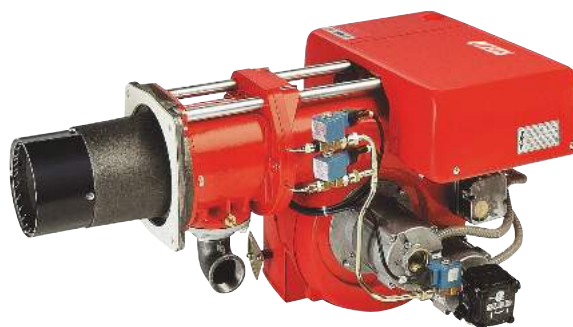


## GI/EMME 300÷900 SERIES

The GI/EMME 300–900 series of burners covers a firing range from 175 to 922 kW.

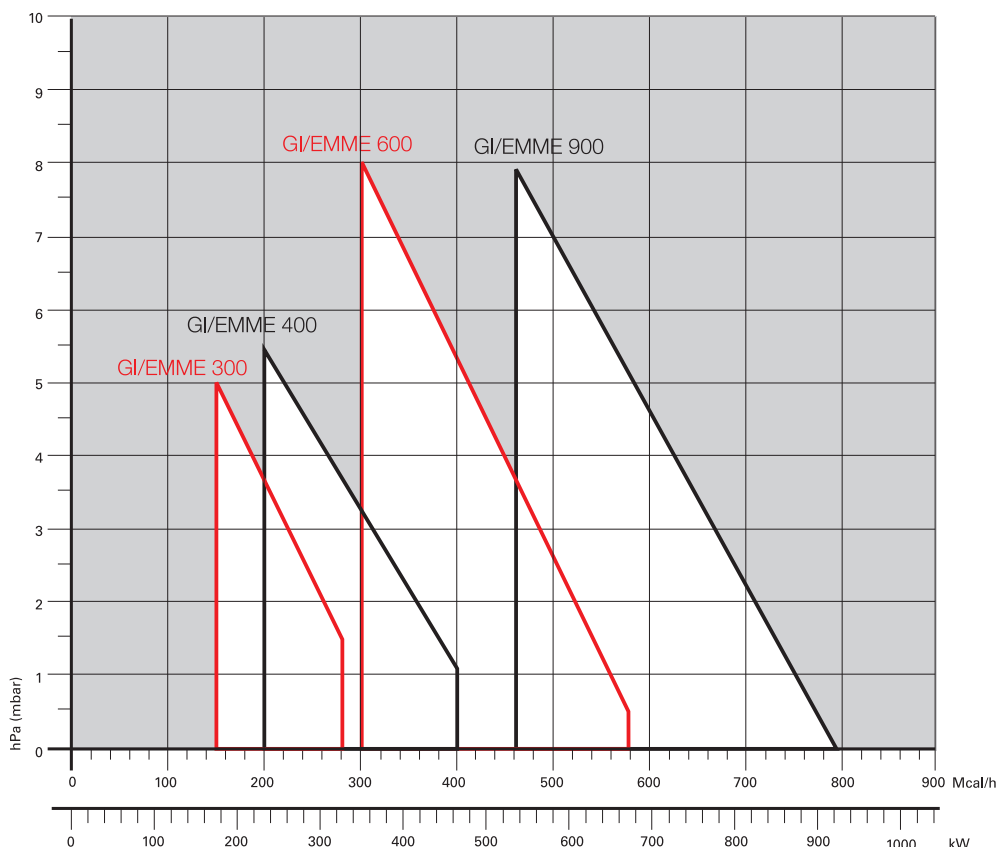
They have been designed for middle and high output users and they are in particular suitable for matching with pressurized boilers.


Their use allows to have a high safety in operation, guaranteed from the double fuel supply. Two options of operation are available: only gas and only light oil, thus settable by a selector and a terminal board. Light oil circuit is fitted with its own electric motor: this permits pump stop during gas operation preventing danger of pumping seizure. A wide range of accessories and gas trains suitable to the burners guarantee an elevated working flexibility.



