

## Construction features

### Air shutter with automatic closing

This characteristic of the ECO models 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.

### Preheater for better combustion

Standard fitting on the "R" version, the preheater is located on the nozzle line and is at a self-regulating temperature:

- Ensures a good start even during cold season and after prolonged stoppages.
- Improves combustion, favouring atomisation of light oil.
- Allows use of slightly larger nozzles, reducing the risk of choking at lower flows.

### Air adjustment

On the models of the ECO series it is possible to regulate the amount of air entering the burner:

- 1 stage burners.  
Adjusting the air shutter opening can be carried out externally without removing the burner casing.
- 2-stage burners.  
The air shutter is 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.

### Combustion head adjustment

This may be carried out with the burner on. For an optimum combustion the position of the diffuser can be varied in regard to the trunk/tapered section of the combustion head by adjusting the appropriate screw.



Air adjustment  
ECO 3 - 5 models



Air adjustment  
ECO 7/2 model



Combustion head adjustment



Combustion head with preheater  
ECO R models



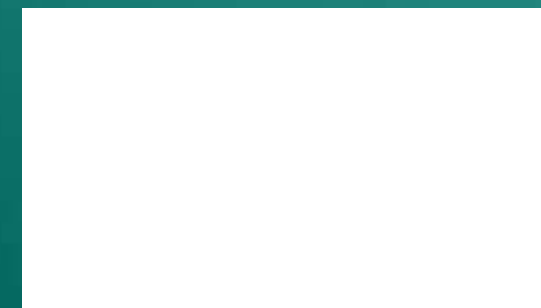
# ECO 3-5-8-7/2



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CALORECLIMA

## ECO 3-5-8-7/2 light oil burners

### ECO: perfect aerodynamics

Thanks to the constant research carried out by the Lamborghini laboratories it has been possible to design a light oil burner which in itself combines the most innovative principles of aerodynamics. This research has enabled Lamborghini to produce ECO with the following characteristics:

- Ventilation stabilised with a fan delivery/pressure curve which guarantees a pressure reserve especially beneficial at the starting up stage.
- Uniformity of air distribution which ensures a reduction in excess air for high combustion efficiency.
- Form and precision of performance of the head with low CO and NOx emission in combustion, protecting the environment.
- Adjustable combustion head: adjustment can be carried out with the burner on simply by turning a screw.
- High-powered fan that ensures a perfect burner operation even in the presence of high backpressure in the combustion chamber.

### Maximum safety and reliability

- Only components of the highest quality are used.
- Particular attention is paid to its manufacture with the strictest of quality controls.
- All the ECO 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 within the external casing.
- The shape and colour have been chosen because the appliance is designed to have an appeal which is adaptable to all types of boiler.



## The range

### 1 ignition flame

- **ECO 3**  
Max. heat output: 35.6 kW
- **ECO 5**  
Max. heat output: 59.3 kW
- **ECO 8**  
Max. heat output: 100.8 kW

### 1 ignition flame with preheater

- **ECO 3 R**  
Max. heat output: 35.6 kW
- **ECO 5 R**  
Max. heat output: 59.3 kW

### 2 ignition flames with pressure fall

- **ECO 7/2**  
Max. heat output: 86.6 kW



ECO 3 - 3R - 5 - 5R - 7/2



ECO 8

## Installation and maintenance

### Universal flange for rapid installation

ECO burners are equipped with a universally-bored sliding flange that facilitates installation of the burner onto any boiler type (ECO 3 - 5 models with adjustable flange). 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. For convenient maintenance of the ECO burners the main electrical components are connected by easy-to-fit plugs and each component has a different type in order to avoid mistakes in connection.

