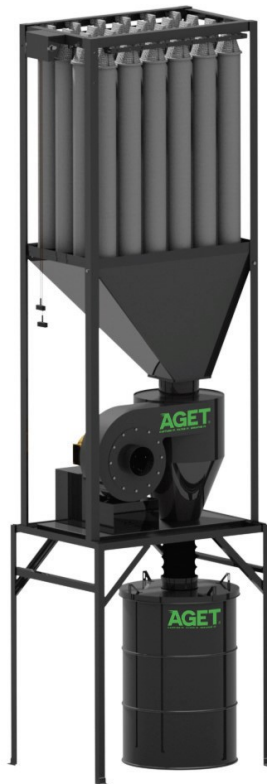


AGET MANUFACTURING COMPANY



Owner's Manual

Push-Through Cyclone Dust Collector with After-Filter Model 8T50, 11T51, 20T31, 20T51



Illustrations are for reference only; actual product may vary

*AGET Manufacturing Company has been manufacturing industrial grade dust and mist collectors in the USA since 1938. We are pleased that you have chosen to purchase one of our **DUSTKOP** products. By following the instructions in this manual, you can be assured that your investment in AGET equipment will assist in creating a safe and healthy work environment for many years.*

This manual contains important safety information and precautionary measures. It is impossible to list all potential hazards associated with every dust collection system in each application. Operating personnel must be aware of, and adhere to, the most stringent safety procedures. Your dust collector was selected for a particular application. Consult AGET prior to making any application or system changes.

Review this information **prior to starting installation** of your dust collection equipment. Safe and proper installation and maintenance of the collection equipment, duct system, capture hoods, and any related accessory items is crucial to achieve a safe, efficient, and successful dust collection system.

SAFETY INFORMATION!



1. Ensure that all aspects of the collection equipment, related ancillary equipment, and duct materials are appropriate and properly equipped for the intended use. This is particularly important if the dust or contaminant is toxic, explosive, combustible, or hazardous. Follow guidelines provided by NFPA, OSHA, and applicable state or local jurisdiction.
2. **UNDER NO CIRCUMSTANCES should flammable material be mixed with dust being collected from ferrous metal grinding operations, due to the potential fire hazard of sparks entering the dust collection system. Examples of such flammable material are buffing dust, paper dust, wood dust, aluminum and magnesium dust, etc.**
3. When collecting flammable or explosive materials, the dust collector should be located outdoors and incorporate appropriate safety measures and/or accessories. Dust collectors do not contain fire extinguishing equipment unless specifically ordered. Experts in the field of fire extinguishing equipment should be consulted for recommendations concerning fire detection and suppression systems.
4. Ensure that fire extinguishers are in the area and that they are of a type dedicated to, and specifically rated for, the type of fire that could potentially be encountered in the collection equipment, duct, or the general area. Consult NFPA 10, "Portable Fire Extinguishers", to determine the required fire extinguisher rating for the specific application and materials being handled in the system.
5. **Employees must be warned not to throw any burning or glowing object into the dust collection hood. Dust collection systems are designed to capture dust particulate and are not a general purpose vacuum. They are not designed to handle large chunks of material or foreign items.**
6. **Keep flammable materials and vapors, such as gasoline, away from the dust collector.**
7. Review the equipment and requirements for the task and ensure that all necessary equipment is on hand to ensure a safe installation in accordance with OSHA regulations and guidelines. In addition to the obvious tools and personal protection items (i.e. safety glasses, hard hats, gloves, etc.), this may include such things as safety harnesses for high locations and lifting equipment such as fork lifts or cranes.
8. If equipment such as ladders, scaffolds, man-lifts or cranes are to be used, make sure that no overhead hazards, such as power lines are present in the area.
9. The DUSTKOP dust collector must be mounted on a solid, level, foundation. Use concrete anchor bolts to secure the dust collector to the foundation. Anchors should be provided by customer, or contractor, according to local codes.
10. Duct systems, materials, and the related installation, must be designed so as to ensure adequate transport velocity in order to avoid drop out of captured dust or debris in the system. Velocity must be sufficient to convey all such material the entire length of the system so as to reach the collection equipment. Duct materials must be of an electrically conductive material and properly grounded. All ductwork must be adequately supported to prevent personal injury and/or property damage. The recommended authority is "Industrial Ventilation, a Manual of Recommended Practice", published by the American Conference of Governmental Industrial Hygienists, online at www.acgih.org
11. Personnel servicing the equipment and handling and disposing of the collected dust or debris must dress appropriately and be equipped properly for the task at hand. This may include protective clothing, gloves, breathing apparatus, etc. Even with the most "normal" dusts, a filtered breathing mask and goggles are required.

