

Dynorbital® Supreme

12,000 RPM Air Powered Random Orbital Sander

Air Tool Manual – Safety, Operation and Maintenance

SAVE THIS DOCUMENT, EDUCATE ALL PERSONNEL

Models:**3/16 Orbit**

56800 - 3-1/2" Non-Vacuum
 56803 - 3-1/2" Vac-Ready
 56804 - 3-1/2" Central Vac-Ready
 56815 - 5" Non-Vacuum
 56818 - 5" Vac-Ready
 56819 - 5" Central Vac-Ready
 56826 - 6" Non-Vacuum
 56829 - 6" Vac-Ready
 56830 - 6" Central Vac-Ready

3/32 Orbit

56840 - 3-1/2" Non-Vacuum
 56843 - 3-1/2" Vac-Ready
 56844 - 3-1/2" Central Vac-Ready
 56850 - 5" Non-Vacuum
 56853 - 5" Vac-Ready
 56854 - 5" Central Vac-Ready
 56859 - 6" Non-Vacuum
 56862 - 6" Vac-Ready
 56863 - 6" Central Vac-Ready

FIND THE MOST CURRENT OFFERING OF SUPPORT DOCUMENTS AND ACCESSORIES @ WWW.DYNABRADE.COM

⚠ WARNING

Read and understand this tool manual before operating your air tool. Follow all safety rules for the protection of operating personnel as well as adjacent areas. Always operate, inspect and maintain this tool in accordance with the American National Standards Institute (ANSI) Safety Code for Portable Air Tools – B186.1. For additional safety information, refer to Safety Requirements for the Use, Care and Protection of Abrasive Wheels – ANSI B7.1, Code of Federal Regulation – CFR 29 Part 1910, European Committee for Standards (EN) Hand Held Non-Electric Power Tools – Safety Requirements and applicable State and Local Regulations.

SAFETY LEGEND

**⚠ WARNING**

Read and understand tool manual before work starts to reduce risk of injury to operator, visitors, and tool.

⚠ WARNING

Practice safety requirements. Work alert, have proper attire, and do not operate tools under the influence of alcohol or drugs.

**⚠ WARNING**

Eye protection must be worn at all times, eye protection to conform to ANSI Z87.1.

⚠ WARNING

Ear protection to be worn when exposure to sound, exceeds the limits of applicable Federal, State or local statutes, ordinances and/or regulations.

**⚠ WARNING**

Respiratory protection to be used when exposed to contaminants that exceed the applicable threshold limit values required by law.

⚠ WARNING

Air line hazard, pressurized supply lines and flexible hoses can cause serious injury. Do not use damaged, frayed or deteriorated air hoses and fittings.

**⚠ WARNING**

Some dust created by sanding, grinding, drilling, and other construction activities contain chemicals known 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, such as those dust masks that are specially designed to filter out microscopic particles.

SAFETY INSTRUCTIONS

Carefully Read all instructions before operating or servicing any Dynabrade® Abrasive Power Tool.

Products offered by Dynabrade are not to be modified, converted or otherwise altered from the original design without expressed written consent from Dynabrade, Inc.

Tool Intent: Dynorbital® Supreme Random Orbital Sander is used for sanding and finishing a variety of materials including wood, metal, plastic, fiberglass, solid surfaces, composites, rubber, glass and stone.

Do Not Use Tool For Anything Other Than Its Intended Applications.

This power tool is not intended for use in potentially explosive atmospheres and is not insulated against contact with electrical power.

Training: Proper care, maintenance, and storage of your tool will maximize its performance.

- Employer's Responsibility – Provide Dynorbital® Supreme operators with safety instructions and training for safe use of tools and accessories.

Accessory Selection:

- Abrasive/accessory RPM (speed) rating MUST be approved for AT LEAST the tool RPM rating.
- Before mounting an accessory, visually inspect for defects. Do not use defective accessories.
- Follow tool specifications before choosing size and type of accessory.
- Only use recommended fittings and air line sizes. Air supply hoses and air hose assemblies must have a minimum working pressure rating of 150 PSIG (10 bars, g) or 150 percent of the maximum pressure produced in the system, whichever is higher. (See Tool Machine Specifications Table.)

OPERATING INSTRUCTIONS

Warning: Always wear eye protection. Operator of tool is responsible for following: accepted eye, face, respiratory, hearing and body protection.

Caution: Hand, wrist and arm injury may result from repetitive work, motion and overexposure to vibration.

- Keep hand and clothing away from working end of the air tool.

Operation: Be sure that any loose clothing, hair and all jewelry is properly restrained.

- Secure inlet bushing on air tool with a wrench before attempting to install the air fitting to avoid damaging housing assembly.
- Check tool RPM (speed) with tachometer with air pressure set at 90 PSIG while the tool is running. If tool is operating at a higher speed than the RPM marked on the tool housing, or operating improperly, the tool must be serviced and corrected before use.

Caution: Tool RPM must never exceed abrasive/accessory RPM rating. Check accessory manufacturer for details on maximum operating speed or special mounting instructions.

- With power source disconnected from air tool, mount recommended accessory into collet assembly.
- Connect air tool to power source. Be careful NOT to depress throttle lever in the process. **Do not expose air tool to inlet pressure above 90 PSIG or (6.2 Bars).**

Caution: After installing the accessory, before testing or use and/or after assembling tool, the Dynorbital Supreme® must be started at a reduced speed to check for good balance. Gradually increase tool speed. DO NOT USE if tool vibration is excessive. Correct cause, and retest to insure safe operation.

