

Design , Construction , Validation





## **ABOUT US**

Abadis Pasargad is proud to leverage valuable and successful experiences in collaboration with reputable Iranian and foreign companies. With a team of experienced personnel and adherence to quality standards, it aims to accelerate its position in the fields of consulting, designing, and constructing clean rooms; executing buildings and electrical and mechanical installations; as well as validating pharmaceutical and hospital clean rooms and related equipment.

### **OUR PROS**

- \* Using the latest and most up-to-date implementation methods
- \* Employing an expert and experienced group in the field of design and implementation
- \* Use of equipment with reliable brands and in accordance with the relevant standards
- \* Implementation of projects in accordance with the current standards of the country
- \* Continuous services and support





#### **CLEAN ROOMS** Full turnkey solution

- Upfront studies
- Specification
- · Conseptual and detailed design
- Installation
- Commissioning
- Training





# APPLICATION OF CLEAN ROOMS

- Pharmaceutical industry
- Production of medical equipment
- Aviation Industry
- Navigation System
- Electronic components
- High-precision instruments
- Production of lenses and glasses
- Weaponry
- Automotive industry
- Makeup and skincare industry
- In precise and sensitive surgical rooms
- Space industry





# **MODULAR CLEAN ROOMS** • Turnkey solutions with glass reinforced polyester (GRP) panels • Complete design Panels fabricating Installation Validation 05





## GRP CLEANROOM WALL AND CEILING SYSTEMS

- 1. An impervious smooth surface which is inherently strong, resistant to damage and chemical attacks
- 2. Used in pharmaceutical, biotech, aerospace, precision electronics, stem cell research and etc.
- 3. GRP panels cannot be corroded and are resistant to more than 120 types of chemicals including hydrogen peroxide
- 4. Proven design standards of GMP / ISO 14644 / FDA
- 5. The panels are extremely durable and their life span is more than 35 years
- 6. Color pigments are mixed with resin, so there is no need to paint
- 7. GRP panels require no extra insulation so the inside of the panel is completely available for a djustments such as cables and pipework
- 8. Return air ducts are integrated with GRP panels and low-level extract panels save on space, and it is not difficult to clean duct risers
- 9. Flexible and reusable layout
- 10. The construction is fast, and provides both short-term and long-term economic solutions
- 11. They do not rust or rot
- 12. Can be repaired invisibly in site
- 13. Can be cut and modified at suit to site
- 14. GRP panels have class 1 spread of flame certification BS 476 Part 6 and Part 7
- 15. They are extremely strong and robust. They do not dent and are scratch resistant, unlike metallic systems, which dent and scratch easily
- 16. Modular wall and walkable non progressive ceiling panel
- 17. No framework for GRP doors or windows is required, allowances for this fully flush integration is made during production
  - 18. GRP panels are anti static and meet IEC 60079 0
  - 19. Cleanroom furniture options can be fully integrated into the wall systems such as transfer hatches, step over, benches, cupboards, storage and etc.
  - 20. GRP panels are environmentally friendly



