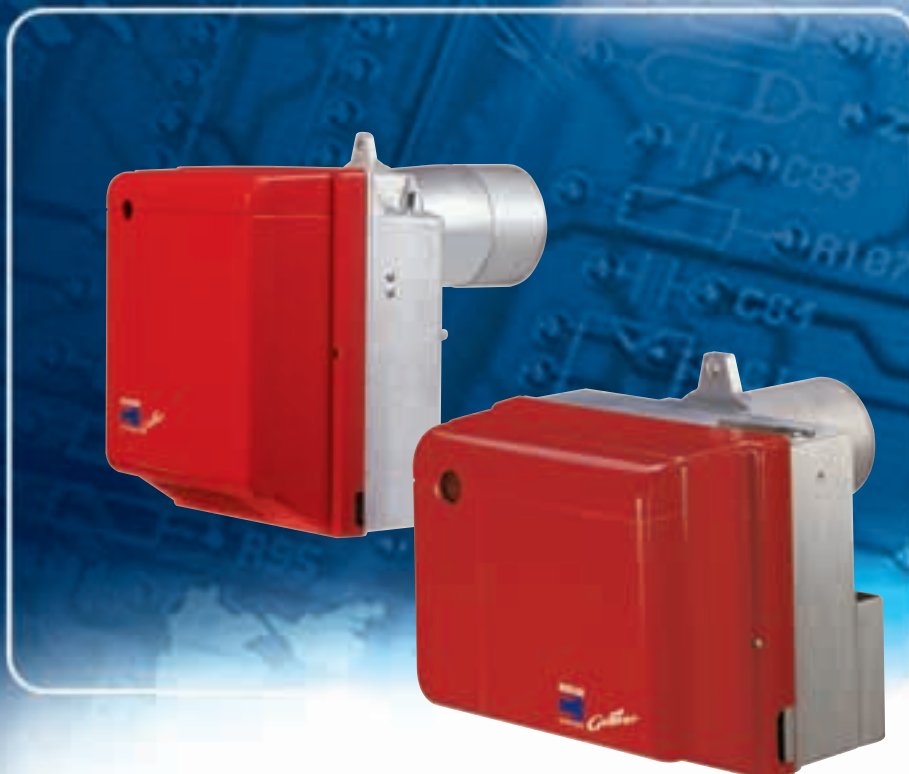


ONE STAGE LIGHT OIL BURNERS

► GULLIVER RG SERIES

► 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



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.

