

## Company Profile

- With over 25 years of history, **Swan Technologies** has been successfully operating as a trustworthy EPCC solution provider, evolving from the design of control systems to the development of cutting-edge solutions for the oil & gas, petrochemical, refineries and power generation industries, completing some of engineering and installation projects in Syria.
- Our core business is to deliver **turn-key** engineered solutions by providing customized products, consultative engineering and services with a one-stop-shop approach. Striving to minimize total operating and maintenance costs, we aim at reducing emissions while improving availability, efficiency, and operating range of the installed equipment, regardless of which original manufacturer the equipment is.
- With this purpose in mind, **Swan Technologies** designs, supplies, installs and operates integrated solutions for equipment and process plants, by executing both new "green field" projects and "brown field" projects by revamping, upgrading and optimizing mature production assets.
- Also, we provide training, after-sales assistance and support, maintenance, remote monitoring and other value-added services by taking full advantage of state-of-the-art digital technologies and Industrial Internet of practices.



## About Us

#### **Swan Technologies**

Founded in 1993 as a Trading and Engineering company, dealing with control integrated systems, instrumentation and all related products in Flow/Level Technology for Oil/Gas applications, Refineries, Fertilizers Plant, Power Stations, Sugar Industries and Water/Wastewater fields, based on supplying, installing and operating systems and equipment on turnkey project terms.

#### **Swan Technologies**

Deals with several products in control system & instrumentation of process technology, and represents important European companies, registered under their websites as a sole distributor/agent in Syria.

#### **Swan Technologies**

By leading a global network of highly qualified sister companies and selected partners, today we have a well-rooted presence in all major markets in Syria, with established operations, skilled personnel and strong project management capabilities available locally.

http://www.**SwanTech**.net/



## Our Promise

**Swan Technologies** is a supplier of instrumentation and complete integrated system solutions of hardware and software along these years in the market and of experience in systems engineering and design, based on the leading technologies and depending on international suppliers' expertise.

**Swan Technologies** provides a range of engineering services, training, supplying, installing and operating a line of process control instruments for most industries areas, which is incorporated HART protocol and PID control using Fieldbus/Profibus Solutions for Process Control Technology in full integrated package.

**Swan Technologies** is a product agency corporation in Flow/Level Technology, offering products locally, from world-leading suppliers through business area Control System and Components.

**Swan Technologies** is at your service everywhere with its own sales engineers, sales partners and suppliers from different countries in the world.

Being close to and satisfying the customer is one of our highest priorities..

Eng. DEEB SHAER

Managing Director



# Our Policy

**Swan Technologies** can offer specialized products and solutions involving measurement and control technology. Our product range is completed by comprehensive instrumentation package for control technology.

**Today**, our core competence is focused on industrial control technology and, further more, we have been active in the systems business since many years, and have provided individual solutions for our customers in practically most industrial branch.

**Swan Technologies** supplies technologies and plants suitable for a wide range of applications and industrial processes, advanced gas cleaning solutions to make factories' operations sustainable and eco-compatible, based on a strong experience.

**Swan Technologies** offers several communication technologies and protocols for optimizing process control in industrial plants according to today's industrial automation market. So, it is necessary to maintains a continuous process of training and training of process operators, as well as facilitating the learning of new professionals in an area that constantly presents improvements and technological innovations to increase the productivity and reliability of industrial automation systems.



### **Our Products**

Swan Technologies offers integrated process control system, instrumentation and industrial equipment in Flow/Level Technology for industrial technical applications.

**Swan Technologies** solutions range is for engineering design, procurement, construction, training, start-up and commissioning includes control system configuration & integration, safety control systems, remote instrument enclosures and panels' enclosure design combined with advanced applications and field construction services.