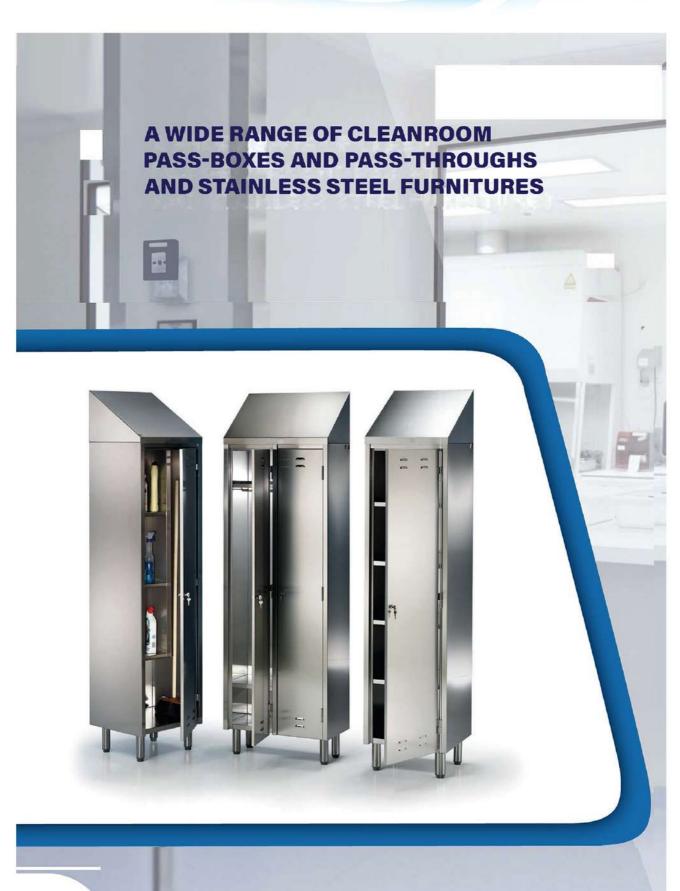








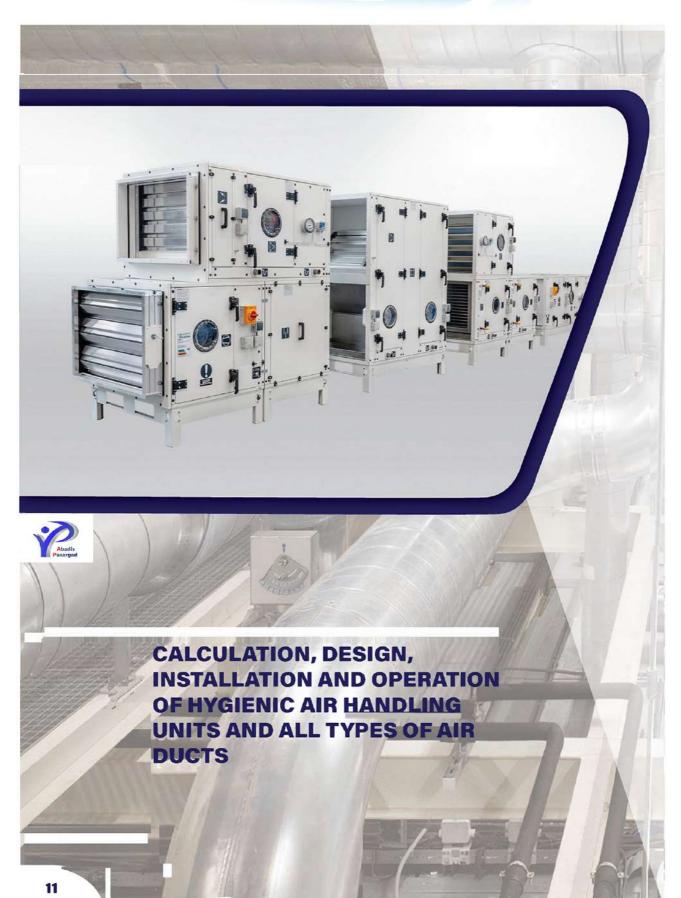










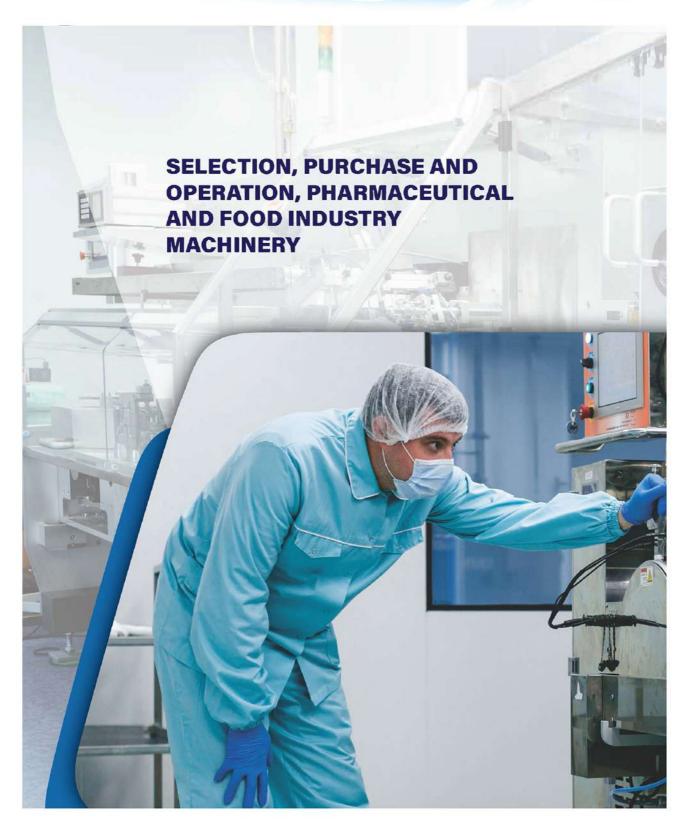






