

# FMS PRESENTATION



**UC GLOBAL**  
Security Consulting

## Company profile

UC Global is a private legally established company in Spain and it is present in USA, UK, Mauritania, Iraq, Seychelles, Ecuador, Dubai and Afghanistan.

Conceived and founded by Spanish former military officials, which aim is covering the wide spectrum of defense and security sector (national and international, public and private). UC Global has the added capacity of getting a great impact and a strategic and operational mobility, needed in the service of every government, institution or organisation for the society profit in general, as well as in the intention of dignify and professionalizing the security functions as a whole (public and private).

It specialises in providing answers to the needs of governments and private business sector in the areas of specific maritime and terrestrial security, security assessment of critical infrastructures (harbours, extraction platforms, etc.), acquisition assessment, evacuation plans and rescue, training ops and low intensity conflict security, risk mitigation and goods and people protection in hostile environment, aerial transport and support, logistics support, etc.

For all about mentioned before, we count on specialised divisions for our client's service, which implementation (punctual or globalized) will give a competitive advantage to the Enterprise, Institution or Government, for or during the implementation of the commercial task, ops development or capacity development.

### **. Communications**

(telephony and satellite networks/GSM networks).

### **. Materials & Equipment**

(providing individual equipment and collective materials).

### **. Aerials Capacities**

(Combat support and air evacuation, UAV).

### **. Logistic Support** (land, sea, air).

**. Maritime Security** (private boats, transport ship, maritime platform, port areas).

### **. Critical Infrastructure**

(extraction facilities, energy supplies, residential complexes).

### **. Training**

(governmental and private ones)

### **. Private Security**

### **. Business International Representation**

(Project submission, contact establishment, business new procedures openings, without intermediary).

### **. Intelligence**

(Obtaining, handling and evaluation)

### **. Data Protection**

(Highest security centre for information protections and databases).

**. EOD Services** (Mine-clearing operations and desactivation operations).

### **. Cybersecurity**

Management systems as intervention strategies and add values.

- Quality Insurance  
PECAL/AQAP 2110 / 2120 ISO 9001:2008
- Environment Protection  
ISO 14001:2004
- Security management systems and OHSAS Health  
18001:2007

**Divisiones**

Engineering Division:

- Hydraulic systems and pneumatic tires
- Naval and industry machinery

Production Division:

- Parts
- Naval and industry facilities
- Machinery installation and transportation
- Demonstrations, cleaning and circuits flushing
- Security systems installations (Inverteilan)

Maintenance System Division:

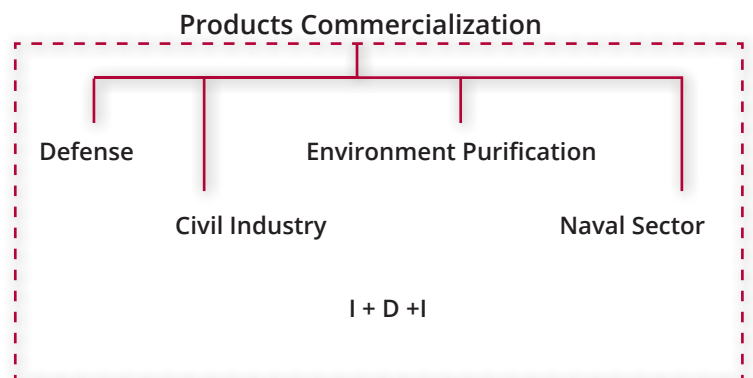
- Weapons systems
- Combat/sailing radar systems
- Heavy vehicles
- Hydraulic systems and pneumatic tires

Environment Division:

- Inverse Osmosis and water desalination
- Environment impact studies (ESIA)
- Visual impact studies (ESIV)
- Sewage water treatment

Commercial Line:

- G&O
- Gaina
- Sauer Danfoss
- Epidor



### "Juan Carlos I" BPE Aircrafts' Elevators

Sole agreement for technical and replacement parts support with MacTaggart.

The agreement also includes future MacTaggart's equipment incorporation for Spanish Army ground ships also.



Weapons' Elevator

Airplanes' Elevator



### Maritime Action Vessels (B.A.M.)

Sole agreement for technical and replacement parts support with MacTaggart.

Vessels Helicopter Traversing Systems

UC-FMS personnel have made courses of maintenance and installation trainings for MacTaggart's equipment.



### S-80 Submarines

Sole agreement with MacTaggart for technical and replacement parts support for the S-80 submarine:

- Capstans
- Hydraulic potential units

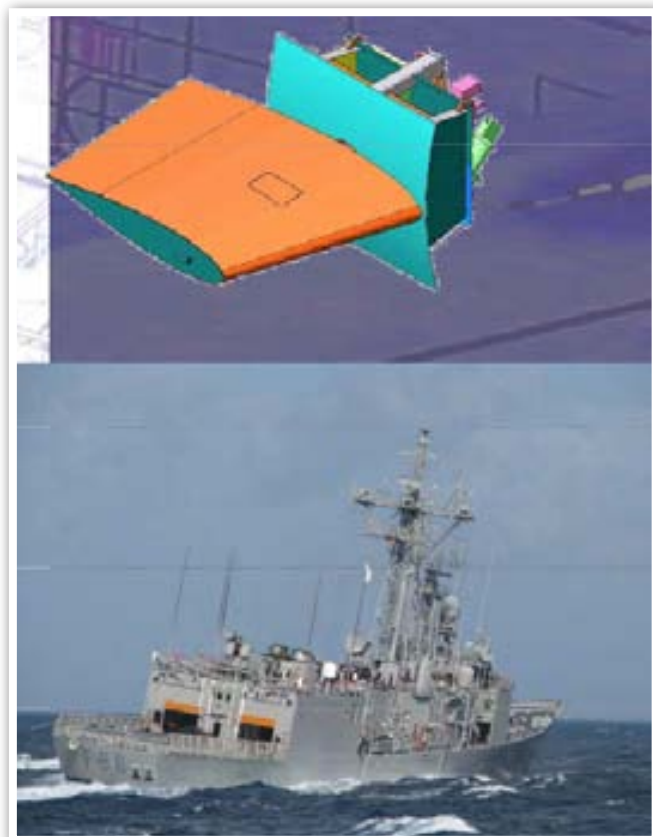




### Vessels Helicopter Rast Recruitment System

Pre-Agreement with INDAL TECHNOLOGIES for technical support, materials and our personnel training for F-100 Vessel Rast maintenance systems "Alvaro De Bazán" Category and FFG "Santa María" Category.

UC-FMS has big experience in the maintenance for different replacement parts installed in the FFG Vessels.



### Fin stabilizers system

Agreement with AVIO Spa for the design, manufacture, supply and maintenance of the fin stabilizers system.

Prevent and correct maintenance for the flippers stabilizers system of the Army Vessels.

With a contract these systems have been maintained on board of all the Army Vessels that put them together.

### Davits and Cranes

Prevent and correct maintenance for the load systems for davits' boats, folding supports, deck cranes and portable cranes.



### Other hydraulic / mechanic equipment

UC-FMS designs, supplies, installed and maintained the following equipment:

- Winches
- Anchors' windlasses
- Servohelm
- Hydraulic plants
- Banks/containers



### Hydraulic systems installations

- Manufacture and set up of low and high pressure hydraulic systems circuits.
- Chemical cleaning and pipes flushing.
- Pressure tests.



