OPERATOR'S MANUAL FOR AirVANTAGE™ 10,000 OPM 3 2/3 x 7 in. (93 x 178 mm) ORBITAL SANDERS

AirVANTAGE TOOLS

Declaration of conformity

AirVANTAGE™ Tools
10018 Lower Azusa Road, Unit #C; El Monte, California 91731 USA
declare on our sole responsibility that the products
3 2/3 in. x 7 in. 10,000 OPM 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.

CE

Manufacturer/Supplier

AirVANTAGE™ Tools
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		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

Please Read and Comply with:

1) General Industry Safety & Health Regulations, Part 1910, OSHA 2206, available from: Superintendent of Documents; Government Printing Office; Washington DC 20402
2) 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

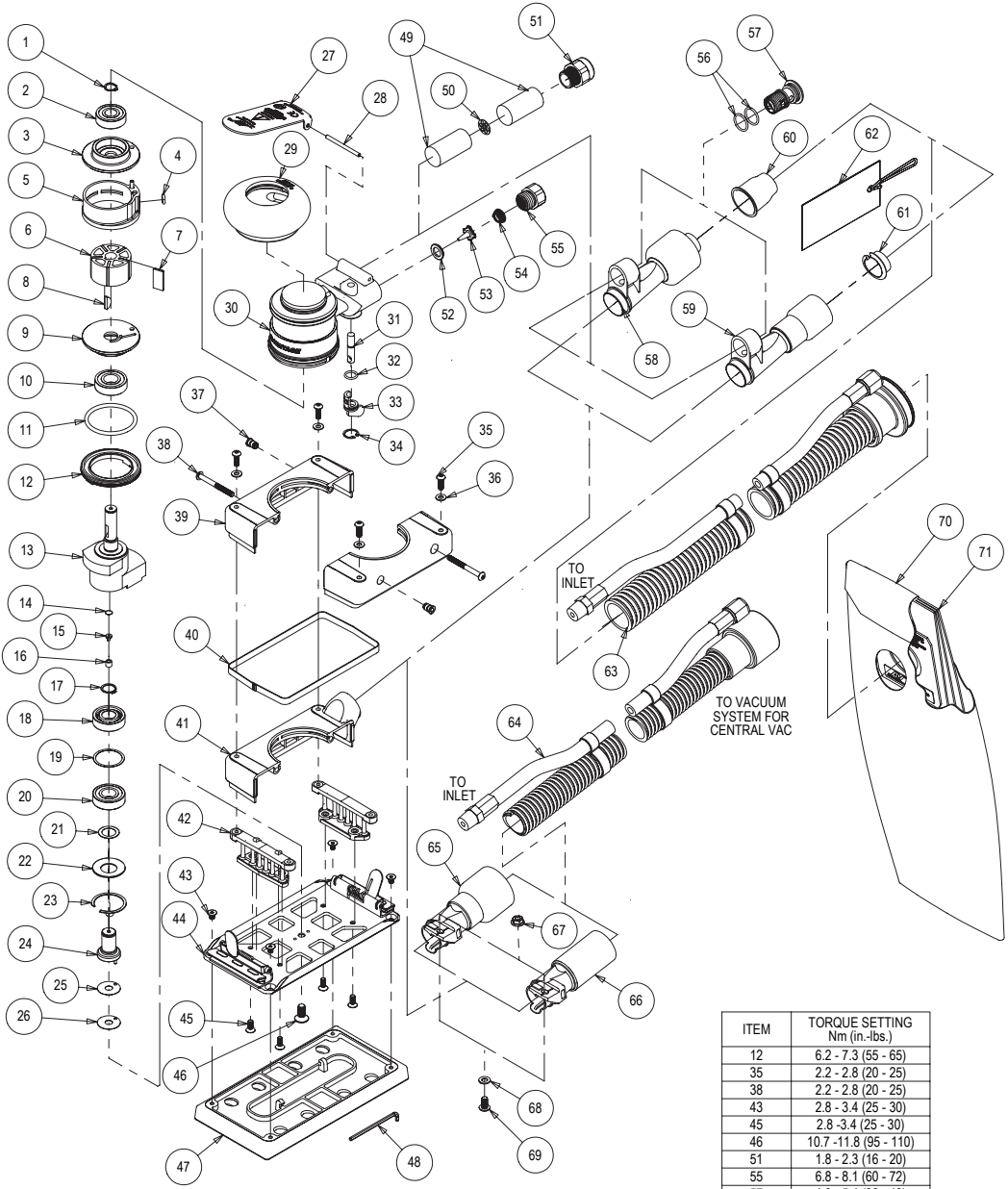
This sander is designed for sanding all types of materials i.e. metals, wood, stone, plastics, etc. using abrasive designed for this purpose. Do not use this sander for any other purpose than that specified without consulting the manufacturer or the manufacturer's authorized supplier.

