

InnoBurn Combustion Solutions



2026

InnoBurn
Customized Combustion Solutions

*Customized
Combustion
Engineering
from Istanbul*



InnoBurn, Customized Combustion Solutions



InnoBurn

Headquartered in Istanbul, InnoBurn is a Turkish combustion engineering company serving industrial clients in Turkey and neighbouring markets. A technical company first, rather

than a generic equipment supplier, InnoBurn specializes in customized combustion solutions for industrial applications, supplying industrial burners, combustion control equipment, and project-specific engineering support for boiler rooms, thermal systems, and process-heating plants. Its work is built around adapting each combustion package to the actual operating duty, fuel characteristics, control philosophy, installation constraints, environmental targets, and performance expectations of the project, rather than relying on standard off-the-shelf approaches.

InnoBurn also provides engineering consultation, system design, equipment selection, implementation planning, commissioning support, and troubleshooting for demanding combustion applications. Its mission is to improve fuel efficiency, reduce emissions, increase reliability, and stabilize production through correctly engineered combustion systems. By supporting both new installations and retrofit projects, the company helps clients define suitable burner and control concepts, integrate equipment more effectively into the wider thermal process, and achieve practical, technically sound performance under real operating conditions. The result is a more disciplined combustion solution shaped around the needs of the plant, not simply around the limits of a standard product.

Official Partners

ETC
Energy • Technology • Control

 **GENERAL
BRUCIATORI**

As official representative of General Bruciatori from Italy and ETC from the United Kingdom, InnoBurn combines burner performance, safe control logic, fuel flexibility, and practical system integration in one technical offering.

Why InnoBurn

InnoBurn combines combustion engineering, European burners and control platforms, and field support for project-based industrial solutions.

Customized burner solutions

Standard products are not always enough. Solutions are selected and adapted to chamber geometry, process duty, fuel conditions, and site limitations.

European-built systems

Core combustion equipment is supplied from established European manufacturers for dependable build quality, long-term performance, and stronger project acceptance.

Control integration

Burner supply is combined with burner management, ratio control, oxygen trim, flame supervision, and operator interface solutions where required.

Fuel flexibility

Support extends beyond simple gas firing and covers gas, oil, dual-fuel, and selected special-fuel concepts when the project requires it.

Commissioning and field support

InnoBurn supports start-up, tuning, diagnosis, and optimization in real operating conditions, not only at the specification stage.

Engineering-first approach

The focus is not just supply. The system must fit the duty, remain serviceable, perform reliably over time, and maintain stable operating performance.



What We Deliver

InnoBurn supports combustion projects through engineering, burner and control supply, system integration, and technical support.

Combustion engineering

InnoBurn supports feasibility studies, heat and mass balance, burner and system sizing, fuel flexibility studies, and complete combustion system design for boilers, furnaces, and process plants, aligned with emissions limits and process requirements.

Burner selection and configuration

Industrial burners from General Bruciatori, Italy, are selected according to chamber geometry, process duty, fuel conditions, and site limitations, with the required burner configuration, customization scope, and combustion concept defined for each project.

Integrated control solutions

Combustion control equipment from ETC, UK, is integrated where required, including burner management, modulation control, operator interfaces, servomotors, flame detection, sensors, and O₂ trim as part of the required control and instrumentation scope.

Fuel-flexible system design

Fuel flexibility is studied as part of the combustion concept, allowing General Bruciatori burner solutions and the related ETC control scope to be configured for gas, oil, dual-fuel, and selected special-fuel applications according to project requirements.

Complete system delivery

InnoBurn supplies General Bruciatori burners and ETC combustion control equipment either as standalone items or as one integrated combustion system. Additional system components can also be supplied for smoother execution and reduced interface risk.

Commissioning and support

InnoBurn supports installation, integration, testing, start-up, and combustion tuning, followed by after-sales support for General Bruciatori and ETC equipment, including troubleshooting, maintenance planning, training, and original spare parts support.



Our Approach

A structured workflow helps turn project requirements into a practical combustion solution that works in real site conditions.



