



CE

## TWO STAGE GAS BURNERS

### ▶ GAS/2 SERIES

▶ GAS 3/2	80/130 ÷	350 kW
▶ GAS 4/2	120/180 ÷	470 kW
▶ GAS 5/2	155/320 ÷	660 kW
▶ GAS 6/2	300/520 ÷	1050 kW
▶ GAS 7/2	400/800 ÷	1760 kW



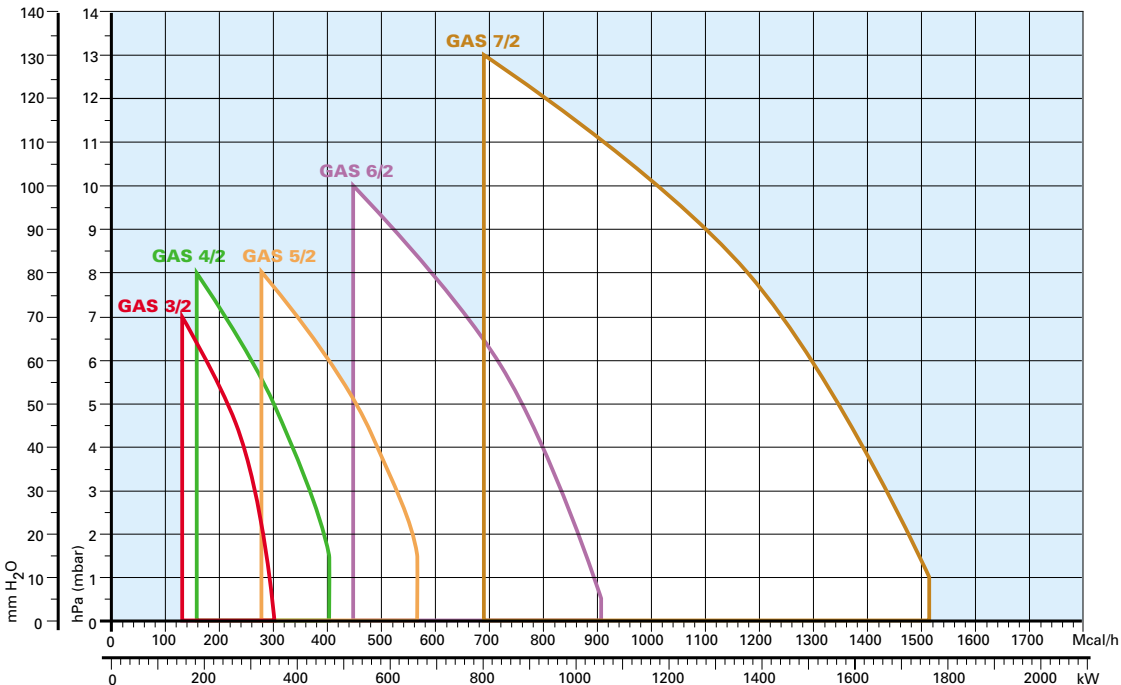
The GAS/2 series of burners covers a firing range from 80 to 1760 kW and they have been designed for use in civil installations of average dimensions, like building areas and large apartment groups or for use in industrial applications, like small or medium plants.

Operation is two stage; the combustion head, that can be set on the basis of required output, allows optimal performance ensuring good combustion and reducing fuel consumption.

The main feature of these burners is their reliability due to a simple and strong construction, which permits operation without particular maintenance intervention.

Simplified maintenance is achieved by the slide bar system, which allows easy access to all of the essential components of the combustion head. All electrical components are easily accessible only by dismounting a protection panel, thus guaranteeing a quick and simple intervention on components.

