

Models:

- 10390 – Buffer
- 10391 – Mini Orbital Sander
- 10393 – Versatility Kit
- 10398 – 4"-5" Buffer

Palm-Style Buffer/Sander

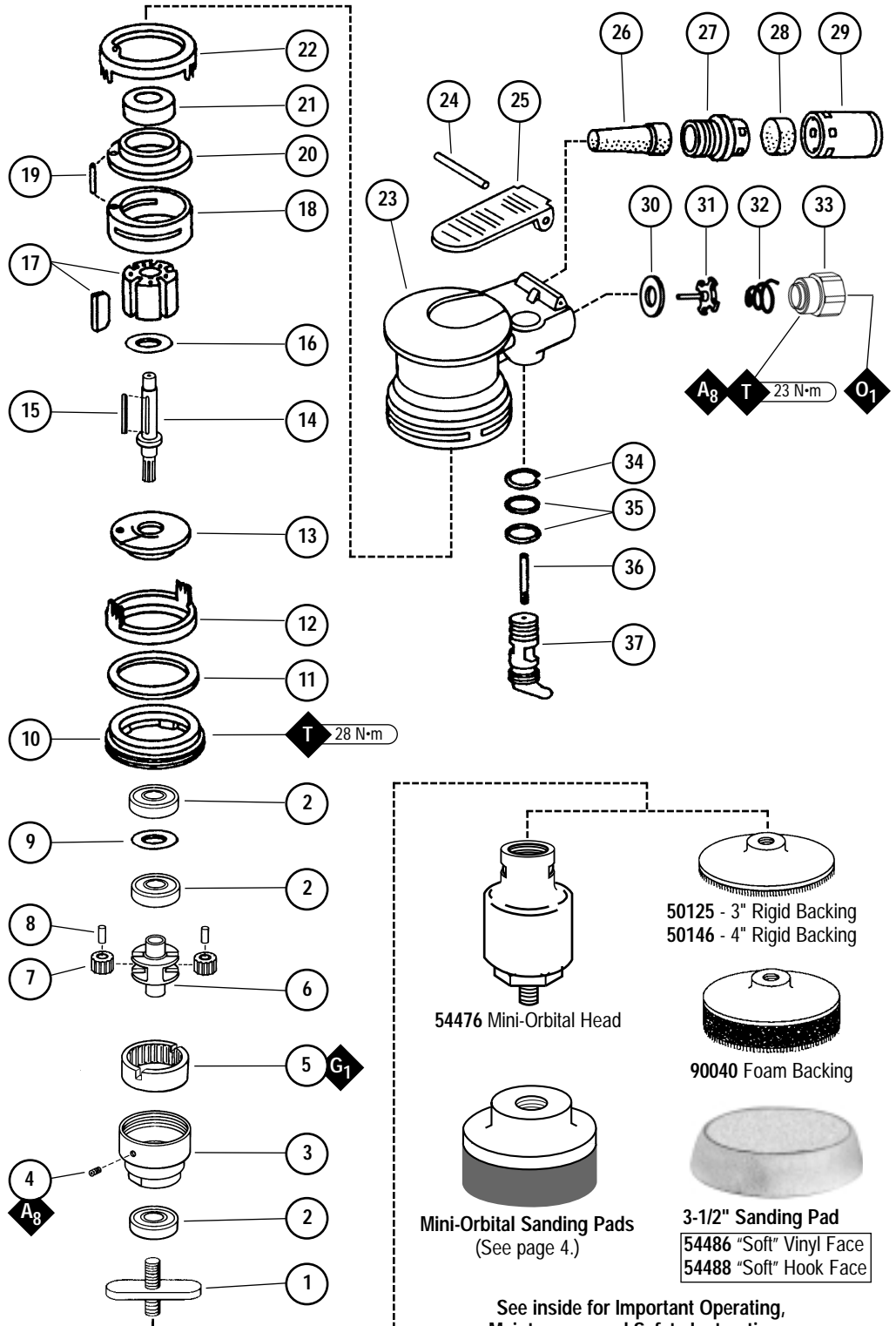
Air-Powered, 2,400 RPM

⚠ 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.

