



Thrislington
CLEAN ROOMS



CLEAN ROOM PARTITIONS & CEILING
SOLID PARTITIONS | GLAZED PARTITIONS
DOORS | WINDOWS



INTRODUCTION

Thrislington Products Company Limited, UK excelling in various kind of doors and partitions since 1946 was taken over by the Synergy group in 2009. With this acquisition entire plant & machinery, product know how and all other intellectual property has come from UK to India at Synergy Thrislington.

Its state-of-the-art plant is located at Nalagarh tehsil of district Solan, Himachal Pradesh in India. The well laid out facility is spread over 4.5 acre land with the covered area of 85,000 Sq.feet

Strength of the company arises out of its team of professionals, product know how and inbuilt culture of customer care and delivery commitment.

Synergy Thrislington, an ISO - 9001:2008 certified company today serves varied paneling and door requirements to educational intitution, corporate offices, shopping malls, high rise building, pharmaceutical, healthcare, hospitality, labour accommodation, site offices, cold room/cold storage and prefabricated demountable shelters for different industries etc.

WHAT IS A CLEANROOM?

The interpretation of a cleanroom can vary from industry to industry and customer to customer, with each application being designed to suit the idiosyncratic needs of the individual company requirement.

It may be that your process facility needs a simple 'clean up' or a radical transformation to accommodate the stringent manufacturing and production standards dictated by the statutory authorities responsible for ensuring Good Manufacturing Practice (GMP) for your particular industry. For nearly 6 decades, Thrislington had worked alongside designers, end user and specialist contractors to ensure the most economical and practical solution is achieved.

A recognized definition of a cleanroom is 'A room in which the concentration of airborne particles is controlled and which contains one or more clean zones.'



WHAT TYPE OF CLEANROOM?

CONTROLLED ENVIRONMENT

An ever increasing number of companies require a facility to provide an environment which enables the control of their process, particularly important for today's healthcare, drug & medicine manufacturing, telecommunication, netscape, defence, food processing, electronics and automotive industries.



Often 'Box in Box' solutions become imperative for businesses utilizing the 'fast track' construction solutions designed by Thrislington.



CLASSIFIED

Classified cleanrooms are very familiar to the pharmaceutical, electronic, semi-conductor and wafer-fab industries, ranging from Class 100,000 up to Class 1 and are determined by the operation of the particular room or process. Cleanrooms are classified by the cleanliness of their air. The method most easily understood and most universally applied is the one suggested in the earlier versions (A-D) of the Federal Standards 209 of the USA. In this the number of particles of 0.5 microns or more are measured in one cubic foot of air and this count is used to classify the room.

Global players such as Schering Plough, Glaxo Smithkline Merck, Eli Lilly, NEC, Philips, Maxell, Thron EMI, L.G.

Electronics, Nutramax, AT & T, GEC and many others have all used Thrislington cleanroom wall, ceiling, door and window systems within their facilities, always adhering to full 'Protocol' requirement.

Country And Standard Date of current issue	U.S.A. 209D 1998	U.S.A. 209E 1992	Britain BS 5295 1989	Australia AS 1386 1989	France 1972	Germany VD 1.2083 1990 onwards	ISO Standard 1997
	1	M1.5	C	0.035	-	0	3
	10	M2.5	D	0.35	-	1	4
	100	M3.5	E or F	3.5	4000	2	5
	1000	M4.5	G or H	35	-	3	6
	10.000	M5.5	J	350	400.000	4	7
	100.000	M6.5	K	3500	4000.000	5	8
						6	



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FOR GUIDANCE

Class 1 and 10 (the highest specification) are generally used for integrated circuit and semi-conductor manufacturing.

Class 100 (BS. 5295 equivalent classifications E and F) are often used by the electronics industry along with some applications within pharmaceuticals facilities.

Class 1,000 to 10,000 are used by manufacturers of the highest specifications fibre optics, precision engineering, sterile packaging and pharmaceutical manufacturing.

