BCE
BURNERS & COMBUSTION EQUIPMENT

INDUSTRIAL BURNERS ▪ COMBUSTION SYSTEMS
AIR HEATERS ▪ THERMAL OXIDIZERS
FOR THE ENERGY AND PETROCHEMICAL MARKETS








Part of ***ARISTON GROUP***

ABOUT US

BCE srl – Burners and Combustion Equipment – is a limited liability company registered and based in Italy since 1987 in Caronno Pertusella (Varese).

BCE manufactures a wide range of industrial burners, combustion systems, air heaters and thermal oxidizers for the energy and petrochemical markets. It has been developing combustion expertise since the 70s and today develops burners for almost any combustion process. The design is based on a long and well proven tradition of excellence in combustion engineering for the main industrial applications, with burners suitable to work with any type of gaseous and liquid fuel, engineered to comply with specific client's technical requirements and emissions levels.

The company also offers a competent and adequate technical assistance to any client everywhere for the installation, commissioning, start-up and maintenance of the equipment supplied.

BCE has shaped its capabilities and strengths to provide comprehensive technical and business solutions.
BCE delivers a new era of technology vision enabling the customers to increase output and improve efficiency while preserving the environment.
BCE and its employees fully integrate Environmental Health and Safety excellence into business and operations planning and decision to achieve superior health and safety performance.
BCE manages its operations in accordance with its Environmental Health & Safety program, in a manner that controls occupational health and safety risk, protects the environment and the health and safety of employees, customers, contractors, and the public, while fully complying with applicable laws and regulations.

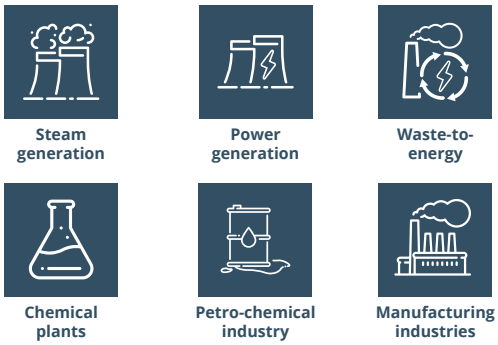


ABOUT US

BCE supplies burners, components and services to all major boiler manufacturers and complete combustion systems to all major industrial clients for:

- Steam generation
- Power generation
- Waste-to-energy
- Chemical plants
- Petro-chemical industry
- Manufacturing industries

BCE burners are provided to meet the maximum standards of combustion efficiency and the maximum degree of reliability under the most severe operating conditions.











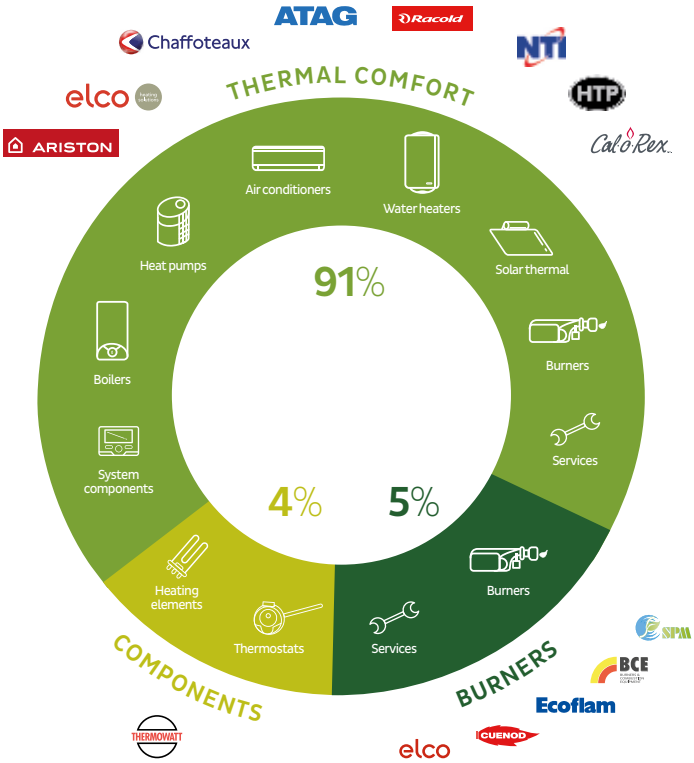
OUR GROUP

BCE – Burners and Combustion Equipment is part of Ariston Group.

ARISTON GROUP

All over the world, Ariston is synonymous with comfort, energy efficiency and respect for the environment, thanks to its high efficiency products, its plants in compliance with the most advanced production standards and excellent pre- and after-sales customer support services.

The Group has now a leadership position in the global thermal comfort market for domestic, commercial and industrial spaces and operates in three different sectors, offering a full range of products, systems and services:





THE BURNERS DIVISION

The Burners Division of the Ariston Group includes 5 brands - Elco, Cuenod, Ecoflam, SPM Innovation and BCE - which over the years have been incorporated into the Group in order to create a set of products, skills and services capable of responding to any requirement of the market.
The result of the shared experience and the synergy between the Brands of the Group is a complete range of burners with output from 11 kW to 80 MW and the engineering capability to develop the best technologies to suit any heating or industrial application.

elco



ELCO is a worldwide brand offering innovative and reliable burners for heating and industrial applications. The ELCO proposal provides power, accuracy and reliability in a complete range of burners from 11 kW to 80 MW.

