MARINE PUMPS
OFFSHORE SOLUTIONS

SAER ELETTROPOMPE

OCEAN PROOF

SAER has an extensive range of pumps for the marine, naval and off shore fields.

With **an average delivery time of three weeks** and a network of distributors located in over **100 Countries worldwide**, you can rely on a quick response for all of your special requirements.

SAER provides hundreds of **tailored solutions** to withstand sea water for applications such as ballast, sea water cooling, boiler feed, HVAC, fire fighting and many others.

Thanks to the precision cast parts and high quality construction, **maintenance is simple** and **life cycle costs** are kept to a **minimum**, making SAER pumps **OCEAN PROOF**.

SAER ELETTROPOMPE

OUR PRODUCTS ARE MADE BY OUR CUSTOMERS

SAER provides pump solutions built to last, with a complete range from surface to submersible pumps and motors with power up to 400HP, flow up to 5000 m³/h and 60 bars of head, available in SS 316, bronze, DUPLEX, carbon steel and cast iron. Since 1951 we provide efficient solutions made in Italy.

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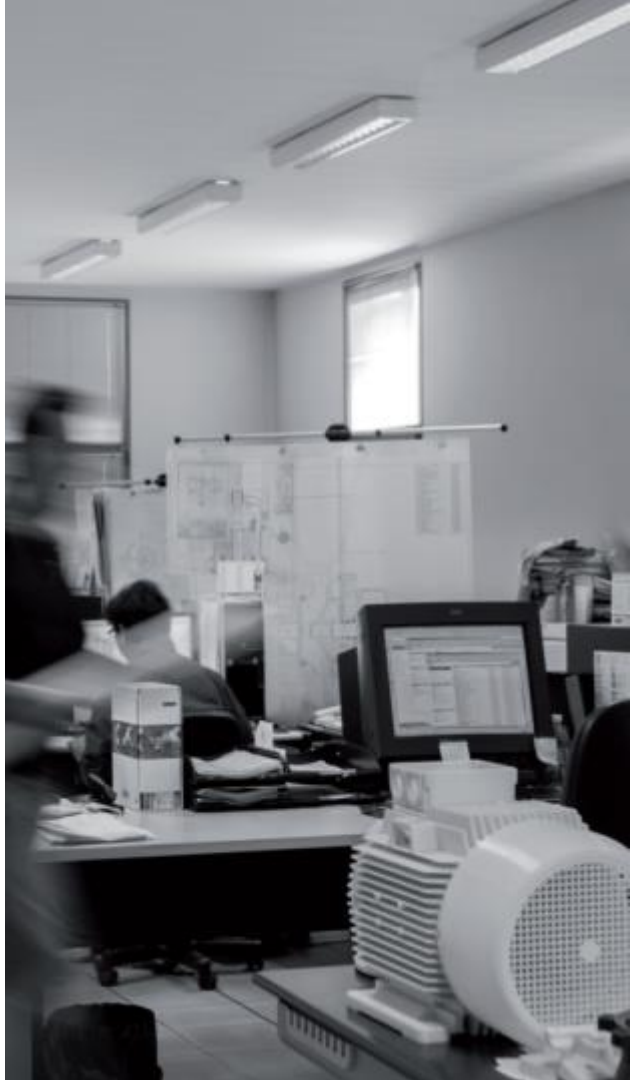
SAER ELETTROPOMPE

Customized solutions to meet every need.



Wide choice of materials *for different applications.*

Pumps available in ***many configurations*** *with possibility of selection among many materials both for the pump and motor components.*

Precision casted parts *for high reliability.*

Easy maintenance *and low operating costs.*

Motors in ***different efficiency class****(IE1, IE2, IE3), low and medium voltage.*

Choice among ***electric motors, diesel engine*** *and* ***hydraulic motor*** *to provide ideal solutions for any needs.*

All ***approvals for marine classifications*** *available from our testing rooms*

