

NEBULO

Instruction manual

DIN EN ISO 9001:2008



iGEBÄ[®] 

Cold fogger

S U M M A R Y

	<u>Page</u>
1. How to use this manual	2
2. Definition of the symbols used	2
3. Technical specifications	3
4. Main features	3
5. General information	4
6. Packaging	6
7. Use	6
8. Recommendations on application	7
9. Consumption	9
10. Maintenance	10
11. Spare parts	12
12. Table of spare parts	14

1.) How to use this manual

These instructions contain all the information necessary for the use of the appliance, complete with diagrams, including receipt, use, start-up, maintenance, cleaning, as well as all the safety precautions to be taken throughout the lifetime of the appliance.

For ease of consultation, the contents are divided up by subject.

The appliance is built in accordance to the European directives 89/336/EEC, 93/68/EEC and relative updates, and presents no risk for the operator if used as described in these instructions supplied by IGEBA, provided the safety devices are kept in efficient working order all times.

IGEBA accepts no responsibility in the event of modifications to the machine or operations carried out contrary to the contents of these instructions, that might cause damage to persons, property or the environment.

Due to the continuous technological development of the products, the technical information contained in this manual might change without notice.

IGEBA trusts that you will be fully satisfied with the performance of the new appliance.

2.) Definition of the symbols used



The CE mark indicates that the appliance conforms with the EC directives.



Consult this instruction and maintenance manual carefully before carrying out any operations on the appliance.



General warning, risk of danger or possibility of damaging the appliance, pay particular attention to the words that follow this symbol.



Risk of electrical danger. The words that follow refer to conditions that could become dangerous. Follow the instructions carefully.



Use individual protection equipment suitable for the materials fogged by the appliance.



Maintenance and / or checking operations requiring particular caution or the intervention of a specialist operator or the manufacturer.

3.) Technical specifications

Type:	Electric, cold fogger
Motor:	Electric, voltage ratings available: 220 / 240 Volt, 50/60 Hz 110 / 120 Volt, 50/60 Hz
Protection class:	Zero (Motor windings are open)
Power rating:	700 Watt
Tank capacity:	4 Litres
Output capacity:	15 to 250 ml / minute, max. 15 l / h
Weight, empty:	3,6 kg
Dimensions:	Length: 35 cm Height: 40 cm Tank diameter: 25 cm

4.) Main features

NEBULO is an example of the natural technical evolution that has always been a typical feature of IGEBA products and equipment, and it is the ideal tool for safe and effective pest control, disinfectant and deodorizing treatments.

The main features are:

- The body containing the electric motor is divided in two parts, for speed of dismantling, greater practicality and ease of maintenance.
- The innovative flow regulator (already tried and tested on NEBULO), which makes use of a system for the identification of the adjustment pin position (notch by notch movement), means that you always know exactly how much liquid is being issued, from a minimum of 15 cc to a maximum of 250 ml per minute, depending in the type and viscosity level of the liquid to be fogged.

Other features are:

- Shock and chemical resistant thermoplastic structure
- Powerful electric motor, commutator type
- Micronisation regulated in proportion to the amount of liquid issued
- Versatility, with the possibility of fogging insecticide, disinfectant and deodorant
- Above average fogging output compared to other machines in the same class
- Manageable and easy to use

Today more than ever, NEBULO is the ideal appliance for use in restaurants, bars, hotels, campsites, foods storage areas, canteens, communities, schools, banks, offices, clinics, means of transport and any other location that requires pest control, disinfectant and deodorizing treatments.

5.) General information

- Read these instructions on the safety, assembly, use and maintenance of the appliance carefully.
- Keep this manual. If the appliance is transferred, give the manual to the new owner.
- Do not leave the packaging materials within the reach of children.
- Do not use adapters, multiple sockets or extension leads.
- Keep the appliance out of the reach of children.
- Use the appliance only for the purpose it was designed for.
- Keep the power supply cable away from heat sources, oil, sharp edges and rough surfaces. Do not pull the cable to remove the plug.
- Never use the appliance with wet hands or feet or with bare feet.
- Always switch off after use.
- Do not leave the plug in the socket when the appliance is not in use.
- **Always use original spare parts.**
- Never modify the appliance.

