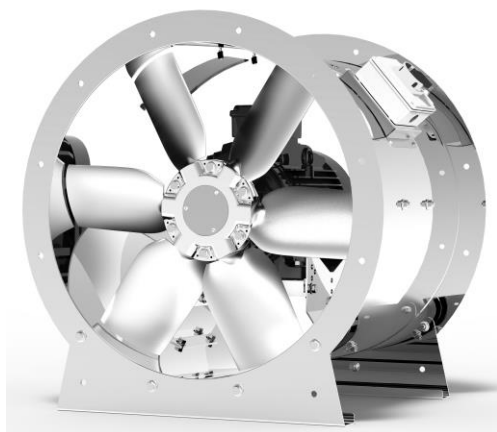




SAFETY,
INSTALLATION
AND
MAINTENANCE
INSTRUCTIONS

ARMO-A

AEROFOIL TUBEAXIAL FANS



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AEROFOIL TUBEAXIAL FANS

1 SAFETY



CAUTION!

Only approved, qualified personnel familiar with the assessment of hazards and risks associated with fans and with the use of tools and test equipment required to service such fans, should install, operate and maintain the product.



CAUTION!

If the installer or user is unable to understand the information in this manual, or has any doubt that a safe and reliable installation, operation and maintenance of the equipment can be assured, ARMOVENT or their representative should be contacted for advice.



CAUTION!

Warnings and safety information relevant to specific operations are contained at the start of the sections to which they apply.



CAUTION!

When fans are retained in storage, access by unauthorised persons must be prevented with the use of guards, barriers or secure premises such that fan impellers which may be rotating do not present a hazard.



CAUTION!

When fans working, nobody with scarf must not be vicinity of fans.

2 INTRODUCTION & PURPOSE - GENERAL

The Aerofoil Axial-Flow Fan is a highly efficient air movement product, designed to operate between a temperature range of -40° to +50°C (-20°C on starting). When operating at low temperatures, ice formation on the fan assembly must be prevented. Some fans have a specification which calls for operation in high temperature emergency conditions, this will be identified on a special label on the fan casing.

The fan assembly is manufactured and specifically to fulfil the requirement of the installation for which it was designed. No deviation from the original requirement should be implemented without referring to ARMOVENT. If a fan failure occur while the product is under warranty, the ARMOVENT service centre in Hadımköy should be contacted before any repair work is undertaken.

If speed control is to be provided by means of a frequency inverter, then please seek drive selection and compatibility advice from ARMOVENT.

3 STORAGE & HANDLING



CAUTION!

When fan assemblies are retained in storage then please ensure that access by unauthorised persons must be prevented with the use of guards, barriers or secure premises such that fan impellers that may be rotating do not present a hazard.

If the fan assembly is to be stored; check immediately on receipt that it is as ordered and that it has not been damaged in transit. Where the fan is delivered in a crate the crate should be considered as a protective device only. The crate must not have equipment stacked on it and it must not be stacked on other equipment. The crate structure must not be used as a lifting aid, unless otherwise indicated.

A fork-lift truck or similar should be used for moving the crate. The fan should be stored in a safe, clean, dry, vibration free, location. If such storage conditions are not available the motor anti-condensation heater (if fitted) should be connected to an appropriate electrical power supply to prevent motor condensation forming and the fan should be stored in an appropriate container. A regular monthly rapid spin of the impeller is recommended to prevent grease hardening and possible brinelling of the bearings; the impeller should not be in the same angular position after rotation.

When dismantling the crate to gain access to the fan assembly care should be taken to avoid injury from sharp edges, nails, staples, splinters, etc.

4 MECHANICAL INSTALLATION



CAUTION!

It is recommended that suitable safety guards form part of the Installation.



CAUTION!

Where the fan is delivered in a crate (or similar), the crate must be considered as a protective device only, and must not be used as a lifting aid unless otherwise indicated.



CAUTION!

All lifting aids used during installation should be adequately certified to carry the weight of the equipment being lifted.



CAUTION!

Always wear appropriate protective clothing (including hard hats, eye protectors and ear defenders) when working in the vicinity of the fan assembly.



CAUTION!

During lifting of the fan all personnel must be clear of the area below the suspended fan.



NOTE!

Before installing the fan assembly, check that it has not been damaged in transit, that there is no deformation of the fan casing, that the impeller rotates freely and that the fan and motor nameplate data complies with the requirement of its use. If the fan assembly has been stored, the resistance of the motor windings to earth should be measured (at 500V d.c.). If any reading is less than ten megohms the motor should be dried and re-checked before it is switched on.

Fan assemblies can be heavy (up to 8 tonnes, depending on fan and motor size, with ancillary equipment such as silencers, guards, bell-mouths, adding to the weight), are sometimes unwieldy, and should be lifted slowly to prevent damage and distortion. Proper precautions must be taken, and certified lifting aids used, to ensure the fan is well supported and stable before lifting into position.

