

WALPOL

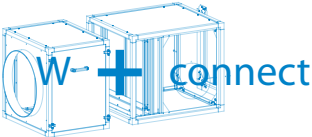
Assembly and operating instructions

Airbox type GB, GB HT, GBV, GBG



Version 7.0
B04

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1. General information

1.1. Note symbols



Danger

Immediate hazard

Failure to observe the warning will result in immediate death or serious injury.



Caution

Low-risk hazard

Failure to observe the warning may result in moderate injury.



Warning

Potential hazard

Failure to observe the warning may result in death or serious injury.

Important

Danger with risk of damage to property

Failure to observe the warning may result in damage to property.



Note

Useful information and instructions

2. Important safety instructions

Planners, system builders and operators are responsible for proper installation and operation in accordance with the intended use.

- Read the operating instructions completely and carefully.
- Operating instructions and applicable documents, such as electrical connection diagrams or operating instructions for the motor, must be kept with the fan. They must be available at the place of use at all times.
- Local and national laws and regulations must be observed and complied with.
- Take into account the system-relevant conditions and requirements of the system manufacturer or system builder.
- Safety devices must not be dismantled, bypassed or rendered inoperative.
- The fan may only be used in perfect condition.
- The generally prescribed electrical and mechanical protective devices must be provided.
- Secure the installation site and the premises against access by unauthorised persons during installation, electrical connection, commissioning, troubleshooting and maintenance.
- Safety devices must not be dismantled, bypassed or rendered inoperative.
- Ensure that all warning labels on the fan are complete and legible.
- This appliance is not intended for use by persons (including children) with reduced physical or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Children must not play with the appliance.

2.1. Personnel

The fan may only be operated by qualified, instructed and trained personnel. These persons must know the relevant safety regulations in order to recognise and avoid possible dangers. The individual actions and qualifications can be found in Table 1 Qualification.

Table 1 Qualification

Actions	Qualification	
Storage, operation, transport, cleaning, disposal	Trained personnel (see following instructions)	
Electrical connection, commissioning, electrical disconnection	Qualified electrician or persons with appropriate qualifications	
Installation, Dismantling	Assembly specialist or persons with appropriate qualifications	
Maintenance	Electrical specialist or persons with appropriate qualifications	Assembly specialist or persons with appropriate qualifications
Repair	Electrical specialist or persons with appropriate qualifications Assembly specialist or persons with appropriate qualifications	Assembly specialist or persons with appropriate qualifications



Note

The operator must ensure that the personnel have been instructed in the operation and have understood the operating instructions. If anything is unclear, please contact Walpol or our representatives.

2.2. Personal protective equipment

Protective equipment must be worn when carrying out any work in the vicinity of the fan.

- Protective clothing
- Protective gloves
- Safety glasses
- Safety shoes
- Hard hat
- Hearing protection

2.3. The 5 safety rules for working in and on electrical systems

1. Disconnect (disconnect all poles of an electrical system from live parts
2. Secure against being switched on again
3. Check that no voltage is present
4. Earth and short-circuit
5. Cover or isolate adjacent live parts

3. Warranty

In order for warranty claims to be asserted, the products must be properly connected and operated and used in accordance with the data sheets. Further prerequisites are a fully completed maintenance plan and commissioning report, which will be requested from Walpol in the event of a warranty claim. The commissioning report is part of this document, the maintenance plan must be prepared by the operator, see chapter 12.3 Maintenance

4. Delivery, transport, storage

Safety instructions

Warning: Danger due to rotating fan blades

- Prevent unauthorised persons from accessing the unit by security personnel or an access guard.

Warning: Suspended loads

- When carrying out any work in the vicinity of the fan, wear protective equipment, see 2.2 Personal protective equipment,
- Never step under a suspended load.
- Ensure that no one is under a suspended load.

Delivery

Each fan leaves our factory in perfect electrical and mechanical condition. It is recommended that the fan is transported to the installation site in its original packaging.

Check delivery

- Check the packaging for transport damage. Any damage must be noted in the cargo manifest.
- Check that the delivery is complete.

Unpacking**Warning**

When removing the transport packaging, there is a risk of damage from sharp edges, nails, staples, splinters, etc.

- Unpack the fan carefully.
- Check the fan for obvious transport damage.
- Do not remove the packaging until shortly before installation.
- Wear protective equipment for any work in the vicinity of the fan, see 2.2 Personal protective equipment

Transport**Safety instructions**

- The fan must never be carried by the connection cable, terminal box, impeller, guard grille, inlet connection or silencer.
- In the case of open transport, ensure that no water can penetrate the motor or other sensitive components.
- It is recommended that the fan be transported to the installation site in its original packaging.

Caution: Careless loading or unloading may cause damage to the fan.

- Carry out loading or unloading carefully.
- Use lifting equipment designed for the load.
- Observe the transport arrows on the packaging.
- The packaging is only used as transport protection and must not be used for lifting.

Storage

- Store the fan in the original packaging in a dry, dust-free place protected from the weather.
- Avoid exposure to extreme heat or cold.

Important**Danger from loss of function of the motor bearing**

- Avoid excessively long storage periods (recommendation: max. 1 year).
- Before installation, check that the motor bearing is functioning correctly.

5. Description

5.1. GB, GBG and GBV with EC motor

The fans are driven by EC motors. The fans must be controlled with a potentiometer (0-10V). All motors are suitable for 50/60 Hz. The input voltage for single-phase units is in the range 200V and 277V, for three-phase units the input voltage is 380 and 480V.