- Always store the appliance in a dry place, far from heat sources. Never leave it exposed to the elements (rain, sunlight etc.).
- Take all the precautions set out on the labels of the products you are using. Do not handle the parts of the appliance that come into contact with the substances before cleaning the appliance thoroughly.
- All personnel exposed to the aerosols produced by the appliance should wear approved respirators.
- Do not fog products containing aggressive solvents that could damage the plastic parts (such as methylene chloride).
- Do not fog near naked flames.
- Always keep the suction filter inside the tank clean. After use with wettable powders that can be dampened, we advise fogging with warm water to clean the appliance.
- **Periodically check the cleanliness of the air filter. If the motor does not get a sufficient quantity of clean air, the fogging operation will be inefficient and the motor will overheat and could suffer damage.**
- Do not use sharp pointed objects to clean the hole of the nozzle, use a brush.
- Never leave the appliance unattended while it is operating, and make sure that the air breathed by the motor is as dry as possible.
- After each treatment, clean the outside of the appliance and remove any liquid left in the tank.
- **Never carry out maintenance operations (outside cleaning, tank cleaning etc.) if the appliance is connected with a power socket.**
- **In the event of damage to the power cable, this should be replaced only with the spare part available from IGEBA. The cable replacement operation should be carried out by specialist personnel.**
- **We accept no responsibility for damage caused by incorrect use of the appliance or as a result of tampering with it.**

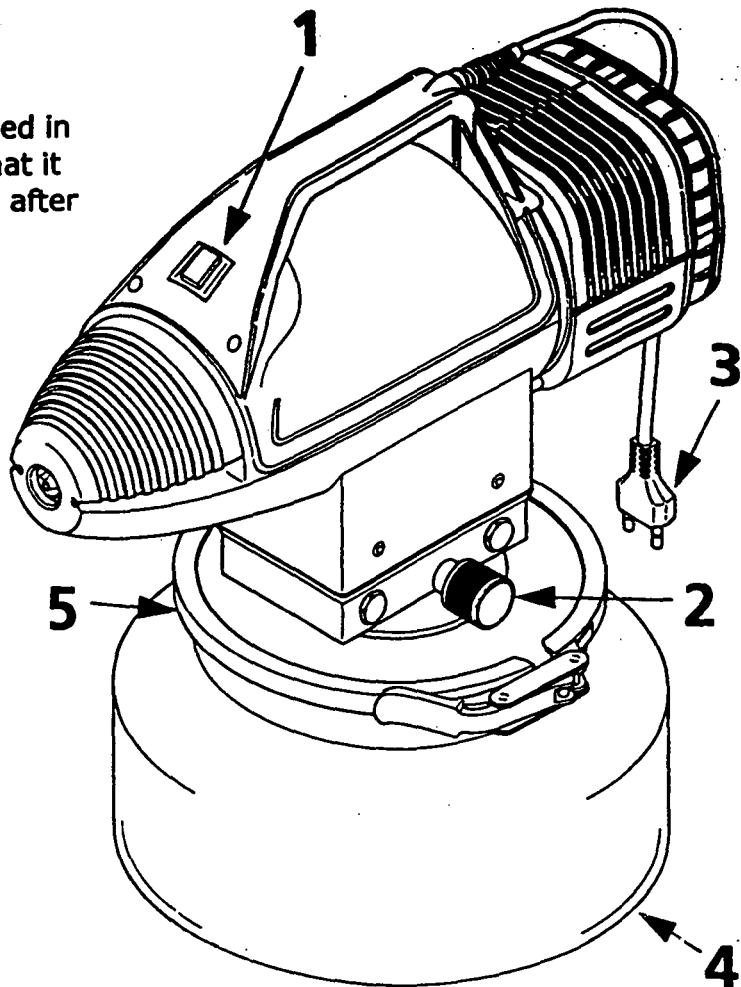
IMPORTANT

NEBULO is to be used for the distribution of chemical products in aerosol form. Some chemical products (for example insecticides and disinfectants) require approval or registration by various government bodies. The use of some products may be restricted by or subject to special regulations.

