

GA Direct propane gas fired

FUEL TYPE



GA 110 E

GA 60/85 E

GA 42 E

GA 25 E



Servo motor with gasvalve.
(see page 19).



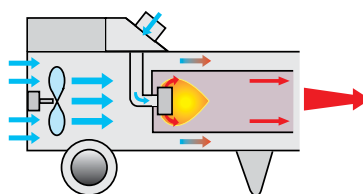
GA 42 with floor- and suspension
brackets.



GA 60/85 with suspensions
brackets.

WORKING PRINCIPLE

- Direct heat with 100% efficiency.
- Adjustable capacity.
- Adjustable outlet temperature between 80-185 °C (1 m).
- Clean burner because of fresh air connection (GA 60 E / GA 85 E en GA 110 E).
- The models from GA 42 E can be connected to a modulating system.



FEATURES

- All GA models with burner relay, ionization flame protection, thermostat connector and hose breakage protection.
- Clean combustion, easy to maintain.
- High capacity for low price.
- Wheels GA 60/85 E available as an accessory.
- Wheels GA 110 E are standard.
- Full humidity and dust proof control panel. (Except GA 25 E)
- Removable exterior cover for service.
- Gas valves with built-in filter. Twin gas valves for safety.
- KIWA-CE certified.
- Room ventilation is required.
- GA 25 is not suitable for stables.
- GA models (except the GA 25 E) can both blow horizontally and vertically (up or down) near a drying system.



APPLICATIONS

Agriculture

- Heating of sheds.
- Drying of agricultural products.

Livestock

- Heating of pig and poultry houses.

Horticulture

- Heating of greenhouses and polytunnels (N.B. control CO₂ and CO emission).

SPECIAL APPLICATION

The portable and mobile models can be connected to gas bottles for onsite use. For larger models sufficient gas pressure must be available and two or even three 47 kg bottles are required. The heaters may also be connected to a bulk propane tank. All GA models (except GA 25 E) can be connected to a modulating control unit.

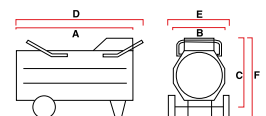
TECHNICAL SPECIFICATIONS | DIMENSIONS AND WEIGHTS

1 kW = 860 kcal/h 1 kW = 3,413 Btu/h 1 kW = 3.6 MJ/h 1 kg = 1.2 l/h

MODEL	Heat output (Btu/hr)		Heat output (kW)		Fuel consumption gas (kg/hr)		Heated air flow (m ³ /hr)	Power consumption 230 V (AMPS)	Gas connection Ø (inch)	Gas pressure on heater (bar)	Thermostat connection	ITEM NUMBER
	Min.	Max.	Min.	Max.	Min.	Max.						
GA 25 E	43,000	85,000	12.5	25	0.9	1.8	800	0.30	1/2	0.5-1.5	Yes	43.030.000
GA 42 E	48,000	150,000	18	44	1.4	3.2	760	0.60	1/2	0.4-1.5	Yes	40.277.000
GA 60 E*	92,000	218,000	27	64	1.9	4.6	2,400	0.64	1/2	0.4-2.0	Yes	40.707.005
GA 85 E*	133,000	317,000	39	93	2.8	6.7	2,400	0.64	1/2	0.4-2.0	Yes	40.707.002
GA 110 E	184,000	444,000	54	130	3.9	9.3	4,000	2.20	1/2	0.4-2.0	Yes	40.710.005

* Standard without wheels, for wheel sets see Accessories

MODEL	Dimensions heater only (cm)						KG	Dimensions including packing (cm)			
	A	B	C	D	E	F		L	B	H	KG
GA 25 E	55	28	50				13	60	30	55	14
GA 42 E	58	37	45				16	70	40	50	17
GA 60 E	100	46	47	109	47	58	36	110	50	60	41
GA 85 E	100	46	47	109	47	58	36	110	50	60	41
GA 110 E	118	53	60	118	63	77	55	129	67	94	71



GA EV Direct propane fired, vertical

FUEL TYPE



GA 110 EV



GA 60 EV / GA 85 EV

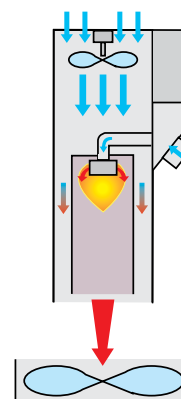
WORKING PRINCIPLE

- Full humidity and dust proof control panel.
- Clean burner because of fresh air connection.
- Removable exterior cover for service.

