

Model: Roof Fans / Roof Units

Maintenance and **Operating Instructions**



Model RH, RF-AXV & RF-BXV

Contents

Report

Model RV and RVS

Contents	Page
Safety	1
Description	1
Condition of use	1
Storage, transport	1
Installation	2
Operation	2
Importance on Servicing	3
Repair	3
General Safety Notes	4
Product Description	5
EC Declaration of conformity	6
Assembly	7
Initial Start-up	7
Help with Malfunctions	8
Maintenance	9
Service, Address of Producer	12

This operation instruction contains important technical advice and information about safety. Therefore please pay attention to this operation instruction before unpacking, installation or any other work is undertaken on this fan!

1. SAFETY

The following symbols refer to particular dangers or give advice for save operation



Danger! Attention! Safety advice!

Danger from electric current / highvoltage!

Danger! Do not step under hanging load!

Crush danger!



Important, information

Safety advice



Wolter Roof fans are produced in accordance with the latest technical standards and our quality

assurance programme, which includes material and function tests, ensures that the final product is of a high quality and durability. Never the less these fans can be dangerous if they are not used and installed correctly, according to the instructions



Before installing and operating this fan please read instructions carefully!

Only use the fan after it has been securely mounted and fitted with protection guards to suit the application (Guards can be supplied for all fans from our programme).

Installation, electrical and mechanical maintenance and service should only be undertaken by qualified worker!

The fan must only be used according to its design parameters, with regard to required performance stated in the name-plate and mediums passing through it!

2. DESCRIPTION

Roof fans were especially developed for use in modern ventilation systems. Roof fan of RH & RV upto 710, are equipped with external rotor motor which are 100% continuously speed controllable by voltage.

Roof fans of RH & RV from size 800 and BF-AXV & BF-BXV are equipped with single speed or pole-change standard motors. The fans are statically and dynamically balanced as a complete unit in our factory.

3. CONDITIONS OF USE

Roof Fans can be used for ventilation of:

- Clean air
- Slightly dusty and greasy air
- Slightly aggressive gases and fumes (please refer to our engineers)
- Mediums up to an atmospheric density of 1,2 kg/m³
- Mediums passing through with a temperature of -30°C up to + 40°C
- Mediums up to a max. Humidity of 95%

4. STORAGE & TRANSPORT



· Store the fan on a dry place and weather protected in its original packing

etc.)

- Storage temperatures between -30°C and +40°C
- With storage times of more than 1 year, please check the bearings on soft running before mounting.

Fans that have been installed in area of adverse weather and humid condition,"space heater"as optional must be installed when not in operation, to avoid damage to the motor and bearing.Warrantess will be void in such case if regular interval servicing on motor and bearing was not undertaken as per "General Safety Operating Instructions".

Avoid extremes of cold and heat.

Before installation,turn by hand and check that the motor bearing assembly is in good functional order prior to fitting

Transport the fan with suitable loading means:

-Avoid a distortion of casing or other damage.

Use suitable assembling means as e.g. scaf folds conforming to specifications.



Danger! Do not step under hanging load!

5. INSTALLATION



Installation and electric work only by skilled and introduced workers and in accordance to applying



- Only Pick up the unpacked fan on base frame or on support brackets
 - When installing the roof fan on the roof socket or on socket damper the mounting surface has to be sealed

airtight on the fan base with moss rubber seal or with a continous elastic foam type. Attention: take care that surfaces of sockets mounted on site are conpletely flat. An uneven surface will lead to deformation of the base frame so the impeller cannot rotate freely.

- For installation on the roof socket or socket damper, plase use screws and seal rings for sealing
 against water.
- All roof fans are suitable for installation in horizontal position or in a incline of up to 15 degree.

Electrical wiring must be in accordance with local technical codes, specifications and ordinances, and the connections must be made as shown in the wiring diagram provideed, which are located in the terminal box cover or under the weather hood / sound absorbing cover.

