



MRC cleanrooms

INNOVATE | IMPROVE | GROW



Cleanroom Design

Cleanroom Paneling

Cleanroom M&E

Cleanroom Validation

Our Company



Introduction



MRC is a British founded company offering unique cleanroom products and turnkey solutions to clients around the globe.

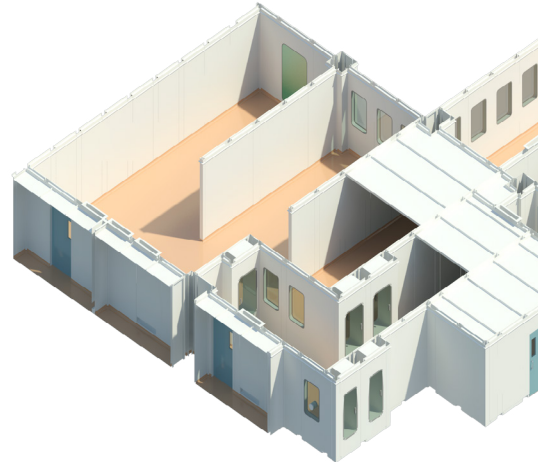
MRC goes the extra distance to ensure you have the best clean working environment from which to operate. From initial discussions on your cleanroom requirements, through to site survey, design and on to final installation, you'll find that MRC delivers at every step of the process.

MRC's modular cleanroom panels combine to create the most advanced system available on the global market.

For 35 years MRC have helped advance the leading companies within a range of industries throughout the world, to 'innovate, improve & grow'.

MRC have offices and sales agents at different locations around the world.

Our Services



Facility Design

- Architectural
- HVAC Schematic / Duct Layout
- Process Engineering
- Electrical Services

MRC has the experience and expertise to provide design solutions from conceptual through to detailed engineering levels, combining state of the art technology and great value. Local design teams utilise a range of the latest design software to ensure that the important planning phases of your project are undertaken with care and precision.



Cleanroom System

- Wall and Ceiling Panels
- Cleanroom Accessories
- HVAC System
- Flooring

MRC manufacture a full range of GRP cleanroom panels and accessories. In addition to this MRC offer a turnkey cleanroom solution including HVAC, electrical and mechanical services. The MRC GRP cleanroom solution is unique and superior to any other panelling system available on the global market.



Installation

- Project Management
- Installation Labour
- Supervision

Experienced installation supervisors work around the world with either in-house installers or with the use of local labour. The sophistication of the MRC design solutions and products make it possible for specially trained supervisors to complete the installation with semi-skilled local labour whom they train, instruct and monitor. For international clients this approach has cost and operational benefits.



Validation

- Validation Master Plan
- Design Qualification (DQ)
- Operational Qualification (OQ)
- Installation Qualification (IQ)
- Performance Qualification (PQ)

