

# Hot-air blowers in horticulture

Edition 04.11 · D





GP 95  
95 kW gas burner



Era 33  
33 kW gas burner  
with pilot flame for  
frost protection or for  
dosing of CO<sub>2</sub>

## Optimize your yield

Elster-Instromet B.V. supplies Ermaf devices which have been used all over the world in horticulture for many years now and with great success.

### Ermaf hot-air blowers feature

- highly clean combustion with low levels of CO and NO<sub>x</sub>
- high air displacement (6500 to 8000 m<sup>3</sup>/h)
- high jet length (40 to 50 metres)
- low gas pressure (20 to 50 mbar)
- 100% efficiency
- fully automatic or manual operation
- good resistance to water and humidity in the greenhouse (protection class IP 54)
- optimum value for money

### Clean combustion

Burning gas does not only release CO<sub>2</sub>, but also other gases which are harmful to plants. The most important, among others, are nitrogen oxides (NO<sub>x</sub>). Constant exposure of plants even to relatively low NO<sub>x</sub> concentrations can result in growth inhibition and therefore deficits in yields. Ermaf devices produce only a very low level of nitrogen oxides.

### High jet length and high air displacement

A high jet length and air displacement ensure uniform distribution of the heat and the CO<sub>2</sub> content. If there is no CO<sub>2</sub> dosing, the fan can be used to produce an air displacement in order to dry the plants or compensate a temperature difference in the greenhouse.

### BCU control unit

The BCU is a burner control unit which was developed to meet the most recent market requirements and requests.

### Benefits of the BCU control unit

- automatic restart (3 times)
- electronic ignition
- fault analysis is simple since a combination of LEDs displays the type of fault, thus lowering service costs
- diagnostic plug allowing memory as well as current and historical values to be read out.
- input signals of 24 V and 230 V possible
- ionization current (combustion quality) can be easily controlled using a key combination
- additional contact for remote fault display
- potentiometer to allow the fitter to adjust the switch-on delay (reduction in the strain on the gas and power grids), post-cooling time and minimum combustion time
- compact, drip proof housing, IP 54
- control unit easy to clean

### CO<sub>2</sub> dosing

If the CO<sub>2</sub> concentration in the atmosphere is increased, this also leads to an increase in the development of carbohydrates so that plants can develop better, will be of higher quality and produce a higher yield. In addition, the plant's growth will be stimulated. In winter especially, when the greenhouse is closed, the concentration of CO<sub>2</sub> which is already low, will be quickly used up and will reach a level below that of the external environment, causing the growth process to be slowed. To boost this process, CO<sub>2</sub> must be additionally supplied.



BCU control unit

RGA  
with closed combustion system



RGA 95  
95 kW hot-air blower  
with chimney for diesel/kerosene



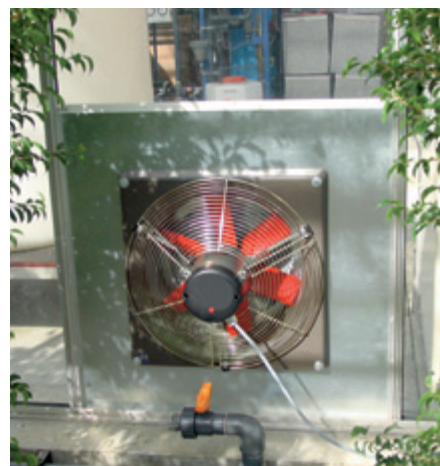
Thermostat

#### RGA 100, hot-air blower

The RGA 100 is a hot-air blower with a high level of efficiency (> 92%) that can be equipped with a modulating burner from 60 to 100 kW on request. The device can either be used for heating only or for heating in conjunction with CO<sub>2</sub> dosing.

#### RGA, hot-air blower with flue

Ermaf provides an indirectly heated hot-air blower with a closed combustion system for use in polytunnels and greenhouses in which temperature differences of more than 15 degrees will have to be compensated or in which a CO<sub>2</sub> concentration of too high a level is undesirable. Furthermore, this device has a separate connection for the combustion air.



Façade fan

P 100  
100 kW hot-air blower  
for diesel/kerosene



### Practical experience on the international market

Elster-Instromet B.V. occupies a leading position on the international market and has made a good name for itself with heating/CO<sub>2</sub> devices for agriculture and horticulture. In the field of animal husbandry applications, Elster-Instromet B.V. has more than 45 years of practical experience worldwide with hot-air blowers specially developed for use in intensive livestock breeding such as for poultry, pigs and cattle. However, Ermaf has also developed special stainless steel hot-air blowers, which have a very good reputation worldwide, for applications in horticulture.

The complete product range includes gas- and oil-fired hot-air blowers for both mobile and stationary use with capacities of between 14 and 120 kW. In addition, the product range features hot-air blowers with clean combustion systems for CO<sub>2</sub> fertilization and for heating greenhouses. As a matter of course, the devices comply with the European standards and requirements as well as with the requirements of countries outside Europe.





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