



Speedbox

Application instructions



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Application instructions

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1 General information

- Manufacturer

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- General information –

These application instructions apply to the Speedbox.

It should be kept at a place accessible to all users. The instructions facilitate the safe and proper transport, start-up and servicing of the Speedbox. Please read these instructions prior to transporting, starting-up or servicing the appliance. Adhere to the instructions. We reserve the right to make technical alterations to the electrical appliance described in these instructions. The technical data and measurements are not binding. No claims can be based thereon.

We reserve the copyright of these instructions and the enclosed drawing as well as of any other relevant papers.

The appliance conforms to the presently valid CE rules

- Symbols -

The following symbols of which special note has to be taken are used in these application instructions:



safety symbols and notes on warranty for defects.



points to important reference notes and information.

- Disclaimer –



the manufacturer is not liable for any damages and operational disorders occurring through non-observance of these instructions or improper repairs.

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The manufacturer assumes no liability for damages occurring during the guarantee period if they are caused by

- ▶ lack of or inadequate maintenance
- ▶ improper operation
- ▶ faulty installation
- ▶ incorrect or improper connection of the Speedbox
- ▶ unauthorised changes made to the Speedbox or non-observance of the manufacturer's recommendations
- ▶ the use of accessories or spare parts not supplied or recommended by the manufacturer.

- Electricity supply –



The appliance is designed for operation via the public supply network system whereby the voltage has to correspond to that on the type plate.

– Electromagnetic compatibility –

The appliance corresponds to EN 60950 (general safety regulation) as well as EN 55022 (B) (electromagnetic compatibility).