The maximum fluid temperature is +120°C.

**Note**

When installing EC motors, ensure that RCDs of type class: B or B+ are present in the circuit.

5.2. GB, GBG and GBV with AC motor

Speed control options:

- 400V IE2/3 motors with frequency inverter with built-in sine filter control
- 230V motors with transformer speed controller control

The maximum pumped medium temperature is +120°C.

5.3. GB HT

Special feature of GB HT: The HT version is suitable for a pumped medium temperature up to a maximum of +200°C.

400V IE2/3 motors with frequency inverter with built-in sine filter control

5.4. Description GB / GB HT

Airflow

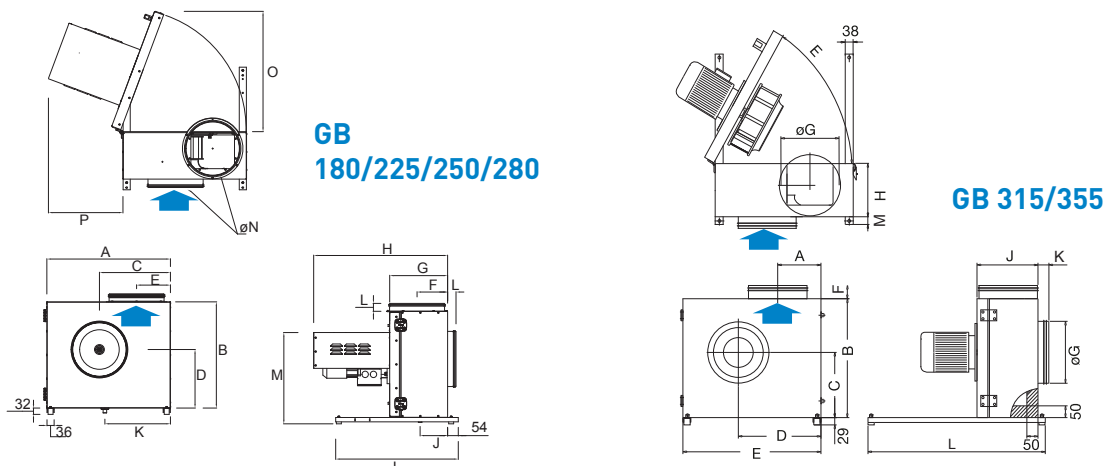
The Airbox GB is suitable for applications with 90° airflow.



Table 2 Dimensions Airbox GB

Dimen- sions mm	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
GB 180	470	412	272	224	134	105	218	483	470	95	244	43	366	180	470	320
GB 225	522	455	301	256	147	121	251	635	620	121	282	43	412	225	522	440
GB 250	576	500	333	280	161	140	272	656	620	139	305	43	436	250	576	440
GB 280	625	537	359	296	171	155	293	677	620	139	331	43	462	280	625	440

Dimen- sions mm	A	B	C	D	E	F	G	H	J	K	L	M
GB 315	187,5	600	339	398	690	125	315	249	307	70	770	55
GB 355	206,7	655	372	451	770	125	355	273	331	70	770	55



5.5. Description GBV

Airflow

The Airbox GBV is suitable for applications with an airflow of 90°.

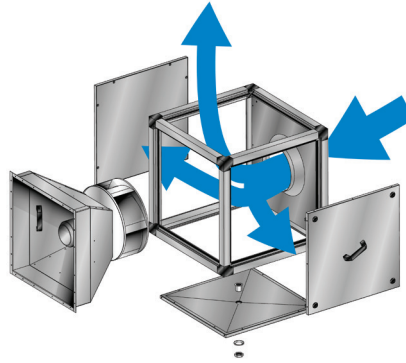
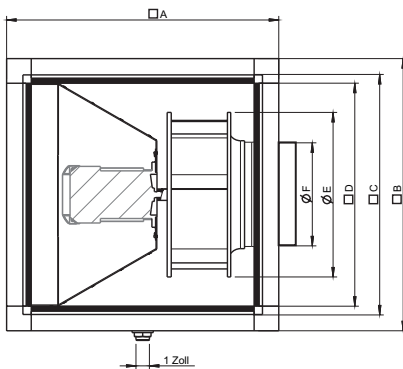


Table 3 Dimensions Airbox GBV

Dimensions (in mm)	GBV 355	GBV 400	GBV 450	GBV 500	GBV 560	GBV
A	500	670	670	670	800	800
B	500	670	670	670	800	800
C	420	590	590	590	720	720
D	378	548	548	548	676	678
E	355	404	454	504 xml-ph-		
630Nipple dimension	315	400	400	400	500	500



5.6. Description GBG

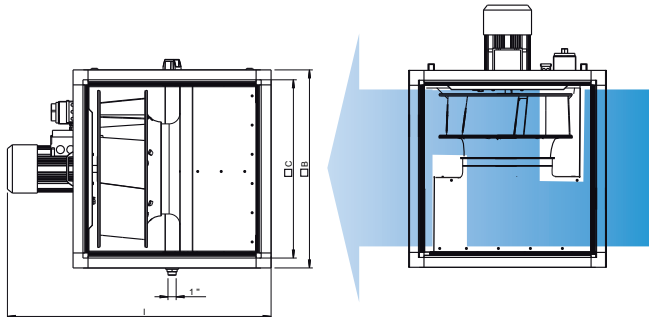
Airflow

The Airbox GBG is suitable for applications with straight airflow..