Flange holes or mounting feet holes can be used for lifting but more than one hole must be used to spread the load. If special lifting points are provided they must be used. The fan must be installed such that it is correctly positioned in accordance with the required airflow direction. An airflow indication arrow is shown on the fan nameplate. Sharp bends in the ductwork close to the fan must be avoided. Adequate room must be allowed round the fan for inspection and maintenance.

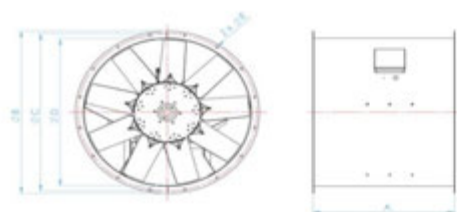
The component parts of the fan assembly, including (if fitted) vibration isolators, silencers, bell-mouths, flexible connectors (and their clips), weather proofing, platforms, supports, chains and harnesses, etc. must be fully aligned before being bolted together so that no distortion or stress is placed on the equipment.

Appropriate fixings, with the correct torque applied, must be used to secure the fan into position. If in doubt about the torque of a particular fixing, contact ARMOVENT for advice. The final position of the fan must be strong and rigid enough to take the weight and operating forces of the fan and any other weight applied during installation. Vibration isolators, appropriate for the weight and thrust of the fan, are recommended in order that any fan vibration is isolated to minimise transmission to surrounding fixtures.

If vibration isolators are used, flexible connectors and flexible electrical conduit should also be used. The vibration isolators and flexible connectors must not be used to align fixing points that are clearly misaligned. If any component parts do not easily fit together the cause must be investigated and rectified.

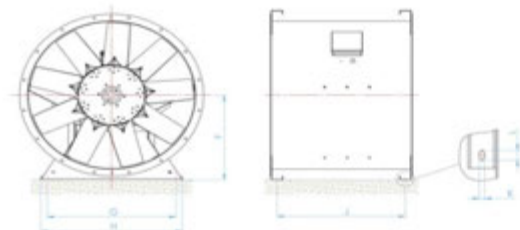
Motors are fitted with a drain hole in each end cover, and in the terminal box. The motor drain hole should be at the lowest point of the motor when it is installed. Plugs that cover the drain holes should either be removed entirely if condensation is liable to occur due to large variations in operating temperature, or removed periodically to allow any general build-up of condensation to drain away. The frequency of plug removal will be dictated by environmental conditions, a record should thus be kept.

After installation all packing materials must be disposed of in accordance with disposal section.



Horizontal Rigit Installation

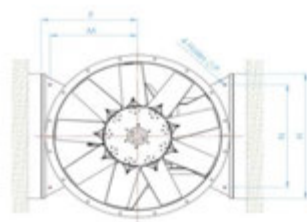
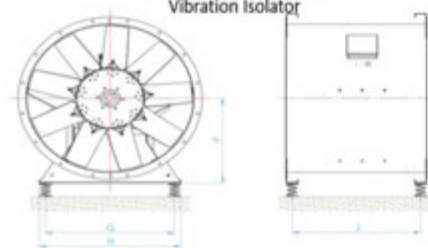
Vertical Rigit Installation



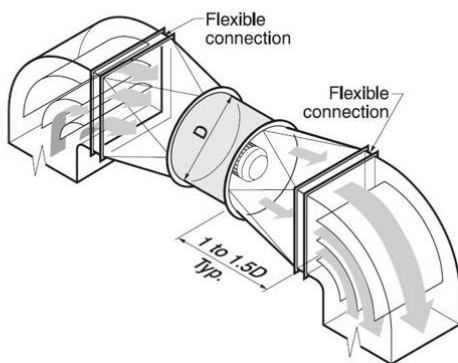
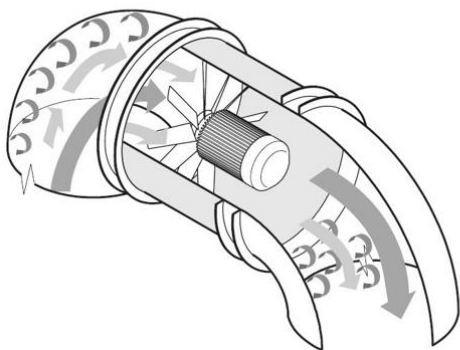
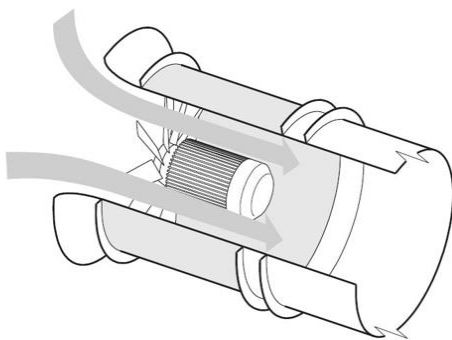
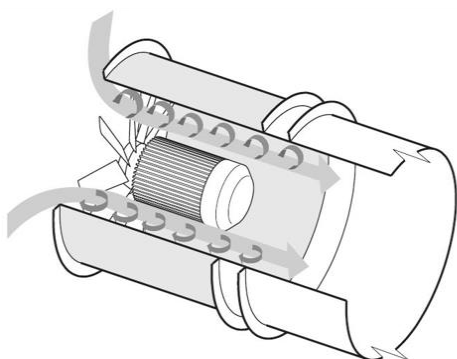
Horizontal Installation with
Vibration Isolator

