

## RES G MRBLU series

RES (Riello Environment Solution) is the new Low NOx light oil burners series with extremely low emissions to meet the increasingly stringent demands for low environmental impact products.

This family consists of 3 models based on the same ventilation device, with an output range from 18 to 50 kW. This series of burners comes in conventional and balanced flue versions.

The new Riello RES are fitted with a microprocessor-based control box, with diagnostic functions.

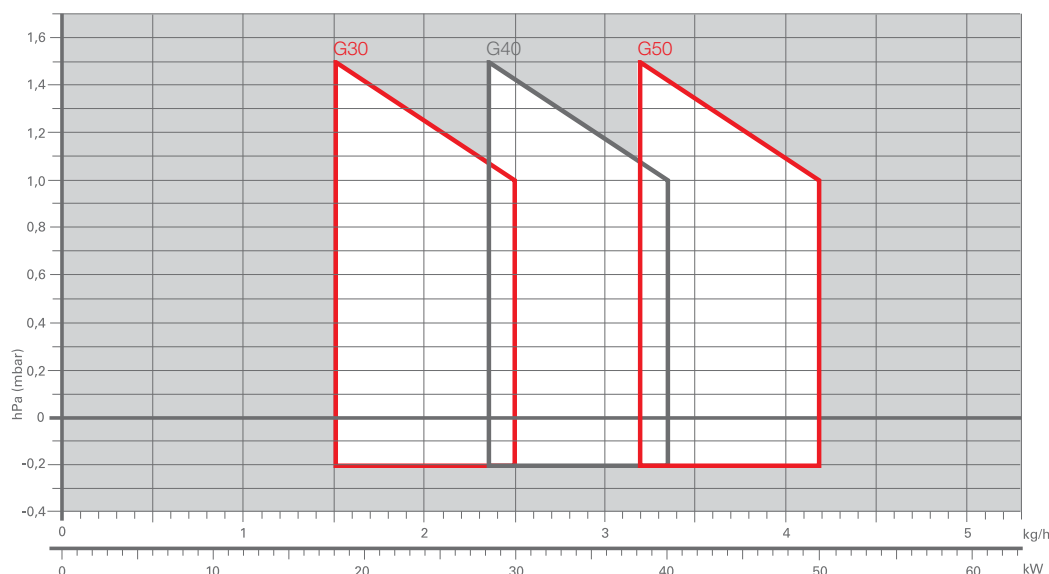
The new combustion head and the sealed ventilation system, keep NOx levels extremely low in spite of the small dimensions and very low noise emissions.

All the models are approved by the EN 267 European Standard, conform to European Directives, Machinery, EMC, Low Voltage, Boiler Efficiency. All burners are test fired before they leave the factory.



RES G30 MRBLU	18 ÷ 30	kW
RES G30 MRBLU BF	18 ÷ 30	kW
RES G40 MRBLU	28 ÷ 40	kW
RES G40 MRBLU BF	28 ÷ 40	kW
RES G50 MRBLU	38 ÷ 50	kW
RES G50 MRBLU BF	38 ÷ 50	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.

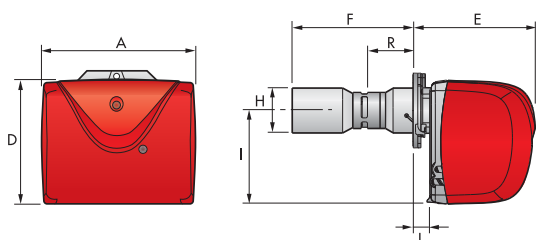
# Low NOx One Stage Light Oil Burners

## RES G MRBLU SERIES

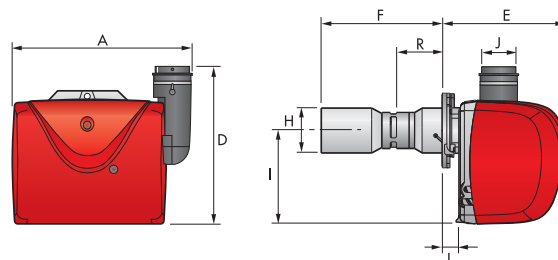
### Overall dimensions (mm)

#### BURNER

RES G MRBLU



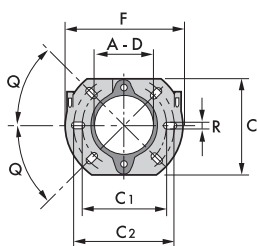
RES G MRBLU BF



MODEL	A	D	E	F(max)	H	I	L	R(max)
► RES G30 MRBLU	326	275	272	280	100	208	32	118
► RES G40 MRBLU	326	275	272	307	105	208	32	118
► RES G50 MRBLU	326	275	272	310	105	208	32	118

MODEL	A	D	E	F(max)	H	I	L	R(max)	J
► RES G30 MRBLU BF	383	351	272	280	100	208	32	113	75
► RES G40 MRBLU BF	383	351	272	307	105	208	32	108	75
► RES G50 MRBLU BF	383	351	272	310	105	208	32	129	75

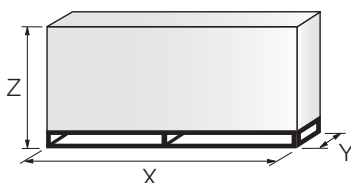
#### BURNER - BOILER MOUNTING FLANGE



MODEL	A	C	C1	C2	D	F	Q	R
► All models	106	166	140	170	106	189	45°	11

NOTE: These dimensions are the same as BF models.

#### PACKAGING



MODEL	X	Y	Z	kg
► RES G30 - 40 MRBLU	700	360	345	15,5
► RES G50 MRBLU	700	360	345	15,5

MODEL	X	Y	Z	kg
► RES G30 - 40 MRBLU BF	730	460	350	15,5
► RES G50 MRBLU BF	730	460	350	15,5

# Low NOx One Stage Light Oil Burners

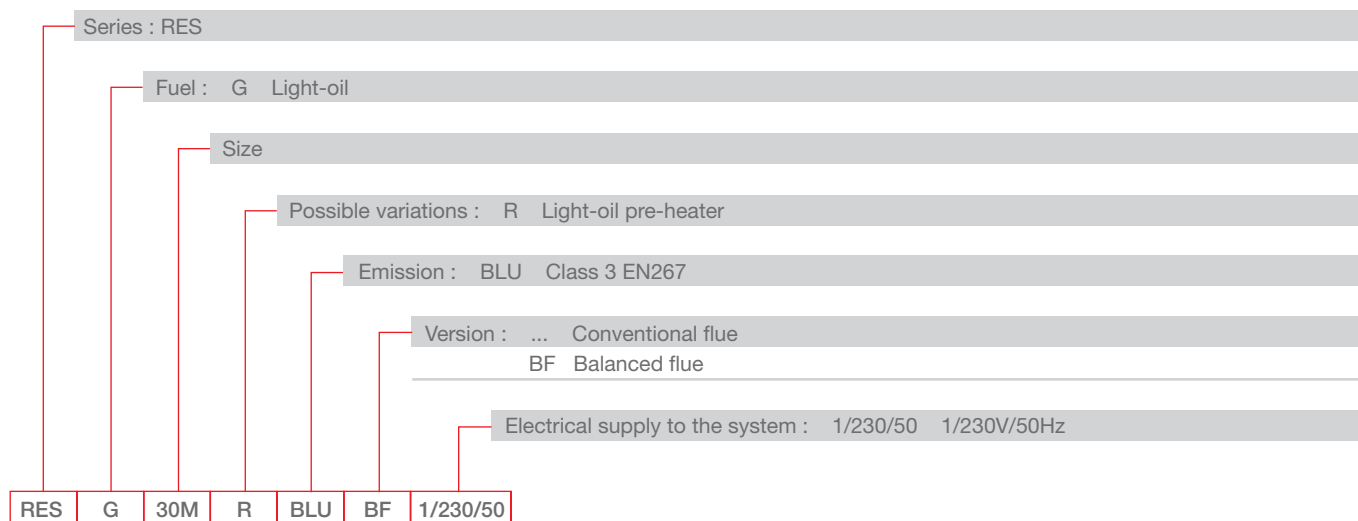
## RES G MRBLU SERIES

**RIELLO**

LOW NOx LIGHT OIL

## Specification

### DESIGNATION OF SERIES



### STATE OF SUPPLY

Completely automatic monobloc light oil burners, with one stage operation fitted with:

- Forward blades fan and airtight fan house for high performance
- Sound proofing cover
- Air damper with inner adjustment for conventional flue version
- Air damper with external adjustment, with no need to remove the cover, for balanced flue version
- Single phase electric motor 230 V, 50 Hz
- Combustion head fitted with:
  - inconel 601 end cone resistant to high temperatures
  - ignition electrodes
  - flame stability disk
- Geared pump for fuel supply, fitted with:
  - filter
  - pressure regulator
  - connectors for installing a pressure gauge and vacuumeter
  - inner by-pass for preparing for single pipe installation
- Fuel feed solenoid incorporated in the pump
- UV sensor for flame detection
- Microprocessor-based burner safety control box, with diagnostic and remote control release functions
- Protection filter against radio interference (included into burner safety control box)
- Light oil nozzle
- IP X0D (IP 40) protection level
- PTC fuel heater.

#### Standard equipment:

- Two flexible pipes and two connectors
- Flange, screen, screws and nuts for fixing
- Grommet
- Flame tube
- 7-pin plug
- Remote control release kit
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

# Low NOx One Stage Light Oil Burners

## RES G MRBLU SERIES

### Available models

CODE	MODEL			HEAT OUTPUT		TOTAL ELECTRICAL POWER	CERTIFICATION	NOTE
				(kW)	(kg/h)	(kW)		
20011492	RES	G30	MRBLU	18 ÷ 30	1,5 ÷ 2,5	0,28	-	
20011495	RES	G40	MRBLU	28 ÷ 40	2,4 ÷ 3,4	0,3	-	
20011498	RES	G50	MRBLU	38 ÷ 50	3,2 ÷ 4,2	0,3	-	
20011500	RES	G30	MRBLU	BF	18 ÷ 30	1,5 ÷ 2,5	0,28	-
20011502	RES	G40	MRBLU	BF	28 ÷ 40	2,4 ÷ 3,4	0,3	-
20011504	RES	G50	MRBLU	BF	38 ÷ 50	3,2 ÷ 4,2	0,3	-

Net calorific value: 11,8 kWh/kg; 10200 kcal/kg - Viscosity at 20°C: 4÷6 mm²/s (cSt).  
The burners of RES series are in according to EN 267.

### 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

#### 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

#### 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
► All models	3002731

## GULLIVER BGK SERIES

The Riello Gulliver BGK series of one stage light oil burners is a complete range of Low NOx products developed to respond to any request for home heating, conforming to the strictest standards regarding the reduction of polluting emissions.

The BGK series is available in four models with an output ranging from 17,8 to 73 kW, divided in two different structures.

All the models use the same components designed by Riello for the Gulliver series.

The high quality level guarantees safe working. The Gulliver BGK1-2-3 burners are fitted with a microprocessor-based control box, with diagnostic functions.

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

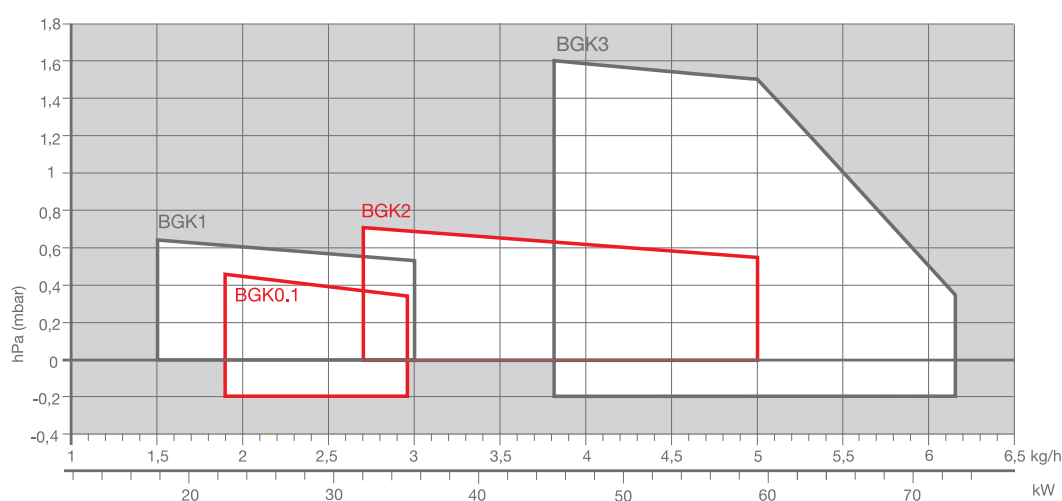
All the models are approved by the European EN 267 Standard and conform to European Directives for EMC, Low Voltage, Machinery and Boiler Efficiency.

All the Gulliver BGK series of burners are fired before leaving the factory.



BGK0.1	22,5 ÷ 35,3	kW
BGK1	17,8 ÷ 35,6	kW
BGK2	32,0 ÷ 59,3	kW
BGK3	45,0 ÷ 73,0	kW

## FIRING RATES



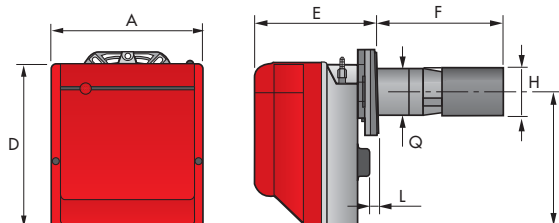
# Low NOx One Stage Light Oil Burners

## GULLIVER BGK SERIES

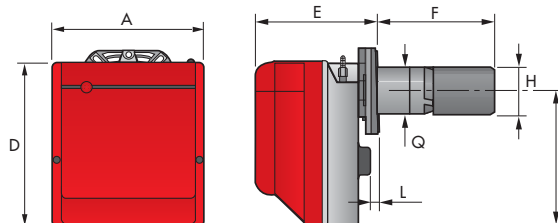
### Overall dimensions (mm)

#### BURNER

BGK0.1



BGK1 - BGK2 - BGK3

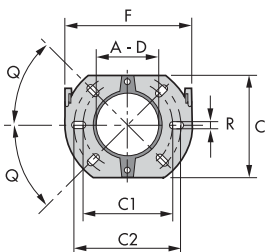


MODEL	A	D	E	F	H	I	L	Q
► BGK0.1	234	254	196	191	87	210	4	84
► BGK1	255	280	202	192	87	230	10	89
► BGK2	255	280	202	197	90	230	10	89
► BGK3	300	345	230	222	90	285	12	89

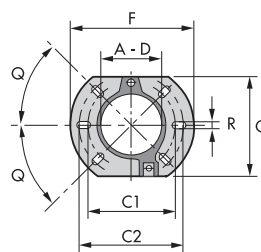
IMPORTANT: Boiler door must have a max. thickness of 70 mm for BGK0.1, 80 mm for BGK1 and 90 mm for BGK2 and BGK3, refractory lining included.

#### BURNER - BOILER MOUNTING FLANGE

BGK0.1

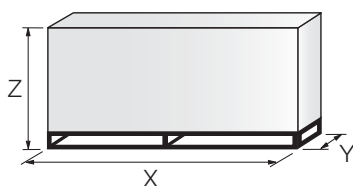


BGK1 - BGK2 - BGK3



MODEL	A	C	C1	C2	D	F	Q	R
► BGK0.1	91	144	130	150	91	180	45°	11
► BGK1	106	166	140	168	106	189	45°	11
► BGK2	106	166	140	168	106	189	45°	11
► BGK3	106	166	140	168	106	189	45°	11

#### PACKAGING



MODEL	X	Y	Z	kg
► BGK0.1	343	268	310	13
► BGK1	533	288	340	13
► BGK2	533	288	340	13
► BGK3	430	345	430	16,5

# Low NOx One Stage Light Oil Burners

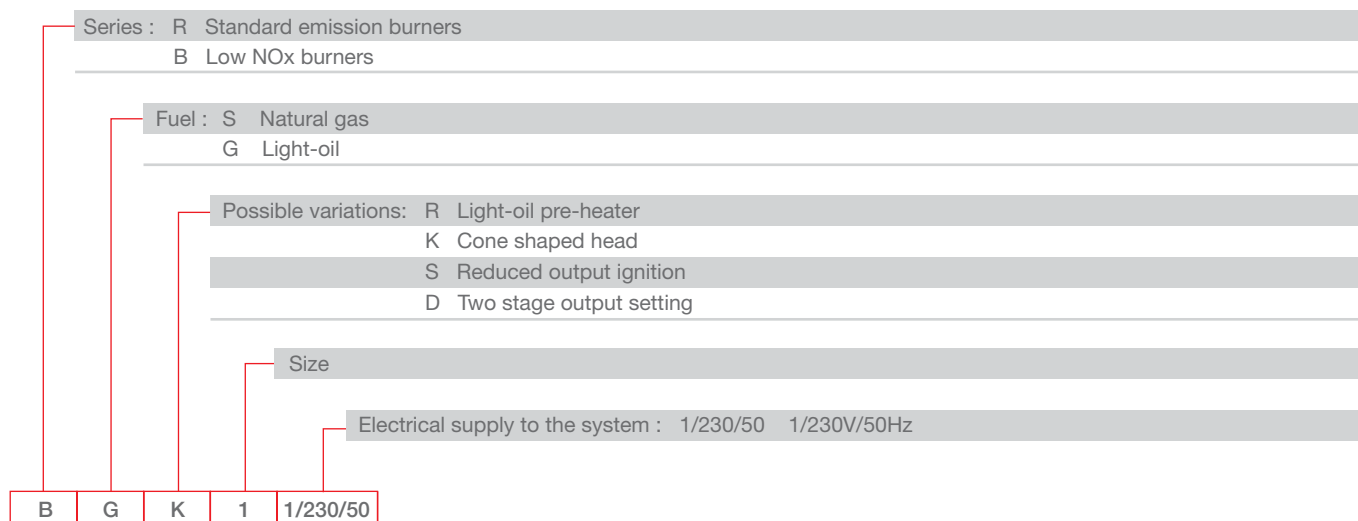
## GULLIVER BGK SERIES

**RIELLO**

LOW NOx LIGHT OIL

## Specification

### DESIGNATION OF SERIES



### STATE OF SUPPLY

Completely automatic monobloc light oil burners, with one stage operation fitted with:

- Fan with forward inclined blades
- Sound deadening cover
- 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 end cone resistant to high temperatures
  - ignition electrodes
  - flame stability disk
- Geared pump for fuel supply, fitted with:
  - filter
  - pressure regulator
  - connectors for installing a pressure gauge and vacuumeter
  - internal by-pass for preparing for single pipe installation
- Post-ignition of 3 seconds after safety time
- Fuel feed solenoid incorporated in the pump
- Photocell for flame detection with optical fibre
- Microprocessor-based burner safety control box MO 550, with diagnostic and remote control release functions (BGK1 - BGK2 - BGK3 models)
- Protection filter against radio interference (included into burner safety control box)
- Light oil nozzle
- IP X0D (IP 40) electric protection level
- PTC fuel heater.

#### Standard equipment:

- Flange with insulating gasket
- Screws and nuts for flange
- Recirculating pipe
- Four screws and nuts for flange to be fixed to boiler
- Remote control release kit
- Two flexible oil pipes with nipples
- 7-pin plug kit
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

# Low NOx One Stage Light Oil Burners

## GULLIVER BGK SERIES

### Available models

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

#### MODELS WITH ANALOGIC CONTROL BOX

3737511	BGK0.1	1/230/50	22,5 - 35,3	1,9 - 2,95	0,220	CE - 0036 0329/02	
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#### MODELS WITH DIGITAL CONTROL BOX MO 550

3737066	BGK1	1/230/50	17,8 - 35,6	1,5 - 3	0,250	CE - 0036 0232/98	
3737456	BGK2	1/230/50	32 - 59,3	2,7 - 5	0,250	CE - 0036 0232/98	
20012189	BGK3	1/230/50	45 - 73	3,8 - 6,15	0,460	-	

Net calorific value: 11,8 kWh/kg; 10200 kcal/kg - Viscosity at 20°C: 4÷6 mm²/s (cSt).  
The burners of BGK series are in according to EN 267.

### Burner accessories












#### Tester



The tester controls the correct working of the burner components. It can be fitted to all the light-oil models, with or without pre-heater.  
It is made up of two parts: a control instrument and a “control box”.

BURNER	KIT CODE
► All models	3087211



DIRECT TESTING	MEASUREMENTS
 <b>MOTOR</b> The switch feeds the motor.	 <b>L1-N</b> Main voltage (230 V)
 <b>VALVE</b> The switch feeds electromagnetic winding of the coil. A red led signals excitation stage, and a green led signals retainer stage.	  Pre-heater current consumption
 <b>PRE-HEATER</b> The switch feeds the light oil pre-heater; a green led signals the thermostat cut-in.	  Secondary voltage (low voltage)
 <b>TRANSFORMER</b> The switch feeds the firing transformer inside the control box and excites the oil valve.	  Photo-resistance current consumption



## Burner accessories

### Control box MO 550 and sensor flame



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
► BGK0.1	3001168+3007492

### 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
► BGK1 - BGK2 - BGK3	3002731

### 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

### 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



# We are here

providing reliable use of  
energy for your applications



# GULLIVER BG SERIES

The Riello Gulliver BG series of one stage light oil burners is a complete range of Low NOx products, developed to respond to any request for home heating, conforming to the strictest standards governing the reduction of polluting emissions. The Gulliver BG series is available in five different models, with an output ranging from 16 to 72,3 kW, divided in two different structures.

All the models use the same components designed by Riello for the Gulliver series. The high quality level guarantees safe working. The Gulliver BG burners are fitted with a microprocessor-based control box, with diagnostic functions.

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.

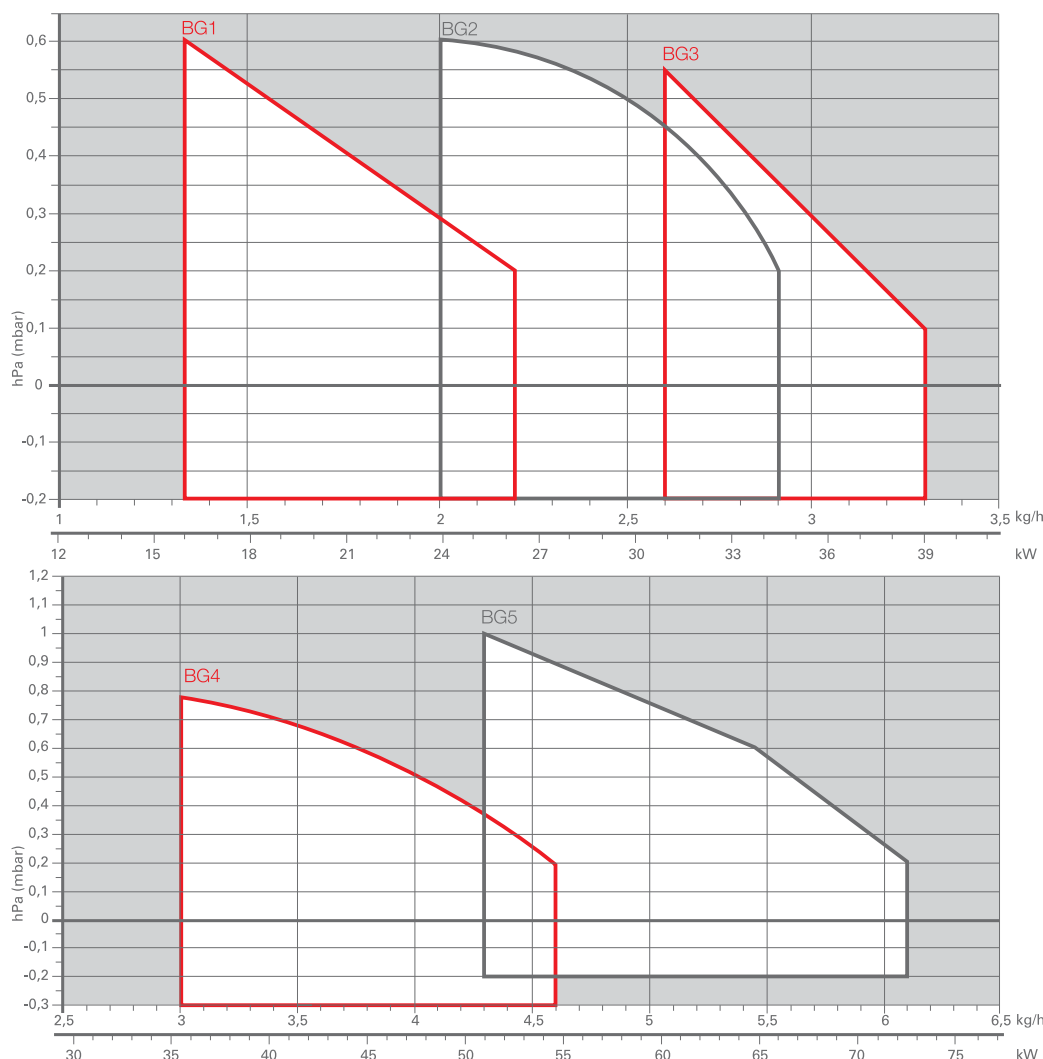
All the models are approved by the EN 267 European Standard and conform to European Directives for EMC, Low Voltage, Machinery and Boiler Efficiency.

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



BG1	16,0 ÷ 26,0 kW
BG2	24,0 ÷ 34,5 kW
BG3	31,0 ÷ 39,0 kW
BG4	35,5 ÷ 54,5 kW
BG5	51,0 ÷ 72,3 kW

## FIRING RATES



Useful working field  
for choosing the  
burner

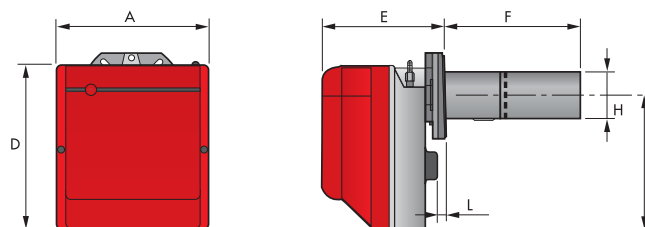
Test conditions  
conforming to EN267  
Temperature: 20°C  
Pressure: 1013,5 mbar  
Altitude: 0 m a.s.l.

# Low NOx One Stage Light Oil Burners

## GULLIVER BG SERIES

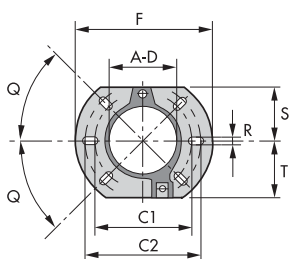
### Overall dimensions (mm)

#### BURNER



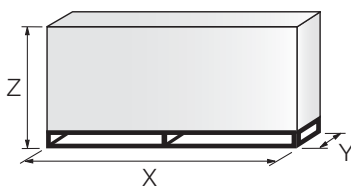
MODEL	A	D	E	F	H	I	L
► BG1	255	280	199	280,5	80	230	7
► BG2	255	280	202	287,5	89	230	10
► BG3	255	280	202	287,5	89	230	10
► BG4	300	345	230	307	97	285	12
► BG5	300	345	230	307	97	285	12

#### BURNER - BOILER MOUNTING FLANGE



MODEL	A	C1	C2	D	F	Q	R	S	T
► BG1	91	130	150	91	180	45°	11	72	72
► BG2	106	140	168	106	189	45°	11	83	83
► BG3	106	140	168	106	189	45°	11	83	83
► BG4	106	140	170	106	189	45°	11	83	83
► BG5	106	140	170	106	189	45°	11	83	83

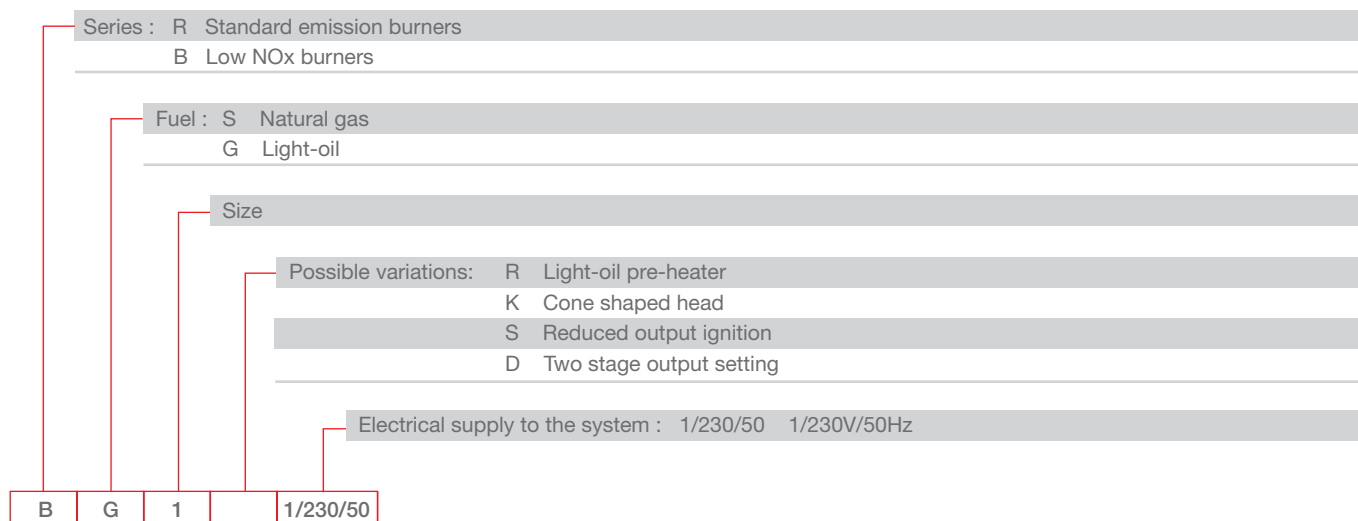
#### PACKAGING



MODEL	X	Y	Z	kg
► BG1	543	298	350	13
► BG2	543	298	350	13
► BG3	543	298	350	14
► BG4	600	345	430	16,5
► BG5	600	345	430	19

# 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, 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
  - 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
- IRD for flame detection
- Microprocessor-based burner safety control box MO 550, with diagnostic and remote control release functions
- Protection filter against radio interference (included into burner safety control box)
- Light oil nozzle
- IP X0D (IP 40) protection level
- PTC fuel pre-heater.

### 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
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.



# Low NOx One Stage Light Oil Burners

## GULLIVER BG SERIES

### Available models

CODE	MODEL		HEAT OUTPUT		TOTAL ELECTRICAL POWER (kW)	CERTIFICATION	NOTE
			(kW)	(kg/h)			
3737155	BG1	1/230/50	16 - 26	1,35 - 2,2	0,27	CE - 0036 0264/99	
3737255	BG2	1/230/50	24 - 34,5	2 - 2,9	0,27	CE - 0036 0265/99	
3737355	BG3	1/230/50	31 - 39	2,6 - 3,3	0,28	CE - 0036 0266/99	
3738755	BG4	1/230/50	35,5 - 54,5	3 - 4,6	0,46	CE - 0036 0267/99	
3738855	BG5	1/230/50	51 - 72,3	4,3 - 6,1	0,47	CE - 0036 0268/99	

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

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

All burners have "NO DRIP" hydraulic system.

### Burner accessories

#### Tester



The tester controls the correct working of the burner components. It can be fitted to all the light-oil models, with or without pre-heater.  
It is made up of two parts: a control instrument and a "control box".

BURNER	KIT CODE
► All models	3087211



DIRECT TESTING	MEASUREMENTS
<p><b>(M)</b> MOTOR</p> <p>The switch feeds the motor.</p>	<p><b>(V)</b> L1-N</p> <p>Main voltage (230 V)</p>
<p><b>[Valve Symbol]</b> VALVE</p> <p>The switch feeds electromagnetic winding of the coil. A red led signals excitation stage, and a green led signals retainer stage.</p>	<p><b>(A)</b> [Waveform]</p> <p>Pre-heater current consumption</p>
<p><b>[Waveform]</b> PRE-HEATER</p> <p>The switch feeds the light oil pre-heater; a green led signals the thermostat cut-in.</p>	<p><b>(V)</b> <b>(M)</b></p> <p>Secondary voltage (low voltage)</p>
<p><b>[Transformer Symbol]</b> TRANSFORMER</p> <p>The switch feeds the firing transformer inside the control box and excites the oil valve.</p>	<p><b>(A)</b> [Waveform]</p> <p>Photo-resistance current consumption</p>

## Burner accessories

### 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

### 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
► All models	3002731





## GULLIVER BGD SERIES

The Riello Gulliver BGD series of two stage light oil burners is a complete range of Low NOx products, developed to respond to any request for home heating, conforming to the strictest standards governing the reduction of polluting emissions. The Gulliver BGD series is available in two different models, with an output ranging from 53,8 to 149,5 kW, divided in two different structures.

All the models use the same components designed by Riello for the Gulliver series. The high quality level guarantees safe working. The Gulliver BGD burners are fitted with a microprocessor-based control box, with diagnostic functions.

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.

The two stage operation guarantees high level of thermal unit efficiency.

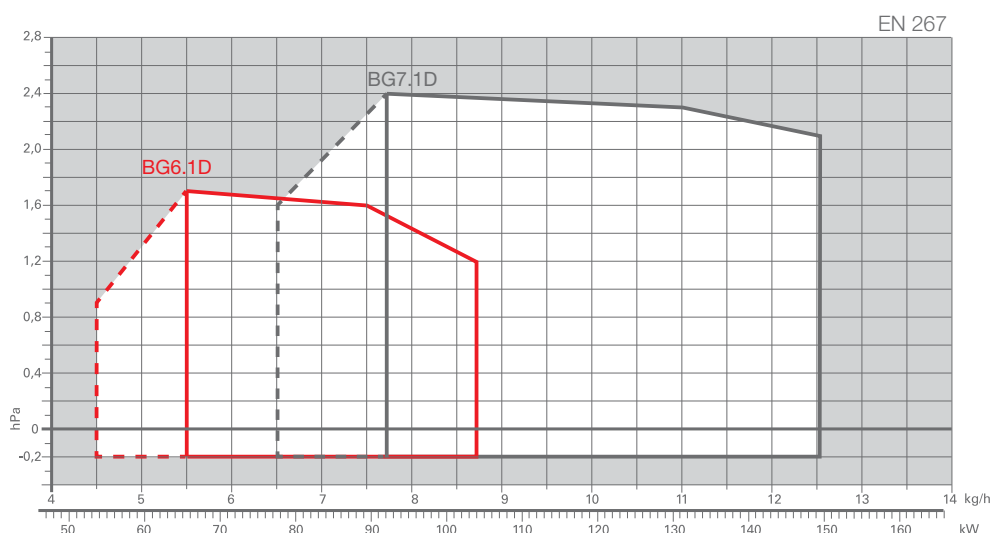
All the models are approved by the EN 267 European Standard and conform to European Directives for EMC, Low Voltage, Machinery and Boiler Efficiency.

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



BG6.1D	53,8/65,8 ÷ 104	kW
BG7.1D	77,7/92 ÷ 149,5	kW

## FIRING RATES



Useful working field  
for choosing the  
burner



1<sup>st</sup> stage operation  
range

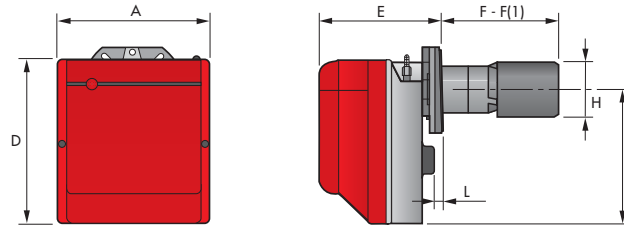
Test conditions  
conforming to EN267  
Temperature: 20°C  
Pressure: 1013,5 mbar  
Altitude: 0 m a.s.l.

# Low NOx Two Stage Light Oil Burners

## GULLIVER BGD SERIES

### Overall dimensions (mm)

#### BURNER

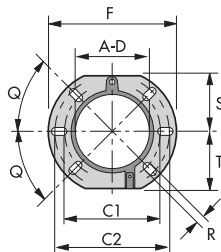


MODEL	A	D	E	F	F(1)	H	I	L
► BG6.1D	300	345	228	284	363	131	285	12
► BG7.1D	300	345	247	394	-	165	285	12

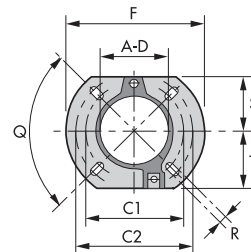
F1: length with extended combustion head

#### BURNER - BOILER MOUNTING FLANGE

BG6.1D

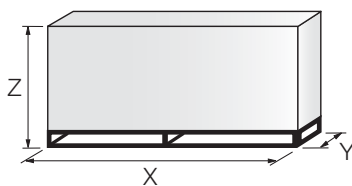


BG7.1D



MODEL	A	C1	C2	D	F	Q	R	S	T
► BG6.1D	106	140	170	106	189	45°	11	83	83
► BG7.1D	127	160	190	127	213	90°	11	99	99

#### PACKAGING



MODEL	X	Y	Z	kg
► BG6.1D	600	345	430	20
► BG7.1D	600	345	430	20

# Low NOx Two Stage Light Oil Burners

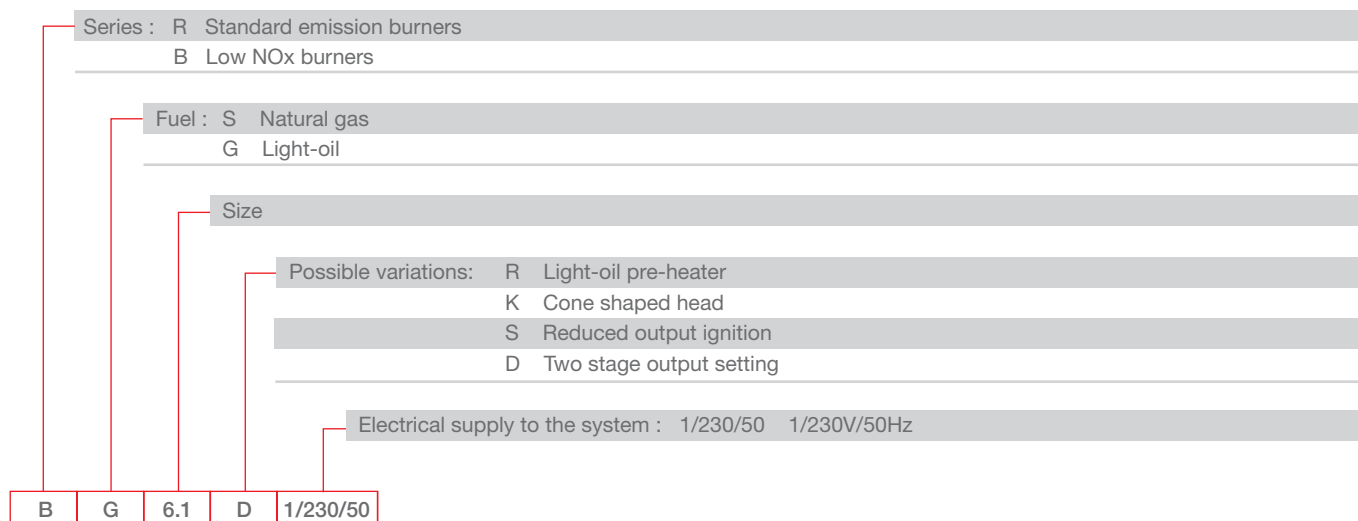
## GULLIVER BGD SERIES

RIELLO

LOW NOx LIGHT OIL

## Specification

### DESIGNATION OF SERIES



### STATE OF SUPPLY

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

- Fan with forward curve blades
- Cover lined with sound-proofing material
- Air damper completely closed in stand by
- Air damper, with 1st and 2nd stage adjustment (2nd stage adjustment without removing the casing)
- 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
- IRD for flame detection
- Microprocessor-based burner safety control box MO 550, with diagnostic and remote control release functions
- Protection filter against radio interference (included into burner safety control box)
- Light oil nozzle
- IP X0D (IP 40) protection level.

#### 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
- 4-pin plug
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

# Low NOx Two Stage Light Oil Burners

## GULLIVER BGD SERIES

### Available models

CODE	MODEL		HEAT OUTPUT		TOTAL ELECTRICAL POWER (kW)	CERTIFICATION	NOTE
			(kW)	(kg/h)			
20015693	BG6.1D	1/230/50	53,8/65,8 - 104	4,5/5,5 - 8,7	0,39	-	-
20015694	BG6.1D TL	1/230/50	53,8/65,8 - 104	4,5/5,5 - 8,7	0,39	-	-
20015696	BG7.1D	1/230/50	77,7/92 - 149,5	6,5/7,7 - 12,5	0,47	-	-

Net calorific value: 11,8 kWh/kg; 10200 kcal/kg - Viscosity at 20°C: 4÷6 mm²/s (cSt).  
The burners of BGD series are in according to EN 267.

### Burner accessories

#### Tester














The tester controls the correct working of the burner components. It can be fitted to all the light-oil models, with or without pre-heater.

It is made up of two parts: a control instrument and a “control box”.



BURNER	KIT CODE
All models	3087211

DIRECT TESTING	MEASUREMENTS
 <b>MOTOR</b> The switch feeds the motor.	 <b>L1-N</b> Main voltage (230 V)
 <b>VALVE</b> The switch feeds electromagnetic winding of the coil. A red led signals excitation stage, and a green led signals retainer stage.	  Pre-heater current consumption
 <b>PRE-HEATER</b> The switch feeds the light oil pre-heater; a green led signals the thermostat cut-in.	  Secondary voltage (low voltage)
 <b>TRANSFORMER</b> The switch feeds the firing transformer inside the control box and excites the oil valve.	  Photo-resistance current consumption

## Burner accessories

### 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

### 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
► All models	3002731



## RL BLU SERIES

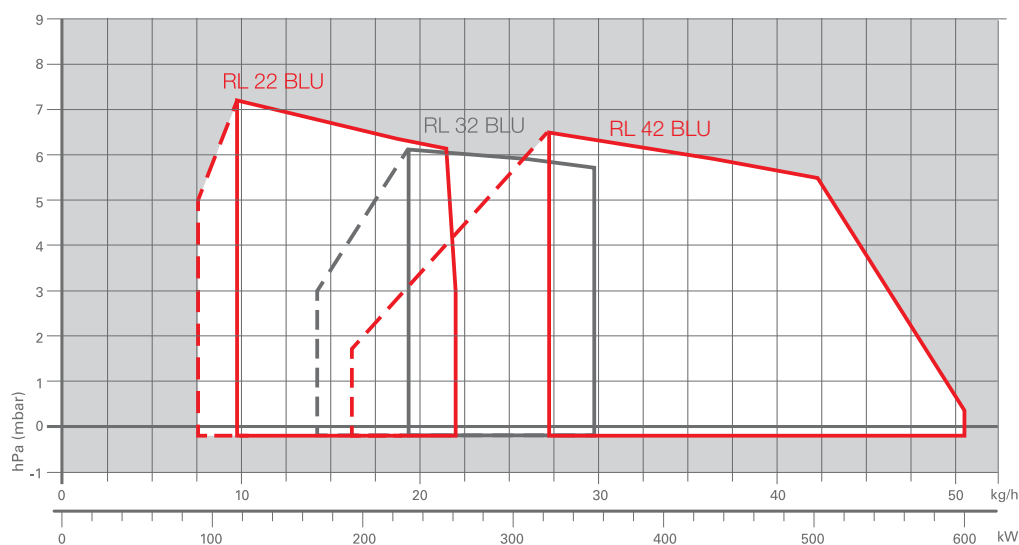
The RL BLU series of burners have been designed for use in hot or superheated water boilers, hot air or steam generators, diathermic oil boilers. The series includes three models with output ranging from 116 to 600 kW. A servomotor with three adjustable positions guarantees correct air output and air damper closing when the burner is turned off.

