

# Data sheet

Serie HGBE



# SERIES HGBE

High-velocity burner for the direct and indirect heating of industrial furnaces 9-160 kW



## Specifications & Advantages

- Especially cost-efficient high-velocity burner
- Power scope from 9 to 160 kW
- Maximum application temperature up to 1300°C
- Suitable for operation with cold and hot air (up to 400°C air pre-heating)
- Low-emission single-stage combustion
- Excellent temperature distribution due to high burner velocity
- Easy direct ignition at full load due to patented ignition system
- Particularly maintenance-friendly, modular set-up
- All media connections can be adjusted at 90° angles
- Direct flame monitoring to ensure maximum safety in all stages of operation
- Separate cooling air connection possible to enable the specific operation of temperature ramps
- Easy and economical basic maintenance
- Available with basic or complete configuration

## Technical specifications

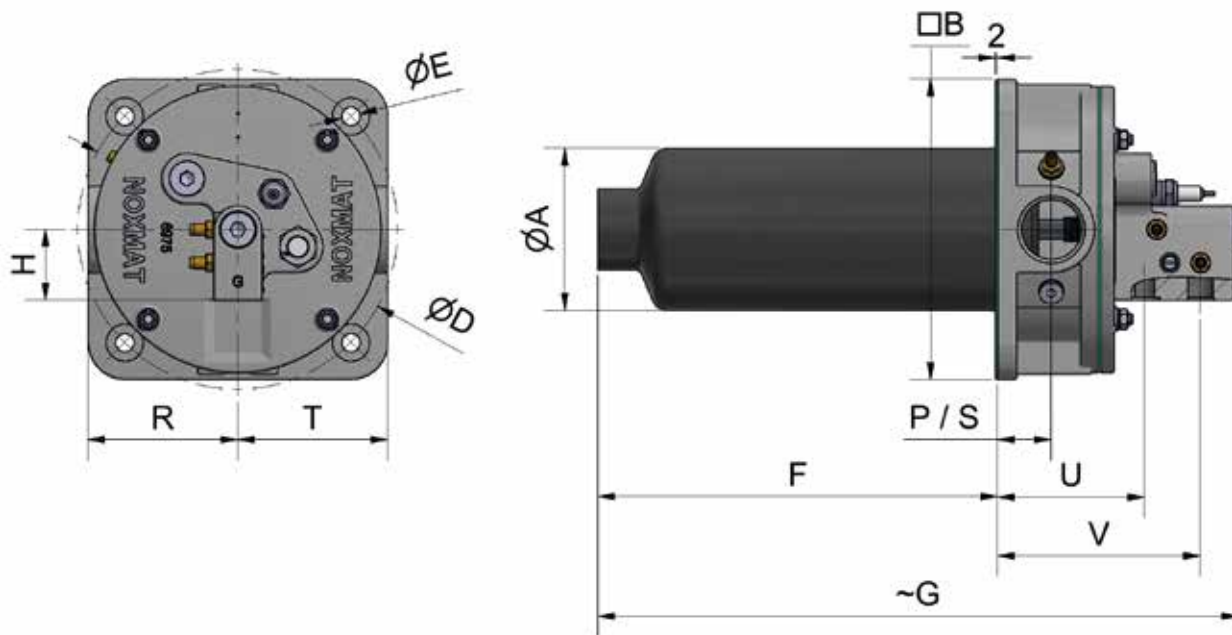
Burner type HGBE		15	25	50	100	200
Nominal thermal capacity [1]	kW	15	25	50	100	160
Nominal thermal capacity [1]	BTU/h	~51000	~85000	~171000	~341000	~546000
Minimum thermal capacity [1]	kW	9	13	25	50	80
Minimum thermal capacity [1]	BTU/h	~31000	~44000	~85000	~171000	~273000
Nominal gas connection pressure [2]	mbar	50	50	50	50	50
Nominal air connection pressure [2]	mbar	60	60	60	60	80
Maximum temperature at burner head	°C	1300	1300	1300	1300	1300
Nominal diameter of burner tube	mm	59	71	94	121	171
Nominal diameter gas connection	DN	15	15	15	15	20
Nominal diameter combustion air connection	DN	20	25	40	40	50
Nominal diameter cooling air connection	DN	20	40	40	40	50
Fuel gas [3]		NG, LNG, LPG				