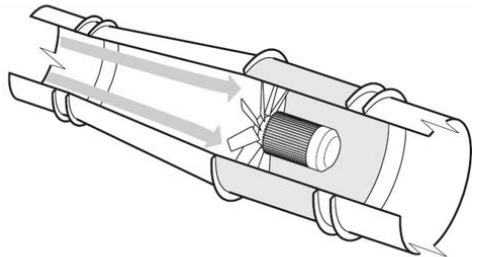
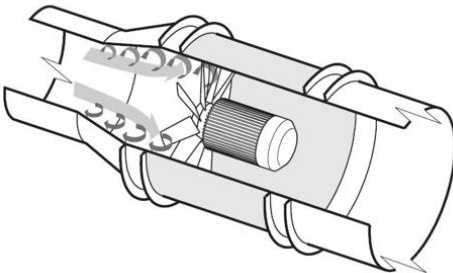
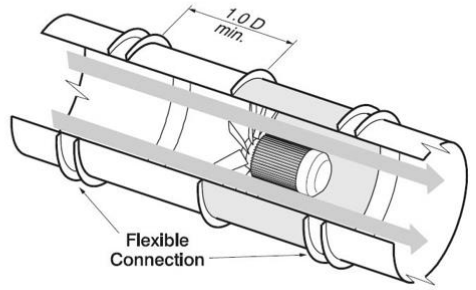
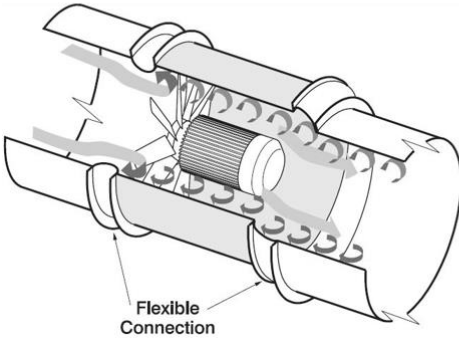


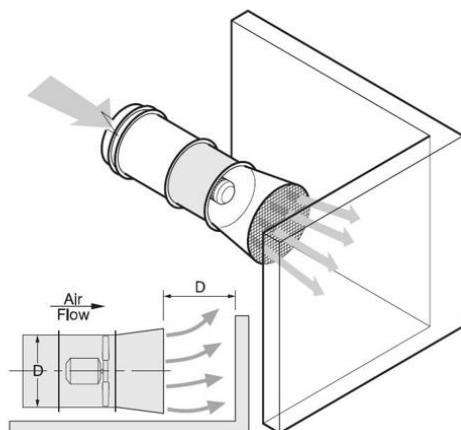
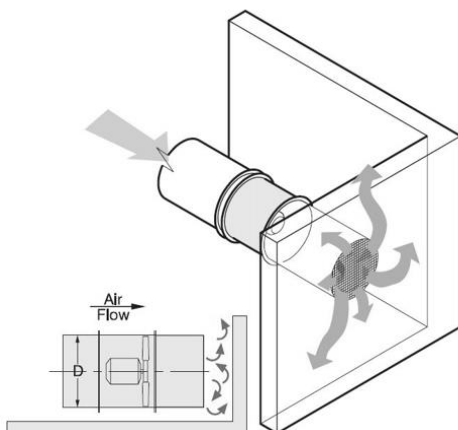
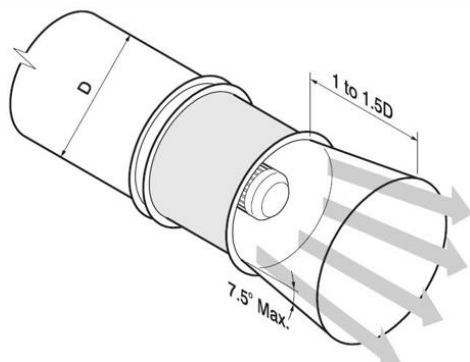
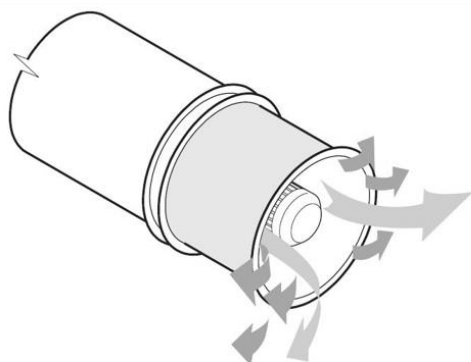
Vertical Installation with
Vibration Isolator

