

## Cleanroom manufacture and online supplies













## cleanroomshop.com





# Welcome to CONNECT 2 CLEANROOMS

Connect 2 Cleanrooms Ltd design, manufacture, install and validate cleanrooms, specialising in modular solutions. We are also the home of web-based consumables supplier, cleanroomshop.com

At Connect 2 Cleanrooms Ltd, we understand our customers. A cleanroom is an important investment for any business. Our aim is to exceed our customer's expectations by providing a reliable, high-quality product with a first class service and on-going customer support.

Our project engineers are experts in assessing and managing client's needs and with in-house consultancy, CAD facilities, installation and validation engineers and end user training we offer everything you would need for a comprehensive turnkey service, from concept to completion From Blue Chip companies to small start ups; we have the solution for you.

cleanroomshop.com started out as an additional service to Connect 2 Cleanroom Ltd customers who wanted a one stop shop for cleanroom consumables. The web-based shop is now established as a major supplier to the cleanroom, pharmaceutical and healthcare industries.

We are customer focused, as orders can be placed online on a secure server or by fax, phone or post and next day delivery is offered on all stock items with the option to have goods packed in our ISO class 6 cleanroom. This combined with our competitive prices and no minimum order policy, makes cleanroomshop.com the convenient and economical choice for consumables and equipment.



Above: The softwall strips are an economical cleanroom solution and also aid access



ADOVE: Cleanroom 100 wipes; one of the many products available on next day delivery







## How our CLEANROOMS WORK

#### Connect 2 Cleanrooms

Design, manufacture and install modular cleanrooms. Our various structures are intended for organisations that need to adapt a non clean area to a cleanroom environment that achieve the relevant quality standard to an acceptable time frame and budget!

Unlike other clean rooms on the market, this clean enclosure comes supplied in self-assembly kit form with either softwall panels or rigid panels, HEPA or ULPA ceiling, Filter units, clear acrylic ceiling and powder coated or stainless steel frame. Accessories include lights, benches, and temperature control.

#### Modular

The Softwall Modular Cleanroom concept provides an economical, versatile solution to clean manufacturing requirements in various areas of operation including plastics processing, medical device assembly, food manufacture, aerospace, electronics and many other industries. Enclosures are design around each application and can be portable, expandable, and easy to assemble/disassemble. These cleanroom units are available in for small localised areas of just a few square meters to larger cells of up to 20 square meters. The units are able to connect together forming one large area or if the soft wall is left in place an additional gowning up area can be added.

#### Installation

All cleanrooms are designed and manufactured at our purpose built facilities in Kirkby Lonsdale, Cumbria. Rooms are then despatched with minimum onsite works required. Rooms are installed free standing and therefore are not covered by restrictions on planning consents etc. Following installation by our own engineers validation and commissioning is carried to ensure that a fully operating environment on completion.

More details are available from our website www.connect2cleanrooms.com





Above: Up to 7m single span with heights up to 4m allow flexibility to various applications.



Above: 1.8m x 1.8m x 2.1m high Class 7 with a Hardwall and Softwall option.



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# Gowning Procedures & CLEANING PROTOCOLS

#### The selection of appropriate clothing and disinfectants for a cleanroom area is of vital importance.

#### Gowning Procedures

Humans are a major source of contamination for all cleanrooms, which is why wearing the correct clothing is imperative to the running of a clean environment. cleanroomshop.com are here to help you choose which clothing is right for you to significantly reduce human contamination garments need to be non-linting to avoid the generation of extra particles and non-permeable to prevent human contamination affecting products or processes within the cleanroom. Our gowning procedures will help to prevent cross contamination from outdoor clothing.

#### **Cleaning Protocols**

No matter how stringent procedures are, particles and microbes will always find their way into a cleanroom. cleanroomshop.com realise the importance of contamination and will supply you with tailor-made cleaning protocols to facilitate the running of your cleanroom.

Different cleaning products should be used depending on what type of contamination is harmful to the applications being carried out in the cleanroom. Factors such as efficacy against the microorganisms found on site; compatibility with the materials and other cleaning chemicals used in the area; compatibility with the product being manufactured;

toxicity to people; whether or not the product is flammable/non-flammable and the speed the product takes to dry need careful consideration.

#### **Cleanroom Packing Service**

To save time and cost cleanroomshop.com offers a cleanroom packing service where you can have you entire order cleaned and double bagged within our own ISO Class 6 cleanroom. Mixed products can then be transferred directly into your cleanroom saving time and money.

More details are available on our website www.cleanroomshop.com



Above:

Always check yourself in the mirror before entering a cleanroom to ensure you are properly gowned.



Above:

We can provide you with the correct cleaning products to ensure your cleanroom remains uncontaminated.



