

RIELLO 40 FSD SERIES

The Riello 40 FSD series of two stage gas burners, is a complete range of products developed to respond to any request for light industrial process. The Riello 40 FSD series is available in two different models, with an output ranging from 12 to 220 kW, divided in two different structures.

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

The Riello 40 FSD burners are fitted with a microprocessor - based control box, with diagnostic functions.

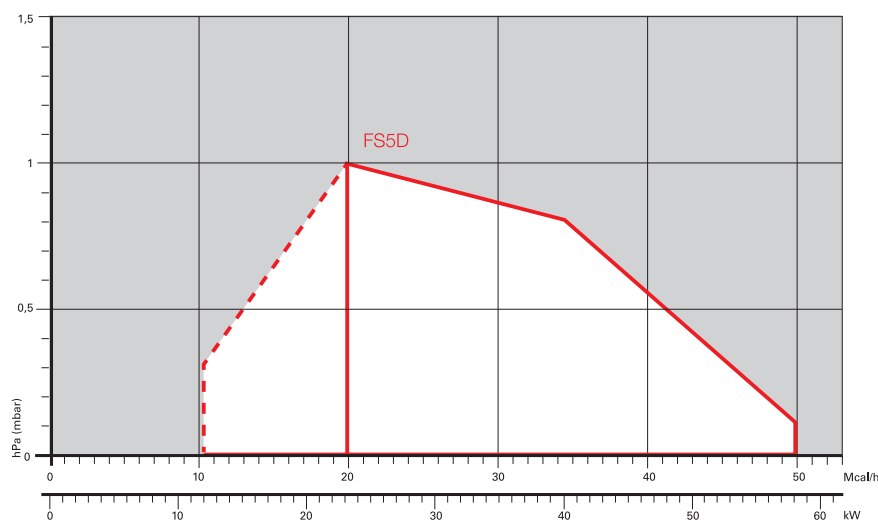
In developing these burners, special attention was paid to reducing noise, to the ease of installation and adjustment, to obtaining the smallest size possible to fit into any sort of boiler available on the market.

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 FSD burners are tested before leaving the factory.



FS5D	12/23 ÷ 58 kW
FS20D	58/81 ÷ 220 kW

FIRING RATES

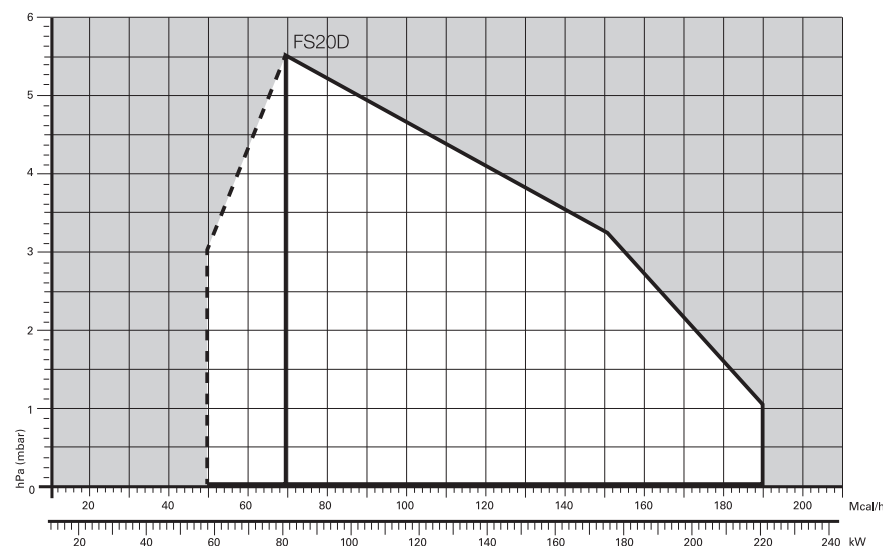


Useful working field
for choosing the
burner



1st stage operation
range

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

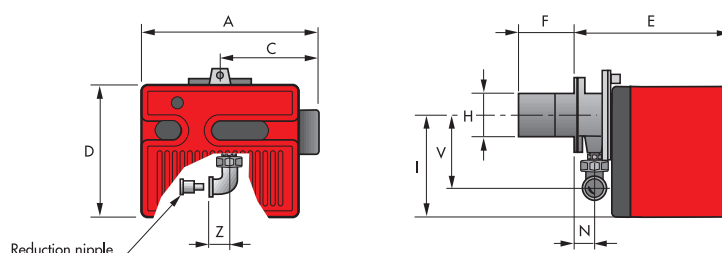


Two Stage Gas Burners

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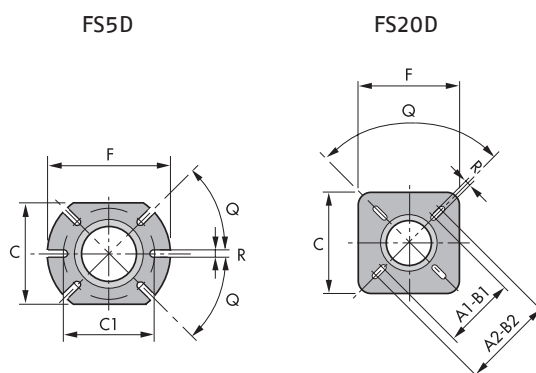
Overall dimensions (mm)

