



## Advantages of choosing Mach-Aire Ltd Modular Clean Rooms

- Cost Saving** Modular construction can produce significant savings compared with conventional methods. Site works are minimised, construction period is controlled. Facilities constructed under controlled factory conditions. Ideal concept for high performance clean rooms.
- Time Saving** Modular construction is a two step process, the facility is constructed off site at our factory, the site preparation can be completed in this construction phase. The building is delivered to site and positioned on the foundations. Installation of the modules usually takes one day.
- Quality** Modular construction ensures a high quality building. Construction is more easily managed within a factory environment, speed and cost is controlled.
- Relocatable** Modular buildings are able to be relocated if required. This offers flexibility and economy, modules can be offered for sale, if for example their primary purpose was for temporary use.



### Ease of operation

Mach-Aire Ltd modular clean rooms have full air handling and air conditioning installed to provide a comfortable environment for the occupants. Usually a Plant Room is installed at one end of the building, the air handling equipment and service connection points are located here also.

### Convenient and safe

Mach-Aire Ltd modular Clean Room Facilities are designed to provide safe and pleasant working conditions for the occupants. The buildings are designed, constructed and certified compliant with UK Building Regulations.

### Optional Equipment

Closed circuit TV system, Intercom, Fire detection, Intruder detection

## APPLICATIONS

- Pharmacies
- Biotechnology
- Containment Facilities
- Research
- Tissue Culture
- Tissue Banks

Compliance to national and international safety standards, optimum personnel, product and environmental protection. Designed for ease of cleaning and maintenance—the sum of all the parts adds value to the whole. Whether in the field of genetics, biotechnology, microbiology or research, our modular clean rooms perform valuable tasks, day in and day out.

## FEATURES

- Fast construction period
- Minimum site disruption
- Flexible layouts
- Compliant with UK Building Regulations
- High quality internal environment

DATA SHEET 715

## Typical Project Programme

- Specification:** Meetings with end-users to discuss requirements, present Mach-Aire Ltd design and quotation.
- Enabling:** Discuss with Planning Authorities and Building Control all aspects for the project, obtain planning approval and compliance with UK Building Regulations.
- Construction:** The building shell is delivered to the Mach-Aire Ltd factory from our partners Premier Transline Ltd. Installation of ductwork, air handling equipment, internal walls and ceilings, electrical installation etc follows. Foundations installed on site and service connections made.
- Delivery:** The completed clean room facility is delivered to The site and installed on the foundations, service connections made.
- Commissioning:** The clean room facility is commissioned on site and put into operation



Internal Plant Room

Grade "C" Preparation Room

### HEPA filter system

HEPA filters are fixed in the ceilings of the clean rooms to give the correct grade of room environment.

Examples of grades would be:

- First Change Grade "C"
- Preparation Room Grade "C"
- Second Change Grade "B"
- Isolator Room Grade "B"

Mach-Aire Ltd Modular Clean Rooms are designed to have optimum airflow patterns to provide fast clean up rates and consistent conditions in the occupied spaces.



Grade "C" Preparation Room

Grade "B" TPN Room



### Transport

Mach-Aire Ltd Modular Clean Room Facilities are easily transportable by road vehicles. The factory completed modules are lifted into position on site alongside each other to form the complete building, installation of the modules normally takes one day, with minimum disruption for the client.



