

RDB SERIES

The Riello RDB series of one stage light oil and kerosene burners is available in eleven basic models, with an output ranging from 16,8 to 120 kW, in three different structures. The models are available in light oil and kerosene versions, conventional flue and balanced flue, with or without the fuel pre-heater fitted.

A new model has been specifically designed to meet the increasing trends towards high pressure working field demand. These models are distinguished by their compact size. All the models use the same components designed by Riello for the RDB series. The high quality level guarantees safe working. The RDB burners are equipped with a geared pump suitable for Kerosene, Low Sulphur Kerosene and ultra low sulphur diesel oil (ULSD).

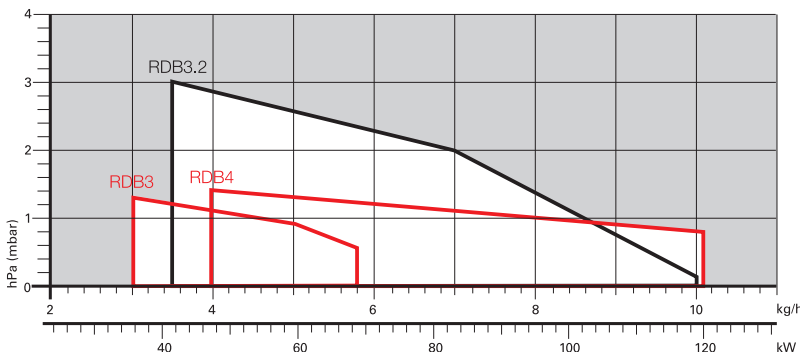
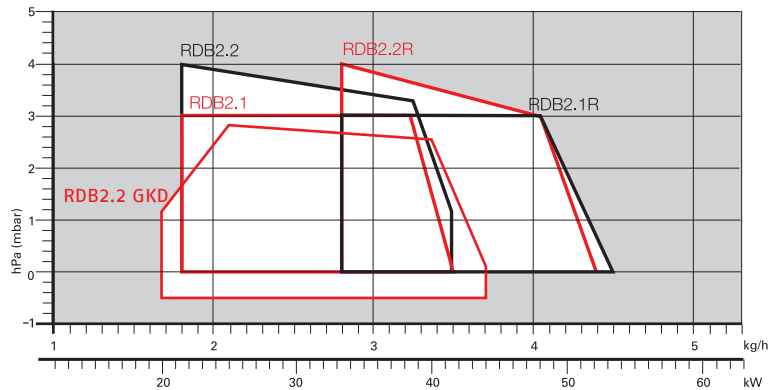
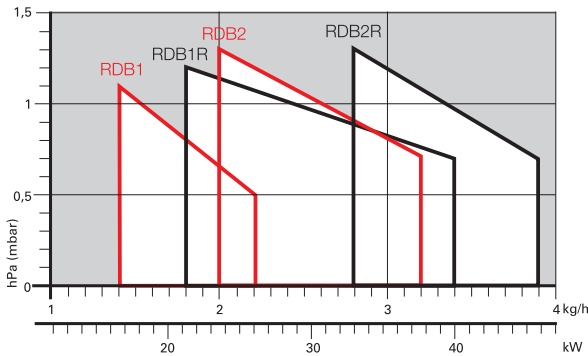
In developing these burners, special attention was paid to reducing noise, to the ease of installation and adjustment, to obtaining the smallest size possible to fit into any sort of boiler available on the market. All the models are approved by the EN 267 European Standard and conform to European Directives for EMC, Low Voltage, Machinery and Boiler Efficiency. All the RDB burners are fired before leaving the factory.



LIGHT OIL

RDB1-1R	16,8 ÷ 40,6 kW
RDB2-2R	24 ÷ 46,2 kW
RDB2.2 GKD	20 ÷ 43,5 kW
RDB2.1-2.1R	21 ÷ 54 kW
RDB2.2-2.2R	21 ÷ 54 kW
RDB3	35,6 ÷ 69 kW
RDB3.2	41,5 ÷ 119 kW
RDB4	47,45 ÷ 120 kW

FIRING RATES



Useful working field for choosing the burner

Test conditions conforming to EN267
 Temperature: 20°C
 Pressure: 1013,5 mbar
 Altitude: 0 m a.s.l.

