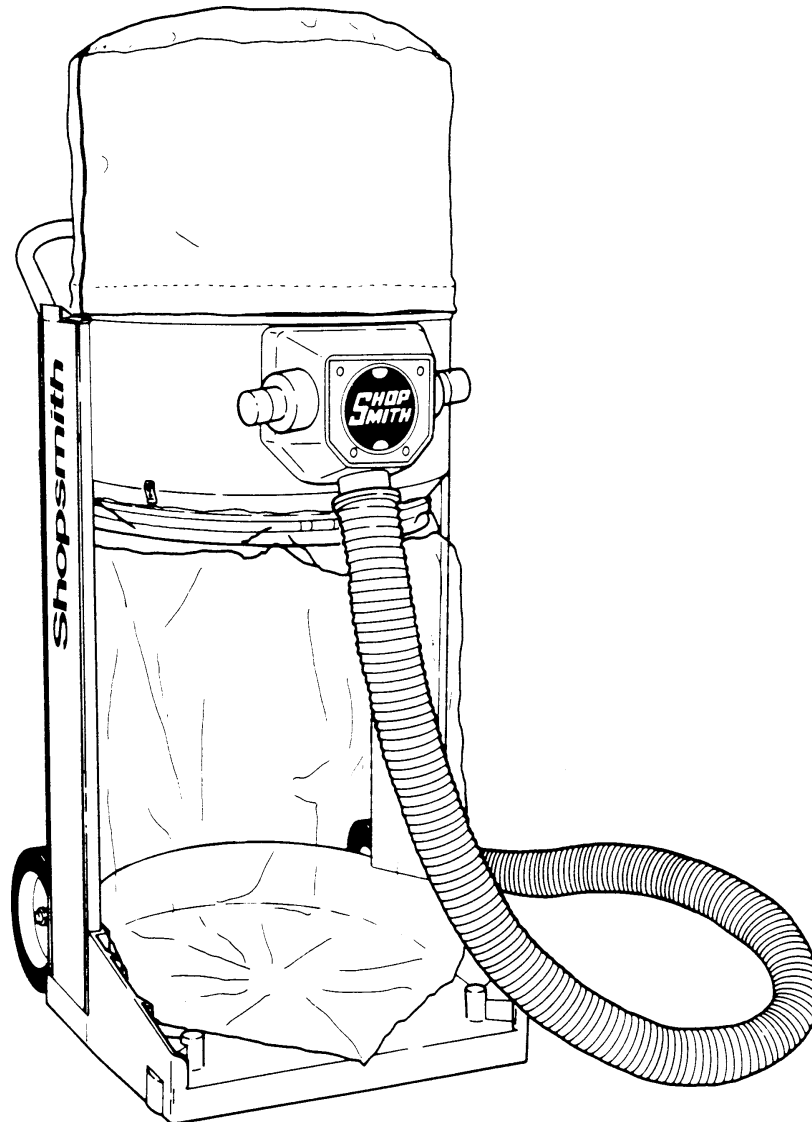




Dust Collector

330002



WARNING

Read the SAFETY section and Complete the ASSEMBLY procedures before operating the Shopsmith Dust Collector.

