



USER MANUAL

VeroXi

OXIDATION STABILITY ANALYZER

This user manual provides detailed instructions for the setup, operation, and maintenance of the Oxidation Stability Analyzer. Designed to ensure precise and consistent results, this guide covers all essential information for maximizing device performance and reliability.

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VeroXi INSTALLING AND SETTING UP

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TECHNICAL

SPECIFICATION

SPECIFICATION



Vero
Scientific

Model	VeroXi Oxidation Stability Analyzer
Methodology	ASTM D2272, D2112, D942, D4742
Heating Capacity	From Ambient to 160 °C (320 °F) with the ability to reach 150 °C (302 °F) in 12 minutes.
Device Dimensions	Width: 48 cm (18.9 inches), Depth: 52 cm (20.47 inches), Height: 74 cm (29.13 inches).
Weight	24 kg (52.91 lbs)
Operation System	Windows 10
User Interface	10.1-inch capacitive touch screen
Result Storage Capacity	10000 results
Result Format	PDF
Power Supply	AC 220 Volt, 50-60 Hz
Power Consumption	Approximately 1100 W (Max)
Chamber	Adjustable to different angle stainless steel chamber
Usage	Easy to use friendly software
Device Operating Environment	10 °C to 50 °C (50 °F to 122 °F)
Fast Cooling	From 150 °C to 30 °C in 3 minutes (302 °F to 86 °F).

CONTACT US



+1781 818 8133



sales@verosci.com



www.verosci.com

VeroXi

DEVICE ACCESSORIES



- Sample temperature (PT 100) 1 pcs
- Sample glass container 2 pcs
- Sample bath O-ring 5 pcs
- Power cable (1.5 m, 16 A) 1 pcs
- Stainless sample holder 1 pcs
- Cell stopper 1 pcs
- Steel stopper O-ring 2 pcs
- Sample temperature probe O-ring 2 pcs
- Bath lid screw 4 pcs
- Oxygen hose 6 m
- Ventilation filter 3 pcs
- Special copper coil 5 pcs

PERFORMING
**QUICK TEST
PROCEDURES**

PERFORMING QUICK TEST PROCEDURES

- **Prepare the Sample Cup**
Retrieve the sample cup from the VeroXi device and ensure it has been thoroughly cleaned.
- **Weigh the Sample**
Place the sample cup on a precision balance and reset the balance to zero.
- **Add the Oil Sample**
Accurately measure and add 50 grams (1.76 ounces) of oil to the sample cup.
- **Add Distilled Water**
Measure and add precisely 5 grams (0.18 ounces) of distilled water to the oil sample within the cup.
- **Insert the Copper Coil**
Carefully place the copper coil into the sample cup containing the oil and water mixture.
- **Position the Sample Cup**
Securely place the sample cup into the stainless steel sample holder, and then insert the holder into the device bath.
- **Add Water to the Device Bath**
Introduce 5 grams (0.18 ounces) of distilled water between the sample cup and the device bath to ensure adequate thermal contact.
- **Secure the Device Bath**
Close the device bath cover securely and fasten it with the provided screws.
- **Set the Gas Inlet Pressure**
Ensure that the gas inlet valve is open and adjust the pressure to precisely 7 bar (101.5 psi).
- **Initiate the Test**
Click on the test icon on the device interface, select the ASTM standard, and input the operation name and sample ID. Finally, click "Start" to commence the test.



VeroXi

INSTALLING AND SETTING UP

VeroXi INSTALLING AND SETTING UP

OVERVIEW

This section provides essential instructions for the proper setup and operation of your VeroXi device to ensure reliable and trouble-free performance. Please adhere to the following guidelines during installation:

- **Unpacking the Device**

Carefully remove the VeroXi from its wooden crate and detach the protective cover to prevent any damage during handling.

- **Placement**

Position the device in a secure and stable location, ensuring it is away from heat sources, moisture, or any environmental hazards.

- **Power Supply**

Connect the device to a stable power source with a minimum capacity of 1200 W to ensure uninterrupted operation.

- **Oxygen Supply Connection**

Attach the oxygen tube to the oxygen inlet at the rear of the device. Connect the opposite end of the tube to a reliable oxygen source and set the oxygen pressure to 7 bar (101.5 psi) with a tolerance of ± 0.2 bar (± 2.9 psi).