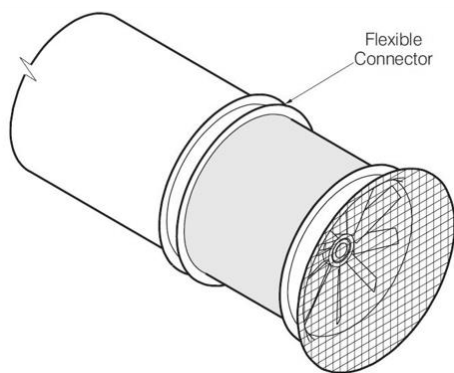
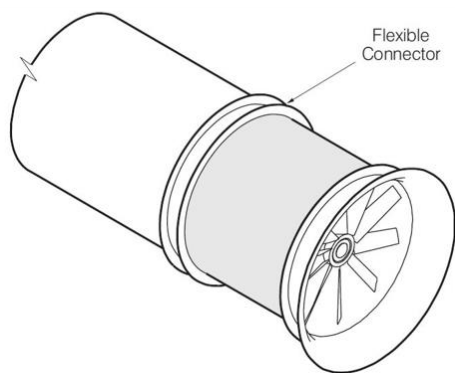
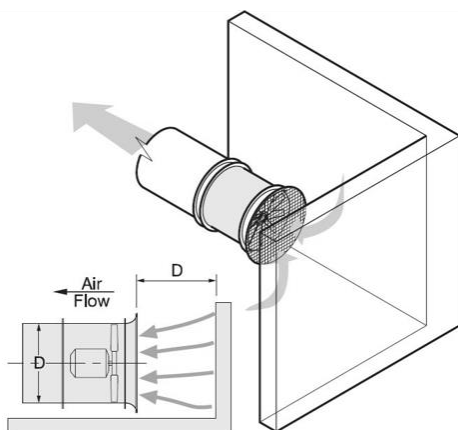
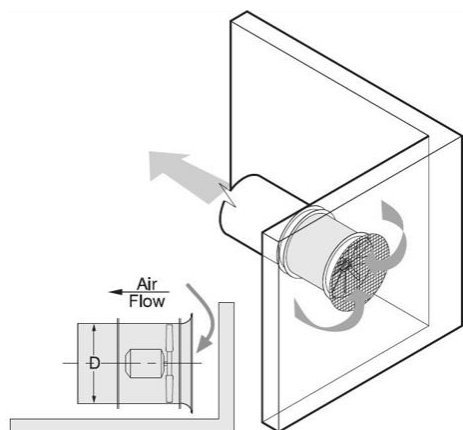


MODEL	D	A	B	C	Z	E	F	G	H	J	K	L	M	N	P
ARMA-400UL	400	475	480	450	8	12	255	335	400	420	12,5	27,5	218	320	12
ARMA-450UL	450	475	530	500	8	12	280	385	450	420	12,5	27,5	241	360	12
ARMA-500UL	500	580	590	560	12	12	310	425	500	524	12,5	27,5	270,5	420	12
ARMA-560UL	560	580	650	620	12	12	340	485	560	524	12,5	27,5	299,5	470	12
ARMA-630UL	630	600	720	690	12	12	375	555	630	544	12,5	27,5	333	520	12
ARMA-710UL	710	600	800	770	16	12	420	595	670	544	12,5	27,5	378	550	12
ARMA-800UL	800	600 / 700	890	860	16	12	470	625	700	634	12,5	27,5	422	580	12
ARMA-900UL	900	625 / 775	1005	970	16	15	527,5	675	750	697	12,5	27,5	476	625	15
ARMA-1000UL	1000	750 / 850	1105	1070	16	15	577,5	775	850	772	12,5	27,5	525	700	15
ARMA-1250UL	1250	850 / 950	1390	1320	20	15	720	950	1025	861	12,5	27,5	652	875	15









5 ELECTRICAL INSTALLATION & OPERATION



CAUTION!

No work should be attempted before completely isolating the fan assembly, its anti-condensation heater (if fitted), and its controls from all electrical supplies, and allowing the rotating parts of the fan to come to rest.



CAUTION!

Before entering the area ensure that all fumes, dust, toxic emission, heat etc. have dispersed from the local environment, and the fan blades are not likely to windmill.



CAUTION!

The fan assembly contains rotating parts and electrical connections which can be a danger and cause injury. If there is any doubt that a safe and reliable installation of the fan can be assured; ARMOVENT or their representative should be contacted for advice.



CAUTION!

If the fan assembly is designed for high-temperature emergency-use; it is imperative that the wiring used is rated for the appropriate high temperature category, and that all switches and controls are overridden during the emergency operation.



CAUTION!

If the fan stops due to an overheat situation, the overheat protection thermostat may reset as the temperature cools and automatically restart the fan if power is still applied.



CAUTION!

Always wear appropriate protective clothing (including hard hats, eye protectors and ear defenders) when working in the vicinity of the fan assembly.

The fan assembly is fitted with either a terminal box on the motor or a terminal box on the fan duct. The electrical supply to the fan assembly should be connected to the terminal box by an appropriately qualified electrician. It is good practice to fit a clearly marked isolator switch close to the fan, and have a clearly marked and accessible additional switch remote from the fan. The two switches allow safe control of the fan and provide a means of safely isolating the fan during maintenance. A suitable earth must also be connected. Sufficient cable length should be provided to allow for the flexibility of the fan on its mountings.

