

USERGUIDE

Form 525 9/92

Hot Air Dryer



WARNING - Reliance on this Manual Could Result in Severe Bodily Injury or Death!

This manual is out-of-date and is provided only for its technical information, data and capacities. Portions of this manual detailing procedures or precautions in the operation, inspection, maintenance and repair of the product forming the subject matter of this manual may be inadequate, inaccurate, and/or incomplete and cannot be used, followed, or relied upon. Contact Conair at info@conairgroup.com or 1-800-654-6661 for more current information, warnings, and materials about more recent product manuals containing warnings, information, precautions, and procedures that may be more adequate than those contained in this out-of-date manual.

Equipment Description

Conair Hot Air Dryers provide hot air used in an open system for removal of moisture from non-hygroscopic plastic materials. Ambient air is pulled in through a filter, then heated to a preset temperature. The air entering the drying hopper picks up moisture from the surface of the pellets and carries the moisture to the top of the hopper, out through the return line, through a filter bag and expels it back into surrounding atmosphere. See the figure for schematic.

Operational Sequence

Drying circuit (see figure):

Ambient air is pulled in through the process filter (1) by the process blower (2) and delivered to the process heater box (3). Here, the air is heated to the temperature selected by the machine operator on the control panel. The process air temperature controller (4) assures heating to the proper temperature. The flexible process hose (5) delivers the air into the drying hopper beneath the deflector cone (6), which distributes the flow evenly through the pellets (7), heats them, and removes the moisture from the surface of the pellets. The moisture-laden air is then forced out through the process filter bag (8) and expelled to the atmosphere.

IMPORTANT: The process air filter assures that only clean air flows through the drying circuit. Fines pulled from the atmosphere or other contaminants may eventually clog the filter (1), which can decrease efficiency. Check filter frequently and clean as necessary.

Electrical Information

The appropriate wiring diagram for your model or dryer is included with these instructions. It provides complete details on wiring and an electrical parts list. Fifteen foot of power cable (less the plug) is supplied with each dryer. Make sure your dryer is connected to the correct voltage. Verify voltage by checking the nameplate on the dryer before connecting. All units are pre-wired at the factory for service on one voltage only. **DO NOT ATTEMPT TO ALTER VOLTAGE CONNECTIONS!**

Blower Rotation

Most dryer models have arrows on the motor housing indicating the correct direction of rotation. Simply jog the machine by pushing start button and then immediately pushing the stop button. Check the direction of the air flow through the process outlet. If there is a positive pressure at this point, the blower is rotating in the correct direction. If the motor is found to be rotating incorrectly, disconnect the power and simply reverse any two of the 3-phase leads on the main power cable connection. Do not change connections at individual motors.

Installation

The dryer should be located as close to the hopper as possible (no more than 10 feet away) to reduce heat loss and energy consumption. The front of the control panel and the process filter should be easily accessible (see figure). Insert the process (drying) air thermocouple probe (shipped inside the control cabinet) into the coupling on the inlet of the drying hopper (12). Plug the other end of the thermocouple into the jack located on the top of the control panel (13). Clamp the flexible process air hose (5) to the dry air outlet. Clamp the other end of the hose to the dry air inlet on the bottom of the drying hopper. Install the filter bag (8) to the return air outlet of the return tube on the side of the hopper. Do not allow the flexible hose to crimp or kink. If the hoses are too long, cut them to fit.

Hopper Installation

To install the drying hopper, the bottom flange of the slide gate assembly must be drilled in order to properly fit the bolting pattern on the throat of the process machine. If there are physical interferences with the tube on the slide gate assembly, an adapter plate must be fitted to the throat of the process machine first.

Before installing the hopper, check inside carefully for parts which may have been placed inside for shipping. Check also for air inlet and outlet obstructions. Inspect screen cone and clean hopper thoroughly to remove any dirt which may have accumulated during shipping. Also clean the inside of the drying hopper internal surfaces (with rags and solvent) to remove rust preventative coating. Bolt adapter plate (if necessary) to throat of molding machine. Bolt hopper slide gate assembly to the adapter plate. It is left to the discretion of the customer if it is easier to remove the slide gate and mount it to the throat of the molding machine first and then mount the drying hopper to the top of the slide gate or to mount the entire assembly of the slide gate and drying hopper to the machine without disassembling the slide gate and drying hopper. Attach the vacuum loader to the top of the drying hopper, using clamping lugs provided. It is not necessary to drill holes in the top of the hopper.

