



# **AIR HEATING PRODUCTS**

# Air Heater GP



## EQUIPMENT

### GP

- High efficiency
- Protected against corrosion (housing is made from pre-coated galvanized steel, combustion chamber and heat exchanger are made from stainless steel)
- Ready to install
- Prevention of faulty operation (dual switching safety thermostat controls the fan motor and the burner)
- Easy to inspect the burning process
- Easy to operate
- Different air diffusers are available on request
- Suitable for diesel, natural gas, LPG or propane (paraffin upon request)

## Introduction

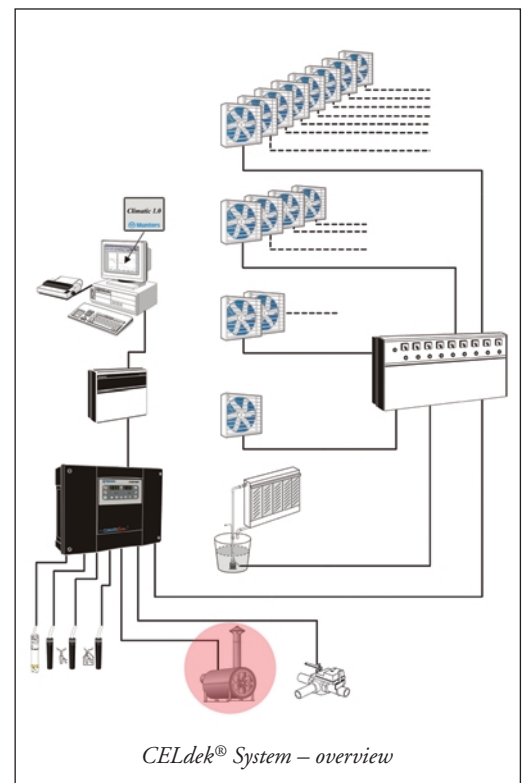
GP Hanging Air Heater is designed for a wide range of indoor environments, including poultry houses, greenhouses, commercial and industrial premises where the ground surface is scarce. Four hooks (two on each side) make it easy to hang the heater close to the area which requires heating.

The heater works on the principle of indirect combustion with heat exchanger, which ensures clean operation and prevents any emission of exhaust gas into the house. The GP heater can burn wide range of fuels such as diesel, natural gas, LPG or propane (paraffin upon request). It is supplied fully assembled and ready for installation. The standard product line encompasses a wide range of sizes with nominal heating efficiencies around 90%.

## Technology basis

The GP Air Heater works on a principle of indirect combustion with heat exchanger, where the flue gases and the air stream are completely separated. The exhaust gases are ventilated outside the building through the chimney.

The heart of the heater is combustion chamber and the heat exchanger. A powerful fan forces room and/or ambient air at high pressure into the heat exchanger where the air absorbs heat from the flue gases. The warm and dry air is then supplied into the room through the air outlet. The standard type of air outlet has an elliptical design suitable for installation of plastic duct for an optimal distribution of the warm air throughout the desired indoor area.



CELdek® System – overview

## Design

### Combustion chamber and heat exchanger

The combustion chamber is made from stainless steel. It has a special cylindrical shape allowing good flame reversal in order to reach high combustion temperatures and very efficient heat exchange. Both the combustion chamber and the heat exchanger have been designed to have high thermal efficiency and extended service life of the heater.

### Axial fan

The direct driven axial fan is equipped with round safety mesh.

### Centrifugal fan

Centrifugal propeller is belt driven and equipped with protection mesh. It ensures high pressure output and low noise levels.

### Housing

Housing is made of pre-coated galvanized steel in order to prevent corrosion and enable easy cleaning.

### Burner

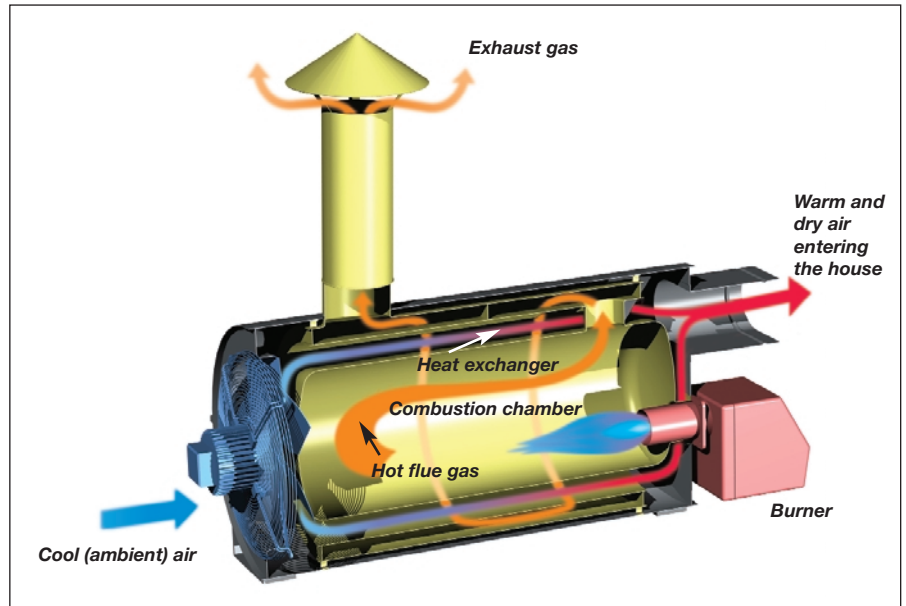
High efficiency has been the main priority in the design of the heater. Each heater is equipped with a stand-alone, high quality burner, which assures an excellent combustion, stable performance and extremely safe operating conditions. (See the table beside)

## Operation and regulation

The GP heater is also equipped with programmable digital room thermostat and remote temperature sensor for stand alone use. This allows the user to measure the temperature in the most critical points and to operate the heater accordingly. In case of climate controlled indoor environment, the GP heater must be driven by the output relay from the climate controller.

In order to increase the safety and to avoid instable operation, there is a dual switching mechanical thermostat mounted on the heater. The thermostat activates the fan motor based on the temperature measured on the combustion chamber and on the heat exchanger. In case of fan malfunction it stops the burner and the fuel flow immediately.

A pyroglass eye installed on the heater's housing makes it easy to inspect the flame inside the combustion chamber.



## Burner types

Heater size	Diesel	Diesel	Gas	Gas	Total thermal power [kW]
	Finterm burner [kW] *	Riello burner [kW] *	Finterm burner [kW]	Riello burner [kW]	
GP30	AZ4 [37]	RG01 Gulliver [37]	JM6gas [37]	40 FS5 R MB 03/1 [37]	34
GP50	AZ8 [67]	RG2 Gulliver [67]	JM9gas [66]	40 FS8 R MB 05/1 [58]	60
GP80	AZ10 [99]	RG2 Gulliver [99]	JM9gas [89]	40 FS8 R MB 05/1 [93]	88
GP100	AZ20 [124]	RG3 Gulliver [124]	JM12gas [120]	40 FS15 R MB 07/1 [124]	109
GP130	AZ20 [136]	RG3 Gulliver [136]	JM18gas [136]	40 FS15 R MB 07/1 [136]	119

\* Maximum power with the installed nozzle.

For operations in the dusty environments it is recommended to use a supplementary flexible pipe to supply fresh and clean air from outside into the burner.

## Installation & maintenance

GP is equipped with four hooks (two on each side). Thus it can be easily hung over the area that requires heating. The standard supply contains 2 stainless steel exhaust pipes (each 1 meter long); stainless steel chimney; a big size stainless steel roof pass plate for easy installation in structures made from plastic film and a digital room thermostat.

The combustion chamber can be easily cleaned with pressurised water (with or without detergents) through in-built service port.

Chains and wires for hanging the heater are not included in the supply.

It is generally recommended that a jet-fan is installed in conjunction with each heater outlet.