Products and services for containment and clean air applications

Fume cupboards

Pharmaceutical Isolators

Downflow powder control booths

Clean rooms for NHS Pharmacy, Tissue Banks and industry

ACDP Containment laboratories

Modular clean rooms

Validation and testing

Microbiological safety cabinets

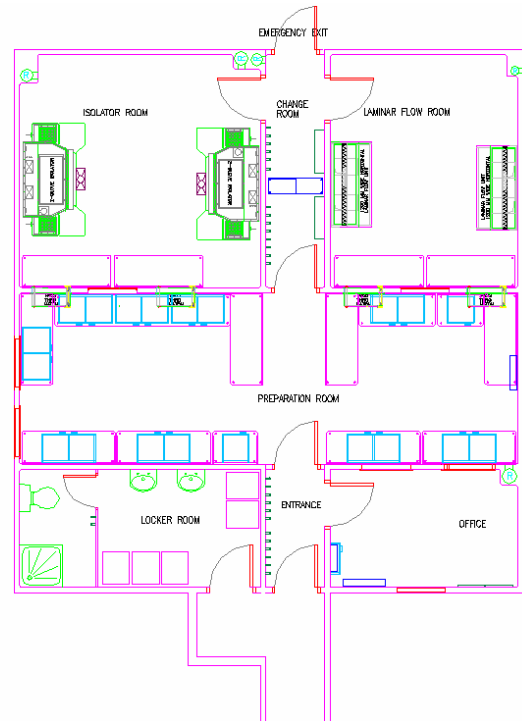
Horizontal and vertical laminar units

Specialised extract systems

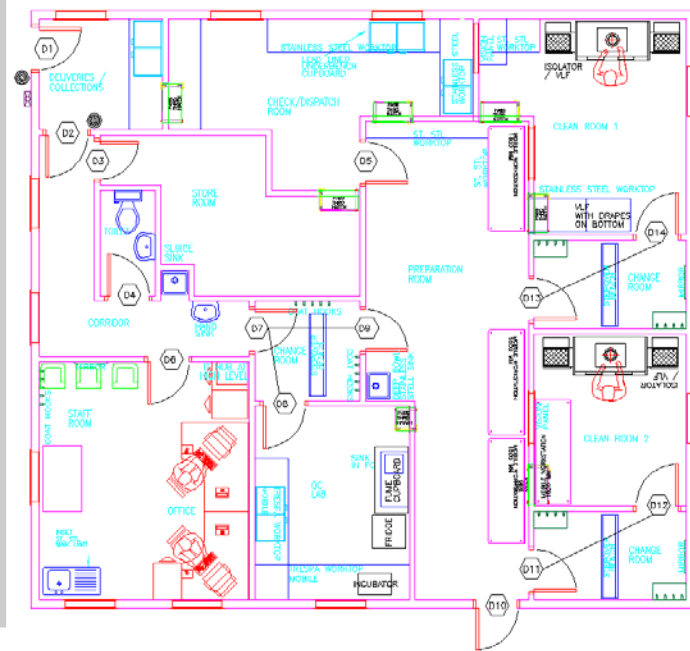
Clean room accessories

Design & consultancy

Full compliance with relevant national and international standards



**Modular Pharmacy Department Clean Room Facility**, 120 M2, Grade "C" Preparation Room and First Change, Grade "B" Laminar Flow and Isolator Rooms, with additional support areas, link corridor to main hospital.



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Air handling and conditioning plant can either be within a integral plant room or positioned externally to the building.



Mach-Aire Ltd Modular Clean Room Facilities are ideal as NHS Pharmacy Department Aseptic/ Isolator Dispensing Units. Mach-Aire Ltd is a "one stop" service as original manufacturers of isolators, clean rooms and laminar flow equipment.

**Modular Radio-Pharmacy Department Clean Room Facility**, 144 M2, Grade "C" Preparation Room and First Change, Grade "B" Laminar Flow and Blood Labelling Room, with additional support areas, Staff Room, Bathroom, Office, Store etc.

## CLEAN ROOMS

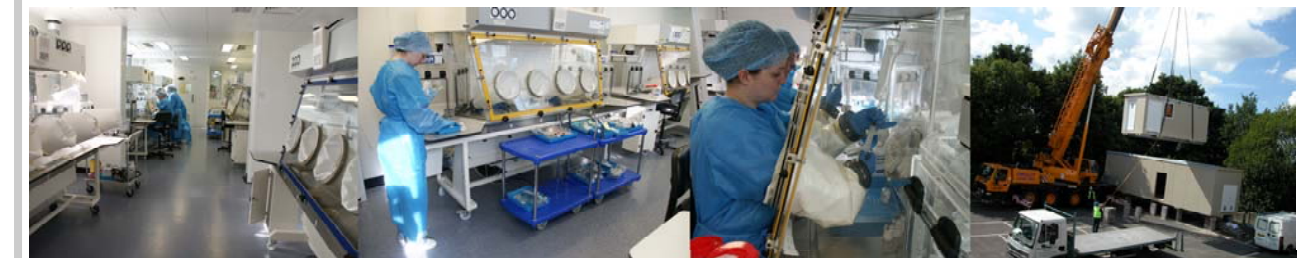
### MODULAR CLEAN ROOMS FOR NHS ASEPTIC PHARMACY DISPENSING

"Wherever there are cleanrooms and laboratories you will find Mach-Aire products playing an important role in the research and manufacturing programmes of the worlds largest companies and institutions.

Our capabilities, whether in technology, design, safety of operation, construction or service are also fully at your disposal".



- Modular Clean Room Facilities for NHS pharmacy dispensing.
- Compliant with EU GMP requirements for premises
- Flexible layouts
- Available with Pharmaceutical Isolators or Safety Cabinets
- Temperature controlled
- Excellent working conditions
- Short construction period



New Generation of Modular Clean Room Facilities, transportable and re-locatable