Maintenance

Filters

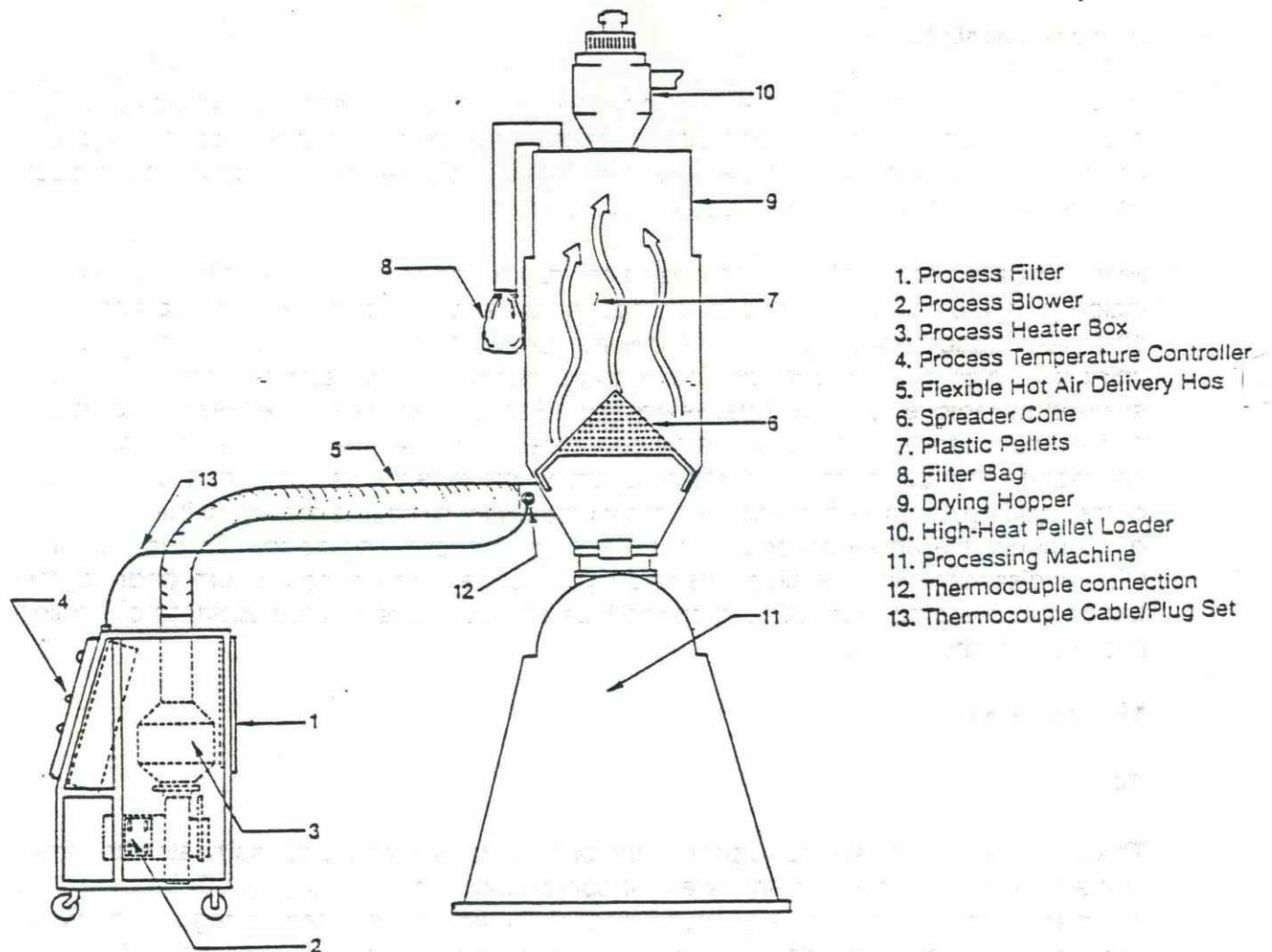
The process filter (1) serves to protect the process blower and process heater box from contamination by dirt, dust and fines. If contamination occurs, drying efficiency will be diminished; therefore, it is very important that the filter be cleaned at regular intervals. Length of time between cleanings will depend on the working environment, but typical intervals range from 2-3 weeks.

