

# **DUSTKOP<sup>®</sup>**

## **DUST COLLECTORS**

### **MAINTENANCE INSTRUCTIONS FOR ALL OF THE FOLLOWING MODELS**

**11SN51, 11SC51,  
20SN31, 20SC31, 20SN51, 20SC51,  
30SN90, 30SC90, 60SN70, 70SN70, 80SN70,  
60N70, 80N70, 90N70,  
100N40, 100N50, 100N60, 100N75**

### **LUBRICATION**

Follow instructions on the motor manufacturer's tag attached to motor. Put the motor of this DUSTKOP on your regular motor maintenance schedule. Remember that even though this motor is only turning a fan, a working load exists just as surely as if it were driving a machine.

Every 3 months lubricate all moving parts of the shaker with light oil.

### **CYCLONE UNIT OPERATION & MAINTENANCE**

1. Make absolutely certain that all electrical power to the cyclone unit is disconnected before servicing or replacing DUSTKOP components.
2. In order for your DUSTKOP unit to operate at its maximum efficiency and airflow, its duct system should be designed in accordance with good dust collection practices. The Industrial Ventilation Manual of the American Conference of Governmental Industrial Hygienists, or other recognized source, is recommended as a guide.
3. The dust collector electrical system, including wiring, controllers, overload protection, and disconnect must be installed in accordance with the National Electrical Code, Articles #310 and #430, or as specified by local code.
4. In order for the DUSTKOP to function properly, the fan 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.

## **CYCLONE UNIT OPERATION & MAINTENANCE, cont.**

5. The dust collection drum(s), bin, or hopper should be checked regularly to establish a pattern that will provide for it being emptied when it becomes approximately 2/3 full of collected material. Allowing the dust collection drum(s), bin, or hopper to overfill can result in a plugged cyclone and a reduction in separating efficiency.
6. It is **EXTREMELY IMPORTANT** that an airtight seal be maintained between the cyclone and dust storage container. On "D1", "D2", 1RC, RCS, and B units, an airtight seal at the hose ends, and between the drum or bin covers and the drums or bins, must be maintained. On attached dust bin models, the bin doors must be tightly sealed. On cyclone units mounted on stands and connected to hoppers, the hopper slide gate must be tightly closed and the flexible sleeve between the cyclone and hopper must be caulked. If a rotary airlock is used, blade seals must be maintained and airtight.
  - A. Conventional DUSTKOP "Push-Through" Cyclone Units  
Failure to maintain the airtight seal in any of the above mentioned cases will provide a point for dust leakage, as the dust container in any of the previously mentioned cases is under a positive pressure.
  - B. DUSTKOP "Pull-Through" Cyclone Units  
Failure to maintain the airtight seal in any of the above mentioned cases will provide an air entry in this part of the system that will destroy the ability of the cyclone to separate dust from the exhaust air stream. Consequently, an excessive amount of dust will be blown out the fan discharge. On "pull-through" cyclone unit DUSTKOP this is **EXTREMELY IMPORTANT**.
7. Under no circumstances should flammable materials 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 materials are buffing dust, paper dust, wood dust, aluminum, and magnesium dust.
8. Employees should be warned not to throw lit cigarettes or any burning or glowing object into the dust collection hoods.
9. Collected dust should be disposed of properly especially in cases where the dust is rated as being hazardous or toxic. In such cases, established governmental disposal regulations should be strictly obeyed.
10. If your DUSTKOP cyclone unit is connected to an after-filter, make sure that the after-filter is properly maintained in order to assure optimum performance of the cyclone unit, and hence the dust collection system.
11. If your DUSTKOP pull-through cyclone has a rotary airlock, it is recommended that the blade seals are checked on the rotor at least once a year to ensure they are still providing an airtight seal. If seals appear to be damaged or worn, have them replaced.

## **SHAKING FILTERS**

1. Shaking of 'SC' units is done by grasping sides of the bag and shaking vigorously. See Form I-6A instructions for larger filter units.