6.) Packaging

The appliance comes packed in a cardboard box. Check that it is in undamaged condition after removing it from the box.

Dispose of the packaging materials correctly.



7.) Use

Remove the closure ring (5) and remove the tank (4) for filling.



Make sure the plug (3) is disconnected from the power socket of main supply.



Pour the product into the tank (4), making sure that this is clean, to avoid contamination between different products.

Replace the appliance on the tank exactly and return the closure ring (5) to its position, move the handle to correct position.



Before connecting the appliance to a power socket, make sure that the voltage indicated on the socket is the same as that of the motor, as shown on the label attached to the filter cover. Also make sure that the switch (1) is set to the "OFF" position.



Aim the nozzle in the required direction and switch on the appliance by moving the switch (1) to the "ON" position. The appliance will begin to fog after a few seconds.

Adjust the quantity of product to be distributed using the flow regulator knob (2), turn to the right until closed position, then turn to the left into the desired position, count the number of locking positions (see page 10).

8.) Recommendations on application

GENERAL

Read the labels and instructions on the containers of the products you use.

Always use an approved breathing mask suitable for the particle sizes and the substance fogged.

INDOOR APPLICATIONS

- Remove all animals from the area if possible.
- Isolate the area to be fogged as far as possible. Close all doors and windows. Switch off all air conditioning systems and fans and keep these switched off for at least an hour after the treatment.
- For best results, keep the internal doors, drawers and cabinets in the area to be treated open. All unsealed food containers should be removed or sealed.
- Although the risk of explosion is remote, the correct procedure requires that all flames, warning lamps, and so on be extinguished.
- All foodstuff, plants, surfaces or other objects that could come into contact with the substance fogged should be removed, sealed off or covered.
- **Never leave the appliance unsupervised while it is operating.**
- Make sure you know the application times for the substances and the quantities necessary to treat the area in question, as this will make the task easier. Walk through the area to be treated slowly, taking into account the application time, starting from the point furthest from the exit and moving towards this. This reduces the exposure time to the substance to the minimum.
- Always keep a minimum distance of 1 meter between the nozzle and all objects. Short bursts aimed at a suspected or known contaminated area are an acceptable procedure and should leave no traces of the substance on the surfaces.
- Leave the aerosol to rest for as much time as possible before aerating the area treated (preferably 2-6 hours, with a minimum limit of one hour).
- **Accommodate to the circumstance that the motor is open and not suitable to let pass fog or other aggressive mediums!**

- An optimum distribution rate is 30 ml / minute of substance approximately. To establish the application time, first determine the total quantity of substance to be used, in accordance with the following formula:

(m³ of area to be treated) x (ml substance required for 1m³) = ml of substance

$$\frac{\text{ml of substance}}{\text{distribution in ml / minute}} = \text{distribution time in minutes}$$

OUTDOOR APPLICATIONS

Areas around homes, picnic areas, swimming pools etc. :

- The ideal results are obtained during the cooler times of the day, such as early morning or evening, when insects are most active. The ideal wind speed is between 5 and 10 km / hour. If the wind speed exceed 15 km / hour, we suggest to avoid fogging.
- Start at a point upwind of the area to be treated and keep the nozzle downwind at chest high.

Important!

All personnel exposed to the aerosol should wear an approved breathing mask!

9.) Consumption

The NEBULO is fitted with a flow regulator which makes use of a system for the identification of the adjustment pin position (notch by notch movement), means that you always know exactly how much liquid is being issued, from a minimum of 15 cc to a maximum of 200 cc per minute, depending on the type and viscosity level of the liquid to be fogged.