## FIRING RATES

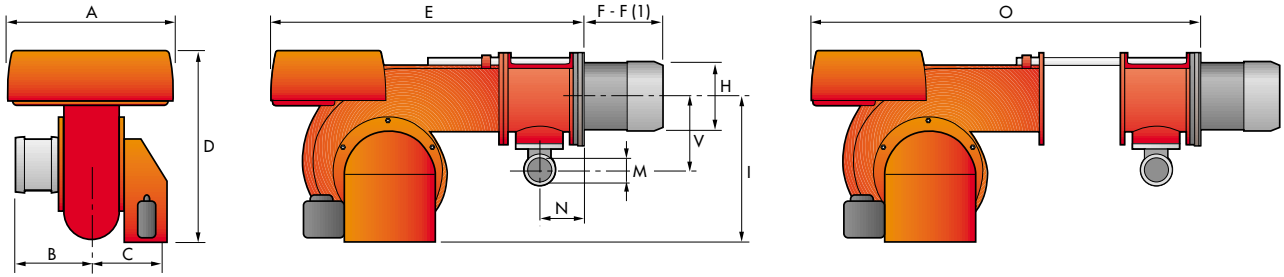


Useful working field for choosing the burner

**Test conditions conforming to EN 676:**  
 Temperature: 20°C  
 Pressure: 1000 mbar  
 Altitude: 100 m a.s.l.

## GAS/2 series - OVERALL DIMENSIONS (mm)

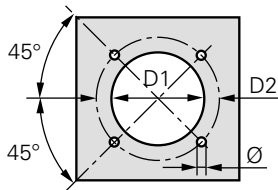
### ► BURNER



Model	A	B	C	D	E	F - F (1)	H	I	M	N	O	V
► GAS 3/2	410	205	205	397	610	185 - 320	140	292	1"1/2	97	775	165
► GAS 4/2	410	205	205	397	610	187 - 320	150	292	1"1/2	97	775	165
► GAS 5/2	431	226	205	437	645	207 - 365	155	332	1"1/2	97	810	165
► GAS 6/2	463	258	205	485	770	227 - 360	175	370	2"	131	966	195
► GAS 7/2	606	358	248	590	920	240 - 400	220	445	2"	140	1142	245

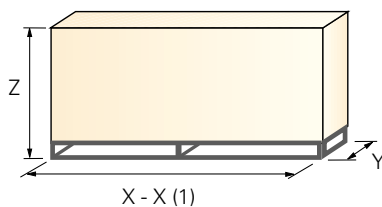
(1) Length with extended combustion head

### ► BURNER - BOILER MOUNTING FLANGE



Model	D1	D2	Ø
► GAS 3/2	155	226	M10
► GAS 4/2	165	226	M10
► GAS 5/2	165	226	M10
► GAS 6/2	185	276	M12
► GAS 7/2	230	325	M12

