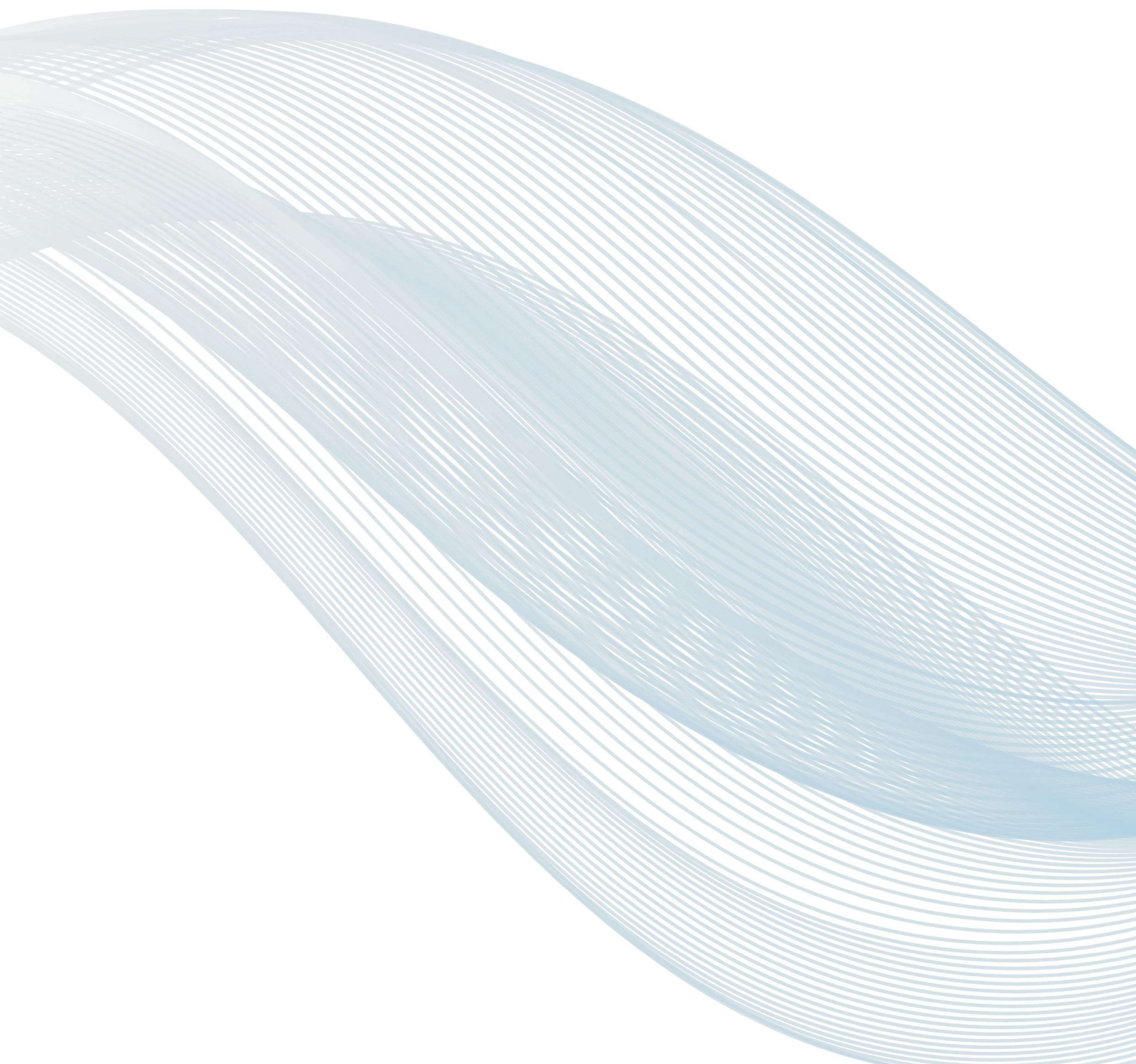




Product Catalogue

Isolators and Accessories



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The company reserves the right to alter specifications and materials due to circumstances such as improvement of materials and design which may be incorporated at any time. Every care will be taken to ensure that the information and descriptions are truthful and accurate but please note that sizes and weights are approximate and are listed for your guidance only. Any improvements or modifications which may be introduced do not place us under any Obligation to make similar changes in articles already sold prior to.