- Passed throught the hole provided in the base, utilising a suitable weatherproof grommet to ensure a watertight seal and protect the cable from wear. Cable lead-in always has to be sealed propertly!.
- The electric supply should be connected to the terminal box, which is located under the weatherproof cover, or fitted, to the external isolation switch.
- Take care when fitting the cable into the terminal box that it is properly sealed and watertight.
- For fan with sizes up to RH & RV710, the thermal contact cables should be connected in accordance with the wiring instructions. Failure to connect these leads properly may valid the guarantee.
- From fan size RH & RV 800 upwards and RF-AXV & RF-BXV series, motor protection is via bimetal connectors and should be adjected to the motor nominal current against the name plate.



Do not use metal compression-gland fittings with plastic terminal boxes!



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Before control of direction of rotation:

Remove any foreign matter from the fan. Rotate impeller by hand to check free running, prior to switching on power supply. Install weather hood/sound absorbing cove and protection protection guards (Accessories) or give no access to impeller.

the power supply



Incorrect direction of rotation will overload the motor!. Thermal contact of motor activated

With 3 phase motor- To change the direction of the rotation, transpose two of the phase! With 1-phase motor-to change direction of the rotation, transpose the position of leads as per wiring diagram attached to terminal box - change of current direction in the secondary winding



Inlet accessories may only be fitted to the fixings provided on the base of the unit. Remove duct system orfix separately as otherwise deformations on the base frame may occure.

6. OPERATION

Prepare fan for first operation

- Correct mechanical installation
- Electrical installation in accordance with regulations
- Remove foreign matter from inlet and outlet area and from inside of fan
- Protection guard installed,maintenance cover closed, no entry to fan or fan being installed out of arm sweep.



Only commence operation when it is in stalled in accordance with ordinances!



Taking Roof fans in operation

Observe correct function (smoothness of running, vibration, unbalance current possibly consumption, controllability and reversibility)



By regular inspection of the fan inlet make sure debris has not collected on the guard and clean if necessary!!

necessary

7. IMPORTANCE ON SERVICING



Our fans are maintenance free with normal operation! When using them in the fringe range simple maintenance work may be required!



Before any maintenance work is undertaken:

Stop fan in accordance to regulations and disconnect all poles from mains supply.

- Wait until impeller is stationary!
- Make sure that is restart is not possible!

Clean fan

- Clean inlet cones
- Clean impeller If necessary dismount rain protection hoods / sound absorbing cover and impeller set



Only use usual commercial cleaning material paying attention to the prescribed safety measures and do not

use any abrasive tools (surface protection will be destroyed!)

- Keep motor unit dry!
- Do not damage impeller & blades!
- Install impeller set
- Install rain protection hood / Sound absorbing cover

General controls

- Bearing play too large?
- Grease leaking on bearings?
- Surface protection affected by medium to be ventilated too aggressive?
- Unusual operation noise?
- Fan capacity for possibly exceeded duct system still sufficient causing overloading?



Before any repairs are undertaken

Please:

REPAIR

Stop fan in accordance to regulations and disconnect all poles form mains supply. Wait until impeller is stationary!

Make sure that is restart is not possible!



- Disconnect electrical supply from motor
- loosen motor supporting plate or frame and pull out upwards completely with the motor and impeller
- Install new motor impeller complete with motor supporting plate
- secure and tigten screws on support plate or frame
- Connect electric supply

From size RH & RV 800, please separate impeller from standard motor and re-mount

- loosen inner hexagon head bolts in the conical hub and unscrew them
- screw in inner hexagon head bolts in the free tapped holes. By fixing the bolts the conical seat of the hub will be loosened
- remove impeller with hub on the motor shaft (adjust overlapping of impeller and cone to 8mms)
- screw in grub screws into the conical holes forseen for tensing of hub parts and tighen them
- connect electric supply
- mount weather hood / sound absorbing cover

BF-AXV and BF-BXV Axial type, please separate impeller from standard motor and re-mount

- Dismount the weather protective cover
- unscrew the taper lock screws and remove the axial impeller with hub
- if necessary, unscrew the motor side to clamping plate to remove the motor
- After replacement, tigten back the motor using the side screw and place back the impeller with hub into position and tighen with taper lock bushes
- connect electric supply
- mount weather hood / sound absorbing cover
- Check whether installation is correct
- motor impeller must rotate free
- check whether direction is correct

Install fan

- Connect electrical supply
- Check whether installation is correct, motor impeller must rotate freely!