## Dimensions [mm]

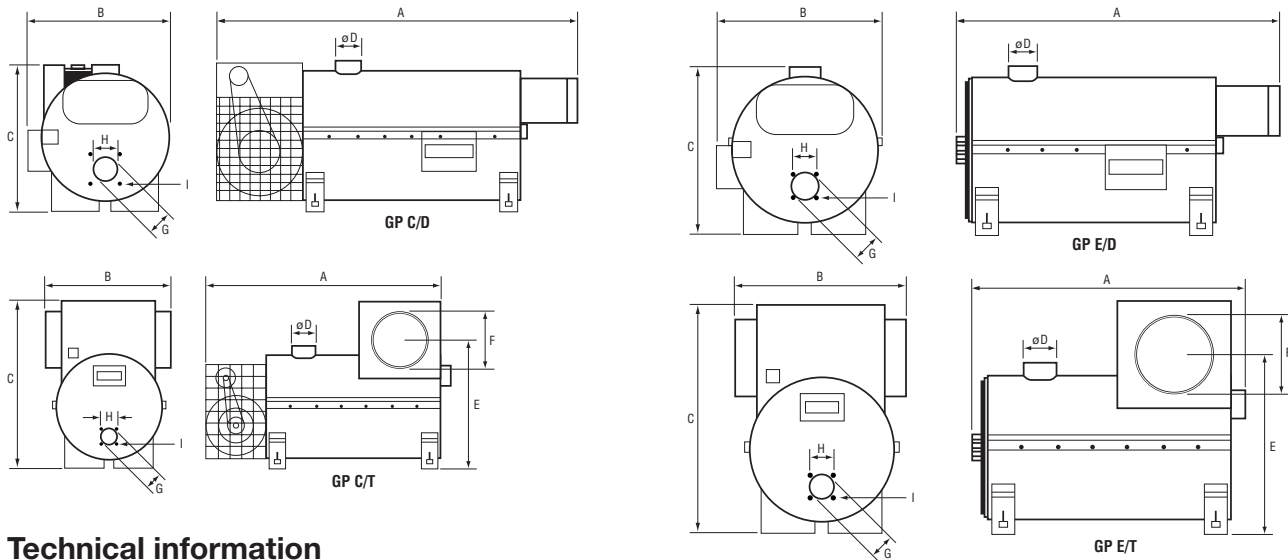
Type GP E/D	A	B	C	D	I	H	G
GP30 E/D	1,340	745	780	150	M8	108.5	120
GP50 E/D	1,540	745	780	150	M8	108.5	120
GP80 E/D	1,750	845	870	150	M8	108.5	120
GP100 E/D	1,890	845	855	200	M8	135	145
GP130 E/D	1,990	945	985	200	M8	135	145

Type GP C/D	A	B	C	D	I	H	G
GP30 C/D	1,590	745	780	150	M8	108.5	120
GP50 C/D	1,790	745	780	150	M8	108.5	120
GP80 C/D	2,040	845	870	150	M8	108.5	120
GP100 C/D	2,250	845	855	200	M8	135	145
GP130 C/D	2,350	945	985	200	M8	135	145

Type GP E/T	A	B	C	D	E	F	I	H	G
GP30 E/T	1,040	840	900	150	760	400*	M8	108.5	120
GP50 E/T	1,240	840	900	150	760	400*	M8	108.5	120
GP80 E/T	1,450	940	1,100	150	1,070	400	M8	108.5	120
GP100 E/T	1,590	940	1,100	200	1,070	400	M8	135	145
GP130 E/T	1,690	1,050	1,155	200	940	400	M8	135	145

Type GP C/T	A	B	C	D	E	F	I	H	G
GP30 C/T	1,290	840	900	150	760	400*	M8	108.5	120
GP50 C/T	1,490	840	900	150	760	400*	M8	108.5	120
GP80 C/T	1,740	940	1,100	150	1,070	400	M8	108.5	120
GP100 C/T	1,950	940	1,100	200	1,070	400	M8	135	145
GP130 C/T	2,050	1,050	1,155	200	940	400	M8	135	145

\* GP30 E/T and C/T and GP50 E/T and C/T are only supplied with elliptic diffuser outlet.



## Technical information

	GP30	GP50	GP80	GP100	GP130
Weight <sup>1</sup> [kg]	80	90	120	130	145
Maximum power <sup>2</sup> [kW] [Kcal/h]	37 [31,950]	67 [57,550]	99 [85,300]	124 [106,600]	136 [117,150]
Working power <sup>2</sup> [kW] [Kcal/h]	34 [29,150]	60 [51,200]	88 [75,500]	109 [93,400]	119 [102,400]
Maximum diesel consumption <sup>2</sup> [kg/h]	3.1	5.6	8.3	10.4	11.4
Maximum natural gas consumption <sup>3</sup> [m <sup>3</sup> /hour]	4.6	6.6	9.8	14.8	16.8
Efficiency (diesel oil) %	91.2	89.0	88.5	87.6	87.4
Nominal electric power <sup>2, 4</sup> [W]	450	800	1,500	2,000	2,000
3 phases voltage [V]	230/400	230/400	230/400	230/400	230/400
Single phase voltage [V]	230	230	230	230	230
Airflow <sup>5</sup> [m <sup>3</sup> /h] [cfm]	3,300 [1,950]	4,700 [2,770]	5,800 [3,410]	8,900 [5,240]	9,500 [5,590]
IEC protective class for electric motor	IP55				
Electric motor winding insulation class	F				
Diameter for outlet [mm]	400	400	500	500	600

<sup>1</sup> Weight referred to GP without burner and accessories.

<sup>3</sup> Value referred to GP with Finterm burner.

<sup>5</sup> Value referred to standard condition (20 °C; 1,013 hPa).

<sup>2</sup> Value referred to GP with Finterm diesel burner.

<sup>4</sup> Value referred to 3 phases electric motor.

## Order information

GP-X-X-X-X-X ex. GP50-C/T-3-b-y

Size (30, 50, 80, 100 or 130)

Type code (configuration)

E/D (axial fan/elliptical air outlet)

E/T (axial fan/tower with double round air outlets)

C/D (centrifugal fan/elliptical air outlet)

C/T (centrifugal fan/tower with double round air outlet)

Code for type of electrical power supply

1 (400 V 3-phase, 50 Hz)

2 (230 V 3-phase, 50 Hz)

3 (230 V single phase, 50 Hz)

4 (400 V 3-phase, 60 Hz)

5 (230 V 3-phase, 60 Hz)

6 (230 V single phase, 60 Hz)

Code for the type of burner

a Finterm oil

b Finterm gas

c Riello oil

d Riello natural gas

e Riello LPG gas

Code for accessories kit

y (included in the delivery\*)

n (not included in the delivery)

*\*The kit accessories (i.e. 1 digital thermostat TED; 2 stainless steel exhaust pipes (1 meter each); 1 chimney hat; 1 roof pass plate) are normally supplied within a standard configuration.*

GP Air Heater is developed and produced by Munters euroemme S.p.A., Italy.



