

# EKASAND Light Weight 77mm (3 in.) 12,000 RPM Random Orbital Sander



<p>Declaration of conformity                  UNEEDA Enterprizes, Inc.                  640 Chestnut Ridge Rd.; Spring Valley, NY 10977 USA                  declare on our sole responsibility that the products                  3 in. LW 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 &amp; 93/44/EEC 93/68/EEC Directives and consolidating Directive 98/37/EC</p>		
Place and date of issue	Name	Signature or equivalent marking of authorized person
<p><b>Manufacturer/Supplier</b>                  UNEEDA Enterprizes, Inc                  640 Chestnut Ridge Rd.                  Spring Valley, NY 10977 USA                  Tel: (845)-426-2800                  Fax: (845)-426-2810</p>	<p><b>Important</b>                  Read these instructions carefully before                  installing, operating, servicing or repair-                  ing this tool. Keep these instructions in                  a safe accessible location.</p>	
<p><b>Required Personal Safety Equipment</b></p>		
Safety Glasses Safety Gloves		Breathing Masks Ear Protection
<p><b>Recommended Airline                  Size - Minimum</b>                  10 mm                      3/8 in</p>	<p><b>Recommended Maximum                  Hose Length</b>                  8 meters                      25 feet</p>	<p><b>Air Pressure</b>                  Maximum Working Pressure 6.2 bar    90 psig                  Recommended Minimum                      NA                      NA</p>

## WARNING

Always wear safety goggles to protect your eyes.

## OIL DAILY

Oil daily for superior performance.

## Operators Instructions

Includes – Please Read and Comply, Assembly Drawing of Machines, Parts List, Proper Use of Tool, Work Stations, Putting the Tool Into Service, Operating Instructions, EKASAND Service Tools and Accessories, EKASAND Back-Up Pads™, EKASAND Warranty, EKASAND Service Kit.

