

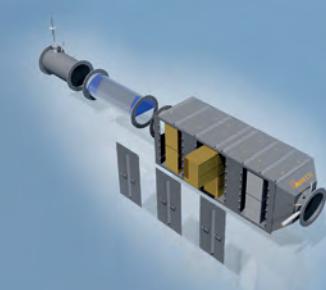
## Miretti Exhaust Cleaning Solutions After Treatment Eco Devices

- 95% NOx  
nitrogen  
oxides

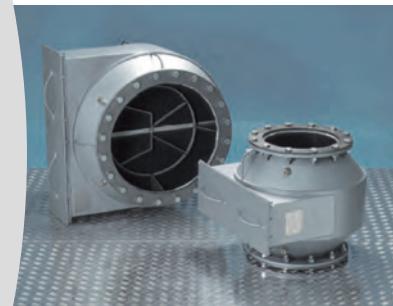
- 98% CO  
carbon  
monoxide

- 70% HC  
hydrocarbons

- 99% particulate  
and PM10



**DeNOx SCR  
Stage V Solutions**



**Oxy & 3 Way Catalysts**



**Oxy "CO" Special Substrates for Biogas**

**Anti-Pollution and Anti-Particulate  
Ecological Kit for Off Road Vehicles**

**for over 50 years  
Environment Protection  
Technology**



Miretti Group is also leader in Explosion Proof Protections

## Miretti DeNOx SCR Systems

SCR DeNOx is designed for reducing Nitrogen oxides (NOx) in exhaust gas through conversion in Nitrogen (N<sub>2</sub>) and water (H<sub>2</sub>O).

This process is named Selective Catalytic Reaction (SCR).

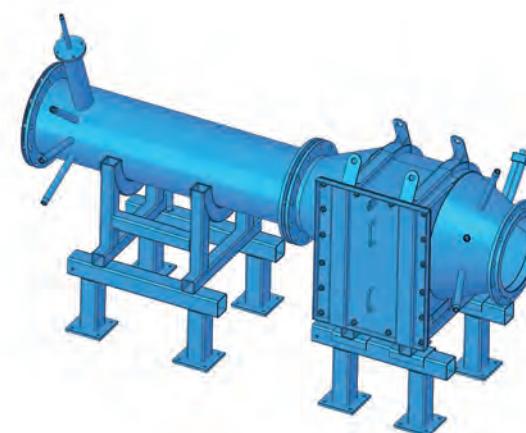
The reaction needs ammonia (NH<sub>3</sub>) as a reducing agent, a temperature high enough and a catalytic brick wall.