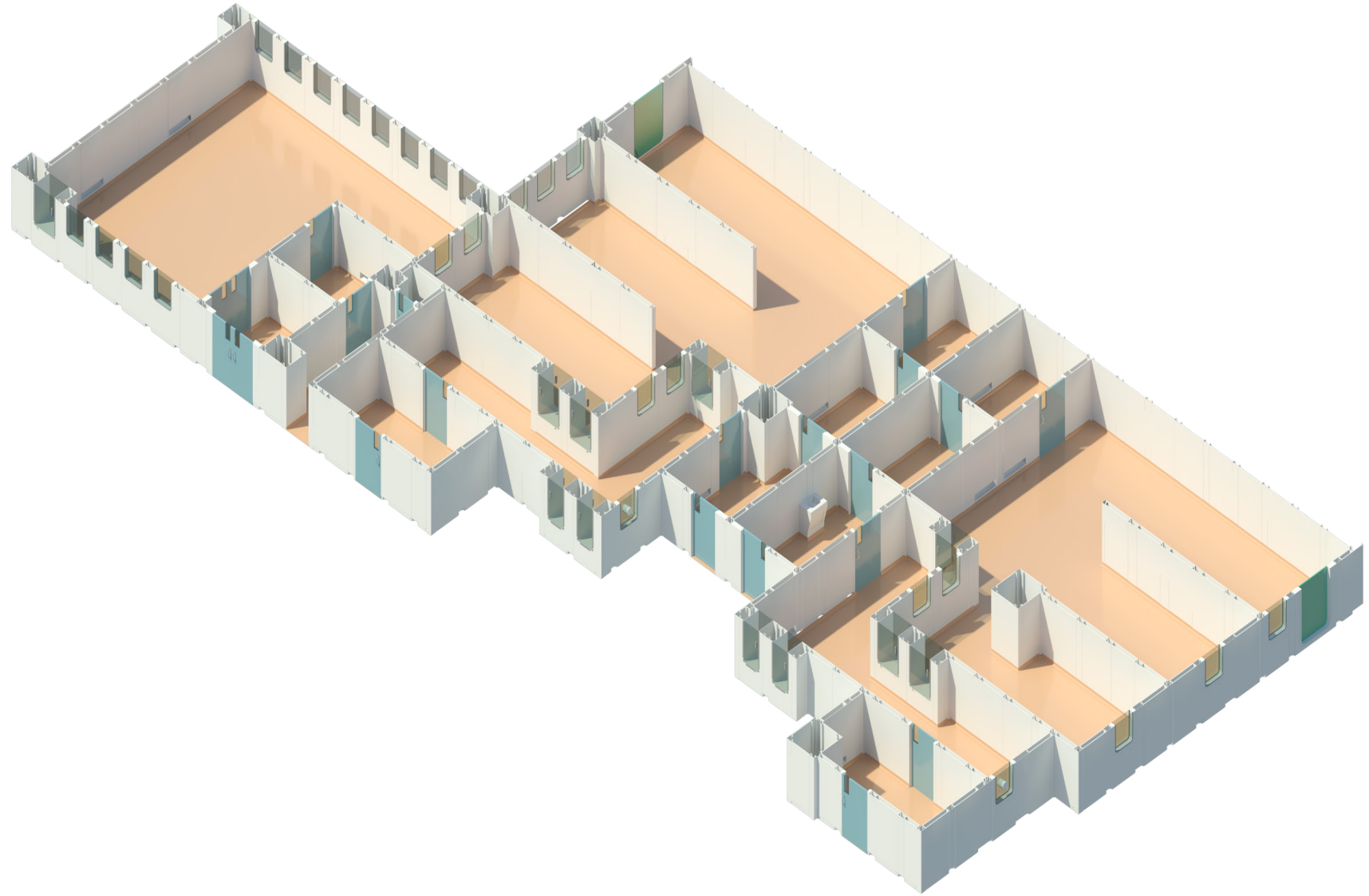
The validation team undertakes all required validation tests as well as providing advice and consultancy support to clients. They work within the MRC project team to ensure compliance with all relevant regulatory requirements and project design specifications.

Our Vision

"MRC develop products that are a direct result of their vision; to help clients innovate, improve and grow in the fields of pharmaceuticals, aerospace, micro-electronics, healthcare, renewable energy, military and other high-end engineering industries. The MRC GRP cleanroom panelling system was developed specifically to answer the questions and solve the issues that were raised by other panel systems on the market. By challenging what was considered the "typical" solutions for cleanroom fabrication MRC were able to make something remarkable.

A product and system that has helped drive the continuous innovation within industries that are truly changing the world that we live in. To ensure the perfect offerings MRC fully understand the requirements for manufacturing within these industries and therefore offer controlled environment solutions from design phase through to fabrication, installation, validation and commissioning."

Mr Samuel Hussain
MRC Sales Manager





MRC Panels...