Table 4 Dimensions Airbox GBG

Dimensions (in mm)	GBG 315	GBG 355	GBG 400	GBG 450	GBG 500	GBG 560	GBG 630
B	500	670	670	670	800	800	1000
C	420	590	590	590	720	720	920
I	668	777	849	874	1015	1040	1237



5.7. Fan and Motor Data

- Max. Temperature of transported air, Max. Ambient temperature, Sound pressure level -> See data sheet, available in our online catalogue.
- Voltage, amperage, protection class, weight -> See type plate
- The motor data can be found on the type plate of the motor or in the technical documentation of the motor manufacturer.
- The data on the type plate of the fan apply to "normal air" according to ISO 5801.

5.8. Intended use

- The fans are intended for installation in ventilation systems. The fans can be installed both in a duct system and free-intake via inlet connection pieces and a contact guard grille on the intake side. Free blowing via contact protection grille is also possible.
- The fan is suitable for conveying **clean air**.
- The maximum permissible operating data on the type plate apply to an air density of 1.2 kg/m³ (NN) and a maximum humidity of 80%.

Improper use is mainly when the fan is used in a way other than described. The following examples are contrary to the intended use and dangerous:

- Conveying explosive and flammable media
- Conveying aggressive media
- Conveying extremely contaminated air without pre-filtering
- Operation in potentially explosive atmospheres
- Operation without a duct system or guard grille
- Operation with sealed air connections Air connections
- Outdoor installation without weather protection



Note

We generally recommend pre-filtering the extract or supply air before the fan

For example, with a filter box or an activated carbon module, see WALPOL-Product range

6. Type plate and type code

Every fan has a type plate.

Please compare the fan type/data with the version you ordered to avoid misunderstandings or wrong deliveries.

7. Accessories

We recommend original accessories from Walpol. For information, please contact Walpol.

8. Installation

Warning: Risk of impact from falling fan or fan parts.

- Check the surface for load-bearing capacity before installation.
- Take all static and dynamic loads into account when selecting lifting equipment and mounting parts.

General safety instructions

- Installation may only be carried out by appropriately qualified persons, for details, see Table 1 Qualification.
- Take into account the system-relevant conditions and requirements of the system manufacturer or system builder.
- Safety devices must not be dismantled, bypassed or rendered inoperative.
- Move the impeller of the fan by hand before installing it in order to check its free running.
- Provide contact protection, suction protection and safety distances in accordance with DIN EN ISO13857 and DIN 24167-1.
- Prevent foreign particles from being sucked in.
- As with a vibration transmission to the duct system is avoided, we recommend the use of the flexible connectors from our accessories, see chapter Accessories.

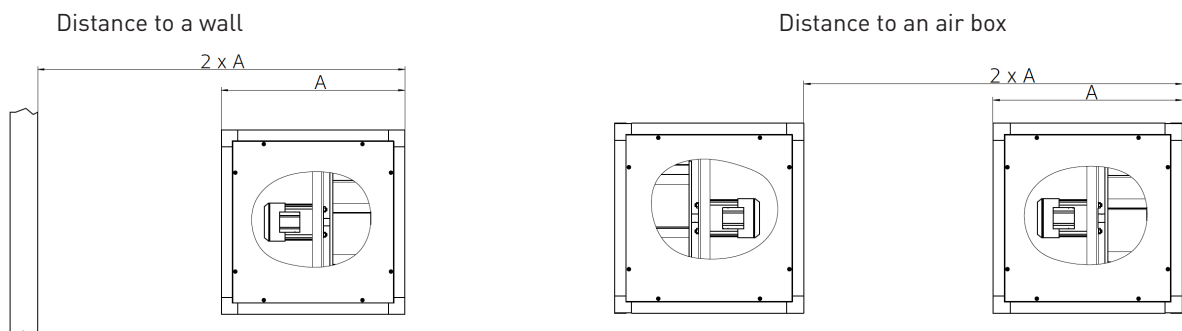
Prerequisites

- Make sure that the fan and all its components are undamaged.
- Make sure that there is sufficient space for mounting the fan.
- Protect the unit from dust and moisture during mounting.
- Make sure that the information on the type plate (fan and motor) corresponds to the operating conditions.
- Mount the fans so that there is sufficient access for troubleshooting, maintenance and repair work.

Important

Overheating of the motor

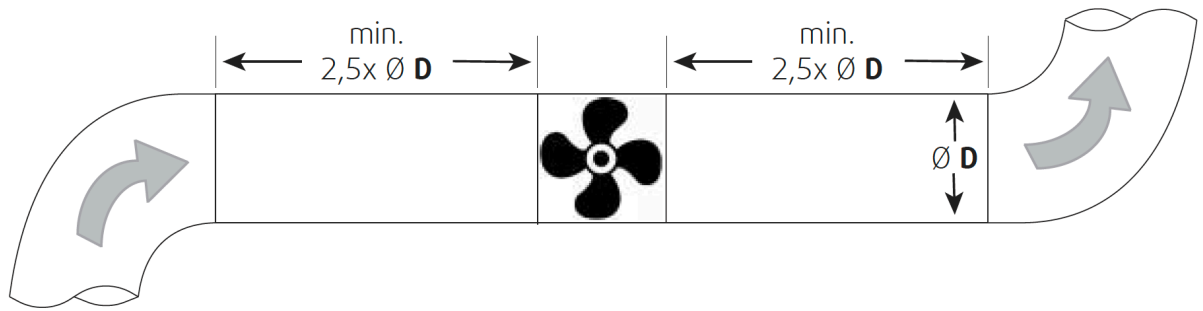
- The installation distance must correspond to the picture below when the motor is aligned as specified. If the motor protrudes from the enclosure, the distance between other motors or a wall must be $2 \times A$. Check that the motor bearing is working correctly before installation.
- In addition to observing the maximum ambient temperature (see fan data sheet), make sure that the ventilation of the motors is sufficient. Accumulated heat must be avoided at all costs.



