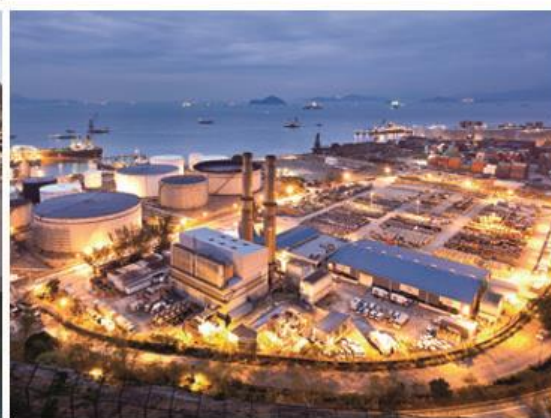
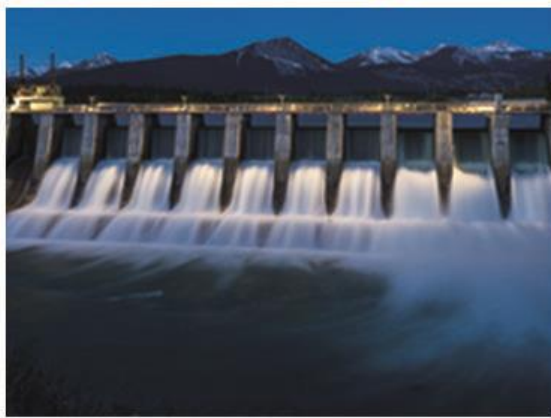




Indar

Ingeteam Group



WHO WE ARE



WE ARE A SOLID GROUP
THAT SINCE 1940 PROVIDES
HIGH VALUE-ADDED
SOLUTIONS IN ROTATING
ELECTRIC MACHINES:
MOTORS, GENERATORS, AND
SUBMERSIBLE PUMPS &
MOTORS