12. Never allow accumulation of layers of fine dust on horizontal surfaces, especially overhead lights, electrical boxes and fuse panels which can ignite dust.
13. It is the customer's responsibility to follow all applicable federal, state, local, OSHA, NFPA, or authorities having jurisdiction, codes and regulations when installing and operating this dust collector.

WARNING

ELECTRICAL WIRING

1. Electrical controls, components, and wiring must be as per the most current edition of the NEC, NFPA 70.
2. Electrical installation and connection must be performed by a licensed and qualified electrician and in accordance with the National Electrical Codes, NFPA 70, and any other federal, state, or local codes that apply.
3. When servicing this equipment, always follow lock out procedures and follow the recommendation of the most current edition of NFPA 70E, "*Handbook for Electrical Safety in the Workplace*".
4. Do not install in classified hazardous atmospheres without an enclosure rated for the application.
5. An electric disconnect switch having adequate amp capacity shall be installed in accordance with Part IX, Article 430 of the National Electrical Code (NFPA 70). Check motor nameplate for voltage and amperage ratings
6. Refer to the wiring diagram for the number of wires required for main power wiring and remote wiring.

LUBRICATION

Follow lubrication instructions on the motor manufacturer's tag sent with the dust collector. The motor of this DUSTKOP needs to be added to your regular motor maintenance schedule. Even though this motor is only turning a fan, a working load exists just as surely as if it were driving a machine.

Every 6 months, lubricate the shaker connecting linkage with light oil (i.e. WD-40 or similar). The shaker flange bearings should be greased every 3 years.

FILTER TUBE SHAKING

1. The collected dust that accumulates on the inside surface of the filter tubes must be shaken off periodically. A shaking period of 15-30 seconds at the end of each shift is generally sufficient to recondition the filter tubes. If a high volume of dust is being collected, the frequency of shaking may need to be increased but the duration should not be longer than 30 seconds.
2. **DO NOT shake filter tubes while the dust collection fan is operating!** Doing so will reduce filter performance by plugging up the filter tubes and cause fine dust to leak through the filter fabric.
3. **DO NOT operate the shaker continuously!** Excessive shaking will drastically reduce the life of the shaker drive linkage and the filter tubes.
4. When shaking the filter tubes no longer restores adequate suction, the filter tubes should be replaced with new ones. See "Filter Tube Replacement" section for instructions. If a magnehelic differential pressure gauge is used, the filter tubes should be replaced if pressure reading reaches 4.0".
5. Motorized filter shaker (if so equipped) can be controlled manually with a 'jog button' or automatically with an SST-1 or SST-3 solid state shaker control.
6. Dust storage container (drum, hopper, etc.) should be checked regularly and should be emptied when it is no more than 2/3 full of collected material. Allowing the dust storage container to overfill can result in a cyclone blockage and/or plugged filter tubes which can seriously reduce the unit's air handling capacity (CFM) and filtration efficiency.



NOTE: Combustible dust (i.e. wood, powders, etc.) should be emptied from the dust storage container daily. Always check dust storage container for smoldering material before leaving for the day

