

LABORATORIES AND WORKSHOPS



Member of  NIEDAX GROUP

**A UNIQUE PARTNER PROVIDING EXPERTISE
IN THE MOST CHALLENGING INDUSTRIAL PROJECTS**



About Spina Group

Spina Group is an Italian company that has been operating for more than 30 years in the design, production and procurement of **instrumentation & electrical bulk materials for industrial plants.**

Starting in 1990 as a distributor of electrical materials, over the years Spina has evolved into an international group dedicated to delivering tailor-made solutions across various sectors:



OIL & GAS



INDUSTRIAL



ENERGY



PETROCHEMICAL

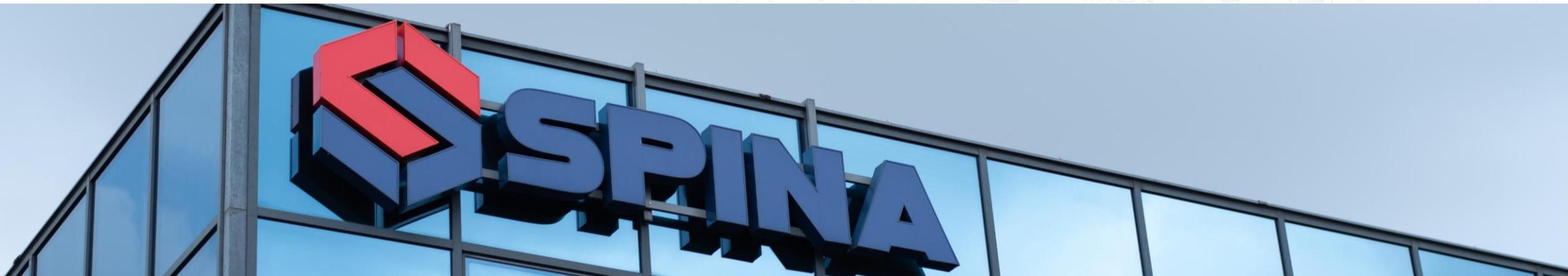


INFRASTRUCTURE



NAVAL

Each sector is approached with a specialized focus, ensuring that our solutions address the unique demands of each industry.



BUSINESS UNITS



PRODUCTION

CABLE TRAYS
CABLES
EXPLOSION PROOF
POLES & RACKS
VALVES & FITTINGS



E&I PACKAGES

LIGHTING
POLES
GROUNDING
ELECTRICAL PANELS
CONDUITS



LABORATORIES & WORKSHOPS

MAINTENANCE &
REPAIR WORKSHOPS
CHEMICAL LABORATORIES
MANUAL SAMPLERS
HANDLING AND LIFTING
EQUIPMENT



SPARES & CONSUMABLES

OIL & LUBRICANTS
SPARE PARTS
SAFETY
TOOLS



Engineering Services



**DESIGN & SUPPLY
OF UTILITY
DISTRIBUTION
NETWORK**



Offices, locker rooms,
canteen, training rooms
fully equipped and ready
to be used by site
personnel

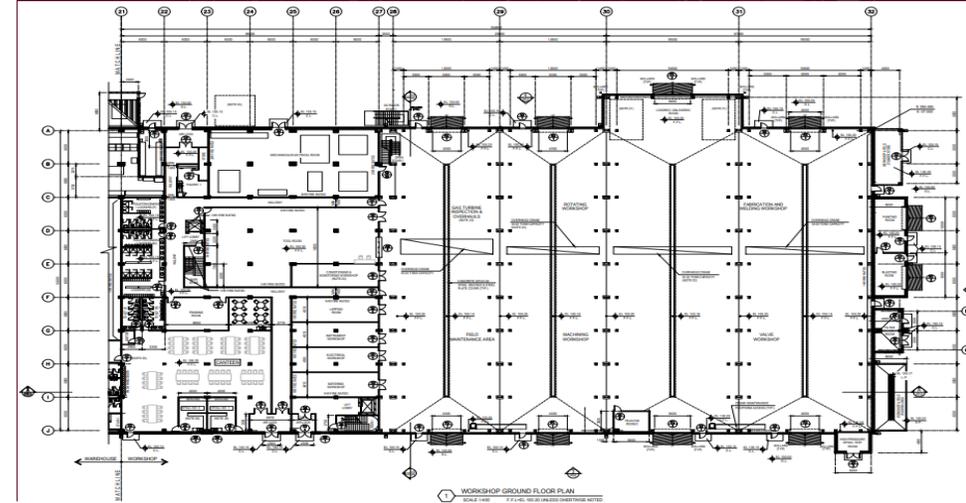
**DESIGN & SUPPLY
OF ANCILLARY AREAS**



Available surfaces
Type and number of
machines and
equipment foreseen by
the project

**SPACE OPTIMIZATION
BASED ON**

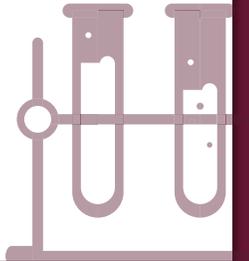
With our engineering department and the worldwide network of our consultant, we are in the position to **SUPPORT OUR CUSTOMERS** with the following services.