### **Applications**

**Swan Technologies** as an engineering company, supplies complete solutions for fields-applications and projects based on the latest technologies in accordance with international standards, as follows: -

- Custody Transfer Flow Metering Skids System and Custody Transfer Sealed Systems
- Loading & Uploading Systems, Flowmeters, Loading Arms, Flow Control and Vessel Filling
- Tank Management Systems (TMS)
- Process Control and Automation
- Distributed Control Systems (DCS)
- Level, Flow, Temperature, Pressure, Density, Dewpoint, Volume and Mass Measurements
- O2 or O2/COe Gas Analyzers, Flu Gas Analyzers and Continuous Emissions Monitoring Systems (CEMS)
- Controllers, Transmitters, Drives, Analyzers, Sensors, Switches and Valves
- Energy Management Solutions







## Our Partners

Swan Technologies has a partner-relationship and represents some international companies in Syria:



**WIG** (Serbia) is an Integrator and Engineering Contractor, as one of the leading providers, in Europe, of automation and control services, including system engineering, specification, integration and implementation.



#### WIG Projects:

- o Mobile Master Measuring System
- o Biodiesel Custody Transfer Line
- o Brine Mixing Unit
- o Truck Loading Terminal
- o Measuring Skids for technical losses and gas consumption
- o Flow Metering System for LPG Loading/Unloading
- o Custody Transfer Metering Systems
- o Control System and Instrumentation for Isomerization Units
- o Radar Level Management for Tank Fields



# Our Applications



**TURBOMEHANIKA** (Croatia) is an enterprise for machinery (especially rotating) maintenance and repair, design, installation and maintenance of machine governing, protection, monitoring and diagnostics systems, engineering and trade, as well as foreign firms' representation.

#### PRODUCTS AND SERVICES:

- Rotating machinery vibrational behavior analysis
- Troubleshooting and elimination of machinery malfunctions
- Detection and elimination of the electromagnetically induced shaft currents
- Creating computer programs for estimating centrifugal compressors performance
- Installation, Maintenance and Burning Systems optimization on boilers and furnaces and Instrumentation
- Instrumentation projects for Machinery Management Systems, Monitoring, Diagnostics and Protection
- Non destructive testing (NDT)
- Performing thermodynamic calculations
- Creating computer software for machinery balancing and diagnostics
- Installation and Configuration of on-line machinery diagnostics systems
- On-site Balancing of rotating machinery from small fans to large turbo-generators exceeding 300 MW

http://www.turbomehanika.hr/













## Our Sponsors



SMAR Technology Company (Brazil) is a manufacturer of pressure & temperature transmitters, DCS System and related process control instrumentation, supplies devices and industrial solution to the following industries: http://www.smar.com/

- ☐ Oil and Gas
- Chemical and Petrochemical
- ☐ Ethanol
- ☐ Food & Beverage
- Sugar
- Mining
- ☐ Pulp & Paper
- Water & Wastewater













Nova Smar S/A, currently positioned as a Technology Company, is specialized in the supply of solutions for control and automation of industrial processes, attentive and closely monitoring the rapid advance of digital technologies, which has led to the emergence of innovative, differentiated and even disruptive resources, many of which are interesting, applicable and which can be associated with automation solutions.

SMAR develops, manufactures and sells instruments, Controllers, hardware and software for the measurement, control, operation and management of maintenance assets. Provides Project, Factory Acceptance Test, Site Acceptance Test, Site Integration Test, Commissioning, Start-up and Technical Assistance services.

A new opportunity is opening for the SMAR in this decade of 2020 with O-PASTM (Open Process Automation Standard), a "standard of standards" to define a supplier-neutral reference architecture, aimed at building scalable, reliable, interoperable and secure process automation systems, which has been gaining the support of the most important users worldwide.



### **Providing Reliable Choices**













## our Providers



SSE has been successfully operating as a trustworthy EPCC (Engineering, Procurement, Construction, Commissioning) solution provider, evolving from the design of turbomachinery control systems to the development of cutting-edge solutions for the oil and gas, petrochemical, refinery and power generation industries, completing thousands of engineering and installation projects worldwide.

