

# **Motor Blower SG 90 E**

## **Operating Manual**

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## 1 Intended Use

The **ABAC** Motor Blower SG 90 E (electronic) – named in this manual also as Motor Blower or simply Blower – is intended to be used in connection with the **ABAC** Low Pressure Spray Guns PN 2 or PN 5 to spray and apply paints and lacquers. For spraying you may use materials approved by paint manufacturers for High Volume Low Pressure (HVLP) air-spraying technique application. These are for instance:

- Patina paints, two-component-paints, synthetic resin alkyd paints, acrylic and dispersion paints, colour effect paints, insulation / inflammation protection, sprayable wax materials.

Any use of the Motor Blower different from described in this manual is prohibited.

Identification number of SG 2500 Motor Blower is BJ 370 000 0021 (100 V), BJ 370 000 0041 (115 V), BJ 370 000 0002 (230 V).

Always observe and comply with all processing instructions and safety notes provided by material manufacturers as well the prescriptions of this operating manual.

In any case, only paints and solvents with a flash point above 21°C = 70°F may be used for spraying!

The **ABAC** Motor Blower SG 90 E is designed to be operated with PN 2 / PN 2A and PN 5 **ABAC** Spray Guns.



It is prohibited to use the **ABAC** Motor Blower SG 90 E together with spray guns with intermittent air supply (for example, with **ABAC** PN 1 / PN 1A Spray Guns)! In case of their co-use, when air supply will be stopped for spraying (by trigger release), motor overheating and unit breakdown may occur due to air backflow and accumulation.

Ambient temperature range for equipment operation is from 0°C to +45°C, relative humidity must not exceed 80%. Conditions of transportation and storage see Section 5.

## 2 Brief Description

The **ABAC** SG 90 E Motor Blower generates an adjustable flow of low-pressure working air, which is fed to the **ABAC** spray gun via the air hose. The main operating device is motor mounted together with air blower, which has two stages. The Motor Blower is self-cooled, which means that working air, sucked from the atmosphere, is also used to cool the motor. If any blocking at discharge appears and exists for some time, the unit will be overheated and can be broken-down.



Never block the discharge of Motor Blower.

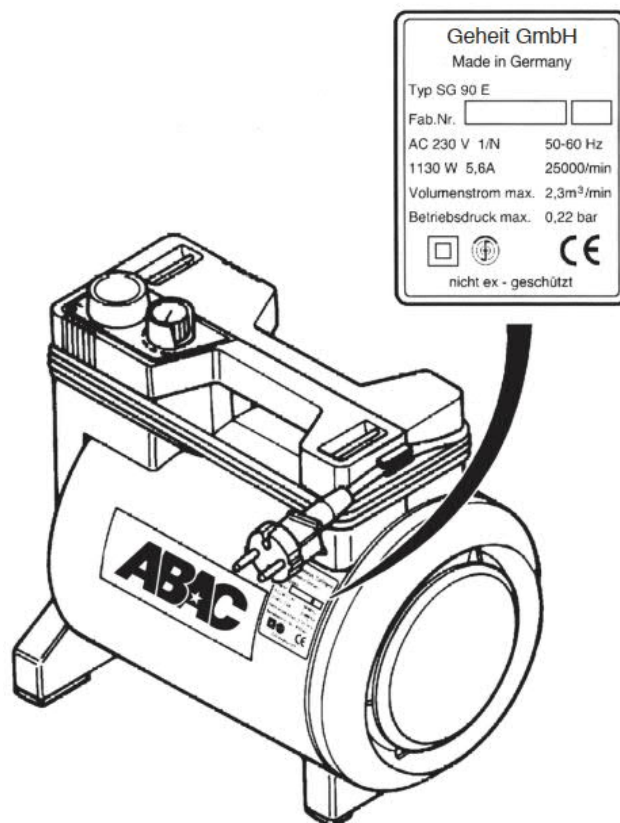



Figure 1

**NOTE:** Enter the serial number marked on the rating plate of your Blower in figure 1. Keep your operating manual and its attached CE declaration of conformity in a safe place.

