OPERATOR'S MANUAL FOR AirVANTAGE™ LOW PROFILE 12,000 RPM 5 in. (127 mm) and 6 in. (150 mm) RANDOM ORBITAL SANDERS



Declaration of conformity

AirVANTAGE™ Tools

10018 Lower Azusa Road, Unit #C; El Monte, California 91731 USA

declare on our sole responsibility that the products

5 in. and 6 in. Random Orbital Sanders (See "Product Configuration/Specifications" Table for particular Model) to which this declaration relates is in conformity with the following standard(s) or other normative document(s) EN ISO 15744:2002. Following the provisions of 89/392/EEC as amended by 91/368/EEC & 93/44/EEC 93/68/EEC Directives and consolidating Directive 98/37/EC

Place and date of issue

Name

Signature or equivalent marking of authorized person

Operator Instructions

Includes – Please Read and Comply, Proper Use of Tool, Warranty, Product Configuration and Specifications Table, Parts Page, Parts List, Back-Up Pads, Work Stations, Putting the Tool Into Service, Operating Instructions and Compressor Layout.

Important

Read these instructions carefully before installing, operating, servicing or repairing this tool. Keep these instructions in a safe accessible location.

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Manufacturer/Supplier AirVANTAGE™ Tools

AIrVAN IAGE IM TOOIS 10018 Lower Azusa Road; Unit #C; El Monte, California 91731 USA Tel: (626) -575-4568 Fax: (626)-575-4968

Required Personal Safety Equipment

Safety Glasses

Breathing Masks

Safety Gloves

Ear Protection

Recommended Airline Size - Minimum

10 mm 3/8 in

Recommended Maximum Hose Length

8 meters

25 feet

Air Pressure

Maximum Working Pressure 6.2 bar 90 psig Recommended Minimum NA NA

Please Read and Comply with:

- General Industry Safety & Health Regulations, Part 1910, OSHA 2206, available from: Superintendent of Documents; Government Printing Office; Washington DC 20402
- Safety Code for Portable Air Tools, ANSI B186.1 available from: American National Standards Institute, Inc.; 1430 Broadway; New York, New York 10018
- 3) State and Local Regulations.

Proper Use of Tool

This sander is designed for sanding all types of materials i.e. metals, wood, stone, plastics, etc. using abrasive designed for this purpose. Do not use this sander for any other purpose than that specified without consulting the manufacturer or the manufacturer's authorized supplier.

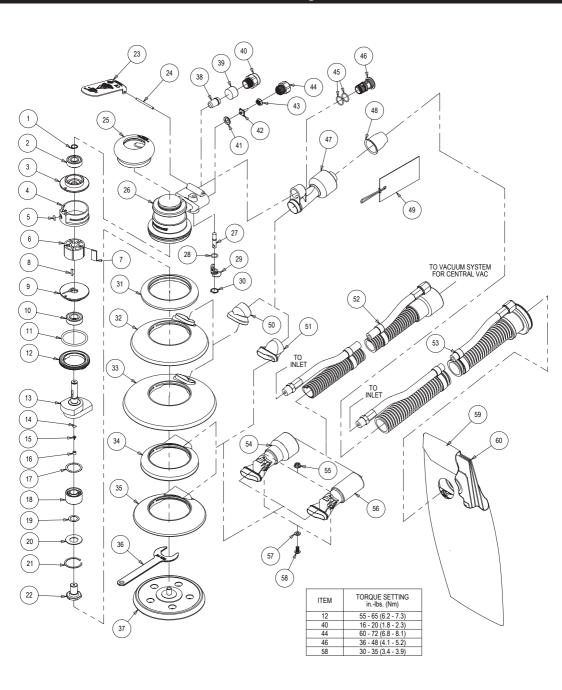
Do not use back-up pads that have a working speed less than 12,000 RPM free speed. Never use back-up pads that have a weight and/or size different than the machine was specifically designed for.