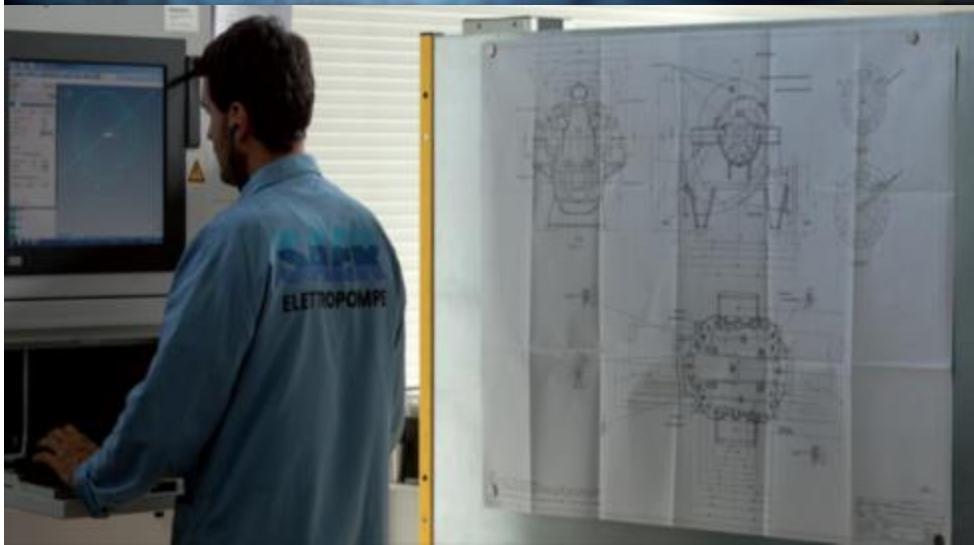
SAER ELETTROPOMPE

FOCUS ON QUALITY

MATERIALS | DIMENSIONS | VALUES

Every year **we invest more than 6% of our turnover in research, to search for new and efficient solutions.**