### 3 Technical Data

○ Sound Pressure Level, average, DIN 45635 (for spraying operation)	80 dB(A)
○ Only for paints and solvents with a flash point above	21°C / 70°F
○ Operating Voltage.....	AC 100 V 1/N, 50 / 60 Hz AC 115 V 1/N, 50 / 60 Hz AC 230 V 1/N, 50 / 60 Hz
○ Insulation (Protection Class II).....	
○ Power.....	1130 W
○ Power consumption.....	approx. 10,2 A (100 V) approx. 10,2 A (115 V) approx. 5,6 A (230 V)
○ Speed.....	25 000 min <sup>-1</sup> (max.)
○ Protection Type.....	IP 20
○ Quantity of Air, adjustable, max. ....	2,3 m <sup>3</sup> / min
○ Operating Pressure, approx. ....	0,22 bar (max.)
○ Length.....	300 mm
○ Width.....	190 mm
○ Height.....	280 mm
○ Weight.....	4,2 kg

## 4 Safety Notes

Besides this Operating Manual and the statutory safety regulations for accident prevention applicable in the country and place of use, operators must also abide by the recognized codes of practice for safe and workmanlike operation.

### 4.1 Principles; Correct Operation

- The Motor Blower is state of the art equipment complying with recognized safety regulations. However, if used improperly there is a risk of death or injury to the user or other persons, or of damage to the machine or other property.
- The Motor Blower should only be used for its intended purpose and when it is in a perfect working order. The user must be safety conscious, fully aware of the risk, and follow the operating instructions. Faults that could impair the operating safety of the unit must be immediately remedied by an authorized person.
- The SG 90 E Motor Blower is intended solely for use with our own PN 2 or PN 5 **ABAC** low-pressure spray guns, which operate in the low-pressure range up to 0,45 bar. You must also follow the instructions given in the relevant operating manuals for these **ABAC** low-pressure spray guns PN 2 and PN 5.

**It should not be used together with low-pressure spray guns with intermittent air supply (such as ABAC PN 1 / PN 1A Spray Guns)!**

It must not be used for any other purpose. The manufacturer or supplier is not responsible and will not be liable for damage or injury resulting from improper use, which shall be entirely at the user's risk.

- Warranty obligations are valid only if the user observes the instructions and recommendations described in this operating manual. Unauthorized changes and repair, use for maintenance of spare parts other than original parts supplied with the product and approved by the manufacturer or included in the spare parts list, as well operation of the equipment under conditions other than those permitted in this manual, will void the manufacturer's guarantee for the **ABAC** SG 90 E Motor Blower.

## 4.2 Safe Operation

- Comply with the requirements of accident prevention regulation “Processing of Coating Materials” (e.g. in Germany VBG 23).
- All persons using the **ABAC** Motor Blower must have read and understood this Operating Manual, particularly the section entitled “Safety Notes”.
- The **ABAC** SG 90 E Motor Blower is not of flame-proof design. Take care to ensure that there are no ignition sources in the vicinity, such as naked flames, sparks, glowing wires, hot surfaces, lighted cigarettes etc. The distance between spray jet exit and a possible source of ignition (even the Blower itself) must be at least 5 m (fire and explosion hazard from ignitable spray mist).
- It must not be used in works locations subject to the provisions of explosion prevention regulation, or on premises and in areas where there is a risk of fire.
- Use only paints and solvents with a flash point of 21°C/70°F or higher without additional heating (see details on paint tin).
- When working in confined spaces, these must be properly ventilated using effective technical ventilation systems.
- The sprayed paint emerges from the nozzle at high pressure. Never direct the spray jet at people or animals. If the skin is injured by paint, lacquer or solvent there is a risk of infection. Seek medical treatment immediately and tell the doctor which paint, lacquer or solvent was used.
- Poisonous fumes may be given off during spraying (see paint tin for details). Use a breathing mask as directed by paint manufacturer’s instructions. Keep children and other people away from the working area.
- The **ABAC** SG 90 E Motor Blower is not splash-proof. It must not be used out of doors, when it is raining or splashed or washed with water or immersed in liquid.
- Keep the **ABAC** SG 90 E Motor Blower in a safe place that is inaccessible to children and unauthorized personnel. Make sure that no unauthorized personnel (particularly children) can put the **ABAC** SG 90 E Motor Blower into operation.
- Store your Motor Blower in a dry ventilated room.
- For safety reasons you should only use **ABAC** original accessories and **ABAC** original spare parts.



