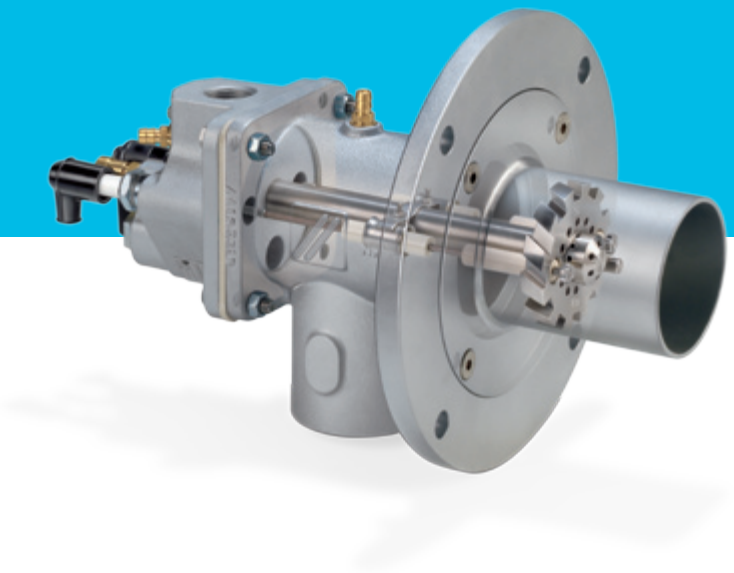
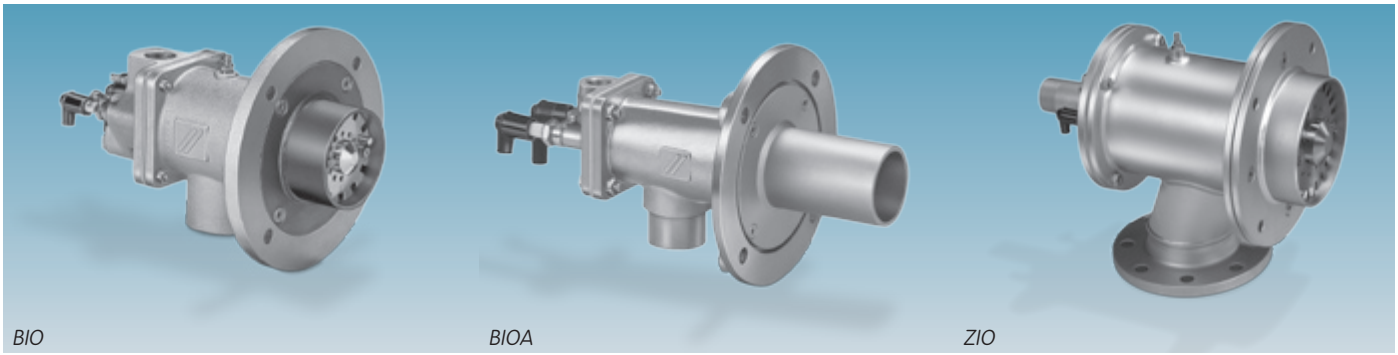
Burners for gas BIO, BIOA, ZIO

Product brochure · GB
7.2.14 Edition 07.08



- Large capacity range up to 1000 kW
- Maintenance-friendly thanks to modular design
- Robust burner design
- Direct or lance ignition
- Ionisation control or optionally with UV sensor
- Suitable for new systems and modernisation of existing systems thanks to individual length adjustment
- Air preheating to 450°C available as an option
- Low polluting level thanks to optimised combustion
- For installation as ceiling or side-wall burner thanks to arbitrary installation position
- Can be combined with different combustion chamber shapes



BIO *BIOA* *ZIO*

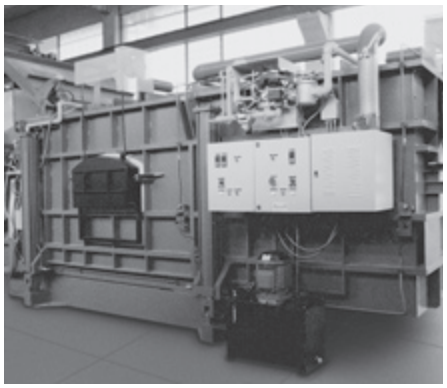
Application

For industrial furnaces and firing systems in the iron and steel industries in the precious, non-ferrous and light metal sector, as well as in the plastics, fibre and paper industries. Other fields of application are thermal incineration installations, as well as driers and hot-air generators.