AirVANTAGE[™] Warranty

All AirVANTAGE™ Random Orbital Sanders are warranted for defects in materials or workmanship for one year from the date of delivery to the user. Combined with the AirVANTAGE™ name, this Warranty expresses our total confidence in the superior quality, durability, and performance of the AirVANTAGE™ LP. To receive any expressed or implied warranty, tool must be repaired by an authorized AirVANTAGE™ Service Center. The "Service Instructions" section in this document is provided for use after completion of the warranty period. To receive warranty, tools must be operated under the conditions as described in the "Putting the Tools into Service" section of this document and be connected to an air supply system as shown in Figure 1. Tools that have been exposed to extreme conditions will be covered under warranty at the sole discretion of AirVANTAGE™

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Parts Page



Parts List

		rails List				
Item No.	Part No.	Description	Qty.			
1	AVA0040	RETAINING RING	1			
2	AVA0021	BEARING	1			
3	AVA0065	REAR END PLATE				
4	AVA0067	CYLINDER ASSEMBLY				
5	AVA0042	O-RING				
6	AVB0005	ROTOR	1			
7	AVA0010	VANE	5			
8	AVA0041	WOODRUFF KEY	1			
9	AVA0064	FRONT ENDPLATE	1			
10	AVA0019					
11	AVA0045	O-RING	1			
12	AVA0001	LOCK RING	1			
13	AVB0074	5 x 3/32 in. ORBIT SHAFT BALANCER	1			
	AVB0072	5 x 3/16 in. ORBIT SHAFT BALANCER	1			
	AVB0075	6 x 3/32 in. ORBIT SHAFT BALANCER	1			
14	AVB0073	6 x 3/16 in. ORBIT SHAFT BALANCER	1			
15	AVA0122 AVA0121	FILTER DUCKBUL CHECK VALVE	1			
16	AVA0121 AVA0120	DUCKBILL CHECK VALVE	1			
17	AVA0120 AVA0937	VALVE RETAINER SHIM	1			
18	AVA0937 AVA0938	DOUBLE ROW BEARING	1			
19	AVA0936 AVA0016	SPACER	1			
20	AVA0016 AVA0017	BELLEVILLE WASHER	1			
21	AVA0017 AVA0018	RETAINING RING	1			
22	AVA0018 AVB0018	SPINDLE	1			
23		LEVER FOR 3/16 in ORBIT 12,000 RPM ROS	1			
20	AVA0332	LEVER FOR 3/32 in ORBIT 12,000 RPM ROS	1			
24		LEVER SPRING PIN	1			
25	AVB0007	2 1/2 in. (65 mm)GRIP	Optional			
	AVB0008	2 3/4 in. (69 mm)GRIP	1			
	AVB0009	3 in. (75 mm)GRIP	Optional			
26	AVA0106	MACHINED HOUSING	1			
27	AVA0008	VALVE STEM ASSEMBLY	1			
28	AVA0043	O-RING	1			
29	AVB0014	SPEED CONTROL	1			
30	AVA0039	INTERNAL RETAINING RING	1			
31	AVB0012	5/6 in. NON-VACUUM SHROUD	1			
32	AVC0104	5 in LP SuperVAC SKIRT	Optional			
	AVC0106	5 in TE SuperVAC SKIRT	Optional			
33	AVC0105	6 in LP SuperVAC SKIRT	Optional			
	AVC0107	6 in TE SuperVAC SKIRT	Optional			
34	AVC0012	5/6 in. SuperVAC™ SHROUD	1			
35	AVC0073	Ø 6 In. SCREEN ABRASIVE ROS SuperVAC SHROUD	1			
36	AVA0022	24 mm PAD WRENCH	1			
37	N/A	SEE "AirVANTAGE™ BACKUP PADS" ON PAGE 5 (type/size determined by model)	1			
38	AVA0062	INTERNAL MUFFLER	1			
39	AVA0068	MUFFLER INSERT	1			
40	AVA0166	MUFFLER HOUSING	1			
41	AVA0009	VALVE SEAT	1			
42	AVA0007	VALVE CODING	1			
43	AVA0014 AVA0013	VALVE SPRING INITET BURLING ASSEMBLY	1			
44	AVA0013 AVA0044	INLET BUSHING ASSEMBLY O-RING	2			
45	AVA0044 AVA0006	SGV RETAINER	1			
46	AVA0006 AVA0410	ASSEMBLY FOR 1 in./28 mm HOSE SuperVAC SGV SWIVEL EXHAUST FITTING	1			
48	AVA0410 AVA0778	1 in./28 mm HOSE SEAL	1			
49	AVA0778 AVA0933	1 in./28 mm HOSE SEAL TAG W/INSTRUCTION	1			
50		SuperVAC CV/SGV SKIRT ADAPTER	1			
51	AVC0108	SuperVAC SGV SKIRT/SHROUD ADAPTER	1			
52	AVA0300	Ø 3/4 in. VAC HOSE TO Ø 3/4 in. x 1 in./28 mm ADAPTER COUPLING AND AIRLINE ASSEMBLY	Optional			
32	AVA0300 AVA0392	AIRLINE WITH Ø 1 in. VAC HOSE TO Ø 1 in./28 mm x 1 1/2 in. FRICTION FIT ADAPTER AS-	Optional			
	AVA0032	SEMBLY	Optional			
53	AVA0412	Ø 1 in. VAC HOSE TO DOUBLE BAG FITTING AND AIRLINE ASSEMBLY	1			
54	AVA0412 AVA0099	ROS SuperVAC™ CV 1 in./28 mm SWIVEL EXHAUST ASSEMBLY	1			
55	AVA0033	FLANGED NUT	1			
56	AVA0205	ROS SuperVAC CV 3/4 in. SWIVEL EXHAUST ASSEMBLY	Optional			
57	AVA0047	WASHER	1			
58	AVA0769	SCREW	1			
59	AVA0468	CLOTH VACUUM COLLECTION BAG	1			
60	AVA0470	VACUUM BAG INSERT	1			
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Product Configuration/Specifications: 12,000 RPM 5 in. (127 mm) and 6 in. (150 mm)