CUENOD



CUENOD is the ideal proposal for the residential and commercial heating market. Thanks to the combination of innovation willing and its own knowledge, developed during more than 120 years, CUENOD is today a leading company in the heating market.

Ecoflam



ECOFLAM is a global brand for heating and industrial applications and process industry. A long experience in product customization makes ECOFLAM able to offer solutions from 17 kW to 34 MW for any type of fuel and application.

BCE
BURNERS & COMBUSTION EQUIPMENT



Thanks to the know-how developed in more than 30 years on combustion technologies, aerodynamics and management systems, SPM designs, develops, produces and sells equipements for thermal comfort to great heating related businesses and famous international brands.

SPM Innovation



BCE supplies burners, components and services to all major boiler manufacturers and complete combustion systems to all major industrial clients. Burners and combustion equipment are engineered on job by job basis employing a team of specialized engineers.



The Burners Division provides also customized solutions for special combustion processes and industrial applications. Thanks to the continuous research and the know-how developed over the years, we propose a wide range of solutions, such as customized models for OEM applications, Ultra Low NOx techonologies, alternative fuels versions and air duct burners.

PRODUCT RANGE

BCE offers a wide range of products and solutions designed and manufactured on job-by-job basis according to Customer's request, to achieve the best performance and environmental targets. The goal is to ensure to each Customer safety, efficiency and reliability.

DT

Ultra Low NOx burners designed to satisfy the most stringent restrictions on pollutant emissions on fuel gas firing, with or without Flue Gas Recirculation (FGR) while providing high combustion efficiency and reliability with all kinds of gaseous fuels.




DM

Low NOx burners equipped with two air registers suitable for any kind of liquid and/or gaseous fuel with the possibility to fire one or more fuels at the same time.




M

Low NOx burners equipped with one air register suitable for any kind of liquid and/or gaseous fuel with the possibility to fire one or more fuels at the same time.



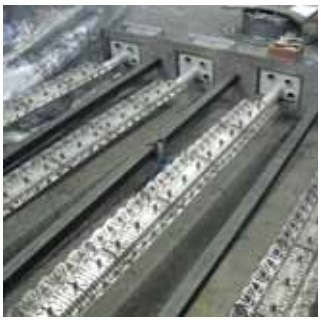

VRGO

Burners typically equipped with a series of gas lance and a central gas lance. If designed to burn heavy fuel oil or diesel oil, the central gas lance is replaced with fuel oil/diesel atomizer. They can be supplied as part of new combustion systems as well as revamping of existing plants.




DB (Duct burners)

Burners designed to work inside Heat Recovery Steam Generator to increase the thermal energy content in flue gas from gas turbine.
Duct burners are usually used in combined cycle and they can work either with fresh air (when gas turbine is turned off) or exhaust gas.

High Energy/Tension Ignitors

Industrial electric ignitors suitable for the light up of large industrial burners. The most powerful ignitors are based on high-energy systems developed over decades of experience in applications requiring safe and reliable operation, such as power generation plants and steam generating utilities.




Special burners

BCE is capable to develop highly cusomizable solutions for particular applications:

- Blast furnaces burners
- Air heaters, incinerators, kiln burners
- Off Gas & Low LHV burners
- Sulphur burners




BMS (Burner Management System)

BCE develops and supplies Burner Management and Control System to ensure that burners start-up, shut-down and operation take place under safe and controlled conditions, acquiring signals from in-field instrumentation and performing all trips related to safety.




Assembled Oil & Gas Skids

BCE provides engineering and/or complete supply of mechanically, electrically and pneumatically assembled skids (ypically for heavy fuel oil/diesel oil and fuel gas feeding line to burners, but also on request for local and general fuel gas skids for any type of gas: natural gas, hydrogen, coke oven gas, nitrogen, oxygen, and so on).




SERVICES

BCE is close to its Customers and provides all the necessary support, in an efficient and quick way, whenever it is necessary.
The Service Team personnel have a lot of experience in field application and work together with the Technical Department in order to provide the best solution to any issue.
BCE can provide a wide range of services to support any customer's need, from consulting and pre-sale processes to any after-sale activity that may be required.

START-UP AND COMMISSIONING

Working closely to power plant manufacturer BCE is usually called to start-up its combustion system and tuning the burners to reach the best configuration and give to the Customer the best performance in terms of emission levels and combustion efficiency.

TRAINING OF LOCAL PERSONNEL

The engineers of BCE transfers their knowledge and experience to the Custoner's employees, in order to guarantee the correct maintenance and management of the combustion system.

EVALUATION OF EXISTING INSTALLATIONS

BCE has the capabilities to evaluate an existing combustion system and all the equipment installed to support the process (i.e. valve and instrumentation train, burner management system, combustion air distribution, control system and so on) in order to provide technical service to upgrade the system. A written relation with technical solutions, which enable the Customer to choose the best way to act usually follows such activities.



