



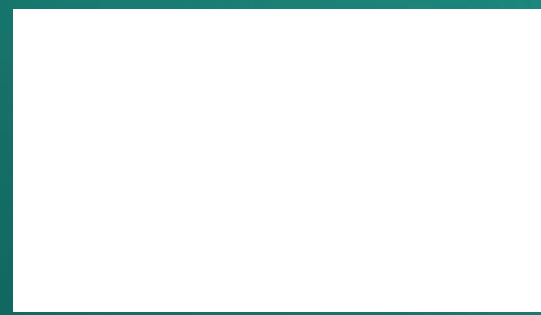
EM/2-E



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EM/2-E gas burners - 2 ignition stages

EM/2-E: innovative burners

The EM/2-E burners were born out of long experience accrued by Lamborghini in the gas combustion sector. EM/2-E have been manufactured with the very latest technology and some additional features are:

- High-powered fan that ensures a perfect burner operation even in the presence of high backpressure in the combustion chamber.
- Structure and precision of the mixing head providing high combustion efficiency with reduced CO and NOx emissions.

Maximum safety and reliability

The EM/2-E burners can operate with natural or liquid gas and conform to European directives. At the production stage particular attention was given to the safety aspect by equipping them with:

- Electronic control box
 - Flame control with ionisation electrode
 - Class A gas valves
 - Air pressure switch
 - Gas pressure switch
- EM/2-E burners are CE certified.

Design

Special study and attention has also been given to the look and dimension of these burners:

- The dimensions observe the connection requirements of the burner, also with the small boilers.
- The shape and the colour of the casing were chosen because the appliance is designed to have a pleasing appearance and be adaptable to all types of boiler.

The casing also fulfils the important role of soundproofing the burner, making its operation extremely quiet.



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Company certified UNI EN ISO 9001



The range

A wide range for the right choice

The EM/2-E range of two-stage burners comprises 7 models with reduced-delivery starting and high-low operation, obtained by a class A two-stage gas valve. Automatic air shutter with electrical servo control.

- **EM 9/2-E**
Max. heat output: 89,5 kW
- **EM 16/2-E**
Max. heat output: 153 kW
- **EM 18/2-E**
Max. heat output: 169 kW
- **EM 26/2-E**
Max. heat output: 231 kW
- **EM 40/2-E**
Max. heat output: 390 kW
- **EM 50/2-E**
Max. heat output: 582 kW
- **EM 70/2-E**
Max. heat output: 740 kW

EM 9/2-E



EM 16/2-E



EM 18/2-E



EM 26/2-E



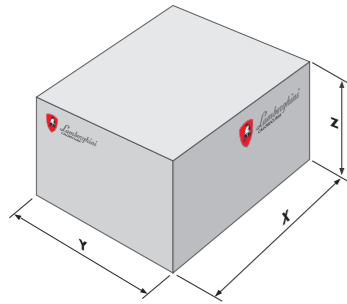
EM 40/2-E



EM 50/2-E
EM 70/2-E



Packaging and weight



Model	Dimensions			Gross weight kg.
	X cm.	Y cm.	Z cm.	
EM 9/2-E	45	34	31	14
EM 16/2-E	53	38	36	18
EM 18/2-E	75	35	43	25
EM 26/2-E	84	45	51	31
EM 40/2-E	96	50	54	44
EM 50/2-E	120	52	70	44
EM 70/2-E	120	52	70	80

Installation and maintenance

Universal flange and easy electrical connection for rapid installation

EM/2-E burners are equipped with a universally-bored sliding flange that facilitates installation of the burner onto any boiler type. These flanges are independent of the burner body and so allow for rapid maintenance. Electrical connection proves to be a simple task as a 7-pin plug is supplied for quick insertion into the burner socket, thus avoiding mistakes in connection.

Kit on request

The EM/2-E series burners may be made complete with appropriate devices or instrumentation supplied in assembly kit form in accordance with the regulations existent in various countries.

Seal control kit

A device for preventing gas leaks.

Assembly accessory kit

For an increasingly efficient gas train.