Subject to technical modifications. [1] Values deviating from the burner capacity are possible upon request.  
 [2] Pressure fluctuations must not exceed +/- 5%; this also applies to the operation of the burners in groups.  
 [5] Other combustion gases must be coordinated with Noxmat in advance.



# SERIES HGBE

## Principal dimensions / Basic burner



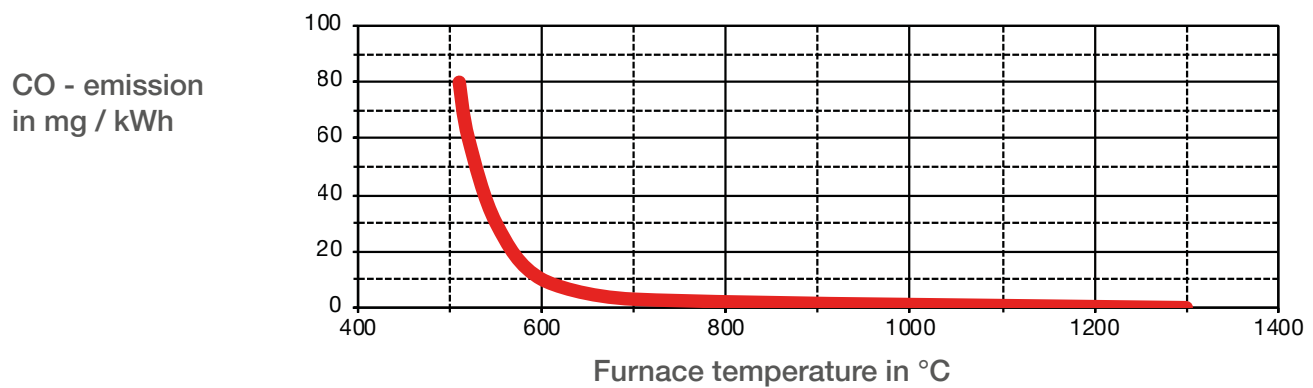
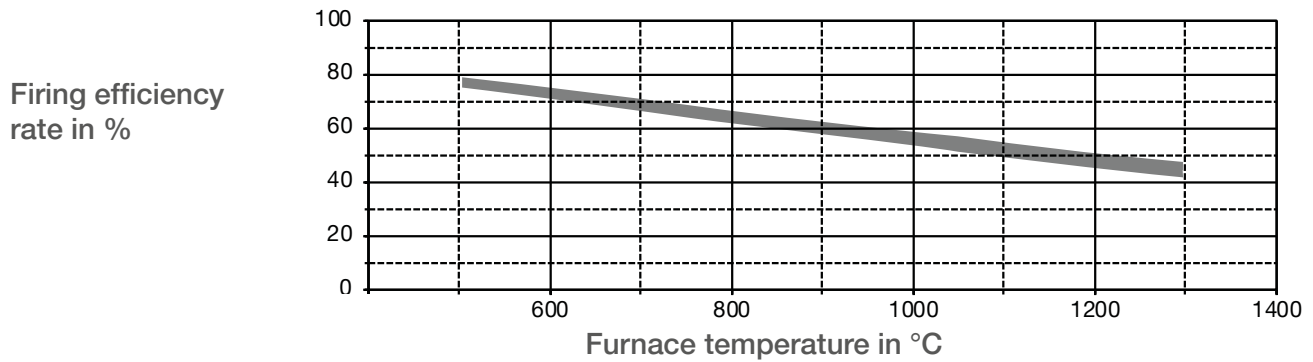
Burner size	Principal dimensions						
	A	B	D	E	F (1)	G (3)	H
	mm						
HGBE 15	59	160	170	14	200/250/300/400	600	72.5
HGBE 25	71	175	190	14	200/250/300/400	560	77
HGBE 50	94	195	210	14	200/250/300/400/500/600	580	77
HGBE 100	121	225	240	14	200/250/300/400/500/600	580	53
HGBE 200	171	285	310	14	300/400/500	650	70