SSE core business is to deliver turn-key engineered solutions by providing customized products, consultative engineering and services with a one-stop-shop approach. Striving to minimize total operating and maintenance costs, we aim at reducing emissions while improving availability, efficiency, and operating range of the installed turbomachine fleets, regardless of which original manufacturer the equipment is.

SSE provides a complete range of field service capabilities and skills for industrial plants, gas and steam turbines, electric generators, centrifugal and reciprocating compressors, centrifugal pumps and valves.

#### SSE offering includes:

- Installation, commissioning, start-up.
- Major and minor inspection and overhaul.
- Maintenance activities.
- Maintenance engineering.
- Operation and maintenance contracts.
- Troubleshooting.

https://www.**sse**.cc/



# Our Thermal Engineering

In Thermal Engineering, Swan Technologies offers the technology applied by leading hydrocarbon engineering companies specialized in the supply of Fired Heaters, Steam Reformers and Heat Transfer Equipment & solutions to the Oil & Gas, Refineries and Petrochemical industries.



**KIRCHNER ITALIA** can carry out design, engineering, fabrication, installation and start-up of Fired Heaters for a wide range of applications in the Oil, Gas and Petrochemical Industries.

- ☐ Refinery and Petrochemical Heaters
- ☐ Steam Reforming Heaters
- ☐ Reaction Heaters
- ☐ Waste Heat Recovery Units







#### HEATERS AND REFORMERS FOR REFINERIES AND PETROCHEMICAL PLANTS

With ITT profound process knowledge, thermal and mechanical design capabilities enhanced with in-house developed proprietary soft-wares and over half a century of successful experience in delivering equipment and turn-key solutions to the hydrocarbon industry, <u>and</u> by its Engineering Services, Consulting Services, Project Management, Construction Supervision & Start-up Services and Training Services, has the following products:

- ☐ FIRED HEATERS for Crude Oil, Hot Oil, Delayed Coker, CCR Units
- ☐ REFORMERS for Hydrogen, Ammonia, Ethanol
- ☐ Waste Heat Management

http://www.ittki.it/

# Our Environmental Engineering



In Environment Solutions, **Swan Tech** deals with **Termomeccanica Group** for the construction and management of environmental and industrial engineering works, and operates in two sectors in the more general "environmental" business:

- ☐ Waste to energy (municipal solid waste and renewable sources such as biomasses, bio-gas, wind power and solar).
- ☐ Technological water treatment (potabilization, desalination and water purification), both for civil and industrial use.



TM.E. S.p.A. - Termomeccanica Ecologia can supply:

- Plants for producing energy using biomasses, municipal solid waste, bio-gas, solar and wind power.
- Flue-gas treatment from waste incineration plants and thermal power plants.
- Sorting and recycling plants for MSW (Municipal Solid Waste).
- Composting plants.
- Plants for producing RDF.
- Waste disposal sites for treating hazardous waste.



TM.P. S.p.A. - Termomeccanica Pompe, a pump & compressor designer, whose history dates back as far as 1912, ranks today amongst the leading manufacturers and service providers of engineered centrifugal pumps & compressors solutions. Our fields of applications range from Desalination, Power Generation, Water Handling to Oil&Gas and Industry.

TM.I.C. S.r.I. TERMOMECCANICA INDUSTRIAL COMPRESSORS designs and provides innovative screw compressors for air and gas applications.



#### TM.I.P. SRL - TERMOMECCANICA INDUSTRIAL PROCESS

TM.I.P. is the company which, within the Termomeccanica Group, responsible for the design and construction of:

- ❖ Gas, liquid and sludge treatment plants from industrial processes
- Several technologies in the production sector of chemical products.





## Our Engineering & Contracting Solutions

Engineering and Contracting solutions for oil and gas treatment, sulphur recovery and acid gas removal



We supply <u>process design</u>, <u>turnkey plants</u>, skid-mounted and <u>modular packages and special process equipment</u> all over the world. We have our own technologies for gas treatment including Claus units, the relevant tail gas treatment (High Claus Ratio - HCR™ technology), sulphur degassing.