KEY	
A	Adhesive: A ₈ = Loctite #567
T	Torque: N•m x 8.85 = In. - lbs.
O	Oil: O ₁ = Air Lube
G	Grease: G ₁ = Lubriplate 630 AA

Index Key		
No.	Part #	Description
1	54021	Adapter
2	01139	Bearing (3)
3	54467	Retaining Ring
4	95593	Set Screw
5	54468	Ring Gear
6	54465	Planetary Carrier
7	06213	Gears (2)
8	54475	Shaft (2)
9	07146	Packing
10	57059	Lock Ring
11	95973	Washer
12	57055	Front Ring
13	57437	Front Bearing Plate
14	54470	Rotor Pinion
15	56047	Rotor Key
16	95975	Shim Pack (4/pkg.)
17	54491	Rotor/Blade Set (5)
18	57058	Cylinder Assembly (Incl. 95971 Line-Up Pin)
19	95971	Pin
20	57056	Rear Bearing Plate
21	01206	Bearing
22	57054	Rear Ring
23	10389	Housing
24	95979	Pin
25	57547	Lever
26	57065	Cone Muffler
27	57066	Muffler Body
28	56027	Muffler Insert (3)
29	56028	Muffler Cap
30	01464	Seal
31	01472	Tip Valve
32	01468	Conical Spring
33	01494	Inlet Bushing
34	95697	Snap Ring
35	01025	O-Ring (2)
36	01477	Valve Stem
37	57064	Speed Regulator



See inside for Important Operating, Maintenance and Safety Instructions.

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 Rotor Vane air tools must be used with a Filter-Regulator-Lubricator to maintain all warranties.

Operating Instructions:

Warning: Eye, face, respiratory, sound, 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 tool is 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 a tachometer. If tool is 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. Clean and replace as required.
3. All Dynabrade Rotary Vane air motors should be lubricated. Dynabrade recommends one drop of air lube per minute for each 10 SCFM (example: if the tool specifications state 40 SCFM, set the drip rate of your filter-lubricator at 4 drops per minute). Dynabrade Air Lube (P/N 95842: 1pt. 473ml.) is recommended.
4. An Air Line Filter-Regulator-Lubricator must be used with this air tool to maintain all warranties. Dynabrade recommends the following: 11405 Air Line Filter-Regulator-Lubricator — Provides accurate air pressure regulation, two-stage filtration of water contaminants and micro-mist lubrication of pneumatic components. Operates 40 SCFM @ 100 PSIG has 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 96107) 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 nitro carbons.

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 tool 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's Warning/Safety Operating Instructions Tag (Reorder No. 95903) for more complete safety information.

Notice

All Dynabrade motors use the highest quality parts and metals 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.

Model Number	Motor HP (W)	Motor RPM	Dia. Orbit Inch (mm)	Sound Level	Air Flow Rate CFM/SCFM (LPM)	Air Pressure PSIG (Bars)	Spindle Thread	Weight Pound (kg)	Length Inch (mm)	Height Inch (mm)
Orbital Sanders	.25 (186)	2,400	3/16" (5)	79 dB(A)	3/18 (510)	90 (6.2)	1/4"-20 male	1.9 (.9)	5-3/8 (137)	3-5/8 (92)
Buffers	.25 (186)	2,400	N/A	79 dB(A)	3/18 (510)	90 (6.2)	1/4"-20 male	1.9 (.9)	5-3/8 (137)	4-1/4 (108)

Additional Specifications: Air Inlet Thread 1/4" NPT • Hose I.D. Size 1/4" (8 mm)

Disassembly/Assembly Instructions - Palm-Style Buffer Sander

Important: Manufacturer's warranty is void if tool is disassembled before warranty expires.

A Motor Repair Kit (96046) is available which contains special tools for disassembly/assembly. Please refer to parts breakdown for part identification.

Motor Disassembly:

1. Invert machine and secure in vise, using 57092 Collar (supplied in 96046 Repair Kit) or padded jaws.
2. Remove any accessories attached to 54021 Adapter.
3. Insert 56058 Lock Ring Wrench (supplied in 96046 Repair Kit) into corresponding tabs of lock ring and unscrew. Motor may now be lifted out for service.
4. Remove lock-ring, washer, front ring and rear ring from motor.
5. Remove 54021 Adapter by removing 95593 Set Screw using 5/64" allen wrench (supplied in 96046 Repair Kit). Place allen wrench into set screw hole to stop rotation of 54465 Planetary Carrier. Use a 14 mm wrench to unscrew adapter (supplied in 96046 Repair Kit).
6. Remove 54467 Retaining Ring using two (2) 50679 26 mm wrenches (supplied in 96046 Repair Kit).
7. Remove 54465 Planetary Carrier by pressing out from 01139 Bearing. 06213 Gears can now be removed from planetary carrier.
8. Remove 54468 Ring Gear by tapping retaining ring on a hard surface, once the ring gear slides towards the front, it will be necessary to use your fingers to remove it the rest of the way. **Note:** If hard to remove, heat may be applied to retaining ring and pliers used to remove gear the rest of the way.
9. Press 01139 Bearing from 54467 Retaining Ring.
10. Remove 57056 Rear Plate by holding onto 57058 Cylinder (bearing puller may be placed into exhaust slots on cylinder) and pressing 54470 Rotor Pinion out of 01206 Bearing.
11. Remove 54491 Rotor/Blade Set. Remove 56047 Rotor Key.
12. Disassemble 57437 Front Plate by pressing 54470 Rotor Pinion through front plate. **Note:** One 01139 Bearing will remain on rotor pinion. To remove, press pinion through remaining bearing.
13. Press 01206 Rear Bearing from 57056 Rear Bearing Plate.

Motor Disassembly Complete.

To Assemble:

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

1. Press 01139 Bearing onto rotor pinion until seated against shoulder.
2. Press bearing/rotor pinion assembly into 57437 Front Plate and check for smooth rotation.
3. Place 07146 Packing in front plate bore and press 01139 Bearing into bore onto packing.
4. Invert rotor pinion in support. Install 56047 Rotor Key and 54491 Rotor/Blade Set onto rotor pinion.
Important: Place the correct number of shims from the 95975 Shim Pack under rotor to achieve a 0.0015" space between rotor and front plate.
Note: Blades should be lightly lubricated with Dynabrade Air Lube P/N 95842 (or equivalent) before installation into rotor slots.
5. Place 57058 Cylinder Assembly over rotor. The "short" line-up pin goes toward the front plate.
6. Place 57056 Rear Plate (with 01206 Bearing pressed into place) over shaft and "long" end of line-up pin. Press fit in place.
7. Press 01139 Bearing into 54467 Retaining Ring.
8. Place 54468 Ring Gear into 54467 Retaining Ring lining up one of the notches with set screw hole.
9. Place 54465 Planetary Carrier with 06213 Gears and 54475 Shafts in place into 54467 Retaining Ring (1/4"-28 female thread, facing down).
Note: Gears should be lightly greased with Dynabrade's 95542 Grease (or equivalent).
10. Align 54465 Planetary Carrier with splined end of 54470 Rotor Shaft.
11. Screw retaining ring assembly onto front plate and tighten using (2) 26 mm wrenches.
12. Place 5/64" allen wrench into retaining ring set screw hole and tighten 54021 Adapter with 14 mm wrench.
13. Hand tighten 95593 Set Screw in place using 5/64" allen wrench. **Note:** Be sure notch on ring gear is lined up with set screw hole.
14. Place 57054 Rear Ring over the rear plate and line-up pin. Turn motor over and install 57055 Front Ring over front plate. Make sure the "legs and fingers" on the rings line-up. Also, the small cut-outs on both rings should line-up with the square holes in the cylinder/end plate assembly.
15. Secure motor housing in vice using 57092 Collar or padded jaws. Slide motor assembly into housing. **Note:** Be certain line-up pin enters the line-up hole at bottom of housing bore and the "legs" of the rings stay in-line.
16. 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. Tighten lock ring with 56058 Lock Ring Wrench torque to 28 N•m/250 in. - lbs.
17. Attach desired accessory to adapter.

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

Important: Motor should now be tested for proper operation at 90 PSIG. If motor does not operate properly or operates at a higher RPM than marked on the tool, the tool should be serviced to correct the cause before use. Before operating, place 2-3 drops of Dynabrade Air Lube (P/N 95842) directly into air inlet with throttle lever depressed. Operate tool for 30 seconds to determine if tool is operating properly and to allow lubricating oils to properly penetrate motor

Loctite® is a registered trademark of Loctite Corp.

Optional Accessories



Terry Cloth



Synthetic Wool



Foam Waffle

- Scrim back.
- Mount to 50120 or 50125 Hook Face Pads.