GI/EMME 300	107/175 ÷ 332 kW
GI/EMME 400	116/232 ÷ 465 kW
GI/EMME 600	174/348 ÷ 665 kW
GI/EMME 900	250/525 ÷ 922 kW

### FIRING RATES



 Useful working field for choosing the burner

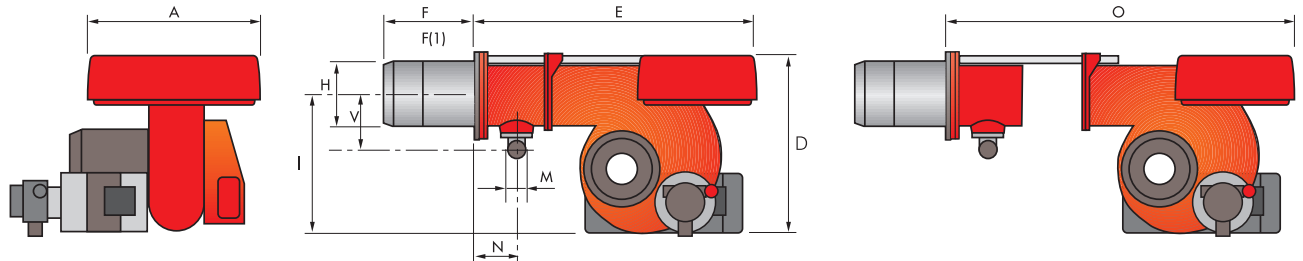
Test conditions conforming to EN267- EN676  
 Temperature: 20°C  
 Pressure: 1013,5 mbar  
 Altitude: 0 m a.s.l.

# Two Stage Dual Fuel Burners

## GI/EMME 300÷900 SERIES

### Overall dimensions (mm)

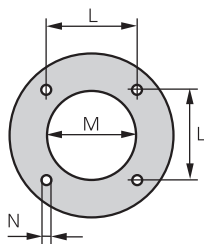
#### BURNER



MODEL	A	D	E	F - F(1)	H	I	M	N	O	V
▶ GI/EMME 300	410	397	610	185 - 320	140	292	1"1/2	97	978	165
▶ GI/EMME 400	410	397	610	187 - 320	150	292	1"1/2	97	1018	165
▶ GI/EMME 600	410	437	645	187 - 320	155	332	1"1/2	97	1063	165
▶ GI/EMME 900	410	485	770	227 - 360	175	370	2"	131	1260	195

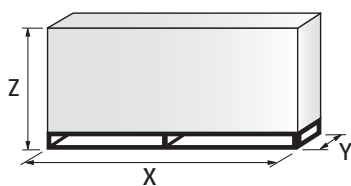
(1) Length with extended combustion head

#### BURNER - BOILER MOUNTING FLANGE



MODEL	L	M	N
▶ GI/EMME 300	160	155	M10
▶ GI/EMME 400	160	165	M10
▶ GI/EMME 600	160	165	M10
▶ GI/EMME 900	195	185	M12

#### PACKAGING



MODEL	X	Y	Z	kg
▶ GI/EMME 300	1000	790	550	42
▶ GI/EMME 400	1000	790	550	49
▶ GI/EMME 600	1400	850	650	64
▶ GI/EMME 900	1200	790	650	88

