

One Stage Gas Burners

RDBS SERIES

The Riello RDBS is a new series of one stage gas burners with integrated gas train, characterised by its small dimensions in spite of its high combustion performance. It is available in conventional flue and balanced flue versions. It has been developed to respond to any request for home heating, conforming to current regulations in force.

The RDBS series is available in two models with an output range from 16 to 48 kW; the difference between the two models are the gas train and the combustion head.

The RDBS1 model is made up of a class A gas train and a standard flame combustion head, the RDBS0.1 model is made up of a class B gas train and a short flame combustion head.

The RDBS burners are fitted with a microprocessor based control box with diagnostic functions.

These models use the same components designed by Riello for RDB series. The high quality level guarantees safe working.

In developing these burners, special attention was paid to reducing noise, the ease of installation and adjustment, to obtaining the smallest size possible to fit into any sort of boiler available on the market.

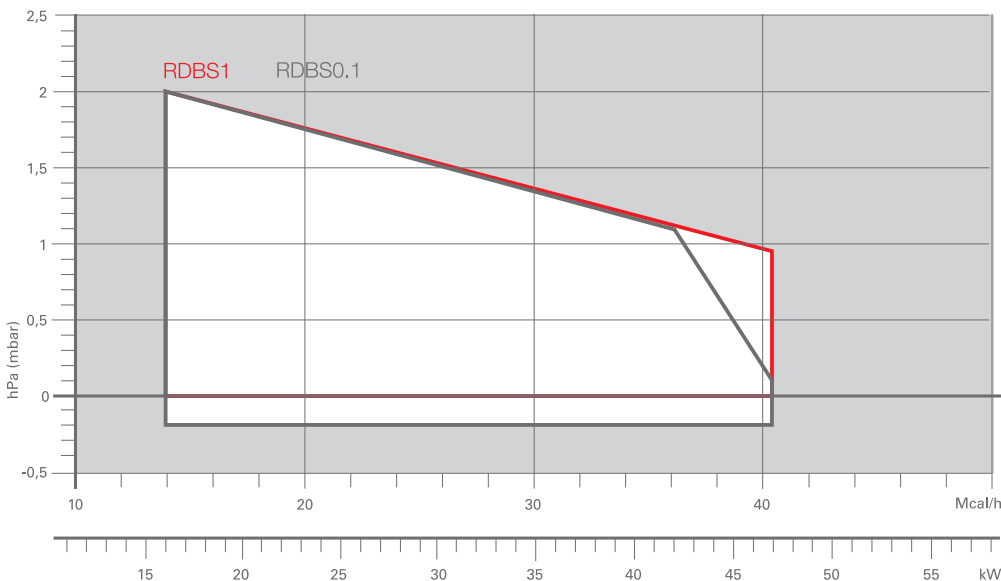
These models are approved by the EN 676 European Standard and European Directives, Gas Appliance, EMC, Low Voltage, Boiler Efficiency.

The RDBS burners are tested before leaving the factory.



RDBS1	16 ÷ 47 kW
RDBS0.1	16 ÷ 48 kW

FIRING RATES



Useful working field for choosing the burner

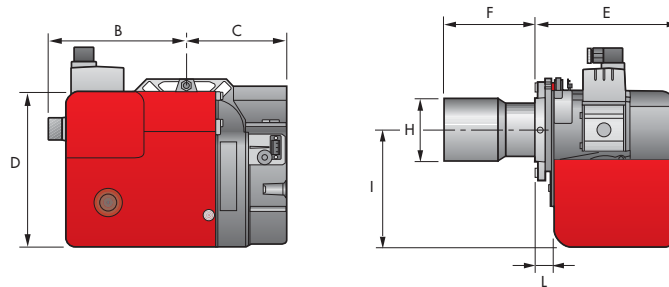
Test conditions conforming to EN676
 Temperature: 20°C
 Pressure: 1013,5 mbar
 Altitude: 0 m a.s.l.

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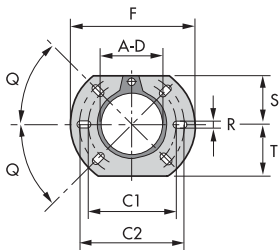
Overall dimensions (mm)

BURNER



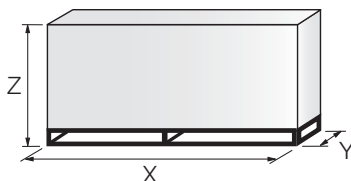
MODEL	B	C	D	E	F	H	I	L
▶ RDBS1	195	141	222	207	115	89	168	20
▶ RDBS0.1	195	141	222	207	94	89	168	20