### ► PACKAGING

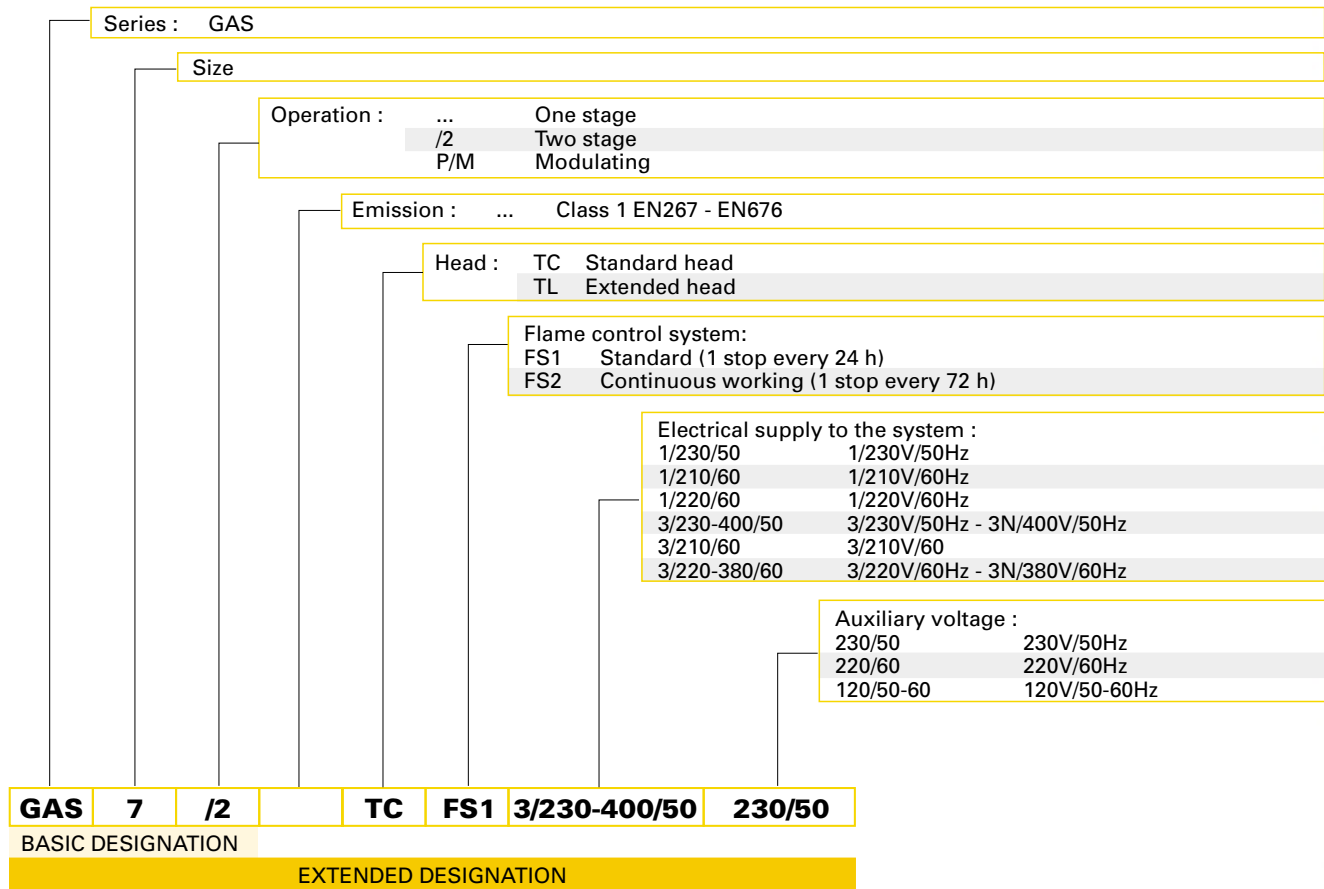


Model	X - X (1)	Y	Z	kg
► GAS 3/2	850	545	473	34
► GAS 4/2	850	545	473	40
► GAS 5/2	895	543	520	43
► GAS 6/2	1045	543	555	60
► GAS 7/2	1245	727	665	98

(1) Length with extended combustion head

# GAS/2 series - SPECIFICATION

## DESIGNATION OF SERIES



## GAS/2 series - STATE OF SUPPLY

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

- Air suction circuit
- Fan with forward curved blades
- Air damper for air setting
- Combustion head, that can be set on the basis of required output, fitted with:
  - stainless steel end cone, resistant to corrosion and high temperatures
  - ignition electrodes
  - flame stability disk
- Minimum air pressure switch
- Single phase or three phases electrical motor
- Microprocessor-based flame control panel, with diagnostic function
- Flame inspection window
- Slide bars for easier installation and maintenance
- Protection filter against radio interference
- IP 40 protection level.

**Standard equipment:**

- 1 gas train gasket
- 1 flange gasket
- 1 insulating screen
- 8 screws for fixing the burner flange to the boiler
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