One Stage Light Oil and Kerosene Burners

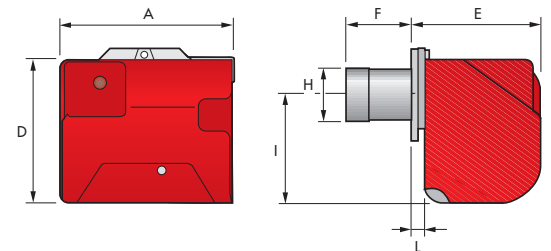
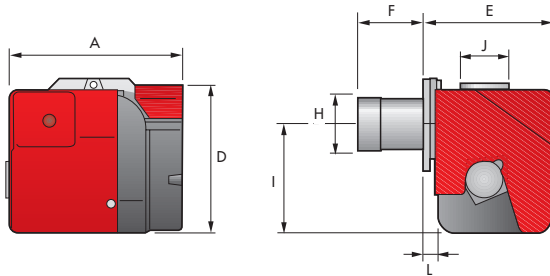
RDB SERIES

Overall dimensions (mm)

BURNER

RDB1-1R - RDB2-2R - RDB2.1-2.1R - RDB2.2-2.2R - RDB2.2 GKD

RDB3 - RDB3.2 - RDB4

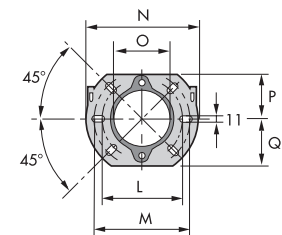
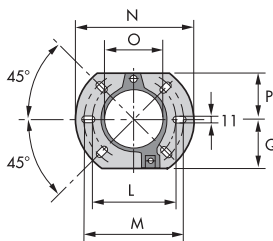


MODEL	A	D	H	F	E	L	I	J
RDB1-1R	276	230	89-90	76-86	202	20	168	75
RDB2-2R	276	230	89-90	76-86	202	20	168	75
RDB2.1-2.1R	286	230	85	77	202	20	168	75
RDB2.2-2.2R	286	230	85	77	202	20	168	75
RDB2.2 GKD	286	232	103	203	200	18	171	75
RDB3	325	268	88	78	253	30	204	75
RDB3.2	325	268	95	69,5	253	30	204	75
RDB4	325	268	105	111	253	30	204	75

BURNER - BOILER MOUNTING FLANGE

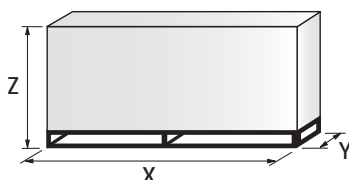
RDB1-1R - RDB2-2R - RDB2.1-2.1R - RDB2.2-2.2R - RDB2.2 GKD

RDB3 - RDB3.2 - RDB4



MODEL	L	M	N	O	P	Q
RDB1-1R	130	150	180	91	72	72
RDB2-2R	130	150	180	91	72	72
RDB2.1-2.1R	130	150	180	91	72	72
RDB2.2-2.2R-2.2 GKD	130	150	180	91	72	72
RDB3	140	168	189	106	83	83
RDB3.2	140	168	189	106	83	83
RDB4	140	168	189	106	83	83

PACKAGING

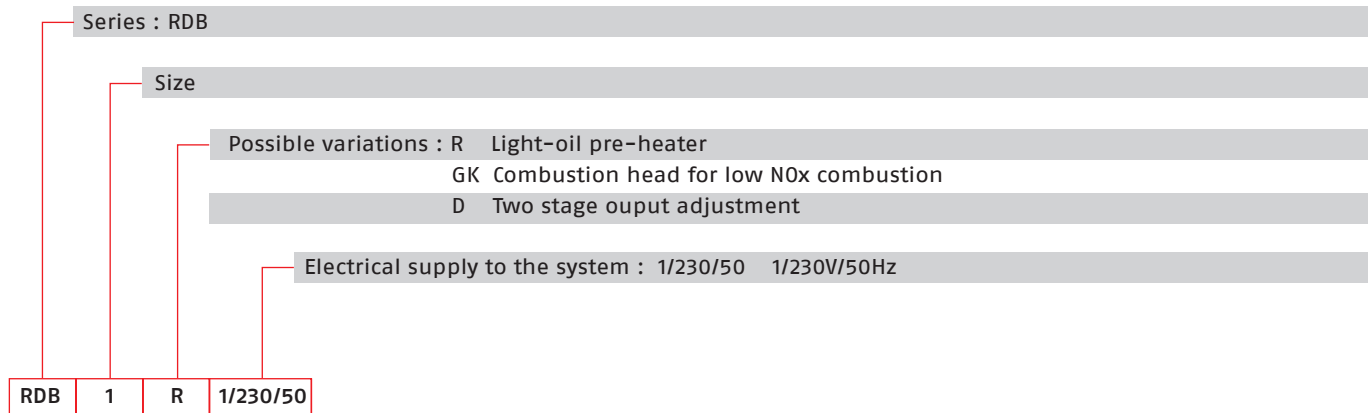


MODEL	X	Y	Z	kg
▶ RDB1-1R	395	305	295	11
▶ RDB2-2R	395	305	295	11
▶ RDB2.1-2.1R	395	305	295	11
▶ RDB2.2-2.2R-2.2 GKD	395	305	295	11
▶ RDB3	435	360	355	15
▶ RDB3.2	435	360	355	15
▶ RDB4	435	360	355	15