ADVANTAGES

- GA-EV models can both blow horizontally and vertically. (up or down) near a fan of a drying system.
- Clean combustion.
- Easy to maintain.
- High capacity for low price.
- All GA and GA-EV models have suspension hooks.
- Technical specifications as per GA E models.

Before operation when GA 42/60/85/110 EV are blowing up or down, a technician should rotate the solenoid valve 90 degrees. (more information in the manual).



APPLICATIONS

Agriculture

- Drying and storing of agricultural products.
- Intense drying of flower bulbs, when a high ventilation standard is required to prevent harmful ethylene emission.

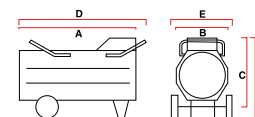
TECHNICAL SPECIFICATIONS | DIMENSIONS AND WEIGHTS

1 kW = 860 kcal/h 1 kW = 3,413 Btu/h 1 kW = 3.6 MJ/h 1 kg = 1.2 l/h

MODEL	Heat output (Btu/hr)		Heat output (kW)		Fuel consumption gas (kg/hr)		Heated air flow (m³/hr)	Power consumption 230 V (AMPS)	Gas connection Ø (inch)	Gas pressure on heater (bar)	Thermostat connection	ITEM NUMBER
	Min.	Max.	Min.	Max.	Min.	Max.						
GA 42 EV	48,000	150,000	18.0	44	1.4	3.2	760	0.60	1/2	0.4-1.5	Yes	40.277.000
GA 60 EV*	92,000	218,000	27.0	64	1.9	4.6	2,400	0.64	1/2	0.4-2.0	Yes	40.707.005
GA 85 EV*	133,000	317,000	39.0	93	2.8	6.7	2,400	0.64	1/2	0.4-2.0	Yes	40.707.002
GA 110 EV	184,000	444,000	54.0	130	3.9	9.3	4,000	2.20	1/2	0.4-2.0	Yes	40.710.005

* Standard without wheels, for wheel sets see Accessories

MODEL	Dimensions heater only (cm)						KG	Dimensions including packing (cm)				KG
	A	B	C	D	E	F		L	B	H		
GA 42 EV	58	37	45				16	70	40	50	17	
GA 60 EV*	100	46	47	109	47	58	36	110	50	60	41	
GA 85 EV*	100	46	47	109	47	58	36	110	50	60	41	
GA 110 EV	118	53	60	118	63	77	55	129	67	94	71	



MODULATING CONTROL UNITS MS 20, MS 40 AND MS 60

With the **MS 60**, a drying plant operating to a maximum of 60 kg of propane gas per hour, 40 kg for the **MS 40** and 20 kg for the **MS 20** can be controlled in which several heaters (also all horizontal models) can be connected.

The modulating control unit ensures that the heat capacity is automatically and constantly adapted to the requirement at any moment. This is a continuous process. The drying of products at highly fluctuating outside temperatures can thus be improved considerably. The desired temperature is set on the control panel which measures the temperature of the crop

by means of a sensor. The panel controls the gas pressure regulator with a servo motor which provides more or less gas flow to the burners and the temperature is adjusted until the preset value is reached. The measured temperature value is digitally readable. The servo motor and the gas pressure regulator of these units are also available separately and can be connected to a central storage computer.

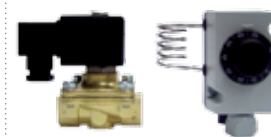
The smaller unit **MS 20** is supplied as a separate controller, gas pressure regulator and servo motor. On this unit 2 to 6 heaters can be connected.

ADVANTAGES

- MS 20:
 - Modulating drying of smaller amounts of crop for an economic price.
- MS 40 and MS 60:
 - Accurate adjustable crop temperature (to 0,1 °C).
 - Saving on cost of fuel.
 - Superior product quality.
 - Modulate different sections at the same time.