About us

Since the 1950's NKP has had a strong relationship with the research industry, developing plastic caging and housing systems worldwide. NKP Isotec provides now also flexible film isolators (negative and positive pressure) for various species and associated sundry items. Together with established facilities and users we are striving to combine innovations for user friendly equipment, animal welfare and environmental aspects in our products and services.

Isolator techniques have a long history and started even as early as NKP. In recent years, questions in regards to topics like standardization, quarantine, microbiome, bowel diseases and diet related research and many more, are putting a new demand on this type of animal husbandry and associated equipment.

Customer needs and services are at the heart of our business and we are able offer support and training, specifically for the set-up of isolators and first time users. As we realized that it often seems daunting and expensive to run – yet there are many ways to save time, cost and still have the reliable security of an isolator. Please refer to our consultancy and training section for more information.

- Design and manufacture of bespoke flexible film isolators and associated equipment.
- Servicing of isolators (both on and off-site) from a wide range of manufacturers, not just Isotec products
- Consultancy for starting up your new isolator facility and required material
- Training for the technical use of Isolators
- Training for rodent Isolators, Germ-free and experimental set-ups (equipment, planning, breeding, and day to day organisation)
- Worldwide Collaboration with highly specialised and respected facilities for training and reference purposes
- Additional equipment manufacture of trolleys, working platforms and racks

We are always happy to help and look forward to discussing your specific requirements with you. Please do not hesitate to contact us

Consultation, Training and servicing

NKP Isotec takes special pride in support and customer service. We offer a wide range of training, technical services and support. Having formed collaborations with highly respected facilities worldwide, we are able to draw from long standing experience of actual users. This service ranges from consultancy about the planning and setup of a new facility. Using Isolators in general, experimental set ups, as well as the use of quarantine and germ free housing.

Equipment installation and on-site training will form a complete package together with our strong after sales and maintenance services.

Please do not hesitate to contact me specifically at melanie@northkentplastics.co.uk if you would like further information or an appointment to discuss your options.

Flexible film Isolators

We offer many different types of flexible film isolators, from a standard range to bespoke custom made Isolators for various applications to suit your needs and budget. Depending on the size of your room and your current settings, we can help with advice for the best solution for your project.

All Isolators are available as stainless steel or aluminium frames, complete with certified HEPA filters, fan-unit, pressure differential gauge, temp and humidity monitor. You are able to configure your Isolator package with different port options, alarm and power backup, racking and other sundries. Selected models are also available with height adjustable frames to allow ergonomic working heights for staff and to give more flexibility to connect to other equipment, like wall ports, laminar flow cabinets and other isolators.

Please look at the following sections to configure your entire Isolator package:

- Flexible film Isolators
- Port options
- Canopy options
- Racking
- Caging
- Accessories

Type 1 Isolators

These Isolators are a small standard version, which are especially suitable to house animals for quarantine, after Embryo transfer, Surgery or experimental procedures. With the correct size racking and cages, even start-up colonies are possible without the need to move straight away to a larger isolator. Optional access points in the canopy are possible to allow the use of electrical equipment or accessories which require a connection to the outside of the isolator.

Available as single or double tier Isolator, static or height adjustable.



Model: ISO-Type 1S Isolator (formerly M12)

Single tier rodent containment unit to house up to 12 mouse cages or 6 rat cages.

Dimensions

Overall: 105cm(L) x 97cm(W) x 140cm(H)

Canopy: 91cm(L) x 91cm(W) x 73cm(H)

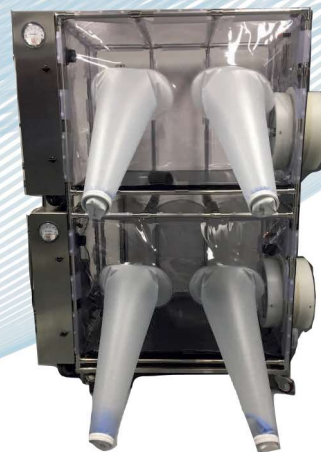
Model: ISO-Type 1D Isolator (formerly M24)

Two separate rodent containment units on one stand to house up to 12 mouse cages or 6 rat cages in each.