### ADVANTAGES:

- 95% performance
- Highly efficient
- Low operating costs

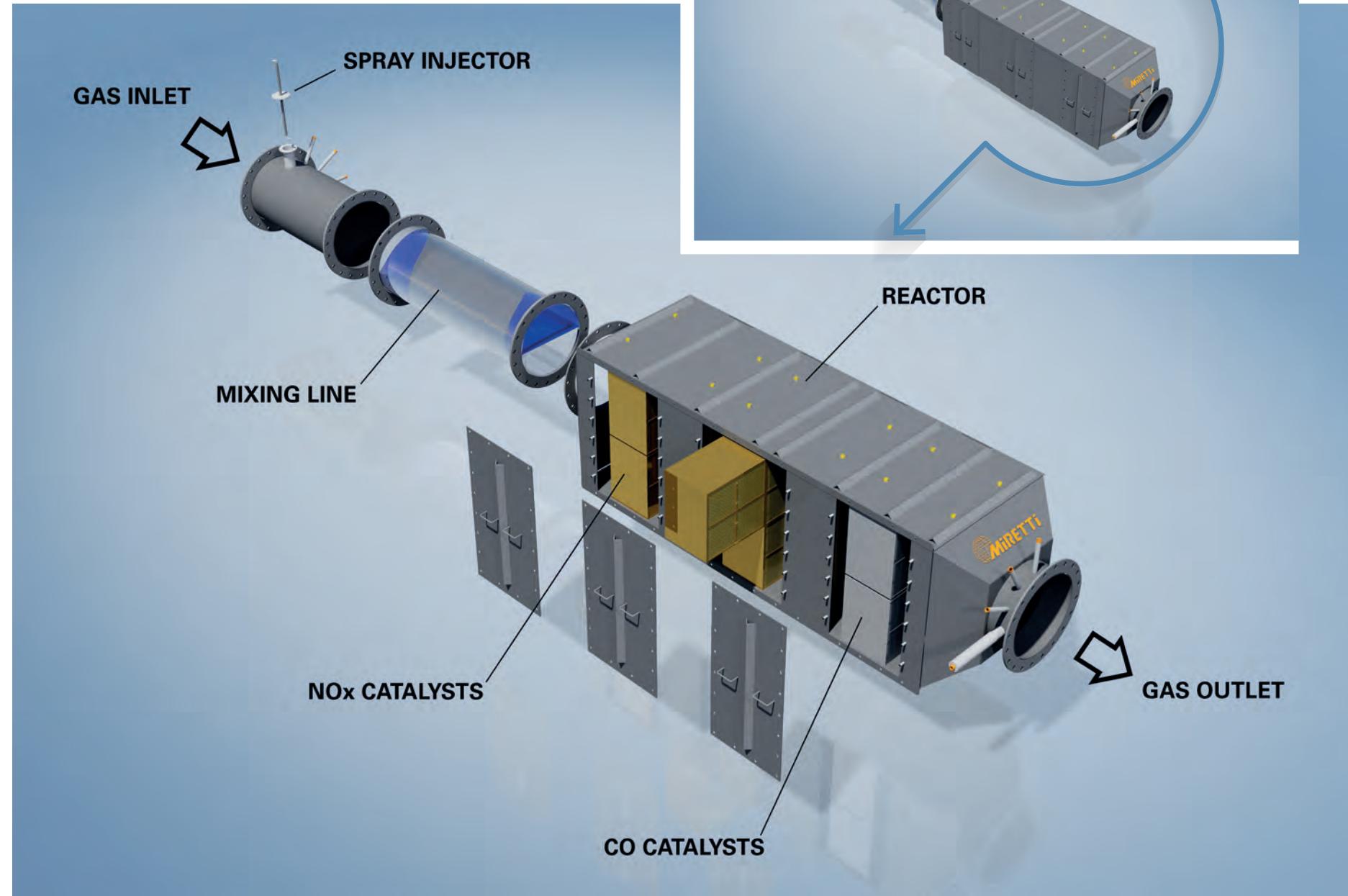


SCR DeNOx standard and 100% customized  
designed to remove Nitrogen Oxides (NOx)

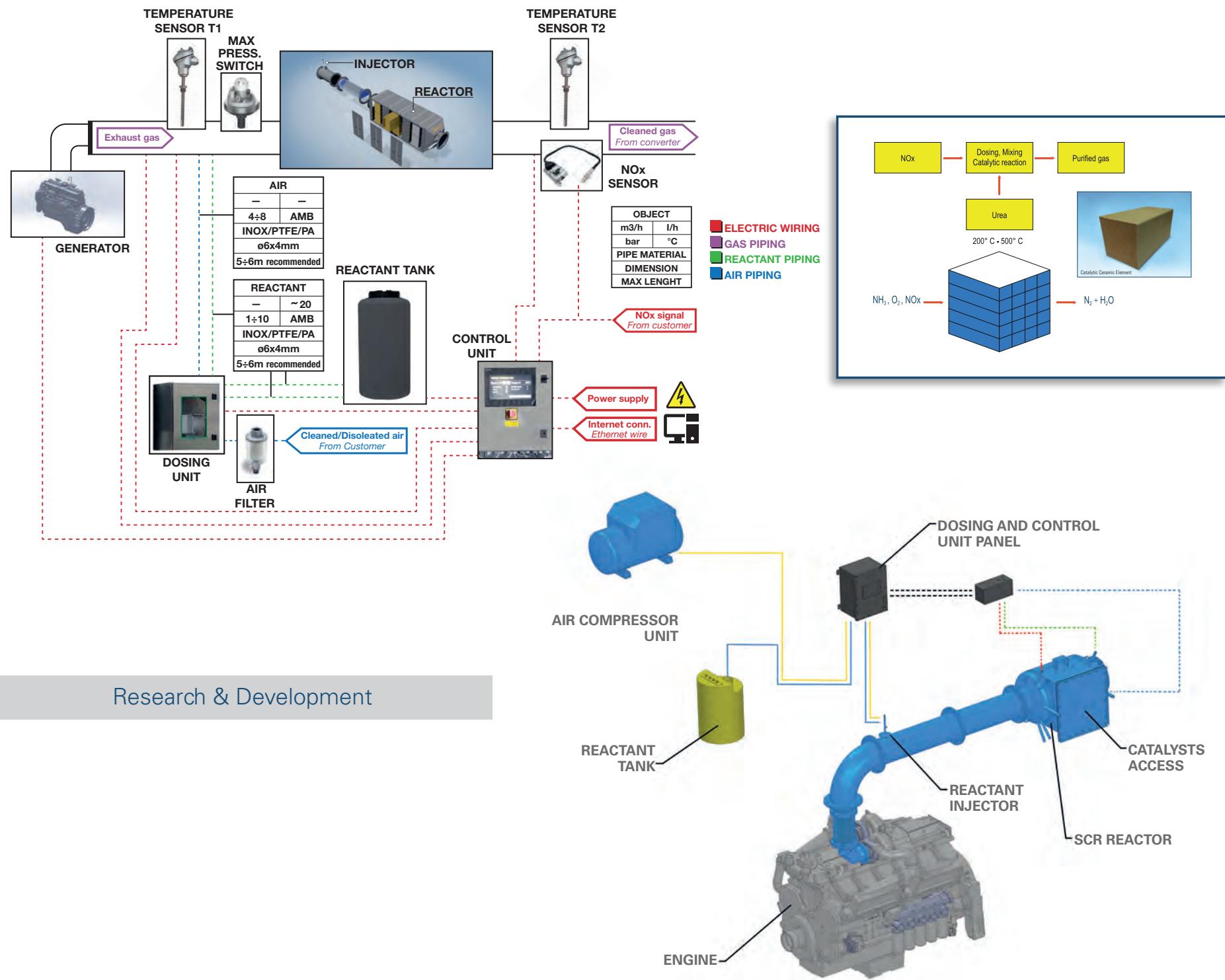


## Selective Catalytic Reduction (SCR) - DeNOx Systems

- Dedicated Solutions
- Compact Design
- Metallic or Ceramic Elements
- Very Low Backpressure
- Stainless Steel Material
- PLC Controlled
- Remote Control



# Miretti's Flowsheet SCR DeNOx project





No intervention can be defined as a standard project.

Miretti's Technical Department guarantees rapid and effective feedback throughout all the phases of the project from sizing/features to commissioning, in order to supply a 100% efficient and reliable service.

We can provide SCR DeNOx Systems in Italy and globally thanks to our production facilities around the world.

Miretti's internal Warehouse and After-Sales Service ensure continuous support after completion of the project.

