

GRUPPO
PEDERCINI

STEEL

BE AT THE FOREFRONT WITH NEW OPERATING SYSTEMS, AUTOMATION AND MANAGEMENT OVERSIGHT



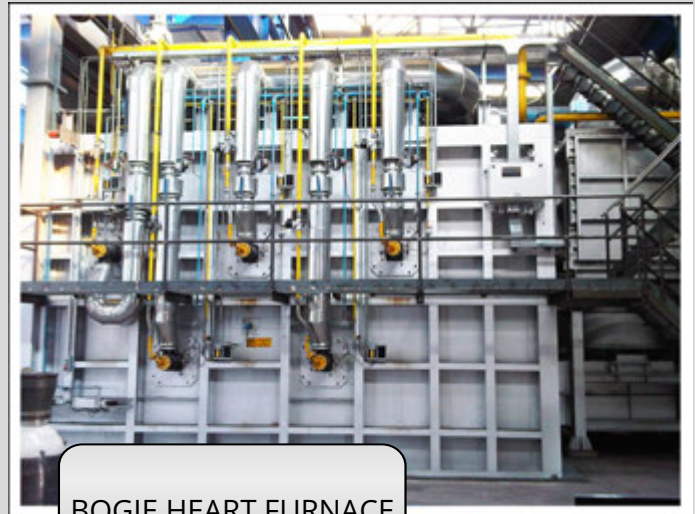
MADE IN ITALY





Gruppo Pedercini designs and manufactures furnaces with highly innovative materials and the most advanced systems of oversight and control that allow reach the highest quality standards. The main types of furnaces for steel we manufacture are:

BELL SHAPED
FURNACE BOGIE
HEART FURNACE
MOBILE HEART

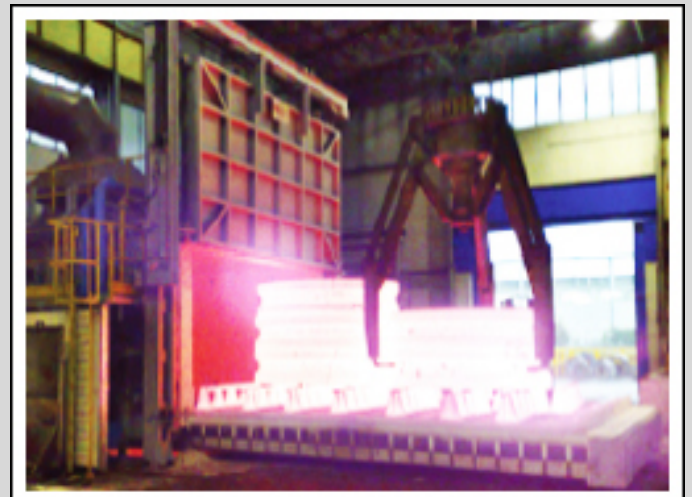


BOGIE HEART FURNACE

Technical specifications:

Process:	Reheating for forge and hot pressing
Processed material:	Round, square billets, forged blanks of various shapes, dimensions and material grades
Internal chamber size:	Width = 2.100 ÷ 3.700 mm Depth = 7.000 ÷ 10.650 mm Height = 2.800 ÷ 3.500 mm
Charge weight:	250.000 kg (max.)
Heating:	By natural gas
Temperature max.:	1.300 °C
Burners:	High speed, low NOX, self-recuperative burners, high speed burners, with main heat recuperator
Application field:	Aerospace, Oil&Gas, Power, Automotive, Nuclear

Our furnaces and plants are designed to meet specific Customer requirements; furnace specifications differing from the above may be possible upon validation by our Technical dept.