Orbit	Pad Face	Vacuum Type	Pad Type	Pad Size in. (mm)	Model Number.	Pad Part Number	Product Net Weight Pound (kg)	Height in. (mm)	Length in. (mm)	Power HP (watts)	Consum	Air ption scfm .PM)	*Noise Level dBA	*Vibration Level m/s2
			Low Profile	5 in. (127)	050200	1250100	1.72 (0.78)	3.27 (82.9)	5.84 (148.4)	.28 (209)	17	(481)	79	2.1
		Non-		6 in. (150)	060200	1260100	1.81 (0.82)	3.26 (82.9)	6.34 (161.1)	.28 (209)	17	(481)	83	3.3
		Vacuum	Towns d Fig.	5 in. (127)	050201	1250300	1.74 (0.79)	3.45 (87.7)	5.84 (148.4)	.28 (209)	17	(481)	79	2.1
			Tapered Edge	6 in. (150)	060201	1260300	1.81 (0.82)	3.45 (87.7)	6.34 (161.1)	.28 (209)	17	(481)	83	3.3
			I D Cl.	5 in. (127)	050234	1250110	1.85 (0.84)	3.45 (87.7)	5.84 (148.4)	.28 (209)	17	(481)	79	2.1
	Vinyl	Central	Low Profile	6 in. (150)	060234	1260110	2.00 (0.91)	3.26 (82.9)	6.34 (161.1)	.28 (209)	17	(481)	83	3.3
	·	Vacuum	Toward Educ	5 in. (127)	050235	1250310	1.87 (0.85)	3.45 (87.7)	5.84 (148.4)	.28 (209)	17	(481)	79	2.1
			Tapered Edge	6 in. (150)	060235	1260310	1.94 (0.88)	3.45 (87.7)	6.34 (161.1)	.28 (209)	17	(481)	83	3.3
			Low Profile	5 in. (127)	050267	1250110	1.90 (0.86)	3.45 (87.7)	5.96 (151.4)	.28 (209)	17	(481)	84	3.2
		Self-Gen	Low Profile	6 in. (150)	060267	1260110	2.01 (0.91)	3.26 (82.9)	6.46 (164.1)	.28 (209)	17	(481)	83	3.1
		Vacuum	Tapered Edge	5 in. (127)	050268	1250310	1.92 (0.87)	3.45 (87.7)	5.96 (151.4)	.28 (209)	17	(481)	84	3.2
				6 in. (150)	060268	1260310	2.01 (0.91)	3.45 (87.7)	6.34 (161.1)	.28 (209)	17	(481)	83	3.1
			I B file	5 in. (127)	050202	1250101	1.72 (0.78)	3.48 (88.4)	4.95 (125.7)	.28 (209)	17	(481)	79	2.1
3/32 in. (2.5 mm)	İ	Non-	Low Profile	6 in. (150)	060202	1260101	1.81 (0.82)	3.26 (82.9)	6.34 (161.1)	.28 (209)	17	(481)	83	3.3
		Vacuum		5 in. (127)	050203	1250300	1.74 (0.79)	3.45 (87.7)	5.84 (148.4)	.28 (209)	17	(481)	79	2.1
			Tapered Edge	6 in. (150)	060203	1260300	1.81 (0.82)	3.45 (87.7)	6.34 (161.1)	.28 (209)	17	(481)	83	3.3
				5 in. (127)	050236	1250111	1.85 (0.84)	3.45 (87.7)	5.84 (148.4)	.28 (209)	17	(481)	79	2.1