For low temperature applications (e.g. for crucible heating, radiant tube heating or hot-air generation), the burners are equipped with a heat-resistant steel attachment tube.

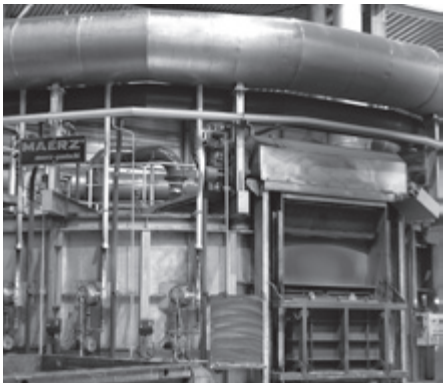
For high temperature applications (e.g. forging furnace), the burners are used in combination with a burner quarl made from refractory concrete. Different flame shapes can be achieved by using burner quarls with a different geometry.

The burner may be adapted to the system requirements using different burner tube lengths.

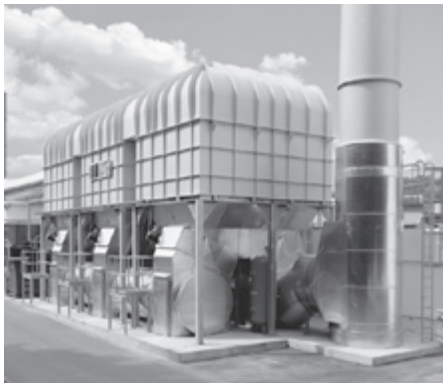


Shaft melting and holding furnace

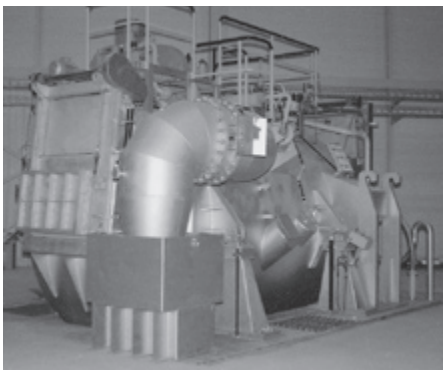
Bogie hearth forging furnace



