

## GULLIVER RG SERIES

The Riello Gulliver RG one stage light oil burners series, is a complete range of products developed to respond to any request for home heating. The Gulliver RG series is available in ten different models, with an output ranging from 16,6 to 309,5 kW, divided in five different structures.

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

In developing these burners, special attention was paid to reducing noise, to the easiness 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.

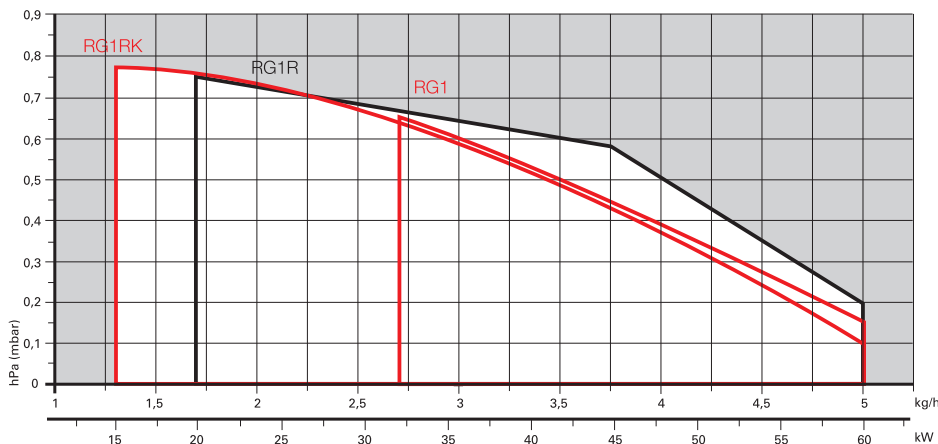
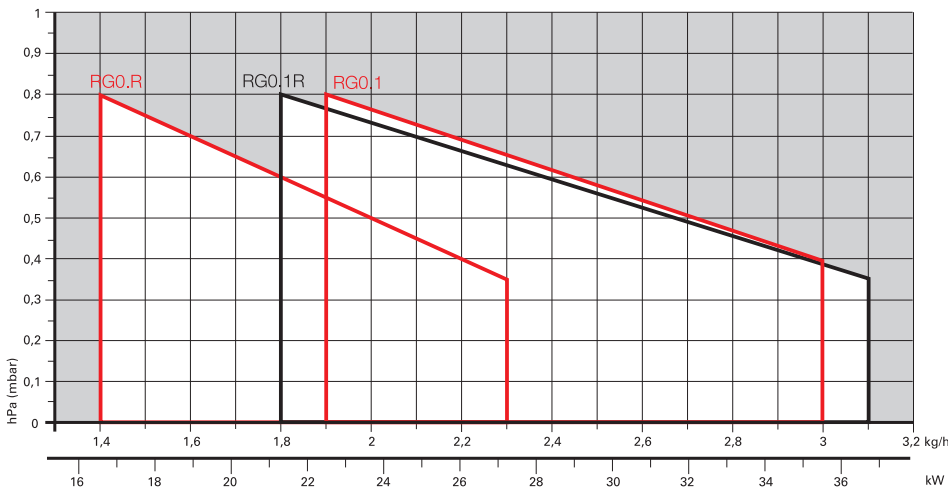
All the Gulliver RG burners are fired before leaving the factory.



LIGHT OIL

RG0.R	16,6 ÷ 27,3 kW
RG0.1	22,5 ÷ 35,6 kW
RG0.1R	21,3 ÷ 36,7 kW
RG1	32,0 ÷ 60,0 kW
RG1R	20,0 ÷ 60,0 kW
RG1RK	15,0 ÷ 60,0 kW
RG2	47,0 ÷ 119,0 kW
RG3	83,0 ÷ 178,0 kW
RG4S	118,5 ÷ 237,0 kW
RG5S	160,0 ÷ 309,5 kW

