

PALMGREN[®]

650 CFM DUST COLLECTOR



Read carefully and follow all safety rules and operating instructions before first use of this product.

GETTING STARTED

STRUCTURAL REQUIREMENTS

Make sure all supporting structures and load attaching devices are strong enough to hold your intended loads. If in doubt, consult a qualified structural engineer.

ELECTRICAL REQUIREMENTS

The power supply to the Dust Collector needs to be 120 volt/ 8.0 amp, single phase, 60 Hz. The standard allowable voltage variation is plus or minus 10%.

TOOLS NEEDED

Standard mechanic's hand tool set.

UNPACKING

Crates should be handled with care to avoid damage from dropping, bumping, etc. Store and unpack crates with correct side up. After uncrating Dust Collector, inspect carefully for any damage that may have occurred during transit. Check for loose, missing or damaged parts. If any damage or loss has occurred, claim must be filed with carrier immediately. Check for completeness. Immediately report missing parts to dealer.

Dust Collector is shipped partially assembled. End user will need to assemble loose parts to machine.

CAUTION: Never use highly volatile solvents. Avoid getting cleaning solution on paint as it may tend to deteriorate these finishes. Use soap and water on painted components.

CONTENTS:

All loose parts are shipped inside the dust extractor tank. Locate and account for the following components:

- Dust Collector Housing Assembly (1)
- Base Assembly (1)
- Filter Bag (1)
- Collector Bag (1)
- Bag Clamp (2)
- Left Support (1)
- Right Support (1)
- Support Brace (1)
- Hose (1)
- Hose Clamp (2)
- Filter Bag Hanger (1)
- Seven Piece Adapter Set (1)
- Hardware Bag (1), includes: Four M8 x 40 carriage bolts, four M8 x 12 carriage bolts, eight M8 serrated flange hex nuts and one 5mm hex wrench
- Operating Instructions and Parts Manual (1)

Unpack:

Open carton and carefully remove Dust Collector from packing material. Do not discard packing materials until after machine has been inspected for damage and completeness. Locate loose parts and set aside.

INSPECT:

- After unpacking the unit, carefully inspect for any damage that may have occurred during transit. Check for loose, missing or damaged parts. Shipping damage claims must be filed with the carrier.

- All tools should be visually inspected before use, in addition to regular periodic maintenance inspections.
- Be sure that the voltage labeled on the unit matches your power supply.

SAFETY RULES

DANGER: Do not use this dust collector in a flammable 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.

WARNING: For your own safety, read operating instructions manual before operating tool.

PROPOSITION 65 WARNING: Some dust created by using power tools contain chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

Some examples of these chemicals are:

- Lead from lead-based paints
- Crystalline silica from bricks and cement and other masonry products.
- Arsenic and chromium from chemically treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals; work in a well ventilated area and work with approved safety equipment. Always wear **OSHA/NIOSH** approved, properly fitting face mask or respirator when using such tools.

WARNING: Always follow proper operating procedures as defined in this manual even if you are familiar with the 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

- Wear proper apparel. Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry which may get caught in moving parts of machine.
- Wear protective hair covering to contain long hair.
- Wear safety shoes with non-slip soles.
- Wear safety glasses complying with United States ANSI Z87.1. Everyday glasses have only impact resistant lenses. They are **NOT** safety glasses.
- Wear face mask or dust mask if operation is dusty.
- Be alert and think clearly. Never operate power tools when tired, intoxicated or when taking medications that cause drowsiness.

PREPARE WORK AREA FOR JOB

- Keep work area clean. Cluttered work areas invite accidents.
- 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.
- Work area should be properly lighted.
- Proper electrical receptacle should be available for tool. Three-prong plug should be plugged directly into properly grounded, three-prong receptacle.
- Extension cords should have a grounding prong and the three wires of the extension cord should be of the correct gauge.
- Keep visitors at a safe distance from work area.
- Keep children out of workplace. Make workshop childproof. Use padlocks, master switches or remove switch keys to prevent any unintentional use of power tools.

