VAC-AIR INDUSTRIES

User Guide

VA SLN 1”

VA SLN 1-1/4”

CE

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Introduction

Important!
Please read these operating and safety instructions carefully before using this equipment.

Your safety is our priority. If you are uncertain about how to operate this equipment, do not proceed without assistance. For technical support or questions, please contact Vac-Air Industries.
Contact information, including our phone number, can be found on the Vac-Air Industries website.

www.vacairinc.com

Congratulations on Your Purchase!
Thank you for choosing Vac-Air Industries. With proper installation, use, and maintenance, your new tool is designed to deliver years of reliable, trouble-free, and industry-leading performance.

Description

VA-SLN Lung Removal Nozzles are designed specifically for the removal of internal organs or body parts from animals such as turkeys, cattle, pigs, lambs, rabbits, and other similar species. These nozzles are intended exclusively for use in animal processing applications and should not be used for any other purposes. The SLN Lung Removal Nozzle features a simple yet highly effective design that operates solely on vacuum power. By rotating the nozzle, the vacuum is activated. It's an efficient tool available in various lengths to meet all processing requirements, offering both flexibility and effectiveness across a wide range of applications.

Advantages

- Vacuum only Operated
- Corrosion resistant materials
- No Overhead Valve System
- Easy to maintain, clean and operate
- Offered with 1-1/4" nozzle

Specifications

- Nozzle Diameter: 1" or 1-1/4"
- Optional Nozzle Length 1": 11", 13", 15"
- Optional Nozzle Length 1-1/4": 13", 15", 17"
- Vacuum Requirements: 16-22 inHg
- Capacity: 1,200 Cycles/hour
- Length: 21", Width: 2.5", Height: 9.5"
- Weight – 2lbs.
- Accessories: Vacuum Hose, Hose Clamps, Tool balancer

Safety Warnings

Wear Proper Personal Protective Equipment (PPE)

- PPE must conform to PPE Regulation (EU) 2016/425
- Always wear safety glasses or goggles to protect against flying debris.
- Wear hearing protection in noisy environments.
- Use mesh gloves and non-slip footwear as needed.

Inspect Before Use

- Inspect the tool, vacuum hose, and fittings for damage or wear before each use.
- Do not use a damaged or malfunctioning tool—report and replace it immediately.

Secure the Work Area

- Ensure the work area is **clean, dry, and well-lit**.
- Keep bystanders, especially children, away from the work area.

Tool Handling

- Always shut off the air source and release any remaining air pressure in the lines before detaching or servicing the tool.
- Never point the tool at yourself or others.
- Maintain a firm grip and proper stance while operating the tool.

Vac-Air Industries Hand Tools are **not intended for use by**:

- Individuals **under 18 years of age**
- **Untrained personnel**
- Persons **under the influence of drugs, alcohol, or medication** that may impair judgment or coordination

Improper use may result in injury or equipment damage.

Vac-Air Industries is not responsible for the safety of any Vac-Air Industries tool used for purposes other than those specified as intended.
For user safety, it is **strongly recommended** to keep a **fully stocked first aid kit** readily accessible to treat minor injuries.

Important: Never remove or disable any **guards or protective devices** installed on Vac-Air Industries hand tools. These safety features are essential for preventing serious injury and must remain in place during all operations.

Note: Tampering with or removing the safety guard invalidates conformity with European Regulation 2023/1230. Vac-Air Industries accepts no responsibility for any consequences resulting from such actions.
Staging, access steps, handrails, and kick plates that assist the user must be designed and constructed in accordance with EN ISO 14122-2:2016 – Safety of Machinery

Risk Assessment

Hazard: Use of a hand tool to vacuum materials other than poultry and other meat.
Risk: Tool damage and possible operator injury due to tool failure or overload.

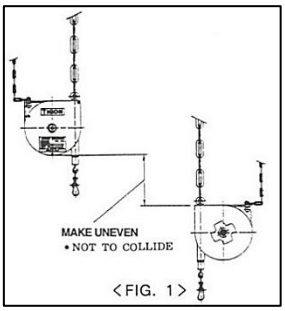
Hazard: Exposure to hazards from a hand tool that has been modified to change its intended purpose.
Risk: Unpredictable tool behavior, mechanical failure, or serious injury.

Hazard: Operation of the tool by untrained persons, persons under the influence of drugs, or underage operators.
Risk: Increased likelihood of accidents due to lack of training, impaired judgment, or physical inability to operate safely.

