Hopper

| Cage Body | Lid with Divider | Lid without Divider | Removable Divider | Raised Height (mm) | Top Hatch Access (mm) | Drop-In Hopper for Guinea Pigs | Drop-In Hopper for Rats | Species |
|-----------------|-----------------------------------|---------------------|-------------------|--------------------|-----------------------|--------------------------------|-------------------------|---------------------|
| 1290D 1291H* | -123* | -023* | -812* | 60 | - | - | - | Rats |
| 1500U** | -224 ^{▲▲} | - | - | 40 | 165 x 220 | -965 ^{***} | -952 ^{***} | Rats Guinea Pigs |
| 1354G | -117 -120 -119 [▲] | -017 -020 - | -812 -812 - | 25 70 70 | - - 220 x 225 | - - -965 | - - -952 | Rats Guinea Pigs |
| 2000P | -224 [▲] | - | - | 40 | 220 x 225 | -962 | -950 | Rats Guinea Pigs |

* 1291H to be ordered as 1290D -123/-023/-812

▲ Two dividers

** 1500U to be ordered as 1400U -224

*** To be ordered as 1354G -965/-952

-962/-965



-950/-952



Drop-in Hopper

4/Bottle & Cap Selection

4.1/Bottle Selection

Tecniplast produces a wide range of water bottles. The bottles have a silicone ring. This enables easy placing and removal of caps. Silicone seal is long lasting and does not need to be removed for cleaning when bottles are autoclaved. The bottle neck silicone ring features three protruding lips which prevent water from leaking.

Please note, that bottle "H" is without silicone ring.

The bottles are made of clear-glass Polycarbonate (PC), complying with Title 21 FDA requirements. Autoclavable at 121°C /250°F for 20 minutes. The most popular sizes/styles are optionally available in H-Temp (PSU) and X-Temp (PPSU).

Important features:

- Consistent thickness.
- Rigid walls, cannot be squeezed when handling.
- Wide mouth (Ø 44.5 mm) to aid filling and emptying, whilst also ensuring effective washing.
- Embossed, moulded graduations as aid to volume measurement. Please note, that bottles ACBT0702 and -0702SU are ungraduated.

4.2/Cap Selection

Tecniplast metal bottle caps are totally made of polished AISI 316 Stainless Steel, to be corrosion resistant. The caps are chew-proof and have a one-piece sipper tube design. A perfect long-lasting product is guaranteed by our special production processes, constant quality standards and attention to detail. The cone shaped cap design, with the slope of the bottle, maximize water availability for animals.

Series ACCP2521

Standard bottle cap made of stainless steel with ø 1.8 mm hole.

Series ACCP2511

Bottle cap with ø 1.0 mm hole for special applications, where the control of water consumption is essential.

Series ACCP2522

Same design as Series ACCP2521 but made of plastic (shorter lifespan).

Series ACCP6521

Bottle cap specially designed for small, weak or post-surgery animals.

Series ACCP50

Bottle cap designed for special experiments, where easy accessibility and a higher flow rate of water is needed.

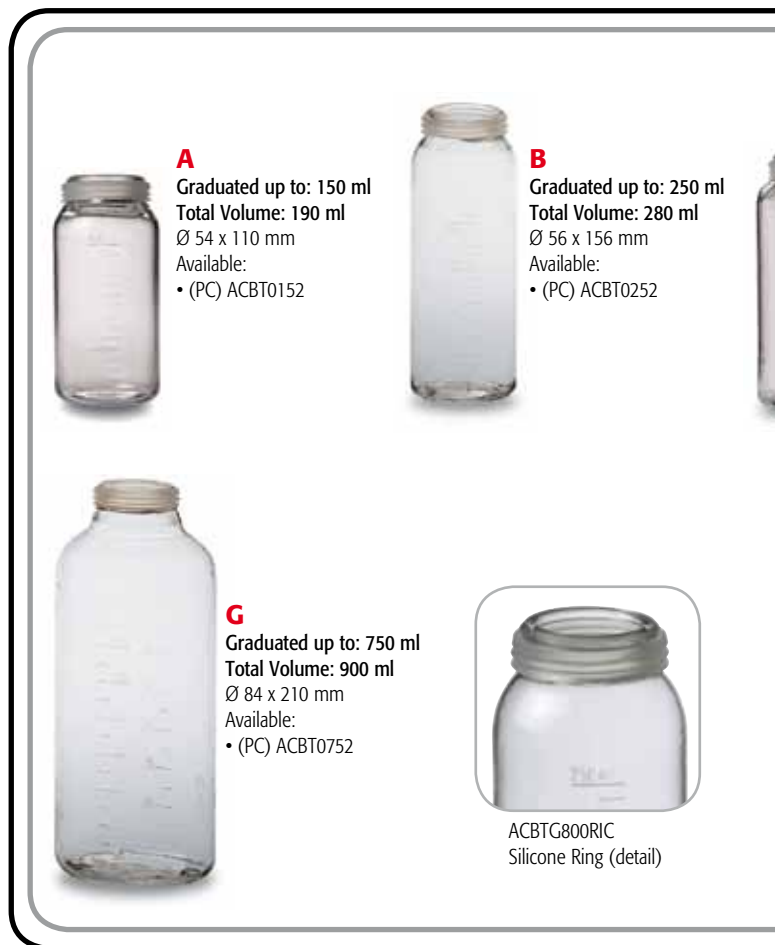
5/Label Holder Selection

Vertical or horizontal label holders are available with two different attachments:

• **With Spring:** allows label holder to swivel and enables writing without removing the card.

Please note, that the spring design is only suitable for Tecniplast cages, with pre-drilled lugs for label holder attachment.