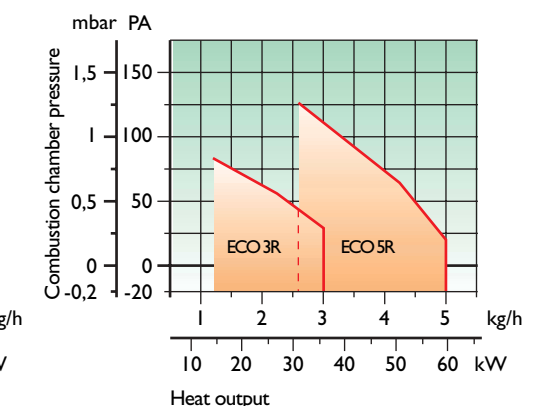
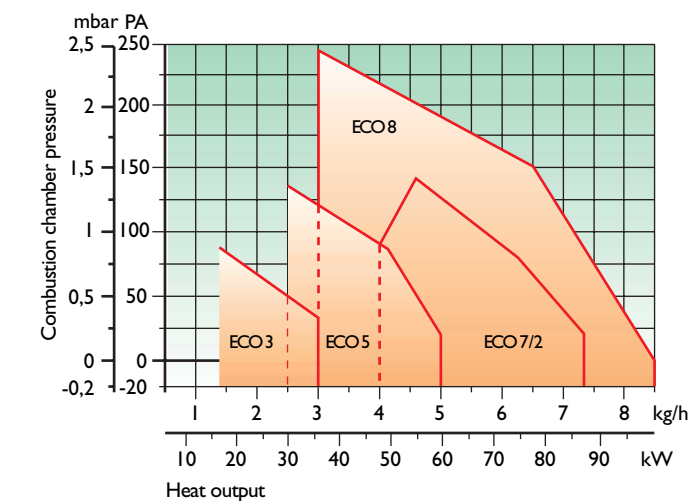
### Easy maintenance

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.

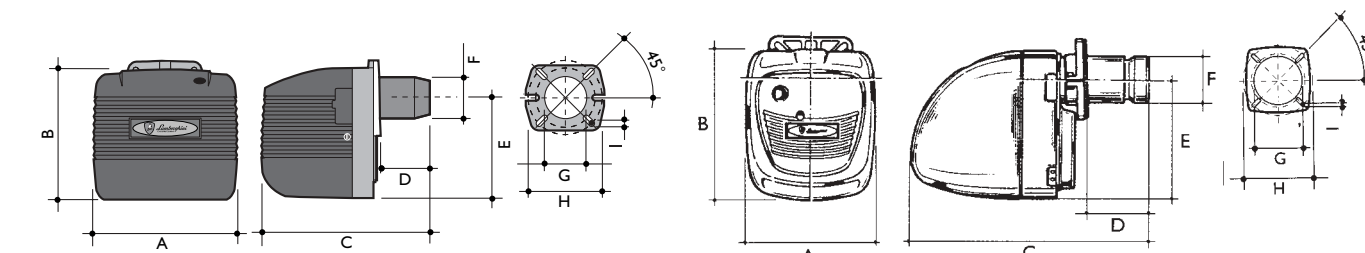
## Technical data

ECO		3	3R	5	5R	8	7/2
Heat input	kg/h	1,4	1,2	2,5	2,6	3	4
	kg/h	3	3	5	5	8,5	7,3
Heat output	kW	16,6	14,2	29,6	30,8	35,6	47,4
	kW	35,6	35,6	59,3	59,3	100,8	86,6
	kcal/h	14.300	12.200	25.500	26.500	30.600	40.800
	kcal/h	30.600	30.600	51.000	51.000	86.700	74.500
Total absorbed power	W	280	380	300	400	300	300
Motor 2800 rpm	W	100	100	100	100	90	100
Preheater	W	-	110	-	110	-	-
Weight	kg	10,5	10,7	11,3	11,5	13	12,5
Packaging	mm.	450x340x310			550x280x370		450x340x310
Power supply	230 V - 50 Hz						
Fuel	Light oil - Max. viscosity at 20°C: 1.5°E = 6cSt = 41 sec. R1						

## Pressure curves



## Dimensions



	ECO 3 - 3R - 5 - 5R - 7/2				ECO 8						
	A	B	C	D	A	B	C	D			
			ØH				I				
	min.	max	min.	max	min.	max	min.	max			
ECO 3 - 3R	250	215	320	-	90	160	80	85	135	160	M 8
ECO 5 - 5R	280	247	342	-	90	195	80	85	135	160	M 8
ECO 8	230	285	465	60	120	232	89	95	90	140	M 8
ECO 7/2	280	247	410	40	140	195	90	95	135	160	M 8



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