Fields of Application

InnoBurn combustion solutions support a wide range of heating, process, energy, environmental, and high-temperature industrial applications.



Boilers & District Heating Systems



Industrial Process Plants



Food Processing & Packaging



Coating, Painting & Furnaces



Energy & Power Plants



Incineration & Environmental Plants

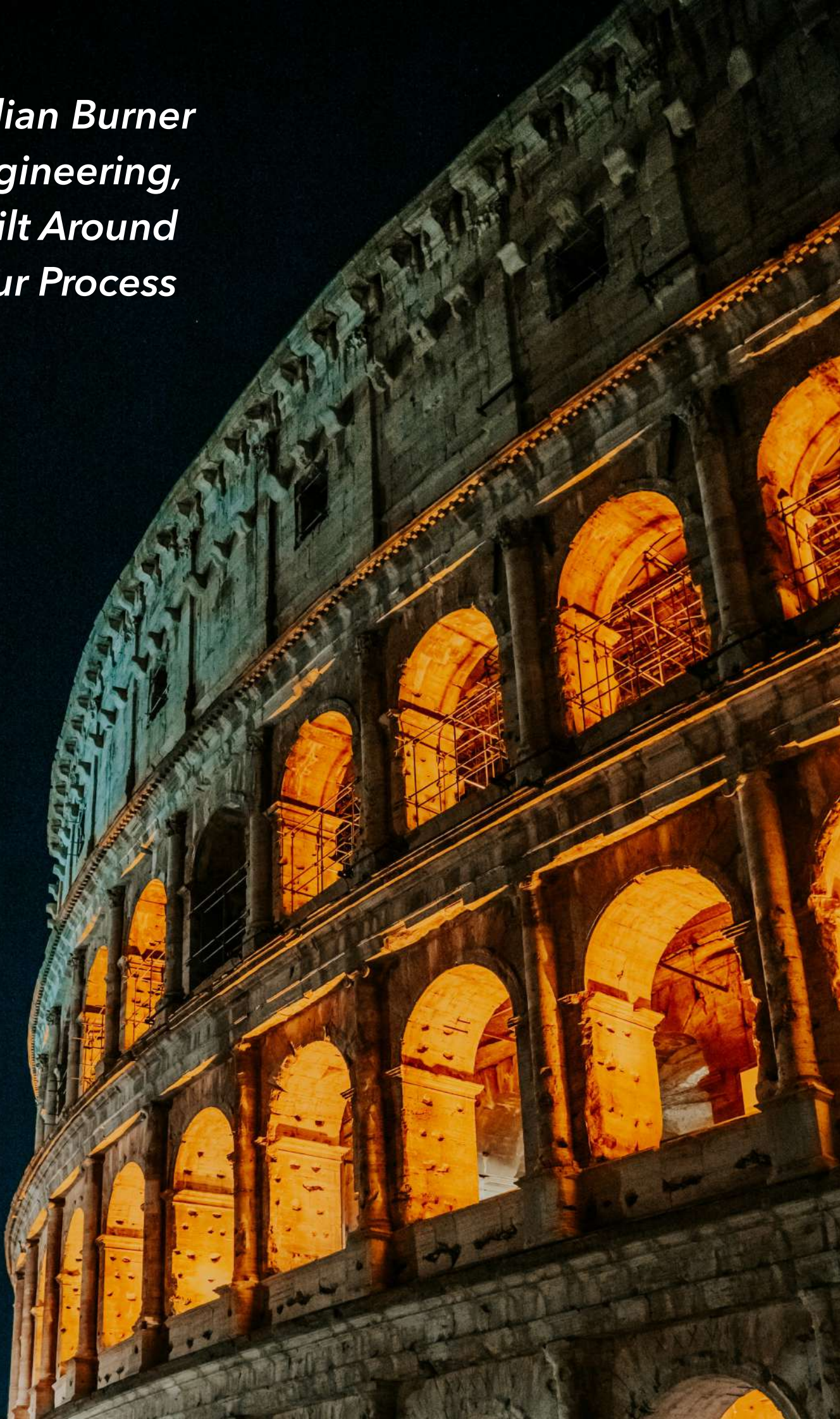


Ceramics, Glass & High-Temperature Furnaces



Asphalt, Construction & Bitumen Heating

*Italian Burner
Engineering,
Built Around
Your Process*



General Bruciatori, Italian Industrial Burners



Founded in Parma in 1975, General Bruciatori (GB) develops industrial burners with engineering-led customization at the core. Standard platforms are complemented by tailor-made combustion solutions built around process conditions, fuel flexibility, emissions goals, and long-term operating reliability. With in-house design, production, testing, and continuous technical development, General Bruciatori combines Italian manufacturing discipline with application-driven engineering for demanding thermal and process installations. This approach allows the company to support both standard burner supply and more specialized executions shaped around the real operating needs of each project.

Parma, Italy
HQ & production site

Since 1975
Industrial burner manufacturer

2,500+ m²
Site area

9,000+
Machines produced

CE - ISO
Certified quality

500+ / year
Fully customized units



General Bruciatori, Burners Families

General Bruciatori burner families combine broad fuel flexibility, industrial-grade construction, and customization capability, including fully bespoke burners for specific project requirements.



GB-ML - Monoblock burners

Compact industrial burners with integrated fan design for easier installation, combined with a modular platform that supports broad customization capability and flexible configuration.

- Heating output from 500 up to 17,000 Kw
- Natural gas, LPG, light/heavy oil, and any alternative fuels
- Suitable for boilers, furnaces, and industrial heating process



GB-S - Duoblock fixed flame burners

Separate fan arrangement for flexible installation, with a combustion head designed for stable turbulence and reliable combustion performance.

- Heating output from 220 up to 25,500 Kw
- Natural gas, LPG, light/heavy oil, and any alternative fuels
- Suitable for boilers, large furnaces, and power generation plants



AMR / AMRO - Flame register burners