• **With Hook:** suitable for any cage or lid



Legend

Bottle Selection • Bottles with Silicone Ring



C
 Graduated up to: 260 ml
 Total Volume: 300 ml
 ∅55 x 55 x 128 mm
 Available:
 • (PC) ACBT0262
 • (PSU) ACBT0262SU
 • (PEI) ACBT0262PI
 • (PPSU) ACBT0262PFS
 • (Black) ACBT0262N

D
 Graduated up to: 400 ml
 Total Volume: 450 ml
 ∅72 x 72 x 122 mm
 Available:
 • (PC) ACBT0402
 • (PSU) ACBT0402SU
 • (PEI) ACBT0402PI
 • (PPSU) ACBT0402PFS

E
 Graduated up to: 500 ml
 Total Volume: 600 ml
 ∅74 x 180 mm
 Available:
 • (PC) ACBT0502

F
 Graduated up to: 600 ml
 Total Volume: 720 ml
 ∅72 x 72 x 182 mm
 Available:
 • (PC) ACBT0702
 • (PSU) ACBT0702SU

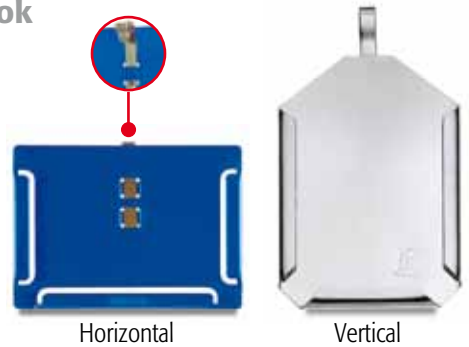
H
 Graduated up to: 1000 ml
 Total Volume: 1100 ml
 ∅83 x 83 x 225 mm
 Available:
 • (PC) ACBT1000

Label Holder Selection **5**

With Spring



With Hook



Bottle Selection

| Cage Body | Bottle |
|-----------|--------|
| 1144B | A |
| 1145T | C |
| 1264C | B/D |
| 1284L | C/D |
| 1290D | E |
| 1291H | E/F |
| 2150E | C/D |
| 2154F | F |
| 1500U | F |
| 1354G | F/G/H |
| 2000P* | G/H |

*Please contact us for compatibility with racks.

Cap Selection

| SS Cap for Bottles | Nylon Cap for Bottles | Hole (mm) | External Diameter (mm) | Length (mm) |
|--------------------|-----------------------|------------|------------------------|-------------|
| ACCP2521 | ACCP2522 | ∅ 1.8 | 6.5 | 25 |
| ACCP2511 | - | ∅ 1.0 | 6.5 | 25 |
| ACCP50 | - | With Balls | 8 | 50 |
| ACCP6521 | - | ∅ 2.2 | 8 | 65 |

Label Holder

Label Holder Selection

| Label holder | L x H (mm) | Style | Suits Cards L x (H) - (mm) |
|--------------|------------|--------------------------------|----------------------------|
| ACPC0050 | 75 x 105 | SS Vertical with Hook | 70 x (50+100) |
| ACPC0055 | 105 x 75 | SS Horizontal with Spring | 100 x (50+90) |
| ACPC0060 | 75 x 105 | SS Vertical with Spring | 70 x (50+100) |
| ACPC0056 | 130 x 77 | SS Horizontal with Spring | 125 x (50+90) |
| ACPC0046* | 80 x 60 | SS Horizontal with Spring | 75 x (50+80) |
| ACPC0045PL | 105 x 75 | Plastic Horizontal with Hook | 100 x (50+90) |
| ACPC0055PL | 105 x 75 | Plastic Horizontal with Spring | 100 x (50+90) |
| ACPC0056PL | 130 x 77 | Plastic Horizontal with Spring | 125 x (50+90) |
| ACPC0065PL | 130 x 77 | Plastic Horizontal with Hook | 125 x (50+90) |

*Wide format specific for cage 2000P

6/Accessories

6.1/Powder Feeder

Made of AISI 304 SS, Tecniplast powder feeders are located inside the cages and hang at the cage body wall. Provided with one or more partitions, they can be accessed simultaneously by two or more animals. These feeders are designed with small compartments to prevent animals from entering and nesting and to reduce waste and spillage.

Series -927/-922/-923

Unique two-part design consisting of lower tray/hopper to be filled with powder feed, whilst the upper lid/divider section slides down directly onto the food. A series of SS cross-wires on the bottom of the top section provides many small slots through which the animals feed, encouraging the consumption of fine particles (ensuring ingestion of test medium), whilst helping to reduce wastage and prevent nesting. Ideal for powder feed studies.

Series -929

Simple "J"-Design for use with lid Series -012, in order to avoid nesting inside the powder feeder. Features anti-spill lip at front and separation wires.

6.2/Raised Bottom Grid

Made of AISI 304 SS wire mesh which can be dropped into solid bottom cages to separate animals from their waste. It has 30mm elevation for mice and for rats/guinea pigs. Features convenient handle for easy insertion and removal.

6.3/Plastic Bag

Ideal for autoclaving cages when protective covering is needed. The plastic bags feature breathable sides to prevent cage deformation.

6.4/Filter Top

Tecniplast Filter Tops consist of three parts:

- Polysulfone (PSU) H-Temp™ Frame.
- Polyester Filter Sheet with an atmospheric dust efficiency of 92% on 8 - 10 µm particles.
- Stainless Steel Retainer.

