

RIELLO 40 GS SERIES

The Riello 40 GS series of one stage gas burners, is a complete range of products developed to respond to any request for home heating. The Riello 40 GS series is available in four different models, with an output ranging from 11 to 220 kW, divided in four different structures.

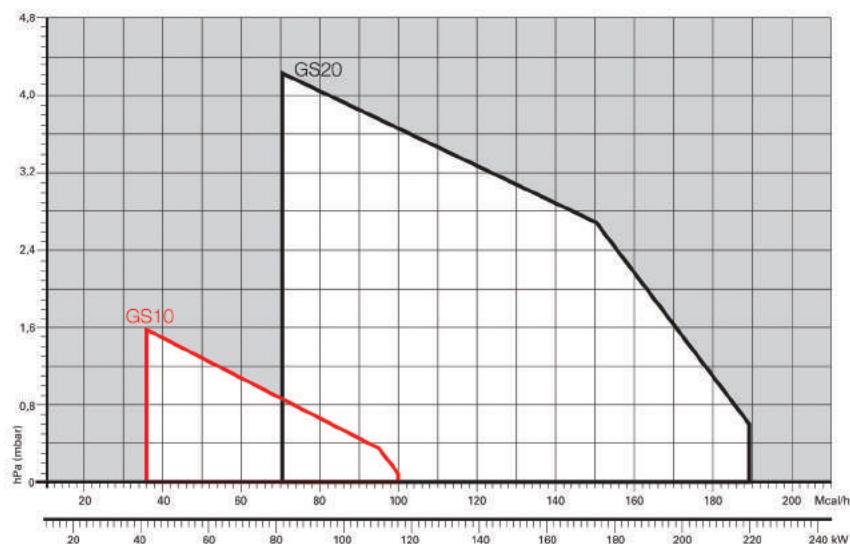
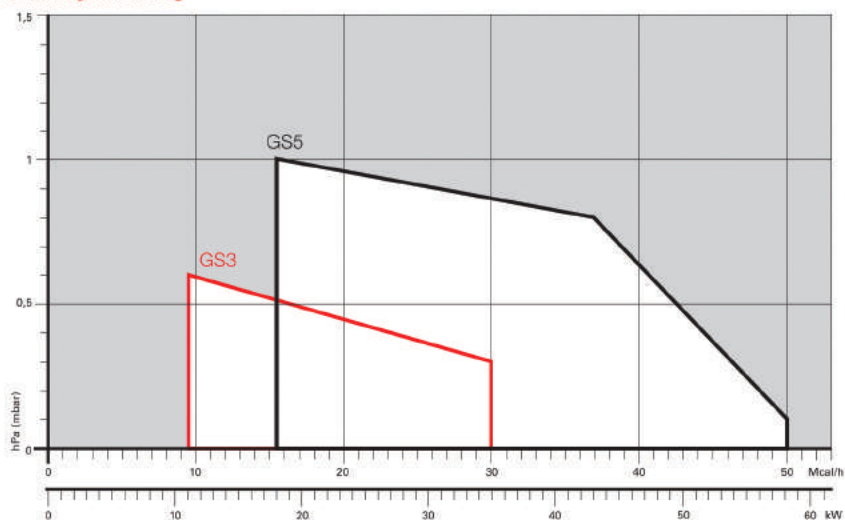
All the models use the same components designed by Riello for the Riello 40 GS series. The high quality level guarantees safe working. The Riello 40 GS burners are fitted with a microprocessor based control box with diagnostic functions. In developing these burners, special attention was paid to reducing 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 676 European Standard and conform to European Directives for EMC, Low Voltage, Machinery and Boiler Efficiency.

All the Riello 40 GS burners are tested before leaving the factory.

GS3	11 ÷ 35 kW
GS5	18 ÷ 58 kW
GS10	42 ÷ 116 kW
GS20	81 ÷ 220 kW

FIRING RATES



Guidelines for installation of burners in conformity to EU Regulation:

A RIELLO burner (Heat Generator), where it is matched with a water-based boiler (Heater Housing) with a nominal output ≤ 400 kW, providing heat for heating purposes and heat to deliver sanitary hot water, can be installed:

- With boilers (heater housings) already in service in the field, for replacement of identical products, in conformity to Article 1, paragraph 2, point (G) of the EU Regulation No. 813/2013;
- With boilers (heater housings) on a new installation, if they have emissions complying with the requirement of Annex II, paragraph 4 of the EU regulation No. 813/2013.