Important

There is a risk of damage to the bearings or fan parts.

- A duct bend must not be placed directly before or after the fan
- Ensure an even and constant air flow to the unit. A free exhaust air must be ensured.



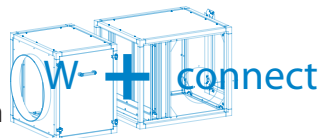
8.1. Mounting positions

GBG and GBV

Important

There is a risk of damage to the fan if the condensation water cannot drain off.

- Make sure that the drain socket is always at the lowest point of the fan so that the condensation water can drain off.



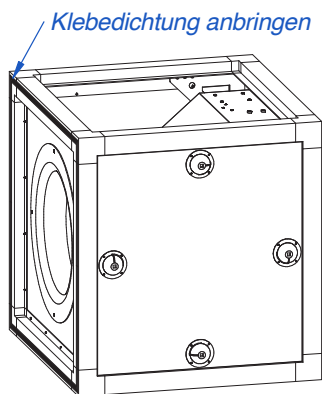
8.2. In the W-Connect system



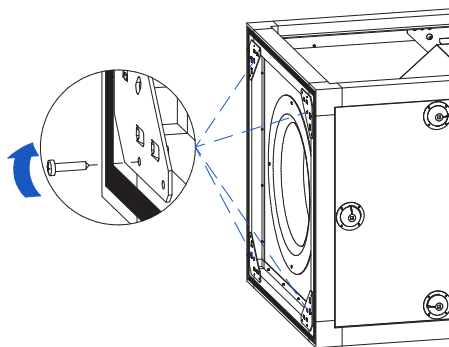
Note

Only modules of the same size can be connected to each other.

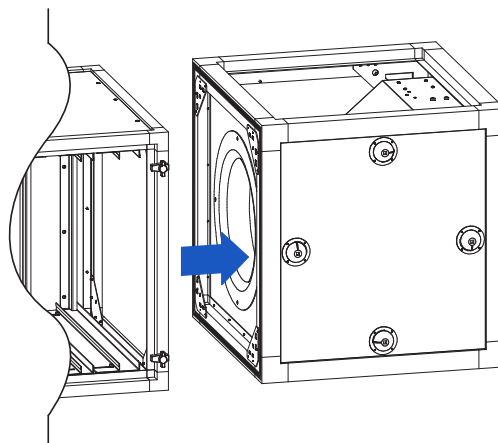
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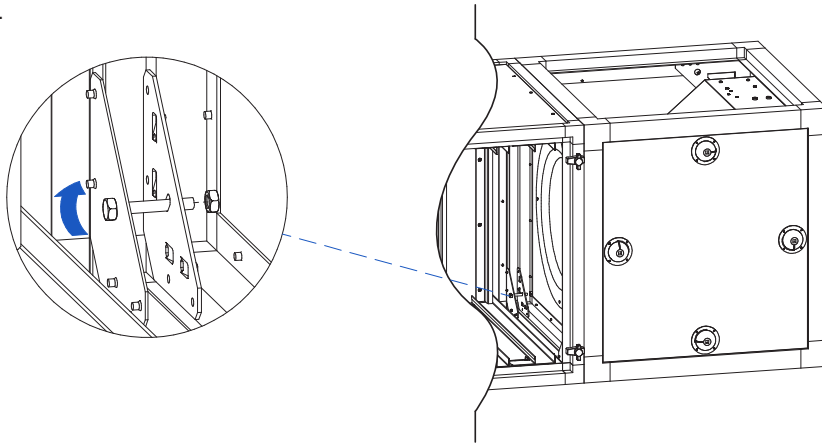
2.



3.



4.



In the series Kompakt fan type CLC, filter box type FB , activated carbon module type WAM , the screw connection system is already integrated. **The W-Connect Kit must be used with the GBV and GBG air boxes.**

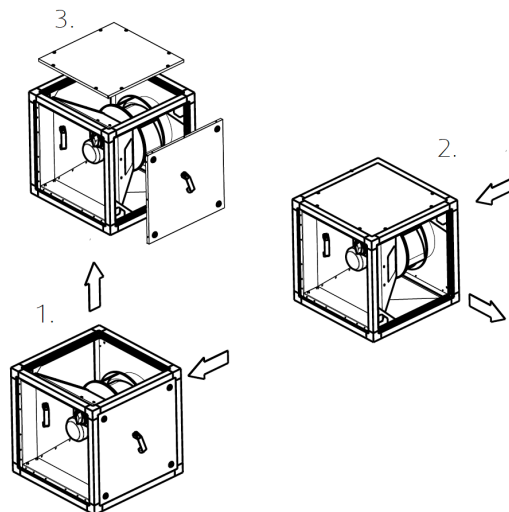
8.3. Changing the discharge direction only GBV series

Important

A straight airflow is not possible with the GBV. This application can be realised with the GBG.

Legend

1. GBV with airflow 90° upwards (factory assembly)
2. GBV with airflow 90° to the side
3. Changing the airflow direction



8.4. Assembly/disassembly of impeller - internal rotor motor

Important

Damage to the motor and the impeller.

The ball bearings of the motor and the balanced impeller can be damaged by violent impact.

- Attach the impeller and/or shaft extensions to the shaft or rotor without violent impact.
- **Do not separate the impeller and hub. These have been balanced as one unit.**



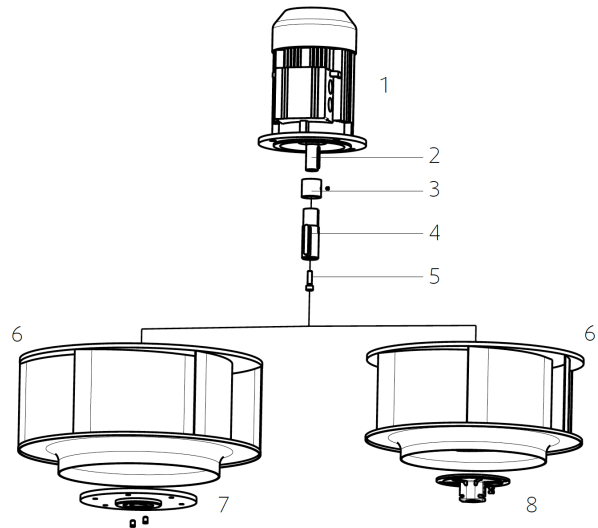
Note

The hub can be heated for easier assembly and disassembly, z.e.g. with a hot air blower.

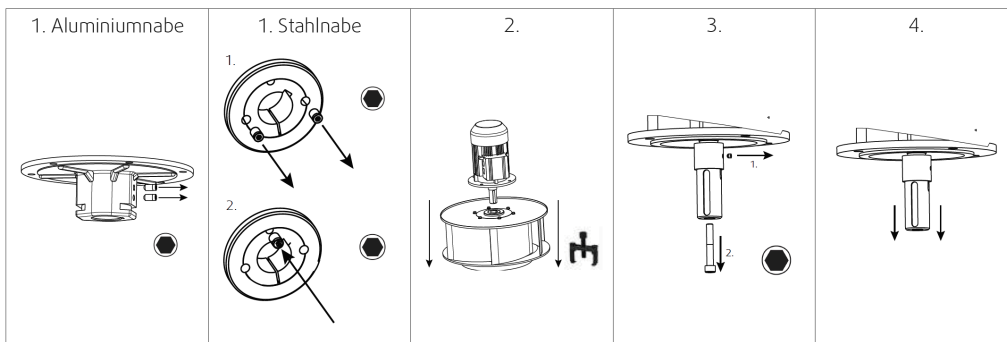
- Prerequisite for assembly: The key is correctly positioned in the groove provided.
- Tools: Suitable Allen key, suitable extraction tool, torque spanner for the clamping bush.

- 1 Motor
- 2 Motor shaft
- 3 Sleeve (Not used with every fan)
- 4 Shaft extension (Not used with every fan)
- 5 Hexagon socket screw
- 6 Impeller
- 7 Steel hub
- 8 Aluminium hub

The hub is not used for the fan. Hub is shown without impeller for clarity



Demontage



Montage

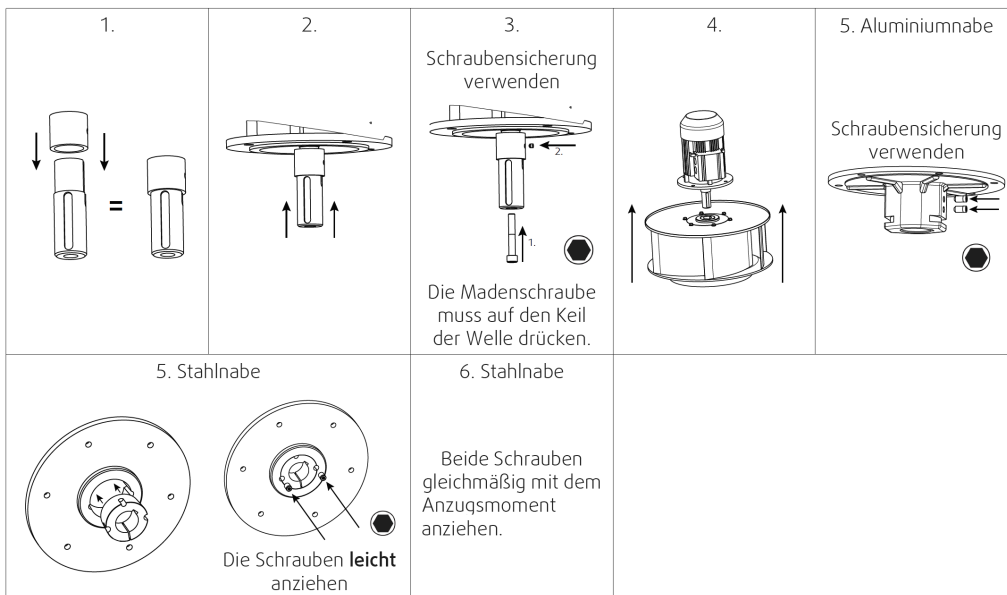


Table of tightening torques for various bushing types

Socket type	1008	1108	1210	1215	1310	1610	1615	2012	2517	3020
Tightening torques [Nm]	5.7	5,7	20	20	20	20	20	31	49	92

9. Electrical connection

Safety instructions

Warning: Danger due to electrical voltage!

- The 5 safety rules must be observed, see. The 5 safety rules for working in and on electrical installations
- Prevent water from entering the terminal box.
- The electrical connection may only be carried out by appropriately qualified persons, for details see table Qualification

Warning: Danger due to electrostatic influence of medical implants!