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# Mobile Air Heater GC



## EQUIPMENT

### GC

- High efficiency
- Protected against corrosion (housing is made from pre-coated galvanized steel, combustion chamber and heat exchanger are made from stainless steel)
- Ready to install
- Prevention of faulty operation (a dual switching safety thermostat controls the fan motor and the burner)
- Easy to inspect the burning process
- Easy to operate
- Different air diffusers are available on request
- Suitable for diesel, natural gas, LPG or propane (paraffin upon request)

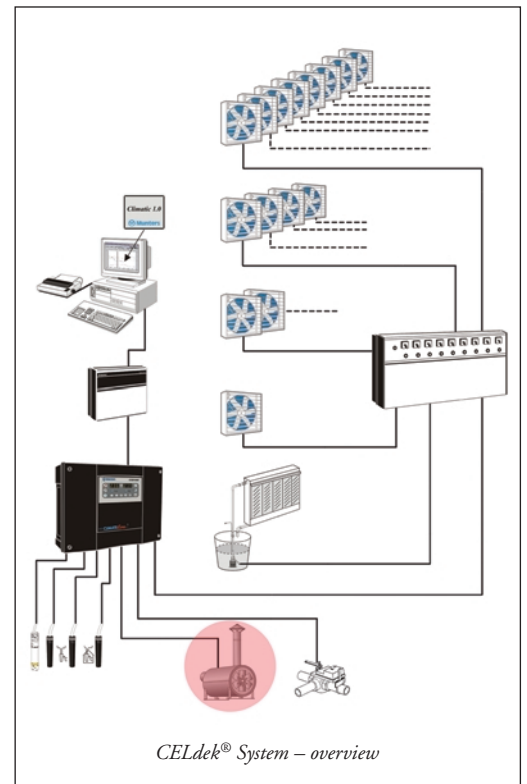
## Introduction

GC Mobile Air Heater is designed for a wide range of indoor environments, including poultry houses, greenhouses, commercial and industrial premises. The heater works on the principle of indirect combustion with heat exchanger, which ensures clean operation and prevents any emission of exhaust gas into the house. The GC heater can burn wide range of fuels such as diesel, natural gas, LPG or propane (paraffin upon request). It is supplied fully assembled and ready for installation. The standard product line encompasses a wide range of sizes with nominal heating efficiencies around 90%.

## Technology basis

The GC Air Heater works on a principle of indirect combustion with heat exchanger, where the flue gases and the air stream are completely separated. The exhaust gases are ventilated outside the building through the chimney.

The heart of the heater is the combustion chamber and the heat exchanger. A powerful centrifugal fan forces room air at high pressure into the heat exchanger where the air absorbs heat from the flue gases. The warm and dry air is then supplied into the room through the air outlets. The air outlets are equipped with air deflectors for optimal distribution of the warm air to the points where it is needed most.



## Design

### Combustion chamber and heat exchanger

The combustion chamber is made from stainless steel. It has a special cylindrical shape allowing good flame reversal in order to reach high combustion temperatures and very efficient heat exchange. Both the combustion chamber and the heat exchanger have been designed to have high thermal efficiency and extended the service life of the heater.

### Centrifugal fan

Centrifugal propeller is belt driven, equipped with protection mesh and ensures reduced noise level and high pressure output.

### Housing

Housing is made of pre-coated galvanized steel in order to prevent corrosion and enable easy cleaning.

### Burner

High efficiency has been the main priority in the design of the heater. Each heater is equipped with a stand-alone, high quality burner, which assures an excellent combustion, stable performance and extremely safe operating conditions. (See the table beside)

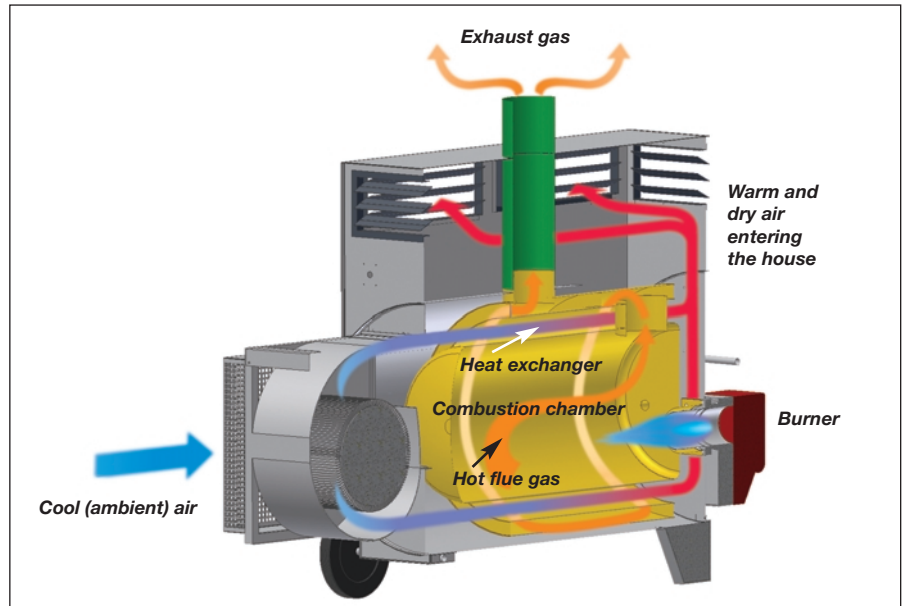
## Operation and regulation

The GC heater is also equipped with programmable digital room thermostat and remote temperature sensor for stand alone use. This allows the user to measure the temperature in the most critical points and to operate the heater accordingly. In case of climate controlled indoor environment, the GC heater must be driven by the output relay from the climate controller.

In order to increase the safety and to avoid instable operation, there is a dual switching mechanical thermostat mounted on the heater. The thermostat activates the fan motor based on the temperature measured on the combustion chamber and on the heat exchanger. In case of fan malfunction it stops the burner and the fuel flow immediately.

A pyroglass eye installed on the heater's housing makes it easy to inspect the flame inside the combustion chamber.

For operations in the dusty environments it is recommended to use a supplementary flexible pipe to supply fresh and clean air from outside into the burner.



## Burner types

Heater size	Diesel	Diesel	Gas	Gas	Total thermal power [kW]
	Finterm burner [kW] *	Riello burner [kW] *	Finterm burner [kW]	Riello burner [kW]	
GC50	AZ8 [67]	RG2 Gulliver [67]	JM6gas [66]	40 FS6 R MB 03/1 [58]	60
GC80	AZ10 [99]	RG2 Gulliver [99]	JM9gas [89]	40 FS8 R MB 05/1 [93]	88
GC100	AZ20 [124]	RG3 Gulliver [124]	JM12gas [120]	40 FS15 R MB 07/1 [124]	109
GC130	AZ20 [136]	RG3 Gulliver [136]	JM18gas [136]	40 FS15 R MB 07/1 [136]	119
GC170	AZ20 [198]	RG4S Gulliver [198]	JM18gas [169]	40 FS15 R MB 07/1 [175]	175
GC220	AZ20 [248]	RG4S Gulliver [223]	G35gas [248]	40 FS20 R MB 07/1 [232]	225

\* Maximum power with the installed nozzle.

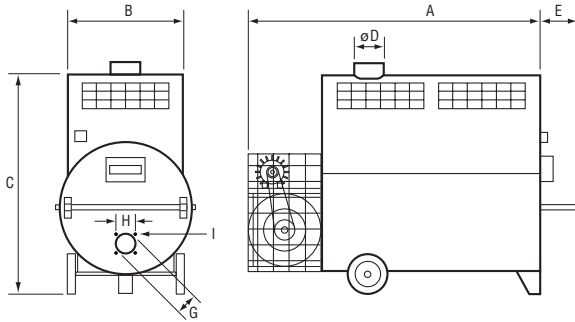
## Installation & maintenance

GC is equipped with wheels and handles. It is therefore very easy to move the heater exactly where the heating is actually needed. The standard supply contains 2 stainless steel exhaust pipes (each 1 meter long); stainless steel chimney; a big size stainless steel roof pass plate for easy installation in structures made from plastic film and a digital room thermostat.

The combustion chamber can be easily cleaned with pressurised water (with or without detergents) through built-in service port.