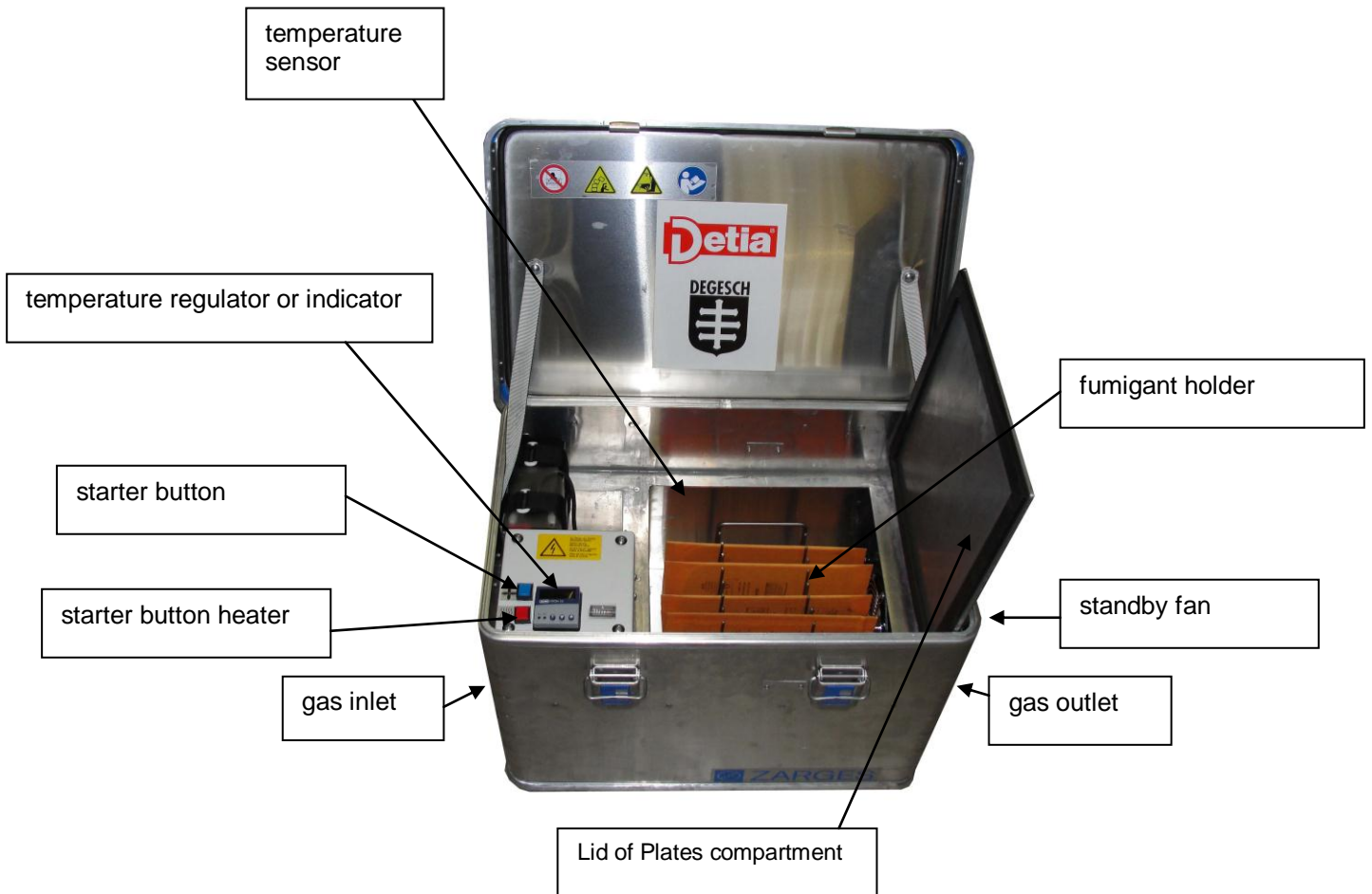
2 Device name

Speedbox

3 Field of application

The Speedbox is intended exclusively for fumigations with Degesch Plates and for the heating of these in the airstream. Common fields of application would be containers, stacked bags or space fumigations. The Speedbox must only be operated outside the objects to be fumigated. The Speedbox can be used in all cases for which Degesch Plates are registered.

4 Technical details





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5 Safety measures



For the safety of the applicator please adhere to the details of the application instructions and use the recommended personal protective equipment.

Do not eat, drink or smoke while handling the fumigant. After completion of the work wash hands thoroughly. Keep both fumigant and appliance out of the reach of children.

While filled the appliance must not be switched off to avoid too high gas concentrations in the plates compartment. However, before opening the compartment the appliance has to be switched off to avoid contact with movable fixtures.

While the appliance is in use secure the lid with padlocks against unauthorized opening .

6 Start-up

6.1 Location

The working position is horizontal. The ground should be even to avoid vibrations. Keep the air entry and exit ports free from dirt or humidity.

6.2 Electrical connection

- voltage

The appliance is supplied with 115 or 230 voltage. Compare the appliance and supply voltages.

The permissible voltage fluctuation is $\pm 10 \%$. Possible exceptions are stated on the type plate.

- connection

The power supply is effected via a connecting cable situated on the left side of the appliance. This cable must correspond to the national regulations of the country in which the appliance is used.



3-phase connection cables must exclusively be used. The earthed wire **MUST** be connected.

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6.3 Preoperational check

Check appliance for mechanical damage, especially the lids of the appliance and around the sealing of the fumigant compartment

Connect appliance to the electricity supply system.



IMPORTANT! After a 3-months period of storing without recharging the accumulator, the Speedbox must be connected to the electricity supply system for at least 7 hours prior to use. Carry out performance check as stated in para 6.4

6.4 Functional checks prior to start-up

- general

Open the air in- and outlets.

- check of main fan

Supply the Speedbox with electricity and start fan function (see 7.3). The main fan should start without secondary noises (from bearings or grinding noise from the rotor blades). When the Plates compartment is closed a strong airstream should be felt at the air outlet. Should running noises occur or no airstream be felt at the air outlet switch Speedbox into OFF modus (see 7.3) and disconnect from the mains supply. Then check the inside of the appliance for foreign bodies and remove if any. If this does not remedy the fault the Speedbox must be checked by an expert.

