

Double High Speed Wire Dryer

Installation, Operation & Maintenance
Instruction Manual

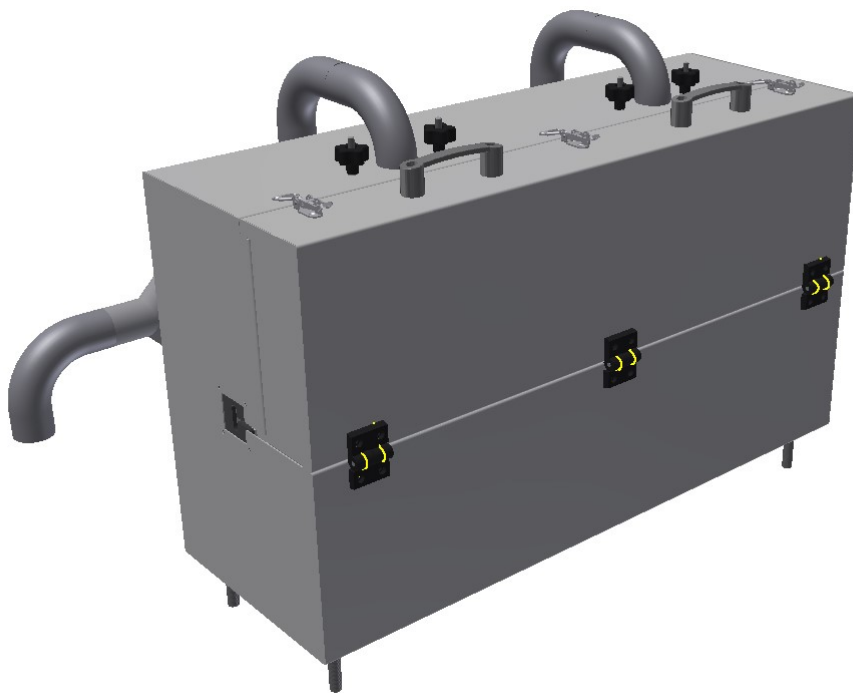


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Double High Speed Wire Dryer

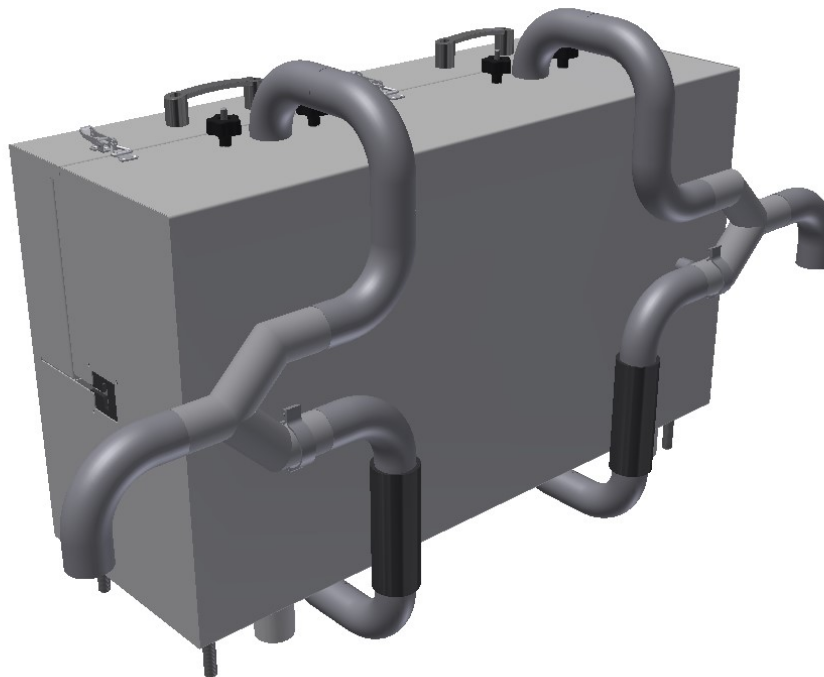
1. Important information:

Please read the following installation, operation and maintenance instruction carefully. Always ensure that the power is isolated before commencing any maintenance on the unit. This manual is also available from the download section of our website: www.almeco.eu.