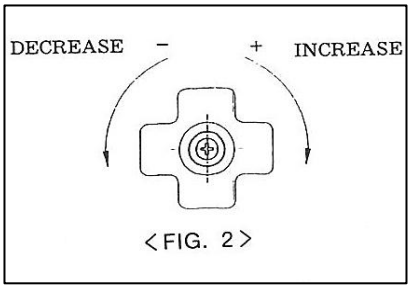
Installation

Tool Balancer Installation

Installation (Fig.1)
Hang the balancer using the main hook.
Keep the balancer spaced properly to avoid collision with other balancers or structures.
Install the tool onto the balancer using the spring clip at the end of the cable.

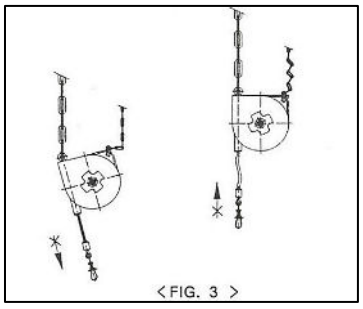


<FIG. 1>



<FIG. 2>

The support cable must be installed on secondary hanger.
The **cable** used for suspension must **not come into contact with any fixed surfaces** to avoid wear and potential failure.
Tension Adjustment (Fig. 2)
To increase the tension, pull up on the knob below the handle and turn clockwise.
To decrease the tension, pull up on the knob below the handle and turn counter clockwise.
Caution (Fig. 3) Do not pull cable at an angle as this can cause damage to the balancer.


<FIG. 3>

Tool Installation

Attach the Tool Balancer: (Fig. 4)

- Insert the clip at the end of the balancer into the hole located at the rear, upper side of the tool body.
- This enables the tool to be suspended from an overhead support.

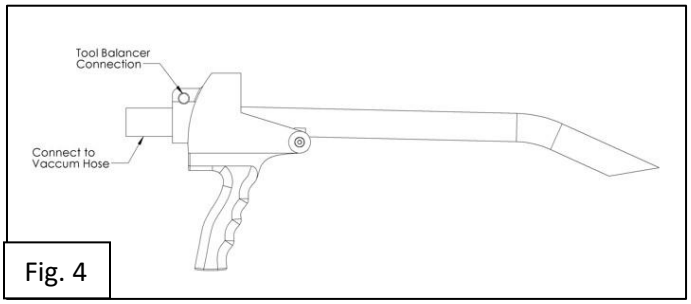


Fig. 4

Connect the Vacuum Hose: (Fig. 5)

- Attach the vacuum hose to the rear nozzle of the tool.
- Secure the connection using the supplied hose clamp.
- Tighten the clamp to ensure a firm and leak-free fit.
- Suspend the vacuum hose from overhead to reduce tension and prevent strain on the connection.

Adjust Tool Height:

- Use the balancer's adjustment mechanism to lower the tool to the desired working height.

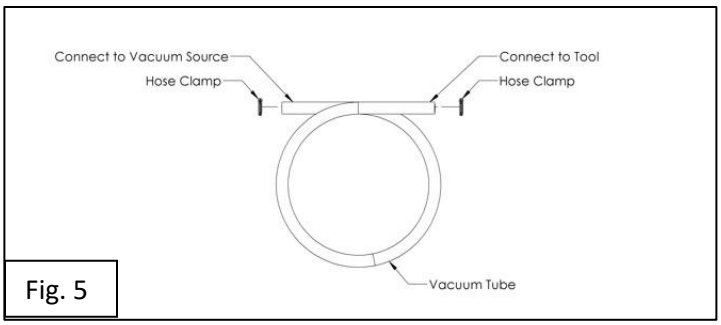


Fig. 5

Set Vacuum Level:

- Adjust the vacuum to a level between 16 and 22 inHg of vacuum for optimal performance.

Operation

Proper lubrication and cleanliness are essential to ensure optimal tool performance and to extend the life of all components. Inadequate lubrication can lead to premature wear, reduced efficiency, and costly downtime. Maintaining these conditions is critical for the reliable and long-term operation of your equipment.

This tool is designed solely for poultry processing and evisceration. It must not be used on metal, plastic, or other non-organic materials, as this can reduce performance and lead to contamination.

Check Vacuum Connections

- Ensure the vacuum hose is securely connected to the tool's air inlet.
- Inspect the hose for any signs of damage, wear, or leaks.
- Confirm that the vacuum supply is turned on and operating at the correct pressure as specified for the tool.

To Open the Vacuum:

- Rotate the nozzle within the body to the open position. This allows vacuum to flow through the tool.