LABORATORIES & WORKSHOPS

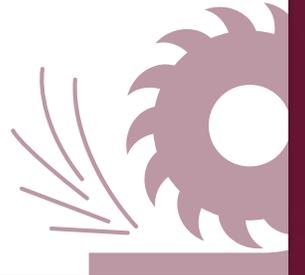
LABORATORIES

Instrumentation & Analyzers
Technical Furniture
Fume Cupboards & Air Treatment Systems
Utilities & Technical Gases Distribution Systems
Hardware & Software Upgrade of Existing Laboratories
Chemicals & Reagents



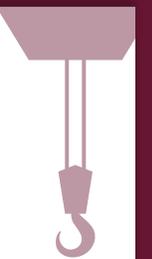
MECHANICAL AND INSTRUMENTATION WORKSHOPS

Metalworking Machines
Physical and Mechanical Testing Machines
Electrical & Pneumatic Tools
Welding Bays
Measurement and Calibration Benches
Industrial Furniture & Shelving Systems
Lifting and Moving Systems



HANDLING AND LIFTING EQUIPMENT

We provide the freedom to choose any brand worldwide and a wide network of partners for customized and certified solutions, designed to withstand extreme conditions, including marine environments and ATEX zones up to ZONE 1.



MANUAL SAMPLERS

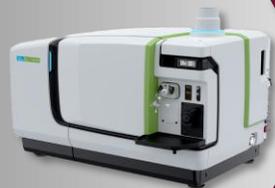
Samplers for Liquids
Samplers for Gases
Samplers for Multi-Phase Fluids





MAJOR ANALYZER

MASS SPECTROMETRY
(GC-MS, LC-MS)



GAS CHROMATOGRAPHY (GC) AND
LIQUID CHROMATOGRAPHY (HPLC)



MOLECULAR SPECTROSCOPY
(UV-VIS-NIR, FTIR)



ATOMIC SPECTROSCOPY, ATOMIC
EMISSION (ICP-MS E OES), ATOMIC
ABSORPTION (AA), FLUORESCENCE
AND X-RAY DIFFRACTION



TOC AND ELEMENTAL ANALYSIS





MAJOR ANALYZER

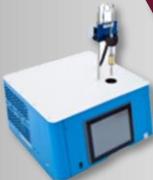
PENSKY MARTENS (ASTM D93 A/B/C,
ASTM D3941, ASTM E502)



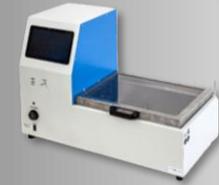
CLOUD POINT (ASTM D2500, D5771,
D5772, D5773)



CFPP (ASTM D6371)

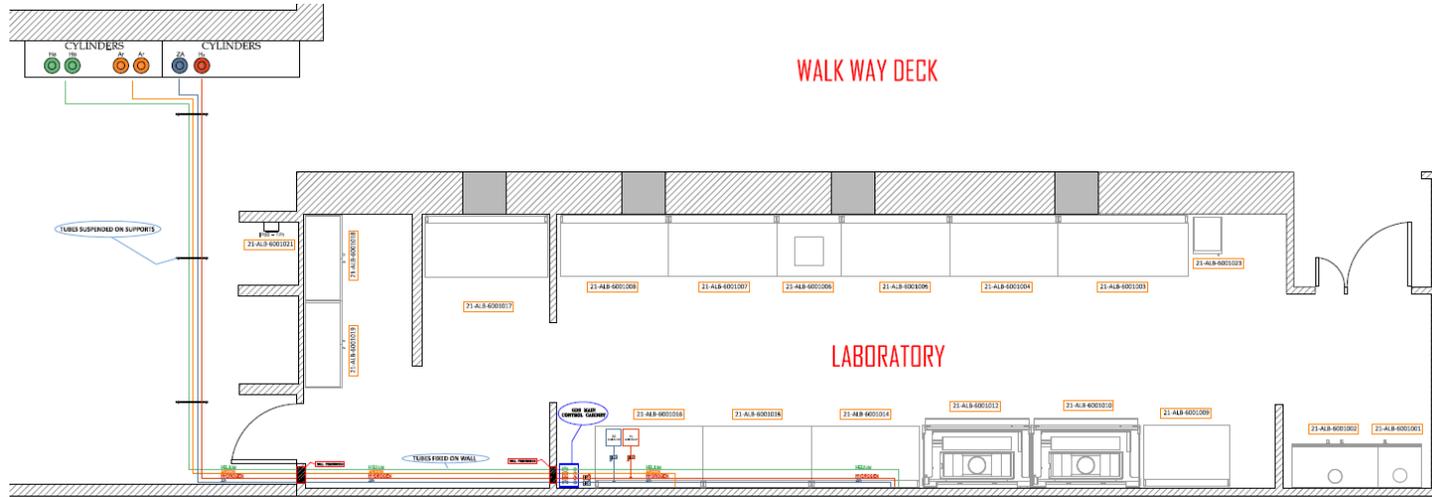


REID VAPOUR PRESSURE
(ASTM D323)