The burners are fitted with a microprocessor-based control panel, which supplies indication of burner status and fault causes. Special care has been paid to keeping overall dimensions compact, to easy servicing, to design and to noise emissions.

The elevated performance of the fans and combustion head, guarantee flexibility of use and excellent working at all firing rates and low NOx emissions.



RL 22 BLU	89/116 ÷ 261 kW
RL 32 BLU	166/228 ÷ 356 kW
RL 42 BLU	191/323 ÷ 600 kW



Useful working field  
for choosing the  
burner



1<sup>st</sup> stage operation  
range

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

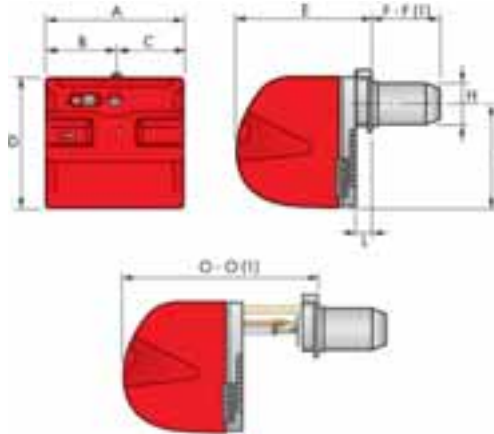
# Low NOx Two Stage Light Oil Burners

## RL BLU SERIES

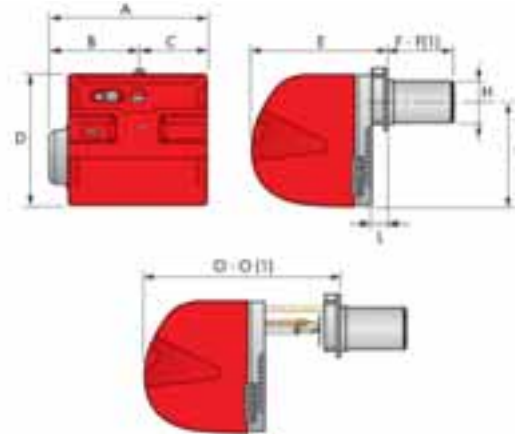
### Overall dimensions (mm)

#### BURNER

RL 22 - 32 BLU

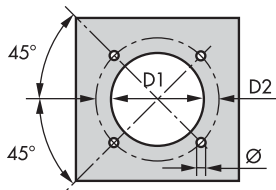


RL 42 BLU



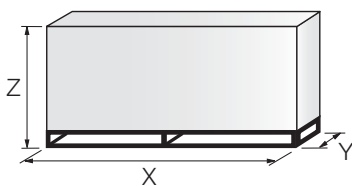
MODEL	A	B	C	D	E	F - F (1)	H	I	L	O - O (1)
RL 22 BLU	476	238	238	474	468	197 - 276	140	352	52	604 - 739
RL 32 BLU	476	238	238	474	468	217 - 293	140	352	52	604 - 739
RL 42 BLU	533	300	238	490	477	295 - 430	179	335	60	680 - 815

#### BURNER - BOILER MOUNTING FLANGE



MODEL	D1	D2	Ø
► RL 22 BLU	160	224	M8
► RL 32 BLU	160	224	M8
► RL 42 BLU	185	275-325	M12

#### PACKAGING



MODEL	X	Y	Z	kg
► RL 22 BLU	850	540	550	40
► RL 32 BLU	850	540	550	41
► RL 42 BLU	1200	560	520	42



# Low NOx Two Stage Light Oil Burners

## RL BLU SERIES

**RIELLO**

LOW NOx LIGHT OIL

## Specification

### DESIGNATION OF SERIES

Series : R									
Fuel : S Natural gas									
L Light oil									
LS Light oil / Natural gas									
N Heavy oil									
Size									
Operation : /1 One stage									
... Two stage									
/M Modulating									
/E Electronic cam									
/P Proportioning air/gas valve									
/EV Electronic cam predisposed for variable speed (with inverter)									
Emission : ... Class 1 EN267 - EN676									
MZ Class 2 EN267 - EN676									
BLU Class 3 EN267 - EN676									
MX Class 2 EN267									
Class 3 EN676									
Head : TC Standard head									
TL Extended head									
Flame control system :									
FS1 Standard (1 stop every 24 h)									
FS2 Continuous working (1 stop every 72 h)									
Electrical supply to the system :									
1/230/50 1/230V/50Hz									
3/230/50 3/230V/50Hz									
3/400/50 3N/400V/50Hz									
3/230-400/50 3/230V/50Hz - 3N/400V/50Hz									
3/220/60 3/220V/60Hz									
3/380/60 3N/380V/60Hz									
3/220-380/60 3/220/60Hz - 3N/380V/60Hz									
Auxiliary voltage :									
230/50-60 230V/50-60Hz									
110/50-60 110V/50-60Hz									
ID : Differential switch									
R	L	22		BLU	TC	FS1	1/230/50	230/50-60	
BASIC DESIGNATION					EXTENDED DESIGNATION				

# Low NOx Two Stage Light Oil Burners

## RL BLU SERIES

## Specification

### STATE OF SUPPLY

Monoblock forced draught Low NOx oil burner with completely automatic two stage operation, made up of:

- Air suction circuit lined with sound-proofing material
- Fan with reverse curve blades (RL 22-32 BLU models) or forward blades (RL 42 BLU model)
- Air damper for air setting, driven by the adjustable servomotor
- Low emission combustion head, that can be set on the basis of required output
- Gears pump for high pressure fuel supply
- Two oil valves fitted directly on to the pump
- UV sensor for flame detection
- Microprocessor-based burner safety control box, with diagnostic function
- Burner on/off switch
- Manual high/low flame switch
- Flame inspection window
- Slide bars for easier installation and maintenance
- Protection filter against radio interference
- IP 44 electric protection level.

#### Standard equipment:

- 2 flexible pipes for connection to the oil supply network
- 2 gaskets for the flexible pipes
- 2 nipples for connection to the pump
- 1 thermal screen
- 4 screws for fixing the burner flange to the boiler
- Wiring loom fittings for electrical connections
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

## Available models

CODE	MODEL					HEAT OUTPUT		TOTAL ELECTRICAL POWER (kW)	CERTIFICATION	NOTE
						(kW)	(kg/h)			
20027479	RL 22 BLU TC	FS1	1/230/50	230/50-60		89/116-261	7,5/9,8-22	0,6	CE 1003/R	
20029408	RL 22 BLU TL	FS1	1/230/50	230/50-60		89/116-261	7,5/9,8-22	0,6	CE 1003/R	
20027481	RL 32 BLU TC	FS1	1/230/50	230/50-60		166/228-356	14/19,2-30	0,6	CE 1003/R	
20029415	RL 32 BLU TL	FS1	1/230/50	230/50-60		166/228-356	14/19,2-30	0,6	CE 1003/R	
20027567	RL 42 BLU TC	FS1	3/230-400/50	230/50-60		191/323-600	16,1/27,2-50,6	1,4	CE 1003/R	

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 RL BLU series are in according to 89/336 (2004/108) - 73/23 (2006/95) - 98/37 - 92/42 EC Directive and EN 267.

## Burner accessories

### Nozzles



The nozzles of RL 22 - 32 and 42 BLU burners are chosen on the basis of the maximum output required from the application.

NOTE: each burner needs N° 1 nozzle.

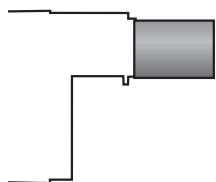
#### RL 22-32 BLU

GPH	RATED DELIVERY [kg/h] AT 8 bar	RATED DELIVERY [kg/h] AT 20 bar	DELAVAN 60°A CODE	MONARCH 60°PLP CODE
2.25	7.4	11.9	3042134	3041132
2.50	8.2	13.4	3042144	3041142
3.00	9.9	16.1	3042148	3041152
3.50	11.5	18.8	3042164	3041162
4.00	13.2	21.5	3042174	3041172
4.50	14.8	24.0	3042184	3041182
5.00	16.5	26.8	3042194	3041192
5.50	18.1	29.5	3042204	3041202
6.00	19.8	32.2	3042214	3041212

#### RL 42 BLU

GPH	RATED DELIVERY [kg/h] AT 8 bar	RATED DELIVERY [kg/h] AT 20 bar	DELAVAN 45°A CODE
6.00	20.4	31.7	20011679
6.50	22.1	34.5	20024162
7.00	23.8	37.1	20024163
7.50	25.5	40.0	20024164
8.00	27.2	42.5	20024165
8.50	28.9	45.5	20024166
9.00	30.6	48.0	20024167
9.50	32.3	51.0	20024168
10.00	34.0	53.5	20024169

### Extended head kit



“Standard head” burners can be transformed into “extended head” versions, by using the special kit.

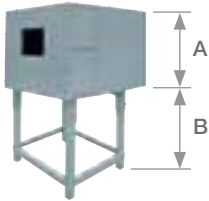
BURNER	STANDARD HEAD LENGTH (mm)	EXTENDED HEAD LENGTH (mm)	KIT CODE
► RL 22 BLU	197	276	3010204
► RL 32 BLU	217	293	3010205
► RL 42 BLU	295	430	20024155

# Low NOx Two Stage Light Oil Burners

## RL BLU SERIES

### Burner accessories

#### Sound proofing box



If noise emission needs reducing even further, sound-proofing boxes are available.

BURNER	BOX TYPE	A (mm)	B (mm) min-max	[dB(A)] (*)	BOX CODE
► RL 22 BLU - RL 32 BLU	C1/3	650	372 - 980	10	3010403
► RL 42 BLU	C4/5	850	160 - 980	10	3010404

(\*) Average noise reduction according to EN 15036-1 standard

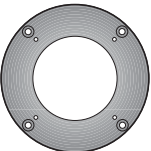
#### Degasing unit



To solve problem of air in the oil sucked, two versions of degasing unit are available.

BURNER	FILTER	FILTERING DEGREE (µm)	DEGASING UNIT CODE
► All models	With filter	50 - 75	3010055
► All models	Without filter	-	3010054

#### Connection flange kit



A kit is available for use where the burner opening on the boiler is of excessive diameter.

BURNER	KIT CODE
► RL 22 BLU - RL 32 BLU	3010138

## RL/M BLU SERIES

The RL/M BLU burners series covers a firing range from 360 to 1023 kW, and it has been designed for use in hot or superheated water boilers, hot air or steam generators and diathermic oil boilers.

Operation can be “two stage progressive” or, alternatively, “modulating” with the installation of a PID logic regulator and respective probes.

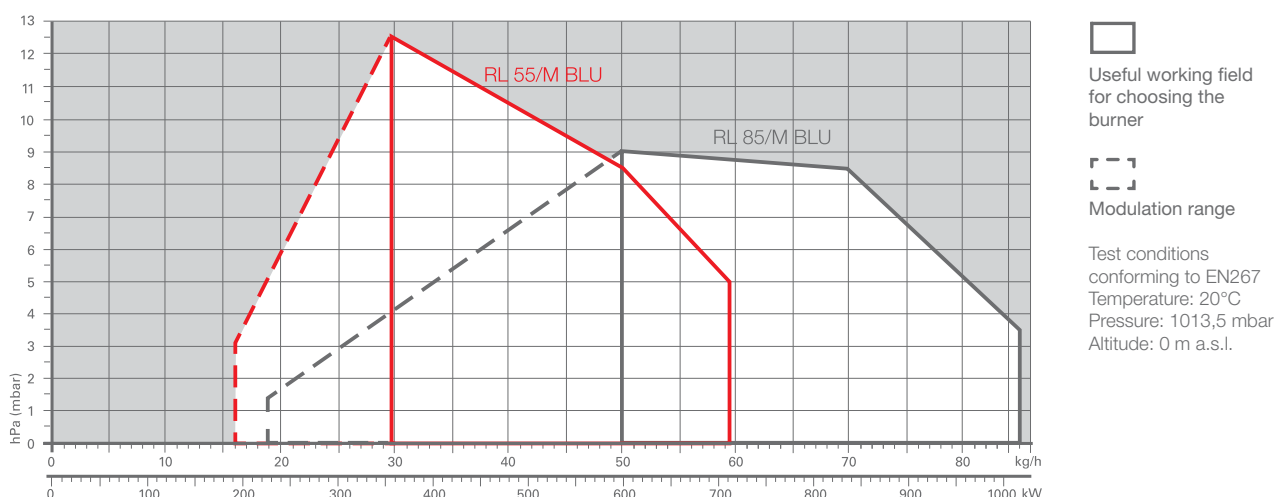
RL/M BLU burners series guarantees high efficiency levels in all applications, thus reducing fuel consumption and running costs. Sound emissions optimisation is guaranteed by the use of fans with reverse curve blades and sound deadening material incorporated in the air suction circuit.

The exclusive design ensures reduced dimensions, simple use and maintenance. A wide range of accessories guarantees elevated working flexibility.



RL 55/M BLU	190/356 ÷ 712 kW
RL 85/M BLU	223/594 ÷ 1023 kW

## FIRING RATES



**NOTE:** The RL 55-85/M BLU burners are designed exclusively for combustion chambers with flue gas outlet from the bottom, for example three flue gas passes (not reverse flame boilers) accessible through the door. Maximum thickness of the frontal boiler wall: 250 mm.

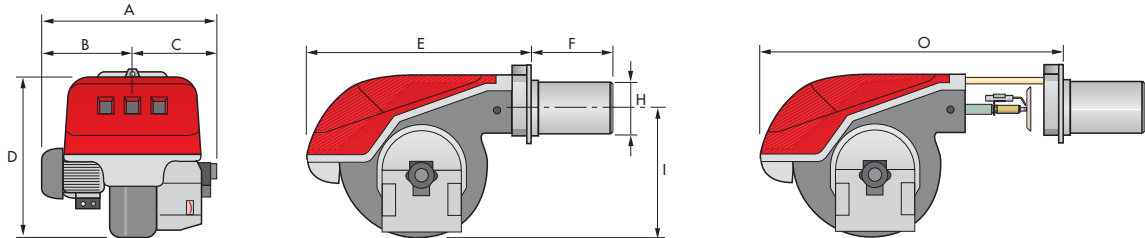
Exhaust gases ducts must be always and exclusively directed upwards; change in directions must be realized only by bent elements; the angle between the axis of the stroke coming out of the combustion chamber and the axis of the chimney must be smaller than 45°.

# Low NOx Modulating Light Oil Burners

## RL/M BLU SERIES

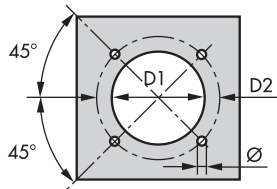
### Overall dimensions (mm)

#### BURNER



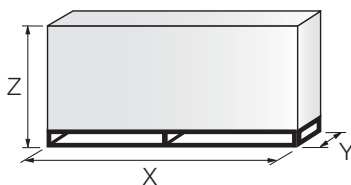
MODEL	A	B	C	D	E	F	H	I	O
► RL 55/M BLU	663	296	367	555	680	365	189	430	951
► RL 85/M BLU	705	338	367	555	680	365	189	430	951

#### BURNER - BOILER MOUNTING FLANGE



MODEL	D1	D2	Ø
► RL 55/M BLU	195	275-325	M12
► RL 85/M BLU	195	275-325	M12

#### PACKAGING



MODEL	X	Y	Z	kg
► RL 55/M BLU	1270	745	885	65
► RL 85/M BLU	1270	745	885	70

# Low NOx Modulating Light Oil Burners

## RL/M BLU SERIES

**RIELLO**

LOW NOx LIGHT OIL

## Specification

### DESIGNATION OF SERIES

Series : R									
Fuel : S Natural gas									
L Light oil									
LS Light oil / Natural gas									
N Heavy oil									
Size									
Setting : /1 One stage									
... Two stage									
/M Modulating									
Emission : ... Class 1 EN267 - EN676									
MZ Class 2 EN267 - EN676									
BLU Class 3 EN267 - EN676									
MX Class 1 EN267									
Class 3 EN676									
Head : TC Standard head									
TL Extended head									
Flame control system :									
FS1 Standard (1 stop every 24 h)									
FS2 Continuous working (1 stop every 72 h)									
Electrical supply to the system :									
1/230/50 1/230V/50Hz									
3/230/50 3/230V/50Hz									
3/400/50 3N/400V/50Hz									
3/230-400/50 3/230V/50Hz - 3N/400V/50Hz									
3/220/60 3/220V/60Hz									
3/380/60 3N/380V/60Hz									
3/220-380/60 3/220V/60Hz - 3N/380V/60Hz									
Auxiliary voltage :									
230/50-60 230V/50-60Hz									
110/50-60 110V/50-60Hz									
ID : Differential switch									
R	L	85	/M	BLU	TC	FS1	3/230-400/50	230/50-60	
BASIC DESIGNATION									
EXTENDED DESIGNATION									

# Low NOx Modulating Light Oil Burners

## RL/M BLU SERIES

## Specification

### STATE OF SUPPLY

Monoblock forced draught oil burner with two stage progressive or modulating setting, with a specific kit, fully automatic, made up of:

- air suction circuit lined with sound-proofing material
- fan with reverse curve blades high performance with low sound emissions
- air damper for air setting and automatic oil output regulator controlled by a servomotor with variable cam
- starting motor at 2800 rpm, three-phase 400V with neutral, 50Hz
- combustion head, that can be set on the basis of required output, fitted with:
  - stainless steel end cone, resistant to corrosion and high temperatures
  - ignition electrodes
  - flame stability disk
- gears pump for high pressure fuel supply, fitted with:
  - filter
  - pressure regulator
- connections for installing a pressure gauge and vacuumeter
- internal by-pass for single pipe installation
- valve unit with a double oil safety valve on the output circuit and safety valve on the return circuit; double safety valve on the return circuit
- safety oil pressure switch for stop the burner in case of problems in the return circuit
- photocell for flame detection
- burner safety control box, fitted with control function for the correct positioning of the servomotor and possibility of post-ventilation by just changing the electric wiring
- burner on/off switch
- flame inspection window
- manual or automatic output increase/decrease switch
- slide bars for easier installation and maintenance
- protection filter against radio interference
- IP 44 electric protection level.

#### Standard equipment:

- 2 flexible pipes for connection to the oil supply network
- 2 gaskets for the flexible pipes
- 2 nipples for connection to the pump
- 4 screws for fixing the burner flange to the boiler
- 1 thermal screen
- wiring loom fittings for electrical connections
- instruction handbook for installation, use and maintenance
- spare parts catalogue.

## Available models

CODE	MODEL	HEAT OUTPUT		TOTAL ELECTRICAL POWER (kW)	CERTIFICATION	NOTE
		(kW)	(kg/h)			
3899210	RL 55/M BLU TC FS1 3/230-400/50 230/50-60	190/356-712	16/30-60	2,2	CE050790223001	
3896011	RL 85/M BLU TC FS1 3/230-400/50 230/50-60	223/594-1023	18,8/50-86,2	2,6	CE050790223001	

Other versions, with FS2 (continuous working), are available on request.

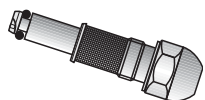
Net calorific value: 11,8 kWh/kg - 10200 kcal/kg - Viscosity at 20°C: 4-6 mm<sup>2</sup>/s (cSt)

The burners of RL/M BLU series are in according to 89/336 (2004/108) - 73/23 (2006/95) - 98/37 - 92/42 EC Directive and EN 267 Norm.



## Burner accessories

### Nozzles type A3 60°



The return nozzles must be ordered separately. The following table shows the features and codes on the basis of the maximum required fuel output.

BURNER	RATED DELIVERY (kg/h) (*)	NOZZLE CODE
► RL 55-85/M BLU	30	3009867
	40	3009868
	50	3009869
	60	3009870
	90	3009871

(\*) Nozzle rated delivery is referred to atomised pressure

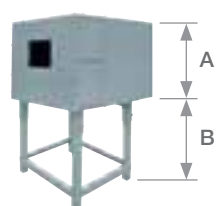
### Spacer kit



If burner head penetration into the combustion chamber needs reducing, varying thickness spacers are available, as given in the following table:

BURNER	SPACER THICKNESS S (mm)	KIT CODE
► RL 55-85/M BLU	135	3010129

### Sound proofing box



If noise emission needs reducing even further, sound-proofing boxes are available.

BURNER	BOX TYPE	A (mm)	B (mm) min-max	[dB(A)] (*)	BOX CODE
► RL 55-85/M BLU	C4/5	850	160 - 980	10	3010404

(\*) Average noise reduction according to EN 15036-1 standard

### Degasing unit



To solve problem of air in the oil sucked, two versions of degasing unit are available.

BURNER	FILTER	FILTERING DEGREE (µm)	DEGASING UNIT CODE
► RL 55-85/M BLU	With filter	50 - 75	3010055
► RL 55-85/M BLU	Without filter	-	3010054

**NOTE:** For burner deliveries higher than 80 kg/h, install two parallel degasing units.

# Low NOx Modulating Light Oil Burners

## RL/M BLU SERIES

## Burner accessories

### Accessories for modulating operation



To obtain modulating operation, the RL/M BLU series of burners requires a regulator with three point outlet controls. The following table lists the accessories for modulating operation with their application range.

BURNER	REGULATOR TYPE	REGULATOR CODE
► RL 55-85/M BLU	RWF 40	3010212



The relative temperature or pressure probes fitted to the regulator must be chosen on the basis of the application.

BURNER	PROBE TYPE	RANGE (°C) (bar)	PROBE CODE
► RL/M BLU	Temperature PT 100	-100 ÷ 500°C	3010110
► RL/M BLU	Pressure 4 ÷ 20 mA	0 ÷ 2,5 bar	3010213
► RL/M BLU	Pressure 4 ÷ 20 mA	0 ÷ 16 bar	3010214



Depending on the servomotor fitted to the burner, a three-pole potentiometer (1000 Ω) can be installed to check the position of the servomotor. The KITS available for the various burners are listed below.

BURNER	POTENTIOMETER KIT CODE
► RL 55-85/M BLU	3010021

## RC SERIES

Riello RC2-R is synonymous with highly compact size. The new burners in the light oil series are one stage with an output ranging from 17 to 46 kW. These burners have been specifically designed to meet the increasing trends towards direct connection to outside air for combustion and high pressure working field demand.

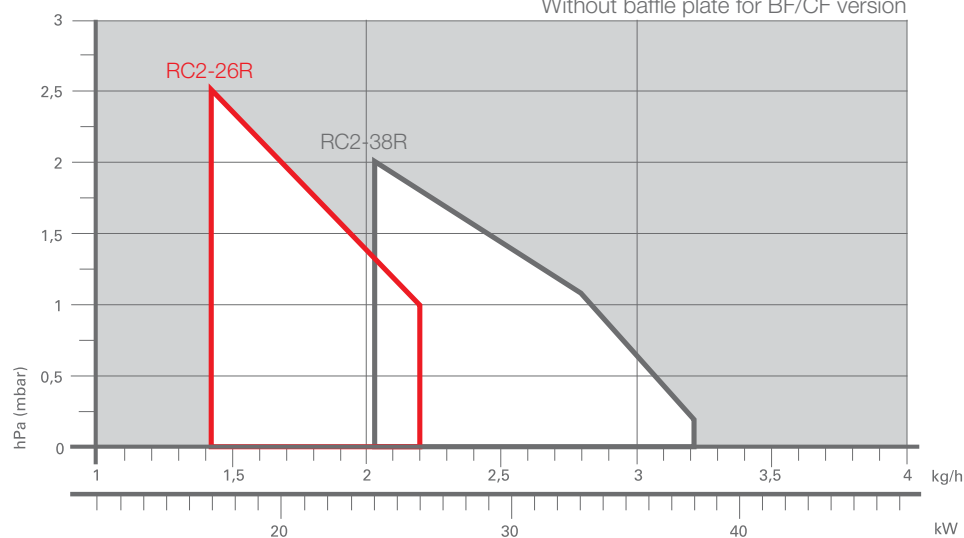
They are also flexible enough to suit both conventional and balanced flue versions, only changing the plastic screen to the snorkel in the air intake. These burners come with or without the cover. This designed marks Riello entry into many applications in the market which require both high performance and compact size. All RC2-R burners are fired before leaving the factory.

RC2-26R	17 ÷ 26 kW
RC2-38R	24 ÷ 38 kW
RC2-46R	33 ÷ 46 kW
RC2.1-46R	33 ÷ 46 kW



## FIRING RATES

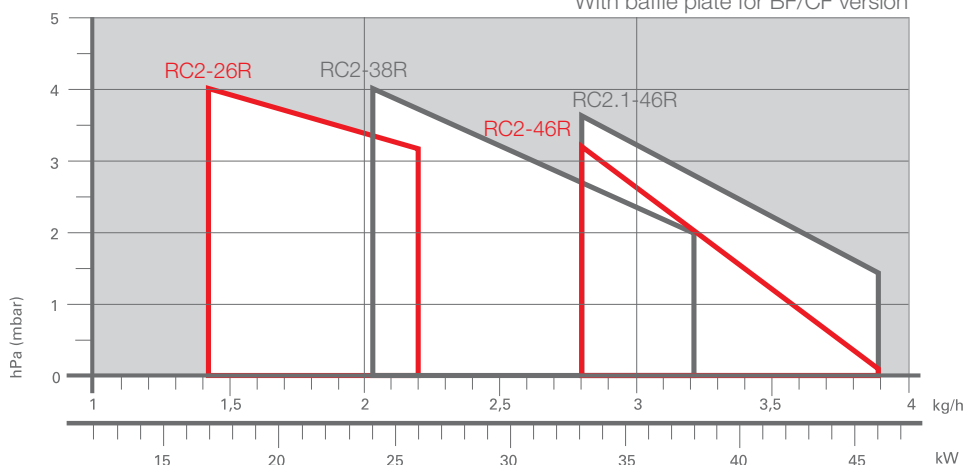
Without baffle plate for BF/CF version



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.

With baffle plate for BF/CF version

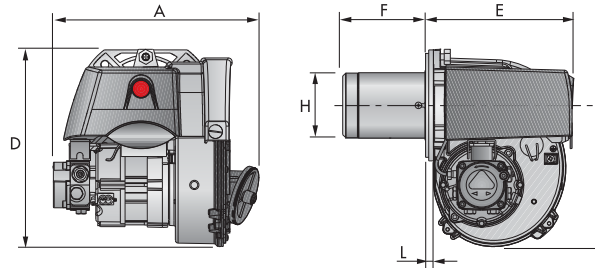


# One Stage Light Oil Burners

## RC SERIES

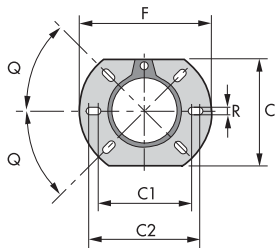
### Overall dimensions (mm)

#### BURNER



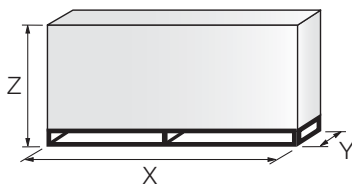
Model	A	D	E	F	H	I	L
► RC2-26R	267	256	192	108	85	183	10
► RC2-38R	267	256	192	108	85	183	10
► RC2-46R	267	256	192	108	85	183	10
► RC2.1-46R	267	256	192	108	85	183	10

#### BURNER - BOILER MOUNTING FLANGE



Model	C	C1	C2	F	Q	R
► RC2-26R	144	130	150	180	45°	11
► RC2-38R	144	130	150	180	45°	11
► RC2-46R	144	130	150	180	45°	11
► RC2.1-46R	144	130	150	180	45°	11

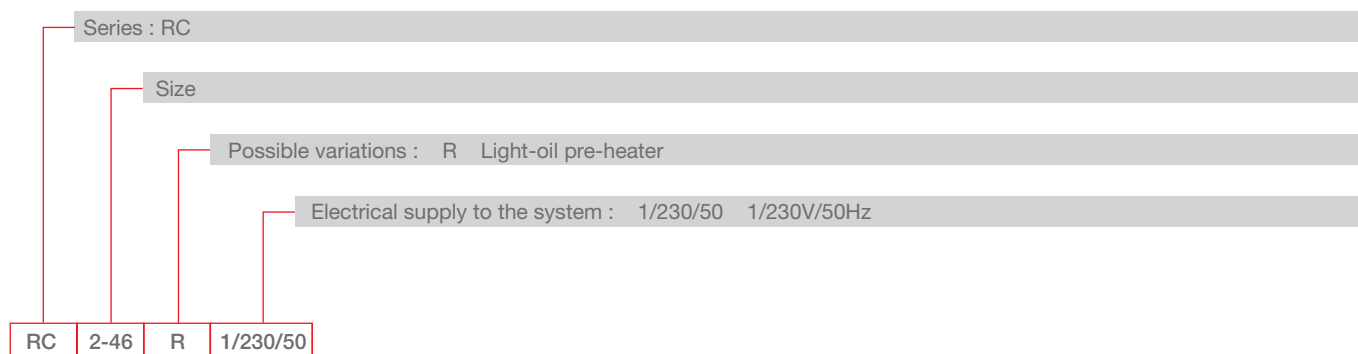
#### PACKAGING



Model	X	Y	Z	kg
► RC2-26R	363	295	310	10
► RC2-38R	363	295	310	10
► RC2-46R	363	295	310	10
► RC2.1-46R	363	295	310	10

## Specification

### DESIGNATION OF SERIES



### STATE OF SUPPLY

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

- Forward blades fan and airtight fan house for high performance
- Air damper with adjustment for conventional flue version
- Single phase electric motor 230 V, 50 Hz
- Combustion head made up of:
  - stainless steel end cone resistant to high temperatures
  - ignition electrodes
  - flame stability disk
- Geared pump for fuel supply, fitted with:
  - filter
  - pressure regulator
  - connectors for installing a pressure gauge and vacuumeter
  - inner by-pass for preparing for single pipe installation
- Fuel feed solenoid incorporated in the pump
- Photocell for flame detection
- Electronic flame control equipment
- IP X0D (IP 40) protection level.

#### Standard equipment:

- Two flexible pipes and two connectors
- Flange, screen screws and nuts for fixing
- Cable with 6-pole socket
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

# One Stage Light Oil Burners

## RC SERIES

## Available models

CODE	MODEL		HEAT OUTPUT		TOTAL ELECTRICAL POWER (kW)	CERTIFICATION	NOTE
			(kW)	(kg/h)			
3570050	RC2-26R	1/230/50	17 - 26	1,4 - 2,2	0,150	CE 0036 0352/04	
3571050	RC2-38R	1/230/50	24 - 38	2,0 - 3,2	0,150	CE 0036 0352/04	
3572050	RC2-46R	1/230/50	33 - 46	2,8 - 3,9	0,150	CE 0036 0352/04	

Net calorific value: 11,8 kWh/kg; 10200 kcal/kg - Viscosity at 20°C: 4÷6 mm²/s (cSt).  
The burners of RC series are in according to EN 267.

### Kerosene and ULSD

RC 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.

## Burner accessories









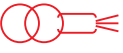


### Tester



The tester controls the correct working of the burner components. It can be fitted to all the light oil models. It is made up of two parts: a control instruments and a “control box”.

BURNER	KIT CODE
► All models	3087215



DIRECT TESTING	MEASUREMENTS
 <b>MOTOR</b> The switch feeds the motor.	 <b>L1-N</b> Main voltage (230 V)
 <b>VALVE</b> The switch feeds electromagnetic winding of the coil. A red led signals excitation stage, and a green led signals retainer stage.	  Pre-heater current consumption
 <b>PRE-HEATER</b> The switch feeds the light oil pre-heater; a green led signals the thermostat cut-in.	  Secondary voltage (low voltage)
 <b>TRANSFORMER</b> The switch feeds the firing transformer inside the control box and excites the oil valve.	  Photo-resistance current consumption

## Burner accessories

### 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

### Balanced flue conversion kit



The RC2-R models are easily converted from conventional flue to balanced flue version, by replacing the plastic air intake with the connector for the air supply pipe.

BURNER	KIT CODE
► RC2-26R/38R/46R	3002721
► RC2.1-46R	3020132

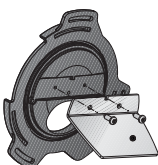
### Hour counter kit for 530 SE and 531 SE control boxes



To measure the burner working time a hour counter kit is available.

BURNER	KIT CODE
► All models	3000904

### Baffle plate kit



To improve the burner ventilation performances a baffle plate kit is available.

BURNER	KIT CODE
► RC2-26R/38R/46R	3002720





## 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.

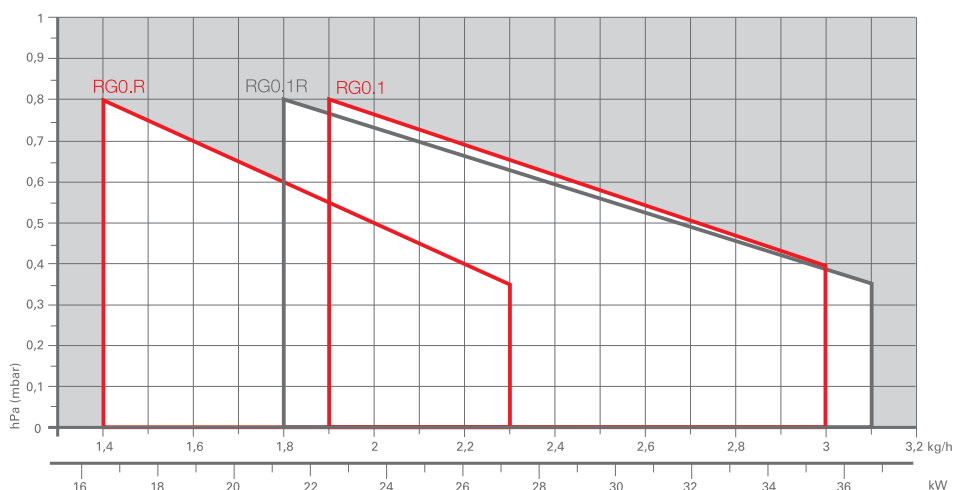
All the models are approved by the EN 267 European Standard and conform to European Directives for EMC, Low Voltage, Machinery and Boiler Efficiency.

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



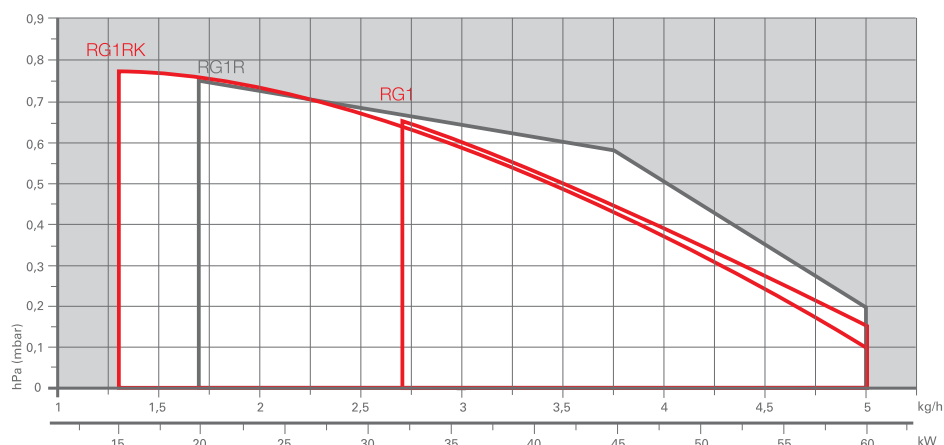
RG0.R	16,6 ÷ 27,3 kW
RG0.1	22,5 ÷ 35,6 kW
RG0.1R	21,3 ÷ 36,7 kW
RG1	32,0 ÷ 60,0 kW
RG1R	20,0 ÷ 60,0 kW
RG1RK	15,0 ÷ 60,0 kW
RG2	47,0 ÷ 119,0 kW
RG3	83,0 ÷ 178,0 kW
RG4S	118,5 ÷ 237,0 kW
RG5S	160,0 ÷ 309,5 kW

## FIRING RATES



Useful working field  
for choosing the  
burner

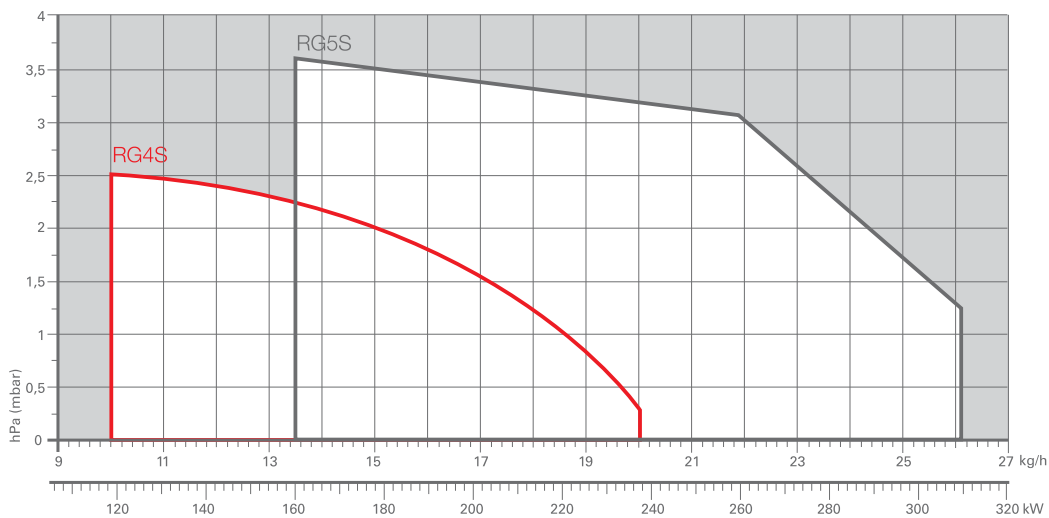
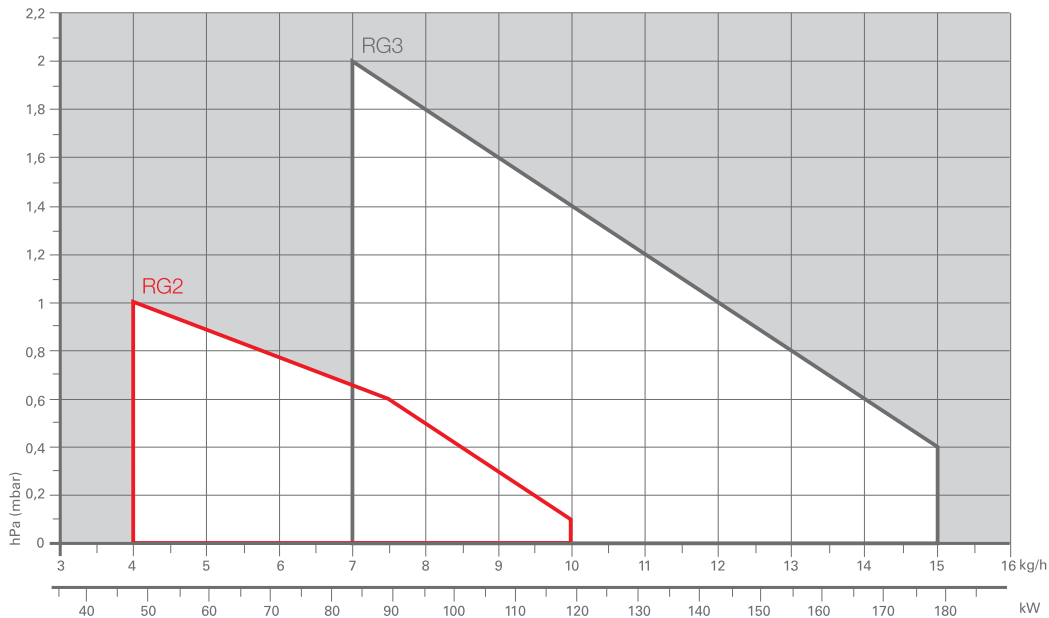
Test conditions  
conforming to EN267  
Temperature: 20°C  
Pressure: 1013,5 mbar  
Altitude: 0 m a.s.l.