Our references include the design and supply of the largest natural gas treatment plants for international transmission. We also provide customized engineering solutions for other specific requirements.

#### PROCESS DESIGN AND ENGINEERING SOLUTIONS

- ☐ Gas-Liquid Separation
- ☐ Gas Sweetening and Removal of Sulphur Compounds
- ☐ Gas Dehydration and Hydrates Control
- Mercury Removal
- ☐ Gas Dew Point Control
- NGL/LPG Recovery and Fractionation
- Mercaptans Removal by Caustic Wash
- Gas Compression
- Crude Oil and Condensate Stabilization and Stripping
- Crude Oil Desalting
- Crude Oil Pumping
- Sulphur Recovery and Removal
- Sour Water Treatment

#### **EPC SOLUTIONS**

We support our customers in the construction of plants with our comprehensive range of services from process studies to the completion of **turnkey plants** in the upstream and refining sectors, especially in the field of <u>oil and gas treatment</u>, <u>sulphur recovery and acid gas removal</u>.

#### **OUR MODULAR SOLUTIONS FOR OIL & GAS PROJECTS**

Our company Siirtec Nigi, has an Equipment and Packages Product Line for tailor-made skid-mounted and modular packages and special process equipment.

https://www.siirtecnigi.com/



### Our Services

# BERTHOLD

**Berthold Technologies** (Germany) is a company offers solutions for the non-contacting measurement of level, density, concentration, bulk flow and moisture. As the global leader in radiometric technology its products are characterized by an outstanding measurement performance and reliability.

Level Measurement Density Measurement Concentration Measurement

Bulk Flow Measurement Online Moisture Measurement

https://www.berthold.com



**Rüeger** (Switzerland) has specialized in the development and manufacture of temperature measurement instruments, particularly electrical temperature sensors, bimetallic and gas pressure thermometers.

**Rüeger** also offers a full range of gauges for measuring pressure and differential pressure for various industrial applications.

**Rüeger** assures its development by joining **ASHCROFT**, a group also specialized in the manufacture of temperature and pressure measurement instruments.

https://www.rueger.com/



# Our Know-How Engineering



**Schmierer** (Germany) is a manufacturer of <u>Pressure/Temperature Gauges</u>, <u>Manometers</u> and <u>Thermometers</u>.

The whole range of products supports a various number of applications in the modern machinery- and plant construction. We produce for the sector "Pressure Measurement" all kinds of Bourdon Tube-, Diaphragm-, Capsule-, Test and Differential pressure gauges.

https://www.schmierer.de/



Is a German-Malaysian Joint Venture company using Malaysia as a base to cover the South East Asia region, providing high quality Pressure, Temperature Flow and Level Instrumentation and Services for end user customers & supporting authorized distributors.





PERFORMANCE MADE SMARTER

PR electronics is the leading technology company specialized in making industrial process control safer, more reliable and more efficient.

- Temperature Transmitters
- I.S. Interfaces
- Communication
- Multifunctional
- Isolation
- Displays



https://www.prelectronics.com

## Our Level and Flow Specialist





Intra-Automation GmbH from Germany focusses on measurement and control systems for flow, level, pressure, absolute pressure and differential pressure.

Today, Intra products are well known in more than 55 countries and in many industries around the world, including chemicals and pharmaceuticals and the oil and gas sector, in ship building, machinery and plant construction, in the foodstuffs industry, water treatment and environmental engineering.

The product range includes level measuring and control devices for temperatures up to 400C° and a pressure range up to PN320 as well as differential pressure measuring instruments up to 1200C° and up to PN400.

#### **Product Profile:**

- > ITA Magnetic Level Gauges, Transmitters, Indicators
- > ITA Magnetic Float Switches
- ➤ Buoyancy Transmitter for Level, Interface and Density
- > ITABAR Pitot Tube Flowmeter: for gas & liquids, flue gas, saturated & superheated steam
- > DP Flowmeter: Wedge, Cone, Venturi, Orifice Assembly

Valve Valve

http://www.intra-automation.com/

# Our Chemical Engineering

In Chemical Engineering, Swan Technologies also, is able to provide a new technology in Process Systems - Skids by offering the Customized Solutions for Food & Beverage, Pharmaceutical, Chemical, Water and Energy Industries.