1. Cannot rust like metal panels, no risk of corrosion
2. Do not need any insulation material so you can use the inside of the panel for all services and air return, saving vital space.
3. Do not need painting and any colour is available, colour is mixed into the resin during construction
4. Have superior chemical resistance to other systems, including H2O2.
5. Have integral coving, no stick on pvc coves which are not GMP
6. Are strong and resistant to heavy impact
7. Can be repaired, invisibly, on site
8. Can be cut and modified on site
9. Can be made up to 11.5 metres high in one single piece
10. Have a life span of 35 years +

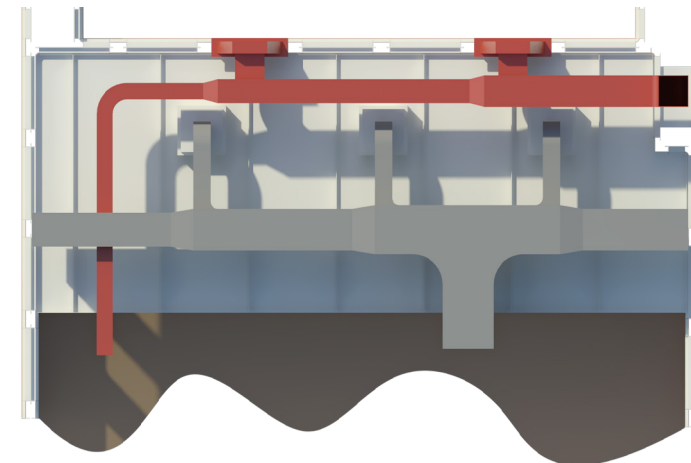


The MRC System

MRC designed the original GRP panelling system and, through a constant drive to innovate, have boasted the most advanced system on the market since 1981. The panel manufacturing technique, coupled with the GRP formulation and specification, provides an impervious smooth surface which is inherently strong, resistant to damage and chemical attack. Unlike other construction materials, the MRC panel does not rely on a thin surface coating to provide the required cleanroom surface finish.

Main Features

- Designed to FDA, ISO and GMP standards
- GRP Material
- Modular System
- Walkable Panel Ceilings
- Integrated Windows
- Integrated Furniture
- Class 0 Spread of Flame certified
- Fire Rated Panels Available
- 100% Resistant to Hydrogen Peroxide



Cleanroom Walls and Ceiling

The system of wall and ceiling panels is fabricated from Glass Reinforced Polyester (GRP). The panel manufacturing technique, coupled with the GRP formulation and specification, inherently provides an impervious smooth surface, resistant to mechanical damage and chemical attack. Scratches and abrasions are resisted by a thick resin rich surface (Gel-coat). The Gel-coat surface is available in any colour without the need of paint. All exposed surfaces are treated to present a smooth matte finish.

The standard MRC panels are 958mm wide and are linked together with 234mm wide infill panels, allowing the optimum gap for a silicone joint. The infill / service panels which separate every main panel (occurring every 1200mm) are available for piped and electrical services and support pillars, should a secondary structure be required. This

allows maximum flexibility to locate services at any time during construction. Joints between the various wall panels are sealed flush with clear silicone sealant. This provides a totally airtight room, which prevents ingress or egress of particles, contaminant or fumigants. This is particularly important where fumigation is required as it helps prevent spread to adjacent work and plant spaces.

Why MRC panels last many years longer than others:

- Cannot rust or corrode like metal
- Cannot crack like phenolic
- Are extremely strong
- Can be repaired invisibly on site
- Do not need to sit on a floor track
- Smooth non-shedding material
- Colours are mixed with resin, no paint
- 100% Resistant to Hydrogen Peroxide and many other aggressive chemicals



Cleanroom Doors

DOOR TYPES

- GRP Swing Doors
- GRP Sliding Doors
- Glass Swing Doors
- Emergency Escape Doors
- Roller Shutter Doors

GRP DOORS

MRC GRP doors are constructed from GRP (glass reinforced polyester), this material and an advanced manufacturing process means MRC offers the most versatile, value for money, and hygienic doors available in the world. Constructed within a single mould MRC doors are one single piece of GRP; no joints, welding or needless connections which are difficult to clean and can harbour dust and contaminate hygienic areas. Self-closing hinges used.