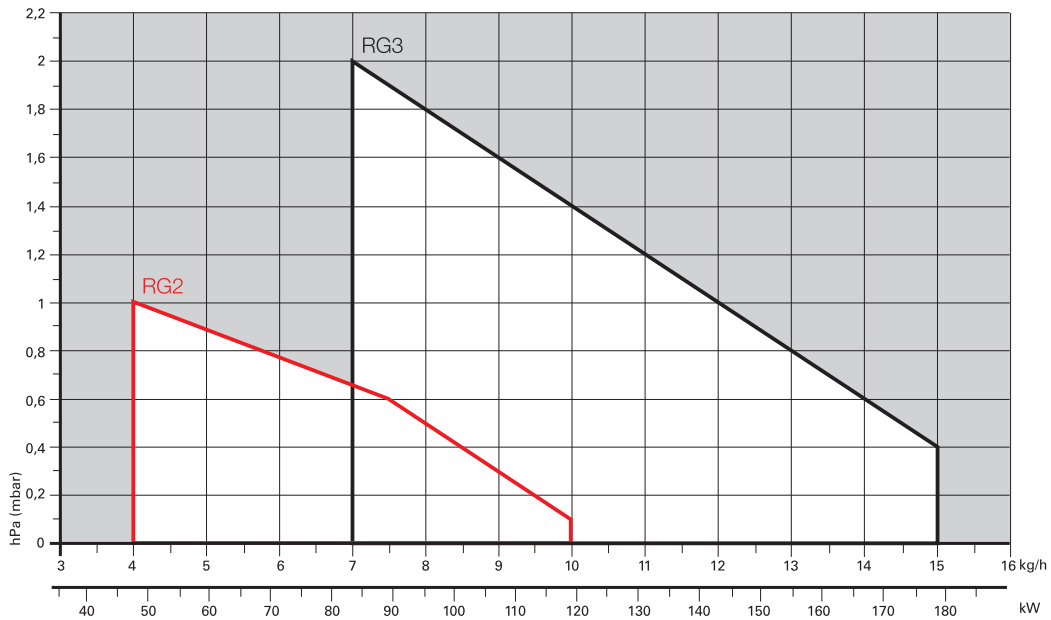
### FIRING RATES



# One Stage Light Oil Burners

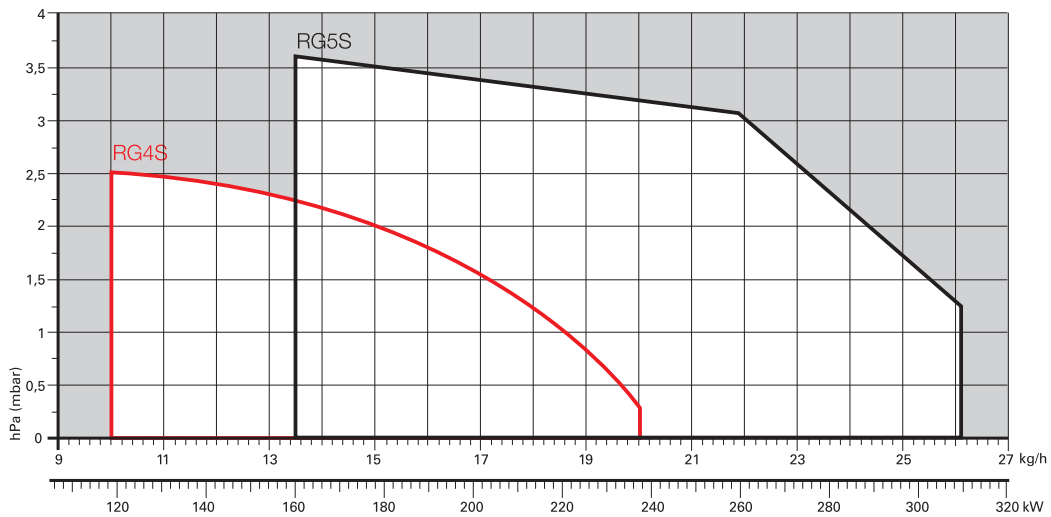
## GULLIVER RG SERIES

### FIRING RATES



Useful working field for choosing the burner

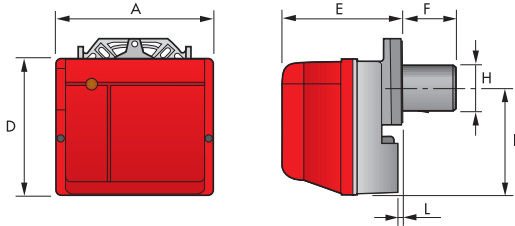
Test conditions conforming to EN267  
 Temperature: 20°C  
 Pressure: 1013,5 mbar  
 Altitude: 0 m a.s.l.