As an example, in the following table contains the mean distribution results, obtained with the pin in the various positions, using both oil and water based substances.

Irrespective of the product fogged, the NEBULO always produces an optimum spray with drops diameters between 1 to 30 microns. Drops of less than 10 microns account for more than 70 % of the total quantity produces, and those around 20 microns are less than 10 %. These dimensions enable the entire spray to reach the treatment area, with maximum impact on the insects.

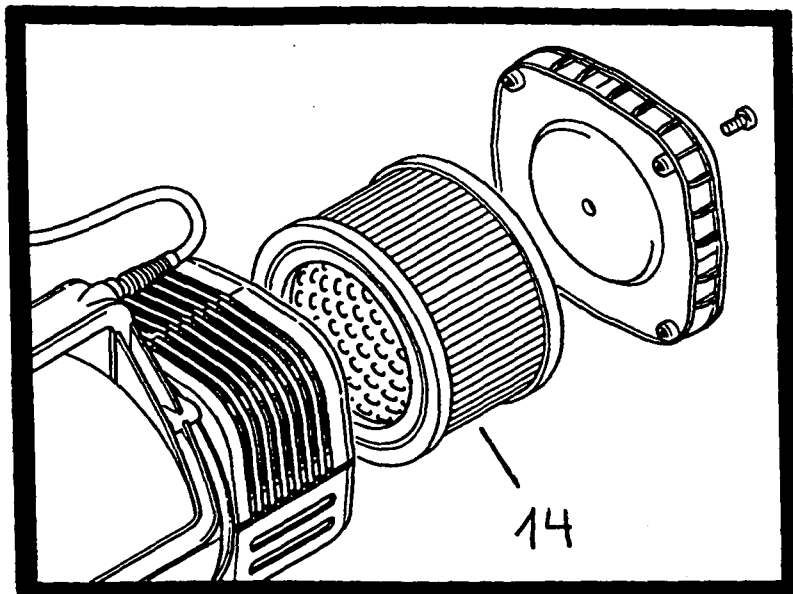
A spray med up of excessively large drops, with diameters from 100 to 500 microns, is partly dispersed before it reaches the target and there is a waste of product even when it does come into contact with the insect. In the same way a spray made up of drops smaller than 1 micron does not come substantially into contact with the insect targeted.

MEAN DISTRIBUTION VALUES (CC per MIN) NEBULO

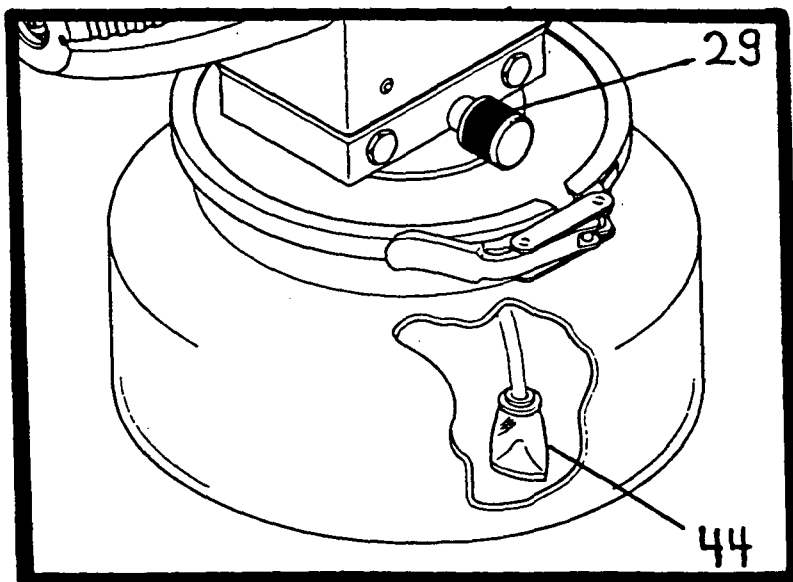
(Test temperature: 22 °C)