PIPES SET UP FOR LOW AND HIGH PRESSURE HYDRAULIC SYSTEMS

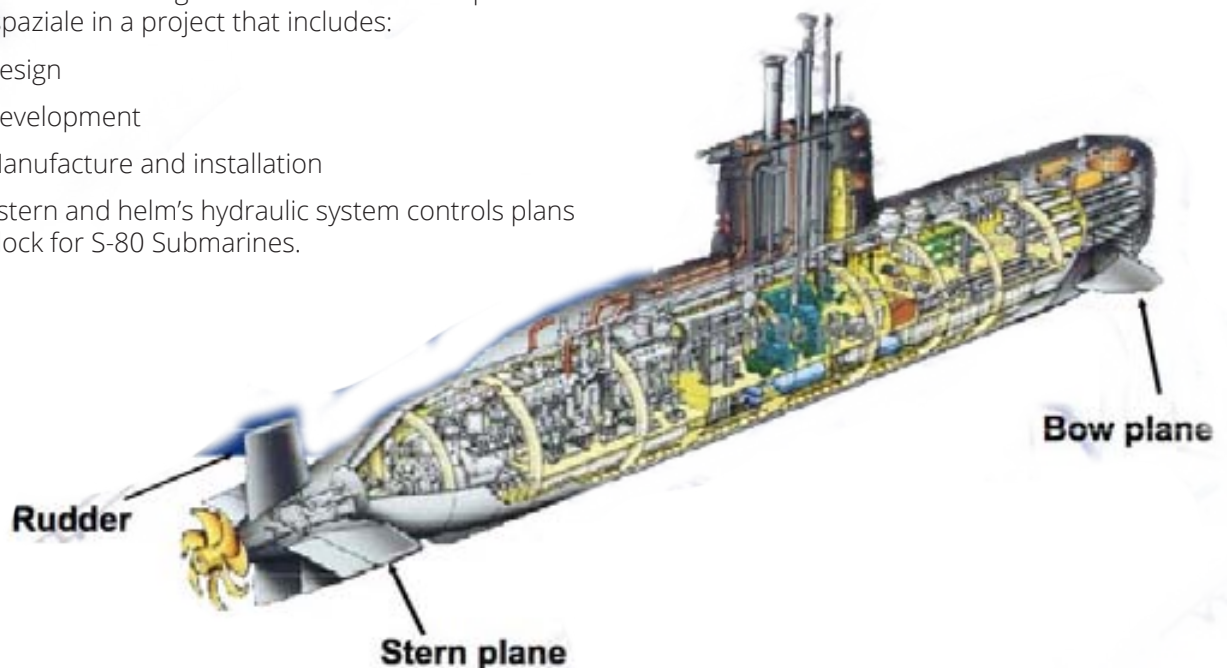


### S-80 Submarine / Control Units

UC-FMS works together with Avio Propulsione Aerospaziale in a project that includes:

- Design
- Development
- Manufacture and installation

Bow, stern and helm's hydraulic system controls plans per block for S-80 Submarines.

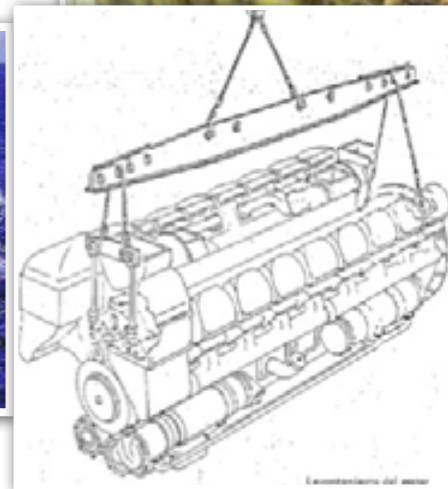




**Auxiliary engine maintenance for S-70 Submarine**

Corrective maintenance for auxiliaries engines for S-70 Submarines.

Engines replacement parts inspections, repair and change.



**Mk-75 cannon maintenance**



Reparaciones SAMN Meroka



Mantenimiento Lanza torpedos Mk-32

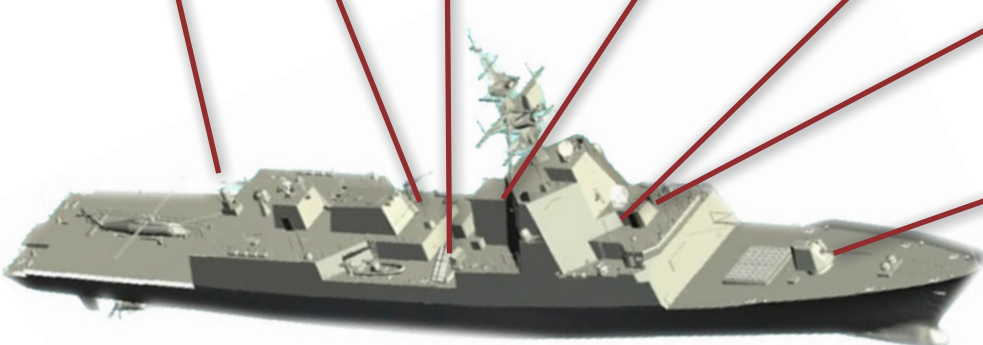
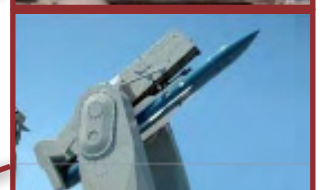


Overhaul Antena STIR

Lanzachaff Mk36

Overhaul Antena CAS

GMLS MI-13 Mk 60



Development work for the UC-FMS weapons' system division for the Spanish Army FFG frigate..



MK-22 LAUNCHER  
MK-13 LAUNCHER  
VLS MK-41  
MK-38 GUN  
MK-42 GUN  
MK-45 GUN  
MK-32 TORPEDO LAUNCHER  
MK-36 LAUNCHER SYSTEM  
ASROC LAUNCHER



MK-92 FCS  
STIR ANTENNA  
CAS ANTENNA  
MK-68 FCS



M109 HOWITZER  
M992 (FAAV)

Sole agreement with BAE Systems for technical and replacement parts support in Spain.



BOFORS 40/70 mm. GUN

ole agreement with BAE Systems for technical and replacement parts support in Spain.



OTO MELARA 76/62 mm GUN

SAMN MEROKA 20/120 mm GUN

Agreement with NAVANTIA/FABA for standardization and technical support.

BOFORS BREDÁ GUN



GUIDED MISSILE TRAINING ROUND (GMTR) MK-60

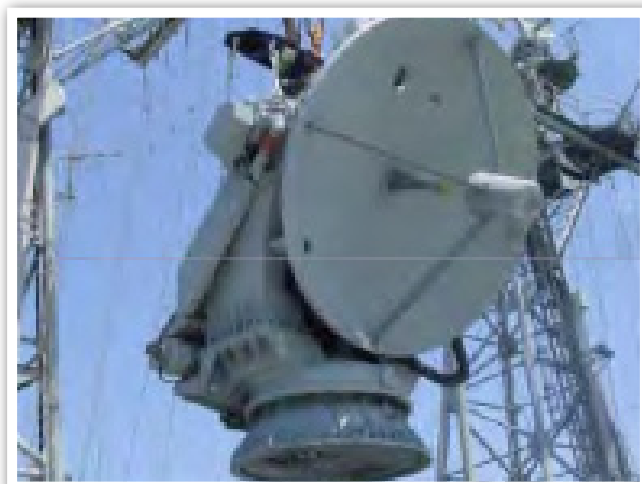
Agreement with Raytheon for technical support and replacement parts.