- check of standby fan

With the mains supply disconnected (plug pulled out) put the fan into operation (see 7.3). The standby fan will start up. At the corresponding air outlet a airstream should be noticeable.

Should running noises occur or no airstream be felt at the outlet switch Speedbox into OFF modus (see 7.3) . Then check the inside of the appliance for foreign bodies and remove if any.

If this does not remedy the fault the Speedbox must be checked by an expert.



The working safety of the Speedbox depends on the observance of these checks.

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7 Handling

7.1 General

Upon opening of the aluminium box the control elements and the Plates compartment become accessible. The Speedbox is operated via two push-buttons as well as buttons on the temperature regulator. The temperature regulator is factory-aligned. Within the bounds of the pre-aligned range the user can increase or decrease the temperature with the buttons of the regulator (see 7.4).

7.2 Plates compartment

The Plates compartment is closed with a lid held down by a steel spring shackle which has to be unlatched to open the compartment. Pull up the lid towards the right. Reverse this action to close the compartment.

 The lid and the sealing must not be dirty or damaged!

Place the amount of Degesch Plates required for the fumigation into the Plates compartment. Do not insert more than the maximum number of 12 Plates into the Plates compartment. If using less than the maximum amount, begin to fill in the middle of the plates compartment. Insert Plates only lengthwise (see illustration).



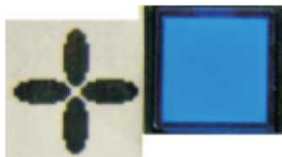
7.3 Operating modes

- OFF

Both push-buttons are switched off, the Speedbox is connected to the mains supply. The internal accumulator for standby operation is being charged. Fan and heater are switched off.

- Fan operation

Air circulation without additional heater.



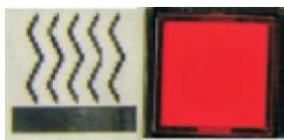
The blue push-button is switched on, the Speedbox is connected to the mains power supply.

The internal standby accumulator is being charged. The main fan is switched on. The heater is still off.

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- Heater operation

Air circulation with additional heating.



Both push-buttons are switched on, the Speedbox is connected to the mains power supply.

The internal accumulator for standby operation is being charged. The main fan is switched on and the heating is in operation.

- Standby operation

Minimal air circulation via standby fan, no heating.

Fan and heating had been in operating modus and were cut off from the mains power supply (through power failure or inadvertent removal of the mains plug). Main fan and heater are not working. The standby fan will be in operation. With fully charged accumulator the standby operation can be kept functioning for at least 35 hours. Upon return of the power supply the standby fan switches itself off and the Speedbox continues running in the operation modus set prior to the power failure.

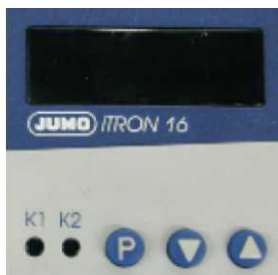
7.4 Temperature indicator and setting

Normal indication

The temperature inside the Plates compartment of the Speedbox appears in the indicator display of the regulator in Centigrade or Fahrenheit respectively (depending on the factory alignment).

Temperature setting

Press button P of the regulator. The display of the regulator will alternately show SP and the set temperature. Within the factory-aligned range the desired temperature can now be set with the arrow buttons.



Increase the required temperature with ▲

Decrease the required temperature with ▼

Renewed pressing of P leads again to set temperature.

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8 Operation

Depending on the application the Speedbox can be operated with an internal temperature of 20 to 35° C. The air stream cannot be regulated. By means of commercially available gastight synthetic pipes the Speedbox will be connected to the room to be fumigated. Additionally the gas outlet of the standby fan has to be connected with adequate pipes to the main connection or directly to the object to be fumigated (see 13.1). The power supply required is that stated on the type plate. In case of power failure a standby fan with reduced capacity which can run for about 35 hours will start up automatically.