Regulator pin position (number of notches starting from maximum opening)	W A T E R Viscosity: 1,0 ° Engler measured at 20°C	K E N Y A T O X Viscosity: 0,9 ° Engler measured at 20°C	K E N Y A F O G Viscosity: 4,4 ° Engler measured at 20°C	K E N Y A S O L 22 Viscosity: 3,8 ° Engler measured at 20°C
Maximum opening	195	210	100	105
1	185	205	90	100
2	170	195	85	90
3	150	175	75	80
4	125	145	65	75
5	115	125	55	65
6	95	110	40	45
7	80	95	25	35
8	75	85	15	20

Periodically check the condition
of the air filter (14)



and of the suction filter (44)



Fog warm water after use to remove any residues of solution!

Open flow regulator (29) completely!

Ersatzteilliste für IGEBA – tragbares Kaltnebelgerät “NEBULO“

Spare parts list for IGEBA – portable cold fogger “NEBULO“

Bei Ersatzteilbestellungen bitte **Pos. Nr., Teilebezeichnung, Teile Nr., und Geräte Nr.** angeben !

In case of order please give **Pos.No., part name, part number and serial number** !

Pos.Nr. Pos N°	Teile-Nr./ Part-Nr.	Bezeichnung / Part name	N°
1	7650013	Motor Dichtung / Motor Gasket	1
2	7611110	Elektromotor NEBULO, kpl. 110-120 V. 50/60 Hz. Electric motor NEBULO, cpl. 110-120 V. 50/60 Hz.	1
2	7611240	Elektromotor NEBULO, kpl. 220-240 V. 50/60 Hz. Electric motor NEBULO, cpl. 220-240 V. 50/60 Hz.	1
3	7600140	Handgriff kpl. / Handle cpl. (NEBULO/NEBUROTOR)	1
3	7600145	Handgriff kpl. / Handle cpl. (NEBULO/NEBUROTOR) - UK	1
4	7650012	Schneidschraube / Self tapping screw 3,5 x 10 - TORX	2
5	7600014	Kabeldurchführung / Gable gland	2
6	7703035	Schneidschraube / Self tapping screw 3x35	2
7	7650016	NEBULO – Gehäuse / NEBULO body	1
8	7600026	Messing Stange / Pin brass ø 10	1
9	7600031	Messing Stange / Pin brass ø 6	1
10	7600036	Spannring / Closure ring	1
11	7600032	Verschuß / Locking device	1
12	7600033	Deckplatte / Cover plate (NEBULO)	1
13	7650098	Tankdichtung VITON / Reservoir gasket VITON	1
14	7600039	Tank / Reservoir (NEBULO/NEBUROTOR)	1
15	7600003	Luftfilter / Air filter 108 x 75 x 64	1
16	7703520	Schneidschraube / Self tapping screw 3,5 x 20 – UNI 9707	4
17	7650004	Filtergehäuse / Air filter support	1
18	7600029	Rahmen / Base connecting box (NEBULO)	1
19	7600027	Sechskantmutter MS M5 / Hexagonal nut brass, M 5	4
20	7600001	Linsenkopfschraube / Lens head screw M6 x 12 – DIN 7985	1
21	7650002	Filterdeckel / Airfilter cover	1
22	7600023	Produktschlauch / Feeding pipe (NEBULO/NEBUROTOR)	1
23	7600020	Düse / Nozzle	1
24	7600015	Zerstäuber / Atomizer	1
25	7650024	Winkelverschraubung / Elbow pipe connector ø 8 – 1/8	1
26	7650030	Regulierventil / Flow regulator (NEBULO)	1
27	7600034	Verbindungsstück / Connecting nipple ø 8 – 1/8	1
28	7600037	Saugschlauch / Suction pipe	1
29	7650038	Produktfilter / Solution filter (NEBULO)	1