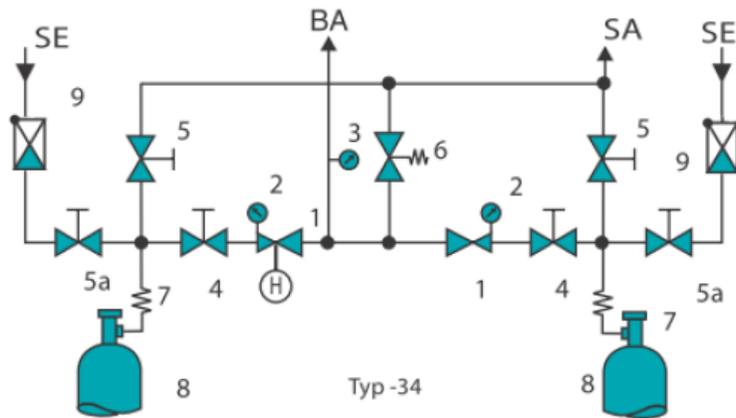
SAYBOLT VISCOMETER
(ASTM D88, D7496, E102)





GAS DISTRIBUTION SYSTEM

- Routing design & calculation based on available spaces and forecast number of machines
- Consumption calculation
- Supply of all the components including cylinder racks, change-overs.
- Installation including tubing welded through orbital welding machines



Extraction Arms



Fume Hoods

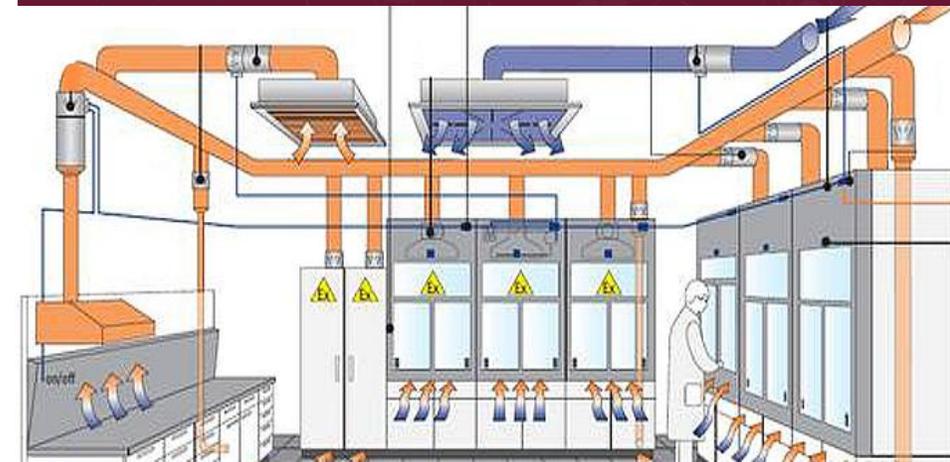


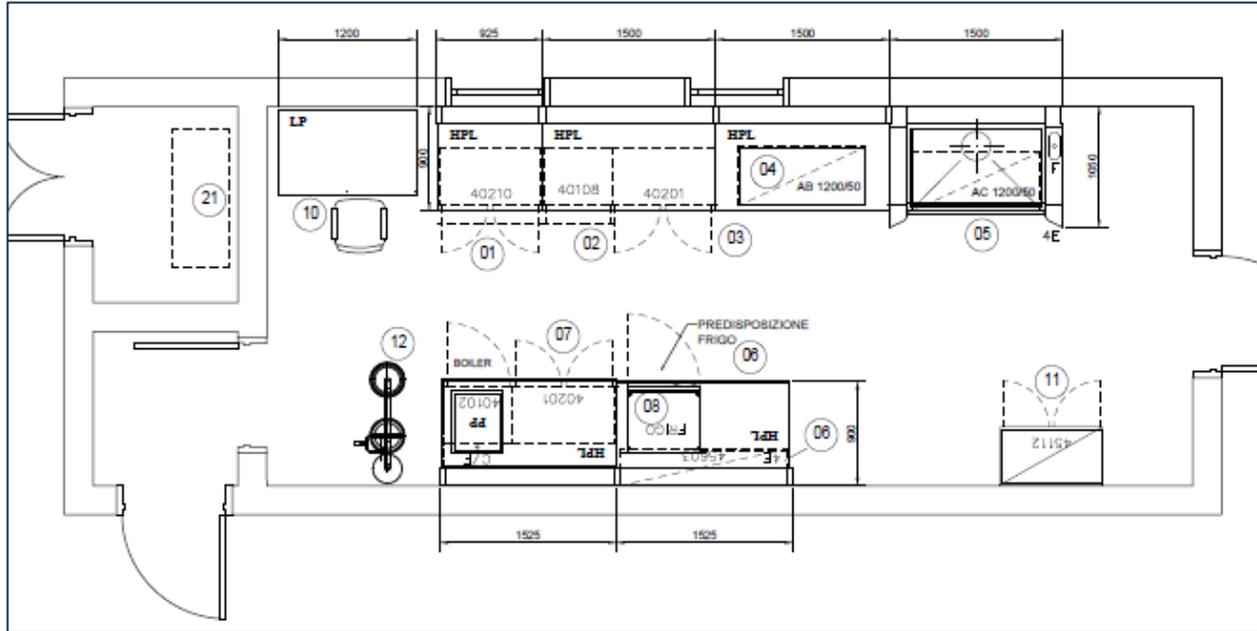
FUME & AIR TREATMENT SYSTEM

The ducted fume hoods as they are the most used fume hoods available on the market today. The available types are the constant air volume (CAV), the reduced air volume (RAV) and the variable air volume (VAV) chemical fume hoods.