# One Stage Light Oil Burners

## GULLIVER RG SERIES

### FIRING RATES



# One Stage Light Oil Burners

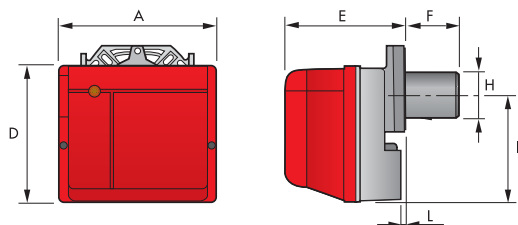
## GULLIVER RG SERIES

**RIELLO**

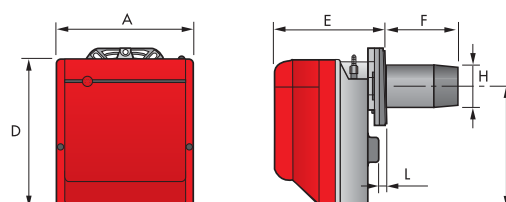
## Overall dimensions (mm)

### BURNER

GULLIVER RG0



GULLIVER RG

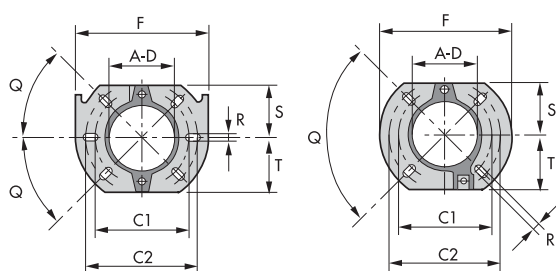


MODEL	A	D	E	F	H	I	L
► RG0.R	255	210	205	93	84	168	5
► RG0.1R	255	210	205	93	84	168	5
► RG0.1	255	210	205	93	84	168	5
► RG1	234	254	196	93	84	210	4
► RG1R	234	254	196	93	84	210	4
► RG1RK	234	254	196	111	84	210	4
► RG2	255	280	202	115	95	230	10
► RG3	300	345	228	142	123	285	12
► RG4S	300	345	228	142	123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

### BURNER - BOILER MOUNTING FLANGE

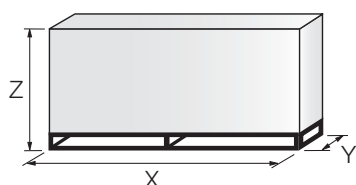
RG0.R - RG0.1R - RG0.1  
RG1 - RG1R - RG1RK - RG2

RG3 - RG4S  
RG5S



MODEL	A-D	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



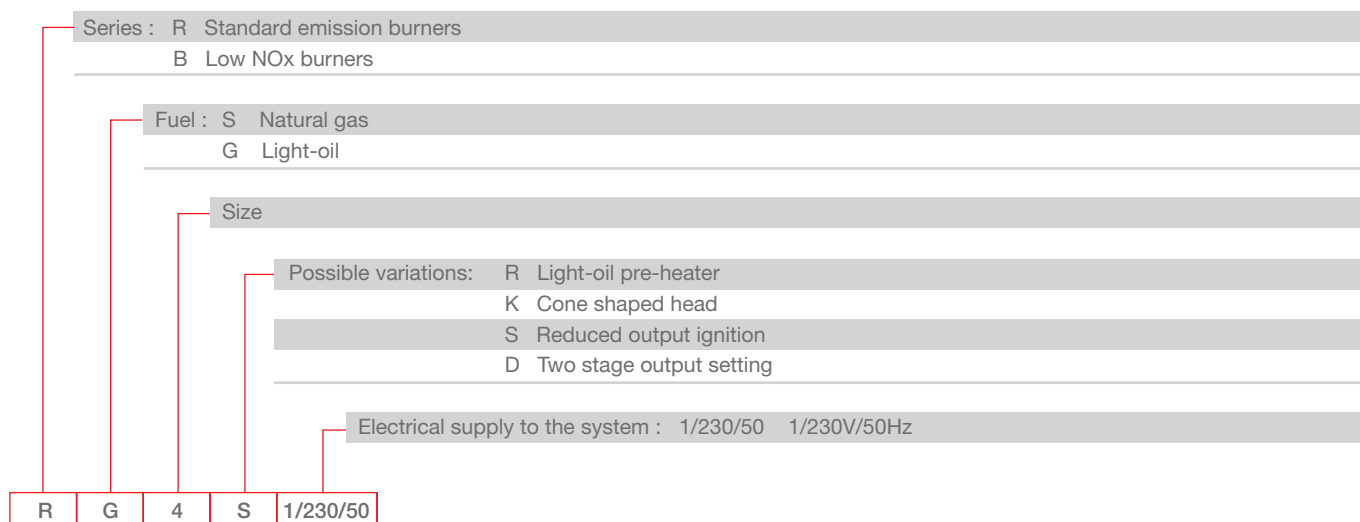
MODEL	X	Y	Z	kg
► RG0.R	358	300	300	9
► RG0.1R	358	300	300	9
► RG0.1	358	300	300	11
► RG1	353	278	320	13
► RG1R	353	278	320	13
► RG1RK	353	278	320	13
► RG2	363	298	350	13
► RG3	430	345	430	15
► RG4S	430	345	430	18
► RG5S	510	345	430	18

# 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 MO 550)
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

# One Stage Light Oil Burners

## GULLIVER RG SERIES

**RIELLO**

## 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	
3739350	RG3	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	
3739950	RG5S	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 mm²/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.

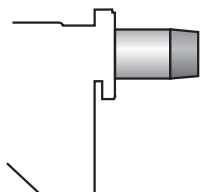
These burner variants can be provided upon request and after a technical-commercial evaluation; for more information please contact Riello Burners Commercial and Technical Department, our Application Engineers will be pleased to help you.

# One Stage Light Oil Burners

## GULLIVER RG SERIES

### Burner accessories

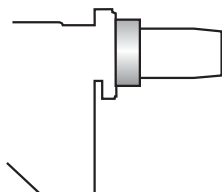
#### Extended head kit



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

### Tester



The tester controls the correct working of the burner components. It can be fitted to all the light-oil models, with or without pre-heater. It is made up of two parts: a control instrument and a "control box".

BURNER	KIT CODE
► All models	3087211



DIRECT TESTING	MEASUREMENTS
<b>MOTOR</b> The switch feeds the motor.	<b>L1-N</b> Main voltage (230 V)
<b>VALVE</b> The switch feeds electromagnetic winding of the coil. A red led signals excitation stage, and a green led signals retainer stage.	<b>Pre-heater current consumption</b>
<b>PRE-HEATER</b> The switch feeds the light oil pre-heater; a green led signals the thermostat cut-in.	<b>Secondary voltage (low voltage)</b>
<b>TRANSFORMER</b> The switch feeds the firing transformer inside the control box and excites the oil valve.	<b>Photo-resistance current consumption</b>

# One Stage Light Oil Burners

## GULLIVER RG SERIES

### Burner accessories

#### 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

#### 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



## GULLIVER RGD SERIES

The Riello Gulliver RGD series of two stage light oil burners, is a complete range of products developed to respond to any request for home heating. The Gulliver RGD series is available in five different models, with an output ranging from 14 to 296 kW, divided in four 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 ease of installation and adjustment, to obtaining the smallest size possible to fit into any sort of boiler available on the market.

The two stage operation guarantees high level of thermal unit efficiency.

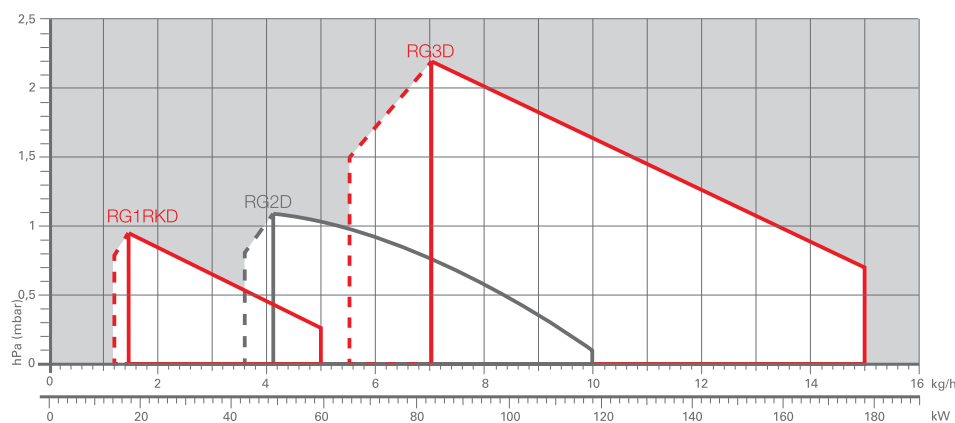
All the models are approved by the EN 267 European Standard and conform to European Directives for EMC, Low Voltage, Machinery and Boiler Efficiency.

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



RG1RKD	14/17 ÷ 60 kW
RG2D	42/49 ÷ 118 kW
RG3D	65/83 ÷ 178 kW
RG4D	106/130 ÷ 237 kW
RG5D	95/142 ÷ 296 kW

## FIRING RATES

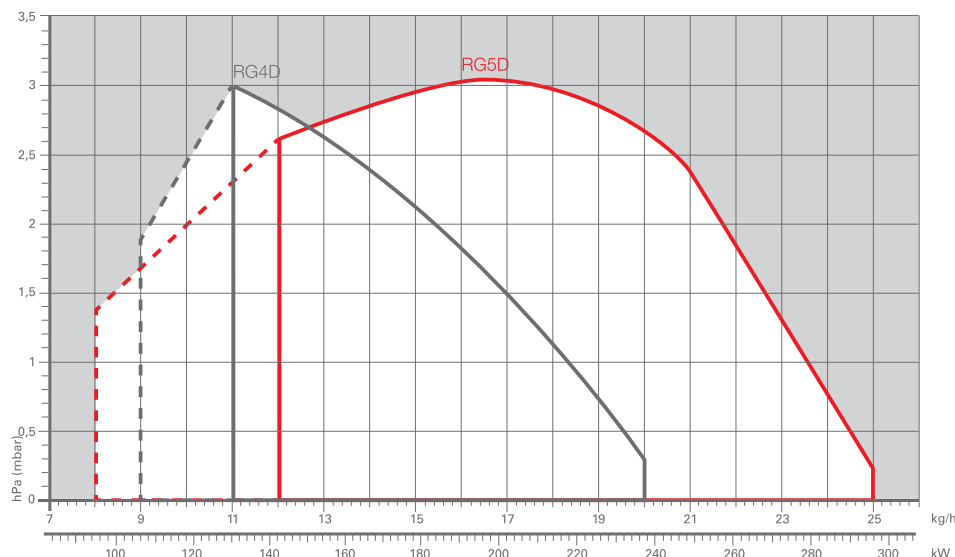


Useful working field  
for choosing the  
burner



1<sup>st</sup> stage operation  
range

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

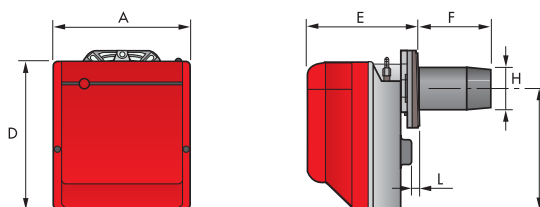


# Two Stage Light Oil Burners

## GULLIVER RGD SERIES

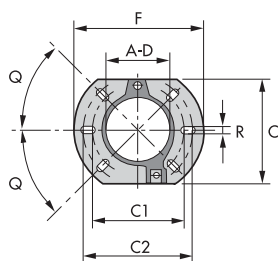
### Overall dimensions (mm)

#### BURNER



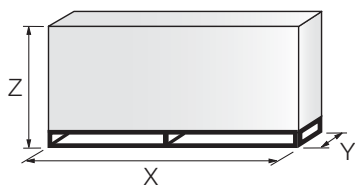
MODEL	A	D	E	F	H	I	L
► RG1RKD	234	254	196	111	84	210	4
► RG2D	255	280	202	115	95	230	10
► RG3D	300	345	228	142	123	285	12
► RG4D	300	345	228	142	123	285	12
► RG5D	300	345	247	159	125	285	12,5

#### BURNER - BOILER MOUNTING FLANGE



MODEL	A	C	C1	C2	D	F	Q	R
► RG1RKD	91	144	130	150	91	180	45°	11
► RG2D	106	166	140	168	106	189	45°	11
► RG3D	127	198	160	190	127	213	45°	11
► RG4D	127	198	160	190	127	213	45°	11
► RG5D	127	198	160	190	127	213	45°	11

#### PACKAGING



MODEL	X	Y	Z	kg
► RG1RKD	353	278	320	12
► RG2D	363	298	350	13
► RG3D	430	345	430	13
► RG4D	430	345	430	13
► RG5D	510	345	440	18

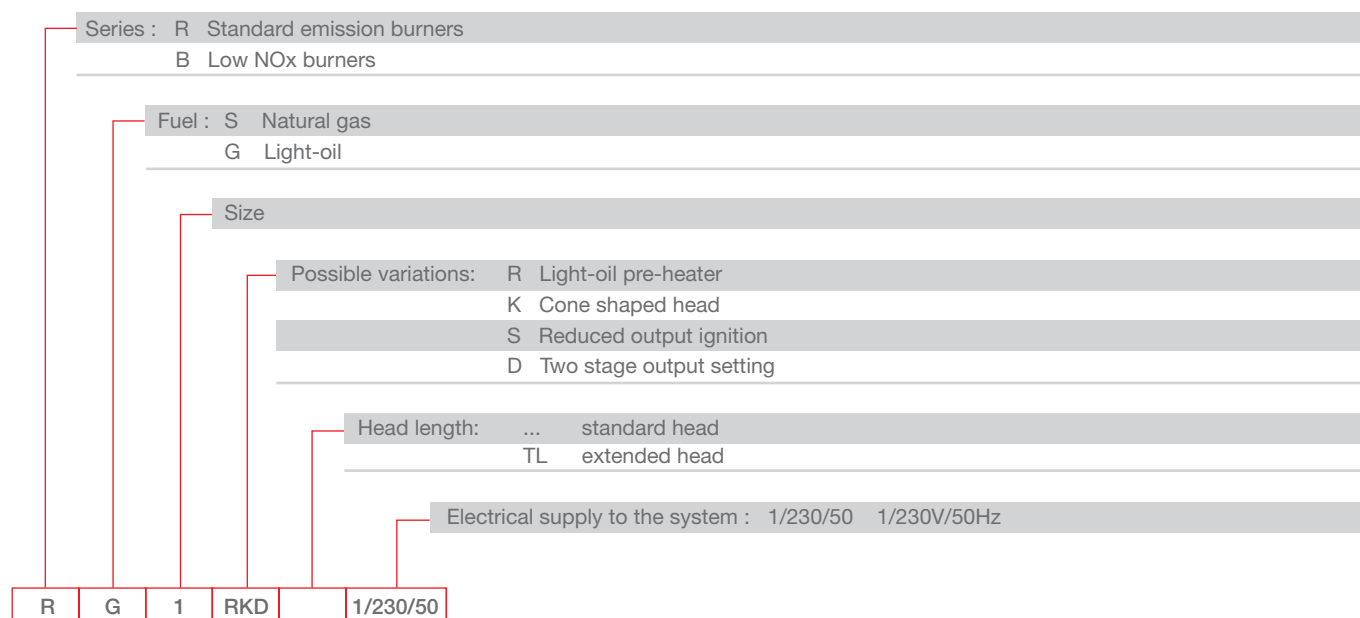
# Two Stage Light Oil Burners

## GULLIVER RGD SERIES

**RIELLO**

## Specification

### DESIGNATION OF SERIES



### STATE OF SUPPLY

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

- Fan with forward curve blades
- Cover lined with sound-proofing material
- Air damper completely closed in stand by
- Air damper, with 1st and 2nd stage adjustment (2nd stage adjustment without removing the casing)
- 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).

#### 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 MO 550)
- 4-pin plug
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

# Two Stage Light Oil Burners

## GULLIVER RGD SERIES

## Available models

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

### MODELS WITH ANALOGIC CONTROL BOX

3736650	RG1RKD	1/230/50	14/17 - 60	1,2/1,45 - 5	0,290	CE - 0036 0347/04	
3738050	RG2D	1/230/50	42/49 - 118	3,6/4,1 - 10	0,180	CE - 0036 0348/04	
3739450	RG3D	1/230/50	65/83 - 178	5,5/7 - 15	0,390	CE - 0036 0298/00	
3739750	RG4D	1/230/50	106/130 - 237	9/11 - 20	0,390	CE - 0036 0348/04	
3739850	RG5D	1/230/50	95/142 - 296	8/12 - 25	0,470	CE - 0036 0325/01	

### MODELS WITH DIGITAL CONTROL BOX MO 550

3736654	RG1RKD	1/230/50	14/17-60	1,2/1,45-5	0,290	CE - 0036 0347/04	
3738054	RG2D	1/230/50	42/49-118	3,6/4,1-10	0,180	CE - 0036 0348/04	
3738058	RG2D TL	1/230/50	42/49-118	3,6/4,1-10	0,180	CE - 0036 0348/04	
3739454	RG3D	1/230/50	65/83-178	5,5/7-15	0,390	CE - 0036 0298/00	
3739458	RG3D TL	1/230/50	65/83-178	5,5/7-15	0,390	CE - 0036 0298/00	
3739754	RG4D	1/230/50	106/130-237	9/11-20	0,390	CE - 0036 0348/04	
3739758	RG4D TL	1/230/50	106/130-237	9/11-20	0,390	CE - 0036 0348/04	
3739854	RG5D	1/230/50	95/142-296	8/12-25	0,470	CE - 0036 0325/01	
3739858	RG5D TL	1/230/50	95/142-296	8/12-25	0,470	CE - 0036 0325/01	

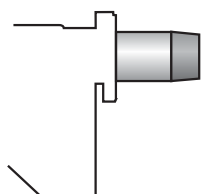
Net calorific value: 11,8 kWh/kg; 10200 kcal/kg - Viscosity at 20°C: 4÷6 mm²/s (cSt).  
The burners of RGD series are in according to EN 267.

### Kerosene and ULSD

Gulliver RGD 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.

## Burner accessories

### Extended head kit



Kits of extended heads are available.

BURNER	STANDARD HEAD LENGTH (mm)	EXTENDED HEAD LENGTH (mm)	KIT CODE
► RG1RKD	111	181	3000982
► RG2D	115	180	3000964
► RG2D	115	300	3000967
► RG3D	142	210	3000965
► RG3D	142	300	3000968
► RG4D	142	210	3000966
► RG4D	142	300	3000969
► RG5D	159	300	3000981

# Two Stage Light Oil Burners

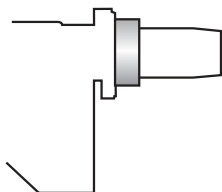
## GULLIVER RGD SERIES

**RIELLO**

LIGHT OIL

## Burner accessories

### 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
► RG1RKD	15	3007931
► RG2D	25	3000672
► RG3D - RG4D - RG5D	25	3000673

### 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

### 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
► RG1RKD - RG2D - RG3D - RG4D - RG5D	3002731

# Two Stage Light Oil Burners

## GULLIVER RGD SERIES

## 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
► RG1RKD	3001168+3007492
► RG2D - RG3D - RG4D - RG5D	3001168+3007492+3007792












### Tester



The tester controls the correct working of the burner components. It can be fitted to all the light-oil models, with or without pre-heater. It is made up of two parts: a control instrument and a "control box".

BURNER	KIT CODE
► All models	3087211



DIRECT TESTING	MEASUREMENTS
 MOTOR The switch feeds the motor.	 L1-N Main voltage (230 V)
 VALVE The switch feeds electromagnetic winding of the coil. A red led signals excitation stage, and a green led signals retainer stage.	  Pre-heater current consumption
 PRE-HEATER The switch feeds the light oil pre-heater; a green led signals the thermostat cut-in.	  Secondary voltage (low voltage)
 TRANSFORMER The switch feeds the firing transformer inside the control box and excites the oil valve.	  Photo-resistance current consumption

## GULLIVER RGF SERIES

The Riello Gulliver RGF series of one stage light oil burners, is a complete range of products developed to respond to any request for light industrial processes like bakery ovens, spray painting ovens, small steam or thermal boilers and all applications which require a reliable, user-friendly industrial product with enhanced performance and specific functions.

The Gulliver RGF series is available in four different models, with an output ranging from 32 to 237 kW, divided in three different structures.

All the models use the same components designed by Riello for the Gulliver series and have the same ventilation system and overall dimensions as the previous one stage light oil models.

This new series can operate on 50 or 60 Hz and a Voltage 220 - 230 Volt (dual frequency).

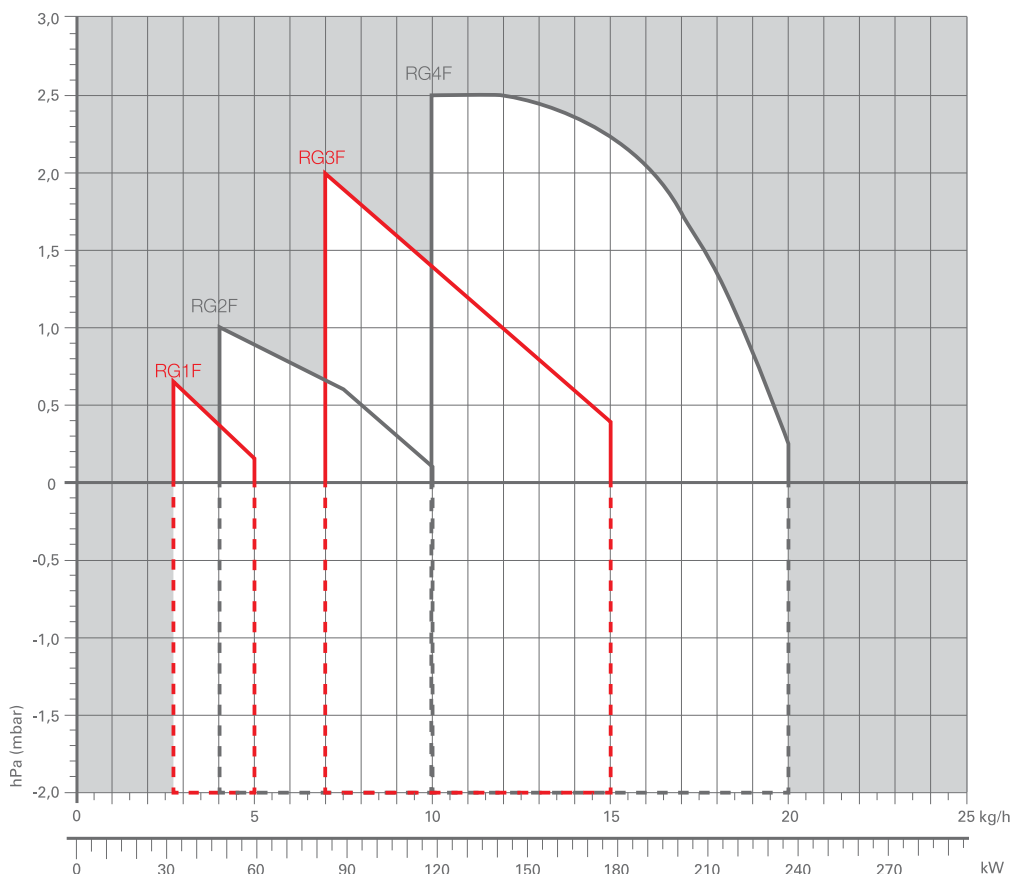
All these burners conform to the EN 267 Standard (Forced draught oil burners) and to European Directives for EMC, Low Voltage and Machinery. For depressurised working field see EN 746-2 Standard.

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



RG1F	32,0 ÷ 60,0 kW
RG2F	47,0 ÷ 119,0 kW
RG3F	83,0 ÷ 178,0 kW
RG4F	118,5 ÷ 237,0 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.

### IMPORTANT:

For the part of the  
working field that is  
depressurised, refer to  
EN 746-2 Standard.

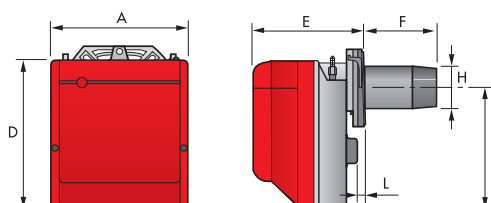
# One Stage Light Oil Burners

## GULLIVER RGF SERIES

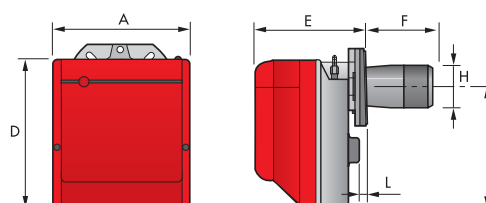
### Overall dimensions (mm)

#### BURNER

GULLIVER RG1F



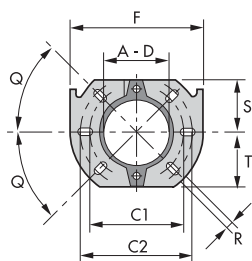
GULLIVER RG2F - RG3F - RG4F



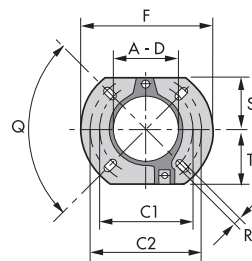
MODEL	A	D	E	F	H	I	L
► RG1F	234	254	196	93	84	210	4
► RG2F	255	280	202	115	95	230	10
► RG3F	300	345	228	142	123	285	12
► RG4F	300	345	228	142	125	285	12

#### BURNER - BOILER MOUNTING FLANGE

GULLIVER RG1F - RG2F

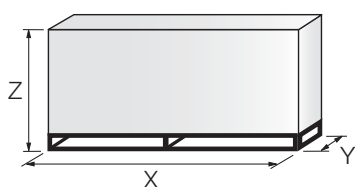


GULLIVER RG3F - RG4F



MODEL	A	C1	C2	D	F	Q	R	S	T
► RG1F	91	130	150	91	180	45°	11	72	72
► RG2F	106	140	168	106	189	45°	11	83	83
► RG3F	127	160	190	127	213	90°	11	99	99
► RG4F	127	160	190	127	213	90°	11	99	99

#### PACKAGING



MODEL	X	Y	Z	kg
► RG1F	353	278	320	13
► RG2F	363	298	350	13
► RG3F	430	345	430	15
► RG4F	430	345	430	18



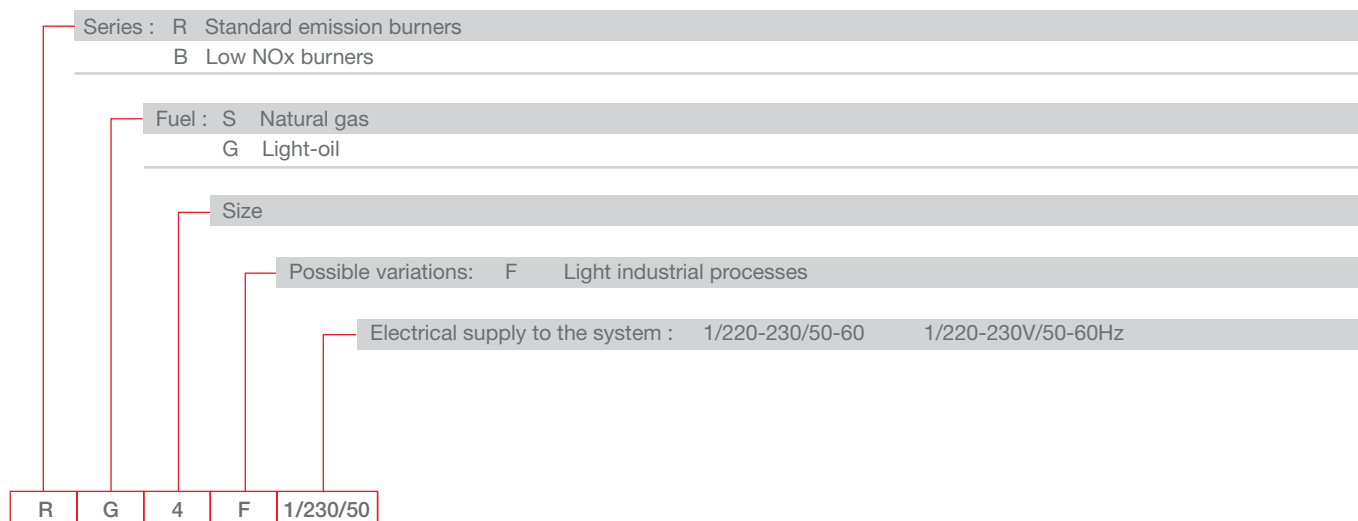
# One Stage Light Oil Burners

## GULLIVER RGF SERIES

RIELLO

## Specification

### DESIGNATION OF SERIES



LIGHT OIL

### STATE OF SUPPLY

Completely automatic monobloc light oil burners, with one stage operation fitted with:

- Fan with forward curve blades
- Cover lined with sound - proofing material
- Air damper, always open in stand by, with external adjustment, without need to remove the cover
- Single phase electric motor 220 - 230 V, 50 - 60 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.

#### Standard equipment:

- Flange with insulating gasket
- Screw and nuts for flange
- 7-pin plug
- Screw and nuts for flange to be fixed to the heat generator
- Flexible oil pipes with nipples
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

# One Stage Light Oil Burners

## GULLIVER RGF SERIES

### Available models

CODE	MODEL		HEAT OUTPUT		TOTAL ELECTRICAL POWER (kW)	CERTIFICATION	NOTE
			(kW)	(kg/h)			
3736370	RG1F	1/220-230/50-60	32 - 60	2,7 - 5	0,155 (at 50Hz) - 0,200 (at 60 Hz)	CE 0036 0341/03	
20039275	RG1F TL	1/220-230/50-60	32 - 60	2,7 - 5	0,155 (at 50Hz) - 0,200 (at 60 Hz)	CE 0036 0341/03	
3737770	RG2F	1/220-230/50-60	47 - 119	4 - 10	0,165 (at 50Hz) - 0,220 (at 60 Hz)	CE 0036 0344/03	
20039278	RG2F TL	1/220-230/50-60	47 - 119	4 - 10	0,165 (at 50Hz) - 0,220 (at 60 Hz)	CE 0036 0344/03	
3739370	RG3F	1/220-230/50-60	83 - 178	7 - 15	0,380 (at 50Hz) - 0,520 (at 60 Hz)	CE 0036 0348/04	
3739670	RG4F	1/220-230/50-60	118,5 - 237	10 - 20	0,370 (at 50Hz) - 0,510 (at 60 Hz)	CE 0036 0348/04	

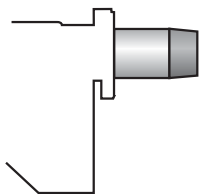
Net calorific value: 11,8 kWh/kg; 10200 kcal/kg - Viscosity at 20°C: 4÷6 mm<sup>2</sup>/s (cSt).  
The burners of RGF series are in according to EN 267 and 746-2.

#### Kerosene and ULSD

Gulliver RGF 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.

## Burner accessories

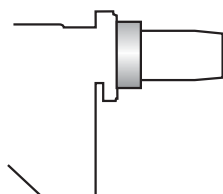
### Extended head kit



Kits of extended heads are available.

BURNER	STANDARD HEAD LENGTH (mm)	EXTENDED HEAD LENGTH (mm)	KIT CODE
► RG1F	93	163	3000963
► RG2F	115	180	3000964
► RG2F	115	300	3000967
► RG3F	142	210	3000965
► RG3F	142	300	3000968
► RG4F	142	210	3000966
► RG4F	142	300	3000969

### 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
► RG1F	15	3007931
► RG2F	25	3000672
► RG3F - RG4F	25	3000673

### Pre-heater kit

This kit is used only for Gulliver RG1F burner. It can be installed in special atmospheric conditions (low temperatures), with high diesel oil viscosity and with low deliveries.

BURNER	KIT CODE
► RG1F	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
► All models	3001168+3007492+3007792

### Tester



The tester controls the correct working of the burner components. It can be fitted to all the light-oil models, with or without pre-heater. It is made up of two parts: a control instrument and a "control box".

BURNER	KIT CODE
► All models	3087211



DIRECT TESTING	MEASUREMENTS
MOTOR The switch feeds the motor.	L1-N Main voltage (230 V)
VALVE The switch feeds electromagnetic winding of the coil. A red led signals excitation stage, and a green led signals retainer stage.	 Pre-heater current consumption
PRE-HEATER The switch feeds the light oil pre-heater; a green led signals the thermostat cut-in.	 Secondary voltage (low voltage)
TRANSFORMER The switch feeds the firing transformer inside the control box and excites the oil valve.	 Photo-resistance current consumption

# One Stage Light Oil Burners

## GULLIVER RGF SERIES

### Burner accessories

#### 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

#### 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

## GULLIVER RGDF SERIES

The Riello Gulliver RG5DF is a new model of one stage light oil burner, developed to respond to any request for light industrial processes like bakery ovens, spray painting ovens, small steam or thermal boilers and all applications which require a reliable, user-friendly industrial product with enhanced performance and specific functions.

This model uses the same components designed by Riello for the Gulliver series and has the same ventilation system and overall dimensions as the previous two stage light oil model.

This new burner can operate on 50 or 60 Hz and a Voltage 220 - 230 Volt (dual frequency). It is conform to the EN 267 Standard (Forced draught oil burners) and to European Directives for EMC, Low Voltage and Machinery. For depressurised working field see EN 746-2 Standard.

The Gulliver RG5DF burner is fired before leaving the factory.

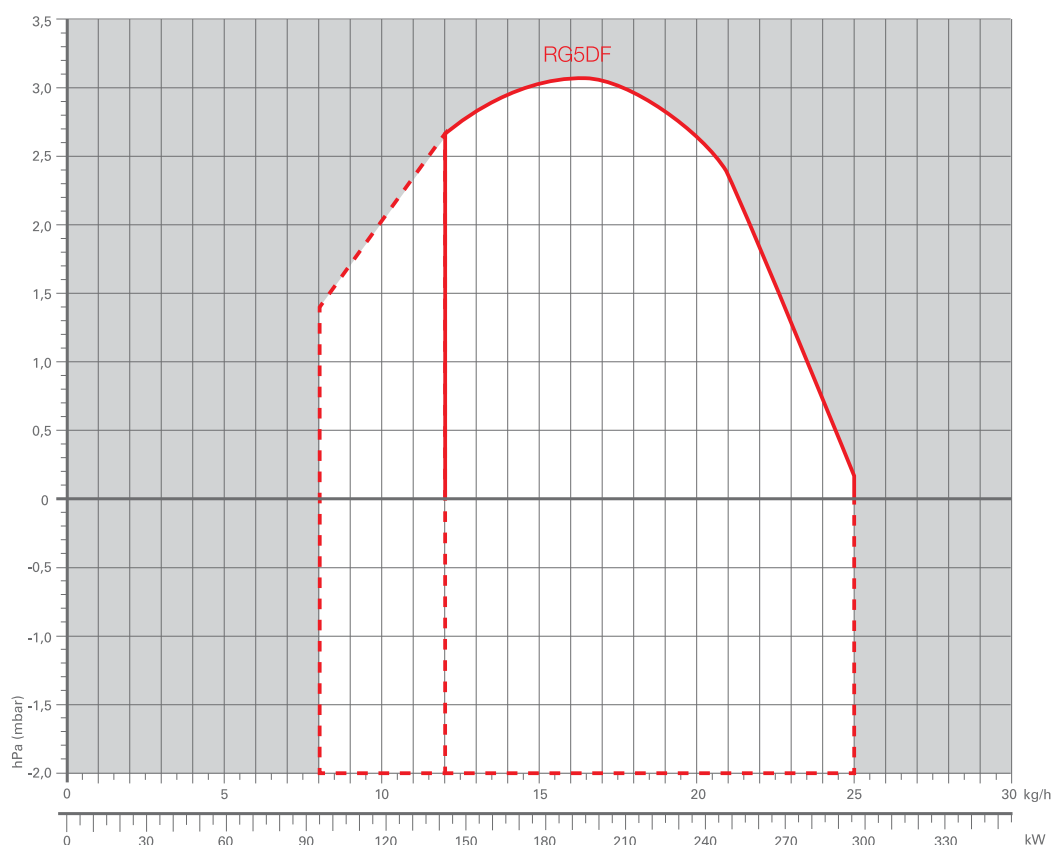


RG5DF

95/142 ÷ 296 kW

LIGHT OIL

## FIRING RATES



Useful working field for choosing the burner



1<sup>st</sup> stage operation range

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

### IMPORTANT:

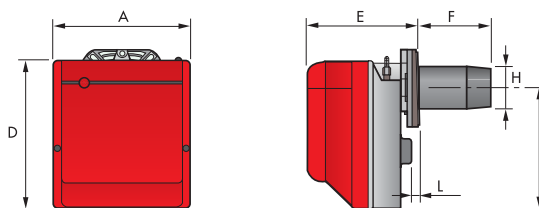
For the part of the working field that is depressurised, refer to EN 746-2 Standard.

## Two Stage Light Oil Burners

### GULLIVER RGDF SERIES

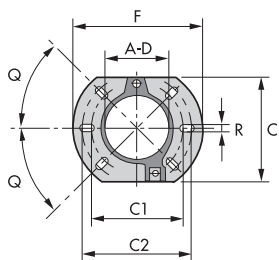
## Overall dimensions (mm)

### BURNER



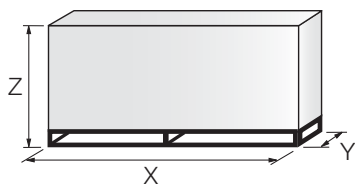
MODEL	A	D	E	F	H	I	L
► RG5DF	300	345	247	159	125	285	12,5

### BURNER - BOILER MOUNTING FLANGE



MODEL	A	C	C1	C2	D	F	Q	R
► RG5DF	127	198	160	190	127	213	45°	11

### PACKAGING



MODEL	X	Y	Z	kg
► RG5DF	510	345	440	18

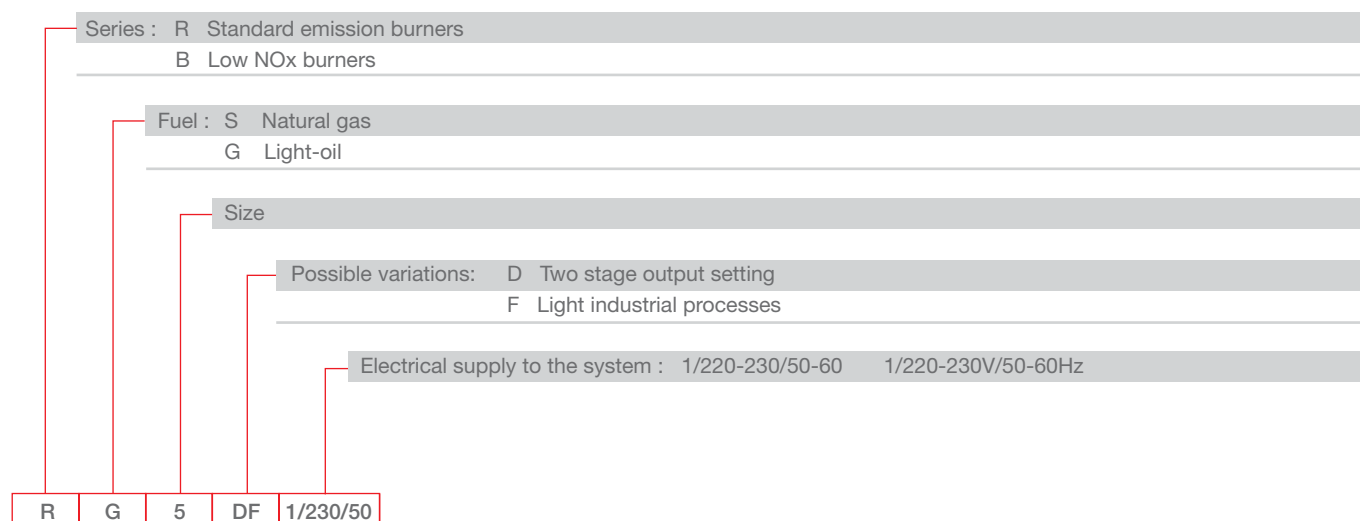
# Two Stage Light Oil Burners

## GULLIVER RGDF SERIES

RIELLO

## Specification

### DESIGNATION OF SERIES



LIGHT OIL

### STATE OF SUPPLY

Completely automatic monobloc light oil burners, with two stage operation fitted with:

- Fan with forward curve blades
- Cover lined with sound-proofing material
- Air damper always open in stand-by
- Air damper, with 1st and 2nd stage adjustment (2nd stage adjustment without removing the casing)
- Single phase electric motor 220 - 230 V/ 50 - 60 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.

#### Standard equipment

- Flange with insulating gasket
- Screw and nuts for flange
- Screws and nuts for flange to be fixed to the heat generator
- Flexible oil pipes with nipples
- 7-pin plug
- 4-pin plug
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

# Two Stage Light Oil Burners

## GULLIVER RGDF SERIES

### Available models

CODE	MODEL	HEAT OUTPUT		TOTAL ELECTRICAL POWER	CERTIFICATION	NOTE
		(kW)	(kg/h)	(kW)		
3739870	RG5DF 1/220-230/50-60	95/142 - 296	8/12 - 25	0,400 (at 50 Hz) - 0,575 (at 60 Hz)	CE - 0036 0325/01	

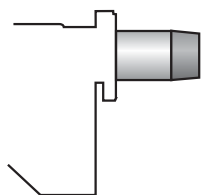
Net calorific value: 11,8 kWh/kg; 10200 kcal/kg - Viscosity at 20°C: 4÷6 mm²/s (cSt).  
The burners of RGDF series are in according to EN 267 and 746-2.

#### Kerosene and ULSD

Gulliver RGDF 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.

### Burner accessories

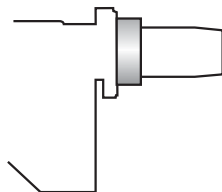
#### Extended head kit



Kits of extended heads are available.

BURNER	STANDARD HEAD LENGTH (mm)	EXTENDED HEAD LENGTH (mm)	KIT CODE
► RG5DF	159	300	3000981

#### 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
► RG5DF	25	3000673

#### 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
► RG5DF	60	3006561

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

BURNER	FILTERING DEGREE (µm)	KIT CODE
► RG5DF	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
► RG5DF	100	3000926



# Two Stage Light Oil Burners

## GULLIVER RGDF SERIES

**RIELLO**

## Burner accessories

### 7-pin plug kit

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

BURNER	KIT CODE
► RG5DF	3000945

### 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
► RG5DF	3001168+3007492+3007792

### Tester



The tester controls the correct working of the burner components. It can be fitted to all the light-oil models, with or without pre-heater. It is made up of two parts: a control instrument and a "control box".

BURNER	KIT CODE
► RG5DF	3087211



DIRECT TESTING	MEASUREMENTS
MOTOR The switch feeds the motor.	L1-N Main voltage (230 V)
VALVE The switch feeds electromagnetic winding of the coil. A red led signals excitation stage, and a green led signals retainer stage.	Pre-heater current consumption
PRE-HEATER The switch feeds the light oil pre-heater; a green led signals the thermostat cut-in.	Secondary voltage (low voltage)
TRANSFORMER The switch feeds the firing transformer inside the control box and excites the oil valve.	Photo-resistance current consumption



## REG SERIES

The REG series of one stage light oil burners, is available in two models with an output ranging from 21 to 60 kW, in a single structure.

The models are available with or without casing and with or without pre-heater.

These models are distinguished by their compact size.

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

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

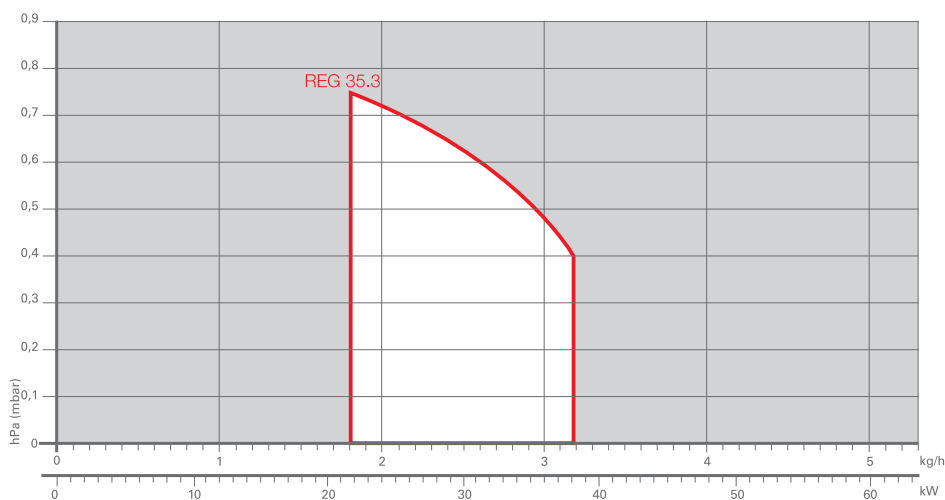
All the models are approved by European EN 267 standard and conform to European Directives for EMC, Low Voltage, Machinery and Boiler Efficiency.

All the REG series of burners are fired before leaving the factory.



