

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 under full load thanks to a reliable 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

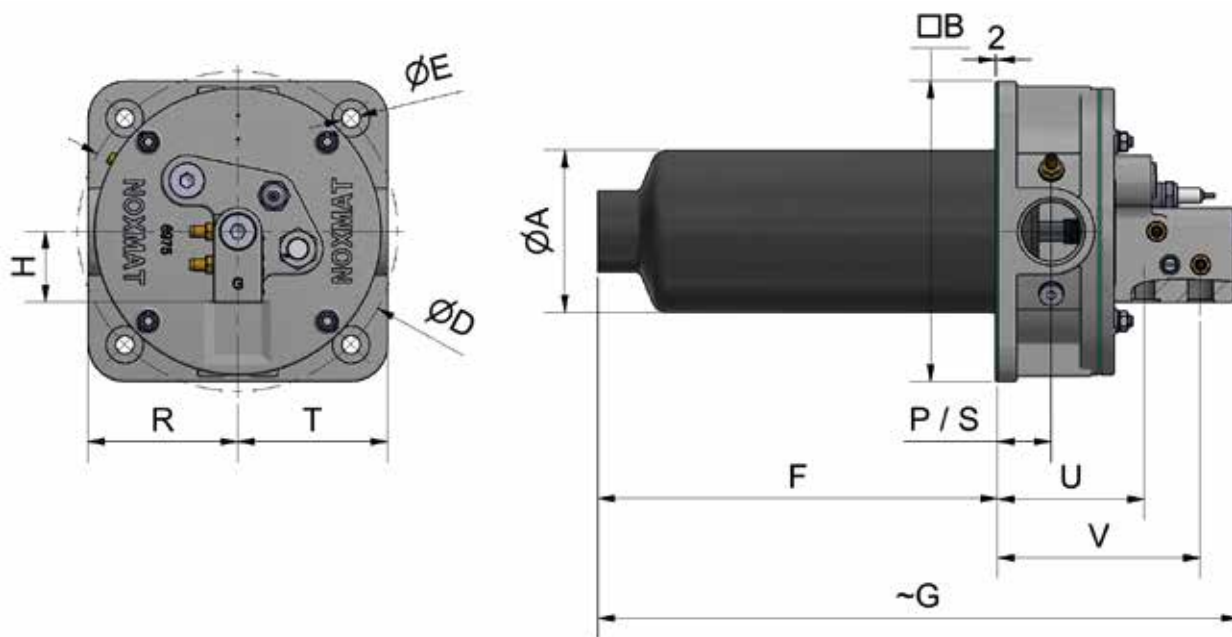
| Burner type HGBE | | 15 | 25 | 50 | 100 | 200 |
|--|-------|--------------|--------|---------|---------|---------|
| Nominal thermal capacity [1] | kW | 15 | 25 | 50 | 100 | 160 |
| Nominal thermal capacity [1] | BTU/h | ~51000 | ~85000 | ~171000 | ~341000 | ~546000 |
| Minimum thermal capacity [1] | 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



