Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

# Dayton Dust Collector

### **Description**

The Dayton Dust Collector is designed to remove and collect wood dust and wood chips from woodworking machinery. Lower cloth bag collects dust and chips while upper cloth bag filters fine dust. Lower bag design makes disposal of dust and chips easy. Collector features 4" dual inlet and hard rubber casters on base for mobility.

**AWARNING**Do not use this dust collector in a flam-

mable or explosive atmosphere. Do not use to collect aluminum or magnesium dust, nor any other chemically reactive dusts. Consult National Fire Protection Association (NFPA) standards before setting up a dust collection system, especially NFPA 664.

### **Unpacking**

Check for shipping damage. If damage has occurred, a claim must be filed with the carrier immediately. Check for completeness. Immediately report any missing parts to dealer. Remove all components of dust collector from shipping carton.

Refer to Figure 6, Page 6.

Locate and account for the following components:

- Base (Ref. No. 1)
- 4 x 108" Hose (Ref. No. 13)
- 4" Dual inlet (Ref. No.10)
- Inlet cap (Ref. No. 12)
- Hanger (Ref. Nos. 18 and 19)
- Hanger Bracket (Ref. No. 8)
- Filter and collector bags (Ref. Nos. 15 and 16)
- Four each supports (Ref. No. 5)
- Four each casters (Ref. No. 2)
- Two each hose clamps (Ref. No. 14)
- Two each bag clamps (Ref. No. 17)
- Dust collector housing assembly (Ref. No. 9)
- Hardware bag

Form 5S4866

### **Specifications**

Motor 1½ HP, 3450 RPM
Voltage 115/230 Volt
Low voltage amps 14.0
Air flow rate1100 CFM
Maximum static
pressure6.6" of water column
Sound level 86 dBA
Dual inlet 4"
Collector bag
capacity 29 gal. (3.8 cu. ft.)
Weight
Overall size 35 x 18½ x 90"

### **General Safety Information**

**AWARNING** 

For your own safety, read all of the

instructions and precautions before operating tool.

**▲** CAUTION

Always follow proper operating proce-

dures as defined in this manual — even if you are familiar with use of this or similar tools. Remember that being careless for even a fraction of a second can result in severe personal injury.

### **BE PREPARED FOR JOB**

- 1. Wear proper apparel. Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry which may get caught in moving parts of machine.
- 2. Wear protective hair covering to contain long hair.
- 3. Wear safety shoes with non-slip soles.
- 4. Wear safety glasses complying with United States ANSI Z87.1. Everyday glasses have only impact resistant lenses. They are **NOT** safety glasses.

- 5. Wear face mask or dust mask if cutting operation is dusty.
- 6. Be alert and think clearly. Never operate power tools when tired, intoxicated or when taking medications that cause drowsiness.

#### PREPARE WORK AREA FOR JOB

- 1. Keep work area clean. Cluttered work areas and work benches invite accidents.
- 2. Do not use power tools in dangerous environments. Do not use power tools in damp or wet locations. Do not expose power tools to rain.
- 3. Work area should be properly lighted.
- 4. Proper electrical outlet should be available for tool. Three-prong plug should be plugged directly into properly grounded, three-prong receptacle.
- 5. Extension cords should have a grounding prong and the three wires of the extension cord should be the correct gauge.
- 6. Keep visitors at a safe distance from work area.
- 7. Keep children out of workplace. Make workshop childproof. Use padlocks, master switches and remove switch keys to prevent any unintentional use of power tools.

### **TOOL SHOULD BE MAINTAINED**

- 1. Always unplug tool prior to inspection.
- 2. Consult manual for specific maintaining and adjusting procedures.
- 3. Keep tool lubricated and clean for safest operation.
- 4. Remove adjusting tools. Form habit of checking to see that adjusting tools are removed before switching machine on.



## **Dayton<sup>®</sup> Dust Collector**

## General Safety Information (Continued)

- Keep all parts in working order. Check to determine that the guard or other parts will operate properly and perform their intended function.
- Check for damaged parts. Check for alignment of moving parts, binding, breakage, mounting or any other condition that may affect a tool's operation.
- A guard or other damaged part should be properly repaired or replaced. Do not perform makeshift repairs. (Use the parts list provided to order repair parts.)