Fuses in the fan electrical control circuit must be sufficiently rated to carry the starting current as indicated on the motor nameplate, but they should be regarded as only protecting the wiring against the effects of short circuits or earth faults. The fuses are not suitable for overload protection. To provide full protection for the motor, a starter panel with overload protection should be used, and an isolator switch must be incorporated into the circuitry. The isolator switch should be a lockable type that will allow the operator/maintainer to isolate the fan from the electrical supply before working on the assembly.

If a speed controller, or other controlling equipment, forms part of the system it should be able to control the fan within safe limits. Sufficient fan speed must be maintained to open any shutters that may be in the air-flow. The controlling equipment should be securely located, and should not be, or cause, a radiation hazard.

5.1 OVERHEAT PROTECTION

Motor overheat protection (if fitted) can be enabled on all three-phase motors. Overheat protection is achieved by the use of either thermostats or thermistors. The protection devices are wired in either of the following two ways:

- ✓ Three-phase motors with a full load current of up to and including 6.3A; thermostats can be wired in series. If the unexpected re-closure of the self-resetting thermal cut-out can cause a hazard, or is prohibited by regulation, it must be connected into a control circuit that will not allow the fan to restart until the circuit is manually reset.
- ✓ Three-phase motors with a full load current above 6.3A; thermostats are wired to separate terminals (K – K) within the terminal box; they operate by opening and closing with temperature and must be wired to directly control the motor start contactor. Thermistors are wired to separate terminals (S – S) within the terminal box; they operate by changing their resistive value with temperature and must be wired to control the motor start contactor via a suitable relay.



NOTE!

When the fan is intended to be used for emergency high temperature operation, overheat protection must be by passed in the event of an emergency.



NOTE!

When the motor cools the thermostat will reset; the motor however must not be able to start until the motor start contactor is manually reset.

5.2 BEARING TEMPERATURE AND VIBRATION MONITORING SENSORS

Monitoring sensors (if fitted) in the fan system should be wired to automatically switch off the fan if a fault occurs, or provide an indication of a fault. If the fan is automatically switched-off by a monitoring sensor the wiring must ensure that it is fully isolated and will not automatically reset. If the fan is designed for emergency use the circuit must be wired to allow the emergency use system to override all monitoring devices and immediately switch on the fan in the case of such an emergency situation.

5.3 ANTI-CONDENSATION HEATER

Anti-condensation heaters are terminated in a terminal box on the fan and must be externally wired to automatically receive the appropriate supply when the motor is switched to off. When the motor is switched on the anti-condensation heater is not required and thus must be automatically switched out of circuit.

5.4 EMERGENCY-USE FANS

Where the fan assembly is designed for emergency-use smoke-extraction at high temperature, the temperature/time capability will be shown on a special label adjacent to the main nameplate. An automatic control system, or a clearly marked remotely sited emergency-use switch, must be fitted to override all other switches and controls and immediately switch on the fan in the case of such an emergency situation.

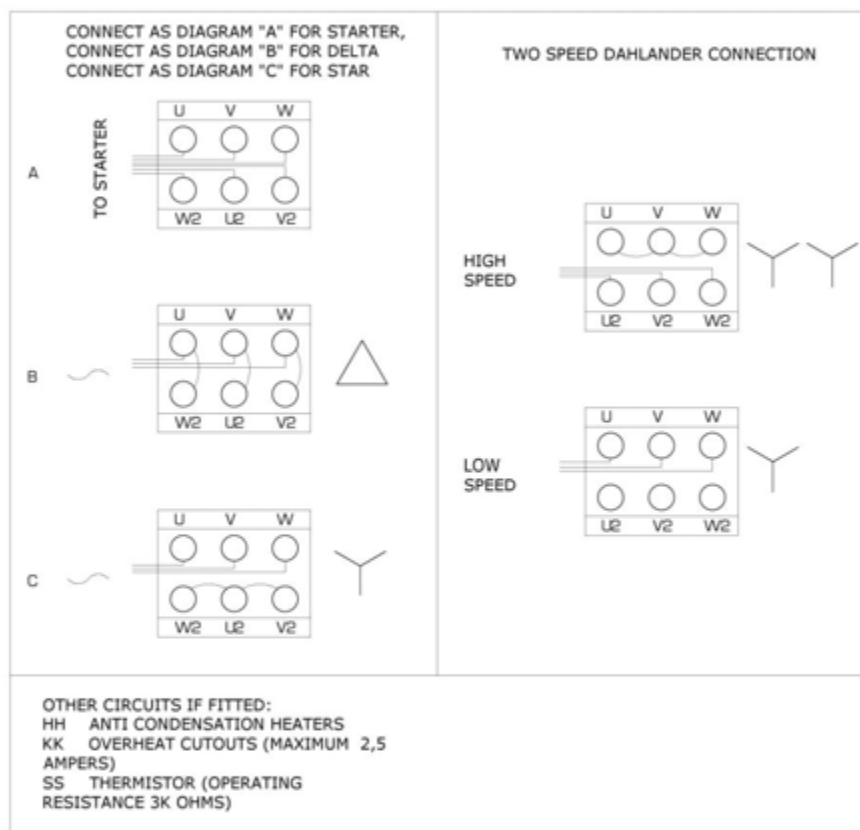
Appropriately rated high temperature cable must be used between the remote switch and the fan, and the electrical supply must be from a guaranteed or separately maintained source to enable the unit to continue running during the emergency condition. After such an emergency the fan must be removed, refurbished or safely disposed of, and replaced as necessary.