## ► GAS/2 series - AVAILABLE BURNER MODELS

Code	Model				Heat output		Total electrical power (kW)	Certification	Note	Price
					(kW)	Natural Gas (Nm <sup>3</sup> /h)				
3752171	GAS 3/2	TC FS1	1/210/60	120/50-60	80/130-340	8/13-34	0,4	-		
3752182	GAS 3/2	TC FS1	1/220/60	220/60	80/130-340	8/13-34	0,4	-		
3752118	GAS 3/2	TC FS1	1/230/50	230/50	80/130-350	8/13-35	0,4	CE 0085AQ0707		
3752218	GAS 4/2	TC FS1	1/230/50	230/50	120/180-470	12/18-47	0,54	CE 0085AQ0707		
3752271	GAS 4/2	TC FS1	1/210/60	120/50-60	115/180-470	11,5/18-47	0,54	-		
3752282	GAS 4/2	TC FS1	3/220-380/60	220/60	115/180-470	11,5/18-47	0,6	-		
3752371	GAS 5/2	TC FS1	3/210/60	120/50-60	155/320-660	15,5/32-66	0,85	-		
3752382	GAS 5/2	TC FS1	3/220-380/60	220/60	155/320-660	15,5/32-66	1,1	-		
3752318	GAS 5/2	TC FS1	3/230-400/50	230/50	155/320-660	15,5/32-66	0,85	CE 0085AQ0707		
3752471	GAS 6/2	TC FS1	3/210/60	120/50-60	300/520-1050	30/52-105	1,7	-		
3752482	GAS 6/2	TC FS1	3/220-380/60	220/60	300/520-1050	30/52-105	1,9	-		
3752418	GAS 6/2	TC FS1	3/230-400/50	230/50	300/520-1050	30/52-105	1,7	CE 0085AQ0707		
3752571	GAS 7/2	TC FS1	3/210/60	120/50-60	400/800-1760	40/80-176	3,4	-		
3752582	GAS 7/2	TC FS1	3/220-380/60	220/60	400/800-1760	40/80-176	3,8	-		
3752518	GAS 7/2	TC FS1	3/230-400/50	230/50	400/800-1760	40/80-176	3,4	CE 0085AQ0707		

Natural gas G20 net calorific value: 10 kWh/Nm<sup>3</sup> - Density gas G20: 0,71 kg/Nm<sup>3</sup>

The burners of GAS/2 series are in according to 90/396 - 89/336 - 73/23 - 92/42 EEC Directive and EN 676 Norm.

## ▶ GAS/2 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)		
MULTIBLOC GAS TRAINS	3970556	MBZRDLE 407	GAS 3/2	3000824	GAS 3/2	3000824	(1)	
	3970557	MBZRDLE 410	GAS 3/2 GAS 4/2 GAS 5/2	3000824 3000824 3000824	GAS 3/2 GAS 4/2 GAS 5/2 GAS 6/2	3000824 3000824 3000824 3000824 + 3000843	(1)	
	3970152	MBZRDLE 412	GAS 3/2 GAS 4/2 GAS 5/2 GAS 6/2	- - - 3010125	GAS 3/2 GAS 4/2 GAS 5/2 GAS 6/2	- - - 3010125	(1)	
	3970183	MBZRDLE 415	GAS 3/2 GAS 4/2 GAS 5/2 GAS 6/2 GAS 7/2	- - - 3000843 3000843	GAS 3/2 GAS 4/2 GAS 5/2 GAS 6/2 GAS 7/2	- - - 3000843 3000843	(1)	
	3970184	MBZRDLE 420	GAS 4/2 GAS 5/2 GAS 6/2 GAS 7/2	3000822 3000822 - -	GAS 4/2 GAS 5/2 GAS 6/2 GAS 7/2	3000822 3000822 - -	(1)	
	3970185	MBZRDLE 420 CT	GAS 4/2 GAS 5/2 GAS 6/2 GAS 7/2	3000822 3000822 - -	GAS 4/2 GAS 5/2 GAS 6/2 GAS 7/2	3000822 3000822 - -	(2)	
	COMPOSED GAS TRAINS	3970153	CB 40/2	GAS 3/2 GAS 4/2 GAS 5/2 GAS 6/2 GAS 7/2	- - - 3000843 3000843	GAS 3/2 GAS 4/2 GAS 5/2 GAS 6/2 GAS 7/2	- - - 3000843 3000843	(1)
3970154		CB 50/2	GAS 4/2 GAS 5/2 GAS 6/2 GAS 7/2	3000822 3000822 - -	GAS 4/2 GAS 5/2 GAS 6/2 GAS 7/2	3000822 3000822 - -	(1)	
3970166		CB 50/2 CT	GAS 4/2 GAS 5/2 GAS 6/2 GAS 7/2	3000822 3000822 - -	GAS 4/2 GAS 5/2 GAS 6/2 GAS 7/2	3000822 3000822 - -	(2)	
3970155		CBF 65/2	GAS 6/2 GAS 7/2	3000825 3000825	- GAS 7/2	- 3000825	(1)	
3970167		CBF 65/2 CT	GAS 6/2 GAS 7/2	3000825 3000825	- GAS 7/2	- 3000825	(2)	
3970156		CBF 80/2	GAS 7/2	3000826	-	-	(1)	
3970168		CBF 80/2 CT	GAS 7/2	3000826	-	-	(2)	