- Always switch off your SG 90 E Motor Blower before refilling paint into your spray gun paint container.
- Never pull the connecting cable over sharp-edged objects and make sure the cable is in perfect condition each time before using it.
- **Repairs and maintenance works, or the replacement of the power cable, should only be carried out by authorized specialists or by us. Addresses of authorized firms can be obtained from us or from your dealer upon request.**
- **When spraying, take care not to spray in the direction of your Motor Blower.**
- Dispose of your cleaning and spraying material wastes according to the instructions given by the relevant lacquer, paint and solvent manufacturers.
- The air flow inside your SG 90 E Motor Blower must not be obstructed to ensure continuous adequate cooling of the blower motor – see figure 2.

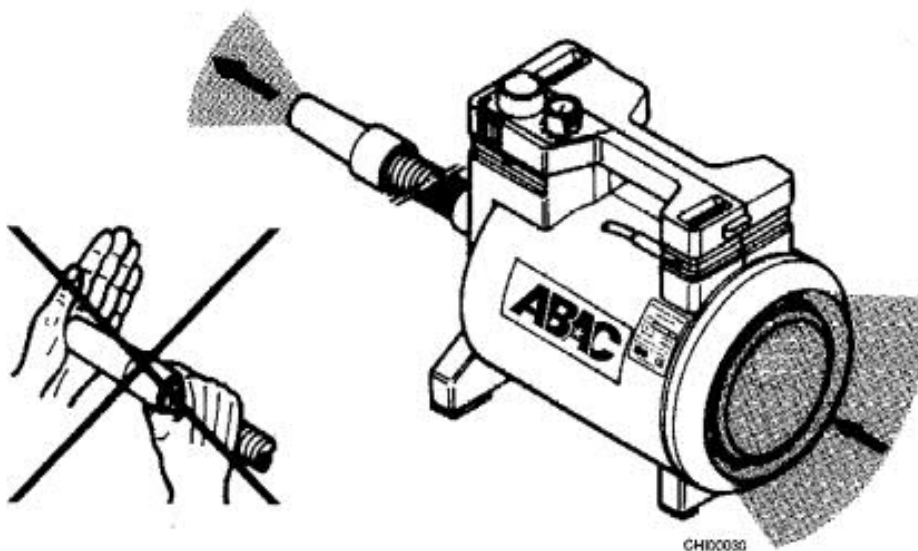


Fig.2

- **Provide the replacement of blower filter as well sealing elements in time and on regular basis. The use of worn-out filter will lead to blower overheating. Always check the filter state when detect overheating of the Blower. When sealing elements are in improper state, the Blower operation will be affected, the loss of performance would occur.**

## 5 Transportation and Storage

The **ABAC** SG 90 E Motor Blower is supplied in a box. To avoid damage during transportation and storage, we recommend to use this original packaging. Store your equipment in a dry ventilated room.

Ambient temperature range for equipment storage is from 0°C to +45°C, relative humidity must not exceed 80%.



### Attention!!!

Use for transport only the handle of the Motor Blower. Never attempt to move the Blower by pulling on its air hose or electric cable!

Use of back-pack carrier frame and carrying strap is only permitted if solvent-free materials are sprayed!

The carrying strap may only be worn diagonally across your shoulder (see fig.3)!

Furthermore, it is forbidden to take non-explosion proof Blower to an inflammable area.