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Parts List

Ref. No.	Part No.	Item Description	Qty.	Ref. No.	Part No.	Item Description	Qty.
1	514808	Filter Hood	1	29	518393	Retaining Strap Assembly	1
—	514809	Retaining Strap Asmy. (Incl. 2-4)	1	30	300006	Bag, Package of 6	1
2	514856	Strap, Metal	1	31	514831	Hex Head Cap Screw, ¼-20x1-3/8"	4
3	514966	Rack	1	32	120380	Spring Lock Washer, ¼"	4
4	514855	Clamp	1	33	514896	Rear Handle	1
—	515595	Main Housing Asmy. (Incl. 5-29)	1	—	522388	Switch Service Pack (incl. 34-34A)	1
5	515689	Main Housing w/Warning Label	1	34	†	Switch	1
6	515561	Self tapping Screw	4	34A	515107	Switch Key	1
7	515534	Support Bracket	1	35	515547	Leg Cap, Right	1
—	515596	Motor & Blower Asmy. (Incl. 8-20)	1	36	515552	Wiring Harness	1
8	515549	Inlet Seal	1	36A	522323	Wire Cover	1
9	515562	Self-Taping Screw, ¼-20x3/4"	6	36B	515555	Self-Tapping Screw	1
10	515533	Fan Housing	1	37	515546	Right Leg	1
11	515112	Hex Head Cap Screw, ¼-20x1"	1	38	515554	Leg Cap, Left	1
12	120392	Flat Washer, 3/8"	4	39	515664	Left Leg	1
—	515287	Fan Assembly (incl.11, 13-14)	1	40	51481208	Snap-In Plug	8
13	†	Fan		41	515138	Truss Head Screw	14
14	120392	Flat Washer	1	42	120214	Lock Washer	14
15	513627	Hex Head Cap Screws, 3/8-6x1"	4	43	102634	Nut, 5/16"-20	14
16	120388	Flat Washer	4	44	514807	Wheel Retainer	2
17	515535	Motor Housing	1	45	514806	Wheel	2
18	515248	Key, Square, 3/16"	1	46	514755	Wheel Shaft	1
19	515690	Motor w/plug	1	47	51478902	Base Pan	1
19A	515563	Connector	1	48	514805	Caster	2
19B	515586	Strain Relief	1	—	514890	Attachment Kit (Incl. 49-56)	1
19C	514881	Screw	2	49	514825	Extension Wand	2
20	515550	Motor Seal	1	—	514929	Inlet Pug Assembly (Incl. 50-51)	2
21	515137	Self-tapping Screw	2	50	514824	Inlet Plug	2
22	514832	Self-Tapping Screw, #10-16x1/2"	4	51	514928	Cap	2
23	514817	Cover Plate	1	52	514826	Floor Pickup	1
24	515562	Self-Tapping Screw	4	53	514828	Elbow Brush	1
25	51476702	3-way Inlet	1	54	300004	Hose	2
—	521769	Handle Package (Incl. 25A-25B)	1	55	300007	Reducer	
25A	521761	Handle	1			(Optional - Only needed when used with MKV 500)	
25B	521762	Screw	2	56	514829	Utility Pickup	1
26	515555	Self-Tapping Screw	6	57	515670	Power Cord	1
27	515553	Cable Clip	1	58	515126	Star Washer	2
28	515219	Bag Clip	3	59	513897	Hex nut, #10-32	2

†Not available as a service part.

Manufacturer: Shopsmith, Inc.
 6530 Poe Avenue
 Dayton, Ohio 45414
 937/898-6070
 937/890-5197 Fax

