Beralmar

Gas Combustion Equipment

BURNERS FOR CERAMIC KILNS AND DRYERS

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Machinery and engineering
for structural ceramics
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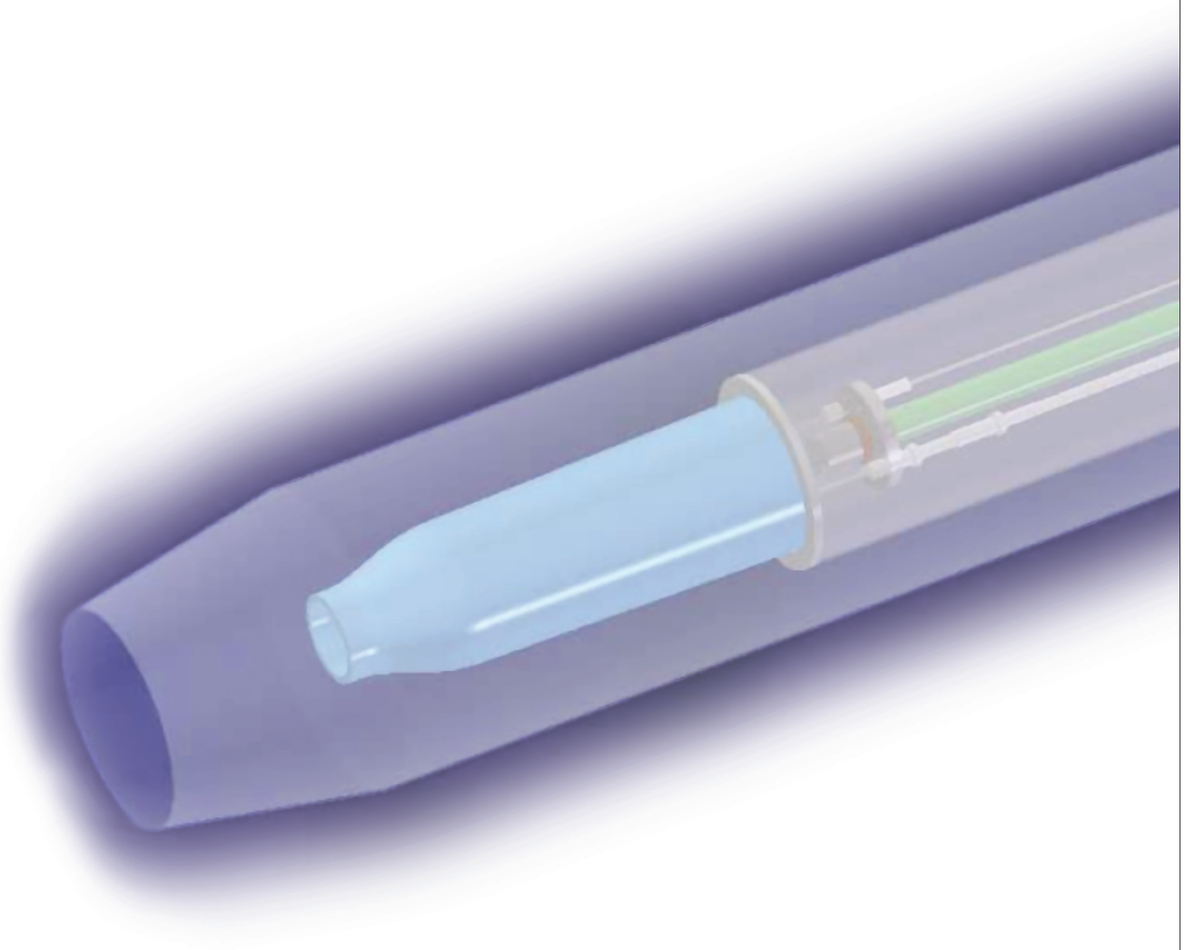


Beralmar

[company history]

BERALMAR was founded in 1964 to specialise in the structural ceramics industry (tiles and bricks). It designs, markets and installs firing and drying equipment worldwide and prepares projects for tunnel kilns, dryers and complete factories.

The 7,500 m2 head office is in Terrassa, just a few kilometres from Barcelona.