ROTARY HEARTH FURNACE FORGING

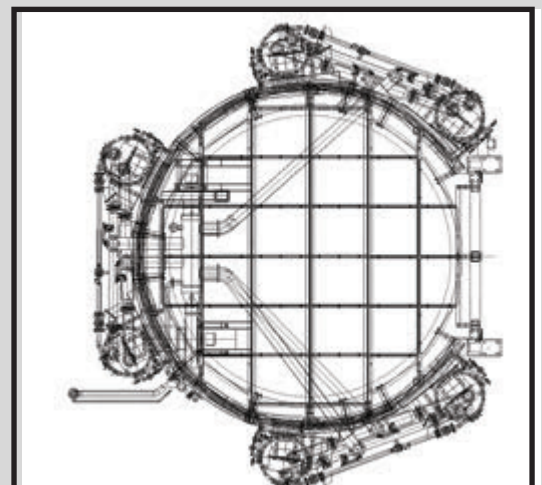
Steel



Technical specifications:

Process:	Reheating for forge and hot pressing
Processed material:	Round, square billets, forged blanks of various shapes, dimensions and material grades
Internal chamber size:	Diameter = 2.000 ÷ 30.000 mm Height = 2.800 ÷ 3.500 mm
Charge weight up to:	12.000 kg (max.)
Heating:	By natural gas / Fuel oil / LPC
Temperature max.:	1.280 °C
Burners:	Flameless, ultra-low NOX, regenerative burners, recuperative burners, hot air burners
Installed heating power::	3.600 ÷ 20.000 kW
Application field:	Aerospace, Oil&Gas, Power, Automotive, Nuclear

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Gruppo Pedercini induction electric are tailor-made to meet the precise needs of each customer and each application. They are manufactured in fulfillment of all national and international mandatory efficiency regulations.

**Capacity: from
0.5 to 60 T**

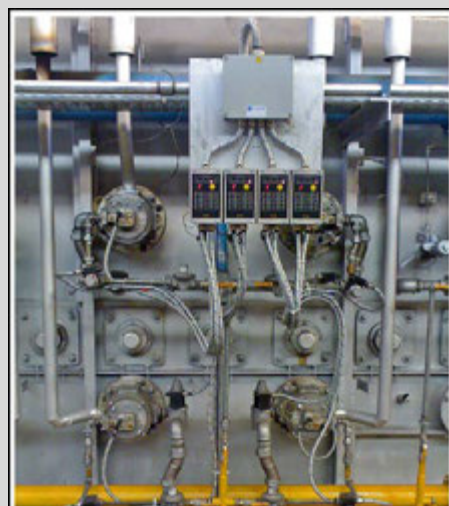


Our induction electric operates at the highest levels of efficiency, reliability and above all it's a cost-efficient plant. Our superior technology and expertise in combination with the best available quality materials allows our plant to perform in challenging processes.





Gruppo Pedercini operates a high-grade steel foundry. We design and manufacture steel furnaces with highly innovative materials and the most advanced systems of monitoring and control that allows reach the highest quality standards.