Dimensions

Overall: 105cm(L) x 97cm(W) x 170cm(H)

Canopy: 91cm(L) x 91cm(W) x 73cm(H)



Type 2 Isolators

Type 2 Isolators represent a medium sized version, especially interesting for small breeding colonies, larger experiments, back up colonies etc. Optional access points in the canopy are possible to allow the use of electrical equipment or accessories which require a connection to the outside of the isolator.

Available as single or double tier Isolator, static or height adjustable.



Model: ISO-Type 2S Isolator (formerly M20)

One rodent containment unit to house up to 20 mouse cages or 12 rat cages.

Dimensions

Overall: 166cm(L) x 97cm(W) x 165cm(H)

Canopy: 114cm(L) x 91cm(W) x 81cm(H)

Model: ISO-Type 2D Isolator (formerly M40)

Two rodent containment units to house up to 20 mouse cages or 12 rat cages in each.

Dimensions

Overall: 166cm(L) x 97cm(W) x 213cm(H)

Canopy: 114cm(L) x 91cm(W) x 81cm(H)



Type 3 Isolators

The Type 3 isolators are the standard isolators for breeding colonies. The capacity allows enough space for breeders and stock animals – even for small rat colonies. Access points in the canopy are also optionally available to allow the use of electrical equipment or accessories. However, we do not recommend these access points when using the isolator for breeding germ free colonies.

Available as single or double tier Isolator, static or height adjustable



Model: ISO-Type 3S Isolator (formerly M50)

One rodent containment unit to house up to 50 mouse cages or 24 rat cages.

Dimensions

Overall: 238cm(L) x 97cm(W) x 185cm(H)

Canopy: 193cm(L) x 91cm(W) x 97cm(H)

Model: ISO-Type 3D Isolator (formerly M100)

Two rodent containment units to house up to 50 mouse cages or 24 rat cages in each.

Dimensions

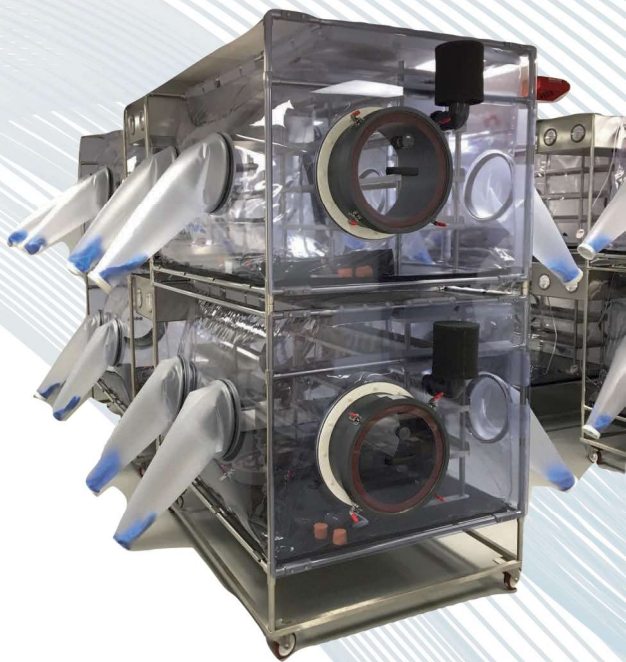
Overall: 238cm(L) x 97cm(W) x 243cm(H)

Canopy: 193cm(L) x 91cm(W) x 97cm(H)



Type 4 Isolator

Type 4 isolators contain 4 separate units on a single frame and are especially useful as experimental isolators or for small breeding colonies. The combination allows the technical equipment to supply 4 units rather than only one, which makes this type very cost effective. Available canopy sizes are Type 1, Type 2 or bespoke canopies. Please consider the space requirements, as the ports are located on opposite sides. Optional access points in the canopy are possible to allow the use of electrical equipment or accessories which require a connection to the outside of the isolator. Small connection ports between the 2 horizontal canopies are also possible to allow transfer from one unit to the other.



Model: ISO-Type 4 Isolator (formerly BL4)

Four separate rodent containment units
Different sizes available

Dimensions (with type 2 canopies)
Overall: 328cm(L) x 97cm(W) x 213cm(H)
Canopy: 114cm(L) x 91cm(W) x 81cm(H)



Speciality Isolators

For many applications special sizes or requirements do not allow the use of a "standard" type isolator. For these cases we are very happy to design a bespoke Isolator to suit your exact application or to fit to your available space allocations.