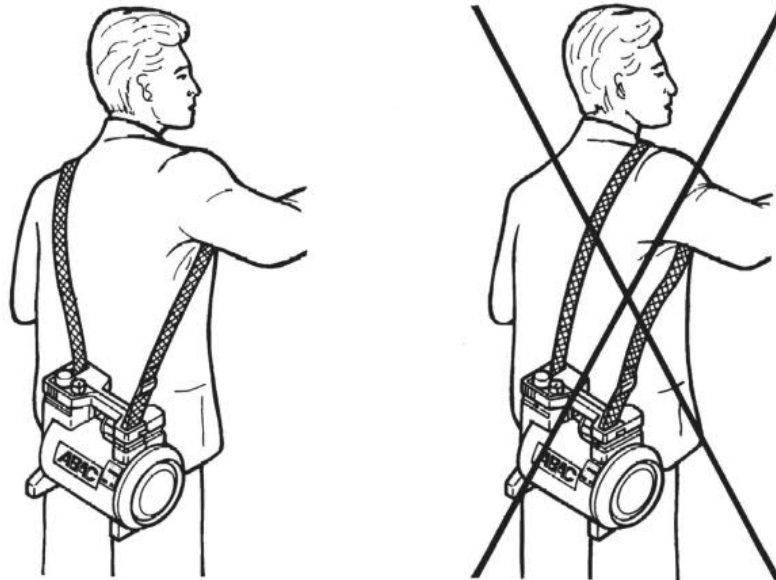


Fig.3

## 6 Start-Up and Operation

### 6.1 Setting up the Motor Blower

- Check that the mains voltage corresponds to the operating voltage indicated on the rating plate or in this Operating Manual.
- Connect the air hose to the Blower by turning the air hose connector clockwise in the blower opening (fig. 4).

### 6.2 Switching on and Adjusting the Blower

- Plug the Blower into the mains and press the pushbutton with the thumb (figs. 5 and 6).

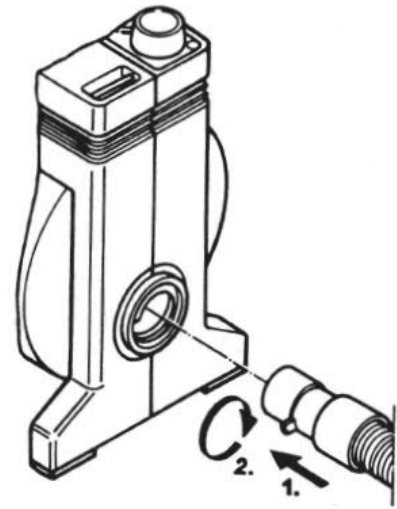


Fig. 4

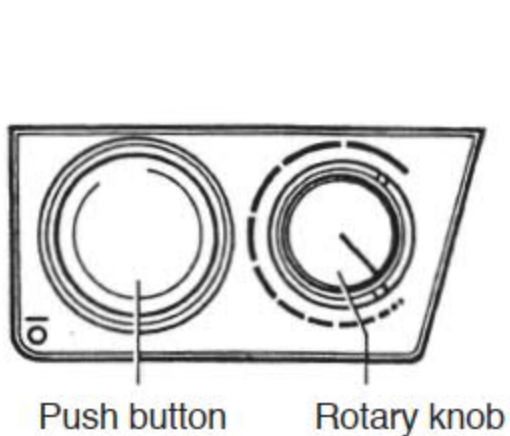


Fig. 5



Fig.6




- The air flow and pressure can be adjusted steplessly using the rotary knob. The Blower can thus be adapted to the material to be sprayed. The spray consistency of the material must be determined beforehand in order to select the best possible settings for the Blower and spray gun. A dipping cup is supplied with the spray unit for this purpose; see operating instructions for PN 2 or PN 5 spray guns, depending on which one you'll choose, for further details. It is recommended to spray samples before work is started (e.g. onto cardboard or wood). Do not start work on the actual object to be sprayed until the desired result is obtained with the samples.
- Ensure that the edges or borders of the object to be sprayed are properly masked.

## 7 Switching off the Motor Blower

After you have finished spraying, turn off the Blower by pressing the push button with your thumb. Only then should the Blower be disconnected from the mains. When work has finished, coil connection cable as shown in figure 1.

## 8 Care, Maintenance and Repair

	<p><b>Attention!!!</b></p> <p>Always switch off your Motor Blower and disconnect from mains, before carrying out any repair and maintenance work.</p> <p>Do not use any solvents or aggressive fluids to clean the fan cage.</p> <p>Repair and maintenance work, or the replacement of the power cable, should only be carried out by authorized specialist firms or by us. Addresses of authorized firms can be obtained from us or from your dealer.</p>
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Excepting filter maintenance (see item 8.1), your SG 90 E Blower Motor does not require any customer servicing to be carried out.

## 8.1 Replacing Intake Filter



### Attention!!!

Switch off the Motor Blower, disconnect from mains and wait until motor is stationary before opening filter cap.

Always replace the intake filter when it is dirty. Do not attempt to clean it.

The intake filter should always be checked before spraying and replaced when dirty as shown in figure 7. This ensures that the air flowing through the gun is always clean.

Turn to the left to open filter cap, and completely through to the right to close.