### **KNOW HOW TO USE TOOL**

- 1. Use right tool for job. Do not force tool or attachment to do a job for which it was not designed.
- Disconnect tool when removing filter or collector bags.
- Avoid accidental start-up. Make sure that tool switch is in OFF position before plugging in.
- 4. Do not force tool. It will work most efficiently at the rate for which it was designed.
- Leave hands free to operate machine. Protect hands from possible injury.
- Never leave a tool running unattended. Turn the power off and do not leave tool until it comes to a complete stop.
- 7. Do not overreach. Keep proper footing and balance.
- 8. Never stand on tool. Serious injury could occur if tool is tipped over.
- Keep hands away from moving parts.

 Know your tool. Learn the tool's operation, application and specific limitations.

AWARNING The operation of any power tool can result in foreign objects being thrown into the eyes, which can result in severe eye damage. Always wear safety glasses complying with United States ANSI Z87.1 (shown on package) before commencing power tool operation. Safety glasses are available through your Grainger catalog.

### Assembly

Refer to Figures 1, 2 and 3.

### **MOUNT CASTERS**

Refer to Figure 1.

Casters are mounted onto the four corners of the base over the welded brackets. To mount casters:

- 1. Lay the base upside down on a flat surface.
- 2. Mount caster assembly in hole on the corner welded bracket using lock washer and hex nut.
- 3. Repeat steps 1 and 2 to mount three casters to remaining corner brackets.

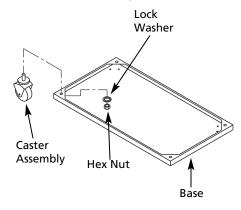


Figure 1 - Mounting Casters

### **MOUNT SUPPORTS**

Refer to Figure 2.

Supports are mounted onto top of the base. To mount supports:

- 1. Lay the base on the casters.
- Position one support above the base so that the two holes on the supports are aligned with two holes at the corner of the base.
- 3. Secure support to base using two hex bolts and lock washers.
- Repeat steps 1 through 3 to mount other supports to remaining corners of base.

### MOUNT HOUSING ASSEMBLY

Refer to Figure 2.

Housing assembly is mounted to the supports. To mount housing assembly:

- Lay base and supports assembly (long side) on a flat surface.
- Lay blower housing assembly (long side) on flat surface with bottom (non-motor) side facing supports.
- Slide blower housing assembly between supports until holes in supports and housing are aligned.
- 4. At support nearest large opening in blower housing, secure hanger bracket and support to blower housing using hex bolts and lock washers.
- Secure remaining support on that side using hex bolts and lock washers.
- Carefully flip partially completed assembly over and secure remaining two supports to opposite side of blower housing using hex bolts and lock washers.
- Secure dual inlet to bottom of blower (below motor) using Phillips head screws.

### Model 3AA28

### **Assembly (Continued)**

- 8. Attach open ring of inlet cap to one of the dual inlets.
- 9. Carefully lift complete assembly upright onto the casters.

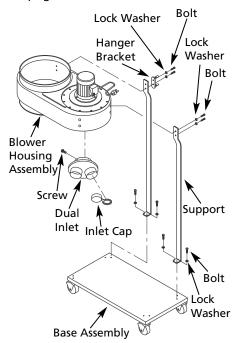


Figure 2 – Mounting Supports, Housing Assembly, Dual Inlet and Inlet Cap

### **ATTACH HOSE**

Refer to Figure 3.

Hose is attached to open end of dual inlet. To attach hose:

- Slide hose clamp onto free end of hose. Loosen clamp screw if required to slide hose clamp onto hose.
- 2. Position the hose clamp wires on the hose grooves.
- 3. Slide hose with clamp onto dual inlet.
- 4. Tighten hose clamp screw to secure hose to dual inlet.

### **ATTACH HANGER**

Refer to Figure 3.

Hanger is fastened on the top side of housing assembly. To attach hanger:

- 1. Place narrow end of lower hanger into hanger bracket and secure.
- 2. Place narrow end of upper hanger into lower hanger and secure.

### ATTACH FILTER (TOP) BAG

Refer to Figure 3.

The filter bag displays the Dayton logo. The filter bag is hooked onto the hanger and attached to the housing. To attach filter bag:

- 1. Hang the filter bag by the loop on the hanger hook.
- 2. Slide the bag clamp into the loop on the bottom of the bag. Keep sliding the bag clamp until it comes out of

the other side of the loop.

- 3. Gently lift the clamp handle to release.
- 4. Slide bag with clamp onto the opening on the housing top.
- 5. Secure bag to housing by positioning the spring connector into one of the slots on the latch and lock the clamp handle.
- 6. Make sure top bag is secure.

### ATTACH COLLECTOR (BOTTOM) BAG

Refer to Figure 3.