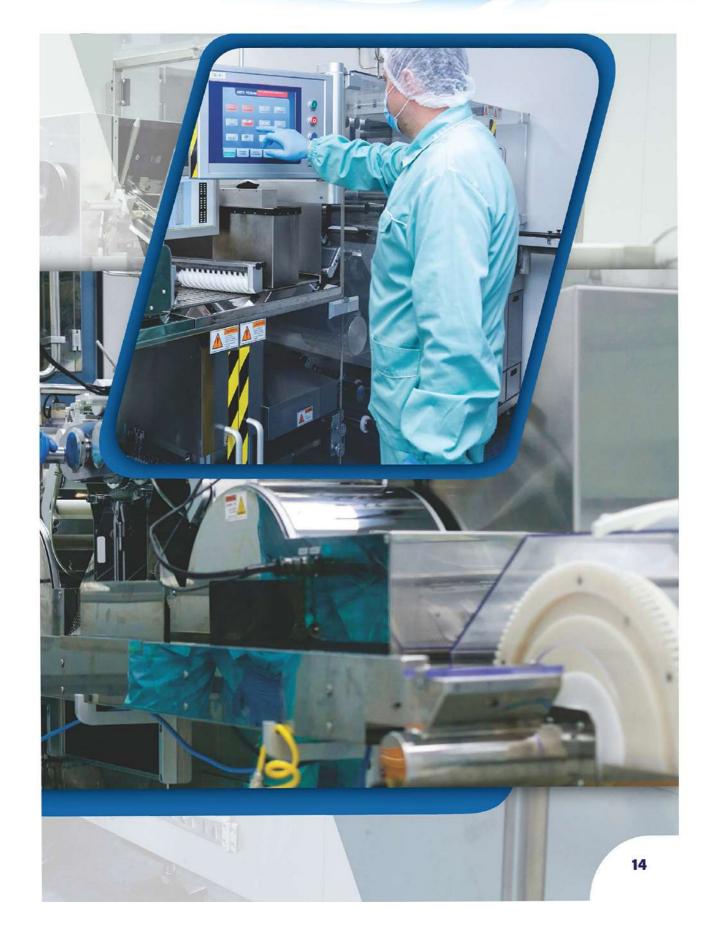








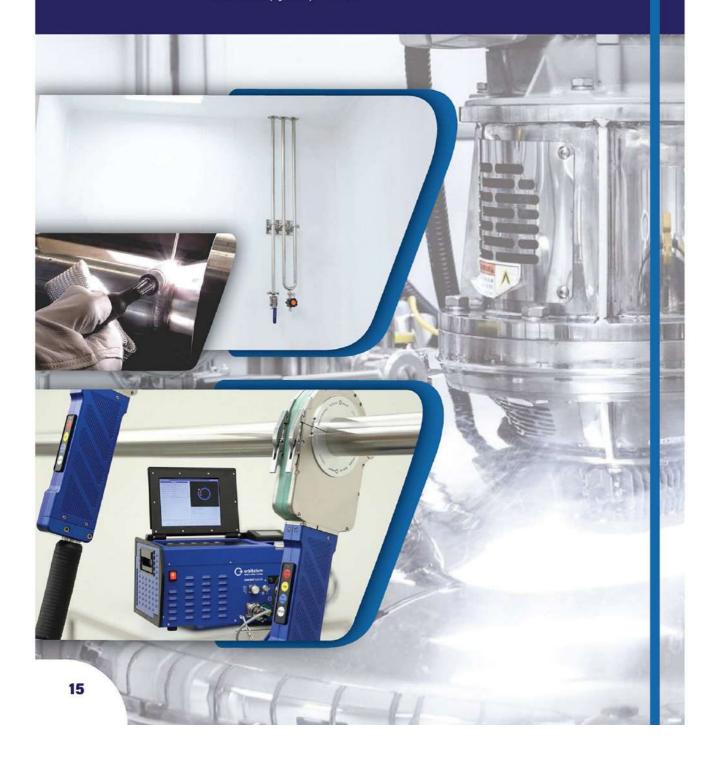
## CLEANROOM Design , Construction , Validation



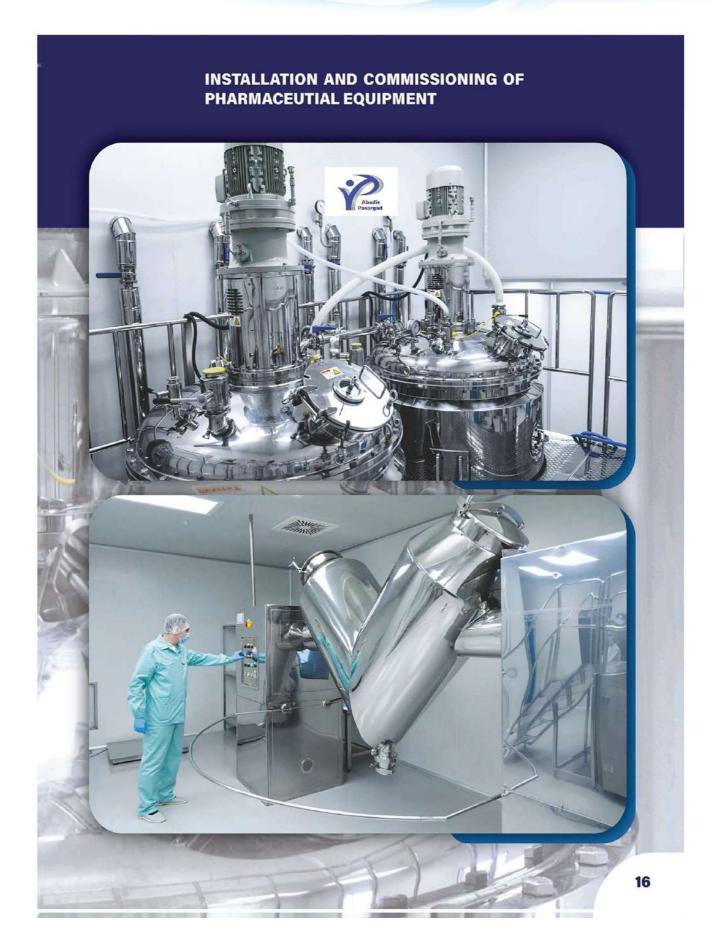


## **STAINLESS STEEL PIPING** with Argon gas and orbital welding machine

- With certified welders
- Welding reports
- Boroscopy inspection

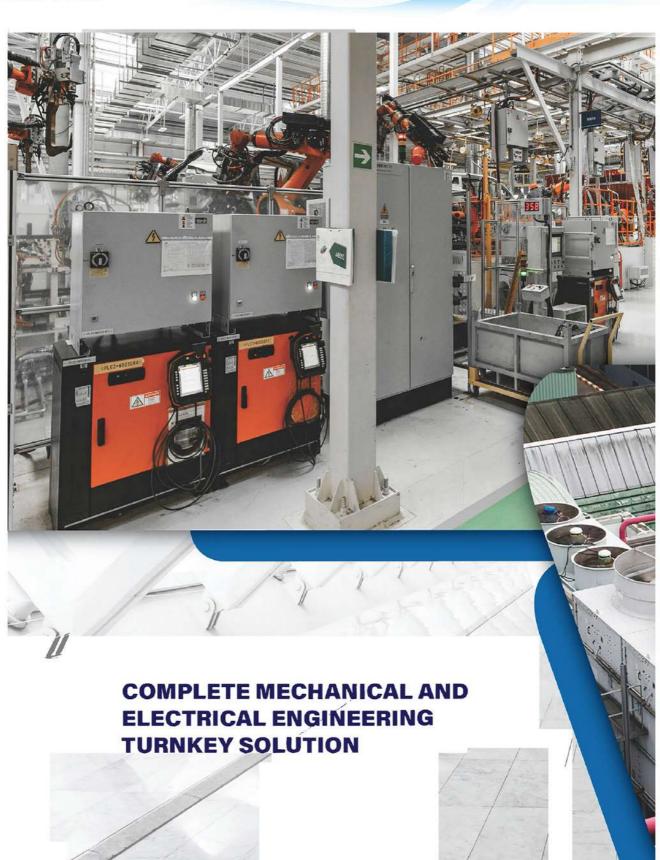












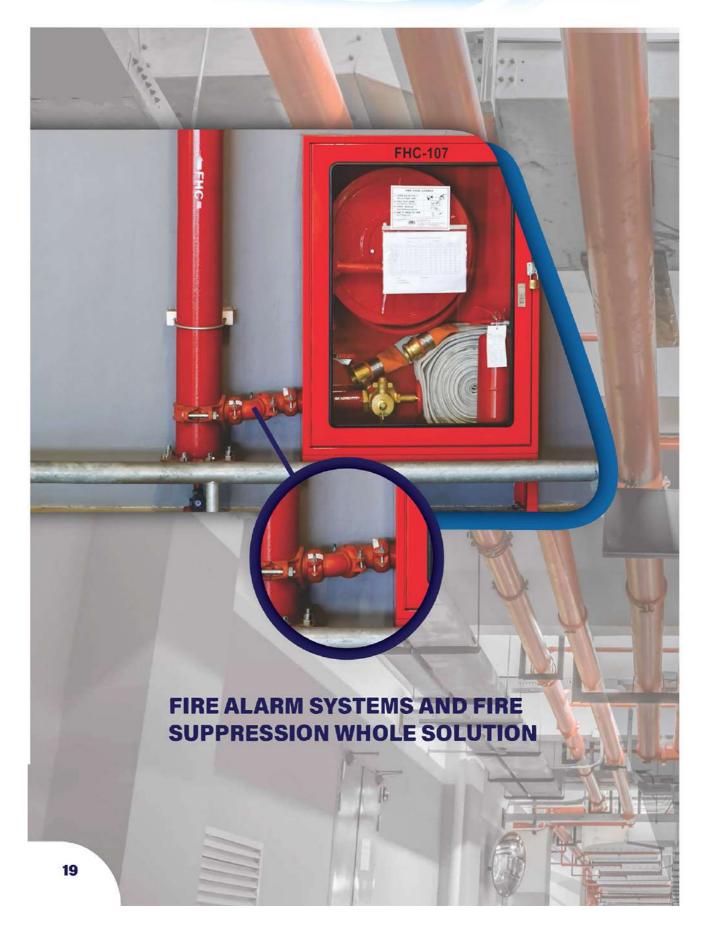


#### CLEANROOM

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#### **BUILDING MANAGEMENT SYSTEMS (BMS)**

#### 1. Temperature Control

BMS provide precise control of temperature in pharmaceutical facilities, ensuring that sensitive products are stored and manufactured under optimal conditions to prevent degradation.

#### 2. Humidity Management

These systems monitor and regulate humidity levels, critical for maintaining the stability of many pharmaceutical products and preventing spoilage.

#### 3. Air Quality Monitoring

BMS continuously assess air quality to prevent contamination, utilizing advanced filtration and ventilation controls to maintain clean environments for production.

#### 4. Energy Efficiency

By automating the management of lighting, heating, and cooling, BMS optimize energy consumption, leading to reduced operational costs and enhanced sustainability.

#### 5. Regulatory Compliance

BMS assist pharmaceutical companies in adhering to strict regulatory standards by ensuring ongoing documentation and monitoring of critical environmental parameters.

#### 6. Security Features

Offering access control and surveillance, BMS enhance the security of pharmaceutical facilities, protecting sensitive products and proprietary information.

#### 7. Maintenance Scheduling

BMS enable proactive maintenance management by scheduling and tracking the upkeep of critical systems and equipment, minimizing downtime and operational disruptions.

#### 8. Data Integration

These systems integrate with other operational technologies, allowing for comprehensive analysis and real-time monitoring to improve decision-making processes within the facility.









#### **SMART ACCESS SOLUTIONS** Including:

Stand-alone, cloud based, mobile applications. These electronic locking products set new standards in security, managability, flexibility and design, which bring real world benefits to virtually any type of door.







#### Carriers



#### Wireless technologies



#### Certifications

























#### **QUALIFICATION & VALIDATION SERVICES**

For your process, applications & equipment

Validation in pharmaceutical companies is a critical process that ensures systems, equipment, protocols, and methodologies are operating effectively and producing high-quality products. It is essential for compliance with regulatory requirements and the assurance of product safety and efficacy. The validation process in the pharmaceutical industry can be categorized into several key areas:





#### 1. Equipment Validation

This involves verifying that manufacturing equipment is suitable for its intended purpose. It encompasses:

- Installation Qualification (IQ): Confirming that the equipment is installed correctly.
- Operational Qualification (OQ): Ensuring that the equipment operates within predefined parameters.
- Performance Qualification (PQ): Validating that the equipment consistently performs according to the required specifications during actual production.

#### 2. Process Validation

This focuses on ensuring that manufacturing processes are capable of consistently producing products that meet quality specifications. It typically includes:

- Prospective Validation: Conducting validation before a product is marketed, based on predetermined criteria.
- · Concurrent Validation: Validating processes during actual production runs.
- Retrospective Validation: Assessing historical data and production records to confirm that existing processes are still valid.

#### 3. Software Validation

With the increasing reliance on computerized systems, software validation confirms that these systems operate correctly and manage data accurately. This involves assessing software functionalities to ensure they meet user requirements and regulatory standards.

#### 4. Quality System Validation

This aspect verifies that all quality systems, including Good Manufacturing Practices (GMP) and Standard Operating Procedures (SOPs), are effectively implemented and adhered to throughout the organization.

#### 5. Importance of Validation

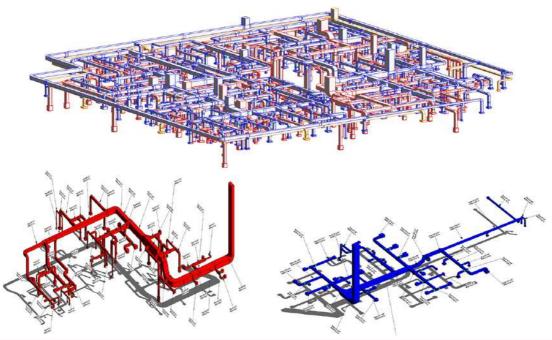
- · Safety: Ensures that pharmaceutical products are safe and effective for consumers
- Compliance: Adheres to regulatory standards and guidelines set by authorities such as the FDA or EMA.
- Quality Improvement: Enhances product quality and minimizes risks of contamination or errors.

In summary, validation is an ongoing process that must be regularly reviewed and updated to reflect changes in technology, regulatory requirements, and manufacturing practices. It plays a vital role in maintaining the integrity of pharmaceutical products and ensuring public health.









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