Class 100,000 is adequate for general component assembly and packaging.



"WALK ON" CLEANROOM CEILINGS

The ceiling membrane is of vital importance to the integrity and performance of any cleanroom. The concept of ceiling can vary from simple suspended lay-in grid types to sophisticated 'walk on' construction and planums.

The Thrislington Walk on Ceiling is a product that offers amazing options in creating custom and system build solutions to the most and complicated of enclosures for the demanding environments of the cleanroom user.

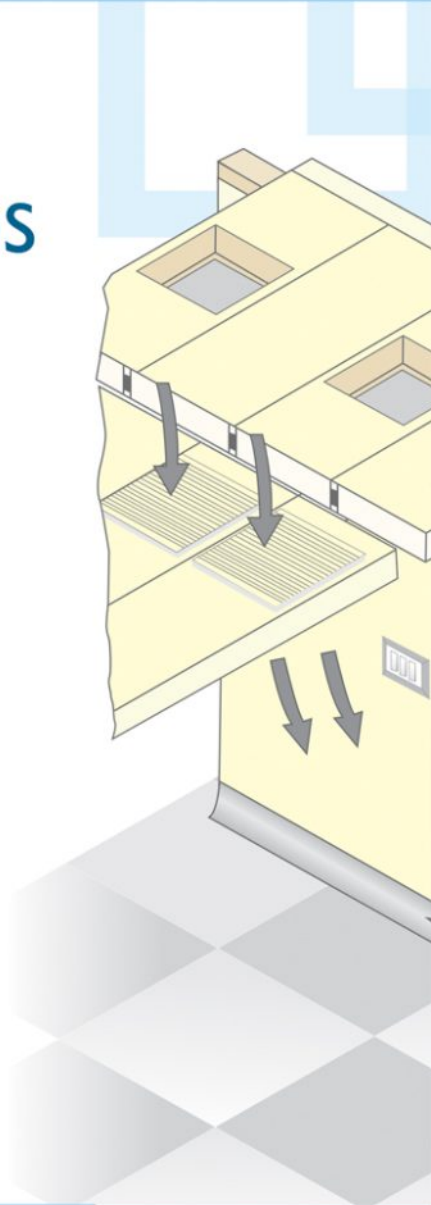
A maintenance engineer can walk on top of the ceiling to gain access to services and components without the need to engage elaborate equipment normally associated with more basic ceiling installations and the servicing thereof.

Panels are constructed to standard width of 90mm, or 80mm thick and the ceiling system is supported either on the partitions or by a

lattice truss system to create spans not normally associated with partitions and ceiling enclosures. The steelwork is also designed, manufactured and installed by Thrislington. Structural mezzanine floor applications are also available where high load specifications required.

Subject to specifications, each plank will hold a superimposed load of 27kg/m² together with point load 150kilos.

Whilst the basic system is supported on the partitions, Thrislington can also provide plank & tile alternatives designed to be suspended from a concrete or steelwork structure by a unique hanging system. In these situations the ceiling can be installed independently from the partitioning, giving further relocatable advantages for subsequent layout changes. The grid specification can be to suit the modular requirements of the designer.



INTEGRATION OF SERVICES

The majority of cleanroom by nature require a considerable amount of service, such as power outlets, supply and return air facilities, together with a variety of specialist gases and liquids, necessary data and network solutions, are also incorporated in pre-formed ducts and conduits with the panel itself, pre-determined

service modular or the nature wireways available with the Thrislington Panel system. Thrislington with high end CNC machines can provide unlimited penetrations to accept almost every conceivable service application, finished to the same high quality as the panel, or alternatively integrated in to special steel service plates.