- Persons with medical implants should keep sufficient distance to the corresponding devices.

Connection

- Check that the data on the type plate corresponds to the connection data.
- Carry out the electrical connection according to the wiring diagram.
- Fans with EC- motors must be switched on and off via the control input.
- Use all locking screws.
- Insert the screws by hand so that the thread is not damaged.
- Tighten all screws firmly to ensure IP protection.
- Screw the cover of the terminal box/revision switch evenly.
- Connect the cable end in a dry environment.
- Install a disconnecting device permanently (all-pole contact opening min. 3 mm) in the electrical installation.

Protective earth conductor

The cross-section of the protective earth conductor must be equal to or larger than the phase cross-section.

Residual current circuit breaker

For use in AC systems with 50/60 Hz, all-current sensitive residual current circuit breakers are required in connection with electronic devices such as EC motors, frequency converters or uninterruptible power supplies (UPS).

9.1. Motor protection



Note

Fans with EC motors do not require additional motor protection. The motor protection is integrated in the motor electronics.

Important

Motor damage due to overvoltage, overload or short circuit.

- Temperature monitors that are led out must be inserted into the control circuit in such a way that in the event of a fault they do not switch on again automatically after cooling down.
- Motor cables and temperature monitoring cables must always be laid separately.
- Without thermal protection: Use motor protection switches!

9.2. Fans with variable speed



Warning

Resonance frequencies can result in increased vibrations in certain speed ranges. These vibrations can destroy components.

- Operate the fan only outside these speed ranges.
- Run through these speed ranges so quickly that no vibration can exceed the values for the resonance frequency.
- The operating instructions for the frequency converter must be observed.



Caution

Damage due to incorrect commissioning of the frequency converter.

- Fan and frequency converter must be installed as close to each other as possible.
- Use shielded cables.
- All components (fan, frequency converter and motor) must be earthed.
- All-pole sine filters must be used. (Exceptions are fans with IEC standard motors. This is not mandatory for these motors, but is recommended by Walpol.)
- Fan operation with frequency converters below 10 Hz must be avoided.
- The heating of the motor when using a frequency converter must be checked by the customer in the application.
- Never exceed the maximum impeller speed specified on the type plate of the fan.



Caution

Damage due to non-use of a sine filter.

Walpol always recommends an all-pole sine filter when the fan is operated with a frequency converter.

10. Commissioning

The warranty is only valid if commissioning has been carried out correctly and written proof of this has been provided.

Safety instructions

Commissioning may only be carried out by appropriately qualified persons, for details see table Qualification

Prerequisites

- Assembly and electrical connection have been completed properly.
- Residual material from the installation and foreign bodies have been removed from the fan and ducts.
- Check the fan for visible damage before switching it on and ensure that the protective devices are functioning properly.
- Use all locking screws.
- Inlet and outlet are clear.
- The cable glands have been tightened.
- The data on the type plate correspond to the connection data.
- The safety devices have been fitted.
- Permanently install a disconnecting device in the electrical installation (all-pole contact opening min. 3 mm).

Tests

The following sequence must be observed during commissioning:

AC motor

1. Switch on the fan.
2. Carry out the tests required in the commissioning protocol (19 Commissioning protocol, speed controllable fans: "Measurement data during commissioning" at maximum speed.
3. Switch off the fan. With the mains voltage switched on, the motor starts an initialisation (a few seconds). After initialisation, the control input is active.

EC motor

1. Switch off the fan via the control input.
2. Carry out the tests required in the commissioning protocol (17 Commissioning protocol) Speed-controllable fans: "Measurement data at commissioning" at maximum speed.

11. Operation

Safety instructions

Warning: Danger from electrical voltage or moving parts.

- The unit may only be operated by appropriately qualified persons, for details see table 1 Qualification, Operation. Table 1 Qualification,
- Operate the fan only in accordance with its operating instructions and the operating instructions for the motor.

12. Troubleshooting/maintenance/repair

12.1. Safety instructions

- Troubleshooting/maintenance/repair may only be carried out by appropriately qualified persons, for details see Table 1 Qualification.
- The 5 safety rules must be observed, see 2.3 The 5 safety rules for working in and on electrical installations.
- The impeller must be stationary.

12.2. Troubleshooting

Table 13 Troubleshooting

Malfunction	Remedy	Possible causes	Remedy
Fan runs unsteadily		Impeller is out of balance	If possible, have it rebalanced by a specialist company. Otherwise, please contact Walpol.
		Dirt on impeller	Clean carefully, rebalance
		Material degradation on impeller due to aggressive pumped media.	Contact Walpol
		Direction of rotation of impeller incorrect	Change direction of rotation if possible. Otherwise, please contact Walpol.
		Deformation of the impeller due to excessive temperature.	Make sure that the temperature does not exceed the certified value/mount a new impeller.
		Vibrations/vibrations	Check the installation of the fan/check the duct system .
		Fan operation in resonance frequency range	Consider chapter 9.2 Fans with variable speed
Fan air performance too low		Direction of rotation Impeller wrong	Change direction of rotation if possible. Otherwise, please contact Walpol.