GLASS DOORS

MRC's glass doors are constructed from 10mm reinforced glass. These doors are perfect when maximum visibility is required. They have equally strong chemical resistance to GRP doors and offer an alternative look to your facility. Self-closing hinges used.

QUALITY OF DESIGN

MRC's doors have been designed to meet ISO, USA FDA and European / international GMP standards and for conditions where qualities of a reinforced and chemically resistant structure are required.

ADDITIONAL

- Vision Panels
- Interlock system
- Door Seals
- Fire Rating



Our Products



Transfer Hatch

- High quality, tough and durable pass boxes
- Manufactured from GRP
- Designed to integrate with any wall systems
- Electromagnetic PLC controlled interlocking
- Toughened glass doors
- Stainless steel load tray
- Hepa Filtration can be incorporated
- Can be wall or floor mounted
- Different sizes can be accommodated



Step-over-bench

- High quality, tough and durable step-overs
- Manufactured from GRP
- High impact strength
- Resistant to cleaning agents
- Available with or without shoe storage
- Removable for equipment access
- Available in various lengths and configurations
- Integral rebate to accept any floor finish
- Can be incorporated into any cleanroom system or as part of our modular system



Garments Cupboard

- Integrated within panel system
- 1 or 2 side access available
- Toughened glass doors
- Hepa Filtration can be incorporated
- Electromagnetic PLC controlled interlocking
- Customisable sizes and features
- Used within change rooms or for general storage



Vanity Unit

- High quality, tough, durable sink units
- Manufactured from GRP
- Fitted with 316L stainless steel bowl
- Available with a variety of mixer or auto taps
- Removable access panel for servicing
- Available in various size
- Integral rebate to accept any floor finish

Our Products



Air Shower

- High quality, tough and durable air shower
- Personnel or Material air showers
- Designed to integrate with any wall system
- Wall and ceiling air supply
- Electromagnetic interlock system
- GRP doors
- Integral air return
- Re-circulating stand alone system or linked to existing supply and return air.



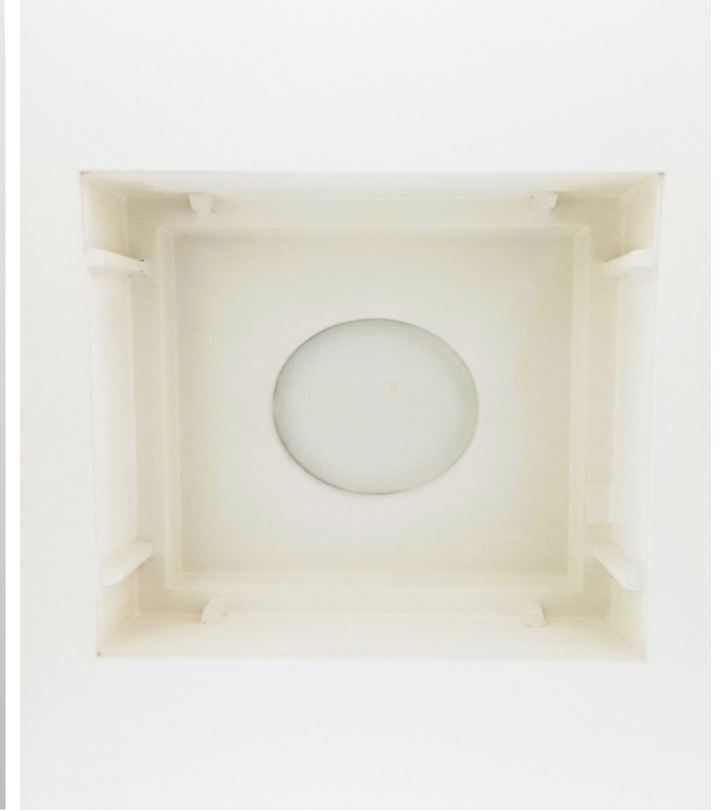
Access Panel

- Custom designed access panels
- GRP construction
- Fixed with silicon
- Allows access for equipment during project
- Allows removal of equipment for maintenance
- No need to remove any panels
- No need to cut flooring
- To be fixed within MRC's GRP panelling system