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

\*\* the adapter price is available in the "Gas train accessories" section

(1) Seal control accessory

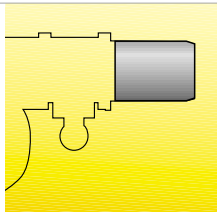
(2) Seal control incorporated

The following table shows the frequently matching between GAS/2 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 (300 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)
GAS 3/2	4	-	280	MBZRDLE 407	280	MBZRDLE 407	280	MBZRDLE 407	280
GAS 4/2	4,5	MBZRDLE 420 CB 50/2	370	MBZRDLE 410	370	MBZRDLE 410	370	MBZRDLE 410	370
GAS 5/2	4	-	550	MBZRDLE 410	550	MBZRDLE 412	550	MBZRDLE 410	550
GAS 6/2	5	-	870	MBZRDLE 412	870	MBZRDLE 420 CB 50/2	870	MBZRDLE 412	870
GAS 7/2	7	-	1440	MBZRDLE 415 CB 40/2	1440	CBF 65/2	1440	MBZRDLE 415 CB 40/2	1440

## GAS/2 series - BURNER ACCESSORIES

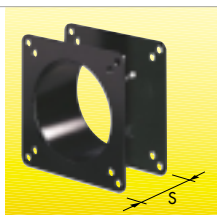
### Extended head kit



“Standard head” burners can be transformed into “extended head” versions, by using the special kit.

Burner	Standard head length (mm)	Extended head length (mm)	Kit code	Price
GAS 3/2	185	320	3000605	
GAS 4/2	187	320	3000606	
GAS 5/2	207	365	3000607	
GAS 6/2	227	360	3000608	
GAS 7/2	240	400	3000678	

### Spacer kit



If burner head penetration into the combustion chamber needs reducing, varying thickness spacers are available, as given in the following list.

Burner	Spacer thickness S (mm)	Kit code	Price
GAS 3/2 - 4/2 - 5/2 - 6/2	142	3000755	
GAS 7/2	102	3000722	

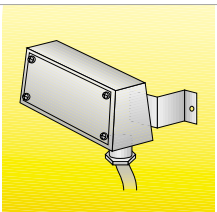
### Continuous ventilation kit



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	Price
GAS 3/2 - 4/2 - 5/2 - 6/2 - 7/2	in progress	

### Post-ventilation kit



To prolong ventilation for approximately 5 seconds after opening of thermostats chain, a special kit is available.

Burner	Kit code	Price
GAS 3/2 - 4/2 - 5/2 - 6/2 - 7/2	3010004	

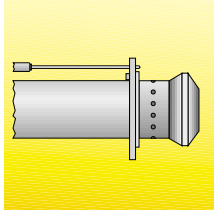
## Sound proofing box



Burner	Box type	Average noise reduction [dB(A)]	Box code	Price
GAS 3/2 - 4/2 - 5/2	C2	11	3000777	
GAS 6/2	C3	14	3000778	
GAS 7/2	C4	14	3000779	

If noise emission needs reducing even further, sound-proofing boxes are available.

