

PUMPS, SPARE PARTS
AND ELECTRIC MOTORS



## - ABOUT US

We deal with activities related to the fluid machines and their components, including the supply of complete units, their accessories and spare parts with both standard and tailor made solutions. We set ourselves the goal of guaranteeing maximum reliability in terms of product quality and flexibility.



#### **PRODUCTS**

- Complete pumps
- Electric motors
- Spare parts for pumps
- · Spare parts for purifiers and compressors



#### **TARGETS**

- Production and resale
- Service and maintenance
- Design and reverse engineering



#### **QUALITY**

- RINA ISO 9001:2015 certification
- Internal testing procedures
- Product's warranty
- If necessary we can provide other certificates.



#### **TECHNICAL OFFICE**

- High responsiveness
- Online and on-site support
- Customized projects



#### **SALES**

- Customers worldwide
- Marine, industrial and power plant applications
- Local agents and distributors



#### **OPERATIONS**

- Shipments all over the world
- 100.000 components ready in stock
- 4.000 shipments per year
- App MyFGS: Track Your Shipping



Our company constantly strives to guarantee maximum quality and safety of our products, tested and compliant with the highest international standards.



Certificate n°	Туре	Description
29798/13/S	ISO 9001:2015	Supply and maintenance of rotating machinery and spare parts



## - FIELDS

#### **NAVAL**

FGS provides a perfect solution for shipowners, shipmanagement, shipyards, drydocks fluid handling needs.



#### **NAUTIC**

Parallel to the naval sector, FGS also operate in the nautical sector, in particular at the service of super and mega yachts in the re-fitting market. FGS provides certified pumps suitable for nautical installations and spare parts with quick and streamlined deliveries, revisions and maintenance that can be carried out in the workshop or directly on board.



FGS has an extensive range of pumps for oil fields, onshore and offshore extraction plants, refineries, LNG terminals.



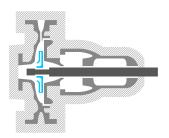
### **INDUSTRIAL**

FGS provides a suitable solution for every industrial application, proposing its centrifugal and positive displacement pumps for water handling and lubricant transport.



### - PUMPS CENTRIFUGAL

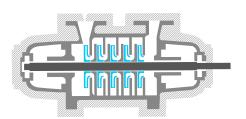
#### **HORIZONTAL**



#### **According to EN733 Standards.**

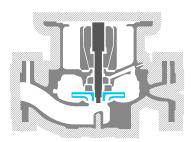
- **Type:** bareshaft, coupled with motor, base with coupling.
- Applications: sea water recycling plants, heating and cooling, plants of water supply, pressurizing units, fire-fighting systems.
- Materials: carbon steel, cast iron, marine bronze, stainless steel AISI 316.

#### HORIZONTAL MULTISTAGE



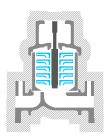
- **Type:** radial or axial suction body, adjustable direction of flanges.
- Applications: sea water, water supply, high pressure lifting, refrigeration, heating and cooling, snowmaking plants, reverse osmosis.
- **Materials:** carbon steel, cast iron, marine bronze and stainless steel AISI 316.

#### **VERTICAL**



- **Type:** inline, monobloc, coupled with rigid coupling, normal or self-priming.
- Applications: feed water, sea water, heating and cooling plants, aqueducts, water supply, chemical and petrochemical products, firefighting systems.
- **Materials:** cast iron, marine bronze, stainless steel AISI 316.

#### **VERTICAL MULTISTAGE**

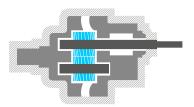


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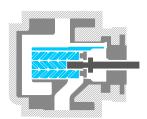
## - PUMPS POSITIVE DISPLACEMENT

#### **GEAR**



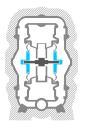
- **Type:** version with mechanical and leap seals, magnetic coupling.
- **Applications:** lubrification machinery/engine, hydraulic power units, chemical additive metering, foam blending in fire-fighting system, fuel oil supply or booster and generally transfer of viscous liquids as glue, paints, grease.
- Materials: carbon steel, cast iron, marine bronze, stainless steel AISI 316.

#### **THREE SCREWS**



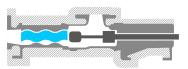
- **Type:** version with mechanical and leap seals, magnetic coupling.
- **Applications:** lube services, power hydraulics, heavy fuel oil, booster and special naval applications, fuel oil burners, transfer services, cooling, food and petrolchemical services.
- Materials Pump Body: aluminum, cast iron, carbon steel, hardened steel.
- **Screws:** cast iron, core hardened steel screws, surface hardened.

#### **DIAPHRAGM**



- Applications: emptying of tankers with solvents, acids, alcali and others, cleaning and sterilization in chemical and pharmaceutical process with safe operation, transfer in fluid industry, dosing of chemicals in varnish industry.
- **Materials:** body in aluminium, cast iron, stainless steel, polypropilene, PTFE.

#### **MONO SCREW**



- **Type:** version with floating stator, progressing cavity and optional hopper.
- Applications: oil sludge, bilge and sea water, resin, paint, acids, cement, food industry, biogas industry.
- Materials Rotor: Chromed SS, C40, AISI304/316, Duplex.
- **Stator:** NBR, EPDM, FKM, PTFE, others on customer request.
- **Pump Body:** cast iron G25, stainless steel 304/316, FE510, bronze, Duplex, CIP on request.