The company is organised into Technical, Sales, Manufacturing, Administrative and Post-Sales Service Departments, all working closely together with the goal of flexible and efficient management.

Rigth from the beginning, BERALMAR has been committed to the development of new products. This has taken it from the production of a limited range of burners early on to becoming a complete supplier to the ceramics industry, offering kilns, dryers and complete plants with its own design and manufacturing teams, with the widest offering of burners on the market.

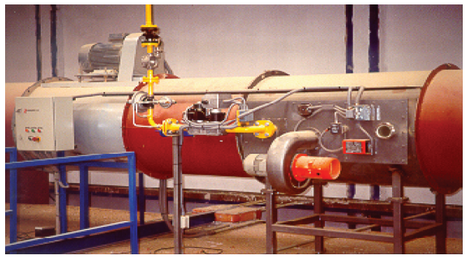
Another highlight of BERALMAR is the international nature of its business. Since it started selling for export at the end of the 1980s, BERALMAR has won customers in over 50 countries.

Duct burners for Dryers

[VA Models]

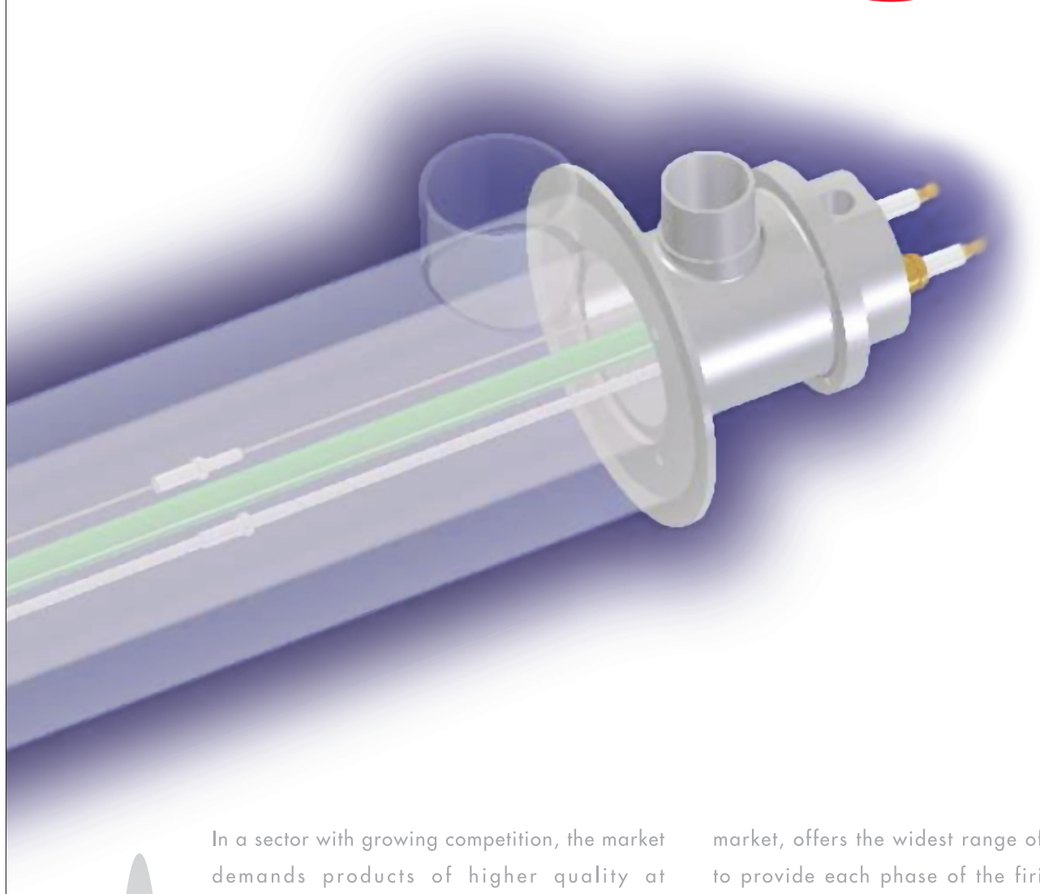
Model VA burners can be installed in dryer air ducts or applied directly in mixing chambers.

