



LOW NO_x ONE STAGE GAS BURNERS

► GULLIVER BS SERIES

► BS1	16 ÷ 52 kW
► BS2	35 ÷ 91 kW
► BS3	65 ÷ 189 kW
► BS4	110 ÷ 246 kW



The Riello Gulliver BS series of one stage gas burners, is a complete range of Low NO_x emission products, developed to respond to any request for home heating, conforming to the most severe standards regarding the reduction of polluting emissions.

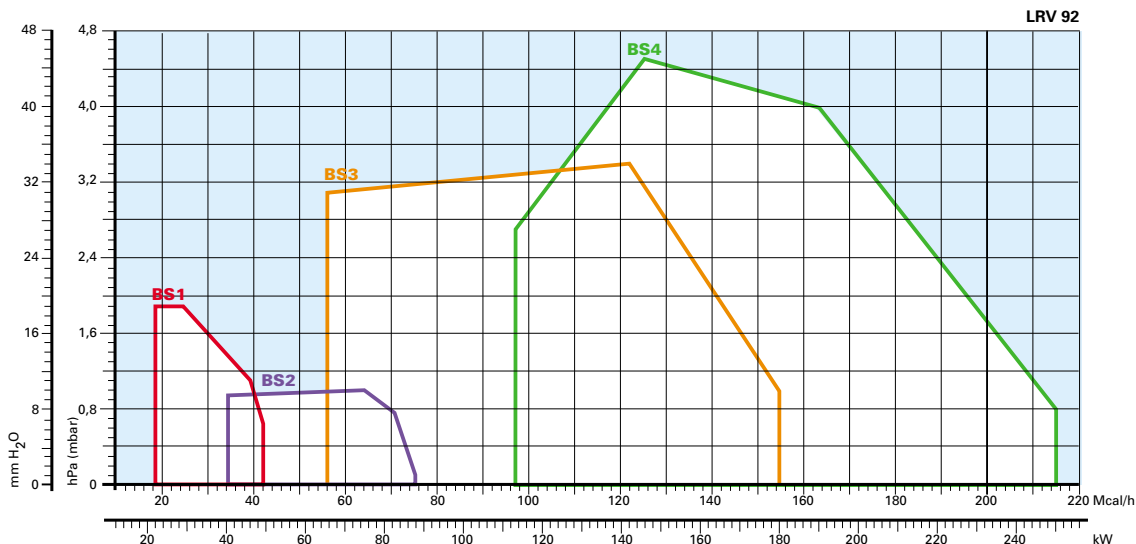
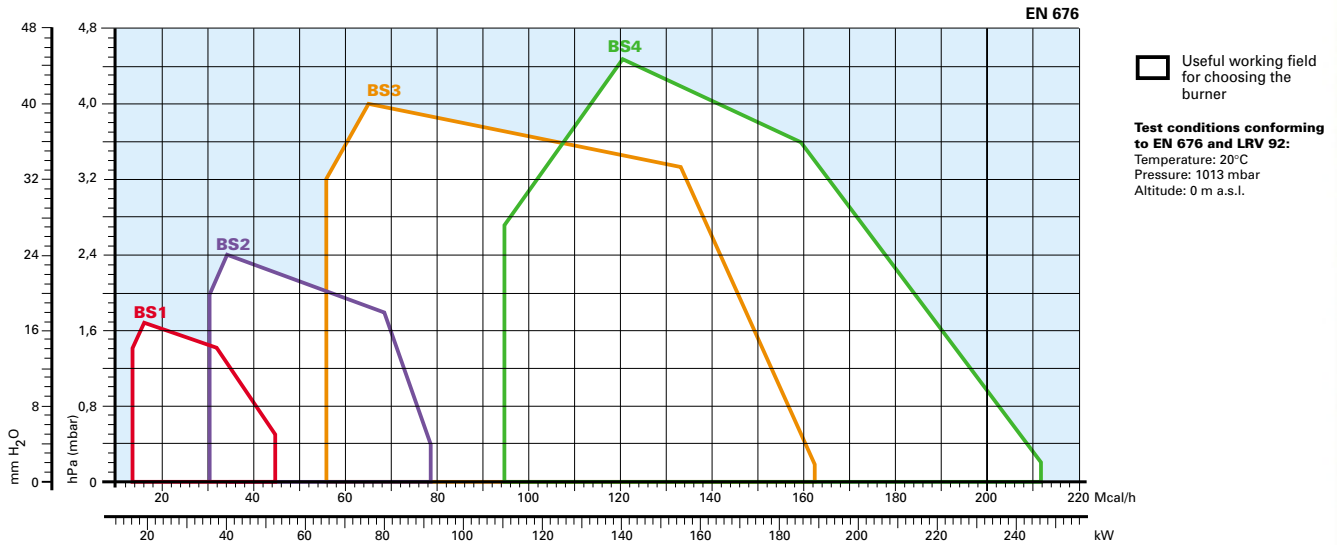
This series of burners is available in four different models with an output ranging from 16 to 246 kW, divided in four different structures.