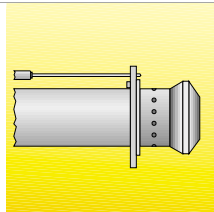
## LPG kit



For burning LPG gas, a special kit is available.

Burner	Kit code for standard head	Price	Kit code for extended head	Price
GAS 3/2	3000657		3000807	
GAS 4/2	3000658		3000808	
GAS 5/2	3000659		3000809	
GAS 6/2	3000753		3000810	
GAS 7/2	3000806		3000811	

## Town Gas kit

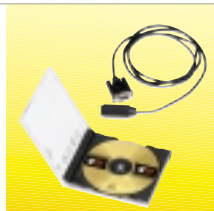


For burning Town Gas, a special kit is available.

Burner	Kit code for standard head (*)	Price	Kit code for extended head (*)	Price
GAS 3/2	3000742		-	
GAS 4/2	3000754		-	
GAS 5/2	3000759		-	
GAS 6/2	3000768		-	
GAS 7/2	3000769		-	

(\*) Without CE certification

## Interface adapter kit

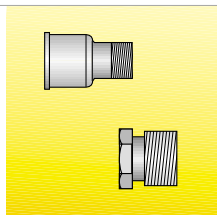


To connect the flame control panel to a personal computer for the transmission of operation, fault signals and detailed service information, an interface adapter with PC software are available.

Burner	Kit code	Price
GAS 3/2 - 4/2 - 5/2 - 6/2 - 7/2	in progress	

## GAS/2 series - GAS TRAIN ACCESSORIES

### Adapters



When the diameter of the gas train is different from the set diameter of the burners, an adapter must be fitted between the gas train and the burner.

Burner	Gas train	Dimensions	Adapter code	Price
GAS 3/2	MBZRDLE 407 - 410	3/4"  1" 1/2"	3000824	
GAS 4/2	MBZRDLE 410	3/4"  1" 1/2"	3000824	
	MBZRDLE 420 - CB 50/2	2"  1" 1/2"	3000822	
GAS 5/2	MBZRDLE 410	3/4"  1" 1/2"	3000824	
	MBZRDLE 420 - CB 50/2	2"  1" 1/2"	3000822	
GAS 6/2	MBZRDLE 410	3/4"  1" 1/2"	3000824	
	MBZRDLE 412 - 415 - CB 40/2	1" 1/2"  2"	3000843	
	CBF 65/2	DN 65  2" 1/2"	3000825	
GAS 7/2	MBZRDLE 415 - CB 40/2	1" 1/2"  2"	3000843	
	CBF 65/2	DN 65  2" 1/2"	3000825	
		2"		
	CBF 80/2	DN 80  2" 1/2"	3000826	

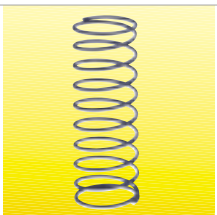
### Seal control kit



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

Burner	Gas train	Kit code	Price
GAS 3/2	MBZRDLE 407 - 410 - 412	3010123	
	MBZRDLE 415 - CB 40/2	3010125	
GAS 4/2	MBZRDLE 410 - 412	3010123	
	MBZRDLE 415 - 420 - CB 40/2 - 50/2	3010125	
GAS 5/2	MBZRDLE 410 - 412	3010123	
	MBZRDLE 415 - 420 - CB 40/2 - 50/2	3010125	
GAS 6/2	MBZRDLE 410 - 412	3010123	
	MBZRDLE 415 - 420 - CB 40/2 - 50/2 - CBF 65/2	3010125	
GAS 7/2	MBZRDLE 415 - 420 CB 40/2 - 50/2 - CBF 65/2 - 80/2	3010125	

### Stabiliser spring



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

Gas train	Spring	Code	Price
CBF 65/2 - CBF 80/2	Red from 25 to 55 mbar	3010133	
CBF 65/2 - CBF 80/2	Black from 60 to 110 mbar	3010135	
CBF 65/2 - CBF 80/2	Pink from 100 to 150 mbar	3090456	