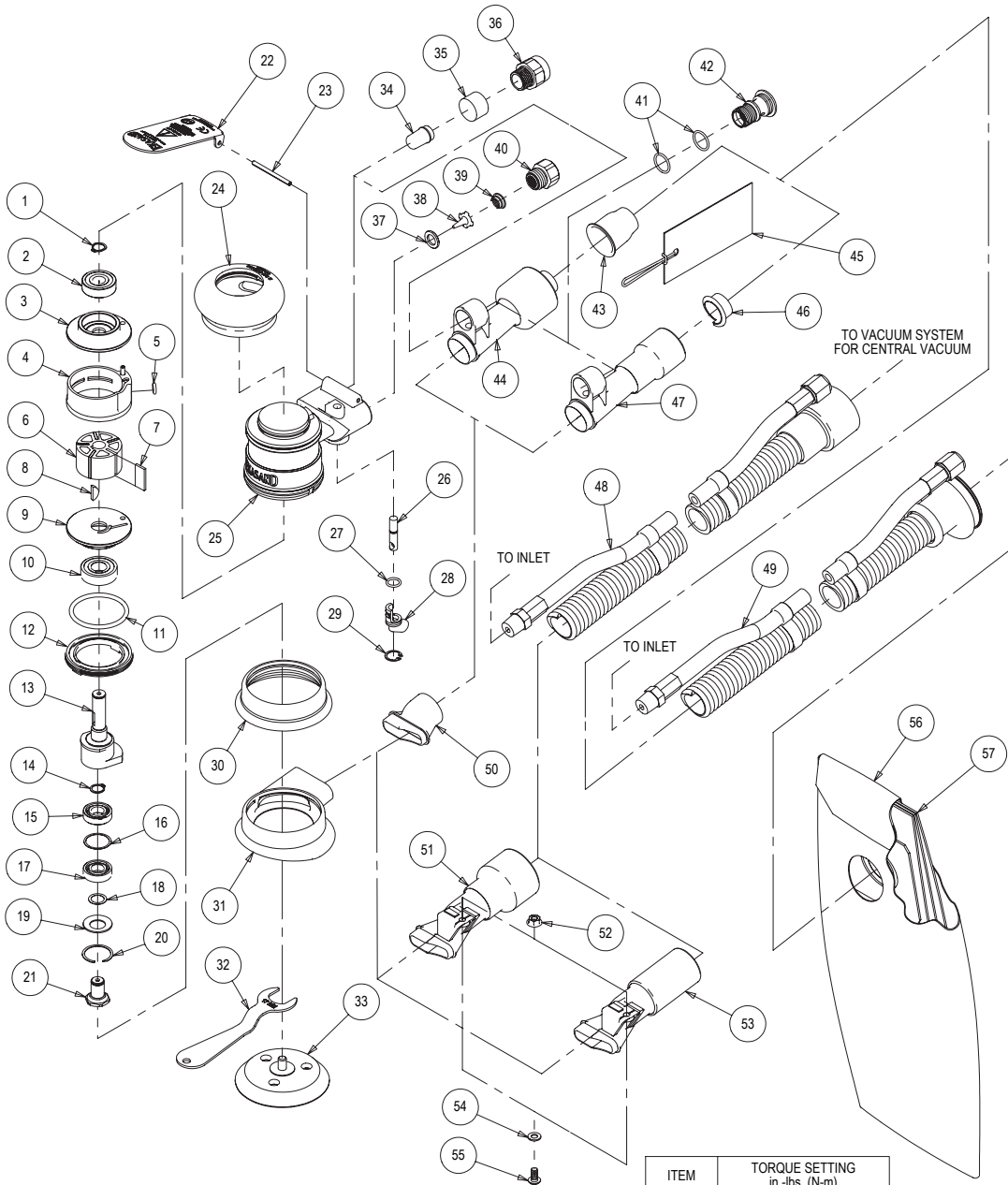
### Important

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

## 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) AIR SUPPLY – Test and operate tools at 90 PSIG (6.1 Bar) maximum unless tool is marked otherwise. Use recommended airline filters - regulators – lubricators (FRL).
- 2) Safety Code for Portable Air Tools, ANSI B186.1 available from: American National Standards Institute, Inc.; 1430 Broadway; New York, NY 10018
- 3) UNUSUAL SOUND or VIBRATION – If tool vibrates or produces an unusual sound, repair immediately for correction.
- 3) State and Local Regulations.
- 4) OPERATOR PROTECTIVE EQUIPMENT – Wear goggles or face shield whenever tool is in operation. Other protective clothing shall be worn, if necessary.
- Key parts of the above regulations are excerpted below. They are not intended to be inclusive. Study and comply with all 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."
- 1) TOOL INTENT – Tool shall be used only for purposes intended in its design.

# EKASAND Light Weight, 77 mm (3 in.) 12,000 RPM Random Orbital Sander



ITEM	TORQUE SETTING in.-lbs. (N-m)
12	55-65 (6.2-7.3)
36	16-20 (1.8-2.6)
40	60-72 (6.8-8.1)
42	36-48 (4.1-5.4)
55	30-35 (3.4-4.0)