The patented Filter Top (Mini-Isolator) Cage System creates a protective barrier at cage level with major advantages for the protection of both animals and staff. Filter Top Cages can be autoclaved as complete units. The filter top can optionally be supplied with Nylon Lock Latches, to prevent accidental dislodgement from the cage body. Due to their large filtration area, the filter tops maintain an efficient gaseous interchange with the external environment, resulting in lower levels of intra-cage NH₃ and CO₂, compared with competitor systems.

Replacement Filter Sheet

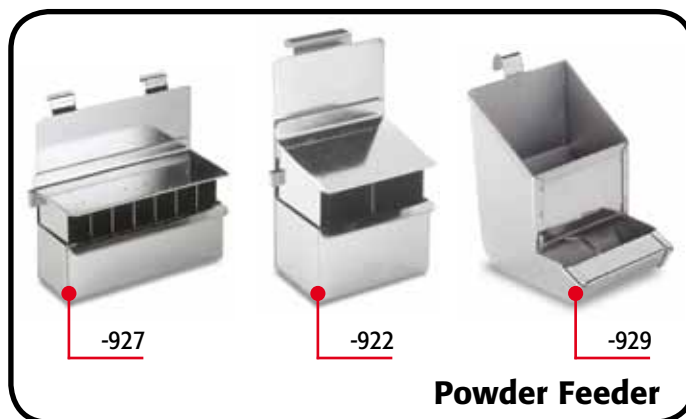
Sterilizable Polyester Filter Sheets are available as spare parts.

Animal Protection

- Proven microbial protection.
- Protection against pathogenic containments introduced by animal care takers.
- Better microenvironment inside the cage, due to reduced fluctuations in temperature and humidity, plus the elimination of draughts.
- Enhanced animal health, reduced infant mortality and respiratory problems.

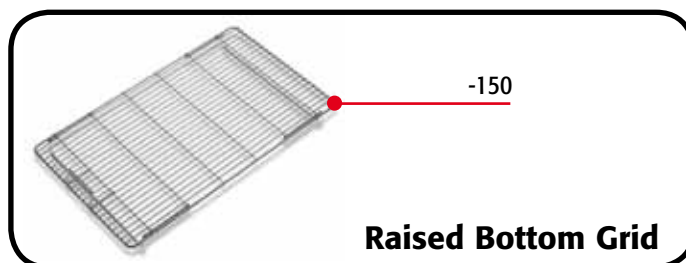
Staff Protection

- Reduced air-borne contaminations in the working environment.
- Significant lowering of respiratory associated allergenic reactions among animal care staff.



Powder Feeder

| Cage Body | Powder Feeder | Number of Compartments | Species |
|-----------|---------------|------------------------|---------|
| 1264C | -929 | 2 | Mice |
| 1290D | -929 | 3 | Rats |
| | -927 | 7 | Mice |
| 1291H | -922 | 2 | Rats |
| | -923 | 3 | Rats |
| 2150E | -922 | 2 | Rats |
| 2154F | -922 | 2 | Rats |
| | -923 | 3 | Rats |
| 1354G | -929 | 4 | Rats |