Chemical fume hoods work by extracting air and noxious fumes away from the lab. and out of the fume hood where the air is filtered and returned to the outside environment by means of a duct system.

User protection is enhanced by a movable sash that can be raised or lowered based on the needs of the user. All three types work in a very similar way, differentiated only by their air flow properties.

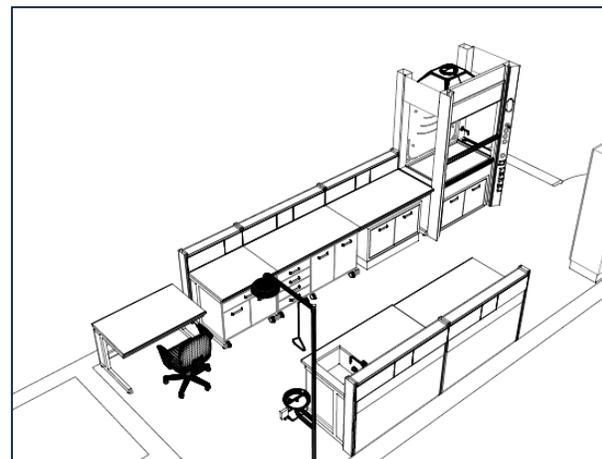


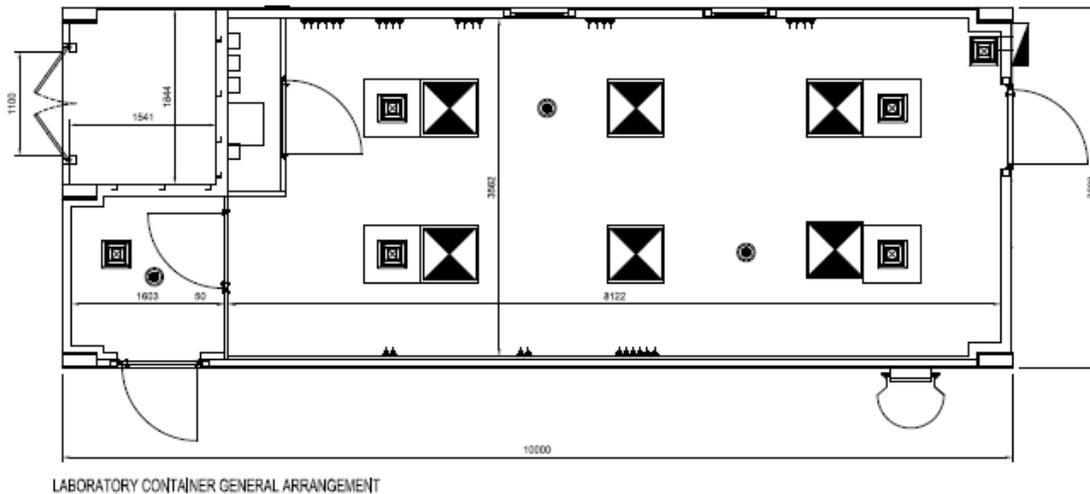
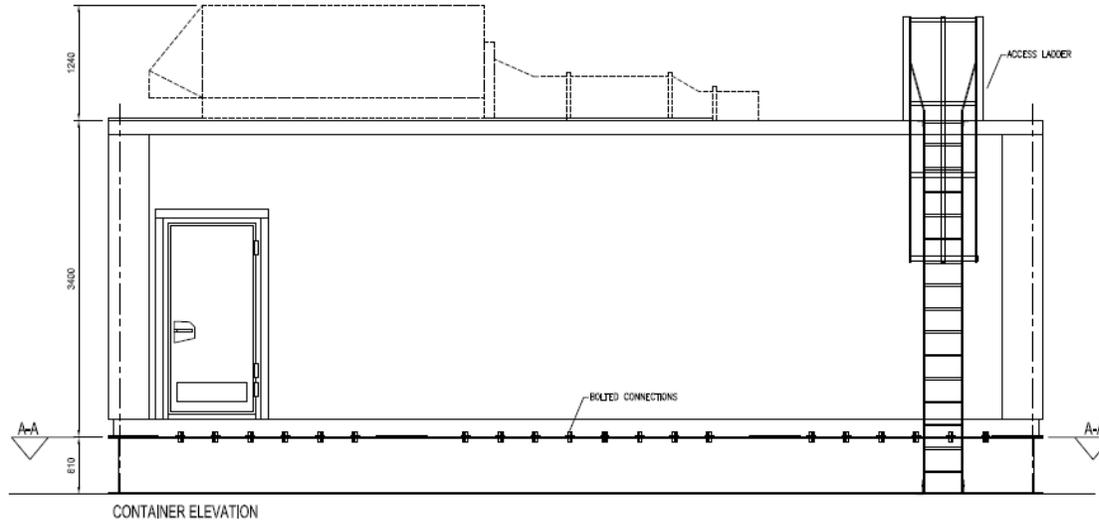


FURNITURE

Availability of an almost infinite series of combinations of structure & working surface materials, module dimensions & internal configuration, tops & shelves that allow laboratory's operators to work safely and with everything at their fingertips.

All our solutions are entirely designed by our team of specialists which is also able to follow all the assembling activities at site.