9. GENERAL SAFETY NOTES

9.1 THE OPERATOR'S DUTY OF CARE

The fans of the AXV and BXV series have been constructed and built whilst taking into account an analysis of the hazards involved, and after careful selection of the harmonised standards to be observed, as well as other further technical specifications. They thus correspond to the current level of technology and guarantee a high degree of safety.

In operational practice, however, this level of safety can only then be attained if all required measures are taken. It is incumbent upon the operator's duty of care to plan these measures and to monitor their execution.

In particular, the operator must ensure that

- the fan is only used as stipulated (cf. chapter 10, "Product Description")
- the fan is only operated in a faultless and functional condition and that safety fittings, especially, are regularly examined with respect to their functionality
- the operating instructions are always maintained in a readable condition and are available at the fan's location of deployment in their entirety
- only sufficiently qualified and authorised personnel operate, maintain and repair the machine
- these members of personnel are familiar with the operating instructions and especially the safety notes contained therein
- no safety and warning signs fitted to the fan are removed, and that they are kept in a readable condition.

9.2 Basic safety measures

Wolter RF axial fans are, at the moment of delivery, manufactured to the current level of technology.

service life! Nevertheless, these machines can be dangerous if they are improperly used by untrained personnel or are used in a non-stipulated manner. Read these operating instructions carefully before putting the RF axial fans into operation!

fittings, or with protective screens. (We can supply suitable, tested protective screens on request!)



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Assembly, electrical connection and maintenance may only be carried out by trained craftsmen! Only operate the fan in the manner stipulated and within the specified output limits (see rating plate) and with approved conveyed media!

9.3 PARTICULAR KINDS OF HAZARDS

The fans of the RF AXV and RF BXV series are roof axial fans. In this respect, particular hazards are caused by the rotor and through the flow of air, which can, at times, be considerable. For this reason the following points are to be observed:

during maintenance work.

Loose clothing or light parts can be sucked in by the draught of air. That is why you should always weartight-fitting clothing during maintenance work and during free-suction operation. Larger items (tools etc.) can obstruct or totally ruin the rotor. For this reason you should always fit a protective screen during free-suction or free-blowing operation.



Before installing and operating this fan please read this instructions carefully! Put the fan and other components to use only after they have been securely mounted and fitted with protection guards to unit application (suitable guards can be supplied upon request).

Installation, electrical wiring, maintenance only by qualified engineers. The fan must be operated only in accordance with the performance data (""" Data plate) and the approved medium passing through.

10 PRODUCT DESCRIPTION

10.1 STIPULATED USAGE

Our RF fans have been specially developed for use in modern ventilation and air conditioning systems. The rotors are statically and dynamically balanced at the factory, and manufacture is subject to the strictest intermediate and end checks and is certified in accordance with DIN/EN/ISO 9001.

Conditions of use

The air should correspond to tender cifications, as the corresponding components are determined for this.

If these are not listed in more detail, then the following applies:

The RF fans of the AXV and BXV series with standard motor are suitable for the conveyance of ciean air slightly dusty and greasy air

slightly aggressive gases and vapors

mediums up to an atmospheric density of 1.3 kg/m3

mediums with a temperature of -30°C up to +60°C

mediums up to a max. humidity of 95%

The ambient temperature of the motor must be between -30°C and +40°C, other as optional

Conditions of fitting

The fan must either be built into a ducting channel or have suction and outflow protection elements fitted to it.



The fans are not designated for any types of usage other than those cited here, and any such use shall beconsidered as improper usage!

In particular, we especially draw your attention to the following points. Non-compliance can either result in considerable material damage or personal injury, or that the demanded fan output values are not attained.

The fan may not be operated without the necessary safety fittings. Should there be no ducting

channel connected at one end, e.g. the suction end, then a protective screen must be fitted at that end inorderto prevent access to rotating parts. In order to avoid any damage to the fan and specially to the rotor vanes, you must prevent the

the fan.

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The fitting notes regarding intake and outlet flow conditions are to be observed.