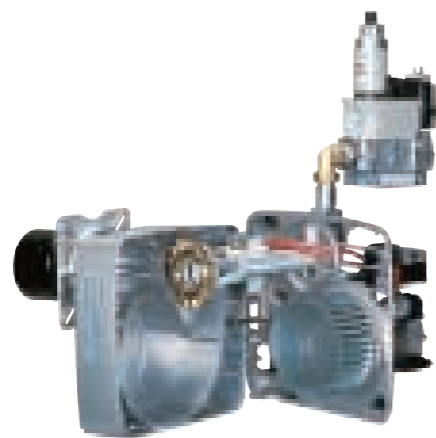
Easy maintenance

For convenient maintenance the main electrical components are connected by easy-to-fit plugs and each component has a different type. Removal of the casing gives one access to the main burner components.

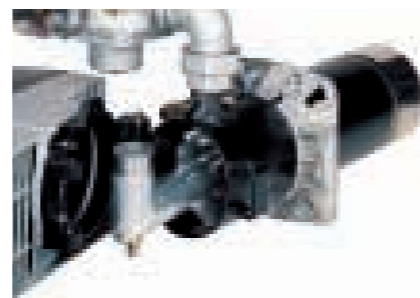
The component plate can be separated from the burner body and hung up in the servicing position. It is possible therefore to carry out maintenance operations without having to separate the burner from the boiler.

For EM 9/2-E, EM 16/2-E, EM 18/2-E, EM 50/2-E and EM 70/2-E models the combustion head and ignition and control electrodes are also made accessible.

For EM 26/2-E and EM 40/2-E models the hinge flange, located between the burner body and the conveyor pipe, allows inspection of the combustion head and electrodes.



Easy opening for rapid maintenance



Inspection of combustion head

Construction features

Air adjustment

On the models of the EM/2-E series the amount of air entering the burner is adjusted by the air shutter actuated by an electric servo control. Air adjustment for the first and second stage is carried out on the appropriate servo control cams. There is a brief delay for the second stage starting with regard to the initial air opening. This delay is adjustable with a suitable cam on the servo control, for adjustment to the type of installation.

Air shutter with automatic closing

This characteristic slows down the cooling process of the boiler when the burner is turned off, limiting the thermal shock as a result. An effective energy saving is obtained from this feature.

Combustion head adjustment

This may be carried out with the burner on and varies the position of the combustion head in regard to the trunk/tapered section of the draught tube to obtain an optimum combustion.

The operation is carried out as follows:

On EM 9/2-E, EM 16/2-E and EM 18/2-E models by turning the appropriate screw located under the burner casing.

On EM 26/2-E, EM 40/2-E, EM 50/2-E and EM 70/2-E models by adjusting 2 knobs located on the side of the conveyor pipe.



Servo control for combustion air adjustment



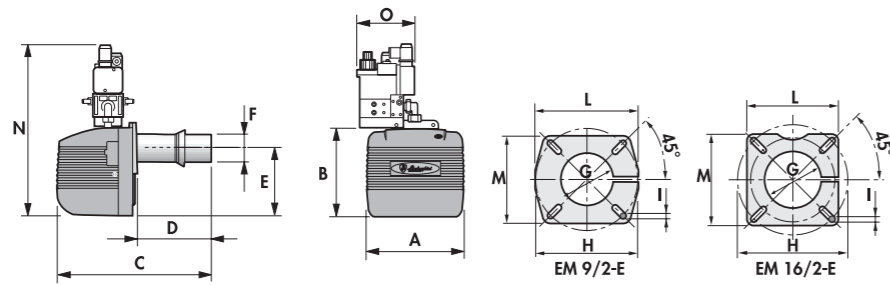
Combustion head adjustment EM 9/2-E, EM 16/2-E e EM 18/2-E models



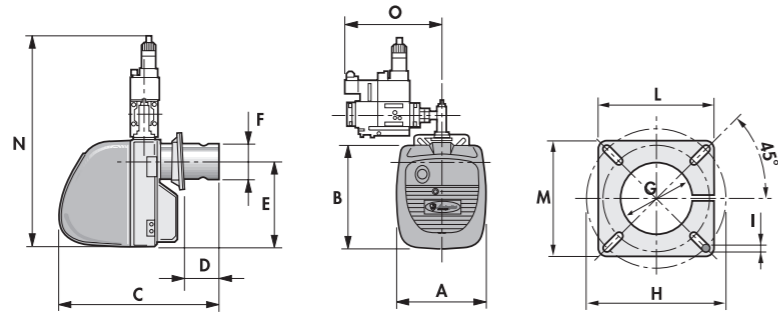
Combustion head adjustment EM 26/2-E, EM 40/2-E, EM 50/2-E e EM 70/2-E models