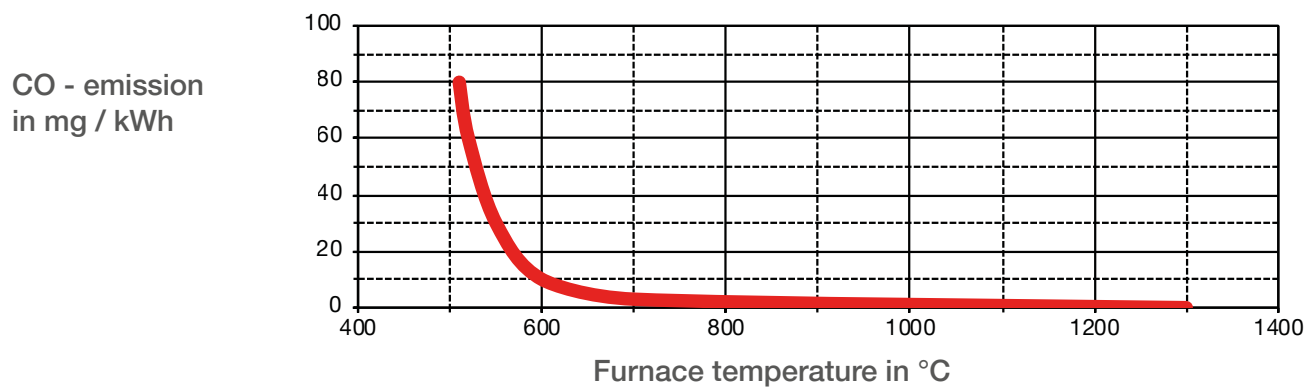
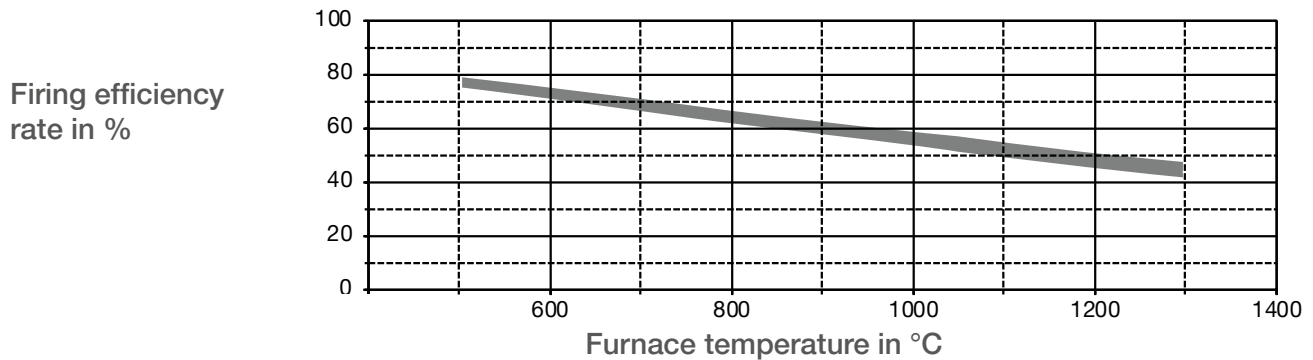
| Burner size | Principal dimensions | | | | | | |
|-------------|----------------------|-----|-----|----|-------------------------|-------|------|
| | A | B | D | E | F (1) | G (3) | H |
| | mm | | | | | | |
| HGBE 15 | 59 | 160 | 170 | 14 | 200/250/300/400 | 600 | 72.5 |
| HGBE 25 | 71 | 175 | 190 | 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:

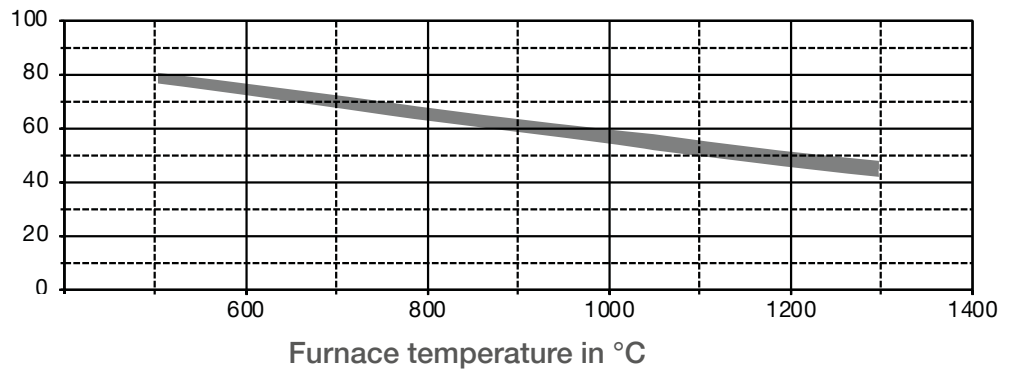
- direct heating
- continuous operation at nominal burner capacity
- natural gas
- $\lambda = 1,10 \dots 1,20$

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.

