



**BURNERS
& COMBUSTION EQUIPMENTS**

GBA operates from three main locations: Milan, London and Houston to cover all world markets.

GBA are represented in most countries through a network of established and professional agents, duly selected to meet the high expectations of GBA and our Clients.

Please contact our offices to know which agent is applicable to your location.



www.gba.com
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GBA BURNERS PRODUCT LINE

For any application and industry, **GBA** designs combustion units and associated packages to help our customers to safely dispose hazardous compounds, contained either in gaseous or liquid wastes, resulting into clean gaseous flue gas emissions fully complying with the most rigorous standards and most stringent environmental regulations worldwide.

GBA is committed to reduce the Carbon footprint on the planet, and therefore all our units are designed to be smart, highly energy-efficient, always operated with minimum consumptions of plant's utilities, such as fuel gas, electricity, steam, instrument air, etc.

OUR PRODUCTS AND SERVICES

Low NOx and Ultra Low NOx Burners for petrochemical Process heaters

- Natural e forced draft Burners for Up firing wall roof and downfiring application
- Self-inspiring Burners Type
- Low Nox and Ultra Low NOx Burners for fuel oil-fuel gas
- Natural e forced draft Radiant Low NOx Burners
- Interchangeable Burners on existing process heaters

Burners for Thermal Oxidizers

- Burners for sulfur recovery plants
- Burners for acids gas
- Burners for Horizontal or vertical Thermal Oxidizers
- Burners for Thermal Oxidizers of toxic liquids
- Burners for pos-combustion chambers

Burners for indirect fired heaters

- Burners for Heater treather, Water bath heater, Glycol rigenators
- Natural and forced draft burners
- Natural draft burners with flame arrester
- Burners with air fan monoblock or dissociated
- Burners with CO2 snuffing system
- Burners for Off-Shore plants

Industrial hot gas generator

- Industrial Air preheated heaters
- Duct burners suitable for Fuel gas and for Light Fuel Oil combustion
- Combustion systems complete control gas ramps
- Pre-heating and pumping fuel oil combustion system pre-assembled on skid

Special Burners

- Burners for waste liquids (Swing Out Burners for liquid Burn Pits)
- Burners for waste gas (Swing Out Burners) on off-shore plants
- Burners for waste gas (Swing Out Burners) on-shore plants
- Burners for installation on rotary kilns for drying or thermal destruction

Accessories

- Natural premixed gas pilot with electric ignition system and flame detection
- Forced draft gas pilot with electric ignition system
- Forced draft oil pilot with high energy system
- Sight ports for high temperature heater's inspection
- Fast Cleaning systems for pilot

Customer Support Services

- Assistance, control e revision burners during the stop plants
- Studies for new installation Low NOx burners on existing furnaces
- CFD studies of combustion
- Contracts for Constant monitoring burners
- Spare Parts with equivalent certificates of interchangeability and performance
- Changes and improvements on existing furnaces and burners
- Training for operators and builders
- Seminars on combustion and enforcement of international regulations
- General Survey of combustion plants

GBA GAS BURNERS

GBA-G conventional type

The GBA-G burner features a straightforward design that allows for effortless operation, making it an ideal choice for those seeking a no-frills solution. This burner is capable of handling a wide range of fuel gases and producing various types of flame, thanks to its ability to achieve a wide turndown capability with a short flame. Additionally, the burner is available in both up-firing-horizontal and downfiring configurations, which can be accomplished via a specialized refractory tile

GBA-G-SA low NOx type

The GBA-G-SA burner is a gas-only round flame burner that utilizes staged air technology to lower NOx emissions. It stands out in the market as the most economical low NOx option. With a broad turndown capability, this burner can operate using various fuel gases

GBA-SG/SA ultra low NOx type

The GBA-SG/SA is a round flame burner that is solely intended for use with gas and boasts ultra-low NOx emissions. It employs two distinct technologies to minimize NOx: staged fuel and staged air. The burner's flame pattern varies based on the emissions requirements. Furthermore, it is engineered to offer a broad turndown capability and can function with a diverse range of fuel gases

GBA GAS/OIL BURNERS

GBA-FO conventional type

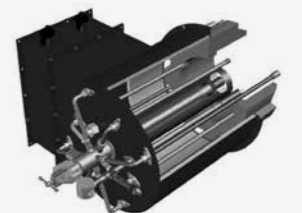
The GBA-FO burner is a "conventional" round flame burner that utilizes a combination of fuel to operate. Its design features a "double block" construction that is highly durable and requires minimal maintenance. The burner includes an internal venture tile for flame stabilization with Fuel Oil, as well as a "floor" tile. Its straightforward design allows it to be installed in any position. The burner is suitable for use with heavy and waste fuels, and can be applied to incinerators with either mechanical, assisted air, or steam atomization.