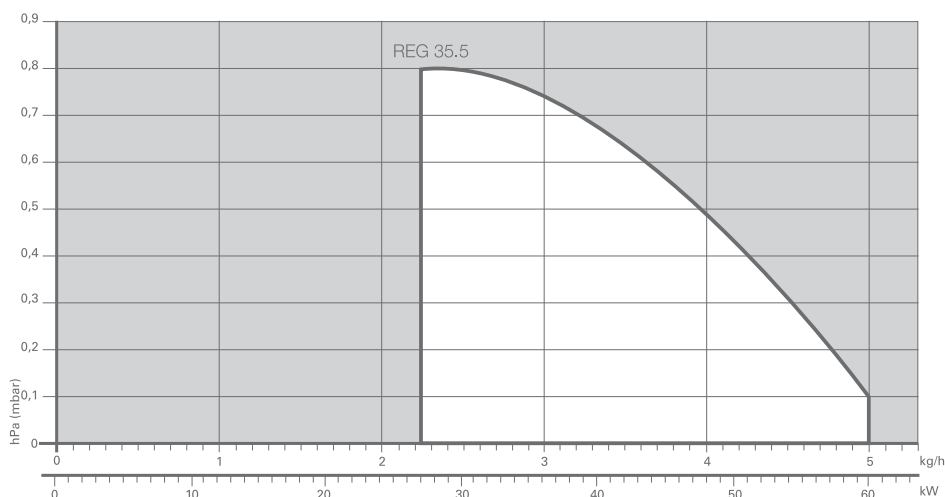
REG 35.3	21 ÷ 38 kW
REG 35.5	27 ÷ 60 kW

## 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.

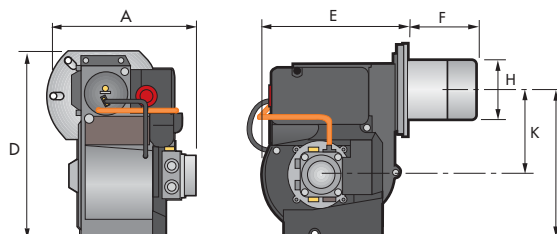
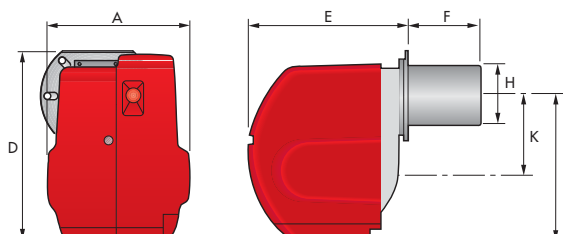


# One Stage Light Oil Burners

## REG SERIES

### Overall dimensions (mm)

#### BURNER



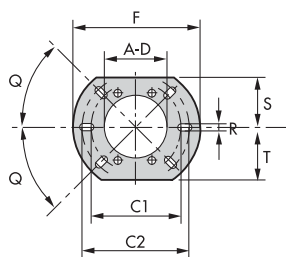
MODEL	A	D	E	F *	H	I	K
► REG 35.3 (1)	215,5	279	211	82	89	211,5	121,5
► REG 35.5 (1)	215,5	279	211	80	89	211,5	121,5
► REG 35.3 (2)	223	282	240,5	82	89	214,5	121,5
► REG 35.5 (2)	223	282	240,5	80	89	214,5	121,5

(1) Basic version.

(2) With cover.

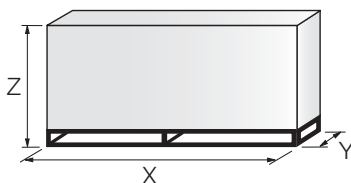
\* The combustion head is available in 2 different lengths.

#### BURNER - BOILER MOUNTING FLANGE



MODEL	A	C1	C2	D	F	Q	S	T
► REG 35.3	95	130	150	95	170	45°	65	65
► REG 35.5	95	130	150	95	170	45°	65	65

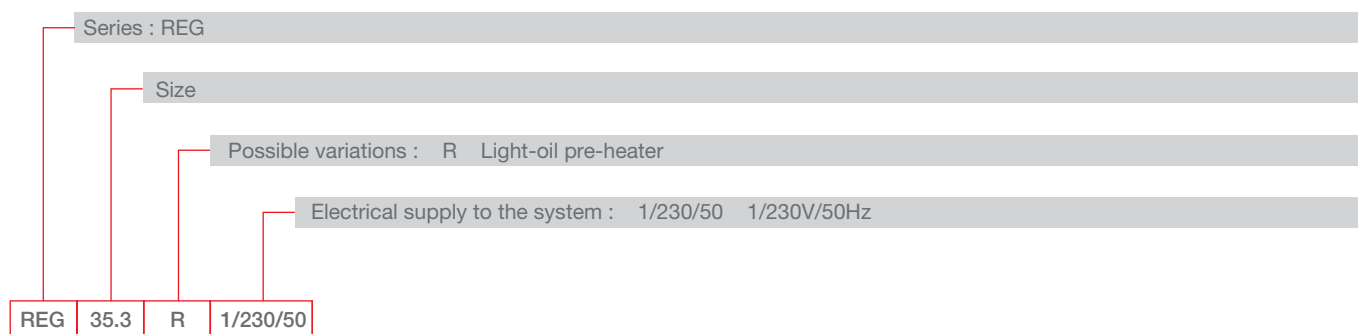
#### PACKAGING



MODEL	X	Y	Z	kg
► REG 35.3	347	310	220	10
► REG 35.5	347	310	220	10

## Specification

### DESIGNATION OF SERIES



### STATE OF SUPPLY

Monoblock fully automatic light oil burners, one stage operation, made up of:

- Fan with forward curve blades
- Adjustable air damper
- Single phase electric motor 230 V, 50 Hz
- Combustion head, fitted with:
  - stainless steel end cone, resistant to high temperatures
  - ignition electrodes
  - flame stability disk
- Geared pump for fuel supply, fitted with:
  - filter
  - pressure regulator
  - connectors for installing a pressure gauge and vacuumeter
  - internal by-pass for preparing for single pipe installation
- Fuel feed solenoid incorporated in the pump
- Photocell for flame detection
- Electronic flame control equipment
- Light oil nozzle
- IP X0D (IP 40) protection level
- Fuel heater (optional).

#### Standard equipment:

- Two flexible pipes for connecting to the light oil supply line
- Two nipples for connecting to the pump
- Flange, screws and nuts for fixing
- Thermal screen
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

# One Stage Light Oil Burners

## REG SERIES

## Available models

CODE	MODEL		HEAT OUTPUT		TOTAL ELECTRICAL POWER (kW)	CERTIFICATION	NOTE
			(kW)	(kg/h)			
3772115	REG 35.3	1/230/50	21 - 38	1,8 - 3,2	0,170	CE - 0036 0342/03	
3772117	REG 35.3	1/230/50	21 - 38	1,8 - 3,2	0,170	CE - 0036 0342/03	(1)
3772216	REG 35.5	1/230/50	27 - 60	2,3 - 5	0,170	CE - 0036 0342/03	
3772217	REG 35.5	1/230/50	27 - 60	2,3 - 5	0,170	CE - 0036 0342/03	(1)

(1) With cable for electrical connection to the boiler.  
 Net calorific value: 11,8 kWh/kg; 10200 kcal/kg - Viscosity at 20°C: 4÷6 mm²/s (cSt).  
 The burners of REG series are in according to EN 267.

### Kerosene and ULSD

REG 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.

## Burner accessories

### Cover kit



Besides the basic version, the burners are also available with a plastic protective cover.

Two models of cover are available:

- for burners installed in the standard position
- for burners installed upside down.

VERSION	KIT CODE
► Standard installation	3002569
► Upside down installation	3002569+3008902

### 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

## RIELLO 40 G SERIES

The Riello 40 G series of one stage light oil burners, is a complete range of products developed to respond to any request for home heating. The Riello 40 G series is available in ten different models, with an output ranging from 12 to 240 kW, divided into four different structures.

All the models use the same components designed by Riello for the Riello 40 G series. The high quality level guarantees safe working.

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

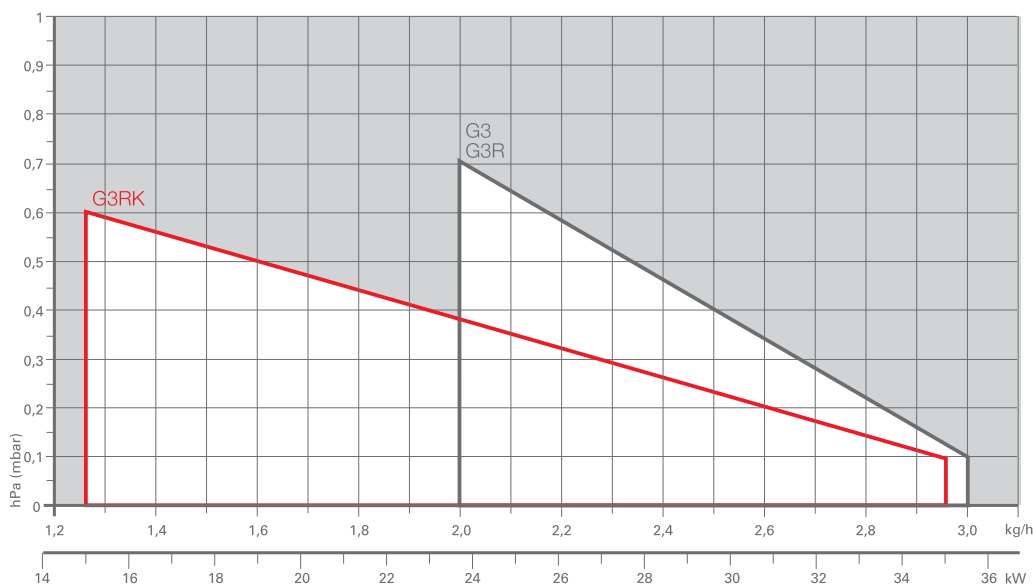
All the models are approved by the EN 267 European Standard and conform to European Directives for EMC, Low Voltage, Machinery and Boiler Efficiency.

All the Riello 40 G burners are fired before leaving the factory.



<b>G3</b>	23,8 ÷ 35,5 kW
<b>G3R</b>	23,8 ÷ 35,5 kW
<b>G3RK</b>	15,0 ÷ 35,0 kW
<b>G5</b>	28,0 ÷ 60,0 kW
<b>G5R</b>	28,0 ÷ 60,0 kW
<b>G5RK</b>	12,0 ÷ 60,0 kW
<b>G7</b>	29,0 ÷ 69,0 kW
<b>G10</b>	54,0 ÷ 120,0 kW
<b>G20</b>	95,0 ÷ 213,0 kW
<b>G20S</b>	95,0 ÷ 240,0 kW

## FIRING RATES



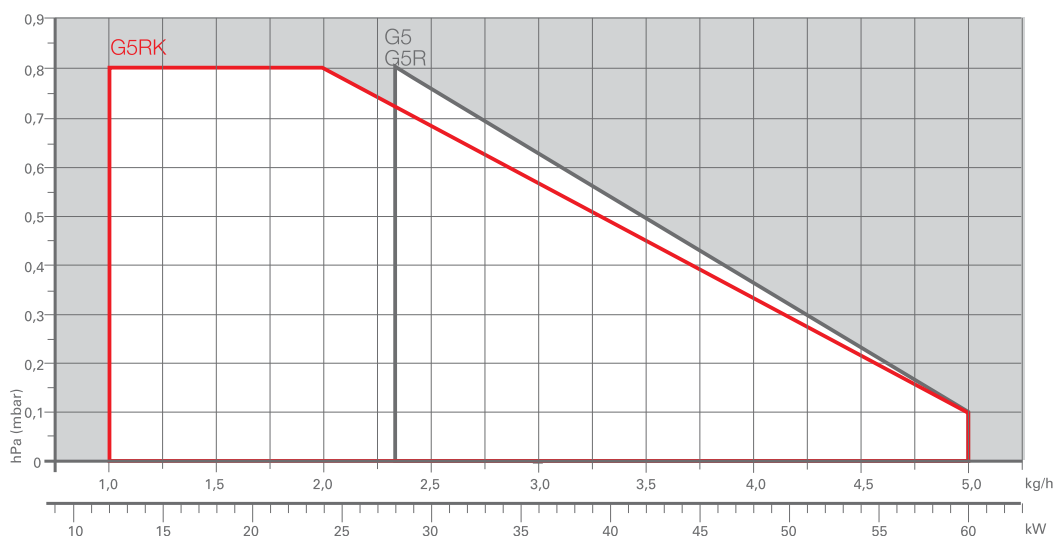
Useful working field  
for choosing the  
burner

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

# One Stage Light Oil Burners

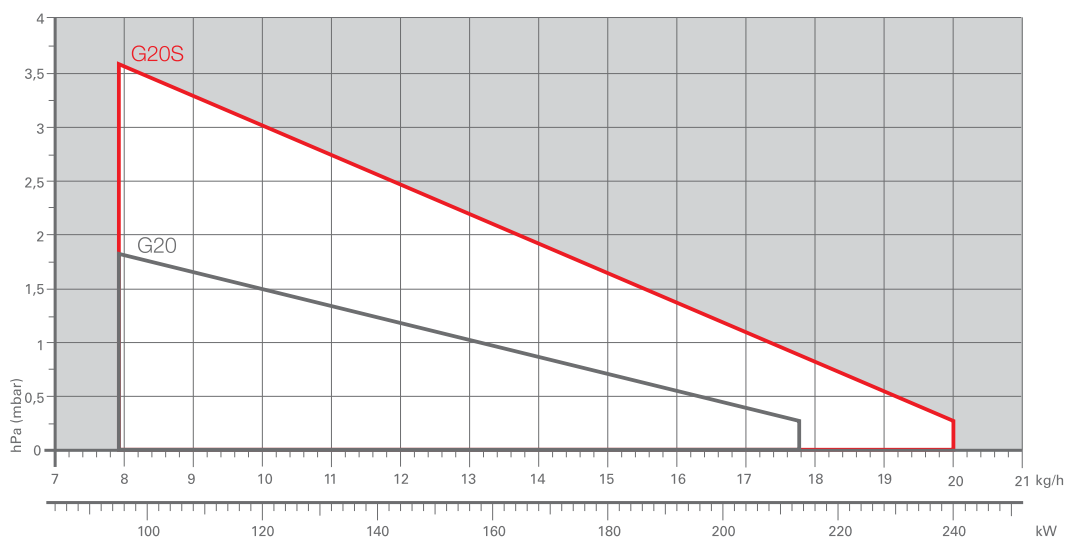
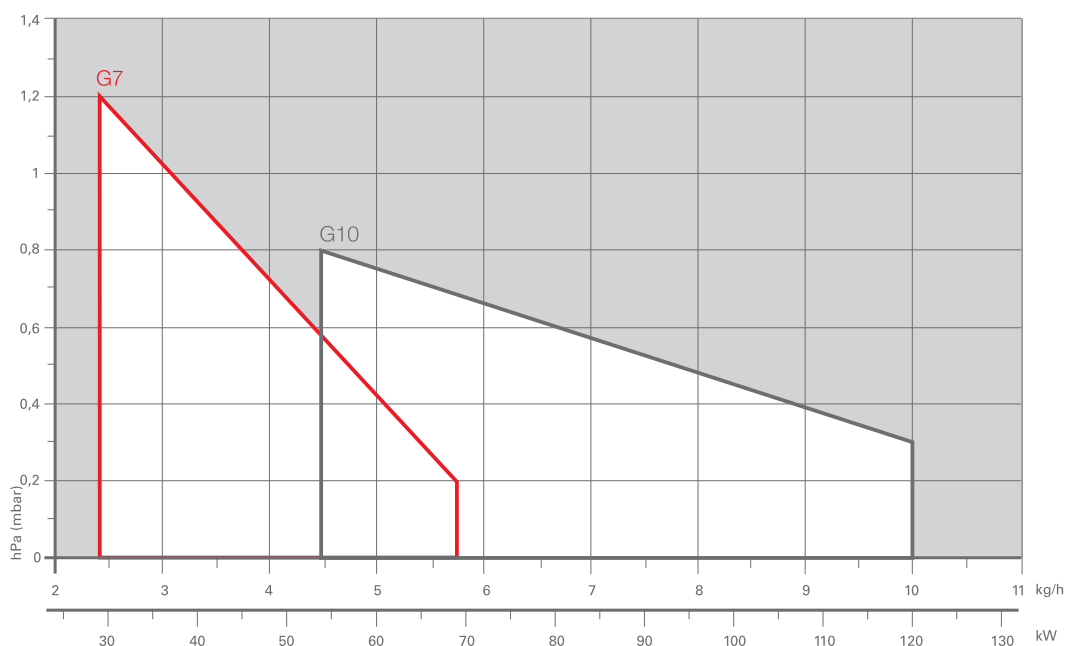
## RIELLO 40 G SERIES

### 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.





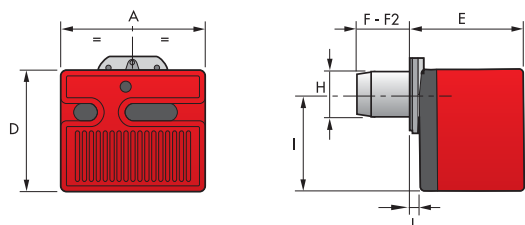
# One Stage Light Oil Burners

## RIELLO 40 G SERIES

**RIELLO**

## Overall dimensions (mm)

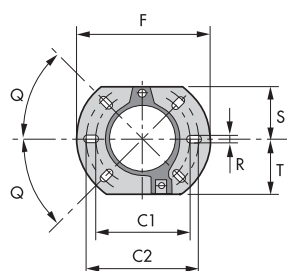
### BURNER



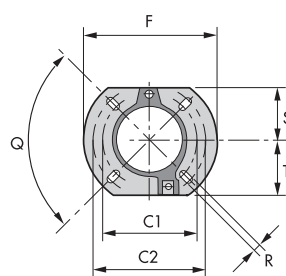
MODEL	A	D	E	F	F2	H	I	L
► G3	252	215	203	86	-	89	164	19
► G3R	252	215	203	86	-	89	164	19
► G3RK	252	215	203	97	115	89	164	19
► G5	272	233	236	107	-	89	180	37
► G5R	272	233	236	107	-	89	180	37
► G5RK	272	233	236	94	112	89	180	37
► G7	305	262	261	73	-	89	204	40
► G10	305	262	261	108	-	105	204	40
► G20	350	298	295	118	-	125	230	41
► G20S	350	298	295	118	-	125	230	41

### BURNER - BOILER MOUNTING FLANGE

G3 - G3R - G3RK - G5 - G5R - G5RK - G7 - G10

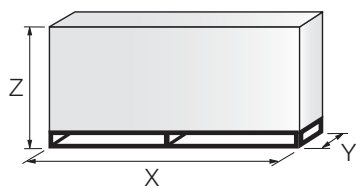


G20 - G20S



MODEL	C1	C2	F	Q	R	S	T
► G3 - G3R - G3RK - G5 - G5R - G5RK	130	150	180	45°	11	72	75
► G7 - G10	140	170	189	45°	11	83	83
► G20 - G20S	160	190	213	90°	11	99	99

### PACKAGING



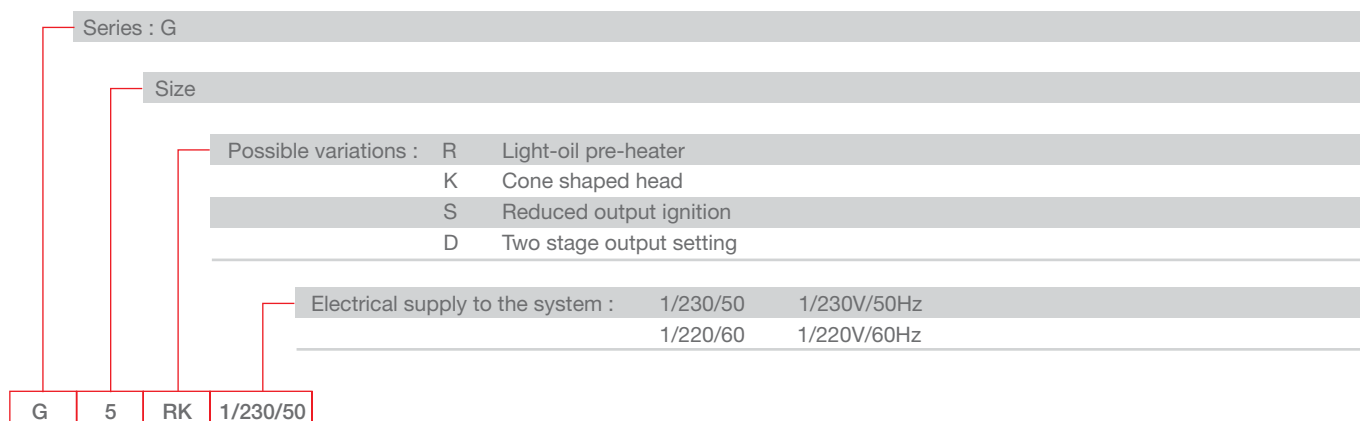
MODEL	X	Y	Z	kg
► G3	363	295	310	10
► G3R	363	295	310	10
► G3RK	363	295	310	10,5
► G5	383	315	325	12
► G5R	383	315	325	12
► G5RK	383	315	325	12
► G7	423	348	340	13
► G10	423	348	340	13
► G20	483	393	377	16
► G20S	483	393	377	17,5

# One Stage Light Oil Burners

## RIELLO 40 G 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
- Metallic cover lined with sound-proofing material
- Air damper, completely closed in stand by, with adjustment
- 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
- 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 gasket
- 7-pin plug (on request)
- Maintenance assembly
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

# One Stage Light Oil Burners

## RIELLO 40 G SERIES

**RIELLO**

### Available models

CODE	MODEL		HEAT OUTPUT		TOTAL ELECTRICAL POWER	CERTIFICATION	NOTE
			(kW)	(kg/h)	(kW)		
3743125	G3	1/230/50	23,8 - 35,5	2 - 3	0,115	CE - 0036 0315/01	
3743831	G3R	1/230/50	23,8 - 35,5	2 - 3	0,165	CE - 0036 0315/01	
3743412	G3RK	1/230/50	15 - 35	1,3 - 3	0,170	CE - 0036 0254/99	
3744512	G5	1/230/50	28 - 60	2,3 - 5	0,130	-	
3744612	G5R	1/230/50	28 - 60	2,3 - 5	0,185	-	
3745312	G5RK	1/230/50	12 - 60	1 - 5	0,185	CE - 0036 0256/99	
3745959	G7	1/230/50	29 - 69	2,5 - 5,8	0,160	-	(1)
3746412	G10	1/230/50	54 - 120	4,5 - 10	0,170	CE - 0036 0257/99	
3746464	G10	1/220/60	54 - 120	4,5 - 10	0,200	-	
3747412	G20	1/230/50	95 - 213	8 - 18	0,320	-	
3747459	G20	1/220/60	95 - 213	8 - 18	0,400	-	
3748212	G20S	1/230/50	95 - 240	8 - 20	0,330	-	
3748259	G20S	1/220/60	95 - 240	8 - 20	0,410	-	

#### MODELS WITH 24V DC ELECTRICAL SUPPLY

3452030	G7	24V DC	29 - 69	2,45 - 5,8	0,3		
20006157	G10	24V DC	54 - 120	4,5 - 10	0,3		
3452736	G20	24V DC	95 - 201	8 - 17	0,3		

(1) UK version

Net calorific value: 11,8 kWh/kg - 10200 kcal/kg - Viscosity at 20°C: 4÷6 mm²/s (cSt)

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

#### 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

Riello 40 G 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.

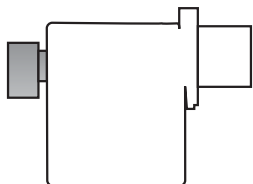
These burner variants can be provided upon request and after a technical-commercial evaluation; for more information please contact Riello Burners Commercial and Technical Department, our Application Engineers will be pleased to help you.

# One Stage Light Oil Burners

## RIELLO 40 G SERIES

### Burner accessories

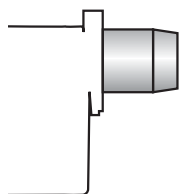
#### Remote control release kit for 530-531 control boxes



The 530-531 control boxes can be remotely released using an electric command kit. This kit must be installed in conformity with current regulations in force.

BURNER	KIT CODE
► All models	3001030

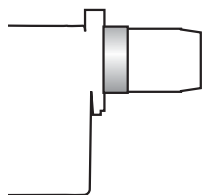
#### Extended head kit



Kits of extended heads are available.

BURNER	STANDARD HEAD LENGTH (mm)	EXTENDED HEAD LENGTH (mm)	KIT CODE
► G5 - G5R	107	121	3000686
► G5 - G5R	107	121 inox	3000687
► G5 - G5R	107	94÷112 (conic head)	3000726
► G10	108	168	3000643
► G10	108	250	3000770
► G20 - G20S	118	178	3000644
► G20 - G20S	118	260	3000771

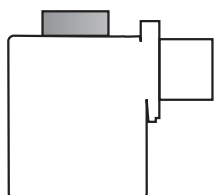
#### Spacer kit



Using the special accessories, the burner can be pulled back to reduce head penetration into the combustion chamber.

BURNER	SPACER THICKNESS S (mm)	KIT CODE
► G3 - G3R - G3RK - G5 - G5R - G5RK - G7	25	3000642
► G10	25	3000672
► G20 - G20S	25	3000673

#### Inlet air aspiration kit



This kit allows to channel the external air directly into the burner and is available as accessory for models:

BURNER	KIT CODE
► G3 - G3R - G3RK	20027471
► G5 - G5R - G5RK	20027574
► G7 - G10	20027577
► G20 - G20S	20027580

## Burner accessories

### 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

### 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

### Hour counter kit for 530 SE and 531 SE control boxes



To measure the burner working time a hour counter kit is available.

BURNER	KIT CODE
► All models	3000904

### 7-pole socket kit for 530 SE and 531 SE control boxes

For burner without pre installed socket a 7-pole socket kit with cable is available.

BURNER	KIT CODE
► All models	3001065



## RIELLO 40 GI SERIES

The Riello 40 GI series of two stage light oil burners, is a complete range of products developed to respond to any request for residential heating. The Riello 40 GI series is available in three different models, with an output ranging from 54 to 240 kW, divided in two different structures.

All the models use the same components designed by Riello for the Riello 40 GI series. The high quality level guarantees safe working.

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.

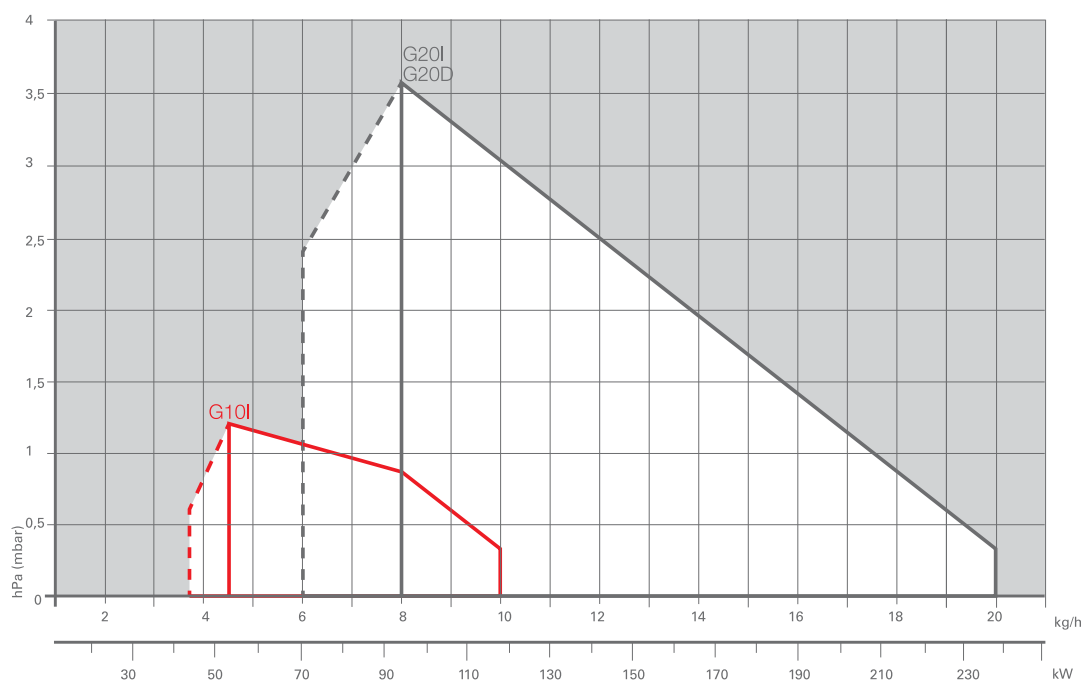
All the models are approved by the EN 267 European Standard and conform to European Directives for EMC, Low Voltage, Machinery and Boiler Efficiency.

All the Riello 40 GI burners are fired before leaving the factory.



G10I	44/54 ÷ 120 kW
G20I	71/95 ÷ 240 kW
G20D	71/95 ÷ 240 kW

## FIRING RATES



Useful working field for choosing the burner



1<sup>st</sup> stage operation range

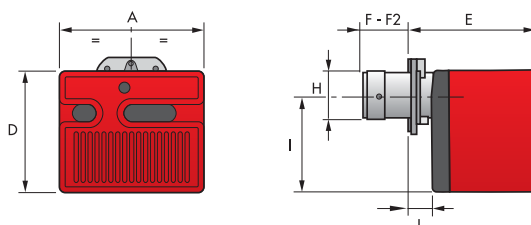
Test conditions conforming to EN267  
Temperature: 20°C  
Pressure: 1013,5 mbar  
Altitude: 0 m a.s.l.

# Two Stage Light Oil Burners

## RIELLO 40 GI SERIES

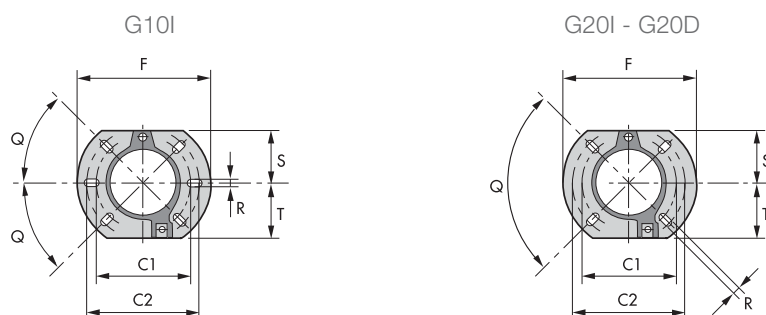
### Overall dimensions (mm)

#### BURNER



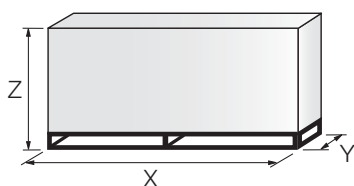
MODEL	A	D	E	F	F2	H	I	L
► G10I	305	262	261	108	-	105	204	40
► G20I - G20D	350	298	295	118	-	125	230	41

#### BURNER - BOILER MOUNTING FLANGE



MODEL	C1	C2	F	Q	R	S	T
► G10I	140	170	189	45°	11	83	83
► G20I	160	190	213	90°	11	99	99
► G20D	160	190	213	90°	11	99	99

#### PACKAGING



MODEL	X	Y	Z	kg
► G10I	423	348	340	13
► G20I	483	393	377	15
► G20D	483	393	377	16,3



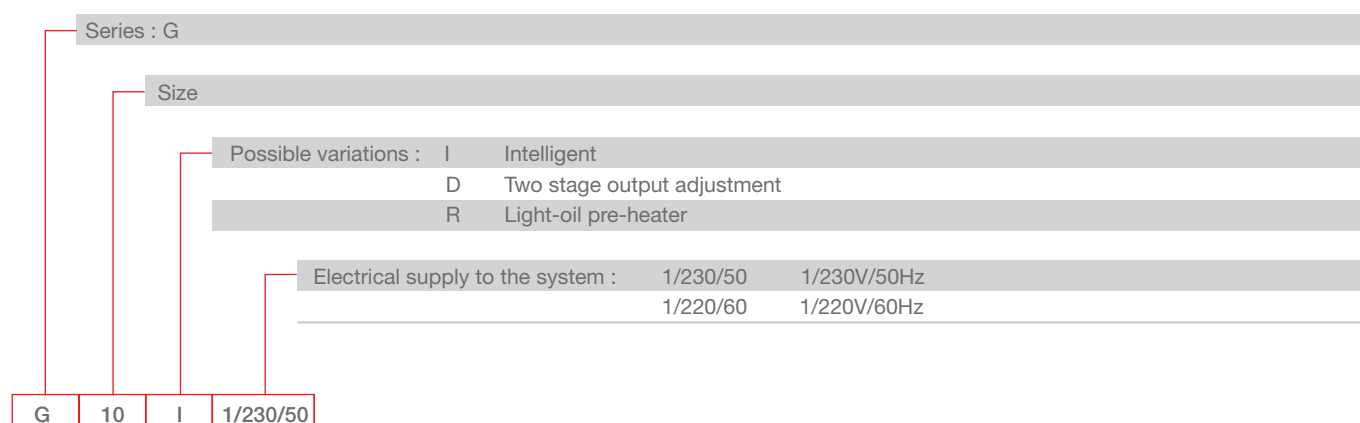
# Two Stage Light Oil Burners

## RIELLO 40 GI SERIES

RIELLO

## Specification

### DESIGNATION OF SERIES



### STATE OF SUPPLY

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

- Fan with forward curve blades
- Cover lined with sound-proofing material
- Servomotor to drive the air damper to fully closed position at stand-by, low and high fire position
- 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 valves incorporated in the pump
- Photocell for flame detection
- Electronic flame control equipment
- Light oil nozzle
- IP X0D (IP 40) protection level
- Reduced output ignition mechanism.

#### 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
- 4-pin plug
- External probe (for "I" versions only)
- Maintenance assembly
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

# Two Stage Light Oil Burners

## RIELLO 40 GI SERIES

### Available models

CODE	MODEL		HEAT OUTPUT		TOTAL ELECTRICAL POWER (kW)	CERTIFICATION	NOTE
			(kW)	(kg/h)			
3746613	G10I	1/230/50	44/54 - 120	3,7/4,5 - 10	0,170	CE - 0036 0258/99	
3746686	G10D	1/220/60	44/54 - 120	3,7/4,5 - 10	0,200	-	(1)
3748409	G20I	1/230/50	71/95 - 240	6/8 - 20	0,330	CE - 0036 0259/99	
3748414	G20D	1/230/50	71/95 - 240	6/8 - 20	0,330	CE - 0036 0259/99	
3748415	G20D	1/220/60	71/95 - 231	6/8 - 19,5	0,400	-	(1)

(1) Philippines version.

Net calorific value: 11,8 kWh/kg - 10200 kcal/kg - Viscosity at 20°C: 4÷6 mm²/s (cSt)

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

#### 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.

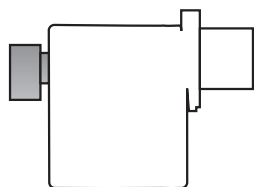
#### Kerosene and ULSD

Riello 40 GI 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.

## Burner accessories

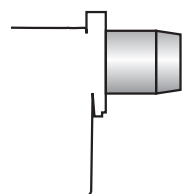
### Remote control release kit for 530-531 control boxes



The 530-531 control boxes can be remotely released using an electric command kit. This kit must be installed in conformity with current regulations in force.

BURNER	KIT CODE
► All models	3001030

### Extended head kit



Kits of extended heads are available.

BURNER	STANDARD HEAD LENGTH (mm)	EXTENDED HEAD LENGTH (mm)	KIT CODE
► G10I	108	168	3000643
► G20I	118	178	3000644
► G20D	118	260	3000771

# Two Stage Light Oil Burners

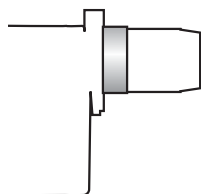
## RIELLO 40 GI SERIES

**RIELLO**

LIGHT OIL

## Burner accessories

### Spacer kit



Using the special accessories, the burner can be pulled back to reduce head penetration into the combustion chamber.

BURNER	SPACER THICKNESS S (mm)	KIT CODE
► G10I	25	3000672
► G20I - G20D	25	3000673

### 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

### 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

### Hour counter kit for 530 SE and 531 SE control boxes



To measure the burner working time a hour counter kit is available.

BURNER	KIT CODE
► All models	3000904



## RIELLO 40 F SERIES

The Riello 40 F series of one stage light oil burners, is a complete range of products developed to respond to any request for light industrial applications. The Riello 40 F series is available in three different models, with an output ranging from 30 to 202 kW, divided in three different structures.

All the models use the same components designed by Riello for the Riello 40 F series. The high quality level guarantees safe working.

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.

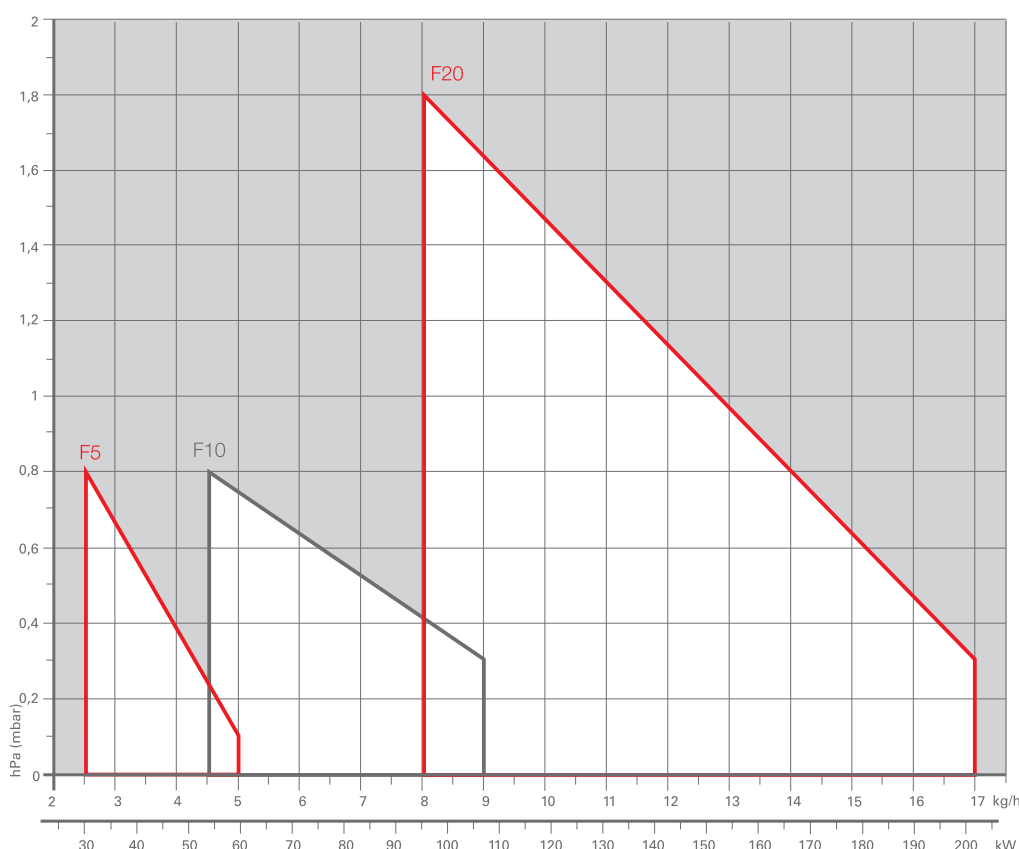
All the models are approved by the EN 267 European Standard and conform to European Directives for EMC, Low Voltage, Machinery and Boiler Efficiency.

All the Riello 40 F burners are fired before leaving the factory.



F5	30 ÷ 60	kW
F10	54 ÷ 107	kW
F20	95 ÷ 202	kW

## FIRING RATES



Useful working field  
for choosing the  
burner

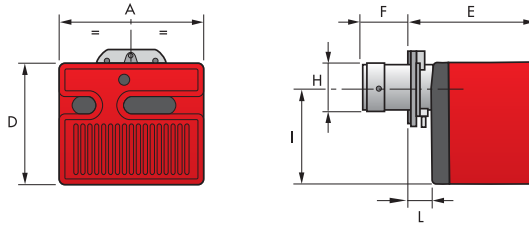
Test conditions  
conforming to EN267  
Temperature: 20°C  
Pressure: 1013,5 mbar  
Altitude: 0 m a.s.l.

# One Stage Light Oil Burners

## RIELLO 40 F SERIES

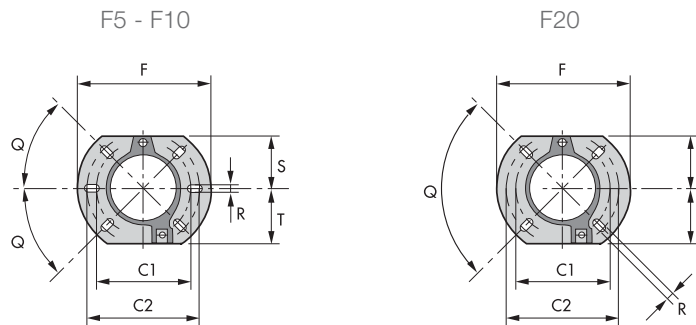
### Overall dimensions (mm)

#### BURNER



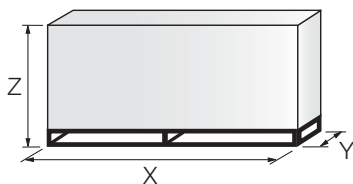
MODEL	A	D	E	F	H	I	L
► F5	272	233	240	72	89	180	41
► F10	305	262	265	104	105	204	44
► F20	350	298	299	118	125	230	45

#### BURNER - BOILER MOUNTING FLANGE



MODEL	C1	C2	F	Q	R	S	T
► F5	130	150	180	45°	11	72	75
► F10	140	170	189	45°	11	83	83
► F20	160	190	213	90°	11	99	99

#### PACKAGING



MODEL	X	Y	Z	kg
► F5	383	315	325	12
► F10	423	348	340	13
► F20	483	393	377	16

# One Stage Light Oil Burners

## RIELLO 40 F SERIES

RIELLO

## Specification

### DESIGNATION OF SERIES

Series : F		
Size		
Electrical supply to the system :		
1/230/50      1/230V/50Hz		
1/220/60      1/220V/60Hz		

F	5	1/230/50
---	---	----------

LIGHT OIL

### STATE OF SUPPLY

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

- Fan with forward curve blades
- Metallic cover
- Fixed air damper with adjustment
- 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.

#### 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
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

# One Stage Light Oil Burners

## RIELLO 40 F SERIES

### Available models

CODE	MODEL		HEAT OUTPUT		TOTAL ELECTRICAL POWER (kW)	CERTIFICATION	NOTE
			(kW)	(kg/h)			
3451083	F5	1/230/50	30 - 60	2,5 - 5	0,130	-	
3746159	F5	1/220/60	30 - 60	2,5 - 5	0,180	-	
3452083	F10	1/230/50	54 - 107	4,5 - 9	0,170	-	
3746260	F10	1/220/60	54 - 107	4,5 - 9	0,200	-	
3452783	F20	1/230/50	95 - 202	8 - 17	0,320	-	
3747260	F20	1/220/60	95 - 213	8 - 18	0,400	-	

Net calorific value: 11,8 kWh/kg - 10200 kcal/kg - Viscosity at 20°C: 4÷6 mm²/s (cSt)  
The burners of F series are in according to EN 267.