Heating Elements

The heating elements in your Conair dryer require no routine maintenance. After a long term of service, however, elements may eventually require replacement. Contact Conair's Service Department for information.

Lubrication

The process motor is lubricated for life and requires no lubrication.



TYPICAL HOT AIR DRYER INSTALLATION

Troubleshooting

Difficulty	Probable Cause	Corrective Action
Process air temperature too low	Incorrect temperature selected on control panel	Dial in correct temperature
	Controller malfunction	Check electrical connections. Replace controller if necessary
	Process heating elements	Check electrical connections. Replace if necessary
	Hose connections at wrong location	Check to make sure delivery hose is entering bottom of hopper
Process air temperature too high	Supply voltage different from dryer voltage	Check supply voltage against name plate voltage
	Thermocouple not located properly at inlet of hopper	Secure thermocouple probe into coupling at inlet of dryer
Material not drying	Process and/or bag filter(s) clogged	Clean filter(s)
	Incorrect blower rotation	Check rotation. (See "Electrical Information")
	Material residence time in hopper too short	Drying hopper too small for material being processed. Replace with larger model.

Conair has made the largest investment in customer support in the plastics industry. Our service experts are available to help with any problem you might have installing and operating your equipment. Your Conair sales representative also can help analyze the nature of your problem, assuring that it did not result from misapplication or improper use.

WE'RE HERE TO HELP

To contact Customer Service personnel, call:



From outside the United States, call: 814-437-6861

You can commission Conair service personnel to provide on-site service by contacting the Customer Service Department. Standard rates include an on-site hourly rate, with a one-day minimum plus expenses.

HOW TO CONTACT CUSTOMER SERVICE

If you do have a problem, please complete the following checklist before calling Conair:

- Make sure you have all model, serial and parts list numbers for your particular equipment. Service personnel will need this information to assist you.
- Make sure power is supplied to the equipment.
- Make sure that all connectors and wires within and between control systems and related components have been installed correctly.
- Check the troubleshooting guide of this manual for a solution.
- Thoroughly examine the instruction manual(s) for associated equipment, especially controls. Each manual may have its own troubleshooting guide to help you.
- Check that the equipment has been operated as described in this manual.
- Check accompanying schematic drawings for information on special considerations.

BEFORE YOU CALL ...

Additional manuals and prints for your Conair equipment may be ordered through the Customer Service or Parts Departments for a nominal fee.

EQUIPMENT GUARANTEE

Conair guarantees the machinery and equipment on this order, for a period as defined in the quotation from date of shipment, against defects in material and workmanship under the normal use and service for which it was recommended (except for parts that are typically replaced after normal usage, such as filters, liner plates, etc.). Conair's guarantee is limited to replacing, at our option, the part or parts determined by us to be defective after examination. The customer assumes the cost of transportation of the part or parts to and from the factory.

PERFORMANCE WARRANTY

Conair warrants that this equipment will perform at or above the ratings stated in specific quotations covering the equipment or as detailed in engineering specifications, provided the equipment is applied, installed, operated and maintained in the recommended manner as outlined in our quotation or specifications.

Should performance not meet warranted levels, Conair at its discretion will exercise one of the following options:

- Inspect the equipment and perform alterations or adjustments to satisfy performance claims. (Charges for such inspections and corrections will be waived unless failure to meet warranty is due to misapplication, improper installation, poor maintenance practices or improper operation.)
- Replace the original equipment with other Conair equipment that will meet original performance claims at no extra cost to the customer.
- Refund the invoiced cost to the customer. Credit is subject to prior notice by the customer at which time a Return Goods Authorization Number (RGA) will be issued by Conair's Service Department. Returned equipment must be well crated and in proper operating condition, including all parts. Returns must be prepaid.

Purchaser must notify Conair in writing of any claim and provide a customer receipt and other evidence that a claim is being made.

WARRANTY LIMITATIONS

Except for the Equipment Guarantee and Performance Warranty stated above, Conair disclaims all other warranties with respect to the equipment, express or implied, arising by operation of law, course of dealing, usage of trade or otherwise, including but not limited to the implied warranties of merchantability and fitness for a particular purpose.