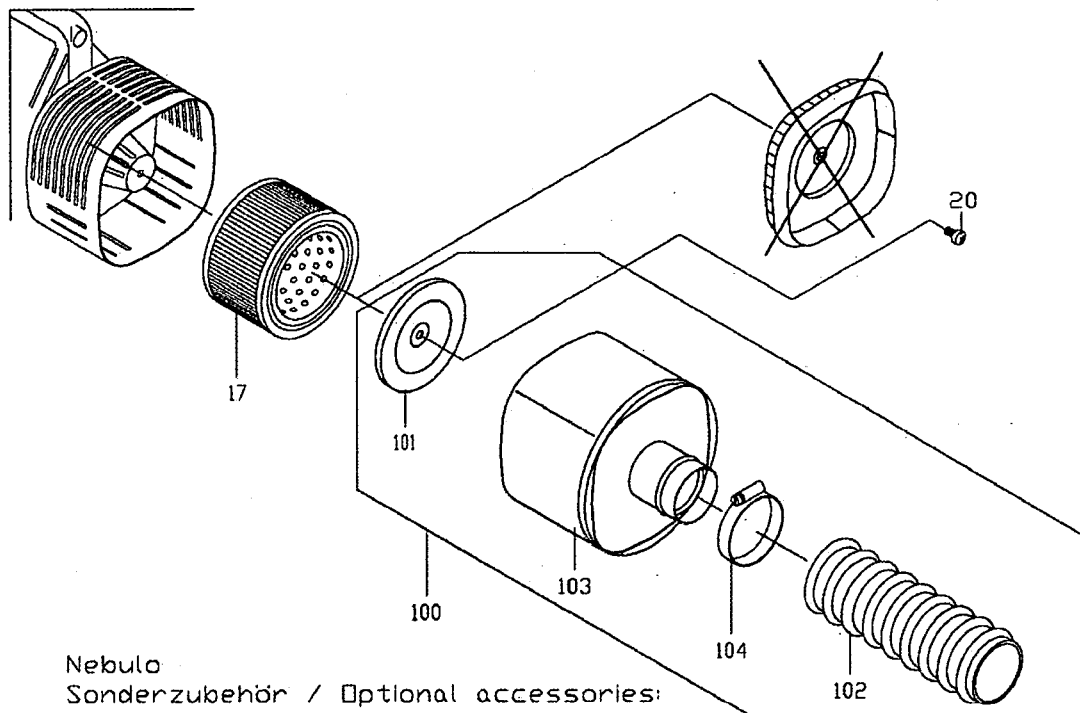
Ersatzteilliste für IGEBA – tragbares Kaltnebelgerät “NEBULO“