11 EC DECLARATION OF CONFORMITY

In accordance with Appendix II A of the EC Machinery Directive (89/392/EWG)

The manufacturer:	Wolter GmbH Maschinen- und Apparatebau KG Am Wasen 11 D-76316 Malsch
hereby declares that the machine described in the following:	Fans of RF-AXV & RF-BXV, RH, RV and RVS series
meets the health and safety requirements of the following EC Directives:	In accordance with Machinery Directive (98/37/EG), Appendix II A
	In accordance with the Low Voltage Directive (73/23/EWG)

Harmonised standards applied:

DIN EN 60335-2-2	Safety of electrical equipment for household use and similar purposes; Part 2: Special requirements for dust and water suction machinery
DIN EN 60335-2-80	Safety of electrical equipment for household use and similar purposes; Part 2: Special requirements for fans
DIN VDE 0700-220	Safety of electrical equipment for household use and similar purposes; Fans and associated control units for use on ships
DIN EN 1037	Machine safety; Avoiding the unexpected start up of the machinery.
DIN EN 1088	Machine safety; Locking systems in combination with detachable protective fittings; Guiding principles for lay-out and selection
DIN EN 25136	Acoustics; Determining the irradiated noise output of fans in ducting. Ducting behaviour (ISO 5136:1990 and Technical Corrigendum 1:1993)
DIN EN 292-1	Machine safety; Basic terms, general guiding principles of lay-out; Part 1: Basic terminology, methodology
DIN EN 294	Machine safety; Safety distances for the prevention of upper limbs coming into the vicinity of danger areas
DIN EN 811	Machine safety; Safety distances for the prevention of lower limbs coming into the vicinity of danger areas
DIN EN ISO 11200	Acoustics; Noise irradiation of machines and appliances; Guidelines on the application of basic standards for establishing noise emission levels at the workplace and at other fixed locations (ISO11200:1995)

Any changes in construction which have an effect on the technical data specified in the operating instructions and on the machinery's stipulated usage, i.e. those changes which essentially change the machine, shall invalidate this declaration of conformity!

Read the chapter, "General Safety Notes".

12 ASSEMBLY

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accordance with the respectively applicable regulations!

- The following points are to be observed when assembling the fan: Secure the fan to the assembly base plates.
- The fans must not be deformed or twisted during fitting! Use spacing plates if the need arises The fitting position agreed in the lay-out is to be observed
- Only self-locking screws may be used for securing the outflow flange!

Attention: Make the electrical connection in accordance with the technical connection conditions and the relevant regulations!

- Make the electrical connection as per the enclosed terminal plan in the motor connection cabinet or terminal cabinet housing
- Feed in and seal the cable into the connection cabinet properly
- If present, connect the posistor / thermo-contact for motor protection, as otherwise the warranty lapses!

Before checking the direction of travel:

Remove foreign bodies from the fan area

- Assemble contact protector, protective screen (see accessories), or box in fan
- Turn the rotor through a few revolutions by hand in order to test its ease of movement
- Check the direction of travel in accordance with the arrow on the housing by switching on and off very quickly.
- If necessary, alter the direction of travel for AC motors by swapping 2 phases
- In the case of single-phase motors, reverse the direction of travel by swapping Z1 with Z2 (attention: the direction of current flow in the auxiliary winding also changes)

INITIAL START-UP 13

The following points are to be observed in order to avoid damage to the machinery or life-threatening injury during initial start-up:

- Only qualified personnel may carry out the machine's initial start-up and this must take place in compliance with the safety notes.
- Prior to initial start-up, check that all tools and foreign bodies have been removed from the machine.
- Activate all safety devices and Emergency Stop switches prior to initial start-up.
- Check the motor's direction of travel prior to initial start-up.
- Read the chapter 9, "General Safety Notes ".
 - Installation of the fans on frames or base frames either on the base assembly or on vibration dampers. Do not distort the fans during installation
- Mounting position with shaft in a horizontal position only •
- Use self-locking screws only.
- for fans with volumetric flow measuring equipment, make sure and adhere to the data sheet
- Electric wiring must be in accordance with local technical specifications and ordinances of the motor manufacturer.
- Take care when fitting the cable into the terminal box that it is properly sealed and watertight.