## Dimensions [mm]

Heater size	A	B	C	D	E	I	H	G
GC50	1,530	745	1,320	150	190	M8	108.5	120
GC80	1,800	845	1,400	150	190	M8	108.5	120
GC100	1,985	845	1,400	200	190	M8	135	145
GC130	2,070	945	1,445	200	190	M8	135	145
GC170	2,190	945	1,610	200	185	M8	135	145
GC220	2,400	1,145	1,790	250	185	M8	135	145



## Technical information

	GC50	GC80	GC100	GC130	GC170	GC220
Weight <sup>1</sup> [kg]	150	180	210	220	320	400
Maximum power <sup>2</sup> [kW] [Kcal/h]	67 [57,550]	99 [85,300]	124 [106,600]	136 [117,150]	198 [170,500]	248 [213,200]
Working power <sup>2</sup> [kW] [Kcal/h]	60 [51,800]	88 [75,500]	109 [93,600]	118 [101,600]	175 [154,000]	225 [193,150]
Maximum diesel consumption <sup>2</sup> [kg/h]	5.6	8.3	10.4	11.4	16.7	20.8
Maximum natural gas consumption <sup>3</sup> [m <sup>3</sup> /hour]	6.6	9.8	14.8	16.8	20.8	26.2
Efficiency (diesel oil) %	90.0	88.5	87.6	86.7	90.3	90.6
Nominal electric power <sup>2,4</sup> [W]	1,550	1,550	2,000	2,000	2,900	4,800
3 phases voltage [V]	230/400	230/400	230/400	230/400	230/400	230/400
Single phase voltage [V]	230	230	230	230	230	Not available
Airflow <sup>5</sup> [m <sup>3</sup> /h] [cfm]	4,700 [2,770]	5,800 [3,410]	8,900 [5,240]	9,500 [5,590]	10,400 [6,120]	12,700 [7,470]
IEC protective class for electric motor	IP55					
Electric motor winding insulation class	F					

<sup>1</sup> Weight referred to GC without burner and accessories

<sup>3</sup> Value referred to GC with Finterm burner

<sup>5</sup> Value referred to standard condition (20 °C; 1,013 hPa)

<sup>2</sup> Value referred to GC with Finterm diesel burner

<sup>4</sup> Value referred to 3 phases electric motor



## Order information

GP-X-X-X-X ex. GP50-3-b-y

Size (50, 80, 100, 130, 170, 220)

Code for type of electrical power supply

- 1 (400 V 3-phase, 50 Hz)
- 2 (230 V 3-phase, 50 Hz)
- 3 (230 V single phase, 50 Hz)
- 4 (400 V 3-phase, 60 Hz)
- 5 (230 V 3-phase, 60 Hz)
- 6 (230 V single phase, 60 Hz)

Code for the type of burner

- a Finterm oil
- b Finterm gas
- c Riello oil
- d Riello natural gas
- e Riello LPG gas

Code for accessories kit

- y (included in the delivery\*)
- n (not included in the delivery)

*\* The kit accessories (i.e. 1 digital thermostat TED; 2 stainless steel exhaust pipes (1 meter each); 1 chimney hat; 1 roof pass plate) are normally supplied within a standard configuration.*

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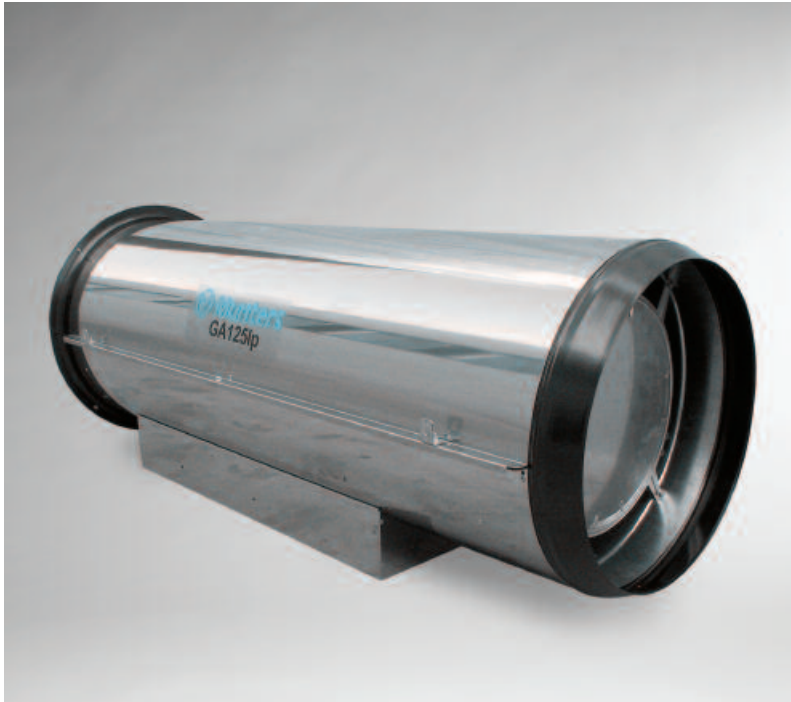
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## Hanging Air Heater

# GAIp



The GAIp Hanging Air Heaters are designed for cost effective heating solutions in a wide range of applications, including greenhouses, poultry houses and industry.

### Technology basis

All models function on the principle of direct fired gas heating. Hereby a powerful fan is used to force air through a combustion chamber where the burner is situated. As the air passes through the burner, all the heat released by the combustion process is transferred to the air stream. This gives the heater a 100% thermal efficiency.

### Design

The GAIp heaters operate on Natural Gas or Liquid Petroleum Gas (LPG), which are both very clean burning fuels. The products of combustion are mainly water vapour and carbon dioxide (CO<sub>2</sub>).

For safety purposes the heaters are equipped with a double solenoid valve for closing and opening of the gas supply and a safety thermostat. Additionally the heaters are also equipped with a safety pressure sensor that will cut the gas supply should an obstruction of the airflow occurs.

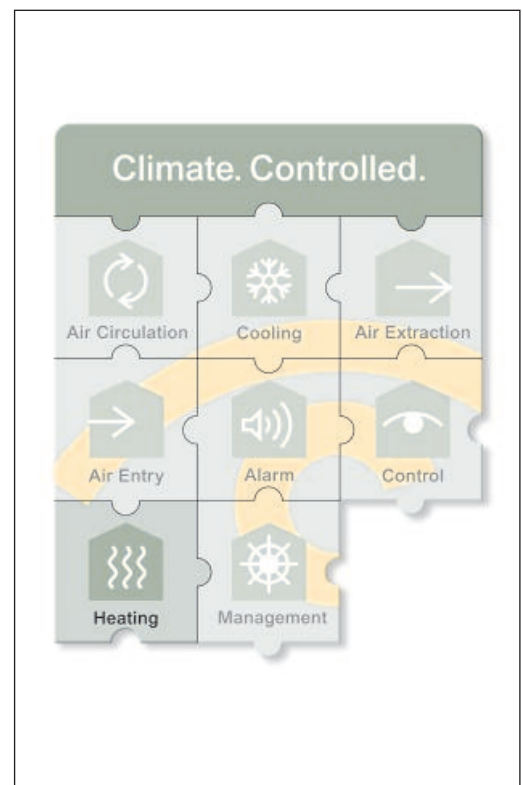
To ensure a long life span in humid environments, the GAIp heaters are manufactured in stainless steel and all electrical components are IP55 protected.

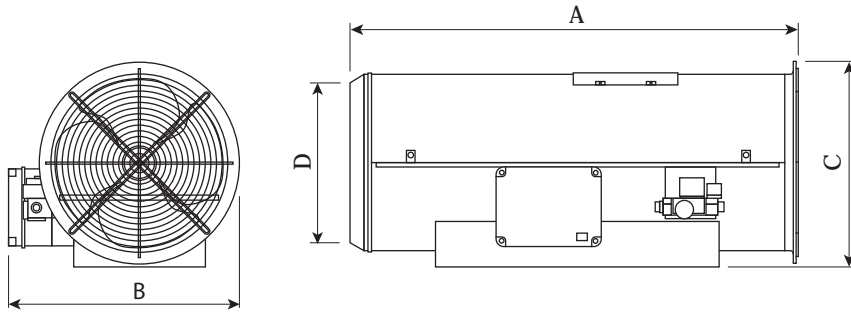
All models come fully assembled ready for use. Optionally the heaters can be supplied with a mechanical or electronic thermostat complete of 10 m cable.