- 1. Slide bag clamp into bottom bag loop until it comes out of the other side.
- 2. Gently lift the clamp handle to release.
- 3. Slide bag with clamp on to the opening on the housing bottom.
- 4. Position the spring connector into one of the slots on the latch and lock the clamp handle.

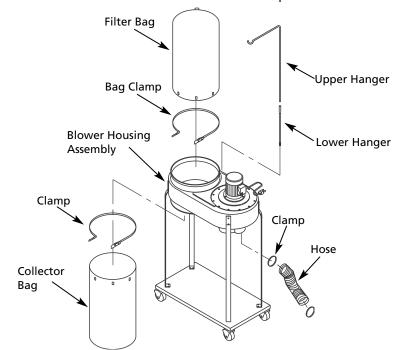


Figure 3 – Mounting Hose and Bags



## **Dayton<sup>®</sup> Dust Collector**

### **Assembly (Continued)**

5. Make sure collector bag is secure.

### Installation

**AWARNING**Do not permit fingers to touch terminals of plug when installing or removing the plug to or from the outlet.

**AWARNING** Do not connect to power source until unit is completely assembled.

### **POWER SOURCE**

- 1. Motor is designed for operation on 115V or 230V, 60Hz.
- 2. Motor is prewired for operation on 115V, 60Hz.
- 3. Normal loads will be handled safely on voltages not more than 10% above or below the specified voltage.
- 4. Running unit on voltages not within range may cause overheating and motor burnout.

### **GROUNDING INSTRUCTIONS**

Refer to Figure 4.

- 1. This tool is equipped with a 3-conductor cord.
- 2. Do not remove or alter grounding prong in any manner. In the event of malfunction or breakdown, grounding provides path of least resistance for electrical current to reduce risk of electrical shock.
- 3. Plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.
- 4. The conductor with insulation having an outer surface which is green is equipment grounding conductor. If repair or replacement is necessary, make sure equipment grounding conductor is not connected to line

terminal.

5. If power cord is worn, cut or damaged in any way, have it replaced immediately.

Improper connection **A** CAUTION of the equipmentgrounding conductor can result in a risk

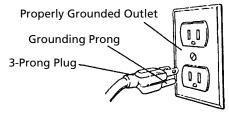


Figure 4 - Properly Grounded Outlet, 115 Volt

### of electrical shock. **EXTENSION CORDS**

- 1. The use of any extension cord will cause some drop in the voltage and loss of power.
- 2. Wires of the extension cord must be sufficient in size to carry the current and maintain adequate voltage.
- 3. Use the table below to determine the minimum wire size (A.W.G.) extension cord.
- 4. Use only 3-wire extension cords having 3-prong grounding type plugs and 3-pole receptacles which accept the tool plug.
- 5. If extension cord is worn, cut or damaged in any way, have it replaced immediately.

### **EXTENSION CORD LENGTH**

Wire Size A.W.G. 

**NOTE:** Using extension cords over 50 ft. long is not recommended.

### **ELECTRICAL CONNECTIONS**

AWARNING All electrical connections must be per-

formed by a qualified electrician. Make sure tool is off and disconnected from power source while motor is mounted, connected, reconnected or anytime wiring is inspected.

Motor and wires are installed as shown in wiring diagram (See Figure 5). Motor is assembled with approved, 3-conductor cord to be used at 115/230 volts. Motor is prewired at the factory for 115 volts.

To use the dust collector with a 230V power supply, have a qualified electrician rewire motor and attach a 230 volt, I5A three-prong plug onto dust collector line cord.

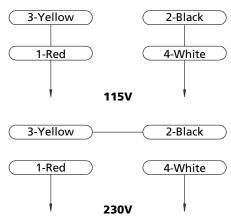


Figure 5 - Wiring Diagram Operation **DUST COLLECTOR** 

Refer to Figure 6.

- 1. Position dust collector near dust producing machine on a flat level surface.
- 2. Connect inlet hose (Ref. No. 13) to dust producing machine using hose clamp (Ref. No. 14). Use nozzle (Ref. No. 32) if needed.
- 3. Turn dust collector on before starting dust producing machine.

### Model 3AA28

### Operation (Continued) EMPTYING COLLECTOR BAG

AWARNING Turn switch off and remove plug from power source outlet before emptying collector bag.

- Empty collector bag by lifting bag clamp handle and releasing spring connector from latch. Slide bag away from housing. Dispose of dust properly.
- Mount collector bag by sliding bag over opening on housing bottom.
   Position the spring connector into one of the slots on the latch and lock

the clamp handle. Make sure collector bag is secure.