... Ensure that the length of electrical connections is sufficient to allow for a shifting of the motor without any difficulties whenever the drive belt has to be replaced or tightened.

- Motor protection by
- Bi-metallic relay: Bi-metallic relay for motor protection to be adjusted to the nominal motor current ("Data plate)
- thermistor: with thermistor type for motor protection (motors with more than 3 kW nominal rating) install thermistor to a tripping device in accordance with instructions.
- Before control of direction of rotation
- Remove any foreign matter from the fan.
- Rotate impeller by hand to check free running. "If the impeller contacts the casing, loosen the bearing base and to reposition it to uniform gap is achieved between the casing and the impeller. Install protection guard / finger protection (" accessories) or give no access to

CHECKS PRIOR TO INITIAL START-UP 13.1



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Proceed with the fan's initial start-up in the following sequence:

Check that the mechanical assembly has been carried out properly Remove foreign bodies located in the suction and outflow areas and in the fan space. Check that the electrical installation has been completed in accordance with regulations Does the mains voltage match the motor voltage specified on the rating plate?

Is the switchgear used suitable for the motor both with respect to the switching functions to be carried out and also to the switching conditions and switched output of the motor? Is the motor protection system set correctly with regard to the motor's nominal current? The setting must be carried out in accordance with the corresponding details contained on the motor outputplate.

Has the motor been connected correctly in accordance with the wiring diagram? The connection schematic supplied by the motor suppliers applies for the connection of the motor. The special connection regulations are to be observed for explosion-protected models. Accident prevention



Protective anti-intrusion fittings, protective screens (see accessories) mounted, fan boxed in or assembled out of reach.

If the fan is assembled for free-suction, the suction aperture must be covered by a protective screen. This is the only way that the accident prevention regulation governing protection from contact can be deemed to have been met.

13.2 STARTING UP THE FAN FOR THE FIRST TIME

Only put the fan into operation after it has been assembled in accordance with the regulations!

- Prepare fan for first operation
 - correct mechanical installation
 - proper tension of the drive belt
 - electrical installation in accordance with regulations
 - remove foreign matters from inlet and outlet area and from inside of fan
 - protection guard (accessories) installed, no entry to fan or fan being installed out of arm sweep



Check Impeller. Check direction of rotation as per direction arrow on the casing by short turning on. with 3-phase-motor to change direction of rotation transpose two of the phases! with 1-phase-motor to change direction of rotation transpose the position of leads as per motor wiring diagram.



Thermal protection of motor may activate!



Monitor its correct function (quiet running, vibration, imbalance, power consumption, controllability) Should the required output (volume flow or pressure increase) not be achieved by the fan,



maximum fin settings specified both on the rating plate and in the technical documentation. The power consumption must be re-measured in order to avoid any possible motor overload. The thermo-protection system may be activated if the motor power consumption is too high! Check the bearing temperature after a lengthy period of operation Always keep suction openings clear! Check protective screens or protective anti-intrusion fittings

for dirt, and clean if necessary!

13.3 **CHECKS AFTER INITIAL START-UP**

Check the mechanical connections after initial start-up, especially the joints at the fan. Observe correct function (smoothness of running, vibration, unbalance current consumption, possibly controllability, belt drive)



By regular inspection of the fan inlet make sure debris has not collected on the guard and clean if necessary !

In case of extended periods of standstill, loosen the tension of the drive belt in order to release the load on the bearing!

HELP WITH MALFUNCTIONS 14

The following points must be observed in order to avoid damage to the machinery or life-threatening injury when eliminating machine malfunctions:

- Only eliminate any malfunction if you have the specified qualifications necessary for the task.
- First of all ensure that the machine cannot be switched on inadvertently, by locking the equipment's off switch or control cabinet by means of a padlock.
- Secure the hazardous area with respect to moving machine parts.
- Read the chapter, "General Safety Notes".