CONTAINERS & CUSTOM-MADE SHELTERS

Thanks to our engineering skills and to the manufacturing capability of our partners worldwide, we are able to supply tailored laboratory shelters either based on commercial container sizes (e.g. 20ft / 40ft) or specifically designed with tailored dimensions in order to suit any particular application need in term of construction materials, design and certifications required for installation in the most severe conditions, like those on vessels or offshore platforms.

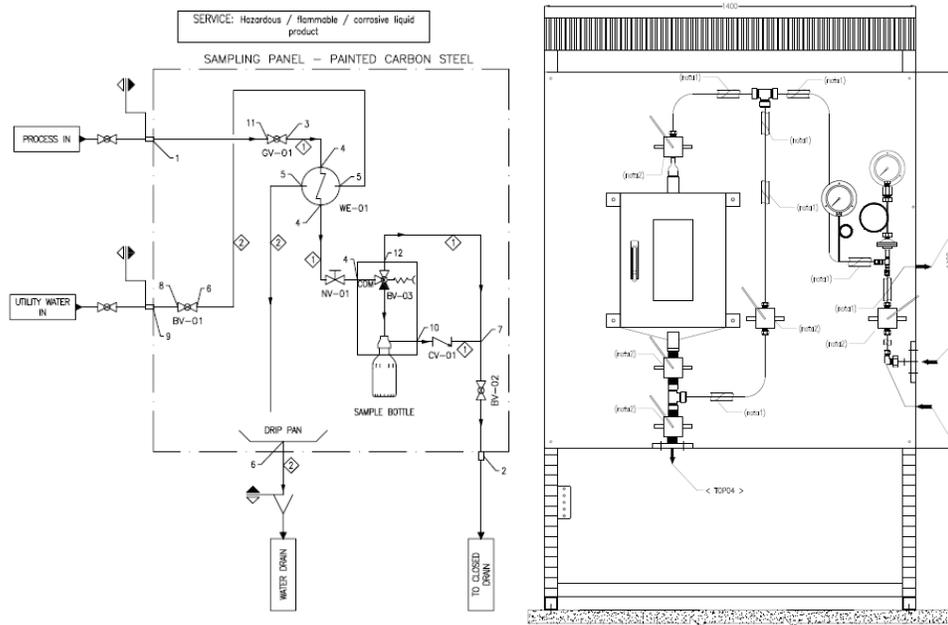


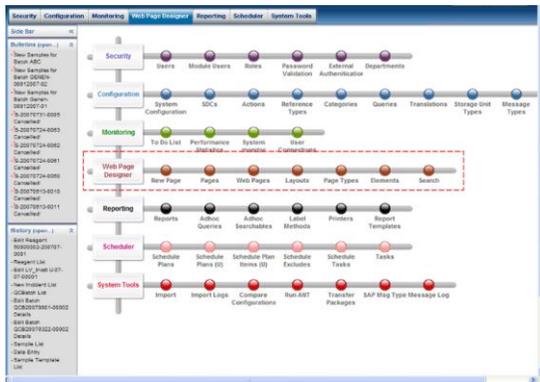
MANUAL SAMPLERS

All our systems can be supplied on a self-supporting rack or suitable for installation on existing poles and are mounted on Painted CS or SS plates where there are installed and tested all the components.

Our standard material for components in contact with the fluid is the AISI 316/316L while special materials (e.g. Inconel 625 or Hastelloy C276) are used for those processes with critical pressure and temperature conditions or having contaminants that would physically or chemically affect the SS.

Stream heaters, Purge Systems and filters, Canopies, Cooled / heated / pressurized cabinets can be provided in order to allow the quickest and the safest sampling in any climatic condition

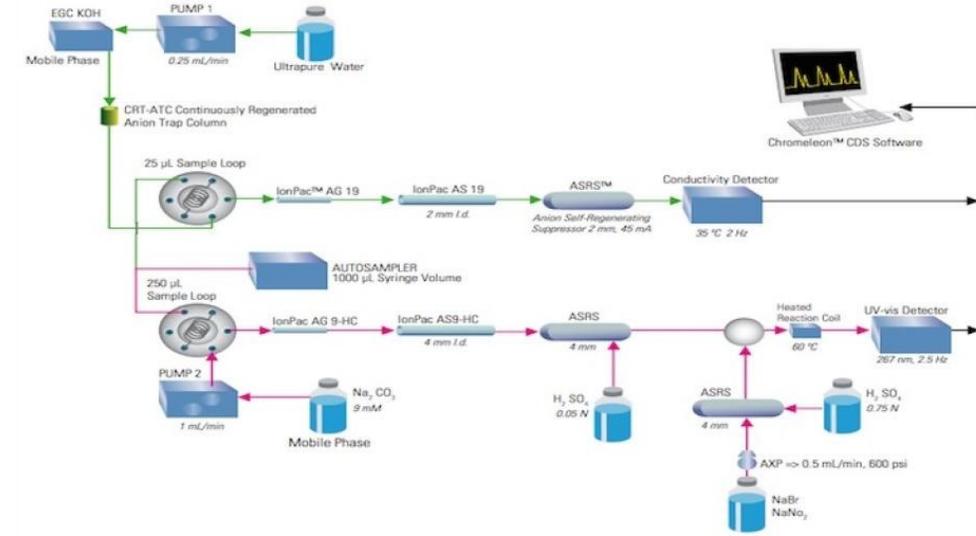




LABORATORY INFORMATION MANAGEMENT SYSTEM

LIMS Turn-key solutions from major worldwide providers

- Definition of hardware and installation material
- Definition of system architecture and necessary site activities



Mobile Workshops

This kind of application based on customization of commercial containers with length 3m, 6m, 12m are the ideal solution in case of need of **temporary or mobile workshops**, where activities of **test, maintenance and repair** must be done on site in various places. Container can be equipped with generators in order to be independent and feed the machine they contain, or they can be equipped with plug-in panels suitable for connection to the local utility network.