Burner size	Connection dimensions									
	Waste gas			Combustion air			Purge air		Combustion gas	
	P	R		S	T(2)		U		V	
	mm	mm	inch	mm	mm	inch	mm	inch	mm	inch
HGBE 15	34	80	G3/4	34	80	G3/4	87	G3/8	132	Rp1/2
HGBE 25	34	87.5	G1	34	87.5	G1.1/2	92	G3/8	137	Rp1/2
HGBE 50	40	97.5	G1.1/2	40	97.5	G1.1/2	107	G3/8	152	Rp1/2
HGBE 100	40	112.5	G1.1/2	40	112.5	G1.1/2	110	G3/8	152	Rp1/2
HGBE 200	56	142.5	G1.1/2	56	142.5	G2.1/2	157	G3/8	215	Rp3/4

(1) deviating length is possible; (2) drilling optional; (3) reference: installed length of F= 40 mm

# TYPICAL PERFORMANCE CHARACTERISTICS

## HGBE 15



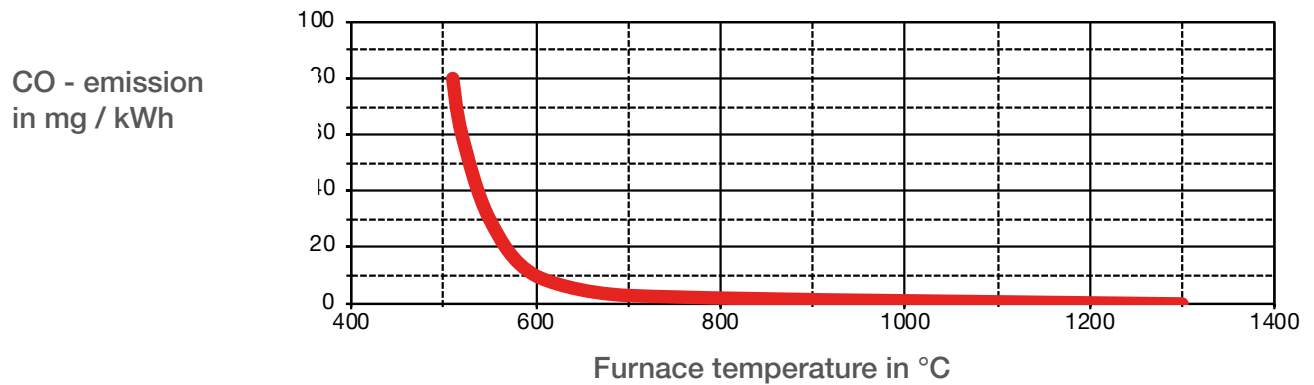
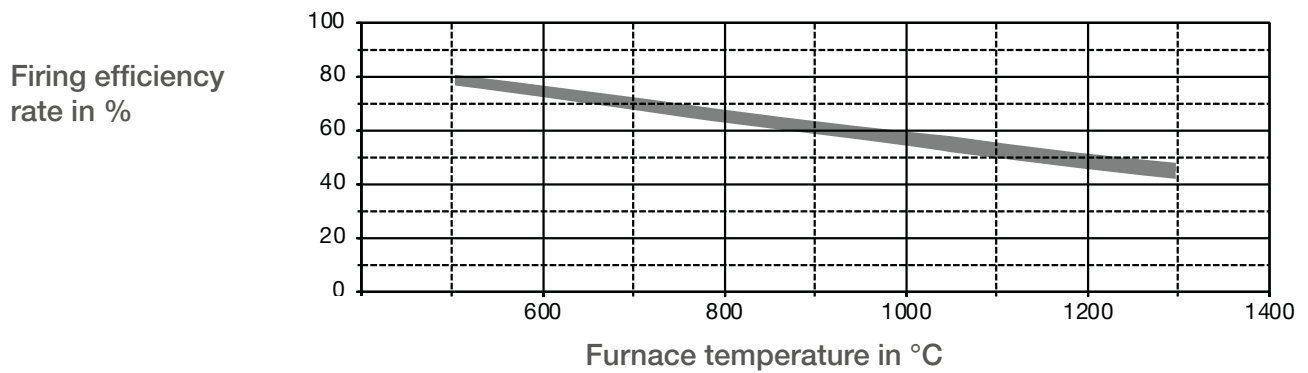
The above illustrations are valid for:

- direct heating
- continuous operation at nominal burner capacity
- natural gas
- $\lambda = 1,10 \dots 1,20$

The parameters specified shall be regarded as recommended ones. They are dependent on various factors that may vary in practice from the conditions specified above. Parameters for special conditions of use can be obtained from NOXMAT GmbH on request.

# TYPICAL PERFORMANCE CHARACTERISTICS

## HGBE 25



The above illustrations are valid for:

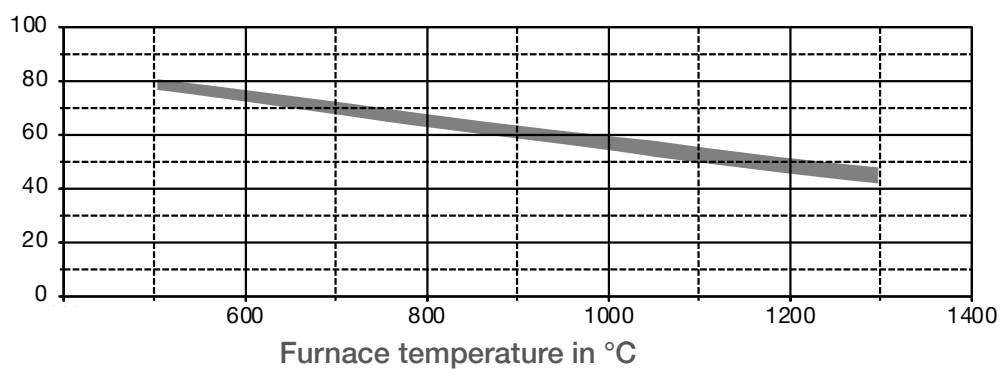
- direct heating
- continuous operation at nominal burner capacity
- natural gas
- $\lambda = 1,10 \dots 1,20$

The parameters specified shall be regarded as recommended ones. They are dependent on various factors that may vary in practice from the conditions specified above. Parameters for special conditions of use can be obtained from NOXMAT GmbH on request.