Extinguisher Housing

- High quality, tough and durable extinguisher housing
- Safe storage for fire extinguishers
- Simple and quick access
- GRP moulded construction
- Customisable sizes, colours and features
- Wall or floor mounted
- Can be fixed onto other panelling systems



Filter Box

- High quality, tough and durable filter box
- Manufactured from GRP
- Completely sealed box
- With optional access panel for maintenance
- No need for excess welding and fixtures
- Can be integrated with any panelling system
- Available in various sizes
- A custom made GMP solution

Cleanroom HVAC and Validation

MRC's team provide cleanroom HVAC solutions including:

- Conceptual HVAC Design
- Equipment Selection
- Procurement
- Installation
- Commissioning and Balancing
- Maintenance

Through an in-house HVAC engineering team, and strategic partnerships with high quality suppliers, MRC are your perfect HVAC partner. Drawing from 35 years of experience in the industry they can offer a wealth of knowledge and project management ability to ensure that the critical air system of your cleanroom is designed, installed and operating in line with the requirements of the work you are doing. Whether it

is pharmaceuticals, aerospace, micro-electronics or other, MRC have the ability to ensure compliance to the regulations and requirements of your industry.

VALIDATION

MRCs in-house validation team offer cleanroom validation services from Operational Qualification through to the validation master plan of your facility. Utilising the most advanced validation equipment along with trained and experienced staff; MRC are the right choice to be your validation partner.



Cleanroom Turnkey Project

MRC do not just provide an innovative cleanroom panelling system, over the past 30 years they have developed the capabilities to undertake cleanroom projects on a turnkey basis. Including:

