



**serving**  
servizi di ingegneria



CERTIFICATO n. **4562**  
CERTIFICATE No

SI CERTIFICA CHE L'ORGANIZZAZIONE  
WE HEREBY CERTIFY THAT THE ORGANIZATION

## SERVING SRL

IT - 20864 AGRATE BRIANZA (MB) PALAZZO PEGASO 3 - VIALE COLLEONI 25

NELLE SEGUENTI UNITA' OPERATIVE / IN THE FOLLOWING OPERATIVE UNITS

IT - 20864 AGRATE BRIANZA (MB) PALAZZO PEGASO 3 - VIALE COLLEONI 25

HA ATTUATO E MANTIENE UN SISTEMA DI GESTIONE QUALITA' CHE E' CONFORME ALLA NORMA  
HAS IMPLEMENTED AND MAINTAINS A QUALITY MANAGEMENT SYSTEM WHICH COMPLIES WITH THE FOLLOWING STANDARD

### UNI EN ISO 9001:2015

PER LE SEGUENTI ATTIVITA' / FOR THE FOLLOWING ACTIVITIES **SETTORE** IAF 34, 35  
**CODE**

Ingegneria di base e di dettaglio su processo e utilities  
in particolare nei settori chimico, farmaceutico e alimentare.  
Assistenza all'attività degli Uffici Tecnici dei clienti e service grafico.  
*Basic and applied engineering on process and utilities,  
particularly for the chemical, pharmaceutical and food fields.  
Assistance to clients' technical offices activities and graphic service.*

IL PRESENTE CERTIFICATO E' SOGGETTO AL RISPETTO DEL REGOLAMENTO PER LA CERTIFICAZIONE DEI SISTEMI DI GESTIONE  
THE USE AND THE VALIDITY OF THE CERTIFICATE SHALL SATISFY THE REQUIREMENTS OF THE RULES FOR THE CERTIFICATION OF MANAGEMENT SYSTEMS

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CERTIQUALITY S.r.l. - IL PRESIDENTE  
Via G. Giardino 4 - 20123 MILANO (MI) - ITALY



UNITS ITALIANO DI ACCREDITAMENTO  
SQU n. 008 A ISO N. 9001 G  
SQA n. 007 F ISO N. 9001 M  
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FSM n. 009 I OHSAS N. 18001 P  
PRO n. 008 B JTS N. 9001 L  
DAF n. 003 H  
PMS n. 100 C

Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC  
Signatory of EA, IAF and ILAC Mutual Recognition Agreements

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THE INTERNATIONAL CERTIFICATION NETWORK  
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The validity this certificate depends on annual audit and on a complete review every three years of the Management System.



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CISQ è la Federazione Italiana di Organismi di Certificazione dei sistemi di gestione aziendale.  
CISQ is the Italian Federation of management system Certification Bodies.

## TECHNICAL SERVICES TO PRODUCTION PLANTS, COMMERCIAL AND MANAGEMENT ACTIVITIES

Our staff is made up of experienced and qualified personnel. We support companies in the realization of developments of their activities and we carry out all the necessary actions required to conform to norms and standards; we can manage all the needed technical documentation in relation with regulatory bodies.

Serving has developed extensive experience in integrated design for industry, and especially in engineering services for the following types of companies:

pharmaceutical | food | chemical | oil refinery

The services provided include:

- Feasibility studies
- Basic and detailed design
- Technical specifications
- Project management
- Preliminary estimates and cost control
- Planning of design and construction phases
- Support for procurement and expediting
- Work supervision
- Assistance during testing
- Planning and management of maintenance

Our quality system complies with

UNI EN ISO 9001 : 2015



Serving operates in compliance with all regulations regarding the health and safety of workers at work and on construction sites; in particular it complies with the provisions of the Legislative Decree 81/2015.

Safety, protection of the health of workers and respect for the environment constitute strategic elements of our business performance.