Some of these special sizes have become already very popular and expand our standard range, like our MINI or Transfer/ service isolator. With its very small footprint and originally designed to transport animals from one room to another as well as in and out of existing larger Isolators or even to another building. It has proven to work also very well for quarantine and experiments with small group sizes, especially for germ free or infection models where the use of a laminar flow can be difficult or too risky. It can be used with small shelves to help with the organisation inside this small isolator or supplied without shelving. Available as single as well as double tier - static and height adjustable - optional with battery backup to run independent of the mains power supply.



Mini single/ double/ Service Isolator

Small rodent containment unit

Dimensions

Overall: 66cm(L) x 66cm(W) x 155cm(H)
(187cm Double)

Canopy: 61cm(L) x 61cm(W) x 63cm(H)

Height adjustable:

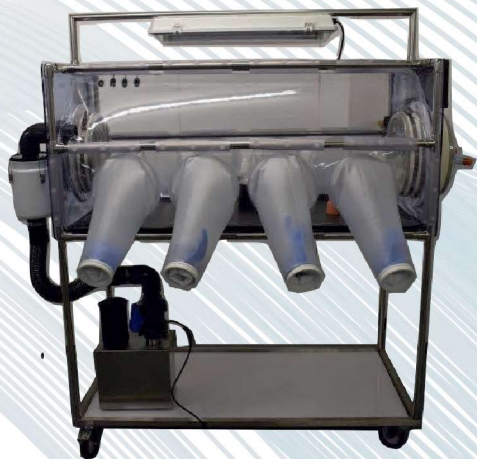
77cm(L) x 77cm(W) x 155-213cm(H)

Canopy: 69cm(L) x 69cm(W) x 63cm(H)

Surgical Isolator

The surgical Isolator presents multiple sleeves for access and manipulation. A height adjustable version can be especially useful in order to find a comfortable working height for the operator as well as allowing the correct position for the manipulation of the animals inside this Isolator. Connection to existing isolators or a laminar flow is extremely easy with this feature. It is possible to design this isolator with space and openings for a Microscope and other surgical equipment. We are happy to design this isolator together with you to determine the best fit to your needs.

We also offer alterations of your existing laminar flow to fit a port connection.



Surgical Isolator

Single containment unit to allow easy access and control to perform surgical or experimental procedures inside an isolator. Access port options possible on both sides or one side only.

Dimensions (example)

Overall: 181cm(L) x 69cm(W) x 160cm(H)

Canopy: 127cm(L) x 61cm(W) x 56cm(H)



Poultry Isolator

In order to satisfy the challenges represented by poultry, this isolator is constructed with an especially durable canopy and extra features - like sleeve caps on the inside, hooks and possible access for fixing additional equipment like heat lamps.

Keeping the structure simple to ensure an easy to use isolator, but offering flexible adjustments to help you suit your needs



Poultry Isolator

Heavy duty flexible film Isolator to house chickens available to operate both in positive and negative pressure

Dimensions

Overall: 2.5m(L) x 1m(W) x 1.5m(H)

Canopy: 100-200cm(L) x 95cm(W) x 745cm(H)

Large Port option

this picture shows the half/half XL-Quadro Lock port option with a solid door on the inside and flexible cap on the outside



Sleeve lids to restrict access of the animals from the inside. Optional hooks and pocket can be added to your canopy

Special applications / Research interests

Many research aspects require special equipment, or special conditions to perform the study. We offer solutions for your questions.

Ranging from behaviour studies, to dark/light and other applications which requires an Isolator specially designed to help you achieve your goals.

Below you find some examples what we have realised already - together with our customers:



Blackout Canopy

Heavy duty flexible film Isolator in black PVC, fully welded to allow no light to penetrate.

We also desing special blackout covers which can be installed on your existing Isolators.

Designs fully customised to fit your equipment.



Custom Equipment fully autoclavable

Restrainer

Aneasthetic plate

Isolation chambers

... custom products and design upon request



Unique cable access to allow use of electrical equipment.

Port Options

To offer you the choice of choosing the right option for your application and budget, we have several different sizes and styles of entry ports available.

It is also possible to use ports from other manufacturers with our Isolators upon request - e.g. DPTE Rapid Exchange ports.

