



DF Oïl & Gas

Corporatif brochure

April 2022



DF Oil & Gas

DF: Multinational company based in Spain with over 150 years of experience. Listed on the Madrid stock exchange for 109 years. Present in numerous countries in Europe, America, Asia, Africa and Oceania.

It is among the main companies specialized in the execution of "turnkey" projects in energy generation, oil & gas and mining and handling of raw materials.

We implement engineering, assembly, commissioning, operation and maintenance through our own means.

DF Oil & Gas Incorporated in 2012 as a result of the concentration of all Oil & Gas operations within DF, including Felguera IHI and DF Caldereria heavy.











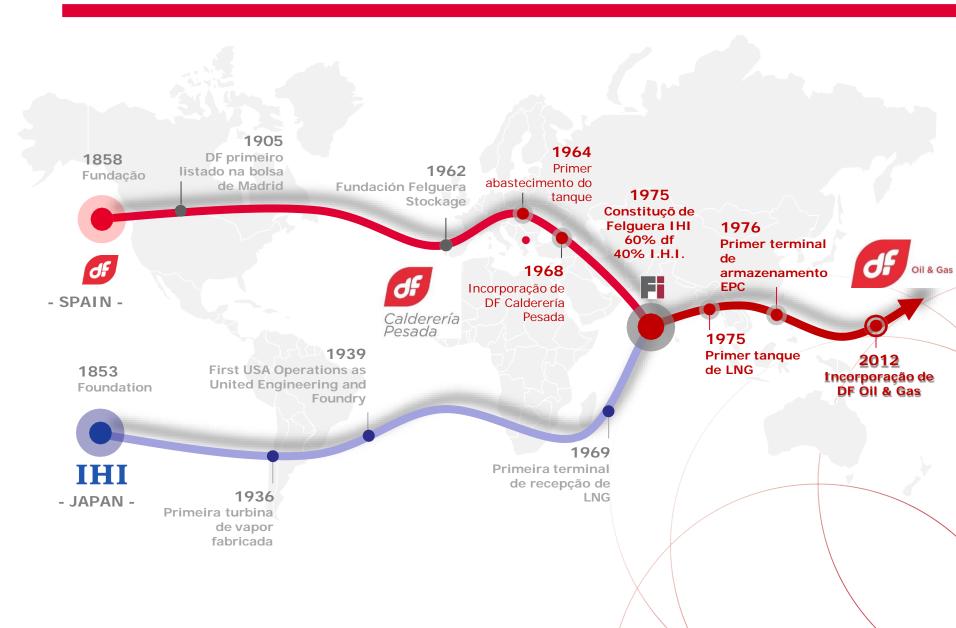






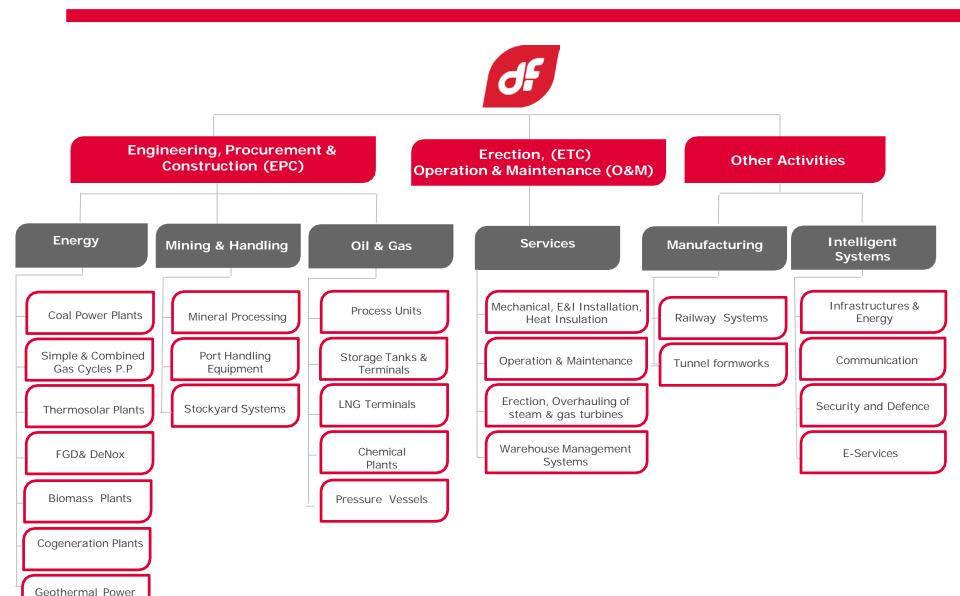


A story over three centuries



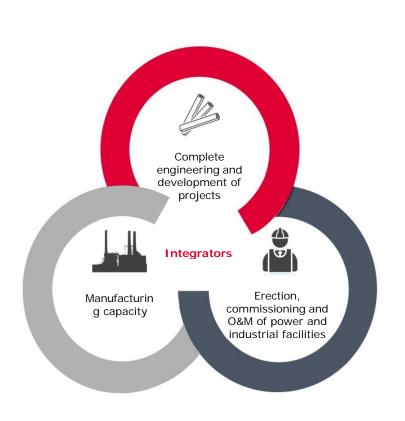
Plants

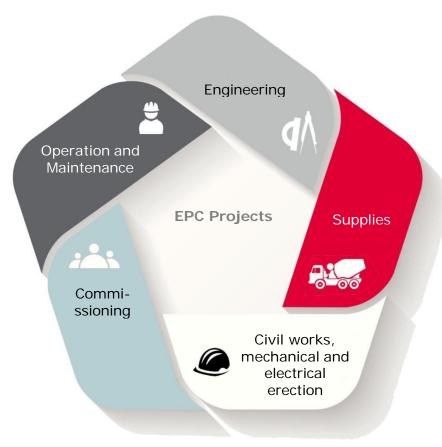






A multi-specialist company... Present throughout the entire value chain...

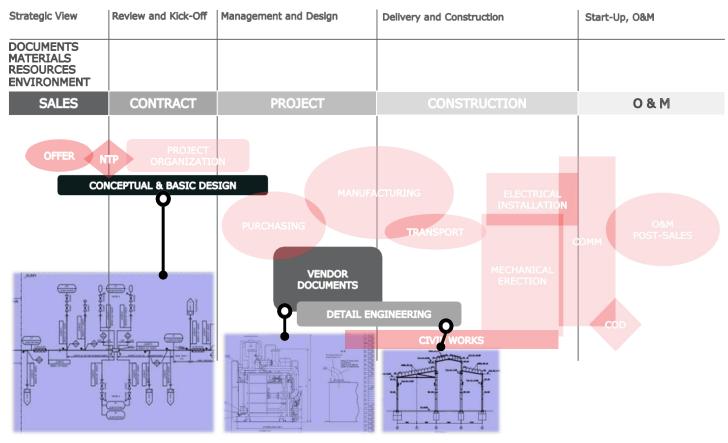






Our DNA: EPC Projects

The design is programmed to support design, purchase and construction



NTP. Notice To Proceed COD. Commercial Operation Date O&M. Operation & Maintenance COMM. Commissioning



International presence















NC-115 GOSP Field (Awbari, Lybia) Oil and Gas Separation Plant (1996-2006)



- Raw water and gas separation appears
- The Gas chargers.
- The Impulse Tanks.
- The Oil handling and storage system before the pipeline to send to the terminal.











Petroquímica Pajaritos (Coatzacoalcos, Mexico) Expansion of the Vinyl Chloride Plant (2001)



- Project carried out without interruptions in the existing plant.
- The VCM's production unit is made up of the following areas:
- The Oxychlorination to produce DCE.
- The DCE recovery.
- The Purification of DCE.
- The Disintegration of DCE.
- The Purification of MCV.
- The Direct staining.
- the Catoxid.
- The Wastewater treatment.
- The Incineration of exhaust gas.
- The Neutralization of HCL.



NAFTAN (Belarus) Delayed Coker Unit



- The Process Unit
- The Coke Unit
- The BOP (balance of the plant)
- The Coke handling system





Dow Chemical (Tarragona, Spain) Octane production plant



Fertiberia Ammonia Plant



Petronor (Muskiz, Spain) Sulfur Management Facility (2001)