Do not use back-up pads that have a working speed less than 10,000 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™ 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™

PARTS PAGE



ITEM	TORQUE SETTING Nm (in.-lbs.)
12	6.2 - 7.3 (55 - 65)
35	2.2 - 2.8 (20 - 25)
38	2.2 - 2.8 (20 - 25)
43	2.8 - 3.4 (25 - 30)
45	2.8 -3.4 (25 - 30)
46	10.7 -11.8 (95 - 110)
51	1.8 - 2.3 (16 - 20)
55	6.8 - 8.1 (60 - 72)
57	4.0 - 5.4 (36 - 48)
69	3.4 - 3.9 (30 - 35)

Parts List

Item	Part No.	Description	Qty.
1	AVA0040	EXTERNAL RETAINING RING	1
2	AVA0021	BEARING - 2 SHIELDS	1
3	AVA0065	REAR ENDPLATE	1
4	AVA0042	O-RING	1
5	AVA0067	CYLINDER ASSEMBLY	1
6	AVB0005	ROTOR	1
7	AVA0010	VANE	5
8	AVA0041	WOODRUFF KEY	1
9	AVA0064	FRONT ENDPLATE	1
10	AVA0019	BEARING - 2 SHIELDS	1
11	AVA0045	O-RING	1
12	AVA0001	LOCK RING	1
13	AVB0180	SHAFT BAL. (FOR CLAMP STYLE SCREW-ON PAD)	1
13	AVB0204	SHAFT BALANCER FOR SCREW ON PAD	1
14	AVA0122	FILTER	1
15	AVA0121	DUCKBILL CHECK VALVE	1
16	AVA0120	VALVE RETAINER	1
17	AVA0090	RETAINING RING	1
18	AVA0035	BEARING NO SEALS/SHIELDS	1
19	AVA0193	SPACER	1
20	AVA0020	BEARING - 1 SEAL	1
21	AVA0016	SPACER	1
22	AVA0017	BELLEVILLE WASHER	1
23	AVA0018	RETAINING RING	1
24	AVA0113	SPINDLE ASSEMBLY	1
25	AVA0079	SPACER (thin)	Optional
26	AVA0080	SPACER (thick)	1
27	AVA0175	THROTTLE LEVER	1
28	AVA0031	LEVER SPRING PIN	1
29	AVB0007	2 1/2 in. (65 mm) GRIP	Optional
29	AVB0008	2 3/4 in. (69 mm) GRIP	1
29	AVB0009	3 in. (75 mm) GRIP	Optional
30	AVA0230	HOUSING	1
31	AVA0008	VALVE STEM ASSEMBLY	1
32	AVA0043	O-RING	1
33	AVB0014	SPEED CONTROL	1
34	AVA0039	INTERNAL RETAINING RING	1
35	AVA0768	HEX SOCKET BUTTON HEAD MACHINE SCREW	4
36	AVA0076	WASHER	4
37	AVA0071	THREADED INSERT	2
38	AVA0770	HEX SOCKET HEAD CAP SCREW	2
39	AVC0167	NV SHROUD (RH/LH)	2
40	AVA0169	SHROUD SEAL	1
41	AVD0010	CV/SGV SHROUD	1
42	AVC0010	PAD SUPPORT ASSEMBLY	2
43	AVA0766	HEX SOCKET COUNTERSUNK HEAD MACHINE SCREW	4
44	AVC0126	PAD BACKING ASSEMBLY W/TORSION CLAMPS - FOR SCREW ON PADS	1
44	AVC0160	SCREW-ON PAD BACKING	1
45	AVA0767	HEX SOCKET COUNTERSUNK HEAD MACHINE SCREW	4
46	AVA0078	SOCKET FLAT COUNTER SUNK MACHINE SCREW	1
47	NA	1 pad supplied with each tool (type determined by model)	1
48	AVA0864	2.5 mm HEX WRENCH	1
49	AVA0032	MUFFLER INSERT	2
50	AVA0038	MUFFLER PLATE	1
51	AVA0166	MUFFLER HOUSING	1
52	AVA0009	VALVE SEAT	1
53	AVA0007	VALVE	1
54	AVA0014	VALVE SPRING	1
55	AVA0013	1/4-18 NPT INLET BUSHING ASSEMBLY	1
56	AVA0044	O-RING	2
57	AVA0722	SGV RETAINER	1
58	AVA0410	ASSEMBLY FOR 1 in./28 mm HOSE SuperVAC SGV SWIVEL EXHAUST FITTING	1
59	AVA0409	ASSEMBLY FOR 3/4 in./19 mm HOSE SuperVAC SWIVEL EXHAUST FITTING	Optional
60	AVA0778	1 in./28 mm HOSE SEAL	1
61	AVA0854	3/4 in./19 mm HOSE SEAL	Optional
62	AVA0857	3/4 in./19 mm HOSE SEAL TAG W/INSTRUCTION	Optional
62	AVA0933	1 in./28 mm HOSE SEAL TAG W/INSTRUCTION	1
63	AVA0412	Ø 1 in. VAC HOSE TO DOUBLE BAG FITTING AND AIRLINE ASSY	1
63	AVA0411	Ø 3/4 in. VAC HOSE TO DOUBLE BAG FITTING AND AIRLINE ASSY	Optional
64	AVA0300	Ø 3/4 in. VAC HOSE TO Ø 3/4 in. x 1 in./28 mm ADAPTER COUPLING AND AIRLINE ASSM	Optional
65	AVA0092	1 in./28 mm OS SuperVAC CV SWIVEL EXHAUST ASSEMBLY	1
66	AVA0298	OS SuperVAC 3/4 in. CV SWIVEL EXHAUST ASSEMBLY	Optional
67	AVA0048	FLANGED NUT	1
68	AVA0047	WASHER	1
69	AVA0769	HEX SOCKET BUTTON HEAD MACHINE SCREW	1
70	AVA0468	VACUUM BAG	1
71	AVA0470	INSERT FOR VACUUM BAG	1