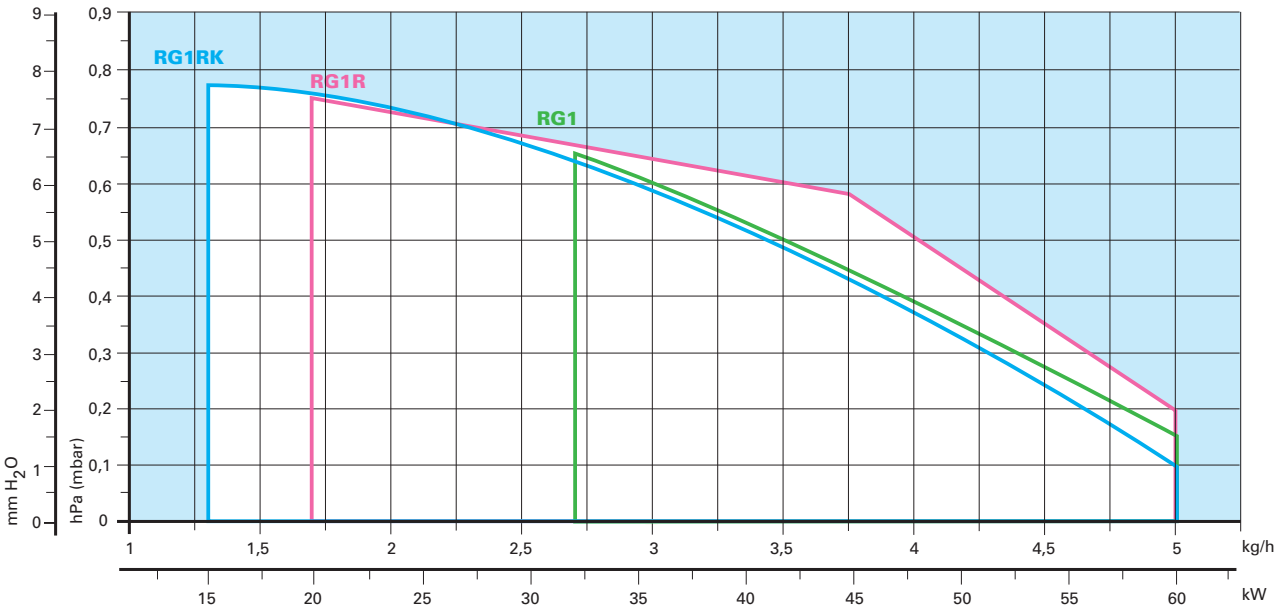
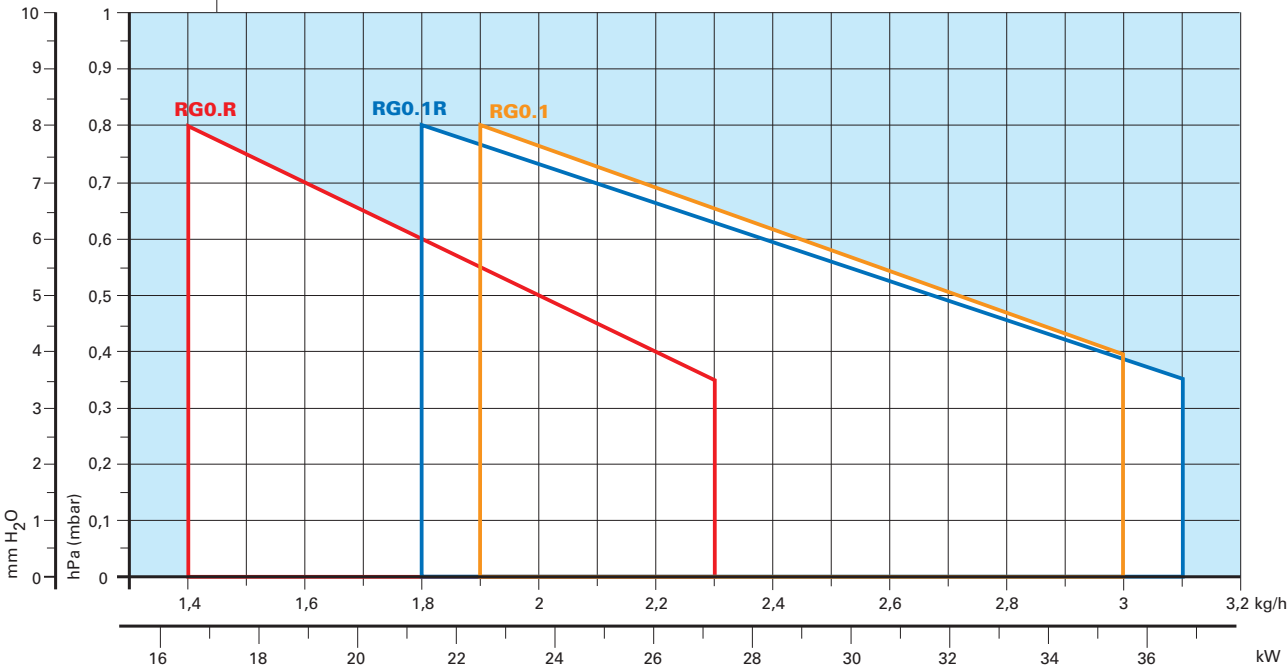
All the models are approved by the EN 267 European Standard and conform to European Directives for EMC, Low Voltage, Machinery and Boiler Efficiency.