Part Number: 330002

Description: Shopsmith Air Filtration System DC3300

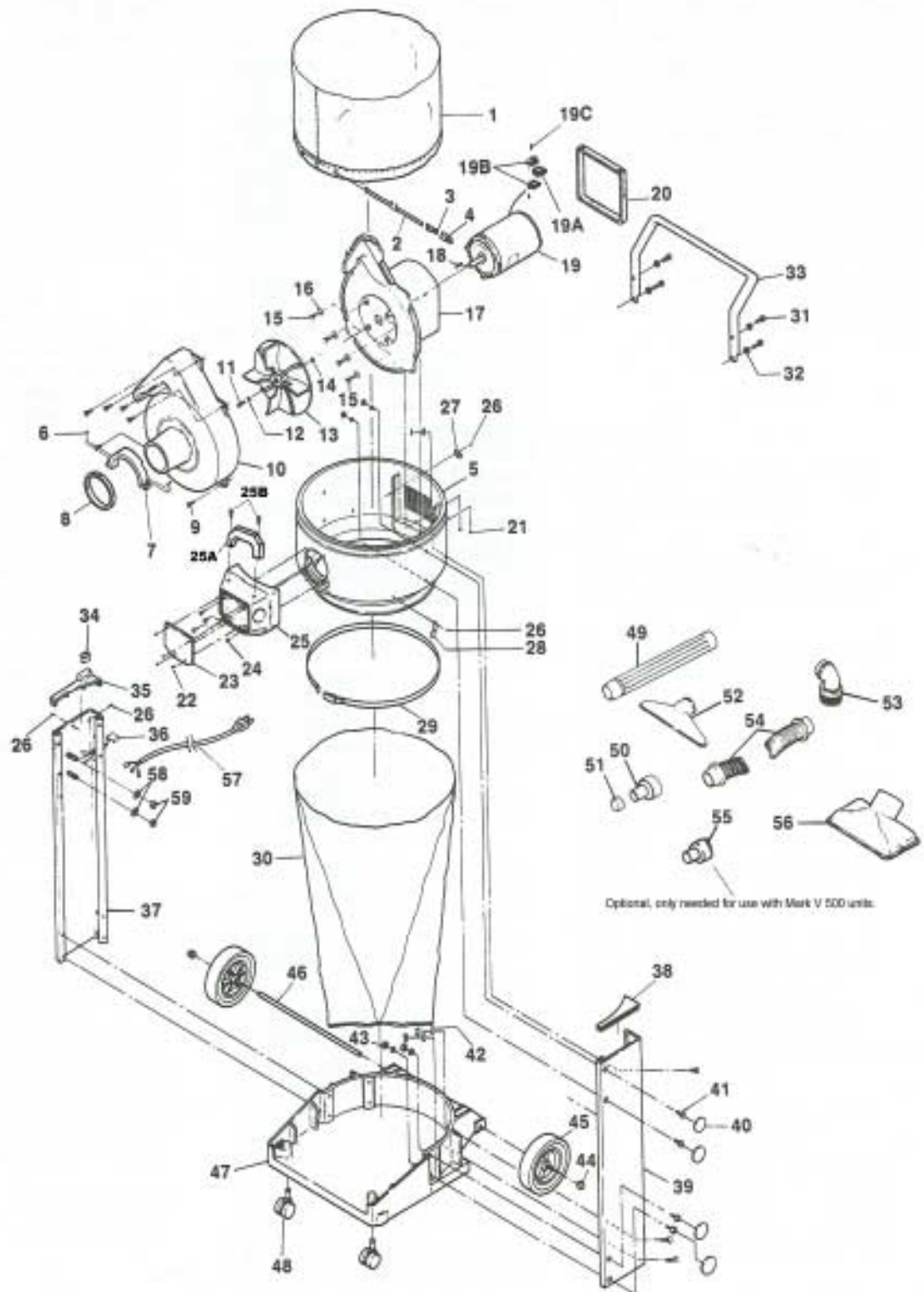


Figure 1

Introduction/Safety

Dust Free Woodworking

The Shopsmith Air Filtration System provides an efficient and effective means to collect wood shavings and dust from the workshop. Unlike conventional shop vacuums, the Dust Collector is designed to collect and filter the large volume of dust and shavings produced with modern woodworking equipment. When used in conjunction with efficient dust collection chutes and attachments, the Dust Collector will help you approach “dustfree” woodworking.

Airflow is the Key

The “heart” of the Shopsmith Dust Collector is a large industrial blower which moves large volumes of air. The dust and shavings pass through the blower, are slowed down, and then settle in the disposable bag. The air is then returned to the room after passing through a large, permanent filter capable of filtering even the smallest wood dust particles.

As you put your hand over the end of the hose you will not feel the high vacuum, or sealed suction, of a home or shop vacuum. A home vacuum cleaner needs this sealed suction to move air through small openings. A shop vacuum also requires a high sealed suction when used for water pick-up. The large airflow of the Shopsmith Dust Collector can be “observed” by placing a few fingers into the end of the hose. The airflow of the Shopsmith Dust Collector is much higher than any home or shop vacuum.

Safety First

The Shopsmith Dust Collector has many built-in safety features. But, the effectiveness of these features depends on you. Throughout

this manual, we list WARNINGS, CAUTIONS, and NOTES. We advise that when you come to one of these listings, please read and understand it fully. Their meanings are:

WARNING

A WARNING is given when failure to follow the directions could result in injury, loss of limb, or life.

CAUTION

A CAUTION is given when failure to follow the directions could result in temporary or permanent damage to the equipment.

NOTE

A NOTE is used to highlight an important procedure, practice or condition.

WARNING

General Safety Rules for Power Tools

- **Read and understand the Owners Manual.**
- **Ground all tools (unless double insulated).**
- **Wear proper eye and ear protection. Also, wear a dust mask.**
- **Do not use power tools in damp, wet or explosive atmospheres.**
- **Keep work areas well lit, clean, and free from clutter.**
- **Repair or replace damaged parts before further use. If a strange noise or vibration develops, turn off and unplug the machine. Correct the problem.**
- **Do not overreach. Keep proper footing and balance at all times.**

- **Do not leave the tool running unattended. Turn power off. Don't leave tool until it comes to a complete stop.**
- **Avoid unintentional starting. Make sure the switch is in the "off" position before plugging in or unplugging the tool.**