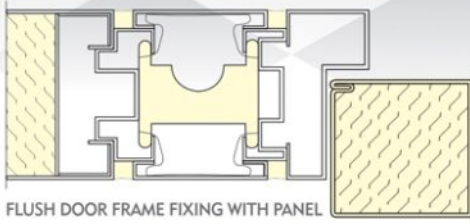
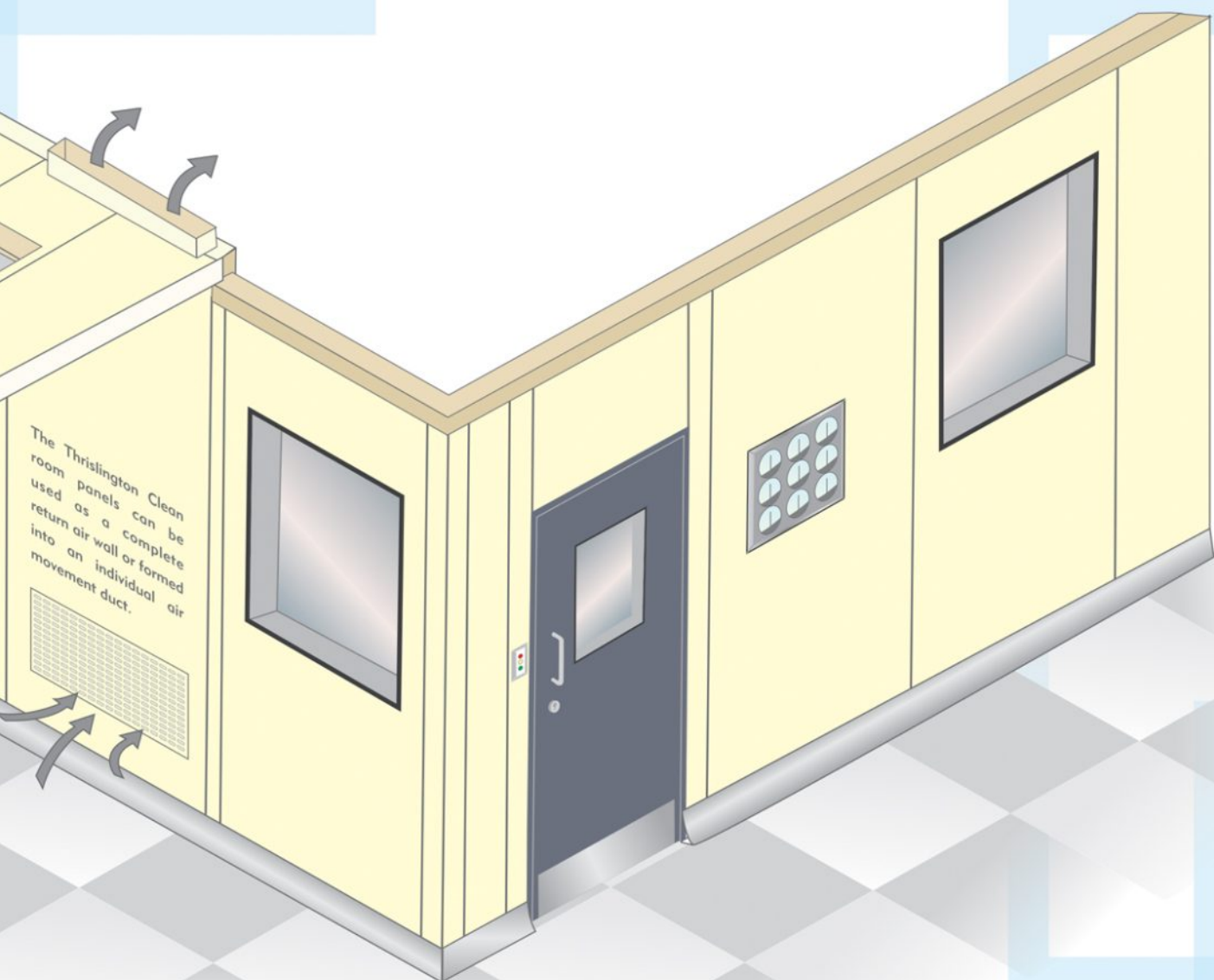
DOORSETS

Controlled entry to, and exit from, any cleanroom is obviously critical to the function of the entire process in order to maintain the integrity of the enclosure to allow

personnel, materials and finished goods to allow the logistical path laid down by protocol.