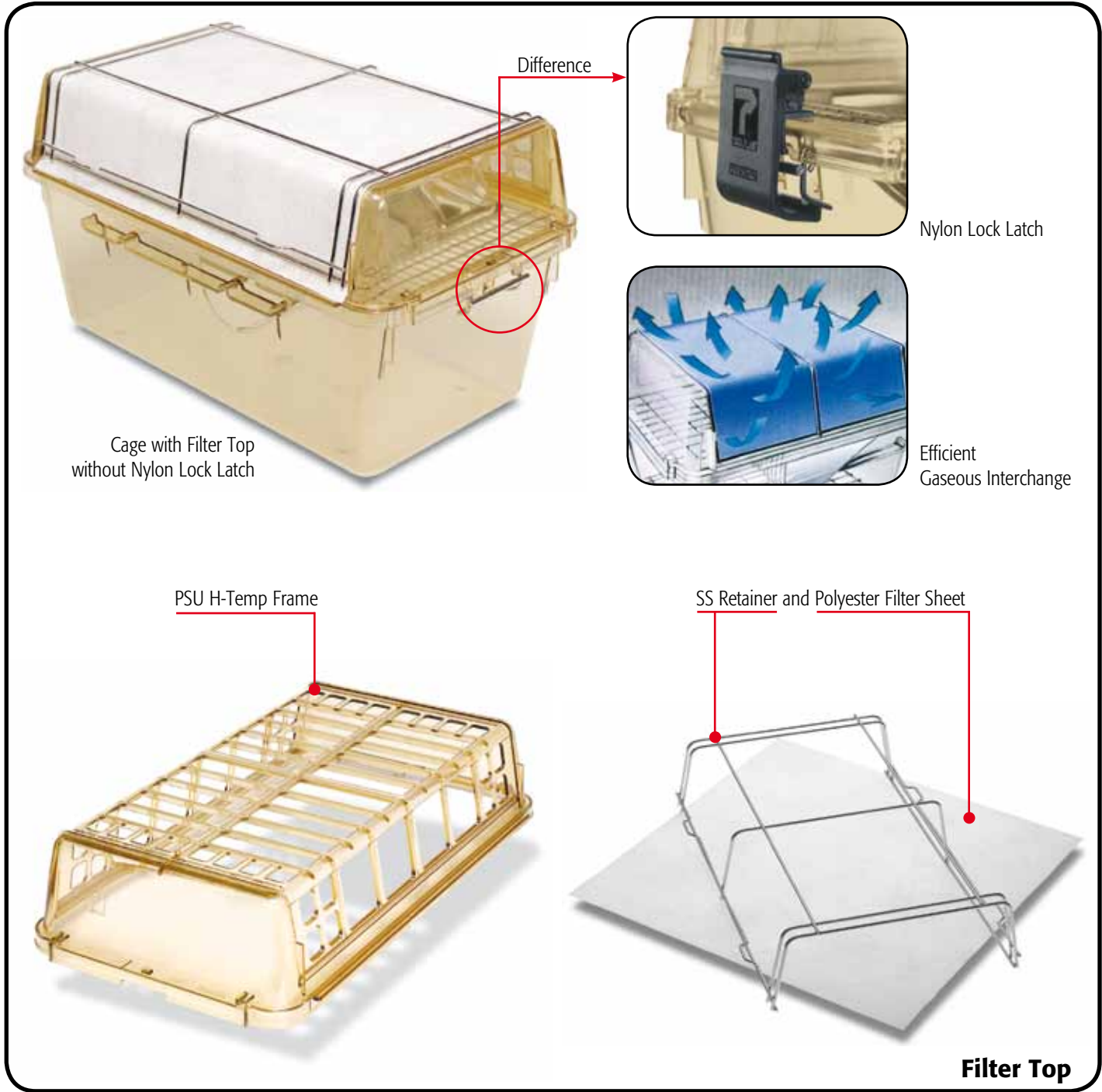


Raised Bottom Grid

| Cage Body | Raised Bottom Grid |
|-----------|--------------------|
| 1144B | -150 |
| 1145T | -150 |
| 1264C | -150 |
| 1284L | -150 |
| 1290D | -150 |
| 1291H | -150 |
| 2150E | -150 |
| 2154F | -150 |
| 1500U | -150 |
| 1354G | -150 |



Plastic Bag



Filter Top and Replacement Filter Sheet

| Cage Body | Autoclavable Filter Top | Autoclavable Filter Top with Nylon Lock Latches | Replacement Filter Sheet |
|--------------|-------------------------|---|--------------------------|
| 1144B | -400SU | -400SUC | -420R |
| 1145T | -400SU | -400SUC | -420R |
| 1264C | -400SU | -400SUC | -420R |
| 1284L | -400SU | -400SUC | -420R |
| 1290D/1291H* | -400SU* | -400SUC* | -420R* |
| 2150E | -400SU | - | -420R |
| 2154F | -400SU | - | -420R |
| 2000P | -400SU | - | -420R |

*1291H to be ordered as 1290D -400SU/-400SUC/-420R

7/Rack Selection

Tecniplast Racks are all made of AISI 304 SS.

It is possible to choose among different styles of rack:

- Runner Style Rack.
- Adjustable Shelf Style Rack.
- Demountable Shelf Style Rack.
- Welded Shelf Style Rack.

7.1/Runner Style Rack

Tecniplast AISI 304 Stainless Steel racks are unparalleled with respect to husbandry and hygiene considerations, occupational health and safety requirements, ergonomics, reduced noise levels and aesthetic appeal.

The design permits an excellent view into all cages and their occupants. Having pioneered tubular SS construction of racks, Tecniplast today utilizes a 3D-CAD-system design, automated cutting, punching and TIG welding construction processes. Attention to detail, such as uniform polishing and finishing conclude the work. This is your guarantee for a long-lasting product that offers an exceptional Return on Investment. Tecniplast unique "T-profile" suspension runners are specifically designed to minimize dirt traps, whilst permitting safe, simple and silent positioning of cages without risk of damage. They are far superior to metal runners or channels of other racks.

Other features are:

- SS solid top sheet to reduce the exposure to draught and excessive light of the top rows.
- Tubular base corners are all rounded for improved safety and to avoid damage of wall covering; four retrofitting plastic bumpers can also be provided on request (4 Pieces Cat. No. ACPA06).

Double Runner Style Rack

Runner Style Racks can be equipped with double runners and can be used either with mesh or solid bottom cages providing a high degree of flexibility.