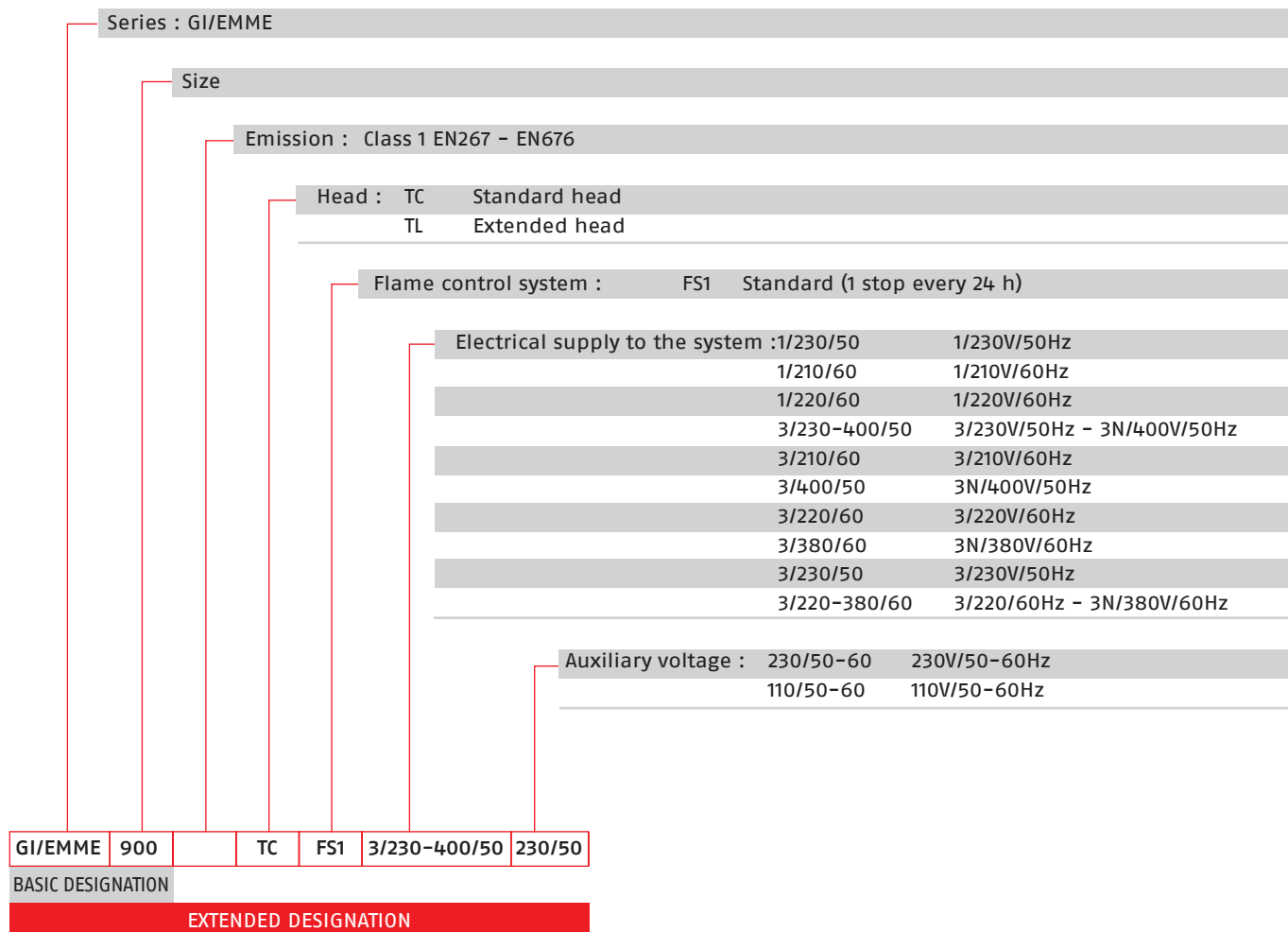
# Two Stage Dual Fuel Burners

## GI/EMME 300÷900 SERIES

**RIELLO**

# Specification

## DESIGNATION OF SERIES



DUAL FUEL

# Two Stage Dual Fuel Burners

## GI/EMME 300÷900 SERIES

### Specification

#### STATE OF SUPPLY

Monoblock forced draught dual fuel burner, two stage operation, made up of:

- Air suction circuit
- Fan with forward curved blades
- Air damper for setting controlled by a servomotor
- Combustion head, that can be set on the basis of required output
- Minimum air pressure switch
- Fan electrical motor
- Pump electrical motor
- Gears pump for high pressure fuel supply, fitted with:
  - filter
  - pressure regulator
  - connections for installing a pressure gauge and a a vacuumeter
  - internal by-pass for single pipe installation
- Valve unit with a double oil safety valve on the output circuit
- UV photocell for flame detection
- Flame inspection window
- Slide bars for easier installation and maintenance
- Protection filter against radio interference
- IP X0D (IP 40) protection level.

#### Standard equipment:

- 1 gas train flange
- 1 flange gasket
- 1 insulating screen
- 2 flexible hoses for connection to the oil supply circuit
- 2 nipples for connection to the pump
- 3 wiring looms fittings for electrical connections
- 8 screws for fixing the burner flange to the boiler
- 1 LPG kit
- Instruction manual for installation, use and maintenance
- Spare parts catalogue.

# Two Stage Dual Fuel Burners

## GI/EMME 300÷900 SERIES

**RIELLO**

## Available models

### Burners

CODE	MODEL	HEAT OUTPUT			TOTAL ELECTRICAL POWER (kW)	CERTIFICATION	NOTE
		(kW)	LIGHT OIL (kg/h)	NATURAL GAS (Nm <sup>3</sup> /h)			
3483681	GI/EMME 300 TC FS1 1/220/60 220/60	107/175-340	9/15-29	11/17,5-34	0,5	-	
3483621	GI/EMME 300 TC FS1 1/230/50 230/50	107/175-332	9/15-28	11/17,5-33	0,5	CE-0085AQ0711	
3484271	GI/EMME 400 TC FS1 1/210/60 120/60	116/232-465	10/20-39	12/23-46,5	0,62	-	
3484221	GI/EMME 400 TC FS1 1/230/50 230/50	116/232-465	10/20-39	12/23-46,5	0,62	CE-0085AQ0711	
3484281	GI/EMME 400 TC FS1 3/220-380/60 220/60	116/232-465	10/20-39	12/23-46,5	0,62	-	
3484871	GI/EMME 600 TC FS1 3/210/60 120/60	174/348-697	15/30-60	17/35-70	1,1	-	
3484881	GI/EMME 600 TC FS1 3/220-380/60 220/60	174/348-697	15/30-60	17/35-70	1,1	-	
3484821	GI/EMME 600 TC FS1 3/230-400/50 230/50	174/348-665	15/30-56	17/35-66,5	1,1	CE-0085AQ0711	
3485971	GI/EMME 900 TC FS1 3/210/60 120/60	262/523-1045	22/44-88	26/52-105	2	-	
3485981	GI/EMME 900 TC FS1 3/220-380/60 220/60	262/523-1045	22/44-88	26/52-105	2	-	
3485921	GI/EMME 900 TC FS1 3/230-400/50 230/50	250/525-922	21/44-78	25/52,5-92	2	CE-0085AQ0711	