#### 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.

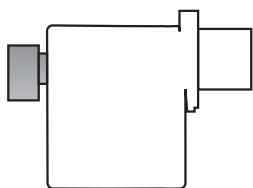
#### Kerosene and ULSD

Riello 40 F 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.

## Burner accessories

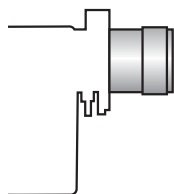
### Remote control release kit for 530 SE control box



The 530 SE control box can be remotely released using an electric command kit. This kit must be installed in conformity with current regulations in force.

BURNER	KIT CODE
► F5 - F10 - F20	3001030

### Extended head kit



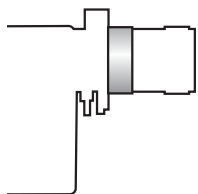
Kits of extended heads are available.

BURNER	STANDARD HEAD LENGTH (mm)	EXTENDED HEAD LENGTH (mm)	KIT CODE
► F5	72	90	3006001
► F5	72	90 inox	3000688
► F5	72	107	3000638
► F5	72	121	3000686
► F5	72	121 inox	3000687
► F10	104	168	3000643
► F10	104	250	3000770
► F20	118	178	3000644
► F20	118	260	3000771



## Burner accessories

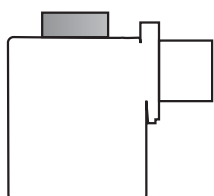
### Spacer kit



Using the special accessories, the burner can be pulled back to reduce head penetration into the combustion chamber.

BURNER	SPACER THICKNESS S (mm)	KIT CODE
► F5	25	3000642
► F10	25	3000672
► F10	25	3000673

### Inlet air aspiration kit



This kit allows to channel the external air directly into the burner and is available as accessory for models:

BURNER	KIT CODE
► F5	20027574
► F10	20027577
► F10	20027580

### 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

### 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

# One Stage Light Oil Burners

## RIELLO 40 F SERIES

### Burner accessories

#### Hour counter kit for 530 SE and 531 SE control boxes



To measure the burner working time a hour counter kit is available.

BURNER	KIT CODE
► All models	3000904

#### 7-pole socket kit for 530 SE and 531 SE control boxes

For burner without pre installed socket a 7-pole socket kit with cable is available.

BURNER	KIT CODE
► All models	3001065

## RIELLO 40 H SERIES

The Riello 40 H series of one stage light oil burners, has been designed to be used friendly and to respond to any request for hotel kitchen applications. The Riello 40 H series is available in a single model with an output ranging from 21 to 65 kW.

The high quality level guarantees safe working.

In developing this burner, special attention was paid to the ease of installation and adjustment, to obtaining the smallest size possible to fit into any sort of application. This burner can work in two stages, choosing the output required according with the heat input that the application needs. This results in very economical operation of the system and a decrease of the cyclic phases of ignition/shut down, less thermal stress of the plant and a significant decrease in emissions.

The model is approved by the EN 267 European Standard and conform to European Directives for EMC, Low Voltage, Machinery and Boiler Efficiency.

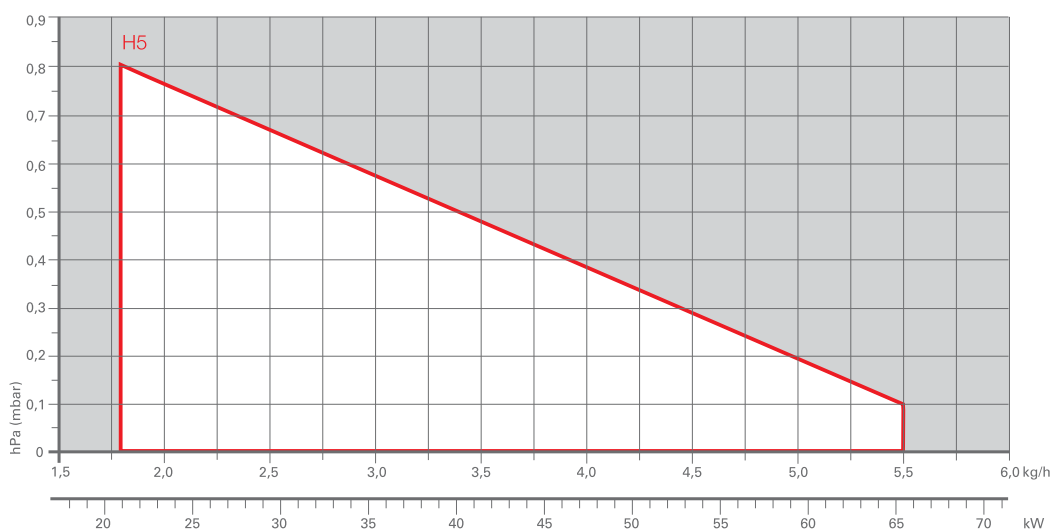
All the Riello 40 H burners are fired before leaving the factory.



H5

21 ÷ 65 kW

## FIRING RATES

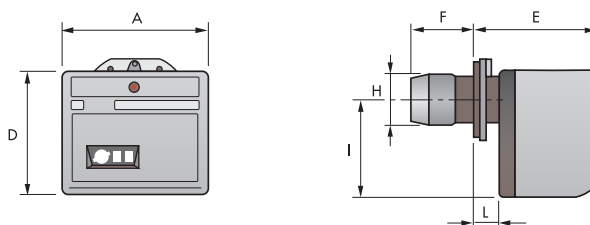


# One Stage Light Oil Burners

## RIELLO 40 H SERIES

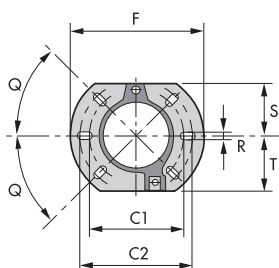
### Overall dimensions (mm)

#### BURNER



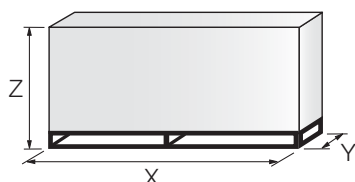
MODEL	A	D	E	F	H	I	L
► H5	272	233	238	107	89	180	37

#### BURNER - BOILER MOUNTING FLANGE



MODEL	C1	C2	F	Q	R	S	T
► H5	130	150	180	45°	11	72	75

#### PACKAGING



MODEL	X	Y	Z	kg
► H5	383	315	325	12

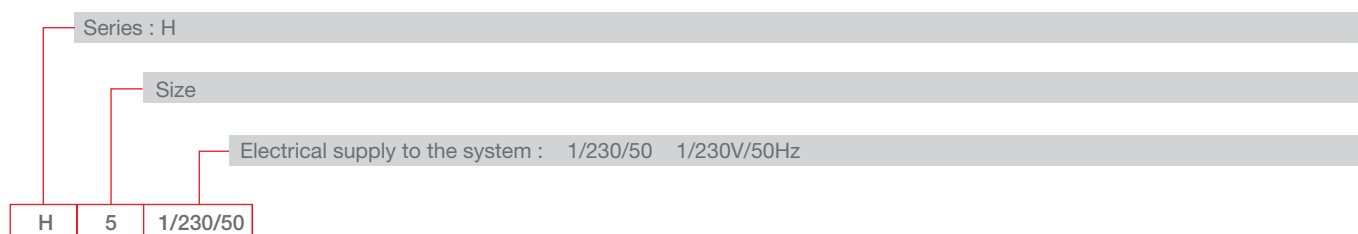
# One Stage Light Oil Burners

## RIELLO 40 H SERIES

RIELLO

## Specification

### DESIGNATION OF SERIES



### STATE OF SUPPLY

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

- Change switch
- Burner start-up switch
- Capacitor connection switch
- Fan with forward curve blades
- Cover lined with sound-proofing material
- Fixed air damper with adjustment
- 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.

#### 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
- Insulating gasket
- Grommet
- Hinge
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

## Available models

CODE	MODEL	HEAT OUTPUT		TOTAL ELECTRICAL POWER (kW)	CERTIFICATION	NOTE
		(kW)	(kg/h)			
3451104	H5 1/230/50	21 - 65	1,8 - 5,5	0,130	-	

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

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

#### Kerosene and ULSD

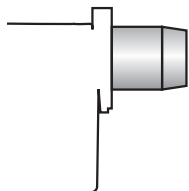
Riello 40 H series burners can be supplied, on demand, suitable for applications where combustion of Kerosene, Low Sulphur Kerosene and Ultra Low Sulphur Diesel Oil (ULSD) is the chosen fuel.

# One Stage Light Oil Burners

## RIELLO 40 H SERIES

### Burner accessories

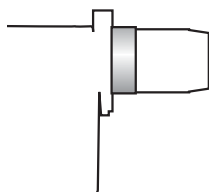
#### Extended head kit



Kits of extended heads are available.

BURNER	STANDARD HEAD LENGTH (mm)	EXTENDED HEAD LENGTH (mm)	KIT CODE
► H5	107	121	3000686
► H5	107	121 INOX	3000687

#### Spacer kit



Using the special accessories, the burner can be pulled back to reduce head penetration into the combustion chamber.

BURNER	SPACER THICKNESS S (mm)	KIT CODE
► H5	25	3000642

#### Protection

BURNER	KIT CODE
► H5	3000925

#### 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
► H5	60	3006561

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

BURNER	FILTERING DEGREE (µm)	KIT CODE
► H5	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
► H5	100	3000926

#### End cone without turbulator ring

BURNER	KIT CODE
► H5	3006040

## 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).

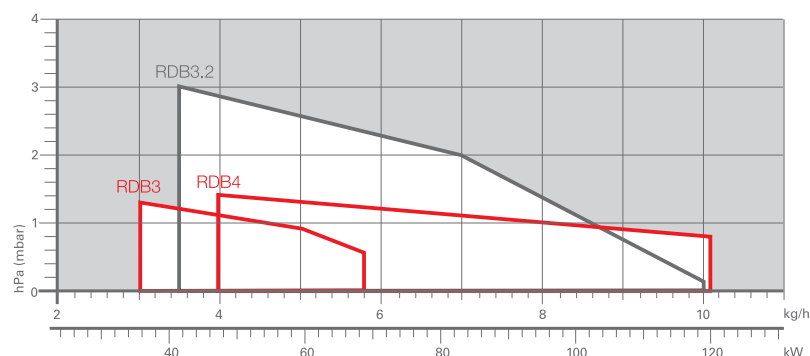
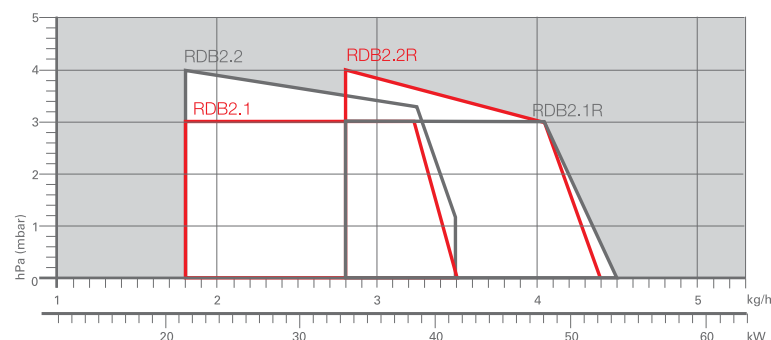
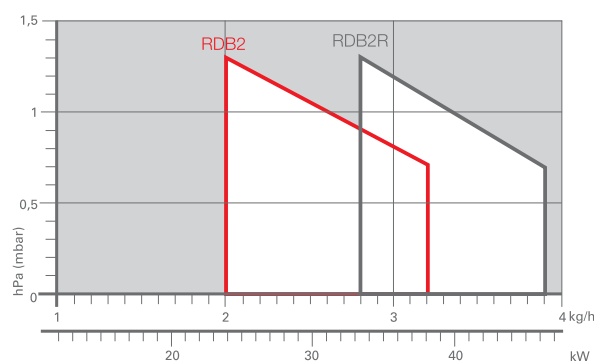
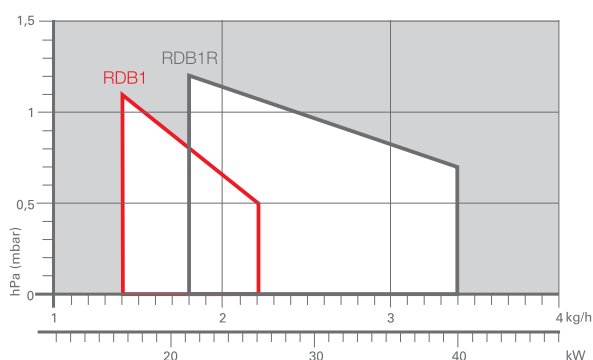
In developing these burners, special attention was paid to reducing noise, to the ease of installation and adjustment, to obtaining the smallest size possible to fit into any sort of boiler available on the market. All the models are approved by the EN 267 European Standard and conform to European Directives 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
RDB2.1-2.1R	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.

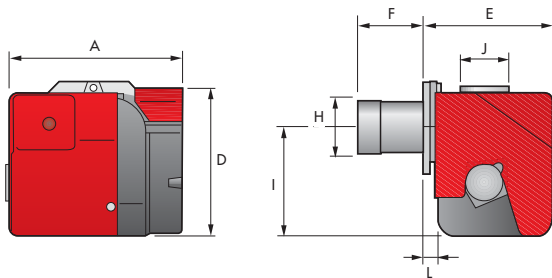
# One Stage Light Oil and Kerosene Burners

## RDB SERIES

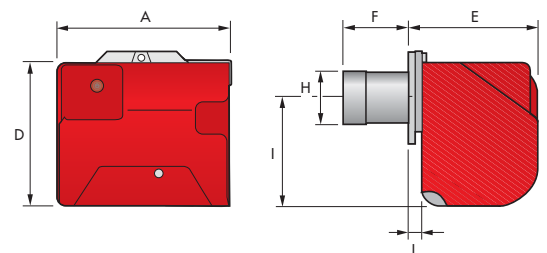
### Overall dimensions (mm)

#### BURNER

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



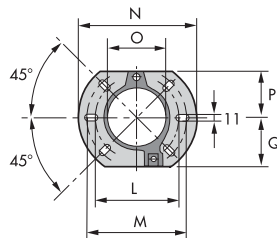
RDB3 - RDB3.2 - RDB4



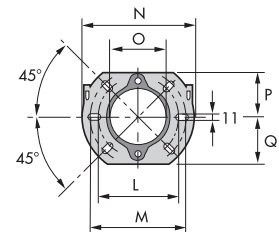
MODEL	A	D	H	F	E	L	I	J
RDB1-1R	276	230	89-90	76-86	202	20	168	75
RDB2-2R	276	230	89-90	76-86	202	20	168	75
RDB2.1-2.1R	286	230	85	77	202	20	168	75
RDB2.2-2.2R	286	230	85	77	202	20	168	75
RDB3	325	268	88	78	253	30	204	75
RDB3.2	325	268	95	69,5	253	30	204	75
RDB4	325	268	105	111	253	30	204	75

#### BURNER - BOILER MOUNTING FLANGE

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

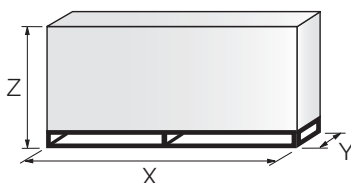


RDB3 - RDB3.2 - RDB4



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	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	395	305	295	11
► RDB3	435	360	355	15
► RDB3.2	435	360	355	15
► RDB4	435	360	355	15



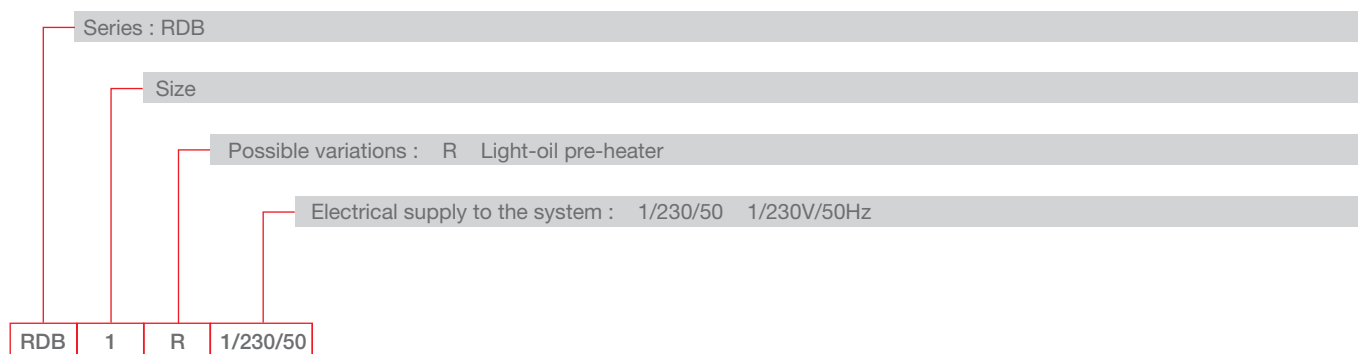
# One Stage Light Oil and Kerosene Burners

## RDB SERIES

RIELLO

## Specification

### DESIGNATION OF SERIES



LIGHT OIL

### 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

## RDB SERIES

### Available models

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

## 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	3062774	3062775
► RDB3 - RDB4	3062774	3062876









### Tester



The tester controls the correct working of the burner components. It can be fitted to all the light-oil models, with or without pre-heater. It is made up of two parts: a control instrument and a "control box".

BURNER	KIT CODE
All models	3087216



DIRECT TESTING	MEASUREMENTS
 <b>MOTOR</b> The switch feeds the motor.	 <b>L1-N</b> Main voltage (230 V)
 <b>VALVE</b> The switch feeds electromagnetic winding of the coil. A red led signals excitation stage, and a green led signals retainer stage.	 <b>Pre-heater current consumption</b>
 <b>PRE-HEATER</b> The switch feeds the light oil pre-heater; a green led signals the thermostat cut-in.	 <b>Secondary voltage (low voltage)</b>
 <b>TRANSFORMER</b> The switch feeds the firing transformer inside the control box and excites the oil valve.	 <b>Photo-resistance current consumption</b>

# One Stage Light Oil and Kerosene Burners

## RDB SERIES

### Burner accessories

#### 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.

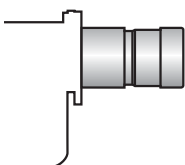
#### Light oil filter/degassing unit



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

## PRESS GV SERIES

The PRESS G series of burners covers a firing range from 140 to 356 kW and they have been designed for use in civil installations of small dimensions or in industrial applications, like incinerators or dryer kilns.

Operation is "one stage"; the burners are fitted with a microprocessor-based burner safety control box which supplies indication of operation and diagnosis of fault cause. The combustion head, that can be set on the basis of required output, allows optimal performance ensuring good combustion and reducing fuel consumption.

The main feature of these burners is their reliability due to a simple and strong construction, which permits operation without particular maintenance intervention.

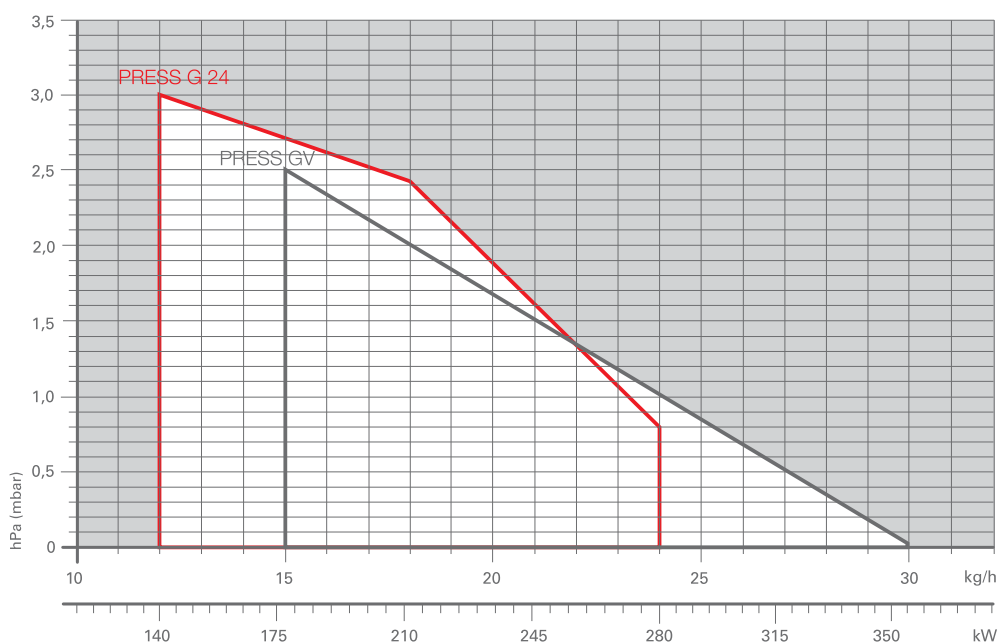
Simplified maintenance is achieved by the slide bar system, which allows easy access to all of the essential components of the combustion head. All electrical components are easily accessible only by dismounting a protection panel, thus guaranteeing a quick and simple intervention on components.



LIGHT OIL

PRESS G24	140 ÷ 280 kW
PRESS GV	178 ÷ 356 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.

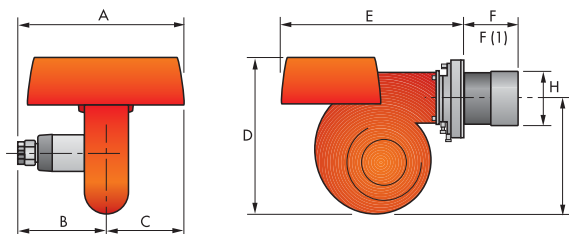
# One Stage Light Oil Burners

## PRESS GV SERIES

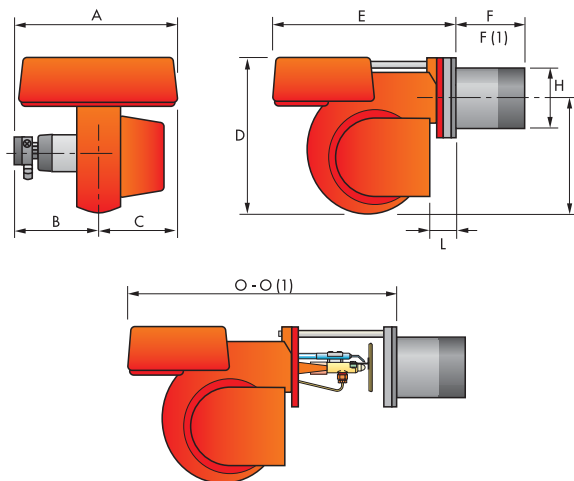
### Overall dimensions (mm)

#### BURNER

PRESS G24



PRESS GV

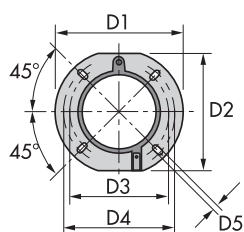


MODEL	A	B	C	D	E	F - F (1)	H	I	L	O - O (1)
► PRESS G24	425	222	203	397	485	118 - 253	125	290	-	- - -
► PRESS GV	439	234	205	397	473	185 - 320	140	292	59	690 - 825

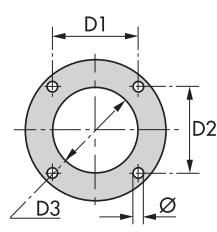
(1) Length with extended combustion head.

#### BURNER - BOILER MOUNTING FLANGE

PRESS G24

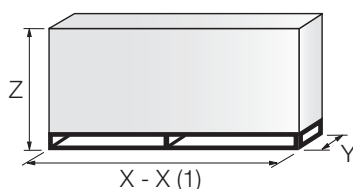


PRESS GV



MODEL	D1	D2	D3	D4	D5	Ø
PRESS G24	213	198	160	190	11	-
PRESS GV	160	160	155	-	-	M10

#### PACKAGING



MODEL	X - X (1)	Y	Z	kg
► PRESS G24	650	535	450	33
► PRESS GV	680	535	450	33

(1) Length with extended combustion head.

# One Stage Light Oil Burners

## PRESS GV SERIES

**RIELLO**

## Specification

### DESIGNATION OF SERIES

Series : PRESS							
Operation :		GV or G24		One stage			
		GW or 1-2-3-4G		Two stage			
Emission :		...		Class 1 EN267			
Head :		TC		Standard head			
		TL		Extended head			
Flame control system :		FS1		Standard (1 stop every 24 h)			
		FS2		Continuous working (1 stop every 72 h)			
Electrical supply to the system :		1/230/50		1/230V/50Hz			
		1/210/60		1/210V/60Hz			
		1/220/60		1/220V/60Hz			
		1/200/50-60		1/200V/50-60Hz			
		3/230-400/50		3/230V/50Hz - 3N/400V/50Hz			
		3/210/60		3/210V/60Hz			
		3/220-380/60		3/220V/60Hz - 3N/380V/60Hz			
		3/200/50-60		3/200V/50-60Hz			
Auxiliary voltage :		230/50		230V/50Hz			
		120/60		120V/60Hz			
		220/60		220V/60Hz			
		200/50-60		200V/50-60Hz			
PRESS	G24		TC	FS1	1/230/50	230/50	
BASIC DESIGNATION							
EXTENDED DESIGNATION							

LIGHT OIL

# One Stage Light Oil Burners

## PRESS GV SERIES

## Specification

### STATE OF SUPPLY

Monoblock forced draught oil burner with one stage operation, fully automatic, made up of:

- Air suction circuit
- Fan with forward curve blades with high performance concerning pressure and air delivery
- Air damper for air setting
- Starting motor at 2850 rpm, single-phase, 230V, 50Hz
- Combustion head, that can be set on the basis of required output, fitted with:
  - stainless steel end cone, resistant to corrosion and high temperatures
  - ignition electrodes
  - flame stability disk
- Gears pump for high pressure fuel supply, fitted with:
  - filter
  - pressure regulator
  - connections for installing a pressure gauge and vacuumeter
  - internal by-pass for single pipe installation
- Oil valves on the output circuit
- Photocell for flame detection
- Microprocessor-based burner safety control box, with diagnostic function
- Slide bars for easier installation and maintenance (for GV model)
- Protection filter against radio interference
- IP 44 electric protection level.

#### Standard equipment:

- 2 flexible pipes for connection to the oil supply network
- 2 gaskets for the flexible pipes
- 2 nipples for connection to the pump
- 2 Pipe fittings (for GV model)
- 2 Pipe fittings gasket (for GV model)
- 1 burner flange (for G24 model)
- 4 screws for fixing the burner flange to the boiler
- 1 thermal screen
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

## Available models

CODE	MODEL						HEAT OUTPUT		TOTAL ELECTRICAL POWER (kW)	CERTIFICATION	NOTE
							(kW)	(kg/h)			
3473000	PRESS G24	TC	FS1	1/230/50	230/50		140/280	12/24	0,4	-	(1)
3473081	PRESS G24	TC	FS1	1/220/60	220/60		140/280	12/24	0,4	-	(1)
3473687	PRESS GV	TC	FS1	1/200/50-60	200/50-60		178/356	15/30	0,43	-	(2)
3473620	PRESS GV	TC	FS1	1/230/50	230/50		178/356	15/30	0,43	-	(2)

Net calorific value: 11,8 kWh/kg - 10200 kcal/kg - Viscosity at 20°C 4-6 mm²/s (cSt)

The burners of PRESS series are in according to 89/336 (2004/108) - 73/23 (2006/95) - 92/42 - EC Directive and EN 267 Norm.

(1) Burner needs 2 nozzles (to order separately).

(2) Burner needs 1 nozzle (to order separately).



## Burner accessories

### Nozzles type 60°B

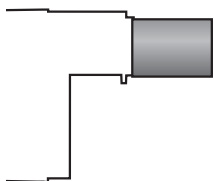


The nozzles must be ordered separately. The following table shows the features and codes on the basis of the maximum required fuel output.

NOTE : for nozzles quantity to order see note in the “Available Burner Models” table.

BURNER	RATED DELIVERY [kg/h] at 12 bar	GPH	NOZZLE CODE
PRESS G24	6,3	1,50	3042107
PRESS G24	7,3	1,75	3042110
PRESS G24	8,5	2,00	3042126
PRESS G24	10,6	2,50	3042140
PRESS G24	12,7	3,00	3042158
PRESS G24	14,8	3,50	3042162
PRESS GV	17	4,00	3042172
PRESS GV	19,1	4,50	3042182
PRESS GV	21,2	5,00	3042192
PRESS GV	23,3	5,50	3042202
PRESS GV	25,5	6,00	3042212
PRESS GV	27,6	6,50	3042222
PRESS GV	29,7	7,00	3042232
PRESS GV	31,8	7,50	3042242

### Extended head kit



“Standard head” burners can be transformed into “extended head” versions, by using the special kit.

BURNER	STANDARD HEAD LENGTH (mm)	EXTENDED HEAD LENGTH (mm)	KIT CODE
► PRESS G24	118	253	3010051
► PRESS GV	185	320	3000580

### Spacer kit



If burner head penetration into the combustion chamber needs reducing, varying thickness spacers are available, as given in the following list.

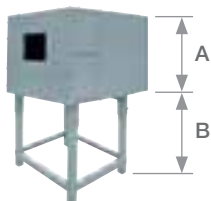
BURNER	SPACER THICKNESS S (mm)	KIT CODE
► PRESS GV	142	3000755

# One Stage Light Oil Burners

## PRESS GV SERIES

### Burner accessories

#### Sound proofing box



If noise emission needs reducing even further, sound-proofing boxes are available.

BURNER	BOX TYPE	A (mm)	B (mm) min-max	[dB(A)] (*)	BOX CODE
► PRESS GV	C1/3	650	372 - 980	10	3010403

(\*) Average noise reduction according to EN 15036-1 standard

#### Degasing unit



To solve problem of air in the oil sucked, two versions of degasing unit are available.

BURNER	FILTER	FILTERING DEGREE (µm)	DEGASING UNIT CODE
PRESS GV	With filter	50 - 75	3010055
PRESS GV	Without filter	-	3010054

#### 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
► PRESS G24 - GV	3002719

#### Protection kit (electromagnetic interferences)

When the burner is installed in a room particularly subject to electromagnetic interference (signals emitted over 10 V/m) due for example to INVERTER presence or in systems where the lengths of the thermostat connections is over 20 meters, this specific protection kit is available as an interface between the thermostatic controls and the burner.

BURNER	KIT CODE
► All models	3010386

## PRESS G SERIES

The PRESS G series of burners covers a firing range from 107 to 1660 kW and they have been designed for use in civil installations of average dimensions, like building areas and large apartment groups or for use in industrial applications, like small or medium plants.

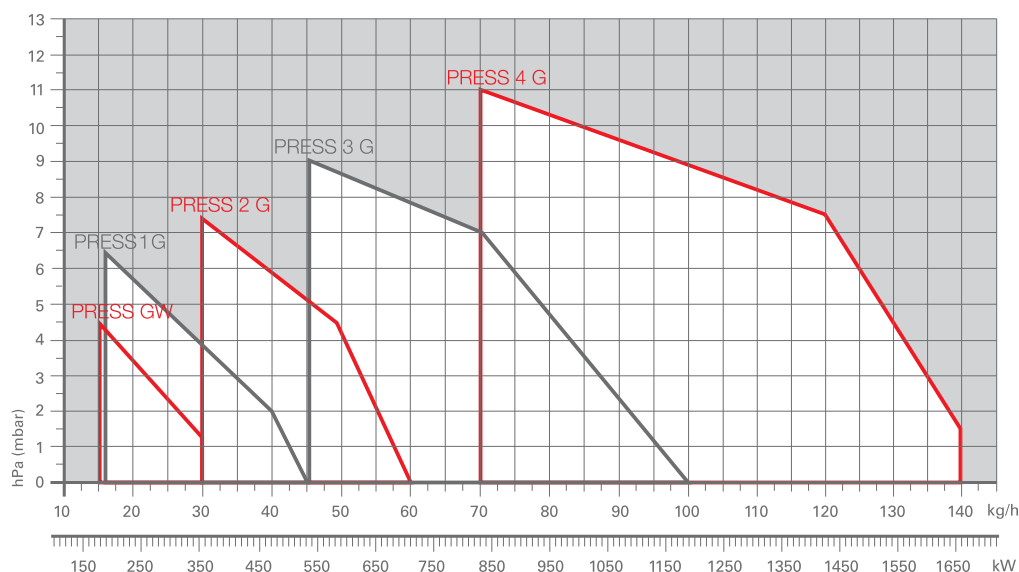
Operation is two stage; the burners are fitted with a microprocessor-based burner safety control box which supplies indication of operation and diagnosis of fault cause. The combustion head, that can be set on the basis of required output, allows optimal performance ensuring good combustion and reducing fuel consumption. The main feature of these burners is their reliability due to a simple and strong construction, that permits operation without particular maintenance intervention.

Simplified maintenance is achieved by the slide bar system, which allows easy access to all of the essential components of the combustion head. All electrical components are easily accessible only by dismantling a protection panel, thus guaranteeing a quick and simple intervention on components.



PRESS GW	107/178 ÷ 356 kW
PRESS 1G	130/190 ÷ 534 kW
PRESS 2G	214/356 ÷ 712 kW
PRESS 3G	273/534 ÷ 1168 kW
PRESS 4G	415/830 ÷ 1660 kW

## FIRING RATES



Useful working field for choosing the burner

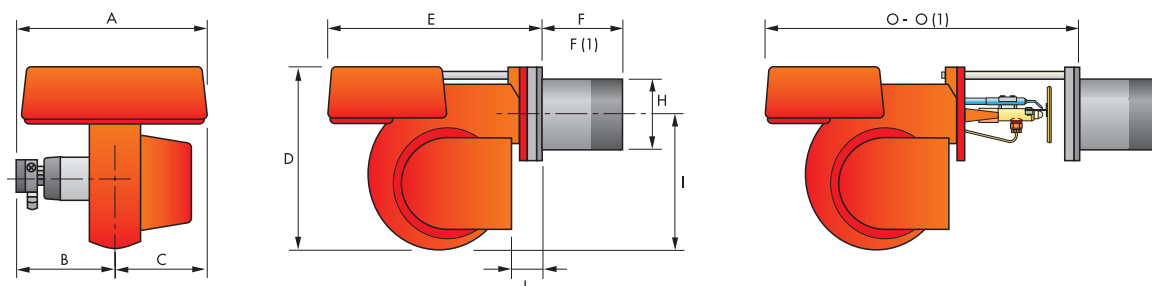
Test conditions conforming to EN267  
Temperature: 20°C  
Pressure: 1013,5 mbar  
Altitude: 0 m a.s.l.

# Two Stage Light Oil Burners

## PRESS G SERIES

### Overall dimensions (mm)

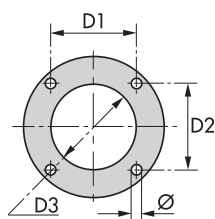
#### BURNER



MODEL	A	B	C	D	E	F -	F (1)	H	I	L	O -	O (1)
► PRESS GW	439	234	205	397	473	185 -	320	140	292	59	745 -	880
► PRESS 1G	475	270	205	397	473	237 -	370	150	292	59	745 -	880
► PRESS 2G	475	270	205	437	506	245 -	403	155	332	89	785 -	945
► PRESS 3G	611	406	205	485	570	254 -	412	175	370	88	846 -	1006
► PRESS 4G	675	354	316	590	720	266 -	426	205	445	175	999 -	1159

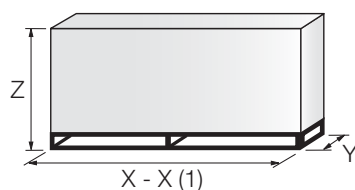
(1) Length with extended combustion head.

#### BURNER - BOILER MOUNTING FLANGE



MODEL	D1	D2	D3	Ø
► PRESS GW	160	160	155	M10
► PRESS 1G	160	160	165	M10
► PRESS 2G	160	160	165	M10
► PRESS 3G	195	195	185	M12
► PRESS 4G	230	230	210	M12

#### PACKAGING



MODEL	X - X (1)	Y	Z	kg
► PRESS GW	695	542	468	37
► PRESS 1G	745	542	468	44
► PRESS 2G	800	542	515	44
► PRESS 3G	905	680	563	55
► PRESS 4G	1045	727	660	95

(1) Length with extended combustion head.

# Two Stage Light Oil Burners

## PRESS G SERIES

**RIELLO**

## Specification

### DESIGNATION OF SERIES

Series : PRESS							
		Operation : GV or G24		One stage			
		GW or 1-2-3-4G		Two stage			
		Emission : ...		Class 1 EN267			
		Head : TC		Standard head			
		TL		Extended head			
		Flame control system :		FS1	Standard (1 stop every 24 h)		
				FS2	Continuous working (1 stop every 72 h)		
		Electrical supply to the system :		1/230/50	1/230V/50Hz		
				1/210/60	1/210V/60Hz		
				1/220/60	1/220V/60Hz		
				1/200/50-60	1/200V/50-60Hz		
				3/230-400/50	3/230V/50Hz - 3N/400V/50Hz		
				3/210/60	3/210V/60Hz		
				3/220-380/60	3/220V/60Hz - 3N/380V/60Hz		
				3/200/50-60	3/200V/50-60Hz		
		Auxiliary voltage :		230/50	230V/50Hz		
				120/60	120V/60Hz		
				220/60	220V/60Hz		
				200/50-60	200V/50-60Hz		
PRESS	4G		TC	FS1	3/230-400/50	230/50	
BASIC DESIGNATION							
EXTENDED DESIGNATION							

LIGHT OIL

# Two Stage Light Oil Burners

## PRESS G SERIES

### Specification

#### STATE OF SUPPLY

Monoblock forced draught oil burner with two stage operation, fully automatic, made up of:

- Air suction circuit lined with sound-proofing material
- Fan with forward curve blades with high performance concerning pressure and air delivery
- Air damper for air setting
- Hydraulic ram for air damper control
- Starting motor at 2800 rpm, three-phase 400V with neutral, 50Hz (single-phase, 230V and 50Hz for the PRESS GW model)
- Combustion head, that can be set on the basis of required output, fitted with:
  - stainless steel end cone, resistant to corrosion and high temperatures
  - ignition electrodes
  - flame stability disk
- Fan pressure test point
- Gears pump for high pressure fuel supply, fitted with:
  - filter
  - pressure regulator
  - connections for installing a pressure gauge and vacuumeter
  - internal by-pass for single pipe installation
- Valve unit with two delivery oil valves on the output circuit
- Photocell for flame detection
- Microprocessor-based burner safety control box, with diagnostic function
- Slide bars for easier installation and maintenance
- Protection filter against radio interference
- IP 44 electric protection level.

#### Standard equipment:

- 2 flexible pipes for connection to the oil supply network
- 2 gaskets for the flexible pipes
- 2 nipples for connection to the pump
- 4 screws for fixing the burner flange to the boiler
- 1 thermal screen
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

# Two Stage Light Oil Burners

## PRESS G SERIES

**RIELLO**

## Available models

CODE	MODEL						HEAT OUTPUT		TOTAL ELECTRICAL POWER (kW)	CERTIFICATION	NOTE
							(kW)	(kg/h)			
3473754	PRESS GBW	TC	FS1	1/230/50	230/50		107/178-356	9/15-30	0,43	-	(1)
3473787	PRESS GW	TC	FS1	1/200/50-60	200/50-60		107/178-356	9/15-30	0,6	-	(1)
3473784	PRESS GW	TC	FS1	1/220/60	220/60		107/178-356	9/15-30	0,4	-	(1)
3473720	PRESS GW	TC	FS1	1/230/50	230/50		107/178-356	9/15-30	0,43	-	(1)
3474587	PRESS 1G	TC	FS1	3/200/50-60	200/50-60		130/190-534	11/16-45	0,6	-	(1)
3474582	PRESS 1G	TC	FS1	3/220-380/60	220/60		130/190-534	11/16-45	0,6	-	(1)
3474520	PRESS 1G	TC	FS1	3/230-400/50	230/50		130/190-534	11/16-45	0,6	-	(1)
3474987	PRESS 2G	TC	FS1	3/200/50-60	200/50-60		214/356-712	18/30-60	0,85	-	(1)
3474982	PRESS 2G	TC	FS1	3/220-380/60	220/60		214/356-712	18/30-60	0,85	-	(1)
3474920	PRESS 2G	TC	FS1	3/230-400/50	230/50		214/356-712	18/30-60	1,1	-	(1)
3475987	PRESS 3G	TC	FS1	3/200/50-60	200/50-60		273/534-1186	23/45-100	2,05	-	(1)
3475982	PRESS 3G	TC	FS1	3/220-380/60	220/60		273/534-1186	23/45-100	2,05	-	(1)
3475920	PRESS 3G	TC	FS1	3/230-400/50	230/50		273/534-1186	23/45-100	2,05	-	(1)
3476587	PRESS 4G	TC	FS1	3/200/50-60	200/50-60		415/830-1660	35/70-140	3,8	-	(1)
3476582	PRESS 4G	TC	FS1	3/220-380/60	220/60		415/830-1660	35/70-140	3,8	-	(1)
3476520	PRESS 4G	TC	FS1	3/230-400/50	230/50		415/830-1660	35/70-140	3,8	-	(1)

(1) Air damper open during stop

Net calorific value: 11,8 kWh/kg - 10200 kcal/kg - Viscosity at 20°C: 4÷6 mm²/s (cSt)

The burners of PRESS series are in according to 89/336 (2004/108) - 73/23 (2006/95) - 92/42 - EC Directive and EN 267 Norm.

# Two Stage Light Oil Burners

## PRESS G SERIES

## Burner accessories

### Nozzles type 60°B

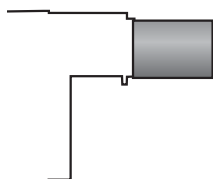


The nozzles must be ordered separately. The following table shows the features and codes on the basis of the maximum required fuel output.

NOTE: each burner is equipped with N° 2 nozzles.

BURNER	RATED DELIVERY [kg/h] at 12 bar	GPH	NOZZLE CODE
► PRESS GW - 1G	8,5	2,00	3042126
► PRESS GW - 1G	10,6	2,50	3042140
► PRESS GW - 1G	12,7	3,00	3042158
► PRESS GW - 1G	14,8	3,50	3042162
► PRESS GW - 1G - 2G	17	4,00	3042172
► PRESS 1G - 2G	19,1	4,50	3042182
► PRESS 1G - 2G	21,2	5,00	3042192
► PRESS 1G - 2G	23,3	5,50	3042202
► PRESS 2G - 3G	25,5	6,00	3042212
► PRESS 2G - 3G	27,6	6,50	3042222
► PRESS 2G - 3G	29,7	7,00	3042232
► PRESS 3G	31,8	7,50	3042242
► PRESS 3G	33,9	8,00	3042252
► PRESS 3G	36,1	8,50	3042262
► PRESS 3G - 4G	40,3	9,50	3042282
► PRESS 3G - 4G	42,4	10,00	3042292
► PRESS 3G - 4G	46,7	11,00	3042312
► PRESS 3G - 4G	50,9	12,00	3042322
► PRESS 4G	55,1	13,00	3042332
► PRESS 4G	59,4	14,00	3042352
► PRESS 4G	63,6	15,00	3042362
► PRESS 4G	67,9	16,00	3042382
► PRESS 4G	72,1	17,00	3042392
► PRESS 4G	76,4	18,00	3042412

### Extended head kit



“Standard head” burners can be transformed into “extended head” versions, by using the special kit.