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





FIRING RATES



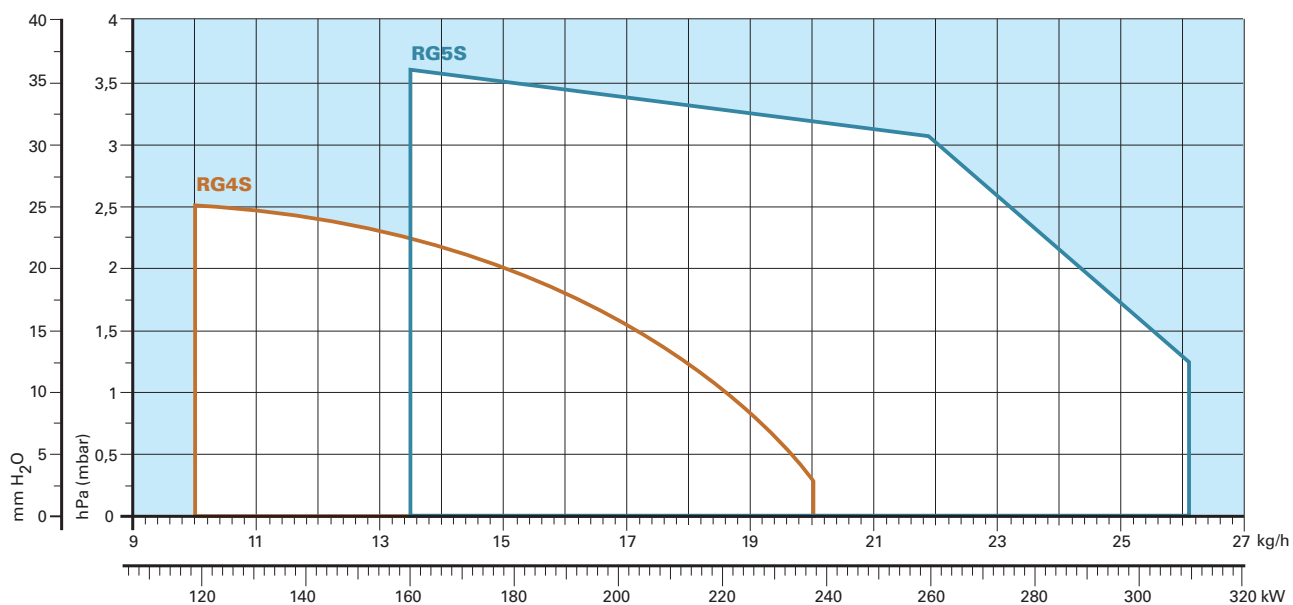
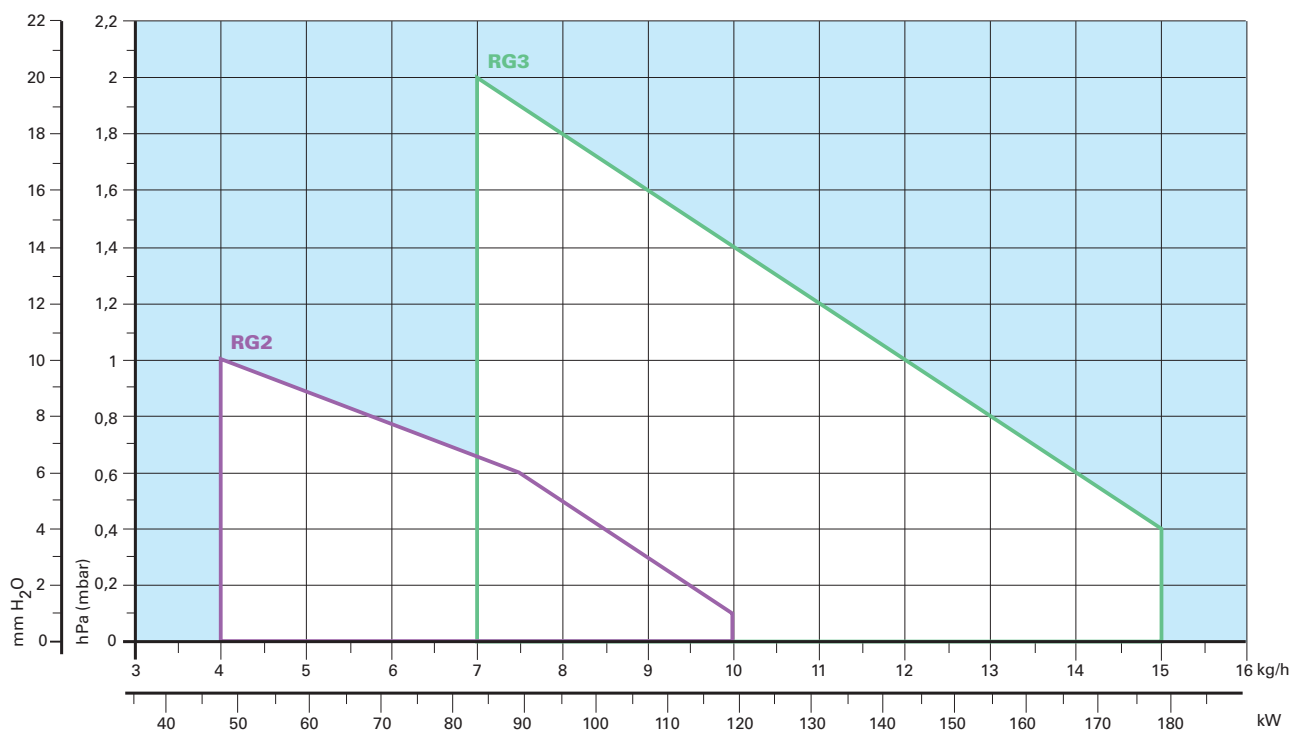
Useful working field for choosing the burner