Net calorific value light oil: 11,8 kWh/kg; 10.200 kcal/kg - Viscosity at 20°C: 4-6 mm<sup>2</sup>/s (cSt).

Net calorific value G20 gas: 10 kWh/Nm<sup>3</sup>; 8.600 kcal/Nm<sup>3</sup> - Density: 0,71 kg/Nm<sup>3</sup>.

The burners of GI/EMME series are in according to 2004/108, 2006/95 Directive and EN 267, EN 676 Norm.

### Gas Trains

CODE	GAS TRAIN				VPS CODE	ADAPTER CODE			
	MODEL	Ø	C.T.			G/M 300	G/M 400	G/M 600	G/M 900
3970084*	MB 405/2 - RSD 20	Rp 1/2"	-	3010123	3000842+3000824		●	●	
3970537*	MB 407/2 - RSD 20	Rp 3/4"	-	3010123				●	
3970556*	MB 407/2 - RT 20	Rp 3/4"	-	3010123				●	
3970534*	MB 410/2 - RSD 20	Rp 3/4"	-	3010123		3000824			
3970557*	MB 410/2 - RT 20	Rp 3/4"	-	3010123				3000824+ 3000843	
3970152*	MB 412/2 - RT 20	Rp 1" 1/4	-	3010123		3010124		3010126	
3970183*	MB 415/2 - RT 20	Rp 1" 1/2	-	3010123	-	-	-	3000843	
3970184*	MB 420/2 - RT 20	Rp 2"	-	3010123				-	
3970185**	MB 420/2 CT RT 20	Rp 2"	◆	-		3000822		-	
3970153*	CB 512/2 - RT 32	Rp 1" 1/2	-	3010367	-	-	-	3000843	
20045590**	CB 512/2 CT RT 32	Rp 1" 1/2	◆	-	-	-	-		
3970154*	CB 520/2 - RT 32	Rp 2"	-	3010367				-	
20045591**	CB 520/2 CT RT 32	Rp 2"	◆	-		3000822		-	
3970155*	CB 5065/2 - FT 32	DN 65	-	3010367	●				
3970167**	CB 5065/2 CT FT 32	DN 65	◆	-	●		3000825		
3970156*	CB 5080/2 - FT 32	DN 80	-	3010367	●	●	●		
3970168**	CB 5080/2 CT FT 32	DN 80	◆	-	●	●	●	3000826	

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

\* 230V/50Hz -220V/60Hz electrical supply.

\*\* 230V/50Hz electrical supply.

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.

C.T. Gas valve leak detection control device:

- gas train not equipped with leak detection control device; this device can be ordered separately - see VPS column - and installed later.

◆ gas train equipped with leak detection control device.

VPS Valve leak detection control device. Supplied separately from the gas train (please see Gas train accessories paragraph for both 50 Hz and 60 Hz codes).

● Not available.

# Two Stage Dual Fuel Burners

## GI/EMME 300÷900 SERIES

### Burner accessories

#### Nozzles type 60° B

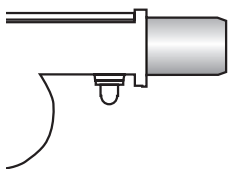


The nozzles must be ordered separately. The following table shows the features and codes on the basis of the maximum required fuel output.

NOTE: each burner needs N° 2 nozzles.

BURNER	RATED DELIVERY (kg/h) AT 12 bar	GPH	NOZZLE CODE
▶ GI/EMME 300	6,8	1,75	3042110
▶ GI/EMME 300	7,8	2,00	3042126
▶ GI/EMME 300	8,7	2,25	3042127
▶ GI/EMME 300 - 400	9,7	2,50	3042140
▶ GI/EMME 300 - 400	11,6	3,00	3042158
▶ GI/EMME 300 - 400	13,6	3,50	3042162
▶ GI/EMME 300 - 400 - 600	15,6	4,00	3042172
▶ GI/EMME 400 - 600	17,5	4,50	3042182
▶ GI/EMME 400 - 600	19,4	5,00	3042192
▶ GI/EMME 400 - 600	21,3	5,50	3042202
▶ GI/EMME 600 - 900	23,3	6,00	3042212
▶ GI/EMME 600 - 900	27,1	7,00	3042232
▶ GI/EMME 600 - 900	29,1	7,50	3042242
▶ GI/EMME 900	33	8,50	3042262
▶ GI/EMME 900	36,8	9,50	3042282
▶ GI/EMME 900	38,8	10,00	3042292
▶ GI/EMME 900	42,3	11,00	3042312
▶ GI/EMME 900	46,5	12,00	3042322

#### Extended head kit

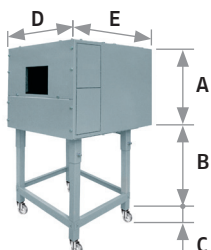


“Standard head” burners can be transformed into “extended head” versions, by using the special kit. The kits available for the various burners, giving the original and the extended lengths, are listed below.

BURNER	STANDARD HEAD LENGTH (mm)	EXTENDED HEAD LENGTH (mm)	KIT CODE
▶ GI/EMME 300	185	320	3000836
▶ GI/EMME 400	187	320	3010001
▶ GI/EMME 600	187	320	3010002
▶ GI/EMME 900	227	360	3010003

## Burner accessories

### Sound proofing box



If noise emission needs reducing even further, sound-proofing boxes are available. In case of generator heights, where a lower dimension "B" is required, ask for the Box Support Kit code 20065135. The useful dimensions are 40 mm less than the total dimensions indicated in the table (A, D, E). Not suitable for outdoor use.

BURNER	BOX TYPE	A (mm)	B (mm) min-max	C (mm)	D (mm)	E (mm)	[dB(A)] (*)	BOX CODE
GI/EMME 300 - 400	C1/3	650	372 - 980	110	690	770	10	3010403
GI/EMME 600 - 900								

(\*) Average noise reduction according to EN 15036-1 standard

## Gas train accessories

### Adapters

In certain cases, an adapter must be fitted between the gas train and the burner, when the diameter of the gas train is different from the set diameter of the burner. Below are given the available adapters; please see on the Gas Train list the correct adapter codes to select.

ADAPTER	LENGTH mm	ADAPTER CODE
2"  1" 1/2	70	3000822
3/4"  1" 1/2	31	3000824
DN 65  2" 1/2  2"	300	3000825
DN 65  2" 1/2  1" 1/2	300	3000826
DN 80  2" 1/2  2"	300	3000826
1/2"  3/4"	26	3000842
1" 1/2  2"	35	3000843
1/2"  1" 1/2	31	20044756
1" 1/4  1" 1/2	31	3010124
1" 1/4  2"	35	3010126

# Two Stage Dual Fuel Burners

## GI/EMME 300÷900 SERIES

### Gas train accessories

#### Seal control kit



To test the valve seals on the gas train, a special "seal control kit" is available.

BURNER	GAS TRAIN	KIT CODE for 50 Hz operation	KIT CODE for 60 Hz operation
▶ GI/EMME 300	MB 407/2 - MB 410/2 MB 412/2 - MB 415/2	3010123	20050030
	CB 512/2	3010125	20050033
▶ GI/EMME 400	MB 410/2 - MB 412/2 MB 415/2 - MB 420/2	3010123	20050030
	CB 512/2 - CB 520/2	3010125	20050033
▶ GI/EMME 600	MB 410/2 - MB 412/2 MB 415/2 - MB 420/2	3010123	20050030
	CB 512/2 - CB 520/2	3010125	20050033
▶ GI/EMME 900	MB 412/2 - MB 415/2 MB 420/2	3010123	20050030
	CB 512/2 - CB 520/2 - CB 5065/2	3010125	20050033

#### Stabiliser spring



Accessory springs are available to vary the pressure range of the gas train stabilisers.

GAS TRAIN	SPRING COLOUR	SPRING PRESSURE RANGE mbar	SPRING CODE
▶ CB 512/2	Red	25 - 55	3010131
	Black	60 - 110	3010157
	Pink	90 - 150	3090486
▶ CB 520/2	Red	25 - 55	3010132
	Black	60 - 110	3010158
	Pink	100 - 150	3090487
▶ CB 5065/2 - 5080/2	Red	25 - 55	3010133
	Black	60 - 110	3010135
	Pink	100 - 150	3090456
	Grey	140 - 200	3090992