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Elitech SVP-7

Elitech SVP-7 7 CFM 2-Stage Smart Vacuum Pump Instruction Manual

Model: SVP-7 | Brand: Elitech

Safety Information Package Contents Product Features Setup Operating Instructions Maintenance Troubleshooting Specifications Warranty & Support

1. Safety Information

Please read and understand all safety warnings and instructions before operating the Elitech SVP-7 vacuum pump. Failure to follow these instructions may result in electric shock, fire, and/or serious injury.

- Always wear appropriate personal protective equipment (PPE), including safety glasses and gloves, when operating the pump.
- Ensure the pump is connected to a properly grounded power outlet.
- Do not operate the pump in wet conditions or expose it to rain.
- Maintain proper ventilation around the pump during operation to prevent overheating.
- Use only industrial-grade ISO 46 vacuum pump oil. Regularly check and maintain the oil level.
- The pump features a 122°F auto-shutdown to prevent overheating. Do not bypass this safety feature.
- Disconnect power before performing any maintenance or service.

2. Package Contents

Verify that all items are present in the package:

- 1 x Elitech SVP-7 Vacuum Pump
- 1 x User Manual
- 1 x 450ml Vacuum Oil
- 1 x 350ml Vacuum Oil

Image: Elitech SVP-7 Vacuum Pump and its included accessories, such as vacuum oil and the user manual.

3. Product Features

The Elitech SVP-7 Smart Vacuum Pump is designed with advanced features for efficient and reliable HVAC/R system evacuation:

- **Smart Leak Detection System:** Precisely measures leakage levels on a 0-100 risk scale (0=sealed, 100=critical leak), using real-time diagnostics to pinpoint weak spots faster than manual testing.
- **Real-Time Vacuum Graph:** Watch the evacuation process unfold live below 60,000 microns – spot leaks, clogs, or slow pumping instantly with visual trends (vs. guessing from numbers alone).
- **Fully Automated Operation:** Self-regulating motor and solenoid valve with auto shutoff prevents oil backflow and estimates job completion time.
- **Mobile App Control (iOS/Android):** Remotely start/stop, monitor vacuum levels, and export PDF reports via Elitech Tools Bluetooth app.
- **4" Touchscreen Interface:** User-friendly display shows live metrics (temp/leakage/motor status) with one-touch parameter adjustment.
- **Dual Safety Protection:** Industrial-grade ISO 46 oil + 122°F auto-shutdown defend against meltdowns –

meets OSHA standards for worry-free operation.

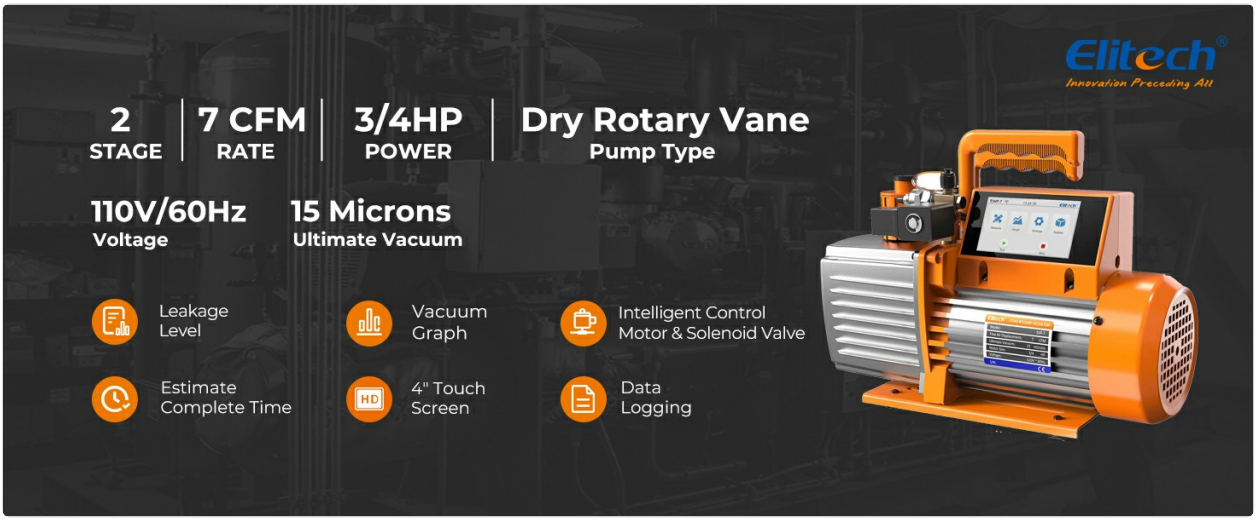

Image: An overview of the Elitech SVP-7's smart features, including touchscreen, app control, and leak detection.