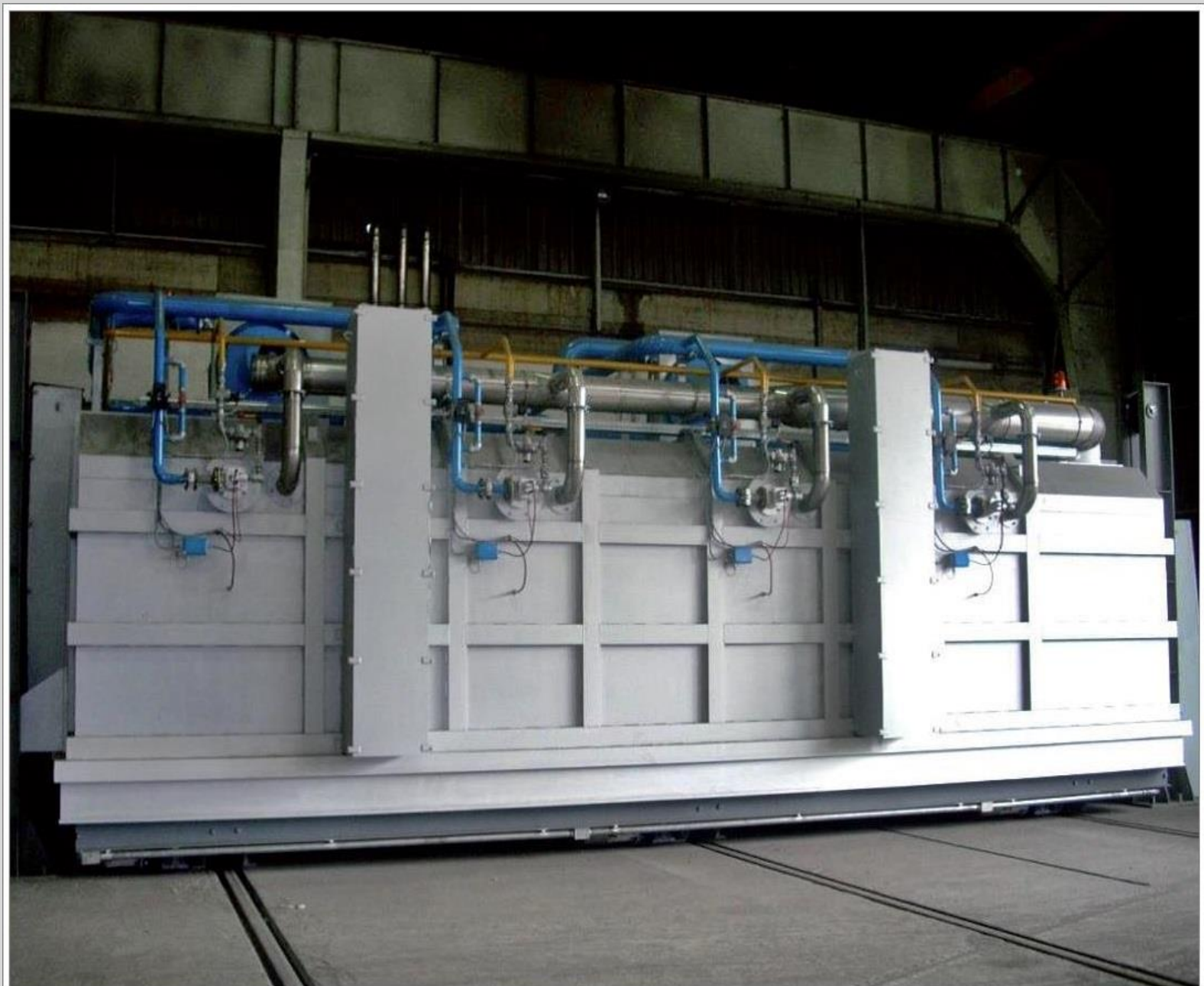
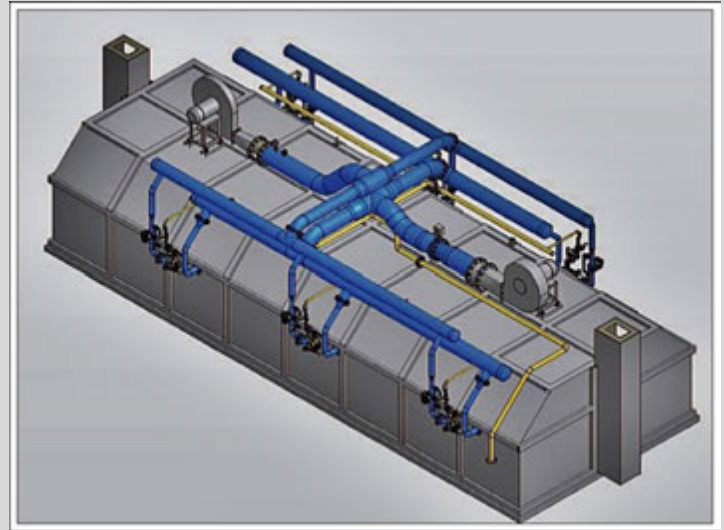
BELL SHAPED FURNACES

