AXIS
medical
construction

Vaelma©
MODULAR WALL SYSTEM

Turn Key Solutions

GMP Cleanrooms

2023

The operating theatre
has always been a unique
place designed for saving lives.
The more it evolves,
the more lives can be saved.


ACEM
OM 6N

Contents

AXIS
medical
construction

Company / Human resources

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Axis Medical is a construction, planning and trading company with many years of experience in the construction market. Our expertise is the health care sector, especially **Operating Theatres, Intensive Care Units, Clean Rooms and Recovery Care Units.**

Our one and only product is

TURN KEY SOLUTION

♦ **Construction**

- **Vaelma**© - Modular Wall System
- Ceiling System
- Hermetically sealed Doors
- Floor System
- Air Conditioning - Laminar Flow Systems
- Medical gases

♦ **Services**

- Planning
- Project management
- Certifications (GMP, ISO)
- Medical equipment planning
- Pharmaceutical Cannabis Consulting

High experienced and special educated in hospital design scientific staff, ensure high quality products and services at each stage of the project, from design to construction.

As an outcome of our long term experience for quality products in Greece and abroad, we co-operate with Domestic & European firms targeting to the best value for money solution.

Our company attains the following certifications: ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 and MD: ΔΥ8δ/Γ.Π.ΟΙΚ./1348/2004 (Distribution of Medical Technological Products)

Turn-key solution

1

> Our best advertising
> is our satisfied customers

PLANNING

- Concept & cost estimation

The very first step to start with a new project, is to visit the site and gather all essential information. Then we organize our next steps and plan the project in terms of:

- Design
- Materials and products
- Human resources
- Construction methods
- Quality standards
- Timetable

- Design - 3D - Axonometric & Photorealistic representation

Our design team, consisting of interior designers and architects, planning undertakes the planning of the project in architectural level: complete sets of drawings, mounting - construction designs. It also undertakes the design of new building parts with functional positioning proposals, floor plans and functionality sketches based on international and/or local standards in planning.

Axis Medical also provides, as per request, 3D models in photorealistic or/and axonometric form as part of the solution. Consequently, the customer can have a fully comprehensive idea of the final result.

Turn-key solution / **Services**

PROJECT MANAGEMENT

Management

As we work with our company's staff in all stages of design and construction, our engineers are able to manage and organize entirely any project, solving any problem that may arise, and provide feedback to the designers for the best possible solution.
Furthermore, we are strictly following the detailed time schedule to control time and cost issues and avoid unforeseen and unpleasant situations.

Installation

We have our own installation crew. Our technicians collecton site the raw material proceeding to the construction - installation process guaranteeing a good quality and timesaving job.

User training - Maintenance - After sales service

All materials and equipment we provide are accompanied by instructions for end users. Axis Medical provides warranty (duration relative to the product) and after-sales service based and bond on signed contract between the company and the customer.

Pharmaceutical Cannabis Consulting Services

Axis medical provides consulting services on compliance with EU cGMP and cGACP (GACP certification is a prerequisite for the following mandatory EU cGMP certification when herbal medicinal products and APIs are produced) requirements. Our services are focused on Pharmaceutical Cannabis facilities which intend to attain an EU production license.

Evaluation and preparation

- Evaluation of the layout, processes, flows and cGACP-cGMP pharmaceutical cannabis compliance
- Development and sizing of a **CONCEPTUAL** design study and corresponding growing areas/green-houses layout

Equipment selection

Technical assistance in the:

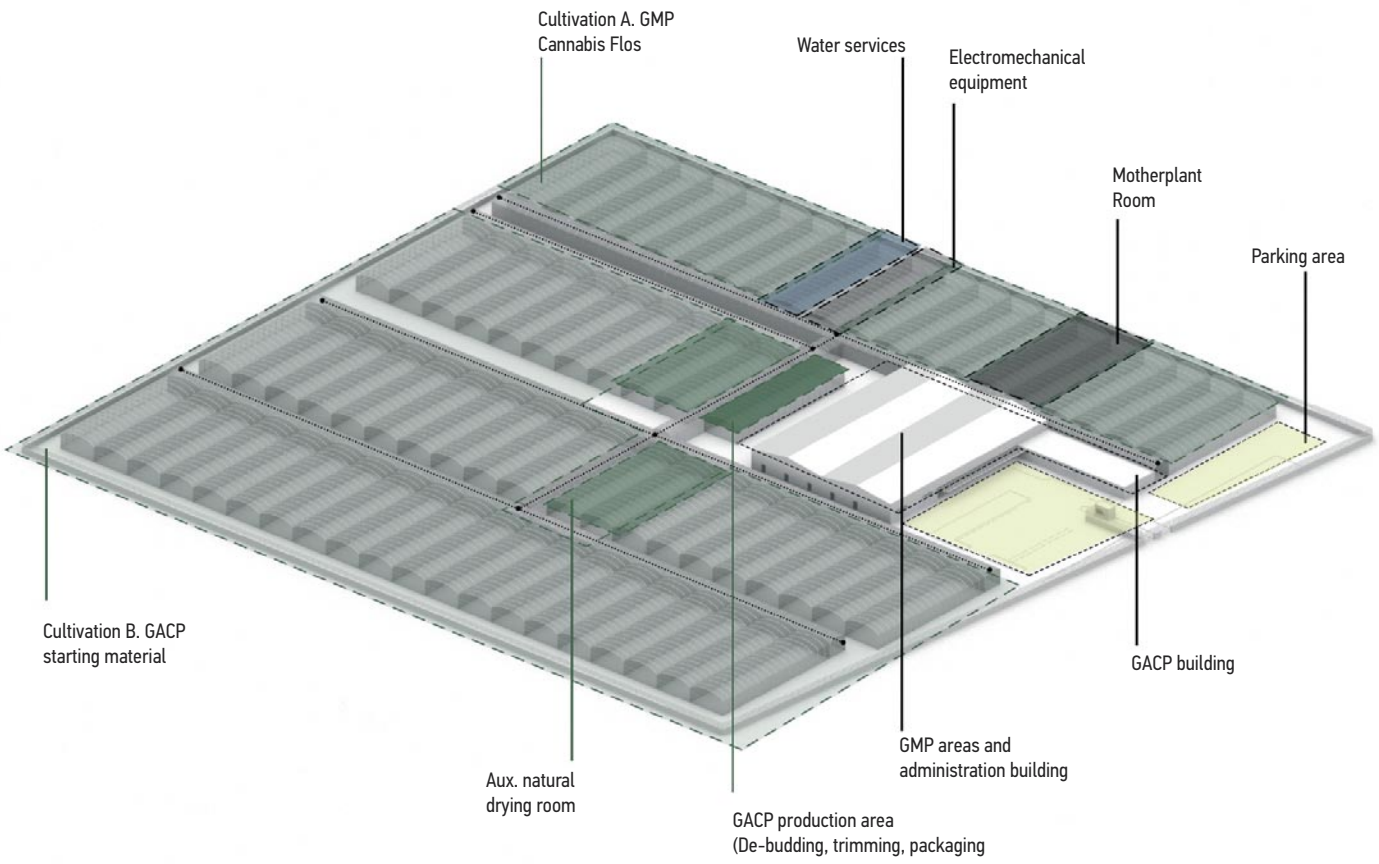
- Construction materials
- Greenhouse/Indoor design and climate control equipment
- Overview of cultivation equipment and materials
- Trimming, drying, grinding equipment, and post-harvest pre-processes overview and determination.
- Preparation of a full list of the typical production equipment (post-harvest process steps) and QC Laboratory equipment for ensuring compliance with EU cGMP