Safety Rules for the Shopsmith Dust Collector

- **Read and understand the Owners Manual. Learn the Dust Collector's applications and limitations as well as the specific potential hazards peculiar to it.**
- **Ground the Dust Collector. The collector comes equipped with an approved 3-conductor cord and a 3-prong grounding type plug to fit the proper grounding type receptacle, the green conductor in the cord is the grounding wire. Never connect the green wire to a live terminal.**
- **Avoid dangerous environments. Electric shock could occur if the Dust Collector is used on wet surfaces. Do not expose it to rain, snow or wet floors. Store it indoors.**
- **Do not operate the Dust Collector without the 3-way inlet or the 4' inlet and elbow securely mounted in place. The airflow can pull body parts into the intake opening and into contact with the fan.**
- **Do not pick up water or wet materials with the Dust Collector.**
- **Position the hose(s) out of the way so you won't trip over them. . Do not pick up hot or burning materials such as cigarettes and ashes. They could ignite a fire in the bag. These materials should be properly disposed of in a fireproof container.**
- **Do not attach the Dust Collector or hoses to a tool used for metal grinding or sharpening. Sparks generated during grinding could ignite dust and shavings inside the bag. They may also damage the hose and the fittings.**
- **Do not reach across a power tool to turn off the Dust Collector. Turn off the power tool and then go around to the Dust Collector and turn it off.**
- **Do not force the Dust Collector to do a job for which it was not designed.**
- **Check damaged parts. A damaged part should be properly repaired or replaced before further use. If a strange noise or vibration develops, immediately turn off the power, unplug the Dust Collector and correct the problem.**
- **Avoid unintentional starting. Make sure the switch is in the "Off" position before plugging in or unplugging the Dust Collector.**
- **Turn off and unplug the Collector before changing bags, and performing maintenance and service.**
- **Do not stand or lean on the Dust Collector. You could fall onto the Collector or it could tip over injuring you and/or damaging the Collector.**
- **Maintain the Dust Collector. Keep the Dust Collector maintained according to the Owners Manual.**
- **Use only recommended Shopsmith parts and accessories on your Dust Collector. NEVER use non-Shopsmith replacement parts or accessories. They are not designed like Shopsmith parts. Using non Shopsmith parts may cause a hazardous condition and will void your warranty.**
- **Do not leave the Dust Collector running unattended.**
- **Do not drag the cord across sharp tools or edges which could damage the cord. Do not try to move or unplug the Dust Collector by pulling on the cord.**

Sawdust and Shavings

Sawdust and shavings can be fire hazards and breathing dust can be a health hazard for some people. Dust may cause physical discomfort, especially if you have emphysema, asthma, or an allergic reaction. The dust from some woods can create a toxic reaction.

Attach the Dust Collector to the dust chutes on your power tools. This will help collect most of the sawdust and shavings while you're working and prevent them from entering the air in the room.

Electrical Requirements

This powerful Dust Collector draws a substantial amount of starting current. Therefore, it should not be run on the same circuit as the Shopsmith Mark V. You could overload the circuit.

Before starting the Dust Collector, attach hose(s) and set up as intended for use. If the unit does not come up to speed within five seconds, turn off the switch. Place an inlet plug assembly in one of the openings in the 3-way inlet and try starting the unit again. After the unit is running, you can remove the inlet plug.

If the Dust Collector still fails to come up to speed immediately, more than likely your shop wiring is too far from your electrical entrance box or if you're using an extension cord, the wire gauge is too small.

Circuit - Before you plug in your Dust Collector, check the output and the amperage of the circuit you'll be using. The output of the circuit must meet or exceed the electrical requirements of the Dust Collector power plant. The amperage must be rated high enough to handle the load (in amps) of that motor, plus any other tools or appliances you may have plugged into the same circuit and running at the same time.

- **The Shopsmith Dust Collector 115-volt motor** is rated at 1/2 hp and draws 8.0 amps. This motor runs on ordinary U.S. house current - 115 volts, 60 cycles (hz). The circuit you use should be rated for **at least** 15 amps.
- If you have fuses, we recommend you install "slow-blow" fuses. Fusetron T-15 is recommended. When you first turn on the machine, for a brief instant the motor pulls 5-6 times its usual amperage to get up to running speed.
- If you need to run a new circuit to operate the Dust Collector, be sure that the wire you use is rated to

handle the amperage of the circuit.

Grounding - The circuit you use should be properly grounded to protect you from electrical shock.

- The plug on the Shopsmith Dust Collector has three prongs, as shown in Figure 1. The receptacle should have three corresponding holes.

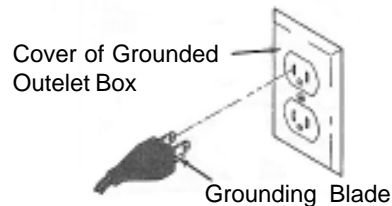


Figure 1

- Do not modify the plug. If it will not fit the outlet, have the proper outlet installed.
- If you have a two-hole receptacle, use a **temporary** adapter to plug in the Dust Collector. (See Figure 2.) The grounding lug or wire on the adapter **MUST** be connected to a permanent ground such as a grounded outlet box. The temporary adapter should be used only **until** a properly grounded outlet can be installed. **(Adapters are not allowed in Canada.)**
- If you are unsure as to whether your outlet box is grounded ask a licensed electrician.

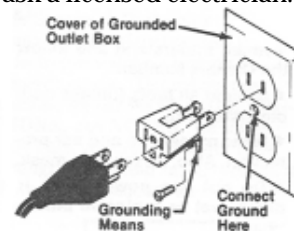


Figure 2

Extension Cords - If you use an extension cord to plug in your Dust Collector, be sure it's a three-conductor cord with a grounding plug and receptacle.

- The wire gauge must be thick enough to prevent loss of power and overheating - the longer the cord, the thicker the wire should be. Use only 12 gauge, 3-wire cord or heavier.
- Before using an extension cord, inspect it for loose wires or damaged insulation. **Replace damaged cords immediately, and only replace with Shopsmith approved parts.**
- Don't let the connection between the power cord and an extension cord lie on a damp or wet surface.

General Information

Terms to Know

The main parts of the Dust Collector are:

1. **Bag** - A heavy duty, disposable, 30-gallon, 4 mil., clear plastic bag.
2. **3-Way Inlet** - Allows the hookup of one 2-1/2" diameter hose, or you can use two or three hoses simultaneously.
3. **Filter Hood** - Filters dust particles out of the air and returns dustfree air to the room. An adjustable retaining strap secures it to the main housing.
4. **Rear Handle** - Easily accessible for movement of the unit.
5. **Power Switch** - A rocker type on/off switch with an internal dust seal for extra safety.
6. **Main Housing Assembly** - Contains the motor and blower assembly.
7. **Bag Clips** - Three clips hold the bag while the retaining strap is being attached.
8. **Retaining Strap** - Secures the bag to the main housing.
9. **Base Pan** - Supports the unit. Two front casters and two rear wheels are attached for easy mobility.

Dust Collector Attachment Kit:

10. **Two Hoses** - Connect to the 3-way inlet.
11. **Two Inlet Plug Assemblies** - Placed in the 3-way inlet port(s) that are not in use.
12. **Two Extension Wands**
13. **Floor Pickup**
14. **Elbow Brush**
15. **Reducer** - Allows you to connect the Shopsmith Mark V Model 500 (sold separately).
16. **Utility Pickup**

Specifications

The Dust Collector's specifications will give you an idea of its capabilities.

Bag: _____ 30 gallon capacity

Motor: _____ 1/2 hp industrial-duty capacitor start.

