

3" Dynabuffer

Tool Manual – Safety, Operation and Maintenance

SAVE THIS DOCUMENT, EDUCATE ALL PERSONNEL

Model:
55126 – 12,000 RPM



14mm Random Orbit Motion

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! 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 .

Tool Intent: 3" Dynabuffer are specifically designed for clear coat repair. The tool is designed to remove scratches left over from sanding imperfections in clear coat finishes.

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 performance.

- Employer's Responsibility – Provide 3" Dynabuffer operators with safety instructions and training for safe use of tools and accessories.

Accessory Selection:

- 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.
- Use only 3" weight-mated Dynabrade back-up pads. Attach 3" foam buffing pads. Do Not use grinding wheels or cut-off wheels.
- 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. Operate tool ONLY under load.

- Keep hand and clothing away from working end of the air tool.
- Working end of the air tool has potential hazard of cutting.

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.
- BEFORE MOUNTING AN ACCESSORY, after all tool repairs and whenever a 3" Dynabuffer is issued for use, check tool RPM (speed) with tachometer, see Routine Preventative Maintenance for procedure (pg. 3).

Caution: This tool is not to be run at free speed. The tool is specifically designed to be low in vibration under load. Running the tool at free speed may cause the buffing pad to become dislodged from the back-up pad.

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

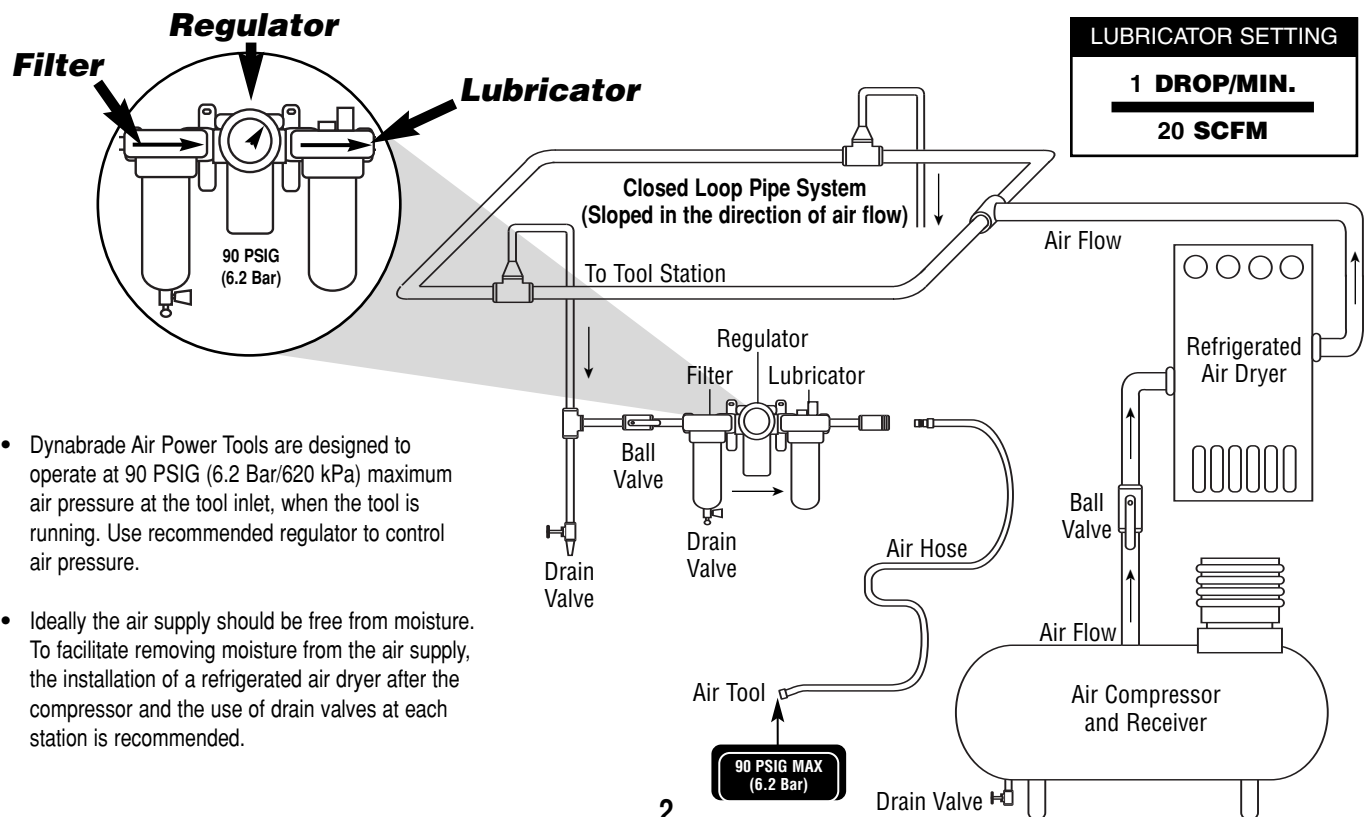
- With power source connected at the air tool relieve hose of air pressure and disconnect tool from air supply when changing recommended accessories.
- Connect air tool to power source. Be careful NOT to depress throttle lever in the process.
- Do not expose air tool to inlet pressure above 90 PSIG or (6.2 Bars).

Caution: After installing the accessory, before testing or use and/or after assembling tool, the 3" Dynabuffer 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.

- It is imperative that the correct weight mated back-up pad be used with the tool to avoid excessive vibration. The tool is designed to use a Dynabrade P/N 56142 Pad; this pad has a mass of 30 grams.
- Ensure that self-fixing foam buffing pads are mounted concentrically to back-up pad.
- Precondition new foam buffing pads with buffing compound before use.
- Apply dab of buffing compound to sand scratch on work surface.
- Apply approximately a 6 pound load on the pad before throttling the tool on. Adjust the force on the pad as required to feel the "sweet spot" (low vibration). Buffing for approximately 5 seconds with the pad flat on the work surface should remove the sand scratches of the initial process. Release the throttle lever and then remove the tool from the work piece.
- Release the throttle lever in case of an interruption of the energy supply.
- Make sure that work area is uncluttered, and visitors are at a safe range from the tools and debris.
- Potentially explosive atmospheres can be caused by dust and fumes resulting from buffing. Always use dust extraction or suppression systems which are suitable for the material being processed.
- Proceed with caution in unfamiliar surroundings. Hidden hazards may exist, such as electricity or other utility lines.
- Air tools are not intended for use in explosive atmospheres and are not insulated for contact with electric power sources.
- Work may generate hazardous dust.
- Do not apply excessive force on tool or apply "rough" treatment to it.
- Always work with a firm footing, posture and proper lighting.
- This tool is front exhaust. Exhaust may contain lubricants, vane material, bearing grease, and other materials flushed thru the tool.

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

Air System



- Dynabrade Air Power Tools are designed to operate at 90 PSIG (6.2 Bar/620 kPa) maximum air pressure at the tool inlet, when the tool is running. Use recommended regulator to control air pressure.
- Ideally the air supply should be free from moisture. To facilitate removing moisture from the air supply, the installation of a refrigerated air dryer after the compressor and the use of drain valves at each station is recommended.

Maintenance Instructions

Important: To keep tool safe a preventative maintenance program is recommended whenever portable power tools are used. The program should include inspection of air supply lines, air line pressure, proper lubrication and repair of tools. Refer to ANSI B186.1 for additional maintenance information.

- 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: **10681** Air Filter-Regulator-Lubricator (FRL) – Provides accurate air pressure regulation and two stage filtration of water contaminants.
- If Dynabrade Air Lube is not compatible with paint system it may be substituted with a compatible air tool lubricant with water absorbing properties to prevent internal components from rusting.
- 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 tool speed regularly with a tachometer. Tool must be tested with the flow control assembly completely in the full flow position. A Magnetic Tachometer such as Dynabrade P/N **96368** is the simplest way to perform this operation. To properly check tool speed the tool should be tested under load. Checking under load requires additional test equipment but assures the proper operation of the tool. All speed testing must be done with 90 psig of air at the inlet bushing, a Pressure Gage such as Dynabrade P/N **94315** is required. The under load condition can be checked by outfitting the tool with the proper back-up pad, foam buffing pad and buffing compound. Apparatus is also required to monitor the load applied to the work surface. Dynabrade offers a Load Cell P/N **80025** that allows the tool to be tested on a bench. First zero out the scale by adjusting the knob on the side of the load cell to read zero when the tool, back-up pad, and foam buffing pad are resting on the wear plate of the load cell while connected to the air line. Apply a 6 pound load to the load cell and using the digital tachometer check the operating speed of the tool. The tool should be running 7,500 RPM minimum. If the tool is running outside this range it should be serviced to correct the cause before use.
- Tool is equipped with a flow control assembly to allow adjustability. Adjustments are strongly recommended to be done during maintenance of the tool and not at the workstation. Adjustment is accomplished by rotating the **55167** Cap so that the hole aligns with the 5/32" (4 mm) hex in the **55169** Flow Control. A 5/32" or 4 mm hex wrench is inserted through the hole in the cap and into the hex in the flow control; rotating the wrench either clockwise or counterclockwise will adjust the speed. The full speed range is accomplished by a 180° twist of the wrench; further rotation of the wrench will simply repeat the cycle. Once the optimal speed setting is set rotate the **55167** Cap roughly 180° to reduce adjustment access.
- Using the tool over time may clog **55158** Muffler Insert, this may hamper performance and require replacement.
- 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 Motor Tune-Up Kit (P/N **96542**) is available which includes high wear and medium wear motor parts.
- Air tool labels must be kept legible at all times, if not, reorder label(s) and replace. User is responsible for maintaining specification information i.e.: Model #, S/N, and RPM. (See Assembly Breakdown)
- 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:

- DO NOT rest tool on pad.
- Use of tool hanger is recommended.
- Protect tool inlet from debris (see Notice below).
- DO NOT carry tool by air hose, or near the tool throttle lever.
- 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.

Machine Specifications

Model Number	Motor hp (W)	Motor RPM	Sound Level	Maximum Air Flow SCFM (LPM)	Air Pressure PSIG (Bars)	Spindle Thread	Weight Pound (kg)	Length Inch (mm)	Height Inch (mm)
55126	.5 (373)	12,000	79 dB(A)	37 (1048)	90 (6.2)	5/16"-24 female	2.7 (1.2)	9-1/2 (242)	4-1/8 (105)

Additional Specifications: Air Inlet Thread 1/4" NPT • Hose I.D. Size 3/8" (10mm) • Tool Vibration Data (Per ISO 8662.8) 2.0 ^{M/s}²
 Sound Level is the pressure measurement according to the method outlined in ISO regulation ISO-15744

Notice

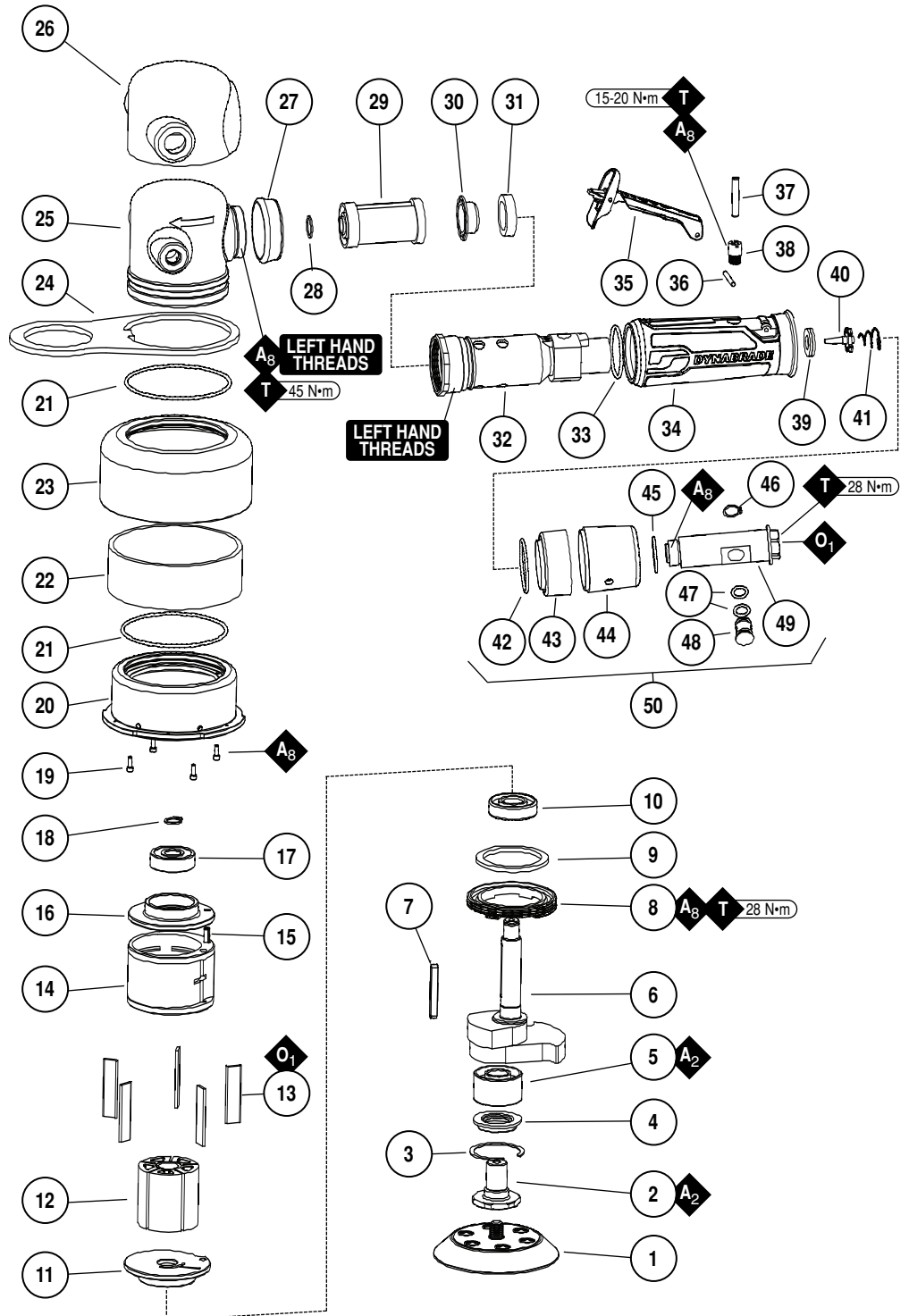
All Dynabrade motors use the highest quality parts and materials available and are machined to exacting tolerances. The failure of quality pneumatic motors can most often be traced to an unclean air supply or the lack of lubrication. Air pressure easily forces dirt or water contained in the air supply 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.


Model:
55126

3" Dynabuffer Complete Assembly

Index Key

No.	Part #	Description
1	56142	3" Pad
2	57069	Balancer Shaft
3	95630	Snap Ring
4	59084	V-Seal
5	56052	Bearing
6	55153	Shaft Balancer
7	54673	Key
8	55154	Lock Ring
9	55155	Lock Ring Spacer
10	02695	Bearing
11	55152	Front Bearing Plate
12	54671	Rotor
13	54674	Vane (5/Pkg.)
14	55151	Cylinder Assembly (Incls. 95865 Pin)
15	95865	Pin
16	54679	Rear Bearing Plate
17	01206	Bearing
18	95626	Retaining Ring
19	97101	Screw (4)
20	55157	Inner Shroud
21	55161	O-Ring (2)
22	55158	Muffler Insert
23	55156	Outer Shroud
24	97166	Hangplate
25	55160	Housing
26	51360	Housing Overmold
27	01547	Collar
28	95523	O-Ring
29	45267	Insert
30	45277	Filter Cage
31	45278	Filter
32	45309	Throttle Body Housing
33	96077	O-Ring
34	45206	Housing Sleeve
35	45263	Throttle Lever Assembly
36	97060	Pin
37	97045	Plunger
38	45257	Throttle Bushing
39	01464	Seal (2)
40	58365	Tip Valve
41	01468	Spring
42	95438	O-Ring
43	55166	Muffler Base
44	55167	Muffler Cap
45	95529	O-Ring
46	95558	Retaining Ring
47	01024	O-Ring (2)
48	55169	Flow Control
49	55168	Inlet Adapter
50	55170	Flow Control Assembly




50679 – 26mm open-end

KEY	
O	Oil: O ₁ = Air Lube
A	Adhesive: A ₂ = Loctite #271 A ₈ = Loctite #567
T	Torque: N·m x 8.85 = In. - lbs.
Always follow adhesive manufacturers cleaning and priming recommendations.	

Motor Assembly/Disassembly Instructions – 3" Dynabuffer

IMPORTANT: The Dynabrade Pneumatic Power Tool Lifetime Warranty Policy does NOT cover normally wearable parts and products. Before servicing this tool please contact Dynabrade Inc. or a Dynabrade Subsidiary for information regarding the Dynabrade Pneumatic Power Tool Lifetime Warranty Policy. The special repair tooling referred to in these instructions can be ordered from Dynabrade. (See Page 8)

Disconnect tool from the air supply before servicing.

Motor Disassembly:

1. Use the **59293** Offset Wrench (26 mm) to remove the back-up pad.
2. Install the **95492** Screws (part of **96519** Tool Repair Kit) into the two handle bosses in the **55160** Housing.
3. With the shaft balancer (counterbalance) facing up, position **95492** Screws between the vise jaws and secure the **55126** 3" Dynabuffer in the vise.
NOTICE: Do not over tighten the vise.
4. Use the **95050** Hex Key (5/64") to remove the four **97101** Screws from the **55157** Inner Shroud.
5. Use the **56058** Lock Ring Wrench to loosen the **55154** Lock Ring. Turn counterclockwise.
6. Loosen the vise and pull the motor assembly out of the **55160** Housing. Use the **96343** Retaining Ring Pliers to remove the **95626** Retaining Ring.
7. Fasten the **96346** Bearing Separator between the **54679** Rear Bearing Plate and the **55151** Cylinder Assembly.
8. With the bearing separator secured to the motor assembly, place the separator on the table of the **96232** Arbor Press (#2) with the counterbalance pointing down.
9. Use a 5/16" diameter flat end drive punch as a press tool and push the **55153** Shaft Balancer out of the **01206** Bearing.
10. Remove the rotor, vanes, and the **54673** Key from the shaft balancer.
11. Remove the **55152** Front Bearing Plate from the **02695** Bearing.
12. Fasten the bearing separator between the counterbalance and the **02695** Bearing. Use the arbor press to remove the bearing.
13. Secure the counterbalance of the **55153** Shaft Balancer in a vise with aluminum or bronze jaws so that the 26 mm hex end of the **57069** Balancer Shaft is accessible and facing up.
14. Use a small thin screwdriver to pick the notched end of the **95630** Snap Ring out of the shaft balancer. Work the screwdriver under and around the **95630** Snap Ring to remove it.
15. Apply heat to the counterbalance with a HEAT GUN. Use the **56056** Bearing Puller to remove the **57069** Balancer Shaft and **56052** Bearing.
16. Fasten the bearing separator between the 26 mm hex end of the **57069** Balancer Shaft and the **56052** Bearing. Place the separator on the table of the arbor press with the hex end of the balancer shaft pointing down. Use a 5/16" diameter flat end punch as a press tool and push the **57069** Balancer Shaft out of the **56052** Bearing.

Motor Disassembly Complete.

Shroud Disassembly:

NOTICE: Use the **95050** Hex Key (5/64") to remove the four **97101** Screws from the **55157** Inner Shroud before removing the motor from the **55160** Housing. The motor must be removed from the **55160** Housing, before the shroud assembly can be removed.

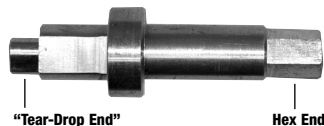
1. Install the **95492** Screws into the two handle bosses in the **55160** Housing.
2. With the shroud facing up, position **95492** Screws between the vise jaws and secure the **55160** Housing in the vise.
NOTICE: Do not over tighten the vise.
3. Gasp the shroud assembly and carefully pull it from the **55160** Housing.
4. Rotate the **55157** Inner Shroud to release it from the **55156** Outer Shroud. Separate the two shrouds and remove the **55158** Muffler Insert.
5. Remove the two **55161** O-Rings from the inner and outer shrouds.
6. Remove the **97166** Hang Plate from the **55160** Housing.

Shroud Disassembly Complete.

Throttle Body Disassembly:

1. Install the **95492** Screws into the two handle bosses in the **55160** Housing.
2. With the air inlet pointing up, position **95492** Screws between the vise jaws and secure the **55160** Housing in the vise.
NOTICE: Do not over tighten the vise.
3. Slide back the **01547** Collar onto the **45206** Housing Sleeve. Use a "Wide-Open" smooth jaw adjustable, or a 34 mm open-end wrench to loosen and remove the throttle body from the **55160** Housing. NOTICE: LEFT HAND THREAD, Turn clockwise.
4. Pull the **45267** Insert out of the **45252** Throttle Body Housing.
5. Remove the **45277** Filter Cage and the **45278** Filter from the inside of the throttle body housing.
6. Insert the hex end of the **96402** Special Repair Tool into the hex socket in the bottom of the housing.

96402 - Special Repair Tool



With the air inlet adapter pointing up, secure the wrench flats of the **96402** Special Repair Tool in a vise with aluminum or bronze jaws. Use two wrenches when removing the air connection fitting. Place one wrench on the **55168** Inlet Adapter to hold it stationary, and use another wrench to remove the air fitting. Use an adjustable wrench to remove the **55170** Flow Control Assembly from the throttle body. NOTICE: Refer to the exploded view of the speed control assembly to identify the parts and their proper order of assembly.

7. Use needle nose pliers to remove the **01468** Spring, and the **58365** Tip Valve. Use a small screwdriver to remove the two **01464** Valve Seals.
8. Use a 3/32" diameter flat end drive punch to remove the **97060** Pin and **45263** Throttle Lever Assembly.
9. Remove **97045** Plunger.
10. Use a slot blade screwdriver to remove the **45257** Throttle Bushing.
11. Push the **45252** Throttle Body Housing out of the **45206** Housing Sleeve.

Throttle Body Disassembly Complete.

Important: Clean and inspect all parts before assembling.

Throttle Body Assembly:

1. Insert the hex end of the **96402** Special Repair Tool into the hex socket in the bottom of the **45252** Throttle Body Housing.
2. With the air inlet opening pointing up, secure the wrench flats of the **96402** Special Repair Tool in a vise with aluminum or bronze jaws.
3. Install the **45206** Housing Sleeve onto the **45252** Throttle Body Housing.
4. Use a slot blade screwdriver to install the **45257** Throttle Bushing.
5. Install **97045** Plunger.
6. Install the **45263** Throttle Lever Assembly and secure it with the **97060** Pin. Install the two **01464** Valve Seals. Use needle nose pliers to install the **58365** Tip Valve, and the **01468** Spring.

Motor Assembly/Disassembly Instructions – 3" Dynabuffer (cont.)

- Refer to the exploded view of the 55170 Flow Control Assembly to identify the parts and their proper order of assembly. Care should be taken when installing the 55169 Stem and 01024 O-Rings into the 55168 Inlet Adapter to prevent the lead O-Ring from shearing as it passes over the cross hole in the 55168 Inlet Adapter. Apply a small amount of Vaseline to the O-Rings insert a 5/32" (4mm) hex wrench into the 55169 Stem and then slowly twist the stem as you gently push the Stem into position. Secure the Stem with 95558 Retaining Ring.
- After threaded surfaces have been properly cleaned and primed, apply a small amount of Loctite #567 (or equivalent) to the external threads of the 55168 Inlet Adapter. Install the 55170 Flow Control Assembly onto the 45252 Throttle Body Housing. (Torque to 28 N•m/250 in. lbs.)
- Install the 95492 Screws into the two handle bosses in the 55160 Housing.
- With the throttle body mounting thread pointing up, position 95492 Screws between the vise jaws and secure the 55160 Housing in the vise.
NOTICE: Do not over tighten the vise.
- Install the 45267 Insert (smaller diameter end first) into the 45252 Throttle Body Housing.
- Apply a small amount of Vaseline to the 95523 O-Ring and install it onto the 45267 Insert.
- After threaded surfaces have been properly cleaned and primed, apply a small amount of the Loctite #567 (or equivalent) to the threads of the 55160 Housing. Install the Throttle Body Housing assembly onto the 55160 Housing. Position the throttle lever assembly to the desired location and use a "Wide-Open" smooth jaw adjustable, or a 34 mm open-end wrench to tighten the throttle body. NOTICE: LEFT HAND THREAD, Turn counterclockwise. (Torque to 45 N•m/400 in. lbs.)
- Slide the 01547 Collar back onto the throttle body lock nut.

Throttle Body Assembly Complete.

Shroud Assembly:

- Install the two 55161 O-Rings into the inner and outer shrouds.
- Install the 55158 Muffler Insert into the outer shroud.
- Fit and install the inner shroud into the outer shroud. Rotate the inner shroud to interlock with the outer shroud.
- Apply a small amount of Vaseline to the 55161 O-Rings.
- Push the shroud assembly onto the 55160 Housing. Rotate the shroud assembly to line-up the four mounting holes in the shroud with the four threaded holes in the 55160 Housing.
- NOTICE: Install the air motor before continuing with the shroud assembly. SEE: Motor Assembly (Steps 13 – 18) for air motor installation instructions.
- After threaded surfaces have been properly cleaned and primed, apply a small amount of the Loctite #567 (or equivalent) to the threads of the four 97101 Screws. Use the 95050 Hex Key (5/64") to install.
- Install the 97166 Hang Plate. NOTICE: Insert the throttle body through the large opening in the 97166 Hang Plate and pull it into position around the 55160 Housing and above the shroud.

Shroud Assembly Complete.

Motor Assembly:

- Install the 95630 Snap Ring onto the 57069 Balancer Shaft.
- Install the 59084 V-Seal onto the balancer shaft so that it fits down past the step on the balancer shaft.
NOTICE: The flat side of the v-seal must face the 56052 Bearing.
- After threaded surfaces have been properly cleaned and primed, apply a small amount of the Loctite #271 (or equivalent) to the bearing surface of the balancer shaft.
- Face the seal side of the 56052 Bearing toward the flat side of the 59084 V-Seal. Use the 57091 Bearing Press Tool and the 96232 Arbor Press (#2) to push the bearing down to the step on the 57069 Balancer Shaft.
- After threaded surfaces have been properly cleaned and primed, apply a small amount of Loctite #271 (or equivalent) to the outside diameter of the 56052 Bearing, and install the balancer shaft/bearing assembly into the 55153 Shaft Balancer.
- CAUTION: To avoid injury during the final installation of the 95630 Snap Ring, it is best to secure the counterbalance in a vise. Use a small thin screw driver to install the snap ring. Install the 95630 Snap Ring between the hex end of the balancer shaft and the flat side of the 59084 V-Seal. The snap ring must fit into the groove on the inside diameter of the 55153 Shaft Balancer.
- Install the 55154 Lock Ring, and the 55155 Lock Ring Spacer onto the 55153 Shaft Balancer. Use the smaller diameter end of the 57091 Bearing Press Tool and the arbor press to push the 02695 Bearing down to the top of the counterbalance on the shaft balancer. Install the 55152 Front Bearing Plate in the same manner.
- Install the 54673 Key into the 55153 Shaft Balancer.
- Apply the 95842 Dynabrade Air Lube 10W/NR (or equivalent) to the vanes. Install the 54671 Rotor and 54674 Vanes (5/pkg.).
- Position the 55151 Cylinder Assembly so that the short line-up pin side fits against the 55152 Front Bearing Plate.
- Install the 54679 Rear Bearing Plate and the 01206 Bearing onto the 55153 Shaft Balancer. NOTICE: The 01206 Bearing is a slip fit into the 54679 Rear Bearing Plate. Use the smaller diameter end of the 57091 Bearing Press Tool and the arbor press to push the bearing and plate down until the rear bearing plate just touches the 55151 Cylinder Assembly. This should create a snug fit between the bearing plates and the cylinder.
- Use the 96343 Retaining Ring Pliers to install the 95626 Retaining Ring with the curve of the ring arched up. Push the sides of the retaining ring down into the groove at the top of the shaft balancer.
- After threaded surfaces have been properly cleaned and primed, apply a small amount of the Loctite #567 (or equivalent) to the threads of the 55154 Lock Ring.
- Grasp the counterbalance of the motor assembly. Sight the end of the 95865 Pin with the line-up hole on the inside of the 55160 Housing. Carefully install the motor assembly into the 55160 Housing so that the 95865 Pin fits into the line-up hole. By hand, use the 56058 Lock Ring Tool to turn the lock ring clockwise into the housing. If resistance is felt, stop and realign the motor assembly. If the motor assembly is aligned correctly, the lock ring and the motor should advance into the housing easily.
- Install the 95492 Screws into the two handle bosses in the 55160 Housing.
- With the shaft balancer (counterbalance) facing up, position 95492 Screws between the vise jaws and secure the 55126 3" Dynabuffer in the vise.
NOTICE: Do not over tighten the vise.
- Use the 56058 Lock Ring Tool to secure the 55154 Lock Ring and motor assembly into the 55160 Housing. (Torque to 28 N•m/250 in. lbs.)
- Use the 95050 Hex Key (5/64") to install the four 97101 Screws to secure the shroud assembly.
- Use the 59293 Offset Wrench (26 mm) to install the back-up pad.

Motor Assembly Complete. Tool Assembly Complete.

Throttle Lever Positioning Procedure:

- Use the 59293 Offset Wrench (26 mm) to remove the back-up pad.
- Install the 95492 Screws into the two handle bosses in the 55160 Housing.
- With the air inlet pointing up, position 95492 Screws between the vise jaws and secure the 55126 3" Dynabuffer in the vise.
NOTICE: Do not over tighten the vise.
- Slide back the 01547 Collar onto the 45206 Housing Sleeve. NOTICE: Do not to entirely separate the 45252 Throttle Body Housing from the 55160 Housing. Use a "Wide-Open" smooth jaw adjustable, or a 34 mm open-end wrench to loosen the throttle body lock nut. LEFT HAND THREAD, Turn clockwise.
- By hand, with a firm grasp on the throttle Body, rotate the throttle body and position the throttle lever assembly to the desired location.
- Maintain a firm grasp of the throttle body to prevent rotation, and tighten the lock nut.
NOTICE: LEFT HAND THREAD, Turn counterclockwise. (Torque to 45 N•m/400 in. lbs.)

Throttle Lever Positioning Procedure Complete.

Additional Information: It is important to determine that the tool is working properly and safely before applying the tool to the work. Place 2-3 drops of the 95842 Dynabrade Air Lube 10W/NR (or equivalent) directly into the air inlet with throttle lever depressed. Follow tool speed check procedure outlined in Routine Preventative Maintenance section on page 3.

Preventative Maintenance Schedule

For All 1hp 3" Dynabuffer

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.

Parts Common to all Models:

LEGEND	
T	Part included 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.



96542 – Motor Tune-Up Kit

Index #	Part Number	Description	Number Required	High Wear 100%	Medium Wear 70%	Low Wear 30%	Non-Wear 10%
1	56142	3" Pad	1		X		
2	57069	Shaft Balancer	1				X
3	95630	Snap Ring	1				T, L
4	59084	V-Seal	1		T, R		
5	56052	Bearing	1		T, R		
6	55153	Balancer Shaft	1				X
7	54673	Key	1		T, R		
8	55154	Lock Ring	1				X
9	55155	Lock Ring Spacer	1				X
10	02695	Bearing	1		T, R		
11	55152	Front Bearing Plate	1				X
12	54671	Rotor	1		T, R		
13	54674	Vane (5/Pkg.)	1		T, R		
14	55151	Cylinder Assembly	1				X
15	95865	Pin	1				X
16	54679	Rear Bearing Plate	1				X
17	01206	Bearing	1			T	
18	95626	Retaining Ring	1		T, R		
19	97101	Screw (4)	1			D	
20	55157	Inner Shroud	1				X
21	55161	O-Ring (2)	1				T
22	55158	Muffler Insert	1	T, R			
23	55156	Outer Shroud	1				X
24	97166	Hangplate	1				X
25	55160	Housing	1				X
26	55159	Housing Overmold	1			X	
27	01547	Collar	1			X	
28	95523	O-Ring	1		T, L		
29	45267	Insert	1			X	
30	45277	Filter Cage	1				X
31	45278	Filter	1	T, R			
32	45309	Throttle Body Housing	1				X
33	96077	O-Ring	1			T	
34	45206	Housing Sleeve	1			X	
35	45263	Throttle Lever Assembly	1			D	
36	97060	Pin	1			T	
37	97045	Plunger	1			T	
38	45257	Throttle Bushing	1			T	
39	01464	Seal	2			T	
40	58365	Tip Valve	1			T	
41	01468	Spring	1			T	
42	95438	O-Ring	1				X
43	55166	Muffler Base	1				X
44	55167	Muffler Cap	1			X	
45	95529	O-Ring	1				X
46	95558	Retaining Ring	1			X	
47	01024	O-Ring	2			X	
48	55163	Flow Control Inlet	1				X
49	55168	Inlet Adapter	1				X

Lifetime Warranty

All Dynabrade portable pneumatic power tools are rigorously inspected and performance tested in our factory before shipping to our customers. If a Dynabrade tool develops a performance problem and an inherent defect is found during normal use and service, Dynabrade will warrant this tool against defects in workmanship and materials for the lifetime of the tool. Upon examination and review at our factory, Dynabrade shall confirm that the tool qualifies for warranty status, and will repair or replace the tool at no charge to the customer. Normally wearable parts and products are NOT covered under this warranty. Uncovered items include bearings, contact wheels, rotor blades, regulators, valve stems, levers, shrouds, guards, O-rings, seals, gaskets and other wearable parts. Dynabrade's warranty policy is contingent upon proper use of our tools in accordance with factory recommendations, instructions and safety practices. It shall not apply to equipment that has been subjected to misuse, negligence, accident or tampering in any way so as to affect its normal performance. To activate lifetime warranty, customer must register each tool at www.dynabrade.com. Dynabrade will not honor lifetime warranty on unregistered tools. A one-year warranty will be honored on all unregistered portable pneumatic power tools. Lifetime warranty applies only to portable pneumatic tools manufactured by Dynabrade, Inc. in the USA. Lifetime warranty applies only to the original tool owner; warranty is non-transferable.

Optional Accessories

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



Dynabrade Air Lube

- Formulated for pneumatic equipment.
- Absorbs up to 10% of its weight in water.
- Prevents rust and formation of sludge.
- Keeps pneumatic tools operating longer with greater power and less down time.

95821: 4oz. (118 ml)

95842: 1pt. (473 ml)

95843: 1 gal. (3.8 L)



96542 Motor Tune-Up Kit

- Includes assorted parts to help maintain and repair motor.

80030 Training and Maintenance Test Equipment Kit:

- **80025** Load Cell measures tool RPM under load and useful for training operators for proper buffing pressure/operation. Electronic tachometer pick-up securely fastens to wear plate.
- **94315** Pressure Gage to ensure peak operating performance.
- **96368** Tachometer used to measure tool RPM.

96519 Tool Repair Kit

- Includes special tools for proper disassembly/assembly of the tool.

Includes the following:

56058 Lock Ring Wrench

95492 Screw (2)

96402 Special Repair Tool

57091 Bearing Press Tool

98353 Hex Key (5/64")

REFERENCE CONTACT INFORMATION

American National Standards Institute (ANSI)

1899 L Street, NW, 11th Floor • Washington, DC 20036 • Tel: 1 (202) 293-8020

Compressed Air & Gas Institute (CAGI)

1300 Sumner Ave. • Cleveland, OH 44115-2851

Tel: 1 (216) 241-7333 • Fax: (216) 241-0105

European Committee for Standardization (EN)

Rue de Stassart 36 • B - 1050 Brussels, Belgium

International Organization of Standards (ISO)

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