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, the ease of installation and adjustment, to obtaining the smallest size possible to fit into any sort of boiler available on the market.

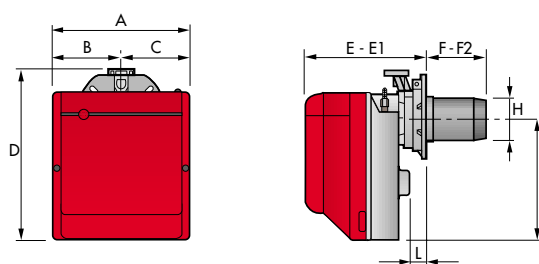
All the models are approved by the EN 676 European Standard and LRV-92 Swiss standards, and conform to BImSchV 1996 and European Directives, Gas Appliance, EMC, Low Voltage, Boiler Efficiency. All the Gulliver BS burners are tested before leaving the factory.

FIRING RATES



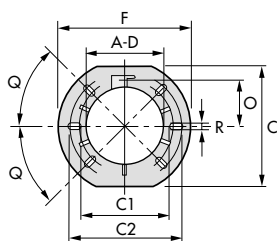
GULLIVER BS series - OVERALL DIMENSIONS (mm)

BURNER



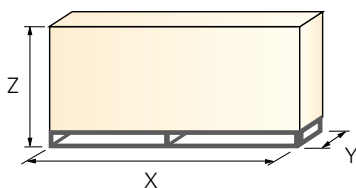
Model	A	B	C	D	E	E1	F	F2	H	I	L
▶ BS1	234	122	112	295	230	276	116	70	89	210	41
▶ BS2	255	125,5	125,5	325	238	252	114	100	106	230	45
▶ BS3	300	150	150	391	262	280	128	110	129	285	45
▶ BS4	300	150	150	392	278	301	168	145	137	286	45

BURNER - BOILER MOUNTING FLANGE



Model	A	C	C1	C2	D	F	O	Q	R
▶ BS1	89	167	140	170	89	192	66	45	11
▶ BS2	106	167	140	170	106	192	66	45	11
▶ BS3	129	201	160	190	129	216	76,5	45	11
▶ BS4	137	203	170	200	137	218	80,5	45	11