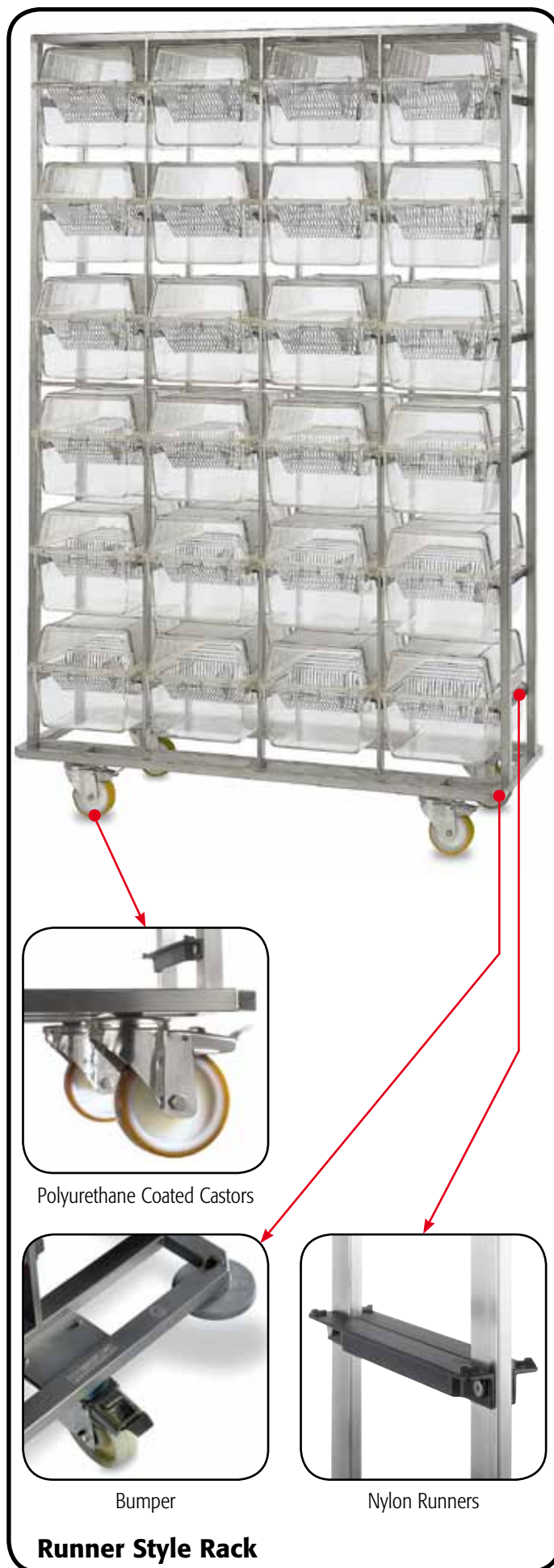
Mesh Bottom Cage

Mesh bottom cages are basically solid bottom cages whose base has been removed and replaced by an electro-polished AISI 304 Stainless Steel floor grid. They are recommended whenever rodents need to be housed on mesh flooring, with excrement collected in a separate PC waste tray.

Please note, that rats and guinea pigs are housed on 11x11mm mesh, whilst mice require a 7x7 mm grid spacing.

Individual SS Support Frame

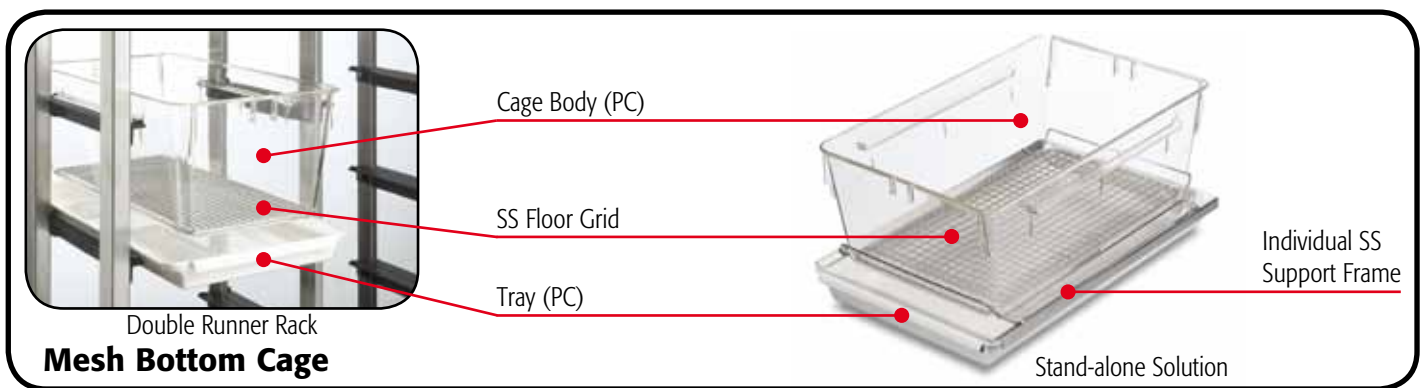
Individual SS support frames can be used when cages are placed either on benches or shelf style racks (Stand-alone Solution).



Runner Style Rack

| Cage Body | Rack Configuration | | | | Rack Model | | Dimensions without Bumpers L x W x H (mm) |
|----------------|--------------------|--------------|------|---------|-----------------|-----------------|---|
| | Number of Cages | Design | Rows | Columns | Without Bumpers | With Bumpers | |
| 1144B | 64 | Single-Sided | 8 | 8 | 2B64B1000 | 2B64B1000BW | 1494 x 480 x 1867 |
| 1145T | 42 | Single-Sided | 7 | 6 | 2T42B1000 | 2T42B1000BW | 1128 x 500 x 1647 |
| | 48 | Single-Sided | 8 | 6 | 2T48B1000 | 2T48B1000BW | 1128 x 500 x 1857 |
| | 64 | Single-Sided | 8 | 8 | 2T64B1000 | 2T64B1000BW | 1494 x 500 x 1853 |
| | 128 | Double-Sided | 8 | 8 | 2T128B1000 | 2T128B1000BW | 1494 x 865 x 1851 |
| | | | | | | | |
| 1264C 1284L | 30 | Single-Sided | 6 | 5 | 2CL30B1000 | 2CL30B1000BW | 1240 x 480 x 1867 |
| | 36 | Single-Sided | 6 | 6 | 2CL36B1000 | 2CL36B1000BW | 1482 x 480 x 1867 |
| | 48 | Single-Sided | 8 | 6 | 2CL48B1000 | 2CL48B1000BW | 1482 x 480 x 1998 |
| | 60 | Double-Sided | 6 | 5 | 2CL60B1000 | 2CL60B1000BW | 1240 x 880 x 1871 |
| | 70 | Double-Sided | 7 | 5 | 2CL70B1000 | 2CL70B1000BW | 1240 x 880 x 1871 |
| 1290D | 24 | Single-Sided | 6 | 4 | 2D24B1000 | 2D24B1000BW | 1214 x 515 x 1873 |
| 1290D 1291H | 20 | Single-Sided | 5 | 4 | 2H20B1000** | 2H20B1000BW** | 1214 x 515 x 1651 |
| | 20 | Single-Sided | 5 | 4 | 2H20B1000H* | 2H20B1000HBW* | 1214 x 515 x 1873 |
| | 24 | Single-Sided | 6 | 4 | 2H24B1000** | 2H24B1000BW** | 1214 x 515 x 1943 |
| | 30 | Single-Sided | 6 | 5 | 2H30B1000 | 2H30B1000BW | 1510 x 480 x 1943 |
| 2150E | 25 | Single-Sided | 5 | 5 | 2E25B1000 | 2E25B1000BW | 1300 x 540 x 1870 |
| | 30 | Single-Sided | 6 | 5 | 2E30B1000 | 2E30B1000BW | 1300 x 540 x 1870 |
| 2154F | 20 | Single-Sided | 5 | 4 | 2F20B1000 | 2F20B1000BW | 1178 x 580 x 1873 |
| | 25 | Single-Sided | 5 | 5 | 2F25B1000 | 2F25B1000BW | 1465 x 580 x 1873 |
| 1500U | 20 | Single-Sided | 5 | 4 | 2U20B1000 | 2U20B1000BW | 1642 x 600 x 1787 |
| 1354G | 18 | Single-Sided | 6 | 3 | 2G18B1000▲ | 2G18B1000BW▲ | 1239 x 690 x 1867 |
| | 20 | Single-Sided | 5 | 4 | 2G20B1000 | 2G20B1000BW | 1642 x 690 x 1756 |
| | 20 | Single-Sided | 5 | 4 | 2G20B1000H* | 2G20B1000HBW* | 1642 x 690 x 1873 |
| | 24 | Single-Sided | 6 | 4 | 2G24B1000▲ | 2G24B1000BW▲ | 1642 x 690 x 1867 |
| 2000P | 15 | Single-Sided | 5 | 3 | 2P15B1000 | 2P15B1000BW | 1395 x 725 x 1873 |
| | 18 | | 6 | 3 | 2P18B1000LW▲▲ | 2P18B1000LWBW▲▲ | 1395 x 725 x 1980 |