## ENGINEERING

### ARCHITECTURAL DESIGN

- Design of workspaces in production activities:
  - production departments
  - office
  - laboratories (R&D, Quality Control, IPC, Biology and Microbiology)
  - dressing rooms
  - break areas and canteens
  - utilities production and distribution
  - technical rooms
- Design of office layout according with the requirements of the clients.
- Analysis and study of material flow (raw materials, intermediates and finished products) and personnel flow (air locks, dressing rooms, safety air showers), in compliance with regulations.
- Design of cleanrooms, according with the GMP requirements, complete with the study of technical solutions suitable to obtaining the approval of authoritative bodies (FDA, AIFA, Ministry of Health, HACCP, etc.).
- Study of the layout of warehouse shelves, in relation to the handling and flow of goods.
- Design of the layout of technical furnishings for laboratories, including details regarding utilities supply to benches and chemical hoods (fluids, gases, drainage, electric systems etc.).
- Preparation of technical documentation for process and environmental validations.
- Photo-simulations of environmental impact and rendering.

### STRUCTURAL DESIGN

- Structural calculations, construction management and static tests of structural elements of industrial buildings, warehouses and offices.
- Design of steel structures necessary for production equipment installation (including dynamic loads), maintenance platforms, and pipe racks for pipe lines.



- Analysis of existing structures and verification of maximum loads, permitting installation of equipment.
- Non-invasive analytical investigations and load tests on existing facilities.
- Investigation into seismic vulnerability according to Ministerial Decree 14.01.2008 (N.T.C).
- Preparation of documentation regarding declarations under the Law No. 1086/71.



## MECHANICAL ENGINEERING

Mechanical design of:

- production plants;
- production and distribution of utilities;
- fire protection systems and pumping stations;
- drainage networks for all type of waters (Process, civil and rainwater);
- wastewater and air treatment plants.



The activity can be carried out in the following phases:

- development of basic engineering;
- development of detailed engineering with drawing of flow sheets, P&ID, data sheets, plans and sections, sketches, MTO (material take off);
- assistance to the assembly and the tests;
- site surveys of existing plants and preparation of AS-BUILT drawings.



## DESIGN OF HVAC SYSTEMS

Design of HVAC systems, also for sterile environments:

- calculation of energy consumption;
- identification of the type of HVAC system, sizing of units and calculation of necessary ducts;
- process and instrumental diagrams for ventilation systems;
- definition of design criteria;
- technical specifications of HVAC equipment and instruments;
- assistance for balance and flow checks;
- report on testing and documentation for GMP validation.





## **ELECTRICAL EQUIPMENT DESIGN**

- Design of electrical installations (medium and low voltage) in civil buildings and production areas.
- Design of highly technological industrial automation.
- Lighting calculations for workplaces.
- Verification and calibration of switches and thermal relays with the issue of test certification.
- Classification of areas at risk of explosion (ATEX Norms).
- Design of electrical systems in areas at risk of explosion.
- Design and testing of protection systems against lightning.

## **SITE SUPPORT**

The main activities during construction and installation are:

- organization of site meetings, ordinary and extraordinary;
- preparation of minutes of the meetings and distribution to all participants;
- control that the work is executed according with the workmanlike practices, through daily supervision and spot checks;
- assistance and verification of tracings; definition and assistance in the installation of the cornerstones;
- control and updating the program of site activities, including on site verification;
- site verification of the compliance of works with technical and contractual conditions;
- acceptance, verification and approval of work in progress and additional work outside the contract;
- photographic documentation of the various stages and processes and significant facts, elements or details that need to be documented and reported;
- management and archiving of project documentation and administrative documentation (building practices, licenses, permits for occupation of public land, etc.);
- management and archiving of certificates of conformity, test trials, as built drawings, user and maintenance manuals;
- relations with external bodies such as the local authorities, traffic police, public security and utility providers;
- drafting of AS BUILT drawings of works and installations.

## PROJECT MANAGEMENT

- Scheduling and monitoring of the project activities in terms of resources and timelines, also providing regular project updates to ensure the achievement of the goals.
- Coordination of the resources involved in the projects



## CONSTRUCTION MANAGEMENT

- Coordination of design specialists.
- Organization of regular meetings, preparation and distribution of the minutes.
- Planning of work phases, monitoring compliance with deadlines and definition of corrective actions during the construction .
- Supervision of construction services and assistance to the construction site.
- Verification during construction and testing that the works comply to the standards and specifications in contracts.





## SERVICES

### TECHNICAL ADMINISTRATION DOCUMENTS

Preparation of documents and consultancy regarding relations with Public Administration and Control Agencies (Municipalities, Regions, Public Health Authority, Land Registry, Fire Brigade etc.) performed in collaboration with licensed professionals.

Preparation of drawings, forms and follow up of the bureaucratic process:

- municipal permission and certificate of occupancy;
- updating of land cadastre;
- certificates for production activity (SCIA);
- permission granted by Fire Brigade;
- permission for gas emissions into the atmosphere;
- authorizations for discharge of wastewater;
- Integrated Pollution Prevention and Control (IPPC);
- acoustic surveys and pre-assessments of noise impact.

### SURVEYS

- Surveys with multi station system and production of CAD drawings for land and buildings.
- Plant surveys (equipment layout, piping, drains, HVAC ducts).
- Surveys of underground networks (sewage systems, fire protection systems, conduits, etc.).
- Surveys with LASER SCANNER and production of 3D drawings for plants and facilities.
- Thermographic surveys for identification of plants, thermal bridges, leaks, iron in reinforced concrete etc.

### MOVING OF ACTIVITIES

- Realization of lay out for the definition of new placement of furnishings and equipment.
- Consultancy regarding the technical, administrative and bureaucratic aspects of new settlements.
- Development of technical documentation for Due Diligence dossiers.

## GRAPHIC SERVICES

Management of technical documentation (hard copies and digital formats) carried out in accordance with ISO 9001 procedures :

- definition of the numbering system and filing of documents;
- archiving and data saving, daily back-up and storage in fireproof cabinets;
- creation and systematic updating of list of technical documents (coding, numbering, revisions);
- printing of hard copies for each document in various formats and materials;
- on site verification of the actual situation and update of layout, schemes, floor plans, data sheets, etc.).

## TECHNICAL ARCHIVES

Organization/management of paper files and digital files regarding:

- technical documentation (drawings, diagrams, etc.) and mechanical catalogs;
- certifications of conformity (Ministerial decree 37/08, PED, Fire Brigade authorizations, etc.);
- administrative documents (Municipal, Fire Brigade, Health Regional Authorities, safeness for buildings, etc.).

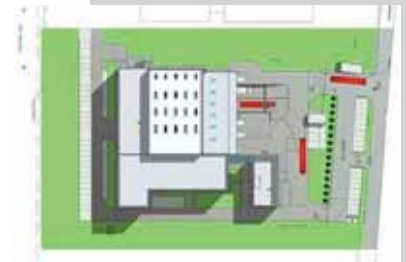
The documentation is aimed at obtaining authorization from authoritative bodies (local and regional Health Authorities, Fire Brigade, FDA, AIFA, Ministry of Health, etc.) and certification bodies (ISO, SOA, etc.).

With regards to the documentation for obtaining the Certificate of fire prevention, statements and certifications required by the Fire Brigade will be collected, verified and archived.

These services may be carried out either at our office or at the customer's office.

## MAINTENANCE MANAGEMENT

- Identification of the most effective maintenance strategy and efficiency of installations from an economic point of view.
- Setting up a maintenance management program (programmed, ordinary and extraordinary).
- Maintenance management of buildings and facilities.