2. Equipment arrival/inspection:

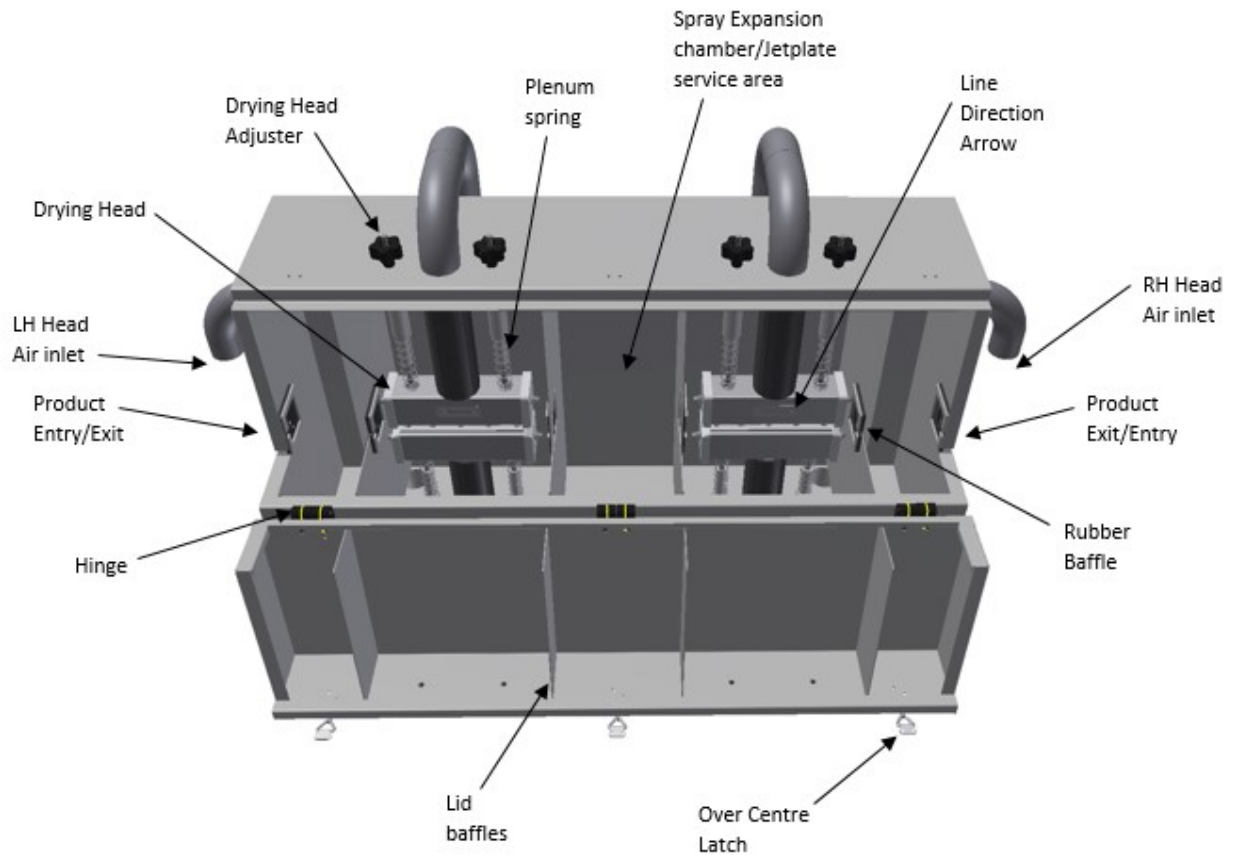
If there are any shortages, discrepancies or damage to your product upon delivery, please immediately contact Almeco. Our contact details can be found at the bottom of the page or on our website: www.almeco.eu.