## Clothing & Accessories DISINFECTION & CLEANING

#### Clothing & Accessories

Limited Life Clothing DuPont Tyvek® ProTech garments offer the ultimate combination of protection, durability and comfort

Face Masks A range of double-bagged, sterile or non-sterile face masks designed for every day use

Gloves Economy or cleanroom packed sterile, double-bagged gloves of various lengths and sizes. Packed in a way which aids application

Over Shoes A choice of shoe covers including economy, non slip and Tyvek  $\ensuremath{\mathbb{R}}$  , suitable for every need

Other clothing items on our website include; Aprons, Bouffant Hats and Protective spectacles

#### **Disinfection & Cleaning**

Hand Hygiene A comprehensive range including alcohol gels, hygiene stations, cleansers, scrubs, lotions and dispensers

Hard Surface Cleaning Various sterile or non-sterile cleaning products including anti-disinfectant sprays, aerosols and ready to use solutions

Mops Both wet and dry mopping systems

Sticky Rollers Made from a peelable PE film, rollers will clean dust from surfaces and clothing

Vacuum Cleaners Assorted vacuum cleaners, suitable for non-critical areas and with double HEPA filtration for cleanroom use

Wipes Numerous wipes including are IPA impregnated, tacky and non-woven wipes suitable for use in a class 100 cleanroom





Above:

cleanroomshop.com are here to help you choose which garments are right for you.



Above:

Twin HEPA filtration ensures that all particle below 0.03 micron are kept within the vacuum cleaner.



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## Cleanroomshop FURNITURE & STICKY MATS

#### Furniture

Tables & Benches A variety of bespoke tables with optional upstand and undershelf, manufactured from grade 304 stainless steel.

Step Over Benches Manufactured from grade 304 stainless steel to the length of your choice with optional shoe storage

Chairs An extensive range of budget or deluxe chairs and stools for cleanrooms and non-critical areas

Shelves Freestanding units with solid or slatted shelves, manufactured from grade 304 stainless steel

Transfer Hatches Powder coated or manufactured from grade 316 stainless steel with mechanically interlocking doors

#### Sticky Mats

Multi Layer Sticky Mats significantly reduce footborne and wheelborne contamination. Our mats are low profile with no residue and are made up of easy-peel polyethylene sheets. There is a numbered peel tab on each sheet and there are 30 sheets to a mat. Different sizes are available and the mats come in a choice of blue or white.

Frames are also available for if you do not wish to stick your mat directly onto your floor.

Anti Fatigue Mats Ergonomically designed matting that reduces fatigue and physical stress caused by standing at work.









Above:

Above: A variety of chairs and bespoke stainless steel tables and step over benches



Above:

Sticky mats can be used anywhere to significantly reduce footborne and wheelborne contamination





## Cleanroomshop MONITORING & CLEANROOMS

Following the installation of any cleanroom and prior to completion a validation process is carried out as outlined within the international standard ISO14644. This standard determines the level required against results achieved.

The fundamental aspect of any cleanroom is to demonstrate that the cleanroom is achieving the requirements of our customer. To do this an understanding of the cleanroom definition is required. This definition is clearly identified within the above standard but is summarised as:

"Cleanroom – Room in which the concentration of airborne particles is controlled, and which is constructed and used in a manner to minimize the introduction, generation and retention of particles inside the room."

Ref: International standard ISO14644-1 first edition 1999-05-01

Following the validation and commissioning process additional monitoring may be necessary to demonstrate the room is achieving the desired level through its use. As a part of our service your on going support is supplied by our own validation and testing engineers. We recommend the required visits with the appropriate monitoring. The parameters that can be monitored include, Particle counts, Air changes, Filter testing, temperature, Humidity, Light LUX levels and Pressure gauge accuracy.

Classification System			
ISO 14644-1 Fede	ral Standard 209E	EU GGMP	Air Changes per hour
Class 3 1   Class 4 10   Class 5 100   Class 6 1,000   Class 7 10,000   Class 8 1000,000	00	- - A/B - C	360-540 300-540 240-480 150-240 60-90 5-48

Table 1. Cleanroom Classification Guide.

More details are available from our website www.connect2cleanrooms.com



Above: Air velocity measured using rotating vane anemometer.



Above:

All monitoring equipment is fully calibrated to recognized standards.



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### What Our

## CUSTOMERS SAY

"The planning, installation and commissioning of the unit was faultless even though it was a unique application. The back up for spares, consumables, help and advice is also good"

"Connect 2 Cleanrooms Ltd give you the best flexibility for the installation of classified and controlled areas. Previously we have always installed large hall cleanrooms, but the semi rigid cleanroom recently installed at our facility has opened the door for us to review our strategy of our cleanrooms in the future"

"The staff are very professional and the goods always arrive on time"

"Our cleanroom was installed professionally and efficiently and operates well within the specified parameters. The softwalls provide an economic solution for the flexibility we may require for future expansion"

"Good price, quick turnaround and good quality; we have no problem with recommending them to others"

"My honest regard of the company is very high in regards to communication with clients. We have had no problems at all in the past 3 years"

"We have always found their attitude and therefore service very positive, and would have no hesitation in recommending them to other potential customers"

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