Our R&D dept. works with state of the art software, and prototyping system



SAER ELETTROPOMPE

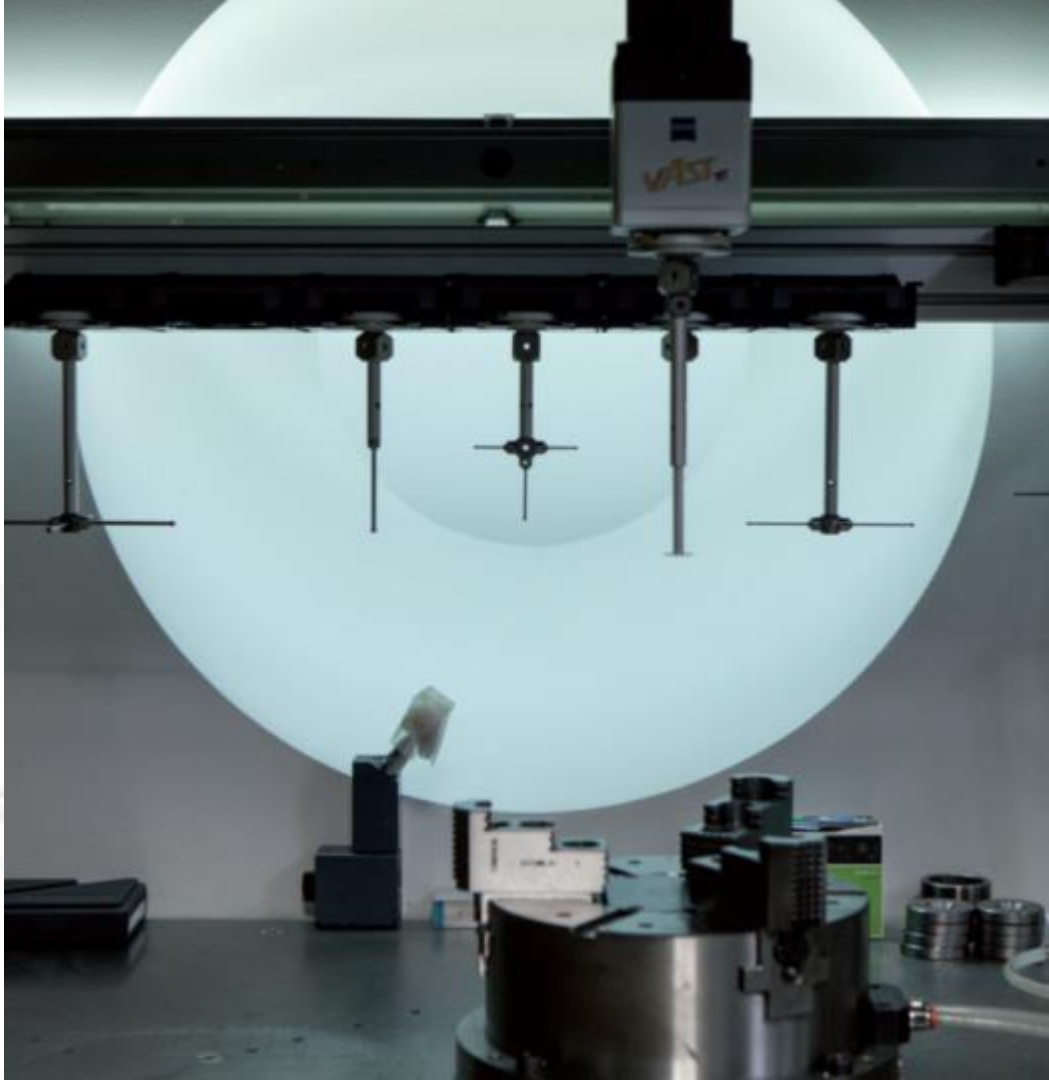
RECOGNIZED EXCELLENCE

MADE IN ITALY GUARANTEE

6 different lines to test the pumps under different conditions up to **2400m³/h 300kW**.

New testing room up to **5000m³/h 500 kW**.

Third parties witnessed tests can be performed directly in our facilities.



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APPLICATIONS

our pumps

CLEAN WATER GENERATOR	IR	NCB-NCBK		MG	MK
SEA WATER CIRCULATION	IR	NCB-NCBK		MK	TM
BOILER	IR	NCB-NCBK	MG	MK	SKD
ENGINE ROOM	IR	NCB-NCBK		MG	MK
FIREFIGHTING	MG	NCB-NCBK	MK	TM	S
BALLAST				M	MG

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PRODUCTS

SAER ELETTROPOMPE

END SUCTION

One of the most extended range in the pump market, combines top performances with low operating costs

APPLICATIONS

Shipbuilding industry
HVAC
Fire fighting
Fresh water circulation pump

MOTOR

Electric motor/Diesel Engine/ Hydraulic motor
Easy maintenance with back pull-out design.

SAER ELETTROPOMPE

Close-coupled pumps

High efficiency and versatile pump, compact and with reduced overall dimensions

50 Hz
Qmax: 400 m³/h, Hmax: 100 m
Power: up to 37 kW

60 Hz
Qmax: 525 m³/h, Hmax: 113 m
Power: up to 37 kW

Materials: Stainless Steel, Cast iron, Bronze

IR Series

Stub-shaft pumps

Exclusive project that allows the pump to be combined to any normalized electrical and hydraulic motor.

50 Hz
Qmax: 255m³/h, Hmax: 102 m
Power: up to 75 kW

60 Hz
Qmax: 260 m³/h, Hmax: 113 m
Power: up to 37 kW

Materials: Stainless Steel, Cast iron, Bronze.

MG Series

Bare shaft pumps according to the norm EN 733.

50 Hz
Qmax: 675 m³/h, Hmax: 129 m
Power: up to 160 kW

60 Hz
Qmax: 2400 m³/h, Hmax: 122 m
Power: up to 400 kW

Materials: Stainless Steel, Cast iron, Bronze

NCB Series

Bare shaft pumps exceeding the norm EN 733.

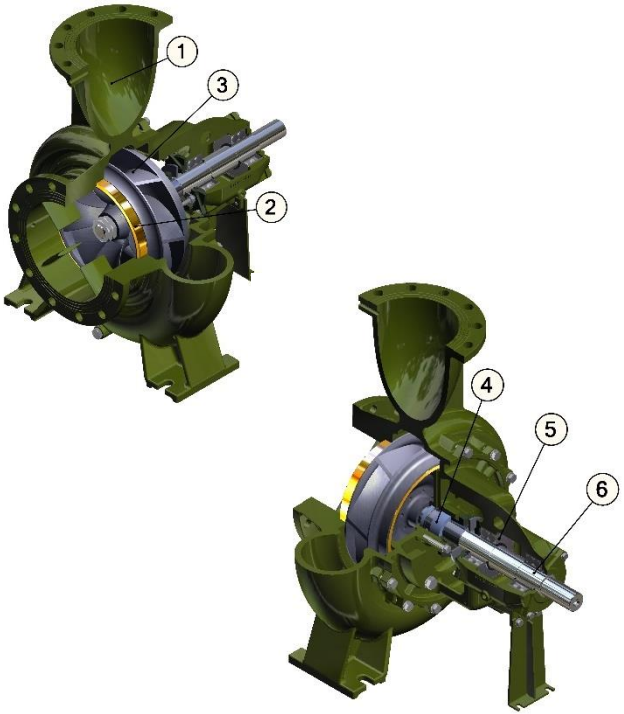
50 Hz
Qmax: 2300 m³/h, Hmax: 97 m Power: up to 355 kW