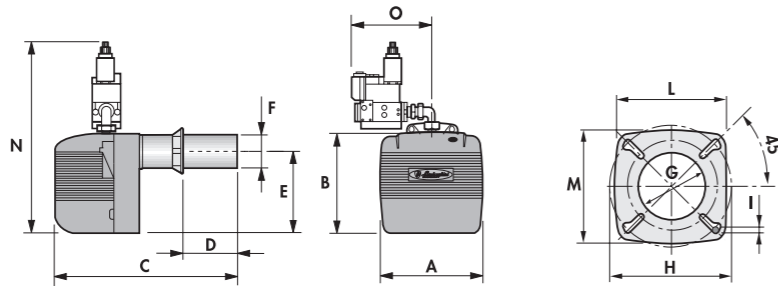
Dimensions



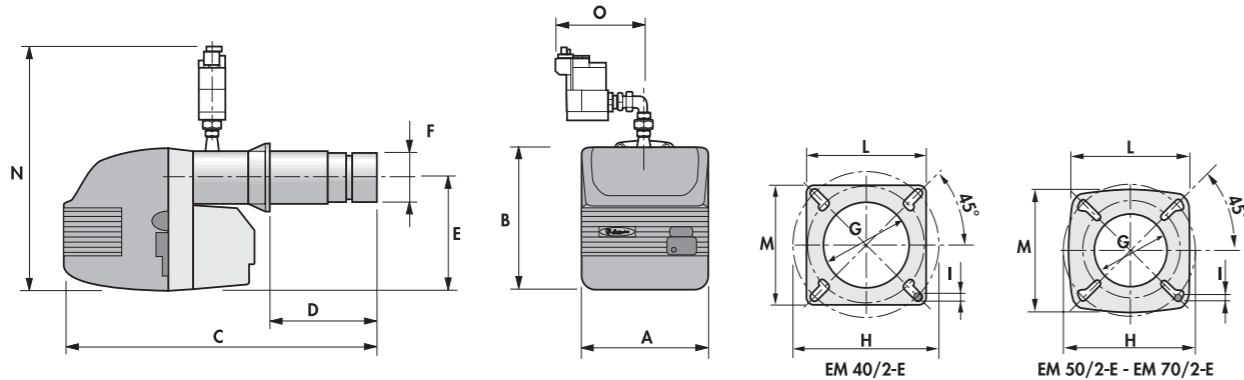
EM 9/2-E - EM 16/2-E burners



EM 18/2-E burners



EM 26/2-E burner



EM 40/2-E - EM 50/2-E - EM 70/2-E burners

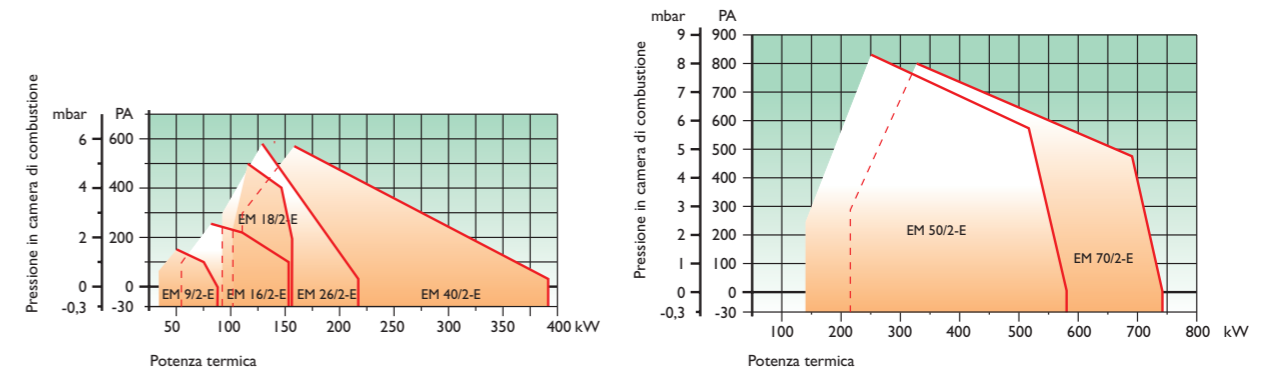
	A	B	C	D		E	F	G	ØH		I	L	M	N*	O*
	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
				min.	max.				min.	max.					
EM 9/2-E	280	247	417	40	140	195	90	95	140	180	M8	180	154	515	195
EM 16/2-E	310	282	480	60	150	215	108	115	150	200	M8	166	166	535	210
EM 18/2-E	275	340	675	60	275	274	114	120	110	150	M8	180	180	640	240
EM 26/2-E	360	350	750	100	265	275	140	155	172	225	M10	205	205	650	240
EM 40/2-E	420	423	880	120	310	350	140	155	172	225	M10	205	205	835	260
EM 50/2-E	420	420	1.070	200	400	392	170	180	225	283	M12	230	230	960	350-410
EM 70/2-E	420	490	1.110	200	400	392	170	180	225	283	M12	230	230	1.100	380-510

* Dimensions refer to the burner with a 20 mbar gas train installed. For other dimensions see the Lamborghini Burners Sales Technical Catalogue.

Technical data

EM		9/2-E	16/2-E	18/2-E	26/2-E	40/2-E	50/2-E	70/2-E
Delivery	min.	m ³ /h 4,3	5,5	9,9	9	11,5	14,6	21,1
	max	m ³ /h 9	15,3	17	23,2	39,2	58,5	74,4
Heat output	min.	kW 43	55	99	90	115	145	210
	max	kW 89,5	153	169	231	390	582	740
	min.	kcal/h 36.980	47.300	85.140	77.400	98.900	124.700	180.600
	max	kcal/h 76.970	131.580	145.340	198.660	335.400	500.520	636.400
