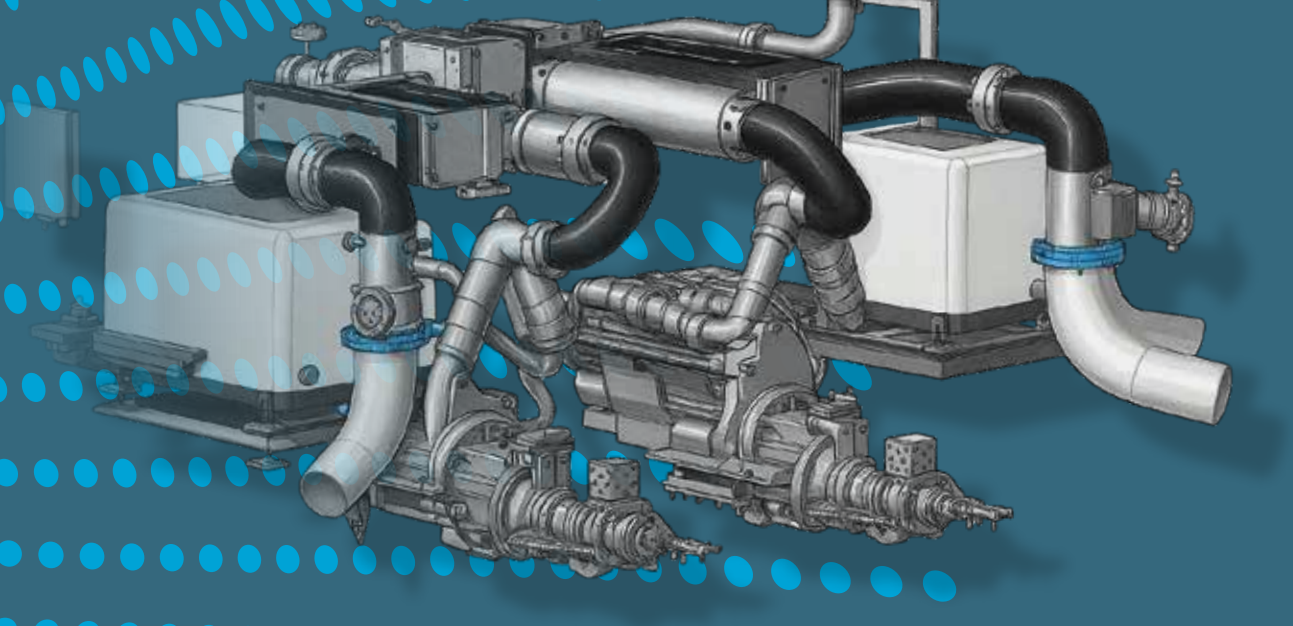
**World leader in the design and manufacturing of marine exhaust systems,** in the pleasure, military, and commercial marine sectors

COFEME Exhaust Systems



# Tailored Marine Exhaust Systems for Professional Applications

## Precision engineering for high-performance vessels

With over 30 years of experience, **Co.Fe.Me. Exhaust Systems** designs and manufactures custom exhaust solutions for the marine industry—serving shipyards, naval engineers, and vessel operators with uncompromising quality and technical reliability. Our integrated workflow covers the entire process: from onboard 3D scanning to final installation, executed by specialized teams using advanced technologies.

### 1 Onboard 3D Scanning

*Accurate geometry capture, seamless integration*

*We begin with a technical survey conducted directly onboard using next-generation 3D scanners. This ensures precise spatial mapping for exhaust systems that fit perfectly within the vessel's architecture—minimizing rework and installation risks.*

### 2 Advanced CAD Design

*Compliance-driven, performance-optimized*

*Using CAD and 3D modeling software, we develop a fully customized exhaust layout based on collected data. Each system is engineered to meet sector regulations, enhance engine performance, and ensure long-term durability under demanding conditions.*

### 3 In-House Manufacturing

*Industrial-grade processes, artisanal precision*

*All components are produced internally using high-tech machinery (laser cutting, precision welding, CNC machining).*
*Our workshop combines craftsmanship with industrial efficiency to deliver robust, high-performance systems built to spec.*