Test conditions conforming to EN 267:

Temperature: 20°C

Pressure: 1013 mbar

Altitude: 0 m a.s.l.



☐ Useful working field for choosing the burner

Test conditions conforming to EN 267:

Temperature: 20°C
Pressure: 1013 mbar
Altitude: 0 m a.s.l.

TECHNICAL DATA

Model			▼ RG0.R	▼ RG0.1	▼ RG0.1R	▼ RG1	▼ RG1R	▼ RG1RK	▼ RG2	▼ RG3	▼ RG4S	▼ RG5S
Burner operation mode			One stage						One stage			
Modulation ratio at max. output			--						--			
Servomotor	run time	type	--						--			
		s	--						--			
Heat output		kW	16,6 - 27,3	22,5 - 35,6	21,3 - 36,7	32 - 60	20 - 60	15 - 60	47 - 119	83 - 178	118,5 - 237	160 - 309,5
		Mcal/h	14,3 - 23,4	19,4 - 30,6	18,3 - 31,6	27,5 - 51,6	17,2 - 51,6	13 - 51,6	40,4 - 102,3	71,4 - 153	102 - 203,8	137,6 - 266,2
		kg/h	1,4 - 2,3	1,9 - 3	1,8 - 3,1	2,7 - 5	1,7 - 5	1,3 - 5	4 - 10	7 - 15	10 - 20	13,5 - 26,1
Working temperature		°C min./max.	0/40						0/40			
Net calorific value		kWh/kg	11,8						11,8			
		kcal/kg	10200						10200			
Viscosity		mm ² /s (cSt)	4 ÷ 6 (at 20°C)						4 ÷ 6 (at 20°C)			
Pump	delivery	type	Riello made by SUNTEC						Riello made by SUNTEC		R.B.L.	SUNTEC AS57
		kg/h	30 (at 12 bar)						30 (at 12 bar)			
Atomised pressure		bar	8 ÷ 15						8 ÷ 15			
Fuel temperature		max. °C	50						50			
Fuel pre-heater			YES	NO	YES	NO	YES	YES	NO	NO	NO	NO
Fan		type	Centrifugal with forward curve blades						Centrifugal with forward curve blades			
Air temperature		max. °C	40						40			
Electrical supply		Ph/Hz/V	1/50/230 ±10%						1/50/230 ±10%			
Auxiliary electrical supply		Ph/Hz/V	--						--			
Control box		type	R.B.L.553 SE*	R.B.L.552 SE	R.B.L.553 SE	R.B.L.552 SE	R.B.L.553 SE	R.B.L.553 SE*	R.B.L.552 SE*	R.B.L.552 SE*	R.B.L. 552 SE*	R.B.L.552 SE
Total electrical power		kW	0,290	0,170	0,290	0,170	0,290	0,290	0,180	0,390	0,390	0,470
Auxiliary electrical power		kW	--						--			
Heaters electrical power		kW	0,07 (PTC)	--	0,07 (PTC)	--	0,12 (PTC)	0,12 (PTC)	--	--	--	--
Protection level		IP	X0D (IP 40)						X0D (IP 40)			
Pump motor electrical power		kW	--						--			
Rated pump motor current		A	--						--			
Pump motor start up current		A	--						--			
Pump motor protection level		IP	--						--			
Fan motor electrical power		kW	0,09	0,09	0,09	0,09	0,09	0,09	0,09	0,15	0,15	0,25
Rated fan motor current		A	0,85	0,85	0,85	0,85	0,85	0,85	0,9	1,9	2	2,1
Fan motor start up current		A	3,4	3,4	3,4	3,4	3,4	3,4	3,6	7,6	8	8,4
Fan motor protection level		IP	20						20			
Ignition transformer		type	Incorporated in the control box						Incorporated in the control box			
		V1 - V2	(-) - 8 kV						(-) - 8 kV			
		I1 - I2	(-) - 30 mA						(-) - 30 mA			
Operation			Intermittent (at least one stop every 24 h)						Intermittent (at least one stop every 24 h)			
Sound pressure		dB (A)	56	57	57	60	60	60	61	64	64	71
Sound power		W	--						--			
CO emission		mg/kWh	28	19	10	15	13	12	5	6	6	38
Grade of smoke indicator		N° Bacharach	<1						<1			
CxHy emission		mg/kWh	<10 (after the first 20 s)						<10 (after the first 20 s)			
NOx emission		mg/kWh	200	181	190	220	180	160	137	180	150	150
Directive			89/336/EEC, 73/23/EEC, 98/37/EEC, 92/42/EEC						89/336/EEC, 73/23/EEC, 98/37/EEC, 92/42/EEC			
Conforming to			EN 267						EN 267			
Certification			CE - 0036 0272/99	CE - 0036 0294/99	CE - 0036 0273/99	CE - 0036 0341/03	CE - 0036 0341/03	CE - 0036 0341/03	CE - 0036 0344/03	DIN - Reg.-Nr.5G264/98	DIN - Reg.-Nr.5G265/98	CE - 0036 0310/01