Steel

**Capacity: from to
0.5 to 400T**

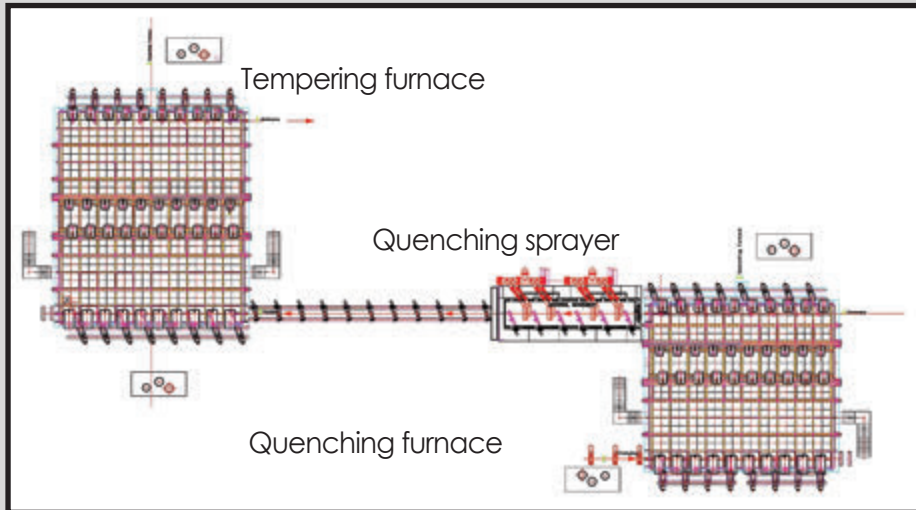
Fuel: CH4/LPG

All our products are sold to foundries in general engineering, automotive, copper and steel semi-finished products industries; rolling and extrusion plants, forge companies and many other sectors in Italy and overseas.



WALKING BEAM FURNACE FOR PIPES HEAT TREATMENT

Steel



Plant composition:	External Roller Ways Walking Beams Quenching Furnace Quenching Sprayer Walking Beams Tempering
Process:	Austenitizing, hardening, tempering, normalizing
Processed material:	Welded pipes in carbon and low alloy steel Length = 6.000 ÷ 13.720 mm Outside diameter = 48,3 ÷ 530 mm Wall thickness = 4 ÷ 10 mm
Pass line:	880 mm
Production capacity up to:	42.000 kg/h (max.) 80 pieces/h (max.)
Heating:	By natural gas
Temperature max.:	1.050 °C
Burners:	Flameless, ultra-low NOX, regenerative burners, with FGR system and multistage combustion
Installed heating power:	14.300 Kw (Quenching furnace)
Application field:	Oil&Gas

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PROCESS DESCRIPTION

The Charging Machine picks up the material from the Load/Unload Station and leans it on the saddles of the furnace hearth. Then the Batch Furnace's door closes and the heating cycle can start.

When heating is finished, the furnace's door opens so that the Charging Machine can pick up the material from the saddles and immediately dips it into the Quenching Tank.

Once the quenching is completed, the Machine picks up the material from the Quenching Tank and brings it at the Load/Unload Station.



QUENCHING TANK

Different configurations of the Quenching Tank (square, rectangular, L or T shape) are possible according to the plant layout. Special solution as:

- Motorized dipping platform
- Control System for temperature regulation of the quenching media are possible on Customer request.

SUPERVISION SYSTEM

A Supervision System, interfaced with the PLC Automation System, manages and controls the heat treatment plant, generates process reports (.pdf or .csv formats) and ensures material tracking.