BUSINESS CHART

INGETEAM S.A. - CEO - D. Adolfo Rebollo

INGETEAM POWER TECHNOLOGY

CEO - D. Javier Coloma

ENERGY

D. David Solé

Wind Energy

Dña. Ana Goyen

Solar PV

D. Juan Carlos Jdraque

Power Plants Automation

D. Javier Inza

Power Plants

D. Luis Sebastián

Service

D. Jorge Magán

SYSTEMS

D. José Luis Sobaler

Marine Systems

D. José Luis Sobaler

Industry Systems

D. José Luis Sobaler

CONVERTERS & AUTOMATION

D. Alberto Guerrero

Power Grid Automation

D. Eduardo Pedrosa

Industry & Marine Drives

D. Beñat Izaola

Traction

D. Josu Elorriaga

Automation Devices

D. Ricardo Galdiz

Electronics

D. Alex Bouza

INDAR

CEO - D. Alex Belaustegi

Director General - D. Peio Pagola

Wind Energy

D. Iñigo García

Hydro

D. Josu Goya

CIM

D. Jagoba Mardaras

Submersible Motors & Pumps

D. Jon Alberdi

Indar
An *Ingeteam* brand

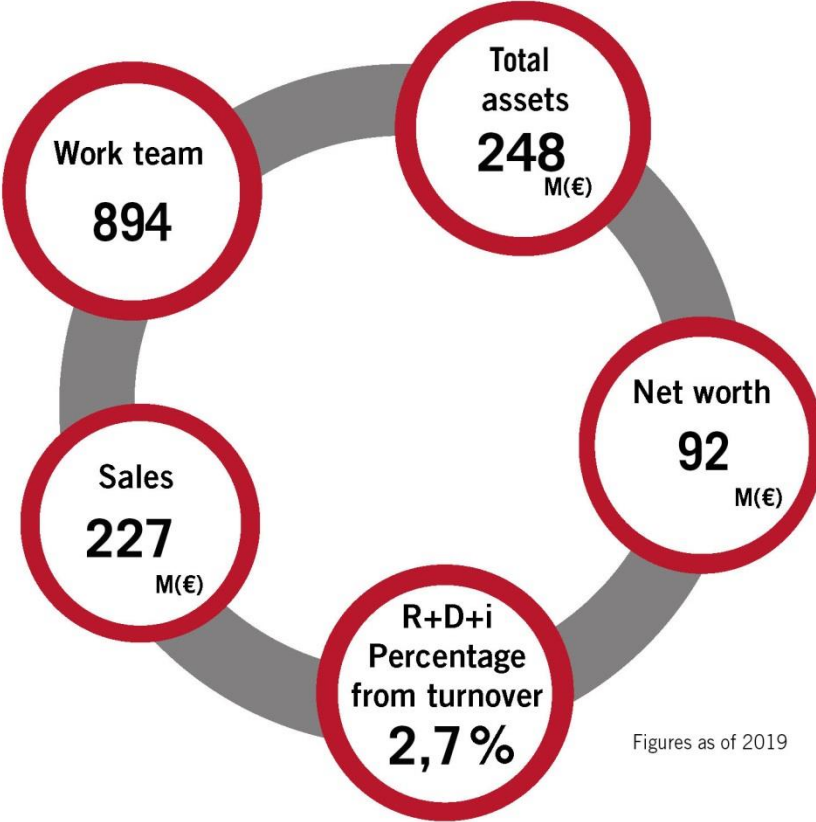


Main headquarters in Beasain

WHO WE ARE

THE STRENGTH OF A SOUND GROUP

46 GW
Installed
Worldwide



Figures as of 2019

WHERE WE ARE

GLOBAL OPERATION

**3 PRODUCTION SITES.
OVER 30 LOCAL
SELLING POINTS.
25 CERTIFIED
SERVICE CENTERS.**

HEADQUARTERS

Combined production center of Generators,
Submersible Pumps and Motors.
Manufacturing capacity up to 10,000 MW / year.



BEASAIN (SPAIN)

Combined production center of Generators.
Manufacturing capacity up to 5,000 MW / year.



MILWAUKEE (USA)

Production center of Generators.
Manufacturing capacity up to 5,000 MW / year.



SEGORBE (SPAIN)

WHAT WE DO

We offer a fully comprehensive service for your projects, from the design and manufacturing of motors, generators, submersible pumps and submersible motors to a thorough knowledge of their application field, assessment, technological development, training and turnkey project delivery.

ASSESSMENT



CUSTOM DESIGN



ENGINEERING



TRAINING



TECHNICAL ASSISTANCE



TURNKEY PROJECT



OUR AREAS OF ACTIVITY

MARINE
Motors and Generators



up to
15 MW

up to
40 MVA

HYDRO
Generators



up to
80 MVA

WINDPOWER
Generators for Wind
Turbines



up to
9 MW

INTERNAL COMBUSTION
Generators for
Diesel/Gas Engines



up to
40 MVA

**SUBMERSIBLE
PUMPS AND MOTORS**
Up to 21,000m³/h
and 1000m deep.



up to
6.5 MW

ELECTROMOBILITY
Traction and
electric bus






600
Ships
Propelled

MARINE

Over 600 ships are propelled with our technology.

Through the Indar Drive Products Concept , we unite power with control, developing advanced propulsion and auxiliary generation systems for ships, effectively, silently, without vibrations and respecting the environment.

Immerse yourself in the incomparable advantages of our marine power system.



ELECTRIC MOTORS & GENERATORS

Asynchronous, Synchronous and PM Technology

	INDAR IM			INDAR ISM	INDAR SG1
Application	General use	Direct propulsion	Low Noise Propulsion	Submersible motors	Generators
Output	600 – 15,000 kW	600-10,000	600-5,000	400 – 6,500 kW	1,250 – 30,000 kVA
Voltage	Up to 15,000 V	Up to 6,600 V	Up to 3,300 V	Up to 3,300 V	Up to 15,000 V
Speed	Up to 2,000 rpm	Up to 350 rpm	Up to 350 rpm	Up to 400 rpm	Up to 1,200 rpm
Insulation Class	H	H	H	H	H
Starting / Operation	PWM / Sinusoidal	PWM	PWM	PWM + Sinusoidal	

Our machines are designed, manufactured and tested according to the criteria and standards of the International Electrotechnical Commission.

Indar's motors adapt to the requirements established by the various classifying bodies for marine application.