Flame-register design with separate fan arrangement, offering controlled flame development and stable, optimized combustion performance.

- Heating output from 560 up to 100,000 Kw
- Natural gas, LPG, light/heavy oil, and any alternative fuels
- Suitable for boilers, energy plants, and heavy industrial systems



On Request burners

Fully customized burners developed from scratch for specific project requirements, with tailor-made output range, flexible configuration, and case-by-case control solutions.

- Heating output from 500 up to 17,000 Kw
- Natural gas, LPG, light/heavy oil, and any alternative fuels
- Suitable for boilers, furnaces, and fully customized systems

Advanced and Customized

On-demand burners, combustors, and combustion packages developed around fuel, chamber, atmosphere, temperature, and process duty, beyond catalogue configurations.

What "customized" means in practice:

Special burner heads
+ auxiliaries

Combustors up to
1,500°C

Retractable incinerator
systems

Hydrogen, biogas, syngas
alcohol + waste gases

Incinerator Burners

- Flame-register burners developed for dedicated incinerator duty in severe high-heat conditions.
- Guillotine isolation helps protect the burner from back heat during severe incinerator service.
- Pneumatic retractable head keeps the burner protected when the unit is not in active operation.
- Pneumatic package manages retractable head movement and guillotine operation as required
- On-board electronic-cam panel and double UV flame scanner support safe, reliable operation.
- ATEX execution, ATEX gas train, and soundproof combustion-air fan available for severe service.

Pilot burners

- Gas, LPG, and diesel pilot burners up to 8,000 kW with tailored installation-specific execution
- Configured for ATEX operation, continuous-flame duty, and installation-specific length/capacity
- Available as electronic packages or burner-only supply, with ATEX or standard gas-valve options

Plate burners

- Plate flame-register burners developed for fuel-flexible industrial duty and easier maintenance
- Design allows oil-gun removal during operation for easier maintenance access
- Front-mounted plate execution supports service-friendly layouts where burner access is critical

ATEX Burners

- ATEX-configured burners for hazardous industrial duty and corrosive process environments
- Available with low-NOx combustion head, ATEX gas pilot, and FGR-ready configuration
- Corten air case, corrosive-resistant paint, and integrated dampers for demanding industrial duty