*Can be used with raised lid **Close distance between cages when filter tops are used ▲To be used with bottle type F ▲▲Cannot be used with filter tops



Double Runner Style Rack and Mesh Bottom Cage

| Cage Body | Rack Configuration | | | Rack Model with Double Runners | | Dimensions without Bumpers L x W x H (mm) | PC Body with Cut-Away Base | SS Mesh Floor Grid 7 x 7 / 11 x 11 (mm) | Tray (PC) | Individual SS Support Frame |
|-------------|--------------------|--------------|--------------|--------------------------------|--------------|---|----------------------------|---|-----------|-----------------------------|
| | Number of Cages | Design | Rows/Columns | Without Bumpers | With Bumpers | | | | | |
| 1264C/1284L | 30 | Single-Sided | 6/5 | 2CL30B2000 | 2CL30B2000BW | 1240 x 480 x 1873 | -051 | -524/- | -382 | -905 |
| 1290D | 24 | Single-Sided | 6/4 | 2D24B2000 | 2D24B2000BW | 1214 x 515 x 1900 | -051 | -524/-525 | -382 | -905 |
| 1291H | 20 | Single-Sided | 5/4 | 2H20B2000 | 2H20B2000BW | 1214 x 515 x 1873 | -051 | -524-525 | -382* | -905* |
| 1354G | 20 | Single-Sided | 5/4 | 2G20B2000 | 2G20B2000BW | 1642 x 690 x 1873 | -051 | -524/-525 | -382 | -905 |

*1291H to be ordered as 1290D -382/-905

7.2/Adjustable Shelf Style Rack

The adjustable shelves have brackets at each corner for a quick change of shelf height by screws. The design of this rack permits the selection of the desired number of shelves and their later addition or removal offers a high density capacity and also flexibility to accommodate changed cage sizes during the years. They can be used as single or double-sided racks (with cage series 1264C).

Rack Configuration:

- Shelves (available in different lengths).
- Set of four uprights (available in two sizes).
- Set of four castors (two unbraked and two braked).

7.3/Demountable Shelf Style Rack

Completely demountable with shelves, easily removable without tools. Solid sheet shelves have side- and back-lips for added security of cage position. Normally used as single-sided racks only. Available in two different sizes.

7.4/Welded Shelf Style Rack

Fully welded for maximum strength and rigidity. Simple design for easier cleaning and significant comparative low cost. Only one size available.



Adjustable Shelf Style Rack

Adjustable Shelf Style Rack

| Cage Body | Number of Cages per Shelf | | |
|---------------|---------------------------|------|------|
| | Shelf length - mm | | |
| | 1524 | 1651 | 1780 |
| 1144B - 1145T | 8 | 9 | 10 |
| 1264C | 12 | 14 | 14 |
| 1284L | 6 | 7 | 8 |
| 1290D - 1291H | 5 | 5 | 6 |
| 2150E | 5 | 6 | 7 |
| 2154F | 5 | 5 | 6 |
| 1500U | 3 | 4 | 4 |

| Adjustable Shelf Style Rack Configuration | | |
|---|-------------------------------------|-------------------------|
| Cat. No. | Description | Dimensions (L x W) - mm |
| 2UNR0060 | Shelf | 1524 x 585 |
| 2UNR0065 | Shelf | 1651 x 585 |
| 2UNR0070 | Shelf | 1780 x 585 |
| 2UNRPT1676* | Set of 4 uprights | H 1676 |
| 2UNRPT1834* | Set of 4 uprights | H 1834 |
| ACROTLIB125C** | Polyurethane Coated Unbraked Castor | Ø 125 |
| ACROTFRE125C** | Polyurethane Coated Braked Castor | Ø 125 |

Please note, that the standard castors are coated with Polyurethane. They withstand autoclave cycles at 121°C/250°F, if the racks are not loaded with cages.