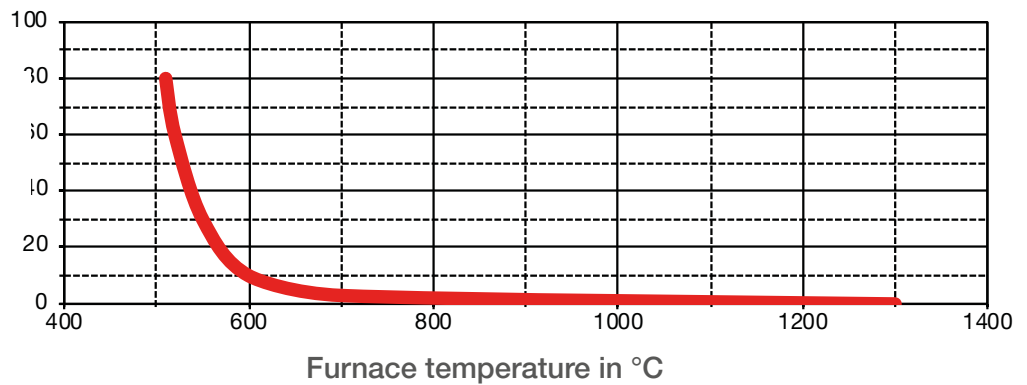
TYPICAL PERFORMANCE CHARACTERISTICS

HGBE 25

Firing efficiency
rate in %



CO - emission
in mg / kWh

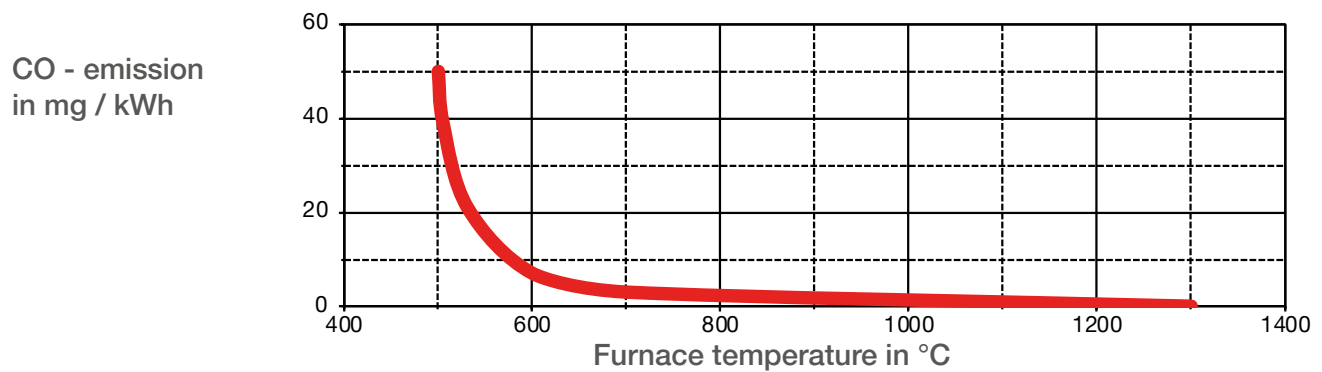
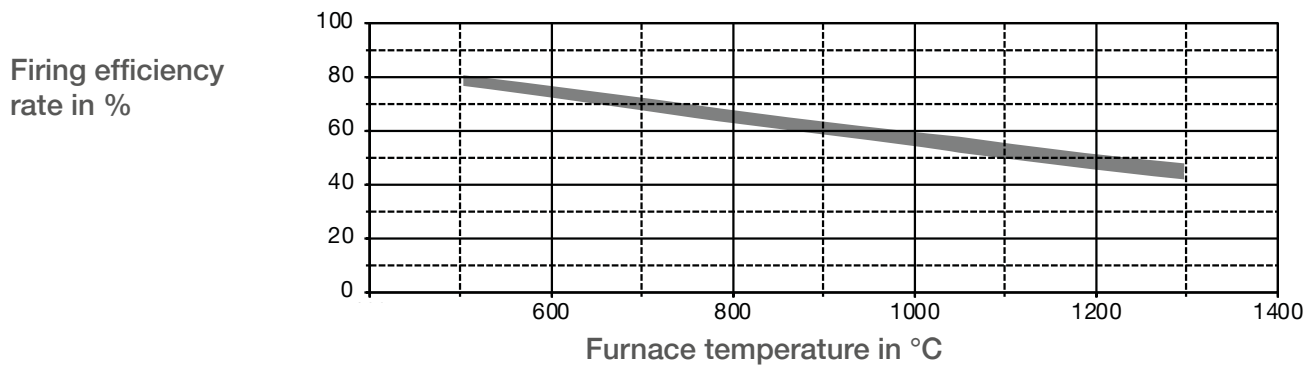