Power Cord: __ 12' long

Airflow: _____ 330 cfm

Dimensions: __ 21" wide x 26" long x 48" high

Weight: _____ approximately 64 pounds

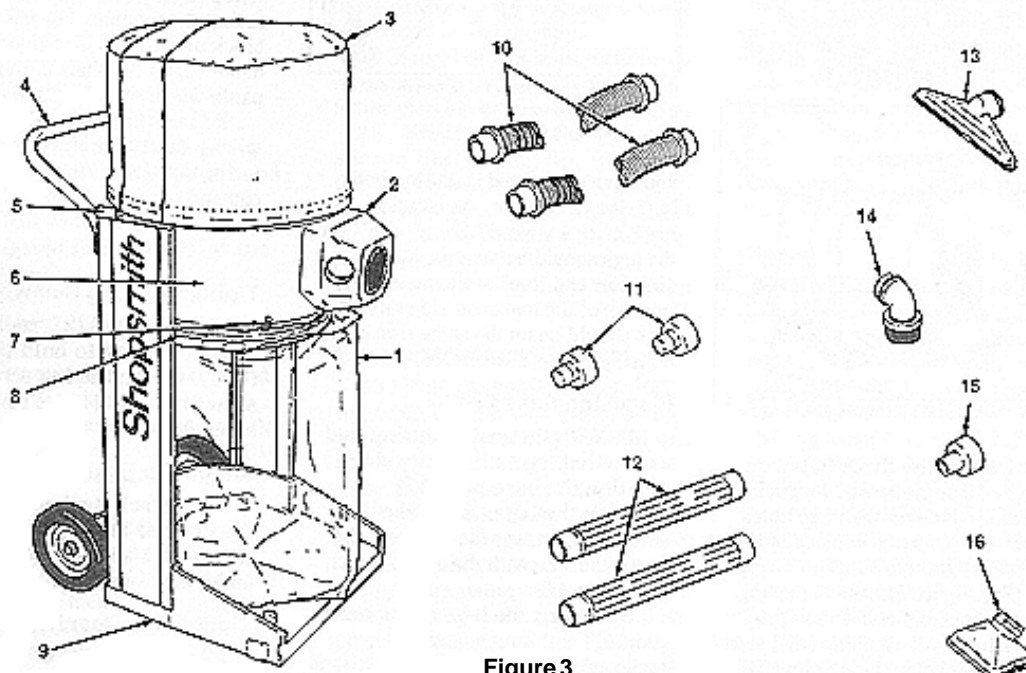


Figure 3

Assembly

Assemble the Dust Collector according to the following procedures. The numbers in parentheses are reference numbers listed in the Parts List.

Tools Required:

- Medium and large Phillips screwdrivers
- Large bladed slot screwdriver
- Rubber mallet (or block of wood)
- Adjustable wrench, or 7/16" and 1/2" wrenches
- 1/2" socket, ratchet wrench and short extension
- Pliers

Install the Legs

1. Lay the main housing (5) on its side. Make sure it's on top of cardboard to prevent scratching. Point the smaller diameter end with three clips toward you and the 3-way inlet towards the left. Place a block of wood or a book under the housing so it doesn't roll. (See Figure 4).

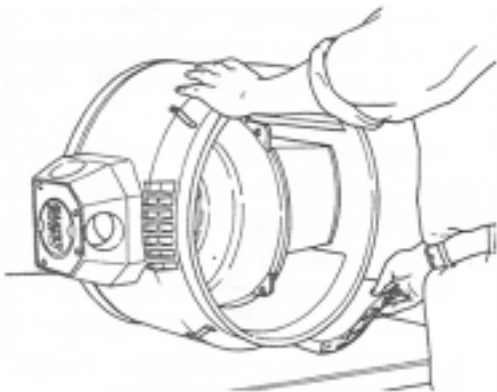


Figure 4: Lay the Main Housing on its side.

2. Locate the three holes on the top of the housing. Position the left leg (39) over the three holes, making sure the narrower side of the leg faces the front toward the 3-way inlet. (See Figure 5). Attach the left leg to the housing with screws (41), lock washers

(42) and nuts (43), starting at the top hole. Hand tighten all three nuts.

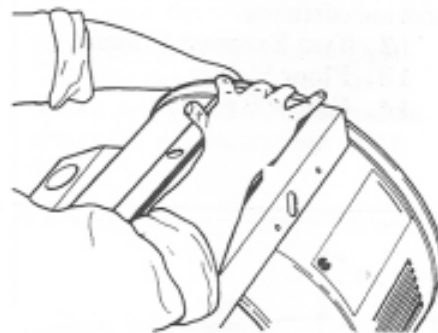


Figure 5: Support the left leg as you attach it to the Main Housing. The narrower side faces toward the front (3-hose inlet) side.

3. Turn the housing over on the opposite side, then attach the right leg (37) to the housing in the same manner described above. When you have completed installing both legs, the circled "r" registration mark after the word "Shopsmith" on the legs should be near the larger diameter end (top) of the main housing. Also, the narrower side of both legs should be on the same side of the housing as the 3-way inlet.

Install the Base Pan

4. With the main housing and assembled legs still on its side, position the base pan (47) between the legs, so that the straight, open side faces toward the front (the side with the 3-way inlet). (See Figure 6).

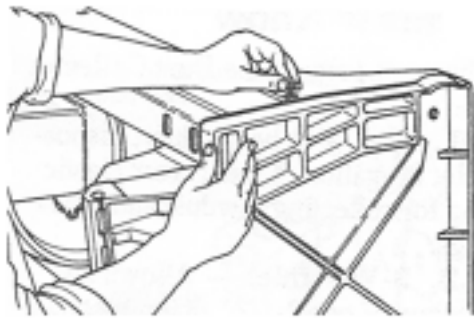


Figure 6: With the housing on its side, position the base pan so the straight side faces towards the front.

5. Attach the legs to the base pan (47) with four screws (41), lock washers (42) and nuts (43). Hand tighten all eight fasteners.