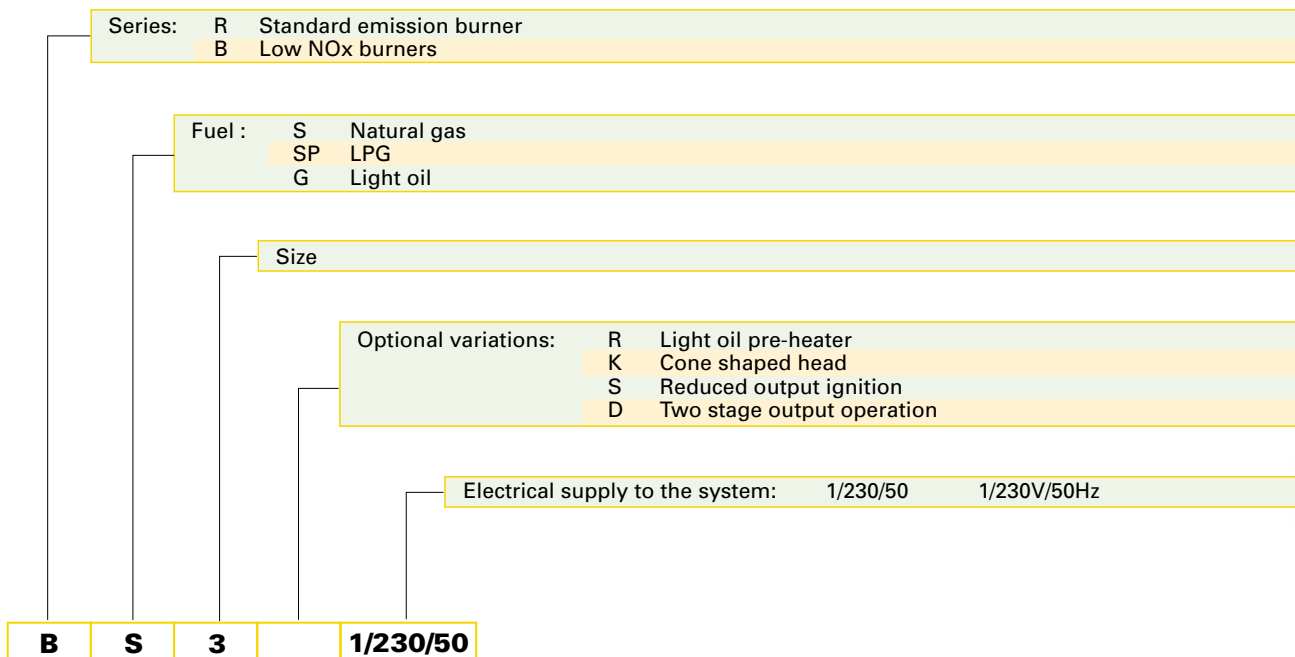
PACKAGING



Model	X	Y	Z	kg
▶ BS1	395	278	350	10
▶ BS2	405	298	375	11
▶ BS3	450	345	440	15
▶ BS4	510	345	440	16,5

GULLIVER BS series - SPECIFICATION

DESIGNATION OF SERIES



GULLIVER BS series - STATE OF SUPPLY

Monoblock, gas burners, completely automatic, 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
 - ionisation probe
 - gas distributor
 - flame stability disk
- Flame inspection window
- Adjustable air pressure switch, with graduated selector, to guarantee burner lock out in the case of insufficient combustible air
- Protection filter against radio interference
- IP X0D (IP 40) electric protection level.

Standard equipment:

- Sliding flange
- Flange insulation screen
- Screws and nuts for fixing the flange to the boiler
- 7-pin plug with capacitor for EMC
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

GULLIVER BS series - AVAILABLE BURNER MODELS

Code	Model	Heat output		Total electrical power (kW)	Certification	Note	Price
		(kW)	Natural Gas (Nm ³ /h)				
3761150	BS1 1/230/50	16 - 52	1,6 - 5,2	0,150	CE - 0085 AQ0409 BUWAL - Nr.100010	(1)	
3761250	BS2 1/230/50	35 - 91	3,5 - 9,1	0,180	CE - 0085 AQ0409 BUWAL - Nr.197011	(1)	
3761350	BS3 1/230/50	65 - 189	6,5 - 18,9	0,350	CE - 0085 AQ0409 BUWAL - Nr.100010	(1)	
3761450	BS4 1/230/50	110 - 246	11 - 24,6	0,530	CE - 0085 AQ0409 BUWAL - Nr.100010	(1)	

Net calorific value G20: 10 kWh/Nm³ - Density: 0,71 kg/Nm³.
 The burners of BS series are in according to EN 676 - LRV 92 - BImSchV 1996.
 (1) With plug and socket.

GULLIVER BS series - AVAILABLE GAS TRAIN MODELS

Gas train code *	Gas train model	Natural gas		LPG		Note	Gas train price
		Burner (type)	Adapter (code)	Burner (type)	Adapter (code)		
3970570	MBDLE 055	BS1		BS1		(1)	
3970545	MBDLE 403	BS1		BS1		(1) (2)	
3970546	MBDLE 405	BS1		BS1		(1)	
3970547	MBDLE 405	BS2		BS2		(1)	
3970544	MBDLE 407	BS2		BS2		(1)	
3970548	MBDLE 407	BS3 - BS4		BS3 - BS4		(1) (3)	
3970549	MBDLE410	BS3 - BS4		BS3 - BS4		(1)	
3970550	MBDLE 412	BS3 - BS4		BS3 - BS4		(1)	

* Gas train are 230V/50Hz - 220V/60Hz electrical supply.

