



## Priva ECO Heaters

Winterwarm presents the ECO-series: direct fired heaters for gas and oil, especially designed to heat poultry houses and glass houses. The ECO heater was previously a joint venture of both Priva BV and Winterwarm BV. The ECO is now produced and sold solely by Winterwarm BV.



**Winterwarm**  
heating solutions 

### Characteristics:

- 100% efficiency
- combustion air is supplied from the outside via a flexible and ridged duct system
- high air volume and a long throw, assist in an even heat distribution
- low energy consumption
- automatic control of combustion process and ignition
- digital circuit board with fault read out and the storage of the last 9 faults
- 1 automatic restart
- easy to maintain

As from 2005 Winterwarm (Winterswijk-NL) produced the ECO 75 heater for Priva BV (De Lier-NL). Subsequently, both companies have developed the ECO 120 and recently the ECO 100 was introduced to complete the ECO series all suitable for gas and oil. In 2007 Priva decided to hand over all sales activities of the ECO product range to Winterwarm BV as per 1st of January, 2008. Winterwarm also took over the service activities and the delivery of service parts\*.

The advantages are cleaner combustion for a greater period of time optimizing the efficiency. The volume of air required for combustion is also optimized requiring less energy to heat. The combustion system of these heaters is simple, maintenance friendly and reliable. The large airflow capacity of the air transport fan (5200 m<sup>3</sup>-8000 m<sup>3</sup>) and the special shape of the heater provide an optimum air distribution which guarantees an even heat distribution and consistent climate throughout. The combination of all the above

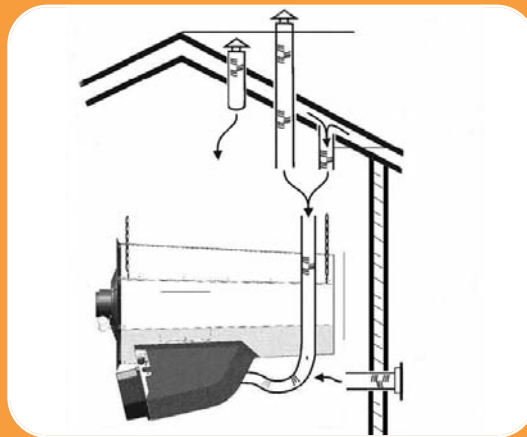
features ensure that the ECO heater will give you the best efficiency with the best combustion.

### Safety, reliability and efficiency

Winterwarm is ISO 9001-2000 certified so the general quality and safety are guaranteed. Each ECO Heater is individually tested in the factory for electrical safety, correct combustion gas values and functionality. The ignition sequence process is

### Direct fired heaters for gas and oil

The Priva ECO Heaters are direct fired heaters which gives a combustion efficiency of 100% combined with low energy consumption. The ECO heater is as standard provided with a fan for the combustion air which allows the intake of clean air from the outside.



\* We also provide the service parts for the DA, DFB and LN heaters.



### ECO Fan



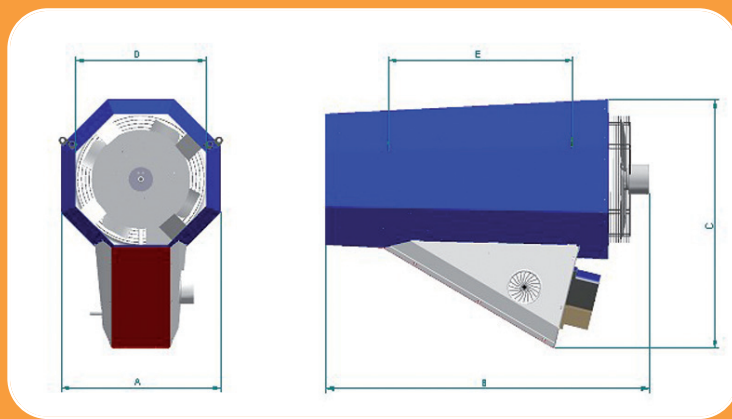
ECO fans (3 models) are often used in conjunction with ECO heaters to help with the circulation of the warm air to realize an even distribution of the heat. With the ECO fan, the temperature and relative humidity can be easily leveled for improved energy efficiency and more constant growth of plant or animal.