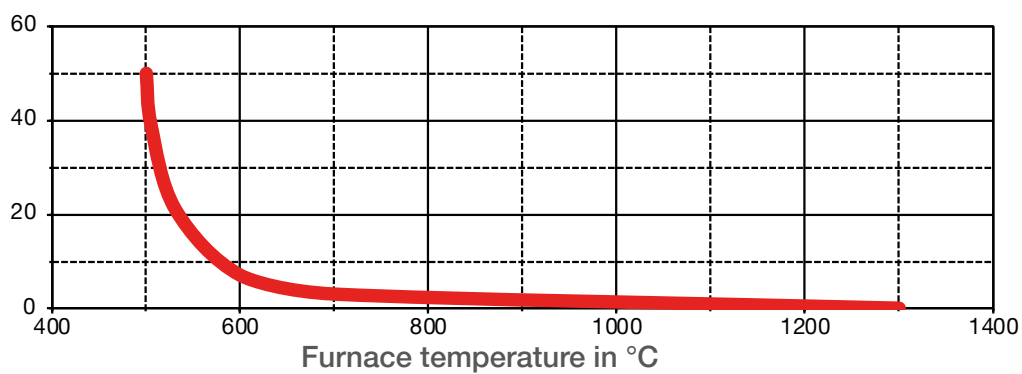


## HGBE 50

Firing efficiency  
rate in %



CO - emission  
in mg / kWh



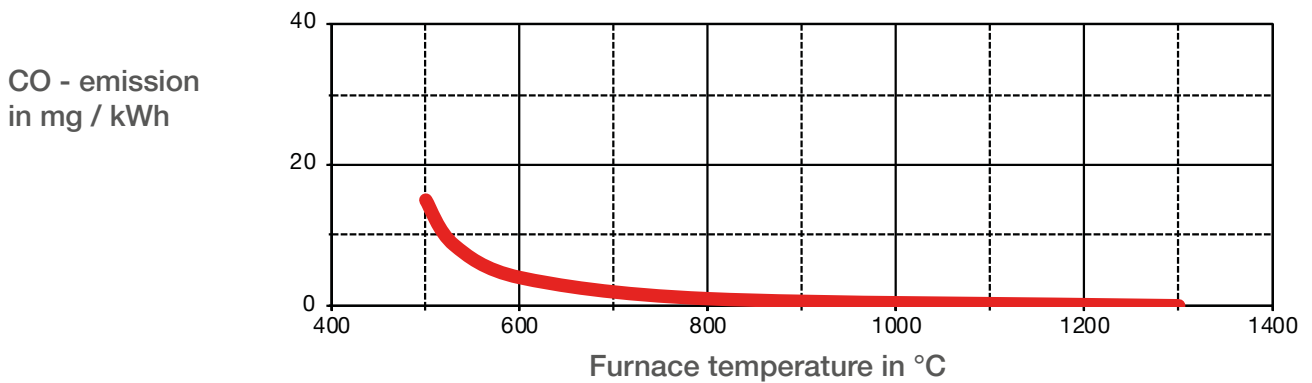
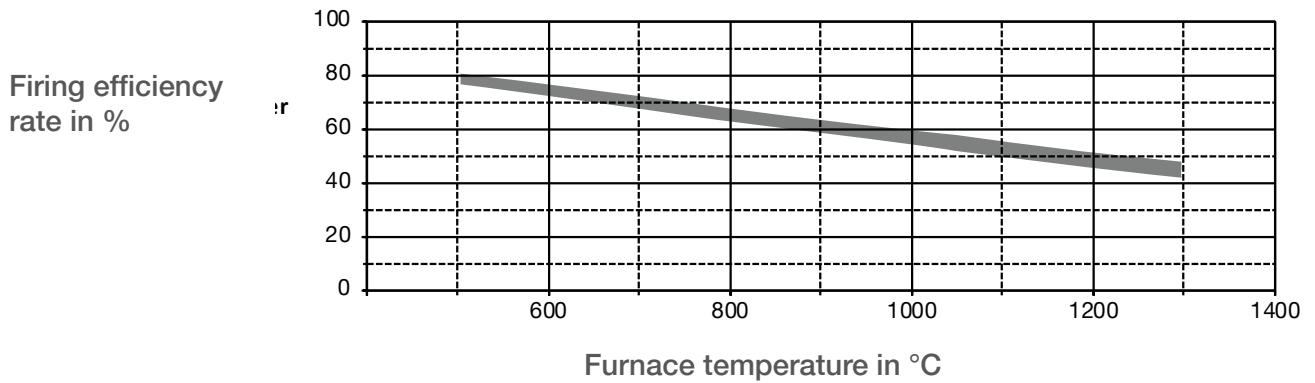
The above illustrations are valid for:

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- natural gas
- $\lambda = 1,10 \dots 1,20$

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# TYPICAL PERFORMANCE CHARACTERISTICS