* R.B.L. 550 SMD for German Market.

Reference conditions:
Temperature: 20 °C
Pressure: 1013 mbar
Altitude: 0 m a.s.l.
Noise measured at a distance of 1 meter.

Since the Company is constantly engaged in the production improvement, the aesthetic and dimensional features, the technical data, the equipment and the accessories can be changed.
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FUEL SUPPLY

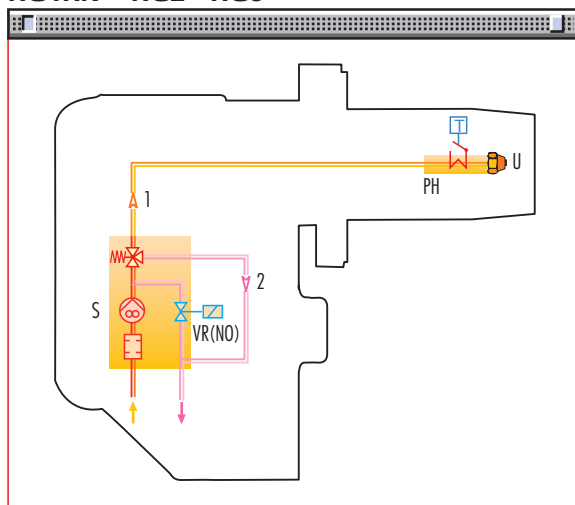
HYDRAULIC CIRCUIT

All the burners have a geared pump with safety valve on the return circuit.

The RG0.R, RG0.1, RG0.1R, RG1, RG1R, RG1RK, RG2, RG3 models are fitted with a Riello pump made by Suntec.

The RG4S and RG5S models are equipped with R.B.L. pump.

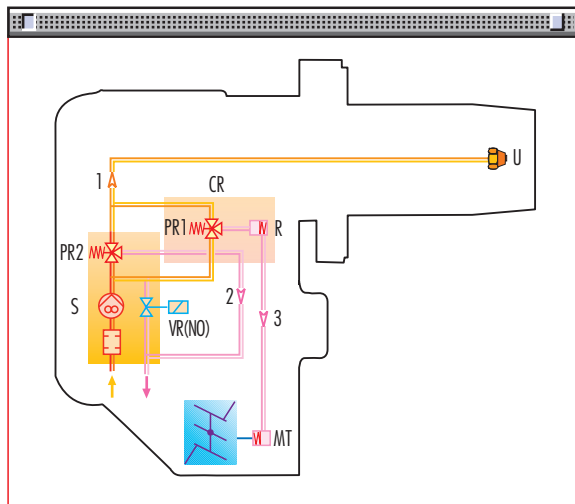
RG0.R - RG0.1 - RG0.1R - RG1 - RG1R RG1RK - RG2 - RG3



Fuel pump

Fuel feed to the burner can be from the right or the left side on all models.

