

Modular **CLEANROOM** Solutions



Low cost
High Quality
Rapid Delivery
ISO Class 5, 6, 7 & 8

Powered by  **Cleanrooms**



Welcome

ProCleanroom, active as official partner and representation of Connect2Cleanrooms Ltd., specializes in modular cleanroom solutions & downflow cabinets. It is our common goal 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.

Cleanroom solutions

Design, installation and accreditation of modular cleanrooms. The 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. On request we support onsite installation and accreditation.

Accessories include lights, benches, and temperature control.

Modular

The Connect2Cleanrooms 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 designed 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.



Up to 7m single span, for maximum flexibility



Heights up to 5m, for maximum flexibility



Small room example: 1.8m x 1.8m x 2.1m high, class 7 with hardwall and softwall option.



Delivery & installation

Leadtime is short. Any size can be supplied within 2 - 3 weeks after design approval. Rooms are despatched with minimum onsite works required, are installed free standing and therefore are not covered by restrictions on planning consents etc. Following optional installation by competent engineers, validation and commissioning is carried to ensure that a fully operating environment on completion.

Monitoring & cleanrooms

Following the installation of any cleanroom and prior to completion, an optional 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 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	Federal Standard 209E	EU GGMP	Air Changes per hour
Class 3	1	-	360-540
Class 4	10	-	300-540
Class 5	100	A/B	240-480
Class 6	1,000	-	150-240
Class 7	10,000	C	60-90
Class 8	100,000	D	5-48



Why choose a Modular Cleanroom ?

The Connect2Cleanrooms modular cleanrooms are freestanding, solid and robust steel structures which are suitable for use within an existing cleanroom, lab, manufacturing area or warehouse. They are designed to be independent from the surrounding building and so they **do not require any costly and time consuming building regulations or planning applications.**

We use HEPA filtration to create an exceptionally clean environment with 0.3 micron filtration with a speed controller so you can vary the air changes in the room as necessary.

Traditional build cleanrooms are static, whereas the modular design allows your cleanroom to be moved to different areas of your facility, or even different parts of the country if required, which means that as well as being less expensive per square metre than a traditional build, they also retain their value and carry on working for you.

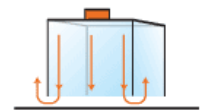
You can now turn an uncontrolled area into a cleanroom or temperature-controlled environment in a matter of days !

There is No Project Too Big or Too Small

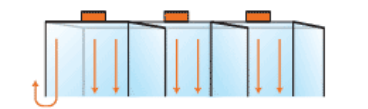
The beauty of the modular cleanroom is in its simplicity. As they are freestanding structures, modular cleanrooms can be as small or as large as required. We have the total freedom of design as small spans can be added together to create rooms from only a few square meters up to hundreds of square meters, depending on your requirements. The clean rooms can be expanded as your demand increases as additional space can also be "added on" without any major upheaval or break in your processes. Your investment will be solid, but not static.

Master Unit: 2.6m x 2.6m x 2.1m high

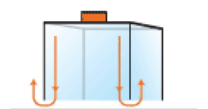
An ideal, small room which is designed to get the best yield out of materials and so is excellent value for money. Can be supplied on its own or with an internal change room. Available from ISO Class 5 to Class 8.



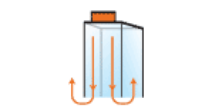
Bespoke rooms: Variable spans of up to 7m and bay widths up to 3m; which in turn can be added on to each other to create larger rooms in excess of 200 sq metres. Available from ISO Class 5 to Class 8. **Any size and height are possible.**



Rapid Room: 1.8m x 1.8m x 2.1m high. Available from stock and can be installed in just 30 minutes. This room is perfect as a first cleanroom or to be stored flatpacked as part of an emergency/contingency plan. Available from ISO Class 5 to Class 8.



Slave Unit: 1.3m x 2.6m x 2.1m high. Can be supplied on its own as a small room or it is perfect to be added to the Master Unit as an external change area. Available from ISO Class 5 to Class 8.





Softwall or Hardwall: which would work best for you ?

Softwall panels are used for easy access to the room which means that there is no need for additional fire exits. The simplicity of the Softwall design means that only the minimum opening is created when entering or exiting the room; this together with the self closing nature ensure that your room integrity is maintained whilst minimising the investment and running cost. The Softwall strips are a highly economical solution as they are low cost and effective.

Hardwall panels are aesthetically pleasing and they also limit places of access to the cleanroom which will help implement correct entrance procedures. We use the latest in polymer glazing to ensure a good seal combined with hi-impact resistance and durability.

A hybrid is also possible, with Hardwall panels for external walls, using Softwall Strips for access. The Softwall and Hardwall panels are manufactured from clear PVC and PETg respectively which let light into the room and also allow people on the external of the room to oversee processes taking place inside the cleanroom.

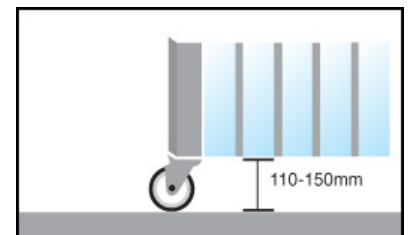
We also offer UV blocking and completely darkened solutions for specific applications.



A Cleanroom Needs to Breathe

Following the intake of clean air, all cleanrooms require some space to let the dirty air escape.

The cleanrooms have a gap right the way around the bottom of the room; this ensures an even airflow right through the room and means there are no corners or areas where particles can be retained. The positive airflow guarantees that no particles can re-enter the room through this gap.



Advantages – summarized for you:

- ✓ Capital costs are low
- ✓ Installation time is quick
- ✓ It can be validated to ISO 14644-1 from Class 5 to Class 8
- ✓ It's a permanent room but with the flexibility to be mobile
- ✓ It can be expanded easily to meet business demands
- ✓ It can be re-located easily to another area or new building
- ✓ It can be placed over a work area or piece of equipment
- ✓ It has a high rate of air change
- ✓ Equipment can be moved in and out easily
- ✓ No building control or planning permission is needed
- ✓ There is the option of transfer and change areas
- ✓ The clear ceiling panels allow lighting from external area
- ✓ It can be installed within an existing room



Typical applications & markets:

- ❖ Nano-Technologies & Photonics
- ❖ Semiconductor / Electronics
- ❖ Manufacturing
- ❖ Food Contact, Packing & Bottling Lines
- ❖ Research/Academia
- ❖ Injection Moulding
- ❖ Printing
- ❖ Healthcare
- ❖ Life Science
- ❖ Medical Device Manufacturing
- ❖ Pharmaceutical
- ❖ Computing (server room)
- ❖ Optical Lenses Manufacturing
- ❖ Nuclear & Atomic Energy
- ❖ Defense & Aerospace
- ❖ Oil & Deep Sea Exploration

Related products:

- ❖ Laminar Flow Units – standard & custom benchtop cabinets
- ❖ Containment Units – tailored isolation cleanrooms for pharma and chemical applications

Check our website for additional information



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