



DISC SANDER - PISTOL GRIP INSTRUCTION MANUAL

51 mm (2 in) 15,000 RPM

76 mm (3 in) 15,000 RPM

Important Safety Information

Please read, understand and follow all safety information contained in these instructions prior to the use of this tool. Retain these instructions for future reference.

Intended Use

This pneumatic tool is intended for use in industrial locations, and used only by skilled, trained professionals in accordance with the instructions in this manual. This pneumatic tool is designed to be used with disc pads, and appropriate abrasive for sanding metals, wood, stone, plastics and other materials. It should only be used for such sanding applications and within its marked capacity and ratings. Only accessories specifically recommended by 3M should be used with this tool. Use in any other manner or with other accessories could lead to unsafe operating conditions.

Do not use disc pads that have a Max RPM less than the tool Max RPM rating.

Summary of device labels containing safety information

Marking	Description
	▲ WARNING: READ AND UNDERSTAND INSTRUCTION MANUAL BEFORE OPERATING TOOL.
	▲ WARNING: ALWAYS WEAR APPROVED EAR AND EYE PROTECTION.
	▲ WARNING: REPETITIVE MOTION/EXTENDED EXPOSURE TO VIBRATION MAY HARM HANDS/ARMS.
	▲ WARNING: ALWAYS OPERATE AT 90 PSIG/6.2 BAR MAX.
15,000 RPM	MAXIMUM ROTATIONAL SPEED

Hand/Wrist/Arm injury can occur with prolonged exposure to vibration

Explanation of Signal Word Consequences

▲ WARNING:	Indicates a potentially hazardous situation which, if not avoided, may result in death or serious injury and/or property damage.
▲ CAUTION:	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury and/or property damage.

<p>Read the Material Safety Data Sheets (MSDS) before using any materials.</p> <p>Contact the suppliers of the workpiece materials and abrasive materials for copies of the MSDS if one is not readily available.</p>	<p>▲ WARNING</p> <p>Exposure to DUST generated from workpiece and/or abrasive materials can result in lung damage and/or other physical injury.</p> <p>Use dust capture or local exhaust as stated in the MSDS. Wear government-approved respiratory protection and eye and skin protection.</p> <p>Failure to follow this warning can result in serious lung damage and/or physical injury.</p>
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WARNING

To reduce the risks associated with impact from abrasive product or tool breakup, sharp edges, hazardous pressure, rupture, vibration and noise:

- Read, understand and follow the safety information contained in these instructions prior to the use of this tool. Retain these instructions for future reference.
- Only personnel who are properly trained should be allowed to service this tool.
- Practice safety requirements. Work alert, have proper attire, and do not operate tools under the influence of alcohol or drugs.
- Operators and other personnel must always wear protection for eyes, ears, and respiratory protection when in the work area or while operating this product. Follow your employer's safety policy for PPE's and/or ANSI Z87.1 or local/national standards for eyewear and other personal protective equipment requirements.
- Wear leather apron or other protective apparel, taking into consideration the type of work being done.
- Never exceed marked maximum input pressure (90psi / .62Mpa / 6.2Bars).
- Proper eye protection must be worn at all times.
- Tool is not to be operated in the presence of bystanders.
- If you notice any abnormal noise or vibration when operating the product, immediately discontinue its use and inspect for worn or damaged abrasive product or accessories. Correct or replace the suspect component. If abnormal noise or vibration still exists, return the tool to 3M for repair or replacement. Refer to warranty instructions.
- Never operate this tool without all guards or safety features in place and in proper working order.
- Make sure the tool is disconnected from its air source before servicing, inspecting, maintaining, cleaning, and before changing abrasive product.
- Only use abrasive disc pads and other accessories supplied by 3M.
- Never use this tool with bonded abrasive products, such as grinding wheels, that require a guard.
- Maximum operating speed of abrasive products or accessories must be reduced whenever the exposed length of shaft (overhang) is longer than corresponding 3M approved products.
- Always ensure that a minimum of 10 mm shaft gripping length is observed.
- Prior to use, or if dropped or jammed, inspect mounting hardware, tool arbor and abrasive product for possible chips, cracks or other damage, and insure the abrasive product is correctly secured. If damaged, or if safety labels cannot be read, replace with new abrasive product, mounting hardware, tool arbor, and/or labels available from 3M.
- Never use a damaged tool until it has been repaired.
- Never over-ride or disable the safety features of the start-stop control such that it is in the on position.
- Use only with mounting hardware recommended by 3M; check with 3M for mounting hardware requirements.
- If the tool is jammed, shut off the tool and ease it free. Ensure the abrasive product is correctly secured.
- Never allow this tool to be used by children or other untrained people.
- Do not leave an unattended tool connected to air source.

To reduce the risks associated with skin abrasion, burns, cutting & severing, impact or entrapment:

- Keep hands, hair, and clothing away from the cutting part of the tool.
- Wear suitable protective gloves while operating tool.
- Do not touch the rotating parts during operation for any reason.
- Do not force tool or use excessive force when using tool.

To reduce the risks associated with vibration:

- If any physical hand/wrist discomfort is experienced, work should be stopped promptly to seek medical attention. Hand, wrist and arm injury may result from repetitive work, motion and overexposure to vibration.

To reduce the risks associated with loud noise:

- Always wear hearing protection while operating this tool. Follow your employer's safety policy or local/national standards for personal protective equipment requirements.

To reduce the risks associated with fire or explosion:

- Do not operate the tool in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust. The abrasives are able to create sparks when working material, resulting in the ignition of the flammable dust or fumes.
- Refer to MSDS of material being worked as to potential for creating fire or explosion hazard.

To reduce the risks associated with hazardous dust ingestion or eye/skin exposure:

- Use appropriate respiratory and skin protection, or local exhaust as stated in the MSDS of the material being worked on.

To reduce the risks associated with hazardous voltage:

- Do not allow this tool to come into contact with electrical power sources as the tool is not insulated against electrical shock.

CAUTION!

To reduce the risks associated with whipping or hazardous pressure/rupture:

- Ensure supply hose is oil resistant and is properly rated for required working pressure.
- Do not use tools with loose or damaged air hoses or fittings.
- Be aware that incorrectly installed hoses and fittings might unexpectedly come loose at any time and create a whipping/impact hazard.

To reduce the risks associated with flying off of accessory parts:

- Use care in attaching abrasive product and mounting hardware; following the instructions to ensure that they are securely attached to the tool before use or free-spinning.
- Never over-tighten accessory fasteners.
- Never point this product in the direction of yourself or another person, or start tool unintentionally.

**PARTS LIST FOR PN 28547 AND PN 64874 76 mm (3 in)
15,000 RPM DISC SANDERS - PISTOL GRIP**

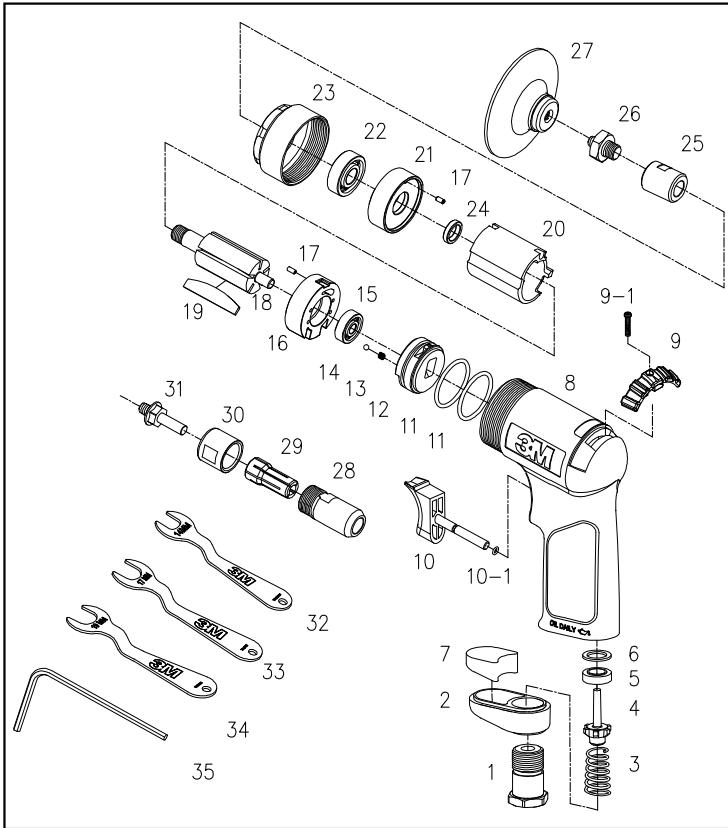


Figure NO	Description	PCS
1	Inlet Bushing	1
2	Deflector	1
3	Valve Spring	1
4	Valve	1
5	Valve Seat	1
6	Spacer	1
7	Silencer	1
8	Composite Housing	1
9	Reverse Valve Lever	1
9-1	Screw	1
10	Trigger	1
10-1	O-Ring	1
11	O-Ring	2
12	Valve Body	1
13	Spring	1
14	Detent Ball	1
15	Ball Bearing (626ZZ)	1
16	Rear Plate	1
17	Spring Pin	2
18	Rotor	1

Figure NO	Description	PCS
19	Rotor Blade	5
20	Cylinder	1
21	Front Plate	1
22	Ball Bearing	1
23	Front Housing	1
24	Anvil Bushing	1
25	Spindle	1
26	Spindle Joint	1
27	3 in Roloc™ Disc Pad Hard	1
28	Collect Spindle	1
29	Collect (1/4 in) for Model 28547	1
29	Collect (6 mm) for Model 64874	1
30	Collect Nut	1
31	Roloc™ Shank (1/4 x 1/4-20 UNC)	1
31	Roloc™ Shank (6 mm x 1/4-20 UNC)	1
32	Wrench (14 mm)	1
33	Wrench (17 mm)	2
34	Wrench (19 mm)	1
35	Hex Wrench (4 mm)	1

NOTE: In anticipated applications, tool components are not intended to be replaced.

**PARTS LIST FOR PN 64875 51 mm (2 in)
15,000 RPM DISC SANDERS - PISTOL GRIP**

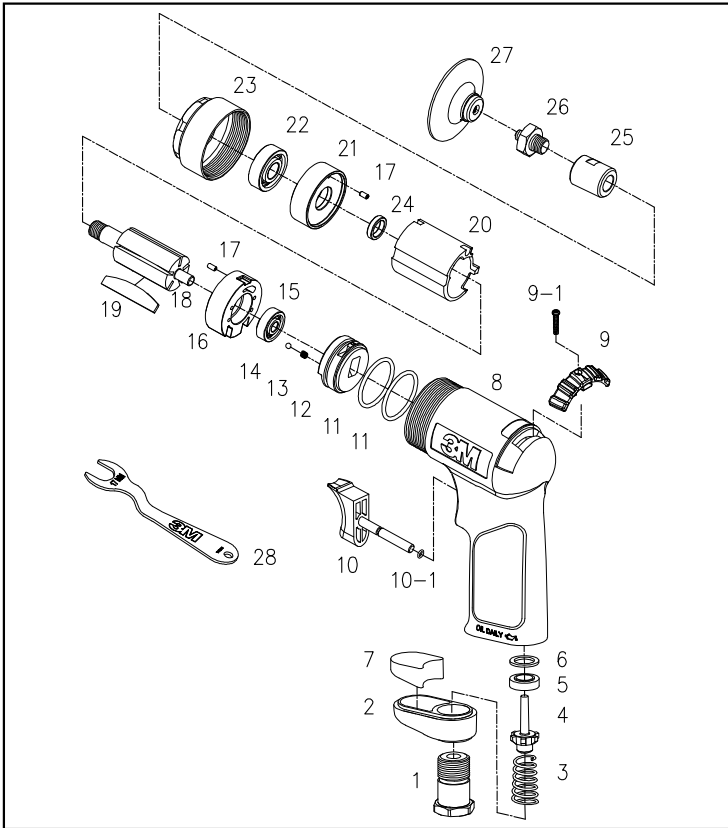
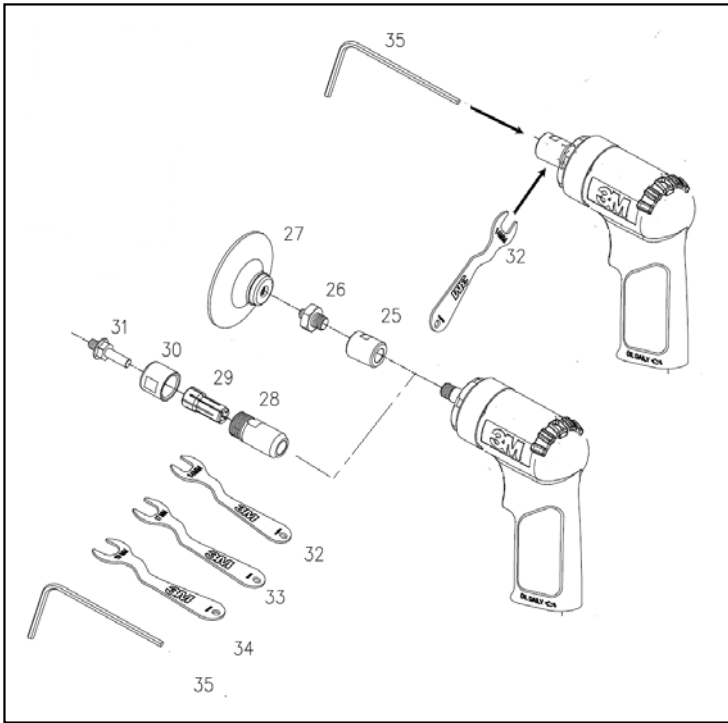


Figure NO	Description	PCS
1	Inlet Bushing	1
2	Deflector	1
3	Valve Spring	1
4	Valve	1
5	Valve Seat	1
6	Spacer	1
7	Silencer	1
8	Composite Housing	1
9	Reverse Valve Lever	1
9-1	Screw	1
10	Trigger	1
10-1	O-Ring	1
11	O-Ring	2
12	Valve Body	1
13	Spring	1

Figure NO	Description	PCS
14	Detent Ball	1
15	Ball Bearing (626ZZ)	1
16	Rear Plate	1
17	Spring Pin	2
18	Rotor	1
19	Rotor Blade	5
20	Cylinder	1
21	Front Plate	1
22	Ball Bearing	1
23	Front Housing	1
24	Anvil Bushing	1
25	Spindle	1
26	Spindle Joint	1
27	2 in Roloc™ Disc Pad Hard	1
28	Wrench (17mm)	2

NOTE: In anticipated applications, tool components are not intended to be replaced.

Disc Sander Spindle and Collet Systems



CHANGING THE SPINDLE TO THE COLLET SYSTEM (MODELS 28547 AND 64874):

1. Remove the Spindle Joint (#26) from the Spindle (#25) using the appropriate open end wrenches.
2. Insert the 4 mm Hex Wrench (#35) through the Spindle to secure the output shaft. Use the open end wrench to loosen the Spindle and remove it from the output shaft.
3. Attach the Collet Spindle (#28) to the output shaft and tighten using the 4 mm Hex Wrench and the appropriate open end wrench.
4. Insert the Collet (#29) into the Collet Spindle. Attach the Collet Nut (#30) onto the Collet Spindle, but do not tighten completely.
5. Insert the Roloc™ Shank (#31) through the Collet Nut and tighten securely.

Product Configuration/Specifications:

Model Number	Pad Size mm (in)	Replacement Disc Pad Number	Collet Size	Spindle Thread	Product Net Wt. kg (lb)	Length mm (in)	*Noise Level dBA Pressure (Power)	**Vibration Level m/s ² (ft/s ²)	***Uncertainty K m/s ²
28547	78 (3)	45091	1/4 in	1/4 in -20 T	0.81 (1.79)	122 (4.80)	74 (85)	2.05 (6.73)	0.70
64874	78 (3)	45091	6 mm	1/4 in -20 T	0.81 (1.79)	122 (4.80)	72 (83)	2.59 (8.50)	0.75
64875	51 (2)	45096	NA	1/4 in -20 T	0.81 (1.79)	122 (4.80)	76 (87)	2.01 (5.89)	0.65

* Declared noise levels; measurements carried out in accordance with standard EN ISO 15744.

** Declared vibration levels in accordance with EN ISO 12096; measurements carried out in accordance with Standard EN ISO 28927-3.

IMPORTANT NOTE: The noise and vibration values stated in the table are from laboratory testing in conformity with stated codes and standards and are not sufficient risk evaluation for all exposure scenarios. Values measured in a particular work place may be higher than the declared values. The actual exposure values and amount of risk or harm experienced to an individual is unique to each situation and depends upon the surrounding environment, the way in which the individual works, the particular material being worked, work station design, as well as upon the exposure time and the physical condition of the user. 3M cannot be held responsible for the consequences of using declared values instead of actual exposure values for any individual risk assessment.

Operating / Maintenance Instructions

PRIOR TO THE OPERATION

The tool is intended to be operated as a hand held tool. It is always recommended that while using the tool, operators stand on a solid floor, in a secure position with a firm grip and footing. Be aware that the sander can develop a torque reaction. See the section "SAFETY PRECAUTIONS".

Use a clean lubricated air supply that will give a measured air pressure at the tool of 6.2 bar (90 psig) when the tool is running with the lever fully depressed. It is recommended to use an approved 10 mm (3/8 in) x 8 m (25 ft) maximum length airline. Connect the tool to the air supply as shown in Figure 1. Do not connect the tool to the airline system without an easily accessible air shut off valve. It is strongly recommended that an air filter, regulator and lubricator (FRL) be used as shown in Figure 1 as this will supply clean, lubricated air at the correct pressure to the tool. In any case appropriate air pressure regulators shall be used at all times while operating this tool where the supply pressure exceeds the marked maximum of the tool. Details of such equipment can be obtained for your tool distributor. If such equipment is not used, the tool should be manually lubricated. To manually lubricate the tool, disconnect the airline and put 2 to 3 drops of suitable pneumatic motor lubricating oil such as 3M™ Air Tool Lubricant PN 20451, Fuji Kosan FK-20 or Mobil ALMO 525 into the hose end (inlet) of the tool. Reconnect tool to the air supply and run tool slowly for a few seconds to allow air to circulate the oil. If the tool is used frequently, lubricate it on a daily basis or lubricate it if the tool starts to slow or lose power. It is recommended that the air pressure at the tool be 6.2 bar (90 psig) while the tool is running so the maximum RPM is not exceeded. The tool can be run at lower pressures but should never be run higher than 6.2 bar (90 psig). If run at lower pressure the performance of the tool is reduced.

Recommended Airline Size - Minimum		Recommended Maximum Hose Length		Air Pressure		
10 mm	3/8 in	8 meters	25 feet	Maximum Working Pressure	6.2 bar	90 psig
12.7 mm	1/2 in			Recommended Minimum	NA	NA

Lubricate the angle head every 6-8 working hours with premium grease with the following properties:

- High and low temperature performance
- Shear stable
- Anti-wear protection
- Low viscosity base fluid for high speed application
- Very low coefficient of friction

Fuchs Renolit AX S2 or equal is recommended. Grease gun and grease available from your grease supplier.

Safety Precautions

1. Read all instructions before using this tool. All operators must be fully trained in its use and aware of these safety rules.
2. The tool RPM should be checked on a regular basis to ensure proper operating speed.
3. Make sure the tool is disconnected from the air supply. Attach the 3M™ Disc Pad to the sander adaptor using the wrenches supplied with the tool. Select a suitable abrasive and secure it to the disc pad.
4. Always wear required safety equipment when using this tool.
5. When sanding always start the tool just prior to contacting the work piece. Stop air flow to the tool as it is removed from the work piece.
6. Always disconnect the air supply to the sander before fitting, adjusting or removing the abrasive or disc pad.
7. Always adopt a firm footing and grip and be aware of torque reaction developed by the sander.
8. Use only 3M approved spare parts.
9. Always ensure the material being worked is firmly fixed to avoid movement.
10. Check hose and fittings regularly for wear. Do not carry the tool by its hose; always be careful to prevent the tool from being started when carrying the tool with the air supply connected.
11. Dust can be highly combustible. Keep working area clean.
12. If tool is serviced or rebuilt check to ensure that the maximum tool RPM is not exceeded and that there is no excessive tool vibration.
13. Do not exceed maximum recommended air pressure. Use safety equipment as recommended.
14. Prior to installing any sanding or polishing accessory, always check that its marked maximum operating speed is equal or higher than the rated speed of this tool.
15. The tool is not electrically insulated. Do not use where there is a possibility of contact with live electricity, gas pipes, and/or water pipes.
16. This tool is not protected against hazards inherent in grinding and cutting operations, which require a guard, and no such grinding and cutting products should ever be attached.
17. Take care to avoid entanglement with the moving parts of the tool with clothing, ties, hair, cleaning rags or loose hanging objects. If entangled, stop air supply immediately to avoid contact with moving tool parts.
18. Keep hands clear of the spinning abrasive during use.
19. If the tool appears to malfunction, remove from use immediately and arrange for service and repair.
20. Immediately release the start handle in the event of any disruption of pressure; do not attempt to restart until the disruption has been corrected.
21. Do not allow the tool to free spin without taking precautions to protect any persons or objects from debris from rupturing abrasive & mounting hardware.
22. When tool is not in use, store in a clean dry environment free of debris.
23. Operate tool in a well lit work area.
24. Recycle or dispose of tool according to Local, State, and Federal regulations.
25. Whenever performing maintenance procedures, use care to avoid exposure to any hazardous substances deposited on the tool as a result of work processes. Also, refer to warnings related to dust exposure.

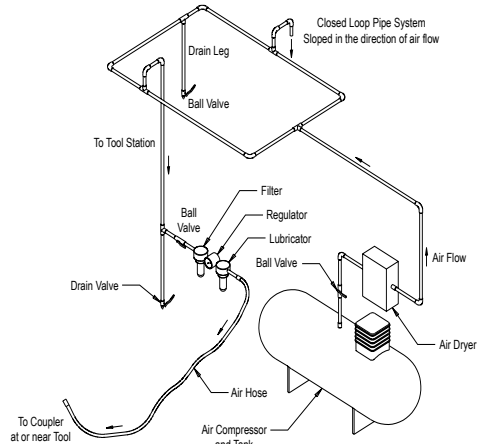


Figure 1

3M™ Roloc™ Disc Pads

3M Roloc Disc Pads are mated for use on the 3M Sander. Constructed from premium, industrial-quality materials and their durability and precise construction are the ideal complement to the performance of the 3M Sander.


See 3M ASD Accessories to Optimize Performance catalog 61-5002-8098-9 and Engineered Metalworking Solutions catalog 61-5002-8097-1 for additional accessories.

Product Use: All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the 3M product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method of application.

Warranty and Limited Remedy: 3M warrants this tool against defects in workmanship and materials under normal operating conditions for one (1) year from the date of purchase. 3M MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. User is responsible for determining whether the 3M tool is fit for a particular purpose and suitable for user's application. User must operate the tool in accordance with all applicable operating instructions, safety precautions, and other procedures stated in the operating manual to be entitled to warranty coverage. 3M shall have no obligation to repair or replace any tool or part that fails due to normal wear, inadequate or improper maintenance, inadequate cleaning, non-lubrication, improper operating environment, improper utilities, operator error or misuse, alteration or modification, mishandling, lack of reasonable care, or due to any accidental cause. If a tool or any part thereof is defective within this warranty period, your exclusive remedy and 3M's sole obligation will be, at 3M's option, to repair or replace the tool or refund the purchase price.

Limitation of Liability: Except where prohibited by law, 3M and seller will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.

Submitting a Warranty Claim: Contact your dealer when submitting a warranty claim in accordance with the restrictions listed above. Please note that all warranty claims are subject to manufacturer's approval. Be sure to keep your sales receipt in a safe place. This must be submitted when filing a warranty claim, within 1 year from the date of purchase. For additional assistance call 1-800-362-3550.

EC Declaration of Conformity		CE
Manufacturers Name:	3M , Abrasive Systems Division	
Manufacturers Address:	3M Center, Building 223-6N-02 St Paul, MN USA 55144	
Does hereby declare under our sole responsibility that the machinery described below complies with those applicable essential health and safety requirements of the Machinery Directive 2006/42/EC; together with all amendments to date.		
Descriptions:	3M™, Pneumatic, Pistol Grip Disc Sanders, 15,000 RPM, 0.45 HP, including either 2in. or 3in. hard backup pads, and with either 1/4in. or 6mm collets.	
Model Numbers:	28547, 64874, 64875	
Serial Number Range:	0010001 – 3659999, where the final 3 digits represent the sequential unit manufactured on the date specified in the first 4 digits.	
The following standards have either been referred to, or complied with, in full or in part as relevant:		
EN ISO 12100:2010	Safety of machinery. General principles for design. Risk assessment and risk reduction	
EN 792-8:2001 A1:2008	Hand-held non-electric power tools – Safety Requirements – Part 8: Sanders and polishers	
EN 983:1996 A1:2008	Safety of machinery. Safety requirements for fluid power systems and components - Pneumatics	
EN ISO 28927-3:2009	Hand-held portable power tools. Test methods for evaluation of vibration emission. Part 3. Polishers and rotary, orbital and random orbital sanders	
EN ISO 15744:2008	Hand-held non-electric power tools. Noise measurement code. Engineering method (grade 2)	
Full Name of responsible person.		
Stefan A. Babirad	Position: Technical Director	
Signature: 	Date: 9/23/2011 St. Paul, Minnesota, USA	
Full Name and address of individual responsible to compile technical file within the Community:		
Mr. Claus Geiger - Marketing Operations, Abrasive Systems Division, 3M Deutschland GmbH, Carl-Schurz-Strasse 1, D-41453 Neuss, Germany		

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