SAFETY RULES (CONTINUED)

TOOL SHOULD BE MAINTAINED

- Always unplug tool prior to inspection.
- Consult manual for specific maintaining and adjusting procedures.
- Keep tool lubricated and clean for safest operation.
- Remove adjusting tools. Form habit of checking to see that adjusting tools are removed before switching machine on.
- 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 and any other condition that may affect a tool's operation.
- A guard or other part that is damaged should be properly repaired or replaced. Do not perform makeshift repairs. (Use parts list provided to order repair parts.)

KNOW HOW TO USE TOOL

- Use right tool for job. Do not force tool or attachment to do a job for which it was not designed.
- Disconnect tool when changing the Filter cartridge or filter bag.
- Avoid accidental start-up. Make sure that the tool is in the OFF position before plugging in.
- 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 tool running unattended. Turn the power off and do not leave tool until it comes to a complete stop.
- Do not overreach. Keep proper footing and balance.
- 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.

DANGER: 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.

SPECIFICATIONS

Motor	3/4 HP, 3450 RPM
Voltage	120VAC
Amps	4.5
Hertz	60
Air flow rate	650 CFM
Maximum static pressure	5.8 inches H2O
Sound level90 dBA
Hose	4" dia. x 78"
Bag capacity	20 gallons
Overall size	35 1/4" x 21 1/4" x 17 3/8"
Weight	55 lbs
Shipping weight	62 lbs

ASSEMBLY

Refer to Figure 3.

- Attach the wheel assembly (Ref. No. 12 through 15) to base tube (Ref. No. 10) using M6 x12 bolts, 6mm washers.
- Attach the side panels (Ref. No. 7 & 24) loosely to the base using M8x12 bolts, 8mm washers. Do not tighten.
- Attach the housing assembly to the side panels using M5 x 12 bolts and nuts. Tighten all nuts.
- Insert the dust container in the bore of the top air outlet.
- Slip the filter bag (Ref. No. 1) over the container and fasten with the retaining strap (Ref. No. 2).
- Attach the collector bag (Ref. No. 6) to the lower air outlet using the retaining strap (Ref. No. 5).
- Attach the hose (Ref. No. 21) to the nozzle on the housing and fasten with a hose clamp (Ref. No. 22).
- Also fasten the adapter ring to the other end of the hose using a hose clamp.

INSTALLATION

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

WARNING: Do not connect to power source until unit is completely assembled.

POWER SOURCE

- Motor is designed for operation on 120V, 60Hz.
- Normal loads will be handled safely on voltages not more than 10% above or below the specified voltage.
- Running unit on voltages not within range may cause overheating and motor burnout.

GROUNDING INSTRUCTIONS

Refer to Figure 1

- This tool is equipped with a 3-conductor cord.
- 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.
- Plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.
- 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.
- If power cord is worn, cut or damaged in any way, have it replaced immediately.

CAUTION: Improper connection of the equipment-grounding conductor can result in a risk of electrical shock.

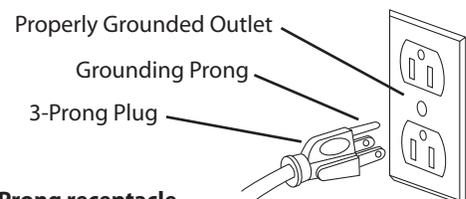


Figure 1 – 3-Prong receptacle.

INSTALLATION (CONTINUED)

EXTENSION CORDS

- The use of any extension cord will cause some drop in voltage and loss of power.
- Wires of the extension cord must be of sufficient size to carry the current and maintain adequate voltage.
- Running the unit on voltages which are not within $\pm 10\%$ of the specified voltage may cause overheating and motor burn-out.
- Use the table to determine the minimum wire size (A.W.G.) extension cord.
- Use only 3-wire extension cords having 3-prong grounding type plugs and 3-pole receptacles which accept the tool plug.
- If the extension cord is worn, cut or damaged in any way, replace it immediately.