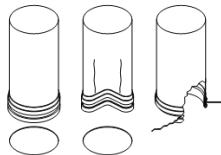
CYCLONE UNIT OPERATION & MAINTENANCE



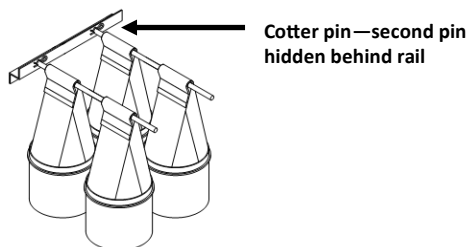
1. **Make absolutely certain that all electrical power to the cyclone unit is disconnected before servicing or replacing DUSTKOP components. Always follow lock out procedures and follow the recommendation of the most current edition of NFPA 70E, "Handbook for Electrical Safety in the Workplace".**
2. The dust collector electrical system, including wiring, controllers, overload protection, and disconnect means must be installed in accordance with the National Electrical Code, Articles #310 and #430, or as specified by local code.
3. Fan rotation must be checked visually to ensure rotation is in the proper direction as shown by the arrows on the fan housing. Rotation can be checked by viewing the fan wheel, the cooling fan on the back of the motor, or the motor shaft behind the fan housing. Reverse rotation will not reverse airflow direction, but will greatly reduce air volume, suction (S.P.), dust capture, and separation efficiency. For your DUSTKOP to function properly, the correct fan rotation must be confirmed.
4. It is important that an airtight seal be maintained between the cyclone discharge and the dust storage container. Units that use 55-gallon drums or roller cans must have an airtight seal between the drum cover and the drum. Hose connections must be caulked with silicone rubber caulk on both top and bottom. Hose connections must be maintained. On units that have an attached dust bin, the bin doors must be tightly sealed. Failure to maintain the airtight seal in any of the above cases will provide a point for dust leakage, as the dust container is under positive pressure.
5. The dust storage container should be checked regularly and should be emptied when it becomes approximately 2/3 full of collected material. Allowing the dust storage container to overfill can result in a plugged cyclone and a reduction in separating efficiency.
6. Collected dust should be disposed of properly especially in cases where the dust is rated as being hazardous or toxic.

FILTER TUBE REPLACEMENT

1. Shake filter tubes using manual or motorized shaker mechanism and allow dust to settle. Shake the filters two or more cycles to remove as much dust as possible.
2. Remove dust from the dust storage container.
3. Disconnect all electrical power to the dust collector and follow lock out procedures.
4. Follow all local safety codes and/or OSHA standards. Wear a dust mask appropriate for the material being handled, and any recommended protective clothing or devices.
5. If unit has enclosure panels, remove the enclosure door to the left as you face the shaker. Take care to support and control the panel so it cannot fall and cause injury.
6. Grasp the "snap ring cuff" and remove the bottom cuff from the bag plate hole (see illustration below) and place into a plastic bag before disconnecting the top. Be careful not to stir up any more dust than necessary.



7. Locate and remove the cotter pins which are located on the left side of the shaker rod (as you face the shaker).
8. Slide the rod through the shaker bar. Tilt the rod at a downward angle and slide the filter tubes off the rods to remove them. Refer to illustration below.



FILTER TUBE REPLACEMENT (continued)

9. Clean the baghouse as required. Brush down, vacuum, or otherwise clean all surfaces where dust may have fallen from the filter tubes during removal.
10. Reverse the process to install new filter tubes. Make sure the filter tubes are straight, not twisted, and properly seated in the bag plate hole. Misalignment will cause leakage and may allow the tube to dislodge during future shaking cycle. Tug firmly on each filter tube to make sure it is tightly seated.
11. Inspect to ensure that all tubes, rods, and cotter pins are properly installed.
12. Inspect and lubricate the chain, sprockets, drive shaft, bearings of the shaker assembly prior to restarting the system.
13. Reconnect all electrical power to the dust collector.
14. Dispose of dirty filter tubes, following all local, state, and federal regulations.

HELPFUL TIPS

1. Place old filter tubes directly into heavy plastic bags as they are removed
2. Use electrical 'wire ties' or 'zip ties' to tie off the end of the filter tubes as they are removed to help contain dust within the tubes.
3. Leave a few old filter tubes in place until a few new ones are installed to support the filter frame assembly and aid in the installation of the new filter tubes.

DUSTKOP DATA

Model Number _____ Serial Number _____
Ship Date _____ Installation Date _____
Filter Media _____
Accessories _____
Other Information _____

SERVICE NOTES

Date	Service Performed	Notes

TROUBLESHOOTING

<u>PROBLEM:</u> Inadequate Airflow and Suction	
<u>POSSIBLE CAUSE</u>	<u>SOLUTION</u>
Fan running backwards	See “Cyclone Unit Operation” on Page 4. Have electrician reverse motor direction.
Filters plugged	Review filter shaking procedures. See “Filter Tube Shaking” instructions on Page 4. See “Problem: High Filter Resistance”.
Ductwork or cyclone plugged	Visually check ductwork and cyclone interior. Shine flashlight up from bottom of cone discharge to check for any blockage. Clean as required.
System design/duct sizes	Contact nearest AGET representative or AGET factory.