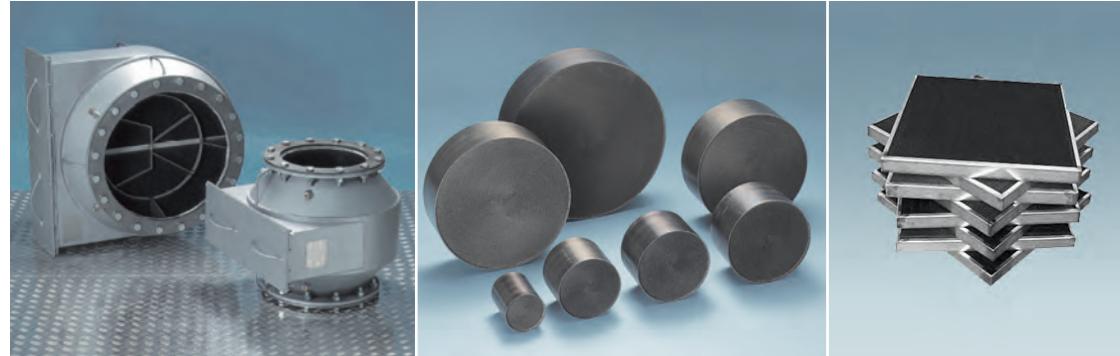
## OXY Metallic Catalytic Converters for heavy and medium power (400 kw-4300 kw)



Oxydative catalytic converters purify exhaust fumes from natural gas engines (lean and rich burn) as well as diesel engines.

Miretti can supply a wide range of dimensions to fit different applications and meet customer specifications and can be provided with or without flanges or with "Quick Lid" for a rapid inspection and maintenance.

Qualified Technicians are available to help Customers both in the initial phase of design as well as during the assembly phase and operational functioning. Emissions Measurement Service is available.



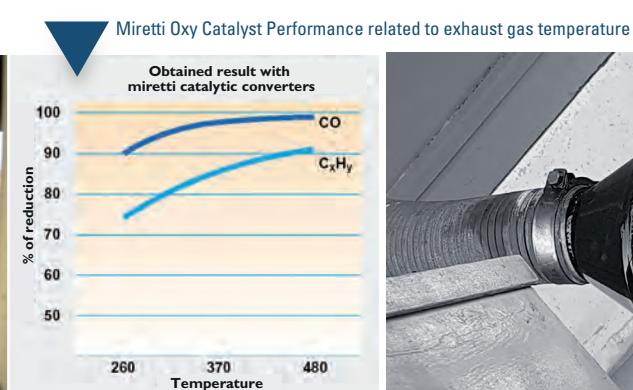
### ADVANTAGES:

- High thermal conductivity of the substrate
- Low backpressure
- Excellent conversion efficiency
- Reliability and durability
- A wide variety of sizes
- Very rapid delivery times

## OXY Metallic Catalytic Converters for light power (2 kw – 400 kw)

Standard products for power ranges from 2 kW to 400 kW.

Possibility to customize the product for natural gas, gasoline or diesel engines, forklifts, engines for mining, machinery for industrial and civil construction, stationary engines for power generation (cogeneration and trigeneration).



## Anti-Pollution and Anti-Particulate Ecological Kits

### Reduction of CO, HC, NOx, Particulate

applicable to engines from very small to very high power outputs



Innovative Solution for Off Road Vehicles. These kits combine Oxidation Catalyst with an Accelerator in an innovative way, can be fitted both on off road machines and on Atex explosion proof vehicles working in hazardous areas.

Miretti Ecological Anti-Particulate Kit is a quick and economically sustainable solution to allow Euro 1; 2; 3; 4 machines to continue working in compliance with Stage 3 A emission requirements.

This device maximizes combustion, optimizes fuel consumption and reduces emissions.



	reductions
CO	up to 90%
HC	up to 90%
NOx	up to 20%
PM10	up to 70%
CO <sub>2</sub>	up to 10%
NO <sub>2</sub>	up to 35%
Opacity	up to 90%

## Oxy "CO" Special Substrates for Biogas

Oxidation Catalyst Substrates with Special Coating for Biogas Application.

They assure very low back pressure, increased durability and a quick maintenance process.



Substrates with different precious metals coatings



## Stage V Systems for Engine with Electrical Heater

The Stage V emission system refers to the latest European Union regulations for reducing the environmental impact of Non-Road Mobile Machinery (NRMM), such as construction equipment, agricultural vehicles, industrial drilling rigs, compressors, non-road trucks, highway excavators, forklifts, road maintenance equipment, ground support equipment in airports, aerial lifts and mobile cranes, generator set engines, railroad locomotive engines along with marine engines used for inland waterway vessels.