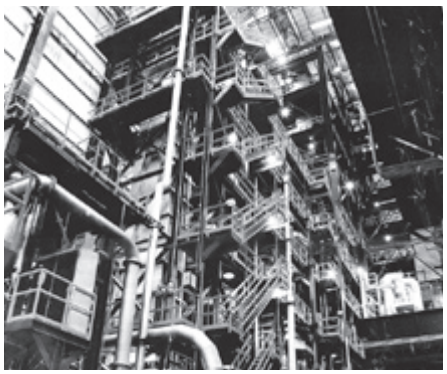
Rotary table furnace



Incineration installation for thermal regenerative flue air purification

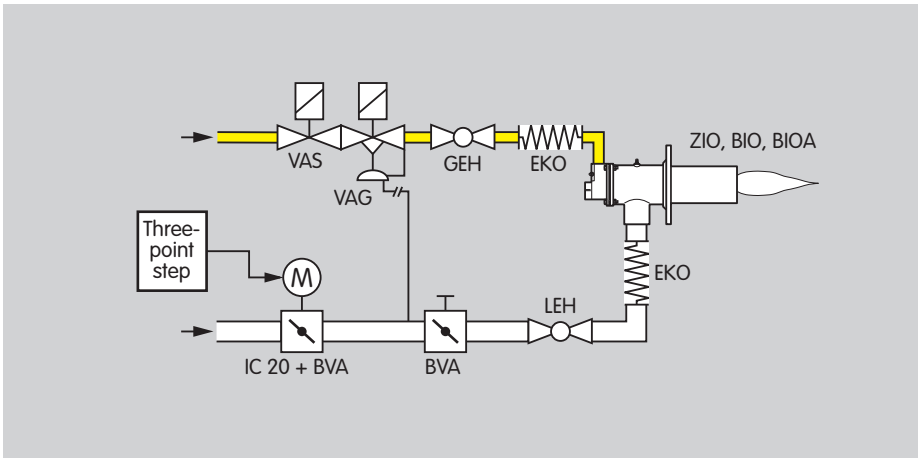


Aluminium tank furnace



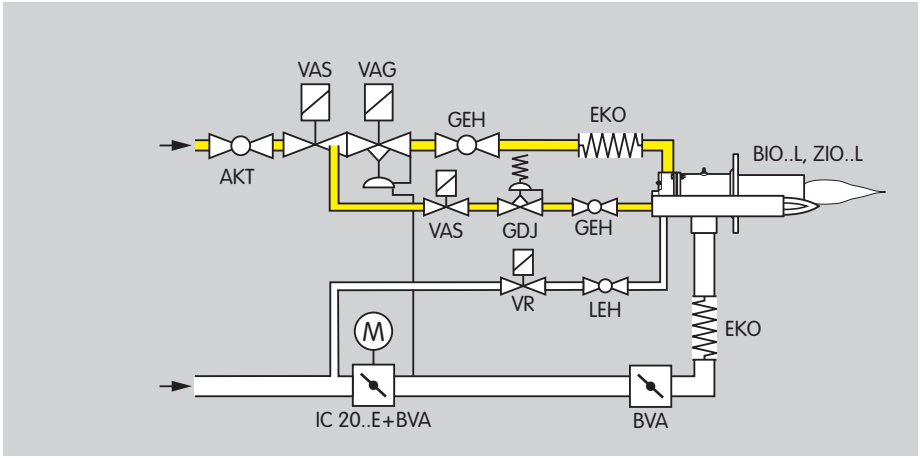
Strip galvanising plant

Examples of application



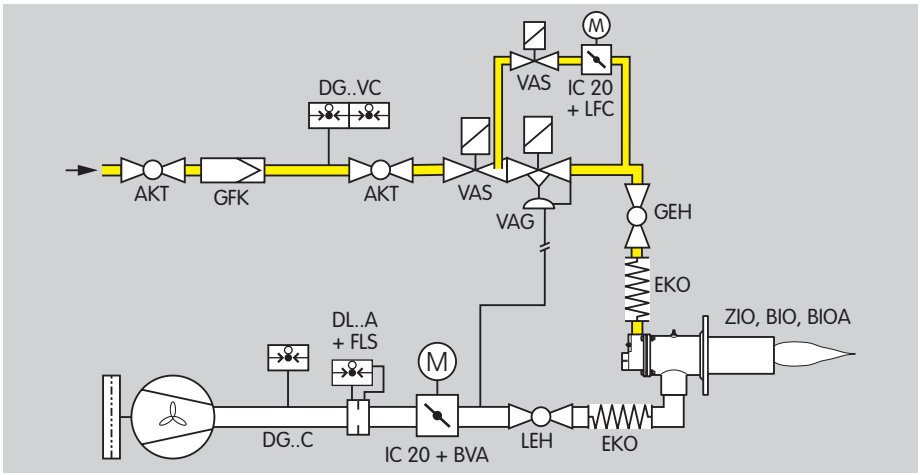
Continuous control with pneumatic ratio control system

This type of control offers the benefit of the mixture setting being maintained over a wide control range while at the same time preventing air deficiency. This type of control is used in melting furnaces in the aluminium industry or in regenerative incineration installations in the environment industry, for example.