Personnel recruitment

- Preparation of a list of necessary personnel in accordance with the layout, the scale of the investment and the anticipated production capacity of the Contractor's facility.
- Assistance in recruiting suitable production/processing and QC laboratory personnel according to EU cGMP and national pharmaceutical legislation.

cGACP and EU cGMP certification preparation

- Development of the GACP Management System
- Development of the EU cGMP Pharmaceutical Quality System
- Oversight and approval of the additionally required SOPs
- Training of all Contractor's personnel with regard to the GACP Management System and the EU cGMP Pharmaceutical Quality System
- Evaluation of all IQ/OQ/PQ reports for the equipment installed, including evaluation of calibration certificates.
- Internal Audit of the GACP management system and GACP Application preparation and submission to the selected Certification Body.
- Internal Audit of the EU cGMP Pharmaceutical Quality System and Management Review preparation for the EU cGMP Pharmaceutical Quality System
- Oversight of the application file that will be submitted to the selected competent authority prior to the audit for acquiring the Manufacturing Authorization License and the EU cGMP Certification.



Architectural, Electromechanical and Static Studies

We offer all type of building plans and studies: Architectural, Electromechanical, and Static. Our engineers, with extensive experience technical knowledge, and continuous following updates with regards to technological development, can conduct studies for hospitals, business premises, cleanrooms and all type buildings related to our core business. Our company undertakes the design and implementation of all kinds of installation in existing or under construction building, residence, professional or industrial space.

Pre-Study

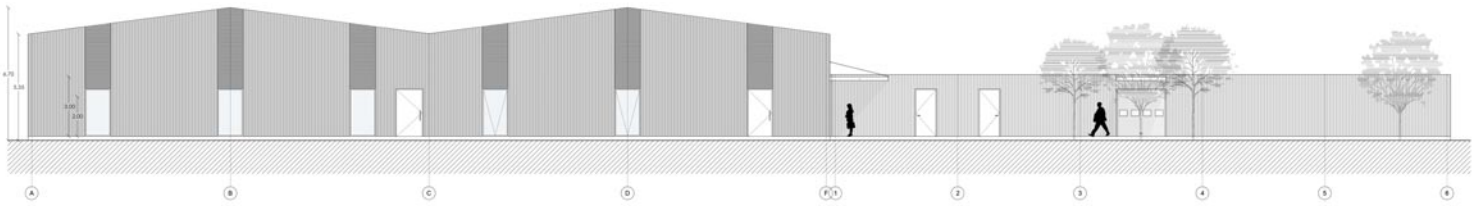
It is the initial phase, during which alternative solutions are investigated and the form of the building is finalized:

- **Conceptual design and architectural diagram**
- **Process of new Architectural drawings or**
- **Updates of existing architectural studies**
- **Drafting of a preliminary architectural proposal**
- **3D renderings**
- **Architectural pre-study**
- **Electromechanical pre-study**
- **Static and topographic drawings and plans**

Final Study – Building license studies

It is the phase in which the studies of all disciplines (architectural, static, and mechanical) are finalized and based on them the building is licensed by the urban planning office. We have a well comprehended knowledge of the Greek law in order to deal with the public services and issue any type of building license.

- Detailed floor and ceiling plans
- Sections/ Elevations
- Technical description and drawings used for architectural and E/M purposes
- Bureaucratical and public services paperwork

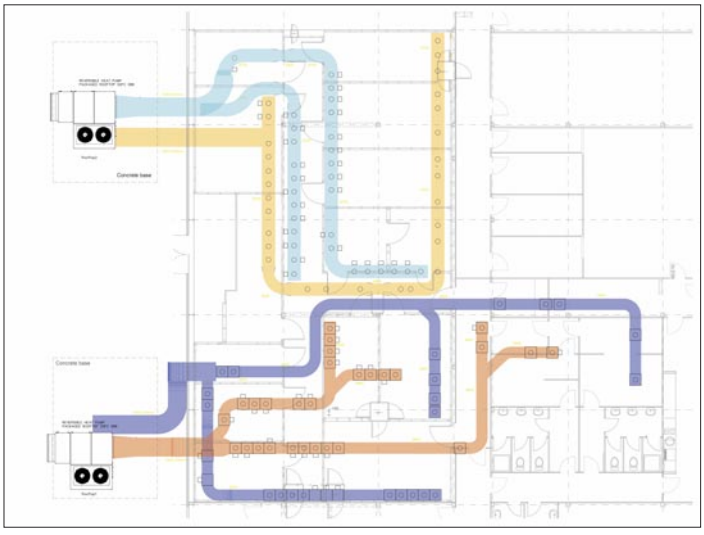


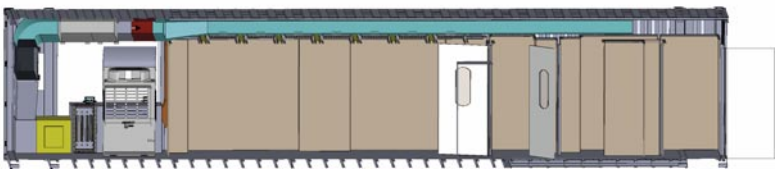
Detailed Design – Tender Documents – Implementation studies

Detailed plans and constructional details, specifications for materials, supportive material for to elaborate the contractor during the materialization of each project. Necessary for the tender and the proper supervision of the construction works.

- **Elaboration of a construction study:**
  - Final architectural plans
  - Ceiling Plans
  - Floor Plans
  - Structural details

- **Compilation of tender documents**
  - Documents of general and special specifications
  - Technical description
  - Construction budgeting





Architectural, Electromechanical and Static Studies

GMP is a system for ensuring that products/services are consistently produced and controlled according to quality standards. Cleanrooms' design & construction must be based on EN ISO 14644 and on the GMP's guideline. The basic principles and application of qualification and validation are described in Annex 15 to the PIC/S and EU Guide to GMP. A GMP certification is assuring that the project meets all the criteria to be functional with the objective of providing the required quality level.