- The fans are packaged at the factory to comply with requirements for the agreed mode of transport.
- Transport of the fan(s) either in the original packaging or using the transport fixtures provided. Use suitable lifting equipment.
- When transporting manually, please refer to the EC guidelines for recommended maximum weight.
- Avoid excessive vibration and shock-loads.
- Check for damage to the packaging or the fan.
- Store the fan in the original packaging in a dry area protected from the weather or protect it from dirt or weather until final installation.
- Avoid exposure to extreme heat and cold.
- Avoid excessive storage periods (we recommend one year max.) and inspect the motor bearings for proper operation prior to installation. If the fan, upon delivery, is not installed and used for a long time, it is necessary to store it in a safe place, provided with proper temperature and humidity, as well as to protect it against dust. In detail cover bearings, shafts and motor. **Do not store it near machines producing vibrations.**

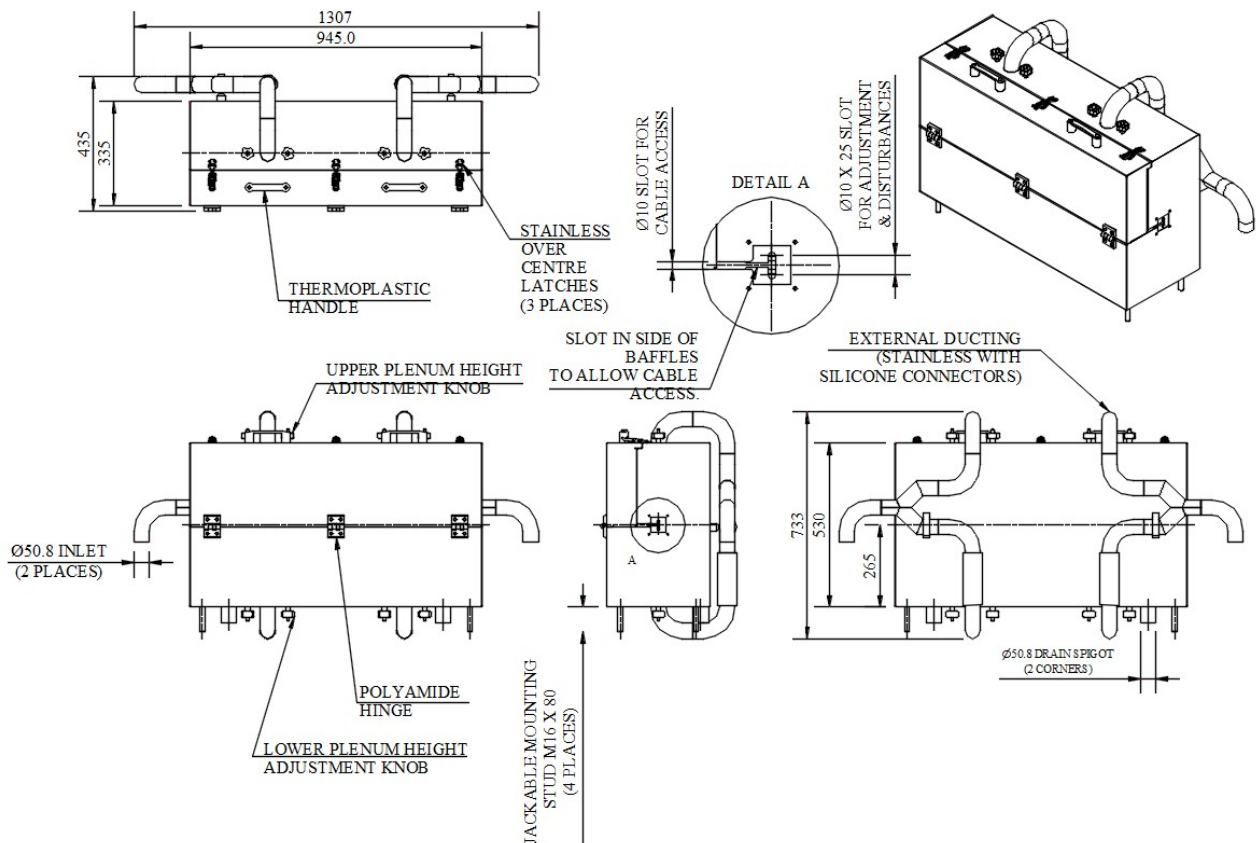


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3. Diagram:



4. Outline Drawing:



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5. General safety instructions:



DANGER!