The various models offer calorific values of 250,000 - 10,000,000 kcal/h.



Duct burners have various applications in the ceramics industry (e.g. generating heat for drying bricks and tiles) as well as in the agricultural industry (e.g. dehydration processes) and in various other industries.

The Widest Range



In a sector with growing competition, the market demands products of higher quality at competitive prices.

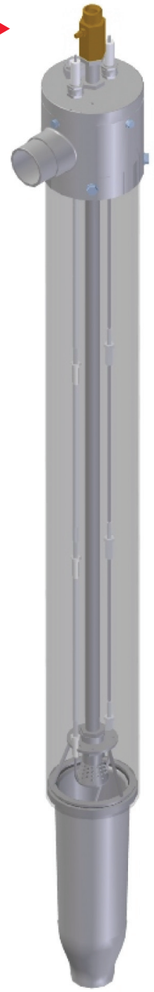
Natural gas is without doubt the fuel which provides the best firing conditions, is the cleanest and easiest to handle and the most environmentally friendly. However, it is often the most expensive and so requires technologies which ensure rational and efficient consumption.

BERALMAR, the supplier of the most complete range of burners for the various fuels on the market, offers the widest range of gas burners to provide each phase of the firing and heat generation process with the appropriate technology: ignition burners for kilns - cold flame, high speed, vertical, lateral and continuous and variable impulse burners; burners for tunnel and Hoffman kilns; for biogas; duct burners for dryers, etc.

This complete and up-to-date range is complemented with a technical team with extensive experience in the regulation and optimisation of firing and drying processes.

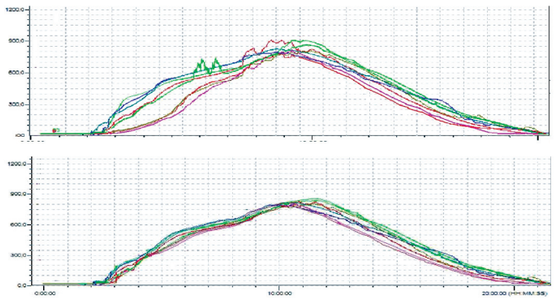
Cold Flame Burners

[Model FOC20/FF]



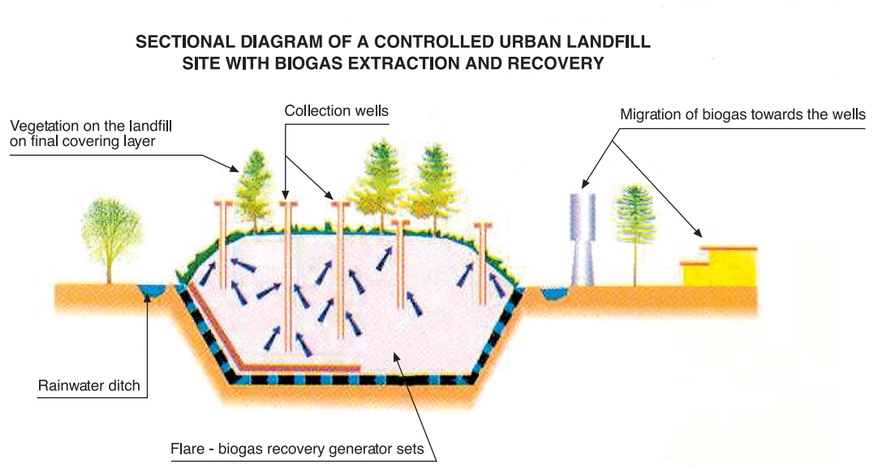
FOC20/FF cold flame burners are characterised by their ability to provide 400% extra air and by low flame temperature. They are designed to be fitted between the preheating zone and the draft fan, in both vertical and lateral configurations.

The Model FOC20/FF burner harmonises the firing curve and brings preheating forward. This results in greater production performance in kilns that are already theoretically working at their maximum capacity.



Firing curve before (above) and after (below) the installation of cold flame burners.