BURNER



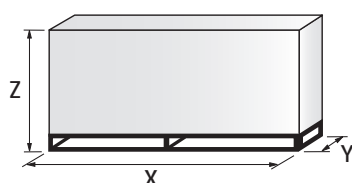
MODEL	A	C	D	E	F	H	I	N	V	Z
► FS5D	306	170	233	295	100	91	180	48	138	28
► FS20D	413	238	298	389	120	125	230	67	152	33

BURNER - BOILER MOUNTING FLANGE



MODEL	A1	A2	B1	B2	C	C1	F	Q	R
► FS5D	-	-	-	-	140	130	170	45°	10
► FS20D	155	200	155	200	170	-	170	90°	11

PACKAGING



MODEL	X	Y	Z	kg
► FS5D	445	355	325	11
► FS20D	535	535	375	22

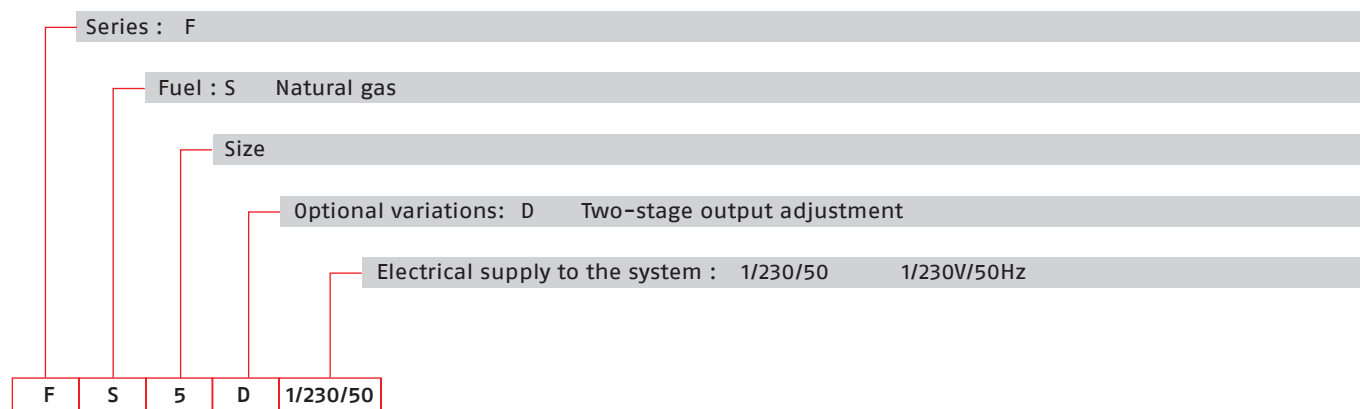
Two Stage Gas Burners

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RIELLO

Specification

DESIGNATION OF SERIES



STATE OF SUPPLY

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

- Fan with forward curve blades
- Metallic cover
- Air damper, open in stand by, driven by an electric servomotor
- Air damper with 1st and 2nd stage adjustment
- 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:

- Insulating gasket
- Screws and nuts for fixing the flange to the boiler
- Hinge
- Cable grommet
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

Two Stage Gas Burners

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Available models

Burners

CODE	MODEL		HEAT OUTPUT		TOTAL ELECTRICAL POWER (kW)	CERTIFICATION	NOTE
			(kW)	NATURAL GAS (Nm ³ /h)			
3758705	FS5D	1/230/50	12/23 - 58	1,2/2,3 - 5,8	0,110	CE - 0694 CN7805	(1)
3759105	FS20D	1/230/50	58/81 - 220	5,8/8,1 - 22	0,250	CE - 0694 CN7805	(1)

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

The burners of FSD series are in according to EN 676

(1) With terminal block.

Gas Trains

MULTIBLOC GAS TRAINS	GAS TRAIN CODE *	GAS TRAIN MODEL	NATURAL GAS		LPG		NOTE
			BURNER (type)	ADAPTER (code)	BURNER (type)	ADAPTER (code)	
	3970084	MB 405/2 - RSD 20	FS5D		FS5D		(1)
	3970537	MB 407/2 - RSD 20	FS20D		FS20D		(1) (2)
	3970534	MB 410/2 - RSD 20	FS20D		FS20D		(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)

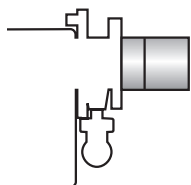
(2) FS20D ≤ 180 kW with natural gas

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



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
► FS5D	100	125	3000820
► FS20D	120	280	3000873

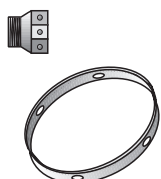
End cone with turbulator disk



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
► FS5D	+15	3000916
► FS20D	+23	3000919

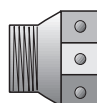
LPG kit



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
► FS5D	3000882	3000882
► FS20D	3000886	3000886

Town gas kit



BURNER	KIT CODE
► FS5D	3000889
► FS20D	3000894

7-pin plug kit

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

BURNER	KIT CODE
► FS5D - FS20D	3000945

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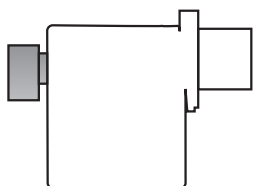
Burner accessories

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
► FS20D	3010094

Remote reset control kit for MG 557/3 control box



The MG 557 control box can be remotely released using an electric command kit. This kit must be installed in conformity with the local authority.

BURNER	KIT CODE
► FS5D	3002750

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
► FS5D	3002731
► FS20D	3002719

Gas train accessories

Seal control kit



To test the valve seals on the gas train 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