Medical equipment planning

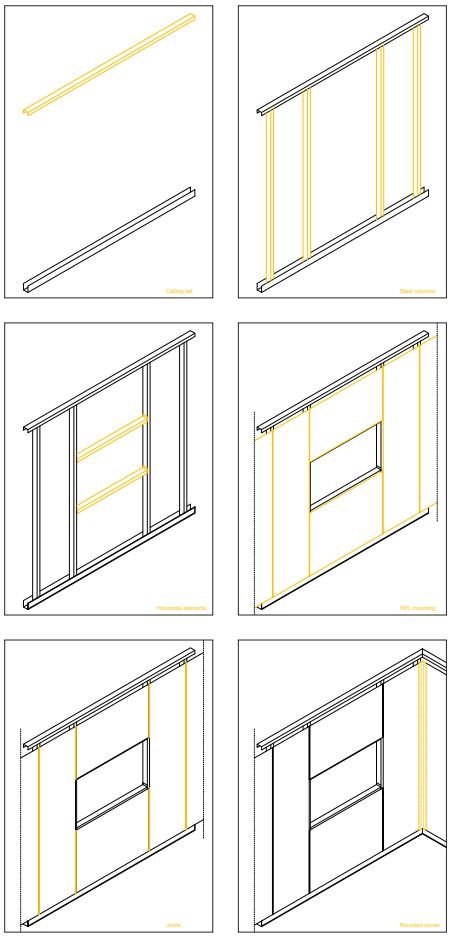
Axis Medical has extensive experience in medical equipment and furniture planning for all types of Health Care Facilities, and an in-depth understanding of clinical project requirements because of our experienced and clinically trained Hospital and medical equipment planners.

Vaelma© MODULAR WALL SYSTEM

General info

Vaelma© is a modular wall system which is used in clean rooms and hygiene areas in hospitals clinics etc. Such a system consists of a thoroughly designed substructure which hosts all the needed E/M infrastructure and includes special parts for corners, finishing materials installation and wall elements' mounting.

What is important about **Vaelma**© is that it forms a non-porous, hermetic, and flush antibacterial surface which is the main requirement in order to create a clean and controllable environment.



Substructure - Finishing materials

The Axismedical Modular wall system substructure is suitable for all the four material solutions:

- HPL
- Stainless steel
- Galvanized steel
- Glass
- SMS

This specially constructed steel frame is designed to host the panels in a way that they are perfectly mounted and in the same time independent and individually removable.

Between the panels, at the joints we can install aluminum, rubber or silicon gaskets according to the specifications.

Technical Features

- Absolute flatness
- Vertical level adjustment of sub frame
- Hermetic sealing
- Sound insulation
- Non-flammable materials
- Ease of disassembly - individuality of panels

HINT

Why modular?

Prefabrication is offering a Flexible, Cost effective and Time effective solution.

The contemporary needs in healthcare infrastructure are becoming more challenging and complicated.

It is crucial to be able to construct a real hygiene space with the state-of-the-art materials and characteristics in few hours, factory treated, well designed before construction on-site.

Vaelma© MODULAR WALL SYSTEM

– Antibacterial HPL cladding

Vaelma© HPL consists of modular panel elements, which are characterized by high chemical and high surface resistance to mechanical influences.
Being fully flexible, the individuality of the panels allow installation and dismantling in a very short time. Joints between the panels are sealed with special silicone, rubber or aluminum rounded parts, meeting all requirements of internationally accepted regulatory standards (such as GMP).

According to each project's individual requirement, cut-outs and electrical channels are prepared already in our production site or in advance (factory fabricated on demand). Detailed and early-phase engineering ensures best quality and an efficient on-site installation process.

Benefits:
- Savings in cleaning
- Simple surface treatment (no Special treatment)
- Minimization of assembly time
- Local repairs possible
- Level differences minimized by vertical joints

Advantages:
- Antibacterial and highly chemical resistant
- Heavy duty surface
- Low maintenance
- Design flexibility
- 10-year product guarantee
- Tested and Certified
- "Green" material

Vaelma© MODULAR WALL SYSTEM

Metal cladding

The 13.5 mm thick tray-type wall panels are made of metal sheet, the edges of which are double- folded. The backs of the tray-type wall panels have a series of drilled holes in the second flange for fixing purposes.

Chipboard panels 12mm thick or gypsum boards 12.5mm are forming the panel backing and create a robust panel. The double bending of the metal (SS or GS) sheet has special holes enabling the panels to be easily fitted to the substructure columns with screws, which are covered by the joint material at a next stage. Mineral wool in customizable thickness and volume, can be inserted to provide thermal and acoustic insulation.

Benefits:

- Savings in the substructure
- Reduction of fasteners
- Minimization of assembly time
- Local repairs possible
- Level differences minimized by vertical joints

Advantages:

- Customized cleanroom wall panels.
- Surface and depth can vary
- Individuality of panels
- Simple installation through simple system
- Provision for E/M works installations

Solid mineral surface (SMS) cladding

The aluminum hydroxide gives the product a particular strength, the quality of the acrylic resin ensures cleanliness, suitability for contact with substances, water resistance and color stability over time.
It can be seamlessly joined, and a simple thermoforming process allows to create curved surfaces allowing total freedom to the designers' imagination.

The SMS panel is attached to aluminum panels which are produced in the standard width of 1020-1250-1500 mm and variable in length up to 5000 mm. The standard nominal thickness of the ALU panels is: 8-10-15-18 mm.

Advantages:

- Easy to clean and easily disinfected
- Compact in its whole thickness, non-porous
- Available in large slabs
- Jointed with hygienic and inperceptible seams
- Heat and stains resistant
- High chemical resistant
- Self-extinguishing


98 MO

Vaelma© MODULAR WALL SYSTEM

– Glass cladding

The wall system consists of a substructure for wall heights up to 4000mm. The glass wall panels can reach a maximum height of 3000mm. Glass is an ideal cleanroom material, because it is completely non-porous, it is resistant to almost all chemicals, it is scratch and dent resistant and adhering dirt can be easily removed. Our experience has shown that glass breakage rarely occurs as the galss panels we provide are securite and oven cooked meaning that they cannot break by hitting the surface. Main advantage, though, is the ability to print any graphics creating an extraordinary visual effect in the room.

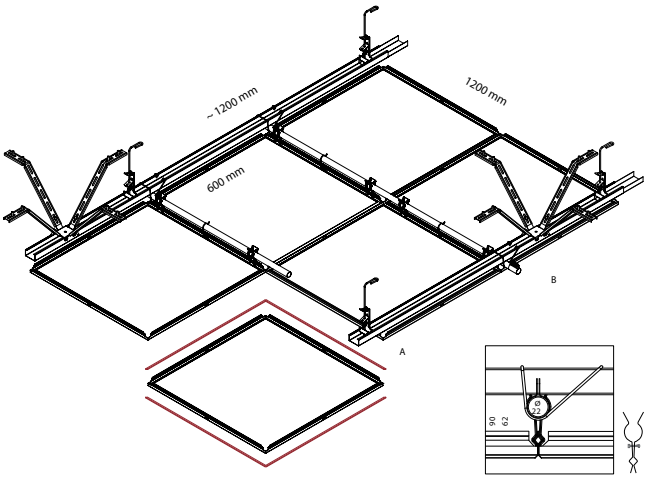
Benefits:

- Savings in cleaning
- Simple surface treatment (no Special treatment)
- Minimization of assembly time
- Local repairs possible
- Level differences minimized by vertical joints

Advantages:

- Customized cleanroom wall panels.
- COLORPRINT HD. Digital print Glass
- Individuality of panels
- Simple installation through simple system
- Provision for E/M works installations

CEILING SYSTEM



General info

The panel modules match with the wall system grid dimensions and each panel can be detached individually.