Finesse Sanding Creme



Dynabrade Glaze

Finesse Sanding Creme

- A sanding compound for metal, fiberglass and composites. Use with fine-grade sanding discs.

95723: 4 oz. (118 ml).

95724: 1 qt. (946 ml).

95725: 1 gal. (3.8 l)

Dynabrade Glaze

- For use with slow-speed tools to achieve a high gloss after compounding.

95727: 4 oz. (118 ml). 95728: 1 qt. (946 ml).

Polishing/Buffering Pads (Hook Face Backing)

Diameter	Part	Description
3"	90027	Terry Cloth
3"	90028	Synthetic Wool
3"	90030	Foam Waffle
3"	90038	Foam Flat Face
3-1/2"	90034	Natural Wool



96107 Motor Tune-Up Kit:

- Includes assorted parts to help maintain and repair motor.

96046 Motor Repair Kit:

- Contains special tools for disassembly/assembly of machine.

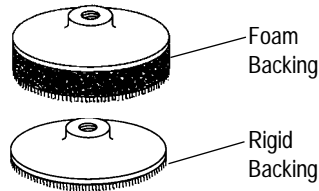


Grease and Grease Gun

- Multi-purpose grease for all types of bearing, cams, gears.
- High film strength; excellent resistance to water, steam, etc.
- Workable range 0°F to 300°F.

95541: Push-type grease gun.

95542: 10oz. (283.5g) tube.



3" Diameter Hook Face Pads

50120: Foam Backing

50125: Rigid Backing

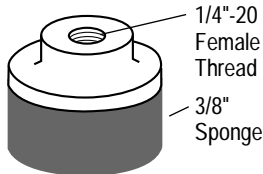
- Accepts reattachable abrasive discs as well as polishing buff pads.
- 5,000 RPM maximum.
- 1/4"-20 female thread.

4" - 5" Diameter Hook Face Pads

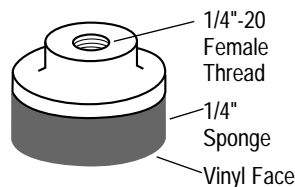
50146: Rigid Backing

90040: Foam Backing

"Very Soft" Density

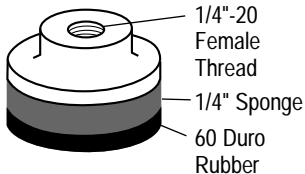


"Soft" Density



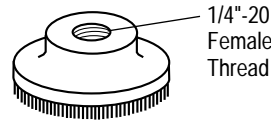
"Medium" Dual-Density

Order vinyl face pads 54091 or 54092 for wet sanding operations.



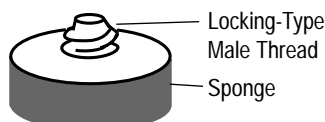
"Hook 'n Loop"

For use with abrasive impregnated non-woven nylon discs.



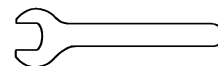
"Soft" Locking-Type

For optional 54029, 54030 or 54035 Sanding Head.

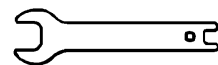


All pads are 5,000 RPM maximum.

Part No.	Pad Dia.	Description/Face	Thread Type	Comments
54017	3/4"	Medium/Rubber	1/4"-20 Female	For PSA Discs
54018	1-1/4"	Medium/Rubber	1/4"-20 Female	For PSA Discs
54031	1-1/4"	Soft	Locking-Type	For PSA Discs
54085	3/4"	Very Soft	1/4"-20 Female	For PSA Discs
54086	1-1/4"	Very Soft	1/4"-20 Female	For PSA Discs
54087	3/4"	Soft/Vinyl	1/4"-20 Female	For PSA Discs
54088	1-1/4"	Soft/Vinyl	1/4"-20 Female	For PSA Discs
54089	3/4"	Hook 'n Loop	1/4"-20 Female	Non-Woven Nylon Discs
54090	1-1/4"	Hook 'n Loop	1/4"-20 Female	Non-Woven Nylon Discs
54091	3/4"	Medium/Vinyl	1/4"-20 Female	For PSA Discs
54092	1-1/4"	Medium/Vinyl	1/4"-20 Female	For PSA Discs



95262 14 mm Open-End Wrench.



95281 19 mm Open-End Wrench.



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