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DOOR CONSTRUCTION

Door leaves are constructed in a similar fashion to the panels incorporating the required core material, held within a 'flush' or 'wrap round' door frame section to standard or specific size as determined by the end user.

VISION PANELS

The selection of vision panels is closely related to the classification of the cleanroom and function contained therein and is usually in correlation to the choice of window preferred within the partition.

These vision panels can be single or double glazed, square, rectangular with semi flush or completely flush detail.

PARTITION WALLS

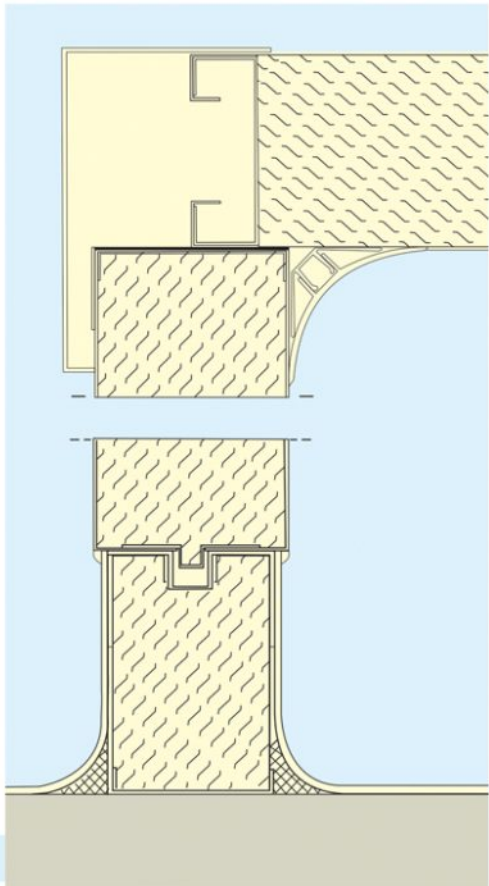
Thrislington partition wall products have been developed for use by, and in conjunction with, leading cleanroom designers and end users. Surface of the panel can be powder coated/ pre-coated galvanized steel in standard RAL colours, stainless steel or high pressure laminate depending on industry and application.

Standard panels are 60 or 80mm thick in a standard module width 1120mm using a progressive or non-progressive (pilaster joint) method of assembly. Panel height can vary up to 5000mm in a single lift, multi-lifts

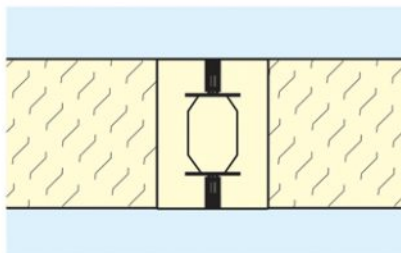
being available in conjunction with Thrislington integrated steel support systems.

Core materials are dependant on application and can be selected from paper honeycomb, rockwool, PUF or aluminium honeycomb. There are several vertical panel to panel jointing techniques available as illustrated.

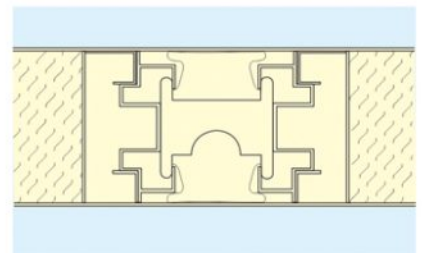
Thrislington unique recessed levelling plinth gives the facility for a continuous floor to wall membrane. Interface between the partition wall and floor is achieved in a number of ways, again dependent on application and classification.