Servo motor with gas valve for connection to central computer.



Fire protection system.

MODULATING CONTROL UNITS

	ITEM NUMBER
Modulating control unit MS 20 (1-20 kg propane), adjusting range 0.4-2.0 bar, Ø connection 1/4" IN-3/8" OUT, supply 230 VAC	40.301.018
Modulating control unit MS 40 (1-40 kg propane), adjusting range 0.4-2.0 bar, Ø connection 1/4" IN-3/8" OUT, supply 230 VAC	40.301.069
Modulating control unit MS 60 (1-60 kg propane), adjusting range 0.4-2.0 bar, Ø connection 1/4" IN-3/8" OUT, supply 230 VAC, 3-point control with manual operation	40.301.019
Connection accessory for external computer (instead of complete ms):	
Modulating gas valve with servo motor MG 60, Ø connection 1/2":	
Modulating gas valve with servo motor MG 60, supply 230 VAC 50/60 Hz, 3-point control with manual operation	40.301.029
Modulating gas valve with servo motor MG 60, supply 230 VAC 50/60 Hz, 3-point control, pot. meter 5K-Ohm for feedback	40.301.055
Modulating gas valve with servo motor MG 60, supply 24 VAC 50/60 Hz, control 0-10 Vdc	40.301.056
Modulating gas valve with servo motor MG 60, supply 24 VAC 50/60 Hz, 3-point control, pot. meter 1K-Ohm for feedback	40.301.052
Modulating gas valve with servo motor MG 60, supply 24 VAC 50/60 Hz, 3-point control	40.301.054
Modulating gas valve with servo motor MG 40, adjusting range 0.4-2.0 bar, Ø connection 1/2":	
Modulating gas valve with servo motor MG 40, supply 230 VAC 50/60 Hz, 3-point control	40.301.066
Modulating gas valve with servo motor MG 40, supply 24 VAC 50/60 Hz, 3-point control with feedback	40.301.067
Modulating gas valve with servo motor MG 40, supply 24 VAC, 3-point control	40.301.072
Modulating gas valve with servo motor MG 40, supply 24 VAC, 0-10 Vdc	40.301.073
Modulating gas valve with servo motor MG 20, adjusting range 0.4-2.0 bar, Ø connection 1/4" IN-3/8" OUT:	
Modulating gas valve with servo motor MG 20, supply 230 VAC 50/60 Hz, 3-point control	40.301.058
Modulating gas valve with servo motor MG 20, supply 24 VAC 50/60 Hz, control 0-10 Vdc	40.301.064
Modulating gas valve with servo motor MG 20, supply 24 VAC 50/60 Hz, 3-point control	40.301.065
Modulating gas valve with servo motor MG 20, supply 24 VAC 50/60 Hz, 3-point control with pot. meter	40.301.075
Modulating gas valve with servo motor MS 24, (DVGW approved for Germany) supply 230 VAC 50/60 Hz, 3-point control	40.301.077
Special equipment	
Temperature probe PT 100 with 10 m cable	40.301.033
Temperature probe PTC 1000 with 10 m cable	40.301.063
Fire protection system for crop drying (propane gas), supply 230 VAC	40.301.045
Fire protection system for crop drying (propane gas), supply 24 VAC	40.301.046
- Magnetic gas valve for propane gas, 230 VAC, to place in gas supply pipe (max. 60 kg/hr)	40.301.047
- Magnetic gas valve for propane gas, 24 VAC, to place in gas supply pipe (max. 60 kg/hr)	40.301.080
- Magnetic gas valve for propane gas, (DVGW approved for Germany) 230 VAC, to place in gas supply pipe (max. 60 kg/hr)	40.301.093
- Room-/maximum thermostat 0/60 °C	40.301.049
Suspension bracket GA 42 E	40.277.033
Suspension bracket GA 60/85/110 E	40.301.007
Shell coupling (male 1/2" left thread)	40.252.259
Gas quick coupling (female 3/8")	40.301.025
Gas quick coupling (female 1/2")	40.301.032