This system is the most stringent phase of emissions standards to minimize harmful pollutants such as nitrogen oxides (NOx), particulate matter (PM), and hydrocarbons (HC) from diesel engines.



### Key Features of the Stage V Emission System:

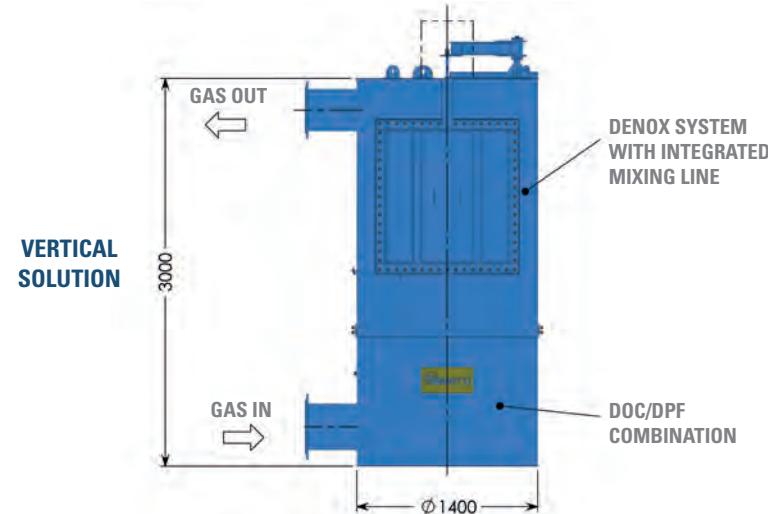
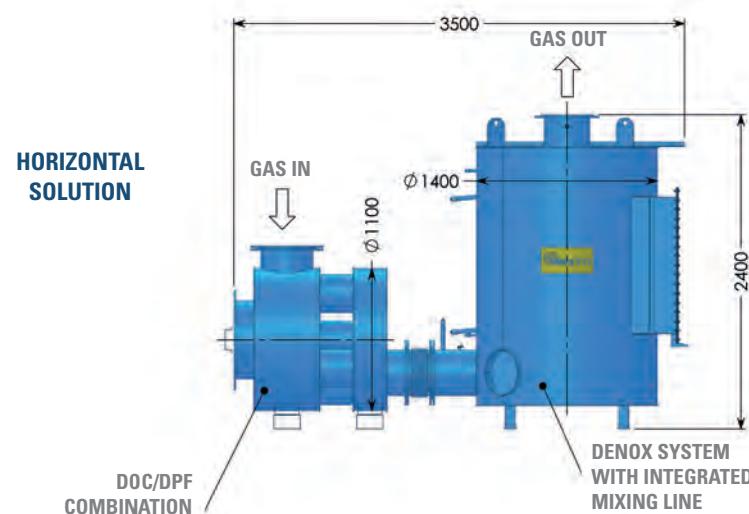
- Stricter Emission Limits
- Increased Use of Advanced After Treatment Technologies
- Integration of Regeneration Systems
- Better Fuel Efficiency
- Wide Range of Applications
- Tiered Implementation
- Increased Monitoring and Reporting

### Impact on Industry:

- Environmental Benefits
- Challenges for Manufacturers
- Cost Considerations

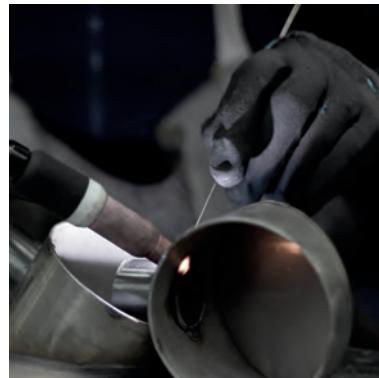
## Miretti Super Compact Systems All-In-One DOC + DPF + DeNOx

APPLICATION 1 MW DIESEL/GAS ENGINE



**since 1973**

## **Miretti Group is leader in Exhaust Cleaning Solutions & Fumes Purification Devices Reducing Exhaust Pollutants**



Miretti in house  
assembled substrates



The high quality know-how  
of our specialized engineers

### **“Safety and Green Environment”.**

Since 1973 Miretti Group has been on the market as a supplier of **SCR DeNOx Systems and Catalysts** thanks to many years of experience also in the field of Fumes Purification Devices reducing exhaust pollution.