Alternatively, whenever frequent autoclaving, higher holding temperatures or when racks are autoclaved fully loaded, select castors with Glass-fibre-reinforced Nylon wheels (Cat. No. ACRL103PNFN unbraked and ACRF103PNFN braked).

*Does not include the castor height (= 155 mm)

**To be ordered twice



Demountable Shelf Style Rack



Welded Shelf Style Rack

Demountable Shelf Style Rack

| Cage Body | Number of Cages per Shelf | Dimensions (L x W x H) mm | Number of Shelves | Cat. No. |
|-------------------------|---------------------------|---------------------------|-------------------|----------|
| 1144B | 7 | | | |
| 1145T | 6 | | | |
| 1264C 1284L 2150E | 5 | 1220 x 390* x 1800 | 6 | 2UN1D500 |
| 1290D 1291H | 6 | 1780 x 560 x 1900 | 5 | 2UN2D500 |
| 1500U 1354G | 4 | | | |

*Overall Width Included Wheels = 480

Welded Shelf Style Rack

| Cage Body | Number of Cages per Shelf | Dimensions (L x W x H) mm | Number of Shelves | Cat. No. |
|----------------|---------------------------|---------------------------|-------------------|----------|
| 1144B | 7 | | | |
| 1145T | 6 | | | |
| 1264C 1284L | 5 | 1290 x 530 x 1710 | 5 (6*) | 2UN5B106 |
| 1290D | 4 | | | |

*The roof can be used as extra shelf

Hereafter you can find a table of Thermal Properties and Chemical Resistance of Tecniplast plastic cage materials:

Thermal Properties:

| Material | Code | Suggested Autoclaving Temp. °C/°F | HDT °C/°F (1) | Water Absorption (2) | Transparency | Rigidity | Sterilisation (3) | | | | |
|----------------------|------|-----------------------------------|---------------|----------------------|--------------|----------|-------------------|-----------|-----|----------|--------------|
| | | | | | | | Autoclave | Radiation | Gas | Dry-Heat | Disinfection |
| Polycarbonate | PC | 121/249 | 138/280 | 0.35 | Clear | Rigid | Yes | Yes | Yes | No | Yes |
| H-Temp™ (4) | PSU | 121+134/ 249+273 | 165/329 | 0.30 | Clear | Rigid | Yes | Yes | Yes | No | Yes |
| U-Temp™ (5) | PEI | 121+134/ 249+273 | 210/410 | 0.70 | Clear/Amber | Rigid | Yes | Yes | Yes | Yes | Yes |
| X-Temp™ (5) | PPSU | 121+134/ 249+273 | 210/410 | 0.70 | Clear/Amber | Rigid | Yes | Yes | Yes | Yes | Yes |
| Nylon (6) | PA | 121+134/ 249+273 | 215/419 | 1.50 | Opaque | Rigid | Yes | Yes | Yes | No | Yes |
| Polypropylene | PP | 118+121/ 224+249 | 107/224 | 0.01 | Translucent | Semi | Yes (7) | No | Yes | No | Yes |

- HDT:** Heat Deflection Temperature is **the temperature at which a bar of the thermoplastic will deflect 0.01" under 66 psi**. Due to stress influences, rigid plastics should NOT be exposed to such heat levels.
- Water absorption:** the % of water absorbed by a 3.175 mm (1/8") sample over 24 hours exposure.
- Sterilisation:**
 - Radiation: gamma irradiation at 25 kGy (2.5 Mrad) with non-stabilised plastic.
 - Gas: Ethylene Oxide, Formaldehyde, Hydrogen Peroxide, Chlorine Dioxide.
 - Dry Heat: 160°C/320°F for 120 minutes.
 - Disinfectants: Benzalkonium Chloride, Formalin, Formaldehyde, Ethanol.
- H-Temp™** is a TECNIPLAST trademark for Polysulfone. Compared to standard PC (Makrolon) this material can be exposed to autoclaving cycles up to 150°C/302°F max.
- X-Temp™** and **U-Temp™** is a TECNIPLAST trademark for Polyetherimide and Polyphenylsulfone. Compared to PSU and PC this material can be exposed to autoclaving cycles up to 160°C/320°F max for a longer time whilst maintaining initial transparency and impact resistance.
- Nylon** is purposely reinforced with Glass-fibre to improve physical and heat performances.
- Do not** stack **Polypropylene** cages during autoclaving.

Chemical Resistance:

| Classes of Substance at 20°C | Polycarbonate PC | H-Temp™ PSU | U-Temp™ PEI | X-Temp™ PPSU | Nylon PA | Polypropylene PP |
|------------------------------|------------------|-------------|-------------|--------------|----------|------------------|
| Acids, diluted or weak | E | E | E | E | F | E |
| Bases | N | E | E | E | F | E |
| Esters | N | N | E | E | E | G |
| Oxidant agents, strong | N | G | E | E | N | F |

Chemical Resistance Classification:

- **E=Excellent** 30 days of constant exposure cause no damage. Plastic may even tolerate for years.
- **G=Good** Little or no damage after 30 days of constant exposure to the reagent.
- **F=Fair** Some effect after 7 days of constant exposure to the reagent.
- **N=Not Recommended** Not for continuous use. Immediate damage may occur. The effect will be a more severe crazing, cracking, loss of strength, discolouration, deformation.

IMPORTANT

This Chemical Resistance Summary Chart is a general guide only. It is highly recommended to test cage washing products under specific conditions before using them. For further information contact Tecniplast Technical Service.

HOW TO WASH PLASTIC CAGES

An **alkaline washing cycle** is recommended to remove organic soiling.

