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 |
| | | | | |

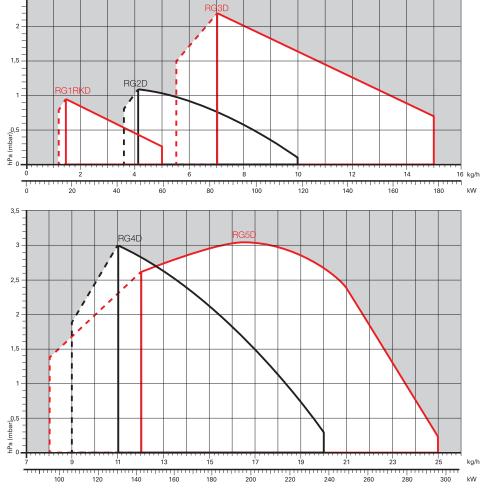
Useful working field for choosing the burner

r – ¬ L – J 1st stage operation range

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

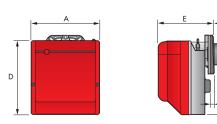
FIRING RATES

2,5



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Overall dimensions (mm) BURNER



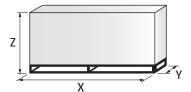
| MODEL | A | D | E | F | Н | - I | L |
|----------|-----|-----|-----|-----------|-----|-----|------|
| ► RG1RKD | 234 | 254 | 196 | 111 | 84 | 210 | 4 |
| ► RG2D | 255 | 280 | 202 | 115 - 185 | 95 | 230 | 10 |
| ► RG3D | 300 | 345 | 228 | 142 - 212 | 123 | 285 | 12 |
| ► RG4D | 300 | 345 | 228 | 142 - 212 | 123 | 285 | 12 |
| ► RG5D | 300 | 345 | 247 | 154 - 294 | 125 | 285 | 12,5 |

BURNER - BOILER MOUNTING FLANGE

| | MODEL | A | C | C1 | C2 | F | Q | R |
|---|----------|-----|-----|-----|-----|-----|-----|----|
| 3 | ► RG1RKD | 91 | 144 | 130 | 150 | 180 | 45° | 11 |
| | ► RG2D | 106 | 166 | 140 | 168 | 189 | 45° | 11 |
| | ► RG3D | 127 | 198 | 160 | 190 | 213 | 45° | 11 |
| | ► RG4D | 127 | 198 | 160 | 190 | 213 | 45° | 11 |
| | ► RG5D | 127 | 198 | 160 | 190 | 213 | 45° | 11 |

PACKAGING

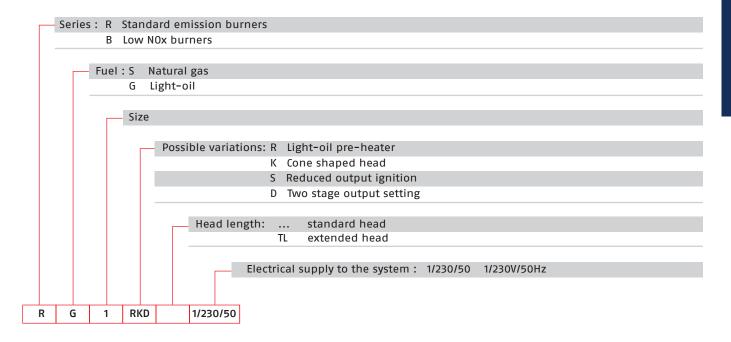
C1 C2



| MODEL | Х | 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 |

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 XOD (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 M0 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 | МС | DEL | HEAT C | UTPUT | TOTAL ELECTRICAL POWER | CERTIFICATION | NOTE |
|---------------|-------------|-----------|---------------|--------------|---------------------------|-------------------|------|
| | | | (kW) | (kg/h) | (kW) | | |
| MODELS WITH A | ANALOGIC CO | NTROL 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 | |
| 20052620 | RG2D TL | 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 | |
| 20052622 | RG3D TL | 1/230/50 | 65/83 - 178 | 5,5/7 - 15 | 0,390 | CE - 0036 0298/00 | |
| 20066335 | RG3D TL | 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 | |
| 20052624 | RG4D TL | 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 | |
| 20052626 | RG5D TL | 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

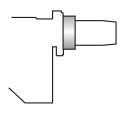


Kits of extended heads are available.

| 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 |
| | | | |

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:

| | dy and stainless steel filtering cartridge, available singula | |
|------------|---|----------|
| All models | 60 | 3006561 |
| BURNER | FILTERING DEGREE (µm) | KIT CODE |

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 |

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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 M0 550 accessory)
- Recycling for 3 attemps 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 |