BURNER	STANDARD HEAD LENGTH (mm)	EXTENDED HEAD LENGTH (mm)	KIT CODE
► PRESS GW	185	320	3000581
► PRESS 1G	237	370	3000537
► PRESS 2G	245	403	3000538
► PRESS 3G	254	412	3000851
► PRESS 4G	266	426	3000555



# Two Stage Light Oil Burners

## PRESS G SERIES

**RIELLO**

## Burner accessories

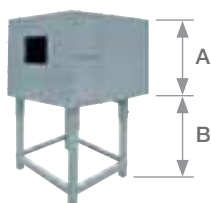
### Spacer kit



If burner head penetration into the combustion chamber needs reducing, varying thickness spacers are available, as given in the following list.

BURNER	SPACER THICKNESS S (mm)	KIT CODE
► All models	142	3000755

### Sound proofing box



If noise emission needs reducing even further, sound-proofing boxes are available.

BURNER	BOX TYPE	A (mm)	B (mm) min-max	[dB(A)] (*)	BOX CODE
► PRESS GW - 1G - 2G - 3G	C1/3	650	372 - 980	10	3010403
► PRESS 4G	C4/5	850	160 - 980	10	3010404

(\*) Average noise reduction according to EN 15036-1 standard

### Degasing unit



To solve problem of air in the oil sucked, two versions of degasing unit are available.

BURNER	FILTER	FILTERING DEGREE (µm)	DEGASING UNIT CODE
► PRESS GW PRESS 1G - 2G - 3G(*) - 4G(*)	With filter	50 - 75	3010055
► PRESS GW PRESS 1G - 2G - 3G(*) - 4G(*)	Without filter	-	3010054

(\*) For oil flow larger than 80 kg/h install two degasing units in parallel in the oil supply line.

### Air damper complete closure kit



To minimize thermal dispersion caused by the stack draught sucking air from the fan's suction opening, an "air damper complete closure kit" is available. This is composed by a hydraulic ram, which closes the air damper completely when the burner shuts down.

BURNER	KIT CODE
► PRESS GW	3000853
► PRESS 1G	3000854
► PRESS 2G	3000855
► PRESS 3G	3000856
► PRESS 4G	3000857

### 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
► All models	3002719

# Two Stage Light Oil Burners

## PRESS G SERIES

### Burner accessories

#### Protection kit (electromagnetic interferences)

When the burner is installed in a room particularly subject to electromagnetic interference (signals emitted over 10 V/m) due for example to INVERTER presence or in systems where the lengths of the thermostat connections is over 20 meters, this specific protection kit is available as an interface between the thermostatic controls and the burner.

BURNER	KIT CODE
► All models	3010386

## PRESS T/G SERIES

The PRESS T/G series of burners covers a firing range from 830 to 5340 kW.

Available in 4 different models, this burners are particularly well suited for matching with pressurized chamber boilers.

For their characteristics, they find application in big civil plants for domestic heating or in industrial applications where thermal load is repetitive and predictable.

An hydraulic ram exclusive system, with 3 adjustable positions, regulates dampers opening, allowing air passage in relation to output required: in this way flame stability is optimized in every working point, with micro-regulation available.

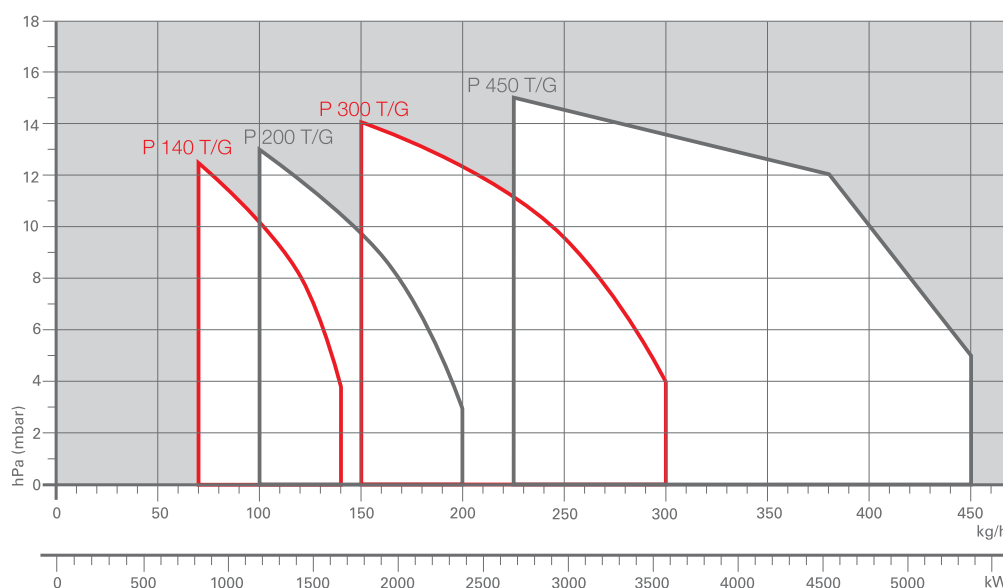
The burners are fitted with a microprocessor-based burner safety control box which supplies indication of operation and diagnosis of fault cause.



LIGHT OIL

P 140 T/G	380/830 ÷ 1660 kW
P 200 T/G	557/1186 ÷ 2372 kW
P 300 T/G	712/1779 ÷ 3560 kW
P 450 T/G	890/2670 ÷ 5340 kW

## FIRING RATES



Useful working field  
for choosing the  
burner

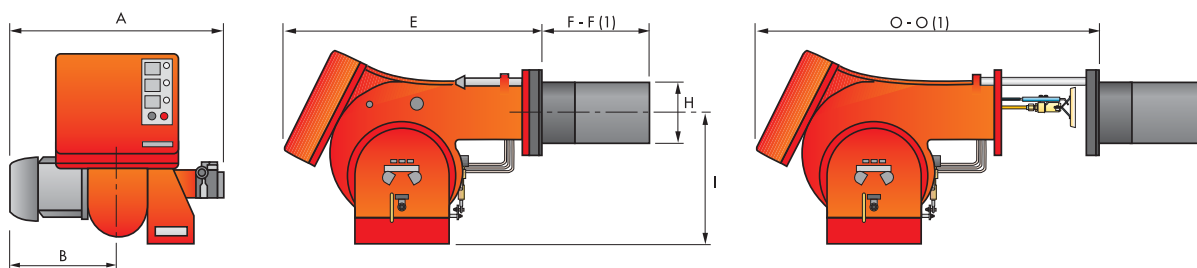
Test conditions  
conforming to EN267  
Temperature: 20°C  
Pressure: 1013,5 mbar  
Altitude: 0 m a.s.l.

# Three Stage Light Oil Burners

## PRESS T/G SERIES

### Overall dimensions (mm)

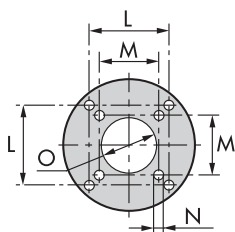
#### BURNER



MODEL	A	B	E	F - F (1)	H	I	O - O (1)
► P 140 T/G	765	365	890	363 - 473	222	467	1250 - 1360
► P 200 T/G	796	396	890	391 - 501	250	467	1280 - 1390
► P 300 T/G	858	447	1000	444 - 574	295	496	1440 - 1570
► P 450 T/G	950	508	1070	476 - 606	336	525	1546 - 1676

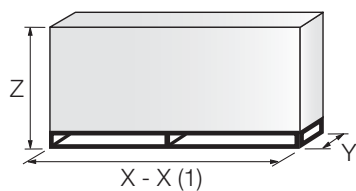
(1) Length with extended combustion head.

#### BURNER - BOILER MOUNTING FLANGE



MODEL	L	M	N	O
► P 140 T/G	260	230	M14	225
► P 200 T/G	260	-	M16	255
► P 300 T/G	260	-	M18	300
► P 450 T/G	310	-	M20	340

#### PACKAGING



MODEL	X - X (1)	Y	Z	kg
► P 140 T/G	1500	930	905	130
► P 200 T/G	1500	930	905	220
► P 300 T/G	1780	1085	990	238
► P 450 T/G	1780	1085	990	300

(1) Length with extended combustion head.

# Three Stage Light Oil Burners

## PRESS T/G SERIES

RIELLO

## Specification

### DESIGNATION OF SERIES

LIGHT OIL

Series : PRESS							
Size : 140 ... 450							
Operation : T/G Three stage P/G Modulating							
Emission : ... Class 1 EN267							
Head : TC Standard head TL Extended head							
Flame control system : FS1 Standard (1 stop every 24 h) FS2 Continuous working (1 stop every 72 h)							
Electrical supply to the system : 3/230/50 3/230V/50Hz 3/400/50 3N/400V/50Hz 3/230-400/50 3/230V/50Hz - 3N/400V/50Hz 3/220-380/60 3/220V/60Hz - 3N/380V/60Hz 3/200/50-60 3/200V/50-60Hz							
Auxiliary voltage : 230/50 230V/50Hz 220/60 220V/60Hz 110/50-60 110V/50-60Hz							
PRESS	140	T/G		TC	FS1	3/230-400/50	230/50
BASIC DESIGNATION							
EXTENDED DESIGNATION							

# Three Stage Light Oil Burners

## PRESS T/G SERIES

### Specification

#### STATE OF SUPPLY

Monoblock forced draught oil burner with three stage operation, fully automatic, made up of:

- Air suction circuit lined with sound-proofing material
- Fan with forward curved blades high performance pressure levels
- Air dampers for air setting controlled by a three stage hydraulic ram
- Starting motor at 2850 rpm, three-phase 400 V with neutral, 50 Hz
- Combustion head, that can be set on the basis of the combustion output, fitted with:
  - stainless steel end cone, resistant to corrosion and high temperatures
  - ignition electrodes
  - flame stability disk
- Gears pump for high pressure fuel supply, fitted with:
  - filter
  - pressure regulator
  - connections for installing a pressure gauge and vacuumeter
  - internal by-pass for single pipe installation
- Valve unit with a oil safety valve and three oil delivery valves on the output circuit;
- Photocell for flame detection
- Microprocessor based burner safety control box, with diagnostic function
- Burner on/off switch
- Flame inspection window
- Slide bars for easier installation and maintenance
- Protection filter against radio interference
- IP X0D (IP 40) electric protection level.

#### Standard equipment:

- 2 flexible pipes for connection to the oil supply network
- 2 nipples for the connection to the pump
- 4 wiring looms fittings for electrical connections
- 4 screws for fixing the burner flange to the boiler
- 2 slide bar extensions (for the extended model of P 300 T/G and P 450 T/G)
- Gasket for flange
- 1 Star Delta starter (On models where provided)
- Diffuser disk (P 450 T/G)
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

# Three Stage Light Oil Burners

## PRESS T/G SERIES

**RIELLO**

## Available models

CODE	MODEL	HEAT OUTPUT		TOTAL ELECTRICAL POWER (kW)	CERTIFICATION	NOTE
		(kW)	(kg/h)			
3476823	PRESS 140 T/G TC FS1 3/230-400/50 230/50	380/830÷1660	32/70÷140	4,5	CE060890223002	
3476824	PRESS 140 T/G TL FS1 3/230-400/50 230/50	380/830÷1660	32/70÷140	4,5	CE060890223002	
3476885	PRESS 140 T/G TC FS1 3/220-380/60 220/60	380/830÷1660	32/70÷140	4,5	-	
3476886	PRESS 140 T/G TL FS1 3/220-380/60 220/60	380/830÷1660	32/70÷140	4,5	-	
3477723	PRESS 200 T/G TC FS1 3/230-400/50 230/50	557/1186÷2372	47/100÷200	5,5	CE060890223002	
3477724	PRESS 200 T/G TL FS1 3/230-400/50 230/50	557/1186÷2372	47/100÷200	5,5	CE060890223002	
3477785	PRESS 200 T/G TC FS1 3/220-380/60 220/60	557/1186÷2372	47/100÷200	5,5	-	
3477786	PRESS 200 T/G TL FS1 3/220-380/60 220/60	557/1186÷2372	47/100÷200	5,5	-	
3478837	PRESS 300 T/G TC FS1 3/230-400/50 230/50	712/1779÷3560	60/150÷300	10	CE060890223002	
3478838	PRESS 300 T/G TL FS1 3/230-400/50 230/50	712/1779÷3560	60/150÷300	10	CE060890223002	
3478839	PRESS 300 T/G TC FS1 3/230/50 230/50	712/1779÷3560	60/150÷300	10	CE060890223002	(1)
3478840	PRESS 300 T/G TL FS1 3/230/50 230/50	712/1779÷3560	60/150÷300	10	CE060890223002	(1)
3478841	PRESS 300 T/G TC FS1 3/400/50 230/50	712/1779÷3560	60/150÷300	10	CE060890223002	(1)
3478842	PRESS 300 T/G TL FS1 3/400/50 230/50	712/1779÷3560	60/150÷300	10	CE060890223002	(1)
3478985	PRESS 300 T/G TC FS1 3/220-380/60 220/60	712/1779÷3560	60/150÷300	10	-	
3478986	PRESS 300 T/G TL FS1 3/220-380/60 220/60	712/1779÷3560	60/150÷300	10	-	
3479336	PRESS 450 T/G TC FS1 3/230/50 230/50	890/2670÷5340	75/225÷450	15	CE 1002/R	(1)
3479337	PRESS 450 T/G TL FS1 3/230/50 230/50	890/2670÷5340	75/225÷450	15	CE 1002/R	(1)
3479338	PRESS 450 T/G TC FS1 3/400/50 230/50	890/2670÷5340	75/225÷450	15	CE 1002/R	(1)
3479339	PRESS 450 T/G TL FS1 3/400/50 230/50	890/2670÷5340	75/225÷450	15	CE 1002/R	(1)

(1) Star-delta starting, as standard equipment

Net calorific value: 11,8 kWh/kg - 10200 kcal/kg - Viscosity at 20°C: 4÷6 mm²/s (cSt)

The burners of PRESS series are in according to 89/336 (2004/108) - 73/23 (2006/95) - 92/42 - 89/392 EC Directive and EN 267 Norm.

# Three Stage Light Oil Burners

## PRESS T/G SERIES

## Burner accessories

### Nozzles



The following list shows the features and codes on the basis of the maximum required fuel output.

NOTE: each burner needs N° 3 nozzles.

BURNER	GPH	RATED OUTPUT [kg/h]			NOZZLE CODE
		at 10 bar	at 12 bar	at 14 bar	
► P 140 T/G	3,50	13,5	14,8	16,1	3042162
► P 140 T/G	4,00	15,4	17	18,4	3042172
► P 140 T/G	4,50	17,3	19,1	20,7	3042182
► P 140 T/G - P 200 T/G	5,00	19,2	21,2	23	3042192
► P 140 T/G - P 200 T/G	5,50	21,1	23,3	25,3	3042202
► P 140 T/G - P 200 T/G	6,00	23,1	25,5	27,7	3042212
► P 140 T/G - P 200 T/G	6,50	25	27,6	30	3042222
► P 140 T/G - P 200 T/G	7,00	26,9	29,7	32,3	3042232
► P 140 T/G - P 200 T/G	7,50	28,8	31,8	34,6	3042242
► P 140 T/G - P 200 T/G	8,00	30,8	33,9	36,9	3042252
► P 140 T/G - P 200 T/G	8,50	32,7	36,1	39,2	3042262
► P 140 T/G - P 200 T/G	9,50	36,5	40,3	43,8	3042282
► P 140 T/G - P 200 T/G	10,00	38,4	42,4	46,1	3042292
► P 140 T/G - P 200 T/G	11,00	42,3	46,7	50,7	3042312
► P 200 T/G	12,00	46,1	50,9	55,3	3042322
► P 200 T/G	13,00	50	55,1	59,9	3042332
► P 200 T/G - P 300 T/G	14,00	53,8	59,4	64,5	3042352
► P 200 T/G - P 300 T/G	15,00	57,7	63,6	69,2	3042362
► P 300 T/G	16,00	61,5	67,9	73,8	3042382
► P 300 T/G	17,00	65,4	72,1	78,4	3042392
► P 300 T/G - P 450 T/G	18,00	69,2	76,4	83	3042412
► P 300 T/G - P 450 T/G	19,00	73	80,6	87,6	3042422
► P 300 T/G - P 450 T/G	20,00	76,9	84,8	92,2	3042442
► P 300 T/G - P 450 T/G	22,00	84,6	93,3	101,4	3042462
► P 300 T/G - P 450 T/G	24,00	92,2	101,8	110,6	3042472
► P 450 T/G	26,00	99,9	110,3	119,9	3042482
► P 450 T/G	28,00	107,6	118,8	129,1	20018051
► P 450 T/G	30,00	110,4	122	132,4	3042502
► P 450 T/G	32,00	117,8	130,1	150,1	3042512
► P 450 T/G	35,00	128,8	142,1	154,5	3042522



## Burner accessories

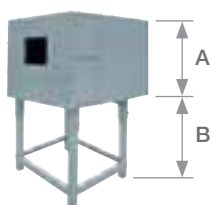
### Spacer kit



If burner head penetration into the combustion chamber needs reducing, varying thickness spacers are available, as given in the following list.

BURNER	SPACER THICKNESS S (mm)	KIT CODE
► P 140 T/G	102	3000722
► P 200 T/G	102	3000722
► P 300 T/G	130	3000723
► P 450 T/G	130	3000751

### Sound proofing box

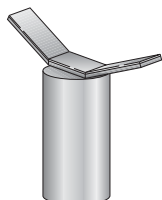


If noise emission needs reducing even further, sound-proofing boxes are available.

BURNER	BOX TYPE	A (mm)	B (mm) min-max	[dB(A)] (*)	BOX CODE
► P 140 T/G - P 200 T/G	C4/5	850	160 - 980	10	3010404
► P 300 T/G - P 450 T/G	C7	1255	160 - 980	10	3010376

(\*) Average noise reduction according to EN 15036-1 standard

### Burner support



For easier maintenance, a mobile burner support has been designed, which means the burner can be dismantled without the need of forklift trucks.

BURNER	SUPPORT CODE
► P 300 T/G - P 450 T/G	3000731

### 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
► P 140 T/G - P 200 T/G - P 300 T/G - P 450 T/G	3002719

### Protection kit (electromagnetic interferences)

When the burner is installed in a room particularly subject to electromagnetic interference (signals emitted over 10 V/m) due for example to INVERTER presence or in systems where the lengths of the thermostat connections is over 20 meters, this specific protection kit is available as an interface between the thermostatic controls and the burner.

BURNER	KIT CODE
► All models	3010386



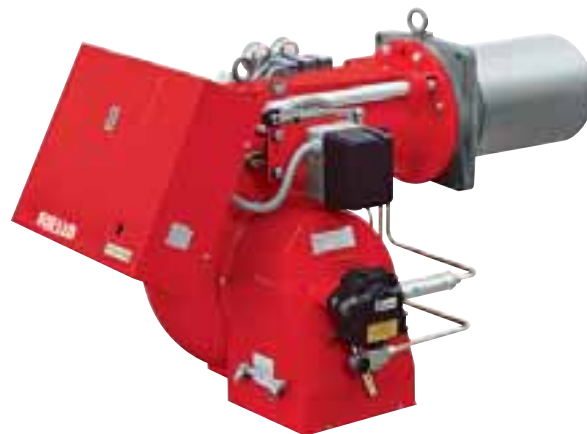
## PRESS P/G SERIES

The PRESS P/G series of burners covers a firing range from 415 to 5340 kW.

Setting can be “two stage progressive” or, alternatively, “modulating” with the installation of a PID logic regulator and respective probes, which guarantees a turn down ratio of 3:1.

The versatility of this range makes the burner well suited for use on commercial or industrial applications where the load factor is subject to wide variations over a short period of time.

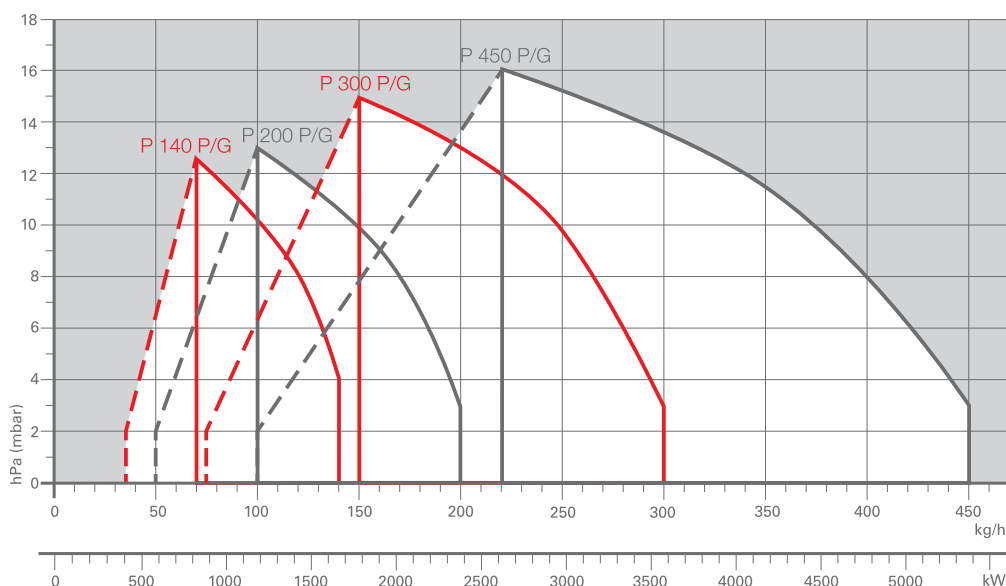
Simplified maintenance is achieved by Riello designed slide bar system, which allows easy access to all of the essential components of the combustion head.



LIGHT OIL

P 140 P/G	415/830 ÷ 1660 kW
P 200 P/G	590/1185 ÷ 2370 kW
P 300 P/G	890/1780 ÷ 3560 kW
P 450 P/G	1190/2670 ÷ 5340 kW

## FIRING RATES



Useful working field  
for choosing the  
burner



Modulation range

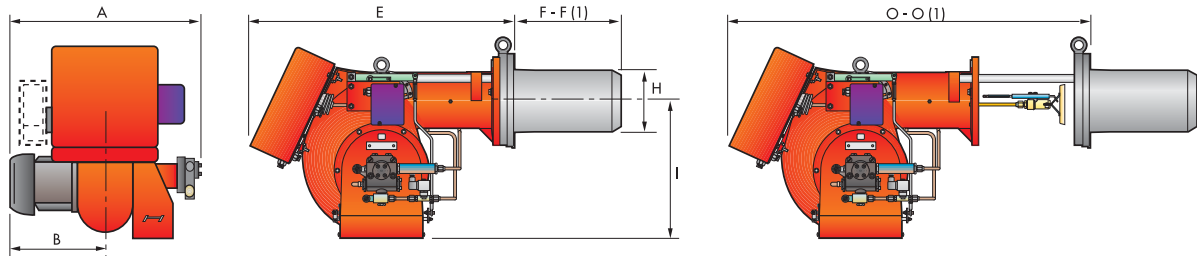
Test conditions  
conforming to EN267  
Temperature: 20°C  
Pressure: 1013,5 mbar  
Altitude: 0 m a.s.l.

# Modulating Light Oil Burners

## PRESS P/G SERIES

### Overall dimensions (mm)

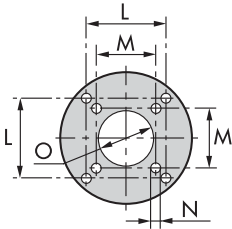
#### BURNER



MODEL	A	B	E	F - F (1)	H	I	O - O (1)
► P 140 P/G	765	365	890	363 - 473	222	467	1250 - 1360
► P 200 P/G	796	396	890	391 - 501	250	467	1280 - 1390
► P 300 P/G	858	447	1000	444 - 574	295	496	1440 - 1570
► P 450 P/G	950	508	1070	476 - 606	336	525	1546 - 1676

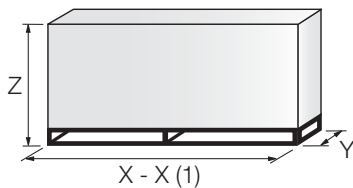
(1) Length with extended combustion head.

#### BURNER - BOILER MOUNTING FLANGE



MODEL	L	M	N	O
► P 140 P/G	260	230	M14	225
► P 200 P/G	260	-	M16	255
► P 300 P/G	260	-	M18	300
► P 450 P/G	310	-	M20	340

#### PACKAGING



MODEL	X - X (1)	Y	Z	kg
► P 140 P/G	1500	930	905	130
► P 200 P/G	1500	930	905	220
► P 300 P/G	1780	1085	990	238
► P 450 P/G	1780	1085	990	300

(1) Length with extended combustion head.

# Modulating Light Oil Burners

## PRESS P/G SERIES

**RIELLO**

## Specification

### DESIGNATION OF SERIES

Series :	PRESS	
Size :	140 ... 450	
Operation :	T/G	Three stage
	P/G	Modulating
Emission :	... Class 1 EN267	
Head :	TC	Standard head
	TL	Extended head
Flame control system :	FS1	Standard (1 stop every 24 h)
	FS2	Continuous working (1 stop every 72 h)
Electrical supply to the system :	3/230/50	3/230V/50Hz
	3/400/50	3N/400V/50Hz
	3/230-400/50	3/230V/50Hz - 3N/400V/50Hz
	3/220-380/60	3/220V/60Hz - 3N/380V/60Hz
	3/200/50-60	3/200V/50-60Hz
Auxiliary voltage :	230/50	230V/50Hz
	220/60	220V/60Hz
	110/50-60	110V/50-60Hz

PRESS	140	P/G		TC	FS1	3/230-400/50	230/50
BASIC DESIGNATION							
EXTENDED DESIGNATION							

LIGHT OIL

# Modulating Light Oil Burners

## PRESS P/G SERIES

### Specification

#### STATE OF SUPPLY

Monoblock forced draught oil burner, two stage progressive or modulating operation, with a kit, fully automatic, made up of:

- Air suction circuit
- Fan with forward curved blades high performance pressure levels
- Air damper for air setting and automatic oil output regulator controlled by a servomotor with variable cam
- Starting motor at 2850rpm, three-phase 400V with neutral, 50Hz
- Combustion head, that can be set on the basis of the required output, fitted with:
  - stainless steel end cone, resistant to corrosion and high temperatures
  - ignition electrodes
  - flame stability disk
- Gears pump for high pressure fuel supply, fitted with:
  - filter
  - pressure regulator
  - connections for installing a pressure gauge and vacuumeter
  - internal by-pass for single pipe installation
- Valve unit with a double oil safety valve on the output circuit and double safety valve on the return circuit
- Safety oil pressure switch for stop the burner in the case of problems on return circuit
- Photocell for flame detection
- Burner safety control box, fitted with control functions for the correct positioning of the servomotor and possibility of post-ventilation by just changing the electric wiring
- Flame inspection window
- Slide bars for easier installation and maintenance
- Protection filter against radio interference
- IP X0D (IP 40) electric protection level.

#### Standard equipment:

- 2 flexible pipes for connection to the oil supply network
- 2 nipples for the connection to the pump
- wiring looms fittings for electrical connections
- 4 screws for fixing the burner flange to the boiler
- 2 slide bar extensions (for the extended head models of P 300 P/G e P 450 P/G)
- 1 star delta starter (on models where provided)
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

# Modulating Light Oil Burners

## PRESS P/G SERIES

**RIELLO**

## Available models

CODE	MODEL	HEAT OUTPUT		TOTAL ELECTRICAL POWER (kW)	CERTIFICATION	NOTE
		(kW)	(kg/h)			
3476867	PRESS 140 P/G TC FS1 3/230-400/50 230/50	415/830÷1660	35/70÷140	4,5	CE060890223002	
3476868	PRESS 140 P/G TL FS1 3/230-400/50 230/50	415/830÷1660	35/70÷140	4,5	CE060890223002	
3477767	PRESS 200 P/G TC FS1 3/230-400/50 230/50	590/1185÷2370	50/100÷200	5,5	CE060890223002	
3477768	PRESS 200 P/G TL FS1 3/230-400/50 230/50	590/1185÷2370	50/100÷200	5,5	CE060890223002	
3478941	PRESS 300 P/G TC FS1 3/230-400/50 230/50	890/1780÷3560	75/150÷300	10	CE060890223002	
3478942	PRESS 300 P/G TL FS1 3/230-400/50 230/50	890/1780÷3560	75/150÷300	10	CE060890223002	
3478943	PRESS 300 P/G TC FS1 3/230/50 230/50	890/1780÷3560	75/150÷300	10	CE060890223002	(1)
3478944	PRESS 300 P/G TL FS1 3/230/50 230/50	890/1780÷3560	75/150÷300	10	CE060890223002	(1)
3478945	PRESS 300 P/G TC FS1 3/400/50 230/50	890/1780÷3560	75/150÷300	10	CE060890223002	(1)
3478946	PRESS 300 P/G TL FS1 3/400/50 230/50	890/1780÷3560	75/150÷300	10	CE060890223002	(1)
3479369	PRESS 450 P/G TC FS1 3/230/50 230/50	1190/2670÷5340	100/225÷450	15	CE060890223002	(1)
3479370	PRESS 450 P/G TL FS1 3/230/50 230/50	1190/2670÷5340	100/225÷450	15	CE060890223002	(1)
3479371	PRESS 450 P/G TC FS1 3/400/50 230/50	1190/2670÷5340	100/225÷450	15	CE060890223002	(1)
3479372	PRESS 450 P/G TL FS1 3/400/50 230/50	1190/2670÷5340	100/225÷450	15	CE060890223002	(1)

(1) Star-delta starting, as standard equipment

Net calorific value: 11,8 kWh/kg - 10200 kcal/kg - Viscosity at 20°C: 4÷6 mm²/s (cSt)

The burners of PRESS series are in according to 89/336 (2004/108) - 73/23 (2006/95) - 92/42 - 89/392 EC Directive and EN 267 Norm.

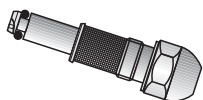
LIGHT OIL

# Modulating Light Oil Burners

## PRESS P/G SERIES

### Burner accessories

#### Return nozzles



The following list shows the features and codes on the basis of the maximum required fuel output.

NOTE: each burner needs N° 1 nozzle.

BURNER	RATED OUTPUT kg/h (*)	NOZZLES BERGONZO B5 45° WITHOUT "SA" NEEDLE CODE	NOZZLES FLUIDICS N2 45° WITHOUT NEEDLE CODE
► P 140 P/G	70	3009303	3045471
► P 140 P/G	80	3009305	3045472
► P 140 P/G	90	3009307	3045473
► P 140 - 200 P/G	100	3009310	3045475
► P 140 - 200 P/G	125	3009312	3045477
► P 200 - 300 P/G	150	3009314	3045479
► P 200 - 300 P/G	175	3009316	3045481
► P 200 - 300 P/G	200	3009318	3045483
► P 300 - 400 P/G	225	3009320	3045485
► P 300 - 400 P/G	250	3009322	3045487
► P 300 - 400 P/G	275	3009324	3045489
► P 300 - 400 P/G	300	3009326	3045491
► P 450 P/G	325	3009328	3045493
► P 450 P/G	350	3009330	3045495
► P 450 P/G	375	3009332	3045497
► P 450 P/G	400	3009334	3045499
► P 450 P/G	425	3009336	3045500
► P 450 P/G	450	3009338	3045501

(\*) Nozzle rated delivery is referred to atomised pressure

#### Spacer kit



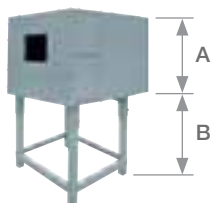
If burner head penetration into the combustion chamber needs reducing, varying thickness spacers are available, as given in the following list.

BURNER	SPACER THICKNESS S (mm)	KIT CODE
► P 140 P/G	102	3000722
► P 200 P/G	102	3000722
► P 300 P/G	130	3000723
► P 450 P/G	130	3000751



## Burner accessories

### Sound proofing box



If noise emission needs reducing even further, sound-proofing boxes are available.

BURNER	BOX TYPE	A (mm)	B (mm) min-max	[dB(A)] (*)	BOX CODE
► P 140 P/G - P 200 P/G	C4/5	850	160 - 980	10	3010404
► P 300 P/G - P 450 P/G	C7	1255	160 - 980	10	3010376

(\*) Average noise reduction according to EN 15036-1 standard

### Accessories for modulating operation



To obtain modulating operation, the PRESS P/G series of burners requires a regulator.

BURNER	REGULATOR TYPE	REGULATOR CODE
► P 140 - 200 - 300 - 450 P/G	RWF 40	3010211



The relative temperature or pressure probes fitted to the regulator, must be chosen on the basis of the application.

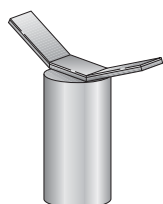
BURNER	PROBE TYPE	RANGE (°C) (bar)	PROBE CODE
► P 140 - 200 - 300 - 450 P/G	Temperature PT 100	-100 ÷ 500°C	3010110
► P 140 - 200 - 300 - 450 P/G	Pressure 4 ÷ 20 mA	0 ÷ 2,5 bar	3010213
► P 140 - 200 - 300 - 450 P/G	Pressure 4 ÷ 20 mA	0 ÷ 16 bar	3010214



Depending on the servomotor fitted to the burner, a three-pole potentiometer (1000 Ω) can be installed to check the position of the servomotor.

BURNER	POTENTIOMETER KIT CODE
► P 140 - 200 - 300 - 450 P/G	3010021

### Burner support



For easier maintenance, a mobile burner support has been designed, which means the burner can be dismantled without the need of forklift trucks.

BURNER	SUPPORT CODE
► P 300 P/G - P 450 P/G	3000731



## RL/1 SERIES

The RL/1 burners series covers a firing range from 107 to 398 kW, and it has been designed for use in low or medium temperature hot water boilers, hot air or steam boilers, diathermic oil boilers. Optimisation of sound emissions is guaranteed by the special design of the air suction circuit **and by incorporated sound proofing material**.

Special care has been paid to keeping overall dimensions compact and to easy servicing.

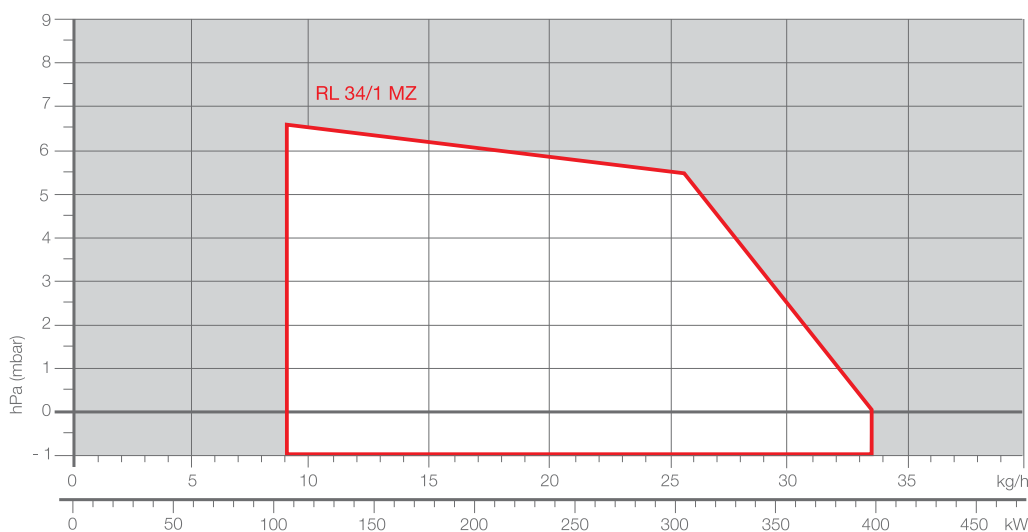
The elevated fans and combustion head performance guarantees flexibility of use and excellent operation at all firing rates. A wide range of accessories guarantees elevated working flexibility.



RL 34/1 MZ

107 ÷ 398 kW

## FIRING RATES



Useful working field  
for choosing the  
burner

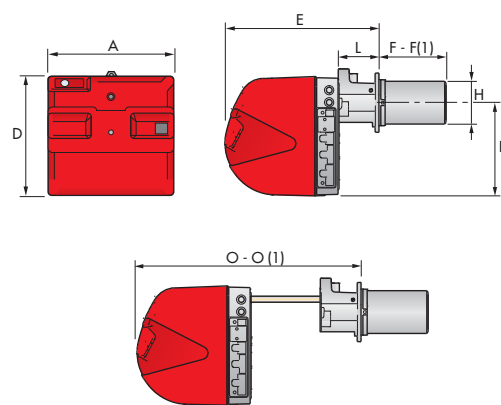
Test conditions  
conforming to EN267  
Temperature: 20°C  
Pressure: 1013,5 mbar  
Altitude: 0 m a.s.l.

# One Stage Light Oil Burners

## RL/1 SERIES

# Overall dimensions (mm)

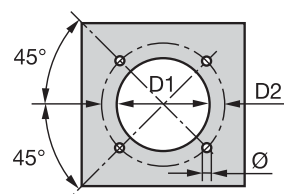
## BURNER



MODEL	A	D	E	F - F(1)	H	I	L	O - O(1)
► RL 34/1 MZ	442	422	508	216 - 351	140	305	138	780 - 915

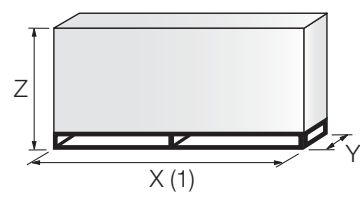
(1) dimension with extended head

## BURNER - BOILER MOUNTING FLANGE



MODEL	D1	D2	Ø
► RL 34/1 MZ	160	224	M8

## PACKAGING



MODEL	X (1)	Y	Z	kg
► RL 34/1 MZ	1000	485	500	32

(1) Length with short and extended head

# One Stage Light Oil Burners

## RL/1 SERIES

**RIELLO**

## Specification

### DESIGNATION OF SERIES

Series: R										
Fuel: S Natural Gas										
SP LPG										
L Light oil										
LS Light oil/Methane										
N Heavy oil										
Size										
Setting: /1 Single stage										
... Two stage										
/M Modulating										
Emission: ... Class 1 EN267 - EN676										
MZ Class 2 EN267 - EN676										
BLU Class 3 EN267 - EN676										
MX Class 1 EN267										
Class 3 EN676										
Head length: TC standard head										
TL extended head										
Flame control system: FS1 Standard (1 stop every 24 h)										
FS2 Continuous working (1 stop every 72 h)										
Electrical supply to the system:										
1/230/50 1/230V/50Hz										
1/220-230/50-60 1/220-230V/50-60Hz										
3/230/50 3/230V/50Hz										
3/400/50 3N/400V/50Hz										
3/230-400/50 3/230V/50Hz - 3N/400V/50Hz										
3/220/60 3/220V/60Hz										
3/380/60 3N/380V/60Hz										
3/220-380/60 3/220V/60Hz - 3N/380V/60Hz										
3/220-400/50-60 3/220-230V/50-60Hz										
3/380-400V/50-60Hz										
Auxiliary voltage: 230/50-60 230V/50-60Hz										
220-230/50-60 220-230V/50-60Hz										
110/50-60 110V/50-60Hz										
ID: Differential switch										
R	L	34	/1	MZ	TC	FS1	1/230/50	230/50-60		
BASIC DESIGNATION										
EXTENDED DESIGNATION										

LIGHT OIL

# One Stage Light Oil Burners

## RL/1 SERIES

## Specification

### STATE OF SUPPLY

Monoblock forced draught oil burner with one stage operation, fully automatic, made up of:

- Air suction circuit **with sound proofing material**
- High performance fan with forward curve blades
- Air damper for air setting
- Starting motor at 2800 rpm, single-phase, 230V / 50-60Hz
- Combustion head, that can be set on the basis of required output, fitted with:
  - stainless steel end cone, resistant to corrosion and high temperatures
  - ignition electrodes
  - flame stability disk
- Fan pressure test point
- Gears pump for high pressure fuel supply, fitted with:
  - filter
  - pressure regulator
  - connections for installing a pressure gauge and vacuumeter
  - internal by-pass for single pipe installation
- Valve unit with a double oil delivery valve on the output circuit
- Photocell for flame detection
- Microprocessor-based burner safety control box, with diagnostic function
- Plugs and socket for electrical connections, accessible from the external of the cover
- Flame inspection window
- Slide bars for easier installation and maintenance
- Protection filter against radio interference
- IP X0D (IP 40) electric protection level.

#### Standard equipment:

- 2 flexible pipes for connection to the oil supply network
- 2 gaskets for the flexible pipes
- 2 nipples for connection to the pump
- 1 thermal screen
- 2 slide bar extensions (for model with long blast tube)
- 4 screws for fixing the burner flange to the boiler
- 1 7pin plug for electrical connection
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

## Available models

CODE	MODEL	HEAT OUTPUT		TOTAL ELECTRICAL POWER (kW)	CERTIFICATION	NOTE
		(kW)	(kg/h)			
3470110	RL 34/1 MZ TC FS1 1/230/50-60 230/50-60	107 - 398	9 - 34	0,6	--	
3470111	RL 34/1 MZ TL FS1 1/230/50-60 230/50-60	107 - 398	9 - 34	0,6	--	

Net calorific value: 11,8 kWh/kg - 10200 kcal/kg - Viscosity at 20°C: 4÷6 mm²/s (cSt)

The burners of RL/1 series are in according to 89/336 (2004/108) - 73/23 (2006/95) - 92/42 - 89/392 EC Directive and EN 267 Norm.

## Burner accessories

### Nozzles

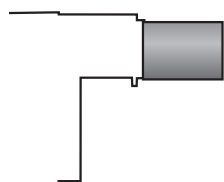


The nozzles must be ordered separately. The following table shows the features and codes on the basis of the maximum required fuel output.

NOTE: each burner needs N°2 nozzles.

BURNER	NOZZLE TYPE	GPH	RATED OUTPUT (kg/h)			NOZZLE CODE
			at 10 bar	at 12 bar	at 14 bar	
► RL 34/1 MZ	60°A	1,00	4,1	4,5	4,9	3042078
	60°A	1,25	4,7	5,2	5,6	3042094
	60°A	1,50	5,7	6,3	6,8	3042108
	60°A	1,75	6,7	7,3	7,9	3042114
	60°A	2,00	7,7	8,5	9,2	3042124
	60°A	2,50	9,6	10,6	11,5	3042144
	60°A	3,00	11,5	12,7	13,8	3042148
	60°A	3,50	13,5	14,8	16,1	3042164
	60°A	4,00	15,4	17	18,4	3042174

### Extended heads



“Standard head” burners can be transformed into “extended head” versions, by using the special kit. The kit available, giving the original and the extended lengths, is listed below.