			Low Profile	6 in. (150)	060236	1260111	2.00 (0.91)	3.26 (82.9)	6.34 (161.1)	.28 (209)	17	(481)	83	3.3
	İ	Central		5 in. (127)	050237	1250310	1.87 (0.85)	3.45 (87.7)	5.84 (148.4)	.28 (209)	17	(481)	79	2.1
		Vacuum	Tapered Edge	6 in. (150)	060237	1260310	1.94 (0.88)	3.45 (87.7)	6.34 (161.1)	.28 (209)	17	(481)	83	3.3
	Hook		Screen	5 in. (127)	050238	1250142	1.85 (0.84)	3.33 (84.5)	5.86 (148.9)	.28 (209)	17	(481)	79	2.1
			Abrasive	6 in. (150)	060238	1260142	1.96 (0.89)	3.33 (84.5)	6.31 (160.2)	.28 (209)	17	(481)	83	3.3
			Low Profile	5 in. (127)	050269	1250111	1.90 (0.86)	3.45 (87.7)	5.96 (151.4)	.28 (209)	17	(481)	79	3.2
		Self-Gen Vacuum		6 in. (150)	060269	1260111	2.01 (0.91)	3.26 (82.9)	6.46 (164.1)	.28 (209)	17	(481)	83	3.1
				5 in. (127)	050270	1250310	1.92 (0.87)	3.45 (87.7)	5.96 (151.4)	.28 (209)	17	(481)	79	3.2
			Tapered Edge	6 in. (150)	060270	1260310	2.01 (0.91)	3.45 (87.7)	6.34 (161.1)	.28 (209)	17	(481)	83	3.1
			Screen Abrasive Low Profile	5 in. (127)	050271	1250142	1.90 (0.86)	3.33 (84.5)	5.98 (151.9)	.28 (209)	17	(481)	79	3.2
				6 in. (150)	060271	1260142	2.28 (0.92)	3.33 (84.5)	6.42 (163.2)	.28 (209)	17	(481)	83	3.1
				5 in. (127)	050300	1250100	1.78 (0.81)	3.27 (82.9)	5.89 (149.6)	.28 (209)	17	(481)	80	2.6
		Non-		6 in. (150)	060300	1260100	1.87 (0.85)	3.26 (82.9)	6.39 (162.3)	.28 (209)	17	(481)	79	3.7
	Vinyl	Vacuum		5 in. (127)	050301	1250300	1.78 (0.81)	3.45 (87.7)	5.89 (149.6)	.28 (209)	17	(481)	80	2.6
			Tapered Edge	6 in. (150)	060301	1260300	1.87 (0.85)	3.45 (87.7)	6.39 (162.3)	.28 (209)	17	(481)	79	3.7
			+	5 in. (127)	050334	1250110	1.92 (0.87)	3.45 (87.7)	5.89 (149.6)	.28 (209)	17	(481)	79	2.6
		Central Vacuum Self-Gen Vacuum Non- Vacuum	Tapered Edge	6 in. (150)	060334	1260110	2.00 (0.91)	3.26 (82.9)	6.39 (162.3)	.28 (209)	17	(481)	77	3.1
3/16 in. (5.0 mm)				5 in. (127)	050335	1250310	1.92 (0.87)	3.45 (87.7)	5.89 (149.6)	.28 (209)	17	(481)	79	2.6
				6 in. (150)	060335	1260310	2.00 (0.91)	3.45 (87.7)	6.39 (162.3)	.28 (209)	17	(481)	77	3.1
