

# Ventilation solutions for marine applications



Extremely  
robust



Special paints  
and finishes



Resistance  
under extreme  
conditions



Highly resistant  
to vibrations





SODECA offers solutions for industrial ventilation, smoke exhaust, staircase pressurisation, tunnel ventilation and improved indoor air quality

SODECA has grown by seeking out the best path, always innovating and offering the best customer service, while respecting the environment and remaining committed to energy savings. It would therefore like to be a part of the change and focus on a sustainable model.



The environmental management system of the production plant at SODECA's headquarters has **ISO 14001 certification from Bureau Veritas**, thereby endorsing our environmental performance and the continuous improvement derived from activities targeted at mitigating any impact on the environment. At SODECA, sustainable solutions are integrated in its business strategy, which means producing with clean energy, reducing emissions and working to decrease waste generation.





Extensive experience in the design and manufacture of ventilation solutions for marine applications



Cargo ferry



Offshore supply vessels (OSVs)



Navy ships



Offshore platforms and ocean-going vessels



Yacht



Cruise ships

# Certifications



## Naval classification

SODECA's equipment is designed and manufactured in accordance with the requirements established by the main naval classification societies. All equipment is certified, thereby ensuring the suitability thereof for critical applications in the marine sector.

<b>ABS:</b>	American Bureau of Shipping
<b>BV:</b>	Bureau Veritas
<b>CSS:</b>	China Classification Societies
<b>CR:</b>	China Corporation Register of Shipping
<b>DNV:</b>	Det Norske Veritas
<b>GL:</b>	Germanischer Lloyd
<b>KR:</b>	Korean Register of Shipping
<b>LR:</b>	Lloyd's Register of Shipping
<b>NK:</b>	Nippon Kaiji Kyokai
<b>RINA:</b>	Registro Italiano Navale
<b>RS:</b>	Russian Maritime Register of Shipping



## Software for obtaining calculations and designing ventilation projects

A tool for selecting products, obtaining calculations and designing ventilation projects.

*Make it easy with  
**QuickFan!***



## Validation of features

We offer the possibility of using SODECA's facilities for validating the features and the proper operation of all supplied equipment.







## Ventilation for marine applications

SODECA fans are designed to offer performance and reliability in environments where there is high salinity, humidity, extreme temperatures and salty conditions, always using materials that are corrosion resistant, as well as special coatings that extend the useful life of equipment.

**Fans for marine applications must be resistant and long-lasting due to the harsh environmental conditions.**



### Extended durability

Superior quality components for reliable performance and a long useful life in demanding environments.



### Protection against salinity

Designed using stainless steel or special coatings to resist salt water corrosion.



### Resistance to extreme conditions

Designed to withstand corrosion, high humidity and extreme temperatures.



### Highly resistant to vibrations

Robust construction that withstands the constant impacts and movements in marine environments.



## Jet Fan solutions for RoRo ships



### Ventilation in holds

SODECA's Jet Fan solutions guarantee efficient ventilation in vehicle cargo holds, thereby facilitating the extraction of combustion gases.



### Various orientations

Equipment available in one-way or reversible versions, with an octagonal design for moving air and extracting CO<sub>2</sub>.

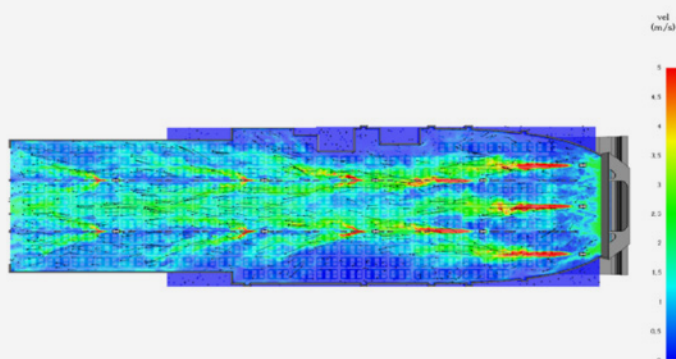


### Resistance to corrosion

The materials and finishes that are used are corrosion resistant.