**GMLS MK-13 MOD-4**

- Overhaul
- Programmed maintenance
- GMLS auxiliary systems repair
- Technical and logistical support
- Ordalts
- Category II changes
- Shipalts
- Incidentals repairs
- Pre-throw inspections
- Inspections previous to big maneuvers
- GMLS/FCS interfaces repairs



**Radar Antena Overhaul Stir MK-54 (FCS MK-92)**

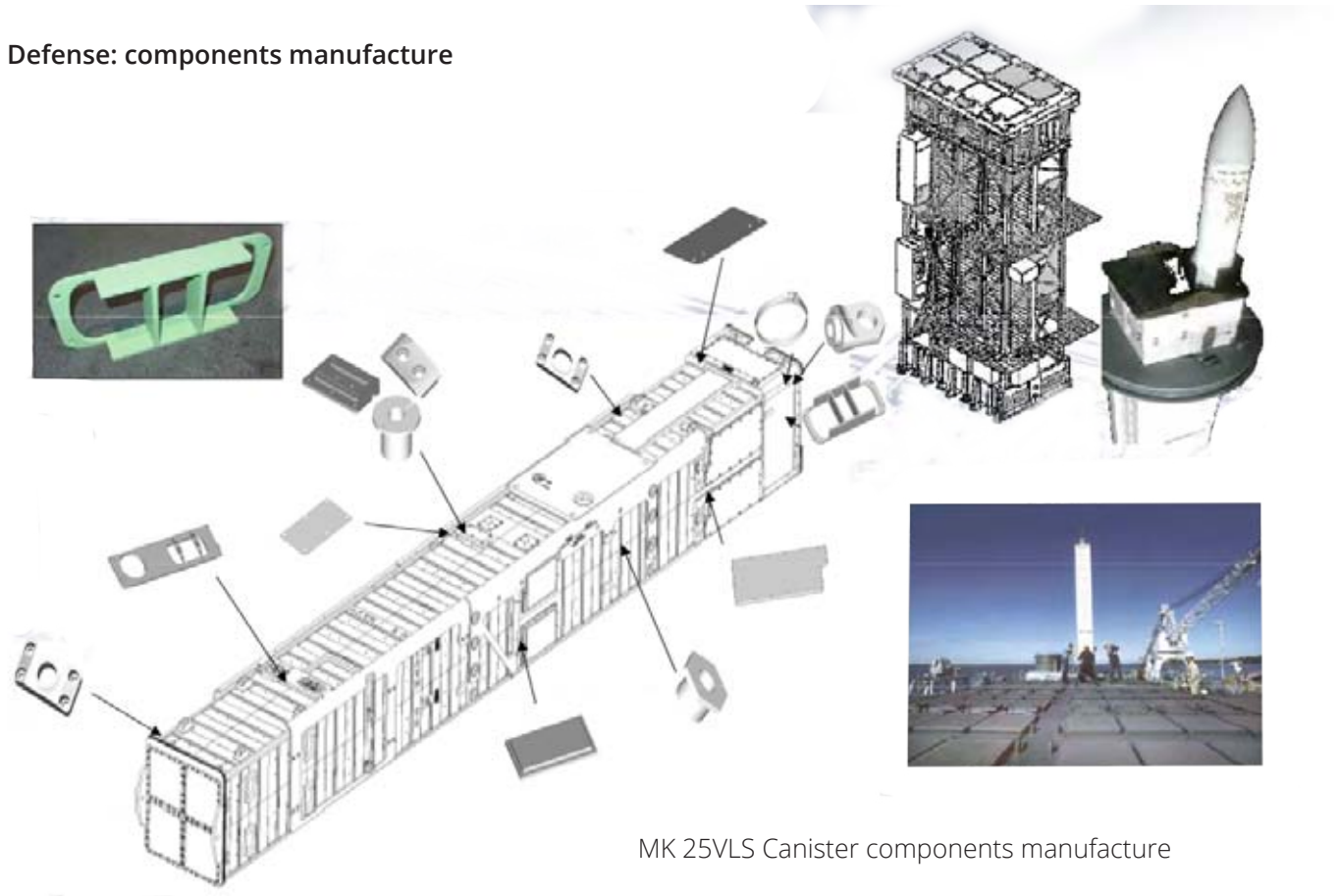
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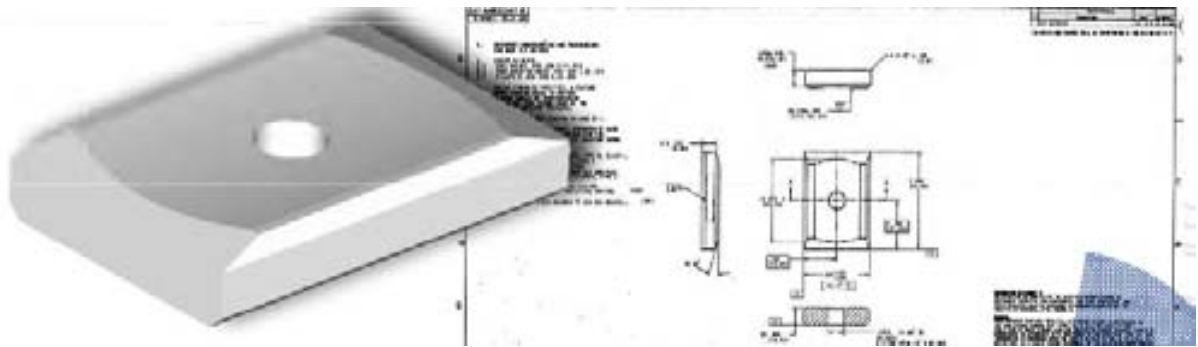
**Radar Overhaul Stir MK-54 Antenna (FCS MK-92)**

- Antennas overhaul for four ships
- Radar antenna repairs
- Rotary joint and ring manifold substitution
- Waveguide repairs
- Repairs and adjustments for the antenna control unit
- Antenna
- Substitution and antenna guidance
- Gearing boxes repairs and adjustments

Defense: components manufacture



MK 25VLS Canister components manufacture



For the execution of an order and starting from original BAE SYSTEMS plans, UC-FMS carried out a detailed study for the development of its own plans based in American modification norms of thermal, welding, painting and superficial treatments, etc.

Once the plans are done with its correspondent fluctuations, UC-FMS managed, coordinates and supervises the manufacture for the replacements parts until their final delivery.



M-60



PEGASO



PIRAÑA



AVV



HUMMER

### Repairs and Overhauls

- Hummer
- Retro-diggers
- Carriages
- Four-wheel drive
  - Nissas
  - Land Rover
- Pegaso
- Auto-propulsion Obus
- A.A.V.

**Ships' Rehabilitation and modernization**

All elements: Hull, Machines, Power, Electronic, Adaptation...

Technical needs study.

Supply and installation of new equipment

Repairs

**Design, Manufacture and installation:**

UC-FMS manufactures, commercializes, installs and repairs all kind of naval machinery.

Our machines and equipment are present now a day in the main sectors of national naval industry machinery: Merchant Marine, War Marine, high and low fishing fleet, Entertainment ship and main national shipyards.

**Supplies and installation of:**

Small fishing and oceanography machines

Stern folding supports and Er.

Bow propeller

Windlass

Deck crane

T.A.R. plant and bilge divider

Auxiliary engines

C.I. System

Neglected machine system

Laboratory and electric radio system investigation

Humid pipes

Chain repairs, caulking and embedded hull

Keel transportable carriage

Live and dead painting construction

Horn/bell

Adaptation (pipes, AA, armored blukhead, furniture)

Propeller variation repair system

Navigation electronic systems





Windlass with winch



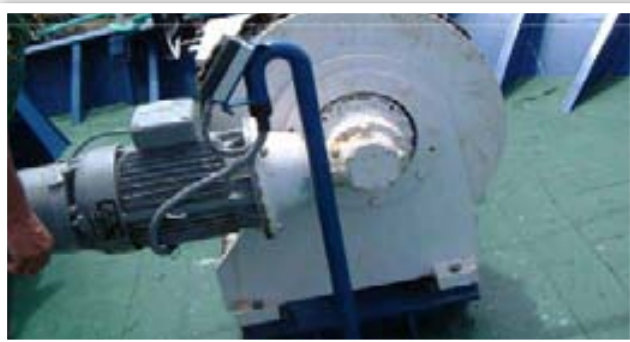
Port tugboats



Tugboats winch, with automatic stevedore and emergency brake hydraulic system



Ganchos de remolque, disparo a distancia:  
Manual, eléctrico, neumático e hidráulico



Molinetes de anclas tipo tambor



Equipos especiales de barcos de recreo





Anchor winch for one or two lines



Roller stoppers, guillotine or steel manufactured spindles



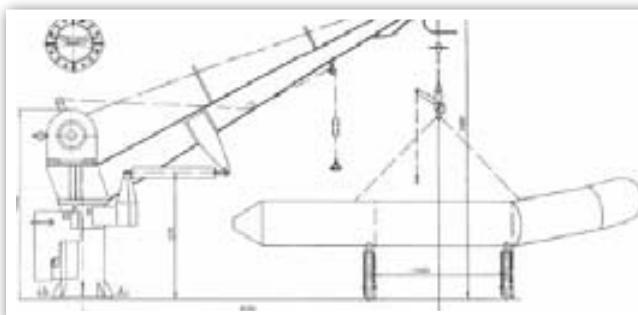
**Equipment, drums, strain relief, machineries**

Mid reel traction power..... 3000kg  
 Corresponding roll up speed. ....0-80 mts/min  
 80 (mena 10") mooring capacity.....125mts  
 Stop reel static shot capacity..... 80Tns



**Electric-hydraulic crane**

Lifting torque.....20Tm  
 Reach (1 extension).....6.4m  
 Reach (2 extension).....8.1m  
 Reach (3 extension).....10m  
 Reach (4 extension).....11.8m  
 Reach (5 extension)..... 13.5m  
 Turn.....390°  
 Working pressure..... 220bar  
 Flow.....60l.p.m.