WAEZ oven burners

- Burner executions developed for WAEZ oven duty and severe thermal conditions in steel plants
- Refractory-coated firing pipe and extended head for high-temperature furnace applications
- Sliding trolley arrangement supports insertion and withdrawal during operation and service

Petrochemical and oxidizer burners

- Complete stainless-steel and EExd executions for combustor-mounted petrochemical applications
- Suitable for hot-air oxidizer plants, gas dehydration stations, and TEG regeneration duty
- Available on combustor-mounted burners and CB-F combustors for process-specific installations

Indirect process-air combustors

- CB-series combustor packages for indirect process-air heating duty in industrial applications
- Engineered burner-combustor packages for systems where process air must not contact flame
- Developed for hot-air generation with separated process air and controlled indirect heat transfer

Fuel Flexibility for Combustion

From liquid and dense fuels to simultaneous gas firing, GB adapts the burner package to the real fuel and process.

LIQUID FUELS



Animal fat fuels

- From meat, leather, pork, poultry, and fishing industries with source-specific handling needs
- Fat temperature must stay above 50°C at pump inlet, with proper filtration before firing
- Acidic or corrosive sources may require stainless-steel equipment on the oil-line package

Vegetable oil fuels

- Includes palm oil, colza, sugar cane molasses, and various residual vegetable-oil streams
- Fuel conditioning, viscosity, and pump selection vary with the oil source and duty point
- Burner and oil package are tailored around the required firing method and installation layout

Alcohol & methanol fuels

- Used in breweries, wine production, chemical and petrochemical plants, and oil and gas duty
- Very fluid fuels may require compressed-air atomization when steam is not available onsite
- Burner package is adapted around fuel fluidity, site utilities, and the required firing method

Heavy & dense oils

- GB packages can include pre-heaters, low-pressure pumps, heated lines, and oil pushing units
- Steam atomization suits heavy or dense oils, while air atomization helps with fluid fuels
- Burner and fuel package are built around heating, pumping, and atomization requirements

Waste oil fuels

- Includes food-process oils, waste automotive oils, frying oils, and waste from chemical duty
- Waste oil typically needs 60-80°C at the nozzle plus strong filtration for cleaner operation
- Fuel-handling design is part of the solution because it protects equipment life and stability

Simultaneous gas firing

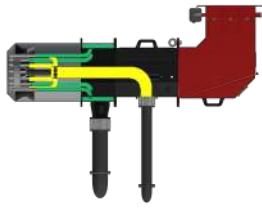
- GB shows simultaneous firing of biogas, residual gas, and hydrogen with natural gas
- Execution can use dedicated heads, separate gas trains, servomotors, and purge logic
- ETC control supports mix firing, alternate firing, blending logic, and waste-fuel use

Simultaneous Firing for Multi-fuel Combustion

GB develops project-specific burner architectures for multi-fuel applications, including simultaneous gas firing with dedicated fuel trains, coordinated ETC control logic, and execution adapted to the required fuel combination.

GB Multi-fuel burner architecture

GB simultaneous firing technology enables the coordinated combustion of multiple fuels through dedicated gas trains and dedicated servomotors for each fuel. Mixing at the combustion head, together with common air control, forms the core of the firing concept.



Multi-Fuel mixing at the combustion head



Separate Gas Trains & Servomotors



Multi-Fuel Heads with common air control

ETC Operating logic

ETC 6003

- Supports four working profiles including primary fuel, secondary waste gas, and fixed-ratio mix firing
- The blend ratio between the two fuels is defined during burner start-up and remains fixed at each load point
- Allows on-the-go switching between working profiles without stopping the burner



ETC 6003 - ETC 6009

ETC 6009

- Supports primary-fuel operation or variable blending logic to maximize waste-fuel utilization
- Adjusts the ratio between the two fuels according to waste-fuel availability, with waste fuel prioritized in the control logic
- Requires isolated 4-20 mA availability feedback and, in this execution, two ETC O2 trim systems for monitored and safe operation



ETC O2 trim systems

ETC Monitoring

Dedicated ETC user interface options are available for the execution shown.