To Close the Vacuum:

- Release the nozzle and allow it to spring back to its closed position. This will stop the vacuum flow.

Note:

- The tool only allows vacuum to pass when the nozzle is actively rotated into the open position within the tool body.

Important: Do not operate the tool if any vacuum connections are insecure or if there are any loose components. Always perform the above checks before each use.

Lubrication

Required Lubrication: *Food Machinery Oil ISO 46 / Food Grade Hydraulic White Mineral Oil A/W*
Food Industry Grease, Food-Grade

The Hinging Bolt (#7) requires oil

The Sliding Block (#3) requires grease

Maintenance

Vac-Air Industries allows users to perform all routine preventative maintenance, including cleaning, lubrication, and basic inspections. However, if major maintenance or repairs are needed, such as internal component replacement or motor issues, the tool should be sent to Vac-Air Industries for servicing.

Note: In order to maintain conformity to European Regulation 2023-1230, only Vac-Air replacement parts must be used.

It is advised to keep a spare tool available for use while another tool is undergoing maintenance. Maintenance should be performed in a designated clean and controlled area to ensure proper handling and minimize contamination.

CAUTION:

Always shut off the vacuum supply and release all remaining vacuum pressure from the lines before detaching or servicing the tool.

Failure to follow this procedure can result in serious injury due to unexpected tool activation or discharge.

Preventative Maintenance	Occurrence
Inspect components for wear	Daily
Lubricate the nozzle hinging bolt	800 cycles
Grease the Sliding Block	800 cycles
Inspect Nozzle	Daily
Clean the tool	Daily

Store tools in a clean, dry place when not in use.

Nozzle Removal-

Disconnect the tool from the vacuum supply to ensure safety before beginning any maintenance.
Secure the tool in a vise, ensuring it is stable and will not shift or move during disassembly.
Remove the Hinging Bolt Locking Washer and Nut (#7A and #7B) from the Hinging Bolt (#7) and pull the nozzle out from the SLN body.

Spring Replacement-

Disconnect the tool from the vacuum supply to ensure safety before beginning any maintenance.
Secure the tool in a vise, ensuring it is stable and will not shift or move during disassembly.
Remove the Hinging Bolt Locking Washer and Nut (#7A and #7B) from the Hinging Bolt (#7) and pull the nozzle out from the SLN body.
Remove the spring (#6) and (#8).
Inspect and lubricate components using the required lubrication before replacing the spring.

Cleaning Instructions-

CAUTION: Always shut off the vacuum supply and release all remaining vacuum pressure from the lines before detaching, servicing, or cleaning the tool.
Failure to do so may result in serious injury due to unexpected tool activation or discharge.
Important: To maintain hygiene and prevent contamination, thoroughly clean all tool surfaces—including corners, joints, and hard-to-reach areas—where residue or debris can accumulate and lead to build-up.
For best results:

- Use warm water and a mild detergent (such as dish soap) to clean all applicable parts.
- Rinse thoroughly with hot water to remove all cleaning agents and residue.
- Ensure all areas are completely dried before reassembly or storage.

Important:
Do not use alkaline, iodine-based, or acidic cleaners, as these substances may cause corrosion or damage to tool components.
Following these cleaning practices helps preserve tool performance and supports a hygienic working environment.

For proper maintenance, send the tool to Vac-Air Industries.