Hélices de maniobra hasta 1000 kw accionamiento hidráulico o eléctrico



Control de hélice

Buque "doniene" (Astilleros H.J. Barreras) Nuestros servo para el atunero más grande del mundo.



#### Servorudder

This servorudder has four perpendicular cylinders at the middle line, moved by a double hydraulic plant. 520 KNm par 36° turn on each belt. 122 pressure bar and 26 seconds (with a pump) and 13 seconds (with two pumps) of port tack-starboard maneuver time.

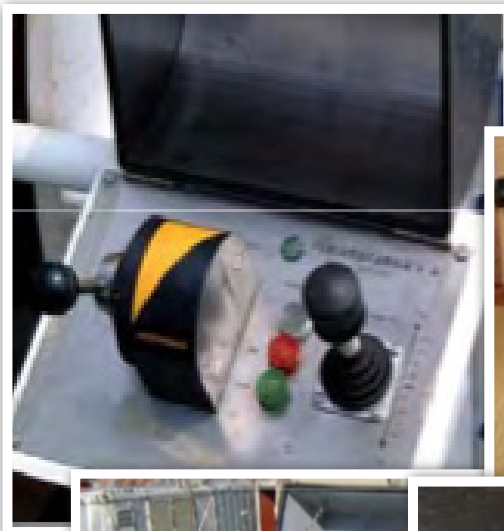
It can be started from the bridge console (normal operation), servo position (emergency manual) and from any part of the bridge wing with a wire remote control indicating the rudder angle.

During tests at 18 knots and 49 pressure bar, the servo made a port tack-starboard maneuver in 23 seconds (with one pump) and 12 seconds (with two pumps).

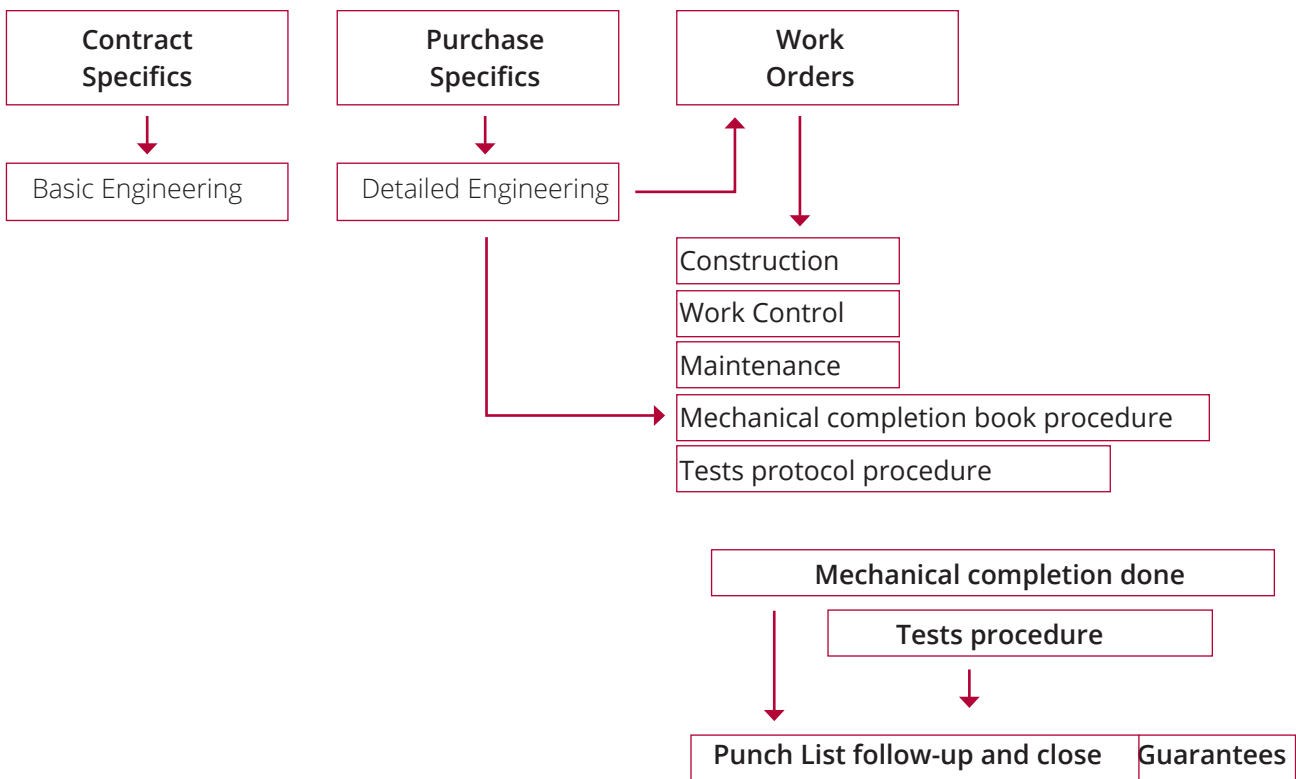
Compact hydraulic plants



Control panels designed and manufactured according to the needs of each project



Grupos electrónicos



**Naval Sector and Industry**

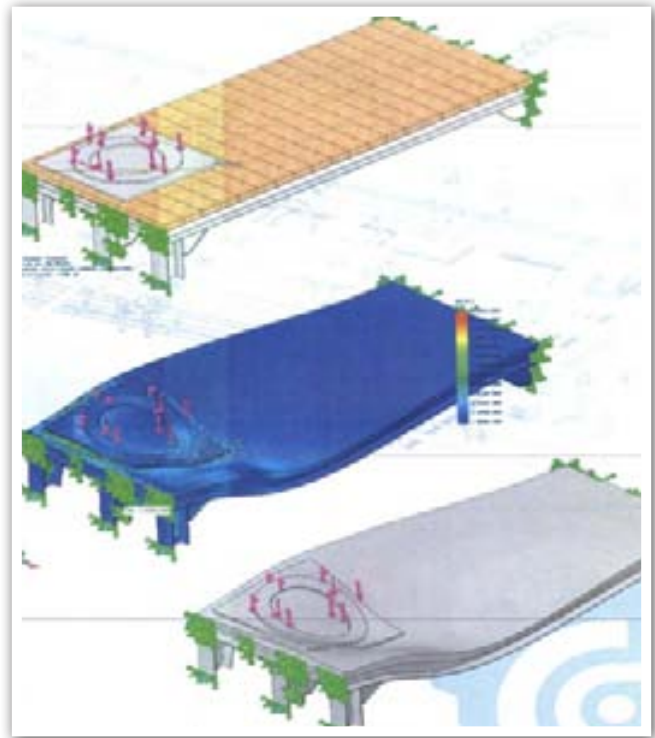
Naval Sector and Industry

UC-FMS carry out studies, project developments, designs, installations, tests and deliveries according to applicable or demanded regulations by the client, for industry installations as well as for naval systems and equipment.