Extension Cord Table						
Ampere Rating		Volts	Total Length of Cord in Feet			
		120	25	50	100	150
More Than	Not More Than	240	50	100	150	300
		Minimum Gage for Cord				
0	6		18	16	16	14
6	10		18	16	14	12
10	12		16	16	14	12
12	16		14	12	Not Recommended	

Electrical Connections

WARNING: All electrical connections must be performed 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.

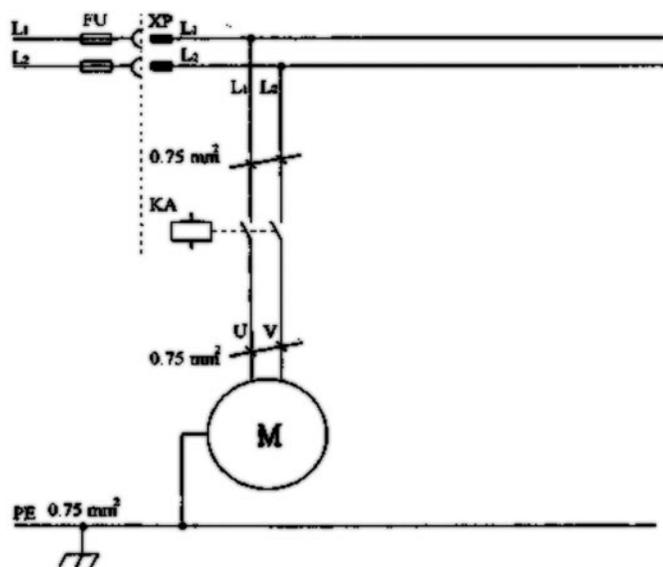


Figure 2 - Circuit diagram.

OPERATION

Refer to Figure 3.

- Do not suck pieces of metal, large blocks of wood or pieces of batten into the collector.
 - Use only accessories designed for this Dust Collector.
 - It is more efficient to use the filter cartridge than the dust bag to collect wood chips.
1. Position dust extractor near dust producing machine on a flat level surface.
 2. Connect hose (Ref. No. 21) to dust producing machine using hose clamp (Ref. No. 22). Use adaptors if needed.
 3. Turn dust collector on before starting dust producing machine.

EMPTYING COLLECTOR BAG

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

- The collection container should be emptied as required, but at least after each use.
1. Empty collector bag by lifting bag clamp handle and releasing spring connector from latch. Slide bag away from housing. Dispose of dust properly.
 2. 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

DANGER: Turn switch off and remove plug from power source outlet before maintaining your dust extractor.

- The dust collector and filtering bag should be cleaned each time the collection bag is changed.
- Damaged filters and bags must be replaced immediately in order to minimize dust dispersion in the work area.
- 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.
- Replace worn or damaged collector hose.
- Replace worn or damaged bags.
- Frequently check that all nuts, bolts, screws, etc. have not loosened due to vibration.

TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Motor will not run	<ol style="list-style-type: none"> 1. Defective plug, cord, switch or motor 2. Blown fuse or circuit breaker 	<ol style="list-style-type: none"> 1. Check wiring, replace defective parts 2. Check fuse or breaker, replace
Excessive dust in air	<ol style="list-style-type: none"> 1. Leaking bag or hose connection 2. Filter or collector bag leaks 	<ol style="list-style-type: none"> 1. Check filter and collector bag connections. Check collector hose connections 2. Dust trapped under bag clamp or collector bag not sealed on flange
Excessive impeller noise	<ol style="list-style-type: none"> 1. Large debris or piece of wood in impeller housing 2. Loose impeller 	<ol style="list-style-type: none"> 1. Do not vacuum metal materials. Turn collector off and let debris settle in collector bag 2. Disconnect collector from power source. Remove lower housing (Figure 3, Ref. No. 36) and tighten impeller
Excessive motor noise	Defective motor	Have motor checked by qualified motor service technician
Motor fails to develop full power or motor stalls	<ol style="list-style-type: none"> 1. Low voltage to collector caused by circuit overload 2. Low voltage to collector caused by undersized extension cords 3. Low voltage from power source 	<ol style="list-style-type: none"> 1. Remove other electric machines or appliances from circuit 2. Increase wire gauge size of extension cords or shorten extension cords 3. Request voltage check from power company
Motor slow to start or fails to reach full speed	<ol style="list-style-type: none"> 1. Burned or defective motor 2. Defective motor capacitor switch 	<ol style="list-style-type: none"> 1. Check motor, replace if necessary 2. Check switch, replace if necessary
Motor overheats	<ol style="list-style-type: none"> 1. Motor overload 2. Improper motor cooling 	<ol style="list-style-type: none"> 1. Reduce load by slowing dust production 2. Clean sawdust from motor
Tripping circuit breaker or fuses	<ol style="list-style-type: none"> 1. Motor overloaded 2. Improper capacity of circuit breaker or fuses 	<ol style="list-style-type: none"> 1. Reduce load by slowing dust production 2. Use proper capacity circuit breaker or fuse