## DRIVE-LINE MAINTENANCE

(60N70, 80N70, 90N70, 100N40, 100N50, 100N60, 100N75 ONLY)

**PILLOW BLOCKS:** Refer to the Lubrication Instructions that are supplied in the Operation and Maintenance package. 10000 series units are supplied with automatic grease feeders, refill as required. The relubrication interval depends on bearing conditions: speed, temperature, and environment. Inspect set screws or locking device to ensure that they are tightly secured and locked to shaft.

**DRIVE BELTS:** General rules of tensioning:

1. Check tension frequently during the first 24-48 hours of operation.
2. Ideal tension is the lowest tension at which the belts will not slip under peak load conditions. Slippage will shorten belt life.
3. Over tensioning shortens belt and bearing life.
4. Keep belts free from foreign material which may cause slippage.
5. Make V-drive inspection on a periodic basis. Tension when slipping. Never apply belt dressing as this will damage the belts and cause early failure.
6. Replace worn belts as required. Replace in complete sets.

**FAN:** No regular maintenance. If abnormal vibration develops, the fan may be out of balance, or the shaft, bearings, or belts may be loose, worn, or damaged. After checking the drive parts, inspect the fan and shaft for material buildup, damage, or wear. Clean, replace, or rebalance as required.

Consult factory for replacement parts or any questions.

## TROUBLESHOOTING

### PROBLEM: Inadequate Airflow and Suction

<u>POSSIBLE CAUSE</u>	<u>SOLUTION</u>
Fan running backwards	See "Cyclone Unit Operation" No. 4. Have electrician reverse motor direction.
Drum cover(s) not clamped or sealed properly to drum(s). Hopper slide gate not closed.	Clamp drum cover(s) on drum properly. Obtain a good 55-gallon drum with a uniform rim (not bent or dented). Tightly close slide gate on hopper.
Ductwork or cyclone plugged	Visually check ductwork and cyclone interior, and clean as required.
System design/duct sizing	Contact nearest Agnet representative.
Filter plugged (if present)	See "Filter Instructions", Form I-6A.

### PROBLEM: Electrical Overload

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

## **TROUBLESHOOTING, cont.**

### **PROBLEM: Excessive Dust Emissions from Cyclone**

#### **POSSIBLE CAUSE**

Drum cover(s) not properly clamped or sealed. Hopper slide gate not closed ("SN" cyclone units).

Drum not compatible with cover.

Drum cover hose not caulked

Dust storage drum(s) or bin overfilled and backed up into cyclone

Too much fine dust for the cyclone to efficiently precipitate

Aerodynamically shaped dust particles (e.g. paper)

Something caught in cyclone disturbing smooth airflow

#### **SOLUTION**

Clamp drum(s) cover on drum properly. Obtain a good 55-gallon drum with a uniform rim (not bent or dented). Tightly close gate on hopper.

Drum must not exceed 23 1/4" diameter.

Caulk hose top and bottom.

Empty dust storage container. Check cyclone interior at the same time to see if the cyclone is plugged up with dust. Clean out as required.

Add an after-filter.

Contact your Agat representative.

Check visually through bottom cyclone discharge and top air outlet for anything foreign to the construction or materials of the cyclone. Check for dents in cyclone.

## **STATEMENT OF WARRANTY**

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. All necessary replacements or repairs are F.O.B. Adrian, Michigan, and are subject to our inspection.

All electrical 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 the motor to the nearest authorized repair or service station with the request, preferably in writing, that the motor is for warranty inspection and giving the source of the motor (us) and the date of its acquisition.

From code numbers on the motor, the service shop can determine whether or not it is still within the warranty period. If found to be defective, it will either be repaired or replaced.

Contact us first before taking any action on a defective motor, as stated on the red tag attached to it. We can then advise the location of the nearest motor service authorized by the motor manufacturer to handle claims under warranty.

This warranty is in lieu of any other warranty, spoken or implied.

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