Technical Features

- Ceiling fixture rail

  The substructure consists of support and cross profiles, fixed together to form a rigid grid which can match with the wall panel grid.

- Ceiling Panels

All laboratory requirements regarding hygiene, tight- ness, ease of installation and surface quality are complied with our systems.

Range of surface finishing materials

- HPL (High Pressure Laminate)
- Stainless Steel grade 304, grade 316 or steel sheet (painted, powder coated)
- Galvanized steel fixed-dimension fixtures antibacterial - hermetically sealed

CEILING SYSTEM

– LED Luminaries iP54 and iP65

Luminaries in health care facilities and other rooms of controlled environmental parameters might be built based on variable product solutions. Wide range of differential luminaries in terms of light sources, control systems, emergency lighting systems, power supply etc.
Series of luminaires recommended for clean rooms where increased IP protection degree is required. Version for LED light sources with two types of diffusers: microprismatic and opal available. Luminaire dedicated for installation in recessed and 600×600 ceiling with visible grid and with OPAL diffuser.

Economically effective LED luminaire of high endurance designed for clean environments and industrial areas with need for higher protection rate. Sandblasted and tempered glass provides a high degree of protection of light sources and uniform light distribution.

HERMETICALLY SEALED DOORS

– Hospital doors & windows

Hermetic doors create a controlled environment by reducing air leakage and therefore the potential for cross contamination. They are specifically designed for use in any areas where air permeability, hygiene, and noise insulation are critical, such as operating theaters, laboratories, clean rooms, and silent areas. Some specialized facilities have very high requirements for doors– for example, X-ray rooms require radiation protection. Operating theaters and intensive care units need to be hermetically sealed to prevent air contamination and enable special equipment to be used safely.

1. Compact, powerful, and intelligent automation unit
2. Canopy with integrated sensors
3. Door leaf surface with smart nanolaminates, lightweight filling
4. Ergonomic handle provides extra leverage
5. Flexible silicone sealing

FLOOR SYSTEM

Antistatic floors

Dissipative flooring, antistatic (< 2kV), flexible homogeneous floor coverings available in both sheet and tile form. Calendared and compacted with permanent anti-static properties. They act as a continuous dissipater 106 ≤ Rt ≤ 108 (EN 1081) and comply with EN 649.

Conductive floors

The conductive floors properly installed (with a grid bronze and grounding) alienate any electrostatic charge created. Used in areas with very high standards of safety and sensitivity of electronic equipment such as Operating Theatres. The standard electrical resistance is 5×104 ≤ Rt ≤ 106 (EN 1081). It complies with EN 649.

AIR CONDITIONING - LAMINAR FLOW SYSTEM

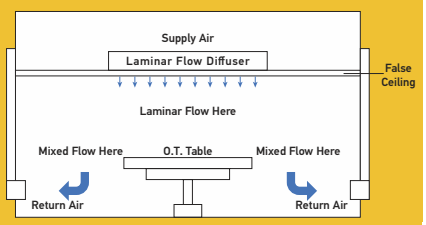
Laminar Flow systems works with a vertical, turbulence-free displacement flow.

- **Our expertise:**

- Volume estimation, suggest the proper product for every case.
- Supply and installation of the basic mechanical equipment which is composed of units and systems manufactured abroad, the products of which are traded by the company, or by any other domestic or foreign manufacturer for the proper construction of each project.
- Supply of secondary equipment and materials as well as complete construction.
- Tests, inspections, measurements and adjustments of the installation for delivery in normal operation.
- Preventive maintenance (service) of the installations after the construction, on the basis of scientifically drawn-up program for the maintenance of the equipment and systems by specialized personnel of the company.
- Customized solutions according to the specs.

HINT

How it works?



MEDICAL GASES

AXISMEDICAL can offer all necessary parts for the installation of a complete medical gas system.

Area Distributor of TEDISEL (Spain)

- **Medical gas terminal units / outlets / pendants / BHU**








VISUALIZATION

OPT control panel

OPT Control Panel, is the central device for providing all the necessary control signals, alarms and information required in an Operating Theater. OPT Control Panel allows the medical personnel to have only one, familiar source of information and provides easy access to technical personnel for inspecting and maintenance of several different subsystems, without disrupting the wall infection integrity.

Touch panel / sockets / gas outlets

Monitor control panel

OT Monitors / Medical IT solutions / Video integration

Main characteristics

- Monitor sizes 19" to 75"
- Variable housing technology (flush mounted, wall mounted etc)
- Optimized picture quality (up to 4K)
- Wide range of extensions
- Certified medical device
- Hygienic surfaces easily cleanable

Wall-mounted workstations in the operating theater for applications such as KIS, RIS, PACS (digital x-ray film viewer), control and navigation workstation for room control and video management and universal wall monitors as image targets for video endoscopy or PACS.

Selected Projects

2

"The perfect project
is a teamwork's result"

Lotos Private Clinic, 3 general operating theatres, Chelyabinsk, Russia

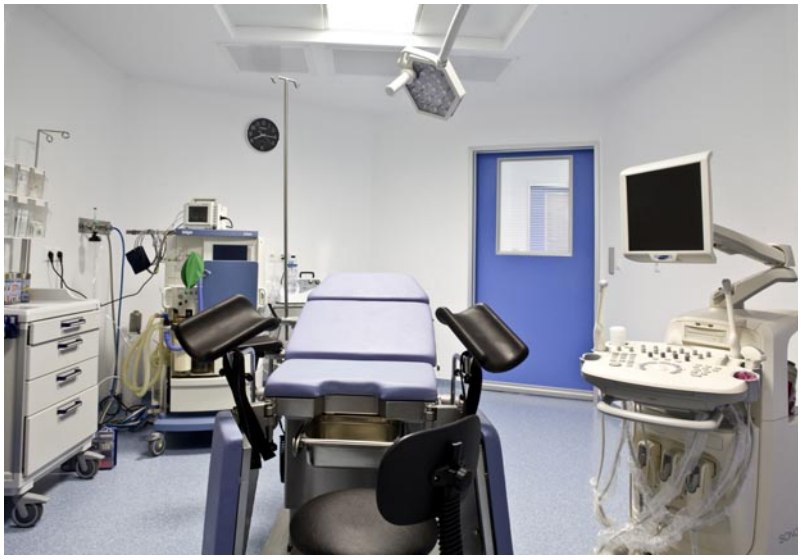
It is a modern private general clinic in Chelyabinsk. The planning was proceeded in 3 weeks and the project duration on site was 25 days. Axis Medical installed in this general clinic Turn Key Solution in 3 O.T.s, scrub-up area, recovery room and utility rooms (incl. HPL cladding, hermetically sealed doors, antistatic conductive floor covering, false ceiling system - LFS, lighting fixtures, antibacterial ceiling material etc).