Product Configuration/Specifications:
10,000 OPM 3 2/3 x 7 in. (93 x 178mm)Orbital Sander

Note: All Self Generated Vacuum machines use Ø 1 in. Vacuum Hose Fittings Standard. Ø ¾ in. is available.
All Central Vacuum machines use Ø ¾ in. Vacuum Hose Fittings Standard. Ø 1 in. is available.

Paper Type	Pad Face	Vacuum Type	Pad/ Pattern Type	Model No.	Pad Part Number	Product Net Weight Pound (kg)	Height inch (mm)	Length inch (mm)	Power HP (watts)	Air Consumption scfm (LPM)	*Noise Level dBA	*Vibration Level m/s2
Hook and Loop or PSA	Vinyl	NV	NV	470001	1273300	2.26 (1.03)	3.91 (99.3)	6.92 (176.9)	0.24 (179)	16 (453)		
		CV	U.S. Vacuum	470034	1273310	2.35 (1.07)	3.91 (99.3)	6.92 (175.9)	0.24 (179)	16 (453)		
		SGV	U.S. Vacuum	470067	1273310	2.39 (1.09)	3.91 (99.3)	7.24 (183.9)	0.24 (179)	16 (453)		
		CV	Asian Vacuum	470035	1273320	2.35 (1.07)	3.91 (99.3)	6.92 (175.9)	0.24 (179)	16 (453)		
		SGV	Asian Vacuum	470068	1273320	2.39 (1.09)	3.91 (99.3)	7.24 (183.9)	0.24 (179)	16 (453)		
		CV	Euro Vacuum	470036	1273330	2.35 (1.07)	3.91 (99.3)	6.92 (175.9)	0.24 (179)	16 (453)		
		SGV	Euro Vacuum	470069	1273330	2.39 (1.09)	3.91 (99.3)	7.24 (183.9)	0.24 (179)	16 (453)		
	Hook	NV	NV	470002	1273301	2.26 (1.03)	3.91 (99.3)	6.92 (176.9)	0.24 (179)	16 (453)		
		CV	U.S. Vacuum	470037	1273311	2.35 (1.07)	3.91 (99.3)	6.92 (175.9)	0.24 (179)	16 (453)		
		SGV	U.S. Vacuum	470070	1273311	2.39 (1.09)	3.91 (99.3)	7.24 (183.9)	0.24 (179)	16 (453)		
		CV	Asian Vacuum	470038	1273321	2.35 (1.07)	3.91 (99.3)	6.92 (175.9)	0.24 (179)	16 (453)		
		SGV	Asian Vacuum	470071	1273321	2.39 (1.09)	3.91 (99.3)	7.24 (183.9)	0.24 (179)	16 (453)		
		CV	Euro Vacuum	470039	1273331	2.35 (1.07)	3.91 (99.3)	6.92 (175.9)	0.24 (179)	16 (453)		
		SGV	Euro Vacuum	470072	1273331	2.39 (1.09)	3.91 (99.3)	7.24 (183.9)	0.24 (179)	16 (453)		
	J-Hook	NV	NV	470003	1273302	2.26 (1.03)	3.91 (99.3)	6.92 (176.9)	0.24 (179)	16 (453)		
		CV	U.S. Vacuum	470041	1273312	2.35 (1.07)	3.91 (99.3)	6.92 (175.9)	0.24 (179)	16 (453)		
		SGV	U.S. Vacuum	470074	1273312	2.39 (1.09)	3.91 (99.3)	7.24 (183.9)	0.24 (179)	16 (453)		