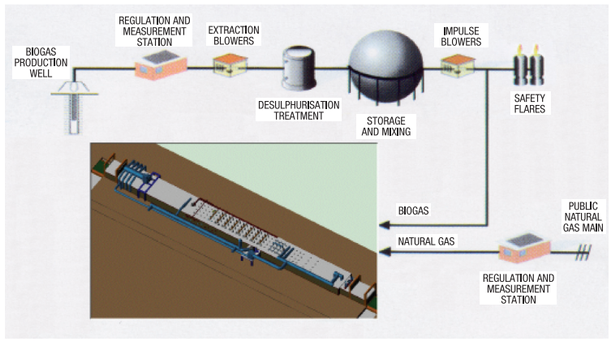
Biogas Burners



Biogas is the result of anaerobic treatment of urban waste. It is produced naturally in any waste tip and is characterised by its high methane content (>50%) and a calorific power of 4,700 kcal/Nm3. The use of this gas in the ceramics industry is very cost effective. This gas is expected to become much more widely available as the number of biogas generation plants grows.

Biogas burners have been developed according to the specific characteristics of the gas and use a dual injection system for biogas and natural gas. This is necessary for those cases when the supply of biogas is irregular or unreliable.

Diagram of biogas extraction, treatment and supply line.

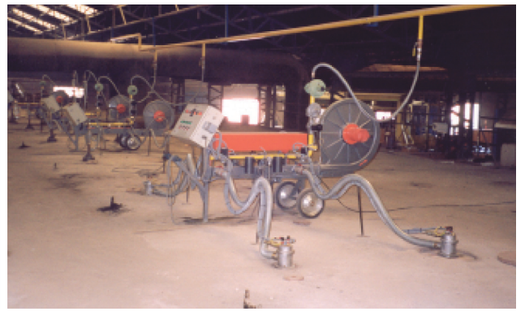


Impulse Burners

[CGI and ICV Models]

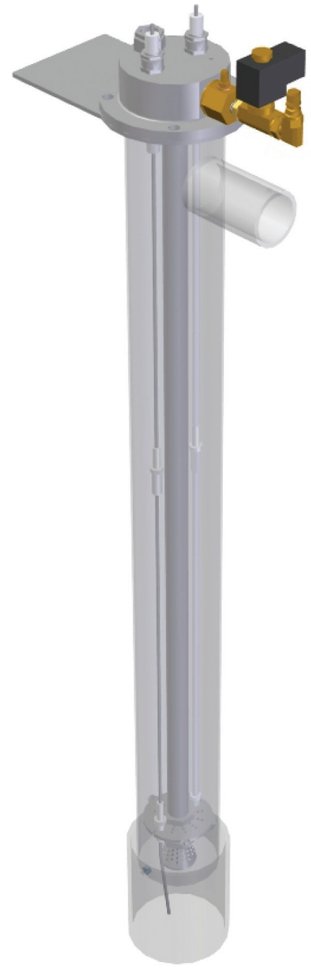
Model CGI impulse burners are designed to be installed in the firing phase. Gas feeding by pulses allows the maximum performance to be obtained from the fuel. The frequency and duration of the pulses is controlled by a PLC. ICV models incorporate combined continuous/variable injection, extending the possibilities for this equipment. Recirculation nozzles are a useful option which considerably reduces gas consumption by injecting less air at ambient temperature into the kiln.

Model CGI and ICV burners, as well as model FOC high speed burners, are also manufactured for installation in Hoffman kilns.



Ignition Burners

[Model FOC/CGI]



FOC/CGI self-igniting burners allow rapid and convenient start-up and heating of the kiln, responding to the need for more frequent interruption of ceramic kiln operation.

This burner can be coupled to traditional burners with no ignition and is characterised by high calorific power and self-ignition even at temperatures below 650ºC.

High speed Burners

[FOC20/MV and FOC20/ML]

Model FOC20/MV high speed burners inject up to 200,000 kcal/hour at high speed. This results in turbulent flow inside the kiln, which leads to more uniform temperatures at the various heights in the kiln and minimises the risk of breakages in the preheating phase.

The same models are available in a FOC20/ML version for lateral injection.

These burner sets are suitable for the preheating phase, the most critical point in the firing cycle, in both vertical and lateral versions.