Any container can be customized with shelving, test benches, portable tools and all the necessary equipment based on the specific activity to be performed.

CONTAINERS & TRAILERS SOLUTIONS





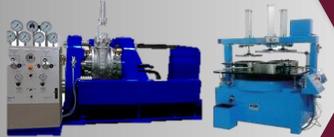
Mechanical Workshops

REPAIR, CALIBRATION & TEST

PORTABLE & STATIONARY
TESTING & CALIBRATION TOOLS
FOR ELECTRICAL AND
PNEUMATIC EQUIPMENT



MACHINES FOR LAPPING,
BEVELING, MILLING, BENDING



TEST & CALIBRATION
BENCHES FOR VALVES



MACHINERY & TOOLS

BENCH & PORTABLE TOOLS



WORKSHOP FABRICATION
& WELDING MACHINES





Mechanical Workshops

AUXILIARY EQUIPMENT

AIR COMPRESSORS &
ELECTRICITY GENERATORS



MOBILE LIGHTING TOWERS
WITH LED TECHNOLOGY



ATEX WELDING
HABITAT SYSTEMS



WORK BENCHES AND SHELVING



ATEX HVAC TRAILER-MOUNTED



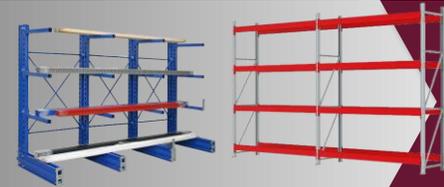


STORAGE & SHELVING

AUTOMATIC VERTICAL WAREHOUSE



CANTILEVER RACK
PALLET RACKING



WORK BENCHES
AND CABINETS





Mechanical Workshops

PLANT WASTE MANAGEMENT

SPECIAL TRAILERS FOR SLUDGE



TRACTORS, LOADERS
AND SERVICE VEHICLES



GLASS CRUSHERS



VERTICAL
AND HORIZONTAL BALERS



SKIPS TAILORED IN COLORS
AND DIMENSIONS





HEAT EXCHANGER – TUBE BUNDLE MAINTENANCE

BUNDLE EXTRACTION
AND LIFTING



TUBE –
TUBESHEET ORBITAL WELDING



BUNDLE CLEANING



TUBE INSERTION
AND PULLING SYSTEMS



Lifting & handling equipment are fundamental devices at any stage of every kind of plant.

Our added value are the freedom to select any brand at any location in the world, and the wide network of business partners **who can customize or design from zero**, special solutions tailored in terms of material, dimensions, construction necessary to withstand with moist severe conditions, either of usage or of environment up to the marine one, for which we can provide solutions tailored in terms of structural calculation/construction, painting and ATEX area classification up to ZONE 1, supplied along with mandatory certificates issued by the third party naval entity in charge for each project.





Mechanical Workshops

HANDLING AND LIFTING EQUIPMENT

MANUAL AND ELECTRICAL JIB CRANE



MANUAL AND ELECTRICAL CHAIN HOIST
FROM 0,5TON UP TO ABOVE 10TON



MULTIFUNCTIONAL LIFTING TONGS
AND CLAMPS



MANUAL AND MOTORIZED GANTRY
CRANES



ELECTRIC PALLET TRUCK



ELECTRICAL DRIVE CRANE WITH
VARIABLE WHEELBASE





Mechanical Workshops

HANDLING AND LIFTING EQUIPMENT

STACKABLE METAL CONTAINER FOR CONSTRUCTION SITE MATERIALS AND EQUIPMENT, AVAILABLE WITH STANDARD DIMENSION, MATERIAL, OR CUSTOMIZABLE IN TERMS OF DOORS, COVERS, SHEET THICKNESS...



