



SPECIALIST FOR YOUR PROCESS PACKAGED **UNITS**

Fournisseur d'unités procédés clés en main



CRUDE OIL
TREATMENT



GAS
TREATMENT



FISCAL
METERING



FUEL GAS
CONDITIONING



HEAT
TRANSFER



TANK
FARM



PILOT UNIT
TEST BENCH

OUR KNOW-HOW AT YOUR SERVICE



PROCESS SYSTEMS TODAY

PROCESS SYSTEMS *Your performance guarantee*

PROCESS SYSTEMS is a French company, founded in 1988 by former BS&B engineers (1892). It specialises in oil and gas treatment and energy recovery. Strengthened by its history and its innovations, today **PROCESS SYSTEMS** displays an international presence with installations in France, Algeria, Poland, Russia and China.

A RICH DNA WITH A CENTURY OF EXPERIENCE

PROCESS SYSTEMS is enriched with specialist skills to design and manufacture complex projects in the following fields of activity :

- Crude oil treatment
- Gas treatment
- Fiscal metering
- Fuel gas conditioning
- Heat transfer
- Tank farms
- Pilot units

Together with its partners and clients, PROCESS SYSTEMS demonstrates its professionalism and its operational excellence.

- Personalised assistance throughout the project (i.e. from the process design through to the commissioning and start-up).
- Continuous team involvement.
- Respect for the project commitments and impeccable quality of service.

BELONGING TO A MEDIUM-SIZED GROUP

PROCESS SYSTEMS belongs to the private IWF group (IRON WILL FRANCE) which, in 1991 as one of the major historical suppliers of the company, acquired PROCESS SYSTEMS in order to profit from its engineering capabilities. PROCESS SYSTEMS is therefore able to provide a financial structure through IWF as well as utilising the design, manufacturing and fabrication expertise of the group.

SOME OF OUR ACHIEVEMENTS

1992

Installation of the first DRIZO natural gas dehydration unit.

2001

Installation of the first natural gas dehydration unit with thermal oxidiser for GAZ DE FRANCE.

2005

Installation of natural gas dehydration unit for FPSO AKPO for TOTAL.

2009

Installation of the biggest fiscal gas metering unit in Africa.

2010

Installation of entrained amine removal package for liquefaction trains for GL1K in Algeria.

2017

Installation of 40 skidded gas treatment units in 13 months.

OUR SKILLS

Synergy of the project teams

PROCESS SYSTEMS performs your projects from the process design through manufacturing to the on-site commissioning and start-up. A team of experts specifically dedicated to your projects and the commitment of everyone as well as the proximity of the commercial and technical teams at the client's disposal are the key to our international success.

ENGINEERING

PROCESS

- Process Engineers perform the design studies.
- Thermodynamic & hydraulic simulations, heat and mass balance, heat transfer (HYSYS, HTFS).
 - Equipment sizing to client specifications using specialised software.

MECHANICAL

- Design studies and manufacturing using software such as AUTOCAD, PDS, PDMS or SOLIDWORKS.
- 3D model reviews with client.

This detailed design includes : pressure vessels, piping, supports and rotating machinery.

ELECTRICITAL / INSTRUMENTATION AND CONTROLS

- Determination of utilities required for unit operation.
- Measurement of main process properties (pressure, flow, level, temperature). Utilisation of control devices (valves, pumps, etc...)
- Control system (PLC).

Programming using functional analysis and in accordance with the client specifications.

SAFETY

- Safety of the supplied units.
- Risk analysis and management.
- Standards compliance : HAZOP, HAZID, SIL, ATEX, CE.

PURCHASING AND FABRICATION

PURCHASING

- Process equipment:- pumps, filters...
- Manufactured equipment : valves, instruments...

FABRICATION

- Pressure vessels, heat exchangers, piping and steel structures.
- Fabrication in our workshops or the workshops of our partners according to the project strategy.

IN CONFORMITY WITH THE INTERNATIONAL CODES AND STANDARDS RELEVANT TO THE OIL, GAS AND ENERGY INDUSTRY.