60 Hz
Qmax: 2400 m³/h, Hmax: 122 m Power: up to 400 kW

Materials: Stainless Steel, Cast iron

NCBK Series

SAER ELETTROPOMPE



1.Reliability

standard for all versions, wear rings, easy to replace, to protect the pump body and the impeller.

2.More resistance

pump body and seal holding disk designed with suitable thickness to guarantee life to the exercise pressures.

3.High Hydraulic efficiency

pump designed with CFD systems.

4.Reduced life cycle cost

oversized ball bearings and protected from outer agents to offer a reduced working noise. Available versions with oil soaked bearings and with a constant-level oil feeder .

5.Solution for all needs

different configurations of mechanical seal or gland packing.

6.Quality

standard stainless steel AISI 431 shaft designed to resist to the bending-torsion load generated and protected by anti-wear systems. Suction profile conceived to increase the suction capacity and to reduce the NPSH and possibility of cavitation.

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MULTISTAGE

The series offers a wide range of products able to meet the requirements of the end user.

APPLICATIONS

Systems of high pressure lifting,
Refrigeration
HVAC
Condensed extraction
Tank washing
Fire and general services
Boiler feed

MOTOR

Electric motor/Diesel Engine/ Hydraulic motor.

SAER ELETTROPOMPE

Vertical multistage pumps

50 Hz
40 m³/h Hmax: 394 m Power: up to 30 kW

60Hz
Qmax: 45 m³/h Hmax: 385 m
Power: up to 37 kW

Materials: cast iron, Stainless steel 316, Stainless steel 304

MK Series

50 Hz
Qmax: 700 m³/h Hmax: 630 m
Power: up to 500 kW

60 Hz
Qmax: Qmax: 900 m³/h Hmax: 630 m Power: up to 500 kW

Materials: cast iron, Stainless steel 316, Stainless steel 304

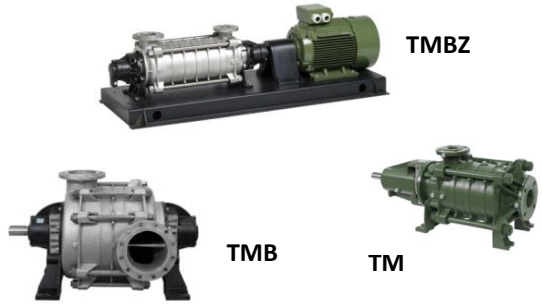
TMV Series

Horizontal multistage pumps

50 Hz
Qmax: 700 m³/h Hmax: 630 m
Power: up to 500 kW

60 Hz
Qmax: Qmax: 900 m³/h Hmax: 630 m Power: up to 500 kW

Materials: cast iron, Stainless steel 316, Stainless steel 304



TM & TMB Series

SAER ELETTROPOMPE

TMB

TMV

TM

TMS

1) Reduction system of axial loads on all versions : balance drum, impellers with holes and return pipe.

3) Different configurations of mechanical seal or gland packing according to the user's requirements, based on the fluid characteristics and the use conditions.

4) Oversized ball bearings and protected from outer agents to offer a reduced working noise and a long service life. Available versions with oil soaked bearings and with a constant-level oil feeder on demand.

5) Wear ring front and rear, easy to replace, to protect diffusers, stage bodies and impellers.

2) Last stage diffuser for radial loads removal.

7) Thrust bearings used to support axial residual loads.

8) TM and TMV series: Bushings made of antifriction materials.