HEAVY DUTY SELF PROPELLED TROLLEYS, MOVERS AND SKATES



ELECTRIC POWERED COUNTERBALANCE FORKLIFT TRUCKS



DIESEL POWERED COUNTERBALANCE FORKLIFT TRUCKS



TERMINAL TRACTORS & SHUNT TRUCKS



SINGLE GIRDER & DOUBLE GIRDER OVERHEAD CRANE



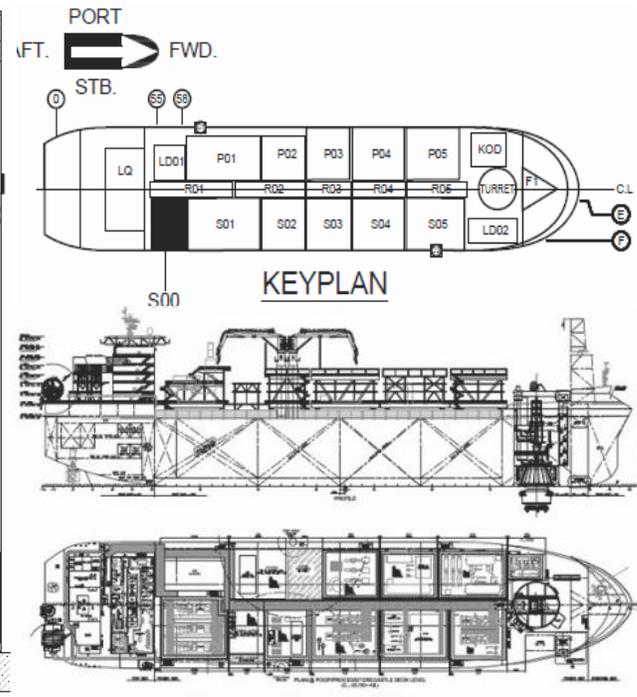
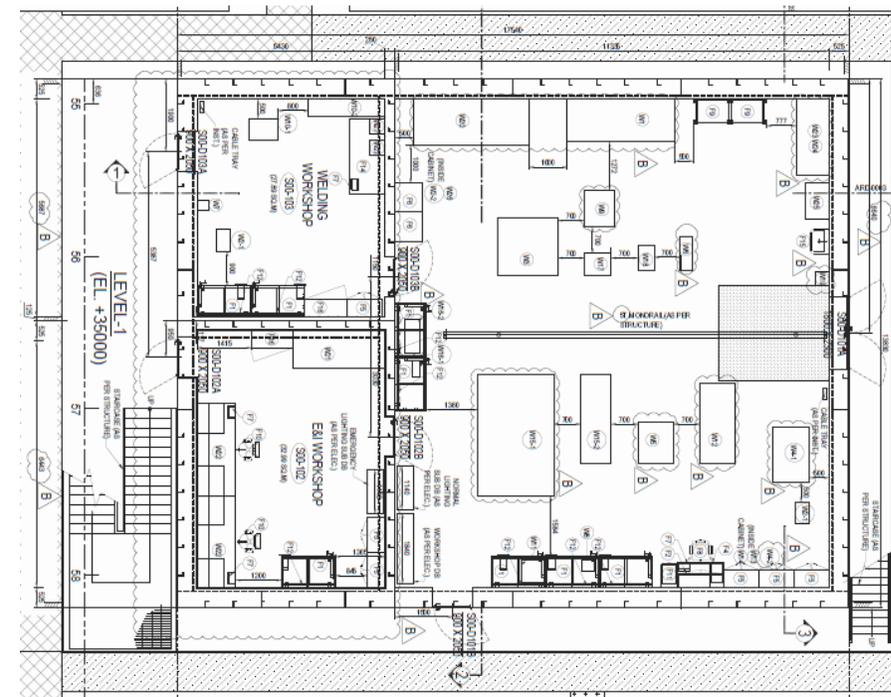


Mechanical Workshops - Offshore

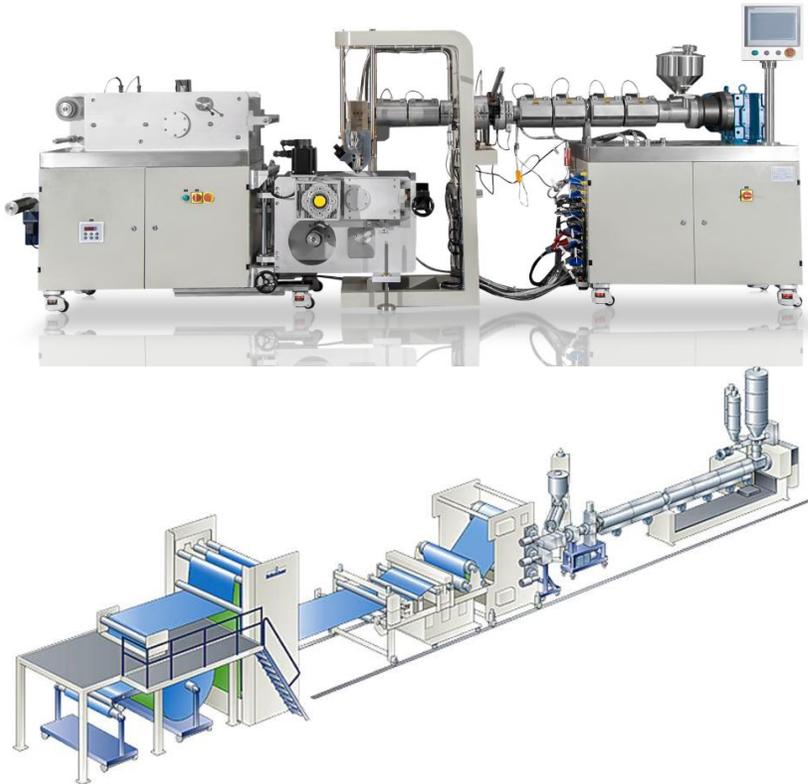
OFFSHORE

In addition to the standard activity of engineering and procurement, for this type of project we can support our customers with:

- Definition of anchoring points and installation material
- Definition of floor structure and reinforcement area
- Coordination with appointed Third-Party classification agency and flag, in order to carryout the entire inspection and certification path foreseen for each specific project