RG4S - RG5S



S	Pump with filter and pressure regulator on the delivery pipe
VR(NO)	Oil return valve on the delivery pipe
1	Oil input pipe to the nozzle
2	Oil return pipe from the regulator
3	Oil delivery pipe to the air damper hydraulic jack
MT	Air damper hydraulic jack for high pressure working
PR1	Low pressure oil regulator
PR2	High pressure oil regulator
R	Delayer
CR	Delayer casing
PH	Oil pre-heater with thermostat (where provided)
U	Nozzle

LIGHT OIL PRE-HEATER

The light oil pre-heater is a PTC type.

On the RG0.R and RG0.1R models, the pre-heater can be accessed by just removing the burner cover. In the other models, the rear cover inside the burner must also be removed.



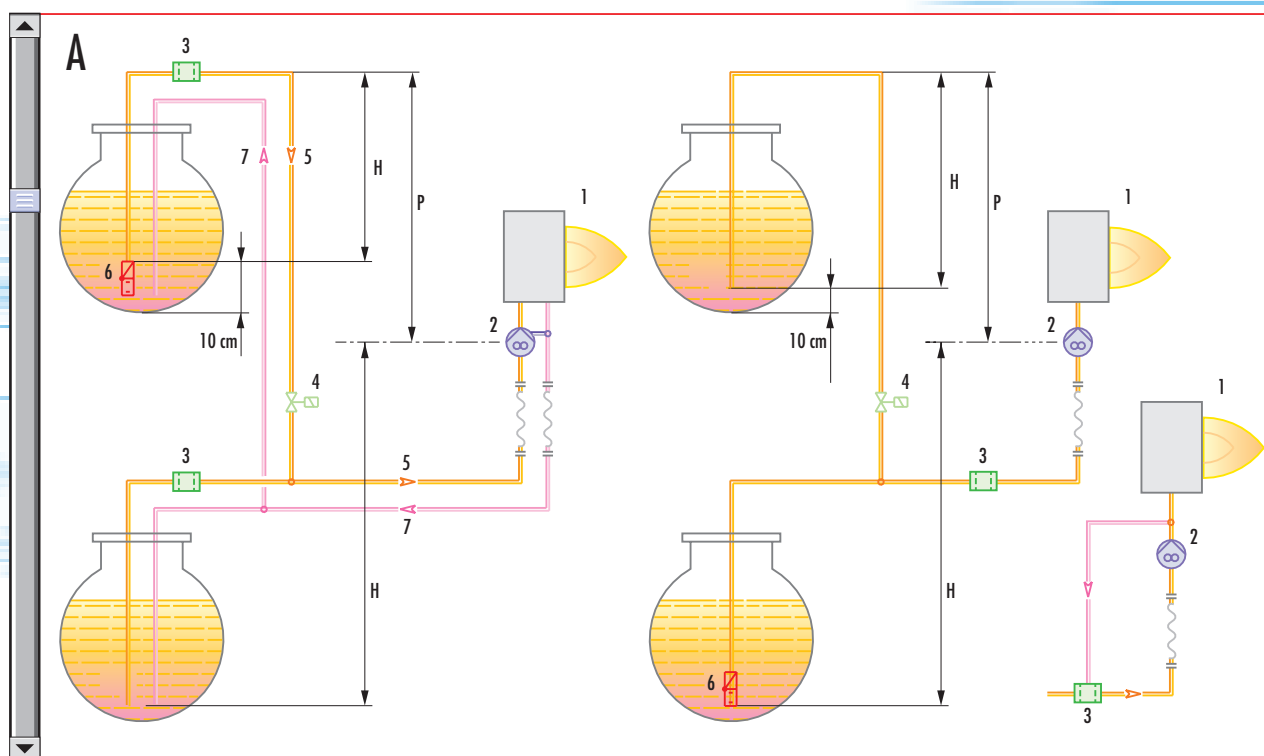


SELECTING THE FUEL SUPPLY LINES

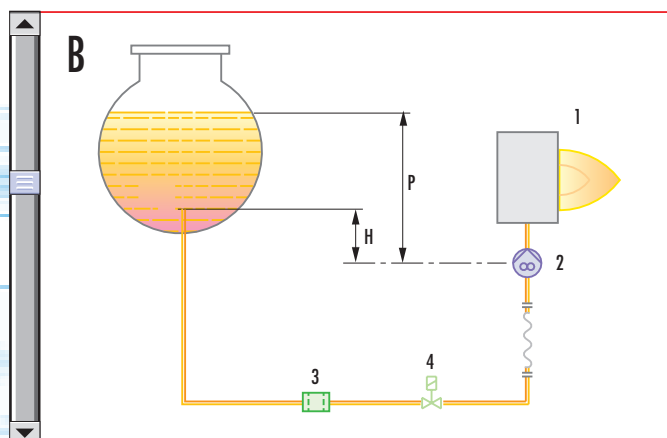
The fuel feed must be completed with the safety devices required by the local regulations in force.

The table shows the choice of piping diameter for the various burners, depending on the difference in the height between the burner and the tank and the distance between them.

MAXIMUM EQUIVALENT LENGTH OF THE PIPEWORK L[m]				
Pipe size	▼ Type A system		▼ Type B system	