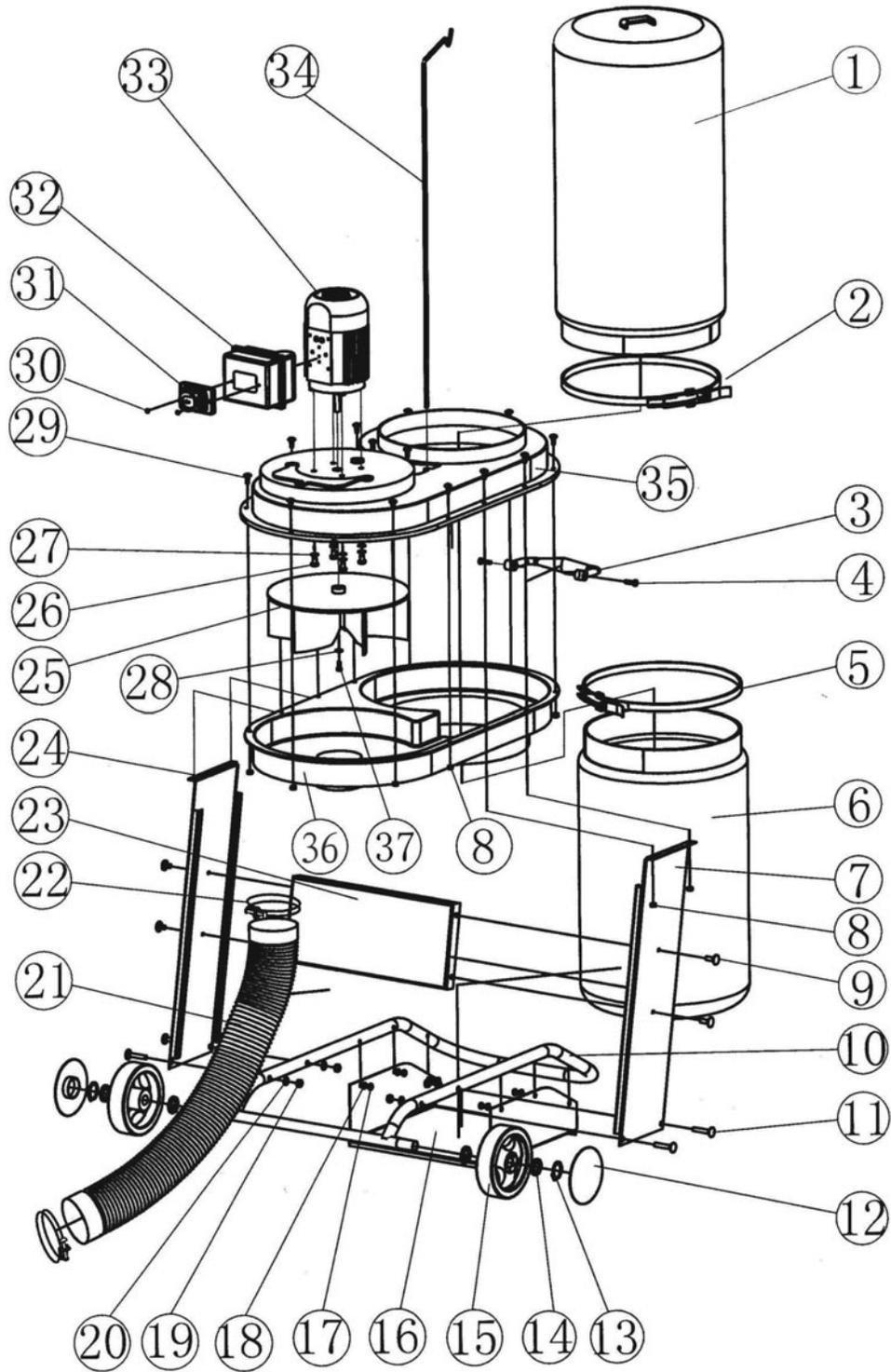


Figure 3 – Repair parts illustration for Dust Collector.

REPLACEMENT PARTS LIST FOR DUST COLLECTOR

Ref. No.	Description	Part Number	Qty.
1	Filter bag	9635427.00	1
2	Locking strap	9635428.00	1
3	Handgrip	9643302.01	1
4	Tapping bolt ST5.530	*	
5	Locking strap	9635428.00	1
6	Collector bag	9686008.00	1
7	Left side panel	9643303.01	1
8	Nut M5	*	
9	Square neck bolt M8×12	*	
10	Base tube	9643304.01	1
11	Square neck bolt 40	*	
12	Wheel cover	9635430.00	1
13	Circlip	*	
14	Washer #8	*	
15	Wheel	9635430.00	1
16	Bottom plate	9643305.01	1
17	Screw M5×6	*	
18	Washer #5	*	
19	Nut M8	*	
20	Washer #8	*	
21	Hose	9635431.00	1
22	Hose clamp	9635432.00	1
23	Horizontal plate	9643306.01	1
24	Right side panel	9643307.01	1
25	Impeller	9635433.00	1
26	Hex bolt M8×12	*	
27	Washer #8	*	
28	Washer #6	*	
29	Cup square neck bolt M5×12	*	
30	Pan head tapping screw ST4.8×15	*	
31	Switch	9635434.00	1
32	Switch box	9643308.01	1
33	Motor	9635435.00	1
34	Bag support	9635436.00	1
35	Upper housing	9643309.01	1
36	Lower housing	9643310.01	1
37	Screw M616	*	
Δ	Hose connector	9635437.00	1
Δ	Connector adaptor	9635438.00	1
Δ	Operating Instructions & Parts Manual	9643301.02	

(Δ) Not shown.

(N/A) Not available as repair part.

(*) Standard hardware item, available locally.

PALMGREN WARRANTY

C.H. Hanson / Palmgren warrants their products to be free of defects in material or workmanship. This warranty does not cover defects due directly or indirectly to misuse, abuse, normal wear and tear, failure to properly maintain the product, heated, ground or otherwise altered, or used for a purpose other than that for which it was intended.

The warranty does not cover expendable and/or wear part (i.e. v-belts, screws, abrasives, jaws), damage to tools arising from alteration, abuse or use other than their intended purpose, packing and freight. The duration of this warranty is expressly limited to the terms noted below beginning from the date of delivery to the original user.

The Palmgren branded items carry the following warranties on parts:

All vises, clamps, positioning tables, tombstones, jack screws and vise accessories - LIFETIME.

All bench grinders, drill presses, tapping machines, band saws, lathes, milling machines, arbor presses, abrasive finishing machines and work stands - 3 YEARS.

The obligation of C.H. Hanson / Palmgren is limited solely to the repair or replacement, at our option, at its factory or authorized repair agent of any part that should prove inoperable. Purchaser must lubricate and maintain the product under normal operating conditions at all times. Prior to operation become familiar with product and the included materials, i.e. warnings, cautions and manuals.

Failure to follow these instructions will void the warranty.

This warranty is the purchaser's exclusive remedy against C.H. Hanson for any inoperable parts in its product. Under no circumstances is C.H. Hanson liable for any direct, indirect, incidental, special or consequential damages including loss of profits in any way related to the use or inability to use our products. This warranty gives you specific legal rights which may vary from state to state.

PALMGREN[®]

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