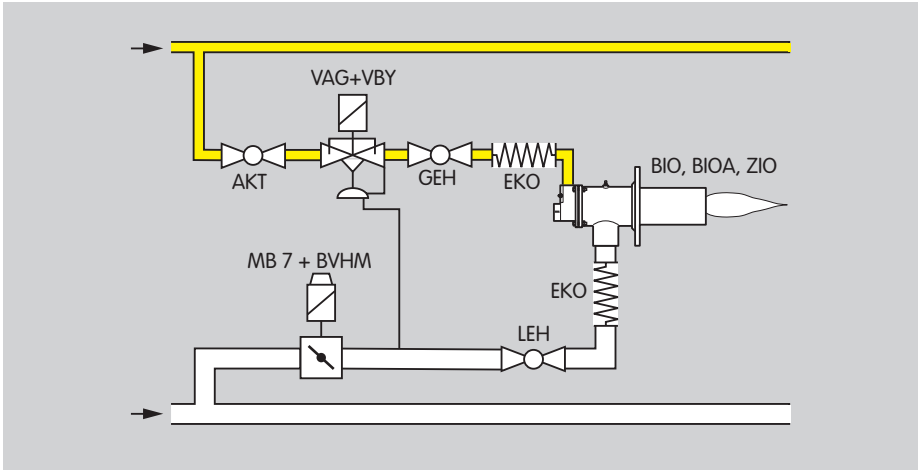
Continuous control with pneumatic ratio control system and lance

The burner's flexibility is increased thanks to an ignition lance. The control range can be extended incrementally with an optional integrated lance. This type of control is used in heat treatment furnaces in the iron and non-ferrous metal industries and in heating furnaces in the steel industry, for example.



Continuous control with pneumatic ratio control system

The burner is designed for near-stoichiometrical operation and a control range of 1:10 with its special burner head construction for CO2-optimised combustion. In combination with the cascade control system, the burner is capable of operating even with very low connection ratings, control ranges of 1:45 can be achieved.



Staged control with pneumatic ratio control system

The high output pulse at the burner generated by this type of control produces a uniform temperature distribution and good circulation of the furnace or kiln atmosphere, e.g. in heat treatment furnaces in the iron and non-ferrous metal industries or kilns for heavy-clay and fine ceramics. The pneumatic air/gas ratio control system offers maximum safety by an air deficiency cut-out, with a constant lambda value being maintained while the air pressure varies.

Selection

Selection table

	50	65	80	100	125	140	165	200	H	R	K	B	G	M	L	D	L	-50–…	/35–…	-(1) – -(99)	A–Z	B
BIO	●	●	●	●	●	●			●	●	●	●	○	●	○	●	○	●	●	●	●	○
BIOA		●							●	●	●	●	○	●	○	●	○	●	●	●	●	○
ZIO							●	●	●	●	●	●	○	●	○	●	○	●	●	●	●	○

● = *standard*, ○ = *available*

Order example
ZIO 165RB-50/35-(17)D

Type code

Code	Description
BIO BIOA ZIO	Burner for gas Burner for gas with aluminium housing Burner for gas
50…200	Burner size
	Flame shape:
H	Long
R	Normal
K	Flat
	Gas type:
B	Natural gas
G	Propane, propane/butane
M	Butane, butane/propane
L	Low calorific value gas
D	Town gas
	Variant:
L	Separate low-fire gas and air rate supply
R	Reduced max. connection rating
–50* –100** –150* –200** –250* –300** …	Burner tube length [mm]
/35– /135– /235– …	Position of burner head
-(1)… -(99)	Burner head identifier
A–F	Construction stage
B	With purging air bore holes

* *R-, K burner head*
** *H burner head*

Technical data

Gas supply pressure: approx. 20 to 60 mbar,
Air supply pressure: approx. 25 to 40 mbar,
each depending on flame shape and gas type (gas and air pressures

Burner length increments: 100 mm.

Types of gas: natural gas or LPG (gaseous); other gases on request.

Heating: direct using a burner quarl or an attachment tube, indirect using a burner attachment tube inside the radiant tube.

Control type:
staged: On/Off, High/Low/Off,
continuous: constant λ value.

Most of the burner components are made of corrosion-resistant stainless steel.

Housing:
BIO: GG25,
BIOA: AlSi,
ZIO: ST.

Flame control: direct ionisation control (UV control as an option).

Ignition: direct, electrical, lance as an option.

Maximum furnace temperature:
BIO/ZIO in burner quarl: up to 1600°C,
with K burner head: up to 1100°C (higher temperatures on request),
BIO/ZIO with burner attachment tube: up to 800°C (higher temperatures on request).

Maximum air temperature:
BIO, ZIO: 450°C,
BIOA: 200°C.

Maintenance cycles

Twice per year, but if the media are highly contaminated, this interval should be reduced.

Detailed information on this product

www.docuthek.com

Contact

www.kromschroeder.com ➔ Sales

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