

**MODELS RS25A-VLK AND RS26A-VLK  
RANDOM ORBITAL SANDERS  
12,000 R. P. M.****NOTICE**

ARO is not responsible for customer modification of tools for applications on which ARO was not consulted.

**⚠ WARNING**

**IMPORTANT SAFETY INFORMATION ENCLOSED.  
READ THIS MANUAL BEFORE OPERATING TOOL.  
IT IS THE RESPONSIBILITY OF THE EMPLOYER TO PLACE THE INFORMATION  
IN THIS MANUAL INTO THE HANDS OF THE OPERATOR.**

**FAILURE TO OBSERVE THE FOLLOWING WARNINGS COULD RESULT IN INJURY.**

**PLACING TOOL IN SERVICE**

- Always operate, inspect and maintain this tool in accordance with American National Standards Institute Safety Code for Portable Air Tools (ANSI B186.1).
- For safety, top performance, and maximum durability of parts, operate this tool at 90 psig (6.2 bar/620 kPa) maximum air pressure at the inlet with 5/16" (8 mm) inside diameter air supply hose.
- Always turn off the air supply and disconnect the air supply hose before installing, removing or adjusting any accessory on this tool, or before performing any maintenance on this tool.
- Do not use damaged, frayed or deteriorated air hoses and fittings.
- Be sure all hoses and fittings are the correct size and are tightly secured. See Dwg. TPD905-1 for a typical piping arrangement.
- Always use clean, dry air at 90 (6.2 bar/620 kPa) psig maximum air pressure. Dust, corrosive fumes and/or excessive moisture can ruin the motor of an air tool.
- Do not lubricate tools with flammable or volatile liquids such as kerosene, diesel or jet fuel.
- Do not remove any labels. Replace any damaged label.

**USING THE TOOL**

- Always wear eye protection when operating or performing maintenance on this tool.
- Always wear hearing protection when operating this tool.
- Keep hands, loose clothing and long hair away from rotating end of tool.
- Anticipate and be alert for sudden changes in motion during start up and operation of any power tool.
- Keep body stance balanced and firm. Do not overreach when operating this tool. High reaction torques can occur at or below the recommended air pressure.
- Tool accessories may continue to rotate briefly after throttle is released.
- Air powered tools can vibrate in use. Vibration, repetitive motions or uncomfortable positions may be harmful to your hands and arms. Stop using any tool if discomfort, tingling feeling or pain occurs. Seek medical advice before resuming use.
- Use accessories recommended by ARO.
- This tool is not designed for working in explosive atmospheres.
- This tool is not insulated against electric shock.

**NOTICE**

The use of other than genuine ARO replacement parts may result in safety hazards, decreased tool performance, and increased maintenance, and may invalidate all warranties.

Repairs should be made only by authorized trained personnel. Consult your nearest ARO Authorized Servicenter.

For parts and service information, contact your local ARO distributor, or the Customer Service Dept. of the Ingersoll-Rand Distribution Center, White House, TN at PH: (615) 672-0321, FAX: (615) 672-0801.

**ARO Tool Products****Ingersoll-Rand Company**

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## WARNING LABEL IDENTIFICATION



**WARNING**

**FAILURE TO OBSERVE THE FOLLOWING WARNINGS COULD RESULT IN INJURY.**

	<p style="text-align: center;"><b>WARNING</b></p> <p>Always wear eye protection when operating or performing maintenance on this tool.</p>
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	<p style="text-align: center;"><b>WARNING</b></p> <p>Always wear hearing protection when operating this tool.</p>
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	<p style="text-align: center;"><b>WARNING</b></p> <p>Always turn off the air supply and disconnect the air supply hose before installing, removing or adjusting any accessory on this tool, or before performing any maintenance on this tool.</p>
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	<p style="text-align: center;"><b>WARNING</b></p> <p>Air powered tools can vibrate in use. Vibration, repetitive motions or uncomfortable positions may be harmful to your hands and arms. Stop using any tool if discomfort, tingling feeling or pain occurs. Seek medical advice before resuming use.</p>
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	<p style="text-align: center;"><b>WARNING</b></p> <p>Do not carry the tool by the hose.</p>
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	<p style="text-align: center;"><b>WARNING</b></p> <p>Do not use damaged, frayed or deteriorated air hoses and fittings.</p>
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	<p style="text-align: center;"><b>WARNING</b></p> <p>Keep body stance balanced and firm. Do not overreach when operating this tool.</p>
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	<p style="text-align: center;"><b>WARNING</b></p> <p>Operate at 90 psig (6.2 bar/620 kPa) Maximum air pressure.</p>
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## SANDER SPECIFIC WARNINGS