CLEANROOM RAISED FLOOR TRACK



PANEL TO PANEL JOINT



PANEL TO PANEL JOINT WITH PILASTER



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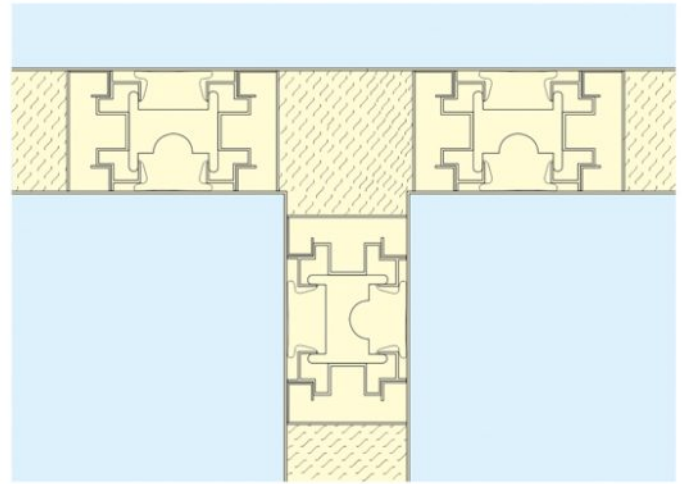
PARTITION WALLS

Connection between partition and the existing fabric will utilise our pre-formed closing channel and special details can be produced where required, again with various coving options available to meet specification.

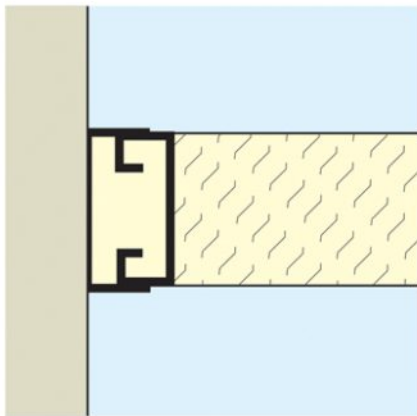
Integration between partition head and ceiling is achieved by utilisation of standard top channel together with various coving options, if required.

Special pre-formed, right angled and three-way panels can be incorporated to maintain an easily cleaned mono-lithic enclosure to meet most exacting requirements.

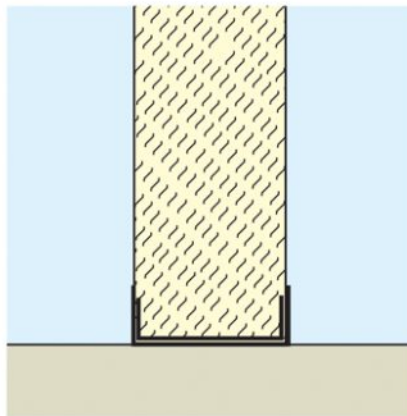
The partition walls, and indeed ceilings, can be designed to facilitate and incorporate the various design principles, utilised in Laminar and non-Laminar airflow cleanrooms.



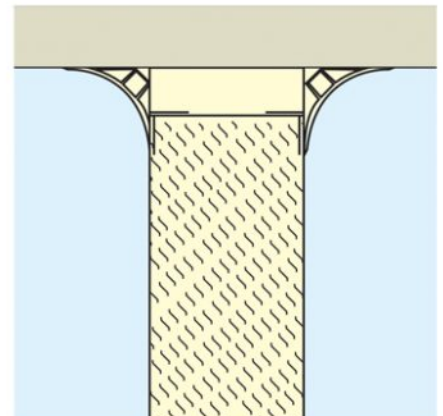
FORMED TEE PANEL



SOLID PANEL TO WALL



CLEANROOM 'C' FLOOR TRACK



SNAP IN PROFILED COVING

PARTITION GLAZING

The size and style of glazing within the cleanroom envelope can be determined by both aesthetic and classification requirements.