6) TM series: suction profile conceived to increase the suction capacity and to reduce the NPSH and the possibility of cavitation.

9) TM80 – TM 100: available also in TMS version, with coupling flange according to SAE3 for diesel engine.

SAER ELETTROPOMPE

SUBMERSIBLE

One of the most complete line of submersible pumps with water-filled or oil-filled motors for water applications.

APPLICATIONS

Bottom intake
Dewatering
water supply
Lifting
Offshore
bbooster .

MOTOR

Electric motor/Hydraulic motor
Verical or horizontal installation

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S
Series

Semi-axial submersible pumps

From 6” up to 14” , tested and proven over many years, S pumps ensure a high degree of reliability and suitability for a wide range of applications.

50 Hz
Qmax: 725 m³/h Hmax: 388 m
Power: up to 300 kW

60 Hz
Qmax: 725 m³/h Hmax: 388 m
Power: up to 300 Kw

Materials: cast iron, Stainless steel 316, Bronze , DUPLEX.

Diffusers

Bronze

Stainless steel AISI-316

Impellers

Bronze

Stainless steel AISI-316

Rotor for motor MS with Shaft

Stainless steel AISI-431

SAER ELETTROPOMPE

SPLIT CASING

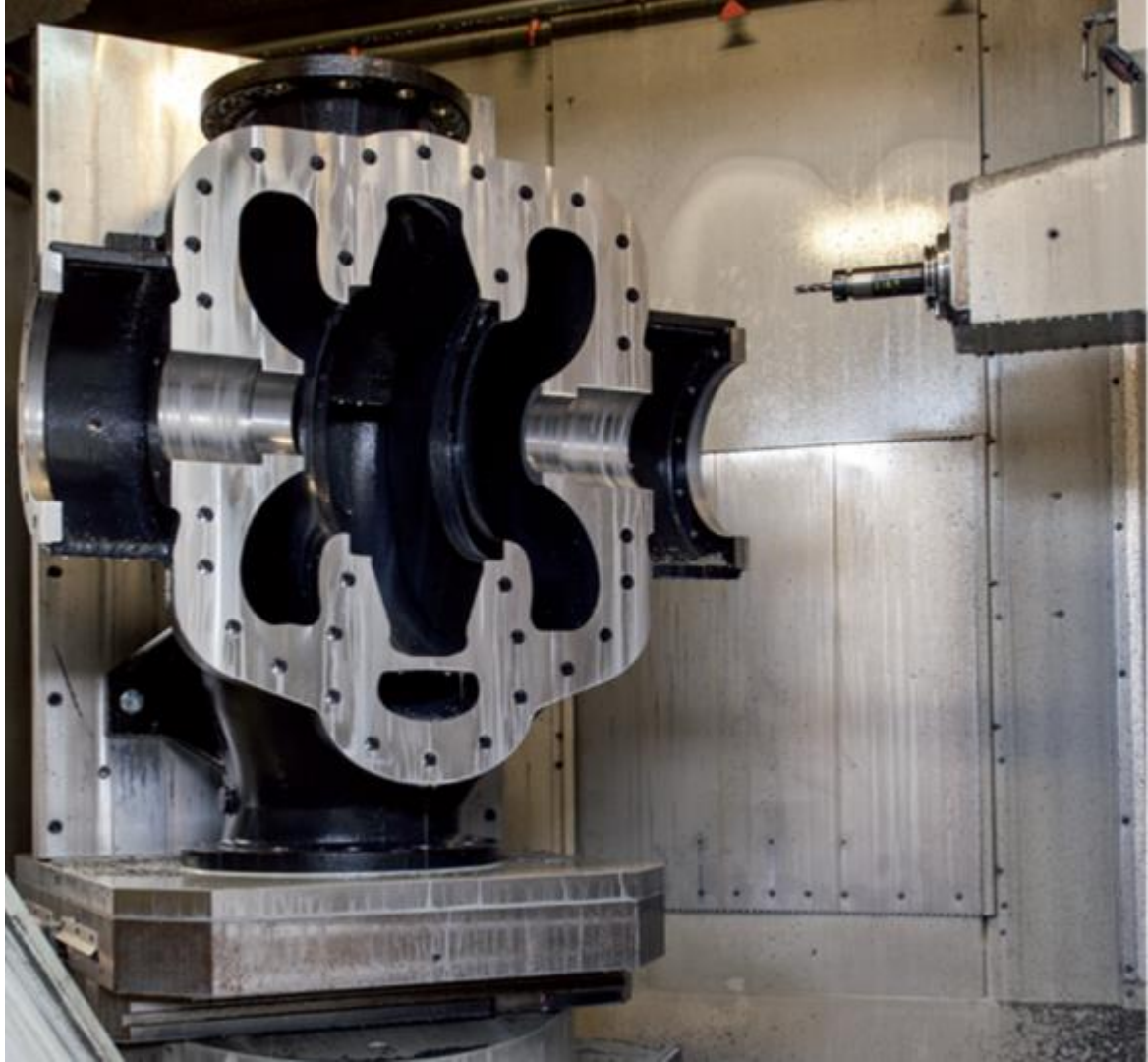
Made in Italy project and construction, each component studied and optimized through rapid prototyping systems