				5 in. (127)	050367	1250110	1.96 (0.89)	3.45 (87.7)	6.01 (152.6)	.28 (209)	17	(481)	85	3.5
			Low Profile	6 in. (150)	060367	1260110	2.07 (0.94)	3.26 (82.9)	6.51 (165.3)	.28 (209)	17	(481)	85	3.5
				5 in. (127)	050368	1250310	1.96 (0.89)	3.45 (87.7)	6.01 (152.6)	.28 (209)	17	(481)	85	3.5
			Tapered Edge Low Profile	6 in. (150)	060368	1260310	2.07 (0.94)	3.45 (87.7)	6.51 (165.3)	.28 (209)	17	(481)	85	3.5
				5 in. (127)	050302	1250101	1.78 (0.81)	3.43 (87.7)	5.89 (149.6)	.28 (209)	17	(481)	80	2.6
				6 in. (150)	060302	1260101	1.87 (0.85)	3.26 (82.9)	6.39 (162.3)	.28 (209)	17	(481)	79	3.7
			Tapered Edge	5 in. (127)	050302	1250301	1.78 (0.81)	3.45 (87.7)	5.89 (149.6)	.28 (209)	17	(481)	80	2.6
				6 in. (150)	060303	1260301	1.87 (0.85)	3.45 (87.7)	6.39 (162.3)	.28 (209)	17	(481)	79	3.7
			-	5 in. (127)	050336	1250301	1.92 (0.87)	3.45 (87.7)	5.89 (149.6)	.28 (209)	17	(481)	79	2.6
		Central Vacuum	Low Profile Tapered Edge	· ,	060336		, ,	, ,	. ,	.28 (209)	17	, ,	77	3.1
				6 in. (150)		1260111	2.00 (0.91)	3.26 (82.9)	6.39 (162.3)	. ,		(481)	79	2.6
				5 in. (127)	050337	1250311	1.92 (0.87)	3.45 (87.7)	5.89 (149.6)	.28 (209)	17	(481)		
			Screen Abrasive	6 in. (150) 5 in. (127)	060337 050338	1260311 1250142	2.00 (0.91) 1.92 (0.87)	3.45 (87.7) 3.33 (84.5)	6.39 (162.3) 5.91 (150.1)	.28 (209)	17 17	(481) (481)	77 79	3.1 2.6
										` /				
				6 in. (150)	060338	1260142	2.03 (0.92)	3.33 (84.5)	6.35 (161.4)	.28 (209)	17	(481)	77	3.1
		Self-Gen Vacuum	Low Profile	5 in. (127)	050369	1250111	1.96 (0.89)	3.45 (87.7)	6.01 (152.6)	.28 (209)	17	(481)	85	3.5
				6 in. (150)	060369	1260111	2.07 (0.94)	3.26 (82.9)	6.51 (165.3)	.28 (209)	17	(481)	85	3.5
			Tapered Edge	5 in. (127)	050370	1250311	1.96 (0.89)	3.45 (87.7)	6.01 (152.6)	.28 (209)	17	(481)	85	3.5
			cuum -	6 in. (150)	060370	1260311	2.07 (0.94)	3.45 (87.7)	6.51 (165.3)	.28 (209)	17	(481)	85	3.5
			Screen	5 in. (127)	050371	1250142	1.96 (0.89)	3.33 (84.5)	6.03 (153.1)	.28 (209)	17	(481)	85	3.5
			Abrasive	6 in. (150)	060371	1260142	2.10 (0.95)	3.33 (84.5)	6.47 (164.4)	.28 (209)	17	(481)	85	3.5