CAST FILM EXTRUSION LINE



PELLETIZER



MIXING CHAMBER



Project Engineering and Documentation

Thanks to our highly specialized staff, we can manage internally all post-order activities related to documentation and QA/QC (*) like but not limited to:



- Bill of material
- Tag wise datasheet dossier
- Inspection & test plan
- 2D and 3D engineering drawings and utilities schemes
- Certificates and declarations of conformity
- Spare part definition and related SPIR form
- Installation, operation and maintenance manual
- Quality control plan and manuals
- Erection and installation procedure
- Vendor data book
- Preservation instruction for storage at site
- Packing & transportation documents and procedure
- Factory acceptance testing (FAT) procedure
- Site acceptance testing (SAT) procedure
- Training program and manuals

() others, including those attested by third party authorities can be provided upon request*

PROJECT SPECIALISTS

PROJECT MANAGER: Ready to lead & realize complex and detailed Engineering and Integrated services.

PROJECT ENGINEER: Proven engineering expertise, expert process know-how of laboratory requirements like test methods, standards, regulations, application setup & support etc., on site supervision and coordination of end-user personnel.

SITE ENGINEER: Able to carry out on-site supervision of the project during the phases of commissioning and start-up of the supply even in coordination with OEM specialists for critical items, as well as provide for the theoretical and practical training of local operators on supplied instruments, machinery and tools.

As Spina Group we can handle directly through our personnel all the main activities related to a Laboratory Project for which we are able to deliver a tailored solution covering also following fundamental points:



START-UP &
COMMISSIONING



TRAINING



SPARE-PARTS &
CONSUMABLES



FUTURE SOFTWARE &
HARDWARE UPGRADES

Appreciation Letters



AEGEAN REFINERY PROJECT (ARP)
TSGI MÜHENDİSLİK İNŞAAT LTD.ŞTİ.
AYAZAĞA Mh. MEYDAN Sk. No.1 BEYBİ GİZ
PLAZA K.26/27 No.2615 34396 MASLAK-
İSTANBUL TURKEY

To the kind attention of
SPINA GROUP S.r.l.
Via del Tecchione 36/B
20098-San Giuliano Milanese (MI)
ITALY

16 July 2018

Subject: AEGEAN REFINERY PROJECT (ARP)

Dear Sirs,

We acknowledge the successful completion of the Chemical Workshop with our full satisfaction.

We have chosen Spina Group because it guaranteed us to have a single source for the supply of the wide range of products that the project required.

Spina Group provided us a team of technicians and engineers with international skills who have been able to develop, according to the requests, the project of the laboratory layout.

Furthermore, your team has showed a strong organizational and problem solving skills, encouraging collaboration among people involved and finding the best solutions to match our requests.

For all the above reasons, we trust we may join again our interest in the future.

Best regards,

Alberto RAZZINI
Lead Building Services Engineer
TSGI Mühendislik İnşaat Limited Şirketi
Aegean Refinery Project (ARP)
STAR Rafinerisi



TECNICAS REUNIDAS

Initec Plantas Industriales, S.A.U.

Maria de Portugal,9
28050 Madrid España
Tel. (34) 91 587 10 00

To: SPINA GROUP SRL

Subject: Work Completion Letter

Project: KNPC MAA REFINERY GT5 - Laboratory Equipment

We Tecnicas Reunidas like to congratulate your team for the successful completion of the above mentioned project. The professionalism and proactive cooperation demonstrated by your team is commendable and deserve appreciation. We wish that our cooperation will go a long way creating other possibilities of success together

Sincerely Yours,



Juan José Domínguez
Category Manager

To the kind attention of
SPINA GROUP S.R.L.
Via del Tecchione 36/B
20098 – San Giuliano Milanese (MI)
ITALY

8th July 2019

Subject: D.R. Tosyali Plant (Algeria) – Supply of Chemical Laboratory

Dear Sirs,

We sincerely appreciate and recognize the commendable services rendered by Spina Group for the successful completion of supply, start-up and commissioning of the Chemical Laboratory in the Midrex® Direct Reduction Plant, a project executed by Midrex Inc. and Paul Wurth Italia S.p.a. at Tosyali works in Oran, Algeria.

We appreciated your team for their proactive support in all activities carried out and we were satisfied with your performance, knowledge and support in finding the best solution for this project.

We feel confident in recommending your Company to whom who might concern and we look forward to continuing the ongoing cooperation between our companies.

Sincerely,

Giorgio GASTINELLI
Senior Project Manager



C.I.F. A-84105196 Registro Mercantil de Madrid, Tomo 20.497, Sección 8 , Folio 60, Hoja M-362720

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R.E.A.: 418059
Società ad attività di direzione e coordinamento da parte di Paul Wurth SA



Logistic and Delivery

Thanks to our in-depth knowledge of logistics and international regulations gained in 30 years of experience in the supply of industrial package worldwide, for our supplies we can arrange **any kind of INCONTERMS delivery**, including those with high volume and those of dangerous material necessary for the laboratory start-up that allows us to deliver our supplies in full compliance with laws of the country of destination.

Oil & Gas North Field Expansion (NFE) project





Spina In The World

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 HEADQUATER

 BRANCHES

 SALES AGENCY



**OUR COMPANY IS
 ISO 9001:2015 CERTIFIED**



Thank you