(1) With installed plug.

(2) BS1 ≤ 45 kW with natural gas.

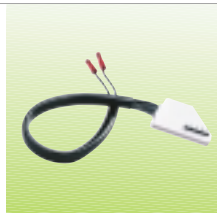
(3) BS3 and BS4 ≤ 150 kW with natural gas.

The following table shows the frequently matching between GULLIVER BS burners and the gas train, referred to different inlet gas pressure.

Burner	Reference combustion chamber pressure (mbar)	Natural gas G20 (20 mbar)		Natural gas G20 (150 mbar)		LPG (35 mbar)		LPG (150 mbar)	
		Gas train	Reference output (kW)	Gas train	Reference output (kW)	Gas train	Reference output (kW)	Gas train	Reference output (kW)
GULLIVER BS1	1,2	MBDLE 055	40	MBDLE 403	40	MBDLE 055	40	MBDLE 403	40
GULLIVER BS2	2,0	MBDLE 405	72,2	MBDLE 405	72,2	MBDLE 405	72,2	MBDLE 405	72,2
GULLIVER BS3	3,3	MBDLE 410	147,6	MBDLE 410	147,6	MBDLE 407	147,6	MBDLE 407	147,6
GULLIVER BS4	2,8	MBDLE 410	200,6	MBDLE 410	200,6	MBDLE 407	200,6	MBDLE 410	200,6

GULLIVER BS series - BURNER ACCESSORIES

Remote control release kit for 568-569 control boxes

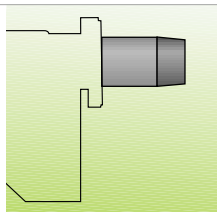


The 568-569 control boxes can be remotely released using an electric command kit.

This kit must be installed in conformity with current regulations in force.

Burner	Kit code	Price
BS1 - BS2 - BS3 - BS4	3001031	

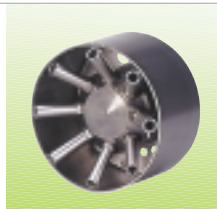
Extended head kit



Burners standard head can be transformed into "extended head" versions by using the special kit. Here the KITS available for the various burners are listed, showing the original and the extended lengths.

Burner	Standard head length (mm)	Extended head length (mm)	Kit code	Price
BS2 (long)	100 ÷ 114	170 ÷ 180	3001007	
BS2 (extra long)	100 ÷ 114	270 ÷ 280	3001008	
BS3	110 ÷ 128	267 ÷ 282	3001009	
BS4	145 ÷ 168	302 ÷ 317	3001016	

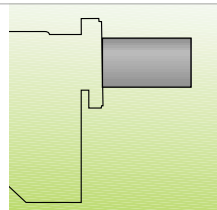
LPG kit



For burning LPG gas, a special kit is available to be fitted to the combustion head on the burner, as shown in the following table.

Burner	Kit code for standard head	Kit code for extended head	Price
BS1	3001003	-	
BS2	3001004	3001004	
BS3	3001005	3001005	
BS4	3001011	3001011	

Alternative combustion head kit



This kit can be used to prevent combustion instability which could arise with particular heat generators.

Burner	Kit code	Price
BS1	3001059	
BS2	3001064	
BS3	3001060	
BS4	3001070	

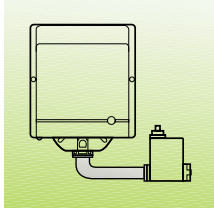
Ground fault interrupter kit



A "Ground fault interrupter kit" is available as a safety device in case of electrical system fault. It is supplied with burners with pin plug.

Burner	Kit code	Price
BS1 - BS2 - BS3 - BS4	3001180	

Multibloc rotation kit



There is a special kit available that can be used to install the burner turned 180°. This kit is designed to ensure the gas train valve properly.

Burner	Kit code	Price
BS1	3001179	
BS2	3001177	
BS3 - BS4	3001178	

7-pin plug kit

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

Burner	Kit code	Price
BS1 - BS2 - BS3 - BS4	3000945	

GULLIVER BS series - GAS TRAIN ACCESSORIES

Seal control kit



To test the valve seals on the gas train, (except for the model with Multibloc MBDLE 055) a special "seal control kit" is available.

Burner	Kit code	Price
BS1 - BS2 - BS3 - BS4	3010123	