

PREMATECNICA

Equipos e instalaciones para las industrias de proceso y energía



DELIVERY *program*

Design | Supply | Service





equipment
resins
services
fertilizers
solar plants
instrumentation
LNG
natural gas
biomethane
automotive
water
energy
processes
circular economy
sulfur
petrochemical
plastics
biogas
refined
pulp & paper
wastes
emission control
nuclear
combined cycle
biomass
industry 4.0
metallurgy
engineering
paintings
hydrogen

COMBUSTION



Respectful with the environment, our objective is to clean the combustion gases before they are released into the atmosphere, thus helping our clients to control their emissions and operate their plants in a sustainable way. For this, from our COMBUSTION Business Unit, we offer turnkey products of our own design or under license: torches, thermal oxidizers, DeNOx systems, vapor treatment systems or vapor recovery units.

Flares

Elevated



PREMATECNICA

Optimal for the safe disposal of a residual gas in a way compatible with the environment through its combustion. For large gas discharges, with visible flame and high radiation impact. Different types: sonic and subsonic, air / steam and/or gas assisted, unassisted or special for gases with low calorific value, specifically designed for your application. Self-supporting, supported by winds or in a fixed or removable Derrick structure.



Ground



PREMATECNICA

With multiple burners and stages to minimize radiation and luminosity. Used when there are restrictions to the permissible radiation and there is floor space available for their installation, since they need a large surface area. Completely cloistered, where the flame must be completely hidden. Radiation to adjacent equipment is minimized as well as required floor space. They use multiple burners (central/radial) distributed in stages in a combustion chamber, which acts as a combustion chamber and chimney.

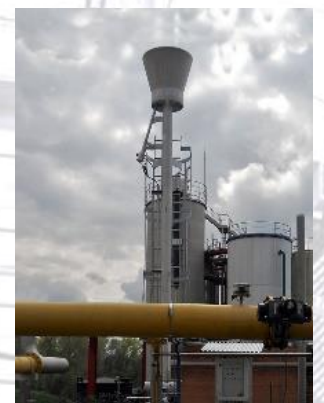


Biogas



PREMATECNICA

Used in anaerobic digestion facilities or in landfills. Open flame (elevated) or hidden flame, with or without fan assistance. We modulate the flaring flow as a function of pressure/height in collectors/digesters, burning only the instantaneous excess gas, helping to minimize the excess gas burned and optimizing the energy balance of the plant. Controlled by PLC incorporating the most advanced security systems.



Pit burners



PREMATECNICA

For emergency discharge of gas-liquid mixtures.



Replacement burners



PREMATECNICA

Interchangeable with existing equipment, redesigned to suit the client, incorporating the latest developments in efficiency and new ignition systems.



Cold vents



PREMATECNICA

Emergency venting of gases without flame, calculated on the basis of radiation generated by accidental ignition of the flame and safe dispersion of the gas cloud.



Thermal oxidizers



Horizontal forced draft

PREMATECNICA

Controlled thermal oxidation of fluids (gas / liquid) in horizontal forced draft combustion chamber with adequate residence time to ensure the elimination of harmful components, with/without auxiliary equipment (energy recovery, DeNOx, etc.).



Vertical natural draft



PREMATECNICA

Controlled thermal oxidation of gases in a vertical natural draft combustion chamber with energy input and control of combustion and cooling air to obtain superior thermal destruction. Possibility of integrating chimney sampling to monitor emissions. Suitable to ensure the elimination of harmful components, with a tight implantation and investment.



Recuperative



PREMATECNICA

They use part of the heat of the combustion products to preheat the stream to be oxidized or to recover heat to another point in the process, through primary or secondary recovery. In this way, the thermal efficiency of the process is increased, using less input energy.



DeNO_x systems

Catalytic (SCR)



PREMATECNICA

By adding an ammonia/urea solution to the flue gases, NO_x can be converted to N₂+H₂O. When it is necessary to comply with more restrictive levels, it may be necessary to work on a reactor with a catalyst at a lower temperature to increase the efficiency of the conversion.



Non-catalytic (SNCR)



PREMATECNICA

Solution for the elimination of NO_x that is cheaper than catalytic systems, as long as there is sufficient temperature in the process to complete the reaction of urea+NH₃ and nitrogen oxides. They can achieve yields of up to 60% and include injection systems and dosing of mixtures in the home/flue and control system.