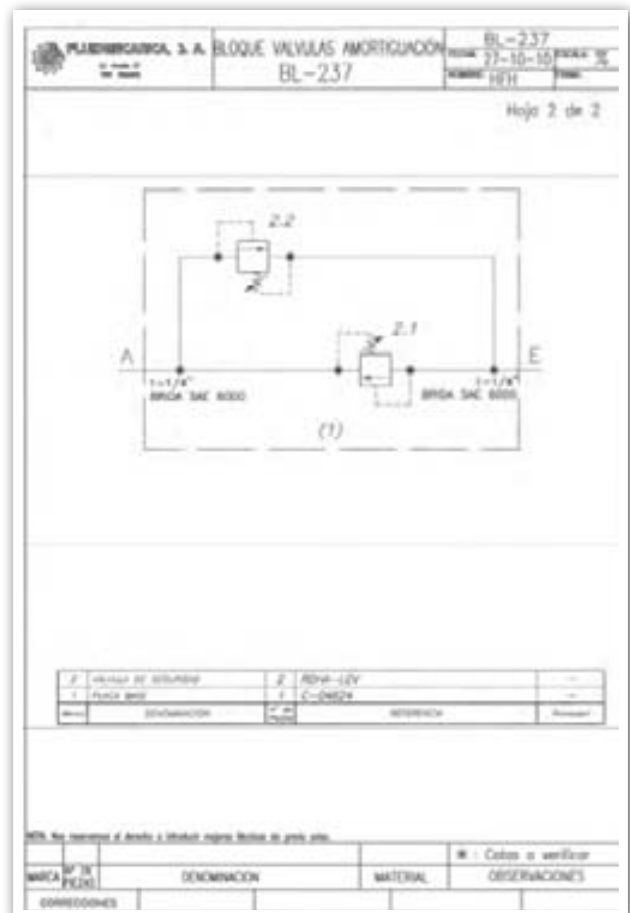
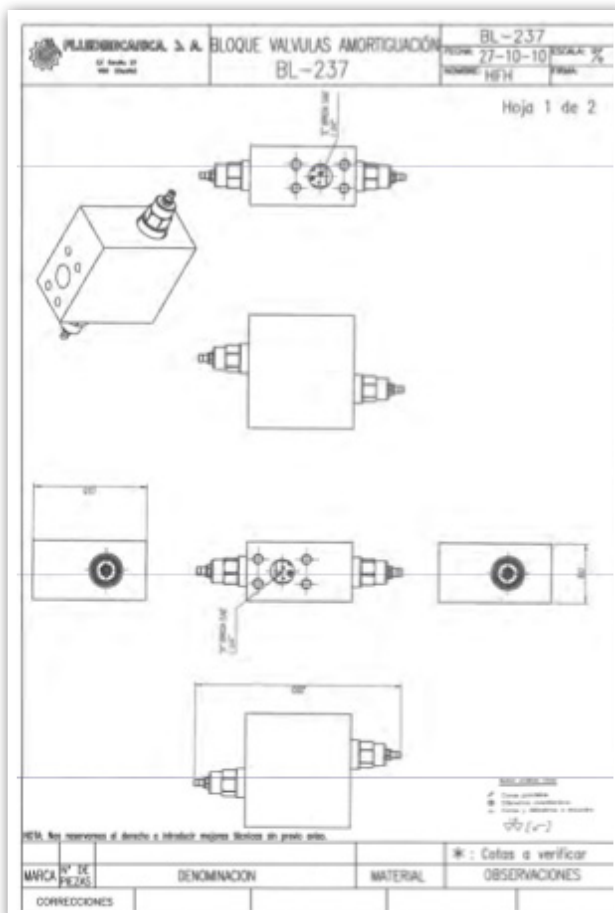
Shipyards, Defense, Merchant Marine, Fishing Fleet have trusted the guarantee, seriousness and the security of our company.

**Technical media**

- SOLID WORKS 2001 Program
- 3D CAD.CAM Designs
- SOLIDWORKDS SIMULATION
- SIMULATION FLORWORKS
- AUTOCAD
- ACHLINE
- AXAPTA (COSTS)

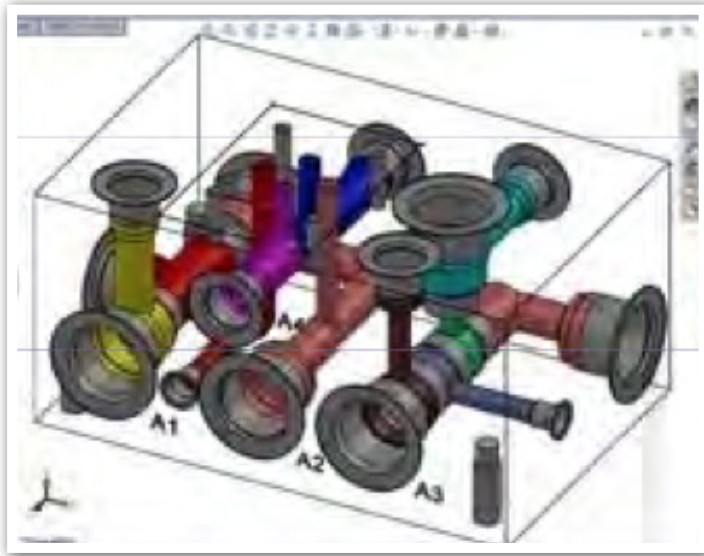


**Hydraulic Group**

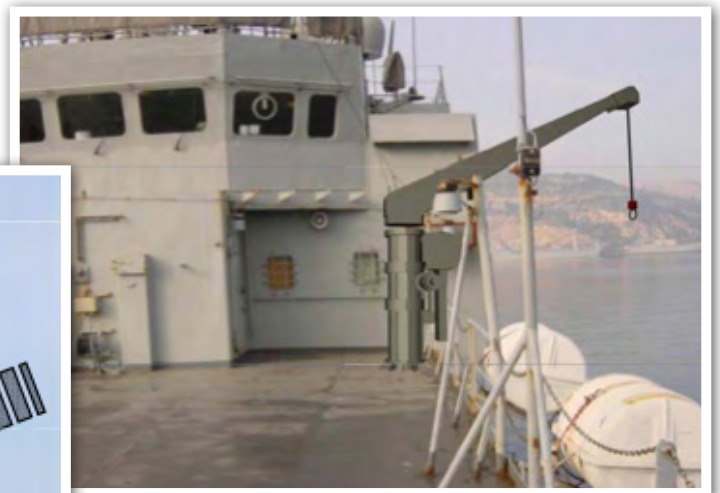


NAVAL SECTOR- Design and  
installation

Hydraulic Group



Deck equipment study and simulation



## NAVAL SECTOR- Design and installation

### Piping Work

The works/projects done by UC-FMS in ISO the last few years can be defined according to the following points

#### *Hydraulic Piping*

##### *High Pressure*

- Carbon steel
- Stainless steel
- Joining solder
- Joining flanges
- Joining screws

##### *General Piping*

- Steel piping
- Galvanized piping
- Stainless steel piping
- Copper piping
- CuNiFe piping
- PVC piping

##### *Low Pressure*

- Carbon steel
- Stainless steel
- Joining solder
- Joining flanges
- Joining screws

#### *Circuits Modification or Required System*

The tasks to make are the same than a new set up, the difference is that the engineering, the manufacture and the setup do affect the modification that they have to do in the lines, but the pressure test and flushing are done to the total system/circuit once the modification is done.



#### *Delivery, setup and test*

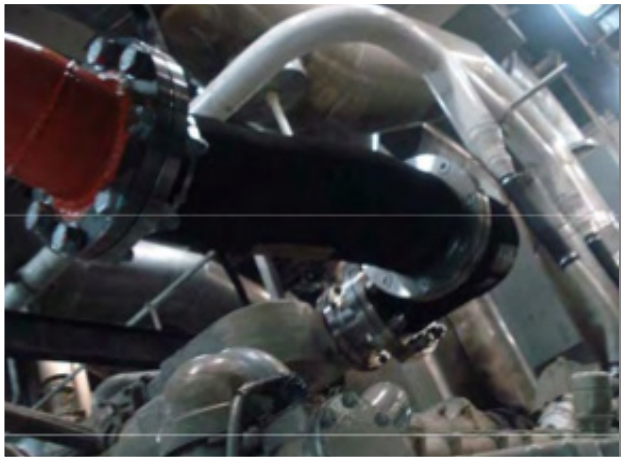
It includes the following tasks

- includes the following tasks:
- Engineering for lines planning, isometrics and materials estimate.
- Piping manufacture according to isometrics planning.
- Piping support manufacture for its different diameters.
- On board support setup.
- After the setup, preparation of pressure and flushing tests with a bypass and the assembly of seal elements.
- Pressure test, piping fill up, progressive increase of pressure until reaching the required level.
- Flushing completion with an extern appropriate water flow pump to establish a turbulent plan, heating fluid and suspension particles analysis to reach the cleaning level required by the client/manufacturer.
- Dissolve provisional modifications for flushing test letting the system in its operative stage.
- To attend delivery test to manufacturer/owner.