5.5 SWITCH ON

Before switching on, confirm that the electrical supply is fully compliant with the requirement of the motor as detailed on the motor nameplate, that the fan is correctly installed, all component parts and fixings are secure, safety guards are in place and no loose articles are present in the vicinity.

Immediately after switch-on check for the correct direction of rotation. If the rotation is incorrect interchange any two phases of the incoming supply at the motor terminal block.

Check the assembly for smooth, low-vibration running, and check that the current consumption is within the full load current specified on the nameplate. The fan must not be switched on and off in a manner that could cause overheating of the motor or its wiring.



NOTE: AT LEAST 14,5 mm CABLE AND 20 mm CONDUIT IS NECESSARY TO 4 WIRES FOR THREE-PHASE AND GROUNDING CABLE.

NOTE: THE PRODUCT (MAX. 2,2 kW) MUST BE CONNECTED WITH AT LEAST 4X0,75 mm²-CROSS SECTION TO STATIONARY UNIT.

Figure-1: Wiring Diagram for 3 Phase Fans with Duct Mounted Terminal Box

6 MAINTENANCE



CAUTION!

No maintenance work should be attempted before switching off and completely isolating the fan assembly, its anti-condensation heater (if fitted), and its controls, from all electrical supplies and allowing the rotating parts of the fan to come to rest.



CAUTION!

Before entering the area ensure that all fumes, dust, toxic emission, heat etc. have dispersed from the local environment, and the fan blades are not likely to windmill.



CAUTION!

All lifting aids used during maintenance, and all lifting points utilised, should be adequately certified to carry the weight of the equipment being lifted.



CAUTION!

Always wear appropriate protective clothing (including hard hats, eye protectors and ear defenders) when working in the vicinity of the fan assembly.



NOTE!

With High Temperature fans, only an authorised company may undertake the maintenance. Failure to do so may invalidate any warranty and CE Certification.

Maintenance must be carried out on the fan assembly by appropriately qualified personnel using the correct tools and equipment. A regular routine maintenance schedule should be established, and a record kept. A list of suggested intervals are given in Table 1.

Where the environment is particularly dirty, a reduction in the intervals may be necessary. Internal and external fan surfaces may be cleaned with low pressure clean water and non-abrasive additives. Direct application of water from any direction to the motor drain plugs must be avoided.

After maintenance ensure that no loose articles are present in the vicinity of the fan, that all safety guards, chains or steel ropes, etc., are properly secured into their original location, and that any temporary device used to stop the fan blades windmilling has been removed.

6.1 FIXINGS

It is essential to ensure that all fixings on the fan assembly are secure. When examining and checking the security of fixings during routine maintenance, those fixings that have locking devices fitted or are painted over, need not be disturbed if they can be seen to be secure. Any locking devices that are disturbed during maintenance must be discarded and replaced with new identical devices.

Thread forming screws must have locking compound applied when being reused. Those fixings that have no locking devices fitted and are not painted over, should be checked at 95% of their original setting to ensure no unnecessary disturbance of the fixing.

6.2 LUBRICATION

In addition to routine maintenance motor bearings will in the longer term require attention. If the motor bearings are greased through extended lubricators, a quality of grease should be periodically applied in accordance with the information on the fan or motor nameplate and/or instructions provided. A compatible grease type must be used and it is essential that every trace of water and dirt is removed from around the grease points and that a clean grease gun is used. Only low pressure should be needed to inject the specified quantity of grease. If a high pressure is required, the cause should be investigated. Grease points are generally located in the region of the duct terminal box.

For motors that require re-lubrication, a separate instruction is issued with each fan/motor configuration. This details both the period between lubrication and the type of grease to be used. If you require any further details please contact ARMOVENT direct.

6.3 INFREQUENT USE

If the fan assembly is to be used less frequently than once a month, or for emergency-use only, the following additional maintenance procedures should be carried out, and a record kept:

- ✓ The resistance of the motor windings to earth, should be measured (at 500V d.c) each month. If the reading is less than 10 megohms, the motor should be dried in a warm airflow (typically 40°C) and re-checked before running the motor.
- ✓ The fan should be operated between 15 and 30 minutes each month ensure that correct lubricant conditions are maintained within the bearings.
- ✓ The 'emergency-use' system should be run continuously for a minimum of 15 minutes each month, the test should ensure that the emergency use control system overrides all other controls and switches.
- ✓ If an anti-condensation heater is fitted, check each month that it is automatically switched on (drawing current) when the motor is switched to off.