## Parts List

Item	Part Number	Description	Qty
1	ESA0400	EXTERNAL RETAINING RING	1
2	ESA1200	BEARING - 2 SHIELDS	1
3	ESA5600	REAR END PLATE	1
4	ESA7600	CYLINDER ASSEMBLY	1
5	ESA2400	O-RING	1
6	ESB5000	ROTOR	1
7	ESA0100	VANE	5
8	ESA1400	WOODRUFF KEY	1
9	ESA4600	FRONT ENDPLATE	1
10	ESA9100	BEARING - 2 SHIELDS	1
11	ESA5400	O-RING	1
12	ESA1000	LOCK RING	1
13	ESB6720	SHAFT BALANCER	1
14	ESA7010	RETAINING RING	1
15	ESA2610	BEARING - NO SEAL/SHIELDS	1
16	ESA6910	SPACER	1
17	ESA1610	BEARING - 1 SEAL	1
18	ESA8010	SHIM 0.2 THK	1
19	ESA6210	BELLEVILLE WASHER	1
20	ESA7710	RETAINING RING	1
21	ESB3800	SPINDLE	1
22	ESA2850	THROTTLE LEVER	1
23	ESA1300	LEVER SPRING PIN	1
24	ESA3490	GRIP 2 1/2 in.	OPTIONAL
	ESA4490	GRIP 2 3/4 in.	1
	ESA5490	GRIP 3 in.	OPTIONAL
25	ESA6610	HOUSING	1
26	ESA8000	VALVE STEM ASSEMBLY	1
27	ESA3400	O-RING	1
28	ESB4100	SPEED CONTROL	1
29	ESA9300	INTERNAL RETAINING RING	1
30	ESC6400	NON-VAC SHROUD	1
31	ESC7400	SuperVAC SKIRT	1
32	ESA6410	17 mm WRENCH	1
33	N/A	1 Back-up Pad supplied with each tool (type determined by model)	1
34	ESA2600	INTERNAL MUFFLER	1
35	ESA8600	MUFFLER INSERT	1
36	ESA6610	MUFFLER HOUSING	1
37	ESA9000	VALVE SEAT	1
38	ESA7000	VALVE	1
39	ESA4100	VALVE SPRING	1
40	ESA3100	INLET BUSHING ASSEMBLY	1
41	ESA4400	O-RING	2
42	ESA6000	SGV RETAINER	1
43	ESA8770	1 in./28 mm HOSE SEAL	1
44	ESA0140	ASSEMBLY FOR 1 in./28 mm HOSE SuperVAC SGV SWIVEL EXHAUST FITTING	1
45	ESA9311	TAG W/ INSTRUCTION FOR 3/4 in./19 mm HOSE SEAL	OPTIONAL
	ESA1411	TAG W/INSTRUCTION FOR 1 in./28 mm HOSE SEAL	1
46	ESA4580	3/4 in./19 mm HOSE SEAL	OPTIONAL
47	ESA9040	ASSEMBLY FOR 3/4 in./19 mm HOSE SuperVAC SWIVEL EXHAUST FITTING	OPTIONAL
48	ESA0030	Ø 3/4 in. VAC HOSE TO Ø 3/4 in. x 1 in./28 mm ADAPTER COUPLING AND AIRLINE ASSMBLY	1
49	ESA1140	Ø 3/4 in. VAC HOSE TO DOUBLE BAG FITTING AND AIRLINE ASSEMBLY	OPTIONAL
	ESA2140	Ø 1 in. VAC HOSE TO DOUBLE BAG FITTING AND AIRLINE ASSEMBLY	1
50	ESC8010	SuperVAC SGV SKIRT/SHROUD ADAPTER	1
51	ESA9900	ROS SuperVAC™ CV 1 in./28 mm SWIVEL EXHAUST ASSEMBLY	OPTIONAL
52	ESA8400	FLANGED NUT	1
53	ESA5020	ROS SuperVAC CV 3/4 in. SWIVEL EXHAUST ASSEMBLY	1
54	ESA7400	WASHER	1
55	ESA9670	SCREW	1
56	ESC0110	VACUUM BAG	1
57	ESC9010	VACUUM BAG INSERT	1

# EKASAND

# Product Configuration and Specifications: 12,000 RPM, 3 in. Light Weight Random Orbital Sander

Note: All Self Generated Vacuum machines use Ø 1 in. (Ø 28 mm) Vacuum Hose Fittings Standard. Ø ¾ in. (Ø 19 mm) is available.

All Central Vacuum machines use Ø ¾ in. (Ø 19 mm) Vacuum Hose Fittings Standard. Ø 1 in. (Ø 28 mm) is available.

Orbit	Vac Type	Model No.	Product Net Weight Pound (kg)	Height inch (mm)	Length inch (mm)	Power HP (watts)	Air Consumption scfm (LPM)	*Noise Level dBA	*Vibration Level m/s <sup>2</sup>
3/32 in. (2.5 mm)	Non-Vacuum	E00013L-1	1.12 (0.51)	3.5 (88)	5.1 (126)	.28 (209)	17 (481)	80	2.0

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.

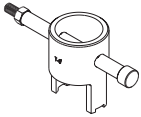
Further occupational health and safety information can be obtained from the following websites:

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

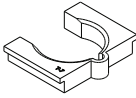
<http://www.osha.gov> (USA)

## EKASAND Service Tools and Accessories

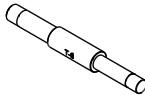
When an EKASAND ROS needs to be serviced, we offer a tool kit to make the disassembly/assembly fast and easy. The Service Tools are highly recommended for use with the Overhaul Service Kit. **NOTICE:** To receive any expressed or implied warranty, the tool must be repaired by an authorized EKASAND Service Center.