Useful working field for choosing the burner

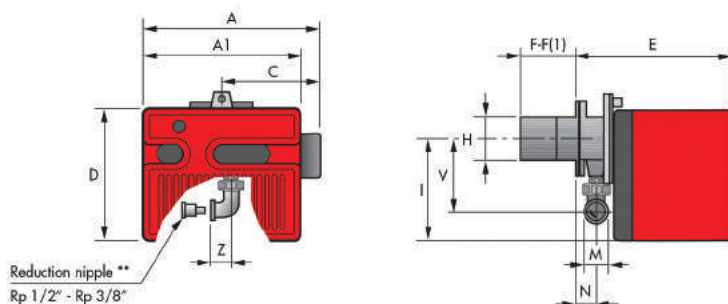
Test conditions conforming to EN676
Temperature: 20°C
Pressure: 1013,5 mbar
Altitude: 0 m a.s.l.

One Stage Gas Burners

RIELLO 40 GS SERIES

Overall dimensions (mm)

BURNER



MODEL	A	A1	C	D	E	F - F(1)	H	I	M	N	V	Z
► GS3	-	252	-	215	230	100	91	165	Rp 3/8"	37	132	25
► GS5	-	272	-	233	295	100	91	180	Rp 1/2"	48	138	28
► GS10	341	-	188,5	262	346	110	105	204	Rp 3/4"	61	142	33
► GS10 ***	-	305	-	262	346	110 - 170	105	204	Rp 3/4"	61	142	33
► GS20	387	-	212	298	389	120 - 280	125	230	Rp 3/4"	67	152	33
► GS20 ***	-	350	-	298	389	120	125	230	Rp 3/4"	67	152	33

* With reduction nipple

** Standard equipment on R40 GS3

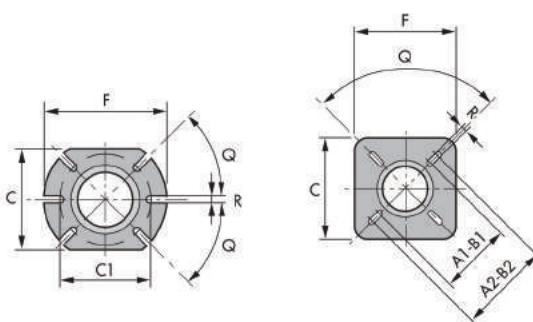
*** Versions with air damper opening motor inside the cover

(1) dimension with extended head

BURNER - BOILER MOUNTING FLANGE

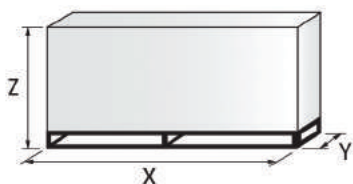
GS3 - GS5 - GS10

GS20



MODEL	A1	A2	B1	B2	C	C1	F	Q	R
► GS3	-	-	-	-	140	130	170	45°	10
► GS5	-	-	-	-	140	130	170	45°	10
► GS10	-	-	-	-	160	130	185	45°	11
► GS20	155	200	155	200	170	-	170	90°	11

PACKAGING



MODEL	X	Y	Z	kg
► GS3	375	335	310	11
► GS5	445	355	325	11
► GS10	483	423	330	15
► GS20	535	463	375	21

Specification

DESIGNATION OF SERIES

Series : G					
Fuel : S	Natural gas				
Size					
Head : ...	Standard head				
TL	Extended head				
Electrical supply to the system :	1/230/50	1/230V/50Hz			
	1/220/60	1/220V/60Hz			

G	S	3		1/230/50
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STATE OF SUPPLY

Monoblock, gas burners, completely automatic, with one stage settings fitted with:

- Fan with forward curve blades
- Cover lined with sound-proofing material
- Air damper, completely closed in stand by, with adjustment inside 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
- Adjustable air pressure switch, with graduated selector, to guarantee burner lock out in the case of insufficient combustible air
- Microprocessor-based burner safety control box MG 557 (with diagnostic, remote reset, continuous purge integrated, recycle, post-purge)
- IP X0D (IP 40) electric protection level.

Standard equipment:

- Flange insulation screen
- Screws and nuts for fixing the flange to the boiler
- 7-pole socket
- Hinge
- Reduction nipple Rp 1/2" - Rp 3/8" (for R40 GS3 only)
- Grommet
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

One Stage Gas Burners

RIELLO 40 GS SERIES

Available models

Burners

CODE	MODEL	HEAT OUTPUT		TOTAL ELECTRICAL POWER (kW)	CERTIFICATION	NOTE
		(kW)	NATURAL GAS (Nm ³ /h)			
3755119	GS3 1/230/50	11 - 35	1,1 - 3,5	0,100	CE-0476CT2714	(1) (4) (5)
3755219	GS5 1/230/50	18 - 58	1,8 - 5,8	0,110	CE-0476CT2714	(1) (4) (5)
3755281	GS5 1/220/60	23 - 65	2,3 - 6,5	0,180	-	(2) (3)
3755426	GS10 1/230/50	42 - 116	4,2 - 11,6	0,130	CE-0476CT2714	(1) (4) (5)
3755483	GS10 1/220/60	42 - 116	4,2 - 11,6	0,200	-	(2) (3)
20007527	GS10 1/220/60	42 - 116	4,2 - 11,6	0,200	-	(1) (3)
3755616	GS20 1/230/50	81 - 220	8,1 - 22	0,250	CE-0476CT2714	(1) (4) (5)
3755683	GS20 1/220/60	81 - 220	8,1 - 22	0,430	-	(2) (3)