«TURNKEY» SOLUTIONS

INSTALLATION START-UP TRAINING – AFTER-SALE SERVICE

INSTALLATION ASSISTANCE through to on-site start-up.

SITE TESTS (Site acceptance test).

PERFORMANCE TESTS guaranteed to client (heat and mass balance, heat transfer, metering accuracy...)

TRAINING of operators and maintenance teams.

AFTER-SALES SERVICE : definition and supply of spare parts as well as on-site assistance.

ASSEMBLY

MANAGEMENT OF ASSEMBLY OPERATIONS

WORKSHOP TESTS (Factory Acceptance Test) in the presence of Third Party Inspection authorities and client before delivery. Validation of unit operation and assemblies associated with the control system.

FIELDS OF ACTIVITY

Specialist for your process packaged units



CRUDE OIL TREATMENT

CRUDE OIL SEPARATION

3 phase test and production separators skid mounted with capacity up to 50 000 BOPD for on-shore and off-shore applications.

CRUDE OIL DESALTING

Electrostatic coalescers for dehydration and salt removal (0.2% BS&W).

CRUDE OIL HEATING

Indirect heater or TEMA type shell and tube exchangers.

CRUDE OIL DISTRIBUTION AND TRANSFER

Oil distribution and transfer equipment such as pig traps, production manifolds and liquid pumping skids.

CONDENSATE STABILISATION

Stabilisation solutions performed via stabilisation columns with trays associated to a reboiler and a condenser in the top of the column.



GAS TREATMENT

GAS DEHYDRATION

From standard to complex gas dehydration and glycol regeneration units and notably the development of « clean » solutions (with thermal oxidiser) limiting the polluting emissions and valorising the energy in the process.

GAS SWEETENING UNITS

Amine sweetening units, sulphur removal with activated charcoal or molecular sieve.

GAS SEPARATION AND FILTRATION

Gas-liquid separation (vane-pack, demister) or multi-cyclone separators. Our solutions for filtration, coalescence and separation use a large range of separation technologies.

DE-ETHANISER

De-ethanisation sections permit separation of LPG (Butane and Propane) from the most volatile constituents (methane, ethane...). Our de-ethanisation solutions are performed via columns equipped with trays associated to a reboiler and a condenser installed at the top of the column.

GAS TRANSPORT AND DISTRIBUTION

Equipment for the distribution and the transport of gas such as pig traps and production manifolds.



FISCAL METERING

GAS METERING

Complete fiscal gas metering system, including the meter runs associated flow computers, analysis shelters, the supervision system and the calibrating and proving system. Our systems utilise the complete range of technologies for gas metering.

LIQUID METERING

Complete fiscal liquid metering system, including metering skids, flow computers, automatic sampling system, the supervision system and calibration and prover loops. Our systems utilise the complete range of technologies for liquid metering.

METERING EQUIPMENT

Fiscal metering equipment such as orifice fittings, flow meters (mass, ultrasonic and turbine), certified for fiscal transactions.



FUEL GAS CONDITIONING

FUEL GAS STATION

Complete gas stations supplying gas and combined cycle power plants. Gas packages and pressure reducing packages destined for the energy and gas distribution markets.

FUEL GAS HEATING

Solutions for gas heating through indirect water bath heaters and TEMA type shell and tube heat exchangers.

**THE BIGGEST METERING
PACKAGE IN AFRICA**



HEAT TRANSFER

SHELL AND TUBE HEAT EXCHANGERS AND CONDENSERS

Heat exchangers with tube bundle and condenser for the energy industry.

BIOMASS PLANTS

Turnkey biomass power plants in partnership with boiler specialists to find solutions for producing electricity in accordance with the need for energy transition.

ENERGY RECOVERY AND STEAM GENERATION

Syngas incinerators and steam generators.

COOLING/HEATING UTILITY PACKAGE

Equipment required for the production and distribution of fluids carrying the hot or cold source required for the equipment on industrial sites.