6.4 OVERHAUL

Advice on motor overhaul procedures, bearing/seal replacement, motor replacement, motor rewinding, spare parts, condition monitoring, vibration analysis, refurbishment, etc. is available from ARMOVENT service centre in Hadimköy.

For emergency use fans it is recommended that the motor shaft seals and bearings are replaced after 20000 hours or 5 years of normal operation whichever comes sooner, and that the motor is rewound to its original specification after 40,000 hours of normal operation to ensure that adequate insulation life is available should the fan be required for emergency operation.

7 DISPOSAL

Metal components of the fan/motor should be segregated and separately recycled. The following items of material should be safely disposed of in accordance with local health and safety regulations:

- ✓ electrical lead coverings,
- ✓ motor winding insulation materials,
- ✓ bearing lubricant,
- ✓ motor/fan terminal block,
- ✓ paintwork,
- ✓ plastic parts,
- ✓ packing materials,
- ✓ silencer infill

Routine Maintenance Schedule	Period	Advices
Control impeller for dirt build-up or any physical damage	Half Year	Remove any build-up of dirt. Ensure impeller is secure. Replace impeller if it is damaged
Check motor voltage and current consumption	A Year	Ensure voltage and full load current are as specified on the motor nameplate
Check movement of vibration isolators (if fitted)	A Year	Check freedom of movement. Tighten fixings if necessary
Control motor cooling fins	Half Year	Remove any material / dirt build-up between the motor fins
Inspect paintwork / galvanising	A Year	Treat any areas of damage with suitable anti-corrosion paint
Control the airways in to the fan guards (if fitted)	Half Year	Remove and debris that may have accumulated round the guards
Check condition and tautness of fan safety support chains / harnesses / ropes (if fitted)	Half Year	Clean safety supports. Replace them if there is any deterioration / corrosion
Grease motor bearings	A Year	Check requirement in accordance with Lubrication Section.
Control and operate vibration sensors (if fitted), and temperature sensors (if fitted)	Half Year	Check operation using built-in sensor test features or dummy signals. Check that the fan is automatically switched off, or a warning indication is provided, when the sensors / switches indicates a fault
Check operation of anti-condensation heaters (if fitted)	Half Year	Switch off power to the motor. Check that the anti-condensation heater is energised
Control the clearance between the fan impeller blade tips and the fan duct. Check the angle, and the security of the impeller blades	A Year	Ensure that the gap between the impeller blade ends and the fan duct is even and adequate. If in doubt about the gap contact ARMOVENT for advice. Ensure that the impeller blade is secure. The blade angle must not be changed before contacting ARMOVENT for advice
Control motor, fan and ancillary equipment fixings	A Year	It is essential to confirm that all fixings are properly fitted, are tight, and are fully driven home. If in doubt about the torque of a fixing contact ARMOVENT
Check fan assembly wiring	A Year	Check security and condition of all wiring (including the earth)

Table-1: Maintenance Schedule



TECHNICKÝ A ZKUŠEBNÍ ÚSTAV STAVEBNÍ PRAHA, s.p.
Technical and Test Institute for Construction Prague

Akreditovaná zkušební laboratoř, Autorizovaná osoba, Notifikovaná osoba, Oznamovaný subjekt, Subjekt pro technické posuzování, Certifikační orgán, Inspekční orgán / Accredited Testing Laboratory, Authorized Body, Notified Body, Technical Assessment Body, Certification Body, Inspection Body. Prosecká 811/76a, 190 00 Praha 9 - Prosek, Czech Republic

Notified Body 1020

CERTIFICATE OF CONSTANCY OF PERFORMANCE

No. 1020 – CPR – 080020190

In compliance with Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 (the Construction Products Regulation or CPR), this certificate applies to the construction product:

Powered smoke and heat exhaust ventilators

**Axial Duct Fans : ARMO-A315, ARMO-A355, ARMO-A400, ARMO-A450, ARMO-A500,
 ARMO-A560, ARMO-A630, ARMO-A710, ARMO-A800, ARMO-A900,
 ARMO-A1000, ARMO-A1250**

Temperature time class: F300

placed on the market under the name or trade mark of

BAHÇIVAN MÜHENDİSLİK İKLİMLENDİRME SAN. VE TİC. LTD. ŞTİ.
 ÖMERLİ MAH. TUNABOYU SK. 5 ARNAVUTKÖY/İSTANBUL

and produced in the manufacturing plant(s):

BAHÇIVAN ELEKTRİK MOTOR SAN. VE TİC. LTD. ŞTİ.
 ÖMERLİ MAH. TUNABOYU SK. 5 ARNAVUTKÖY/İSTANBUL

This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in Annex ZA of the standard

EN 12101-3:2002 (+AC:2005)

under system 1 for the performances set out in this certificate are applied and that the factory production control conducted by the manufacturer is assessed to ensure the

constancy of performance of the construction product.