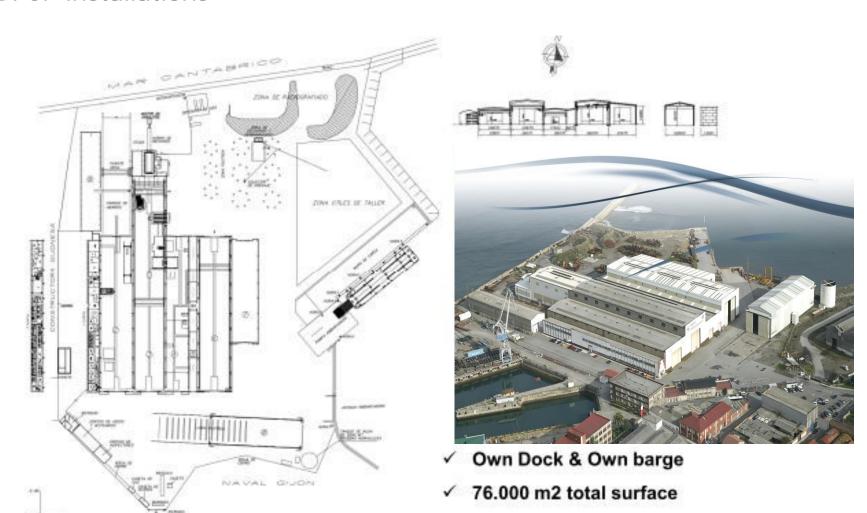
- The automatic weighbridge
- The SO2 detection system in the hoppers.
- The Sulfur handling system with conveyor belts.
- The Transfer and construction towers
- of hoppers.
- The Installation of truck loading.
- The Energy harvesting system.







DFCP installations



√ 21.000 m2 covered (9 workshops)





Vertical Tanks and Storage Terminals





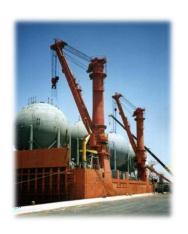




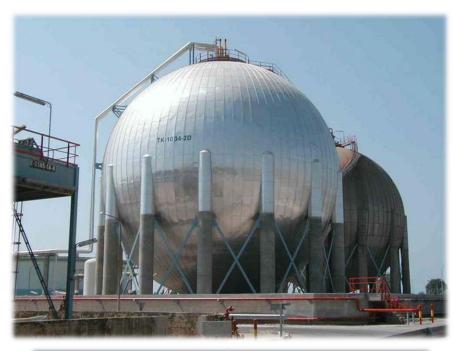


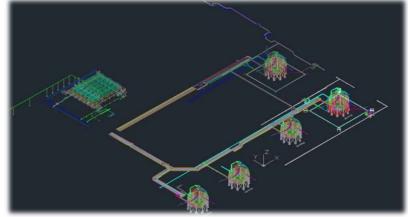


Spherical Tanks and LPG Terminals











6x Storage Bullets



Location

netherlands

Year

2013 - 2014

Final user

VOPAK

Description

Range:

Mechanical design; Complete manufacture of equipment in the DFCP store with diameters of 10 m. and length of 100 m. DDP delivery and local installation.



3 x HP Input Separators



Location

Oman

Year

2012 - 2014

Final user

RDP

Description

Range:

Mechanical design; In-store manufacturing; DDP delivery.

Material quality:

145+3mm thick, blast-bonded plates SA516-65 + Alloy 825



Process equipment. Separators, Purifiers, Drums



Location

North Sea

Year

2011 - 2013

Final user

BP

Description

Range:

Mechanical and process design; Internals, instrumentation and fabrication of containers.

Material quality:

P500 QL2 + SS904L, Alloy 825, SS316L



FCC Reactor Head



Location

Saudi Arabia

Year

2011 - 2012

Final user

SAUDI ARAMCO

Description

Range:

 $\underline{ \text{Mechanical drawing; In-store manufacturing, horizontal} }$

insertion

of 1RY and 2RY cyclones; FAS delivery.

Material Quality:



Pressure vessels for delayed coking unit (DCU)



Location

Belarus

Year

2010 - 2015

Final user

NAFTAN BELARUS

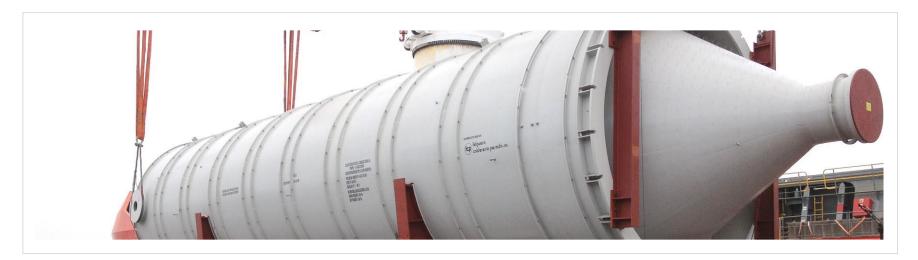
Description

Range:

Mechanical design; Manufacture of the coke unit in the store; Fractionator, purge drum and balance balance of the containers at the pressure of the coking unit; Engineering and assembly of coking teams in constructions.