- Make sure that work area is uncluttered, and visitors are at a safe range from the tools and debris.
- Use a vise or clamping device to hold work piece firmly in place.
- Do not apply excessive force on tool or apply "rough" treatment to it.
- Always work with a firm footing, posture and proper lighting.

Report to your supervisor any condition of the tool, accessories, or operation you consider unsafe.

Vacuum Conversion Instructions

To Disassemble:

1. Disconnect tool from power source. Invert machine and secure in vise, using **57092** Collar (supplied in **57098** Repair Kit) or padded jaws.
2. Remove sanding pad with **50679** (26 mm) Open-End Wrench (supplied with sander) and lip-seal shroud from housing.
3. Remove **56028** Muffler Cap and **56027** Muffler Insert (2) from **57066** Muffler Body. Using a 12 mm hex wrench (supplied in **57098** Repair Kit), remove muffler body and **57065** Cone Muffler from housing (not applicable for Self-Generated Vac to Central Vac).

Non-Vacuum to Vacuum Conversion Kits

Original Non-Vac Tool	Converts to	Kit Part Number
3-1/2" (89 mm)	Self-Generated Vac-Ready	57118
3-1/2" (89 mm)	Central Vac-Ready	57119
5" (127 mm)	Self-Generated Vac-Ready	57120
5" (127 mm)	Central Vac-Ready	57121
6" (152 mm)	Self-Generated Vac-Ready	57122
6" (152 mm)	Central Vac-Ready	57123

Non-Vac to Self-Generated Vac for Hook-Up to Self-Contained Dust Collection System

1. Attach **57083** Vacuum Adapter to either **57086**, **57087** Vacuum Overskirts or **57089** Vacuum Lip-Seal Shroud. Then attach to the housing making sure the protrusions on the overskirt or shroud are aligned with the notches on the housing. Press cone muffler out of muffler body.
2. Place **95526** O-Ring on the muffler body between the shoulder and the four (4) protrusions. Using a 12 mm hex wrench, attach the muffler body and o-ring to the housing through the vacuum adapter.
3. Place vacuum nozzle into the vacuum adapter with the slots facing outward making sure that the knob on the nozzle is aligned with the slot in the adapter.
4. Place **57067** Vacuum Tube into the vacuum adapter with the grooves facing inward until the adapter "snaps" onto the tube and the tube cannot be pulled out. If the tube can be pulled out, rotate it 1/4 turn and place it back into the adapter until it "snaps".
5. Rotate tube until holes line up. Insert dowel pin in holes until it is centered. Attach sanding pad, attach machine to portable dust collection system.

Non-Vac to Central Vac

1. Attach **57093** Vacuum Adapter to either **57086**, **57087** Vacuum Overskirts or **57089** Vacuum Lip-Seal Shroud. Then attach to the housing making sure the protrusions on the overskirt or shroud are aligned with the notches on the housing.
2. Using a 12 mm hex wrench, attach the muffler body and cone muffler to the housing through the central vacuum adapter.
3. Place muffler cap with inserts on muffler body making sure that the protrusions on the body fit in the pockets on the cap.
4. Attach weight-mated vacuum sanding pad with **50679** (26 mm) Open-End Wrench. Attach machine to central vacuum system.

Self-Generated Vac to Central Vac

1. Remove **96197** Dowel Pin with an 1/8" drive pin. Remove **57067** Vacuum Tube from **57083** Vacuum Adapter by turning it clockwise while pulling backward.
2. Using a small flat screwdriver, pry vacuum nozzle until it is loose and then remove it by using two fingers to push and pull it until it hits the "legs" on vacuum adapter. Place vacuum tube back into vacuum adapter far enough to push the "legs" back then push vacuum nozzle and vacuum tube out the rest of way.
3. Using a 12 mm hex wrench (supplied in **57098** Repair Kit), remove the **57066** Muffler Body and **95526** O-Ring from the housing through the adapter. Remove the o-ring from the muffler body. Press cone muffler into the muffler body.
4. Remove **57083** Vacuum Adapter and attach **57093** Vacuum Adapter to either **57086**, **57087** Vacuum Overskirts or **57089** Vacuum Lip-Seal Shroud. Then attach to the housing making sure that the protrusions on the overskirt or shroud are aligned with the notches on the housing.
5. Using a 12 mm hex wrench, attach the muffler body and o-ring to the housing through the central vacuum adapter.
6. Place muffler cap with inserts on muffler body making sure that the protrusions on the body fit in the pockets on the cap. Attach sanding pad.

Central Vac to Self Generated Vac

1. Remove **57093** Central Vacuum Adapter and put the **57083** Vacuum Adapter in its place.
2. Place **95526** O-Ring on the muffler body between the shoulder and the four (4) protrusions. Using a 12 mm hex wrench (supplied in **57098** Repair Kit), attach the muffler body and o-ring to the housing through the vacuum adapter.
3. Place vacuum nozzle into the vacuum adapter with the slots facing outward making sure that the knob on the nozzle is aligned with the slot in the adapter.
4. Place **57067** Vacuum Tube into the vacuum adapter with the grooves facing inward until the adapter "snaps" onto the tube and the tube cannot be pulled out. If the tube can be pulled out, rotate it 1/4 turn and place it back into the adapter until it "snaps".
5. Rotate tube until holes line up. Insert **96197** Dowel Pin in holes until it is centered. Attach machine to portable dust collection system.

Maintenance Instructions

Important: A Preventative Maintenance Program is recommended whenever portable power tools are used.

- Use only genuine Dynabrade replacement parts to insure quality. To order replacement parts, specify **Model#**, **Serial#** and **RPM** of your air tool.
- It is strongly recommended that all Dynabrade rotary vane air tools be used with a Filter-Regulator-Lubricator to minimize the possibility of misuse due to unclean air, wet air or insufficient lubrication. Dynabrade recommends the following: **11405** Air Filter-Regulator-Lubricator (FRL) – Provides accurate air pressure regulation and two stage filtration of water contaminants. Operates 40 SCFM/1,133 LPM @ 100 PSIG with 3/8" NPT female ports.
- Dynabrade recommends one drop of air lube per minute for each 20 SCFM (example: if the tool specification states 40 SCFM, set the drip rate on the filter-lubricator to 2 drops per minute). Dynabrade Air Lube (P/N **95842**: 1 pt 473 ml) is recommended.

Routine Preventative Maintenance: Check free speed of Dynorbital Supreme® using a tachometer.

- Mineral spirits are recommended when cleaning the tool and parts. Do not clean tool or parts with any solvents or oils containing acids, esters, ketones, chlorinated hydrocarbons or nitro carbons.
- DO NOT clean or maintain tools with chemicals that have a low flash point (example: WD-40®).
- A Drop-In Motor and Tune-Up Kit are available, see specific kit number on page 9.
- Air tool stampings must be kept legible at all times, if not, reorder and replace. User is responsible for maintaining specification information i.e.: Model #, S/N, and RPM.
- Blow air supply hose out prior to initial use.
- Visually inspect air hoses and fittings for frays, visible damage and signs of deterioration. Replace damaged or worn components.
- Refer to Dynabrade's Warning/Safety Operating Instructions Tag (Reorder No. **95903**) for safety information.

After maintenance is performed on tool, add a few drops of Dynabrade Air Lube (P/N **95842**) to the air line and start the tool a few times to lubricate air motor. Check for excessive tool vibration.

Handling and Storage:

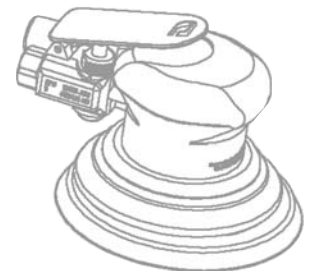
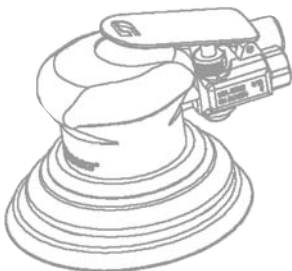
- Protect tool inlet from debris (See Notice Below).
- DO NOT carry tool by air hose.
- Protect abrasive accessories from exposure to water, solvents, high humidity, freezing temperature and extreme temperature changes.
- Store accessories in protective racks or compartments to prevent damage.

Notice

All Dynabrade motors use the highest quality parts and materials available and are machined to exacting tolerances. The failure of quality pneumatic motors can most often be traced to an unclean air supply or the lack of lubrication. Air pressure easily forces dirt or water contained in the air supply into motor bearings causing early failure. It often scores the cylinder walls and the rotor blades resulting in limited efficiency and power. Our warranty obligation is contingent upon proper use of our tools and cannot apply to equipment which has been subjected to misuse such as unclean air, wet air or a lack of lubrication during the use of this tool.

One Year Warranty

Following the reasonable assumption that any inherent defect which might prevail in a product will become apparent to the user within one year from the date of purchase, all equipment of our manufacture is warranted against defects in workmanship and materials under normal use and service. We shall repair or replace at our factory, any equipment or part thereof which shall, within one year after delivery to the original purchaser, indicate upon our examination to have been defective. Our obligation is contingent upon proper use of Dynabrade tools in accordance with factory recommendations, instructions and safety practices. It shall not apply to equipment which has been subject to misuse, negligence, accident or tampering in any way so as to affect its normal performance. Normally wearable parts such as bearings, contact wheels, rotor blades, etc., are not covered under this warranty.



Reference Contact Information

1. **American National Standards Institute – ANSI**
25 West 43rd Street
Forth Floor
New York, NY 10036
Tel: 1 (212) 642-4900
Fax: 1 (212) 398-0023
2. **Government Printing Office – GPO**
Superintendent of Documents
Attn. New Orders
P.O. Box 371954
Pittsburgh, PA 15250-7954
Tel: 1 (202) 512-1803
3. **European Committee for Standardization**
Rue de Stassart 36
B - 1050 Brussels, Belgium

Dynorbital® Supreme Complete Assembly

KEY

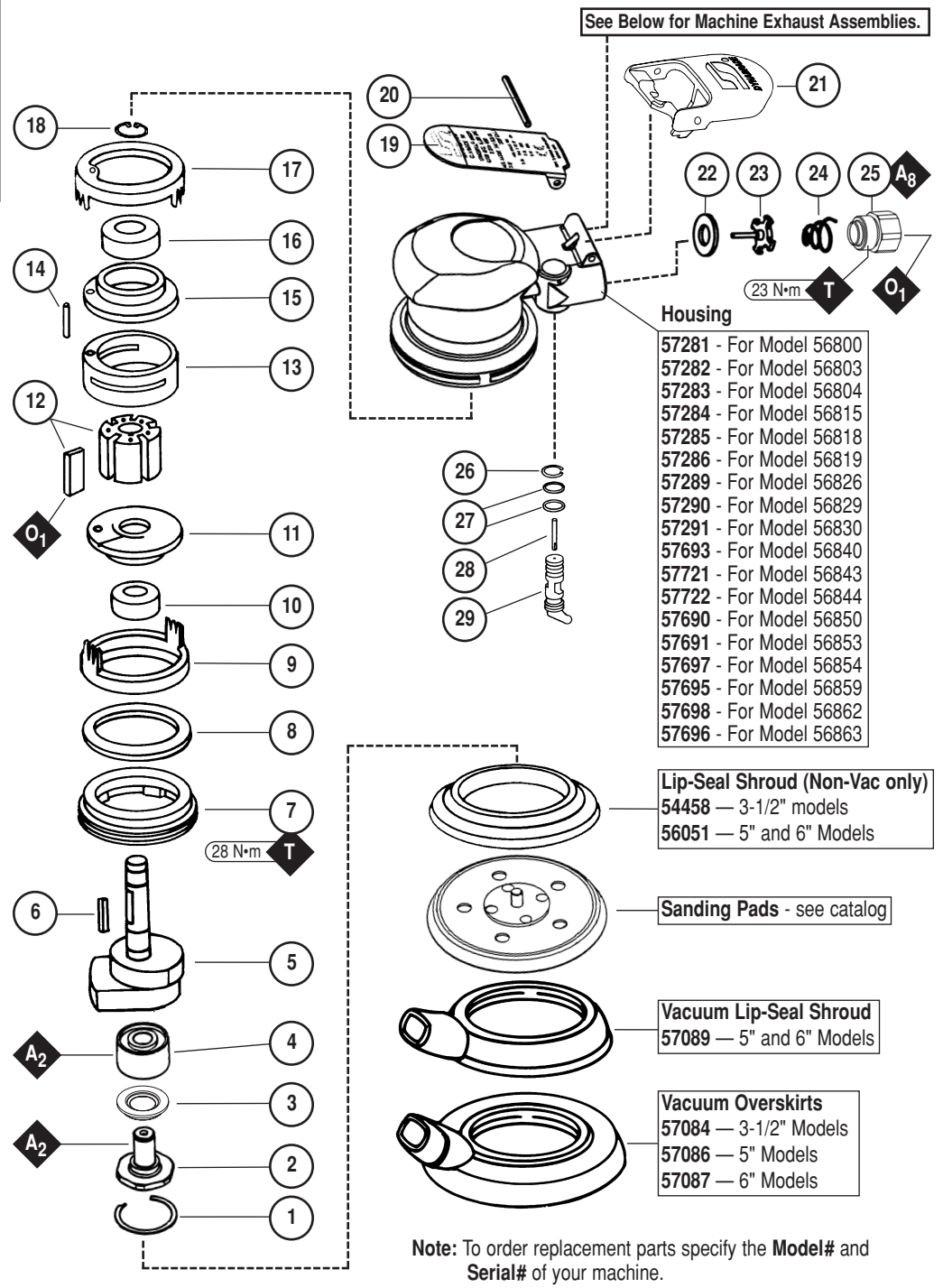
O Oil: O₁ = Air Lube

A Adhesive:
A₂ = Loctite #271
A₈ = Loctite #567

T Torque: N·m x 8.85 = In. - lbs.

Index Key

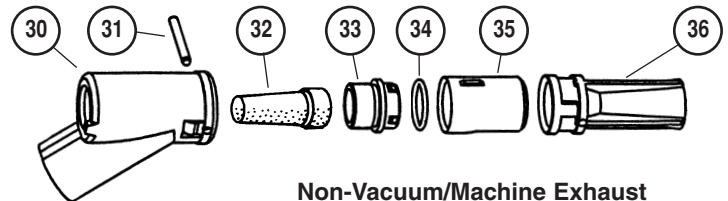
No.	Part #	Description
1	95630	Snap Ring
2	57069	Balancer Shaft
3	59084	V-Seal
4	56052	Balancer Bearing
5	Motor Shaft Balancer	
	57060	3-1/2" (3/16 Orbit)
	57061	5" (3/16 Orbit)
	57062	6" (3/16 Orbit)
	57159	3-1/2" (3/32 Orbit)
	57160	5" (3/32 Orbit)
	57162	6" (3/32 Orbit)
6	56047	Key
7	57059	Lock Ring
8	95973	Washer
9	57055	Front Ring
10	57088	Bearing
11	57057	Front Bearing Plate
12	57113	Blade/Rotor Set
13	57058	Cylinder Assembly (Incl. 95971 Line-up Pin)
14	95971	Line-up Pin
15	57056	Rear Bearing Plate
16	01206	Bearing
17	57054	Rear Ring
18	95626	Snap Ring
19	Lever	
	56846	For 3/16" Models
	56847	For 3/32" Models
20	94590	Pin
21	57041	Comfort Platform
22	01464	Seal
23	01472	Tip Valve
24	01468	Conical Spring
25	01494	Inlet Bushing
26	95697	Retaining Ring
27	01025	O-Ring (2)
28	01477	Valve Stem
29	57064	Speed Regulator or Recessed Speed Reg.
30	57083	Vacuum Adapter
31	96197	Dowel Pin
32	57065	Cone Muffler
33	57066	Muffler Body
34	95526	O-Ring
35	57068	Vac Nozzle
36	57067	Vac Tube
37	57093	Vacuum Adapter
38	56027	Muffler Insert (2)
39	56028	Muffler Cap
40	57112	Muffler Assembly



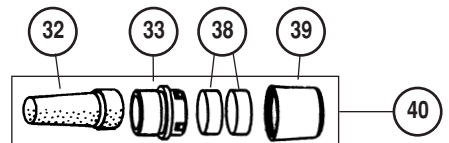
Optional: 30 quantity Muffler Insert available, P/N 56054.

Machine Exhaust Assemblies

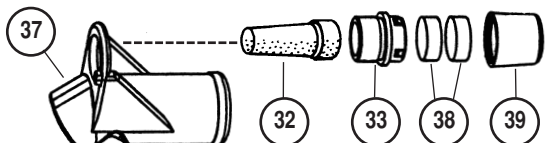
Self Generated Vacuum (Vac-Ready)/Machine Exhaust



Non-Vacuum/Machine Exhaust



Central Vacuum/Machine Exhaust



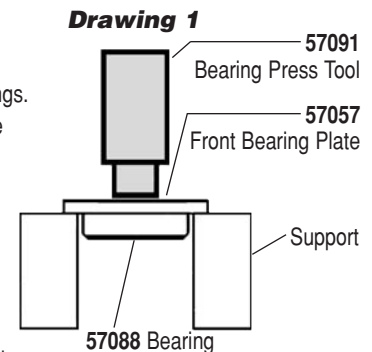
Motor Assembly/Disassembly Instructions – Dynorbital® Supreme

Important: Manufacturers warranty is void if tool is disassembled before warranty expires.

A complete Repair Kit, part number **57098**, is available which includes special tools for correct disassembly/assembly of tool.

To Disassemble

1. Disconnect tool from power source.
2. Invert machine and secure in vice, using **57092** Collar (supplied in **57098** Repair Kit) or padded jaws.
3. Remove sanding pad with 26 mm open-end wrench (supplied with sander) and shroud or overskirt.
4. Insert **56058** Lock Ring Tool (supplied in **57098** Repair Kit) into corresponding tabs of lock ring and unscrew. Motor may now be lifted out for service.
Note: To get it started try using 26 mm wrench for leverage or rock the motor back and forth to loosen up the rings.
5. Remove lock ring, washer, front ring and rear ring from motor. Upper motor may now be disassembled. Remove **95626** Snap Ring.
6. Remove the rear plate and the cylinder assembly by securing the cylinder in a bearing separator gripped on the cylinder exhaust and extra pocket area. Push the motor shaft balancer through the bearing.
7. Remove the rotor, vanes and rotor key from the motor shaft balancer. Remove the front plate using a small (#2) arbor press. Support the edges of the front plate while pressing on the small end of the motor shaft balancer.
8. a.) If, during step 7, the front plate and **57088** Bearing remain together, press **57088** Bearing out of the front plate using **57091** Press Tool (supplied in **57098** Repair Kit) as shown in **Drawing 1**.
b.) If, during step 7, the front plate and **57088** Bearing remains on the motor shaft balancer, it can be removed with a bearing separator.
9. Remove **01206** Bearing from the rear plate by using a bearing press tool.
10. Disassemble the balancer assembly as follows:
 - a.) Place motor shaft assembly into a soft jaw vise. Using a thin screwdriver, pick out the end of **95630** Snap Ring and peel out. This will loosen the balancer assembly.
 - b.) Screw the threaded portion of the **56056** Bearing Puller (supplied in **57098** Repair Kit) into the **57069** Balancer Shaft and heat the outside of the motor shaft balancer to approximately 200° F (approximately 10 seconds with a propane torch). Now, using the slider weight, pull the assembly out.
 - c.) Press off **56052** Bearing with a bearing separator and remove bearing seal and bearing shield.
11. If during step 10, the **56052** Bearing remains in the motor shaft balancer, it can be removed by the heating the shaft balancer again and using either an inside bearing puller or a blind hole bearing puller.

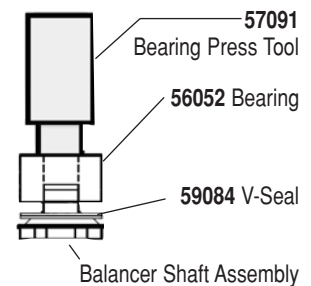


To Assemble:

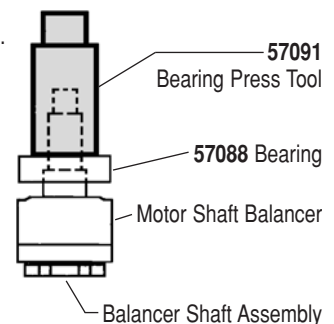
Important: Be certain parts are clean and in good repair before assembling.

1. Assemble the balancer assembly as follows:
 - a.) Install **95630** Snap Ring onto balancer shaft. Install **59084** V-Seal with the flat side facing up.
 - b.) Apply 1 drop of #271 Loctite® (or equivalent), spread over several places around the inside diameter of the **56052** Bearing and the outside diameter of the **57069** Balancer Shaft.
 - c.) Use the small end of the **57091** Bearing Press Tool and arbor press to install the **56052** Balancer Bearing with the seal side facing the v-seal. **Note:** The inner race of the bearing must sit against the step on the balancer shaft. (Shown in **Drawing 2**.)
2. Place the motor shaft balancer in a soft jaw vise with large end-up.
3. Apply 1 drop of #271 Loctite® (or equivalent) and spread over several places around the outside diameter of the **56052** Bearing and slide balancer assembly into the motor shaft balancer until **56052** Bearing is firmly seated at bottom. Squeeze **95630** Snap Ring into groove in motor shaft balancer to complete the assembly. Remove from vise.
4. Press **57088** Bearing onto the motor shaft balancer down to the shoulder as shown in **Drawing 3**.
5. Press **57057** Front Bearing Plate onto **57088** Bearing as shown in **Drawing 4** and check for smooth rotation.
6. Place the **57090** Rotor and **56047** Rotor Key on the motor shaft balancer. Place the **56073** Vanes into the rotor slots. **Note:** Vanes should be lightly lubricated with Dynabrade Air Lube P/N **95842** (or equivalent) before installation.
7. Place **57058** Cylinder Assembly over rotor. The “short” line-up pin goes toward the front plate.
8. Place **57056** Rear Bearing Plate (with **01206** Rear Bearing pressed into place) over shaft and “long” end of line-up pin and press fit in place as shown in **Drawing 5**.
9. Place **95626** Snap Ring in groove.
10. Place **57054** Rear Ring over the rear plate and line-up pin. Turn the motor over and place **57055** Front Ring over the front plate making sure that the “legs and fingers” on the front and rear rings line-up. Also the small cut-outs on both rings should line-up with the square holes in the cylinder/end plate assembly.
11. Place **95973** Washer and **57059** Lock Ring onto the front ring with 1 drop of pneumatic tool oil spread between the washer and lock ring.
12. Secure motor housing in vise, using **57092** Collar or padded jaws. Spread 2-3 drops of pneumatic tool oil around the housing bore for ease of insertion of motor assembly. Slide motor assembly into secured housing.
Note: Be certain line-up pin enters the pocket in the bottom of the housing and the “legs” of the rings stay in line.
13. Tighten lock ring with **56058** Lock Ring Tool to 28 N•m/250 in. - lbs. Attach shroud or overskirt and weight-mated sanding pad.

Drawing 2



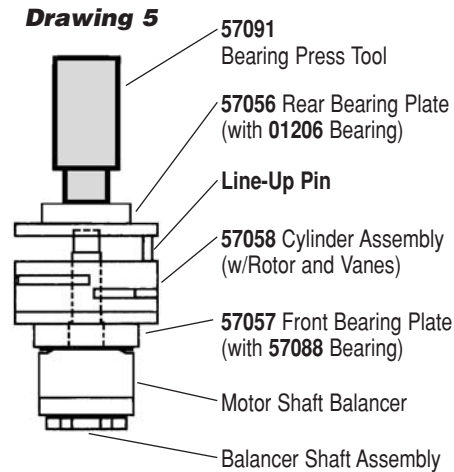
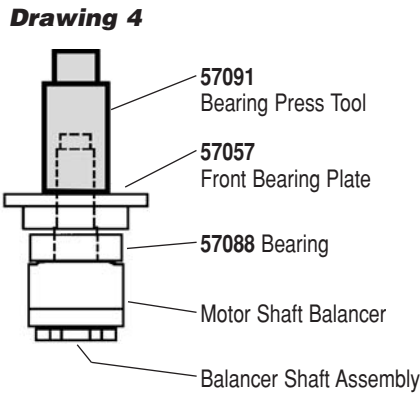
Drawing 3



Tool Assembly Complete. Please allow 30 minutes for adhesives to cure before operating tool.

(continued on next page)

Motor Assembly/Disassembly Instructions – Dynorbital® Supreme



Valve and Speed Regulator Assemblies:

1. Secure housing in vice using 57092 Collar or padded jaws.
2. Remove inlet bushing, 01468 Spring, 01472 Tip Valve and 01464 Seal from housing. Remove 94590 Pin from housing, lever and comfort platform.
3. Remove 95697 Snap Ring. Press the spread regulator and valve stem out of the housing. Remove the 01025 O-Rings (2).
4. Place new 01025 O-Rings (2) on the speed regulator and place in housing with valve stem. Install new 95967 Snap Ring.
5. Place new 01464 Seal in housing. Using tweezers or needle nose pliers, place the tip valve into housing so that the pin goes through the valve stem hole. Place new 01468 Spring into housing so small end is towards tip valve.
6. Spread small amount of #567 Loctite® (or equivalent) around the threads of the first inlet bushing and tighten into housing to 23 N•m/200 in. - lbs.
7. Install lever and comfort platform on housing with 94590 Pin centered on housing.

Note: Motor should operate at between 9,500 and 10,000 RPM at 6.2 bar (90 PSIG). RPM should be checked with a reed tachometer. Before operating, we recommend that 2-3 drops of Dynabrade Air Lube P/N 95842 (or equivalent) be placed directly into the air inlet with throttle lever depressed. Operate the machine for approximately 30 seconds before application to workpiece to determine if machine is working properly and safely and to allow lubricating oils to properly dispense through machine.

Loctite® is a registered trademark of the Loctite Corp.

Disc Pad Change:

1. Insert 50679 Wrench on flats of 57069 Balancer Shaft and twist off sanding pad by hand.
2. With wrench still in place, hand tighten new pad on tool.
3. No need to remove shroud or overskirt.

Required Weight of Pads:

- 3-1/2" Models — Use pad weighing 80g.
- 5" Models — Use pad weighing 100g.
- 6" Models — Use pad weighing 130g.

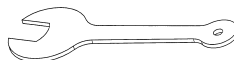
Comfort Platform Removal Instructions

1. Use a 1/8" drift pin and a hammer to remove 94590 Pin.
2. Remove throttle lever and 57041 Comfort Platform.
3. Place throttle lever back into position over holes in housing.
4. Secure throttle lever in place using 95979 Pin (**Sold Separately**) by hammering pin back into housing. **Removal and Installation Complete.**

Optional Accessories



96024 Motor Tune-Up Kit:
Includes assorted parts to help maintain and repair motor.



50679 26mm Wrench



57098 Motor Repair Kit:
Includes special tools for proper disassembly/assembly of the Dynorbital® Supreme.

Self-Contained Dust Collection Systems

Easily attach to Dynorbital® Supreme Random Orbital Sander – Self-Generated Vac-Ready Models.



50694 Mini-Reusable Felt Bag

- New bag design features a one micron filter rating. Bag traps over 99% of vacuum particles one micron or larger.
- Mounts directly to any Vac-Ready tool or to any exhaust hose.
- Measures 11" long x 3" wide. End opens up - no need to remove bag from tool when emptying.



50683 Reusable Felt Bag

- New bag design features a one micron filter rating. Bag traps over 99% of vacuum particles one micron or larger.
- Hook 'n loop end for easy emptying.
- Measures 14-1/2" L x 7-1/2" W.
- Connects to vacuum hose.



56304 Reusable Felt Bag w/Zipper

- New bag design features a one micron filter rating. Bag traps over 99% of vacuum particles one micron or larger.
- Has zipper-lock end.
- Measures 14-1/2" L x 7-1/2" W.
- Connects to vacuum hose.



95986 Hose Cover (5' long cloth cover)

- Covers air line and exhaust/vacuum hoses (not included).
- Eliminates damage from hoses dragging on the workpiece.



54284 Mini-Flex-Hose System

- 95580 Air Line 1" dia. x 28" long.
- 50638 Flex-Hose 1" dia. x 18" long.
- 50694 Mini-Reusable Felt Bag.
- 95362 Rubber Connectors (3) which connect air line to exhaust hose.



50617 & 56303 – 6' Long Flex-Hose

- Both systems include 6' long 50682 Flex-Hose.
- Shown with optional 95361 Air Line (1/4" diameter).
- 50617: Has 50683 Standard Reusable Felt Bag with hook 'n loop end for easy emptying.
- 56303: Has 56304 Zipper-Lock Bag.



54290 "Bag-in-Box" System

- 95361 Air Line 5' long.
- 50682 Flex-Hose 1" dia. x 6' long.
- 95362 Rubber Connectors (5, attach air line to vacuum hose).
- 95575 Durable Box Receptacle (to house bag and store tool).
- Sample paper bag included. Paper bag reorder:
50692 (400/case) or
50693 (24 per package.)

Machine Specifications

Model Number	Motor hp (W)	Motor RPM	Dia. Orbit Inch (mm)	Sound Level	Air Flow Rate SCFM (LPM)	Air Pressure PSIG (Bars)	Spindle Thread	Weight Pound (kg)	Length Inch (mm)	Height Inch (mm)
56800	.28 (209)	12,000	3/16" (5)	76 dB(A)	18 (510)	90 (6.2)	5/16"-24 female	2.1 (1.0)	6 (152)	3-3/4 (95)
56803	.28 (209)	12,000	3/16" (5)	83 dB(A)	18 (510)	90 (6.2)	5/16"-24 female	2.1 (1.0)	8-1/4 (210)	3-3/4 (95)
56804	.28 (209)	12,000	3/16" (5)	76 dB(A)	18 (510)	90 (6.2)	5/16"-24 female	2.1 (1.0)	7 (178)	3-3/4 (95)
56815	.28 (209)	12,000	3/16" (5)	78 dB(A)	18 (510)	90 (6.2)	5/16"-24 female	2.1 (1.0)	6-1/2 (165)	3-5/8 (92)
56818	.28 (209)	12,000	3/16" (5)	81 dB(A)	18 (510)	90 (6.2)	5/16"-24 female	2.1 (1.0)	8-1/2 (216)	3-5/8 (92)
56819	.28 (209)	12,000	3/16" (5)	78 dB(A)	18 (510)	90 (6.2)	5/16"-24 female	2.2 (1.0)	7-1/4 (184)	3-5/8 (92)
56826	.28 (209)	12,000	3/16" (5)	79 dB(A)	18 (510)	90 (6.2)	5/16"-24 female	2.2 (1.0)	7 (178)	3-1/2 (89)
56829	.28 (209)	12,000	3/16" (5)	79 dB(A)	18 (510)	90 (6.2)	5/16"-24 female	2.2 (1.0)	9 (229)	3-1/2 (89)
56830	.28 (209)	12,000	3/16" (5)	79 dB(A)	18 (510)	90 (6.2)	5/16"-24 female	2.2 (1.0)	7-3/4 (197)	3-1/2 (89)
56840	.28 (209)	12,000	3/32" (2)	76 dB(A)	18 (510)	90 (6.2)	5/16"-24 female	2.1 (1.0)	6 (152)	3-3/4 (95)
56843	.28 (209)	12,000	3/32" (2)	83 dB(A)	18 (510)	90 (6.2)	5/16"-24 female	2.1 (1.0)	8-1/4 (210)	3-3/4 (95)
56844	.28 (209)	12,000	3/32" (2)	76 dB(A)	18 (510)	90 (6.2)	5/16"-24 female	2.1 (1.0)	7 (178)	3-3/4 (95)
56850	.28 (209)	12,000	3/32" (2)	78 dB(A)	18 (510)	90 (6.2)	5/16"-24 female	2.1 (1.0)	6-1/2 (165)	3-5/8 (92)
56853	.28 (209)	12,000	3/32" (2)	81 dB(A)	18 (510)	90 (6.2)	5/16"-24 female	2.1 (1.0)	8-1/2 (216)	3-5/8 (92)
56854	.28 (209)	12,000	3/32" (2)	78 dB(A)	18 (510)	90 (6.2)	5/16"-24 female	2.2 (1.0)	7-1/4 (184)	3-5/8 (92)
56859	.28 (209)	12,000	3/32" (2)	79 dB(A)	18 (510)	90 (6.2)	5/16"-24 female	2.2 (1.0)	7 (178)	3-1/2 (89)
56862	.28 (209)	12,000	3/32" (2)	79 dB(A)	18 (510)	90 (6.2)	5/16"-24 female	2.2 (1.0)	9 (229)	3-1/2 (89)
56863	.28 (209)	12,000	3/32" (2)	79 dB(A)	18 (510)	90 (6.2)	5/16"-24 female	2.2 (1.0)	7-3/4 (197)	3-1/2 (89)

Additional Specifications: Air Inlet Thread 1/4" NPT • Hose I.D. Size 1/4" (6mm)

Preventative Maintenance Schedule

For All Dynorbital® Supreme Air Powered Random Orbital Sanders

This service chart is published as a guide to expectant life of component parts. The replacement levels are based on average tool usage over one year. Dynabrade Inc. considers one year usage to be 1,000 hours.

LEGEND	
T	Included in Tune-Up Kit.
X	Type of wear, no other comments apply.
L	Easily lost. Care during assembly/disassembly.
D	Easily damaged during assembly/disassembly.
R	Replace each time tool is disassembled.

Index #	Part Number	Description	Number Required	High Wear 100%	Med. Wear 70%	Low Wear 30%	Non-Wear 10%
1	95630	Snap Ring	1		T		
2	57069	Balancer Shaft	1				X
3	59084	V-Seal	1		T		
4	56052	Balancer Bearing	1		T		
5	See Note	Motor Shaft Balancer	1				X
6	56047	Key	1		T		
7	57059	Lock Ring	1				X
8	95973	Washer	1				X
9	57055	Front Ring	1	T			
10	57088	Bearing	1		T		
11	57057	Front Bearing Plate	1			X	
12	57113	Blade/Rotor Set	1	T			
13	57058	Cylinder Assembly	1			X	
14	95971	Line-up Pin	1			X	
15	57056	Rear Bearing Plate	1			X	
16	01206	Bearing	1		T		
17	57054	Rear Ring	1	T			
18	95626	Snap Ring	1		T		
19	See Note	Lever	1				X
20	94590	Pin	1		T		
21	57041	Comfort Platform	1			X	
22	01464	Seal	1		T		
23	01472	Tip Valve	1		T		
24	01468	Conical Spring	1		T		
25	01494	Inlet Bushing	1				X
26	95697	Retaining Ring	1		T		
27	01025	O-Ring	2		T		
28	01477	Valve Stem	1		T		
29	57064	Speed Regulator	1			X	
30	57083	Vacuum Adapter	1			X	
31	96197	Dowel Pin	1			X	
32	57065	Cone Muffler	1		T		
33	57066	Muffler Body	1			X	
34	95526	O-Ring	1		T		
35	57068	Vac Nozzle	1			X	
36	57067	Vac Tube	1			X	
37	57093	Vacuum Adapter	1			X	
38	56027	Muffler Insert	2		T		
39	56028	Muffler Cap	1		T		
40	57112	Muffler Assembly	1			X	

Note: Please refer to page 4 for specific part number and description.



Toll Free (U.S.A.) 1-800-828-7333
Toll Free (Can.) 1-800-344-1488

Visit Our Web Site: www.dynabrade.com

Email: Customer.Service@Dynabrade.com

DYNABRADE, INC., 8989 Sheridan Drive • Clarence, NY 14031-1490 • Phone: (716) 631-0100 • Fax: 716-631-2073 • International Fax: 716-631-2524
DYNABRADE EUROPE S.à.r.l., Zone Artisanale • L-5485 Wormeldange—Haut, Luxembourg • Telephone: 352 76 84 94 1 • Fax: 352 76 84 95 1