Design and Engineering

- Conceptual Design Studies
- Detailed Design Studies

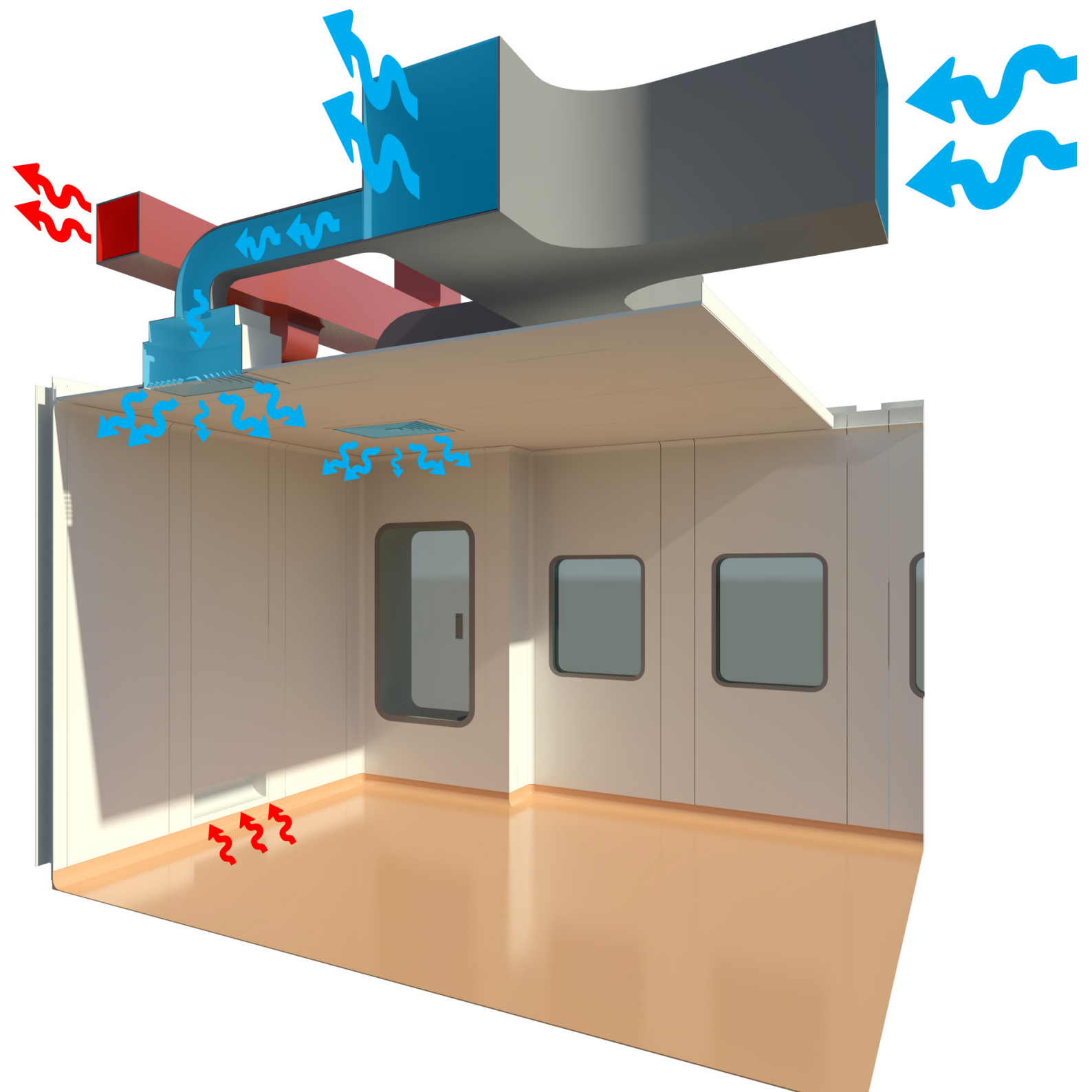
Supply and Installation

- Cleanroom wall and ceiling panels, doors and accessories
- HVAC System
- Electrical Services
- Equipment
- Furniture Fit Outs
- Validation and Commissioning

The above can be combined to offer a complete turnkey solution, or are available individually to fit into a tailored solution.

MRC employs a team of in-house HVAC, mechanical and electrical engineers to ensure that the integration of all services is efficient and professional.

MRC also employs in-house cleanroom and pharmaceutical consultants to offer design engineering assistance and complete studies from conceptual stage through to detailed design. This ensures that when implementing any project, regardless of the scope of work, we can fully understand the clients requirements and process.