TANK FARM

HYDROCARBON LOADING/ UNLOADING STATIONS, FOR LORRIES, WAGONS OR BOATS, FOR FUEL DEPOTS

Fiscal metering, loading arms access footbridge equipment mounted on plug & play skids.



PILOT UNIT / TEST BENCH

For more than 20 years, PROCESS SYSTEMS has been developing test benches and pilot units with TREPAUD engineers, a thermal engineering company which has contributed to the French thermal and nuclear programme.

OUR MANAGEMENT POLICY

*The commitment of all,
a pledge of excellence*

QUALITY POLICY

SHARED VALUES BY ALL PARTICIPANTS

- Understand and respect our client requirements
- Capitalise our know-how
- Promote the quality of our products and services
- Guarantee the satisfaction of our clients

OBJECTIVES

ENSURE TO OUR CLIENT'S SATISFACTION THE COMPLIANCE WITH LEGAL AND REGULATORY REQUIREMENTS

as well as implementing the necessary actions for continuous improvement. Our quality policy covers all our activities from the conception to the start-up.

SUPPORT THE TRAINING AND THE DEVELOPMENT OF THE SKILLS OF THE STAFF

to progress and meet the challenges while ensuring a personal fulfillment within a collective framework.

FIELDS OF APPLICATION

Definition of process, design, project management, commissioning/start-up and after-sales services of oil, gas and thermal equipment. PROCESS SYSTEMS has been certified by LLOYD'S REGISTER since 2004.

SYSTEM PROCEDURES

- Internal HSE audits
- Work accidents analysis



HEALTH, SAFETY AND ENVIRONNEMENT POLICY

PERSONNEL IMPLICATION ON A DAILY BASIS

- Understand the rules of Health, Safety and Environment
- Adopt a participative and collaborative attitude
- Guarantee a spirit of permanent progress to meet our client demands

OBJECTIVES

- « ZERO ACCIDENTS »,
- ENSURE THE SAFETY OF OUR PERSONNEL
- CONTROL ENVIRONMENTAL IMPACTS

FIELDS OF APPLICATION

The Health, Safety, Environment management system put into place is certified according to the MASE-UIC agreement made on the 20th December 2007 between these 2 organisations.

SYSTEM PROCEDURES

- Management reviews
- Document control and records
- Incident management, corrective and preventive actions
- Internal audits
- Training (transmission of instructions to develop a real safety culture)

OUR INDUSTRIAL DEVELOPMENT WORLDWIDE

*PROCESS SYSTEMS
present worldwide side by
side with our clients*

PROCESS SYSTEMS, operating from our own manufacturing workshops in France, Poland and China, continues its international development:- Eastern Europe, North Africa, West and Central Africa, Middle East and Asia.

KEY FACTORS TO OUR SUCCESS

A RECOGNISED EXPERTISE in :

- Provision of Performance Guarantee
- Supply of skidded packages
- Management of Turnkey projects

SYNERGY of the group activities for project services

- Transversal team dedicated to each project

AN OPTIMUM MANAGEMENT OF :

- Personnel dedicated to each phase of the project, in France and abroad
- Work load and production tools
- Qualification of our suppliers and sub-contractors
- Project logistics

OUR OBJECTIVES

SATISFY THE CLIENT AND THE FINAL USER

- Permanent research for innovative solutions to optimise the cost and delivery of each project
- Strict compliance to QHSE
- Strict respect of project delivery schedule
- Aid in the development of ambitious and specific projects

HELP OUR CLIENTS' WORLDWIDE DEVELOPMENT

- Presence in numerous countries
- Consolidation of our expertise for intermediate size projects
- Building complementary skill partnerships to respond to tomorrow's industrial challenges :- energy transition, production digitalisation...

Our international culture, the daily commitment of all for the successful achievement of our projects, the quality of our services, our availability and our expertise are the keys of our success.

The IWF group (previously CMI) contributes to the worldwide growth of PROCESS SYSTEMS. The financial strength of the group is a real asset to access additional markets.

IWF has provided large installations in more than 40 countries including the biggest fiscal metering systems in Africa.

**THE FINANCIAL
STRENGTH IS
A REAL ASSET...**



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