[Symptom	Cause	Elimination
ľ	Motor or motor control	Motor too hot, thermocontact	Allow the motor to cool off. Depending upon the
	system switches off	activates.	control equipment in use, the fan will either start
			itself up or will have to be re-started again.
			Check whether:
			- The conveyed medium is too hot
			- All phases are evenly loaded and connected
			- Operating point does not match the lay-out
		In compatible of	- Rotor blocked
	Air output incorrect	Incorrect direction of	Change the direction of travel (see electrical
		travel of the fan	
			motor
			into
	_	the installation.	Switch off the fan.
			a second star form)
		Deter blocked	Complete Ian).
		ROIOI DIOCKEU	Switch of the lan.
			prevention regulations are observed in the
			process
		Rotor defective	Switch off the fan
Н			
Ι		Lay-out does not match	Clean or replace filters if dirty;
		installation resistance	In the event of an erroneous lay-out, the fan's
			output can be altered by changing the vane
			angle within limits. In this case the shaft output
			must be checked or the required vane, so that
			the motor is not overloaded. The rotor should
			be re-balanced after any alteration to the vane angle.
	Fan is labouring under	Fan is operating within an	If possible, reduce the installation resistance. If
	load, air flow is	unfavourable characteristic	this laboured operation of the fan continues

14.1 TABULAR OVERVIEW OF POSSIBLE MALFUNCTIONS AND AIDS IN ELIMINATING THOSE MALFUNCTIONS

15 MAINTENANCE

The following safety notes must be observed when maintaining the machine – life-threatening injuries to personnel, damage to the machine and other material damage, as well as environmental damage, will be avoided in this way.

- Cleaning, lubrication and maintenance work may only be carried out by authorized operating personnel
- operating instructions are to be observed.
- Repair work may only be carried out by authorized craftsmen accident prevention regulations are to be observed.
 - Secure the operational area over a large area prior to the commencement of maintenance work.
- The specified sequence of the working stages is to be observed exactly.
- All work on the machine's electrical equipment may only basically be carried out by trained electricians.
 Self-locking screws and nuts are always to be renewed.
- All work on the machine's electrical equipment may only basically be carried out by trained electricians.
- Self-locking screws and nuts are always to be renewed.
- All specified screw torque settings are to be observed precisely.



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Before any maintenance work is undertaken:

Stop fan in accordance to regulations and disconnect all poles from mains supply_ Wait until impeller is stationary!

- Walt until Impeller is stationary!
 - Make sure that a restart is not possible!
 - Use only original spare parts tested and approved by the manufacturer.
 - Replace the ball bearings of the motor

whenever the grease utilization period has elapsed in accordance with the maintenance instructions of the manufacturer.

For Motor ball bearings that required re-lubrication, the lubrication intervals will be approx. 3 - 6 months. Use only lithium soap grease in accordance with the DIN 51825 - K 3 N standard (base oil viscosity ISO VG 68/ DIN 51519).

For Motor ball bearings that feature a lifetime lubrication. Replacement will be required after the grease utilization period has elapsed. When operating the fan at its limit maintenance work could be necessary. The ball bearings have been lubricated for life. After the life time lubricant inside the bearings is used up the bearings must be exchanged. The grease life time of the bearings is: for normal use at 900 min-1 40000 hours, at 1400 min-1 30000 hours, at 2800 min-1 15000 hours, Independent of the operating hours, bearings should be changed every years. Only use usual commercial cleaning material paying attention to the prescribed safety measures and do not use any abrasive tools (surface protection will be destroyed!)

Clean fan Clean inlet cones Clean impeller (if necessary dismount protection guards) Do not flood motor! Do not bend impeller, blades! Install protection guard

15.1 SERVICING

The rotor and housing are subject to natural wear and tear through the action of dust, acidic and corrosive vapors, as well as the gases which are mixed into the conveyed flow. The type and concentration of the dust, as well as the gases and vapors, can lead to deposits, abrasion and corrosion at the rotor and housing.

The materials can be attacked so much by this natural wear and tear that they can no longer stand up to the demands made of them. Deposits on the rotor, which have never been evenly distributed, lead to an imbalanced state and thus to noisy running, which in turn can result in damage to the motor bearing.

Deposits in the housing lead to a narrowing of the available cross-sectional area or to a roughening of the housing panels and can thus have an unfavorable effect on the fan's output data. Should the checks, the regularity of which depend on the conveyed media and other operating conditions which differ in each individual case, only reveal slight wear and tear, then the individual parts can be cleaned in good time, or replaced if necessary.

