

# TBG 140 LX PN

Available with "V" inverter execution



## From 200 to 1450 kW

Conform to:  
Gas Directive 90/396/CEE  
E.M.C. Directive 89/336/CEE  
L.V. Directive 73/23/CEE  
Reference standard: EN676

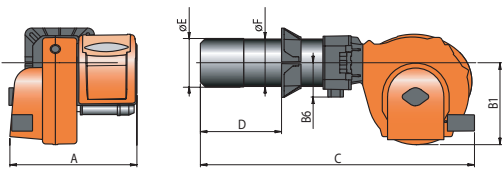
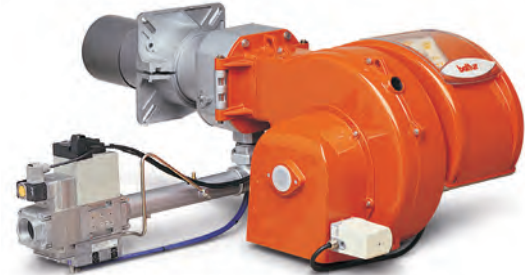
### TECHNICAL AND FUNCTIONAL CHARACTERISTICS

- Low NOx and CO emissions gas burner compliant with European standard EN676 "Classe III".
- Two-stage progressive/modulating operation.
- Ability to operate with output modulation by means of automatic RWF40 regulator mounted on the control panel (to be ordered separately with the modulation kit).
- Gas adjustment by pneumatic air/gas ratio operation valve.
- Partial combustion gas recirculation blast-pipe with low NOx emissions (class III).
- High ventilation efficiency, low electrical input, low noise.
- Hinge opening on both sides for easy access to the combustion head when burner is installed.
- Air capacity adjustment with linear opening controlled by electric servo motor.
- Air damper closing when burner does not work.
- Fan speed adjustment in relation to changes in burner demand provided by means of inverter, to obtain a significant reduction in noise levels and electricity consumption (version V only).
- Electrical panel that connects by 4 and 7 pole plugs/sockets (standard accessories).
- Electrical panel with protection rating of IP 55.
- Sliding boiler coupling flange to adapt to head protrusion of the various types of boilers.
- Gas train inlet can be mounted either upward or downward.

### CONSTRUCTION CHARACTERISTICS

The burner consists of:

- "V" execution: the fan electrical motor is controlled electronically by the motor speed controller.
- Combustion air input with sound insulation and designed for optimal air damper opening linearity.
- Light die-cast aluminium alloy electrical panel.
- Printed circuit electrical connections.
- Control panel with display diagram for working mode with indication lights, start/stop switch, automatic/manual mode selector, minimum/maximum selector and burner unblocking button; possibility to install RWF 40 electronic modulator.
- Electronic control box compliant with standard EN298, with running faults detection.
- Ionizer electrode flame detection.
- Gas train with safety valve and pneumatic air/gas ratio valve, minimum pressure switch, pressure regulator and gas filter.
- Intelligent connectors for burner/train (error proof).



Model	A mm	B 1 mm	B 6 mm	C mm	D mm	E mm	F mm
TBG 140 LX PN	645	380	160	1280	200 ÷ 450	240	219
TBG 140 LX PN V	645	380	160	1280	200 ÷ 450	240	219

Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Size of packaging L x P x H mm	Weight kg	Notes
<b>Frequency 50 Hz</b>							
200 ÷ 1450	TBG 140 LX PN	17660010	3N AC 50Hz 400V	2,2	1080 x 770 x 700	91	4)
200 ÷ 1450	TBG 140 LX PN V	17660015	3N AC 50Hz 400V	2,2	1080 x 770 x 700	94	4)
<b>Frequency 60 Hz</b>							
200 ÷ 1450	TBG 140 LX PN	17665410	3N AC 60Hz 400V	2,2	1080 x 770 x 700	91	4)
200 ÷ 1450	TBG 140 LX PN V	17665415	3N AC 60Hz 400V	2,2	1080 x 770 x 700	94	4)

The working field of the burner, as expressed in the "Thermal output kW" column, depends on the characteristics of the gas train it works with (see burner/train match diagram).

### Modulating mode

#### Part.no

98000053 Kit RWF 40 - Modulation kit (see page 230).

### Accessories available on request

#### Part no.

97980053 Soundproof burner cover (see page 247)

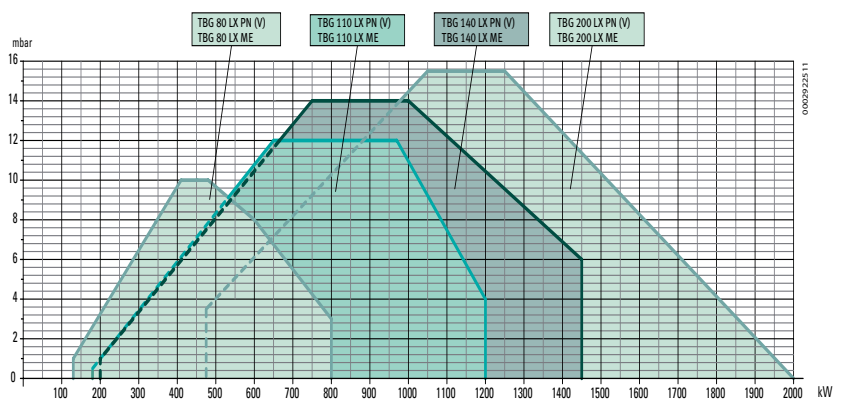
### Gas burner accessories

Boiler coupling kit – 4 and 7 pin plug

### Notes

- 4) Equipped with air closure device.  
11) The train must be always completed with the VPS kit to comply with the EN676 regulations.  
\*\*) Maximum gas inlet pressure at pressure regulator in CE version, at gas train for EXP version.