Vapor treatment systems



PREMATECNICA

Safe and efficient combustion of explosive vapors (gas mixtures diluted in air in concentrations between LEL-LSE) for degassing of tankers or storage tanks. Depending on the frequency of the risk, they are classified in Zone 0 or 1. ATEX Zone 0 incorporates 3 independent protection measures.



Vapor recovery units



PREMATECNICA

For hydrocarbon vapors, recovery units based on a pressure swing adsorption (PSA) process with two activated carbon reactors, alternating in 15 minute cycles.



DESIGN...

...of sustainable energy solutions.

Building a more secure energy future.

Attention to the environment and the protection of biodiversity, essential in the management of our activities.



EQUIPMENT

A tall industrial distillation column with red and white horizontal bands, surrounded by other refinery structures at sunset. The column is the central focus, with several smaller columns and piping visible in the background. The sky is a mix of orange and blue, indicating dusk or dawn. The overall scene is industrial and complex.

Our EQUIPMENT Business Unit, since 1961, exclusively represents, advises, selects, sells, maintains and repairs equipment, machines, facilities and process instrumentation of the most recognized world brands in each field. Our principals give us their trust making us the point of connection with our clients for domestic and international localization projects.

Accessories

PLIDCO

PLIDCO

Safety accessories for repairing leaks, pores or pits in pipes under load and sealing pastes. For permanent or temporary repairs. Designs both standard and according to customer drawings. Models, sizes and materials for use in high pressures and different processes.



RESCO

Special refractory cements for vessels lining, reactors and gas lines in refineries, anti-erosion, withstands thermal impact.

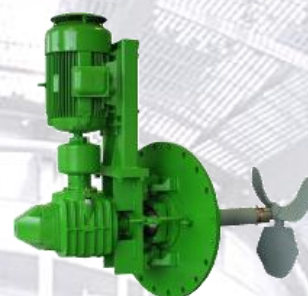


Mixers



PREMATECNICA | PREMA-SERVICE

For hydrocarbons, crude oil, chemicals and specials tanks. Side-entry or vertical, fixed or variable angle, manual or automatic. Special designs for high temperature and high viscosity products. ATEX certified for classified areas.



Flame arrestors and venting



PROTECTOSEAL-ELMAC

In-line and end-of-line flame arresters, explosion-proof and anti-knock, designed according to directives 94/9/EC, EN 12874 and ISO 16852, valves for blanketing, pressure/vacuum, venting and emergency tanks.



Pumps



DICKOW

Wide range of pumping solutions for all types of fluids, especially hydrocarbons, dangerous chemicals, superheated water and high temperature thermal oils, up to 450 °C.





GRAHAM

Complete packages of liquid ring vacuum pumps with seal liquid recovery, auxiliary services and hybrid systems with ejectors.



TRILLIUM FLOWAY

Vertical submersible for water and hydrocarbons, low vibration and long lasting design. Process industry applications in compliance with API 610 and mining services.



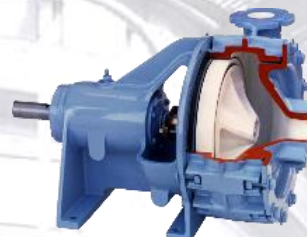
TRILLIUM ROTO-JET

High efficiency and reliable high head low flow (**Pitot tube** system) for handling clean fluids in general services and API610 applications. Simple and robust design, ease of operation and low maintenance requirements.



TRILLIUM WEMCO

Vortex type designed to transfer fluids containing large particles, abrasive or slurry (dredging, mining or industrial sewage), while minimizing abrasion and risk of clogging. Self-primer are rugged and dependable self-priming, solids handling, trash pumping that are suitable for a wide range of applications. Easy to maintenance without special tools.



WEIR HAZLETON

Centrifugal slurry horizontal and vertical design. Applications for moderate and heavy-duty in processing and waste plants, for nuclear sludge, coker and other processes in compliance with API 610.



WEIR LEWIS

Vertical and horizontal pumps for sulfur, oleum and **sulfuric acid**. Vertical pumps for **molten salts**. Axial flow pumps for phosphoric acid, brine or potash. Butterfly, globe and gate valves for the most demanding applications. Specialist in **corrosive/abrasive** pumping applications, thanks to their **Lewmet®** and **Phosduplex®** alloys, of unmatched resistance, which confirms them as the world standard in sulfuric acid applications.