3 x Coke Drums



Location

Argentina

Year

2010 - 2013

Final user

YPF

Description

Range:

Mechanical design; in-store manufacturing, DDP delivery.

Material quality: SA387-11+410SS



2 x Coke Drums



Location

Germany

Year

2009 - 2010

Final user

ConocoPhillips

Description

Range:

Mechanical design; in-store manufacturing; Delivery DDP.

Material quality: SA387-12 + 410SS



DHT Reator



Location

Germany

Year

2009 - 2010

Final user

ConocoPhillips

Description

Range:

Mechanical design; In-store manufacturing, DDP delivery.

Material quality:

110+4mm plate thickness, SA387-22+347SS



HDS Reator



Location

Portugal

Year

2009 – 2010

Final user

PETROGAL

Description

Range:

Mechanical design; in-store manufacturing; DDP delivery.

Material quality:

95+5mm plate thickness, SA387-11+347SS



HDS Reator



Location

netherlands

Year

2009 - 2011

Final user

SHELL

Description

Range:

Mechanical design; in-store manufacturing; delivery DDP.

Material quality:

110+3mm plate thickness, SA542-D-4A + 347SS



RECOPE (Limon, Costa Rica) LPG Terminal Expansion (2012)



- The 4nos. 4000cum spherical propane tanks
- The 5 Nos. 250cum horizontal deposits
- The Process design
- The Stacking, civil works, FFS
- The Electromechanical interconnections with existing installations.
- The control
- The Commissioning



PETROPERU (Talara, Peru) Expansion of the LPG Terminal (2012)





The 3nos. 3,200cum LPG spherical tanks
The Process design
Stacking, Civil Works, FFS
The Electromechanical interconnections with existing
Installations
The control
The Commissioning





TSL (Port Harcourt, Nigeria) LPG Terminal Expansion (2015)





The 1 No. 8,500cum Spherical Propane Tanks

The Truck loading facilities

The laboratory

The Process design

The Stacking, Civil works, FFS

The Electromechanical works

The control

The Commissioning



VTTI (Vassilikos, Cyprus) New Gasoline and Gasoil Terminal (2011)



- The 3nos. 40,000 cum tanks
- The 6nos. 21,000cum tanks
- The 6nos. 11,000cum tanks
- The 4nos. 10,000cum tanks
- The Piping, FFS
- The Instrumentation
- The Commissioning



Warehousing and Manufacturing

SK-REPSOL (Cartagena, Spain)New Lubricants Terminal (2013)



- The 13Nos, lubricant tanks
- The Piping, FFS
- The Instrumentation
- The Commissioning

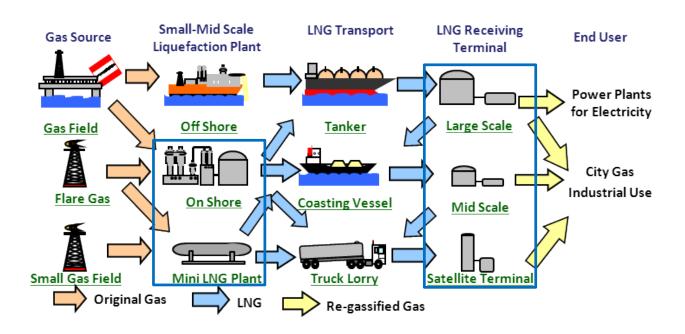






Natural Gas: Range of

LNG solutions product range





Natural Gas: Some References

ANAGAS 7Nos. 150,000cum prestressed concrete tank(2002)



2In the wall Tanks PC 150.000m3 El Musel



1No PC wall tanks 150.000m3 Cartagena



4In PC 150.000m3 Barcelona wall tanks



Natural Gas: Some References

Expansion of Fluxys plant regasification. 1 No. 180,000 cum PC wall and BoG compression system





Natural Gas: Some References

PECEM & GUANABARA (Brazil) LNG/CNG Marine installations







Each location consists of:

The 3+3 loading/unloading arms for LNG (16'' - 5,000 m3/h)

The Skid interconnection including all piping, insulation, valves, etc.

The 2 CNG Load arms (100 kgf/cm2 up to 20 Millions m3/d).

The fender.

The Access walkways for LNG carriers.

The Monitoring system of lashing devices, including hooks

The Including connections from the ship to the shore

The Control system including ESD.

The Electrical substation for powering the terminal.

The fire fighting system





Thanks!

Corporate brochure

April 2015



Coverage of IHI companies in the LNG market