Net calorific value of natural gas:  $H_i = 35,80 \text{ MJ/m}^3 = 8550 \text{ kcal/m}^3$ , at reference conditions of 0°C, 1013 mbar.



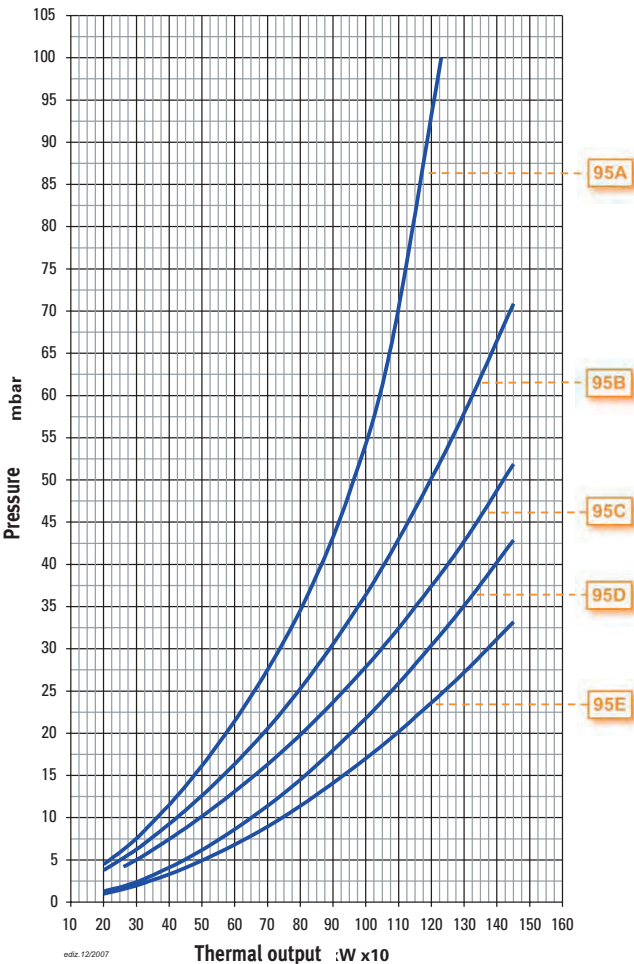
# Burner/gas train match

CE gas train version complies with EN676, EXP gas train version is for extra-European markets

Burner model	Gas type	Version	Curve on graph	Execution	P.Max** mbar	Gas train Part no.	Regulator with incorporated filter Part no.	Burner/gas train adapter Part no.	Valve tightness control kit Part no.	Pic.	Notes
TBG 140 LX PN TBG 140 LX PN V	NATURAL GAS	CE	95A	CTV	100	19990441	Included	96000032	98000101	D3	11)
				CTV	360	19990448	Included	96000032	98000101	D3	11)
			95B	CTV	100	19990442	Included	96000007	98000101	D3	11)
		CTV		360	19990449	Included	96000007	98000101	D3	11)	
		95C	CTV	100	19990443	Included	-	98000101	D3	11)	
		95D	CTV	500	19990530	Included	-	98000102	D3	11)	
	95E	CTV	500	19990531	Included	-	98000101	D3	11)		
	GAS	EXP	95J	CTV	100	19990441	Included	96000032	-	DE3	
				CTV	360	19990448	Included	96000032	-	DE3	
			95K	CTV	360	19990448	Included	96000032	98000101	DE3	
		CTV		100	19990442	Included	96000007	-	DE3		
		95L	CTV	100	19990442	Included	96000007	98000101	DE3		
CTV			360	19990449	Included	96000007	-	DE3			
95M	CTV	360	19990449	Included	96000007	98000101	DE3				
95N	CTV	100	19990443	Included	-	-	DE3				
95L	CTV	100	19990443	Included	-	98000101	DE3				
95M	CTV	500	19990530	Included	-	-	DE3				
95M	CTV	500	19990530	Included	-	98000102	DE3				
95N	CTV	500	19990531	Included	-	-	DE3				
95N	CTV	500	19990531	Included	-	98000101	DE3				

To choose the correct gas train please refer to the information on page 10.  
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 234.

Pressure drop (combustion head + gas train + pressure regulator) TBG 140 LX PN NATURAL GAS CE



Pressure drop (combustion head + gas train + pressure regulator) TBG 140 LX PN NATURAL GAS EXP