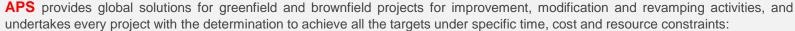
By this technology, **SwanTech** supplies specific equipment skids for the following applications:

Water Purification Dearation

Blending & Dosing Carbonation & Nitrogenating

<u>Pasteurization</u> <u>Dealcoholization</u>

http://www.SchmiererSEA.com/



- ☐ Engineering
- □ Procurement
- □ Construction
- ☐ Project Management
- ☐ Training
- ☐ Research & Development

http://www.aps.it



## Your Partner for EPC projects

By applying **Chemical Engineering** principles: Swan Technologies provides engineering solutions, supported by:

**SMS** offers evaporators with different rotor types - horizontal, vertical, cylindrical or conical, in counter or co-current design. Our plants and machines meet the challenging demands of distillation, concentration, drying and reactions.

<u>SMS</u> offers customized contact drying technologies to dry solutions, suspensions, slurries, pastes, filter cakes and moist granules. Our technical solutions are based on our longstanding experience from a huge number of industrial applications and tests in our test center.

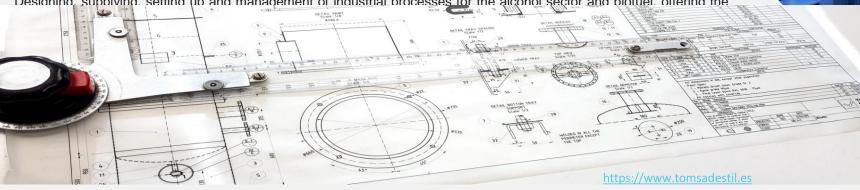
**SMS** offers its customers a unique range of high viscosity processors and the associated application technology. The program provides tailor-made solutions for process steps with viscous and difficult to treat products.

https://www.sms-vt.com

TOMSA DESTIL is a Company with over 165 years of experience in the alcohol sector, with its mission and vision:

- □ Continuous improvement of the industrial processes, searching for excellency in the product quality, reduction of wastes as well as energy efficiency.
- ☐ Encourage the growth of the alcohol and biofuel industry, maintaining high levels of quality and respect for the environment.

Designing, supplying, setting up and management of industrial processes for the alcohol sector and biofuel, offering the





Hε

- Vapour

Solids

## Our Scope of Supplies

### **DURAG GROUP**

DURAG DURAG SIENA SIENA SMITSVONK GRIMM TO AEROSOL







**DURAG Group** (Germany) is a worldwide operating group of companies and one of the market leaders for intelligent solutions in the fields of combustion technology, environmental monitoring, data management as well as tunnel sensors. The company offers modern technology, certified equipment and reliable services tailored to the individual needs of its customers worldwide.

**IGNITION & COMBUSTION** 

**MONITORING & CONTROL** 

MEASURING & MONITORING

https://www.durag.com/

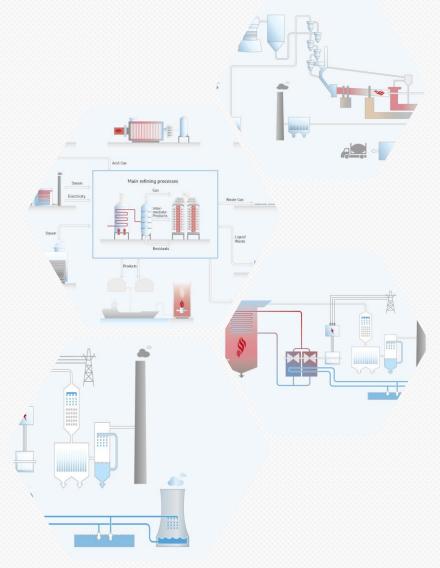


ENOTEC is an acronym for ENergy Optimisation TEChnology, a worldwide leader in the field of process and flue gas analysis systems for the measurement of O2 (oxygen) and COe (combustibles), produces InSitu gas analyzers for process and for CEMS, resulting in minimized energy consumption, reduced emissions and optimal process control.