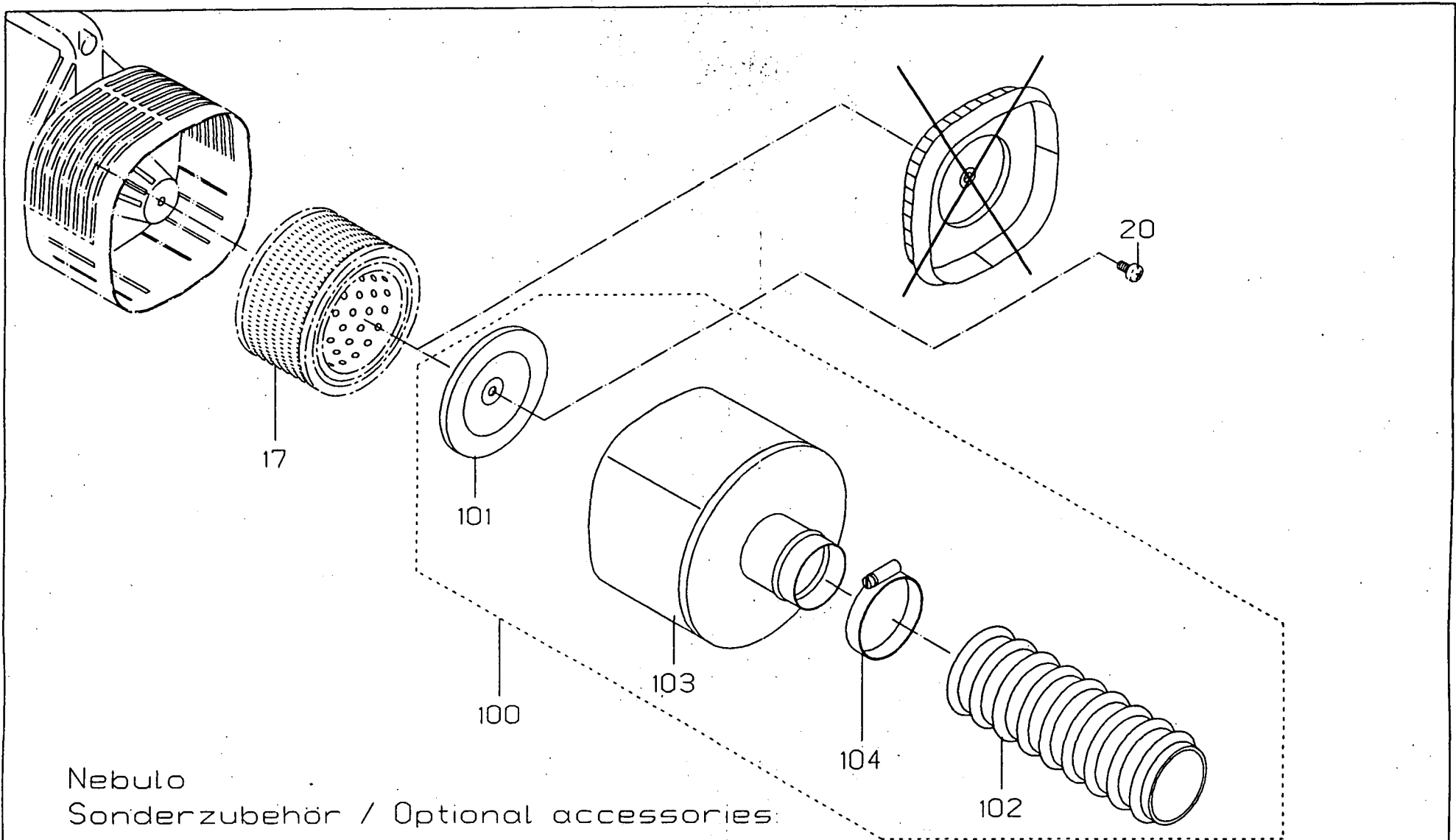
Spare parts list for IGEBA – portable cold fogger “NEBULO“

Bei Ersatzteilbestellungen bitte **Pos. Nr., Teilebezeichnung, Teile Nr., und Geräte Nr.** angeben !

In case of order please give **Pos.No., part name, part number and serial number** !

Pos.Nr. Pos N°	Teile-Nr./ Part-Nr.	Bezeichnung / Part name	N°
100	76-20 000.00	Teilesatz für getrennte Frischluftzuleitung kpl. (Pos.101-104) Kit for fresh air supply, cpl. (Pos.101-104)	1
101	76-20 000.01	Deckel für Luftfilter / Air filter cover	1
102	76-20 000.02	Luftschlauch / Air tube \varnothing 50 x 2 m	
103	76-20 100.00	Übergangsstück kpl. / Adapter	1
104	96-06 000.01	Schlauchschelle / Hose clamp, \varnothing 50.	