### CFD simulations for an optimal design

We offer analyses using Computational Fluid Dynamics (CFD) to guarantee an efficient ventilation system adapted to each vessel. Through advanced simulations, we can forecast the behaviour of the air flow and optimise the distribution of the Jet Fans to achieve maximum efficiency.





## ATEX applications

SODECA offers ATEX ventilation solutions for marine and deep-sea applications, designed for explosive atmospheres.

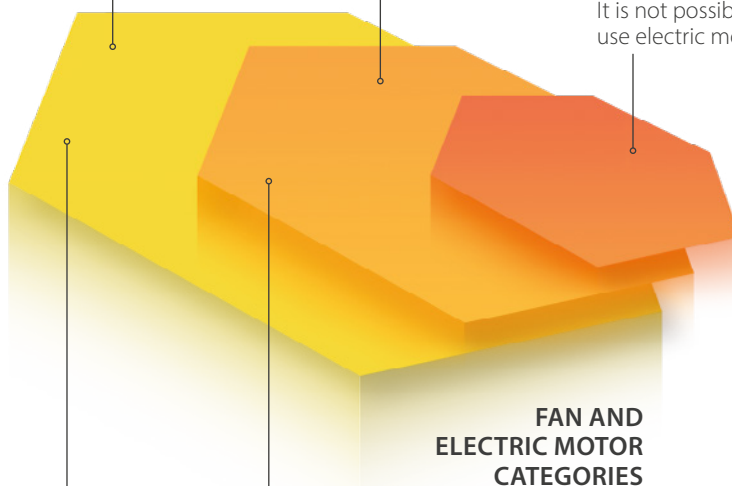
Our fans comply with European Standard EN 14986:2017 and Directive 2014/34/EU, and they are suitable for Zone 1 (Category 2) and Zone 2 (Category 3). They can be supplied with motors that have augmented safety (Ex eb), that are explosion proof (Ex db) or that have explosion-proof terminals (Ex db eb).

### EXPLOSION RISK ZONE

**Zone 2 (gas)  
Zone 22 (powder)**  
Not likely in normal operating conditions

**Zone 1 (gas)  
Zone 21 (powder)**  
Likely in normal operating conditions

**Zone 0 (gas)  
Zone 20 (dust)**  
It is not possible to use electric motors



CE Ⓜ II 3G EX ec  
CE Ⓜ II 3D EX tc IIIB  
(non-conductive powder)  
CE Ⓜ II 3D EX tc IIIC  
(conductive powder)

CE Ⓜ II 2G EX db  
CE Ⓜ II 2G EX db eb  
CE Ⓜ II 2G EX eb  
CE Ⓜ II 2D EX tb IIIB (non-conductive powder)  
CE Ⓜ II 2D EX tb IIIC (conductive powder)

**FAN AND  
ELECTRIC MOTOR  
CATEGORIES**



## Corrosion resistance and surface treatments

Custom finishes can be applied using a wide variety of paints and finishes adapted to the environment.

All processes follow International Standard ISO 12944, or alternative treatments are implemented to ensure optimal resistance to marine corrosion. The minimum level of protection is C3H as the standard quality.



ISO 12944

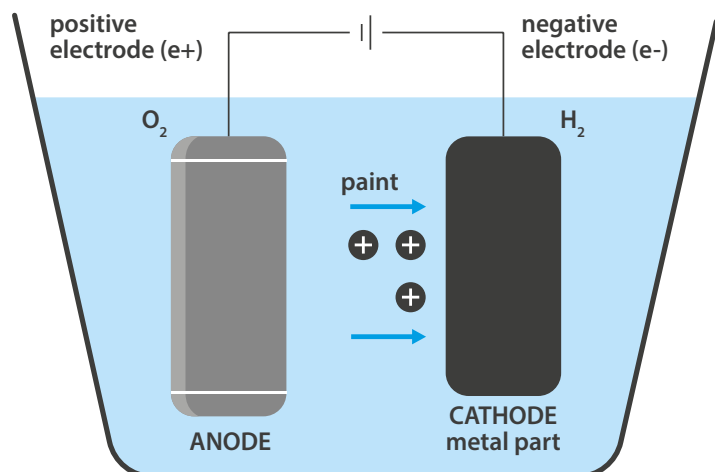


Optimal resistance  
to marine corrosion



C3H protection

SODECA fans for marine applications are protected by a cataphoresis process. This electro-chemical process coats the metal components, thereby significantly improving their resistance to extreme environmental conditions such as saline humidity and corrosion.







