



Models:

- 57570 - 3-1/2" Basic Wet, 3/16"
- 57572 - 5" Basic Wet, 3/16"
- 57573 - 5" Deluxe Wet, 3/16"
- 57574 - 6" Basic Wet, 3/16"
- 57575 - 6" Deluxe Wet, 3/16"
- 57582 - 5" Basic Wet, 3/32"
- 57583 - 5" Deluxe Wet, 3/32"
- 57584 - 6" Basic Wet, 3/32"
- 57585 - 6" Deluxe Wet, 3/32"
- 57620 - 6" Deluxe Wet, 3/16"

KEY

O Oil: O₁ = Air Lube

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

T Torque: N·m x 8.85 = In. - lbs.

Wet Dynorbital[®] Supreme

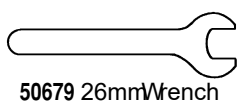
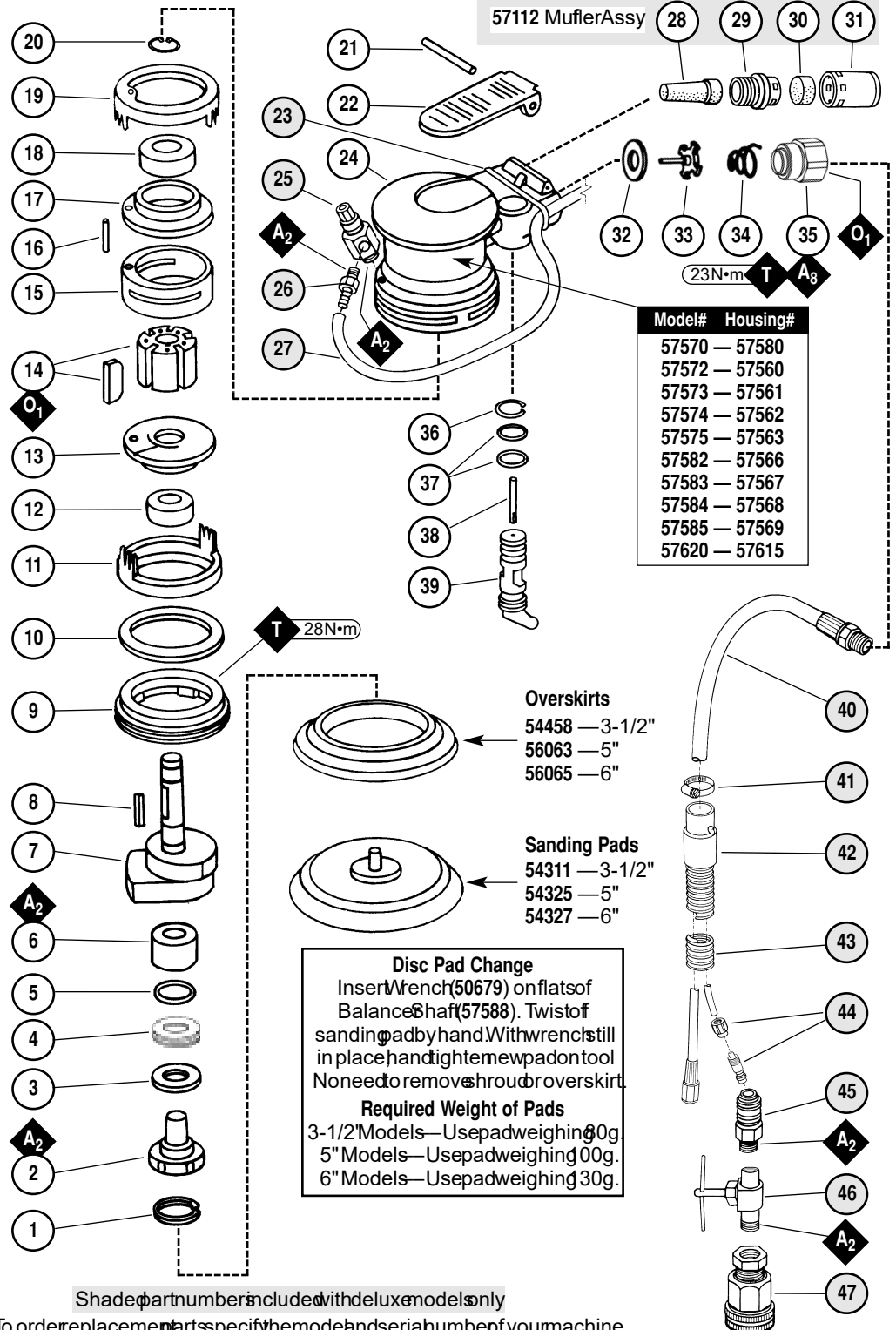
10,000 & 12,000 RPM
Air Powered Random Orbital Sander

⚠ WARNING

Always operate, inspect and maintain this tool in accordance with the Safety Code for portable air tools (ANSI B186.1) and any other applicable safety codes and regulations. Please refer to Dynabrade's Warning/Safety Operating Instructions for more complete safety information.

Index Key

No.	Part #	Description
1	95631	Retaining Ring
2	57588	Balance Shaft
3	57589	Bearing Shield
4	96154	V-Ring Seal
5	96153	O-Ring
6	56052	Balance Bearing
7	Motor Shaft Balancer	
	57590	3-1/2" 3/16" Orbit
	57591	5" 3/16" Orbit
	57592	6" 3/16" Orbit
	57577	5" 3/32" Orbit
	57578	6" 3/32" Orbit
8	56047	RotoKey
9	57059	Lock Ring
10	96155	Washer
11	57055	Front Ring
12	57088	Bearing
13	57587	Front Bearing Plate
14	57113	Blade/Rotaset
15	57058	Cylinder Assembly (Incl. 95971 Line-up Pin)
16	95971	Line-up Pin
17	57056	Rear Bearing Plate
18	01206	Bearing
19	57054	Rear Ring
20	95626	Snap Ring
21	95979	Pin
22	57063	Lever
	57161	Lever-3/32"
23	96162	Cable Tie
24	Housing (See Chart)	
25	57599	Valve Assembly
26	95074	Fitting
27	95955	Water Hose
28	57065	Cone Muffler
29	57066	Muffler Body
30	56027	Muffler Insert (3-10,000 RPM - 12,000 RPM)
31	56028	Muffler Cap
32	01464	Seal
33	01472	Tip Valve
34	01468	Conical Spring
35	01494	Inlet Adapter
36	96159	Snap Ring
37	01025	O-Ring (2)
38	01477	Valve Stem
39	57064	Speed Regulator Assy or
	57053	Recessed Speed Reg.
40	95816	Air Line
41	95717	Hose Clamp
42	95956	Cuf
43	95958	Hose
44	95962	Male Disconnect
45	95963	Female Disconnect
46	95965	Needle Valve
47	95964	Hose Bib



Note: To order replacement parts specify the model and serial number of your machine.

Important Operating, Maintenance and Safety Instructions

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

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

Important: All Dynabrade rotary air tools must be used with Filter-Regulator-Lubricator to maintain all warranties.

Operating Instructions:

Warning: Eye, face, respiratory, hand and body protection must be worn while operating power tools. Failure to do so may result in serious injury or death. Follow safety procedures posted in workplace.

1. With power source disconnected from tool, securely fasten abrasive/accessory on tool.
2. Install air fitting into inlet bushing of tool.
Important: Secure inlet bushing of tool with a wrench before attempting to install the air fitting to avoid damaging valve body housing.
3. Connect power source to tool. Be careful not to depress throttle lever in the process.
4. Check tool speed with tachometer if tools operating at a higher speed than the RPM marked on the tool or operating improperly, the tool should be serviced to correct the cause before use.

Maintenance Instructions:

1. Check tool speed regularly with tachometer if tools operating at a higher speed than the RPM marked on the tool, the tool should be serviced to correct the cause before use.
2. Some silencers on air tools may clog with use. Clear and replace as required.
3. All Dynabrade rotary air motors should be lubricated. Dynabrade recommends one drop of air lube per minute for each 10 SCFM (example if the tool specification states 40 SCFM set the drip rate of your filter-lubricator at 4 drops per minute). Dynabrade AirLube (P/N 95842: 1 pt. 4.73ml.) is recommended.
4. It is recommended that all Dynabrade rotary air tools be used with Filter-Regulator-Lubricator to minimize the possibility of misuse due to unclear air, wet air or insufficient lubrication. Dynabrade recommends the following: 1405 Air Line Filter-Regulator-Lubricator provides accurate air pressure regulation, two-stage filtration of water contaminants and micro-mist lubrication of pneumatic components. Operate 40 SCFM @ 100 PSI Gas 3/8" NPT female ports.
5. Use only genuine Dynabrade replacement parts. To reorder replacement parts, specify the Model #, Serial #, and RPM of your machine.
6. A Motor Tune-Up Kit (P/N 96018) is available which includes assorted parts to help maintain motor in peak operating condition.
7. 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 nitrocarbons.

Safety Instructions:

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



- **Important:** User of tools is responsible for following accepted safety codes such as those published by the American National Standards Institute (ANSI).
- Operate machine for one minute before application to workpiece to determine if machine is working properly and safely before work begins.
- Always disconnect power supply before changing abrasive/accessory or making machine adjustments.
- Inspect abrasives/accessories for damage or defects prior to installation on tools.
- Please refer to Dynabrade Warning/Safety Operating Instruction Tag (Reorder No. 95903) for more complete safety information.

Notice

All Dynabrade motors use the highest quality parts and metals available and are machine to exacting tolerances. The failure of quality pneumatic motors can most often be traced to an unclear air supply or the lack of lubrication. Air pressure easily forced 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 unclear air, wet air or a lack of lubrication during the use of this tool.

Model Number	Motor HP (W)	Motor RPM	Pad Dia. Inch (mm)	Sound Level	Air Flow Rate CFM/SCFM (LPM)	Air Pressure PSIG (Bars)	Weight Pound (kg)	Length Inch (mm)	Height Inch (mm)
3/2", 10,000RPM	.24(179)	10,000	3-1/2(89)	76dB(A)	2/16(453)	90(6.2)	2.1(1.0)	6(152)	3-3/4(95)
5", 10,000RPM	.24(179)	10,000	5(127)	77dB(A)	2/16(453)	90(6.2)	2.1(1.0)	6-1/2(165)	3-5/8(92)
6", 10,000RPM	.24(179)	10,000	6(152)	74dB(A)	2/16(453)	90(6.2)	2.2(1.0)	7(178)	3-1/2(89)
57620	.28(209)	12,000	6(152)	75dB(A)	3/18(510)	90(6.2)	2.2(1.0)	7(178)	3-1/2(89)

Additional Specifications Spindle 5/16"-24 Female Air Inlet Thread 1/4" NPT • Hose Size 1/4"(8mm)

Motor Assembly/Disassembly Instructions - Wet Dynorbital® Supreme

Important: Manufacturer's 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 and 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 26mm open-end wrench (supplied with sander) and shroud over skirt.
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 use a 26mm wrench for leverage.
5. Remove lock ring, washer from ring and rearing from motor.
6. Remove 5626 Snap Ring, motor may now be disassembled.
7. Remove 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 balance through the bearing.
8. Remove the rotor vanes and rotor key from the motor shaft balance. 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.
9. a.) If, during step 7, the front plate and 57088 Bearing remain to the 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, front plate and 57088 Bearing remain on motor shaft balancer it can be removed with a bearing separator.
10. Remove 61206 Bearing from the rear plate by using a bearing press tool.
11. Disassemble the balance assembly as follows:
 - a.) Place motor shaft assembly into a soft jaw vise. Using a thin screwdriver, pick out the end of 95631 Snap Ring and peel out. This will loosen the balance assembly.
 - b.) Screw the threaded portion of the 56056 Bearing Puller (supplied in 57098 Repair Kit) into the 57588 Balance Shaft and heat the outside of the motor shaft balancer to approximately 200°F (approximately 10 seconds with a propane torch). Now using the slide weight pull the assembly out. Remove 6153 O-Ring from shaft balancer.
 - c.) Press off 56052 Bearing with a bearing separator and remove -ring seal and washer.
12. If during step 10, the 56052 Bearing remains in the motor shaft balancer it can be removed by heating the shaft balancer again and using either an inside bearing puller or a blind hole bearing puller.

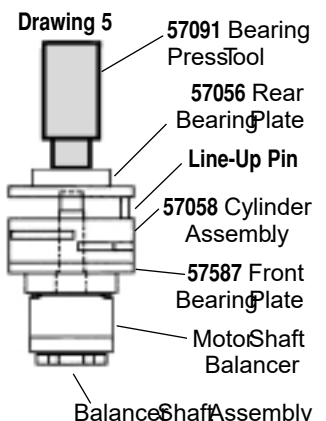
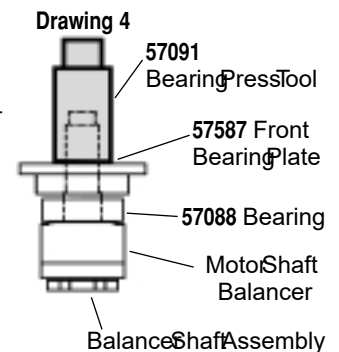
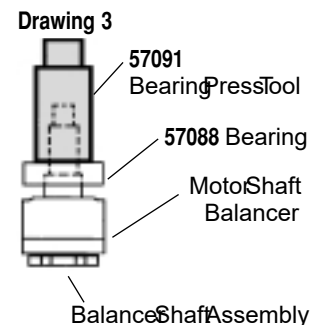
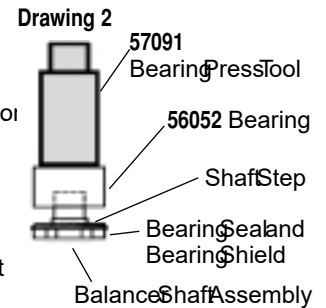
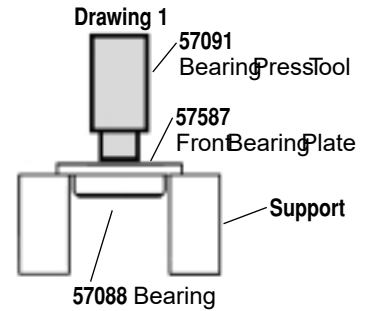
To Assemble:

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

1. Assemble the balance assembly as follows:
 - a.) Install 95631 Snap Ring onto 57588 Balance Shaft. Install 96154 V-Ring Seal with thin edge facing up. Be certain that seal is pressed all the way down into groove in balance shaft.
 - b.) Place a small amount of pneumatic oil on the thin edge of seal. Place 57589 Washer onto seal and center it.
 - c.) Apply 1 drop of #271 Loctite (or equivalent) and spread over several places around the inside diameter of the 56052 Bearing and the outside diameter of the 57588 Balance Shaft.
 - d.) Press fit 56052 Bearing with seal side toward the end of balance shaft up to shaft steps as shown in Drawing 2. This must be a firm press fit for proper retention of bearing. The washer must be centered so the edge of the v-ring seal is not pinched in the I.D. of the washer. If it is, a thin screwdriver must be used to pry the edge out from the I.D. and onto the face of the washer.
2. Place motor shaft balancer in a soft jaw vise with large end up and place o-ring into second groove in shaft balancer.
3. Apply 1 drop of #271 Loctite (or equivalent) and spread over several places around the inside diameter of the motor shaft balancer after the o-ring. Slide balance assembly to motor shaft balancer until 56052 Bearing is firmly seated at bottom. Squeeze 95631 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 57587 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 onto shaft balancer. Place the 56073 Vanes into the rotor slots. **Note:** Vanes should be lightly lubricated with Dynabrad 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 61206 Rear Bearing pressed on top) over shaft and "long" end of line-up pin and press fit in place as shown in Drawing 5.
9. Place 5626 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. Place 96155 Washer and 57059 Lock Ring onto the front ring with 1 drop of pneumatic oil spread between the washer and lock ring.
11. Secure motor housing in vise, using 57092 Collar or padded jaws. Spread 2-3 drops of pneumatic oil around the housing before ease of insertion of motor assembly. Slide motor assembly to secure in 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.
12. Tighten lock ring with 56058 Lock Ring Tool to 28 N•m (25 in.-lbs.) Attach shroud over skirt and weight-mated sanding pad.

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

(continued on next page)



Motor Assembly/Disassembly Instructions - Wet Dynorbital® Supreme Valve and Speed Regulator Assemblies:

1. Secure housing in vice using 57092 Collar or padded jaws.
 2. Remove inlet bushing 01468 Springing valve and 01464 Seal from housing.
 3. Remove 95697 Snap Ring. Press the speed regulator and valve stem out of the housing. Remove the 01025 O-Ring (2).
 4. Place new 01025 O-Ring (2) on the speed regulator and place in housing with valve stem. Install the 95697 Snap Ring.
 5. Place new 01464 Seal in housing using tweezers or needle nose pliers. Place the tip valve into housing so that the ping goes through the valve stem hole. Place new 01468 Spring into housing so small end is toward tip valve.
 6. Spread drop of #271 Loctite® (or equivalent) around the thread of the first inlet bushing and tighten into housing to 23 N•m/200 in.-lbs.
- Note:** Motor should operate at between 9,500 and 10,000 RPM at 6.2 bar (90 PSIG) for 10,000 RPM tools and between 11,500 and 12,000 RPM at 6.2 bar (90 PSIG) for 12,000 RPM tools. RPM should be checked with a tachometer before operating. We recommend that 2-3 drops of Dynabrade AirLube P/N95842 (or equivalent) be placed directly into the air inlet with the 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 oil to properly dispense through machine. Loctite® is a registered trademark of the Loctite Corp.

Random Orbital Sanding Pads.

Perfectly balanced and weight-mated to Dynorbital® Supreme Random Orbital Sander.
Premium Urethane Resists Heat Build-Up—Available in Soft or Medium Density

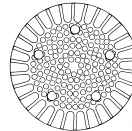


Vinyl-Face for PSADiscs and Hook-Face for reattachable scrim-backed discs.

Rubber with Vinyl-Face for PSADiscs



Rubber with Vinyl Face for PSADiscs
"Post Pattern" for Enhanced Vacuum Pick-Up



No need to align vacuum holes. Saves time on disc changes.

Rubber with Hook-Face Long Nap for
Abrasive Impregnated Non-Woven Nylon Discs



3-1/2" 5" and 6" diameter disc pad have 5/16"-24 male threaded stud.
The 3-1/2" diameter discs without holes can be used on vacuum and non-vacuum 3-1/2" Dynorbital Supreme sanders.

Premium Urethane Disc Pad Part Numbers by Pad Diameter

Disc Pad Description	3 1/2"		5"		6"	
	No Holes	Holes	No Holes	Holes	No Holes	Holes
Soft Density Vinyl-Face for PSADiscs	56097					
Soft Density Low Profile Vinyl-Face for PSADiscs			56102	56100	56103	56101
Soft Density Hook-Face Short Nap for Scrim-Backed Discs	54311		56157	56155	56158	56156
Medium Density Vinyl-Face for PSADiscs	56098					
Medium Density Low Profile Vinyl-Face for PSADiscs			56106	56104	56107	56105
Medium Density Hook-Face Short Nap for Scrim-Backed Discs	54313		54325	54326	54327	54328

Rubber Disc Pad Part Numbers by Pad Diameter

Disc Pad Description	3 1/2"		5"		6"	
	No Holes	Holes	No Holes	Holes	No Holes	Holes
Medium Density Vinyl-Face for PSADiscs			50630	50631	50632	50633
Medium Density Post Pattern Vinyl-Face for PSADiscs				50695		50696
Medium Density Hook-Face Short Nap for Scrim-Backed Discs						
Medium Density Hook-Face Long Nap for Non-Woven Nylon Discs			50605	50607	50606	50610

Unit= 10 Pad each. On 5" and 6" pads, no holes refer to non-vacuum styles sanding pads.



96018 Motor Tune-Up Kit:
Includes assorted parts to help maintain and repair motor



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