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HGBE 50



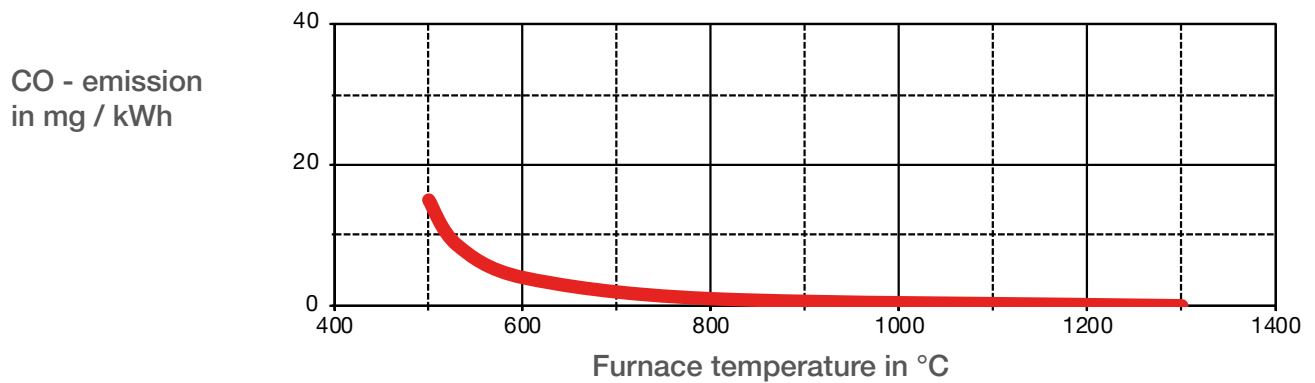
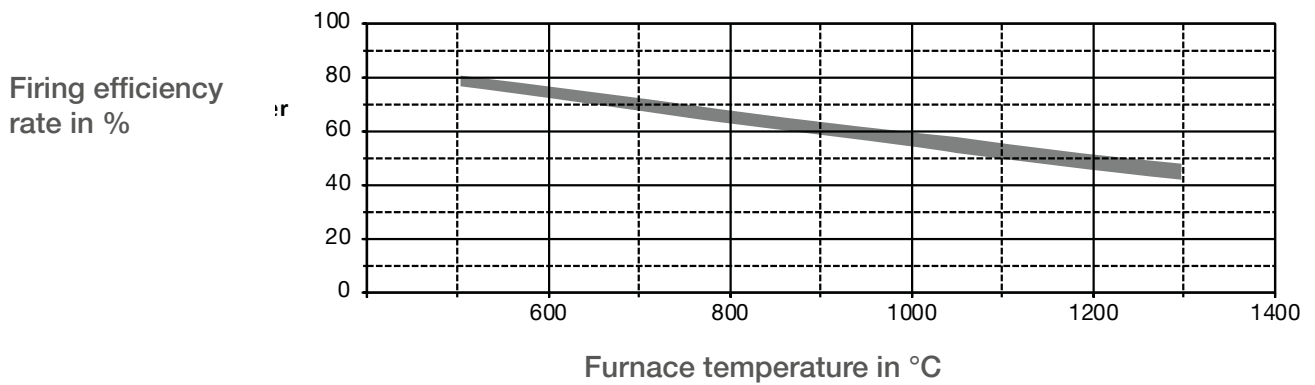
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- continuous operation at nominal burner capacity
- natural gas
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TYPICAL PERFORMANCE CHARACTERISTICS