Thrislington offer various methods of glazing, both single and double, utilising gasket, metal framed (almost flush) and totally flush options, together with any necessary fire and/or acoustic properties that may be required.



SYNERGY METAL DOORS

Synergy Doors are specifically tailored to fulfill each and every requirements of the market with the use of galvanized/stainless steel. Synergy Doors are available in different specifications to achieve various requirements of our clients. The single/double leafs can be provided with DOP (Door Over Panels). The final finish can be of required RAL shade or with wood veneer of desired colour.

FIRE RATED DOORS

Fire Rated Door with fire-resistance rating used as part of a passive fire protection system to reduce the spread of fire between compartments and to enable safe egress from a building or structure. Synergy offers fire rated doors with seamless –joints having fire rated infill materials & fire resistant levels from 60 minutes to 4 hours all tested to BS 476 Part 22, (CBRI & Warrington). These doors can be made in single or double doors with fire-rated glazing option and with desired pure polyester powder coating (60-80 microns) RAL shade.

CLEAN ROOM DOOR

Clean Room Door is manufactured from galvanized/stainless steel sheets with lock formed edges. Insulated and bonded with honeycomb paper, mineral wool or polyurethane foam forming a rigid flush fitting with innovative flush double glazed finished in pure polyester powder coating of 60-80 microns forming a smooth surface finish.

INDUSTRIAL DOOR

Heavy duty Industrial metal doors are available in size up to 3000 mm wide and 3000 mm in high. Doors are Capable of accepting glazing in many configurations with air vents, louvers and a wide range of hardware. Doors are pure polyester powder coated achieving a coating thickness 60-80 microns forming a smooth surface finish.

ACOUSTIC DOOR

Acoustic Door is designed to reduce sound transmission between rooms and to provide sound privacy in any architectural environment. Synergy offers acoustic doors with special linings, seals and structurally bonded cores to achieve high level of sound reduction (40 DB).



OTHER PRODUCT RANGE

METAL DOORS

Synergy Thrislington doors are designed to serve different market segments such as pharmaceutical clean rooms, operation theaters, cold rooms, cold stores, offices, hotels and commercial complexes. Synergy Thrislington design and application team is capable of providing tailor made solutions beyond generic requirements as well.

Material used for doors skins is chosen to meet application requirements through it is galvanized iron in most cases. Stainless steel or wood can also be used depending on the application need. Infill material is selected as needed, it can be kraft with honeycomb structure, mineral wool or PUF. Additional design features such as dust seals make Synergy Thrislington doors a popular choice with end users, specifier and contractors.



OFFICE PARTITIONS

Synergy Thrislington office partitions draw strength from over six decades of knowledge of Thrislington UK in this product line. Product available for this application are

- Solid partitions
- Semi glazed partitions
- Fully glazed partitions
- Double glazed partitions with venetian blinds

Contemporary finish, modular design, ease of installation and demountability are some of the features of Synergy Thrislington office partition offerings.



PREFABRICATED SHELTERS

With simple designs, robust construction, time delivery and installation backup, today Synergy Thrislington prefabricated shelters are natural choice for various requirements. Such solutions are gaining popularity as

- Project site offices
- Remotely located education / healthcare centers
- Slum rehabilitation solution
- Police / military / para-military camps / barracks
- Shelters / offices where permanent constructions is not allowed

Salient features fo Synergy Thrislington pre-fabricated shelters are

- Light weight yet robust construction
- Easy and quick installation
- Demountability
- Aesthetics
- Longer lasting

Synergy Thrislington design and project team is capable of providing economical solutions including total avoidance of steel support structure. However where it is mandatory to use such structure, that can be designed very high light using strength and load bearing capacity of the panels.





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OUR PATRONS

SYNERGY THRISLINGTON

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