- ▶ Connect the Speedbox with the room to be fumigated by means of suitable gastight synthetic pipes (do NOT place the Speedbox into the room to be fumigated).
- ▶ Open the lids of Speedbox and Plates compartment.
- ▶ Remove Degesch Plates from the aluminium foil and insert into the Plates compartment as described under 7.2. The dosage depends on the application rate and exposure times for Degesch Plates as registered with the authorities.
- ▶ Close lid of Plates compartment.
- ▶ Set temperature and switch on heater.
- ▶ Switch on fan.
- ▶ Securely fasten the lid of the Speedbox (lock!).
- ▶ Check gas concentration in the fumigated object at suitable intervals.



Should running noises of the fans occur during the operation, disconnect the appliance from the mains supply and continue running it via the standby fan until the Degesch Plates are completely degassed.

At the end of every fumigation the appliance should be checked for mechanical damages, especially the lid of the Speedbox and the Plates compartment around the sealings.

- ▶ After aeration remove the degassed Plates. Aerate the empty appliance and ventilate for another 5 minutes with air only. Then clean the appliance thoroughly with a dry cloth.
- ▶ After completion of the fumigation with the Speedbox according to regulations and under adherence to the authorised exposure times the Degesch Plates have to be disposed of according to regulations of the local authorities.

9 Maintenance

- Safety instructions



Maintenance work should only be carried out when the appliance is in a de-energised condition. Both functional buttons must be in the off position. The appliance has to be disconnected from the power supply.

Servicing at the mains connection point of the appliance or of supplementary electrical appliances should only be carried out by expert personnel under adherence of the relevant regulations on electrical work.

-Cleaning

The appliance must not be cleaned with superheated steam, water or any other liquids. Regularly check all air vents for soiling.

In case of heavy soiling open the lid of the appliance and remove the dirt with suitable cleaning agents (grease remover, damp cloth etc.). Remove possible deposits. Do not use abrasive agents or solvents on the plastic parts and sealing.

- Exchange of accumulator for standby operation

The accumulator must only be exchanged by trained electricians.

The accumulator for the standby operation must be exchanged every 3 years. The Speedbox and the power supply must be disconnected. Remove the cable brackets from the accumulator connections. Then remove the Velcro tape holding the accumulator and take it out.

Place the new accumulator into the holding sockets and fasten into position with the Velcro tape. It should be secured tightened to the mounting plate. Replace the cable brackets to the accumulator connections. Pay attention to the correct polarity. The brown marked cable must be attached to the connection also marked in red and the blue marked cable to the connection marked in black respectively. The accumulator must be tightened firmly onto the mounting plate with the Velcro tape.



Use accumulator type Panasonic LC-R 127R2PG



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10 Transport and storing

- safety instructions


For lifting and transport of the Speedbox adhere to the valid accident prevention rules!

- Transport

Carry the Speedbox only by means of the handles provided and do not transport additional loads in or on the appliance at the same time. Before transport secure the fumigant compartment (with adhesive type etc), close the lid and cover the air in- and outlets with the caps supplied. Prior to operation the caps must be removed.

- Storage

Store in dry rooms and protect from mechanical damage.

 If the Speedbox has to be in storage over a longer period connect the appliance to the main electricity supply with the connection cable every 3 months for about 7 hours. This will ensure that the standby accumulator remains charged and the Speedbox ready for operation at any time. It will also prevent a possibly harmful total discharge.

11 Special notes

The safe operation of the Speedbox can be guaranteed only if Degesch Plates are exclusively used.

At the final decommissioning of the Speedbox the appliance has to be disposed of or recycled according to the regulations of the relevant authorities. The lithium battery of the regulator and the lead accumulator have to be removed and also disposed of separately according to the regulations of the authorities.