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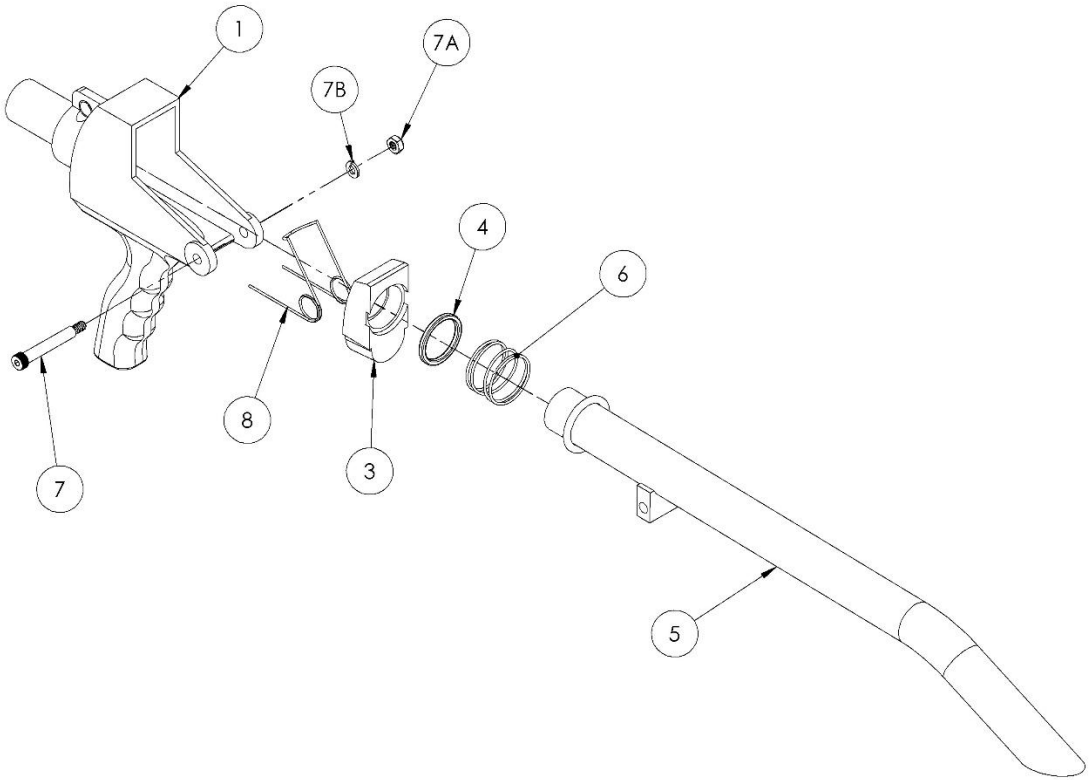

Vac-Air Industries		
DRAWN BY: DJZ	DATE: 8/20/2025	
SIZE	DWG. NO. VA-SLN MACHINE ASSEMBLY	
SCALE: 1:3.5	WEIGHT: 2.5lbs	SHEET 1 OF 1

Part #	VA-SLN Lung Removal Nozzle Part List	Qty.
1	Body (includes #2 plate)	1
3	Sliding block	1
4	Block seal	1
5	Tube (17")	
5a	Tube (15")	
5b	Tube (13")	
6	Tube spring	1
7	Hinging bolt	1
7A	Hinging bolt locking nut	1
7B	Hinging bolt locking washer	1
8	Operating spring	1

EC Declaration of Conformity

VAC-AIR INDUSTRIES

Manufacturers Name: VAC AIR INDUSTRIES
Manufacturers Address: 5254 N. 124th Street
Milwaukee,
WI 53225.

Declare that the machinery described below complies with all applicable health and safety requirements of Annex III Chapter 1 of Machinery Regulation 2123/1230 and applicable parts of Annex III Chapter 2 Subsection 2.2. Confidential Technical Documentation has been compiled in accordance with Annex IV Part B of Machinery Regulation 2123/1230 and is available to European National Authorities on written request only. If a request is received, documentation will be provided on a CD or sent by email.

Description: **Vacuum Suction Hand Tools.**
Model Numbers: VA-SLN Lung Removal Nozzle and VA Lung Removal Nozzle with 1 inch and 1-1/4 inch Nozzles

Serial Number/s: (As applicable) ....

The following standards have either been referred to in part or complied with in full, as appliable.

EN ISO 12100: 2010	Safety of Machinery	-	Safety of machinery - General principles for design - Risk assessment and risk reduction.
EN ISO 13857:2008	Safety of machinery	-	Safety distances to prevent hazard zones being reached by upper and lower limbs.
EN 614-2:2000+A1:2008	Safety of machinery	-	Ergonomic design principles - Part 2: Interactions between the design of machinery and work tasks.
EN ISO 14120:2015	Safety of machinery	-	General requirements for the design and construction of fixed and movable guards.
EN ISO 4414:2010	Pneumatic fluid Power	-	General rules and safety requirements for systems and their components.
EN ISO 11148-2	Hand-held non-electric Power Tools.	-	Safety requirements - Part 2 Cutting-off and crimping power tools.
EN ISO 15744:2008	Hand-held non-electric	-	Noise measurement code - Engineering method. (ISO 11553-3:2013 accuracy grade 2)

Full Name of Natural or Legal Person **Place of Signing**

Name: David H. Zanon Jr.....

Position: Owner.....

Vac-Air Industries
5254 N. 124th Street
Milwaukee WI, 53225

Signature: David H. Zanon Jr. **Date:** 5/27/2025

Full Name of Authorised European Representative **Place of Signing**

EU AR: QNET B.V.
Name Drs. Ton Denissen, CEO
Date May 27, 2025
Place of Signing Haaren

Ton Denissen