Compressors and blowers



FIMA

Low flow centrifugal fans, blowers and compressors. Product range for industrial applications, API and customized solutions. Hermetic and magnetically coupled blowers and compressors for special applications. **Internal zone 0 blowers**, for the transport of explosive gases.



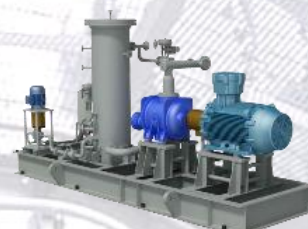
HOWDEN BC COMPRESSORS (HBC)

Burton Corblin® oil-free reciprocating process gas compressors. Designs with membrane and API 618 piston. **Periflow** high speed compressor, own design. Special gases. Package units.



HOWDEN COMPRESSORS (HCO)

Screw compression systems with or without API 619 lubrication. For gas liquefaction and compression, CO2 recovery and hydrocarbon processes. Refrigeration units.



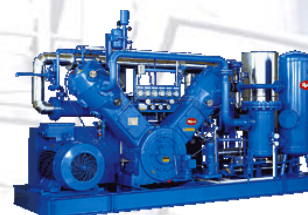
HOWDEN COMPRESSORS (HCO)

Single-stage turbochargers and blowers, with integrated reducer, in package units, which can be designed for both API 672/617 applications and for other markets. Lobular blowers.



MEHRER

100% oil-free, energy efficient and **ATEX** certified air and gas compression. Designs with piston and diaphragm with special configurations, watertight, control system or multiple accessories. *Turn-key* sets or bare shaft machines. CO2 and **biogas** specialists.



Special equipment



FORAIN

Metering and pressure reduction systems for gases (**RMS**), flow metering systems for liquids, customized solutions and turn-key projects.





GEA-BGR

Ball cleaning systems for condensers, **DEBRIS** type filters for power plants (coal, thermosolar and nuclear) and desalination plants.



RASCHIG

Column-packed mass transfer products: rings and structured. Plates, demisters and trays. Ceramic, metallic and plastic materials.



VAN TONGEREN

Design and manufacture of special high temperature cyclones for FCC reactors and regenerators. Equipment for separation, processing and classification of dry particles.

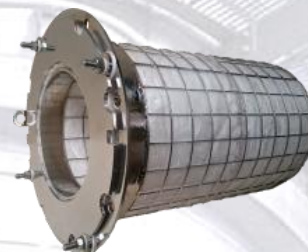


Filters



BEGG COUSLAND

Design and manufacture of mist eliminators. A broad range of wire and fiber form products used for industrial air pollution control and process filtration and gas cleaning control. Experience and proven liability in a variety of industries, specially in nitric acid, sulphuric acid and fertilizers plants, among others.



FORAIN

Gas treatment solutions: dry gas filters, separator filters, droplet separators, multicyclonic separators, direct (electric) and indirect (water / oil bath) process heaters, scraper traps.



Process instrumentation



BRODIE

Design, manufacture and distribution of high precision liquid flow meters (from 1/2" to 16") and piston control valves, both supported by strainer or air eliminators and accessories, as used in the custody transfer of petroleum products.





CAMERON

Barton[®], **Nuflo[™]**, **Clif-Mock[™]** and **Jiskoot[™]** measurement and control instrumentation for the process control, oil and gas industries: chart recorders, turbine meters, flow analyzers, positive displacement meters, flow computers, sampling systems, ultrasonics and water cut analysis.



COSASCO

Coupons, probes, equipment and integrated control and measurement corrosion and sediment monitoring systems, in different environments and technologies. Chemical injection.



DURAG

Specialist in combustion technology: UV, IR and VIS flame detection, fixed and portable ignition systems, gas, fuel or dual burners, video thermography systems, cameras and accessories for combustion processes.



ITT

Positioners, transducers, actuators, filters and accessories by **Conoflow[®]**. Adjustable standard, differential, pressure/vacuum, hermetically sealed, and miniature pressure switches, temperature switches and flow switches by **Neo-Dyn[®]**.



MEMS

Gas quality analyzers, with highly efficiency with binary and ternary mixtures. Application in biogas, burners regulation, LNG and **hydrogen blending** in natural gas network.