## - SPARE PARTS

SPARE PARTS FOR CENTRIFUGAL SINGLE AND MULTISTAGE PUMPS

- Sea water
- Fresh water
- Fire-fighting and emergency systems
- Boiler feed and exhaust gas circulation
- Thermal oil circulation
- Ballast

- Sewage
- Cargo pumps
- Cargo
- General Service
- High pressure



**IMPELLERS**Marine bronze, AISI316



**PUMP SHAFTS**AISI316, AISI420, Duplex



**WEAR RINGS**Marine bronze, AISI316



**BEARING BRACKETS** and support for pump







**BUSHES AND SLEEVES**AISI316, bronze, aluminium, syntherized, thordon

## - SPARE PARTS

**SPARE PARTS FOR VOLUMETRIC PUMPS** 

- Monoscrew pumps
- Three screw pumps
- Gear pumps
- Hollow disk pumps
- Heavy fuel oil supplyMain engines lubrificationBooster fuel oilViscous oil transfer

- Bilge and sludge
- Sewage
- Cargo



**SPARE PARTS** For monoscrew pumps



**SPARE PARTS KIT** For gear and three screw pumps



**ROTOR SET** For three screw and gear pumps



**SPARE PARTS** For hollow disc pumps



## - SPARE PARTS

MECHANICAL SEALS
COUPLINGS
GASKETS AND O-RINGS
MAGNETIC COUPLINGS



**MECHANICAL SEALS**Single, Multispring and Cartridge Seal **Materials:** Carbon, Silicon and Tungsten Carbide



**COUPLINGS**Elastic, Gear, Lamellar, Spacer executions



**GASKETS AND O-RINGS**Synthetic fiber, Graflex, EPDM, Viton, Kalrez



**MAGNETIC COUPLINGS** 



## — ELECTRIC MOTORS WE ARE MASTER DISTRIBUTOR OF OME MOTORS



Delivery ready from stock for e-motors with power 0.18-800 kW directly from Italy warehouse. In addition we provide:

Short availability for Atex zone
 Special not standard dimensions
 IE4 efficiency or lower

#### STANDARD LOW VOLTAGE ALUMINUM



- Single phase
- Three phase
- Two speed
- Self Brake AC/DC Asynchronous Motor and Double Speed
- Special shaft
- 1E1, 1E2, 1E3 Premium Efficiency and IE4 Super Premium Efficiency
- Poles 2-4-6-8
- Ambient Temperature: -15 + 40° C ambient temperature; 55° C ambient temperature on request
- Multi frequencies (50 & 60 HZ)
- Multi voltages
- Frame size: H 56 H 132
- Up to 11 kW

#### STANDARD LOW VOLTAGE CAST IRON



- Three phase
- Two speed
- Self Brake AC/DC Asynchronous Motor and Double Speed
- Special shaft
- IC 411 IC 416 IC 611
- 1E1, 1E2, 1E3 Premium Efficiency and IE4 Super Premium Efficiency
- Special Tension
- Poles 2-4-6-8-10-12-14-16
- Bearing SKF, PTC
- Ambient Temperature: -15 + 40° C ambient temperature: 55° C ambient temperature on request
- Multi frequencies (50 & 60 HZ)
- Multi voltages
- Frame size: H 80 H 710
- From 11 kW up to 2000 kW

#### **IE4 PERMANENT MAGNET**



- IE4, Three phase, cast iron
- Poles 2-4-6-8
- Ambient Temperature: -15 + 40° C ambient temperature; 55° C ambient temperature on request
- Multi frequencies (50 & 60 HZ)
- Multi voltages
- Frame size: H 80 H 400
- From 0.75 kW up to 2.500 kW

#### **ATEX**



#### On request Ex:

- Frame size: H 355 H 500
- From 355 kW up to 1.100 kW
- Voltage: V. 380 V. 400 V. 660 - V. 690 - V. 1140
- Pole: 2-4-6-8-10-12
- Cooling method: IC 411 IC 416
- OMEx
- ATEX category II 2G Ex db IIB T4 Gb II 2D Ex tb IIIC (125°) Db
- Group B
- Ambient Temperature: -20 + 40° C ambient temperature: 55° C ambient temperature on request
- IE1 (IE2 on request) Efficiency
- Three phase
- IIC group on request
- Frame size: H 80 H 355
- From 0.75 kW up to 315 kW
- Voltage: V. 380 V. 400 V. 660 V. 690 V. 1140
- Pole: 2-4-6-8
- Cooling method: IC 411

## - SERVICES

The service is part of our core business, depending on the situation we perform it in our headquarters or directly on site and includes: maintenance and overhaul of complete units and components, reverse engineering and design activities, customized machining of spare parts, performaces testing and testing on machinery.

## OVERHAULING PUMPS AND ELECTRIC MOTORS

Overhauling of pumps and rotating machines, overhauling of mechanical seals, impellers regenerations and predictive maintenance. We can provide this type of job directly in our headquarters or directly on board.

# MAINTENANCE AND SERVICE ASSISTANCE

At FGS we are able to do pumps maintenance for any type or brands, in our headquarters or directly on board. Our maintenance service stands for reliability, precision and rapidity. We are authorized service station for OME and SAER.



#### REVERSE ENGINEERING

Reverse engineering, machine design and pumps customization



fluidglobalsolutions.com







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