Advantages ECO fan:

- High air output (up to 6000m<sup>3</sup>)
- Energy-saving (because of high air output less heaters necessary than when traditional fans are applied)
- A long throw (up to 50 m.)
- Low noise level
- Synthetic body (no corrosion)
- Light and easy to install

fully controlled by a digital circuit board with flame monitoring. The circuit board has already proven to be very reliable (1x automatic restart) but when a fault arises, the print can be replaced quick and simple. Extra possibilities of the circuit board:

- Signal to external alarm installation in case of a fault indication
- Connection in series of several heaters with the addition of the options print
- The running status of the heater is displayed with a digit code on the lcd-display on top of the controlbox.



	A	B	C	D	E
<b>EC075</b>	610	1086	845	450	725
<b>EC0100</b>	610	1086	845	450	725
<b>EC0120</b>	632	1281	981	520	725

## ECO Heaters in greenhouses

The modern horticultural business demands high quality, durability, reliability and low energy consumption. The ECO heater is developed to meet all these demands. As the combustion air is taken from outside, the CO<sub>2</sub> level in the greenhouse can be controlled better. With the digital circuitboard the heaters can be fully integrated in the climate control system of the greenhouse.

## ECO Heaters in poultry houses

An optimum climate is required for the growth of poultry. ECO Heaters can realize this as they, in combination with ECO fans, take care of an optimum air distribution and an even temperature. The reliability and efficiency (100%!) of the heater are greatly increased because clean outside air is used for the combustion.

## Simple maintenance

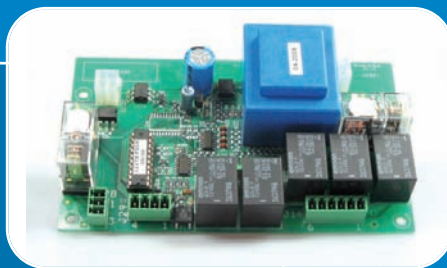
The burner is set and tested by Winterwarm for the fuel type ordered. ECO heaters are very simple to maintain. For example, the burner set can be removed from the heater quickly for cleaning without the need to remove the whole heater.

## Option print 122-TB

With the Option print 122-TB it is possible to extend the functions of the heater:

- Control of alarm installation\*
- Connection in series for heating\*
- Connection in series for ventilation
- Connection in series for heating and ventilation
- Automatic ventilation of heater
- Control of extra fan(s)
- Connection to external registration of time in function

\*(connection possibilities also present on standard circuit board but if a problem occurs all heaters will stop, thus the need for the option print when you require series connection.)



## Technical data

Type	unit	ECO 75 gas*		ECO 75 oil**		ECO 100 gas*		ECO 100 oil**		ECO 120 gas*		ECO 120 oil**	
		G20(NG)	G31(prop.)	parafin	diesel	G20(NG)	G31(prop.)	parafin	diesel	G20(NG)	G31(prop.)	parafin	diesel
Nominal heat input/output	kW	75		75		100		100		120		120 - 110	
Air output	m <sup>3</sup>	5200		5200		5200		5200		8000		8000	
Throw	m	40		40		40		40		45		45	
Electrical capacity	kW	0,55		0,55		0,55		0,55		1		1	
Power consumption	A	2,7		2,7		2,7		2,7		4,3		4,3	
Required main frequency***	Hz	50		50		50		50		50		50	
Noise level	dB(A)	79		79		79		79		81		81	
Weight	kg	45		45		45		45		60		60	
Nominal gas consumption	m <sup>3</sup> /h   l/h	7,9	11,6			10,6	15,3			12,7	18,3		
Minimal supply pressure	mbar	17	25			17	25			17	25		
Dimension gas connection	G"	1/2				1/2				3/4			
Nominal oil consumption	l/h - k/g			6,5/5,8	7/5,9			9,5/8,2	8,8/7,5			11,1/9,8	10,7/9,1
Nominal oil pump pressure	mbar			11,5	13			11	14			12	14
Dimension oil connection	mm			6				6				6	

\* Also available for G30 (butane)

\*\* Also available for sulphur-free diesel/eco diesel

\*\*\* 60 Hz available upon request

## Winterwarm: leading

Winterwarm has been engaged in the development, production and sales of industrial heating in Europe since 1936. The company not only specialises in indirect fired unit air heaters, but also sells radiant tubes, rooftops, water heaters and destratification fans.



**Winterwarm**  
heating solutions 

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## Winterwarm quality

- 70 years of experience
- ISO 9001-2000 certified
- Telephone helpdesk