



OPERATOR'S MANUAL FOR LOW PROFILE 12,000 RPM 3 in. (77 mm) RANDOM ORBITAL SANDERS



WARNING

Always wear safety goggles to protect your eyes.



OIL DAILY

Oil daily for superior Performance.

Operators Instructions

Includes - Product Highlights and Suggested Applications, Specifications, Please Read and Comply, Assembly Drawing of Machines, Parts List, Proper Use of Tool, Work Stations, Putting the Tool into Service, Operating Instructions.

Important

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

Specifications

Air Consumption
Maximum
Horsepower

17 SCFM @ 90 PSI
12,000 RPM
.30 HP

Air Inlet
Recommended Hose Size

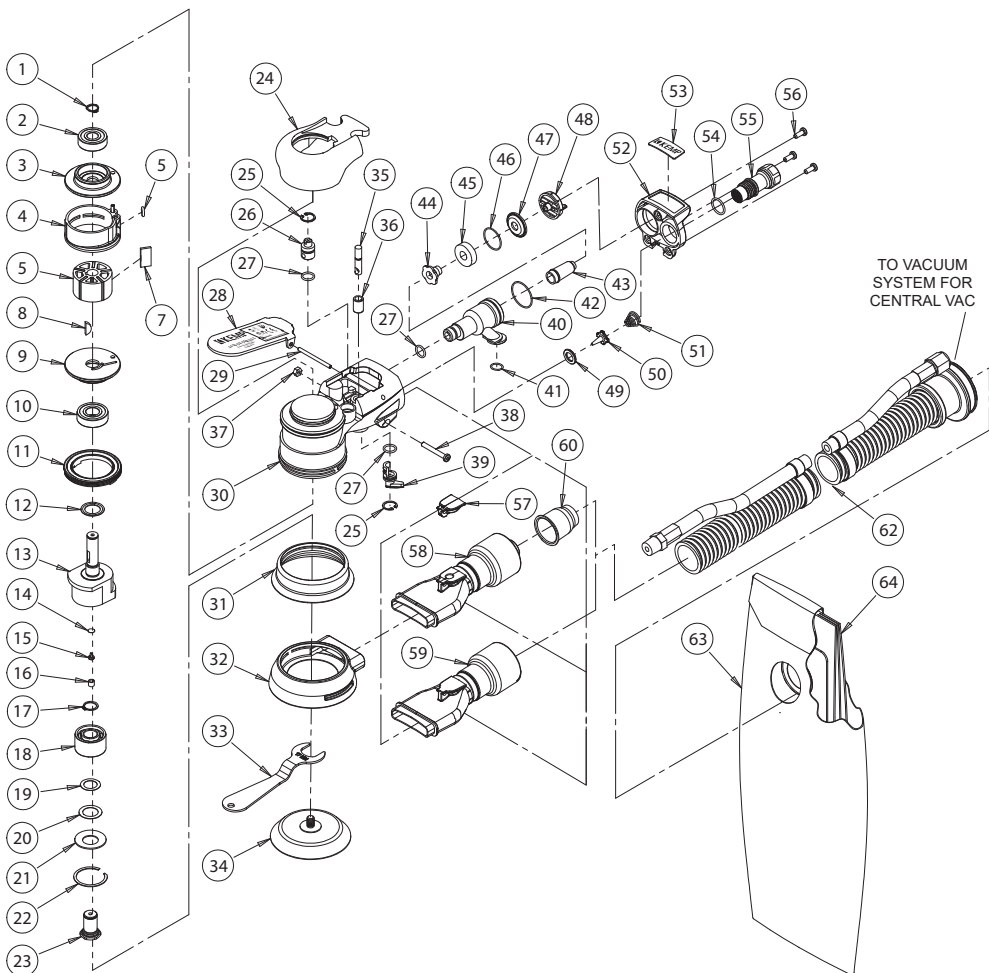
1/4" NPT (F)
3/8 in.

Features Include :

- **Variable Speed Control with Palm Style On/Off Lever**
- **Ergonomic Cushion-Grip for Comfort and Stability**
- **Low Profile for Control and Comfort**
- **Rear Exhaust Directs Air away**
- **Suggested Applications: Sanding and Finishing a Variety of Materials including Wood, Metal, Plastic, Fiberglass Composites, Solid Surfaces and other Sandable Surfaces**

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, NY 10018
- 3) State and Local Regulations.
- 4) **Key parts of the above regulations are excerpted below. They are not intended to be inclusive. Study and comply with all regulations.**
- 1) **TOOL INTENT** – Tool shall be used only for purposes intended in its design.
- 2) **AIR SUPPLY** – Test and operate tools at 90 PSIG (6.2 Bar) maximum unless tool is marked otherwise. Use recommended airline filters - regulators - lubricators (FRL).
- 3) **UNUSUAL SOUND or VIBRATION** – If tool vibrates or produces an unusual sound, repair immediately for correction.
- 4) **OPERATOR PROTECTIVE EQUIPMENT** – Wear goggles or face shield whenever tool is in operation. Other protective clothing shall be worn, if necessary. SEE REGULATIONS.
- 5) **SAFETY MAINTENANCE PROGRAM** – Employ a safety program to provide inspection and maintenance of all phases of tool operation and air supply equipment in accordance with "Safety Code for Portable Air Tools."