APPLICATIONS

Water supply systems
Freshwater circulation
Freshwater generator
Water treatment
HVAC
Fire and general services

MOTOR

Electric motor/Diesel Engine/ Hydraulic motor



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SKD Series

Split casing pump

High efficiency and versatile pump, compact and with reduced overall dimensions and **available also in vertical.**

50 Hz
Qmax: 5000 m³/h Hmax: 220 m Power: up to 1100 kW

60 Hz
Qmax: 5000 m³/h Hmax: 220 m Power: up to 1100 kW

Materials: cast iron, Bronze

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7. Bearings

Two heavy duty type bearings grease lubricated with grease flush through the bearing housing.

Bearing bracket carefully sealed off

Bearing protected from liquid entry by means of rubber seals

Long life bearing designed for an average life of 100.000 hours, continuous running (MTBF).

6. Impeller

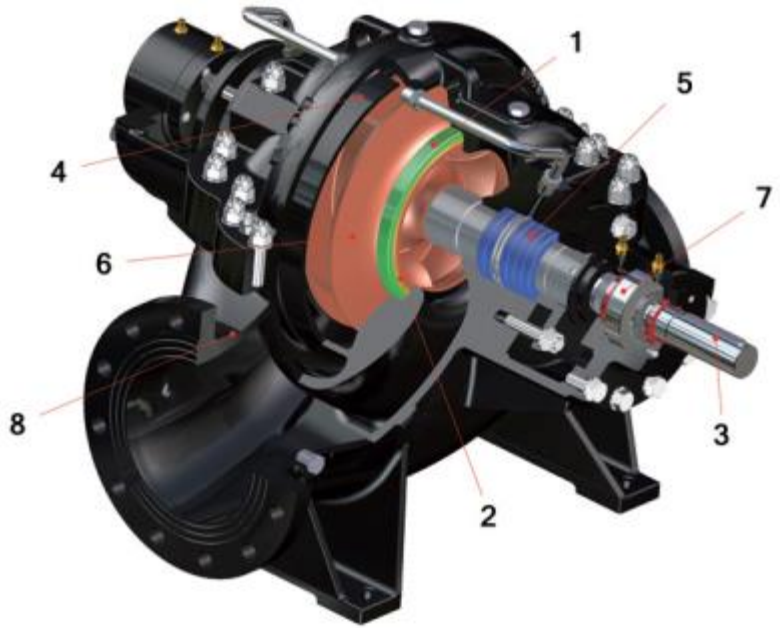
One piece casted impeller, with double suction.

Due to the impeller double suction design there's no axial thrust on the bearings

Impeller keyed to the shaft and axially fixed by two half rings: simple maintenance and impeller dismantling

1/2. Wear ring

double wear ring, pump fitted with casing wear ring and impeller wear ring



3. Shaft

stainless steel, adequately sized for the loads transmitted.

Protection through the stuffing box with stainless steel or bronze sleeve.

The sleeves are fitted with O rings with inside diameters to eliminate leakage between the shaft and the sleeve.