4. Setup

4.1 Initial Inspection and Oil Filling

1. Unpack the vacuum pump and inspect for any shipping damage.
2. Ensure the power switch is in the 'OFF' position.
3. Remove the oil fill cap and fill the pump with the provided vacuum oil until the oil level is between the 'MIN' and 'MAX' marks on the sight glass.
4. Replace the oil fill cap securely.

4.2 Connecting the Vacuum Gauge

For precise vacuum measurement, connect a compatible micron gauge to the pump or system:

Video: This video demonstrates the process of connecting a vacuum pump with a micron gauge for accurate readings during HVAC/R system evacuation.

4.3 Powering On

Connect the power cord to a suitable electrical outlet. Press the power switch to turn on the pump. The 4-inch touchscreen will illuminate, displaying the main interface.

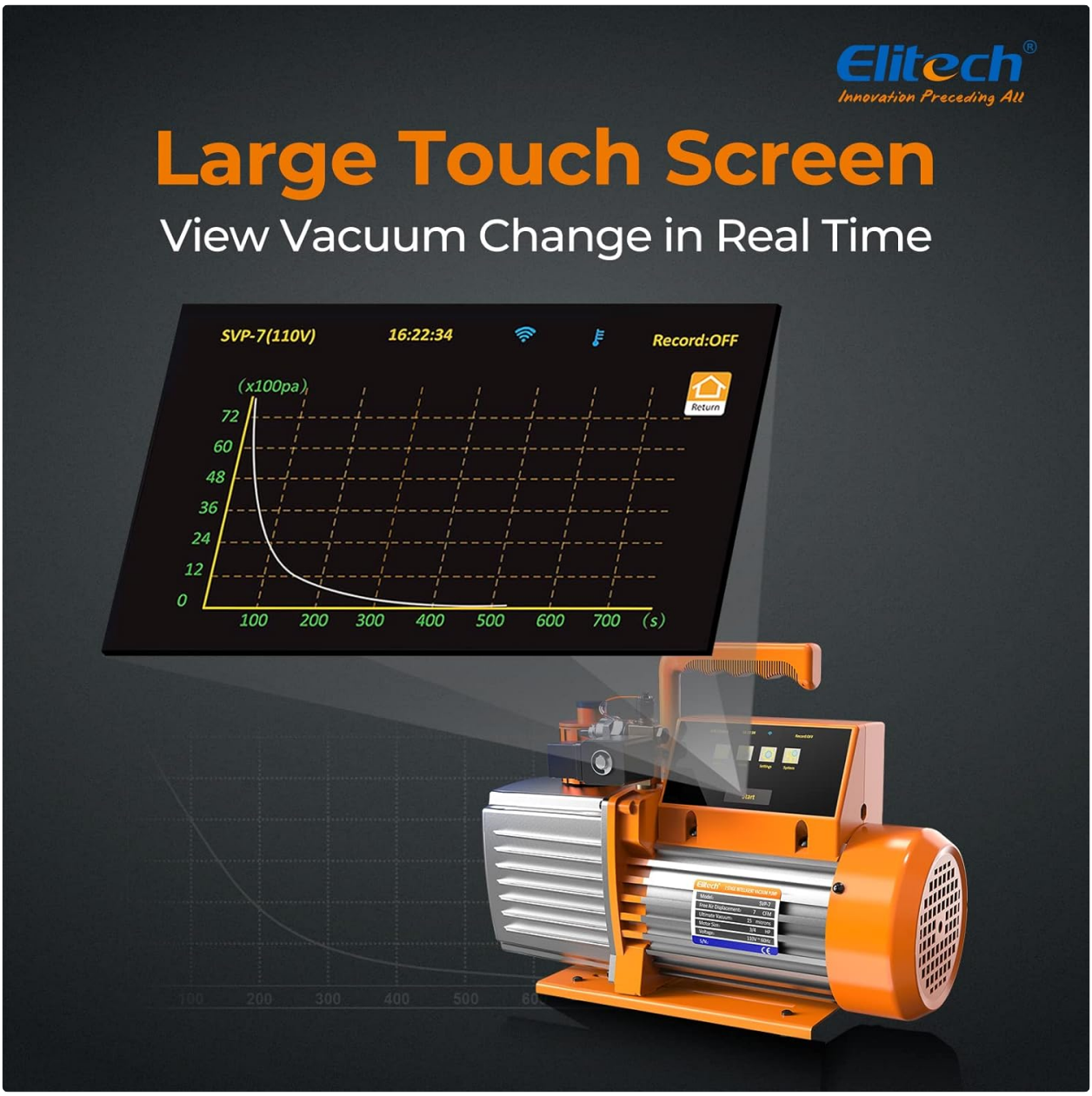

Image: The large touchscreen display of the Elitech SVP-7, showing real-time vacuum changes and operational data.