### Maintenance

AWARNING Turn switch off and remove plug from power source outlet before maintaining your dust collector.

Refer to Figure 6.

 Clean motor of dust, chips or other particles. If operation is excessively dusty or dirty, frequent inspection of motor is required. Vacuum any particles that may have entered the motor.

- Replace worn, cut or damaged line cord.
- 3. Replace worn or damaged collector hose.
- 4. Replace worn or damaged filter and collector bags.
- 5. Clean casters as needed to ensure proper operation.
- Frequently check that all nuts, bolts, screws, etc. have not loosened due to collector vibration.

### LIMITED WARRANTY

**DAYTON ONE-YEAR LIMITED WARRANTY.** Dayton® Dust Collector, Models covered in this manual, are warranted by Dayton Electric Mfg. Co. (Dayton) to the original user against defects in workmanship or materials under normal use for one year after date of purchase. Any part which is determined to be defective in material or workmanship and returned to an authorized service location, as Dayton designates, shipping costs prepaid, will be, as the exclusive remedy, repaired or replaced at Dayton's option. For limited warranty claim procedures, see PROMPT DISPOSITION below. This limited warranty gives purchasers specific legal rights which vary from jurisdiction to jurisdiction.

**LIMITATION OF LIABILITY.** To the extent allowable under applicable law, Dayton's liability for consequential and incidental damages is expressly disclaimed. Dayton's liability in all events is limited to and shall not exceed the purchase price paid.

**WARRANTY DISCLAIMER.** Dayton has made a diligent effort to provide product information and illustrate the products in this literature accurately;

however, such information and illustrations are for the sole purpose of identification, and do not express or imply a warranty that the products are

MERCHANTABLE, or FIT FOR A PARTICULAR PURPOSE, or that the products will necessarily conform to the illustrations or descriptions. Except as provided below, no warranty or affirmation of fact, expressed or implied, other than as stated in the "LIMITED WARRANTY" above is made or authorized by Dayton.

**PRODUCT SUITABILITY.** Many jurisdictions have codes and regulations governing sales, construction, installation, and/or use of products for certain purposes, which may vary from those in neighboring areas. While Dayton attempts to assure that its products comply with such codes, it cannot guarantee compliance, and cannot be responsible for how the product is installed or used. Before purchase and use of a product, review the product applications, and all applicable national and local codes and regulations, and be sure that the product, installation, and use will comply with them.

Certain aspects of disclaimers are not applicable to consumer products; e.g., (a) some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you; (b) also, some jurisdictions do not allow a limitation on how long an implied warranty lasts, consequentially the above limitation may not apply to you; and (c) by law, during the period of this Limited Warranty, any implied warranties of implied merchantability or fitness for a particular purpose applicable to consumer products purchased by consumers, may not be excluded or otherwise disclaimed.

**PROMPT DISPOSITION.** Dayton will make a good faith effort for prompt correction or other adjustment with respect to any product which proves to be defective within limited warranty. For any product believed to be defective within limited warranty, first write or call dealer from whom the product was purchased. Dealer will give additional directions. If unable to resolve satisfactorily, write to Dayton at address below, giving dealer's name, address, date, and number of dealer's invoice, and describing the nature of the defect. Title and risk of loss pass to buyer on delivery to common carrier. If product was damaged in transit to you, file claim with carrier.

Manufactured for Dayton Electric Mfg. Co., 5959 W. Howard St., Niles, Illinois 60714..U.S.A.