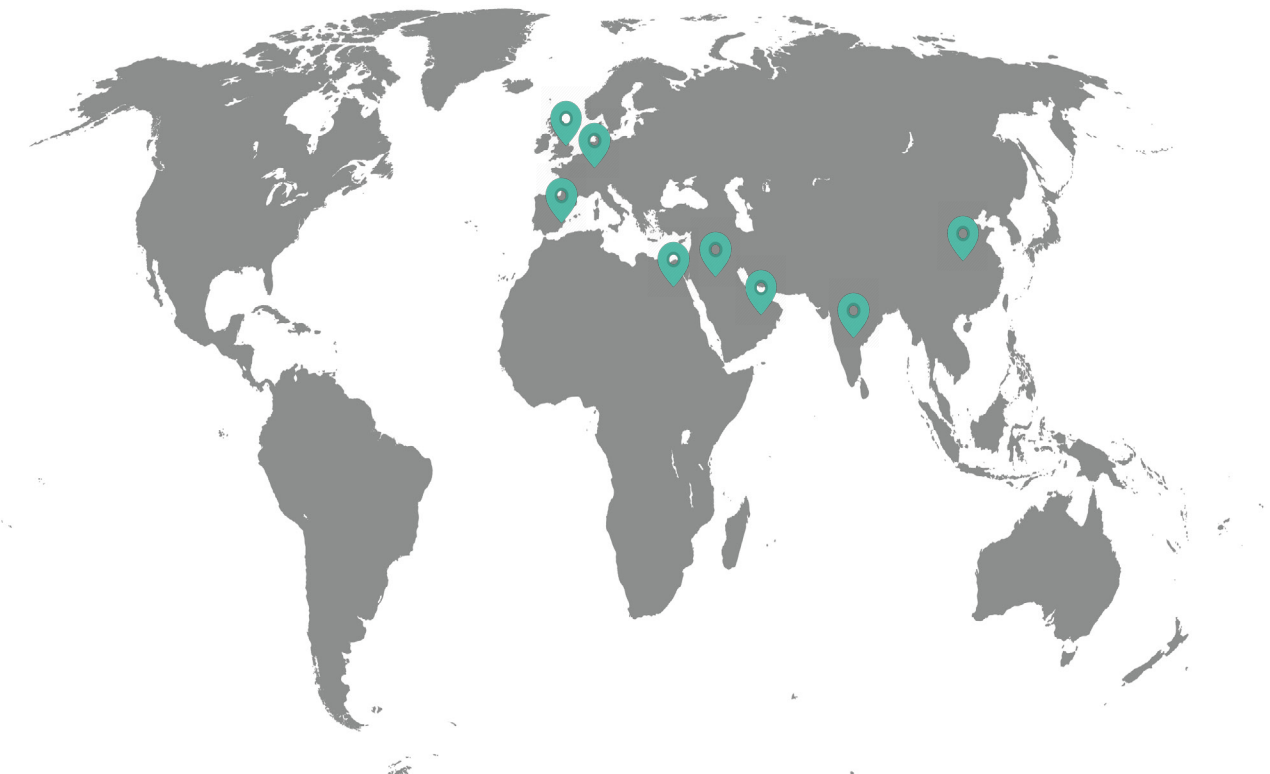


Some Clients

Abbott Laboratories
Abbvie
ADMD Abu Dhabi Medical Devices
Advanced Pharmaceutical
Align-Rite
Allergan
Al Razi
Astra Zenica
Aventis
Behestan
Biocon
Biora
BioScience Institute
Biotechna
Cadila
Camr
Cambridge Medical Research centre
Cenes
Central Veterinary Labs
Chiesi
Chiron Corporation
Ciba Giegy
Cipla
Commercial League
Cyanamid Iberica
Dar Al Dawa DAD
DEEF Pharmaceuticals
Ducab (Dubai Cable)
Eli Lilly & Co
Emerson
Fujisawa
GE Healthcare
Gelman Science Inc
Gentrac Inc
GlaxoSmithkline GSK
Healthcare Products
Hoffman-La-Roche Inc
Hospira
Ipsen Biopharm
Ivex Pharmaceuticals Ltd

JPM
Kahira
Knoll Pharmaceuticals
Lilly Research
LRC Products
3M Healthcare
Mabion
Medochemie
Merck Sharp & Dohme
Modava
Monocarb
Moorfields Eye Hospital
MPI Medipharma International
MUP
NMC New Medical Centre
Novartis
Orchid
Ortho Biotech Inc
Ortho Pharmaceutical Corp
Pfizer
Plessey Research
Roche Products
Sandoz Pharmaceutical Corp
Sanofi
Saudi Cable Company
SGH Saudi German Hospital
Schering Plough
Sofap
The Boots Company
TIB Plastics
Unipharma
United Pharma
University of Southampton
University College London
Mohamed Bin Rashed Space Centre
Surrey Satellite Technologies Ltd
Tabuk
Tawazun
Wyeth
Wickham Laboratories

Our Contact



Manufacturing

MRC Systems FZE
PO BOX 17264
Jebel Ali Freezone
Dubai, UAE
Tel: +971 (4) 8835 908
Fax: +971 (4) 8835 835

Enquiries

Email: enquiries@mrc-cleanrooms.com
Tel: +971 (4) 8835 908
Website: www.mrc-cleanrooms.com

You will be directed to the local office



MRC cleanrooms
INNOVATE | IMPROVE | GROW

www.mrc-cleanrooms.com