Client:	Lotos Clinic
Region:	Chelyabinsk, Russia
Area:	180 sq.m.
Use:	General clinic
Year of construction:	2011

Assisting Nature, IVF center, Thessaloniki, Greece

It is a sophisticated unit, the only one in Northern Greece which has a modern embryology laboratory, and provides services in the field of embryology, diagnosis and treatment of sub-fertility. It is a very elegant area of 750 sq.m. including a state-of-art embryology laboratory and high quality daycare spaces for patients and attendants.

Client:	Assisting Nature
Region:	Thermi, Thessaloniki, Greece
Area:	750 sq.m.
Use:	IVF center
Year of construction:	2013



Camark Italia, production unit for medical stitches, Axioupolis, Greece

Construction of production unit for medical stitches Planning, building permission, operational permission, architectural design and construction of the production plant as well as the warehouse, offices and reception - visitors areas. The Lab area design is based on GMP standards and constructed as GMP certified. The laboratory areas' grade is D constructed with a grade C potential.

Client:	Camark Italia
Region:	Axioupolis, Greece
Area:	1100 sq.m.
Use:	Laboratory
Year of construction:	2017

– Cleanroom laboratories, Celixir, Stratford, the UK

Design and construction based on GMP standards lab (Clean room grade D, C and A-B). It is a pharmaceutical plant following the GMP rules in the whole construction and production procedure. Lab rooms: Quality control, cryoperservation, Grade change interlocks, production rooms grade C, production rooms grade A-B. Other rooms: offices, reception, meeting rooms, personnel rest rooms, warehouse.

Client:	Celixir UK
Region:	Stratford upon Avon, UK
Area:	250 sq.m.
Use:	Laboratory
Year of construction:	2017

Obstetrics & Gynecology Hospital, NICU department renovation, Sakakah KSA

Modular Wall System with HPL panels in different colors and designs customized by our company in cooperation with the MoH engineers, metal antibacterial false ceiling, lighting fixtures iP54 impermeability rated, Automatic sliding Hermetical Doors, Smart glass installation in all NICU rooms for privacy control, Scrub units, Digital printed HPL panels for wall decoration with antibacterial standards, Design and procurement of reception desk for the Nurse station.

Client:	Wahran Est.F.C.
Region:	Sakaka, KSA
Area:	650 sq.m.
Use:	NICU
Year of construction:	2018

Children's Oncology Unit - GMP Laboratory for cell and gene therapy

The project included the design and construction based on GMP standards lab (Clean room grade D, C and A-B). It is a lab following the GMP rules in the whole construction and work procedure.

Client:	ELPIDA association of friends of children with cancer
Region:	Agia Sophia children's hospital, Athens, Greece
Area:	60 sq.m.
Use:	GMP laboratory for bone marrow transplant unit
Year of construction:	2019-2020

– GH of Volos, Digital OR construction, Volos, Greece

Procurement and installation of the modular wall system with HPL panels, and digital print glass panels which is an outstanding innovation for Greek public hospitals, the construction of flooring, false ceiling, LED impermeable lighting fixtures dimmable in white and blue color, as well as minor improvements regarding the ventilation, power and medical gas outlets.

Client:	Proton SA
Region:	Volos, Greece
Area:	400 sq.m.
Use:	Operating theatre
Year of construction:	2019

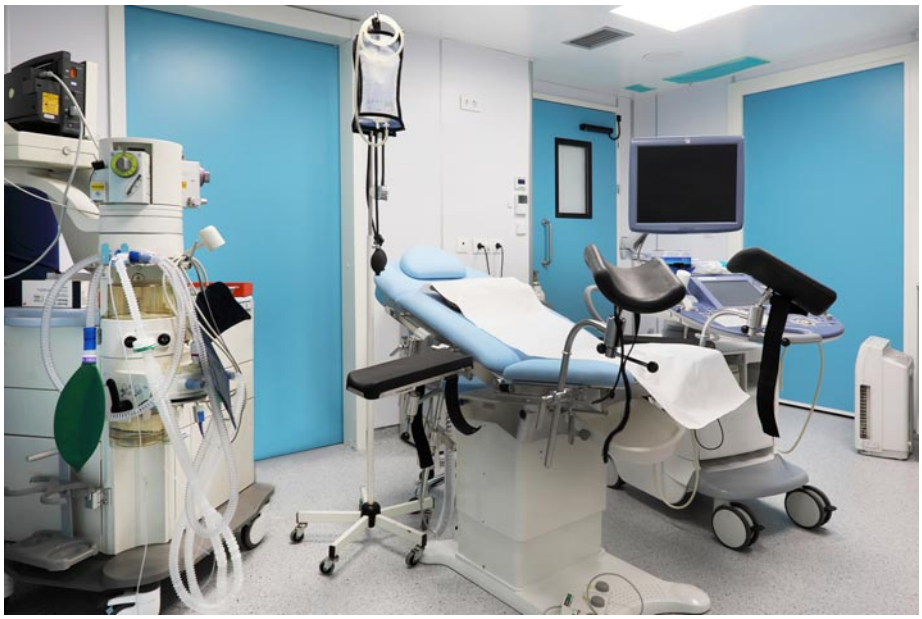
AHEPA University Hospital, Renovation of Angiography Department, Thessaloniki, Greece

Renovation of the angiography department in AHEPA Hospital in Thessaloniki. The project was a donation from the Stavros Niarchos Foundation through M.A.Z.I, a Non-Governmental Organization and included the procurement and installation of the modular wall system with HPL panels, the general construction of flooring, false ceiling, lighting fixtures, wall partitioning and painting, lead lining for x-ray shielding, special lead doors and lead glass windows as well as the laminar flow system.

Client:	Proton SA
Region:	Thessaloniki, Greece
Area:	135 sq.m.
Use:	Angiography and utility rooms
Year of construction:	2018

IVF Embryolab - Operating theatres and Laboratories renovation

The project included a turn-key renovation of the embryo-transport areas (OTs), the embryology Lab, the Andrology Lab and the Cryopreservation rooms. The project is constructed according to the GMP annexes related to the cleanroom constructions. The scope included VAELMA© system, automatic doors, hermetic antibacterial ceilings and lighting fixtures, antistatic and conductive floor covering, cleanroom HVAC system installation with HEPA, VOC and UV filters, medical gas installations and DP monitoring.