BURNER	‘STANDARD’ HEAD LENGTH (mm)	‘EXTENDED’ HEAD LENGTH (mm)	KIT CODE
► RL 34/1 MZ	216	351	3010426

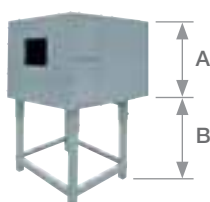
### Spacer kit



If burner head penetration into the combustion chamber needs reducing, varying thickness spacers are available, as given in the following table:

BURNER	SPACER THICKNESS S (mm)	KIT CODE
► RL 34/1 MZ	110	3010095

### Sound proofing box



If noise emission needs reducing even further, sound-proofing boxes are available.

BURNER	BOX TYPE	A (mm)	B (mm) min-max	[dB(A)] (*)	BOX CODE
► RL 34/1 MZ	C1/3	650	372 - 980	10	3010403

(\*) Average noise reduction according to EN 15036-1 standard

# One Stage Light Oil Burners

## RL/1 SERIES

### Burner accessories

#### Degasing unit

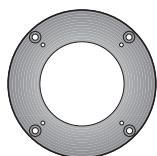


With single pipe systems, you can find air in the oil sucked by the pump that comes from the oil itself due to negative pressure or to a faulty seal.

To solve this problem, we recommend fitting a degasing unit near the burner. Two versions are available with or without filter:

BURNER	FILTER	KIT CODE
► RL 34/1 MZ	With filter	3010055
► RL 34/1 MZ	Without filter	3010054

#### Connection flange kit



A kit is available for use where the burner opening on the boiler is of excessive diameter.

BURNER	KIT CODE
► RL 34/1 MZ	3010138

#### Volt free contact kit



A volt free contact kit is available for installation onto the burner. It can be used for a remote interface between burner operating signals.

Every burner can be equipped with a single kit to remote the flame presence signal and the burner lockout indication.

BURNER	KIT CODE
► RL 34/1 MZ	3010419

#### 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
► RL 34/1 MZ	3002719

#### Ground fault interrupter kit



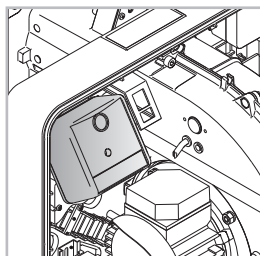
A "Ground fault interrupter kit" is available as a safety device for electrical system fault.

BURNER	KIT CODE
► RL 34/1 MZ	3010448



## Burner accessories

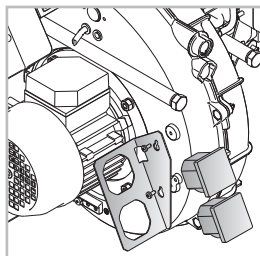
### Post-ventilation kit



To have 20 s ventilation after opening of thermostats chain, a special kit is available.

BURNER	KIT CODE
► RL 34/1 MZ	3010453

### Hours counter kit



To measure the burner working time a hours counter kit is available.

BURNER	KIT CODE
► RL 34/1 MZ	3010450

### Protection kit (electromagnetic interferences)

When the burner is installed in a room particularly subject to electromagnetic interference (signals emitted over 10 V/m) due for example to INVERTER presence or in systems where the lengths of the thermostat connections is over 20 meters, this specific protection kit is available as an interface between the thermostatic controls and the burner.

BURNER	KIT CODE
► All models	3010386



## RL SERIES

The RL series of burners covers a firing range from 154 to 2700 kW, and it has been designed for use in low or medium temperature hot water boilers, hot air or steam boilers, diathermic oil boilers.

Operation is "two stage"; the burners are fitted with a microprocessor-based control panel, which supplies indication of burner status and fault causes.

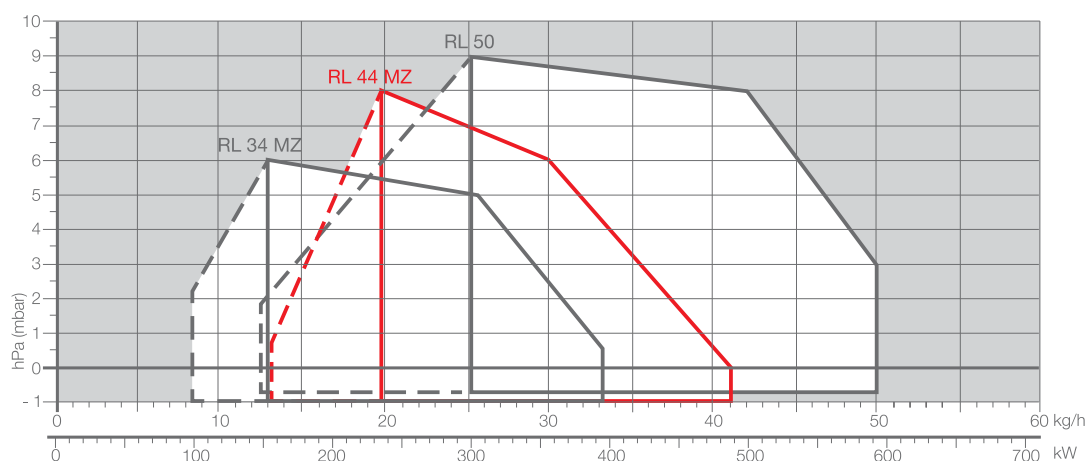
Optimisation of sound emissions is guaranteed by the special design of the air suction circuit **and by incorporated sound proofing material**. The elevated performance of the fans and combustion head, guarantee flexibility of use and excellent working at all firing rates.

The exclusive design ensures reduced dimensions, simple use and maintenance. A wide range of accessories guarantees elevated working flexibility.



RL 34 MZ	97/154 ÷ 395 kW
RL 44 MZ	155/235 ÷ 485 kW
RL 50	148/296 ÷ 593 kW
RL 64 MZ	206/391 ÷ 830 kW
RL 70	255/474 ÷ 830 kW
RL 100	356/711 ÷ 1186 kW
RL 130	486/948 ÷ 1540 kW
RL 190	759/1423 ÷ 2443 kW
RL 250 MZ	600/1250 ÷ 2700 kW

## FIRING RATES



Useful working field for choosing the burner

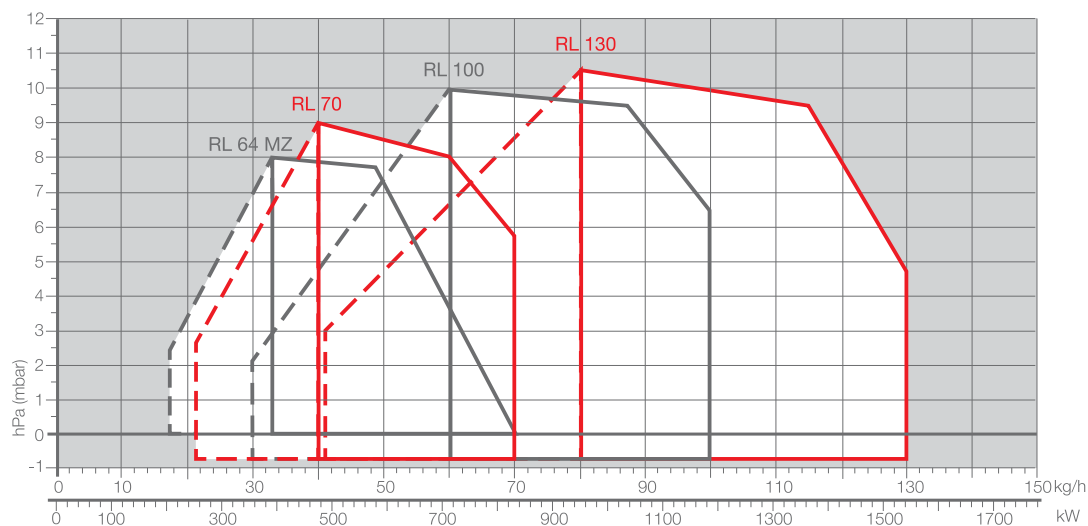
Modulation range

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

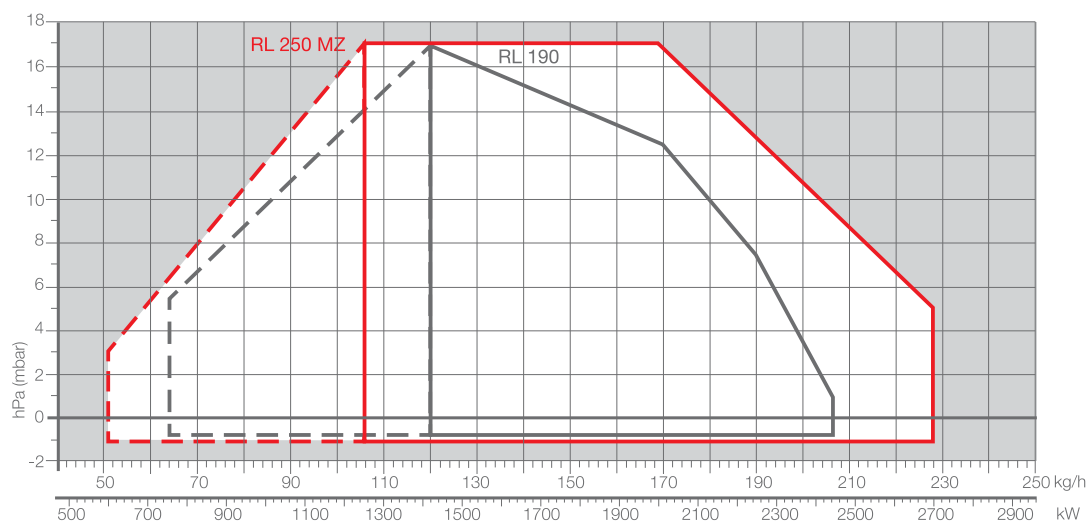
# Two Stage Light Oil Burners

## RL SERIES

### FIRING RATES



Useful working field for choosing the burner  
 Modulation range  
 Test conditions conforming to EN267  
 Temperature: 20°C  
 Pressure: 1013,5 mbar  
 Altitude: 0 m a.s.l.



# Two Stage Light Oil Burners

## RL SERIES

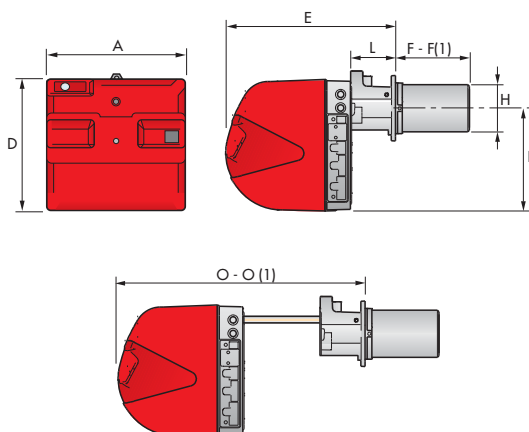
**RIELLO**

## Overall dimensions (mm)

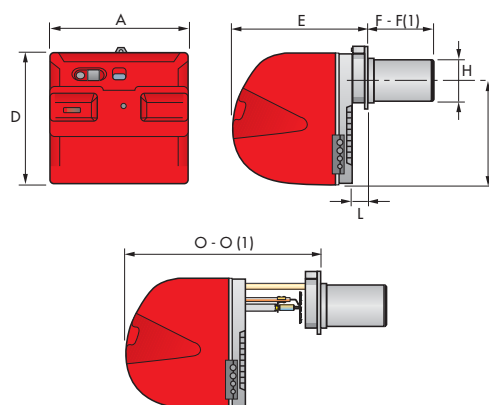
### BURNER

LIGHT OIL

RL 34 - 44 MZ



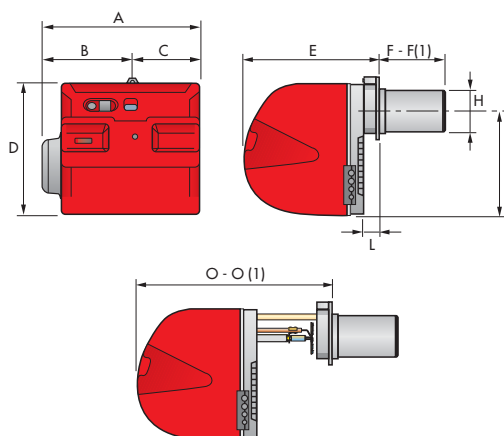
RL 50



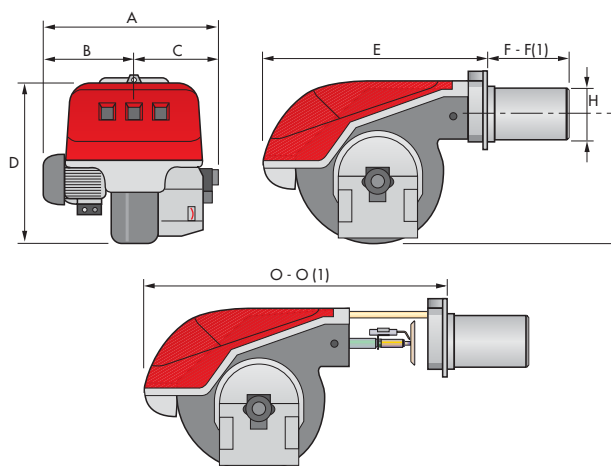
MODEL	A	D	E	F - F(1)	H	I	L	O - O(1)
► RL 34 MZ	442	422	508	216 - 351	140	305	138	780 - 915
► RL 44 MZ	442	422	508	216 - 351	152	305	138	780 - 915
► RL 50	476	474	468	216 - 351	152	352	52	672 - 807

(1) dimension with extended head

RL 64 MZ



RL 70 - 100 - 130 - 190 - 250 MZ



MODEL	A	B	C	D	E	F - F(1)	H	I	L	O - O(1)
► RL 64 MZ	538	300	238	490	477	250 - 385	179	335	60	680 - 815
► RL 70	580	296	284	555	680	250 - 385	179	430	-	951 - 1086
► RL 100	599	312	287	555	680	250 - 385	179	430	-	951 - 1086
► RL 130	625	338	287	555	680	250 - 385	189	430	-	951 - 1086
► RL 190	756	366	390	555	712	370 - 530*	222	430	-	1166 - -
► RL 250 MZ	910	432	478	596	705	378 - 528*	222	436	-	1163 - -

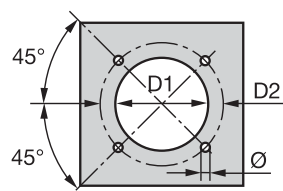
(1) dimension with extended head  
\* by installation of extended head kit

# Two Stage Light Oil Burners

## RL SERIES

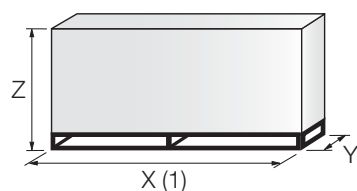
# Overall dimensions (mm)

## BURNER - BOILER MOUNTING FLANGE



MODEL	D1	D2	Ø
► RL 34 MZ	160	224	M8
► RL 44 MZ	160	224	M8
► RL 50	160	224	M8
► RL 64 MZ	185	275-325	M12
► RL 70	185	275-325	M12
► RL 100	185	275-325	M12
► RL 130	195	275-325	M12
► RL 190	230	325-368	M16
► RL 250 MZ	230	325-368	M16

## PACKAGING



MODEL	X (1)	Y	Z	kg
► RL 34 MZ	1010	520	510	32
► RL 44 MZ	1010	520	510	33
► RL 50	1200	520	502	39
► RL 64 MZ	1200	560	520	42
► RL 70	1410	692	655	60
► RL 100	1410	692	655	63
► RL 130	1410	692	655	66
► RL 190	1410	985	655	75
► RL 250 MZ	1410	1040	655	140

(1) Length with short and extended head

# Two Stage Light Oil Burners

## RL SERIES

**RIELLO**

## Specification

### DESIGNATION OF SERIES

Series: R									
Fuel: S Natural Gas									
SP LPG									
L Light oil									
LS Light oil/Methane									
N Heavy oil									
Size									
Setting: /1 Single stage									
... Two stage									
/M Modulating									
Emission: ... Class 1 EN267 - EN676									
MZ Class 2 EN267 - EN676									
BLU Class 3 EN267 - EN676									
MX Class 1 EN267									
Class 3 EN676									
Head length: TC standard head									
TL extended head									
Flame control system: FS1 Standard (1 stop every 24 h)									
FS2 Continuous working (1 stop every 72 h)									
Electrical supply to the system:									
1/230/50 1/230V/50Hz									
1/220-230/50-60 1/220-230V/50-60Hz									
3/230/50 3/230V/50Hz									
3/400/50 3N/400V/50Hz									
3/230-400/50 3/230V/50Hz - 3N/400V/50Hz									
3/220/60 3/220V/60Hz									
3/380/60 3N/380V/60Hz									
3/220-380/60 3/220V/60Hz - 3N/380V/60Hz									
3/220-400/50-60 3/220-230V/50-60Hz									
3/380-400V/50-60Hz									
Auxiliary voltage: 230/50-60 230V/50-60Hz									
220-230/50-60 220-230V/50-60Hz									
110/50-60 110V/50-60Hz									
ID: Differential switch									
R	L	50			TC	FS1	3/230-400/50	230/50-60	
BASIC DESIGNATION									
EXTENDED DESIGNATION									

LIGHT OIL

# Two Stage Light Oil Burners

## RL SERIES

## Specification

### STATE OF SUPPLY

#### RL 34 MZ - 44 MZ models

Monoblock forced draught oil burner with two stage operation, fully automatic, made up of:

- Air suction circuit **with sound proofing material**
- High performance fan with straight blades
- Air damper for air setting controlled by an adjustable hydraulic ram
- Starting motor at 2800 rpm, single-phase / 220-230V / 50-60Hz or three-phase 380-400V / 50-60Hz
- Combustion head, that can be set on the basis of required output, fitted with:
  - stainless steel end cone, resistant to corrosion and high temperatures
  - ignition electrodes
  - flame stability disk
- Exclusive patented HCS (Housing Cooling System) with high thermal insulation and air circulation with continuous air volume refresh for an active cooling system and avoid heat transfer to the electrical component housing
- Gears pump for high pressure fuel supply, fitted with:
  - filter
  - pressure regulator
  - connections for installing a pressure gauge and vacuumeter
  - internal by-pass for single pipe installation
- Valve unit with an oil safety valve and two delivery oil valves on the output circuit
- Photocell for flame detection
- Microprocessor-based burner safety control box, with diagnostic function
- Plugs and Sockets for electrical connection, accessible from the external of the cover
- Burner on/off switch
- Flame inspection window
- 1<sup>st</sup> - 2<sup>nd</sup> stage manual switch
- Slide bars for easier installation and maintenance
- Protection filter against radio interference
- IP 44 electric protection level.

#### Standard equipment:

- 2 flexible pipes for connection to the oil supply network
- 2 gaskets for the flexible pipes
- 2 nipples for connection to the pump
- 4 screws for fixing the burner flange to the boiler
- 1 thermal screen
- 2 Plugs for electrical connection (RL 34-44 MZ single-phase)
- 3 Plugs for electrical connection (RL 44 MZ three-phase)
- 2 slide bar extensions (for the extended head models)
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.



## Specification

### STATE OF SUPPLY

#### RL 50 - 64 MZ - 70 - 100 - 130 - 190 - 250 MZ models

Monoblock forced draught oil burner with two stage operation, fully automatic, made up of:

- Air suction circuit lined with sound-proofing material
- Fan with reverse curve blades (RL 50 - 70 - 100 - 130 models) or straight blades (RL 64 MZ - 190 - 250 MZ models)
- Air damper for air setting controlled by an adjustable hydraulic ram (or by a servomotor for the RL 250 MZ)
- Starting motor at 2800 rpm, three-phase 400V with neutral, 50Hz
- Combustion head, that can be set on the basis of required output, fitted with:
  - stainless steel end cone, resistant to corrosion and high temperatures
  - ignition electrodes
  - flame stability disk
- Gears pump for high pressure fuel supply, fitted with:
  - filter
  - pressure regulator
  - connections for installing a pressure gauge and vacuumeter
  - internal by-pass for single pipe installation
- Valve unit with an oil safety valve and two delivery oil valves on the output circuit
- Photocell for flame detection
- Microprocessor-based burner safety control box, with diagnostic function
- Burner on/off switch
- Flame inspection window
- 1<sup>st</sup> - 2<sup>nd</sup> stage manual switch
- Slide bars for easier installation and maintenance
- Protection filter against radio interference
- IP 44 electric protection level.

#### Standard equipment:

- 2 flexible pipes for connection to the oil supply network
- 2 gaskets for the flexible pipes
- 2 nipples for connection to the pump
- 4 screws for fixing the burner flange to the boiler
- 1 thermal screen
- Fairleads for electrical connections (RL 50 models)
- 2 slide bar extensions (for the extended head models and the RL 190 - 250 MZ models)
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

# Two Stage Light Oil Burners

## RL SERIES

## Available models

CODE	MODEL					HEAT OUTPUT		TOTAL ELECTRICAL POWER (kW)	CERTIFICATION	NOTE
						(kW)	(kg/h)			
3470210	RL 34 MZ	TC	FS1	1/220-230/50-60	220-230/50-60	97/154-395	8,3/13-33,6	0,6	--	(1)
3470211	RL 34 MZ	TL	FS1	1/220-230/50-60	220-230/50-60	97/154-395	8,3/13-33,6	0,6	--	(1)
3470310	RL 44 MZ	TC	FS1	1/220-230/50-60	220-230/50-60	155/235-485	13/20-41	0,7	--	(1)
3470311	RL 44 MZ	TL	FS1	1/220-230/50-60	220-230/50-60	155/235-485	13/20-41	0,7	--	(1)
3470340	RL 44 MZ	TC	FS1	3/220-400/50-60	220-230/50-60	155/235-485	13/20-41	0,75	--	(1)
3470341	RL 44 MZ	TL	FS1	3/220-400/50-60	220-230/50-60	155/235-485	13/20-41	0,75	--	(1)
3474632	RL 50	TC	FS1	3/230-400/50	230/50-60	148/296-593	12,5/25-50	0,75	--	(1)
3474633	RL 50	TL	FS1	3/230-400/50	230/50-60	148/296-593	12,5/25-50	0,75	--	(1)
3474680	RL 50	TC	FS1	3/208-230/380-460/60	230/50-60	148/296-593	12,5/25-50	0,75	--	(1)
3474681	RL 50	TL	FS1	3/208-230/380-460/60	230/50-60	148/296-593	12,5/25-50	0,75	--	(1)
3470410	RL 64 MZ	TC	FS1	3/230-400/50	230/50-60	206/391-830	17,4/33-70	1,4	CE-0036 0382/07	(1)
3470411	RL 64 MZ	TL	FS1	3/230-400/50	230/50-60	206/391-830	17,4/33-70	1,4	CE-0036 0382/07	(1)
3475032	RL 70	TC	FS1	3/230-400/50	230/50-60	255/474-830	21,5/40-70	1,4	05 07 90223 001	(2)
3475033	RL 70	TL	FS1	3/230-400/50	230/50-60	255/474-830	21,5/40-70	1,4	05 07 90223 001	(2)
3475034	RL 70	TC	FS1	3/230-400/50	230/50-60	255/474-830	21,5/40-70	1,4	05 07 90223 001	(1) (2)
3475035	RL 70	TL	FS1	3/230-400/50	230/50-60	255/474-830	21,5/40-70	1,4	05 07 90223 001	(1) (2)
3475080	RL 70	TC	FS1	3/208-230/380-460/60	230/50-60	255/474-830	21,5/40-70	1,4	--	(2)
3475081	RL 70	TL	FS1	3/208-230/380-460/60	230/50-60	255/474-830	21,5/40-70	1,4	--	(2)
3475232	RL 100	TC	FS1	3/230-400/50	230/50-60	356/711-1186	30/60-100	1,8	05 07 90223 001	(2)
3475233	RL 100	TL	FS1	3/230-400/50	230/50-60	356/711-1186	30/60-100	1,8	05 07 90223 001	(2)
3475234	RL 100	TC	FS1	3/230-400/50	230/50-60	356/711-1186	30/60-100	1,8	05 07 90223 001	(1) (2)
3475235	RL 100	TL	FS1	3/230-400/50	230/50-60	356/711-1186	30/60-100	1,8	05 07 90223 001	(1) (2)
3475280	RL 100	TC	FS1	3/208-230/380-460/60	230/50-60	356/711-1186	30/60-100	1,8	--	(2)
3475281	RL 100	TL	FS1	3/208-230/380-460/60	230/50-60	356/711-1186	30/60-100	1,8	--	(2)
3475432	RL 130	TC	FS1	3/230-400/50	230/50-60	486/948-1540	41/80-130	2,6	05 07 90223 001	(2)
3475433	RL 130	TL	FS1	3/230-400/50	230/50-60	486/948-1540	41/80-130	2,6	05 07 90223 001	(2)
3475434	RL 130	TC	FS1	3/230-400/50	230/50-60	486/948-1540	41/80-130	2,6	05 07 90223 001	(1) (2)
3475435	RL 130	TL	FS1	3/230-400/50	230/50-60	486/948-1540	41/80-130	2,6	05 07 90223 001	(1) (2)
3475480	RL 130	TC	FS1	3/208-230/380-460/60	230/50-60	486/948-1540	41/80-130	2,6	--	(2)
3475481	RL 130	TL	FS1	3/208-230/380-460/60	230/50-60	486/948-1540	41/80-130	2,6	--	(2)
3475613	RL 190	TC	FS1	3/400/50	230/50-60	759/1423-2443	64/120-206	5,87	05 07 90223 001	(2)
20011008	RL 190	TC	FS1	3/230/50	230/50-60	759/1423-2443	64/120-206	5,87	05 07 90223 001	(2)
3475614	RL 190	TC	FS1	3/400/50	230/50-60	759/1423-2443	64/120-206	5,87	05 07 90223 001	(1) (2)
20011018	RL 190	TC	FS1	3/230/50	230/50-60	759/1423-2443	64/120-206	5,87	05 07 90223 001	(1) (2)
3475680	RL 190	TC	FS1	3/460/60	220/60	759/1423-2443	64/120-206	5,87	--	(2)
20011009	RL 190	TC	FS1	3/220/60	220/60	759/1423-2443	64/120-206	5,87	--	(2)
3470010	RL 250 MZ	TC	FS1	3/400/50	230/50-60	600/1250-2700	51/106-228	7,2	05 07 90223 001	(2)
20016419	RL 250 MZ	TC	FS1	3/380/60	220/60	600/1250-2700	51/106-228	7,2	--	(2)

(1) with plug and socket

(2) with terminal board

Net calorific value: 11,8 kWh/kg - 10200 kcal/kg - Viscosity at 20°C: 4-6 mm²/s (cSt).

The burners of RL series are in according to 89/336 (2004/108) - 73/23 (2006/95) - 92/42 - 89/392 EC Directive and EN 267 Norm.

**WARNING:** nozzles are supplied as accessories that must be ordered separately; please refer to the “Burner Accessories” section.

### 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.

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.

## Burner accessories

### Nozzles



The nozzles must be ordered separately. The following table shows the features and codes on the basis of the maximum required fuel output.

NOTE: each burner needs N°2 nozzles.

BURNER	NOZZLE TYPE	GPH	RATED OUTPUT (kg/h)			NOZZLE CODE
			at 10 bar	at 12 bar	at 14 bar	
► RL 34 MZ	60°A	1,00	4,1	4,5	4,9	3042078
► RL 34 MZ	60°A	1,25	4,7	5,2	5,6	3042094
► RL 34 MZ	60°A	1,50	5,7	6,3	6,8	3042108
► RL 34 MZ	60°A	1,75	6,7	7,3	7,9	3042114
► RL 34 MZ	60°A	2,00	7,7	8,5	9,2	3042124
► RL 34 MZ	60°A	2,50	9,6	10,6	11,5	3042144
► RL 34 MZ	60°A	3,00	11,5	12,7	13,8	3042148
► RL 34 MZ	60°A	3,50	13,5	14,8	16,1	3042164
► RL 34 MZ	60°A	4,00	15,4	17	18,4	3042174
► RL 34 MZ	60°A	4,50	17,3	19,1	20,7	3042184
► RL 44 MZ	45°A	1,50	5,7	6,3	6,8	20011655
► RL 44 MZ	45°A	1,75	6,7	7,3	7,9	20011658
► RL 44 MZ	45°A	2,00	7,7	8,5	9,2	20011662
► RL 44 MZ	45°A	2,50	9,6	10,6	11,5	20011666
► RL 44 MZ	45°A	3,00	11,5	12,7	13,8	20011669
► RL 44 MZ	45°A	3,50	13,5	14,8	16,1	20011672
► RL 44 MZ	45°A	4,00	15,4	17	18,4	20011674
► RL 44 MZ	45°A	4,50	17,3	19,1	20,7	20009760
► RL 44 MZ	45°A	5,00	19,2	21,2	23	20011677
► RL 44 MZ	45°A	5,50	21,1	23,3	25,3	20011678
► RL 44 MZ	45°A	6,00	23,1	25,5	27,7	20011679
► RL 50	60°B	3,00	11,5	12,7	13,8	3042158
► RL 50	60°B	3,50	13,5	14,8	16,1	3042162
► RL 50 - 64 MZ	60°B	4,00	15,4	17	18,4	3042172
► RL 50 - 64 MZ	60°B	4,50	17,3	19,1	20,7	3042182
► RL 50 - 64 MZ - 70	60°B	5,00	19,2	21,2	23	3042192
► RL 50 - 64 MZ - 70	60°B	5,50	21,1	23,3	25,3	3042202
► RL 50 - 64 MZ - 70	60°B	6,00	23,1	25,5	27,7	3042212
► RL 50 - 64 MZ - 70	60°B	6,50	25	27,6	30	3042222
► RL 64 MZ - 70 - 100	60°B	7,00	26,9	29,7	32,3	3042232
► RL 64 MZ - 70 - 100	60°B	7,50	28,8	31,8	34,6	3042242
► RL 64 MZ - 70 - 100	60°B	8,00	30,8	33,9	36,9	3042252
► RL 64 MZ - 70 - 100	60°B	8,50	32,7	36,1	39,2	3042262
► RL 64 MZ - 70 - 100 - 130	60°B	9,50	36,5	40,3	43,8	3042282
► RL 64 MZ - 70 - 100 - 130 - 190	60°B	10,00	38,4	42,4	46,1	3042292
► RL 64 MZ - 70 - 100 - 130 - 190	60°B	11,00	42,3	46,7	50,7	3042312
► RL 64 MZ - 100 - 130 - 190 - 250 MZ	60°B	12,00	46,1	50,9	55,3	3042322
► RL 64 MZ - 100 - 130 - 190 - 250 MZ	60°B	13,00	50	55,1	59,9	3042332

To be continued in the following page

# Two Stage Light Oil Burners

## RL SERIES

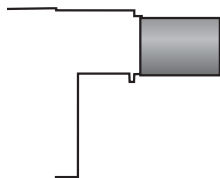
## Burner accessories

### Nozzles

Continued from the previous page

BURNER	NOZZLE TYPE	GPH	RATED OUTPUT (kg/h)			NOZZLE CODE
			at 10 bar	at 12 bar	at 14 bar	
► RL 64 MZ - 100 - 130 - 190 - 250 MZ	60°B	14,00	53,8	59,4	64,5	3042352
► RL 64 MZ - 100 - 130 - 190 - 250 MZ	60°B	15,00	57,7	63,6	69,2	3042362
► RL 64 MZ - 100 - 130 - 190 - 250 MZ	60°B	16,00	61,5	67,9	73,8	3042382
► RL 64 MZ - 130 - 190 - 250 MZ	60°B	17,00	65,4	72,1	78,4	3042392
► RL 130 - 190 - 250 MZ	60°B	18,00	69,2	76,4	83	3042412
► RL 130 - 190 - 250 MZ	60°B	19,00	73	80,6	87,6	3042422
► RL 130 - 190 - 250 MZ	60°B	20,00	76,9	84,8	92,2	3042442
► RL 190 - 250 MZ	60°B	22,00	84,6	93,3	101,4	3042462
► RL 190 - 250 MZ	60°B	24,00	92,2	101,8	110,6	3042472
► RL 190 - 250 MZ	60°B	26,00	99,9	110,3	119,9	3042482
► RL 190 - 250 MZ	60°B	28,00	107,6	118,8	129,1	20018051
► RL 250 MZ	60°B	30,00	110,4	122	132,4	3042502
► RL 250 MZ	60°B	32,00	117,8	130,1	150,1	3042512
► RL 250 MZ	60°B	35,00	128,8	142,1	154,5	3042522

### Extended heads



“Standard head” burners can be transformed into “extended head” versions, by using the special kit. The kits available for the various burners, giving the original and the extended lengths, are listed below.

BURNER	‘STANDARD’ HEAD LENGTH (mm)	‘EXTENDED’ HEAD LENGTH (mm)	KIT CODE
► RL 34 MZ	216	351	3010426
► RL 44 MZ	216	351	3010425
► RL 50	216	351	3010075
► RL 64 MZ	250	385	3010114
► RL 70	250	385	3010114
► RL 100	250	385	3010115
► RL 130	250	385	3010116
► RL 190	370	530	3010444 *
► RL 250 MZ	378	528	3010422

\* Kit to be used on burners recognizable by a serial number that is over or equal to 02426XXXXXX, for burners with a serial number that is under or equal to 02416XXXXXX please use the Kit coded 3010197

### Spacer kit

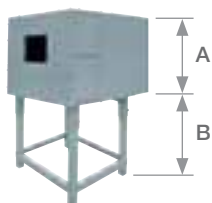


If burner head penetration into the combustion chamber needs reducing, varying thickness spacers are available, as given in the following table:

BURNER	SPACER THICKNESS S (mm)	KIT CODE
► RL 34 MZ - 44 MZ - 50	110	3010095
► RL 64 MZ - 70 - 100 - 130	135	3010129
► RL 190 - 250 MZ	102	3000722

## Burner accessories

### Sound proofing box

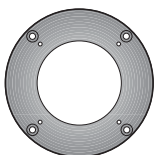


If noise emission needs reducing even further, sound-proofing boxes are available.

BURNER	BOX TYPE	A (mm)	B (mm) min-max	[dB(A)] (*)	BOX CODE
► RL 34 MZ - 44 MZ - 50 - 70 - 100 - 130	C1/3	650	372 - 980	10	3010403
► RL 64 MZ - 190	C4/5	850	160 - 980	10	3010404
► RL 250 MZ	C7	1255	160 - 980	10	3010376

(\*) Average noise reduction according to EN 15036-1 standard

### Connection flange kit



A kit is available for use where the burner opening on the boiler is of excessive diameter.

BURNER	KIT CODE
► RL 34 MZ - 44 MZ - 50	3010138

### Degasing unit



With single pipe systems, you can find air in the oil sucked by the pump that comes from the oil itself due to negative pressure or to a faulty seal.

To solve this problem, we recommend fitting a degasing unit near the burner. Two versions are available with or without filter:

BURNER	DEGASING UNIT WITH FILTER CODE (*)	DEGASING UNIT WITHOUT FILTER CODE (*)
► RL 34 MZ - 44 MZ - 50 - 64 MZ RL 70 - 100 - 130 - 190 - 250 MZ	3010055	3010054

(\*) Max capability 80 kg/h (more filters are needed for higher flow).

### Volt free contact kit



A volt free contact kit is available for installation onto the burner. It can be used for a remote interface between burner operating signals.

Every burner can be equipped with a single kit to remote the flame presence signal and the burner lockout indication.

BURNER	KIT CODE
► RL 34 MZ - 44 MZ - 64 MZ	3010419

### 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
► RL 34 MZ - 44 MZ - 50 - 64 MZ - 70 - 100 - 130 - 190 - 250 MZ	3002719

# Two Stage Light Oil Burners

## RL SERIES

### Burner accessories

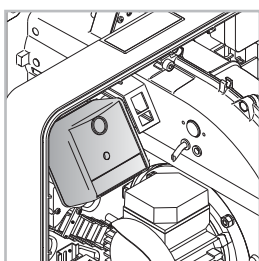
#### Ground fault interrupter kit



A "Ground fault interrupter kit" is available as a safety device for electrical system fault.

BURNER	KIT CODE
► RL 34 MZ - 44 MZ	3010448

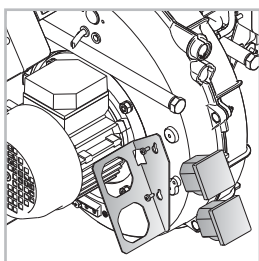
#### Post-ventilation kit



To have 20 s ventilation after opening of thermostats chain, a special kit is available.

BURNER	KIT CODE
► RL 34 MZ - 44 MZ	3010453

#### Hours counter kit



To measure the burner working time a hours counter kit is available.

BURNER	KIT CODE
► RL 34 MZ - 44 MZ	3010450

#### Protection kit (electromagnetic interferences)

When the burner is installed in a room particularly subject to electromagnetic interference (signals emitted over 10 V/m) due for example to INVERTER presence or in systems where the lengths of the thermostat connections is over 20 meters, this specific protection kit is available as an interface between the thermostatic controls and the burner.

BURNER	KIT CODE
► All models	3010386

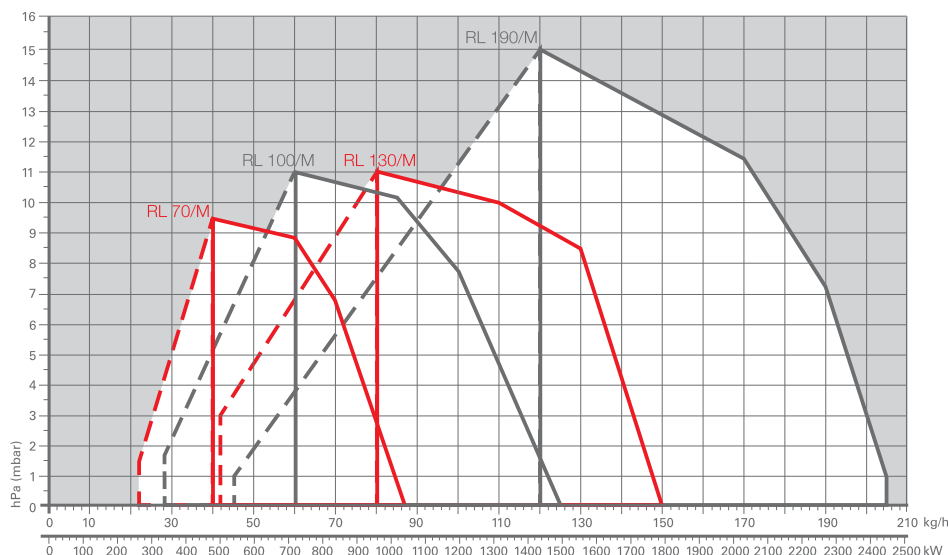
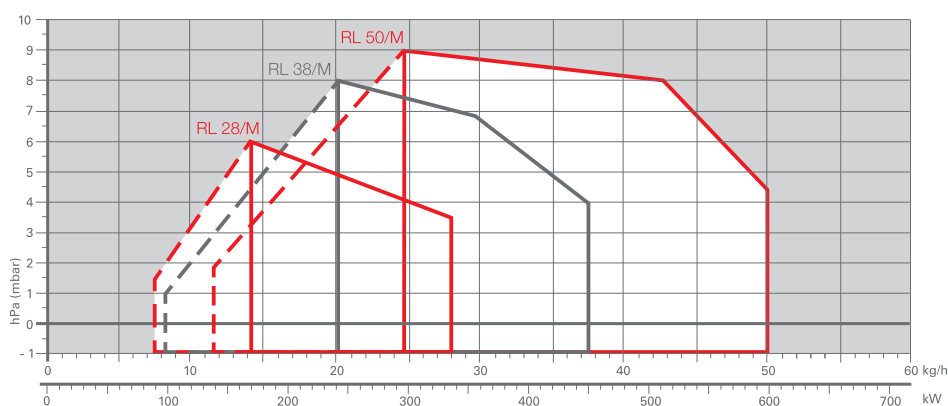
## RL/M SERIES

The RL/M series of burners covers a firing range from 166 to 2431 kW, and they have been designed for use in hot or superheater water boilers, hot air or steam generators, diathermic oil boilers. Operation can be "two stage progressive" or, alternatively, "modulating" with the installation of a PID logic regulator and respective probes. RL/M series burners guarantees high efficiency levels in all the various applications, thus reducing fuel consumption and running costs. Optimisation of sound emissions is guaranteed by the use of fans with forward inclined blades and sound deadening material incorporated in the air suction circuit. The exclusive design ensures reduced dimensions, simple use and maintenance. A wide range of accessories guarantees elevated working flexibility.

RL 28/M	95/166 ÷ 332 kW
RL 38/M	101/237 ÷ 450 kW
RL 50/M	130/296 ÷ 593 kW
RL 70/M	261/474 ÷ 1043 kW
RL 100/M	332/711 ÷ 1482 kW
RL 130/M	498/948 ÷ 1779 kW
RL 190/M	534/1423 ÷ 2431 kW



## FIRING RATES



# Modulating Light Oil Burners

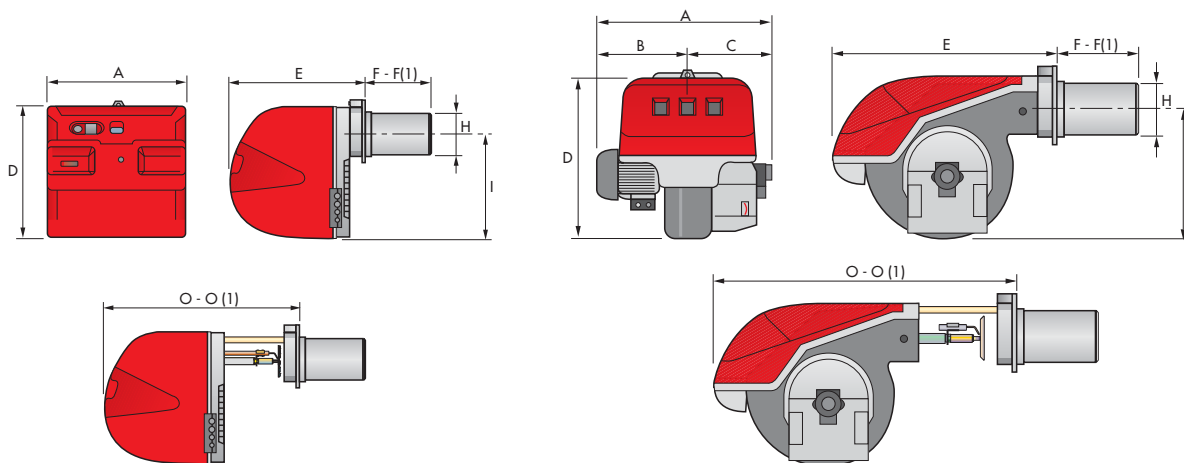
## RL/M SERIES

### Overall dimensions (mm)

#### BURNER

RL 28/M - 38/M - 50/M

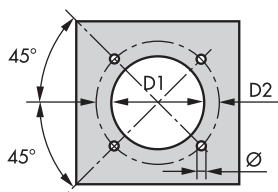
RL 70/M - 100/M - 130/M - 190/M



MODEL	A	B	C	D	E	F - F (1)	H	I	O - O (1)
► RL 28/M	476	-	-	474	468	241 - 351	140	352	672 - 807
► RL 38/M	476	-	-	474	468	241 - 351	140	352	672 - 807
► RL 50/M	476	-	-	474	468	241 - 351	152	352	672 - 807
► RL 70/M	663	296	367	555	680	272 - 385	179	430	951 - 1086
► RL 100/M	679	312	367	555	680	272 - 385	179	430	951 - 1086
► RL 130/M	705	338	367	555	680	272 - 385	189	430	951 - 1086
► RL 190/M	813	366	447	555	712	370	222	430	1166

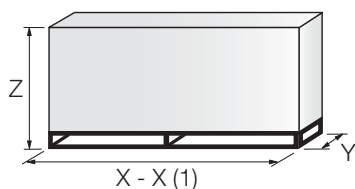
(1) Length with extended combustion head.