MONICON

Fixed detection systems for combustible and toxic gases. Wide range of detectors, controllers, smart / compact equipment available. They use different measurement principles: IR, thermocatalytic and electrochemical sensors depending on the type of gas, being highly versatile and adaptable for different industries and processes.

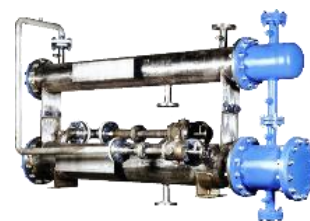


Vacuum systems



GRAHAM

Single and multi-stage steam ejectors including combinations with process condensers and liquid ring pumps, eductors, thermocompressors and steam surface condensers for turbines.



MD-Kinney

MD-KINNEY

Wide spectrum **Kinney®** vacuum pumps and vacuum systems in vacuum technologies (rotary piston, liquid ring, dry screw, and rotary vane) and **M-D Pneumatics™** blowers, vacuum boosters and blower packages known for their reliability, quality and selection of models with a mix of standard and optional features for multiple applications.



Heat transfer



GRAHAM

Heliflow® high efficiency compact helical exchangers. Unique design for difficult applications such as cryogenics, supercritical fluids and hydrogen applications. Specialized in high pressure, exotic materials, cyclical operation and extreme temperatures. Process condensers, water heaters and desuperheaters.



Turbines



SIEMENS-ENERGY

Single-stage and multi-stage steam turbines, according to API611 and API612. Steam turbine generators, fully packaged, up to 25MW. Steam turbines for ORC.



Fans



CURTISS-WRIGHT

Portable, marine and terrestrial **Coppus®**, powered by air or water and its accessories, for tank cleaning and ventilation of confined spaces. High performance and compact design, resistant to corrosion.



HOWDEN SOLYVENT-VENTEC

Industrial centrifugal and axial fans, for all types of industrial and energy applications. Wide range of designs and materials, being able to provide solutions for almost any ventilation application.






SUPPLY...

...from the highest quality standards.

Referents in the sector.

Almost six decades of experience in the energy sector guarantee us as a benchmark for the quality of our products.

Services

A full-page background image showing a worker in a white hard hat and blue uniform working on a yellow industrial structure. The worker is positioned on the right side of the frame, leaning over a horizontal rail. The background is a clear blue sky and a distant, hilly landscape. The word "Services" is written vertically in blue on the left side of the image.

Both units have a range of after-sales technical assistance SERVICES specialized in the customer or workshop/factory and guaranteed original spare parts for all the equipment and facilities that make up our supply program. Likewise, we have a technical engineering office to carry out simulations and studies of dispersion, radiation and process efficiency improvements.

Assembly and commissioning



PREMATECNICA

Assembly and commissioning of combustion equipment and package units.



Maintenance and repair



PREMATECNICA

Specialized preventive/corrective maintenance, in the client or in our workshops/factories, both for combustion equipment (own or external) and for the rest of the equipment in our supply program.



Instrumentation and control



PREMATECNICA

Design and manufacture of control panels, even with redundant safety PLC, for package units by qualified personnel.

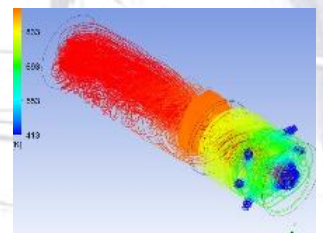


Engineering specials



PREMATECNICA

Detailed engineering solutions specialized in thermofluids: fluid modeling, simulation and modeling, dispersion studies, radiation, etc.



Spares



PREMATECNICA

Supply of guaranteed **ORIGINAL** spare parts for all our equipment, directly from our principals.



SERVICE...

*...professional as a competitive
advantage.*

*Our employees, our best asset, always
at the service of the client.*

*Qualification and specialization with an
international profile from the most
adequate management of people.*





PREMATECNICA was founded in 1961 in Madrid (Spain). We started distributing, in the Spanish market, blue-chip equipment and instrumentation for the process and energy industries, starting our international expansion in 1980 with the incorporation of an associated Company in Mexico with national partners who have managed the operation of the same. This was the beginning of a new era for our Company. Today, fully engaged in a global business policy to provide effective responses to the demands of our clients, our team of experts develops a wide variety of equipment for the environment protection, energy efficiency and safety.

Since 1961...



...with all the energy

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