- Use only a sanding pad, buffing wheel or polishing bonnet with these tools. Do not use any grinding wheel, bur or metal removing accessory other than a sanding pad with these tools. Never use an accessory having a maximum operating speed less than the free speed of the Sander in which it is being used.
- These Sanders will operate at the free speed specified on the nameplate if the air supply line furnishes 90 psig (6.2 bar/620 kPa) air pressure at the tool. Operation at higher air pressure will result in excessive speed.
- Do not operate this Sander away from the work surface.
- Check for excessive speed and vibration before operating.
- Do not use this tool if actual free speed exceeds the nameplate rpm.
- Never exceed the rated rpm of tool.
- Repeated prolonged operator exposure to vibrations which may be generated in the use of certain hand-held tools may produce Raynaud's phenomenon, commonly referred to as Whitefinger disease. The phenomenon produces numbness and burning sensations in the hand and may cause circulation and nerve damage as well as tissue necrosis. Repetitive users of hand-held tool who experience vibrations should closely monitor duration of use and their physical condition.
- When using a pad having a shank, insert the shank to full depth in the collet. When using a pad on a threaded arbor, make certain the flange nut is tightened securely. Check the tightness of the collet nut or flange nut before operating a Sander to make certain it will not loosen during operation.

## LUBRICATION



<u>Where Used</u>	<u>ARO Part #</u>	<u>Description</u>
"O" Rings & Lip Seals	36460	4 oz. Stringy Lubricant
Gears and Bearings	33153	5 lb. "EP" – NLGI #1 Grease

Always use an air line lubricator with these tools.

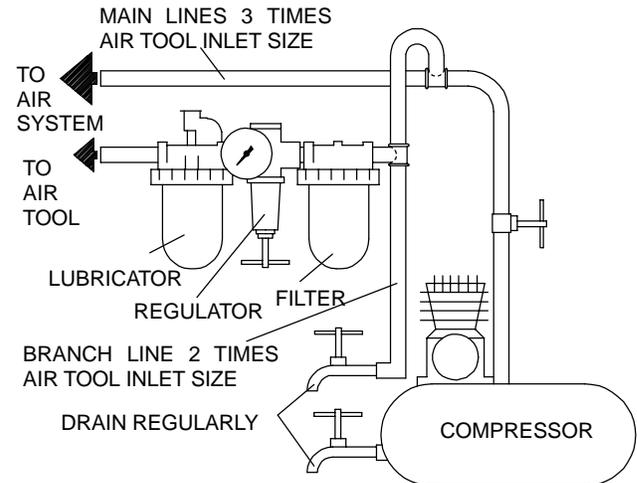
We recommend the following Filter–Lubricator–Regulator Unit:

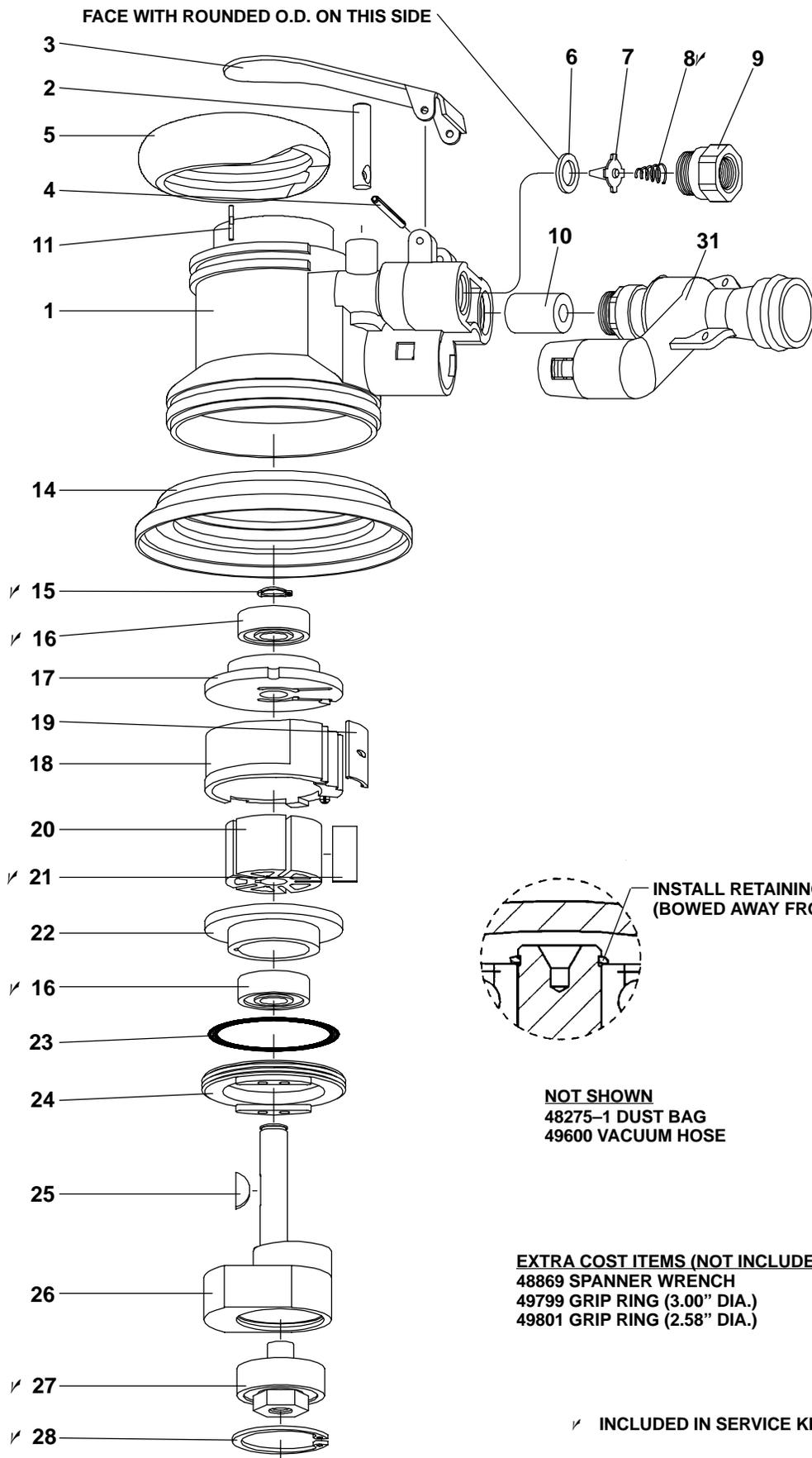
### ARO Model P29231–110 plus 100067 Gauge

**After each 160 hours of operation**, inject one or two strokes of ARO Part #33153 grease through the end of the spindle (27) to lubricate the needle bearing which is in the end of the counterbalance (26).

## CAUTION

Do not mark any nonmetallic surface on this tool with customer identification codes. Such actions could affect tool performance.





PART NUMBER FOR ORDERING

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1	Housing .....	49812-1	19	Seal .....	49819
2	Valve Stem .....	48065-2	20	Rotor .....	48253-1
3	Lever .....	49936	21	Blade (5 req'd) .....	48254-1
4	Roll Pin .....	Y178-134	22	Front End Plate .....	48871
5	Grip Ring .....	49798	23	O Ring .....	Y325-223
6	Seat .....	48071	24	Lock Ring .....	48257-1
7	Tip Valve .....	48070	25	Key .....	39442
8	Spring .....	32858	26	Counterbalance (includes needle bearing) for models RS25A-VLK .....	49808-5
9	Inlet Adapter .....	49824		for models RS26A-VLK .....	49808-6
10	Muffler Tube .....	48263-1	27	Spindle Assembly (includes bearing) .....	49807
11	Dowel Pin .....	Y148-16	28	Retaining Ring .....	Y147-125
14	Shroud .....		30	Wrench (not shown) .....	30131-2
	for models RS25A-VLK .....	48876	31	Eductor Assembly .....	49976
	for models RS26A-VLK .....	48878		Service Kit: includes items 8, 15, 16, 21, 27 and 28 .....	49837
15	Retaining Ring .....	44533			
16	Bearing (2 req'd) .....	48169-1			
17	Rear End Plate .....	48872			
18	Cylinder (includes roll pin) .....	49815			

## DISASSEMBLY/ASSEMBLY INSTRUCTIONS

### ⚠ WARNING

Always wear eye protection when operating or performing maintenance on this tool.