HGBE 100

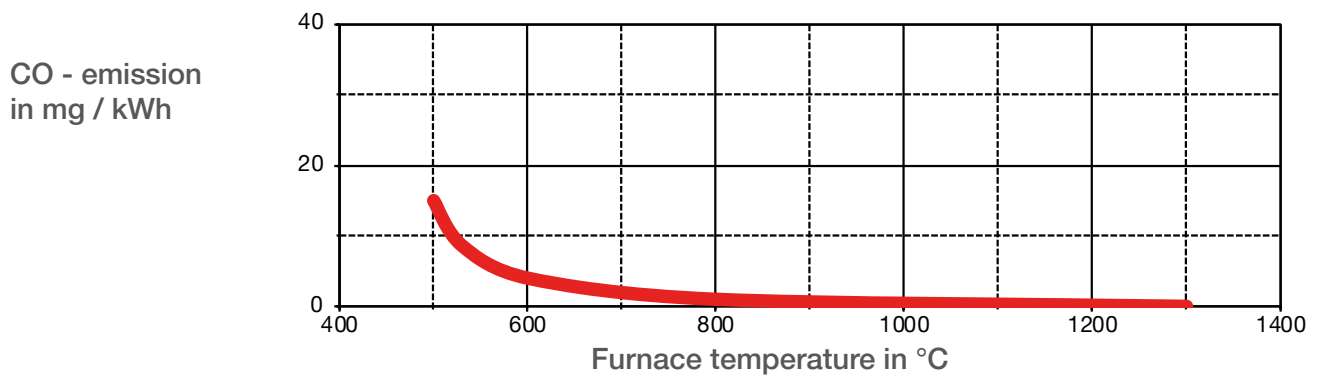
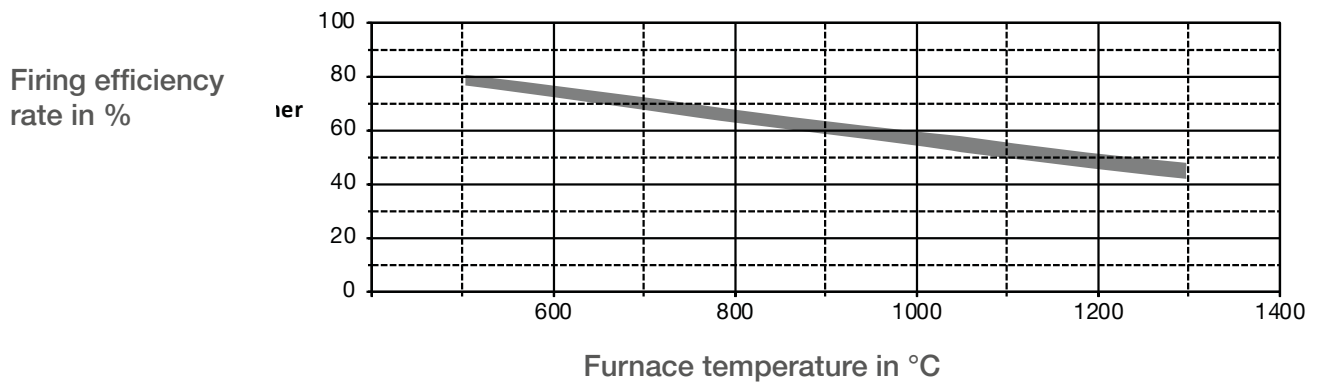


The above illustrations are valid for:

- 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:

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- continuous operation at nominal burner capacity
- natural gas
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