T-6 Motor Lock Ring Wrench/Spindle Puller



T-7 Soft Collar



T-8 Motor Face Plate Bearing Removal Tool



T-13 Bearing Press Tool



T-9 Bearing Puller



T-10 Bearing Press Tool



T-11 Bearing Press Tool



T-12 Bearing Press Tool

ESA9740 Universal Service Tool Kit

ESA3840 3 in. LW ROS Service Tool Kit

## EKASAND Back-Up Pads

EKASAND back-up pads are perfectly mated for use on the EKASAND 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 EKASAND

Description	Part#
EKASAND 3 in. low profile, nv, vinyl face	2532100
EKASAND 3 in. low profile, nv, hook face	2532101
EKASAND 3 in. low profile, vacuum, vinyl face	2532110
EKASAND 3 in. low profile, vacuum, hook face	2532111



## EKASAND Warranty

All EKASAND Random Orbital Sanders are warranted for defects in materials or workmanship for 1 year following the date of delivery to the user. Combined with the EKASAND name, this Warranty expresses our total confidence in the superior quality, durability, and performance of the EKASAND

## EKASAND Overhaul Service Kit

The ESA2311 EKASAND Overhaul Service Kit contains all the replacement parts that naturally wear over time and a straightforward manual to make servicing an EKASAND sander simple. Overhauling the Random Orbital Sander can be made even easier with the use of the above Service Tools. The Service Tools also reduce the chance of improper assembly.

## ESA2311 Overhaul Service Kit Contents

Item	Part No.	Description	Qty.
1	ESA0400	Retaining Ring	1
2	ESA1200	Bearing	1
5	ESA2400	O-Ring	1
6	ESB5000	Rotor	1
7	ESA0100	Vane	5
8	ESA1400	Key	1
10	ESA9100	Bearing	1
15	ESA2610	Bearing	1
16	ESA6910	Spacer	1
17	ESA1610	Bearing	1
26	ESA8000	Valve Stem Assembly	1
27	ESA3400	O-Ring	1
29	ESA9300	Retaining Ring	1
34	ESA2600	Muffler (for NV and CV Machines)	1
35	ESA8600	Muffler	1
36	ESA6610	Muffler Housing	1
37	ESA9000	Seat	1
38	ESA7000	Valve	1
39	ESA4100	Valve Spring	1
NA	ESA6620	Overhaul Service Manual	1

## 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.

# EKASAND

## Work Station

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".

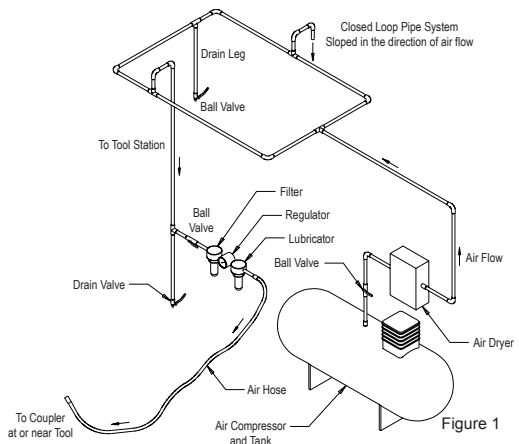
## Putting the Tool into Service

Use a clean lubricated air supply that will give a measured air pressure at the tool of 90 PSI/6.1 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 meter 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 lubricated by shutting off the air supply to the tool, depressurizing the line by pressing the lever on the tool. Disconnect the airline and put 2 to 3 drops of a suitable pneumatic motor lubricating oil, preferably incorporating a rust inhibitor into the hose end (inlet) of the machine. Reconnect tool to air supply and run tool slowly for a few seconds to allow air to circulate the oil. If tool is used frequently lubricate on daily basis and if tool starts to slow or lose power. It is recommended that the air pressure at the tool be 90 PSI/6.1 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/6.1 Bars. 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) 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.

- 4) Always remove the air supply to the sander before fitting, adjusting or removing the abrasive or back-up pad.
- 5) Always adopt a firm footing and/or position and be aware of torque reaction developed by the sander.
- 6) Use only correct spare parts.
- 7) Always ensure that the material to be sanded is firmly fixed to prevent its movement.
- 8) 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.
- 9) Do not exceed maximum recommended air pressure.
- 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) 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.



# EKASAND