ETC 6066 - ETC 6067



ETC 6075

Fuel Combinations for Simultaneous Firing

Biogas + Natural gas

Residual gases + Natural gas

Hydrogen + Natural gas

Natural gas + Alcohol

Natural gas + Biogas + Diesel backup

Natural gas + Syngas

*British Precision for
Combustion Control*



Energy Technology & Control, British Combustion Systems



ETC

Energy • Technology • Control

Founded in 1982, ETC designs and manufactures combustion controls, burner-management systems, and monitoring solutions for industrial burners from its facility in Lewes, East Sussex.

British-built production is supported by strong R&D, rigorous quality control, and more than 200 years of combined engineering experience across the team. ETC works closely with burner OEMs and installation partners worldwide, providing combustion-control platforms developed to improve efficiency, reduce emissions, increase reliability, and support application-specific integration across a wide range of industrial firing systems.

Lewes, UK

HQ & production site

Since 1982

Combustion control manufacturer

Product scope

Controllers + peripherals

SIL 3 certified

Safety-Rated Controls

CE - UL - FM

Certified quality

200+ years

Combined engineering experience

Why ETC

- British design, manufacturing, R&D, and quality control under one roof
- Burner-control and monitoring specialist for industrial applications
- Trusted by burner OEMs and installation partners, with private-labelling capability worldwide.
- Focused on efficiency, emissions reduction, reliability, and application-specific integration
- High product quality supported by international approvals including CE (EU), UL and FM (USA), and AGA (Australia).

Complete Combustion Control System

- Controllers cover single-fuel, dual-fuel, dual-gas, blended-fuel, and multi-gas applications
- HMIs, sensors, O₂ trim, flame supervision, and remote monitoring extend operator visibility and control
- Plant Master mode connects multiple ETC6000-series controllers for multi-boiler visibility and coordination
- International approvals support deployment across demanding industrial installations

Made in Britain. Installed worldwide. Built for efficient, lower-emission, application-specific combustion control.

ETC, Combustion Product Families

ETC product families combine advanced control, diagnostics, sensing, and interface solutions, supporting precise combustion management, enhanced operational safety, and plant-wide integration.



Controllers

Advanced burner controllers for sequencing, safety, ratio control, and modulation across multi-fuel burners, with blending, oxygen trim, and plant integration.

- Multi-fuel control with mixed profiles and fuel blending
- Sequencing, flame and VSD control, up to 10 servomotors
- CANBus, Modbus, Ethernet, and Plant Master integration



HMIs

Operator HMIs for ETC burner systems, combining live status, alarms, logs, and secure commissioning access for faster diagnostics and plant operation.

- OLED and touchscreen interfaces for local visibility
- Live values, alarms, event logs, and guided sequence screens
- CANBus, Ethernet, USB, multilingual access, and passwords



O2 Probe

Closed-loop oxygen trim solutions for ETC burners, delivering fast flue O2 feedback for higher efficiency, lower emissions, and stable combustion control.

- Real-time trim correction with oxygen and temperature alarms
- No pumped reference air, with probe options up to 540°C
- Efficiency and calculated CO2 display for ETC systems



Sensors

Integrated ETC sensors for temperature, pressure, and combustion feedback, supporting safer modulation, protection logic, alarms, and diagnostics.

- Gas, steam, air, ambient, and process sensing options
- CANBus and analogue models for control, alarms, and trips
- Stable live feedback with service-friendly replacement design

ETC, Combustion Product Families

Additional ETC product families covering actuation, flame supervision, and steam-boiler control.



Servomotors

Dedicated servomotors for precise positioning of air dampers and fuel valves, replacing mechanical linkages with repeatable control and secure recommissioning.

- 0.1° positioning accuracy for stable ratio profiling
- Supports up to 10 servomotors in one ETC6000 system
- ATEX and IECEx options plus controller-linked passcodes



Flame scanners

UV flame scanners for safe burner supervision in continuous duty, with self-checking flame detection for reliable unattended ETC burner operation.