BURNER - BOILER MOUNTING FLANGE



MODEL	A	C1	C2	D	F	Q	R	S	T
▶ RDBS1	91	130	150	91	180	45°	11	72	72
▶ RDBS0.1	91	130	150	91	180	45°	11	72	72

PACKAGING



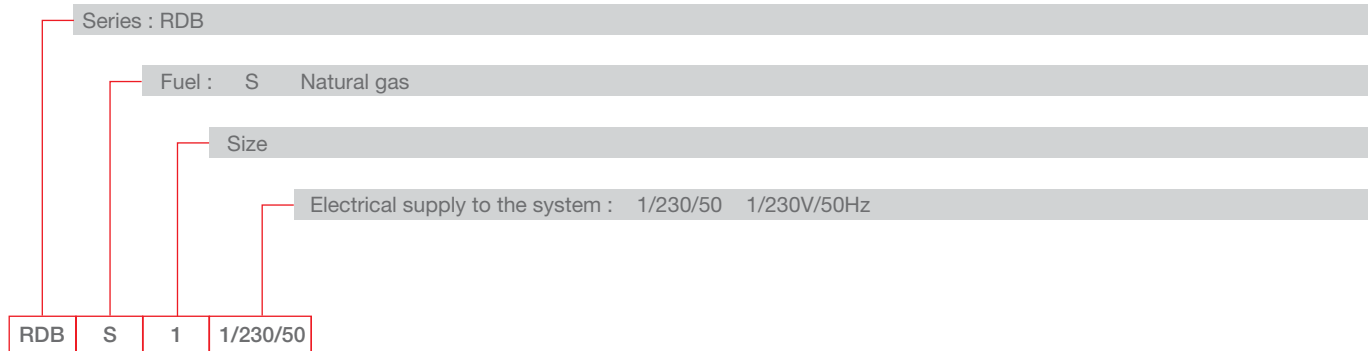
MODEL	X	Y	Z	kg
▶ RDBS1	405	360	350	12
▶ RDBS0.1	405	360	350	12

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Specification

DESIGNATION OF SERIES



STATE OF SUPPLY

Monoblock, gas burner, completely automatic, with one stage operation made up of:

- Fan with forward curve blades
- Cover lined
- Air damper with external adjustment, with no need to remove the cover
- Single phase electric motor 230 V, 50 Hz
- Combustion head fitted with:
 - stainless steel head cone, resistant to high temperatures
 - ignition electrodes
 - ionisation probe
 - gas distributor
 - flame stability disk
- Incorporated gas train
- Adjustable air pressure switch, with graduated selector, to guarantee burner lock out in the case of insufficient combustible air
- Microprocessor-based flame control box, with diagnostic functions
- Protection filter against radio interference
- IP X0D (IP 40) electric protection level.

Standard equipment:

RDBS1

- Flange with insulating gasket
- 4-pin plug
- Screws and nuts for flange to be fixed to boiler
- Protection grill for CF application
- 90° manual gate valve
- Tube 1/2"
- Flange 90°
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

RDBS0.1

- Flange with insulating gasket
- Screws and nuts for flange to be fixed to boiler
- Flange 90°
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

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RDBS SERIES

Available models

Burners

CODE	MODEL	HEAT OUTPUT		TOTAL ELECTRICAL POWER (kW)	CERTIFICATION	NOTE
		(kW)	NATURAL GAS (Nm ³ /h)			
3768000	RDBS1	1/230/50	16 - 47	1,6 - 4,7	0,090	CE - 0085 BM0490 (1)(2)(5)
3769000	RDBS0.1	1/230/50	16 - 48	1,6 - 4,8	0,090	CE - 0085 BM0490 (1)(3)(4)

The burners of RDBS series are in according to EN 676.

(1) With plug and socket.

(2) Incorporated class A gas train (max. operating pressure 65 mbar).

(3) Incorporated class B gas train (max. operating pressure 65 mbar).

(4) Short flame combustion head.

(5) Standard flame combustion head.

Burner accessories

Balanced-conventional flue conversion kit



All the RDBS series models are easily converted from conventional flue to balanced flue, by replacing the plastic screen on the air intake with the connector for the air supply pipe.

BURNER	BALANCED FLUE KIT CODE	CONVENTIONAL FLUE KIT CODE
► RDBS1 - RDBS0.1	3062774	3062775

LPG kit



For burning LPG gas, a special kit is available to be fitted to the combustion head on the burner as shown in the following table.

BURNER	KIT CODE FOR STANDARD HEAD	KIT CODE FOR EXTENDED HEAD
► RDBS1 - RDBS0.1	3001076	-

PC interface kit



To connect the control box to a personal computer for the transmission of operation, fault signals and detailed service information, an interface adapter with PC software are available.

BURNER	KIT CODE
► RDBS1 - RDBS0.1	3002719