## EQUIPMENT

# GAIp

- 100% thermal efficiency
- Ready to be connected to a room thermostat
- Easy to install and operate
- For outdoor installation or in greenhouses with automatic water supply (UNI EN 12669:2003)
- Stainless steel outer shell and combustion chamber
- Functions on Natural Gas or LPG
- Double solenoid valve for shutting off gas supply
- Safety switch preventing overheating
- Pressure switch detecting blockages of airflow





Dimensions [mm]			
GA95lp			
A	B	C	D
1,360	660	610	480
GA125lp			
A	B	C	D
1,520	660	610	480

## Technical specifications

		GA95lp	GA125lp
Weight	[kg]	67.0	69.5
Heating power	[kW]	100	125
Natural gas consumption	[kcal/h]	87,487	107,650
	[m <sup>3</sup> /h]	10.75	13.21
LPG consumption	[kg/h]	6.50	8.70
Natural Gas pressure*	[mbar]	20 to 25	20 to 25
LPG pressure*	[mbar]	30 to 50	30 to 50
Nominal electrical power	[W]	800	800
Voltage	[V]	230	230
Airflow	[m <sup>3</sup> /h]	5,500	6,000
	[cfm]	3,264	3,560

\*Check the user manual for the supply pressure for various countries.

N.B. Airflow data are measured at standard condition (20 °C, 1013 hPa).

## Order information

GA-XXXlp-X e.g., GA125lp-c

Code for specifying size.

95  
125

Code for specifying thermostat.

- a No thermostat
- b Mechanical thermostat
- c Digital thermostat

GAlp is developed and produced by Munters Italy S.p.A., Italy.



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## EQUIPMENT

# GA

- 100% thermal efficiency
- Heating output manually adjustable
- Ideal for space heating
- Easy to install
- Easy to operate
- Functions on LPG
- Double solenoid valve for shutting off gas supply
- Safety switch preventing overheating
- Pressure switch detecting blockages of airflow
- Stainless steel outer shell and combustion chamber
- Electrical equipment housed in IP55 enclosure

# Hanging Air Heaters GA

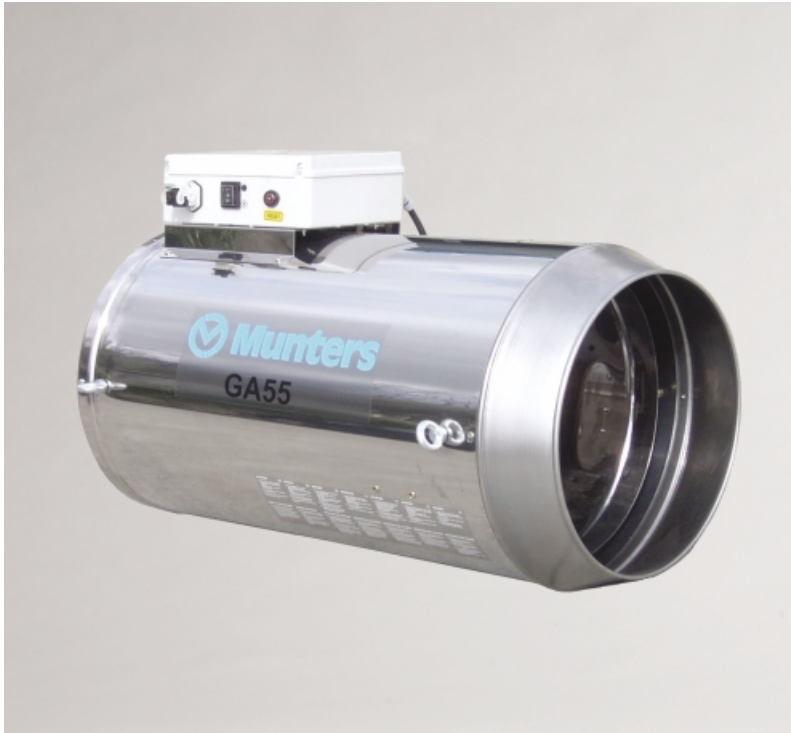


Photo shows fully equipped GA55.

The GA Hanging Air Heaters are designed for cost effective heating solutions in a wide variety of applications, including greenhouses, poultry houses and industrial structures.

## Technology basis

All models function on the principle of direct fired gas heating. Hereby a powerful fan is used to force air through a combustion chamber where the burner is situated. As the air passes through the burner, all the heat released by the combustion process is transferred to the air stream. This gives the heater a 100% thermal efficiency. The heat output of the heater can be varied by the manual adjustment of a regulating valve.

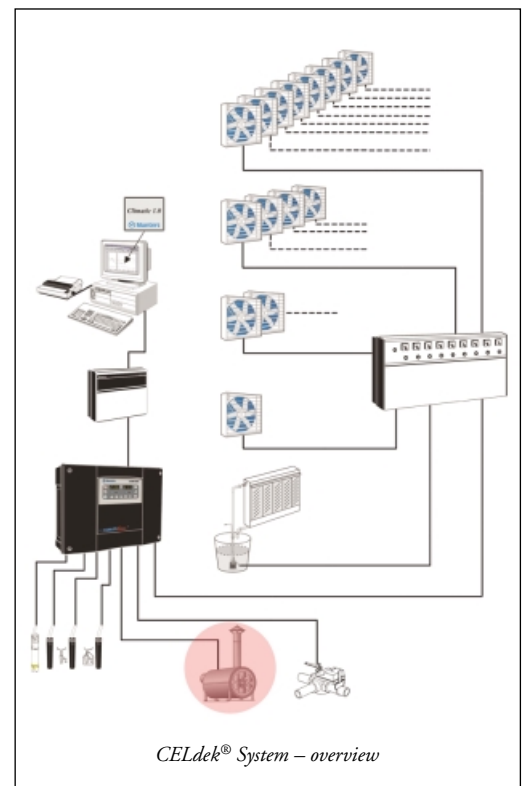
## Design

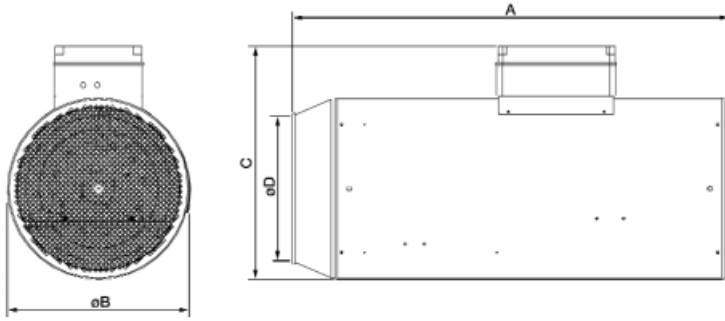
The GA heaters operate on Liquid Petroleum Gas (LPG), which is a very clean burning fuel. The products of combustion are mainly water vapour and carbon dioxide (CO<sub>2</sub>).

To ensure a long life span in humid environments, the GA heaters are manufactured in stainless steel with all electrical components contained inside an IP55 enclosure.

For safety purposes the heaters are equipped with a double solenoid valve for closing and opening of the gas supply. Additionally the heaters are also equipped with a safety pressure sensor that will cut the gas supply should an obstruction of the airflow be sensed.

All models come fully assembled with an electric cord and gas connection pipe with a pressure regulator, ready for use. Optionally the heaters can be supplied with a mechanical or electronic thermostat. The thermostats have a 10 m cable attached in order to be able to measure the temperature where it is required.





## Dimensions [mm]

Heater size	A	B	C	D
GA55	700	416	523	351
GA95	990	416	523	351
GA95t	1,140	473	608	378

## Order information

GA-XXX-X e.g., GA95-c

Code for specifying size

55  
95  
95t

Code for specifying thermostat

a No thermostat  
b Mechanical thermostat  
c Digital thermostat

## Technical specifications

	GA55	GA95	GA95t
Weight [kg]	25	28	32
Heating power [kW]	27.4 to 52	51.7 to 97	46 to 97
[kCal/h]	23,600 to 44,800	44,500 to 83,400	39,600 to 83,400
Gas consumption [kg/h]	2.16 to 3.7	4.08 to 6.6	3.6 to 6.6
Gas pressure [bar]	2	2	2
Nominal electrical power [W]	200	300	600
Voltage [V]	230	230	230
Airflow [m <sup>3</sup> /h]	1,500	3,300	6,000
[cfm]	890	1,960	3,560

GA is a product of Munters Italy S.p.A., Italy.



