For Serial No. 4A1000 and Higher

#### Air Tool Manual - Safety, Operation and Maintenance

#### SAVE THIS DOCUMENT, EDUCATE ALL PERSONNEL

#### Models:

14000 - 20,000 RPM 14010 - Versatility Kit

**Dynafile<sup>®</sup>** 



# **A** 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 Safety 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**



#### **A WARNING**

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



#### **A WARNING**

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



#### **A WARNING**

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

#### **▲** WARNING

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



#### **A WARNING**

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



#### **A 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.



#### **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: Dynafile® abrasive belt machine replaces tedious hand filing and sanding and can be used for grinding, deburring, blending and polishing. Tool can be used on most materials including metal, plastic, fiberglass, 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 Dynafile® 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.
- · Mount only recommended accessories. See manual and Dynabrade catalog.

Follow tool specifications before choosing size and type of accessory.

· Only use recommended fittings and air line sizes. (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.

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 (continued)**

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

- Disconnect air hose from tool when changing belts and contact arms.
- 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).

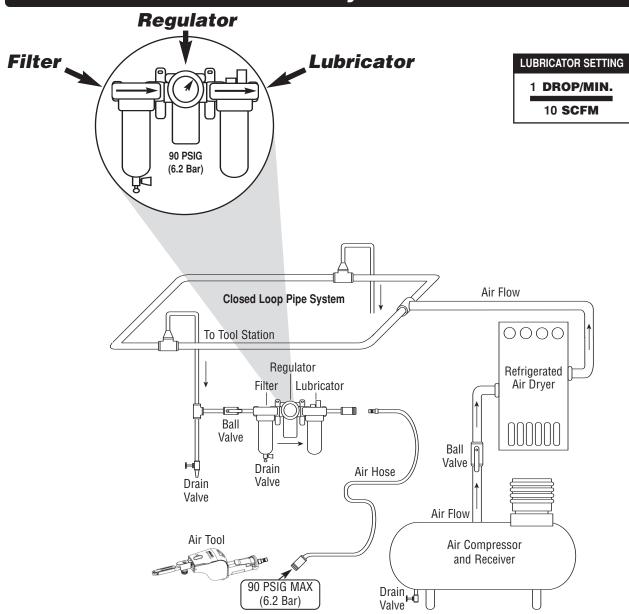
Caution: After installing the accessory, before testing or use and/or after assembling tool, the Dynafile® must be started at a reduced speed to check for good balance.

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, good posture and proper lighting.
- 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 sanding or grinding. Always use dust extraction or suppression systems which are suitable for the material being processed.

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

## **Air System**



Ideally the air supply should be free from moisture.
 To facilitate removing moisture from air supply,
 the installation of a refrigerated air dryer after the compressor and the use of drain valves at each tool station is recommended.

 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.

#### **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 for air pressure regulation, two stage filtration of water and 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 every 10 SCFM (example: if the tool specification states 40 SCFM, set the
  drip rate on the filter-lubricator to 4 drops per minute). Dynabrade Air Lube (P/N 95842: 1 pt 473 ml) is recommended.

#### Routine Preventative Maintenance: Check free speed of Dynafile® 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 Motor Tune-Up Kit (P/N 95600) 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:

- · Use of tool rests, hangers and/or balancers is recommended.
- 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.

# **Machine Specifications**

Model	Motor	Motor	Sound	Abrasive Belt Size	Maximum Air Flow		Weight	Length	Height
Number	HP (W)	RPM	Level	Inch (mm)	CFM/SCFM (LPM)		Pound (kg)	Inch (mm)	Inch (mm)
All Models	.5 (373)	20,000	77 dB(A)	1/8-1/2 (3-13) W x 24 (610) L	4/31 (878)	5,800 (1,762)	3.1 (1.4)	14.6 (371)	4.6 (116)

Additional Specifications: Air Inlet Thread 1/4" NPT · Hose I.D. Size 3/8" or 10mm · Air Pressure 90 PSIG (6.2 Bars)

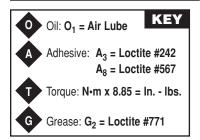
#### **Notice**

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.

#### **Index Key** No. Part # Description Contact Arm Assembly (See pages 8-11) 2 95218 Knob Assembly 3\* **11420** Idler Arm Assy., Includes: 95070 Threaded Insert 11040 Spring 4 11359 Tension Spring 5\* **95162** Screw (2) 6\* **11011** Idler Wheel Assy. (2) Includes: 95162 Screw 11013 Bearing 11006 Idler Wheel 95216 Pivot Pin 11418 Housing 95311 Screw 10 40029 Motor Lock 11 11419 Cover 11424 12 Wave Spring 13 01197 Air Motor 14 01111 Drive Wheel 15 10295 Screen 04087 Lock Ring 16 17 04078 Felt Silencer 04084 Air Control Ring 18 19 **04081** Rotor Nut 20 01007 Bearing Shim Pack (3/pkg.) 21 01121 22 01008 Bearing Plate 23 50767 Pin (2) 24 01010 Rotor Spacer 25 01013 Cylinder 26 **01011** Blade (4) (4/pkg.) 27 **01120** Rotor 28 01244 Bearing Plate 29 01015 Bearing 30 95558 Retaining Ring 31 30420 Housing 32 01477 Valve Stem O-Ring 33 **95730** 34 **01024** O-Rina 35 **01247** Speed Regulator Assembly 01090 Throttle Lever 36 01089 Safety Throttle Lever 37 **01017** Pin 01464 38 Seal 39 01472 Tip Valve 40 01438 Spring 41 53190 **Block Plate**



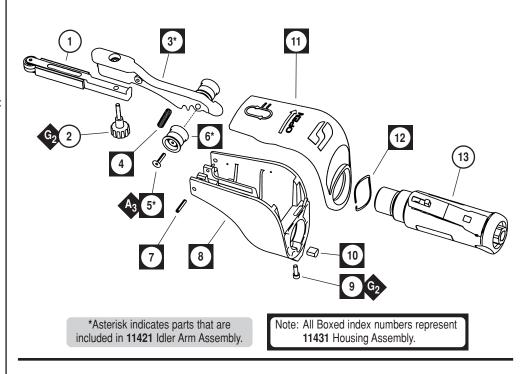
O-Ring

Inlet Adapter

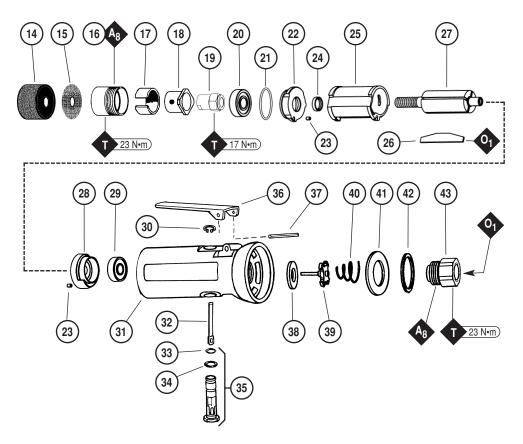
42 96065

43 **01494** 

# **Dynafile®**Complete Assembly Breakdown



#### 01197 Air Motor with 01111 Drive Wheel



Note: 50971 Lock Ring Wrench is available for removal/installation of 04087 Lock Ring. See inside for Important Operating, Maintenance and Safety Instructions before operating tool.

#### Disassembly/Assembly Instructions - Dynafile®

Important: The manufacture warranty is void if the tool is disassembled before the warranty expires, by anyone other than a Dynabrade approved repair technician. Notice: A complete Motor Tune-Up Kit, part number 95600 is available. Also, the special repair tooling referred to in these instructions can be ordered through your Dynabrade Distributor. Please refer to this tool manual for correct part number identification.

#### Motor Disassembly:

- 1. Shut off the air supply, and depress throttle lever to dissipate the remaining air. Carefully disconnect the tool from the air supply hose.
- 2. Remove the abrasive belt and contact arm assembly.
- 3. Carefully hold the 11418 Housing in a vise with aluminum or bronze jaws.
- 4. Use a 9/64" hex key to loosen the 95311 Screw. Remove the 01197 Air Motor along with the 11424 Wave Spring and the 11419 Cover.
- 5. Hold the 01243 Housing of the 01197 Air Motor in a vise with aluminum or bronze jaws so that the drive wheel is pointing up. Fasten the flats near the inlet area of the housing.
- 6. Insert a 3/16" hex key through the 01111 Drive Wheel and into the end of the 01120 Rotor to hold it stationary. Grasp the drive wheel and turn it counterclockwise to remove. Remove the 10295 Screen.
- Use the 50971 Lock Ring Wrench to remove the 04087 Lock Ring, turning it counterclockwise. Remove the 04084 Air Control Ring and the 04078 Felt Silencer. Pull the motor out of the housing.
- 8. Fasten the 96346 2" Bearing Separator around the portion of the 01013 Cylinder closest to the 01244 Bearing Plate. Place the separator and the motor on the table of the 96232 #2 Arbor Press so that the threaded end of the rotor is pointing down.
- 9. Use a 3/16" or 5mm diameter flat end drive punch as a press tool and push the rotor out of the 01015 Bearing.
- 10. Remove the 01011 Blades (4).
- 11. The 01015 Bearing can be removed from the 01244 Bearing Plate with the 96211 Bearing Removal Tool and the arbor press.
- 12. Hold the blade portion of the 01120 Rotor in a vise with aluminum or bronze jaws and remove the 04081 Rotor Nut with an adjustable wrench, turning it counterclockwise.
- 13. The 01007 Bearing, 01008 Bearing Plate, 01121 Shims, and 01010 Spacer can now be removed from the 01120 Rotor.

#### Motor Disassembly Complete.

#### Valve Disassembly:

- 1. Hold the 01243 Housing in a vise with aluminum or bronze jaws. Fasten the flats near the inlet area of the housing so that the air inlet is pointing up.
- Hold the 01494 Inlet Adapter stationary with a wrench and remove the air fitting with another wrench. Important: The 01494 Inlet Adapter must be held stationary to prevent damage to the 01243 Housing.
- 3. Remove 01494 Inlet Adapter to access the 01438 Spring, 01472 Tip Valve, and 01464 Seal.
- 4. Use a 2.5mm drive punch to remove the 01017 Pin and the throttle lever.
- 5. The **01477** Valve Stem can be pulled out of the **01247** Speed Regulator Assembly.
- 6. Use retaining ring pliers to remove the 95558 Retaining Ring and then push the 01247 Speed Regulator Assembly out of the 01243 Housing.

#### Valve Body Disassembly Complete.

#### Idler Arm Disassembly:

- Use a 1/8" or 3mm diameter drive punch to remove the 95216 Pivot Pin along with the 11420 Idler Arm Assembly and 11359 Tension Spring.
- 2. Use a 3/32" hex key to remove the 11011 Idler Wheel Assembly (2).

#### Idler Arm Disassembly Complete.

#### Important: Clean and inspect all parts before assembling.

#### Valve Assembly:

- 1. Hold the 01243 Housing in a vise with aluminum or bronze jaws. Fasten the flats of the housing near the inlet area so that the air inlet is pointing up.
- 2. Install the 01247 Speed Regulator Assembly (o-rings included) into the 01243 Housing and hold it in place with the 95558 Retaining Ring.
- 3. Insert the 01477 Valve Stem so that the end with the hole fits into the 01247 Speed Regulator Assembly.
- 4. Install the 01464 Seal into the air inlet so that it is laying flat.
- 5. Use a needle nose pliers to grasp the white nylon portion of the 01472 Tip Valve and insert the metal pin of the tip valve into the hole in the 01477 Valve Stem.
- 6. Install the 01438 Spring so that the smaller end of the spring fits against the center of the tip valve.
- Install the 96065 O-Ring onto the 53190 Block Plate and install the block plate along with the o-ring so that the flat side of the block plate is positioned against the 01243 Housing.
- 8. Apply a small amount of the #567 Loctite® (or equivalent) to the threads of the 01494 Inlet Adapter and install the adapter into the housing. Torque to 23 N•m/200 lbs. in.
- 9. Install the throttle lever and fasten it with the 12132 Pin.

#### Valve Assembly Complete.

### Idler Arm Assembly:

- 1. Apply a small amount of the Loctite® #242 (or equivalent) to the 95162 Screw (2) and install the 11011 Idler Wheel Assembly (2).
- 2. Install the 11359 Tension Spring into the 11418 Housing. Install the 11420 Idler Arm Assembly and fasten it into housing with the 95216 Pivot Pin.

#### Idler Arm Assembly Complete.

#### Motor Assembly:

- Install the 01010 Spacer onto the rotor.
- 2. Select .003" (0.80mm) thickness in shims from the 01121 Shim Pack and place these into the 01008 Bearing Plate.
- 3. Install the 01007 Bearing into the bearing plate.

#### Disassembly/Assembly Instructions - Dynafile®

- 4. Slip the bearing and plate onto the rotor.
- 5. Install the **04081** Rotor Nut and check the clearance between the rotor and plate with a .001" (0.03mm) feeler gauge. The clearance should be .001"-.0015" (0.03-0.04mm). If the rotor/plate clearance needs adjustment, repeat steps 2-5 and remove or add shims as required to establish the correct clearance
- 6. Apply the 95842 Dynabrade® Air Lube, 10W/NR (or equivalent) to the 01011 Blades (4) and install these into the rotor.
- 7. Install the 01013 Cylinder over the rotor so that the air inlet opening of the cylinder will align with the air inlet opening of the 01244 Bearing Plate.
- 8. Use the 96241 Bearing Press Tool (position the raised outside diameter against the outside diameter of the bearing) and 96232 Arbor Press to install the 01015 Bearing into the bearing plate.
- 9. Use the 96241 Bearing Press Tool (position the raised inside diameter against the inside diameter of the bearing) and the 96232 Arbor Press to install the bearing and plate onto the rear bearing journal of the rotor.
  Important: Press the bearing and plate down onto the rotor until the 01244 Bearing Plate just touches the 01013 Cylinder. This fit will establish a

preload on the motor bearings producing a "snug fit" between the bearing plates and the cylinder. If the fit is too tight it will cause the bearings to wear prematurely, too loose and the desired preload will not be achieved. If an adjustment is required, remove the bearing and plate. Repeat steps 7-9.

- 10. Orient the motor assembly so that the air inlet passage in the housing aligns with the air passage in the 01244 Bearing Plate and install the motor assembly.
- 11. Wrap the 04078 Felt Silencer around the 04084 Air Control Ring and install these into the 04087 Lock Ring.
- 12. Apply a small amount of the Loctite® #567 (or equivalent) on the threads of the 04087 Lock Ring. Install the lock ring along with the air control ring and felt silencer onto the 01243 Housing. Torque to 23 N·m/200 lbs. in.
- 13. Install the 11424 Wave Spring and the 11419 Cover onto the 01197 Air Motor.
- 14. Insert the 01197 Air Motor into the 11418 Housing. Use a 9/64" hex key to fasten the motor in place with the 40029 Cam Lock and the 95311 Screw.
- 15. Install a contact arm assembly and an abrasive belt onto the idler arm assembly.
- 16. Adjust and Track the abrasive belt by hand. Close the 11419 Cover.
- 17. Connect the Dynafile to the air supply hose. Open the air supply valve to charge the hose with air.
- **18.** Run the tool and check for proper operation.

#### Motor Assembly Complete. 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.

#### **Abrasive Belt Change and Removal:**

#### To Remove Belt:

- 1. Open 11419 Cover.
- 2. Depress idler arm lever and pull belt away from the contact wheel.
- 3. Slip belt off drive wheel.

#### To Replace Belt:

- 1. Create a loop with belt by pinching together the sides of belt in the middle.
- 2. Slip one loop under the 01111 Drive Wheel and around the idler arm.
- 3. Depress idler arm lever and pull belt toward the contact wheel.
- 4. Slip belt over contact wheel.
- 5. Connect tool to power source.
- 6. Adjust belt tracking using 95218 Knob.

#### 14000 Dvnafile® 01089 11421 11011 11420 11218 Safety Throttle Idler Wheel Idler Arm Idler Arm Contact Lever (Optional) Arm Assembly Assembly Assembly (See pages 8-11) 01247 01197 11424 01111 11418 95218 Air Motor Speed Wave Drive Tracking Housing Control Wheel Adjustment Knob Spring Screw 6

# **Preventative Maintenance Schedule**

For All Dynafile® Models

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.

# 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.



95600 - Motor Tune-Up Kit

#### **Parts Common to all Models:**

Index #	Part Number	Description	Number Required	High Wear 100%	Medium Wear 70%	Low Wear 30%	Non-Wear 10%
1	See Note	Contact Arm Assembly	1				
2	95218	Knob Assembly	1			Χ	
3	11420	Idler Arm	1				Х
		(Incl. 95070 Threaded Insert)					
4	11359	Tension Spring	1			Χ	
5	95162	Screw	2				Х
6	11011	Idler Wheel Assembly	2			Χ	
		(Incl. 95162 Screw, 11013					
		Bearing & 11006 Idler Wheel)					
7	95216	Pivot Pin	1			Χ	
8	11418	Housing	1			.,	Х
9	95311	Screw	1			X	
10	40029	Motor Lock	1			L	
11	11419	Cover	1				X
12	11424	Wave Spring	1				Х
13	01197	Air Motor	1			.,	Х
14	01111	Drive Wheel	1		_	Х	
15	10295	Screen	1		Т		
16	04087	Lock Ring	1		_		Х
17	04078	Felt Silencer	2		T		v
18	04084	Air Control Ring	1				X
19	04081	Rotor Nut	1		_		Х
20	01007	Bearing	1	Т	T		
21	01121 01008	Shim Pack (3/pkg.)	1	1		Х	
22	50767	Bearing Plate Pin	1			^	Х
	01010	Rotor Spacer			Т		^
24 25	01013	Cylinder	1		1	X	
26	01013	Blade (4/pkg.)	1	Т		^	
27	011120	Rotor	2				Х
28	01120	Bearing Plate	1				X
29	01015	Bearing	1		Т		^
30	95558	Retaining Ring	1	Т			
31	30420	Housing	1				χ
32	01477	Valve Stem	2		т		Λ
33	95730	O-Ring	1				Х
34	01024	O-Ring	1				X
35	01247	Speed Regulator Assembly	1		Т		
36	01090	Throttle Lever	1				Х
	01089	Safety Throttle Lever	1			X	
37	01017	Pin	1		Т	-	
38	01464	Seal	1		Ť		
39	01472	Tip Valve	1		T		
40	01438	Spring	1		Ť		
41	53190	Block Plate	1				Х
42	96065	O-Ring	1		Т		
43	01494	Inlet Adapter	1				Х

**Note:** Please refer to pages 8-10 of tool manual for specific part number.

# **Dynafile® Standard Contact Arm Assemblies**

Part	Abrasive	Contact Wheel		Contact Wheel	Contact Wheel	Bearing	
Number	Belt Size	Description	Comments	Assembly	Only	(2) Req.	Shaft
11178	1/2" x 34"	5/16" Dia. x 3/8" W Steel	9" Reach	11068	11067	11051	11054
11179	1/2" x 34"	5/8" Dia. x 3/8" W Rubber	9" Reach	11078	11077	11052	11054
11212	1/4" x 24"	5/16" Dia. x 1/8" W Steel	1/4" W Platen	11066	11065	11051 (1)	11056
11213	1/2" x 24"	5/16" Dia. x 3/8" W Steel	1/2" W Platen	11068	11067	11051	11054
11214	1/2" x 24"	7/16" Dia. x 3/8" W Rubber	1/2" W Platen	11070	11069	11051	11054
11215	1/4" x 24"	7/16" Dia. x 1/8" W Brass	1/4" W Platen	11072	11071	11052 (1)	11053
11216	1/4" x 24"	5/8" Dia. x 1/8" W Rubber	1/4" W Platen	11074	11073	11052 (1)	11053
11217	1/2" x 24"	1/2" Dia. x 3/8" W Steel	1/2" W Platen	11076	11075	11052	11054
11218	1/2" x 24"	5/8" Dia. x 3/8" W Rubber	1/2" W Platen	11078	11077	11052	11054
11219	1/4" or 1/2" x 24"	1" Dia. x 3/8" W Radiused Rubber	No Platen	11080	11079	11052	11054
11228	1/2" x 24"	5/8" Dia. x 3/8" W Rubber	H.D. Version of 11218 Arm	11078	11077	11052	11054
11231	1/2" x 24"	3/4" Dia. x 1/2" W Rubber	1/2" W Platen	11084	11083	11052	11055
11232	1/8" or 1/4" x 24"	1" Dia. x 3/8" W Tapered Urethane	No Platen	11086	11085	11052	11054
11234	1/2" x 34"	1" Dia. x 3/8" W Radiused Rubber	Double Burrer Arm	11080 (2)	11079 (2)	11052	N/A
11237	5/16" x 24"	5/16" Dia. x 1/8" W Steel	Polish Turbine Blades	11066	11065	11051 (1)	11053
11238	1/2" x 24"	1/4" Dia. x 3/8" W Steel	Polish Turbine Blades	11051 (3) and 11054	11051 (3)	N/A	11054
11239	1/2" x 24"	5/16" Dia. x 3/8" W Steel	H.D. Version of 11213 Arm	11068	11067	11051	11054
11240	1/2" x 34"	5/8" Dia. x 3/8" W Rubber	1/2" W Platen - 9" Reach	11078	11077	11052	11054
11241	1/4" x 34"	5/8" Dia. x 1/8" W Rubber	1/4" W Platen - 9" Reach	11074	11073	11052 (1)	11053
11243	1/2" x 24'	3/4" Dia x 1/2" W Rubber	H.D. Version of 11231 Arm	11084	11083	11052	11055
11244	1/2" x 44"	5/8" Dia. x 3/8" W Rubber	1/2" W Platen - 14" Reach	11078	11077	11052	11054
11245	1/4" x 44"	5/8" Dia. x 1/8" W Rubber	1/4" W Platen - 14" Reach	11074	11073	11052 (1)	11053
11254	1/2" or 1/4" x 34"	4-3/4" or 2-1/8" Dia. to 1/4" or 1/2" W	Grind in Deep Narrow Slots	Variable	Variable	11013 (1)	95162
11255	1/2" x 34"	5/8" Dia. x 3/8" W Rubber	Deburr I.D. 1" to 4"	11078	11077	11052	11054
11257	1/2" Wide	5/16" Dia. x 3/8" W Steel or 5/8" Dia. x 3/8" W Rubber	"Spear-Arm" - Specify length up to 32"	11068 Steel	<b>11067</b> Steel	11051 Steel	11054
				<b>11078</b> Rubber	<b>11077</b> Rubber	<b>11052</b> Rubber	
11258	1/2" x 24"	1/2" Dia. x 3/8" W Steel and 5/8" Dia. x 3/8" W Rubber	Platen Between 2 Contact Wheels	<b>11076</b> Steel	<b>11075</b> Steel	11052 (4)	11054 (2)
				<b>11078</b> Rubber	<b>11077</b> Rubber		
11261	1/2" x 24"	5/8" Dia. x 3/8" W Rubber	"Banana Arm" – For in-line scratch pattern.	11078	11077	11052	11054
11262	1/2" x 24"	5/8" Dia. x 3/8" W Rubber	"Offset Arm" - Contact wheel is offset to prevent gouging.	11078	11077	11052	11054
11297	1/2" x 24"	5/8" Dia. x 3/8" W Rubber	Contains two 11395 Guide Wheels. Prevents undercutting.	11090	11077	11052	95610

See next page for a complete guide to contact arms. Also see page 11 for contact arm disassembly and assembly instructions.



11288 Dynafile Contact Arm and Idler Wheel Repair Kit

• Contains special tools to assist in the replacement of contact wheels and bearings.

# **Dynafile® Standard Contact Arms**

Standard Contact Arms allow for a 4" workable reach.

11212 File round openings as small as 7/16". 45 PSIG maximum.

Belt Size: 1/4" W x 24" L.

11066 Contact Wheel: 5/16" diameter x 1/8" wide, steel.

11034 Platen: 1/4" wide.

11213 See 11239 for heavy-duty version. 45 PSIG maximum.



Belt Size: 1/2" W x 24" L.

11068 Contact Wheel: 5/16" diameter x 3/8" wide, steel.

11027 Platen: 1/2" wide.

11214 Work on contact wheel or Dynapad®. 45 PSIG maximum.



Belt Size: 1/2" W x 24" L.

11070 Contact Wheel: 7/16" diameter x 3/8" wide, rubber.

11025 Platen: 1/2" wide.



Belt Size: 1/4" W x 24" L.

11072 Contact Wheel: 7/16" diameter x 1/8" wide, brass.

11034 Platen: 1/4" wide.



Belt Size: 1/4" W x 24" L.

11074 Contact Wheel: 5/8" diameter x 1/8" wide, rubber.

11032 Platen: 1/4" wide.

11217 Enter channels as narrow as 9/16".

Belt Size: 1/2" W x 24" L.

11076 Contact Wheel: 7/16" diameter x 3/8" wide, steel.

11027 Platen: 1/2" wide.



Belt Size: 1/2" W x 24" L.

11078 Contact Wheel: 5/8" diameter x 3/8" wide, rubber.

11025 Platen: 1/2" wide.

11219



Belt Size: 1/4" or 1/2" W x 24" L

11080 Contact Wheel: 1" diameter x 3/8" wide, radiused rubber.

No Platen

11228 Heavy-Duty Steel

Optional 11028 Steel Platen available for grinding.





Belt Size: 1/2" W x 24" L.

11078 Contact Wheel: 5/8" diameter x 3/8" wide, rubber.

11025 Platen: 1/2" wide.

11231

See 11243 for heavy-duty version.



Belt Size: 1/2" W x 24" L.

11084 Contact Wheel: 3/4" diameter x 1/2" wide, rubber.

11135 Platen: 1/2" wide.



No platen due to offset design. Grind corners, strap polish.

Belt Size: 1/8" or 1/4" W x 24" L.

11086 Contact Wheel: 1" diameter x 3/8" wide, tapered urethane.

No Platen.

11239 Heavy-Duty Steel

Grind in narrow areas. 45 PSIG maximum.



Belt Size: 1/2" W x 24" L.

11068 Contact Wheel: 5/16" diameter x 3/8" wide, steel.

11027 Platen: 1/2" wide.

11243 Heavy-Duty

Grind over contact wheel or Dynapad®.





Belt Size: 1/2" W x 24" L.

11084 Contact Wheel: 3/4" diameter x 1/2" wide, rubber.

11135 Platen: 1/2" wide.

11262 "Offset Arm"

For flat grinding using platen at or near corners and edges of large radius round. Contact wheel

is offset to prevent gouging.



11078 Contact Wheel: 5/8" diameter x 3/8" wide, rubber.

11026 Platen: 1/2" wide.

# **Dynafile® Specialized Contact Arms**

Designed to solve tough production problems.

#### 11237 and 11238 Turbine Blade Arms

45 PSIG maximum.



11237: 1/4" wide x 24" long belts.

11066 Contact Wheel: 5/16" dia. x 1/8" wide steel wheel.

11238: 1/2" wide x 24" long belts.

Contact Wheel: 1/4" dia. x 3/8" wide steel wheel.

#### 11234 Double-Burrer Arm



- Deburrs both edges of workpiece simultaneously.
- Contact wheels adjust for material 1/8" to 5/8" thick.

Belt Size: 1/2" wide x 34" long.

11080 Contact Wheels: 1" diameter x 3/8" wide, rubber.

#### 11240, 11241, 11244 and 11245 Extra-Length Arms



#### 9" Workable Reach:

11240 Arm:

Belt Size: 1/2" W x 34" L belts. 11078 Contact Wheel:

5/8" dia. x 3/8" wide, rubber.

11241 Arm:
Belt Size: 1/4" W x 34" L belts.
11074 Contact Wheel:
5/8" dia. x 1/8" wide, rubber.

#### 14" Workable Reach:

11244 Arm:

Belt Size: 1/2" W x 44" L belts. 11078 Contact Wheel:

1078 Contact Wheel: 5/8" dia. x 3/8" wide, rubber.

**11245 Arm: Belt Size:** 1/4" W x 44" L belts. **11074 Contact Wheel:**5/8" dia. x 1/8" wide, rubber.

#### 11254 Big Wheel Arm



- Grinds and polishes deep slots or narrow groves.
- 1/4" to 1/2" wide wheels, 2-1/8" to 4-3/4" diameter (specify size).

Belt Size: 1/4" to 1/2" W x 34" L.

11253 Arms (specify width)

**11377 Contact Wheel:** 2-1/8" dia. x 1/2" wide, urethane. **11378 Contact Wheel:** 2-1/8" dia. x 1/4" wide, urethane.

11254 Arms (specify width)

11375 Contact Wheel:  $\dot{4}$ - $\dot{3}$ /4" dia. x 1/2" wide, urethane. 11375 Contact Wheel: 4-3/4" dia. x 1/4" wide, urethane.

#### 11255 Cross-Bow Arm



- I.D. polishing or deburring with one 180° wrist turn.
- Deburr leading radius of 1" to 4" round openings.

Belt Size: 1/2" W x 34" L.



11257: Custom-made. Specify usable length up to 32".

Specify 11068 - 5/16" diameter steel or 11078 - 5/8" diameter rubber contact wheel.

contact wheel

11178: Has 9" reach with 11068 - 5/16" diameter steel contact wheel.

Belt Size: 1/2" W x 34" L (45 PSIG Max.).

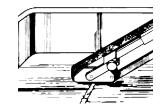
11179: Has 9" reach with 11078 - 5/8" diameter rubber contact wheel.

Belt Size: 1/2" W x 34" L.

#### 11258 Stroke Sander Arm

Blend stainless steel.





Belt Size: 1/2" W x 24" L.

11078 Contact Wheel: 5/8" diameter x 3/8" wide, rubber.

**Platen:** 1/2" W x 7/8" L.

#### 11297 Guide-Cut Arm

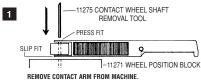


- Guide wheels prevent undercutting.
- Removes raised material within .020" or less.
- Use 60 to 80 grit abrasive belts with this arm.

Belt Size: 1/2" W x 24" L, 60 to 80 grit.

11090 Contact Wheel: 5/8" diameter x 3/8" wide rubber.

# **Contact Arm Assembly/Disassembly Instructions**



REMOVE CONTACT ARM FROM MACHINE.
PRESS CONTACT WHEEL SHAFT OUT OF CONTACT ARM.

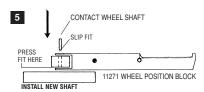


3 11274 CONTACT WHEEL BEARING MOUNT TOOL -CONTACT WHEEL PRESS BEARING INTO EACH SIDE OF WHEEL



MOISTEN TIP OF PIPE CLEANER WITH CONTACT WHEEL SHAFT ADHESIVE AND APPLY TO ID OF BEARINGS BEFORE INSTALLING PROPER SHAFT.

DO NOT GET ADHESIVE ON FACE OF BEARING.



# **Abrasive Belt Exchange Instructions**



With your thumb, pull and slide guard open in a clockwise direction.



Form a loop in belt keeping the belt splice between fingers as shown in photo above. Slip lower loop of belt under the drive wheel.



Depress idler arm lever and pull belt toward the contact wheel.



Slip belt over contact wheel. Release idler arm lever. Operate on the contact wheel or on the return side of the belt.



Completely close the guard.

#### **Reference Contact Information**

1. American National Safety Institute - ANSI 25 West 43rd Street Fourth 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

# **Optional Accessories**



#### Composite Dynaswivel®

Swivels 360° at two locations which allows an air hose to drop straight to the floor, no matter how the tool is held.

• 94300: 1/4" NPT.



#### 50971 Lock Ring Tool

 Lock Ring Tool has a 3/8 in. square socket for use with 3/8 in. drive; breaker bar, ratchet head, or torque wrenches.



#### 96211 Bearing Removal Tool

 This tool is designed yo pass through the I.D. of the bearing plate and push against the I.D. of the bearing.



#### 96241 Bearing Press Tool

• This tool is designed to safely press a bearing into a bearing plate and onto a shaft.



#### 95600 Motor Tune-Up Kit:

 Includes assorted parts to help maintain and repair motor.



#### 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.

**95842:** 1 pt. (473 ml) **95843:** 1 gal. (3.8 L)



#### 11288 Dynafile Contact Arm and Idler Wheel Repair Kit

• Contains special tools to assist in the replacement of contact wheels and bearings.



Visit Our Web Site: www.dynabrade.com

Email: Customer.Service@Dynabrade.com