## HGBE 100



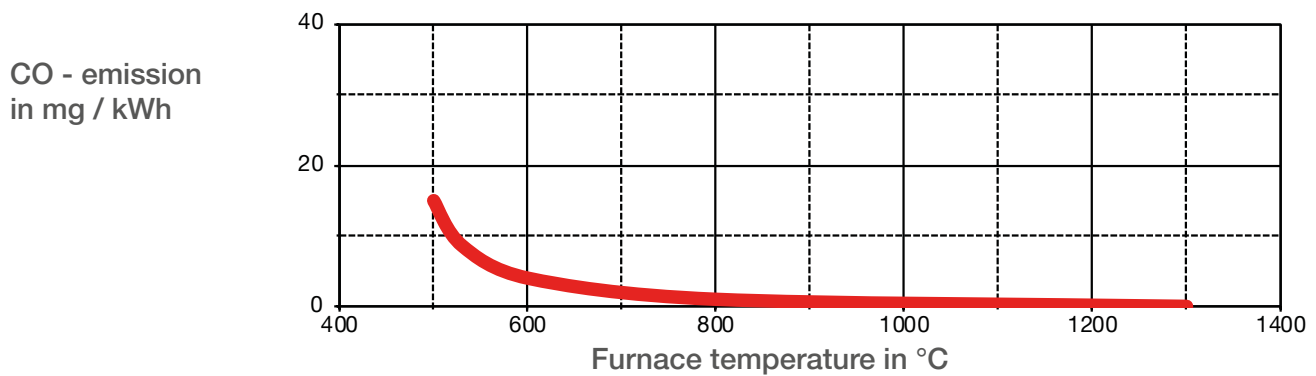
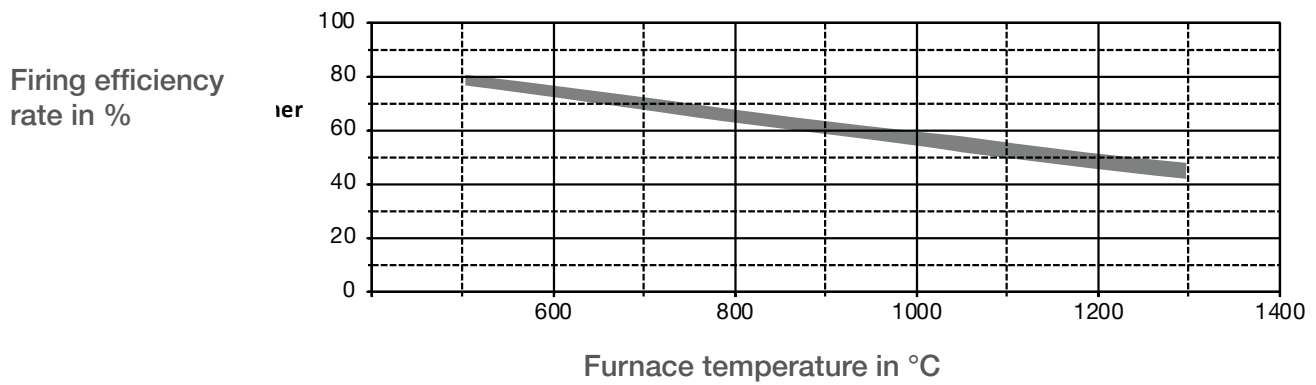
The above illustrations are valid for:

- direct heating
- continuous operation at nominal burner capacity
- natural gas
- $\lambda = 1,10 \dots 1,20$

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## HGBE 200



The above illustrations are valid for:

- direct heating
- continuous operation at nominal burner capacity
- natural gas
- $\lambda = 1,10 \dots 1,20$

The parameters specified shall be regarded as recommended ones. They are dependent on various factors that may vary in practice from the conditions specified above. Parameters for special conditions of use can be obtained from NOXMAT GmbH on request.

# NOXMAT

combustion technology

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