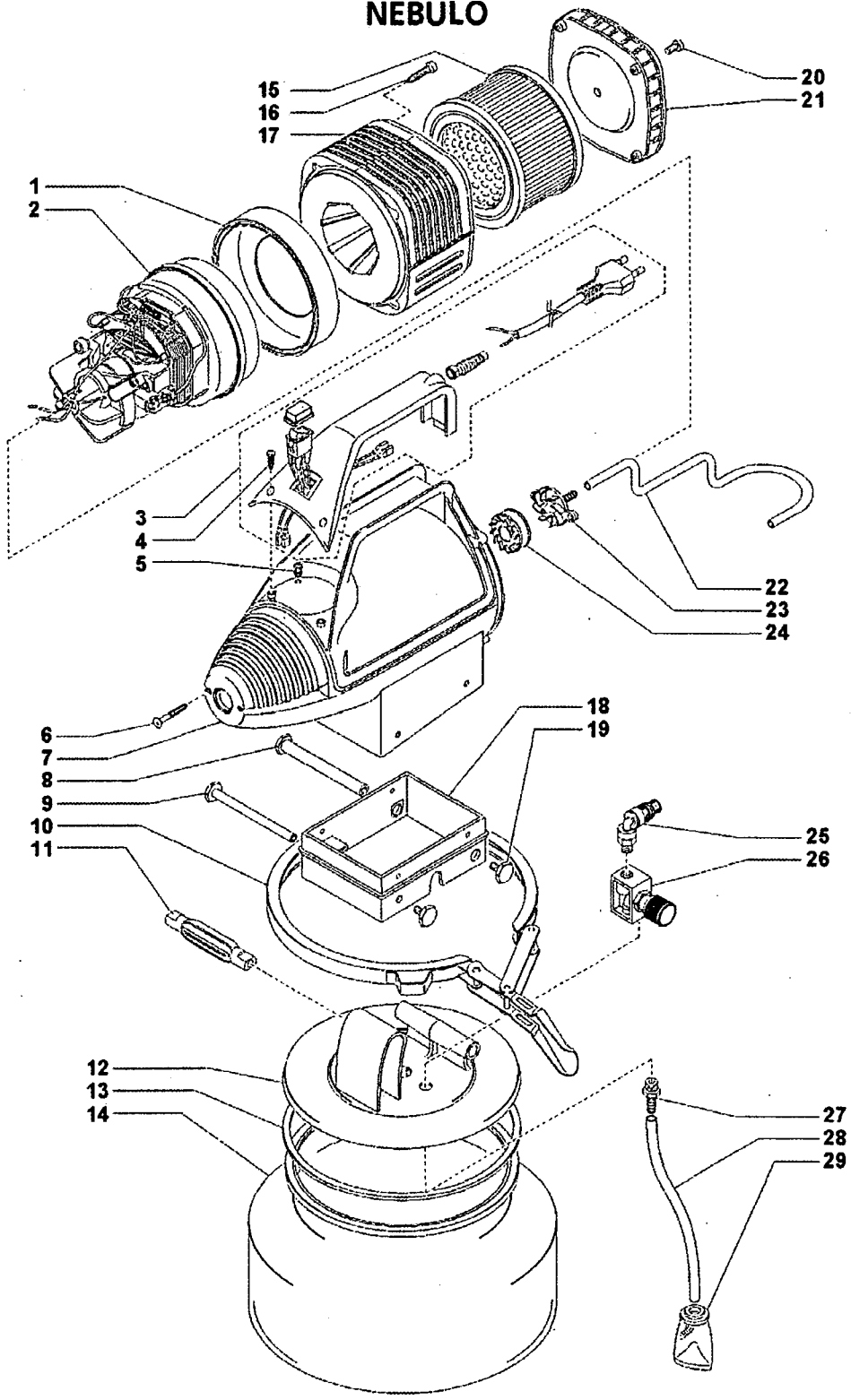




Nebulo
Sonderzubehör / Optional accessories:

100	Teilesatz für getrennte Frischluftzuleitung / Kit for fresh air supply	76-20 000.00
101	Deckel für Luftfilter / Airfilter cover	76-20 000.01
102	Luftschlauch / Airtube $\varnothing 50 \times 2m$	76-20 000.02
103	Übergangsstück kpl. / Adapter cpl.	76-20 100.00
104	Schlauchschelle $\varnothing 50$ / Hose clamp $\varnothing 50$	96-06 000.01

NEBULO



01/03/2003 UK