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## EQUIPMENT

# GX

- 100% thermal efficiency
- Heating output manually adjustable
- Ideal for spot heating
- Easy to install
- Easy to operate
- Functions on LPG
- Double solenoid valve for shutting off gas supply
- Safety switch preventing overheating
- Stainless steel outer shell

## Portable Air Heaters GX



Photo shows fully equipped GX85.

The GX Portable Air Heaters are designed for cost effective spot heating.

### Technology basis

The GX heaters function on the principle of direct fired gas heating. Hereby a powerful fan is used to force air through a combustion chamber where the burner is situated. As the air passes through the burner, all the heat released by the combustion process is transferred to the air stream. This gives the heater a 100% thermal efficiency. The heat output of the heater can be varied by the manual adjustment of a regulating valve.

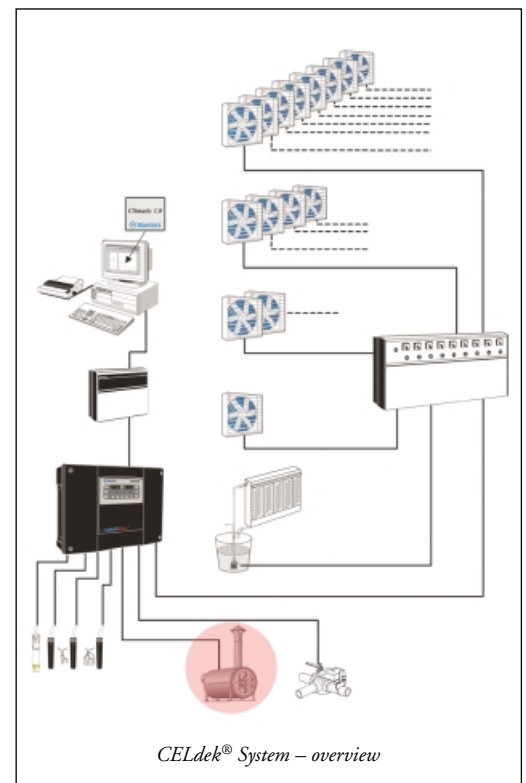
### Design

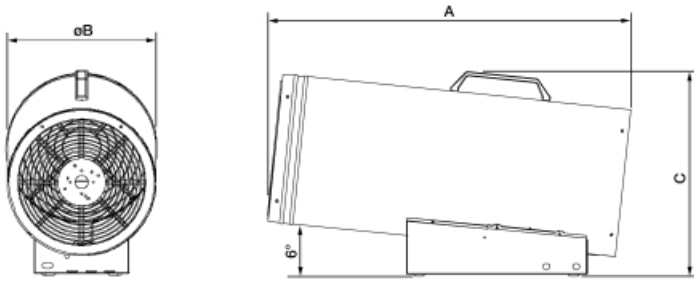
The GX heaters operate on Liquid Petroleum Gas (LPG), which is a very clean burning fuel. The products of combustion are mainly water vapor and carbon dioxide (CO<sub>2</sub>).

To ensure a long life span, the GX heaters outer shell is manufactured in stainless steel.

For safety purposes the heaters are equipped with a double solenoid valve for closing and opening of the gas supply. Additionally the heaters are also equipped with a cut out sensor that will prevent over heating.

All models come fully assembled with an electric cord and gas connection pipe with a pressure regulator, ready for use. Optionally the heaters can be supplied with a mechanical or electronic thermostat. The thermostats have a 10m cable attached in order to be able to measure the temperature where it is required.





## Dimensions [mm]

Heater size	A	B	C
GX85	910	378	520

## Technical specifications

		GX85
Weight	[kg]	23
Heating power	[kW]	35.8 to 82.1
	[kCal/h]	30,800 to 70,600
Gas consumption	[kg/h]	2.82 to 6.48
Gas pressure	[bar]	2
Nominal electrical power	[W]	130
Voltage	[V]	230
Airflow	[m <sup>3</sup> /h]	2,450
	[cfm]	1,450

GX is a product of Munters Italy S.p.A., Italy.

## Order information

GX85-X e.g., GX85-c

Code for specifying thermostat

- a No thermostat
- b Mechanical thermostat
- c Digital thermostat



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## EQUIPMENT

# GR95

- 100% thermal efficiency
- Heating output manually adjustable
- Ready to be connected to a room thermostat
- Easy to install and operate
- Mobile or hanging utilisation
- Functions on LPG
- Double solenoid valve for shutting off gas supply
- Safety switch preventing overheating
- Stainless steel outer shell and combustion chamber

## Mobile and Hanging Air Heater GR95



The GR Mobile and Hanging Air Heater is designed as a cost effective heating solution for a wide range of applications, including greenhouses, poultry houses and industry.

### Technology basis

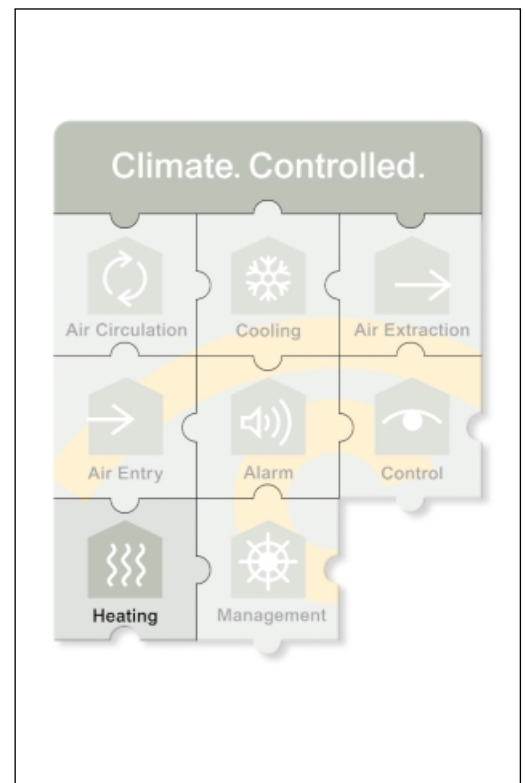
The model functions on the principle of direct fired gas heating. Hereby a powerful fan is used to force air through a combustion chamber where the burner is situated. As the air passes through the burner, all the heat released by the combustion process is transferred to the air stream. This gives the heater a 100% thermal efficiency. The heat output of the heater can be varied by the manual adjustment of a regulating valve.

### Design

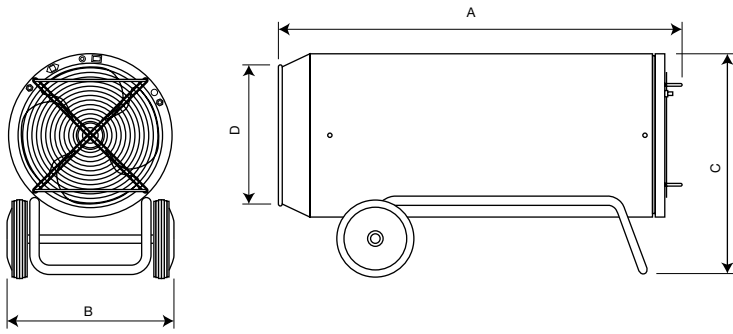
The GR95 heater operates on Liquid Petroleum Gas (LPG), which is a very clean burning fuel. The products of combustion are mainly water vapour and carbon dioxide (CO<sub>2</sub>).

For safety purposes the heater is equipped with a double solenoid valve for closing and opening of the gas supply and a safety thermostat.

GR95 comes fully assembled with an electric cord and gas connection pipe with a pressure regulator, ready for the use (wheels and handle bar are disassembled for ease of transportation). Optionally the heater can be supplied with a mechanical or electronic thermostat complete of 10 m cable.