This machinery is for use in heavy industrial current installations. During operation this unit has high speed rotating parts. For this reason, unauthorised removal of the necessary covers, improper use, incorrect operations or insufficient maintenance could lead to severe personal injury or damage of the unit.

Those responsible for the safety of the installation must ensure that:

- Only qualified personnel are allowed to work on the unit.
- These persons always have access to the operating instructions and other product documentation supplied.
- Non-qualified personnel are not permitted to work on the unit.
- Before any maintenance is carried out, ensure that the main isolator is suitably locked off.

Qualified personnel are persons who, on account of their training, experience and knowledge of relevant standards, specifications, accident prevention regulations and operating conditions, have been authorised by those responsible for the safety of the plant to carry out the necessary work and who can recognise and avoid possible dangers. IEE and other relevant regulations should also be observed.

It is assumed that the basic planning work for the installation and all work concerning transport, assembly, commissioning, maintenance and repair is carried out by qualified personnel. Particular note should be taken of the following:

- Technical data and information on permissible use (assembly and connection summaries, operating conditions etc.) contained in the operating/instructions and motor rating plates.
- The proper use of tools, lifting equipment and safety regulations.
- The use of personal protective equipment (PPE) such as; eye protection, ear protection & safety boots.

Refer to manual supplied with side channel for specific blower instructions.

These instructions do not claim to cover all possible equipment variations, nor provide for every possible example of installation, operation or maintenance. The specified maintenance and inspection measures must be carried out regularly by trained service personnel. Deviations from 'normal' performance (i.e. higher temperatures or vibrations) indicate that there may be a malfunction of the unit. In order to avoid faults the responsible maintenance personnel should be notified immediately.



DANGER!
electric
shock risk

Danger by electric shock.

If the connecting cable to the blower is damaged, there is a risk of death due to an electric shock. Such defects must be eliminated immediately.

6. Installation:

- **Important**

Upon delivery of the Double High Speed Wire Dryer to its place of installation, all safety precautions must be followed. Ensure all forklift trucks, elevators or cranes have enough carrying capacity and stability. Transport and installation should only be carried out by qualified personnel.

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- **Transport and Mounting**

- The blower is an air delivery unit only. The drying enclosure / system will not have been pre-fitted and will therefore need to be fitted by the end-user. For safety reasons you should never operate the Blower without the appropriate drying system attached.

- **Commissioning**

- Almeco recommend employing experienced staff for the installation, assembly and start-up of the unit.
- Almeco cannot be held responsible for damage or defects caused by poor installation, assembly or start-up of the unit.
- Installation and commissioning procedures should be carried out in compliance with local accident prevention regulations.

7. General instructions:

- The enclosure must be fixed securely using the mounting studs on the base prior to operation.
- Ensure all flexible hose/ ducting runs are kept to a minimum length avoiding sharp bends and kinks, and connections are fully tightened prior to running the blower. Also ensure all adjustment points are fully secured once the positioning of the unit has been established.
- Keep the clearance of the plenums around the product down to a minimum, between 2mm to 4mm is ideal. Ensure the product runs central to the jetplate outlet slots for best results. The wire should not be in contact with the plates when set up.
- Observe the line direction arrows on the jetplates (these are replicated on the sides of the plenums for easier visibility). The slots in these plates are angled to oppose and lift the water from the line. Significantly reduced performance will result if this is not adhered to.
- If the product is not in use for a long period of time, but the line is still running, disconnect the duct from the blower. This will prevent the slots filling up with water from the line and flowing back to the blower through the ducting.
- Once the unit is installed, fine adjustments to the plenum positions can be made by winding in/out the scallop knobs to the top and bottom of the enclosure. Ensure that the pairs of scallop knobs are wound the same amount to keep the plenums level. This will prevent the guide bars binding and potentially locking up within the internal bushes when compressed during a line fault, and also provide a better drying performance.
- Avoid adjusting the plenums past the extremities of the slot in the neoprene baffles as the enclosure and line will no longer be protected by the dampening effect of the self-adjusting plenums.
- To avoid excessive leakage from the enclosure, ensure that the drain spigots are plumbed into a drain, and the o/c latches on the front of the enclosure are fastened prior to operation.