#### BURNER - BOILER MOUNTING FLANGE



MODEL	D1	D2	Ø
► RL 28/M	160	224	M8
► RL 38/M	160	224	M8
► RL 50/M	160	224	M8
► RL 70/M	185	275 - 325	M12
► RL 100/M	185	275 - 325	M12
► RL 130/M	195	275 - 325	M12
► RL 190/M	230	325 - 368	M16

#### PACKAGING



MODEL	X - X (1)	Y	Z	kg
► RL 28/M	872	540	550	39
► RL 38/M	872	540	550	41
► RL 50/M	872	540	550	42
► RL 70/M	1150	792	600	65
► RL 100/M	1150	792	600	68
► RL 130/M	1150	792	600	71
► RL 190/M	1200	800	850	95

(1) Length with extended combustion head.



# Modulating Light Oil Burners

## RL/M SERIES

**RIELLO**

## Specification

### DESIGNATION OF SERIES

Series : R									
Fuel : S Natural gas									
L Light oil									
LS Light oil / Natural gas									
N Heavy oil									
Size									
Operation : /1 One stage									
... Two stage									
/M Modulating									
/E Electronic cam									
/P Proportioning air/gas valve									
/EV Electronic cam predisposed for variable speed (with inverter)									
Emission : ... Class 1 EN267 - EN676									
MZ Class 2 EN267 - EN676									
BLU Class 3 EN267 - EN676									
MX Class 2 EN267									
Class 3 EN676									
Head : TC Standard head									
TL Extended head									
Flame control system :									
FS1 Standard (1 stop every 24 h)									
FS2 Continuous working (1 stop every 72 h)									
Electrical supply to the system :									
1/230/50 1/230V/50Hz									
3/230/50 3/230V/50Hz									
3/400/50 3N/400V/50Hz									
3/230-400/50 3/230V/50Hz - 3N/400V/50Hz									
3/220/60 3/220V/60Hz									
3/380/60 3N/380V/60Hz									
3/220-380/60 3/220V/60Hz - 3N/380V/60Hz									
Auxiliary voltage :									
230/50-60 230V/50-60Hz									
110/50-60 110V/50-60Hz									
ID : Differential switch									
R	L	50	/M		TC	FS1	3/230-400/50	230/50-60	
BASIC DESIGNATION					EXTENDED DESIGNATION				

LIGHT OIL

# Modulating Light Oil Burners

## RL/M SERIES

# Specification

## STATE OF SUPPLY

Monoblock forced draught oil burners, two stage progressive or modulating operation with a kit, made up of:

- Air suction circuit lined with sound-proofing material
- Fan with reverse curve blades (forward curve blades on the 190/M model)
- Air damper for air setting and automatic oil output regulator controlled by a servomotor with variable cam
- Combustion head, that can be set on the basis of required output
- Gears pump for high pressure fuel supply
- Valve unit with a double oil safety valve on the output circuit and safety valve on the return circuit; double safety valve on the return circuit for models RL 100/M, RL 130/M, RL 190/M and for all models in the TRD-72, NBN version
- Safety oil pressure switch
- Minimum oil pressure switch in the output circuit for the TRD-72, NBN versions
- Photocell for flame detection
- Burner safety control box
- Burner on/off switch
- Flame inspection window
- Manual or automatic output increase/decrease switch
- Slide bars for easier installation and maintenance
- Protection filter against radio interference
- IP 44 electric protection level.

### Standard equipment:

- 2 flexible pipes for connection to the oil supply network
- 2 gaskets for the flexible pipes
- 2 nipples for connection to the pump
- 4 screws for fixing the burner flange to the boiler
- 1 thermal screen
- Wiring loom fittings for electrical connections
- 2 slide bar extensions (for the extended head models and the RL 190/M model)
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

# Modulating Light Oil Burners

## RL/M SERIES

**RIELLO**

## Available models

CODE	MODEL						HEAT OUTPUT		TOTAL ELECTRICAL POWER (kW)	CERTIFICATION	NOTE
							(kW)	(kg/h)			
3471002	RL 28/M	TC	FS1	1/230/50	230/50-60		90/166-332	7,5/14-28	0,4	CE 1001/R	
3471003	RL 28/M	TL	FS1	1/230/50	230/50-60		90/166-332	7,5/14-28	0,4	CE 1001/R	
3471080	RL 28/M	TC	FS1	1/220-230/60	230/50-60		90/166-332	7,5/14-28	0,4	CE 1001/R	
3471081	RL 28/M	TL	FS1	1/220-230/60	230/50-60		90/166-332	7,5/14-28	0,4	CE 1001/R	
3471402	RL 38/M	TC	FS1	3/230-400/50	230/50-60		101/237-450	8,5/20-38	0,6	CE 1001/R	
3471403	RL 38/M	TL	FS1	3/230-400/50	230/50-60		101/237-450	8,5/20-38	0,6	CE 1001/R	
3471480	RL 38/M	TC	FS1	3/208-230/380-460/60	230/50-60		101/237-450	8,5/20-38	0,66	CE 1001/R	
3471481	RL 38/M	TL	FS1	3/208-230/380-460/60	230/50-60		101/237-450	8,5/20-38	0,66	CE 1001/R	
3471602	RL 50/M	TC	FS1	3/230-400/50	230/50-60		130/296-593	11/25-50	0,8	CE 1001/R	
3471603	RL 50/M	TL	FS1	3/230-400/50	230/50-60		130/296-593	11/25-50	0,8	CE 1001/R	
3471680	RL 50/M	TC	FS1	3/208-230/380-460/60	230/50-60		130/296-593	11/25-50	0,66	CE 1001/R	
3471681	RL 50/M	TL	FS1	3/208-230/380-460/60	230/50-60		130/296-593	11/25-50	0,66	CE 1001/R	
3477012	RL 70/M	TC	FS1	3/230-400/50	230/50-60		261/474-1043	22/40-88	1,4	CE-050790223001	
3477013	RL 70/M	TL	FS1	3/230-400/50	230/50-60		261/474-1043	22/40-88	1,4	CE-050790223001	
3477080	RL 70/M	TC	FS1	3/208-230/380-460/60	230/50-60		261/474-1043	22/40-88	1,4	-	
3477081	RL 70/M	TL	FS1	3/208-230/380-460/60	230/50-60		261/474-1043	22/40-88	1,4	-	
3477022	RL 70/M	TC	FS2	3/230-400/50	230/50-60		261/474-1043	22/40-88	1,4	CE-050790223001	
3477023	RL 70/M	TL	FS2	3/230-400/50	230/50-60		261/474-1043	22/40-88	1,4	CE-050790223001	
3477212	RL 100/M	TC	FS1	3/230-400/50	230/50-60		332/711-1482	28/60-125	2,1	CE-050790223001	
3477213	RL 100/M	TL	FS1	3/230-400/50	230/50-60		332/711-1482	28/60-125	2,1	CE-050790223001	
3477280	RL 100/M	TC	FS1	3/208-230/380-460/60	230/50-60		332/711-1482	28/60-125	2,1	-	
3477281	RL 100/M	TL	FS1	3/208-230/380-460/60	230/50-60		332/711-1482	28/60-125	2,1	-	
3477222	RL 100/M	TC	FS2	3/230-400/50	230/50-60		332/711-1482	28/60-125	2,1	CE-050790223001	
3477223	RL 100/M	TL	FS2	3/230-400/50	230/50-60		332/711-1482	28/60-125	2,1	CE-050790223001	
3477412	RL 130/M	TC	FS1	3/230-400/50	230/50-60		498/948-1779	42/80-150	2,6	CE-050790223001	
3477413	RL 130/M	TL	FS1	3/230-400/50	230/50-60		498/948-1779	42/80-150	2,6	CE-050790223001	
3477480	RL 130/M	TC	FS1	3/208-230/380-460/60	230/50-60		498/948-1779	42/80-150	2,6	-	
3477481	RL 130/M	TL	FS1	3/208-230/380-460/60	230/50-60		498/948-1779	42/80-150	2,6	-	
3477422	RL 130/M	TC	FS2	3/230-400/50	230/50-60		498/948-1779	42/80-150	2,6	CE-050790223001	
3477423	RL 130/M	TL	FS2	3/230-400/50	230/50-60		498/948-1779	42/80-150	2,6	CE-050790223001	
3477811	RL 190/M	TC	FS1	3/400/50	230/50-60		534/1423-2431	45/120-205	5,5	CE-050790223001	
20011022	RL 190/M	TC	FS1	3/230/50	230/50-60		534/1423-2431	45/120-205	5,5	CE-050790223001	
3477880	RL 190/M	TC	FS1	3/460/60	220/60		534/1423-2431	45/120-205	5,5	-	
20011029	RL 190/M	TC	FS1	3/220/60	220/60		534/1423-2431	45/120-205	5,5	-	
3477822	RL 190/M	TC	FS2	3/400/50	230/50-60		534/1423-2431	45/120-205	5,5	CE-050790223001	
20011025	RL 190/M	TC	FS2	3/230/50	230/50-60		534/1423-2431	45/120-205	5,5	CE-050790223001	

Net calorific value: 11,8 kWh/kg - 10200 kcal/kg - Viscosity at 20°C: 4-6 mm²/s (cSt).

The burners of RL/M series are in according to 89/336 (2004/108) - 73/23 (2006/95) - 98/37 - 92/42 EC Directive and EN 267 Norm.

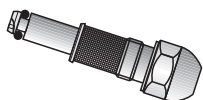
LIGHT OIL

# Modulating Light Oil Burners

## RL/M SERIES

### Burner accessories

#### Return nozzles type A3 45°

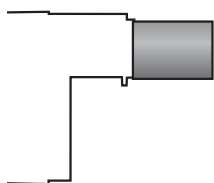


The following list shows the features and codes on the basis of the maximum required fuel output.

NOTE: each burner needs N° 1 nozzle.

BURNER	RATED OUTPUT kg/h	NOZZLE CODE
► RL 28/M	15	3009850
► RL 28/M - 38/M	20	3009851
► RL 28/M - 38/M - 50/M	30	3009852
► RL 38/M - 50/M - 70/M	40	3009853
► RL 50/M - 70/M	50	3009854
► RL 70/M - 100/M	60	3009855
► RL 70/M - 100/M	70	3009856
► RL 100/M - 130/M	80	3009857
► RL 100/M - 130/M	90	3009858
► RL 100/M - 130/M	100	3009859
► RL 130/M	110	3009860
► RL 130/M - 190/M	120	3009861
► RL 130/M - 190/M	130	3009862
► RL 190/M	140	3009863
► RL 190/M	160	3009864
► RL 190/M	180	3009865
► RL 190/M	200	3009866

#### Extended head kit



“Standard head” burners can be transformed into “extended head” versions, by using the special kit.

BURNER	STANDARD HEAD LENGTH (mm)	EXTENDED HEAD LENGTH (mm)	KIT CODE
► RL 28/M	241	351	3010120
► RL 38/M	241	351	3010121
► RL 50/M	241	351	3010122
► RL 70/M	272	385	3010159
► RL 100/M	272	385	3010160
► RL 130/M	272	385	3010161
► RL 190/M	370	-	-

#### Spacer kit

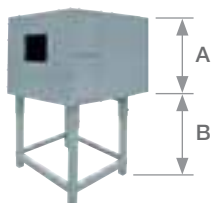


If burner head penetration into the combustion chamber needs reducing, varying thickness spacers are available, as given in the following list.

BURNER	SPACER THICKNESS S (mm)	KIT CODE
► RL 28/M - 38/M - 50/M	110	3010095
► RL 70/M - 100/M - 130/M	135	3010129
► RL 190/M	102	3000722

## Burner accessories

### Sound proofing box



If noise emission needs reducing even further, sound-proofing boxes are available.

BURNER	BOX TYPE	A (mm)	B (mm) min-max	[dB(A)] (*)	BOX CODE
► RL 28/M - 38/M - 50/M	C1/3	650	372 - 980	10	3010403
► RL 70/M - 100/M - 130/M - 190/M	C4/5	850	160 - 980	10	3010404

(\*) Average noise reduction according to EN 15036-1 standard

### Degasing unit



To solve problem of air in the oil sucked, two versions of degasing unit are available.

BURNER	FILTER	FILTERING DEGREE (µm)	DEGASING UNIT CODE (*)
► RL 28/M - 38/M - 50/M - 70/M - 100/M	With filter	50 - 75	3010055
► RL 28/M - 38/M - 50/M - 70/M - 100/M	Without filter	-	3010054

(\*) Max capability 80 kg/h (more filters are needed for higher flow).

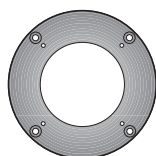
### Head kit for “reverse flame chamber”



In certain cases, the use of the burner on reverse flame boilers can be improved by using an additional cylinder.

BURNER	STANDARD HEAD LENGTH WITH CYLINDER (mm)	EXTENDED HEAD LENGTH WITH CYLINDER (mm)	KIT CODE
► RL 28/M - 38/M	319	429	3010178
► RL 50/M	319	429	3010179
► RL 70/M - 100/M	375	488	3010180
► RL 130/M	375	488	3010183
► RL 190/M	493	-	3010241

### Connection flange kit



A kit is available for use where the burner opening on the boiler is of excessive diameter.

BURNER	KIT CODE
► RL 28/M - 38/M - 50/M	3010138

# Modulating Light Oil Burners

## RL/M SERIES

## Burner accessories

### Accessories for modulating operation



To obtain modulating operation, the RL/M series of burners requires a regulator.

BURNER	REGULATOR TYPE	REGULATOR CODE
► RL 28/M - 38/M - 50/M RL 70/M - 100/M - 130/M - 190/M	RWF 40	3010212



The relative temperature or pressure probes fitted to the regulator, must be chosen on the basis of the application.

BURNER	PROBE TYPE	RANGE (°C) (bar)	PROBE CODE
► RL 28/M - 38/M - 50/M RL 70/M - 100/M - 130/M - 190/M	Temperature PT 100	-100 ÷ 500°C	3010110
	Pressure 4 ÷ 20 mA	0 ÷ 2,5 bar	3010213
	Pressure 4 ÷ 20 mA	0 ÷ 16 bar	3010214



Depending on the servomotor fitted to the burner, a three-pole potentiometer (1000 Ω) can be installed to check the position of the servomotor.

BURNER	POTENTIOMETER KIT CODE
► RL 28/M - 38/M - 50/M	3010109
► RL 70/M - 100/M - 130/M - 190/M	3010021

## RL/B MZ SERIES

RL/B MZ series burners are characterised by a modular monoblock structure that means all necessary components can be combined in a single unit thus making installation easier, faster and, above all, more flexible.

The series covers a firing range from 1250 to 4450 kW, and they have been designed for use in hot water boilers, overheated water boilers as well as steamboilers.

Operation is 2 stages.

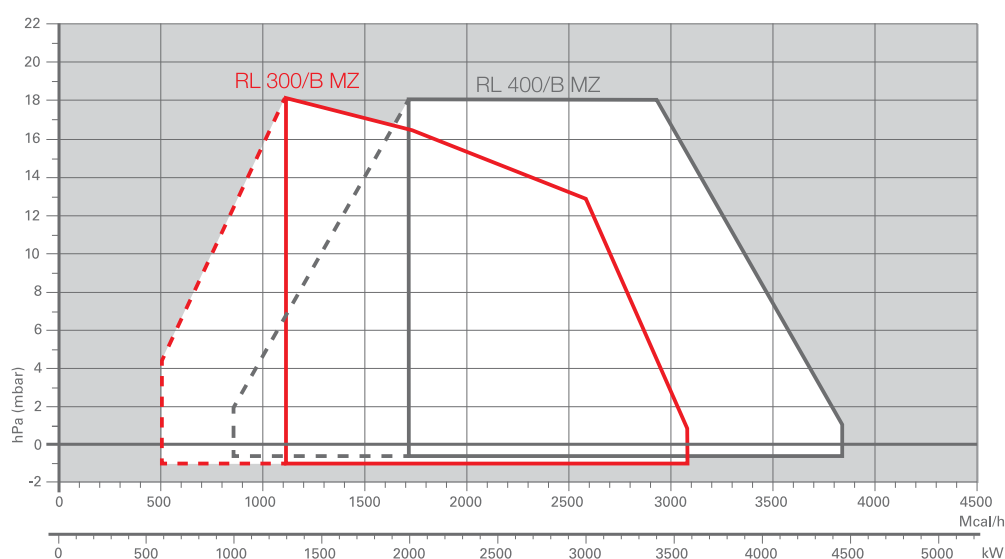
The innovative combustion head is able to reach good performances in term of Low NOx and helps in reducing noise emissions.



LIGHT OIL

RL 300/B MZ	600/1250 ÷ 3550 kW
RL 400/B MZ	1000/2000 ÷ 4450 kW

## FIRING RATES



Useful working field  
for choosing the  
burner



Modulation range

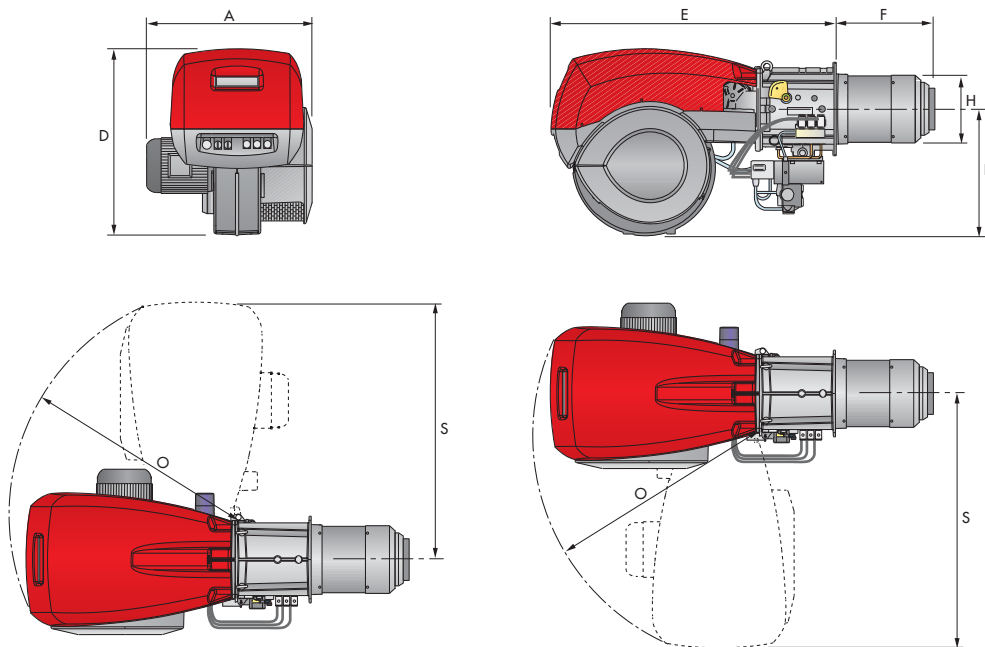
Test conditions  
conforming to EN267  
Temperature: 20°C  
Pressure: 1013,5 mbar  
Altitude: 0 m a.s.l.

# Two Stage Light Oil Burners

## RL/B MZ SERIES

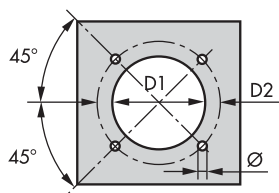
### Overall dimensions (mm)

#### BURNER



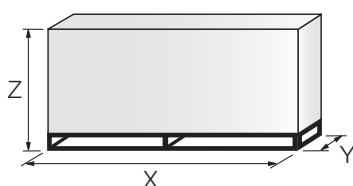
MODEL	A	D	E	F	H	I	O	S
► RL 300/B MZ	720	890	1325	510	313	605	1055	1175
► RL 400/B MZ	775	890	1325	510	313	605	1055	1175

#### BURNER - BOILER MOUNTING FLANGE



MODEL	D1	D2	Ø
► RL 300/B MZ	350	452	M18
► RL 400/B MZ	350	452	M18

#### PACKAGING



MODEL	X	Y	Z	kg
► RL 300/B MZ	1960	970	1100	235
► RL 400/B MZ	1960	970	1100	245



# Two Stage Light Oil Burners

## RL/B MZ SERIES

**RIELLO**

## Specification

### DESIGNATION OF SERIES

Series : R									
Fuel : S Natural gas									
L Light oil									
LS Light oil / Natural gas									
N Heavy oil									
Size									
Setting : /1 Single stage /E Electronic cam									
/B Two stage /P Proportioning air/gas valve									
/M Modulating /EV Electronic cam predisposed for variable speed (with inverter)									
/BP Two stage oil / Proportioning air/gas valve									
Emission : ... Class 1 EN267 - EN676									
MZ Class 2 EN267 - EN676									
BLU Class 3 EN267 - EN676									
MX Class 2 EN267									
Class 3 EN676									
Head : TC Standard head									
TL Extended head									
Flame control system :									
FS1 Standard (1 stop every 24 h)									
FS2 Continuous working (1 stop every 72 h)									
Electrical supply to the system :									
1/230/50 1/230V/50Hz									
3/230/50 3/230V/50Hz									
3/400/50 3N/400V/50Hz									
3/230-400/50 3/230V/50Hz - 3N/400V/50Hz									
3/220/60 3/220V/60Hz									
3/380/60 3N/380V/60Hz									
3/220-380/60 3/220/60Hz - 3N/380V/60Hz									
Auxiliary voltage :									
230/50-60 230V/50-60Hz									
110/50-60 110V/50-60Hz									
ID : Differential switch									
R	L	300	/B	MZ	TC	FS1	3/400/50	230/50-60	
BASIC DESIGNATION					EXTENDED DESIGNATION				

LIGHT OIL

# Two Stage Light Oil Burners

## RL/B MZ SERIES

### Specification

#### RL/B MZ SERIES - STATE OF SUPPLY

Monoblock forced draught gas burner with “two stage progressive” operation, fully automatic, made up of:

- Fan with reverse curve blades high performance with low sound emissions
- Air suction circuit lined with sound-proofing material
- Air damper for air setting controlled by a high precision servomotor
- Air pressure switch
- Fan starting motor at 2800 rpm, three-phase 230/400 - 400/690 V with neutral, 50Hz
- Low emission combustion head, that can be set on the basis of required output, fitted with:
  - stainless steel end cone, resistant to corrosion and high temperatures
  - ignition electrodes
  - flame stability disk
- Burner safety control box for controlling the system safety
- Star/triangle starter for the fan motor (only for RL 400/B MZ model)
- Main electrical supply terminal board
- Burner on/off switch
- Auxiliary voltage led signal
- Burner working led signal
- Contacts motor and thermal relay with release button
- Motor internal thermal protection
- Motor failure led signal
- Burner failure led signal and lighted release button
- Emergency button
- Coded connection plugs-sockets
- Burner opening hinge
- Lifting rings
- IP 54 electric protection level
- Gears pump for high pressure fuel supply
- Pump starting motor
- Oil safety valves
- Three oil valves (1st and 2nd stage 3rd safety valve)
- Photocell for flame detection
- Flame inspection window.

#### Standard equipment:

- 1 flange gasket
- 4 screws for fixing the flange
- 1 thermal screen
- 4 screws for fixing the burner flange to the boiler
- 2 flexible pipes for connection to the oil supply network
- 2 nipples for connection to the pump with gaskets.
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

# Two Stage Light Oil Burners

## RL/B MZ SERIES

**RIELLO**

## Available models

### RL/B MZ SERIES - Burners

CODE	MODEL	HEAT OUTPUT		TOTAL ELECTRICAL POWER (kW)	CERTIFICATION	NOTE
		(kW)	(kg/h)			
3478410	RL 300/B MZ TC FS1 3/230-400/50 230/50-60	600/1250-3550	50/105-301	6	050790223001	
3478512	RL 400/B MZ TC FS1 3/400/50 230/50-60	1000/2000-4450	84/169-378	9	050790223001	

Net calorific value: 11,8 kWh/kg - 10200 kcal/kg - Viscosity at 20°C: 4-6 mm²/s (cSt)

The burners of RL/B MZ series are in according to 89/336 (2004/108) - 73/23 (2006/95) - 98/37 - 92/42 EC Directive and EN 267 Norm.

## Burner accessories

### Nozzles type 60° B



The nozzles must be ordered separately. The following table shows the features and codes on the basis of the maximum required fuel output.

NOTE: each burner needs N° 2 nozzles.

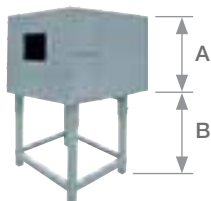
BURNER	GPH	RATED OUTPUT (kg/h)			NOZZLE CODE
		at 10 bar	at 12 bar	at 14 bar	
► RL/B MZ	12,00	44,2	48,7	53,0	3009950
► RL/B MZ	13,00	47,8	52,8	57,4	3009951
► RL/B MZ	14,00	51,5	56,9	61,8	3009952
► RL/B MZ	15,00	55,2	60,9	66,2	3009953
► RL/B MZ	16,00	58,9	65,0	70,6	3009954
► RL/B MZ	17,00	62,6	69,0	75,0	3009955
► RL/B MZ	18,00	66,2	73,1	79,4	3009956
► RL/B MZ	19,00	69,9	77,2	83,5	3009957
► RL/B MZ	20,00	73,6	81,2	88,3	3009958
► RL/B MZ	22,00	81,0	89,3	97,1	3009959
► RL/B MZ	24,00	88,3	97,5	105,9	3009960
► RL/B MZ	26,00	95,7	105,6	114,7	3009961
► RL/B MZ	28,00	103,1	113,7	123,6	3009962
► RL/B MZ	30,00	110,4	121,8	132,4	3009963
► RL/B MZ	35,00	128,8	142,1	154,5	3009964
► RL/B MZ	40,00	147,2	162,4	176,5	3009965
► RL/B MZ	45,00	165,6	182,7	198,6	3009966
► RL/B MZ	50,00	184,0	203,0	220,7	3009967
► RL/B MZ	55,00	202,4	223,4	242,7	3009968
► RL/B MZ	60,00	220,8	243,7	264,8	3009969
► RL/B MZ	65,00	239,2	264,0	286,9	3009970
► RL/B MZ	70,00	257,6	284,3	309,0	3009971

# Two Stage Light Oil Burners

## RL/B MZ SERIES

### Burner accessories

#### Sound proofing box



If noise emission needs reducing even further, sound-proofing boxes are available.

BURNER	BOX TYPE	A (mm)	B (mm) min-max	[dB(A)] (*)	BOX CODE
► RL/B MZ	C7	1255	160 - 980	10	3010376

(\*) Average noise reduction according to EN 15036-1 standard

#### 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
► RL/B MZ	3002719

#### Spacer kit



If burner head penetration into the combustion chamber needs reducing, varying thickness spacers are available, as given in the following table:

BURNER	SPACER THICKNESS S (mm)	KIT CODE
► RL/B MZ	180	20008903

## MODUBLOC MB LE SERIES

The MODUBLOC MB LE series of burners are characterised by a monoblock structure that means all necessary components can be combined in a single unit, making installation easier and faster. The series covers a firing range from 1070 to 10000 kW, and they have been designed for use in hot water boilers or industrial steam generators.

Operation is modulating, through an innovative electronic module, which gives control of the air/fuel ratio and PID control of the generator temperature or pressure.

The mechanisms of regulation allow to catch up a high modulation ratio on all firing rates range.

The burner can, therefore, supply with precision the demanded power, guaranteeing a high efficiency system level and the stability setting, obtaining fuel consumption and operating costs reduction.

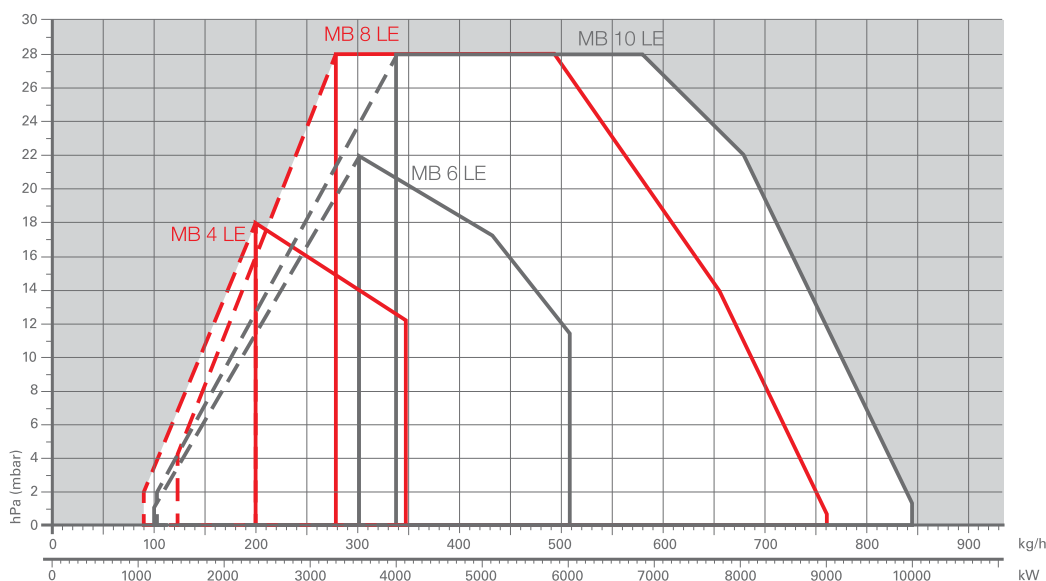
An exclusive design, with fan unit fitted on line with the combustion head, guarantees low sound emissions, reduced dimensions, easy use and maintenance.



LIGHT OIL

MB 4 LE	1070/2375 ÷	4092 kW
MB 6 LE	1186/3558 ÷	6000 kW
MB 8 LE	1450/3290 ÷	9000 kW
MB 10 LE	1200/4000 ÷	10000 kW

## FIRING RATES



Useful working field  
for choosing the  
burner



Modulation range

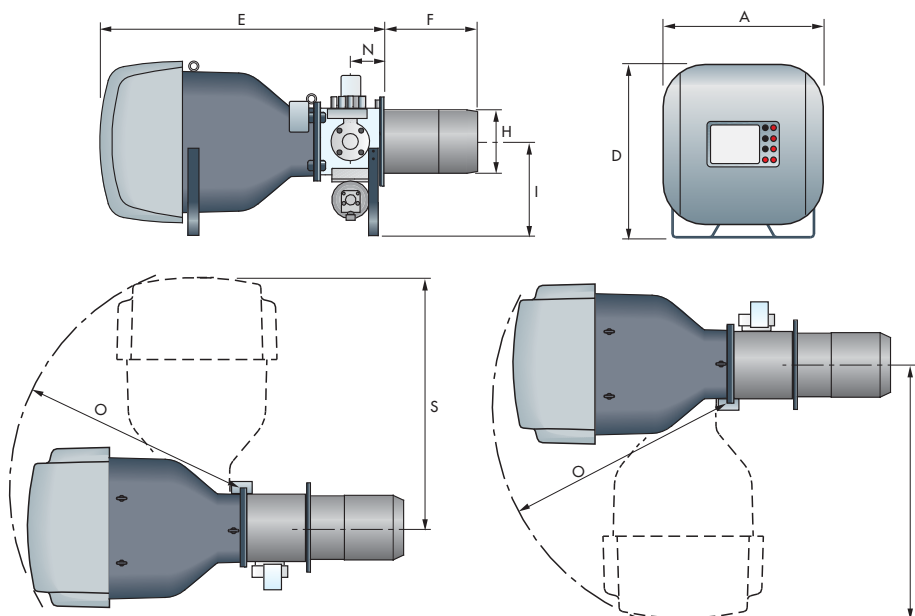
Test conditions  
conforming to EN267  
Temperature: 20°C  
Pressure: 1013,5 mbar  
Altitude: 0 m a.s.l.

# Modulating Light Oil Burners

## MODUBLOC MB LE SERIES

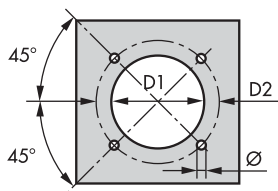
### Overall dimensions (mm)

#### BURNER



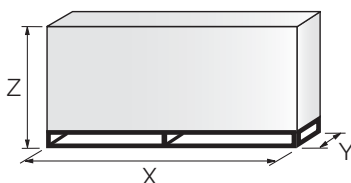
MODEL	A	D	E	F	H	I	N	O	S
► MB 4 LE	840	910	1470	511	336	490	183	1205	1330
► MB 6 LE	840	910	1470	511	336	490	183	1205	1330
► MB 8 LE	1007	1079	1900	530	413	575	208	1570	1740
► MB 10 LE	1007	1079	1900	530	413	575	208	1570	1740

#### BURNER - BOILER MOUNTING FLANGE



MODEL	D1	D2	Ø
► MB 4 LE	350	496	M20
► MB 6 LE	350	496	M20
► MB 8 LE	418	608	M20
► MB 10 LE	418	608	M20

#### PACKAGING



MODEL	X	Y	Z	kg
► MB 4 LE	2120	1005	1175	300
► MB 6 LE	2120	1005	1175	300
► MB 8 LE	2690	1170	1350	450
► MB 10 LE	2690	1170	1350	450

# Modulating Light Oil Burners

## MODUBLOC MB LE SERIES

**RIELLO**

## Specification

### DESIGNATION OF SERIES

Series : MB										
Size										
Fuel : S Natural gas										
L Light oil										
LS Light oil / Natural gas										
Operation : E Electronic cam										
V Electronic cam and variable speed (with Inverter)										
P Proportioning air/gas valve										
Emission : ... Class 1 EN267 - EN676										
MZ Class 2 EN267 - EN676										
BLU Class 3 EN267 - EN676										
MX Class 2 EN267										
Class 3 EN676										
Head : TC Standard head										
TL Extended head										
Fuel supply : FR from the right										
FL from the left										
Flame control system :										
FS1 Standard (1 stop every 24 h)										
FS2 Continuous working (1 stop every 72 h)										
Electrical supply to the system : 3/400/50 3N/400V/50Hz										
3/230/50 3/230V/50Hz										
Auxiliary voltage : 230/50-60 230V/50-60Hz										
110/50-60 110V/50-60Hz										
MB	4	L	E		TC	FR	FS1	3/400/50	230/50-60	
BASIC DESIGNATION					EXTENDED DESIGNATION					

LIGHT OIL

# Modulating Light Oil Burners

## MODUBLOC MB LE SERIES

### Specification

#### STATE OF SUPPLY

Monoblock forced draught oil burners modulating operation, made up of:

- Fan with reverse curve blades
- Air suction circuit lined with sound-proofing material
- Air damper for air setting controlled by a high precision servomotor
- Air pressure switch
- Fan starting motor
- Pump starting motor
- Mobile combustion head, that can be set on the basis of required output
- Gears pump for high pressure fuel supply
- Valve unit
- Automatic setting for light oil delivery, controlled by a high precision servomotor
- Safety oil pressure switch
- Pressure gauge for delivery pressure
- Pressure gauge for return pressure
- Minimum oil pressure switch
- Module for air/fuel setting and output modulation
- Burner safety control box
- Photocell for flame detection
- Star/triangle starter for the fan motor
- Main electrical supply terminal board
- Pump motor starter
- Burner on/off switch
- Auxiliary voltage led signal
- Manual or automatic output increase/decrease switch
- Burner working led signal
- Contacts motor and thermal relay with release button
- Thermal protector PTO for the fan motor
- Motor failure led signal
- Burner failure led signal and lighted release button
- Led signal for correct rotation direction of fan and pump motor
- Emergency button
- Coded connection plugs-sockets
- Burner opening hinge
- Lifting rings
- IP X0D (IP 40) protection level.

#### Standard equipment:

- 2 flexible pipes
- 2 gaskets for the flexible pipes
- 2 nipples for connection to the pump
- 4 screws for fixing the burner flange to the boiler
- 1 thermal screen
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.



# Modulating Light Oil Burners

## MODUBLOC MB LE SERIES

**RIELLO**

## Available models

CODE	MODEL						HEAT OUTPUT		TOTAL ELECTRICAL POWER (kW)	CERTIFICATION	NOTE
							(kW)	(kg/h)			
3478000	MB4LE	TC	FR	FS1	3/400/50	230/50-60	1070/2375÷4092	90/200÷345	16	--	
3478005	MB4LE	TC	FL	FS1	3/400/50	230/50-60	1070/2375÷4092	90/200÷345	16	--	
3478100	MB6LE	TC	FR	FS1	3/400/50	230/50-60	1186/3558÷6000	100/300÷506	18	--	
3478105	MB6LE	TC	FL	FS1	3/400/50	230/50-60	1186/3558÷6000	100/300÷506	18	--	
3478200	MB8LE	TC	FR	FS1	3/400/50	230/50-60	1450/3290÷9000	122/276÷762	22	--	
3478210	MB8LE	TC	FR	FS2	3/400/50	230/50-60	1450/3290÷9000	122/276÷762	22	--	
3478205	MB8LE	TC	FL	FS1	3/400/50	230/50-60	1450/3290÷9000	122/276÷762	22	--	
3478215	MB8LE	TC	FL	FS2	3/400/50	230/50-60	1450/3290÷9000	122/276÷762	22	--	
3478300	MB10LE	TC	FR	FS1	3/400/50	230/50-60	1200/4000÷10000	101/339÷837	27	--	
3478310	MB10LE	TC	FR	FS2	3/400/50	230/50-60	1200/4000÷10000	101/339÷837	27	--	
3478305	MB10LE	TC	FL	FS1	3/400/50	230/50-60	1200/4000÷10000	101/339÷837	27	--	
3478315	MB10LE	TC	FL	FS2	3/400/50	230/50-60	1200/4000÷10000	101/339÷837	27	--	

Net calorific value: 11,8 kWh/kg - 10200 kcal/kg - Viscosity at 20°C: 4÷6 mm²/s (cSt).

The burners of MB LE series are in according to 73/23 (2006/95) - 89/336 (2004/108) - 98/37 EC Directive and EN 267 Norm.

LIGHT OIL

# Modulating Light Oil Burners

## MODUBLOC MB LE SERIES

### Burner accessories

#### DTI module (Data Transfer Interface)



This electronic module can transfer multiple signals from different local modules to a BMS supervisor software system (Building Management System).

BURNER	MODULE CODE
► MB 4 - 6 - 8 - 10 LE	3010234

#### I/O digital module



Digital modules I/O transfer in-coming and out-going information from the system in general to a remote supervisor system.

BURNER	MODULE CODE
► MB 4 - 6 - 8 - 10 LE	3010233

#### I/O analogic module



I/O Analog modules transfer in-coming and out-going information to a remote supervisor system.

BURNER	MODULE CODE
► MB 4 - 6 - 8 - 10 LE	3010232

#### EGA module (Exhaust Gas Analyser)



Four different EGA modules are available to measure some of the exhaust gas substances and their temperature.

BURNER	ANALYSED GAS	MODULE CODE
► MB 4 - 6 - 8 - 10 LE	CO, CO <sub>2</sub> , O <sub>2</sub>	on demand
► MB 4 - 6 - 8 - 10 LE	CO, CO <sub>2</sub> , O <sub>2</sub> , NO	20019488
► MB 4 - 6 - 8 - 10 LE	CO, CO <sub>2</sub> , O <sub>2</sub> , SO <sub>2</sub>	on demand
► MB 4 - 6 - 8 - 10 LE	CO, CO <sub>2</sub> , O <sub>2</sub> , NO, SO <sub>2</sub>	on demand

#### Belden 9501 type leads



All the connections for the above modules must be done using a BELDEN 9501 type lead (available in coils of 50 m).

BURNER	LEAD CODE
► MB 4 - 6 - 8 - 10 LE	3010239

## Burner accessories

### Accessories for modulating operation



Main management module allows a modulating operation with use of probes chosen on the basis of the application.

BURNER	PROBE TYPE	RANGE (°C) (bar)	PROBE CODE
► MB 4 - 6 - 8 - 10 LE	Temperature	0 ÷ 400°C	3010187
► MB 4 - 6 - 8 - 10 LE	Pressure	0 ÷ 3 bar	3010246
► MB 4 - 6 - 8 - 10 LE	Pressure	0 ÷ 18 bar	3010186
► MB 4 - 6 - 8 - 10 LE	Pressure	0 ÷ 30 bar	3010188

### Return nozzles



The following list shows the features and codes on the basis of the maximum required fuel output.

NOTE: each burner needs N° 1 nozzle.

BURNER	RATED DELIVERY (kg/h)	NOZZLE CODE (1)	NOZZLE CODE (2)	BURNER	RATED DELIVERY (kg/h)	NOZZLE CODE (1)	NOZZLE CODE (2)
► MB 4 LE	200	3009800	3045438	► MB 8 LE	525	3009813	3045459
	225	3009801	3045440		550	3009814	3045460
	250	3009802	3045442		575	3009815	3045461
	275	3009803	3045444		600	3009816	3045462
	300	3009804	3045446		650	3009817	3045463
► MB 6 LE	325	3009805	3045448	► MB 10 LE	700	3009818	3045464
	350	3009806	3045450		400	3009808	3045454
	375	3009807	3045452		425	3009809	3045455
	400	3009808	3045454		450	3009810	3045456
	425	3009809	3045455		475	3009811	3045457
► MB 8 LE	450	3009810	3045456		500	3009812	3045458
	475	3009811	3045457		525	3009813	3045459
	500	3009812	3045458		550	3009814	3045460
	300	3009804	3045446		575	3009815	3045461
	325	3009805	3045448		600	3009816	3045462
► MB 10 LE	350	3009806	3045450		650	3009817	3045463
	375	3009807	3045452		700	3009818	3045464
	400	3009808	3045454		750	3009819	3045465
	425	3009809	3045455		800	3009820	-
	450	3009810	3045456		850	3009821	-
► MB 12 LE	475	3009811	3045457		900	3009822	-
	500	3009812	3045458				

(1) Nozzles Bergonzo B5 45° - with "AA" needle code.

(2) Nozzles Fluidics W2 45° - with "AA" needle code.

# Modulating Light Oil Burners

## MODUBLOC MB LE SERIES

### Burner accessories

#### Burner support



For easier maintenance, a mobile burner support has been designed, which means the burner can be dismantled without the need for forklift trucks.

BURNER	SUPPORT CODE
► MB 4 - 6 - 8 - 10 LE	3010385

#### Sound proofing box



If noise emission needs reducing even further, sound-proofing boxes are available.

BURNER	AVERAGE NOISE REDUCTION [dB(A)] (*)	BOX CODE
► MB 4 - 6 - 8 - 10 LE	10	3010401

(\*) according to EN 15036-1 standard