Install the Rear Wheels

6. With the Dust Collector still on its side, install the rear wheels, by inserting a retainer (44) into a 5/8" socket (or closed-end wrench). Then with a rubber mallet, tap the socket containing the retainer onto one end of the wheel shaft (46).
7. Slip a wheel (45) onto the wheel shaft with the three spoke side facing the retainer. Place a suitable block under the base pan or lift it by hand. Insert the shaft through the base pan's wheel shaft holes.
8. Put the other wheel on the wheel shaft with the three spoke side facing out. Install the other retainer cap and tap it securely against the wheel shaft end with a mallet.
9. Set the unit upright.

Tighten the Leg Screws

10. Using a 1/2" socket and ratchet wrench to hold the nuts (43), tighten the leg screws (41) securely with a large Phillips screwdriver.

Attach the Rear Handle

11. Attach the handle (33) to the back of the legs, using cap screws (31) with lock washers (32) under the cap screw heads.

Tighten the Rear Handle Screws

12. Using a 7/16" wrench, tighten the capscrews (31) which hold the handle (33).

Install Snap-in Plugs and Left Leg Cap

13. Insert the snap-in plugs (40) into the four round holes in the side of each leg. Insert the left leg cap (38) into the top of the left leg.

Install Filter Hood

14. Slip the bent tab of the metal retaining strap (2) through the loop of the rack (3), making sure that the writing on the rack is on the outside (see Figure 7).

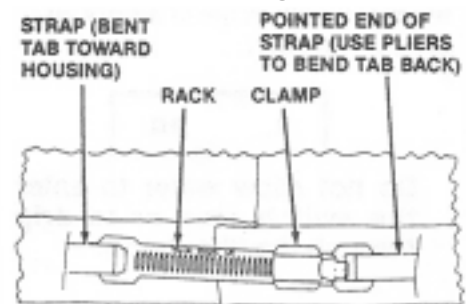


Figure 7: Assemble the hood retaining strap, rack and clamp, and feed through the hem in the filter hood.

15. With the bent tab of the strap on the inside of the rack; feed the pointed end of the strap through the hem of the filter hood (1) until the pointed end comes out through the other slot in the hem.
16. Put the pointed end of the strap through the loop in the clamp nut (4) (see Figure 7) so there is at least 1/2" of the strap to bend.

17. Use suitable pliers to bend a tab over the clamp nut (4) toward the housing. Crimp both the tabs flat in order to hold the rack (3) and clamp to the strap. (See Figure 7.)
18. Install the filter hood (1) over the main housing (5) so that the hemmed bottom of the filter hood (containing the metal strap you just installed) fits between the two rolled ribs of the housing. Turn the filter hood so the strap clamp is centered at the back of the housing and the filter hood's stripes are aligned with the legs' stripes.
19. Tighten the retaining strap assembly securely with a large blade flathead screwdriver.

Note

Be sure you tighten the strap between the two ribs on the main housing. If the strap is tightened over a rib, the filter hood will loosen and blow off the Dust Collector.

Install Bag

20. To install the bag, open the bag (30) and position it under the main housing (5). Starting from the front, push the bag under the front clip (28) and take up the slack in the bag as you push the edge of the bag under each clip on both sides. The bag's excess should be neatly folded at the back of the housing.
21. Install the plastic retaining strap assembly (29), but do not firmly clamp it yet.
22. Check around the circumference of the housing lip, and adjust the bag as needed to get a good fit. Remember to gather the excess to the back of the housing and fold it as flat as you can. When all is snug, engage the clamp on the plastic retaining strap.

Hook Up the Dust Collector

23. Plug the male socket trailing from the back of the housing into the female socket located on the leg. You will hear a "click" when they are properly seated.
24. Place the Dust Collector behind power equipment. Connect however many hoses you are going to be using to the 3-way inlet (25) and to the dust chute(s) on power equipment.
25. For each inlet you are not currently using, push an inlet plug (50) with a cap (51) into the open inlet.
26. Plug the Dust Collector into a wall socket. Refer to the section, "Electrical Requirements."

Using the Dust Collector

What NOT to Pick Up

The Dust Collector will help you keep a virtually dust-free workshop. You'll breathe less dust, have a cleaner and safer shop, and eliminate the tracking of dust and shavings to other areas.

When the Dust Collector is attached to woodworking equipment by the hoses, there is no occasion for large scraps to be sucked into the blower. However, when sweeping the floor and cleaning up, pick up large wood scraps before you use the dust collector.

