

VAR TECH 850 A

VAR TECH 850A SMD Rework Station User Manual

Model: 850 A

1. PRODUCT OVERVIEW

The VAR TECH 850A is an industrial-grade SMD rework station designed for precision soldering and desoldering tasks. It features robust construction, rapid heating capabilities, and a powerful pump with an enclosure for low noise operation. This station is a reliable tool for engineers and technicians requiring accurate temperature and airflow control for surface-mount device rework.

Key features include:

- Industrial Grade Quality, Accuracy, and Reliability.
- Power Consumption: 270 W.
- Adjustable Air Flow: Up to 24 L/Min (Max).
- Temperature Range: 100 °C to 420 °C.
- Rapid Heating and linearly adjustable air volume.
- Low noise and high performance pump due to enclosed design.



Figure 1: Front view of the VAR TECH 850A SMD Rework Station, showing the main unit with power switch, air and heater controls, and the hot air gun in its holder.

2. SAFETY INSTRUCTIONS

Always observe the following safety precautions to prevent injury or damage to the equipment:

- **Read the Manual:** Familiarize yourself with all instructions before operation.
- **Ventilation:** Use the rework station in a well-ventilated area to avoid inhaling fumes.
- **Hot Surfaces:** The hot air gun and nozzles reach high temperatures. Avoid direct contact and allow components to cool before handling.
- **Power Supply:** Ensure the power supply matches the specifications of the unit.
- **ESD Protection:** The unit is ESD safe. Always use appropriate ESD precautions when working with sensitive electronic components.
- **Children and Pets:** Keep the device out of reach of children and pets.
- **Maintenance:** Disconnect power before performing any maintenance or changing accessories.

3. SETUP AND INSTALLATION

Follow these steps to set up your VAR TECH 850A SMD Rework Station:

1. **Unpacking:** Carefully remove all components from the packaging. Verify that all parts listed in the packing list are present.
2. **Placement:** Place the main unit on a stable, heat-resistant, and non-flammable surface. Ensure adequate clearance for ventilation.
3. **Hot Air Gun Connection:** Connect the hot air gun cable securely to the designated port on the main unit.
4. **Nozzle Installation:** Select the appropriate nozzle for your application. Attach the nozzle to the hot air gun by

sliding it on and securing it with the retaining clip if present.

5. **Power Connection:** Connect the power cord to the main unit and then to a grounded electrical outlet.



Figure 2: The VAR TECH 850A unit shown with various hot air nozzles, demonstrating the accessories included for different applications.



Figure 3: Close-up view of the hot air gun, highlighting the "HOT CAUTION" label and the nozzle attachment area.

4. OPERATING INSTRUCTIONS

Operating the VAR TECH 850A involves controlling the air volume and heating temperature. Follow these steps for proper operation:

- 1. Power On:** Flip the main POWER switch to the "ON" position. The unit will power up.
- 2. Adjust Air Volume:** Use the "AIR" control knob to adjust the airflow. Start with a lower setting and increase as needed for your application. The airflow is linearly adjustable.
- 3. Adjust Heater Temperature:** Use the "HEATER" control knob to set the desired temperature. The temperature range is 100 °C to 420 °C. Allow a few moments for the hot air gun to reach the set temperature.
- 4. Operation:** Once the desired temperature and airflow are set, you can begin your rework task. Always hold the hot air gun at a safe distance from the component to avoid overheating.
- 5. Cool Down:** After use, place the hot air gun back into its holder. The unit features an intelligent cooling system that will automatically cool down the hot air gun before completely shutting off. Do not switch off the main power until the cooling cycle is complete.

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Video 1: Demonstration of the VAR TECH 850A SMD Rework Station's controls, including air volume and heater temperature adjustments, and a display of its airflow performance using an anemometer. This video highlights the intelligent cooling system and the unit's industrial-grade precision.

5. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your rework station:

- **Cleaning:** Keep the unit and hot air gun clean. Use a soft, dry cloth to wipe down surfaces. Do not use abrasive cleaners or solvents.
- **Nozzle Care:** Clean nozzles regularly to prevent solder or flux buildup. Ensure they are free from obstructions.
- **Air Filter:** Check and clean the air filter (if accessible) periodically to maintain optimal airflow.
- **Storage:** Store the rework station in a dry, dust-free environment when not in use.
- **Component Replacement:** If any components like the heating element or pump require replacement, contact VAR TECH customer support or an authorized service center.

6. TROUBLESHOOTING

This section addresses common issues you might encounter:

Problem	Possible Cause	Solution
No Power	Power cord disconnected, faulty outlet, main switch off.	Check power connections, try a different outlet, ensure power switch is ON.
No Heat from Hot Air Gun	Heater knob set too low, faulty heating element.	Increase heater setting. If issue persists, contact support for heating element replacement.
Weak Airflow	Air knob set too low, clogged nozzle, blocked air intake.	Increase air setting, clean or replace nozzle, check air intake for obstructions.

Problem	Possible Cause	Solution
Unit Not Cooling Down	Main power switched off prematurely.	Allow the automatic cooling cycle to complete before switching off the main power.

7. SPECIFICATIONS

Detailed technical specifications for the VAR TECH 850A SMD Rework Station:

Feature	Value
Brand	VAR TECH
Model Number	850 A
Power Consumption	270 W
Air Flow	24 L/Min (Max)
Temperature Range	100 °C ~ 420 °C
Item Weight	3 kg 470 g
Product Dimensions (LxWxH)	18.7 x 13.5 x 24.5 cm
Country of Origin	China

SPECIFICATIONS

Power Consumption :	270 W	Dimension :	187 x 135 x 245 mm
Air Flow :	24 L / Min. (Max.)	Weight :	4 Kg. Approx.
Temp. Range :	100 °C ~ 420 °C	Operation :	220 V AC, 50 Hz

Figure 4: Image displaying the key specifications of the VAR TECH 850A SMD Rework Station, including power consumption, airflow, and temperature range.

8. WARRANTY AND SUPPORT

The VAR TECH 850A SMD Rework Station comes with a **1 Year Warranty** against manufacturing defects. VAR TECH provides comprehensive after-sales support with a dedicated technical team for assistance.

For service, spare parts (A-Z spares available), or technical assistance, please contact VAR TECH directly. You can find more information and contact details on the official VAR TECH website: www.var-tech.com.