Malfunction Remedy	Possible causes	Remedy
Fan air output too low	Incorrect connection wiring (e.g. star instead of delta.e.g. star instead of delta).	Check connection wiring and correct if necessary.
	Pressure losses too high.	Optimise duct routing.
	Volume flow controllers are not or only partially open.	Check opening position on site.
	Inlet or pressure paths blocked.	Remove blockage.
Grinding noises when starting or operating the fan	Check whether the duct connections on the fan are strained.	Loosen duct connections and realign.
Thermal contact/ PTC thermistor tripped	Direction of rotation of impeller incorrect	Change direction of rotation if possible. Otherwise contact Walpol.
	Missing phase	If using a 3-phase motor (no EC), check that all 3 phases are present.
	Motor overheating	Check impeller cooling (if present), check resistance of motor windings (if possible) / contact Walpol.
	Capacitor (if used) not or not correctly connected	Connect capacitor correctly.
	Motor blocked	Contact Walpol
Fan does not reach nominal speed	Defective motor winding	Contact Walpol
	Drive motor misaligned	Contact Walpol
	Control devices (if used), such as frequency converter or transformer, are set incorrectly.	Set control devices correctly.
	Mechanical blockage	Remove blockage.
Motor does not rotate	Incorrect supply voltage	Check supply voltage, restore power supply.
	Connection defective	Disconnect from power supply, correct connection according to wiring diagram
	Temperature monitor has reacted.	Let motor cool down. Identify and rectify cause of fault.
Electronics/motor overheated	Cooling insufficient	Improve cooling.
	Motor overload	Check whether the correct fan is used for the application.
	Ambient temperature too high	Check whether the correct fan is used for the application.

12.3. Maintenance

The warranty is only valid if maintenance has been carried out correctly and written proof of this has been provided.

To ensure continuous fan operation, we recommend regular maintenance intervals. These maintenance intervals are specified in the "Activities" table below. In addition, follow-up activities such as cleaning, replacement of defective components

or other corrective measures must be carried out by the operator. For traceability, it is necessary to create a maintenance plan in which the work carried out is documented. This must be drawn up by the operator. If "extreme operating conditions" prevail, the maintenance intervals must be carried out at shorter intervals. Examples of extreme operating conditions:

- Fans for kitchen exhaust air
- Permanent ambient temperature > 30 °C or < -10 °C, or temperature fluctuations > 20 K

Table 14 Activities

Actions	Normal Operating Conditions		Extreme Operating Conditions	
	Semi-Annually	Annually	Quarterly	Semi-Annually
Check the fan and its components for visible damage, corrosion and dirt.		X		X
Check the impeller for damage and imbalance.		X		X
Check the correct function of the condensate drain.		X	X	X
Clean the fan/ventilation system (see 13 Cleaning).	X		X	
Check the screw connections for tightness and damage/defects.		X	see normal operating conditions	
Make sure that the fan inlet is free of dirt.		X		X
Check that the fan and its components are used as intended.	X		see normal operating conditions	
Check the current consumption and compare this with the rated data.		X		X
Check the vibration dampers (if used) for correct function, visible damage and corrosion.		X	see normal operating conditions	
Check the electrical and mechanical protection devices for correct function.		X	see normal operating conditions	
Check that the type plate of the fan is legible.		X		X
Check the connection terminals and cable glands for tight fit and visible damage/defects.		X	see normal operating conditions	
Check the flexible connectors for damage.	X		see normal operating conditions	



Note

For all other damage/failures, please contact Walpol.

12.4. Spare parts

- Only use original spare parts from Walpol!
- When ordering spare parts, state the serial number of the fan. This is indicated on the type plate.

13. Cleaning

Safety instructions

- Cleaning may only be carried out by appropriately qualified persons, for details see Table 1 Qualification. The 5 safety rules must be observed, see 2.3 The 5 safety rules for working in and on electrical installations.
- The impeller must be stationary.
- The rules of VDI 2052 apply

Procedure

Important

For a long period of use, keep the fan clean.

- Install a pre-filter (e.g. Walpol filter box).e.g. filter box from Walpol).
- Do not use hard brushes, steel brushes or sharp-edged objects.
- Never use a high-pressure cleaner ("steam jet").
- Do not bend or scratch the fan blades when cleaning.
- When cleaning the impeller, make sure that the balance weights are attached.
- Keep the fan airways clean and, if necessary, clean them carefully with a cleaning cloth or a "soft" brush.



Note

Proper operation is only possible with regular "gentle" cleaning.

14. Disassembly/removal

Disassembly and removal of the motor must be carried out in reverse order to assembly and electrical connection.

15. Disposal

- Ensure that the material is recycled. Observe the national regulations.
- The unit and the transport packaging consist mainly of recyclable raw materials.
- Dismantle the fan into its components.
- Separate the parts according to:
 - Reusable parts
 - Material groups for disposal (metal, plastic, electrical parts, etc.)

16. EU Declaration of Conformity - Airbox

The manufacturer: Walpol GmbH
Benzstr. 13
45891 Gelsenkirchen

Product designation: Airbox

Type designation: GB, GBG, GBV

As of year of manufacture: 2016

The manufacturer declares that the above-mentioned products comply with the following harmonisation regulations in terms of their design and construction as well as the version marketed by us:

EU Directives:	2006/42/EC	Machinery Directive
	2014/30/EU	Electromagnetic Compatibility (EMC) Directive
	2011/65/EU	RoHS Directive
	2009/125/EC	ErP Directives
Regulations:	1253/2014	Only for ventilation units over 30 W

Location: Gelsenkirchen
Date: 01.012.2021

Maximilian Girnus
Managing Director WALPOL GmbH

The manufacturer: Walpol GmbH
Benzstr. 13
45891 Gelsenkirchen

Product designation: Fire gas fans

Type designation: GB HT

As of year of manufacture: 2016

The manufacturer declares that the above-mentioned products comply with the following harmonisation regulations in terms of their design and construction as well as the version marketed by us:

EU Directives:	2006/42/EC	Machinery Directive
	2014/30/EU	Electromagnetic Compatibility (EMC) Directive
	2011/65/EU	RoHS Directive

Regulations:

Harmonised standards: DIN EN ISO 12100:2013 - Safety of machinery - General principles for design - Risk assessment and risk reduction

DIN EN 60204-1:2010 - Safety of machinery - Electrical equipment of machines, Part 1: General requirements

DIN EN 61000-6-1:2007 - Electromagnetic compatibility (EMC) - Part 6-1: Generic standards Immunity for residential, commercial and light-industrial environments

DIN EN 61000-6-2:2011 - Electromagnetic compatibility (EMC) - Part 6-2: Generic standards Immunity for industrial environments

DIN EN 12101-3:2015 - Smoke and heat control, Part 3: Requirements for mechanical smoke and heat exhaust ventilators

Location: Gelsenkirchen
Date: 01.012.2021



Maximilian Girnus
Managing Director WALPOL GmbH

17. Commissioning protocol

Only if commissioning has been carried out correctly and written proof of this is provided, is the warranty valid.

Order data

Article no./serial no./fan Designation:

Order no.:

System designation:

Conveying medium: Conveying medium temperature

Installation company		
Company:	Contact person:	
Company address:		
Tel.No.:	E-mail:	
Operator (installation site)		
Company:	Contact person:	
Company address:		
Tel. no.:	E-mail:	
Nominal data - fan (nameplate on fan housing)		
Voltage [V]:	Current [A]: :	
Frequency [Hz]	Power [kW]:	
Impeller speed [rpm]		
Installation		
Type of connection	Yes	No
Directly connected to mains (without control)	<input type="checkbox"/>	<input type="checkbox"/>
Via contactor control	<input type="checkbox"/>	<input type="checkbox"/>
0-10 V signal (EC motor)	<input type="checkbox"/>	<input type="checkbox"/>
Transformer	<input type="checkbox"/>	<input type="checkbox"/>
Frequency converter	<input type="checkbox"/>	<input type="checkbox"/>
	Sine-Filter	<input type="checkbox"/> <input type="checkbox"/>
	Shielded cables	<input type="checkbox"/> <input type="checkbox"/>
Sealing of connection cable	<input type="checkbox"/>	<input type="checkbox"/>
FESTER Clamp fit of wires	<input type="checkbox"/>	<input type="checkbox"/>
Motor protection		
Motor protection switch or motor protection relay	<input type="checkbox"/>	<input type="checkbox"/>
PTC thermistor	<input type="checkbox"/>	<input type="checkbox"/>
Thermal contact	<input type="checkbox"/>	<input type="checkbox"/>
Electrical motor protection	<input type="checkbox"/>	<input type="checkbox"/>
Other		
Installation		
No 90° bend directly connected to fan/ Maintain minimum distances as per sketch	<input type="checkbox"/>	<input type="checkbox"/>
Visual inspection/Make sure all parts are tight	<input type="checkbox"/>	<input type="checkbox"/>
Condensate drain connected (if present)	<input type="checkbox"/>	<input type="checkbox"/>

Functional check		Yes	No
Impeller easily rotatable (by hand)		<input type="checkbox"/>	<input type="checkbox"/>
Direction of rotation corresponds to direction of rotation arrow		<input type="checkbox"/>	<input type="checkbox"/>
Direction of rotation Impeller on motor side	<input type="checkbox"/> clockwise <input type="checkbox"/> counterclockwise		
Smooth running without unusual noises / vibrations		<input type="checkbox"/>	<input type="checkbox"/>
Measurement data at commissioning			
Voltage [V]:	Impeller speed [rpm]		
Current L1 [A]*	Volume flow [m³/h]:		
Current L2 [A]:	Differential pressure [Pa]*:		
Current L3 [A]:	Test run (minutes):		
*For single-phase fans, enter in line "Current L1 [A]"		*Δ-pressure between suction and discharge side of the fan	

If a volume flow measurement is not possible, the value can be calculated using the following formula:

$$\text{Duct cross-section [m}^2\text{]} \times \text{Flow velocity [m/s]} = \text{Volume flow [m}^3\text{/h]}:$$

Grid measurement according to VDI 2044

Operating instructions handed over to operator		<input type="checkbox"/>	<input type="checkbox"/>
Maintenance book handed over to operator		<input type="checkbox"/>	<input type="checkbox"/>
Operator/personnel instructed		<input type="checkbox"/>	<input type="checkbox"/>

Start-up of the fan may only take place if all tests are positive!

Yes

No

Start-up of the fan successful?

Date, stamp, signature of installer

Date, stamp, signature of operator

18. Maintenancebook

Plant designation:

- ⇒ Visual inspection for defects and dirt regularly
- ⇒ Cleaning the fan at least 1/2 yearly
- ⇒ in kitchen technology Observe cleaning according to VDI 2052!
- ⇒ The intervals may be shortened in case of heavy soiling!

Visual inspection	Cleaning Maintenance	Note	Specialist company Stamp	Date	Signature

Please note!
If cleaning/maintenance intervals are not observed,
warranty and guarantee claims may be rejected by the manufacturer!

Bearing damage caused by imbalance of the impeller due to heavy soiling or improper cleaning is excluded from warranty/guarantee!

Visual inspection	Cleaning Maintenance	Note	Specialist company Stamp	Date	Signature

www.WALPOL.eu