The noise test is carried out in accordance with EN ISO 15744:2002 Measurement of noise emission from hand-held non-electric power tools. The vibration test is carried out in accordance with EN 28662-1. Hand-held portable power tools – Measurement of vibration at the handle. Part 1: General and EN 28662-8, 1997. Hand-held portable power tools – Measurement of vibration at the handle. Part 8: Polishers and rotary, orbital and random orbital sanders

Specifications subject to change without prior notice.

Further occupational health and safety information can be obtained from the following websites: http://europe.osha.eu.int (Europe) http://www.osha.gov (USA)

^{*}The values stated in the table are from laboratory testing in conformity with stated codes and standards and are not sufficient for 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. AirVANTAGE™ cannot be held responsible for the consequences of using declared values instead of actual exposure values for any individual risk assessment.

Work Stations

The tool is intended to be operated as a hand held tool. It is always recommended that the tool be used when standing on a solid floor. It can be in any position but before any such use, the operator must be in a secure position having a firm grip and footing and be aware that the sander can develop a torque reaction. See the section "Operating Instructions".

Putting the Tool into Service

Use a clean lubricated air supply that will give a measured air pressure at the tool of 90 psig (6.2 bar) when the tool is running with the lever fully depressed. It is recommended to use an approved 3/8 in. (10 mm) x 25 ft (8 m) maximum length airline. It is recommended that the tool be connected to the air supply as shown in Figure 1.

Do not connect the tool to the airline system without incorporating an easy to reach and operate air shut off valve. The air supply should be lubricated. 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. Details of such equipment can be obtained from your supplier. If such equipment is not used then the tool should be manually lubricated

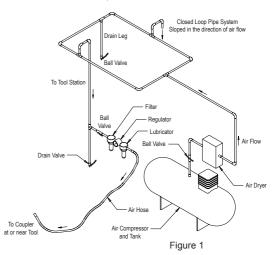
To manually lubricate the tool, disconnect the airline and put 2 to 3 drops of suitable pneumatic motor lubricating oil such as Fuji Kosan FK-20, Mobil ALMO 525 or Shell TORCULA® 32 into the hose end (inlet) of the machine. Reconnect tool to the air supply and run tool slowly for a few seconds to allow 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 90 PSI (6.2 Bar) 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 90 PSI (6.2 Bar). If run at lower pressure the performance of the tool is reduced.

Operating Instructions

- Read all instructions before using this tool. All operators must be fully trained in its use and aware of these safety rules. All service and repair must be carried out by trained personnel.
- Make sure the tool is disconnected from the air supply. Select a suitable abrasive and secure it to the back-up pad. Be careful and center the abrasive on the back-up pad.
- Always wear required safety equipment when using this tool.
- 4) When sanding always place the tool on the work then start the tool. Always remove the tool from the work before stopping. This will prevent gouging of the work due to excess speed of the abrasive.
- 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/or position and be aware of torque reaction developed by the sander.
- 7) Use only correct spare parts.
- Always ensure that the material to be sanded is firmly fixed to prevent its 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 daily. Cleaning or replacing of bag also assures optimum performance.
- Do not exceed maximum recommended air pressure. Use safety equipment as recommended.
- 12) The tool is not electrically insulated. Do not use where there is a possibility of coming into contact with live electricity, gas pipes, water pipes, etc. Check the area of operation before operation.

- 13) Take care to avoid entanglement with the moving parts of the tool with clothing, ties, hair, cleaning rags, etc. If entangled, it will cause the body to be pulled towards the work and moving parts of the machine and can be very dangerous.
- 14) Keep hands clear of the spinning pad during use.
- 15) If the tool appears to malfunction, remove from use immediately and arrange for service and repair.
- 15) Do not allow the tool to free speed without taking precautions to protect any persons or objects from the loss of the abrasive or pad.



AirVANTAGE™ Back-Up Pads

AirVANTAGE™ back-up pads are perfectly mated for use on the AirVANTAGE™ LP. 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 AirVANTAGE™ LP. See "Product Configuration/Specifications" Table for the correct replacement pad for a particular model

Description	Part #		
5 in. low profile, non-vacuum, vinyl face	1250100		
5 in. low profile, non-vacuum, hook face	1250101		
5 in. tapered edge, non-vacuum, vinyl face	1250300		
5 in. tapered edge, non-vacuum, hook face	1250301		
5 in. low profile, vacuum, 6 holes, hook	1251111		
5 in. low profile, vacuum, 6 holes, J hook	1251112		
5 in. low profile, vacuum, vinyl face	1250110		
5 in. low profile, vacuum, hook face	1250111		
5 in. low profile, screen vacuum, j hook face	1250142		
5 in. tapered edge, vacuum, vinyl face	1250310		
5 in. tapered edge, vacuum, hook face	1250311		
6 in. low profile, non-vacuum, vinyl face	1260100		
6 in. low profile, non-vacuum, hook face	1260101		
6 in. low profile, screen vacuum, j hook face	1260142		
6 in. tapered edge, non-vacuum, vinyl face	1260300		
6 in. tapered edge, non-vacuum, hook face	1260301		
6 in. low profile, vacuum, vinyl face	1260110		
6 in. low profile, vacuum, hook face	1260111		
6 in. tapered edge, vacuum, vinyl face	1260310		
6 in. tapered edge, vacuum, hook face	1260311		