A-FSG-O31-O25R120-N

A-FSG-O31-O50R120-N

A-FSG-O31-O25R120-C

A-FSG-O31-O50R120-C

A-FSG-O31-O25R120-S

A-FSG-O31-O50R120-S

ITEM	TORQUE SETTING in.- lbs. (N.m)
38	8.7 (1.0)
55	60-72 (6.8-8.1)
56	8.7 (1.0)

Item No.	Part No.	Description	Qty.
1	150 05 301 001	EXTERNAL RETAINING RING	1
2	150 05 301 002	BEARING - 6000ZZ	1
3	150 05 301 003	REAR ENDPLATE	1
4	150 05 301 004	CYLINDER ASSEMBLY	1
5	150 05 301 005	O-RING	1
6	150 05 301 006	MACHINED ROTOR	1
7	150 05 301 007	VANE	5
8	150 05 301 008	WOODRUFF KEY	1
9	150 05 301 009	FRONT ENDPLATE	1
10	150 05 301 010	BEARING	1
11	150 05 301 011	LOCK RING ASSEMBLY	1
12	150 05 301 012	SPINDLE BEARING DUST SHIELD	1
13	150 05 301 013	3" x 3/32 in. ORBIT LW ROS AirSHIELD PLUS SHAFT BALANCER	OPT
13	150 05 301 213	3" x 3/16 in. ORBIT LW ROS AirSHIELD PLUS SHAFT BALANCER	OPT
14	150 05 301 014	FILTER MATERIAL	1
15	150 05 301 015	DUCKBILL CHECK VALVE	1
16	150 05 301 016	VALVE RETAINER	1
17	150 05 301 017	RETAINING RING	1
18	150 05 301 018	DOUBLE ROW ANGULAR CONTACT BEARING-1SEAL (5001RS)	1
19	150 05 301 019	SPACER	1
20	150 05 301 020	SPINDLE BEARING DUST SHIELD	1
21	150 05 301 021	BELLEVILLE WASHER	1
22	150 05 301 022	RETAINING RING	1
23	150 05 301 023	SPINDLE	1
24	150 05 301 024	GRIP (Black)	1
25	150 05 301 025	INTERNAL RETAINING RING	2
26	150 05 301 026	SPEED CONTROL	1
27	150 05 301 027	O-RING	3
28	150 05 301 028	LEVER FOR ROS (3/32in ORBIT)	OPT
28	150 05 301 228	LEVER FOR ROS (3/16in ORBIT)	OPT
29	150 05 301 029	LEVER SPRING PIN	1
30	150 05 301 030	MACHINED HOUSING	1
31	150 05 301 031	NV SHROUD 3" (Black)	1
32	150 05 301 032	CV,SGV SHROUD 3" (Black)	1
33	150 05 301 033	WRENCH (17 mm)	1
34	ACCESSORIES	1 PAD SUPPLIED WITH EACH TOOL	OPT
35	150 05 301 035	VALVE STEM ASSEMBLY	1
36	150 05 301 036	VALVE SLEEVE	1
37	150 05 301 037	Hex. Nut (M4)	1
38	150 05 301 038	HEX.SOCKET BUTTON HEAD SCREW (M4x30)	1
39	150 05 301 039	SPEED CONTROL	1
40	150 05 301 040	EXHAUST CHAMBER	1
41	150 05 301 041	O-RING (9.5x1mm)	1
42	150 05 301 042	O-RING (24x1mm)	1
43	150 05 301 043	MUFFLER	1
44	150 05 301 044	MUFFLER COVER	1
45	150 05 301 045	MUFFLER O8.5*O21*T6mm	1
46	150 05 301 046	O-RING(O/R 20*1 N70)	1
47	150 05 301 047	EXHAUST CAP,BUFFER	1
48	150 05 301 048	VARIABLE EXHAUST	1
49	150 05 301 049	VALVE SEAT	1
50	150 05 301 050	VALVE	1
51	150 05 301 051	VALVE SPRING	1
52	150 05 301 052	END CAP	1
53	NA	KEMP LOGO INSERT-END CAP	1
54	150 05 301 054	14.0x1.5 O-RING	1
55	150 05 301 055	INLET BUSHING ASSEMBLY ELITE	1
56	150 05 301 056	HEX.SOCKET BUTTON HEAD SCREW (M4x10)	3
57	150 05 301 057	SNAP-IN VAC COVER PLATE(N)	1
58	150 05 301 058	3" SWIVEL EXHAUST FITTING (Black)(S)	OPT
59	150 05 301 059	3" SWIVEL EXHAUST FITTING (Black)(C)	OPT
60	150 05 301 060	1"/28mm HOSE SEAL	1
62	150 05 301 062	1" VAC HOSE TO DOUBLE BAG FITTING AND AIRLINE ASSY	OPT
63	150 05 501 067	VACUUM BAG	1
64	150 05 501 068	VACUUM BAG INSERT	1

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.

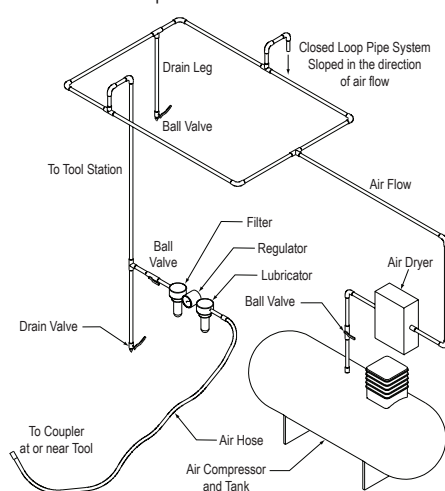


Figure 1

Back-Up Pads

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

Description
3" low profile (1/4-20), non-vacuum, vinyl face
3" low profile (1/4-20), non-vacuum, hook face
3" low profile (1/4-20), non-vacuum, j-hook face
3" low profile (1/4-20), vacuum, vinyl face
3" low profile (1/4-20), vacuum, hook face
3" low profile (1/4-20), vacuum, j-hook face