4/8. Casing

Double design volute: the radial thrust on the bearing is minimum

SAER ELETTROPOMPE

TAILORED SOLUTIONS

THE CASE OF THE BALLAST – SM SERIES

Thanks to the flexibility that distinguishes the Company, SAER is **able to design and produce** *in a short time even* **products on demand**, *integrating them in its wide range.*

That's the case of the ballast pump, **SM series**, *pumps that are used primarily in* **the marine industry, to empty dry docks, civil, oil & gas and mining**. *At this time SM can be realized up to 10" (400 m³ / h, 7 bar, 45 kW).*

MATERIALS AVAILABLE: *AISI 316 and marine bronze G-CuSn10.*

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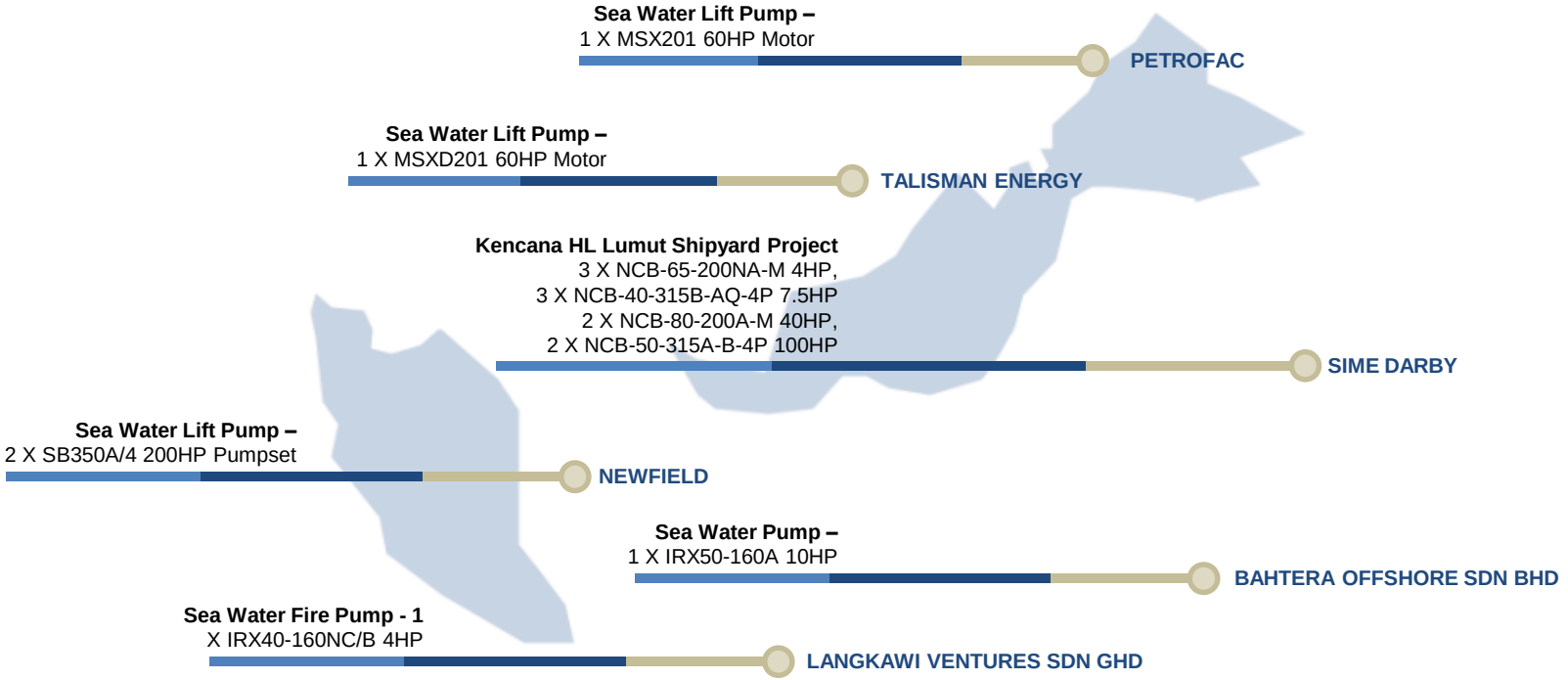
SAER MALAYSIA