### For Repair Parts, call 1-800-323-0620

### 24 hours a day – 365 days a year

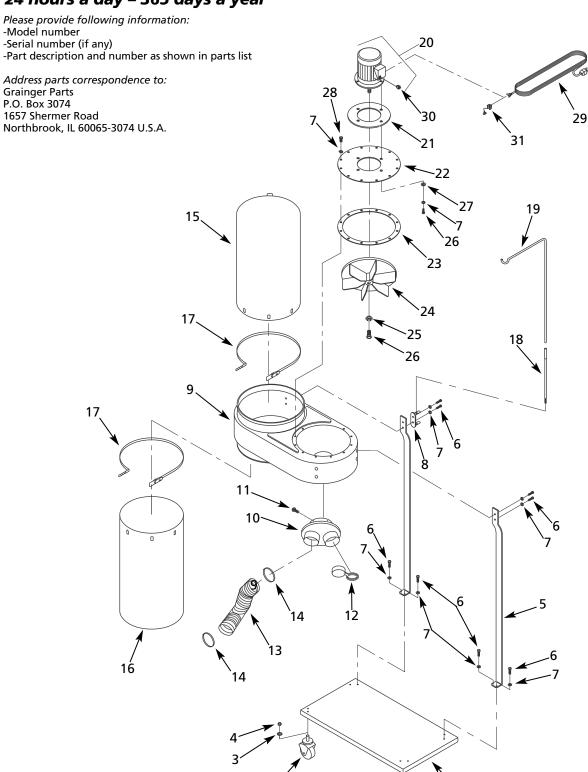


Figure 6 - Repair Parts Illustration for Dust Collector

## **Repair Parts List for Dust Collector**

Ref. No.	Description	Part No.	Qty.
1	Base	21130.00	1
2	Caster	21131.00	4
3	3/8" Lock washer	*	4
4	3/8-16" Hex nut	*	4
5	Support	21132.00	4
6	5/16-18 x 3/4" Hex head bolt	*	16
7	5/16" Lock washer	*	32
8	Hanger bracket	21133.00	1
9	Blower housing assembly	21134.00	1
10	4" Dual inlet	21135.00	1
11	4-0.7 x 12mm Phillips head screw	*	4
12	Inlet cap	21136.00	1
13	4 x 108" Inlet hose	21137.00	1
14	4" Hose clamp	21138.00	2
15	Filter bag (Upper-6.2 cu. ft.)	21139.00	1
16	Collector bag (Lower-3.8 cu. ft.)	21140.00	1
17	Bag clamp	21141.00	2
18	Lower hanger	21142.00	1
19	Upper hanger	21143.00	1
20	Motor assembly	21144.00	1
21	Motor gasket	21145.00	1
22	Blower housing cover	21146.00	1
23	Blower housing gasket	21147.00	1
24	Impeller	21148.00	1
25	5/16" Wide flat washer	*	1
26	5/16-18 x 1" Hex head bolt	*	5
27	5/16" Flat washer	*	4
28	5/16-18 x 5/8" Hex head bolt	*	12
29	Line cord	21149.00	1
30	Switch with key	08066.00	1
31	Strain relief	01413.00	1
Δ	Hardware bag	21150.00	1
	Recommended Accessories		
Δ	4" Hose extension kit	3AA34	1

<sup>(\*)</sup> Standard hardware item, available locally.



<sup>(</sup> $\Delta$ ) Not Shown.

## **Dayton<sup>®</sup> Dust Collector**

### **Troubleshooting Chart**

Symptom	Possible Cause(s)	Corrective Action	
Motor will not run	1. Defective plug, cord, switch or motor	1. Check wiring, replace defective parts	
	2. Blown fuse or circuit breaker	2. Check fuse or breaker, replace	
Excessive dust in air	1. Leaking bag or hose connection	<ol> <li>Check filter and collector bag connections. Check collector hose connections</li> </ol>	
	2. Filter or collector bag leaks	<ol><li>Dust trapped under bag clamp or collector bag not sealed on flange</li></ol>	
Excessive impeller noise	Large debris or piece of wood in impeller housing	Do not vacuum metal materials. Turn collector off and let debris settle in collector bag	
	2. Loose impeller	<ol> <li>Disconnect collector from power source. Remove dual inlet (Figure 6, Ref. No. 10) and tighten impeller</li> </ol>	
Excessive motor noise	Defective motor	Have motor checked by qualified motor service technician	
Motor fails to develop full power or motor stalls	<ol> <li>Low voltage to collector caused by circuit overload</li> </ol>	<ol> <li>Remove other electric machines or appliances from circuit</li> </ol>	
	<ol><li>Low voltage to collector caused by undersized extension cords</li></ol>	<ol><li>Increase wire gauge size of extension cords or shorten extension cords</li></ol>	
	3. Low voltage from power source	<ol><li>Request voltage check from power company</li></ol>	
Motor slow to start or fails to reach full speed	1. Burned or defective motor	1. Check motor, replace if necessary	
	2. Defective motor capacitor switch	2. Check switch, replace if necessary	
Motor overheats	1. Motor overload	Reduce load by slowing dust production	
	2. Improper motor cooling	2. Clean sawdust from motor	
Tripping circuit breaker or fuses	1. Motor overloaded	Reduce load by slowing dust production	
	<ol><li>Improper capacity of circuit breaker or fuses</li></ol>	Use proper capacity circuit breaker or fuse	