Corrosion protection category	Specification	Substrate	Pre-treatment	Preparation	Primer	Paint	Pretr.µm	Impr.µm	Pint.µm	ENPS 1 (µm)
C3M	Normal powder	Sheet iron		Degreasing in 4 stages		1x Polyester			80±20	80
C3H	Normal powder	Aluminium		Degreasing in 4 stages		1x Polyester			80±20	80
C3H	Double layer of paint	Sheet iron		Degreasing in 4 stages		2x Polyester 2			160±40	160
C4H	Anti-corrosive liquid	Sheet iron		Degreasing in 4 stages	1x Epoxy	1x Polyurethane	60±15	120		120
C4H	Normal powder	Galvanised sheet		Degreasing in 4 stages		1x Polyester			80±20	80
C4H	Anti-corrosive powder	Sheet iron		Degreasing in 4 stages	1x Epoxy	1x Polyester	80±20	80±20		160
C5M	Anti-corrosive powder	Aluminium		Degreasing in 4 stages	1x Epoxy	1x Polyester	80±20	80±20		160
C5M	Hot dip galvanised	Sheet iron	Hot dip galvanised				80±20			80
C5M	High protection anti-corrosive powder	Galvanised sheet		Degreasing in 4 stages	1x Epoxy	1x Polyester	20±5	80±20	80±20	180
	Very high protection anti-corrosive powder	Sheet iron	Cataphoresis	Degreasing in 4 stages		1x Polyester	20±5		80±21	100

# SODECA Solutions



Ventilation solutions for all types of ocean-going vessels and offshore platforms by adapting the equipment to the specific needs of each project in order to provide optimal performance under extreme marine conditions.



## HCT/MAR

Extremely robust tubular axial duct fans for marine and naval applications.



## CMP/MAR

Medium pressure centrifugal extractor fans fitted with forward impellers for marine applications.



## HGT

Large diameter tubular axial fans with direct drive motors.



## CRL/EC

Medium pressure, single inlet centrifugal fans with backward-curved impeller, direct drive and EC Technology, IE5 motor.



## CMA

Medium pressure, single inlet centrifugal fans with cast aluminium casings and impeller.



## CAS

High pressure, single inlet centrifugal fans with sheet steel casing and impellers.



## CMRS

Extremely robust medium pressure, single inlet centrifugal fans fitted with a backward-curved impeller.



## HCT/IMP

Long range, one-way or reversible jet fans.





**GC NLV**  
series



## Air treatment units

Solutions for marine environments that provide efficient ventilation and the control of temperature and air quality under extreme and demanding conditions, such as those found on board ocean-going vessels and offshore platforms.



### HCT/ATEX

Extremely robust, tubular axial extractor fans with ATEX 2G or 2D certification and Ex db, Ex eb or Ex tb motors.



### CMP/ATEX

Medium pressure centrifugal extractor fans equipped with forward impellers, ATEX 2G or 2D certification and Ex db, Ex eb or Ex tb motors.



### CAS/ATEX

High pressure and single inlet centrifugal extractor fans, with ATEX 2G or 2D certification and Ex db, Ex eb or Ex tb motors.



### CMA/ATEX

Medium pressure centrifugal extractor fans made of cast aluminium, with ATEX 2G or 2D certification and Ex db, Ex eb or Ex tb motors.



### CA/LINE/EC

Circular in-line duct extractor fans with EC Technology motors.



### NEOLINEO

In-line duct extractor fans with a detachable body and small size and long-life ball bearings.



### SVE

Low-noise, in-line duct extract fans mounted inside an acoustic casing.



### CKDR

F400 extractor fan units with a large door for ease of maintenance and 40 mm acoustic insulation.

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