5. Operating Instructions

5.1 Basic Operation

1. From the main screen, tap 'Measure' to view real-time vacuum data.
2. Tap 'Run' to start the vacuum pump. The pump will begin evacuating the system.
3. Monitor the vacuum level and other parameters on the touchscreen.
4. Tap 'Stop' to halt the pump operation.

5.2 Mobile App Control

The Elitech SVP-7 can be controlled and monitored remotely via the Elitech Tools mobile app (iOS/Android):

1. Download and install the 'Elitech Tools' app from your device's app store.
2. Ensure Bluetooth is enabled on your mobile device and the vacuum pump.
3. Open the app, search for the SVP-7, and connect.

4. From the app, you can remotely start/stop the pump, monitor vacuum levels, and export PDF reports.

Image: A technician monitoring the Elitech SVP-7 via the mobile app on a rooftop HVAC unit.

Video: This video demonstrates the features and usage of the Elitech PGW Wireless Digital Pressure Gauge, including app connectivity and data management.

5.3 Smart Leak Detection System

The integrated leak detection system provides a risk scale (0-100) to identify potential leaks:

- During evacuation, the pump continuously monitors the system for pressure changes.
- A higher leakage level indicates a greater risk of leaks. Address any identified leaks before proceeding.

Image: The Elitech SVP-7 touchscreen displaying the system leakage level and other operational statuses.

5.4 Real-Time Vacuum Graph

The touchscreen and app display a real-time vacuum graph, allowing visual monitoring of the evacuation process:

- Observe the graph for stable vacuum levels, which indicate a successful evacuation.
- Sudden drops or plateaus may suggest leaks or blockages.

Image: The Elitech SVP-7's intelligent and simple interface, highlighting the vacuum graph and other smart features.

5.5 Automated Operation

The pump features automated functions for convenience:

- The self-regulating motor adjusts operation based on system needs.
- The solenoid valve prevents oil backflow into the system during power outages or shutdown.
- The pump can estimate job completion time, allowing for unattended operation.