Dimensions [mm]			
A	B	C	D
1,060	424	562	350

## Technical specifications

		GR95
Weight	[kg]	28
Heating power	[kW]	46 to 100
	[kcal/h]	39,600 to 86,000
LPG consumption	[kg/h]	3.6 to 7.9
LPG pressure	[bar]	2
Nominal electrical power	[W]	300
Voltage	[V]	230
Airflow	[m <sup>2</sup> /h]	3,300
	[cfm]	1,960

N.B. Airflow data are measured at standard condition (20 °C, 1013 hPa).

## Order information

GR95-X e.g., GR95-c

Code for specifying thermostat.

- a No thermostat
- b Mechanical thermostat
- c Electronic thermostat

GR95 is developed and produced by Munters Italy S.p.A., Italy.



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## EQUIPMENT

# GD

- 100% thermal efficiency
- Ideal for spot heating
- Easy to install
- Easy to operate
- Functions on diesel, kerosene or paraffin
- Photoelectric flame detection safety device
- Safety switch preventing overheating
- Stainless steel combustion chamber
- Build-in oil filter

## Mobile Air Heater GD



Photo shows fully equipped GD65.

The GD Mobile Air Heaters are designed for cost effective spot heating.

### Technology basis

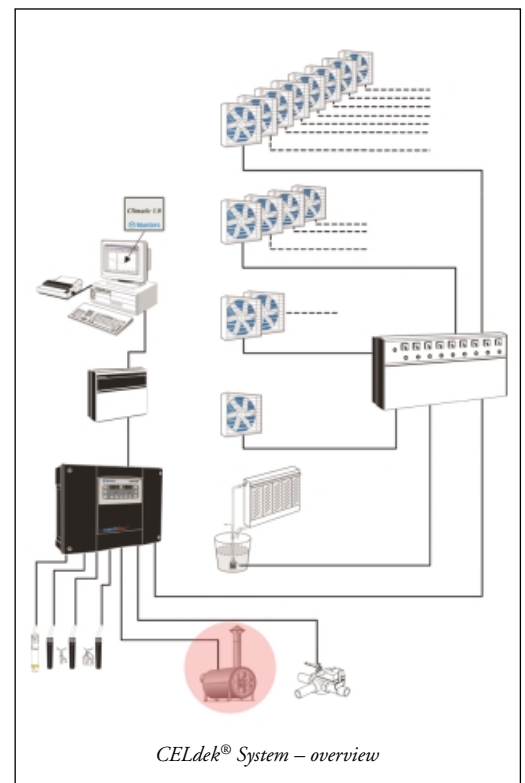
The GD heaters function on the principle of direct fired oil heating. Hereby a powerful fan is used to force air through a combustion chamber where the burner is situated. As the air passes through the burner, all the heat released by the combustion process is transferred to the air stream. This gives the heater a 100% thermal efficiency. The GD heaters operate on oil, kerosene or paraffin.

### Design

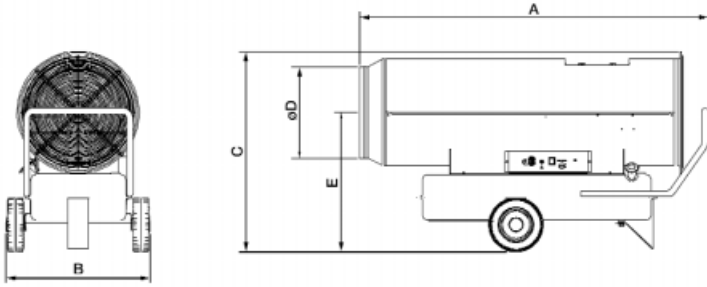
To ensure a long life span, the combustion chamber is manufactured in stainless steel, while the remainder of the heater is painted with unleaded epoxydic powder paint.

For safety purposes the heaters are equipped with a photoelectric flame detection sensor, flame control box and automatic electric control device.

All models are equipped with a fuel tank, wheels and electrical cord. The GD heaters come fully assembled (wheels and handle bar are disassembled for ease of transportation), ready for use. Optionally the heaters can be supplied with a mechanical or electronic thermostat. The thermostats have a 10m cable attached in order to be able to measure the temperature where it is required.



CELdek® System – overview



## Dimensions [mm]

Heater size	A	B	C	D	E
GD65	1,393	624	798	308	578
GD115	1,694	700	978	443	680

## Technical specifications

		GD65	GD115
Weight	[kg]	65	101
Heating power	[kW]	66	115.3
	[kCal/h]	56,700	99,100
Oil consumption	[l/h]	6.07	10.6
Tank capacity	[l]	51	100
Nominal electrical power	[W]	460	800
Voltage	[V]	230	230
Airflow	[m <sup>3</sup> /h]	2,800	4,800
	[cfm]	1,660	2,850

GD is a product of Munters Italy S.p.A., Italy.

## Order information

GD-XXX-X-X e.g., GD115-b-1

Code for specifying size and type

65

115

Code for specifying thermostat

a No thermostat

b Mechanical thermostat

c Digital thermostat

Code for specifying chimney kit

1 With chimney kit

2 Without chimney kit



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## EQUIPMENT

# GD

- 100% thermal efficiency
- Ideal for spot heating
- Easy to install
- Easy to operate
- Functions on diesel, kerosene or paraffin
- Photoelectric flame detection safety device
- Safety switch preventing over-heating
- Stainless steel combustion chamber
- Built-in oil filter

## Mobile Air Heater GD



Photo shows fully equipped GD65.

The GD mobile air heaters are designed for cost effective spot heating in a wide variety of applications, including greenhouses, poultry houses and other livestock structures

### Technology basis

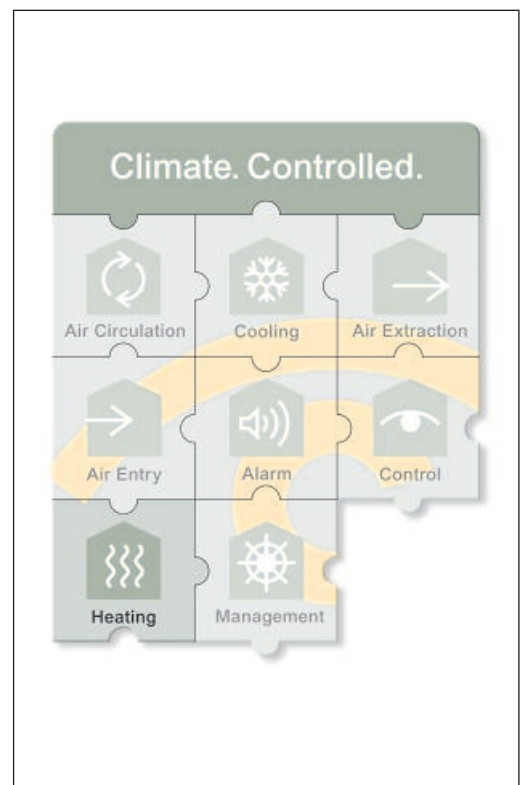
The GD heaters function on the principle of direct fired oil heating. Hereby a powerful fan is used to force air through a combustion chamber where the burner is situated. As the air passes through the burner, all the heat released by the combustion process is transferred to the air stream. This gives the heater a 100% thermal efficiency. The GD heaters operate on oil, kerosene or paraffin.

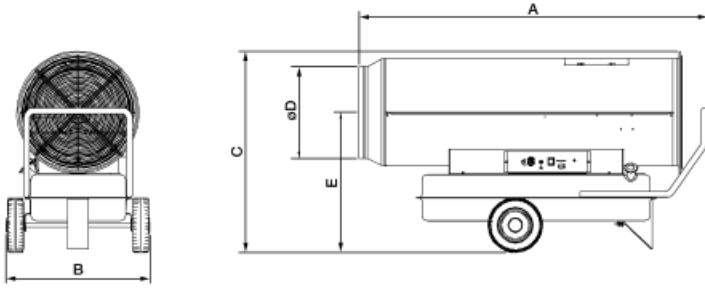
### Design

To ensure a long life span, the combustion chamber is manufactured in stainless steel, while the remainder of the heater is painted with unleaded epoxydic powder paint.