### 4 Quality Assurance & Certification

*Functional integrity, verified*

*Each exhaust system undergoes rigorous structural and operational testing. Only certified systems—fully compliant and installation-ready—leave our facility.*

### 5 Onboard Installation

*Accurate geometry capture, seamless integration*

*Our specialized technicians handle direct installation onboard, ensuring full alignment with design specifications, rapid turnaround, and minimal disruption to vessel operations.*

# Marine Exhaust Refitting

**Strategic upgrades for efficiency, compliance, and lifecycle extension**

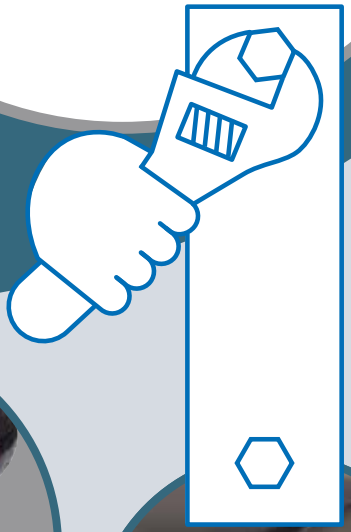
*Co.Fe.Me. is a reference partner for refitting marine exhaust systems across leisure, military, and commercial fleets. We collaborate with shipyards, owners, and technical teams to deliver tailored interventions that restore performance and ensure environmental compliance.*


**Refitting: a critical operation**

*Exhaust system refitting is essential to maintain optimal engine output, reduce emissions, and meet evolving regulatory standards. Whether for inboard or sterndrive engines—gasoline or diesel—we intervene with precision to upgrade every component.*

**Technical inspection, targeted solutions**

*Each refitting project begins with a detailed onboard assessment and system analysis. We identify the most effective configuration based on vessel type, operational profile, and regulatory context.*
*We use certified materials and advanced technologies to reduce noise, vibration, and emissions—enhancing propulsion efficiency and onboard comfort.*



## ECR

*The ECR insulation system is composed of a multilayer sandwich structure, completed with a polymer coating applied via spray technology. This configuration ensures optimal thermal shielding and mechanical adhesion to treated surfaces.*

***TECHNICAL FEATURES***
- *Structure: Multilayer composite sandwich*
- *Finish: Spray-applied polymer coating*
- *Surface Temperature Reduction: Down to 45–55 °C on treated areas*
- *Reduction of ambient temperature in engine rooms*
- *Improved engine operating conditions*
- *Potential decrease in fuel consumption due to enhanced thermal efficiency*

***BENEFITS***
- *Lower surface and ambient temperatures*
- *Enhanced engine performance*
- *Energy savings and operational efficiency*
- *Lightweight and adaptable to complex geometries*

## CR

*The CR rigid insulation system is the result of ongoing research in the field of thermal protection, offering significant advantages over conventional insulation solutions.*

***TECHNICAL FEATURES***

***1. Thermal Reduction:***
- *Heat attenuation of approximately 80–90%*
- *From initial gas temperatures of 600 °C down to 70–80 °C measured on the external surface of the insulation*

***2. Compact Thickness:***
- *Reduced footprint compared to traditional pillow and sheet metal insulation systems*

***3. Durability:***
- *Service life equivalent to that of the underlying piping*

***4. Safety:***
- *Fully sealed and impermeable to external agents*
- *Resistant to penetration or damage from liquids, including hydrocarbons*
- *No thermal bridging or reflective heat effects generated*

***5. Certifications:***
- *MED A1 3.18*

## STAINLESS STEEL SHEET INSULATION

*This solution has been consolidated by over 30 years of applications, especially requested on vessels over 24m where, even in the engine room, particular attention is paid to the visual aspect. This insulation system is still a valid and aesthetically appreciated alternative today.*

## Why Co.Fe.Me. is the trusted choice

- Custom-engineered solutions for all vessel types
- 3D scanning and CAD modeling for precision fit
- 100% in-house Italian manufacturing
- Onboard installation by certified professionals


**CO.FE.ME. EXHAUST SYSTEMS S.R.L.**

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