ENOTEC quality gas analyzer systems are used worldwide as complete solutions for process and emission measurements to optimise combustion systems. The monitoring of combustion processes, ranges from complex analyzer systems for ensuring system safety to compliance with country-specific environmental



https://www.enotec.com/



## Our Supporters



**airprotech** (Italy) is a leading company for turnkey supply of air protection and environmental technologies for air pollution control, complete systems for cleaning of polluted process gases and reduce the impact of industrial emissions on the environment.

**airprotech** provides innovative solutions to control industrial exhaust gas emissions, a complete set of technologies, supplies products for the control of industrial emissions including VOC volatile organic compounds, VIC volatile inorganic compounds, aerosols, mists, solvents, odors, hydrocarbons and particles.

https://www.airprotech.eu/



**RB Technologies** (France) is a company offers Oxygen analyzer and Combustible Gas detector, developed throughout the years, engineering competencies to address all combustion and instrumentation related issues.

**RB** Technologies core business is Measurement or Instrumentation, which allow acquiring measurement data. However, Measuring is not a goal but a mean to reach the ultimate goal: Improving performance.

http://www.rb-technologies.com/

https://www.bopp-reuther.de/



**Bopp & Reuther Messtechnik** GmbH is famous with the invention of the oval <u>gear meter principle</u> for the production of <u>flowmeters</u>, <u>density and concentration measuring devices</u> as well as <u>metering devices</u>.

**Bopp & Reuther Messtechnik** has given industrial measurement of liquids, gases and steam a completely new quality and accuracy. The devices from Bopp & Reuther Messtechnik are used wherever liquid, vapor and gaseous media have to be reliably measured, controlled and regulated.

- FLOW AND VOLUME MEASURING DEVICES
- DENSITY AND CONCENTRATION MEASURING DEVICE
- CONVERSION CALCULATOR PRODUCTS
- ☐ FILTER AND CETRIFUGAL GAS SEPARATOR
- DOSING SOLUTIONS



# Our Suppliers

#### KROHNE

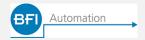
**KROHNE** (Germany) is a world-leading manufacturer and supplier of solutions in industrial process instrumentation.

- Flow, level, temperature, pressure, process analytics
- Meters, sensors, systems and accessories
- Wide range of measurement technologies

KROHNE provides engineered turn-key solutions for specific industrial applications, and offers supporting products and services for one-stop-shopping and in industries as widespread as oil & gas, water & wastewater, chemical & petrochemical, food & beverage, power, minerals & mining and marine.

https://www.krohne.com/

KROHNE Oil & Gas supplies complete flow metering system solutions for custody transfer oil and gas projects throughout the world. The innovative and proven metering systems are based on advanced technologies.



The BFI Automation Mindermann GmbH, offers solutions for industrial flame monitoring. The owner-managed in the second generation company was founded in 1973 and based in Ratingen and is now represented by sales and service offices in over 20 countries. With its sister company BST Solutions GmbH BFI Automation Mindermann GmbH forms the group Mindermann.

https://www.bfi-automation.de/



### Our End-to-End Process

In End-to-End Process, Swan Tech with INGENICA-LLI has now a wide experience in this business offering efficient and economical solutions in various other fields such as:

- Greenfield projects of lubricants and grease plant integrating the latest technologies (from basic design to commissioning)
- \* Revamping, modernization, extension of capacities or optimization for existing plants.
- Design, manufacturing and installation of blending equipment from simple to complex turnkey equipment.