CHARGING MACHINE

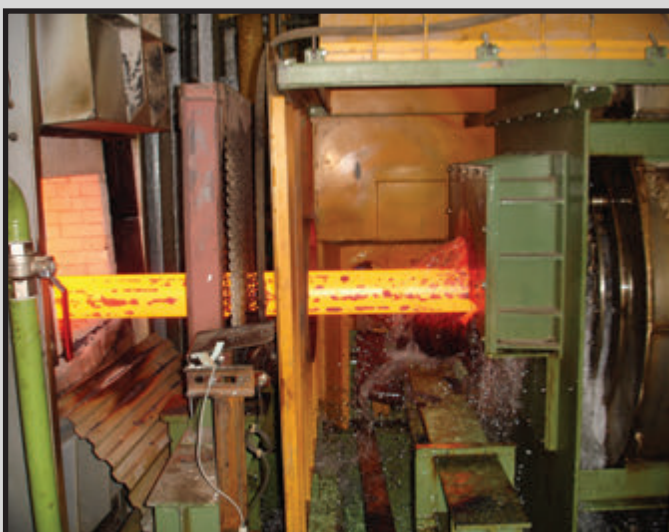
Different types of Machine (2-axis, 3-axis with or without rotation of the forks) are possible according to the plant layout.

QUENCHING SPRAYER HEAT TREATMENT

Steel

Type of quench:	Quenching head for passing through pipe
Quenching media:	Recirculating filtered water Pressure = 3 bars Inlet temperature = 20 ÷ 35 °C
Production capacity up to:	42.000 kg/h (max.) 80 pieces/h (max.)
Processed materials:	Welded pipes in carbon and low alloy steel Outside diameter = 48,3 ÷ 530 mm Wall thickness = 4 ÷ 10 mm

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Gruppo Pedercini engages in the design, manufacture and sale of metallurgical steel equipment and thermo-processing system. We produce all types of combustion items (preheaters and dryers) such as:

- Vertical ladle preheater and drying stations
- Vertical tundish preheater and drying station
- Horizontal ladle preheater and drying station
- Tailor made preheater and drying station for particular application and for ladle starting from 20 to 250 TONS

Our preheater and drying station are suitable for use in the steel industry, with unitary power starting from 100 to 5.000 kW.





We are specialized in designing and manufacturing and installation of suction and filtering systems for fumes: steel mills, foundries, die casting, forging, heat-treatment, etc.

Our flexibility and innovation enables us to design and supply complete plants for several applications such as steel mills, foundries, die casting, forging, heat treatment, etc.

- Suction systems and dust suppression (cement and brick industries, textile, paper industries, machining and other)
- Suction system, reduction of vapors and oil mist, malodorous miasma (chemical industry, die casting, compost, etc.)

As a result of many years of broad experience in the various fields of industrial plants, Gruppo Pedercini is in the position to manufacture plants with materials able to extract and eliminate all the dust produced, even the most difficult one, by filtering the material. Gruppo Pedercini also deals with the design and construction of bag filters, filter dust and fumes that guarantee excellent results in all applications.





Thanks to our continuous R&D investments Gruppo Pedercini steel plants are environmentally friendly, have low energy consumption and built to achieve the best performances.

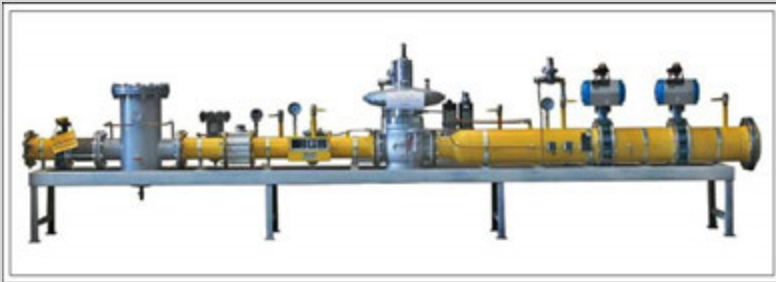


The combustion system with cold air setting pulses allows the optimization of combustion, obtaining one of the best effects of heat exchange. The preheated air technology, with combustion air recovery, which is installed directly on the hat, allows the air heating up to 450 °C.

The digital technology combined with a heat recovery system and radiant burners enable you to achieve the maximum heating technology.