Prior to all servicing work:

-	Bring the fan to a halt in the prescribed manner and completely isolate the fan from the mains supply!
-	Wait until the rotor has come to a halt!
-	Ensure that the machine cannot be switched on again!
-	Clean the fan
-	Clean the suction apertures
-	Clean the rotor (if necessary dismantle the protective anti-intrusion fitting)
	prescribed safety measures. Do not use scratching or scraping tools (protective surface coating will be ruined)
-	Do not overload the motor!
-	Do not bend the rotor or vanes!
-	Assemble the protective anti-intrusion fitting
	General checks
-	Too much bearing play?
-	Lubricant leaking from the bearings?
-	Surface protective coating damaged?
-	(Attention: Conveyed medium too aggressive!?)
-	Unusual noises during operation
-	Fan output still sufficient for possibly extended or shortened ducting system?

15.2 OVERHAUL

Prior to all overhaul work: Bring the fan to a halt in the prescribed manner and completely isolate the fan from the mains supply! Wait for the rotor to come to a halt! Ensure that the machine cannot be switched on again! Only use spare parts which have been tested and approved by us!



Before any repairs are undertaken please:

STOP fan in accordance to regulations and disconnect all poles from mains supply. Wail until impeller is stationary! Make sure that a restart is not possible!

Only use original spare parts manufactured and supplied by Wolter!

Replacing the motor disconnect the wiring of the motor remove the protective cover of the belt loosen the clamping screws on the motor carriage release the tension of the belt drive remove the pulley from the motor shaft (for this, loosen the Allen screws on the pulley and screw into the vacant holes. This will loosen the fit of the pulley on the conical hub. Under no circumstances try to remove the pulley using a hammer or similar tools!) loosen the mounting screws at the motor flange (if necessary, steady the motor) and remove the motor. install the new motor install the pulley on the motor shaft (the pulleys must be aligned properly!) Clamp the conical hub by tightening the

Allen screws

tighten the drive belt (---> Maintenance) install the protective cover of the belt reconnect the wiring (---> Installation) Verifying the correct installation " the impeller must turn freely! (---> Installation), verify the cor

" the impeller must turn freely! (---> Installation), verify the correct direction of rotation (---> Installation)

15.2.1 DISMANTLING THE ROTOR

Remove hub cover. Slacken off securing screw (Allen key), completely undo one grub screw and slacken off the tension cone using the forcing drilling. Pull off the rotor from the motor shaft (possibly using a puller tool).

15.2.2 ASSEMBLING THE ROTOR

Push the rotor onto the motor shaft Tighten both grub screws evenly, whilst observing the torque settings given in the adjacent table. Fit the hub cover

15.2.3 MOTOR BEARING SERVICE INTERVALS

The roller bearings of the standard AC motors are basically equipped with a permanently sealed lubrication system consisting of a high-quality, temperature-resistant, lithium-based roller bearing grease (melting point approximately 160°C). The amount of lubricant

operating hours.

Unfavorable operating conditions, such as permanently lengthy operating periods, changes in bearing loads etc., require that the motor bearings are monitored carefully. The service intervals or lubrication deadlines and amounts depend on the motor's operating conditions, the rotary speed and size of bearing.

As only the construction size and rotary speed of the motors are usually known, the service intervals specified in the adjacent table should be applied. They refer to a coolant temperature of 40°C in the case of horizontal fitting (construction form B3). The service intervals are to be put back by 1/3 in the case of vertical fitting.

You should consult the manufacturer without fail in the event that motor repairs are required within the warranty period.

15.2.4 INSTRUCTIONS ON CORRECT BEARING REPLACEMENT Only allow work on the electric motor to be carried out by a craftsman or by a suitable motor winding workshop.

16. SERVICE, ADDRESS OF PRODUCTER

Wolter products are subject to steady quality controls and are in accordance with valid regulations. In case you have any questions with regard to our products please contact either your local agent of your air handling unit or directly to one of our distributors or:

Wolter GmbH Co Kg Am Wasen 11, D-76316 Malsch Tel: 49-7204 9210, Telefax: 49-7204 920111 Please contact your local Sale & Support Service at:

