

RIZERING

COMPANY PRESENTATION 2020

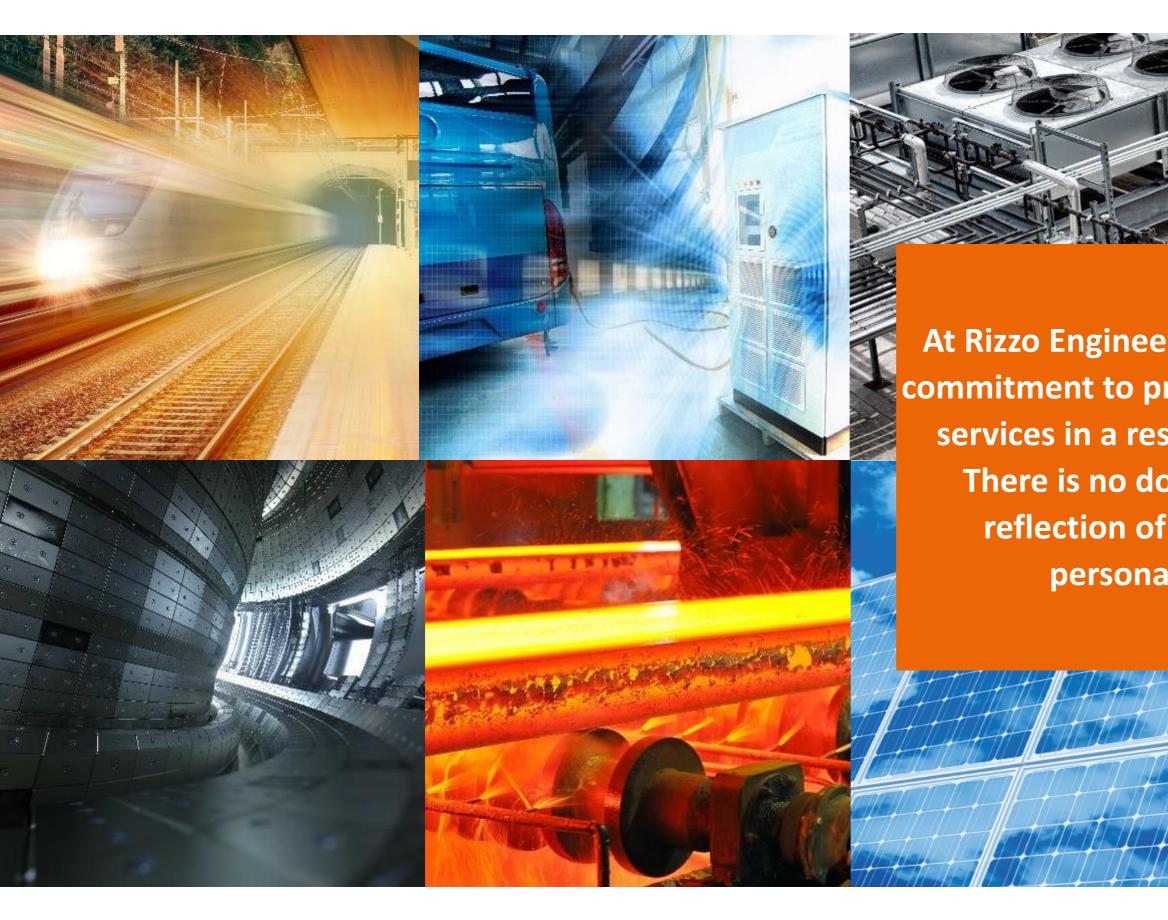
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Who We Are

Rizzo Engineering Srl is an **Engineering Company**. Since the beginning we worked in the field of **Reliability, Availability, Maintainability and Safety (RAMS)**, acquiring significant experiences in defined and structured major projects overseas, expanding later on our field of activity with **HSE Management Systems**, **Occupational Safety** and **Risk Analyses**.







At Rizzo Engineering, we take great pride in our commitment to provide personal and professional services in a responsive, high-quality manner. There is no doubt our services are a direct reflection of our individual capabilities, personalities and experiences.







Rizzo Associates Srl became an independent limited liability company located in Genova, Italy.









Establishment of Rizzo Associates S.c. a r.l. as a limited liability consortium and European branch of Rizzo Associates Inc of Pittsburgh.





2020



engineering services

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Quantitative Risk Assessment (QRA)

Dropped Object Analysis

Our Services

Rizzo Engineering's mission is to provide engineering specialized consulting services on the basis of the quality of its work and reputation.

Any services undertaken by Rizzo Engineering are performed to the highest professional level, and are carried out in such a manner that:

- the Client's needs and requirements are understood and complied with;
- the results meet professional standards;
- the agreement is fulfilled;
- social aspects are considered;
- environmental aspects are considered.

Rizzo Engineering offers a full range of integrated engineering and consulting services to support its Customers in the development of complex projects, covering the early phases of conceptual design and definition of specifications up to implementation, optimization and validation. The Company's multidisciplinary problem solving is continuously supported by the most advanced technical and scientific developments.