#### MODULAR & TURNKEY PROCESS UNITS - INTEGRATED EXPERTISE DEDICATED TO PROCESS MANUFACTURING INDUSTRIES:

- □ DESIGN, ENGINEERING Custom engineered solution: from basic design to detailed engineering. 30 years experience in process plants manufacturing
- ☐ MANUFACTURING Full range of process blending equipment designed inhouse.
- □ AUTOMATION, MONITORING Instrumentation supply, from basic to full automation Design and implementation of the PCS Hardware and software installation Training and remote assistance
- ☐ COMMISSIONING Factory Acceptance Tests (FAT), Plant Installation & Startup and Aftersales Service: Maintenance & Training.

http://WWW.INGENICA.FR



We, at **Leroux & Lotz** Technologies (LLI), as an integrated company with a unique know-how in designing and manufacturing skid mounted modular plants for the production and packaging of lubricants perfectly, can offer economical solutions for industrial projects, which are designed with the constant objective to limit losses and reduce environmental footprint.

http://WWW.LEROUXLOTZ.COM/



## **Our Industries**



**UNIVERSAL COMPANY** uses the brand UNIVERSAL BOSCHI ITALY as DR. BOSCHI of ING. L&A BOSCHI gave the certification to use the brand name BOSCHI ITALY in all the Oxygen Nitrogen and Argon Plants manufactured by universal as per BOSCHI ITALY technology acquired since 1985.

**UNIVERSAL COMPANY** is a leading manufacturer and exporter of Air Separation Plants, Oxygen Plants, Nitrogen Plants and Acetylene Plants. With the technical association of **ING. L. & A. Boschi** of Italy, our company fabricates plants that perform in compliance with the plants of international standard.

**UNIVERSAL COMPANY** has started manufacturing of Nitrogen & Oxygen Production Plant at our factory in New Delhi (India) in 1985 and air separation columns in Genova, Italy.

#### PRODUCTS:

- OXYGEN NITROGEN PLANTS
- ☐ LIQUID OXYGEN PLANT
- LIQUID NITROGEN PLANT
- AIR SEPARATION PLANT
- ACETYLENE GAS PLANT
- SKID MOUNTED COMPACT DESIGN MOBILE OXYGEN PLANT PORTABLE
- MEDICAL OXYGEN GENERATOR
- TONNAGE LIQUID/GAS OXYGEN & NITROGEN AIR SEPARATION PLANT



https://www.universalboschi.com

# Our Technology

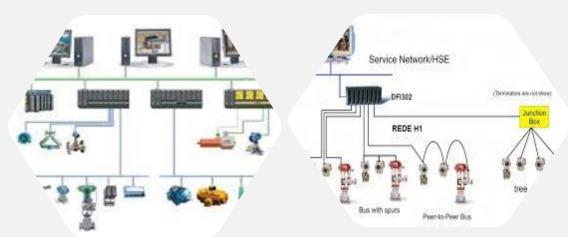
#### **Distributed Control System**

A distributed control system (DCS) is a computerized control system for a process or plant usually with many control loops, in which autonomous controllers are distributed throughout the system, but there is no central operator supervisory control.

This is in contrast to systems that use centralized controllers; either discrete controllers located at a central control room or within a central computer. The **DCS** concept increases reliability and reduces installation costs by localizing control functions near the process plant, with remote monitoring and supervision.

A **PLC** could be standalone or networked. **DCS** or Distributed Control System is a network of Highly Powerful PLCs and Data Server. **PLC** is usually used for controlling medium or large scale applications, whereas **DCS** is used for controlling entire plant.

Distributed control systems first emerged in large, high value, safety critical process industries, and were attractive because the DCS manufacturer would supply both the local control level and central supervisory equipment as an integrated package, thus reducing design integration risk. Today the functionality of SCADA and DCS systems are very similar, but DCS tends to be used on large continuous process plants where high reliability and security is important, and the control room is not geographically remote.





### Providing Reliable Choices.

**Profibus** is a standard for <u>fieldbus</u> communication in <u>automation</u> technology, designed to monitor measuring equipment via a process control system in process automation applications.