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12 Technical data

Electrical connection	safety plug
supply voltage	115/230VAC+/-10%
power input	max. 850 W
safety class	I
safety type	aluminium box with sealed air holes IP53* ¹⁾ electrical switch box IP66* ²⁾
electromagnetic compatibility	EN 55022 (B)
enclosure	aluminium
measurements	670 x 380 x 410 (length x width x height)
weight	approx. 20 kg
safety regulations	EN 60950
ambient and storage temperatures	0....50°C / -40...+70°C
volume output	max. 140m ³ / h
temperature increase above ambient temperature	max. 15K
operating position	horizontal

*¹⁾ IP53: dustproof, protected against water spray from an inclination up to 60° from verticality.

*²⁾ IP66: dustproof, protected against heavy seas or strong water-jet.

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13 Accessories (not included)

13.1 Connecting piece for standby fan

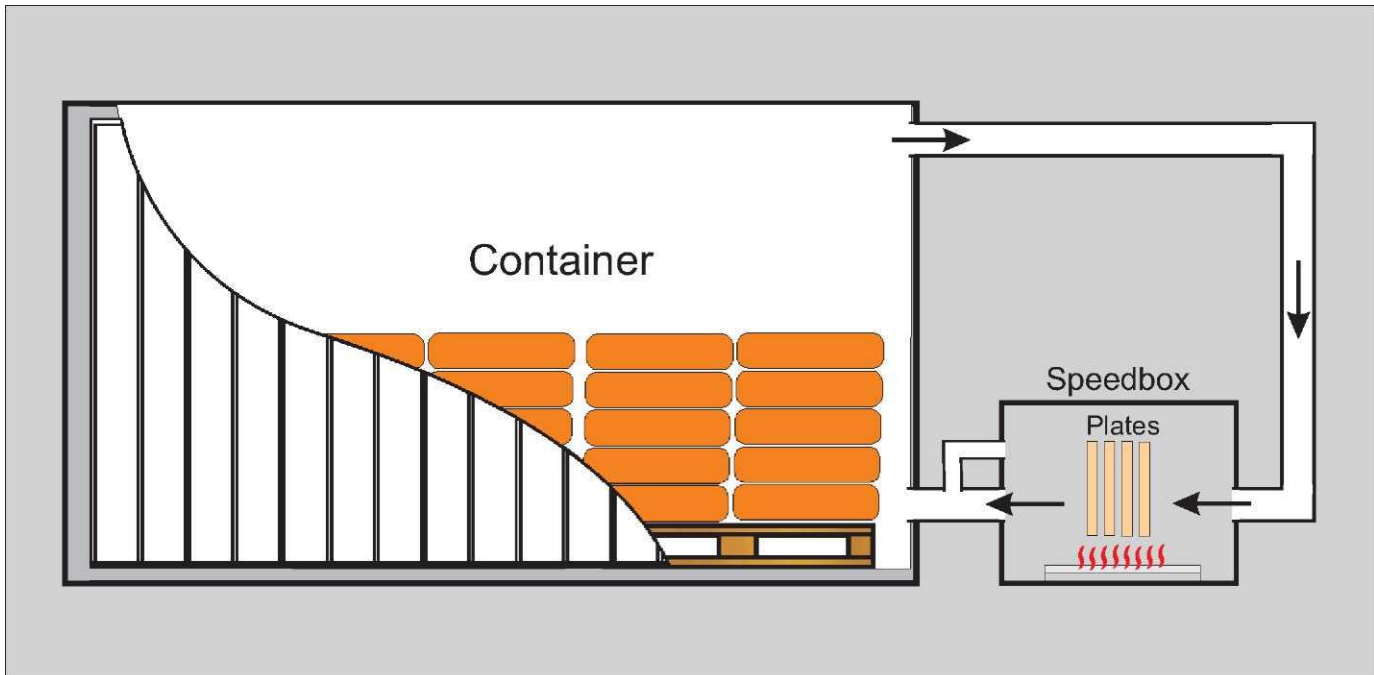


13.2 Connecting piece for container



14 Applications examples

14.1 Schematic representation



14.2 Container fumigation



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14.3 Space fumigation