For safety purposes the heaters are equipped with a photoelectric flame detection sensor, flame control box and automatic electric control device.

All models are equipped with a fuel tank, wheels and electrical cord. The GD heaters come fully assembled (wheels and handle bar are disassembled for ease of transportation), ready for use. Optionally the heaters can be supplied with a mechanical or electronic thermostat. The thermostats have a 10m cable attached in order to be able to measure the temperature where it is required.





## Dimensions [mm]

Heater size	A	B	C	D	E
GD65	1,393	624	798	308	578
GD115	1,694	700	978	443	680

## Technical specifications

		GD65	GD115
Weight	[kg]	65	101
Heating power	[kW]	66	115.3
	[kCal/h]	56,700	99,100
Oil consumption	[l/h]	6.07	10.6
Tank capacity	[l]	51	100
Nominal electrical power	[W]	460	800
Voltage	[V]	230	230
Airflow	[m <sup>3</sup> /h]	2,800	4,800
	[cfm]	1,660	2,850

GD is a product of Munters Italy S.p.A., Italy.

## Order information

GD-XXX-X-X e.g., GD115-b-1

Code for specifying size and type

65

115

Code for specifying thermostat

a No thermostat

b Mechanical thermostat

c Digital thermostat

Code for specifying chimney kit

1 With chimney kit

2 Without chimney kit



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Your closest distributor

# Mobile Air Heaters

## GF



Photo shows fully equipped GF35.

The GF Mobile Air Heaters are designed for cost effective heating solutions in a wide variety of applications, including greenhouses, poultry houses and other livestock structures.

### Technology basis

The GF heaters function on the principle of indirect fired oil heating. Hereby a powerful fan is used to force air through a heat exchanger. The burner is situated inside the heat exchanger and heats the inside surface of the heat exchanger. As the air passes over the outside surface of the heat exchanger, the heat is transferred to the air. The heat exchanger is fitted with a chimney that allows the combustion gasses to be vented through the chimney to the outside. Hereby none of the noxious combustion gasses released by the combustion process are released into the air stream exiting the heater. The combustion chamber is designed to be very efficient and up to 88.5% of the heat released by the combustion process is transferred to the air stream. The GF heaters operate on oil, kerosene or paraffin.

### Design

To ensure a long life span, the combustion chamber is manufactured in stainless steel, while the remainder of the heater is painted with unleaded epoxydic powder paint.

For safety purposes the heaters are equipped with a photoelectric flame detection sensor, flame control box and automatic electric control device.

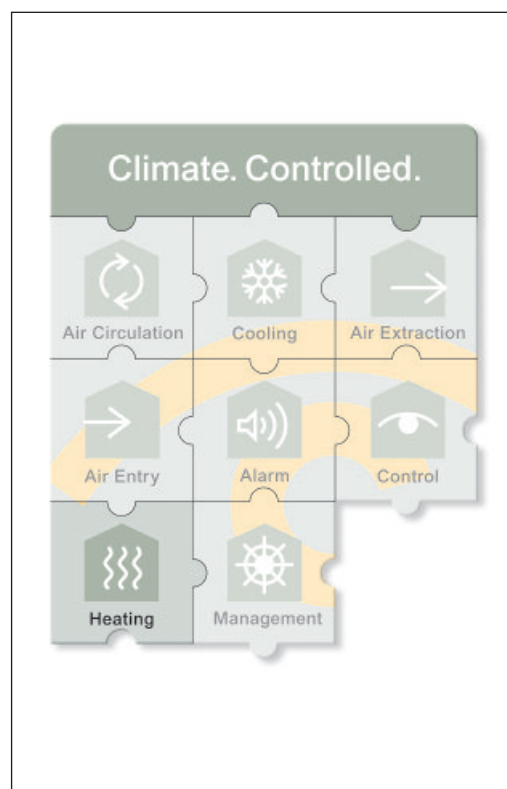
All models are equipped a fuel tank, oil filter, wheels and electrical cord. The GF heaters come fully assembled (wheels and handle bar are disassembled for ease of transportation), ready for use. Optionally the heaters can be supplied with a mechanical or electronic thermostat. The thermostats have a 10m cable attached in order to be able to measure the temperature where it is required.

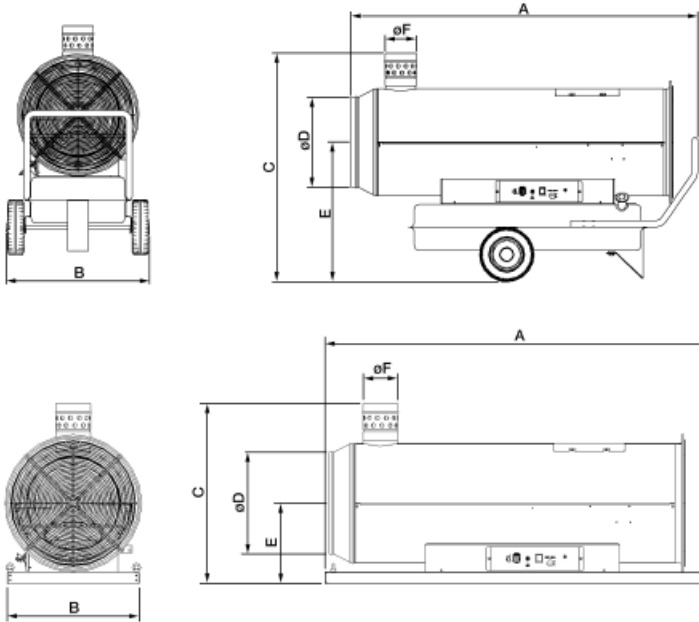
The GF35p, GF55p and GF85p are air hanging heaters. For this purpose these models come without a tank and wheels, but are instead fitted with a frame for hanging.

## EQUIPMENT

# GF

- High thermal efficiency, up to 88.5%
- Ideal for space heating
- Easy to install
- Easy to operate
- Functions on diesel, kerosene or paraffin
- Photoelectric flame detection safety device
- Safety switch preventing over-heating
- Stainless steel combustion chamber
- Built-in oil filter





## Order information

GF-XXX-X-X e.g., GF85-b-1

Code for specifying size and type

- 35
- 55
- 85
- 35p (hanging version)
- 55p (hanging version)
- 85p (hanging version)

Code for specifying thermostat

- a No thermostat
- b Mechanical thermostat
- c Digital thermostat

Code for specifying chimney kit

- 1 With chimney kit
- 2 Without chimney kit

## Dimensions [mm]

Heater size	A	B	C	D	E	F
GF35	1,176	624	937	308	578	150
GF55	1,393	624	937	308	578	150
GF85	1,694	700	1,115	443	680	150
GF35p	1,200	460	643	308	283	150
GF55p	1,400	460	643	308	283	150
GF85p	1,700	575	784	443	349	150

## Technical specifications

	GF35	GF55	GF85	GF35p	GF55p	GF85p
Weight [kg]	70	76	121	55	59	103
Nominal heating power [kW]	37	53	84	37	53	84
heating power [ <i>kCal/h</i> ]	31,300	45,200	72,200	31,300	45,200	72,200
Thermal efficiency [%]	87.1	87.1	88.5	87.1	87.1	88.5
Oil consumption [l/h]	3.35	4.84	7.72	3.35	4.84	7.72
Tank capacity [l]	51	51	100	0	0	0
Nominal electrical power [W]	460	460	800	460	460	800
Voltage [V]	230	230	230	230	230	230
Airflow [m <sup>3</sup> /h]	2,000	2,500	4,500	2,000	2,500	4,500
[ <i>cfm</i> ]	1,190	1,480	2,670	1,190	1,480	2,670

GF is a product of Munters Italy S.p.A., Italy.



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