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8. Technical data and materials:

Type	Side Channel Blower
Machine Number:	Refer to Serial Number on Motor Label
Year of Manufacture:	Refer to Date on Motor Label
Standard voltage:	Refer to Motor Label
Motor type:	Induction type / TEFC / IP55
Motor power:	5.5kW (x2 units, 11KW total)
Materials:	<ul style="list-style-type: none">• Enclosure: Stainless steel 304• Jetplates: PTFE• Baffles: Neoprene rubber• Hardware: Thermoplastics & stainless steel.

9. Adjustment /Maintenance:



If any adjustment to the blower is required electrically isolate it before commencing work.

• Ducting and clamping

All ducting and clamping can be easily adjusted if necessary. All fitted jubilee clips can be adjusted using a standard size flat-headed screwdriver, or 7 to 8mm socket depending on style of clip.

• Vibration and Noise:

• Enclosure

Work related emission value is lower than 74dB(A) of the blower during normal operation. This noise level does not include noise from the drying system attached.

• Drying system

Due to the nature of all drying equipment noise emissions from the drying system will always be present during normal working conditions.

If there is either excessive vibration and/or noise from the blower, or a reduction in performance occurs, the following procedures must be followed.

- Electrically isolate the blower by turning off the isolator and locking it off at the front of the starter box.
 - Remove and replace filter element.
- Please refer to the side channel manual for information on when and how to use anti-vibration (AV) mounts if vibration is still present after the filter change.

• Consumable Parts:

• Rubber Baffles

Over time the neoprene rubber baffles may become worn or damaged. Replacements are readily available and can be easily installed by removing the clamps with a 10mm socket.

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- **Flexible Ducting**

Due to wear and tear, flexible ducting can perish and split. This can be identified by a decrease in drying performance, and an increase in motor current drawn. Almeco can supply replacement ducting when required.

- **Filter Replacement:**

- Remove cover by unscrewing the thumb screw at the top of the filter cover and pulling upward.
- The filter should now easily pull away from base.
- Clean filter casing to remove any deposits using a soft brush or damp cloth. Ensure dust is not allowed to enter the inlet of the unprotected fan.
- Fit new filter to base and clamp the cover in place using the wing nut and felt washer, do not overtighten.

- **Jetplates**

Jetplates can wear if the wire is not stable as it passes through them. This will result in the air delivery slots in the plates becoming enlarged and no longer as effective. It can also lead to a higher current draw on the motor and subsequently higher running costs.

The jetplates can easily be replaced without the need for the plenum assemblies to be removed. Once the spring tension is released on the adjustment thumb screws, and jetplate is over the baffle opening (baffle removed), the jetplate can be slid out into the centrally shared chamber and a replacement part fitted. Ensure the replacement part is fitted identically to the old part (the arrow on the jetplate should point in the same direction as the arrow on the side of the plenum). The new jetplate will need sealing with white sealant to all mating faces.

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10. Trouble shooting:

Malfunction	Possible Cause	Remedy
Poor or incorrect performance	Dirty or contaminated filters	These items MUST be changed regularly (minimum of 6 months) dependant on amount of use.
	Damaged hose lining	Replace damaged hose.
	Air leaks in system	Check / replace damaged ducting or hose and clips.
	Incorrect speed (if inverter used)	Increase blower speed observing the motor rating plate.
	Liquid entering blower inlet	Isolate blower from any source of liquid.
	Blower not piped to system correctly	Only run blower when connected to the operating system. Never run in isolation.
	Too many stop/starts	Avoid high number of stop starts (refer to side channel manual).
	Electrical supply problems	Ensure that supply voltages match with the rating plate details.
	Hostile environment	Protect blower from hostile environment.
Irregular/Excessive Noise	Blockage in air delivery ducting	Check all ducting and air delivery devices for blockages/damage. Replace as necessary.
	Leak in air delivery ducting	Check and replace damaged hose and clips.
	Bolts loose on blower/motor assembly	Regular maintenance and checking/tightening all bolts.
	Motor bearings worn	Contact Almecco immediately.
Reduced Drying Efficiency / Airflow	Blocked inlet filter on the blower	Inspect the inlet filter on the blower and the enclosure. Clean or replace as necessary.
	Blocked drying system	Check and clean if necessary all slots and nozzles of the drying system. Do not use a metal tool to remove blockages as this can result in damage. Also, never allow liquid to pass into the drying system or onto the blower.

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11. Cleaning and inspection:

- **Cleaning:**



The unit requires very little maintenance. However, always electrically isolate the blower before commencing any maintenance.

- Never clean the blower whilst the unit is in operation.
- Always electrically isolate the blower before commencing any cleaning.
- Refer to the side channel manual for cleaning guidance.



- **Basic System Check:**

Any air delivery system which is ducted to the blower should be given a basic weekly visual inspection to make sure the system is in working order and that there are no major leaks from hoses; no unusual vibrations. No tools are required for this operation.

- **Jetplate cleaning:**

Over time, the slots in the drying plates may become clogged with calcium and lime (CAL) deposits. These should be removed using a blunt tool to avoid damaging the Jetplates, and/or a mild detergent. An effort should be made to prevent the cleaning fluid entering the plenums as this could potentially leak back to the blower. It would then be blown onto the dry line once the unit is restarted. (The frequency of this type of maintenance will depend entirely on the water hardness of your area).



Avoid water ingress through filters during the cleaning procedure.

Timetable for key maintenance tasks

Activity	Frequency	Description	Parts Required
1	Every Day	Perform general cleaning	None
2	Every Week	Basic System Check	None
3	Every 3 months	Check the air filter and replace if necessary (refer to Maintenance section)	Contact Almeco
4	-	Check the integrity of all ducting and fastenings.	Contact Almeco
5	-	Check the motor condition and clean if necessary.	None
6	-	Check for excessive noise and vibration	None

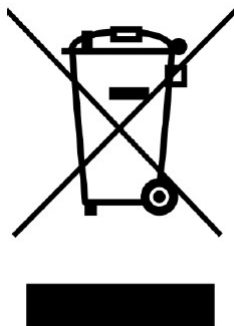
12. End of serviceable life:

Every effort has been made during the design process to produce the Double High Speed Wire Dryer out of materials that are easy to recycle when they are no longer fit for service.

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13. WEEE Disposal guidelines:

Products bearing the below WEEE symbol should not be disposed of in general waste. These should be taken to local facilities where they can be recycled free of charge. This will ensure minimum impact on the environment and human health which could otherwise arise from inappropriate waste handling.



14. Warranty:

Air Control Industries Limited (ACI) warrants all products manufactured by ACI to be free of defects in material and workmanship for twelve (12) months from the date of shipment.

The warranty does not apply to parts such as drive belts, filter elements or connecting hose, unless authorised by an officer of ACI. Also, not covered under the warranty is normal wear and tear, neglect or misuse of the equipment, operation in an application not approved by ACI, and alterations not performed by ACI.

All items supplied by ACI that are manufactured by others shall be warranted under the respective manufacturer's policy. Motors and other items, for which a national service network is in place, should be sent directly to that manufacturer's representative for the most prompt service. ACI will provide any support required ensuring that warranty service by others is handled in a prompt and professional manner.

The ACI warranty is limited to the repair or replacement of items shipped by ACI. At no time will ACI be liable for any of the costs to the buyer for labour, transportation or down-time resulting from defective equipment furnished by ACI, or Almecco. Warranty will be void unless the blower head is returned complete.

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