Client:	Embryolab Fertility Clinic
Region:	Thessaloniki, Greece
Area:	140 sq.m.
Use:	IVF laboratories and operating theatres
Year of construction:	2019

RSUD Kepanjen Public Hospital - 2 Modular Operating Theatres

The project included a turn-key installation of 2 Modular operating theatres. The scope of work included VAELMA © system with antibacterial HPL panels as well as digital printed glass, false ceiling with antibacterial clip-in tiles, iP65 lighting fixtures, lead lining for x-ray shielding, touch screen surgical control panel, Medical Gas Outlets and Laminar Flow System with return ducts suitable for ISO 6, conductive floor covering, lead lined automatic hermetical doors and HPL built-in cabinets

Client:	Pt. Megah Alkesindo
Region:	Kepanjen, East Java, Indonesia
Area:	100 sq.m.
Use:	Operating theatres
Year of construction:	2019

Pharmaceutical Cannabis Facility - King Field

Client:	King Field Doo
Region:	Ohrid, N. Macedonia
Area:	250 sq.m.
Use:	Pharmaceutical Cannabis production plant
Year of construction:	2020

Laboratories construction according to GMP standards. Turnkey installation of all the laboratories for the processing of the product. The scope of work includes Modular Wall System with antibacterial HPL panels, false ceiling with antibacterial clip in tiles, iP54 lighting fixtures, HVAC system according to the GMP standards with HEPA filters, positive differential pressure between the cleanrooms and the unclassified areas, critical areas will be constructed as Grade D and Grade C. We also provided and installed transfer hatches between for the material transfer and cleanroom doors. Finally, Axismedical was responsible for all the GMP folder regarding the construction (DQ, IQ, OQ) and the final certification of the facility.

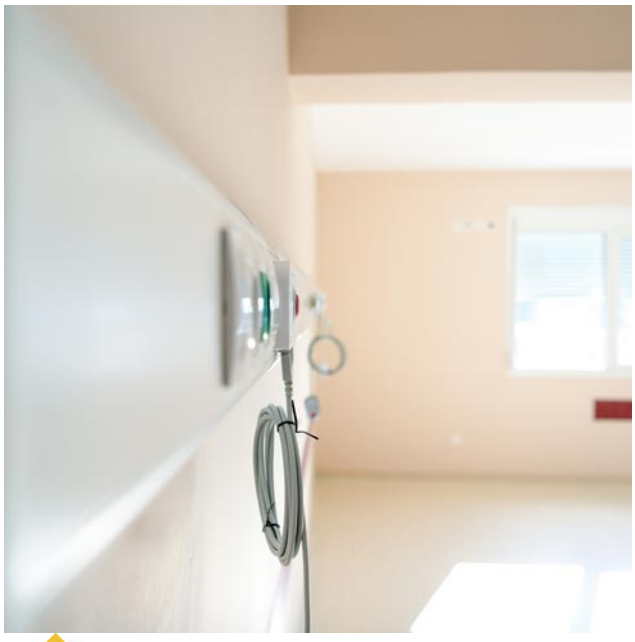
Pharmaceutical Cannabis Facility - Pharmacann

Installation of all project doors in cleanrooms and cultivation areas. Non hermetic swing doors. Hermetic sliding manual doors. Non hermetical doors without window with air lock. Non hermetical with window swing doors. Double manual swing door.

Client:	Pharmacann NYSK
Region:	Skopje, N. Macedonia
Area:	1500 sq.m.
Use:	Pharmaceutical Cannabis Facility
Year of construction:	2020

- **Renovation and Arrangement of a Surgery Clinic - AHEPA GENERAL HOSPITAL of THESSALONIKI, Donation "Emilios Chronis"**

Demolitions of masonry, roof, floors were carried out. Flooring, internal partitions, plasterboard cutters, ceramic tile coverings and construction of false ceilings from mineral fiber tiles. The project included complete electrical, plumbing installations, supply and installation of a new central air conditioning unit and piping networks for medical gas installation.



Client:	Odosimansi C. Chronis S.A.
Region:	AHEPA General Hospital of Thessaloniki, Greece
Area:	1115 sq.m.
Use:	Surgery Clinic
Year of construction:	2020

– Renovation of ICU at “G. Gennimatas” and “Agios Dimitrios” General Hospitals, Greece

Renovation - restructuring of an ICU with a capacity of three (3) beds in a room, on the 2nd floor of the main building of the General Hospital “G.Gennimatas” in extension of the operating ICU. This project also included restructuring of an ICU at Agios Dimitrios Hospital. Both projects were a donation of Stavros Niarchos Foundation. The projects included all construction, electromechanical and infrastructure works for the integration of equipment (medical, hotel and Information and Communication Technology – ICT equipment).

Client:	Stavros Niarchos Foundation
Region:	Thessaloniki, Greece
Area:	111 sq.m.
Use:	ICU
Year of construction:	2020

Supply of 18 Portable Bed Intensive Care Units and Accompanying Necessary Equipment

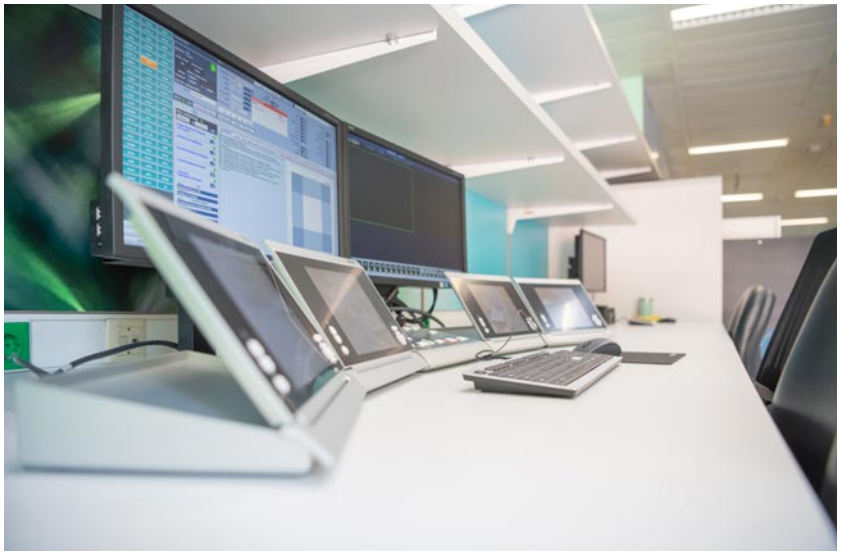
The project carried out complete electrical and plumbing installations, supply and installation of a new central air conditioning unit, installation of medical gas consoles and piping networks for installation of medical gas and hotel equipment for the needs of patients in ICU. The bearing body of the huts is made of metal with hot rolled sections. It consists of columns and beams with clear static function, as provided by the study that is prepared and is able to receive all possible loads, both during use and during lifting and transport. The whole construction ensures complete rigidity and does not allow oscillations from dynamic loads.

Mobile ICU provides a clear solution in the event of an emergency public health risk that requires an increase in the capacity of ICU beds. The portable unit provides all the medical equipment needed for patients and can be connected to communicate with hospital facilities. The innovation of the portable unit is due to its ability to be installed quickly and safely where there is an increased need for ICU beds.