RDB SERIES

Specification

DESIGNATION OF SERIES



STATE OF SUPPLY

Completely automatic monobloc light oil and kerosene burners, one stage operation, made up of:

- Fan with forward inclined blades
- Air damper with external adjustment, with no need to remove the cover
- Air-tight air circuit, also available in the balanced flue version
- Single phase electric motor 230 V, 50 Hz
- Combustion head fitted with:
 - stainless steel head cone, resistant to high temperatures
 - ignition electrodes
 - flame stability disk
- Geared pump (specific version for kerosene) for fuel supply, fitted with filter
 - pressure regulator
 - attachments for fitting a pressure gauge and vacuum meter
 - internal by-pass for preparing for single-pipe installations
- Fuel feed solenoid valve incorporated in the pump
- Photocell for flame detection
- Electronic flame control equipment available with MO 535 (on demand)
- Light oil nozzle
- IP X0D (IP 40) protection level
- Fuel pre-heater (optional).

Standard equipment:

- Two flexible pipes for connection to the light oil supply line
- Two nipples for connection to the pump
- Flange, screws and nuts for fixing
- Thermal screen
- Air intake protection grill exagonal key
- Instruction handbook for installation, use and maintenance
- Spare parts list.

One Stage Light Oil and Kerosene Burners

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Available models

CODE	MODEL		HEAT OUTPUT		TOTAL ELECTRICAL POWER (kW)	CERTIFICATION	NOTE
			(kW)	(kg/h)			
on demand	RDB1	1/230/50	16,8 - 26,3	1,4 - 2,2	0,115	CE - 0036 0316/01	(1) (2)
on demand	RDB1R	1/230/50	21,6 - 40,6	1,8 - 3,4	0,170	CE - 0036 0326/01	(1)
on demand	RDB2	1/230/50	24 - 38,3	2 - 3,2	0,125	CE - 0036 0316/01	(1)
on demand	RDB2	1/230/50	29,6 - 59,3	2,5 - 5	0,125	CE - 0036 0316/01	(1)
on demand	RDB2R	1/230/50	33,2 - 46,2	2,8 - 3,9	0,175	CE - 0036 0316/01	(1)
on demand	RDB2.1	1/230/50	21,5 - 42	1,8 - 3,5	0,160	CE - 0036 0316/01	(1)
on demand	RDB2.1R	1/230/50	33 - 54	2,8 - 4,5	0,230	CE - 0036 0316/01	(1)
on demand	RDB2.2	1/230/50	21 - 41,5	1,8 - 3,5	0,160	CE - 0036 0316/01	(1)
on demand	RDB2.2R	1/230/50	33,5 - 51	2,9 - 4,3	0,230	CE - 0036 0316/01	(1)
20063119	RDB2.2 GKD	1/230/50	20 - 26	1,73 - 2,2	0,180	In progress	(1)
on demand	RDB3	1/230/50	35,6 - 68,7	3 - 5,8	0,160	CE - 0036 0275/99	(1)
on demand	RDB3.2	1/230/50	41 - 120	3,5 - 10	0,160	CE - 0036 0332/02	(1)
on demand	RDB4	1/230/50	47,45 - 120	4 - 10	0,160	CE - 0036 0332/02	(1)

(1) All burner models are OEM's customized.

(2) This code is unprovided with thermal screen.

Net calorific value: 11,8 kWh/kg; 10200 kcal/kg - Viscosity at 20°C: light oil models 4÷6; kerosene models 1,5÷6 mm²/s (cSt).

The burners of RDB series are in according to EN 267.

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Burner accessories

Balanced-conventional flue conversion kit



All the RDB 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
▶ RDB1-1R - RDB2-2R - RDB2.1-2.1R - RDB2.2-2.2R - RDB2.2 GKD	3062774	3062775
▶ RDB3 - RDB4	3062774	3062876

Light oil filter



For cleaning light oil from dirty particles and impurities filters with the following features are available:

BURNER	FILTERING DEGREE (µm)	KIT CODE
All models	60	3006561

Filter made up of aluminium body and stainless steel filtering cartridge; available singularly.

BURNER	FILTERING DEGREE (µm)	KIT CODE
▶ All models	60	3075011

Filter made up of aluminium cover, plastic tank and nylon filtering cartridge; available in packaging of 50 pieces.

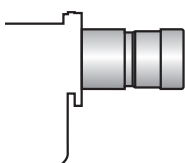
Light oil filter/degassing unit



To solve problems of air or water in the oil circuit a special filter/degassing unit is available, made up of aluminium cover, plastic tank, stainless steel filtering cartridge, air release cap and water purge valve. It is available singularly.

BURNER	FILTERING DEGREE (µm)	KIT CODE
All models	100	3000926

Extended head kit



Kits of extended heads are available.

BURNER	STANDARD HEAD LENGTH (mm)	EXTENDED HEAD LENGTH (mm)	KIT CODE
▶ RDB4	111	170	3004590