Permanent partnerships and co-operations enable Rizzo Engineering to mobilize external experts, independent professionals, researchers and scientists guaranteeing the full coverage of the required expertise.























A Risk Management System is a structured and documented process for managing risks within a company, to assure the protection of people, assets, business reputation and for the protection of the environment.

A Company Management System will often follow a common structure, starting with the business principles, followed by the progressive and continuous development of risk Management identification and subsequent mitigation. The manner and means by which risk is controlled is delivered through people and procedures which are also identified. Risk Man Services

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Safety Inte (SIL)

Rizzo Engineering's team of consultants can lead and facilitate SIL Allocation studies or provide SIL Verification Studies.

Safety Integrity Level Allocation studies, ranging from calibrated Risk Graphs, to semiquantitative Layers of Protection Analysis (LOPA) and fully-quantitative Fault Tree Analysis (FTA).

A SIL Determination study is required to determine the Safety Integrity Level requirements, SIL requirements, for Safety Instrumented Functions (SIFs).

S		A HAZOP study is a structured brainstorming session, set up to identify and evaluate th potential undesirable events that may create hazards or operability of the plant / site.
е	and Operability (HAZOP)	Rizzo Engineering is able to offer Process Hazard Analysis studies, Preliminary Hazard Analysis (PHA) studies including Hazard and Operability studies (HAZOP) and as part o the risk analysis process detailed in IEC 61508 / 61511.
	Hazard and Ope Analysis (HAZOI	As well as a HAZOP study, there are a variety of Preliminary Hazard Analysis techniques which Rizzo Engineering is also able to offer: Hazard Identification (HAZID) study Control Hazard and Operability study (CHAZOP) 'What If' Analysis
r		A Quantitative Risk Assessment (QRA) is a formal and systematic risk analysis approach to quantifying the risks associated with the operation of an engineering process. A QRA is an essential tool to support the understanding of exposure of risk to employees, the environment, company assets and its reputation. A QRA also helps to
	Quantitative Risk Assessment (QRA)	 The main objectives of a QRA are: To identify the hazards associated with a facility; To determine the potential frequencies and consequences of the identified hazards; To determine the system availability of the protection systems; To quantify the risks associated with a facility (e.g. Risk Contours, Individual Risk Per Annum (IRPA), Potential Loss of Life (PLL) and F-N Plots).



Occupational hazards affect an organization's most important resource: its personnel. Employee perceptions of their working environment can greatly influence the quality of their performance and, as a consequence, the level of organizational success.

Rizzo Engineering provides Client-oriented Occupational Health and Safety services designed to help in achieving optimal performance and minimizing liability risks by maintaining a safe and satisfactory workplace.

Object

Dropped

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Analysis

Rizzo Engineering specialists provide valuable insight in the design, implementation, and assessment of programs developed to protect employees and their interactions in the workplace.

RAMS Studies are used as a way of assessing a production system's capabilities and safety, both in operation and those still in the design phase.

As facilities and plants are being used for longer period of time, a Reliability, Availability, Maintainability and Safety Study is able to provide an assessment into the assets life time capabilities and enable businesses to maximise on their return on investment in a safe way.

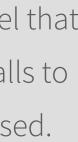
Dropped objects are significant initiators of incidents in many industries and are substantial contributors to the total risk for offshore and onshore facilities.

The consequences of a falling object include:

- Personal injury/death;
- Structural damage;
- Damage to equipment;
- Release of hydrocarbons/fire. ${}^{\bullet}$

Rizzo Engineering's Dropped Object Analysis utilises a mathematical model that compares the mass of the dropped object with the height from which it falls to determine the force of impact and therefore categorise the damage caused.





Rizzo Engineering's expertise extends to all major markets, so we have a deep understanding of the specific issues, constraints and opportunities facing our clients' market sectors. Our team of engineers draw on our accumulated knowledge to devise the best possible solutions for your project in a fully integrated and cost-effective way.





Our Sectors

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Rizzo Engineering provides advanced engineering services and develops and transfers innovative technologies aimed at the technological progress of the industrial system.

Assistance to our Clients covers the full span of the project, from early phases of conceptual design, to proposal preparation, and validation and exploitation of project results.

Energy

Rizzo Engineering provides services to the private industry sector and public administrations in the areas of health and safety assessment. Services are provided to national and international markets

- Power Generation Plants
- Production Platforms
- Gas/Oil Fields and Wells
 - Oil Terminals
 - Refineries
 - Storage Facilities
 - Pipelines
- LNG Plants and Terminals





Transport

Rizzo Engineering provides qualified services to transport systems contractors, owners and authorities in all phases of project development, i.e. design, construction, test and commissioning, verification and validation up to certification. Rizzo Engineering can act at system and sub-system engineering level, as well as at management level for complex railway/metro projects, by means of:

- preparation of the projects specifications for various technologies: vehicles, traction power and power supply, passenger security and information systems, telecommunication, data acquisition and remote control, ventilation, fire-fighting, etc;
- planning of project activities, progress monitoring and resources management;
- interface with the Client, the local administrations and authorities, the certifying bodies;
- sub-systems integration and coordination of system engineering activities.



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