





Engineering process automation from

Solutions for Liquid Bulk Terminals, Distribution Terminals

The implementation of integrated engineering solutions for liquid bulk terminals, distribution terminals systems requires a wide range of specialized know-how and resources. In this highly demanding sector of activities, **SAIE E&A** has not only built up a reputation in recent times, but even more importantly has proven its ability to develop and implement the necessary solutions under challenging conditions, often in a demanding environment, but always in close collaboration with the customer.

Aspects of an integrated approach

In view of the specific requirements of any project in the field of liquid bulk storage and distribution, **SAIE E&A** offers a know how and resources, covering both terminal and process design, including the basic concept and analysis as well as hardware and software engineering. The offer comprises anything from construction and assembly, to commissioning of sites. It includes full maintenance - servicing and logistics support i.e. for spare parts or repairs.

In practice, **SAIE E&A** offers the necessary solutions based on extensive know-how of tank management, specific procedures, hydraulic behavior in circuits and hydrant systems, intrinsic safe and fail-safe circuitry, Exdzone technology. The ever more frequently emerging and more stringent environmental rules and regulations are handled on the basis of local knowledge and international experience.

Standard technological concepts

SAIE E&A Totally Integrated Automation has gained broad recognition as a winning concept in automation, in process control and in a wide field of applications. It is supported by





Fig.1 Exxon Vado Ligure plants

numerous references. On the automation level, tools on industrial standard hardware are tried and tested SCADA failsafe redundant range of PLC'S. Industrial Ethernet and Profibus have become the leading standards for industrial communicatioAns. These technologies come complete with the power of fiber optics for networking and with open drivers for multi-vendor applications, such as the Saab tank master system, Krone flow metering or the leak detection systems using OPC. Specific systems for batching, weighing and dosing are included in this scope.



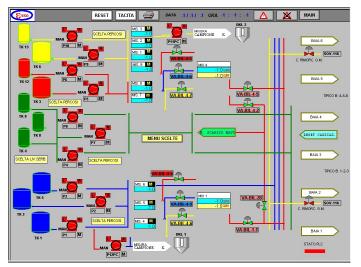
Fig.2 Petrolig Genova Plant

Advantages

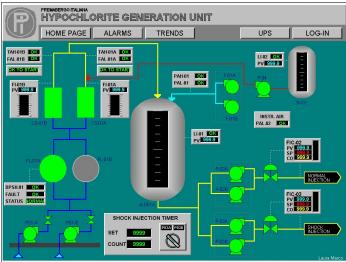
Several ways can achieve an increase in productivity: decreasing the down and dead time, less energy consumption, faster and more precise processing cycles, link and synchronization to the production cycle, easier operation, more job safety, cheaper replacement parts, data exchange with higher-ranking computer systems.

World site

SAIE E&A operates system integration centers in Savona Via Della Nunziata 4.



ESSO Calata Canzio Genova Plant



Enichem Priolo Plant

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