Net calorific value G20: 10 kWh/Nm³ - Density: 0,71 kg/Nm³

The burners of GS series are in according to EN 676

(1) With plug and socket

(2) With terminal block

(3) Fixed air damper always open in stand by

(4) With air damper opening motor

(5) According to Directives: Electromagnetic Compatibility 2014/30/EU, Low Voltage 2014/35/EU and Machine 2006/42/CE.

Gas Trains

	GAS TRAIN CODE *	GAS TRAIN MODEL	NATURAL GAS		LPG		NOTE
			BURNER (TYPE)	ADAPTER (CODE)	BURNER (TYPE)	ADAPTER (CODE)	
MULTIBLOC GAS TRAIN	3970569	MBC 65/1 - RSD 20	GS3 - GS5		GS3 - GS5		(1)
	3970530	MB 405/1 - RSD 20	GS5 - GS10		GS5 - GS10		(1)
	3970531	MB 407/1 - RSD 20	GS5 - GS10 - GS20		GS5 - GS10 - GS20		(1) (3)
	3970532	MB 410/1 - RSD 20	GS10 - GS20		GS10 - GS20		(1)

Please see Designation of Gas Train Series in the page before the Catalogue index.

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

(1) With installed plug (if the plug is not necessary, remove it in accordance with gas train instruction manual indication)

(2) GS10 ≤ 80 kW with natural gas

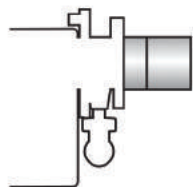
(3) GS20 ≤ 180 kW with natural gas

The valve seal control device is compulsory (conforming to EN 676) on gas trains to burners with a maximum output over 1200 kW.

To select the gas train please refer to the technical data leaflet and/or instruction manual.

Burner accessories

Extended head kit



"Standard head" burners can be transformed into "extended head" versions by using the special kit. Below 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
► GS3 - GS5	100	125	3000820
► GS10	110	170	3001064
► GS20	120	280	3000873

Remote reset control kit for MG 557 control box

The MG 557 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
► GS3 - GS5	3002750

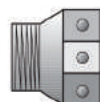
LPG kit



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.

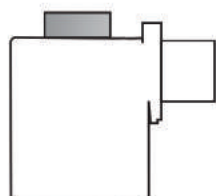
BURNER	KIT CODE FOR STANDARD HEAD	KIT CODE FOR EXTENDED HEAD
► GS3	3000881	3000881
► GS5	3000882	3000882
► GS10	3000884	3000884
► GS20	3000886	3000886

Town gas kit



BURNER	KIT CODE
► GS3	3000888
► GS5	3000889
► GS10	3000891
► GS20	3000893

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
► GS3	20027571
► GS5	20027576
► GS10	20027578
► GS20	20027581

One Stage Gas Burners

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Burner accessories

End cone with turbulator disk

The end cone turbulator disk reduces the flame length. It is suitable for hoven application (CO emissions) and short boiler chamber.



BURNER	PROJECTION (mm)	KIT CODE
► GS5	+15	3000916
► GS10	+18	3000918
► GS20	+23	3000919

Ground fault interrupter kit

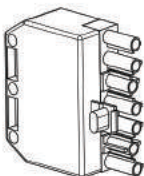


A "Ground fault interrupter kit" is available as a safety device in case of electrical system fault.

It is supplied with burners with pin plug.

BURNER	KIT CODE
► GS3 - GS5 - GS10 - GS20	3001180

7-pin plug kit



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

BURNER	KIT CODE
► GS3 - GS5 - GS10 - GS20	3000945

Continuous ventilation kit for RMG control box

If the burner requires continuous ventilation in the stages without flame, a special kit is available as given in the following table.

BURNER	KIT CODE
► GS10 - GS20	3010094

PC interface kit



To connect the RMG 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
► GS10 - GS20	3002719

Gas train accessories

Seal control kit



To test the valve seals on the gas train, (except for the model with Multibloc MBC 65 DLE) a special "seal control kit" is available.

GAS TRAIN	KIT CODE for 50 Hz operation	KIT CODE for 60 Hz operation
► MB/1 type	3010123	20050030