Port with flexible caps

A simple way to close your isolator with flexible caps, secured by a rubber or silicon band and stainless steel clamp. Flexible film caps have the advantage to be changed during active use of the isolator should this be necessary. This system allows bespoke designed caps for special uses and applications (see also port-cap section).



P-C-320: Small Port 32cm with flexible film covers

P-C-420: Standard Port 42cm with flexible film covers

PXL-C-450: XL Port 45cm with flexible film covers

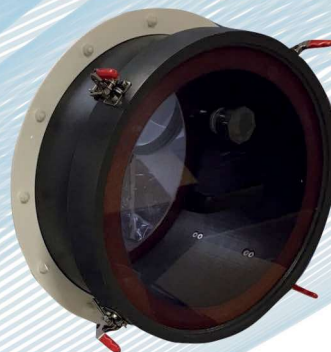
Solid biohazard port

A port with a 4 way clamp system to for extra security especially when using hazardous or sensitive material.

P-SC-320: Small Port 32cm with solid port lid

P-SC-420: Standard Port 42cm with solid port lid

PXL-SC-450: XL Port 45cm with flexible solid port lid



Quadro lock port

The quadro lock port which can be operated with just one hand to open and close, combining ease of use with the advantages of a solid door.

P-QL-420: Standard Quadro-Lock port 42cm

PXL-QL-450: XL Quadro-Lock port 45cm



Also available as a half-half option in combination with flexible film covers

Solid Hatch (single wall)

Usually as addition to a transfer port in order to allow large equipment to enter the Isolator



Gas tight zip

if very large equipment needs to be put inside a canopy - biobubble

This can be used on flexible film Isolators - large transfer sleeves or containment - decontamination canopies alike

Canopy options

Different styles of canopies are available to suit various applications or preferred comfort. Isotec understands that especially for experimental Isolators a lot of features may need to be taken into account. An example would be pre-defined access points which can be added to allow installation of wires or cables for electrical equipment. Depending on the size of the Isolator different style sleeve openings or detachable sleeves are available.

Please find below some features/examples we are able to offer:

- Attached sleeves
- Detachable sleeves
- Access points for cables
- Storage space in base of canopy
- Hooks on the inside
- Attached solid base
- Envelope style base with removable base plates



welded vertical



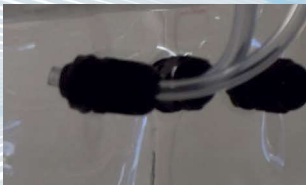
welded horizontal



detachable oval



detachable round



cable access



hooks



internal sleeve lid



pockets
internal/external

Isolator racking (rodents)

For maximum capacity in your Isolator we recommend our NKP cages with their space saving racking, but are also offering shelves which will suit any type of cages. All our racking is built using our easy assembly system.

NKP cage Racking

The dimensions match each type of Isolator canopy to house the maximum amount of cages possible. The cages are placed in runners to give maximum security. Custom sizes are available upon request.



Shelves (cages from any manufacturer)

Isotec is able supply shelved racks to accommodate any size cages you may have available. Capacity will depend on the cage size used. Shelving is manufactured as solid or perforated shelves made from aluminium or stainless steel. Custom sizes are available upon request



Caging

Our cages with their slim format maximise the capacity inside the isolator. We are able to offer these as a budget version in polypropylene (PP) but also in polycarbonate (PC) to allow steam Sterilisation. For maximum quality and heat resistance we recommend our high temperature range made out of polysulfone (PS).



Styles available:

M1 (mouse)

33x15x13cm
(340cm²x13cm)

M2 (mouse/slanted front)

33x15x13cm
(340cm²x13cm)

M2L (mouse)

38x15x13cm
(415cm²x13cm)

M3 (mouse)

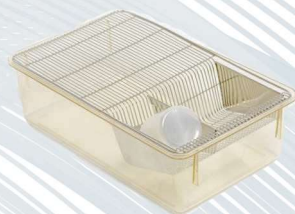
48x15x13cm
(510cm²x13cm)

RB3 (rat) /MB1 (mouse)

45x28x13cm
(960cm²x13cm)

RB3L (rat) /MB1L (mouse)

54x28x13cm/or high lid up to 24cm
(1150cm²x13cm)



Accessories

To use the Isolator effectively we also supply necessary accessories which will be fully compatible with our isolator range or isolators from any other manufacturer. Most sizes can be adjusted according to the dimensions of the equipment you have already available. We are happy to help if you are in doubt about which accessories you require for your application.