<u>PROBLEM:</u> Electrical Overload	
<u>POSSIBLE CAUSE</u>	<u>SOLUTION</u>
Branch circuit fuses incorrect size	Size fuses for branch circuit protection per NEC 430-52, Table 430-152
Motor starter heater elements incorrect size	Size heater elements according to motor nameplate full load amps per NEC Code 430-32
Motor starter, disconnect, or wiring undersized	Size according to National Electrical Code Article 430
Loose connection	Check all connection points

<u>PROBLEM:</u> Excessive Dust Bleed-Through	
<u>POSSIBLE CAUSE</u>	<u>SOLUTION</u>
Air-to-filter ratio too high (CFM per sq. ft.)	Add more filter area
Incorrect filter media	Contact nearest AGET representative or AGET factory. AGET can perform Dust Test if necessary.
Shaker operating while fan is running	Change shaking procedure to only operate shaker when fan is off.
Ruptured filter tube or improperly installed filter tube cuff in bagplate	Replace ruptured filter tube. Reposition filter tube cuff in bagplate.

<u>PROBLEM:</u> High Filter Resistance	
<u>POSSIBLE CAUSE</u>	<u>SOLUTION</u>
Filter tubes plugged	Shake filter tubes. If airflow is not restored, replace filter tubes.
Incorrect filter media	Contact nearest AGET representative or AGET factory. AGET can perform Dust Test if necessary.
Shaker operating while fan is running	Change shaking procedure to only operate shaker when fan is off.
Shaker control not operating	Review wiring diagram and troubleshooting information shipped with control
Not shaking filter tubes often enough or long enough	Increase shaking frequency and, only if necessary, increase shaking time. Time should rarely exceed 30 seconds. See “Filter Tube Shaking”.
Air-to-filter ratio too high (CFM per sq. ft.)	Add more filter area
Dust storage container overfilled and backed up into filter tubes	Empty dust storage container. Clean dust out of filter tubes where it has backed up into them.

STATEMENT OF WARRANTY

AGET Manufacturing Company and its employees are proud of our products and are committed to providing our customers with quality dust and mist collection equipment.

We guarantee equipment produced by AGET Manufacturing Company for a period of one year from the date of shipment against defects in workmanship and materials. AGET does not warrant against damages due to corrosion, abrasion, normal wear and tear, product modification, or product misapplication. AGET makes no warranty as to any goods manufactured or supplied by others including electric motors, explosion backdraft dampers, or control components.

All electric motors furnished with our equipment are warranted by the motor manufacturer and the motor industry's policy on repair or replacement must be followed in the event of a failure. The user must take, or ship, the motor to the nearest authorized repair or service station. A list of authorized service centers is available on the motor manufacturer's website (www.baldor.com, etc.).

Include an explanation of the defect or problem, a description of the way in which the motor is used, and your name, address, and telephone number. From code numbers on the motor, the service shop can determine whether or not the motor is under warranty. If found to be defective, it will either be repaired or replaced.

Filter tubes on all FT and FH DUSTKOP After-Filters are warranted for 3 years when an Application Review form has been submitted to AGET at the time of purchase. Verification of routine maintenance and regular, appropriate levels of shake frequency is required. Any change from the original design intent will void the warranty of the filter tubes unless previously approved by AGET.

In the event of a warranty claim, AGET must be given adequate opportunity to remedy any defects in material or workmanship. The customer must request a Return Authorization number from AGET before any items are returned. All necessary replacements or repairs are F.O.B. Adrian, Michigan, and all warranty claims are subject to inspection by AGET.

Inspection on Arrival

1. Inspect collector upon delivery. Look over equipment very carefully, in the presence of the delivery person.
2. Check for damage or incomplete shipment BEFORE signing the delivery receipt.
3. Note any tears or irregularities in packaging, however slight, on the delivery receipt. This could be an indication of concealed damage.
4. The shipping company will not take responsibility if the damage is not noted on the delivery receipt.
5. Compare collector received with description of product ordered.
6. In the event of shipping damage, contact your sales representative, or AGET at 800-832-2438.
7. It is the responsibility of the customer to file a freight claim with the carrier.

PARTS AND SERVICE

FOR GENUINE AGET REPLACEMENT FILTERS, AND PARTS, CONTACT THE SALES DEPT. AT AGET, OR YOUR LOCAL SALES REPRESENTATIVE

**AGET MANUFACTURING COMPANY
1408 EAST CHURCH STREET
ADRIAN, MI 49221**

800-832-AGET

517-263-5781

SALES@AGETMFG.COM

AGET DESIGNS AND MANUFACTURES INDUSTRIAL GRADE DUST AND MIST COLLECTION EQUIPMENT USED TO CONTROL AIR POLLUTANTS AND CREATE A PRACTICAL, SAFE, AND HEALTHY WORKPLACE ENVIRONMENT.