Total absorbed power	W	300	390	400	490	1.000	1.700	2.100
Motor 2800 rpm	W	100	150	185	220	370	1.100	1.500
Power supply		230 V - 50 Hz						230/400 V - 50 Hz
Gas category		II 2H 3+						

Pressure curves



Burner-gas train matching

Model	Burner Line connection Ø	Heat Output kW		Size * Ø	Gas train Min. pressure * Max pressure***			LPG kit
		min.	max.		Natural gas mbar	LPG. mbar	mbar	
EM 9/2-E.D3	3/4"	43	89,5	1/2"	18	19	360	NO
EM 16/2-E.D3	3/4"	55	153	1/2"	28	27	360	YES (see price list)
EM 16/2-E.D4	3/4"	55	153	3/4"	19	-	360	NO
EM 18/2-E.D6	1"	99	169	1"	12	-	360	NO
EM 18/2-E.D3	1/2"	99	169	1/2"	23	14	360	NO
EM 26/2-E.D6	1"	90	231	1"	18	-	360	NO
EM 26/2-E.D3	3/4"	90	231	1/2"	43	-	360	NO
EM 26/2-E.D4	3/4"	90	231	3/4"	-	31	360	YES (see price list)
EM 40/2-E.D7	1 1/4"	115	390	1 1/4"	23	-	360	NO
EM 40/2-E.D4	3/4"	115	390	3/4"	62	32	360	NO
EM 50/2-E.D9	1 1/2"	145	582	1 1/2"	20	-	360	NO
EM 50/2-E.D4	3/4"	145	582	3/4"	105	-	360	NO
EM 50/2-E.D6	1"	145	582	1"	-	31	360	YES (see price list)
EM 70/2-E.D11	2"	210	740	2"	14	-	360	NO
EM 70/2-E.D7	1 1/4"	210	740	1 1/4"	42	31	360	YES (see price list)

* For further information about burner and gas train matching see the Lamborghini Burners Sales Technical Catalogue.

** Minimum gas pressure to obtain burner maximum output.

*** Maximum operating pressure of gas valves.