# NAVAL SECTOR- Design and installation

MMPP "Galicia" Refrigeration Piping Modification.

Detail for Decks and Flexible

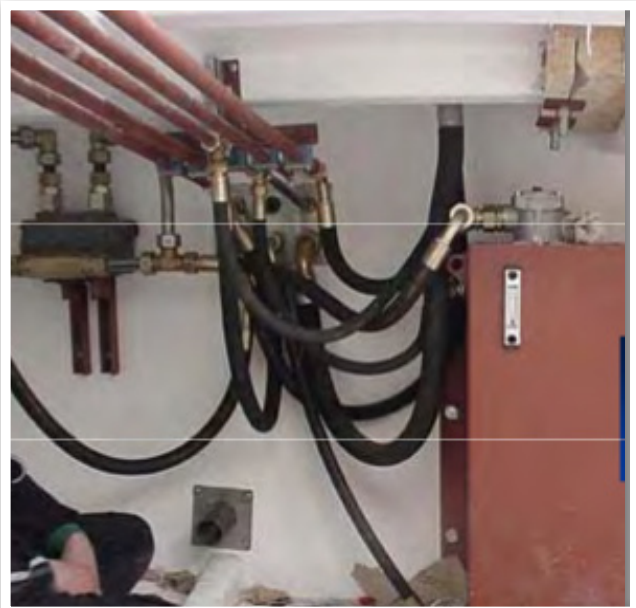


Refrigeration Piping Modification Detail.

Deck Engine Hydraulic Piping. "Robert H. Boh" ship modification.



Tank Installation and hydraulic piping for fishing boat.

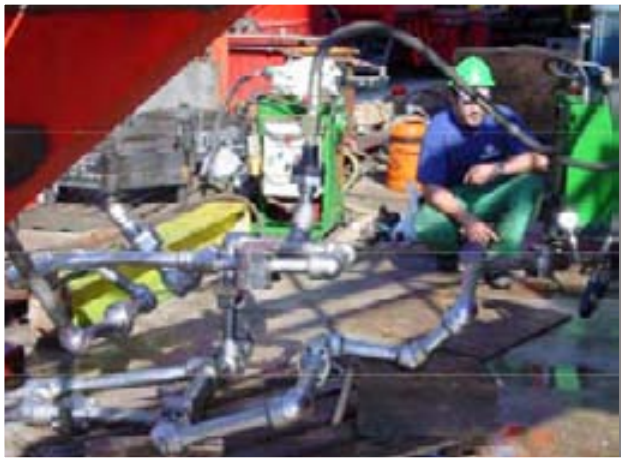




## NAVAL SECTOR- Design and installation

### Pressure and Flushing Tests

In this case, piping system is already set up or modified and the client only requires that the circuit pressure operation test is tried and reach the necessary cleaning degree for its effectiveness.



### Per Equipment and System Type. Hydraulics Systems.

Deck Machinery.

The piping and accessories correspond to elements or group of elements that are united to one hydraulic plant or several shared plants:

- Winch
- Anchor winch
- Capstan
- Deck crane
- Hydraulic plants
- Control elements

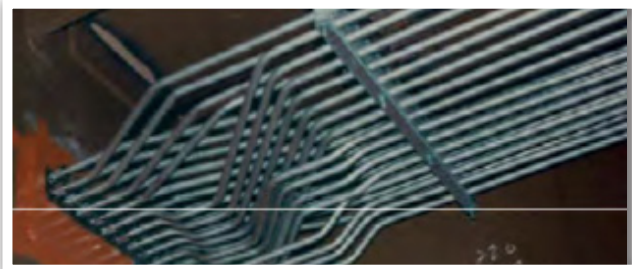
Ships' ramps, port flap operation, hydraulic hatches, elevators, automobile elevators, train ramps in ships. In general carbon steel piping with JIC unions.



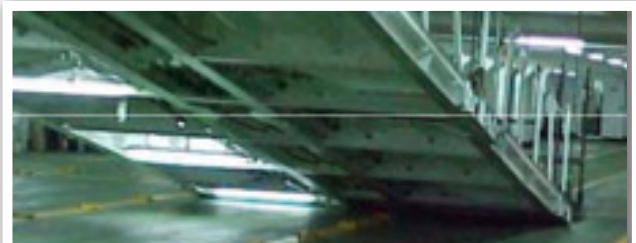
Deep liquid fissure detection



"Piping "Piano" with tight deck cross and tight bulkhead cross



Ramps activating connections



Car-deck hydraulic rampk

## NAVAL SECTOR- Design and installation

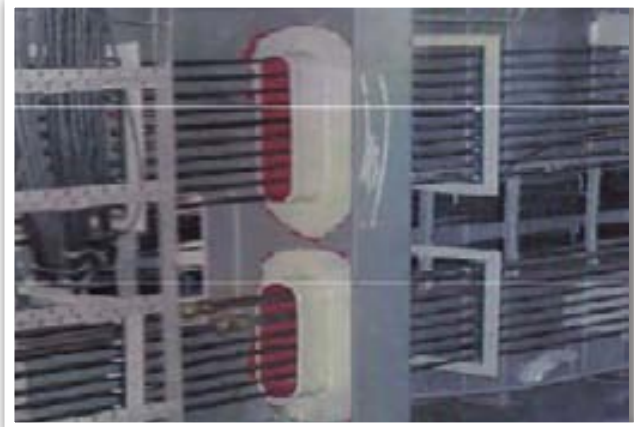
Valves control hydraulic systems. Carbon steel pipes, stainless steel pipes or multi pipes.

BOP hydraulic circuit oil prospection system. High pressure system using waterglycol fluid. Stainless steel pipes with joining brackets.

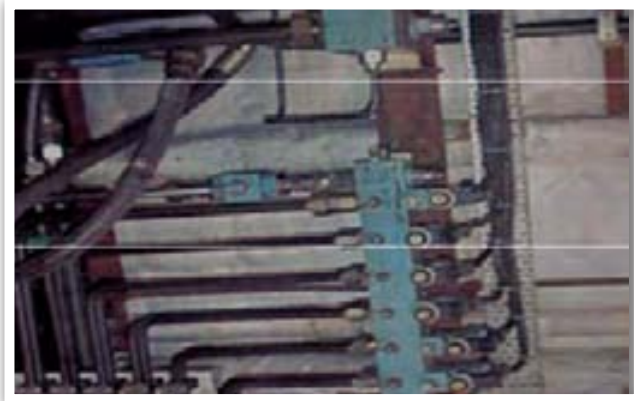
Special hydraulic press with high temperature oven. The fluid use is phosphoric Ester and the work temperature is over 800°C. Carbon steel pipes.

Ships fire prevention system, collectors and diffuser or sprinklers systems. Galvanized piping, copper, stainless steel and/or CuNiFe.

Centralized grease system. Carbon or stainless steel pipes.



Coaming drafting and details



Valves piano



MMPP "Castilla" piping modification



BOP System

## NAVAL SECTOR- WELDING

UC-FMS has more than 15 years of experience in high level welding projects.

We have standard qualified welders in welding works according to the A.S.M.E. code, being the most common works the following:

- GMAW: protected arch welding with gas (semi-automatic)
- SMAW: welding with clad electrodes (manual)
- GTAW: welding with no fusible electrodes and gas protection (T.T.G.)
- OAW: Oxyacetylene welding.