Client:	Committee GREECE 2021
Region:	G. Papapanikolaou General Hospital, Thessaloniki, Greece
Area:	324 sq.m.
Use:	ICU
Year of construction:	2021

- **Construction works of removal an old linear accelerator machine and configuration for the installation of the new machine**

As part of this project, the old wooden roof was dismantled and replaced with photo wallpaper, the floor was excavated to remove the base of the old machine and covered with epoxy flooring. The staff workplaces were equipped with workbenches, while a new plastic floor was installed, and walls were lined with wallpaper and melamine.



Client:	Papageorgiou General Hospital
Region:	Thessaloniki, Greece
Area:	320 sq.m.
Use:	Linear accelerator machine
Year of construction:	2021

Reconstruction of laboratory facilities in New Life I.V.F

The project included construction works, such as dismantling, construction of a modular wall system specially designed for classified areas of cleanrooms, with a frame suitable for the passage of electrical infrastructure, new internal windows of which four automatic doors, false ceiling, and hermetic lighting system, conductive and antistatic flooring, as well as electrical and hydraulic works.

Client:	New Life I.V.F Unit
Region:	Thessaloniki, Greece
Area:	115 sq.m.
Use:	Laboratory
Year of construction:	2021

Construction of new Special Infections Unit at AHEPA Hospital

Construction New Special Infections Unit of AHEPA hospital. This Unit is constructed in such a way as to prevent the transmission of airborne diseases, such as SARS-CoV-2, to protect both patients with infectious diseases and staff. Negative Pressure Chambers are isolation wards for patients suffering from infectious diseases, constructed in such a way as to prevent the transmission of airborne diseases, such as SARS-CoV-2, for the purpose of mutual protection of both patients and staff. The chambers are provided with an uninterrupted condition of negative pressure through the air conditioning / ventilation system, preventing possible contamination of the rest of the unit. This system also ensures the removal of viral load by being equipped with filters suitable for this purpose, while the doors of the chambers operate with an interlock system, which does not allow the opening at the same time as the central door. The Special Infections Unit was created in an independent ward of the Hospital, which was renovated thanks to donations from institutions, organizations and companies. Among the donors is Axis Medical, which offered the study of the project.

Client:	AHEPA General Hospital
Region:	Thessaloniki, Greece
Area:	240 sq.m.
Use:	Special Infections Unit
Year of construction:	2021

Construction of Hemodynamic Laboratory, Renovation-Restructuring of Coronary Unit - ICU and non-invasive laboratories B' & C' Cardiology Clinics at Hippokration Hospital, Thessaloniki

This project was a donation of Stavros Niarchos Foundation to Greek Public – Hippokration Hospital of Thessaloniki. Construction of Hemodynamic Laboratory, Renovation, Restructuring of Coronary Unit – ICU and non-invasive laboratories. Design customized by our company in cooperation with Alexander Dovas Architect and Associates and constructed by Joint Venture of Axis Medical with Ergoschima EE. Metal antibacterial false ceiling, lighting fixtures, Automatic and Manual HPL Doors, Wall and corner protectors Electrical, intercom staff and nurse call system, phone and data networks, complex music streaming, video intercom & access control, electrical panels, wiring, distribution networks. Air conditioning, installation of 2 new air conditioners for fresh air, construction of networks air ducts, post-heating elements, absolute HEPA filters, installation VRV system. Construction of new WCs, new sanitary ware, water and drainage networks, connection with the existing ones. Installation of new radiators and construction of a piping network in the sanitary areas. Medical gases and medical gas consoles.

Client:	Stavros Niarchos Foundation
Region:	Thessaloniki, Greece
Area:	720 sq.m.
Use:	Operating theatres
Year of construction:	2022


CPR

- **Planning, Building Permits and Construction of a Pharmaceutical Cannabis Facility at Corinth, Greece**

Green field project, turn key solution including construction of the whole building, cleanrooms, administrational areas, warehouses etc. Preparation for the greenhouses area.

Client:	Marycann
Region:	Lechaio, Corinth, Greece
Area:	1514 sq.m.
Use:	Pharmaceutical Cannabis Facility
Year of construction:	2022


AXIS
medical
construction


MARYCANN
Medical Cannabis
AXIS
medical
construction

Projects / Reference list

GREECE

- EUROMEDICA "Geniki Kliniki" Thessaloniki (1800m² HPL for ICU & OR's)
- EUROMEDICA Kliniki "Kianos Stavros" Thessaloniki (480m² HPL for OR's)
- EUROMEDICA "Geniki Kliniki" Lamia
- EUROMEDICA Kliniki "ATHINEON" Athens
- Diagnostic center EUROMEDICA, Thessaloniki (turn key construction project)
- "IPPOKRATES" General Clinic, Athens (Doctor's house (320m² HPL OR's))
- General Clinic "ZILAKOU", Piraeus (2 operating rooms HPL)
- 401 Military Hospital of Athens (1300m² HPL OR's)
- Latsio burns center, Athens (800m² HPL wall cladding)
- "OLYMPIO THERAPEUTIRIO", Patras (1100m² HPL OR's)
- Aglaia Kyriakou Child Hospital, Athens (1200m² HPL OR's)
- General Hospital "EVAGKELISMOS", Athens (4 HPL OR's)
- General Hospital "NIMITS", Athens (4 OR as turnkey projects)
- General Hospital "G. GENNIMATAS", Thessaloniki (3 children HPL OR)
- General Hospital "PAPANIKOLAOU", Thessaloniki (2 HPL OR in cardiology department)
- Clinic "YGIA", Larisa (4 HPL OR)
- IKA "PANAGIA", Thessaloniki (turn-key solution 4 OR)
- Private clinic MASTORAS, Corfu (complete renovation of the surgery department)
- General hospital of Kithira island (2 HPL OR)
- Mediterraneo Private Hospital (6 HPL OR)
- IVF center "Assisting nature" (750m² construction from A-Z in 2 months)
- Opthalmic Center OPTHALMICA, Thessaloniki (construction of OR with gypsum board)
- Arogi, rehabilitation Center, Thessaloniki
- Ophthalmic clinic "Laser & Ophthalmos", turn-key project – 5 OR 750m² in total, Thessaloniki
- Kliniki Thermis, whole building wall protection system (500m)
- Clean room for Phisiology lab in Aristotle University of Thessaloniki (HPL and utility rooms)
- Celixir - Pharmaceutical laboratories (Turnkey project), Thermi
- General Hospital Papanikoloaou - cell therapy lab. renovation (GMP Lab turnkey project), Thessaloniki
- Camark - Construction of production unit for medical stitches (Turnkey project), Axioupolis
- Public hospital of Chalkida (Wall protection system - 10.000m)
- Private one day clinic in Corfu (Turn key project)
- General Hospital of Santorini, CT department construction (turnkey project)
- General hospital of Korinthos (CT scanner installation)
- General clinic of Athens (2 OR vinyl cladding)
- AHEPA general hospitals (CT scanner installation)
- General hospital of Volos (1 digital OR construction)

Stavros Niarchos Foundation projects:

- Ippokratio General Hospital, Hemodynamic lab, ICU and OTs reconstruction
- ICU in Saint Dimitrios Hospital SKG
- ICU in G. Gennimatas Hospital SKG
- AHEPA Hospital, Total renovation Preoperative surgery Dept.
- GH of Kavala, γ Camera installation in cooperation with GE Greece
- X-ray rooms constructions across the country in cooperation with Siemens Greece
- IASO Thessaly, IVF department renovation
- Euroclinic Athens, ICU renovation, negative pressure rooms construction
- Vioiatriki, Ilioupoli SKG (Diagnostics facility)
- Childrens hospital Agia Sophia, athens (GMP laboratory for bone marrow transplant unit)
- Embryolab Fertility Clinic (OT and Lab renovation)
- Vioiatriki, Ampelokipi SKG (Diagnostics facility)
- New Life IVF, (OT and Lab renovation)
- AHEPA Hosp., Operational University Clinic (Turn key)
- Euroclinic Athens Negative Pressure Unit
- Marycan Pharmaceutical Cannabis Facility (Turn key)
- γ-camera installation G.H. Kavala and G.H. Papageorgiou
- G.H. Papanikolaou, Covid Diagnostic Lab
- Greece 2021 Commitee, 18 ICU Mobile Facility
- Aghios Loukas Clinic, Video Integration Systems in 18 OTs
- G.H. Papageorgiou, Linear Accelarator Area Renovation
- Mobile Grade B Cleanrooms for Pharma R&D use
- AHEPA Hospital, Special infections Unit (Turn key renovation)
- G.H. Drama, Nurse call System installation
- One day Clinic, Thessaloniki (Turn key project) (750m²)
- Onassis Cardiac Center, 4 OT renovation
- Vioiatriki, Thessaloniki center (Diagnostics facility)

ABROAD

- General Hospital of Misrata (Libya) (1500m² of OR area)
- Emergency Hospital of Misrata (Libya) (650m² of OR area)
- OBD clinic of Misrata (Libya) (180m² of OR area, laboratory benches with corian surface)
- Shahat hospital (Libya) (2 OR)
- Chelyabinsk private clinic (Russia) (3 OR)
- Military hospital of Alexnadria (Egypt) (2 OR)
- Saint Paolo hospital of Cairo (Egypt) (2 OR)
- Cleanroom laboratory construction (UK) (250m²)
- Maternity hospital of Sakaka (KSA) (650m² NICU renovation with modular wall system)
- Private Ophthalmological clinic in Albania (1 OR)
- Hospital of Kirkenes (Norway) Facade 10.000m²
- Pharmaceutical Cannabis production plant (NMK) (155m² of GMP lab area)
- Kepanjen Public hospital (Indonesia) (2 OR)
- Iasi General hospital (Romania) (2 OR)
- Lincoln American School of Accra (Ghana) (HPL façade 2700m²)
- Ophthalmology clinic renovation (Albania)
- GMP Laboratories, Grade D, C, B (Cyprus)
- Pharmaceutical Cannabis production plant (NMK) (335m² of GMP lab area)



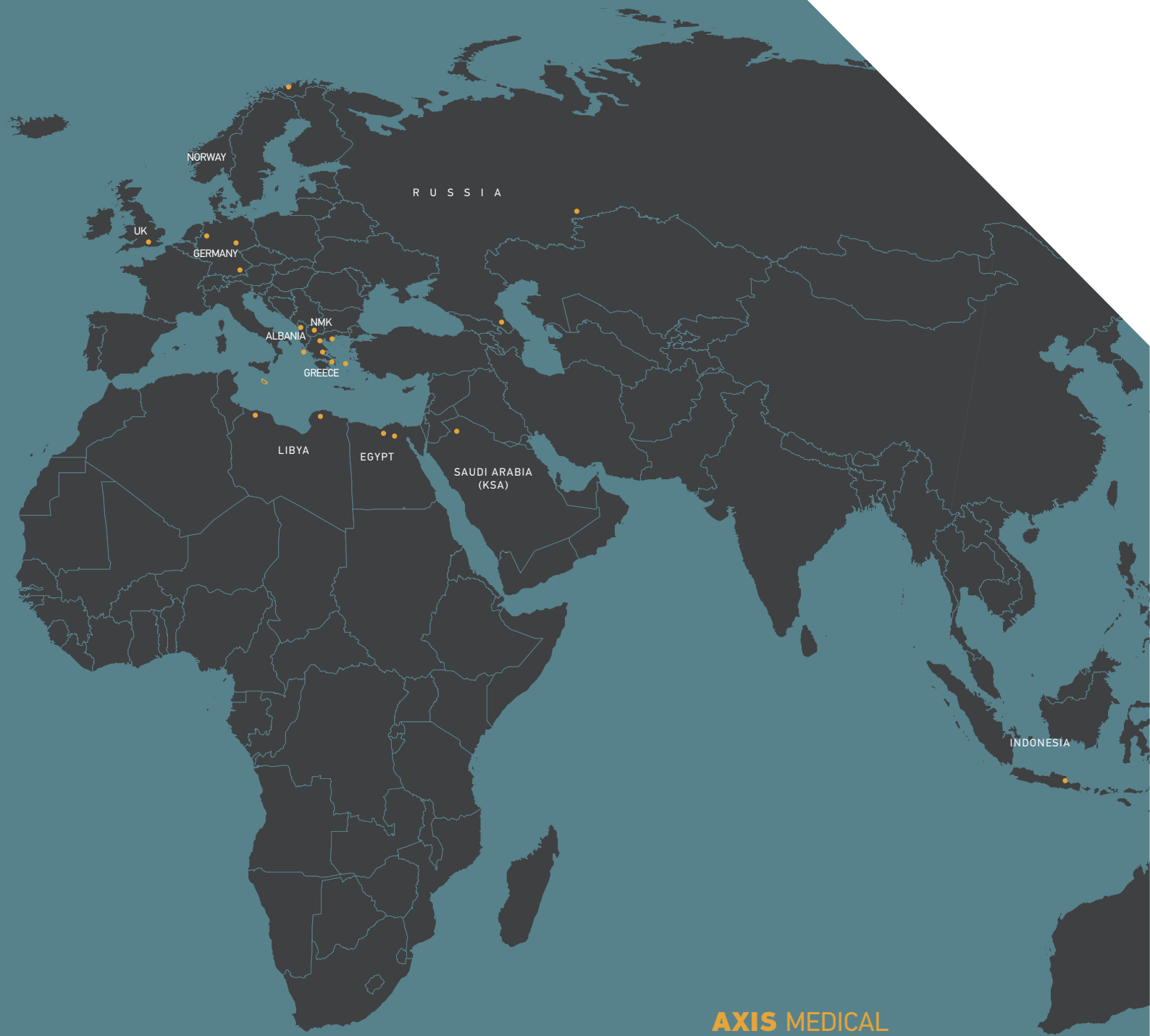








BUILDING STANDARDS



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