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.

Models: 40320 Standard Machine, 40335 “NWN” Machine

Models: 40320 Standard Machine, 40335 “NWN” Machine

Note: Shaded parts represent 40014 Housing Assembly.

Model: 40330 Vacuum Machine

Note: Shaded parts represent 40334 Housing Assembly.

See page 2 for 05023, 05024 and 05025 Motor Assemblies.
ATTENTION

The “NWN” tool is specifically designed for use with abrasive impregnated “non-woven nylon” belts and is equipped with a 02693 Rubber-Coated Drive Wheel. Use with coated abrasive belts tends to gouge the rubber drive wheel and is not recommended.

Versatile Air Motors detach from tools in seconds. Convert to Die Grinder by adding optional 1/4” collet (50061). Convert to Drill by adding a 1/4” chuck (53032). See page 7 for Conversion Instructions.
**Dynafile® II Contact Arm Assemblies**

Contact Wheel Assembly—Includes wheel, bearing and shaft.

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**Dynafile® II Standard Contact Arms**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Abrasive Belt Size</th>
<th>Contact Wheel Description</th>
<th>Comments</th>
<th>Contact Wheel Assembly</th>
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<th>Bearing (2) Req.</th>
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*Run at 45 PSI. Not recommended for Electric Dynafile® II. **For use with Wet Dynafile® II. Contains sealed bearings.

See page 6 for Dynafile® II Abrasives and Accessories.
Assembly/Disassembly for Dynafile® II

Important: A #2 Arbor Press is recommended for assembly/disassembly. Manufacturers warranty is void if tool is disassembled before warranty expires.

To Disassemble:
Housing Assembly:
1. Remove 40365 Belt Guard, abrasive belt and contact arm assembly.
2. Loosen 95311 Screw and remove air motor.
3. Loosen 95427 Screw and remove 40366 Guide, this will release 40361 Tension Arm and 95426 Spring. Warning: 40361 Tension Arm is spring-loaded, use caution when loosening 95427 Screw.
4. Remove 40367 Dust Cover.
5. Remove 95217 Screw, 95425 Screw and 40362 Support Rod (heating of 95217 Screw may be required. Remove 40025 Button before heating).

Motor Assembly:
1. Secure Air Motor in a padded vise. Important: Do not over-tighten vise or housing could be damaged.
2. Remove Drive Wheel by inserting a 3/16” hex key through drive wheel and into the end of the 01120 Rotor/Drive Shaft.
3. Using a wrench or pliers, twist the drive wheel counterclockwise and remove.
4. Use a pin wrench to remove 04087/04085 Lock Ring (twist counterclockwise). Remove exhaust control spacer and silencer (if equipped).
5. Pull motor assembly from housing.
6. Press 01120 Rotor/Drive Shaft from 01015 Bearing and 01014 Bearing Plate.
7. Press 01015 Bearing from 01014 Bearing Plate.
8. Remove 01013 Cylinder and blades.
10. Slip off 01010 Spacer, 01008 Bearing Plate, shims and 01007 Bearing from 01120 Rotor.

Valve Stem/Body Assembly:
1. Secure motor housing in padded vise with air inlet bushing facing upwards.
2. Unscrew 01494 Inlet Bushing from valve body and remove 53190 Block Plate and 95375 O-Ring.
4. Using a 2.5mm dia. drift pin, tap out 12132 Pin and remove throttle lever.
5. Remove 95558 Retaining Ring using retaining ring pliers.
6. Push 01469 Speed Regulator from housing.

To Reassemble:
Important: Make sure parts are clean and in good condition before reassembling.

Valve Stem/Body Assembly:
1. Insert 01469 Speed Regulator Assembly into valve body housing. Secure with 95558 Retaining Ring.
2. Secure valve body assembly in padded vise with air inlet facing upward and throttle lever accessible.
3. Insert 01464 Seal into housing.
4. Line up the hole in 01449 Valve Stem with the hole in the housing (looking past brass bushing). Using needle nose pliers, insert 01472 Tip Valve so that the metal pin passes through the hole in the 01449 Valve Stem.
5. Install 01468 Spring (small end first) over tip valve.
6. Lubricate 95375 O-Ring with slight amount of air-tool oil and install into 53190 Block Plate.
7. Install 53190 Block Plate, O-Ring side first, into housing.
8. Apply 1 drop of #271 Loctite (or equivalent) to threads of 01494 Inlet Bushing and install into valve body. (Torque 34.0 N•m/300 in. lbs.).
9. Install 01448 Throttle Lever and 12132 Pin. Remove valve body assembly from vise.

Continued on page 5.
Motor Assembly:
1. Place 01120 Rotor in a padded vise.
2. Slip 01010 Spacer onto 01120 Rotor.
3. Place a .002 shim into 01008 Bearing Plate as an initial spacing (Note: 01121 Shim Packs contain .001 and .002 shims) and slip 01007 Bearing into plate.
4. Install 01007, 01008 Bearing/Bearing Plate onto 01120 Rotor.
5. Tighten 04081 Rotor Nut onto 01120 Rotor, torque to 150 in. lbs.
6. Check the clearance between rotor and bearing by using a .001 feeler gauge, clearance should be at .001 to .0015. Adjust clearance by repeating steps 1–5 with different shim if necessary.
7. Once proper rotor/rate clearance is achieved, install well-lubricated 01011 Blades into 01120 Rotor. Dynabrade Air Lube P/N – 95842 is recommended for lubrication.
8. Install 01013 Cylinder so it rests against the 01007 Bearing Plate. (Make sure that air inlet holes of cylinder are facing away from 01007 Bearing Plate).
9. Press 01015 Bearing into 01014 Bearing Plate. Press these parts onto 01120 Rotor. Be sure that pin and air inlet holes in bearing plate line-up with pin slot and air holes in cylinder. Important: Fit must be snug between bearing plates and cylinder. If too tight, rotor will not turn freely. Rotor must then be tightly tapped at press fit end so it will turn freely, while still maintaining a snug fit. A loose fit will not achieve the proper preload of motor bearings.
10. Install motor assembly in housing, make sure motor drops all the way into housing. Line-up air inlet holes in 01014 Bearing Plate with air inlet holes in housing.
11. Install exhaust control spacer, silencer and O-rings (if equipped) into lock ring. Install lock ring onto housing and torque to 300 in.lbs..
12. Motor adjustment must now be checked. With motor still mounted in vise, pull end of 01120 Rotor and twist (10-15 lbs. force), rotor should turn freely without drag. If drag or rub is felt then increase preload or remove shim (see instructions 1–6). Also push end of 01120 Rotor and twist (10-15 lbs. force), rotor should turn freely without drag. If drag or rub is felt then deload or add shim.
13. Motor should now be tested for proper operation at 90 PSI. If motor does not operate properly, make necessary adjustments (see step 12).

Housing Assembly:
1. Place 40362 Support Rod into housing.
2. Apply one drop of #271 Loctite® (or equivalent) to 95217 Screw and tighten. (Refer to housing diagram for proper location of 95217 Screw).
3. Install 40637 Dust Cover onto 40362 Support Rod.
4. Lubricate (grease) inside of 40362 Support Rod and 40361 Tension Arm.
5. Install 95426 Spring into 40362 Support Rod and place 40361 Tension Arm over 95426 Spring.
6. Place 40366 Guide onto 95427 Screw, apply one drop of #271 Loctite® (or equivalent) to screw threads.
7. Compress tension arm and secure in place with 40366 Guide/95427 Screw.
8. Adjust 95427 Screw so that 40361 Tension Arm slides freely, but no too loose.
9. Press 40025 Button onto 95425 Screw and apply one drop of #271 Loctite® to threads.
10. Place 40365 Belt Guard over 40360 Housing, tighten 95425 with 40025 Button into 40360 Housing (make sure guard does not slide around, yet loose enough to remove or install without difficulty).
11. With 40029 Motor lock in place, install air motor assembly into housing and secure in place with 95311 Screw.
12. Complete assembly by installing contact arm assembly, abrasive belt and 40365 Belt Guard.

Tool assembly is complete. Please allow 30 minutes for adhesives to cure before operating tool.

Note: Motor should operate at between 18,000 and 20,000 RPM at 90 PSI (6.2 Bar). 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 the throttle lever depressed.

Important: The regular maintenance of any air tool will contribute to greater efficiency of tool and will prolong tool life. The failure of quality pneumatic air 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. Frequent drainage of water traps in air lines is recommended. Each tool on each drop should also be equipped with a secondary air processing unit. This consists of an in-line Filter-Regulator-Lubricator. All Dynabrade air tools must be used with a Filter-Regulator-Lubricator to maintain all warranties. Our warranty obligation is contingent upon proper use of our tools and cannot apply to equipment which has been subject to misuse such as unclean air, wet air or a lack of lubrication during the use of the tool.

Loctite is a registered trademark of the Loctite Corp.
**Abrasivos**

**Beltas Abrasivas**

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**Dynapad® Platen Pads**

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<td>Disposable Paper Bag 12/pkg.</td>
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<td>95393</td>
<td>Disposable Paper Bag 24/pkg.</td>
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**Accesorios**

**80021 Dynamount Benchmount**

Frees an operator's hands for complete control of a workpiece.

Optional **80015 Foot Switch and hose assembly** provides on-off foot control of air-tool operation.

**50061 1/4” Collet Assembly**

**50067 6mm Collet Assembly**

**53032 1/4” Drill Chuck**

Includes: 53052 Mated Chuck Key

Optional: **50039 8 mm Collet Insert**

Fits inside 50067 Collet

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**96044 Motor Tune-Up Kit**

Includes assorted parts to help maintain motor in tip-top shape.
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 air tools must be used with a Filter-Regulator-Lubricator to maintain all warranties.

Operating Instructions:

Warning: Eye, face 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. Connect power source to tool. Be careful not to depress throttle lever in the process.
3. 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.
4. Always work off the return side of the abrasive belt. This will ensure superior tracking and reduce down time of tool.

Maintenance Instructions:

1. Disconnect power source.
2. Remove “pop-off” cover.
3. Pull back on tension arm assembly.
4. Remove and replace abrasive belt and cover.
5. Connect power source.
6. Adjust belt tracking by turning 95218 Rough Adjustment Knob to the left or right accordingly while machine is running.

Abrasives and Accessories Change Instructions:

To Change Belt:

1. Disconnect power source.
2. Remove “pop-off” cover.
3. Pull back on tension arm assembly.
4. Remove and replace abrasive belt and cover.
5. Connect power source.
6. Adjust belt tracking by turning 95218 Rough Adjustment Knob to the left or right accordingly while machine is running.

To Change Contact Arm Assembly:

1. Disconnect power source.
2. Remove “pop-off” cover.
3. Pull back on tension arm assembly and remove abrasive belt.
4. Remove 95218 Rough Adjustment Knob.
5. Remove contact arm and replace with desired arm, making sure that the tab on the end of the arm is facing downward.
6. Replace 95218 Knob.
7. Install abrasive belt and cover.
8. Connect power source and adjust belt tracking by turning 95218 Knob to the left or right accordingly while machine is running.

Housing Angle Adjustment:

To pivot housing, loosen 95311 Screw on housing with the supplied 9/64” hex wrench (P/N – 95134). Pivot housing to desired angle and retighten 95311 Screw.

Conversion of Air Motor to Die Grinder or Drill:

1. Remove cover and abrasive belt.
2. Loosen 95311 Screw.
3. Twist and pull housing from motor. Amount of force required may vary.
4. Slip 95048 – 3/16” Hex Wrench (supplied in Dynafile II Kits only) through the drive wheel and into the end of the drive shaft to prevent the drive shaft from rotating.
5. Using a wrench or pliers, twist the drive wheel counterclockwise and remove.
6. Hold the drive shaft with a 14mm wrench (supplied in Dynafile II Kits only) and attach collet or drill chuck (see accessories on back page).
7. Use a 19mm wrench (supplied in Dynafile II Kits only) to loosen and tighten collet cap.

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

1. All Dynabrade air motors should be lubricated with two drops of Dynabrade Air Lube (P/N 95842: 1pt. 473ml.) placed directly into the air inlet with throttle level depressed every four hours of use.
2. An air line filter-regulator-lubricator must be used with this air tool to maintain all warranties. Dynabrade recommends the following: 11289 Air Line Filter-Regulator-Lubricator — Provides accurate air pressure regulation, two-stage filtration of water contaminants and positive-drip lubrication of pneumatic components. Operates 28 CFM @ 90 PSI has 3/8” NPT female ports.
3. Frequent drainage of water traps in air lines is recommended.
4. Some silencers on air tools may clog with use. Clean and replace as required.
5. A motor tune-up kit (P/N 96024) is available which includes assorted parts to help maintain motor in tip-top shape.

Safety Instructions:

• Warning: Eye, face 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.

• Important: User of tool is responsible for following accepted safety codes such as those published by the American National Standards Institute (ANSI).

• Tool RPM must never exceed abrasive/accessory RPM rating, regardless of tool capacity.

• Operate machine for 30 seconds before application to workpiece to determine if machine is working properly and safely before work begins.

• Always use proper guards. Make sure guards are in proper position, secure and in good repair.

• Always disconnect power supply before changing abrasive or making machine adjustments.

• Inspect abrasives and 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.

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