**Bow manufacture AVV vehicle**



**GMAW procedure: Semi-automatic**  
manufactured parts for VLS MK-25 VLS Canister

## NAVAL SECTOR- WELDING

### SMAW procedure: Manuel welding

Propeller maneuver system installation in a recreation ship



### GTAW procedure: T.I.G

High pressure fixing piping (350 Bars at 3000mts deep) B.O.P. Ship Drill West Navigator (manufacture of 90 SPOOL and on board reparations)



Assemblage and installation of CUNI 90/10 pipes and accessories in the ALHD-2 and ALDH-1, with silver welding as well as with WIG welding, in the nebulized water system, refrigerated water, decontamination, foam against fire, potable water and low pressure air.

CUNI 70/30 pipes and accessories installation and set-up in the F-105 high pressure air system.

**NAVAL SECTOR- WELDING**

**OAW procedure: Oxyacetylene**

"Bombo" numbers manufacture for O.N.L.A.E..



**Welding Procedure Specification**

Material (Lower)	Process	Filler Metal	Shielding Gas	Current	Travel Sp.	Heat Input
Paada(s) de soldadura	Proceso	Clase	Clase	Amperaje	Velocidad de avance mm/min	Aporte Termico Kilom
1-X	GTAW	ER-316 L	2,4	CC (-)	110-150A 10-12 V	40-50 mm/h

Electrical Characteristics (QW-405)	Gas de protección adicional
Current AC or DC: CC	Gas de protección adicional: N/A
Amperage (Range): 110-150	
Voltage (Range): 10-12	
Transferencia del metal en OAW: N/A	
Electrode wire feed speed range: N/A	
Range of velocity of wire feed: N/A	

Technique (QW-411)	Shielding
Shielding: O2/Ar	Shielding: 100% Ar
Condition metal to be welded: OSCIADO	Initial and cleanup cleaning: Limpieza local y entre pasada, FICADO Y CERRILADO
Offset or Gap size: N/A	Clasificación de cámara: N/A
Diameter nozzle of gas: 2-6 mm	Clasificación de cámara: N/A
Method of back gouging: N/A	Multiple or single pass (per side): Pasada múltiple o simple SIMPLE Y MULTIPLE (ER 316)
Control tube to work distance: Caudalero de tubo de control a pieza: 5-10 mm	Electrode spacing: Separación de electrodos: N/A
Multiple or single electrode: Múltiple o simple: SIMPLE	Preheating: N/A
Travel speed (range): N/A	Postheating: N/A
Range of velocity of advance: N/A	Other: N/A

## NAVAL SECTOR- WELDING

### **Puerto Real Shipyard/Builder**

- C/77
- C/79
- C/80
- C/81
- C/84
- C/85
- C/86
- C/87
- C/103
- C/509
- C/510

### **Sevilla Shipyard/Builder**

- C/287
- C/288
- C/289
- C/290
- C/291
- C/293
- C/294

### **Ferrol Shipyard/Builder**

- C/205
- C/206
- C/207
- C/208
- C/209
- C/210
- C/211
- C/212
- C/213
- C/214

### **Vulcano Factory**

- C/476

### **San Fernando Shipyard/Builder**

- C/360
- C/361
- C/380
- C/383
- C/385
- C/394
- C/397
- C/399
- C/405
- C/406
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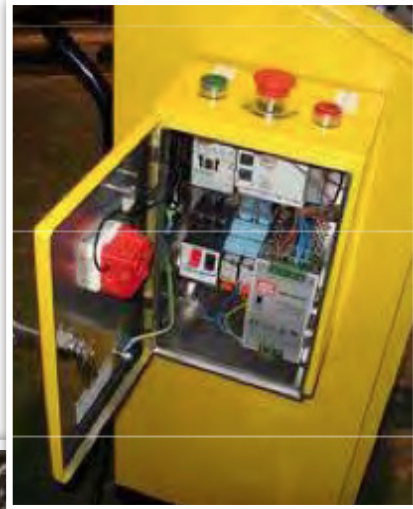
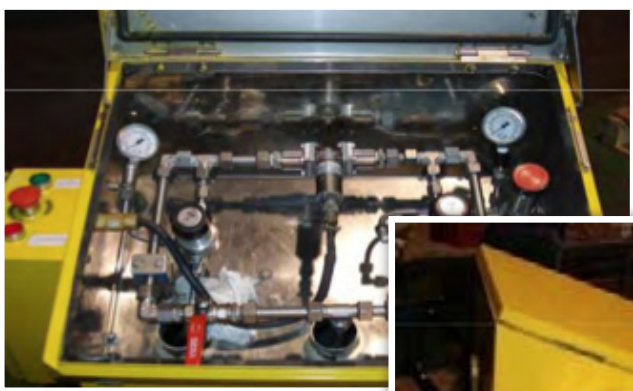
General installations in all theses constructions:

Example: C/77 Puerto Real Shipyard

- Engines room
- Load and deck
- Accomodation
- Bridge

## Industry - Design and manufacture

Fuel valves tests bank for Eurocopter



Fuel Bank for Military Airbus



## Industry - Design and manufacture

“Tecnautom” ultrasound table car for Military Airbus



White trailer/tug RF fuses test for “Torregorda” C.E.





## Industry - Design and manufacture

### Module Mast for mobile telephone antennas, tri sector

Module Mast for mobile telephone antennas, tri sector UC-FMS is prepared to verify that a design proposed to a client is adjusted to specifications and requirements before the manufacture or construction of it.

*Description:* Calculations through finished elements method.

*Application:* Cosmoworks

*Equipment:* Influence over a 6 M mast + octagonal base antenna



### Lottery Bombos O.N.L.A.E



## Industry - Design and manufacture

### LINASA cogeneration plant

8000 KW power to 750 rpm, with a daily production capacity of 5 megawatts (MW).

These engines are part of a gas cogeneration plant that generates 15 MW/Day to supply a washing powder factory. Remain energy is sent to the net. The exploitation of the plant is not only to a power level, they take advantage of the leaking gases to generate steam in one boiler that is used to produce detergents, part of the gases are also used to produce liquid soap and another part is spray in a tower to generate the soap bubbles/flakes.



### WARTSILA 1834 SG Engines maintenance

Maintenance consists in:

- To dismantle 18 alternative trains of each engine, with the goal to take measurements.
- Change of bearing connecting rod heads, bolts, piston segments and its cleaning.
- Take measurements of the jackets and polishing.
- Cylinder head cleaning and joints change of exhaust pipe.
- Visual verification of the well been of the cam spindles.
- Jackets, alternative trains and cylinder head set up.



## Industry - Design and manufacture

Set up, cables transfer, piping and equipment...



Hydraulic systems and repairs



**Treatment of drinking water for the water supply to the population of Tetuan and the coastal area of the OUED MARTIL dam.**

**Study treatment plant planned under the project of water supply in the city of Tetuan.-**

Study, measures, design and technical documentation of a potable water treatment plant (ETAP), to supply Tetuan population. Water flow rate of 500L/s or 43.200 m<sup>3</sup>/day.

Water recovery process to drain off water cleaned and pur

**Reverse osmosis sea water to supply with water small population, water flow rate of 5L/s and 50L/s.**

**Module designed thanks to different equipment systems in standard containers of 20 feet, to be connected between them in the plants final location before starting to provide service.**

Initial distribution of elements and equipment in containers depend on adjustments requested by the client.

Total amount of 20 feet standard containers: 4.

**Treatment of drinking water for the water supply to the population of Marrakech and the coastal area of the MASSIRA dam.**

Study, measures, design and technical documentation of a potable water treatment plant (ETAP), to supply Marrakech population. Water flow rate of 2.500L/s or 215.000 m<sup>3</sup>/day.

Process water recovery..

**Completes treatment modules design, with nominal capacity to make the water drinkable in a water flow rate of 12.62 L/s or 45.43 m<sup>3</sup>/h for Mozonte location and 7.9 L/s or 28.39 m<sup>3</sup>/h for Susucayan location (Nicaragua).**

Modular, basic, without intermediate pumping plants. For the purification of raw water to supply it to small Nicaragua population.