Autoclave drum / sterilising Cylinder

Autoclave drums are available in different sizes. Our standard drum will be approx. 18" (45cm) in diameter, 82 cm long, available with or without shelves. The shelves are made of aluminium for a comfortable handling weight with angled runners to avoid accidental damage to gloves or transfer sleeves.

To allow you the flexibility to use either Mylar-film or an easy to use cap to close the drum, we also offer the drums with an additional collar, allowing extra space required for opening and closing the clamp assembly (especially useful for microbiome research where decontamination of material is necessary). Our trolleys and support stands are compatible for any autoclave drum and are available as height adjustable or autoclaveable.

Dimensions (example) 18" large drum

82cm(L) x 45cm(W) x 60cm(H)

Shelves available in full or half length



Dimensions (example) 12" small drum

60cm(L) x 30cm(W) x 42cm(H)

Shelves: 4 x 5cm high



Trolleys

Trolleys are the vital connection between your equipment and the Isolator. Isotec is offering bespoke trolleys for various applications which suit requirements for both the standard animal facilities and isolators. We also offer special trolleys which suit the dimensions of the Isolators to allow easy use of accessories as for example the use of port bags.

Dimensions:

Bespoke or typically 60cm wide, 80cm long with different heights

Available options autoclavable:

- single tier, solid shelf or perforated
- double tier, solid shelf or perforated

Available options height adjustable (not autoclavable):

- single tier (lift up to 50 cm)
- double tier (lift up to 50cm)
- standard hoist (lift up to 1m)



Atomiser spray gun

The atomiser spray gun, made of stainless steel is able to produce a fine mist which allows the use of various liquid sterilizing solutions, including highly corrosive ones. Includes spiral hose.



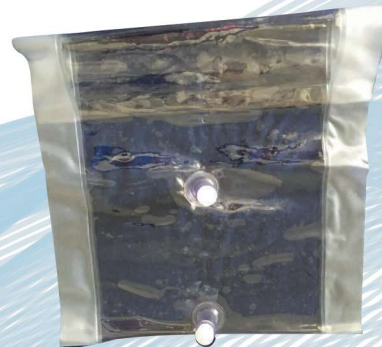
Compressor set

This set consists of a compressor - silent versions available (35-65db), on a small trolley. Mains supply required.



Transfer sleeves

Transfer sleeves are used to connect for example the autoclave-drum to your isolator. Alternatively you are able to connect two isolators or any other equipment which presents a suitable opening to connect to. It is even possible to design special transfer sleeves to connect two ports on a double tier isolator. All sleeves available to suit your specific port design and length required. Please see below a few examples of the options available - more are available upon request.



Port bags

The port bags are in essence a larger size port cap to allow you the import or export of material without the connection of an autoclave drum or Isolator. This is especially useful if you are using irradiated material or wrapped equipment. You may require a portstand or table to support your material. Available with or without sleeves



Port caps

Using flexible film caps can have several advantages, as there are many different designs available. They can even be used on ports with a solid door like our Quadro-Lock ports or other formats if needed for special applications - e.g. a small import of material - Sterilisation of the Isolator etc

Plain port cap

available in different sizes and lengths
without spray nozzles



Port cap with spray nozzles

available in different sizes and lengths
spray nozzles with silicon bungs or screw cap closure



Port cap with glove

available in different sizes and lengths
other custom caps are available upon request



Replacement canopies

Unfortunately canopies do not last forever and do need to be replaced after some time as the material starts to age and becomes more prone to damage. Our replacement canopies will fit into your existing frames. Should you require a canopy to fit into a frame from a different manufacturer we are able to design the canopy for you. Many features are possible to be added in order to upgrade your existing equipment and make it even more user-friendly.

Sleeve clamps / Glove changing bag

The sleeve-clamps are the most important tool to avoid contamination to get in or out of your Isolator should you have a breach in your gloves or sleeves. Made to fit easily we have 2 different options - one traditional style which ensures a tight fit with the clamping mechanism to be tightened on both ends and our quick release clamp which is especially easy to use.