	Ø8mm	Ø10mm	Ø8mm	Ø10mm
H (m)	L _{max} (m)	L _{max} (m)	L _{max} (m)	L _{max} (m)
0	35	100	-	-
0,5	30	100	10	20
1,0	25	100	20	40
1,5	20	90	40	80
2,0	15	70	60	100
3,0	8	30	-	-
3,5	6	20	-	-



Type of system that can be installed



H	Difference in height
Ø	Internal pipe diameter
P	Difference in height ≤ 4 m
1	Burner
2	Pump
3	Filter
4	Shut-off solenoid valve
5	Suction pipework
6	Bottom valve
7	Return pipework



VENTILATION

The different ventilation circuits always ensure low noise

levels with high performance of pressure and air delivery, inspite of their compact size.



Air suction (RG0.R)



Air suction (RG5S)



COMBUSTION HEAD

The RG0.R, RG0.1 and RG0.1R models all have fixed heads. Certain models allow you to choose the length of the combustion head.

This choice depends on the thickness of the front wall and the type of the boiler.

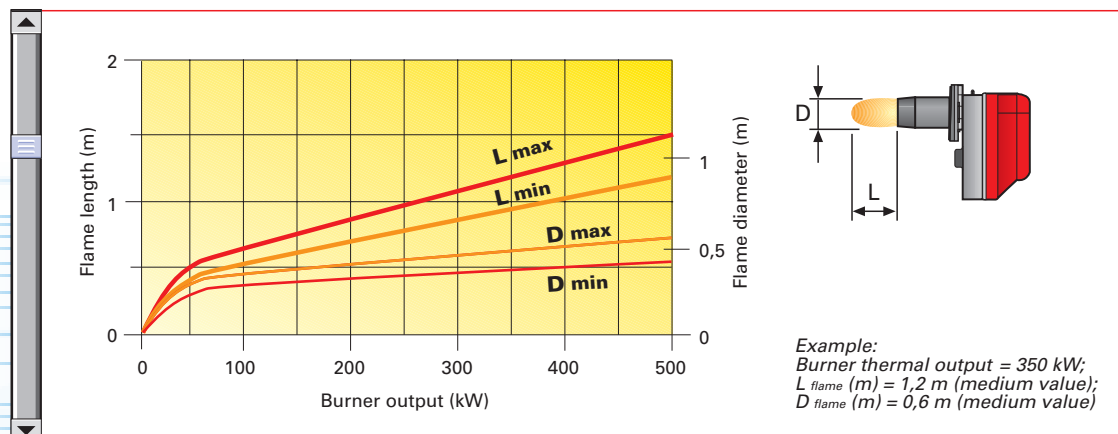
Depending on the type of generator, you should check the correct penetration of the head into the combustion chamber.

Simple adjustment to the combustion head allows adapting internal geometry of the head to the maximum rated output of the burner.