Miretti has been leader in the Explosion Proof Protection of mobile vehicles and industrial equipment and boasts impressive experience in the field.

The company operates all over the world with branches in Italy (head office), USA, China, Singapore, Germany, UK, France, Spain, Hungary, Benelux, Middle East, Algeria, Israel, Australia.

Miretti is ISO 9001, ISO 14001 and ISO 45001 certified and is an approved supplier for the most important world producers.

Constant research focuses on new technologies and innovative solutions. All explosion proof conversions are developed and implemented in agreement with OEM Original Equipment Manufacturers to maintain original safety levels and ergonomics in conformity with local standards and regulations.

Miretti ensures a reliable after-sales service, qualified technicians, quality and fast maintenance.

- 95% NOx nitrogen oxides

- 98% CO carbon monoxide

- 70% HC hydrocarbons

- 99% particulate and PM10

### **Miretti Systems**

reduce toxic emissions from combustion engines:  
DeNOx SCR, Stage V Systems, Catalytic Converters  
Purification, Anti-Pollution Ecological Kit.

### **Miretti Systems**

are applicable to the following  
engine fuels:  
Diesel, Natural Gas, Biogas,  
Syngas, Vegetal Oil, Animal Fat.

### **Miretti Applications:**

Power Plants, Cogeneration Plants,  
Generators Sets, Industrial,  
Off Road Vehicles, Mines, Marine.



**Expertise for over 50 years**

**Quality & Innovation**

**Competitive Pricing**

**Certifications & Testing**

**After Sales Service**

**Training & Product Education**

**Research & Development**

**Reliable Customized Solutions**

**Global Footprint**





Miretti Production Facilities  
sales references: [ecs@miretti.com](mailto:ecs@miretti.com)



**HEAD OFFICE**  
**MIRETTI ITALY**  
Via Marconi, 29/31  
20812 Limbiate (MB) (Italy)  
Tel: +39 02.99081.1  
Fax: +39 02.99052488

**MIRETTI AMERICAS**  
1 Fairfield Crescent  
West Caldwell, NJ 07006  
United States of America

**MIRETTI CHINA**  
Extech Explosion Proof Solutions  
(Suzhou) Co., Ltd.  
No. 588, Fengting Avenue,  
Suzhou Industrial Park, China

**MIRETTI SEA Pte Ltd**  
APAC – SINGAPORE  
5 Tuas Basin Close  
Block 2  
Singapore 638804

**we operate all over the world**



**Miretti Workshops & Sales Branches**

**MIRETTI FRANCE**  
4 rue de la République  
Centre d'affaires WORKOON  
69001 LYON France

**MIRETTI DEUTSCHLAND**  
Ostgraben 17  
41751 Viersen (Dusseldorf)

**MIRETTI UK Ltd**  
Unit 5B Maybrook Road  
Maybrook Business Park  
Minworth, Birmingham  
B76 1AL - United Kingdom

**MIRETTI BENELUX BV**  
Zagerijstraat 36  
2240 Massenhoven - Belgique

**MIRETTI HUNGARY**  
H 2440 Szazhalombatta  
HRSZ 2982/2 Hungary

**MIRETTI SPAIN**

**MIRETTI ISRAEL**

**MIRETTI AUSTRALIA**

**MIRETTI MIDDLE EAST**

**MIRETTI ALGERIA**



[miretti.com](http://miretti.com)