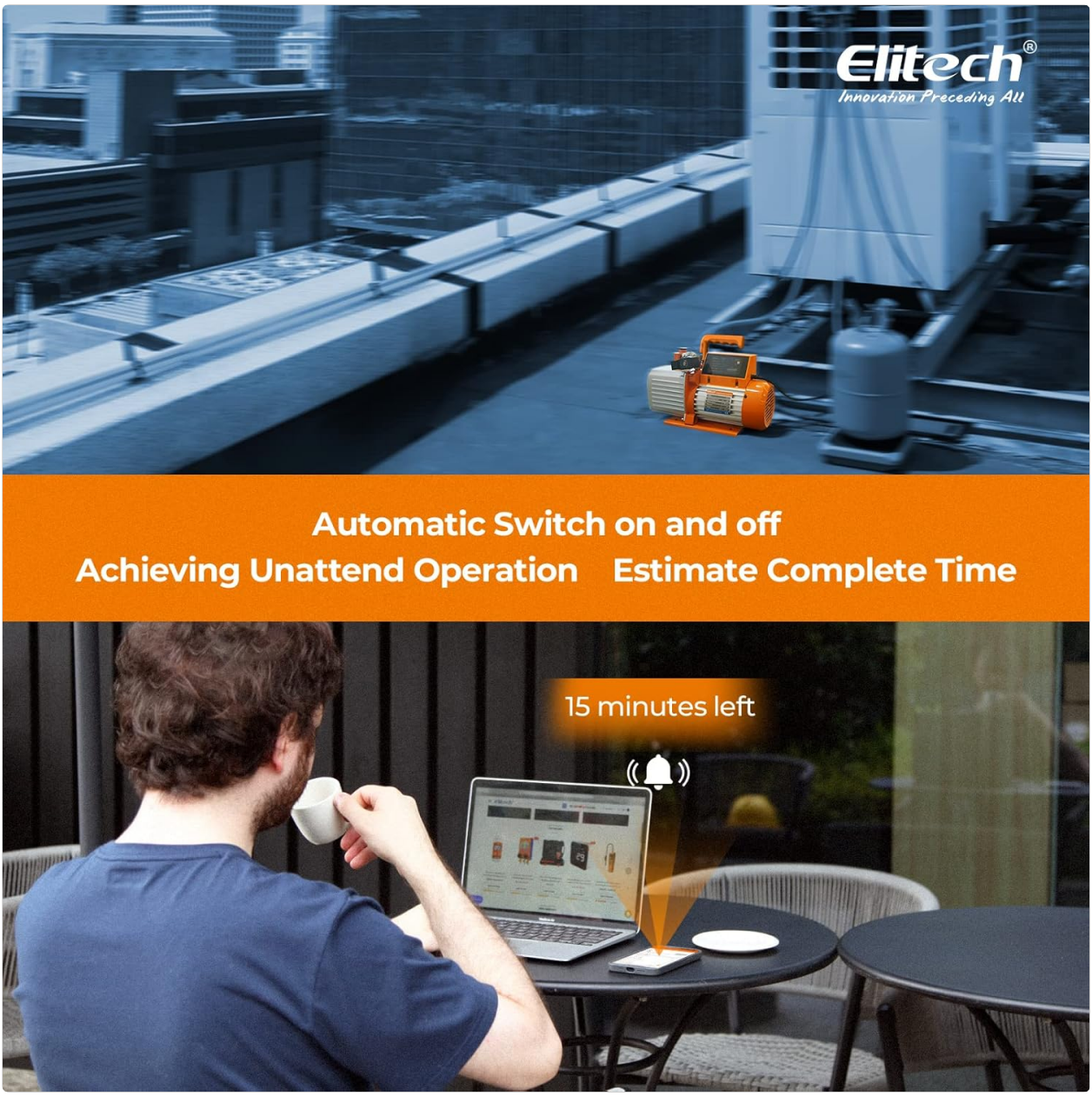

Image: The Elitech SVP-7 operating automatically, allowing a technician to monitor progress remotely.

6. Maintenance

6.1 Oil Change

Regular oil changes are crucial for optimal pump performance and longevity. Change the vacuum pump oil after every 10-20 hours of operation or if the oil appears cloudy or discolored.

1. Ensure the pump is turned off and disconnected from power.
2. Place a suitable container under the oil drain plug.
3. Remove the oil drain plug and the oil fill cap to allow the old oil to drain completely.
4. Replace the oil drain plug.
5. Refill with new industrial-grade ISO 46 vacuum pump oil until the level is between the 'MIN' and 'MAX' marks on the sight glass.
6. Replace the oil fill cap.

6.2 General Cleaning

Keep the pump clean and free from dust and debris. Wipe down the exterior with a damp cloth. Do not use harsh chemicals or solvents.

6.3 Storage

When not in use, store the vacuum pump in a dry, clean environment, protected from extreme temperatures and direct sunlight.

7. Troubleshooting

Problem	Possible Cause	Solution
Pump does not start	No power, faulty switch, motor issue	Check power connection, ensure switch is ON. If problem persists, contact support.
Poor vacuum performance	Low oil level, contaminated oil, system leak, clogged intake	Check/change oil, use leak detection system, inspect connections, clean intake.
Pump overheats	Insufficient ventilation, prolonged operation, low oil level	Ensure adequate airflow, allow pump to cool, check oil level. Auto-shutdown will activate at 122°F.
Oil backflow	Power outage during operation, faulty solenoid valve	The solenoid valve is designed to prevent this. If it occurs, check valve function and system integrity.

8. Specifications

Feature	Detail
Brand	Elitech
Model	SVP-7
Flow Rate	7 CFM (3 Liters Per Second)
Ultimate Vacuum	15 Micron
Stages	2-Stage
Motor Power	3/4 HP
Power Source	Corded Electric
Item Weight	38.4 pounds
Product Dimensions	20.47 x 16.93 x 14.96 inches
Display	4" Touchscreen
Connectivity	Bluetooth (Mobile App Control)

Feature	Detail
Safety Features	Solenoid Valve, 122°F Auto-Shutdown

Image: A detailed graphic outlining the technical specifications of the Elitech SVP-7 vacuum pump.

9. Warranty and Support

Elitech products are designed for reliability and performance. This product comes with a standard manufacturer's warranty against defects in materials and workmanship. For specific warranty terms and conditions, please refer to the warranty card included in your package or visit the official Elitech website.

For technical support, troubleshooting assistance, or service inquiries, please contact Elitech customer service through the contact information provided in your user manual or on the Elitech website. Our dedicated support team is available to assist you.

You can also find additional resources, FAQs, and product updates on the Elitech website:Elitech Store