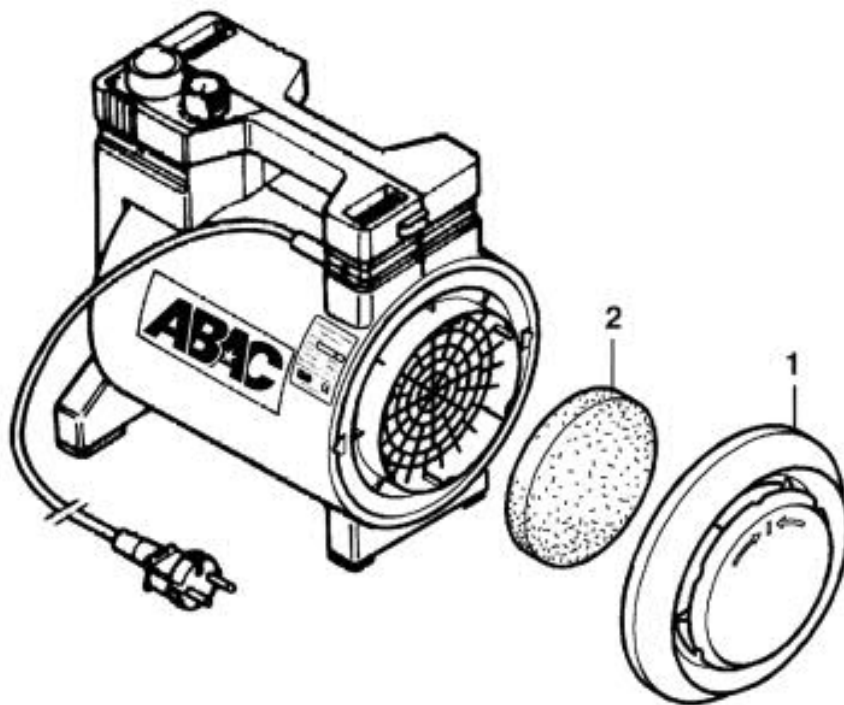


Fig. 7

## 9 Faults, Possible Causes and Remedies



Attention! Never use hard or sharp-edged tools for cleaning!

Fault	Possible causes	Remedy
Motor Blower delivers insufficient air flow	<ul style="list-style-type: none"> <li>• Intake filter is dirty</li> </ul>	<ul style="list-style-type: none"> <li>• Replace intake filter</li> </ul>
Motor Blower delivers too much or too little air	<ul style="list-style-type: none"> <li>• Rotary knob incorrectly set</li> </ul>	<ul style="list-style-type: none"> <li>• Reset rotary knob such that required air quantity is delivered</li> </ul>
Motor Blower will not run	<ul style="list-style-type: none"> <li>• No mains voltage</li> </ul>	<ul style="list-style-type: none"> <li>• Check mains connection</li> </ul>
	<ul style="list-style-type: none"> <li>• Carbon brushes worn</li> </ul>	<ul style="list-style-type: none"> <li>• Repair only by approved workshop (<b>ABAC</b>)</li> </ul>
	<ul style="list-style-type: none"> <li>• Motor Blower defective</li> </ul>	<ul style="list-style-type: none"> <li>• Repair only by approved workshop (<b>ABAC</b>)</li> </ul>
Air quantity cannot be regulated	<ul style="list-style-type: none"> <li>• Electronics defective</li> </ul>	<ul style="list-style-type: none"> <li>• Repair only by approved workshop (<b>ABAC</b>)</li> </ul>

## 10 Operating Instructions

Depending on actual use and location of the equipment, users must issue an operating instruction, based on this manual and in the language of their employees, to define further details for the safe operation of the SG 90 E Motor Blower. This operating instruction is to be displayed in a suitable public place at the workplace and to be read and observed by all employees.

## 11 Spare Parts



For safety reasons you should only use **ABAC** original accessories and **ABAC** original spare parts.

Spare parts are available from your **ABAC** specialist dealer or directly from our company. For speedy and efficient ordering of spare parts we require the following details:

- Equipment type, serial number
- Designation of the part, identification number
- Quantity of parts required
- Address

### Spare Parts List for ABAC SG 90 E Motor Blower (fig. 7)

Fig. No.	Quantity	Designation	Ident. Number
1	1	Filter cap, black	B0 370 100 6010
2	1	Intake filter	H5 805 059 0000 (pack of 5 pcs.)