

## WBTY CV-15HS

# User Manual for WBTY CV-15HS Vacuum Generator

Model: CV-15HS

## 1. INTRODUCTION

This manual provides essential information for the safe and efficient operation, installation, and maintenance of the WBTY CV-15HS Vacuum Generator. Please read this manual thoroughly before using the product to ensure proper function and to prevent damage or injury.

The WBTY CV-15HS is a pneumatic air exhaust vacuum generator, also known as a Venturi vacuum pump or ejector, designed for industrial and scientific applications requiring vacuum generation. It features a compact design and is constructed from durable aluminum alloy.

## 2. KEY FEATURES

- **Durable Construction:** Adopt aluminum alloy material, wear resistant and anti-corrosion.
- **Secure Connection:** Precision threads ensure the fastness of the connection.
- **Ease of Use:** Simple structure, easy to mount and maintain.
- **Compact Design:** Compact size, large air ventilation.
- **Integrated Silencer:** Includes a silencer for reduced noise during operation.

## 3. SPECIFICATIONS

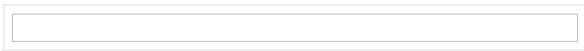
Parameter	Value
Model	CV-15HS
Nozzle Diameter	1.5mm
Vacuum Thread Diameter	Rp1/4
Inlet Thread Diameter	Rp1/4

Parameter	Value
Outlet Thread Diameter	Rp1/4
Medium	Air
Working Pressure	1~6 BAR
Rated Pressure	5 BAR
Suction Rate	63 L/min
Vacuum Pressure	-92 BAR
Working Temperature	0~60 °C
Material	Aluminum alloy
Package Weight	Approx. 133g / 4.7oz

*Note:* The new and old types of this product may be sent randomly. Functionality remains consistent.

## 4. PRODUCT COMPONENTS

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**Figure 4.1:** Front view of the CV-15HS Vacuum Generator, showing the main body, silencer, and threaded connection.



**Figure 4.2:** The CV-15HS Vacuum Generator with its silencer detached, illustrating the separate components.



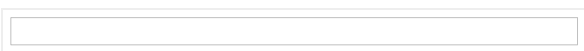
**Figure 4.3:** The CV-15HS Vacuum Generator shown in a vertical orientation, highlighting its compact form factor.



**Figure 4.4:** An angled view of the CV-15HS Vacuum Generator, providing a different perspective of its design.



**Figure 4.5:** Side view of the CV-15HS Vacuum Generator, showing the full length of the unit with the silencer attached.



**Figure 4.6:** Top-down view of the CV-15HS Vacuum Generator, showing the overall dimensions and connection points.

## 5. SETUP AND INSTALLATION

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The CV-15HS Vacuum Generator is designed for straightforward installation. Follow these steps for proper setup:

1. **Prepare Connections:** Ensure that all connecting pipes and fittings are clean and free of debris. The vacuum generator has Rp1/4 threads for vacuum, inlet, and outlet connections.
2. **Mounting:** Securely mount the vacuum generator in the desired location. Its compact size allows for flexible placement. Ensure there is adequate space for connecting hoses and for maintenance access.
3. **Connect Air Supply:** Connect the compressed air supply line to the inlet port (Rp1/4). Ensure the air supply pressure is within the specified working pressure range of 1-6 BAR.
4. **Connect Vacuum Line:** Connect the vacuum line to the vacuum port (Rp1/4). This line will lead to the area or system where vacuum is required.
5. **Connect Exhaust:** The exhaust port (Rp1/4) is where the air is expelled after passing through the Venturi. The integrated silencer is designed to reduce noise from this exhaust. Ensure this port is not obstructed.
6. **Leak Check:** After all connections are made, perform a leak check to ensure all fittings are tight and there are no air leaks that could compromise vacuum performance.



Figure 5.1: Illustration emphasizing the simple structure and ease of mounting for the vacuum generator.

## 6. OPERATING INSTRUCTIONS

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Operating the CV-15HS Vacuum Generator is straightforward once installed:

1. **Power On Air Supply:** Activate the compressed air supply to the vacuum generator. The Venturi effect will immediately begin to create a vacuum at the vacuum port.
2. **Monitor Pressure:** If your system includes a vacuum gauge, monitor the vacuum pressure to ensure it reaches the desired level (up to -92 BAR).
3. **Adjust Air Pressure (if applicable):** If your application requires a specific vacuum level, you may adjust the inlet air pressure within the 1-6 BAR range to fine-tune the vacuum output. Higher inlet pressure generally results in a stronger vacuum and higher suction rate.
4. **Observe Suction Rate:** The maximum suction rate is 63 L/min. This rate will vary depending on the application and the resistance in the vacuum line.
5. **Shut Down:** To stop vacuum generation, simply turn off the compressed air supply to the unit.

## 7. MAINTENANCE

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Regular maintenance ensures the longevity and optimal performance of your CV-15HS Vacuum Generator. The unit is designed for low maintenance due to its simple structure.

- **Cleanliness:** Keep the unit and its connections clean. Dust and debris can affect performance, especially around the exhaust silencer.
- **Check Connections:** Periodically inspect all threaded connections for tightness. Vibrations or temperature changes can sometimes loosen fittings, leading to air leaks and reduced vacuum efficiency.
- **Silencer Inspection:** The integrated silencer may accumulate dust or particles over time. If you notice a decrease in air ventilation or an increase in noise, inspect the silencer for blockages and clean it if necessary. The silencer can typically be unscrewed for cleaning.
- **Air Quality:** Ensure the compressed air supply is clean and dry. Contaminants in the air can lead to internal blockages or wear. Using an air filter and dryer upstream of the vacuum generator is recommended.
- **Storage:** If the unit is to be stored for an extended period, disconnect it from the air supply and vacuum lines, clean

it thoroughly, and store it in a dry, clean environment.

## 8. TROUBLESHOOTING

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This section provides solutions to common issues you might encounter with your CV-15HS Vacuum Generator.

Problem	Possible Cause	Solution
<b>No Vacuum or Low Vacuum</b>	<ul style="list-style-type: none"><li>◦ Insufficient air supply pressure.</li><li>◦ Air leaks in connections or vacuum lines.</li><li>◦ Blocked inlet or vacuum port.</li><li>◦ Damaged internal components (rare).</li></ul>	<ul style="list-style-type: none"><li>◦ Check air compressor and regulator; ensure pressure is 1-6 BAR.</li><li>◦ Inspect all connections for tightness; use thread sealant if necessary.</li><li>◦ Clear any obstructions from ports.</li><li>◦ Contact customer support if other solutions fail.</li></ul>
<b>Excessive Noise</b>	<ul style="list-style-type: none"><li>◦ Blocked or dirty silencer.</li><li>◦ Loose connections causing vibration.</li></ul>	<ul style="list-style-type: none"><li>◦ Remove and clean the silencer.</li><li>◦ Tighten all mounting and pipe connections.</li></ul>
<b>Air Leakage from Unit Body</b>	<ul style="list-style-type: none"><li>◦ Loose assembly screws.</li><li>◦ Internal seal damage.</li></ul>	<ul style="list-style-type: none"><li>◦ Check and gently tighten any visible assembly screws.</li><li>◦ If leakage persists, the unit may require professional inspection or replacement.</li></ul>

## 9. WARRANTY AND SUPPORT

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For warranty information and technical support, please refer to the product packaging or contact your point of purchase. WBTY products are designed for reliability, and support is available for any manufacturing defects or operational queries. For direct inquiries, please visit the official [WBTY website](#) or contact their customer service department. Keep your purchase receipt as proof of purchase for warranty claims.