## REFERENCES

November 2018

<b>ADIENNE S.r.l. S.U.</b> Feasibility studies Detailed design and work supervision	<b>Caponago (MB)</b> Headquarter Production department for monoclonal antibodies (Biotech)
<b>AMEC FOSTER WHEELER ITALIANA S.r.l.</b> Detailed design  Mechanical, HVAC and electrical basic design	<b>PFIZER - Copenhagen (DK)</b> New probiotic packaging department  <b>BRISTOL-MEYER SQUIBB - Anagni (FR)</b> New sterile filling department
<b>ASTRAZENECA S.p.A.</b> Feasibility studies Detailed design, construction management and administrative practices	<b>Caponago (MB)</b> New site for antibiotics packaging (production area, warehouses, laboratories, utilities) buildings and utilities expansion and renovation
<b>BAUSCH + LOMB-IOM S.p.A.</b> Detailed design, construction management and administrative practices Feasibility study	<b>Macherio (MB)</b> Microbiology laboratory, boiler room, HVAC, office renovation Expansion of Compounding Department
<b>BAYER HEALTHCARE MANUFACTURING S.p.A.</b> Detailed design, construction management and administrative practices	<b>Segrate (MI)</b> Office building refurbishing, vaseline oil storage plant Drainage network, boiler room
<b>BOIRON S.p.A.</b> Detailed design, construction management and administrative practices	<b>Segrate (MI)</b> Realization of pharmaceuticals warehouse Fire protection system
<b>BRACCO IMAGING S.p.A.</b> Detailed design	<b>Cesano Maderno (MB)</b> Thionyl chloride storage area and blowdown system
<b>CHEMO GROUP - CHEMO BIOSYNTHESIS S.r.l.</b> Engineering services Basic and detailed design	<b>Corana (PV)</b> New fermentation pilot plant Synthesis department revamping - New column installation
<b>CHEMO GROUP - INDUSTRIALE CHIMICA S.r.l.</b> Basic and detailed design	<b>Saronno (VA)</b> Production departments revamping
<b>CORDEN PHARMA S.p.A.</b> Basic design Detailed design and construction supervision	<b>Caponago (MB)</b> Packaging department refurbishing Drainage network
<b>FRESENIUS KABI S.r.l.</b> Feasibility study Detailed design	<b>Isola della Scala (VR)</b> Site general lay-out rationalization Renovation of transformer substation (medium and low voltage)
<b>HELSINN S.p.A.</b> Basic design	<b>Biasca (Svizzera)</b> Drying department refurbishing Synthesis department ventilation system

<b>ILLVA SARONNO HOLDING S.p.A.</b> Engineering services and assistance in the plant	<b>Saronno (VA)   Altavilla Vicentina (VI)</b> Production departments and warehouses refurbishing
<b>GRUPPO MENARINI - LODICHEM S.r.l.</b> Basic design, detailed design and construction supervision	<b>Casaletto Lodigiano (LO)</b> Refurbishing and upgrade of existing departments Synthesis department
<b>GRUPPO MENARINI - LUSOCHIMICA S.p.A.</b> Engineering services Work assistance	<b>Lomagna (LC)</b> Assistance to technical direction Wash room refurbishing
<b>POMELLATO S.p.A.</b> Basic design Detailed design	<b>Milano</b> Functional redistribution of the goldsmith workshop Structural verification of floors
<b>PROCOS S.p.A.</b> Conceptual design	<b>Cameri (NO)</b> New High Potent API production plant
<b>SICOR S.r.l. - TEVA Group</b> Engineering services, basic and detailed design, work assistance	<b>Rho (MI) - Santhià (VC) - Villanterio (PV) - Bulciago (LC)</b> Administrative and technical documents management High potent API production departments (corticosterids and anticancer) Refurbishing/upgrade of synthesis and fermentation departments
<b>SIKA Polyurethane Manufacturing S.r.l.</b> Detailed design	<b>Cerano (NO)</b> Refurbishing and upgrade of production departments
<b>SISA S.r.l.</b> Detailed design	<b>Caravaggio (BG)</b> Calcium sulphate production plant
<b>SOFAR S.p.A.</b> Engineering services	<b>Trezzano Rosa (MI)</b> Technical documents management Assistance to technical direction
<b>SOL S.p.A.</b> Engineering services	<b>Monza (MB)</b> Assistance to technical direction
<b>SOLVAY S.p.A.</b> Engineering services Detailed design, work assistance	<b>Ospiate di Bollate (MI)</b> Administrative and technical documents management Refurbishing/upgrade of production departments and utilities
<b>SPIN BRACCO S.p.A.</b> Engineering Services	<b>Torviscosa (UD)</b> Assistance to technical direction Refurbishing of production departments
<b>TRIA S.p.A.</b> Feasibility studies, basic design Detailed design, work assistance	<b>Cologno Monzese (MI)</b> Refurbishing and upgrade of existing departments Office building refurbishing

**Serving s.r.l. | Engineering services**

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