### Purification / Desalination

Desalination plant by reverse osmosis set up on board of the Spanish Military ships.

Fresh water supply of 90 m<sup>3</sup>/day.



### Purification equipment manufacturing



### Purification equipment manufacturing

### Study projects and maintenance

Sewage treatment

E.D.A.R.

Water treatment by nano filtration for irrigation.

Tertiary re use systems.

### Environment Impact Investigation

The environment impact study (EsIA) is a document where the effects are identified, as well as the possibility to correct them and the effects that they will produce, and where there are proposals to correct measures.

### Visual Impact Study

It establishes the landscape quality objectives in the field of the study.

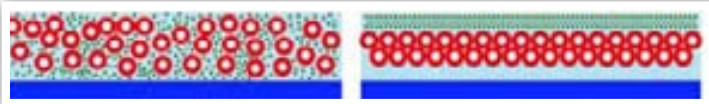
It analyses the activities and processes that affect the landscape.

It indicates the measures and actions needed to meet the quality objectives.



### Gaina (sista-coat)

It is a 100% ecological simple application product made from a liquid ceramic solution and when solidified gives excellent insulating properties.



### Gaina (SISTA-COAT)

You apply it like a painting, covering any surface uniformly and without any crack. After solidification, its ceramic components form a shield assembly, formed with 26 insulating layers. (Thermal, acoustic, waterproof and fireproof).

### Applications

1. Air conditioning systems
2. Cables piping, water and gas.
3. Roofs and tops of any kind of building.
4. Beams, partitions or walls, columns.
5. Engines or boilers rooms.
6. Swimming pools.
7. Vehicles, wagons, corporate fleet.
8. Boats' decks and hulls.
9. Facades.
10. Consoles, control boxes.
11. Agricultural exploitations.
12. Farms exploitations.
13. Containers.
14. Prefabricated houses.

### MRPP

It is a polymer tube reinforced by a metal wire mesh, welded at each intersection point. Thus, the metal wire is completely covered by polyethylene, thus being corrosion resistant.

### The unique features of its technology is based on three main elements

- A single continuous production line with an extruder that works automatically.
- Cooling system that prevents the duplexing roughened structure formation crystallized at a macromolecular level.
- Calibration of the inner diameter of the tube produced resulting from the formation in the very smooth interior surface (mirror finish).

### Application areas:

- Transportation of oil and natural gas.
- Transport of acids, alkalis and products with high salt content.
- Leaching of heavy metals in the subsurface.
- Used as cladding tubes artisans and salt extraction wells.
- Transport potable water, heat supply pipelines and other uses for housing and utilities.
- Mining, hydroelectric and pneumatic transport.
- Reinforcement coastal and port construction.

### Pipe connections

- Welded joint.
- Screw connection.
- Union flange.
- Special switches

Air-Ops is a UC Global section specialized in aeronautical engineering. It is formed by engineers that after working in major aeronautical factories sum-up an extensive experience in design, analysis and trials of aircrafts.

UC Global Air-Ops is specialized in fine-tuning and actualization of aircrafts. We provide a fast reaction time and a cost effective solution. The needs of operators, engineers and maintenance centers worldwide are already satisfied.

## Skills and strategy

### EXPERIENCE AND SKILLS

A excellent Team in fine-tuning and fixing aircrafts. CVEs are credited by EASA by more than an average of 25 years by person of experience in aircraft applied-aeronautics CS/FAR 23, 25,27 & 29 (i.e., Airbus, Agusta, Bell, Boeing, Bombardier, Cessna, Embraer, Sikorsky).

Our office is in Spain, Madrid and we already offered solutions to more than 45 companies all around the world accounting for more than 440 succesful projects in more than 30 differents aircrafts models and more than 33 000 hours of engineering available yearly.

### STRATEGY

We strongly bet for an international presence through collaborations and strategic aliancies that offer a competitive one-stop solution to our clients (aeronautical engineering, operators, maintaiment centers and aircraft factories).

We have partnerships with EASA DOA and their equivalencies FAA (USA), CAA(UK), CASA (Australia) and TRANSPORT CANADA for civil and military settings (ROD).





### Documentary Security:

UC-Global owns the HT SYSTEMS Company in Ecuador, same serving all solutions that are required in the areas of documentary security, secure identification, materials and high security systems, as well as management, generation, technology transfer, provision of equipment, sensors and means to cover all areas of cartography, cadastre, geodesy, geometric and technological development.

Together with our partner GEOCARTEG, Documentary Security Division aims specialization in the design and development of solutions for document security, as well as the production and editing of documents, both on paper and digital, protected against forgery and fraudulent changes.

For this, UC-Global as a technology integrator in projects in this field, has qualified personnel in software development and computer experts who contribute to the deployment of solutions to partner companies, for all types of public and private clients.

In order to solve the needs of these customers and ensure the most advanced solutions in document security, we do not only have great professionals, but also business alliances and research agreements with renowned actors such as Kinegram from Switzerland, PWPW from Poland, Safran (Morpho) from France, Atos from Spain, Wellscom from USA and Ecuador, Ceiec from China, Edaps from Ukraine, Neenah from the United Kingdom, between others.

The current evolution of technology facilitates forgery of documents, that is why implementing a reliable and efficient system of document security for states' officials or organizations has become a top priority for them.

In order to avoid fraud, identity theft, theft of personal information, etc., that may affect national security, we propose the following security techniques that we can apply to different documents:

- ANTICOPY AND ANTISCANNER BASES
- SECURITY INKS
- LUMINESCENT FIBERS
- HIGH SECURITY HOLOGRAPHIC PRINTS
- STEGANOGRAPHY
- LUMINESCENCE COSMOS
- CRYPTOGRAPHY
- INCORPORATION OF CHEMICAL REAGENTS MASS IN PAPER
- PROTECTION AGAINST USE OF ERASED PENS
- FIREPROOF ADDITIVES AGAINST AGING AND DEVELOPMENT OF FUNGUS
- PROTECTION AGAINST USE OF SUBLIMACION THERMAL ROLLERS

**Products:**

**PASSPORTS AND VISAS**

Our passports and visas in accordance with the ICAO regulations- apply more advanced security solutions for this kind of product: watermarked paper, chemical reagents, luminescent fibers and security thread; visible and invisible special inks; high security holographic foils; electronic chips; sewn with luminescent thread under UV light; etc.



**DOCUMENTS OF IDENTIFICATION**

Development of all types of identification documents: professional qualifications, access control cards, identification documents of vehicles and animals...

Always meeting the requirements of quality and security required by this type of support documentation.



**DEGREES, DIPLOMAS AND ACADEMIC CERTIFICATIONS**

Implementation of the most advanced measures against fraudulent modification and duplication, allow us to offer full recognition solutions for production -printing and customization- of such accreditations.



**CHEQUES, PROMISSORY NOTES AND LETTERS OF PAYMENT**

Making funds editions for security paper checks for banks, using the most advanced techniques to ensure their protection against counterfeiting or fraudulent modifications.



**THE AFFIDAVIT**

We can provide paper that meets the highest security requirements applicable to this type of document, with protective measures against fraudulent duplication, forgery, erasing or texts replacements; besides, it has passed the antifungals tests AFNOR X41-517 and TAPPI T 487 cm-93, ensuring their application and use in long-term historical..



**OTHER PRODUCTS:**

- Travelers checks
- Restaurant vouchers
- Parking cards
- Tickets for events and shows
- Thermal adhesive stamps
- Ballots gambling (lottery, bingo ...)
- Medical prescriptions
- Certifications
- Stamped papers
- Ballots



## Training

UC-Global develops programs and specialty courses, in classrooms and on-line, on matters related to document security:

- Analysis of signatures and manuscripts.
- Examination and verification of documents.
- Banks' Employees security.
- Checking documents for police and customs units.

Instructors and staff have the necessary experience in policing, customs, banking, among others, trained to perform this type of trainings, both governmental and private.

## Partner companies in document security:



Principales clientes





spain · usa · london · djibouti · salalah · nouakchott · malta · quito · pucket

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