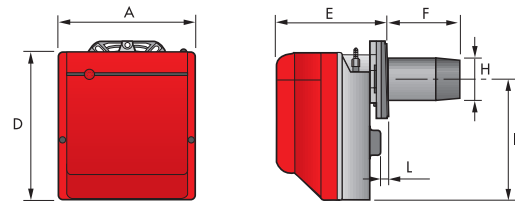
## Overall dimensions (mm)

### BURNER

GULLIVER RG0



GULLIVER RG

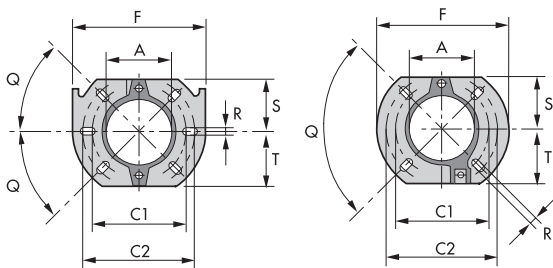


MODEL	A	D	E	F	H	I	L
▶ RG0.R	255	210	205	93	84	168	5
▶ RG0.1R	255	210	205	93	84	168	5
▶ RG0.1	255	210	205	93	84	168	5
▶ RG1	234	254	196	93	84	210	4
▶ RG1R	234	254	196	93	84	210	4
▶ RG1RK	234	254	196	111	84	210	4
▶ RG2	255	280	202	115 - 185	95	230	10
▶ RG3	300	345	228	142 - 300	123	285	12
▶ RG4S	300	345	228	142 - 212	123	285	12
▶ RG5S	300	345	247	155 - 395	125	285	12,5

### BURNER - BOILER MOUNTING FLANGE

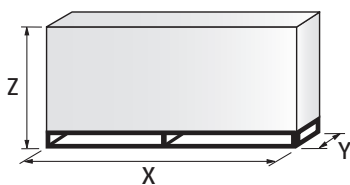
RG0.R - RG0.1R - RG0.1  
RG1 - RG1R - RG1RK - RG2

RG3 - RG4S  
RG5S



MODEL	A	C1	C2	F	Q	R	S	T
▶ RG0.R - RG0.1R - RG0.1 RG1 RG1R - RG1RK	91	130	150	180	45°	11	72	72
▶ RG2	106	140	168	189	45°	11	83	83
▶ RG3 - RG4S - RG5S	127	160	190	213	90°	11	99	99

### PACKAGING



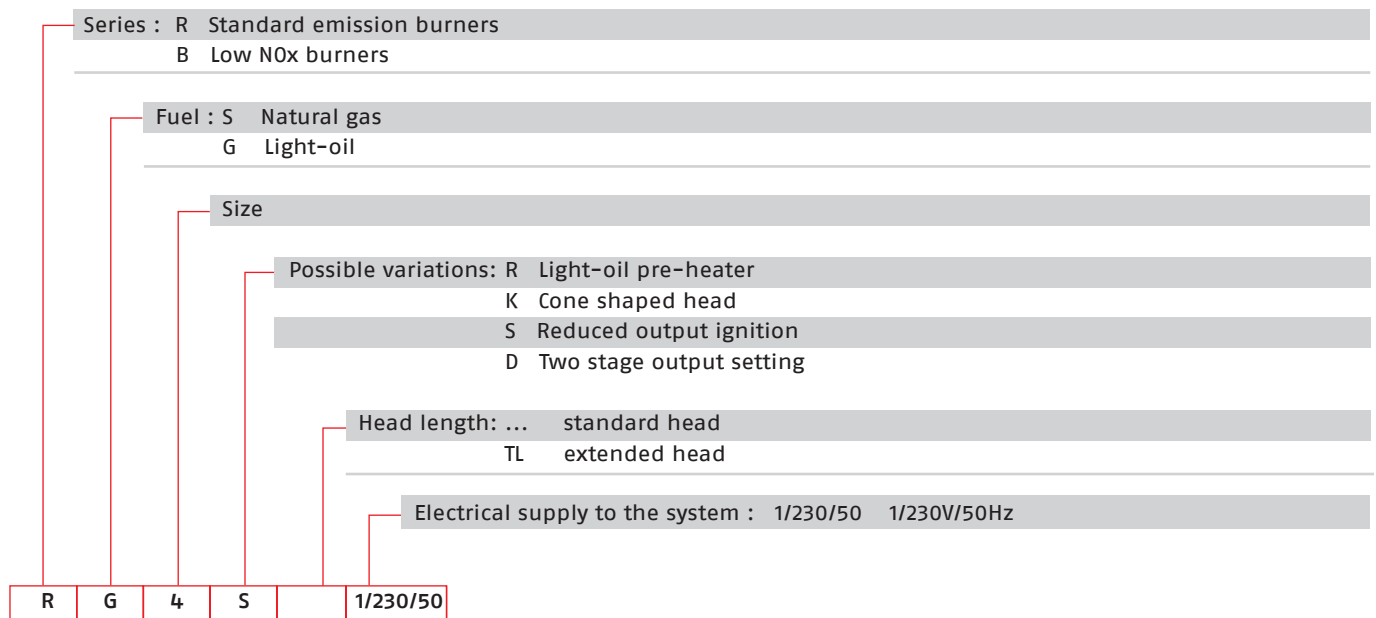
MODEL	X	Y	Z	kg
▶ RG0.R	358	300	300	9
▶ RG0.1R	358	300	300	9
▶ RG0.1	358	300	300	11
▶ RG1	353	278	320	13
▶ RG1R	353	278	320	13
▶ RG1RK	353	278	320	13
▶ RG2	363	298	350	13
▶ RG3	430	345	430	15
▶ RG4S	430	345	430	18
▶ RG5S	510	345	430	18

# One Stage Light Oil Burners

## GULLIVER RG SERIES

### Specification

#### DESIGNATION OF SERIES



#### STATE OF SUPPLY

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

- Fan with forward curve blades
- Cover lined with sound-proofing material
- Air damper, completely closed in stand by, with external adjustment, without 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
  - flame stability disk
- Geared pump 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
- Light oil nozzle
- IP X0D (IP 40) protection level
- PTC fuel pre-heater (optional)
- Reduced output ignition mechanism (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
- 7-pin plug (not included in models with digital control box M0 550)
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

## GULLIVER RG SERIES

### Available models

CODE	MODEL	HEAT OUTPUT		TOTAL ELECTRICAL POWER (kW)	CERTIFICATION	NOTE
		(kW)	(kg/h)			

#### MODELS WITH ANALOGIC CONTROL BOX

3736550	RG0.R	1/230/50	16,6 - 27,3	1,4 - 2,3	0,290	CE - 0036 0272/99	
3736850	RG0.1	1/230/50	22,5 - 35,6	1,9 - 3,0	0,170	CE - 0036 0294/00	
3736750	RG0.1R	1/230/50	21,3 - 36,7	1,8 - 3,1	0,290	CE - 0036 0273/99	
3736350	RG1	1/230/50	32 - 60	2,7 - 5	0,170	CE - 0036 0341/03	
3736450	RG1R	1/230/50	20 - 60	1,7 - 5	0,290	CE - 0036 0341/03	
3736250	RG1RK	1/230/50	15 - 60	1,3 - 5	0,290	CE - 0036 0341/03	
3737750	RG2	1/230/50	47 - 119	4 - 10	0,180	CE - 0036 0344/03	
20052619	RG2 TL	1/230/50	47 - 119	4 - 10	0,180	CE - 0036 0344/03	
3739350	RG3	1/230/50	83 - 178	7 - 15	0,390	CE - 0036 0348/04	
20052621	RG3 TL	1/230/50	83 - 178	7 - 15	0,390	CE - 0036 0348/04	
20066327	RG3 TL	1/230/50	83 - 178	7 - 15	0,390	CE - 0036 0348/04	
3739650	RG4S	1/230/50	118,5 - 237	10 - 20	0,390	CE - 0036 0348/04	
20052623	RG4S TL	1/230/50	118,5 - 237	10 - 20	0,390	CE - 0036 0348/04	
3739950	RG5S	1/230/50	160 - 309,5	13,5 - 26,1	0,470	CE - 0036 0310/01	
20052625	RG5S TL	1/230/50	160 - 309,5	13,5 - 26,1	0,470	CE - 0036 0310/01	

#### MODELS WITH DIGITAL CONTROL BOX MO 550

3736554	RG0.R	1/230/50	16,6 - 27,3	1,4 - 2,3	0,290	CE - 0036 0272/99	
3736254	RG1RK	1/230/50	15 - 60	1,3 - 5	0,290	CE - 0036 0341/03	
3737754	RG2	1/230/50	47 - 119	4 - 10	0,180	CE - 0036 0344/03	
3739354	RG3	1/230/50	83 - 178	7 - 15	0,390	CE - 0036 0348/04	
3739654	RG4S	1/230/50	118,5 - 237	10 - 20	0,390	CE - 0036 0348/04	

Net calorific value: 11,8 kWh/kg; 10200 kcal/kg - Viscosity at 20°C: 4+6 mm<sup>2</sup>/s (cSt).

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

On demand all RG burners can be supplied with digital control box MO 550.

#### Bio fuels

Riello Burners is able to offer technical variants which allow burners to be used within environmental heating, process or special applications. These applications now include solutions for liquid Bio fuels (i.e. biodiesel and vegetable oil). Our experience in research and development and field applications with organic origin Bio fuels has resulted in Riello being able to offer a wide range of solutions for the combustion of Bio fuels.

#### Kerosene and ULSD

Gulliver RG series burners can be supplied, on demand, suitable for applications where combustion of Kerosene, Low Sulphur Kerosene and Ultra Low Sulphur Diesel Oil (ULSD) is the chosen fuel.

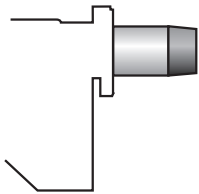
These burner variants can be provided upon request and after a technical-commercial evaluation; for more information please contact Riello Burners Commercial and Technical Department, our Application Engineers will be pleased to help you.

# One Stage Light Oil Burners

## GULLIVER RG SERIES

### Burner accessories

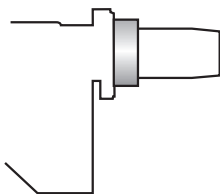
#### Extended head kit



Kits of extended heads are available.

BURNER	STANDARD HEAD LENGTH (mm)	EXTENDED HEAD LENGTH (mm)	KIT CODE
▶ RG1 – RG1R	93	163	3000963
▶ RG1RK	111	181	3000982
▶ RG2	115	180	3000964
▶ RG2	115	300	3000967
▶ RG3	142	210	3000965
▶ RG3	142	300	3000968
▶ RG4S	142	210	3000966
▶ RG4S	142	300	3000969
▶ RG5S	155	300	3001068

#### Spacer kit



By using the special accessories, the burner can be with-drawn to reduce head penetration into the combustion chamber.

BURNER	SPACER THICKNESS S (mm)	KIT CODE
▶ RG0.R – RG0.1R – RG0.1 – RG1 – RG1R – RG1RK	15	3007931
▶ RG2	25	3000672
▶ RG3 – RG4S – RG5S	25	3000673

#### Pre-heater kit

This kit is used only for Gulliver RG1 burner. It can be installed in particular weather conditions and with viscous oil.

BURNER	KIT CODE
▶ RG1	3001083

## Burner accessories

### Control box MO 550, sensor flame and short circuit plug



On request, we can supply a more efficient control box with following features:

- Digital technology
- Post-ignition of 3 seconds after safety time (total ignition time of 8 seconds)
- Multi-color LED signalling the various working stage
- Visual or PC interface diagnostic functions through multi-color LED device
- Remote lock-out reset (the connection is supplied with the MO 550 accessory)
- Recycling for 3 attempts if there is flame failure during operation
- Programmable post-purge (up to 6 minutes), continuous purge, long pre-purge (2 minutes)
- Post-combustion lock-out
- Logging of burner operation parameters (for example operating time, number and type of lock-outs)

BURNER	KIT CODE
▶ RG0.R - RG0.1R - RG0.1 - RG1R - RG1RK	3001168+3007492
▶ RG1 - RG2 - RG3 - RG4S - RG5S	3001168+3007492+3007792

### 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

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## GULLIVER RG SERIES

### Burner accessories

#### 7-pin plug kit

If necessary a 7-pin plug kit is available (in packaging of n. 5 pieces).

BURNER	KIT CODE
► All models	3000945

#### 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
► RG0.R - RG1RK - RG2 - RG3 - RG4S	3002731