- All submersible motors IP-68
- Features described apply to oil filled machines
- 300m max submergence capacity



BUREAU VERITAS

ABS



Lloyd's Register

IEC

Dredging



Passenger



- Cruises
- Yachts
- Ferries

Research



Offshore



Special Purpose Vessels



- Tugs
- Ice Breakers
- Fishery Work Boats

Cargo



Picture courtesy: CSIRO



Harvey Barnson



DREDGING

Suction Hopper dredgers, Cutter dredgers
Propulsion motors, pump motors, cutters
drive motors
Generators, winch motors

JAN DE NUL

46,000 m³ Trailing Hopper Suction Dredgers

- Cristobal Colon
- Leiv Eiriksson

BOSKALIS

Heavy-duty, rock cutting, stationary dredger

- Phoenix

VAN OORD

Self propelled Cutter dredger

- Athena
- Artemis



CRUISE SHIPS/FERRY

COMPAGNIE DU PONANT

Fincantieri

- Le Boréal, L'Austral, Le Soléal & Le Lyrial

TESO

La Naval

- Texelstroom

COSTA CRUCIERE

Fincantieri

- Costa Romantica

CELEBRITY CRUISES:

STX France

- Celebrity Edge, Celebrity Beyond, L34 & M34

PONANT

Vard

- Le Lapérouse, Le Champlain, Le Bougainville,
Le Kerguelen

HAPAG LLOYD CRUISES

Vard

- NB 870 & 871



YACHTS

BENETTI FB 262 - LIONHEART



SILENT CLASS

Direct Shaft Propulsion Motors

Compliant with ICES-209 and/or with DNV – Silent R Class

- Celtic Explorer (EIR - Oceanographic Research Vessel)
- Miguel Oliver (SP - Oceanographic Research Vessel)
- Ramon Margalef (SP - Oceanographic Research Vessel)
- Angeles Alvariño (SP - Oceanographic Research Vessel)
- Le Boreal (FR - Cruisier Vessel)
- L’Austral (FR - Cruisier Vessel)
- Le Soleal (FR – Cruisier Vessel)
- Le Lyrial (FR – Cruisier Vessel)
- Simon Stevin (BEL - Multidisciplinary Coastal Research Vessel)
- RV Investigator CSIRO (AUS – Oceanographic Research Vessel)
- Indar ref. 50818 (CAN - Offshore Fisheries & Science Vessels)
- Bipo Inapesca (MEX - Oceanographic Research Vessel)
- Dr. Fridtjof Nansen (NOR - Fishery and Oceanographic Research Vessel)
- Tan Kah Kee (CHI - Oceanic Scientific Research Vessel)
- BIP Victor Angelescu (ARG - Fishery and Oceanographic Research Vessel)
- Baia Farta (ANG - Fishery and Oceanographic Research Vessel)
- Indar ref. 51228 (SWE - Fishery and Oceanographic Research Vessel)
- Indar ref. 51257 (NOR - Research Expedition Vessel - REV)



OFFSHORE

Heavy Lifting Vessels, Fall Pipe Vessel,
Semi-Sub Platforms
Propulsion Motors & Generators

SEAWAY

Heavy Lifting Vessel

- Olef Strashanov

JAN DE NUL

Fall Pipe

- Simon Stevin
- Joseph Plateau

PEMEX

Floating Hotel

- Orgullo Petrolero
- Reforma Pemex



OFFSHORE

Heavy Lifting Vessels, Fall Pipe Vessel,
Semi-Sub Platforms
Propulsion Motors & Generators

SUBSEA7

Construction Flexlay Vessel

- Seven Cruzeiro
- Seven Pacific
- Seven Rio
- Seven Seas
- Seven Waves

SUBSEA7

Pipe laying / heavy lift vessel

- Seven Oceans

VARD, Ulstein

- Several PSV



CARGO VESSELS, VEHICLE CARRIERS

WAGENBORG



JUMBO SHIPPING



STENA

BIGROLL

SUARDIAZ



ACCIONA TRANSMEDITERRANEA

SPECIAL PURPOSE VESSELS

SHALLOW DRAUGHT ICEBREAKING TUG BOATS

FISHING VESSELS

ATB

ICE BREAKERS

COAST GUARDS

TUG VESSELS

LNG VESSELS



SPECIAL PURPOSE VESSELS

NAVY



Guided-Missile Frigates SIGMA 10514 PKR

Program Summary

Description: The combined diesel or electric (CODOE) propulsion system

Scope

Electrical main propulsion motors

Schedule / Status

The first of up to two SIGMA 10514 PKR naval frigates for the Indonesian Navy was successfully completed its sea trials as of 7 September 2016 and delivered in January 2017. This is a major milestone for a project for which the first steel was cut in January 2014.

Highlights

Most of the time the ship is propelled by these electrical motors with low underwater noise, low emissions, and low faults risk.

Challenges / Actions

Challenge

1. Compact motors with low weight.
2. Comply the ILS.

Action

New Design & LR certification

Design considering from the beginning Maintenance and Cycle of Live.(List of materials, obsolesce...)

Worldwide Service Centers



Indar

Ingeteam *Group*

Your driving force