CLIENTS & PROJECTS



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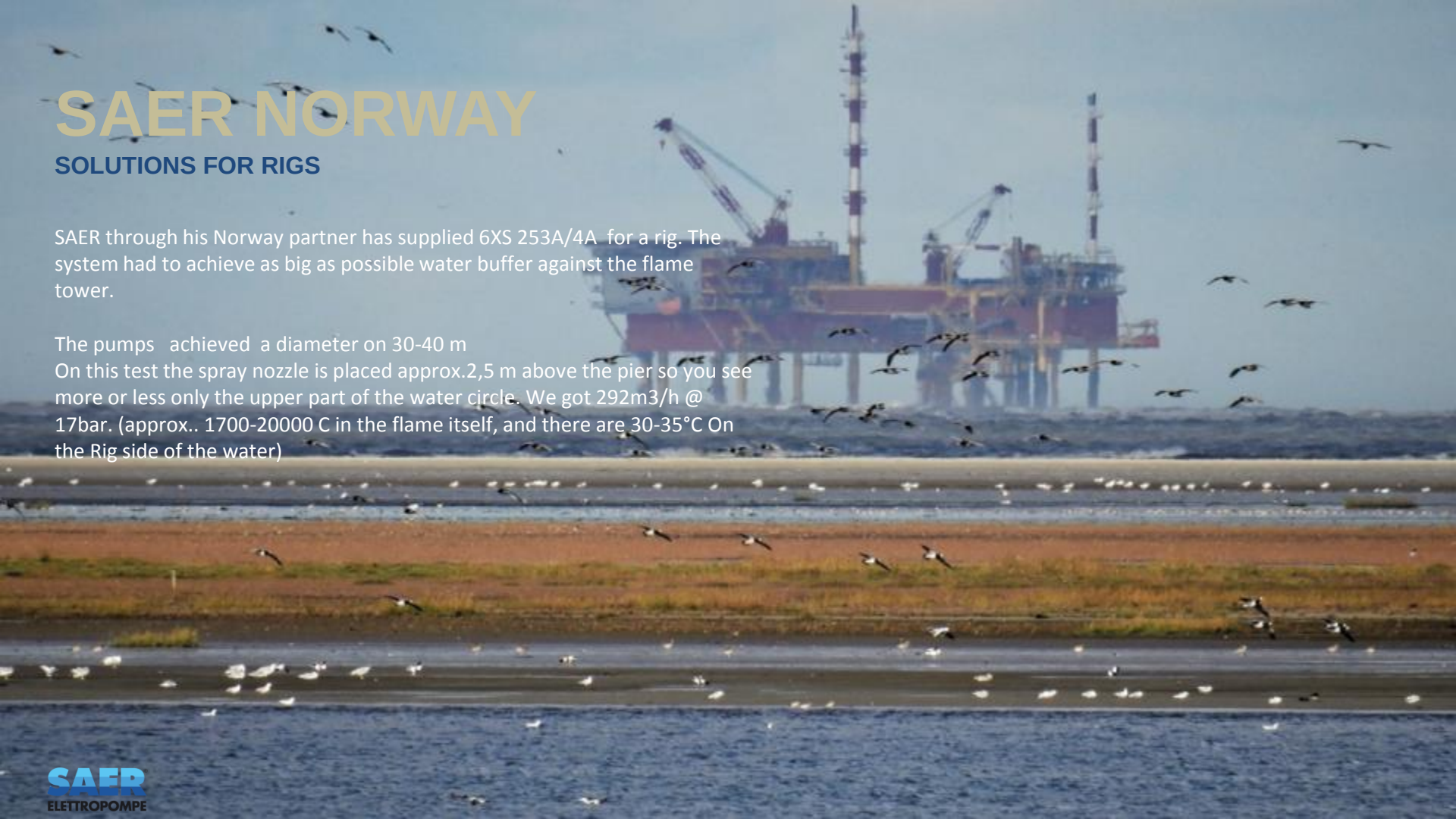
SAER NORWAY

SOLUTIONS FOR RIGS



SAER through his Norway partner has supplied 6XS 253A/4A for a rig. The system had to achieve as big as possible water buffer against the flame tower.

The pumps achieved a diameter on 30-40 m
On this test the spray nozzle is placed approx.2,5 m above the pier so you see more or less only the upper part of the water circle. We got 292m3/h @ 17bar. (approx.. 1700-20000 C in the flame itself, and there are 30-35°C On the Rig side of the water)

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THANK YOU

For your tailored solutions,
please contact us.

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