- UV sensing with integrated shutter dark-test checking
- CANBus communication for live flame status and integrity
- Radial and axial mounting options for burner geometry



Water Level Control

Boiler drum level control modules for ETC-controlled steam boiler systems, combining feed-water control, alarms, TDS monitoring, and blowdown management in one platform.

- Single-, two-, and three-element feed-water control strategies
- Level, TDS, temperature, pump, and safety alarm functions
- CANBus integration with ETC HMIs for setup and trends

Selected International Case Studies

These selected case studies show how burner and combustion control solutions from General Bruciatori and ETC, aligned with the technical scope offered by InnoBurn, have been applied in real industrial projects across different industries and operating duties worldwide.



Steam Boiler - Italy

- **Type:** Duoblock burner
- **Model:** AMR 9 GB LX FGR Eexd
- **Quantity:** 1
- **Unit Capacity:** 15.5 MW
- **Total Capacity:** 15.5 MW



District Heating - Romania

- **Type:** Duoblock burner
- **Model:** AMR 8 GD
- **Quantity:** 4
- **Unit Capacity:** 15.6 MW
- **Total Capacity:** 62.4 MW



Building (Airport) - Italy

- **Type:** Duoblock burner
- **Model:** AMR 9 G LX AC
- **Quantity:** 1
- **Unit Capacity:** 16 MW
- **Total Capacity:** 16 MW



Brewery factory - Colombia

- **Type:** Monoblock burner
- **Model:** GB-ML 1300 GD EM LP A
- **Quantity:** 4
- **Unit Capacity:** 12.5 MW
- **Total Capacity:** 50 MW

Selected International Case Studies

Additional references from food, sugar, steel, and incineration duty, showing burner applications relevant to heavy industrial service and to the wider General Bruciatori and ETC technical scope presented in this catalogue.



Food Industries - Italy

- **Type:** Duoblock burner
- **Model:** AMR 9 G AC
- **Quantity:** 6
- **Unit Capacity:** 16 MW
- **Total Capacity:** 96 MW



Sugar Factory - Italy

- **Type:** Duoblock - Plate burner
- **Model:** AMR 10 G P AC LX ATEX (&18)
- **Quantity:** 4 + 2
- **Unit Capacity:** 18 MW, 62 MW
- **Total Capacity:** 196 MW



Steel factory - Italy

- **Type:** Duoblock (WAEELZ oven burner)
- **Model:** AM 7 G ATEX
- **Quantity:** 1
- **Unit Capacity:** 11.16 MW
- **Total Capacity:** 11.16 MW



Incinerator - Italy

- **Type:** Duoblock burner
- **Model:** GB-SRO 20 GEM LX
- **Quantity:** 2
- **Unit Capacity:** 19 MW
- **Total Capacity:** 38 MW

Selected International Case Studies

Further references from power, chemical, oil and gas, and asphalt duty, illustrating burner applications aligned with the broader General Bruciatori and ETC technical scope presented in this catalogue.



Chemical Factory - China

- **Type:** Duoblock burner
- **Model:** GB-S 13 G EM LX
- **Quantity:** 2
- **Unit Capacity:** 13 MW
- **Total Capacity:** 26 MW



Asphalt Plant - Argentina

- **Type:** Duoblock burner
- **Model:** AMRO 9 GN
- **Quantity:** 1
- **Unit Capacity:** 20 MW
- **Total Capacity:** 20 MW



Power Plant - Italy

- **Type:** Duoblock burner
- **Model:** GB-S 13 G EM LXe
- **Quantity:** 1
- **Unit Capacity:** 13 MW
- **Total Capacity:** 13 MW



Oil & Gas Field - China

- **Type:** Duoblock burner
- **Model:** AMR 7 G AC LX ATEX
- **Quantity:** 2
- **Unit Capacity:** 29 MW
- **Total Capacity:** 58 MW

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**Ready to Discuss
Your Project?**

Contact Us!



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