

# Data sheet

RHGBS *ETAMAT*



## SERIES RHGBS *ETAMAT*

Recuperative high-velocity burner with metal foam recuperator for the indirect heating of industrial furnaces 15-35 kW



### Specifications & Advantages

- High-velocity burner with integrated metal foam recuperator for the highest possible heat recovery, for indirect heating
- Power scope from 15 to 35 kW
- Burner efficiency up to 90%
- Low-emission multi-stage combustion
- Excellent temperature distribution due to high burner velocity
- Very low sound pressure level: up to below 50 dB(A)
- 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
- Available with basic or complete configuration

## Technical specifications



Burner type RHGBS		25
Nominal thermal capacity [1]	kW	35
Nominal thermal capacity [1]	BTU/h	~120000
Minimum thermal capacity [1]	kW	15
Minimum thermal capacity [1]	BTU/h	~51000
Nominal gas connection pressure [2]	mbar	115
Nominal air connection pressure, indirect heating [2]	mbar	100
Maximum recuperator temperature	°C	1050
Nominal diameter of recuperator with waste gas guiding tube	mm	160
Nominal diameter gas connection	DN	15
Nominal diameter combustion air connection	DN	25
Nominal diameter cooling air connection	DN	40
Fuel gas		NG

Subject to technical changes without prior notice.

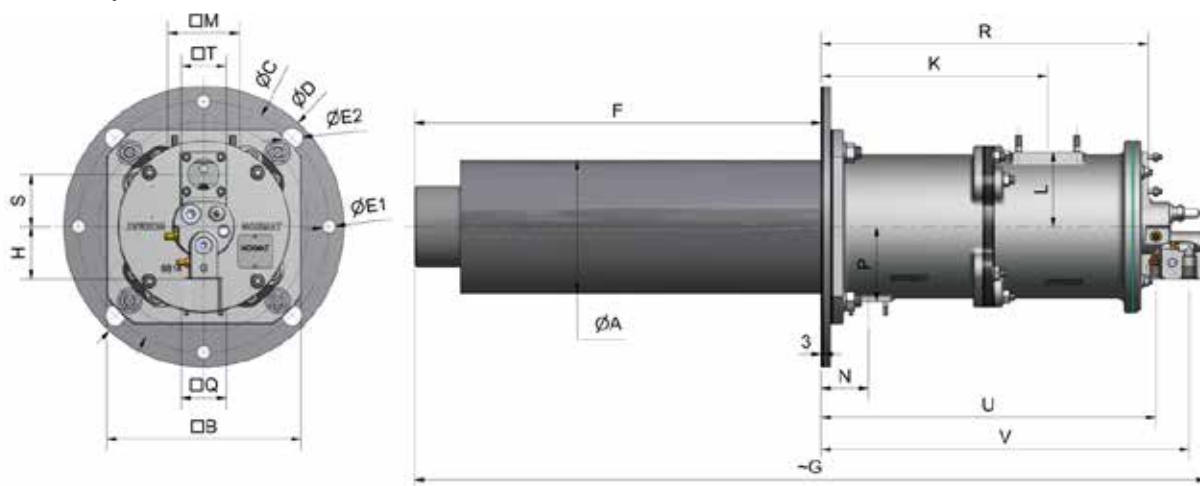
[1] Other thermal capacities available upon request.

[2] Pressure variations should not exceed +/- 5%, this applies also to burners in grouped operation.



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## Principal dimensions / Basic burner



Burner size	Principal dimensions							
	A	B	C	D	E1/E2	F	G	H
	mm							
RHGBS 25	160	252	335	375	18/28	545	1060	70

Burner size	Connection dimensions															
	Waste gas			Combustion air				Cooling air			Purge air		Combustion gas			
	K	L	M	N	P	Q	R	S	T	U	V					
	mm			mm				mm			mm	inch	mm	inch		
RHGBS 25	303	100	96	Ø 75	63	100	60	Ø 50	438	70	60	Ø 42	448	G3/8	493	Rp1/2

## Application

- Use in new plants or as a replacement for existing burners with ribbed-tube recuperators to increase efficiency
- Burner operation modes ON/OFF, HIGH/LOW, and CONTINUOUS
- Replacement of the RHGB 40 with the RHGBS 25