Foundation Fieldbus is designed to address the needs of real-time process automation, and originally intended as a replacement for the <u>4-20mA</u> standard. It is two-way communications system that serves as the base-level network in a plant or factory automation environment.

### Our Activities

Swan Technologies has also another activity in full-automated production line and a partner-relationship of the following companies in Syria:



**IMF Engineering** (Italy) was founded as a manufacturer of equipment for a wide range of industrial applications. A keen **vocation for innovation** made the company pursue specialization in the sector of heat treatment and painting processes, making it stand out for its particular approach, oriented to devising original, custom-designed plants for industrial pretreatment and painting processes of metal products.

The core business of **IMF Engineering** is the manufacturing of equipment for the finishing and painting of metal products like brake pads, light-alloy wheels, flexible tubes, aerosol aluminum cans, steel drums, with an eye to innovative solutions also in the processing of other product types, including motorcycle helmet visors, insulation of electric motor wiring and many more applications.

https://www.imfeng.eu/



**Technopack** (Italy) is an engineering company that serves manufacturing industries in the metal packaging field, designs and supplies dedicated whole production lines, group or single machines, equipment and components for critical manufacturing processes in the field of metal packaging, tailor-made for extremely demanding customers, and offers advanced knowledge of production processes both in aluminum collapsible tubes and aerosol cans as well as long-lasting experience in managing complex and composite projects.

**Technopack** supplies complete systems for aluminum tubes production (diameters from 13,5 to 50 mm), complete systems for the production of aerosol monobloc cans (diameters from 22 to 66 mm and more), and complete systems for the production of industrial cylindrical monobloc, marker pens and cigar sleeves.

https://www.technopack.it/



## **Our Clients**

Swan Technologies is qualified for the following Syrian companies in Oil/Gas, Fertilizers, Power Stations, Sugar Industries:

- ☐ Syrian Gas Company SGC
- ☐ StoryTransGas STG (Russian EPC for SGC Gas Treatment Plant)
- ☐ Homs Sugar Company
- ☐ Homs Refinery Company
- ☐ Banias Refinery Company
- ☐ General Fertilizers Company
- ☐ General Company for Banias Power Station
- ☐ General Company for Aleppo Power Station
- ☐ General Company for Mehardeh Power Station
- ☐ General Company of Jandar Power Station
- ☐ General Company of Dier Ali Power Station
- ☐ HADEED Metal Manufacturing Company



## Our Projects

### References

#### Swan Technologies has some reference projects:

- 1. Supplying, Mounting, Erecting and Operating of Cationic Filter in the Demineralization Unit 31 BW (turnkey job) HRC
- 2. Supplying, Installing and Operating Complete Oxygen Analyzers (turnkey job) in HRC
- 3. Replacement of old Flame Detectors System with a new one for five units (turnkey job) in General Company for Aleppo Power Station
- 4. Replacement of O<sub>2</sub>, CO and C O<sub>2</sub> Systems with a new one for five units (turnkey job) in General Company for Aleppo Power Station
- 5. Maintenance, Spare Parts and Support works of DCS for 3 years at SMAG



**Swan Technologies** is prequalified for the following projects in HRC:

- i. Control System for Air Compressors Unit 28
- ii. Flowmeters for Delayed Coking and Hydrodesulphurization Sectors (turnkey job)
- iii. Local Field-Activities for Revamping of CCR Platforming Heaters / KIRCHNER offer
- iv. Spherical Tank Calibration and Radar Level Measurement System (turnkey job)
- v. Online Analyzing & Auto Blending System for Crude Oil Distillation Units (turnkey job)
- vi. Replacement of the Control & Monitoring System for Turbine Compressors K1 A,B in Plat-forming Unit 500
- vii. Replacing of Control, Monitoring, Alarm System and all of Instrumentation of CCR Unit 510
- viii. Replacing of Control System and Instrumentation at Isomerization Unit 210