Gulliver burner combustion head

Dimensions of the flame





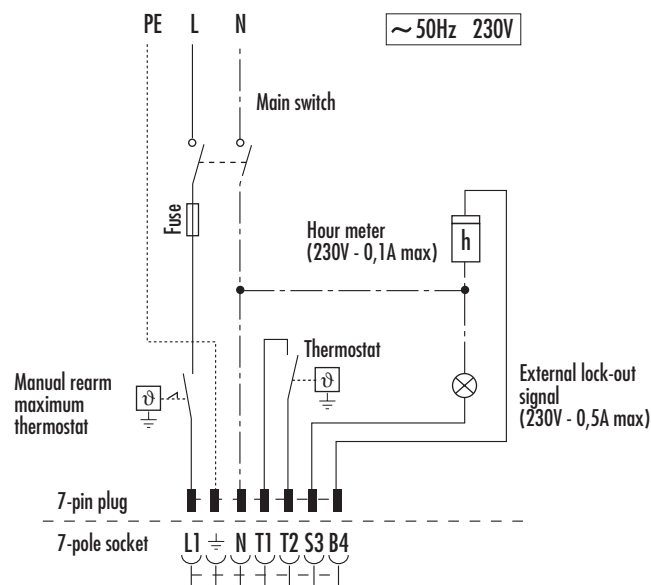
WIRING DIAGRAMS

Electrical connections must be made by qualified and skilled personnel in conformity with the local regulations in force.



Control box fitted with ignition transformer

► "ONE STAGE" OPERATION



The following table shows the supply lead sections and types of fuse to be used.

Model	▼RG0.R	▼RG0.1	▼RG0.1R	▼RG1	▼RG1R	▼RG1RK	▼RG2	▼RG3	▼RG4S	▼RG5S
F A	6	6	6	6	6	6	6	T6	T6	T6
L mm ²	1	1	1	1	1	1	1	1	1	1

F = Fuse

L = Lead section

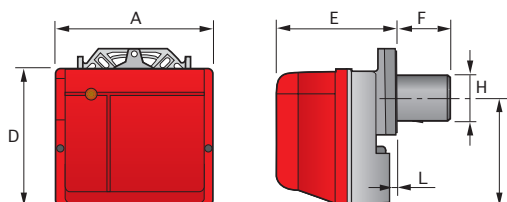


OVERALL DIMENSIONS (mm)

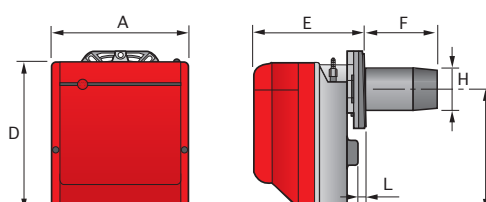
These models are distinguished by their reduced size, in relation to their outputs, which means they can be fitted to any boiler on the market.

BURNER

GULLIVER RG0



GULLIVER RG

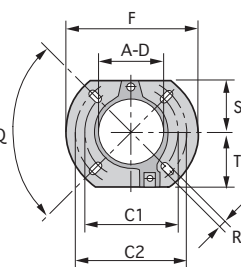
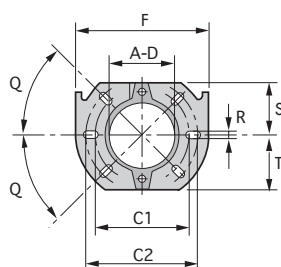


Model	A	D	E	F	H	I	L
► RG0.R	255	210	205	93	84	168	5
► RG0.1R	255	210	205	93	84	168	5
► RG0.1	255	210	205	93	84	168	5
► RG1	234	254	196	93	84	210	4
► RG1R	234	254	196	93	84	210	4
► RG1RK	234	254	196	111	84	210	4
► RG2	255	280	202	115	95	230	10
► RG3	300	345	228	142	123	285	12
► RG4S	300	345	228	142	123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

BURNER-BOILER MOUNTING FLANGE

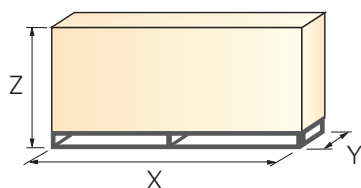
RG0.R - RG0.1R - RG0.1
RG1 - RG1R - RG1RK - RG2

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