		CV	Asian Vacuum	470042	1273322	2.35 (1.07)	3.91 (99.3)	6.92 (175.9)	0.24 (179)	16 (453)		
		SGV	Asian Vacuum	470075	1273322	2.39 (1.09)	3.91 (99.3)	7.24 (183.9)	0.24 (179)	16 (453)		
		CV	Euro Vacuum	470043	1273332	2.35 (1.07)	3.91 (99.3)	6.92 (175.9)	0.24 (179)	16 (453)		
		SGV	Euro Vacuum	470076	1273332	2.39 (1.09)	3.91 (99.3)	7.24 (183.9)	0.24 (179)	16 (453)		
		CV	Screen Vacuum	470040	1273342	2.35 (1.07)	3.91 (99.3)	6.92 (175.9)	0.24 (179)	16 (453)		
		SGV	Screen Vacuum	470073	1273342	2.39 (1.09)	3.91 (99.3)	7.24 (183.9)	0.24 (179)	16 (453)		
Standard Paper for Clamp Style Machines	Vinyl	NV	NV	470000	1273300	2.34 (1.06)	3.87 (98.2)	6.92 (175.9)	0.24 (179)	16 (453)		

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.

*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.

Further occupational health and safety information can be obtained from the following websites:

http://europe.osha.eu.int (Europe)

http://www.osha.gov (USA)

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

1) 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.
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 and center the abrasive on the back-up pad.
3) 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.
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/or position and be aware of torque reaction developed by the sander.
7) Use only correct spare parts.
8) 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.
11) 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.
16) 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.

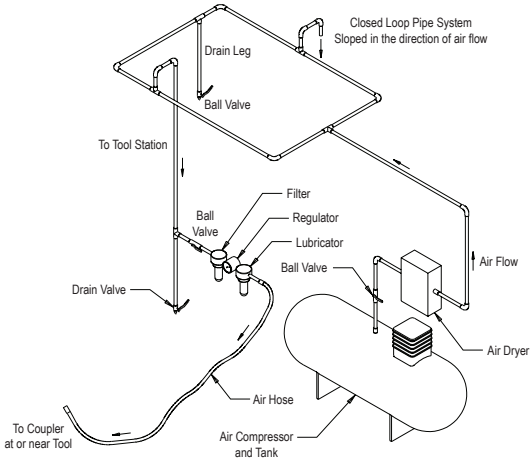


Figure 1

AirVANTAGE™ Back-Up Pads

AirVANTAGE™ $3^{2}/_{3}$ in. x 7. pads are perfectly mated for use on the Low Profile Orbital Sander. The molded urethane pads are constructed from premium, industrial-quality materials for durability.

Description	Part #
screw-on, non-vacuum, vinyl face	1273300
screw-on, vacuum, vinyl face	1273310
screw-on, non-vacuum, hook face	1273301
screw-on, vacuum, hook face	1273311
screw-on, screen vacuum, hook face	1273342