Gas Train

Gruppo Pedercini performs studies and projects, as well as the realization of gas trains complying strictly with the customer's request.



O2 Analyzers

Gruppo Pedercini oxygen analyzers are manufactured and designed to increase safety and improve efficiency. They are simple to operate, extremely accurate and affordable.



Control & Power Board

Our experienced staff delivers safe and cost effective you can count on for your combustion process.



Automation

Gruppo Pedercini provides a complete range of control and industrial automation systems, and also designs and manufactures MSC panels, distribution systems and instrument panels, standard or customizable how Customers need.



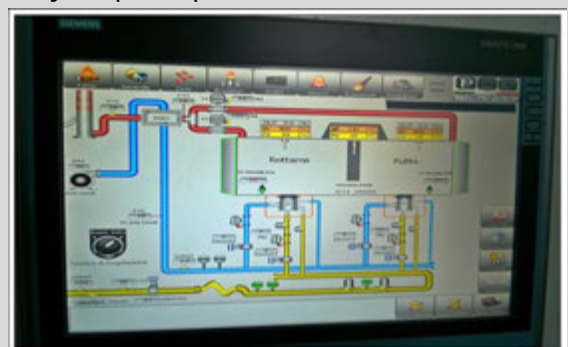
Industrial Cameras

Gruppo Pedercini industrial cameras are based on innovative technologies which offers excellent image quality and high frame rates, in addition of a camera design which enables rapid and flexible integration.



Software

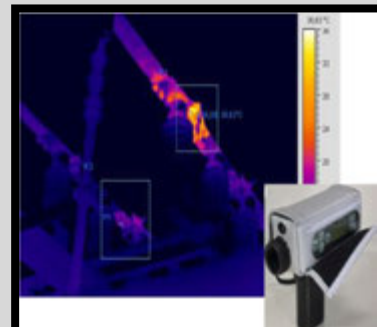
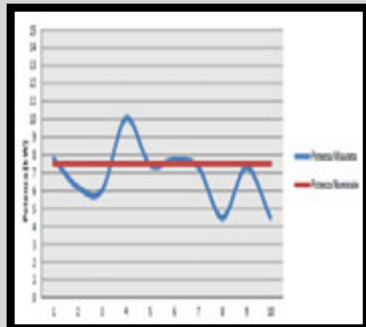
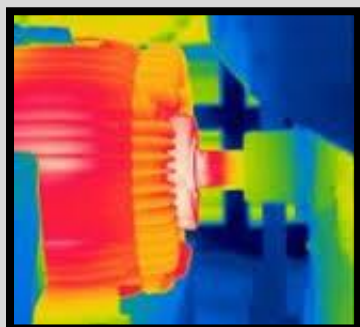
Gruppo Pedercini offers a high quality software development for industrial application that monitors every single stage of the production process with industry 4.0 predisposition.





Steel

Gruppo Pedercini distributes and offers support worldwide. We also offer a planned and preventative maintenance service designed to guarantee our Customers updated technological solutions. Our engineering division staff provides integrated technical experience and service in: MECHANICAL EQUIPMENT, HYDRAULIC EQUIPMENT, ELECTRICAL DESIGN.



- Control according to EN 61439
- Control according to EN 60204
- Analysis with thermal camera
- Analysis of electrical networks
- Analysis of environmental networks
- Equipment control with the use of certificated SIT tools
- Compilation of documents that are necessary to register the controlled activities
- Ordinary and extraordinary interventions for the maintenance of the instrumentation
- Ordinary and extraordinary interventions for the maintenance of combustion plants
- Spare Parts

TRAINING COURSE

Gruppo Pedercini supports and promotes training courses for combustion technicians holding seminars at our headquarters in Nuvolera for training sessions that include workshop and practical demonstrations, seminars and video screening.



WWW.GRUPPOEDERCINI.COM

Via Mascagni, 14 - 25080 Nuvolera Brescia - Italia

T. +39 030 6915119 | . +39 030 6916413

info@gruppopedercini.com



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