This certificate will remain valid as long as neither the harmonised standard, the construction product, the AVCP methods nor the manufacturing conditions in the plant are not modified significantly, unless suspended or withdrawn by the notified product certification body.

The stamp of the Notified Body 1020
 Prague, 11 March, 2016



Ing. Iveta Jiroutová
 Deputy Manager of the Notified Body

9 WARRANTY AND SERVICE

Dear customer,

We believe that providing good service is as important as providing good products for you. You can contact our Sales Representatives by calling us or obtain the most suitable service for you by contacting our Authorized Dealers.

We recommend you to follow the advices below.

1. When you buy a product, have your Authorized Dealer approve the Warranty Deed
2. Use your product according to the user's manual.

The warranty provided by Bahçivan does not cover the damages arising out of using the product under conditions other than its normal conditions of use. The following conditions are also not included in the warranty:

1. Damages and defects arising out of faulty usage,
2. Damages and defects which occur while loading, unloading or carrying the product after it has been delivered,
3. Damages and defects arising due to low or high voltage, faulty electrical installation and using the product at a different voltage than the one written on its label,
4. Damages and defects due to fire, earthquake, lightning strike, etc.
5. Damages occurring due to using the product under conditions not conforming to the issues stated in the user's manual.

The above-mentioned damages are fixed on payment. Assembly and transport of the product is not included in the product price. The responsibility of approving the warranty deed and submitting it to the customer belongs to the seller, dealer, agency or representative from which the customer has purchased the product. Since the invoice will be taken as reference if a misunderstanding occurs about the warranty period, the user must keep the invoice and a copy of it together with the Warranty Deed. If the warranty deed is altered, the original serial number on the product is removed or altered, the warranty deed will become invalid.

TECHNICAL SERVICE:

ADRESİ: Hadımköy Ömerli Mahallesi Tunaboyu Sokak No: 5 Arnavutköy / İST.

TEL: 0 212 771 48 48

FAX: 0 212 771 48 42

export@bahcivanmotor.com.tr

10 WARRANTY TERMS AND CONDITIONS

1-) The warranty period is 2(TWO) YEARS from the date of delivery .

2-) The product including all its components is under the warranty of our company.

3-) In case of defects within the warranty period, the period spent in repairing is added to the warranty period. The repairing period is maximum 20 days. This period starts from the date of delivery of the product to the services centre or in case of absence of service centre to the seller, the agency the representative, the importer or the manufacturer of the product respectively. In case the defect is not repaired within 10 work-days, the importer or the manufacturer is entitled to supply another product with similar features until the repair is completed. The warranty period of the replaced product is limited with the warranty period of the product which is purchased.

4-) In case the product has material, workmanship and manufacturing defects during warranty period, the product will be repaired free of charge and expenses of any sort including labour, the value of the parts replaced or any our charges.

5-) The consumer may request for replacement of product free of charge, refund of payment or price reductions in the rate of defects

-In case the product permanently dysfunctions due to repeating of the same defect for more than twice or more than twice or more than four different times within the warranty period

-In case the maximum period for repairing is exceeded

-In case it is determined by a written report that the defect cannot be removed by the seller, agency, representative, importer or manufacturer of the product respectively in case of absence of service centres.

6-) The present warranty does not cover damages resulting from use of product against the instructions in the manual.

7-) General Administration of Protection of Consumer Rights and Competition in the Ministry of Industry and Commerce may be applied for problems regarding the warranty certificate.

8-) In accordance with issues of consumer complaints and objections on the application, consumers can appeal the consumer courts and arbitral committee.

9-) In case of the goods are found to be defective when consumers

a-) Sold by declaring that it is ready to give back there turn from the contract,

b-) Sold goods are held defective ratio discount that request according to the sales price,

c-) unless require an excessive charges including all costs borne by the seller that request a free repair of the goods which has been sold.

d-) If possible, ask for the replacement of free from defects instead of goods sold

Consumer can use one of the elective rights. Seller's preferred consumer is obliged to fulfil this demand.

MANUFACTURER'S / IMPORTER'S

NAME: BAHCIVAN ELEKTRİK MOTOR SAN. TİC. LTD. ŞTİ.

ADDRESS: Hadımköy Ömerli Mahallesi Tunaboyu Sokak No: 5 Arnavutköy / İST.

PHONE: 0 212 771 48 48

FAX: 0 212 771 48 42

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COMPANY REPRESENTATIVE'S SIGNATURE/SEAL:

PRODUCT'S

TYPE: FAN

BRAND: BAHCIVAN

MODEL :

LABEL AND SERIAL NO:

DELIVERY DATE AND PLACE:

WARRANTY PERIOD: 2 YEARS

MAXIMUM REPAIR PERIOD: 20 WORK-DAYS

SELLER'S

NAME:

ADDRESS:

PHONE:

FAX:

INVOICE DATE AND NUMBER:

DATE/SIGNATURE/SEAL: