RANDOM ORBITAL SANDERS MANUAL
12,000 RPM 127 mm (5 in) and 150 mm (6 in)

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

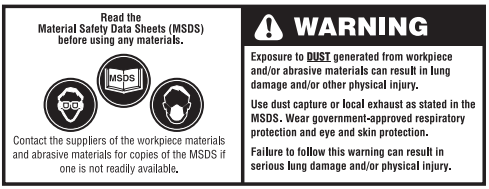
This pneumatic tool is designed to be used with a backup pad and appropriate abrasive for sanding metals, wood, stone, plastics and other materials. It should only be used for such sanding applications and within its marked capacity and ratings. Only accessories specifically recommended by 3M should be used with this tool. Use in any other manner or with other accessories could lead to unsafe operating conditions.

Do not operate tool in water or in an excessively wet application.

Do not use back-up pads that have a Max RPM or Max OPM less than 12,000. Never use back-up pads that have a weight and/or size different than what the tool was specifically designed for.

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.



⚠WARNING

To reduce the risk of all hazards associated with this product:
- Read, understand and follow the safety information contained in these instructions prior to the use of this tool.
- Only personnel who are properly trained should be allowed to service this tool.
- Always wear protection for eyes, ears and respiratory protection while operating this product. Follow ANSI Z87.1 or local/national standards for eyewear and other personal protective equipment requirements.
- Practice safety requirements. Work alert, wear proper attire; never operate tools under the influence of alcohol or drugs or in a manner inconsistent with its intended use.

To reduce the risks associated with accessory rupture or disintegration:
- Never exceed marked maximum input pressure (90psi / .62Mpa / 6.2Bars).
- Use care in attaching back-up pad; follow the instructions to ensure that it is securely attached to the tool before use.
- Never free spin the tool or otherwise allow it to be started unintentionally.
- Never point this product in the direction of yourself or another person.

To reduce the risk associated with loud noise:
- Immediately discontinue use of product if its noise reduction muffler system has been damaged or is otherwise not functioning properly. Have product repaired before placing back into use.

To reduce the risk associated with vibration emissions during use of product:
- If any physical hand/wrist discomfort is experienced, stop work promptly and seek medical attention. Hand, wrist and arm injury may result from repetitive work, motion and overexposure to vibration.

To reduce the risk associated with electrical shock and/or explosion:

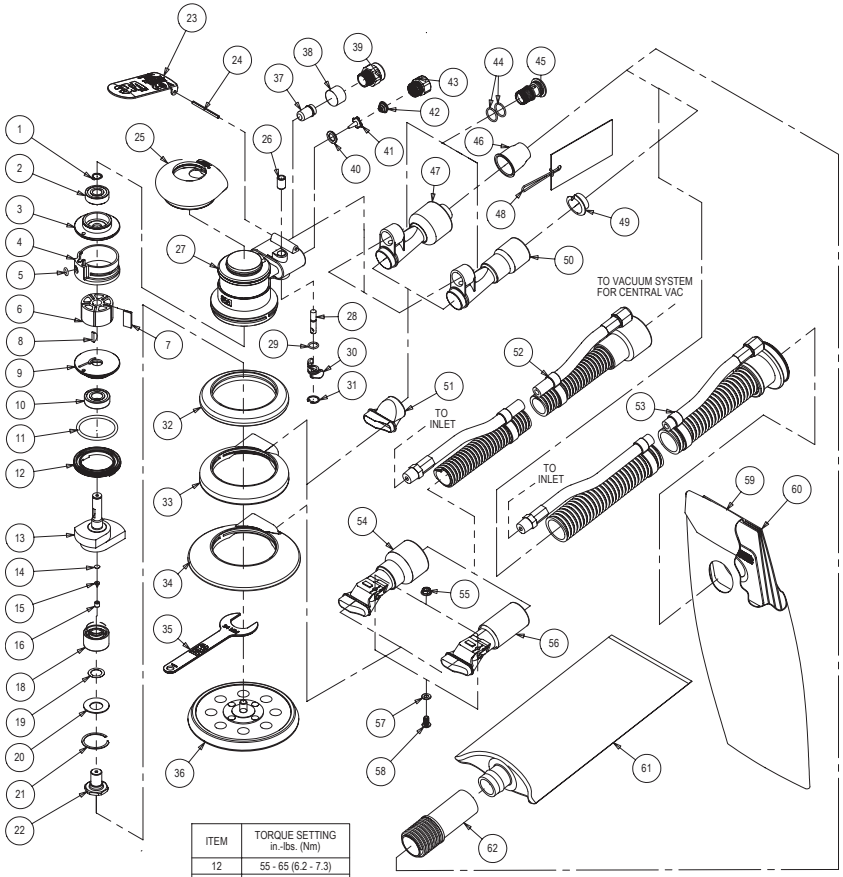
- Do not allow this tool to contact electrical power sources as the tool is not insulated against electrical shock.
- Do not operate the tool in or near explosive materials, such as flammable liquids, gases or excessive airborne dust. The tool/abrasives can create sparks when working material, resulting in the ignition of the flammable dust or fumes.

⚠ CAUTION!

To reduce the risk associated with pneumatic pressure and other mechanical hazards:

- Keep hands, hair and clothing away from the working end of the tool.
- Do not touch the rotating parts during operation for any reason.
- Replace backup pad at normal intervals according to instructions.
- Never operate this tool without all guards or safety features in place and in proper working order.
- Be aware that incorrectly installed hoses and fittings might unexpectedly come loose at any time and create a whipping/impact hazard.
- If you notice any abnormal noise or vibration when operating the product, immediately discontinue its use and inspect for worn or damaged backup pad. Replace any damaged parts. If abnormal noise or vibration still exists, return to the manufacturer for service or repair. Refer to warranty instructions.

Parts Page



ITEM	TORQUE SETTING in.-lbs. (Nm)
12	55 - 65 (6.2 - 7.3)
39	16 - 20 (1.8 - 2.3)
43	60 - 72 (6.8 - 8.1)
45	36 - 48 (4.1 - 5.2)
58	30 - 35 (3.4 - 3.9)

Parts List

Item	Part Number	Description	Qty
1	3MA0040	RETAINING RING	1
2	3MA0021	BEARING - 2 SHIELDS	1
3	3MB0017	REAR ENDPLATE	1
4	3MA0005	CYLINDER ASSEMBLY	1
5	3MA0042	O-RING	1
6	3MB0005	ROTOR	1
7	3MA0010	VANE	5
8	3MA0041	WOODRUFF KEY	1
9	3MB0016	FRONT ENDPLATE	1
10	3MA0019	BEARING - 2 SHIELDS	1
11	3MA0045	O-RING	1
12	3MA0001	LOCK RING	1
13	3MB0279	5 x 3/32 in ORBIT SHAFT BALANCER	1
13	3MB0277	5 x 3/16 in ORBIT SHAFT BALANCER	1
13	3MB0348	5 in x 5/16 in (8.0 mm) ORBIT SHAFT BALANCER	1
13	3MB0278	6 x 3/16 in. ORBIT SHAFT BALANCER	1
13	3MB0280	6 x 3/32 in. ORBIT SHAFT BALANCER	1
13	3MB0334	6 in x 5/16 in (8 mm) ORBIT SHAFT BALANCER	1
14	3MA0122	FILTER	1
15	3MA0121	DUCKBILL CHECK VALVE	1
16	3MA0120	VALVE RETAINER	1
17	N/A	N/A	1
18	3MA0938	DOUBLE ROW ANGULAR CONTACT BEARING - 1 SEAL	1
19	3MA0016	SPACER 0.2 THK	1
20	3MA0017	BELLEVILLE WASHER	1
21	3MA0018	RETAINING RING	1
22	3MB0018	SPINDLE	1
23	3MA1351	LEVER FOR 2.5 mm (3/32 in) ORBIT	1
23	3MA1352	LEVER FOR 5 mm (3/16 in) ORBIT	1
23	3MA1447	LEVER FOR 8 mm (5/16 in) ORBIT	1
24	3MA0031	LEVER SPRING PIN	1
25	3MB0320	GRIP 2.5 in.	OPT
25	3MB0321	GRIP 2 3/4 in.	1
25	3MB0322	GRIP 3 in.	OPT
26	3MA0015	VALVE SLEEVE	1
27	3MA1330	HOUSING	1
28	3MA0008	VALVE STEM ASSEMBLY	1
29	3MA0043	O-RING	1
30	3MB0014	SPEED CONTROL	1
31	3MA0039	INTERNAL RETAINING RING	1
32	3MA1346	5/6 in. NON-VACUUM SHROUD	1
33	3MA1347	5/6 in. SHROUD	1
34	3MA1348	Ø 6 In. CLEAN SANDING ROS SHROUD	1
35	3MA1777	24 mm PAD WRENCH	1
36	NA	1 Back-Up Pad supplied with each tool (type determined by model)	1
37	3MA0062	INTERNAL MUFFLER	1
38	3MA0068	MUFFLER INSERT	1
39	3MA0166	MUFFLER HOUSING	1
40	3MA0009	VALVE SEAT	1
41	3MA0007	VALVE	1
42	3MA0014	VALVE SPRING	1
43	3MA0013	INLET BUSHING ASSEMBLY	1
44	3MA0044	O-RING	2
45	3MA0006	SGV RETAINER	1
46	3MA0778	1 in./28 mm HOSE SEAL	1
47	3MA1338	ASSEMBLY FOR 1 in./28 mm HOSE SGV SWIVEL EXHAUST FITTING	1
48	3MA1354	TAG W/ INSTRUCTION FOR 1 in./28 mm HOSE SEAL	1
48	3MA1355	TAG W/ INSTRUCTION FOR 3/4 in./19 mm HOSE SEAL	OPT
49	3MA0854	3/4 in./19 mm HOSE SEAL	OPT
50	3MA1340	ASSEMBLY FOR 3/4 in./19 mm HOSE SGV SWIVEL EXHAUST FITTING	OPT
51	3MA1333	SGV SKIRT/SHROUD ADAPTER	1
52	3MA1490	ASSY FOR Ø 1 in. VAC HOSE TO Ø 1 in./28 mm x 1 1/2 in. FRICTION FIT ADAPTER COUPLING AND AIRLINE	1
52	3MA1489	ASSY FOR Ø 3/4 in. VAC HOSE TO Ø 3/4 in. x 1 in./28 mm ADAPTER COUPLING AND AIRLINE	OPT
53	3MA1488	ASSY FOR Ø 1 in. VAC HOSE TO DOUBLE BAG FITTING AND AIRLINE	OPT
53	3MA1487	ASSY FOR Ø 3/4 in. VAC HOSE TO DOUBLE BAG FITTING AND AIRLINE	OPT
54	3MA1343	ASSEMBLY FOR ROS CV 1 in./28 mm SWIVEL EXHAUST	1
55	3MA0048	FLANGED NUT	1
56	3MA1345	ASSEMBLY FOR ROS CV 3/4 in. SWIVEL EXHAUST	OPT
57	3MA0047	WASHER	1
58	3MA0769	SCREW	1
59	3MA1434	VACUUM BAG	OPT
60	3MC0109	VACUUM BAG INSERT	OPT
61	3MA1668	CLEAN SANDING FILTER BAG (20452-3M reorder number)	1
62	3MA1669	FILTER BAG ADAPTOR (20453-3M reorder number)	1

Product Configuration/Specifications: 12,000 RPM Random Orbital Sander

Note: All Vacuum machines use Ø 28 mm (1 in.) Vacuum Hose Fittings.

Orbit	Pad Face	Vacuum Type	Pad Type	Pad Size mm (in.)	Model Number	Pad Part Number	Product Net Wt kg (lb)	Height mm (in.)	Length mm (in.)	*Noise Level dBA Pressure (Power)	**Vibration Level m/s^2 (ft/s^2)	**Uncertainty K m/s^2
2.5 mm (3/32 in.)	Stikit™	Non Vacuum	Low Profile	127 (5)	20320	20351	0.72 (1.59)	82.9 (3.26)	148.4 (5.84)	77 (83)	3.1 (10.2)	1.55
				150 (6)	20328	20354	0.76 (1.68)	82.9 (3.26)	161.1 (6.34)	83 (89)	3.3 (10.8)	1.65
	Hookit™	Central Vacuum	Clean Sanding	127 (5)	20321	20353	0.78 (1.72)	84.5 (3.33)	209.5 (8.25)	77 (83)	3.1 (10.2)	1.55
				150 (6)	20329	20356	0.83 (1.83)	84.5 (3.33)	222.2 (8.75)	83 (89)	3.3 (10.8)	1.65
				150 (6)	20463	20465	0.83 (1.83)	84.5 (3.33)	222.2 (8.75)	83 (89)	3.3 (10.8)	1.65
		Self-Gen Vacuum	Clean Sanding	127 (5)	20322	20353	0.80 (1.76)	84.5 (3.33)	217.9 (8.58)	84 (95)	3.1 (10.2)	1.55
				150 (6)	20330	20356	0.86 (1.90)	84.5 (3.33)	230.6 (9.08)	83 (92)	3.1 (10.2)	1.55
				150 (6)	20464	20465	0.86 (1.90)	84.5 (3.33)	230.6 (9.08)	83 (92)	3.1 (10.2)	1.55
5 mm (3/16 in.)	Stikit™	Non Vacuum	Low Profile	127 (5)	20317	20351	0.75 (1.65)	82.9 (3.26)	149.6 (5.89)	80 (88)	3.2 (10.5)	1.60
				150 (6)	20325	20354	0.79 (1.74)	82.9 (3.26)	162.3 (6.39)	79 (83)	3.3 (10.8)	1.65
	Hookit™			127 (5)	20457	20352	0.75 (1.65)	82.9 (3.26)	149.6 (5.89)	80 (88)	3.2 (10.5)	1.60
				150 (6)	20460	20355	0.79 (1.74)	82.9 (3.26)	162.3 (6.39)	79 (83)	3.3 (10.8)	1.65
	Hookit™	Central Vacuum	Clean Sanding	127 (5)	20318	20353	0.81 (1.79)	84.5 (3.33)	210.8 (8.30)	81 (88)	3.2 (10.5)	1.60
				150 (6)	20326	20356	0.86 (1.90)	84.5 (3.33)	223.5 (8.80)	77 (85)	3.3 (10.8)	1.65
				150 (6)	20461	20465	0.86 (1.90)	84.5 (3.33)	223.5 (8.80)	77 (85)	3.3 (10.8)	1.65
	Stikit™		Low Profile	127 (5)	20455	20442	0.81 (1.79)	84.5 (3.33)	210.8 (8.30)	81 (88)	3.2 (10.5)	1.60
				150 (6)	20458	20454	0.86 (1.90)	84.5 (3.33)	223.5 (8.80)	77 (85)	3.3 (10.8)	1.65
	Stikit™	Self-Gen Vacuum	Low Profile	127 (5)	20456	20442	0.83 (1.83)	84.5 (3.33)	219.2 (8.63)	85 (93)	3.2 (10.5)	1.60
				150 (6)	20459	20454	0.89 (1.96)	84.5 (3.33)	231.9 (9.1)	83 (92)	3.3 (10.8)	1.65
	Hookit™	Self-Gen Vacuum	Clean Sanding	127 (5)	20319	20353	0.83 (1.83)	84.5 (3.33)	219.2 (8.62)	85 (93)	3.2 (10.5)	1.60
				150 (6)	20327	20356	0.89 (1.96)	84.5 (3.33)	231.9 (9.1)	83 (92)	3.3 (10.8)	1.65
				150 (6)	20462	20465	0.89 (1.96)	84.5 (3.33)	231.9 (9.1)	83 (92)	3.3 (10.8)	1.65
8 mm (5/16 in.)	Stikit™	Non Vacuum	Low Profile	127 (5)	20253	20351	0.76 (1.68)	82.9 (3.26)	150.37 (5.92)	74 (83))	2.0 (6.6)	1.0
	Hookit™	Central Vacuum	Clean Sanding		20254	20353	0.82 (1.81)	82.9 (3.26))	212.08 (8.35)	77 (85)	2.4 (7.9)	1.2
		Self-Gen Vacuum			20255		0.84 (1.85)	82.9 (3.26))	220.66 (8.68)	91 (99)	2.5 (8.2)	1.25
	Stikit™	Non Vacuum	Low Profile	150 (6)	20324	20354	0.79 (1.74)	82.9 (3.26)	163.42 (6.45)	77 (85)	3.3 (10.8)	1.65
	Hookit™	Central Vacuum	Clean Sanding		20213	20356	0.87 (1.92)	82.9 (3.26))	224.8 (8.85)	75 (85)	3.5 (11.4)	1.75
		Self-Gen Vacuum			20208		0.90 (1.98)	82.9 (3.26))	233.4 (9.18)	82 (92)	3.4 (11.1)	1.70

* Declared noise levels; measurements carried out in accordance with standard EN ISO 15744:2002.
** Declared vibration levels in accordance with EN12096; measurements carried out in accordance with standard EN ISO 8662-8:1997. 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. 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 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
				Recommended Minimum	NA	NA

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. Make sure the tool is disconnected from the air supply. Select a suitable abrasive and secure it to the back-up pad. Be careful to center the abrasive on the back-up pad.
3. Always wear required safety equipment when using this tool.
4. When sanding always start the tool on the workpiece. This will prevent gouging due to excess speed of the abrasive. Stop air flow to the tool as it is removed from the workpiece.
5. Always remove the air supply to the sander before fitting, adjusting or removing the abrasive or back-up pad.
6. Always adopt a firm footing and grip and be aware of torque reaction developed by the sander.
7. Use only 3M approved spare parts.
8. Always ensure the material being sanded is firmly fixed to avoid movement.
9. 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.
10. Dust can be highly combustible. Vacuum dust collection bag should be cleaned or replaced as needed. Cleaning or replacing of bag also assures optimum performance.
11. Do not exceed maximum recommended air pressure. Use safety equipment as recommended.
12. Prior to installing any sanding or polishing accessory, always check that it's marked maximum operating speed is equal or higher than the rated speed of this tool.
13. 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.
14. This tool is not protected against hazards inherent in grinding and cutting operations, and no such accessories should ever be attached.
15. 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.
16. Keep hands clear of the spinning pad during use.
17. If the tool appears to malfunction, remove from use immediately and arrange for service and repair.
18. Do not allow the tool to free spin without taking precautions to protect any persons or objects from the loss of the abrasive or pad ruptures.
19. Immediately release the start handle in the event of any disruption of pressure; do not attempt to re-start until the disruption has been corrected.

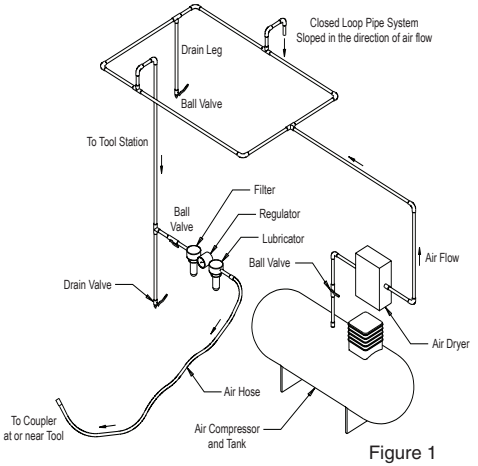


Figure 1

3M™ Back-Up Pads

3M back-up pads are perfectly mated for use on the 3M Sander. Constructed from premium, industrial-quality materials and featuring a riveted fiberglass and steel hub with molded urethane, their durability and precise construction are the ideal complement to the performance of the 3M Sander. See Product Configuration/Specifications table for the correct replacement pad for a particular model. The following chart is a sample of products offered.

Description	Part Number
127 mm (5 in.) Stikit™ Low Profile Disc Pad, non-vacuum	20351
127 mm (5 in.) Hookit™ Low Profile Disc Pad, non-vacuum	20352
127 mm (5 in.) Hookit™ Clean Sanding Low Profile Disc Pad, vacuum	20353
150 mm (6 in.) Stikit™ Low Profile Disc Pad, non-vacuum	20354
150 mm (6 in.) Hookit™ Low Profile Disc Pad, non-vacuum	20355
150 mm (6 in.) Hookit™ Clean Sanding Low Profile Disc Pad, vacuum	20356
127 mm (5 in.) Stikit™ Low Profile D/F Disc Pad, vacuum	20442
150 mm (6 in.) Stikit™ Low Profile D/F Disc Pad, vacuum	20454
150 mm (6 in.) Hookit™ Clean Sanding Low Profile Disc Pad-861, vacuum	20465

See 3M ASD Accessory catalog 61-5002-8098-9 for additional Back-Up Pads and Accessories.

Removing and Mounting Back-up Pad to Random Orbital Sander

1. Disconnect air line from sander.
2. Remove old back-up pad from sander by inserting the wrench, supplied with the tool, between the rubber shroud and the back-up pad. Use the wrench to secure the sander spindle while turning the back-up pad counter clockwise.
3. After the old back-up has been removed from the sander, inspect the threaded hole in the spindle to ensure that the threads are free of debris and undamaged.
4. Ensure that the phenolic washer is in place around the threaded shaft of the new back-up pad.
5. Secure the sander spindle with the wrench and tighten the new back-up pad securely to the tool.

WARNING!

An inadequately tightened back-up pad could cause the threaded shaft to break causing damage to the tool and work piece and possible injury to the operator or bystanders.

Product Use: All statements, technical information and recommendations contained in this document are based up on 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.

Product Repair after Warranty Has Expired

3M does not offer repair service for product out of warranty.

EC Declaration of Conformity

CE

Manufacturers Name: 3M, Abrasives Systems Division
Manufacturers Address: 3M Center, Building 223-6N-02
St Paul, MN USA 55144.

Does hereby declare that the machinery described below complies with those applicable essential health and safety requirements of the Machinery Directive 98/37/EC; together with all amendments to date.

Description:
3M Random Orbital Sanders, 127mm (5") x 2.5mm (3/32") orbit diameter
3M Random Orbital Sanders, 127mm (5") x 5mm (3/16") orbit diameter
3M Random Orbital Sanders, 127mm (5") x 8mm (5/16") orbit diameter
3M Random Orbital Sanders, 150mm (6") x 2.5mm (3/32") orbit diameter
3M Random Orbital Sanders, 150mm (6") x 5mm (3/16") orbit diameter
3M Random Orbital Sanders, 150mm (6") x 8mm (5/16") orbit diameter

Part Numbers: 20208, 20213, 20253, 20254, 20255, 20317, 20318, 20319, 20320, 20321, 20322, 20324, 20325, 20326, 20327, 20328, 20329, 20330, 20455, 20456, 20457, 20458, 20459, 20460, 20461, 20462, 20463, 20464

The following standards have either been referred to, or complied with, in full or in part as relevant:

EN ISO 12100-1:2003 EN ISO 12100-2:2003	Safety of machinery. Basic concepts, general principles for design – Basic terminology and Technical principals
EN 792-8:2001	Hand-held non-electric power tools – Safety Requirements – Part 8: Sanders and polishers
EN 983:1996	Safety of machinery. Safety requirements for fluid power systems and components - Pneumatics
EN 1050:1995	Safety of machinery. Principles for risk assessment
EN ISO 8662-8:1997	Hand-held portable power tools – Measurement of vibrations at the handle – Part 8: Polishers and rotary, orbital and random orbital sanders
EN ISO 28662-1:1992	Hand-held portable power tools – Measurement of vibrations at the handle – Part 1: General
EN ISO 15744:2002.	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: Stefan A Babirad

Date: 5/21/08

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34-8700-2519-3