## Comparison with standard Burner RHGB 40

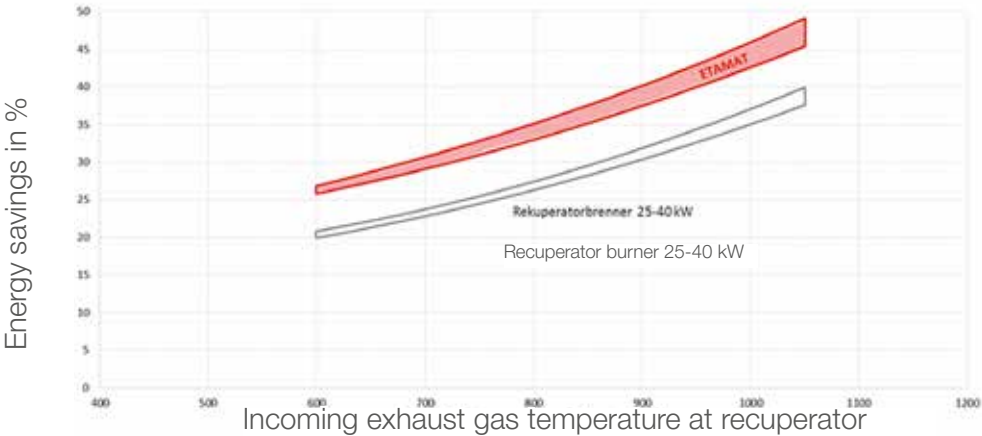
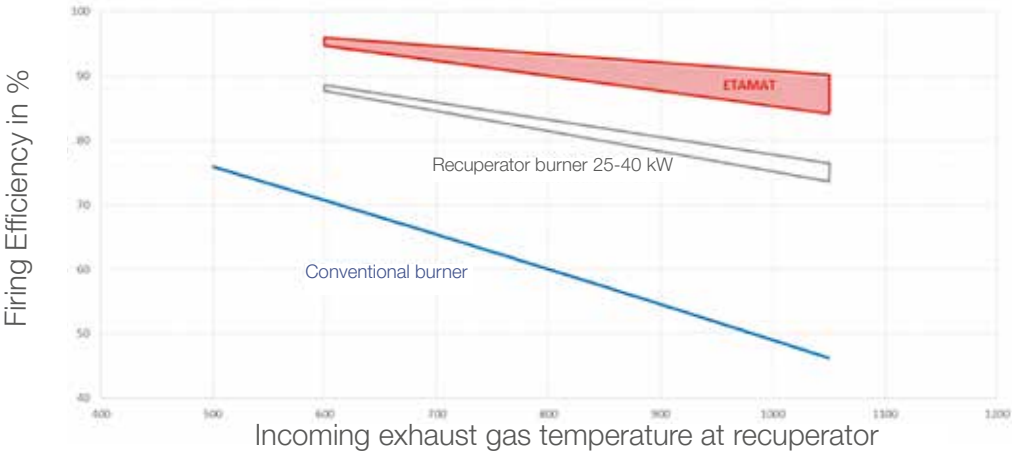
RHGBS 25		RHGB 40
with		with
35 kW		39,5 kW
30 kW		34 kW
25 kW		28,5 kW



**Energy Savings**

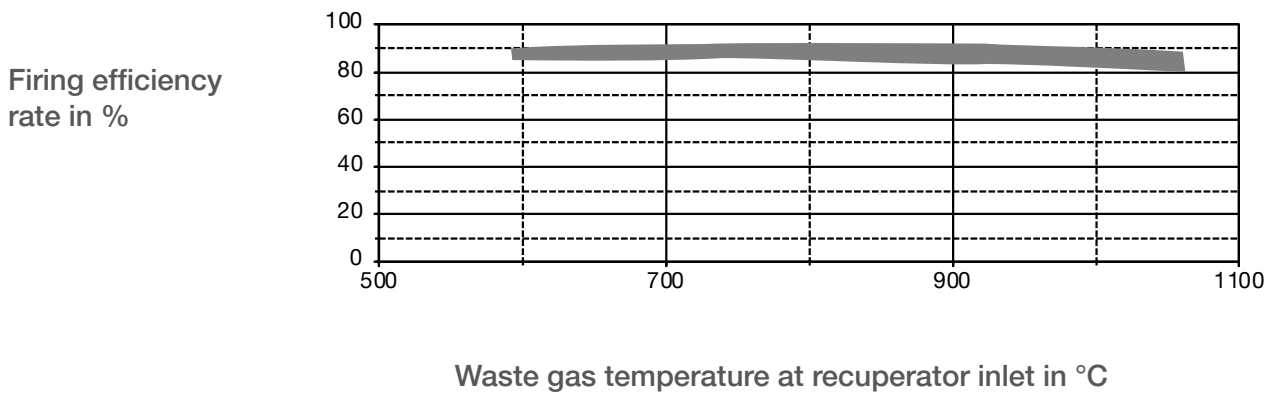
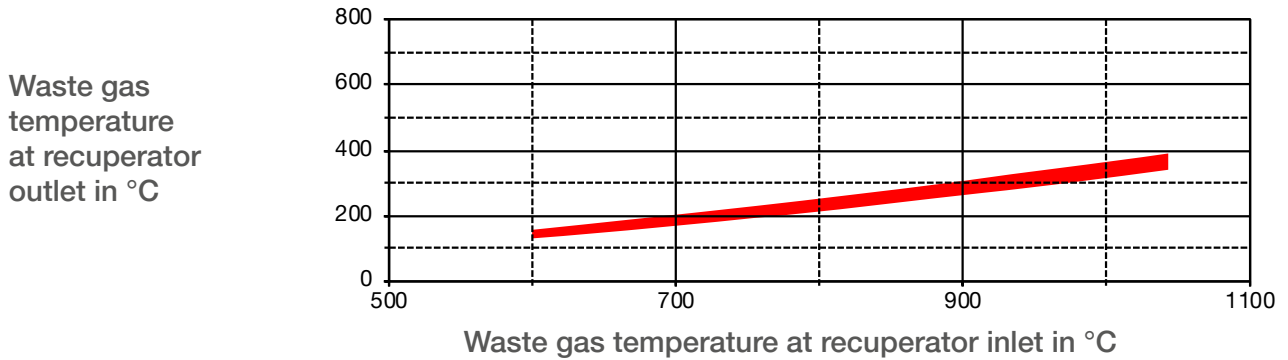
The firing efficiency is up to 90% with regard to a flue gas inlet temperature of 1050°C. Depending on the state of operation, this leads to energy savings of another 5 to 10% compared to previous recuperator burners

**Efficiency**



# TYPICAL PERFORMANCE CHARACTERISTICS

## RHBGS *ETAMAT*



"The above illustrations are valid for:

- indirect heating (with radiant tubes)
- 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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