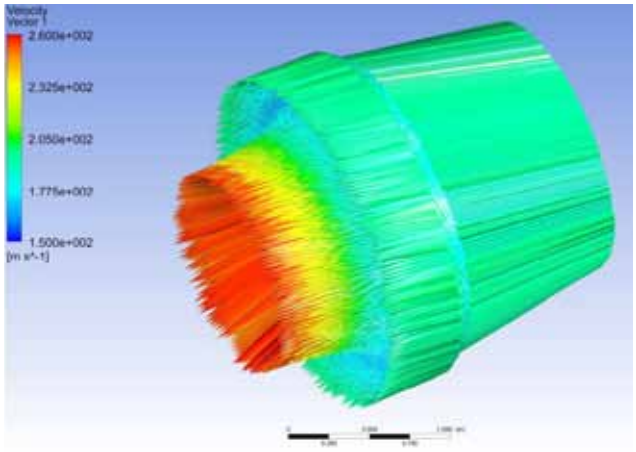
SERVICES

CFD

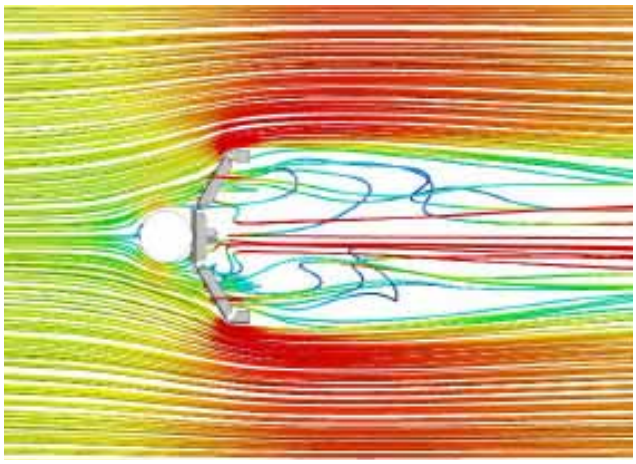
The company can provide support even for CFD (Computational Fluid Dynamics) studies; the CFD can be applied to many situations and applications and BCE usually provides such service to analyze the combustion air and flue gas mixing in application with FGR (Flue Gas Recirculation), to analyze the air distribution inside the burner and the flame shape and distribution, and to analyze the exhaust gas distribution to the burners coming from gas turbine in Heat Recovery Steam Generators, in order to optimize the distribution, the emissions levels and to prevent backfires on the burners.

REVAMPING

BCE can offer a technical, competent and adequate support for revamping and retrofitting activities, in particular concerning the replacement of an old and obsolete combustion system with a new one in order to increase the safety and the performance, reach low emissions levels, optimize the combustion and increase the efficiency of the system.
A really good interaction between the commercial and technical departments allows to follow the Customer from the first evaluation activities and feasibility studies to the supply of the final solution, the commissioning and training of local personnel.









REFERENCES

296 MW

4 x DT 25″ (4 x 30 MW)
4 x DT 32″ (2 x 38 MW)
2 x DT 20″ (2 x 12 MW)

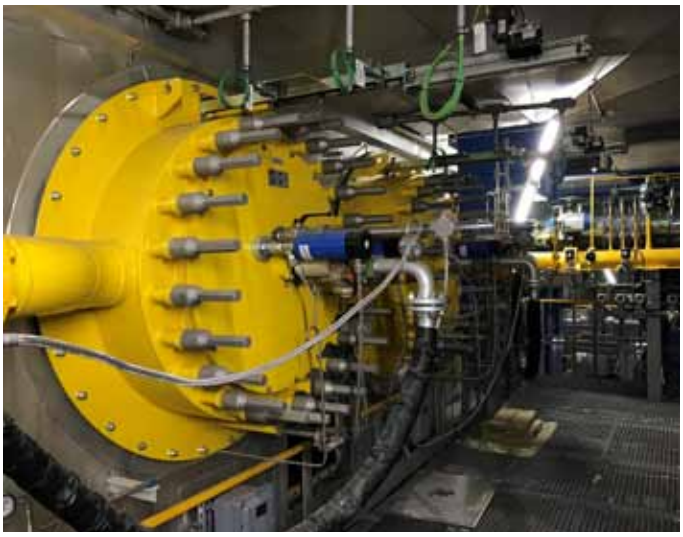
Turin, Italy



300 MW

6 x DT 37″ (6 x 50 MW)

Brescia, Italy



160 MW

2 x DT 36″ (2 x 50 MW)
3 x DM 40″ (3 x 20 MW)

Milazzo, Italy



REFERENCES



160 MW

2 x M 38x36"" (2 x 80 MW)

Assuan, Egypt



33 MW

1 x DB 33 (1 x 33 MW)

Bolgiano, Italy



110 MW

2 x DT 23" (2 x 20 MW)
2 x DT 21" (2 x 21 MW)
1 x DT 28" (1 x 28 MW)

Reggio Emilia, Italy



BCE S.r.l.

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