

# SAER SOLUTIONS FOR DESALINATION

We process brackish water into fresh  
water for industrial or civil use.



# DESALINATION REQUIRES THE COMBINATION OF AN EFFICIENT AND HEAVY-DUTY PUMP.

We select the right material

to avoid maintenance or replacements and to have lower life cycle costs.

We follow the customers

in the product selection process, to offer the best efficient solution, for their specific needs.

## SEAWATER INTAKE

*The vital characteristic of a seawater intake system is to grant a sufficient quantity and quality of water. Seawater reaches the system level through the action of centrifugal and submersible pumps.*

SAER has a wide range of submersible pumps (till 14") as well as high flow split casing pumps both for vertical or horizontal installation:

- S semiaxial submersible pumps
- NR radial submersible pumps
- MS submersible motors till 300 kW
- SKD split casing pumps



## PRE-TREATMENT

*Prior to the desalination process, seawater is treated by removing rough elements such as solids, sand etc.*

SAER has two new ranges of pumps for waste water (result of over 70 years of experience in water treatment), with different types of impellers: anti-clogging, multi-channel, with closed impeller:

- SD submersible waste water pumps
- NCA end suction waste water pumps



## FILTRATION PROCESS

*The filtration stage is enabled by high pressure pumps and booster pumps, channeling the water through the filters.*

SAER has an extensive range of multistage pumps with multiple configurations:

- TM horizontal multistage pump axial suction
- TMB horizontal multistage pump radial suction
- TMV vertical multistage pump radial suction
- MK vertical multistage pump inline suction/outlet



# SAER MATERIALS PALETTE

STAINLESS STEEL AISI 316  
DUPLEX  
SUPERDUPLEX 5A  
BRONZE G-CuSn10  
DUCTILE CAST IRON  
GREY CAST IRON

SAER MAY OFFER ON REQUEST

- PAINTING WITH RESISTANCE  
CORRESPONDING TO CYCLE C5
- OTHER SPECIAL COATINGS

## CLEAN IN PLACE

*This step entails a cleaning of the pipes and equipment, which ensures high performance, preventing ex-post maintenance.*

- MG end suction EN733 stub shaft pumps
- IR end suction EN733 close coupled pumps
- NCB end suction EN733 bare shaft pumps
- NCBK end suction bare shaft pumps exceeding EN733



## STORAGE & DISTRIBUTION

*Having been stored, the SWRO process envisages treated water to be distributed via a pump station.*

SAER can offer this service, almost with its entire range, according to clients' needs.

### DELIVERY TIME

SAER is able to supply duplex and super duplex pumps as well bronze or AISI 316 with exceptional delivery time.

SAER's design & production is based in Italy.



## TIPS

*Motors driven by an VFD will be saving energy and relieve the stress on the pumps. An energy efficient pump, properly sized for its application, optimizes the process of water generation. Select the pump on BEP leads to maximize efficiency.*

SAER has enlarged its motor production till 110kW.  
Motors available in IE4 to have a further energy saving.



Desalination is a process through which salt and contaminants are removed from seawater, which can be then destined to domestic or industrial use, having been turned into "freshwater".

This requires strong and efficient pumps, as a huge amount of energy is involved, and highly corrosive liquids are dealt with.

## SAER RANGE FOR DESALINATION



**1**  
**SEAWATER  
INTAKE**  
SKD S NR MS

In the desalination area, there is an extensive use of centrifugal pumps, both for the extraction phase and for water transfer.

The right pump must be selected on the basis of performances and materials.



**5**  
**STORAGE AND  
DISTRIBUTION**  
S MK SKD IR NCB  
TM TMV TMB MG



**2**  
**PRE-TREATMENT**  
SD NCA



**4**  
**CLEAN  
IN PLACE**  
NCB NCBK IR MG



**3**  
**FILTRATION  
PROCESS**  
MK TMB  
TMV TM

\*Models referred to in the description are indicative.

**SAER**  
ELETTROPOMPE®

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