Always turn off the air supply and disconnect the air supply hose before installing, removing or adjusting any accessory on this tool or before performing any maintenance on this tool.

### NOTICE

- Never apply excessive pressure by a holding device which may cause distortion of a part.
- Apply pressure evenly to parts which have a press fit.
- Apply even pressure to the bearing race that will be press fitted to the mating part.
- Use correct tools and fixtures when servicing this tool.
- Don't damage "O" rings when servicing this tool.
- Use only genuine ARO replacement parts for this tool. When ordering, specify part number, description, tool model number and serial number.

### MOTOR DISASSEMBLY

- Remove retaining ring (28).
- Remove spindle assembly (27) (includes bearing). NOTE: Do not attempt to remove bearing from spindle.
- Remove lock ring (24) and pull motor and seal (19) from housing.
- Remove retaining ring (15).
- Using special brass blocks to fit around o.d. of cylinder, clamp around cylinder and press shaft of counterbalance thru bearing (16) and end plate (17).
- Remove blades (21), rotor (20) and key (25).
- Remove end plate (22) and bearing (16).

- Do not remove dowel pin (11) from housing (1) unless damage is evident. To remove, press pin out from inside of housing.

### MOTOR ASSEMBLY

- Assemble dowel pin (11) into housing (1), pressing flush with surface of housing.
- Grease and assemble "O" ring (23) to lock ring (24).
- Assemble lock ring (24) over counterbalance (26).
- Assemble bearing (16) into end plate (22), pressing on outer race of bearing.
- Assemble end plate (22) onto shaft of counterbalance, pressing on inner race of bearing.
- Install key (25) in key slot.
- Assemble rotor (20) to counterbalance, aligning keyway to key (25).
- Assemble five rotor blades (21) to rotor slots.
- Assemble cylinder (18) over rotor, aligning roll pin in cylinder with slot in end plate.
- Assemble bearing (16) into end plate (17), pressing on outer race of bearing.
- Assemble end plate (17), with bearing (16), to counterbalance, pressing on inner race of bearing. NOTE: Align slot in end plate with roll pin in cylinder.
- Install retaining ring (15) to groove in counterbalance, with bow in ring positioned as shown on parts illustration page.
- Assemble seal (19) to grooves in cylinder.
- Assemble motor to housing, aligning seal (19) with air inlet.
- Tighten lock ring (24), securing motor assembly.
- Lubricate needle bearing, contained in counterbalance, with ARO 33153 grease.
- Assemble spindle assembly (27) to counterbalance, securing with retaining ring (28).

# DISASSEMBLY/ASSEMBLY INSTRUCTIONS

## THROTTLE DISASSEMBLY

- Remove eductor assembly (31). To remove, unthread upper section, press in on tabs of lower section and pull assembly from housing.
- Remove inlet adapter (9), releasing spring (8) and valve (7). NOTE: Do not remove seat (6) unless damage is evident.
- To remove valve stem (2), remove roll pin (4) and lever (3).

## THROTTLE ASSEMBLY

- Coat valve stem (2) with ARO 29665 spindle oil and assemble into housing with hole in valve stem in line with housing to accept valve (7).

- Assemble seat (6) into housing with rounded corners into housing first.
- Coat valve (7) with ARO 29665 spindle oil and assemble into housing, securing valve stem (2).
- Assemble spring (8) into housing.
- Assemble inlet adapter (9) to housing, securing throttle components.
- Assemble lever (3) to housing, securing with roll pin (4).
- Assemble eductor assembly (31) to housing. To assemble, insert tapered section of eductor assembly into housing while aligning threaded section with housing. Using a wrench on flats, tighten threaded section securely. Tabs will snap into slots in housing.

## **NOTES**