An **acid washing cycle** is recommended to remove urine or hard water scaling.



SAFETY NOTES

- **DO NOT** use alkaline detergents in case of hand washing, especially if sinking cages in a pre-soak tank.
- **DO NOT** exceed the suggested washing temperature since higher washing temperature could damage the parts.
- **DO NOT** use rinse aid products.
- **DO NOT** use products containing surfactants.
- **DO NOT** use abrasive cleaners, scouring pads or strong oxidizing agents on any part.
- Rinse the parts with soft water after washing to reduce the effect of hard water (milky-grey discolouration).
- Carefully read and follow all safety data sheet instructions before using any chemical product.

IMPORTANT

ALKALINE DETERGENTS CAN DAMAGE POLYCARBONATE PARTS (CORROSION OR HYDROLYSIS) IF NOT THOROUGHLY NEUTRALIZED! TO NEUTRALIZE CARRY OUT A SHORT ACID CYCLE AND RINSE WITH SOFT WATER. SHOULD SOME WATER RESIDUES REMAIN ON THE CAGES, ENSURE THAT THE PH IS EITHER NEUTRAL OR SLIGHTLY ACID BEFORE HANDLING.

REFERENCES

- Laboratory SOPs.
- Detergent Technical specifications.
- Cage washer user manual.

PERSONAL PROTECTIVE EQUIPMENT

Wear adequate personal protective equipment in compliance with your Laboratory SOPs and with laws and regulations in force in the country where the product is installed in terms of personal health and protection.

PROCEDURE

- 1• Wash with a detergent specific for plastic materials (see table above for chemical resistance of each plastic material).
- 2• If an alkaline detergent is used, carry out a neutralization cycle.
- 3• Rinse with soft water.

Wash cages at 55°C/131°F (60°C/140°F max).

Higher temperatures (80/176°F to 85°C/185°F) may be used for **short contact periods** to neutralize and rinse cages.

HOW TO DISINFECT PLASTIC CAGES

Use a disinfectant compatible with plastic materials. Read the disinfectant technical specifications before use.



SAFETY NOTES

Never heat parts containing disinfectant residues.

HOW TO STERILIZE PLASTIC CAGES IN AUTOCLAVE

It is possible to autoclave fully assembled cages.



SAFETY NOTES

IMPORTANT

- IF FULLY ASSEMBLED CAGES ARE AUTOCLAVED (INCLUDING FOOD AND BEDDING) ENSURE THAT HIGH QUALITY BEDDING IS USED TO AVOID THE RELEASE OF DAMAGING SUBSTANCES.
- IF THE PARTS ARE AUTOCLAVED INSIDE A PROTECTIVE COVERING (STERILE PACKAGE, COTTON, PLASTIC BAGS), USE PERMEABLE MATERIALS IN ORDER TO AVOID DAMAGE TO THE EQUIPMENT. CONTACT TECNIPLAST FOR FURTHER INFORMATION.



Nylon lock clamp

- **DO NOT** exceed the suggested autoclaving temperature.
- **DO NOT stack more than 10 cage bodies. DO NOT stack Polypropylene cages during autoclaving.**
- **DO NOT** autoclave fully assembled plastic cages with lids series -114 and -014 on, since spring clip may cause cage wall warping.



Series -114 lid

- Avoid thermal pulsing cycles.
- Before autoclaving ensure that no detergent residues are left on the parts.
- PC and PP parts may gradually weaken or be damaged after repeated autoclaving (warping, clouding, cracking).
- Clean steam is essential for a proper sterilization. Any residue left by the sterilizing system could damage the cages and poison the animals.
- If fully assembled cages are autoclaved (including food and bedding) ensure that high quality bedding is used to avoid releasing of damaging substances.
- **DO NOT** autoclave plastic label holders on the cages. Remove label holders before autoclaving cages and autoclave them separately at 121°C/250°F.
- If the parts are autoclaved inside a protective covering (sterile package, cotton, plastic bags), use permeable materials in order to avoid damages to the equipment. Contact Tecniplast for further information.



Plastic bag for autoclaving

REFERENCES

- Laboratory SOPs.
- Autoclave user manual.

PERSONAL PROTECTIVE EQUIPMENT

Wear adequate personal protective equipment in compliance with your Laboratory SOPs and with laws and regulations in force in the country where the product is installed in terms of personal health and protection.

PROCEDURE

- 1• Place cages in the autoclave.

It is possible to autoclave up to 10 cage bodies stacked one inside the other.

Polypropylene cages cannot be stacked during autoclaving.

It is possible to autoclave fully assembled cages at 121°C/250°F.

Ensure all the parts (wire lid, filter top, etc.) are properly positioned in order to avoid damaging the cage.

DO NOT autoclave plastic label holders on the cages. Remove label holders before autoclaving cages and autoclave them separately at 121°C/250°F.

- 2• Autoclave at the suggested temperature (see table above for plastic thermal properties).
- 3• Let the cages cool down on a level surface.

Dispose of the packaging in compliance with norms and regulations in force in the country where the product is being installed.

DO NOT dispose of plastic or metal material as unsorted municipal waste.

Any plastic or metal material is to be collected and disposed of separately in compliance with norms and regulations in force in the country where the product is installed.

Related Products

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



650 Series Cabinet Washer. High throughput rates, short cycles and environment friendly.



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



Bottle crates. Suitable for all cage bottle sizes. Horizontal slide-in lid, for safe bottle overturn, and low friction plastic feet for smooth sliding along fillers and washers.



CS5 Evo changing station. Compact, ergonomic and light double-side mobile Changing Station that allows the user to easily move the cabinet inside the animal room.

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.



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