Standard sleeve clamp



Quick release sleeve clamp



Glove Change Bag

To accompany the sleeve clamps and to make a sterile glove change more convenient Isotec has designed a "glove change bag". It provides a containment area which can be sterilised to allow the change of gloves in a sterile manner whilst the Isolator is in operation.

Item code: B-GLV



Technical extras

Many facilities have an internal system to alert the user if any technical failures occur and ensure conformity to animal welfare laws. We do offer alarms which allow you to connect the isolators to an existing system and/or draw your attention locally. The alarm is triggered should the pressure in the Isolator fall or increase above a set threshold

Safety system audio and visual alarm

Alarm system available with a fitted small trolley to attach to the isolator frame. The visible LED will show the current situation. Audible alarms are possible but we do not offer as a standard as this will likely disturb the animals. For installation and connection to existing in-house system a local electrician is required.



Emergency power backup

In case of power outage. Includes battery charger but does not include replacement battery.

Allows the isolator to run independent of mains power on a battery. Duration depends on size and capacity of battery used.



Temperature and humidity gauge

Humidity and temperature inside the isolator is typically achieved via the parameters set for the entire room. Our Isolators are not able to produce their own micro-climate i.e. cannot be set to a certain temperature or humidity. To ensure animal welfare these parameters still need to be checked for the Isolator.

The gauge we offer can be located on the inside or outside of the isolator.



Fan Unit

External fan unit to supply the isolator with a consistent air-flow independent of the air supply to the room. Available to run at positive pressure only or alternatively a specially designed fan unit which allows the possibility to switch between positive and negative pressure.



Consumables

Filter media

An easy to use filter material which keeps your autoclaved material safe until your import into the isolator, whilst allowing good access for steam sterilisation. The filter material is used as standard on our autoclave drums but is also suitable for other applications. The filter material should be changed on a regular basis after approx. 50 autoclave cycles, 1 year or as soon as damage can be observed. Regular inspection of the condition of your filters is highly recommended.

We offer as 50cm width or 105cm with – 68m long, or in ready cut sheets.



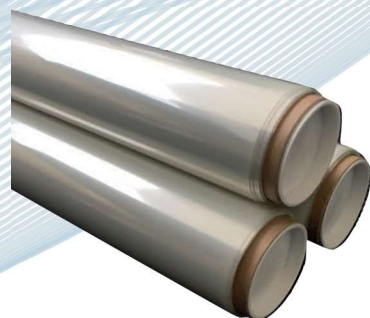
Mylar film

The Mylar film is one way to seal the autoclave drum. The material can be easily cut to the correct size and attached with our special vinyl tape. Careful attention should be given as to not damage the foil during use.

Available in rolls of 50m:

50cm wide

32cm wide



Drum Caps

Made from silicon or viton, these caps are an alternative to close your autoclave drum - or even fit onto our 18" option ports. Designed to withstand many autoclave cycles and are easy to use.



Gloves

Choosing the best gloves for your isolator is important as this defines how easy or difficult your day to day tasks can be carried out.

The gloves on offer are taking the chemical resilience of the material and the dexterity needed into consideration.

We offer both nitrile and butyl gloves



Tape

Our flexible and autoclavable vinyl tapes are one of the most used consumables on an isolator. From fitting gloves to closing drums and securing several different items, this tape has proven to be very versatile. Available in 2 standard sizes and different colours for easy identification.



Filters

Filters are the vital barrier of the containment units to the environment and should be cleaned and changed regularly

Main filter:

certified HEPA filter for in- and outlet



Pre-filters to help prolong the life of the main filter:

- a) internal
- b) for fan Unit
- c) for HEPA filter



Rubber bands

To secure port caps and sleeves to ports during an import I expert or to ensure a secure closure of the flexible film port caps rubber bands and clamps are needed.

At Isotec we have tried to combine ease of use combined with value for money. Rubber bands do need replacing after a certain period due to aging and the use of aggressive sterilisation solutions.

Available in 2 versions:

- **Natural rubber, plain**
- **Silicon, grooved**



Securing clamps

We offer the clamps to secure your connections in two different styles and in several sizes:

Stainless steel flat clamp



Cable clamp

available in all sizes to suit your port or sterilising cylinder



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A decorative graphic at the bottom of the page consisting of multiple overlapping, wavy lines in various shades of light blue, creating a sense of motion and depth.