Just remember that all materials "picked up" pass through the fan and fan housing. While the fan will not be damaged by small scraps which you may occasionally pick up, it is not advisable to make a practice of picking up larger scraps. They will be drawn into the fan and be struck at high velocity by the fan blades and flung against the fan housing with

a loud noise. In some instances, large scraps could even become jammed in the fan.

Hoses

The hoses attach to stationary or handheld power woodworking equipment with 2-1/4" dust chute outlets. A reducer allows you to connect to equipment with 1-1/4" chutes such as the Shopsmith Mark V Model 500 (having a serial number 222396 or lower). Three 2-1/2" diameter hoses can be connected to the 3-way inlet and used simultaneously. The large airflow and filter capacity make it suitable for other dust producing activities such as dry-wall sanding. Through use, you'll discover more.

Filter the Air - You can use the Dust Collector to filter dust from the air in your workshop by removing the hoses and any inlet plugs.

Optional 4 " Inlet - With this inlet you can connect the Dust Collector to power tools equipped with 4. dust chutes and hoses. Permanent Piping System using the 4. Inlet - For some workshops it may be more convenient to have a permanent system rather than move the Dust Collector to various locations throughout the shop. But long lengths of flexible hose are not the solution. They will greatly reduce the airflow and should not be used for permanent systems. However, Schedule 10 PVC pipe and various fittings offer less resistance to airflow than flexible hose and are recommended for permanent piping systems. The instructions that come with the optional 4. inlet explain how to construct a permanent system.

Caring for Your Dust Collector

Your Dust Collector is designed to deliver years of reliable service with a minimum of maintenance.

WARNING

Turn off and unplug the Dust Collector before you start a maintenance or troubleshooting procedure.

Cleaning the Filter Hood

During operation, dust will build up on the inside surface of the filter hood. Every time the bag is changed, tap the top and sides of the filter hood to dislodge the dust buildup. If you're generating a lot of fine dust, tap off the dust buildup more often

If you desire, you can wash the filter hood when it becomes soiled and/or clogged. Before washing, dislodge the dust buildup and remove the retaining strap. Then hand or machine wash the hood in cold water using a mild detergent. Line dry or tumble dry on no heat. When hood is dry, reinstall the retaining strap assembly.

Cleaning the Exterior

As needed, clean the outside of the Dust Collector with a sponge or cloth slightly dampened with a soap and water solution. Wipe or air dry all parts thoroughly.

WARNING

Do not allow water to enter the switch area or to drip through the filter hood

Troubleshooting Guide

Dust Collector problems usually have simple solutions. Under normal use, you should rarely have to service your Dust Collector. Most problems can be corrected by maintenance or a change of work habits.

Maintenance and Troubleshooting

Problem	Probable Cause	Solution
Unit will not start.	Plug loose in outlet.	Check plug and outlet.
	Defective switch.	Replace switch.
	Defective motor.	Replace motor.
	Tripped circuit breaker or blown fuse.	Reset circuit breaker or replace fuse.
	Long extension cord, insufficient wiring or on same circuit as Shopsmith Mark V or other machinery.	Refer to "Electrical Requirements" in the Safety section.
Motor stops and starts erratically	Electrical short in cord.	Replace power cord.
	Electrical short in switch.	Replace switch.
	Plug loose in outlet.	Check plug and outlet.
Dust blowing out around filter hood or bag	Loose retaining strap.	Tighten retaining strap.
Loss of airflow	Filter hood clogged.	Dislodge dust buildup.
	Plugged hoses, extension wands or attachments.	Unplug affected part(s).
Filter hood or collection bag blows off main housing when Dust Collector is turned on.	Strap is tightened on top of rib on main housing.	For filter hood, tighten strap between ribs.
		For collection bag, tighten strap on flat area between rib & main housing.

NOTE

If you have any questions about your Shopsmith MARK V Lift Assist, please call our Customer Service Department TOLL-FREE at 1-800-762-7555, send us an e-mail at techsupport@shopsmith.com, visit our website at www.shopsmith.com, or write to us at: Shopsmith, Inc., Attn: Customer Service Technical Dept., 6530 Poe Avenue, Dayton, Ohio 45414.

When you contact us, please tell us your Customer Number and Date Code of your equipment. (Your customer number appears on the invoice and mailing labels of the literature we send to you. The date code is located on the serial label sticker on your machine). To keep them handy, please write in the allotted spaces below.

Customer No. _____

Date Code: _____



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Dayton, Ohio 45414

845240

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