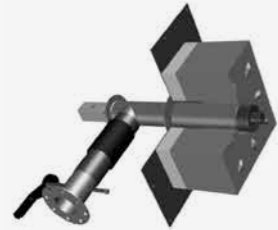
GBA-FG/FO-SA low NOx type

The GBA-FG/FO-SA burner is a round flame burner that combines Fuel Gas or Fuel Oil firing and Low NOx emissions. Its design includes staged air technology to minimize NOx and a "double tile block" for natural draft or a swirler for forced draft operation. Its robust and simple construction ensures low maintenance and easy operation.

GBA-FG/FO-SG/SA ultra low NOx type

The GBA-FG/FO-SG/SA is a combination fired ultra Low NOx round flame burner. It utilizes staged or air staged fuel in order to reduce NOx with Fuel Gas and/or Fuel Oil firing. Double tile block is used for for natural draft operation or a special swirler for forced draft condition.

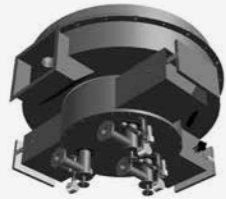




SPECIAL APPLICATION

GBA-GRW Ultra low NOx type

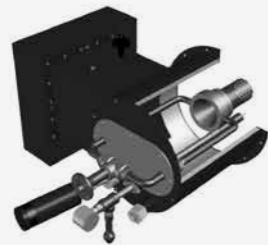
The GBA-GRW is a Ultra Low NOx gas radiant wall flame burner. It is designed to operate with preheated combustion air and also with cold air in forced draft or natural draft condition. The combustion air is provided in an annular gap around a central fuel gas tip and it is blended with gas in radiant method. The fuel is injected through a central gas tip into the furnace, and is allowed to install in the center also a special tip for naphtha vaporized.



COMMON PLENUM

GBA-CPC low NOx type

The GBA-CPC is a group of fuel gas burners that have a common Plenum. This arrangement enhances heat release for single burners and is ideal for achieving a short flame. These burners comply with A.P.I. standards and can be used with cold or preheated combustion air, in natural or forced draft conditions.



FIRE TUBE

GBA-WGT low NOx type

The GBA-WGT is a Low NOx gas-only round flame burner, which includes the "Wave Gas Tip", capable of drawing in significant amounts of combustion air even in low-draft conditions. The "Wave" technology enables operation with minimal excess air (less than 3% O2), adhering to the A.P.I. standards.



SPECIAL BURNERS

GBA-MLF dual liquid gun type

The GBA-MLF is a common burner for two different liquid fuels and is also suitable for use with waste or support gas.



GBA-AGF acid gas type

The GBA-AGF is a special burners available for Acid Gas. Usually it is installed on SRU and on Thermo-Oxidizers combustion chamber.



SWING OUT

GBA-WOC waste oil cluster type

The GBA-WOC is a unique block-type burner cluster with a minimum of four oil guns and refractory cones. It is a self-inspiring liquid burner that operates without requiring any combustion air draft or depression. Combustion occurs naturally through air suction, with a specialized pilot igniting all four oil guns simultaneously.

HOT GAS GENERATOR

GBA Heater type

The GBA is a Hot Gas Generator with standardized sizes ranging from 0.5 to 14 Gcal/hr, capable of achieving desired air or gas temperatures economically. It can be mounted vertically or horizontally and used for material drying, organic compound processing, and incineration of liquid and gas products.

GAS PILOT

Gas Pilot

GBA-XK is a 25.000 kcal/hr premixed gas pilot for all fuel gas, available for forced or natural draft burners.

GBA-XJ is a 15.000 kcal/hr premixed gas pilot for little burners with forced or natural draft.

GBA-HE is a gas pilot with high energy ignition, suitable for 100% humidity, with manual or forced air mixer. GBA-XP is a portable premixed pilot with high retention tip for igniting the main burner on site.

Special Gas Pilot

GBA-XK: Gas pilot for fuel gas, installed on burners with forced/natural draft, start from 25,000-300,000 kcal/hr. Forced air, gas flow regulator included. Used for longer flame or stable combustion in pressure.

GBA-XJ-4x1": Premixed gas pilot up to 100,000 kcal/hr, ignites 4 burners simultaneously with high energy system. Applied for liquid incineration like "Swing Out Burner" or "Cluster Block".

ACCESSORIES

Spud Cleaning Needle for pilot mixer

The Spud Cleaning Needle (Mod.: GBA-SCN) guarantees a good cleaning of mixer nozzle from gas impurities that may obstruct the nozzle during the normal use. This device must be mount between the pilot mixer and the pilot gas line, using a calibrated needle to clean the nozzle.

Safety Sight Port for furnace

The Safety Sight Port reduces the risk of operator exposure to thermal radiation, flue gas, and flashback during burner start-up. It also minimizes air leakage and improves combustion efficiency





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