- **Powering On**

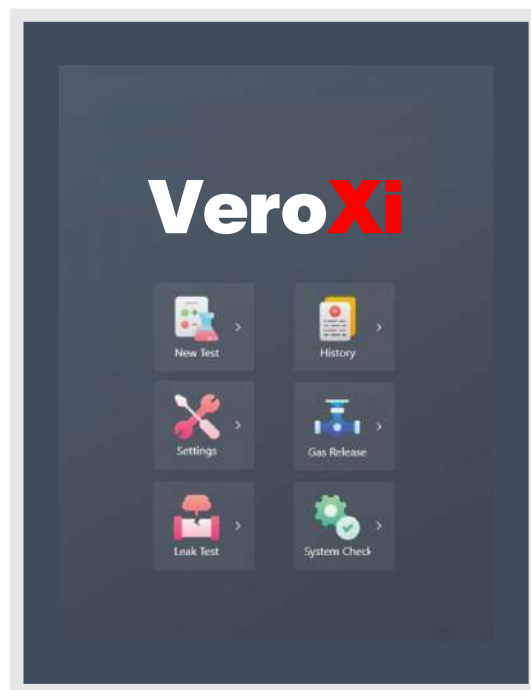
Turn on the device by pressing the power button located on the right side. Once powered, press the forward button to initiate the operational interface.



VeroXi INSTALLING AND SETTING UP

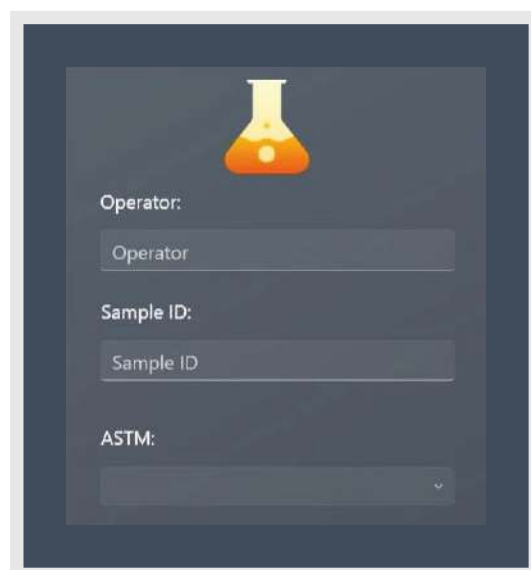
MAIN SCREEN CONTENT

1. New test
2. Settings
3. Leak test
4. History
5. Gas release
6. System check



TO START A NEW TEST

1. Press a new test button
2. Enter the operator name
3. Enter the sample ID
4. Choose the ASTM method
5. Click the start button



VeroXi INSTALLING AND SETTING UP

SETTINGS

- **Temperature Calibration:** To calibrate the temperature, input the temperature value obtained from a certified temperature sensor. Once entered, press the "Save" button to apply the new settings.
- **Pressure Calibration:** The procedure for pressure calibration is identical to that of temperature calibration. Input the required pressure value, then save the configuration to ensure accuracy.
- **Creating a Method:** In this section, you can design and customize your own test method according to specific requirements and standards.

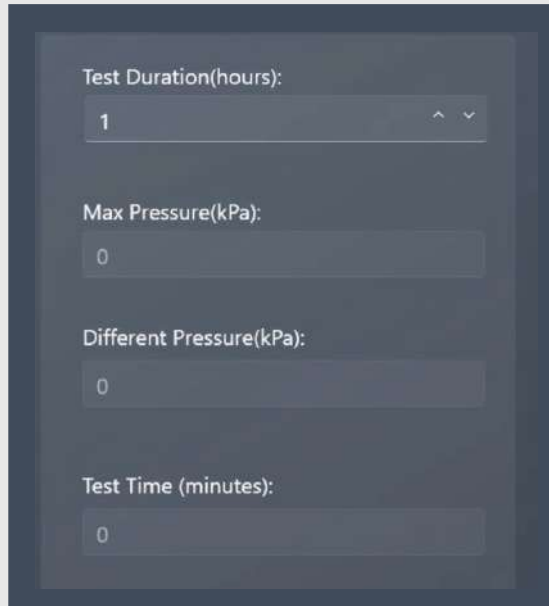


LEAK TEST

The leak test is conducted to detect any gas leaks within the system. To perform the test, charge the test chamber with air or oxygen, specify the desired test duration in hours, and then press the "Start" button.



The allowable gas loss should not exceed 16 kPa (2.32 psi).



The screenshot displays the VeroXi leak test interface. It includes input fields for Test Duration (hours) (1), Max Pressure (kPa) (0), Different Pressure (kPa) (0), and Test Time (minutes) (0). The Test Duration field has a dropdown arrow on the right. The Max Pressure, Different Pressure, and Test Time fields have numeric input boxes.

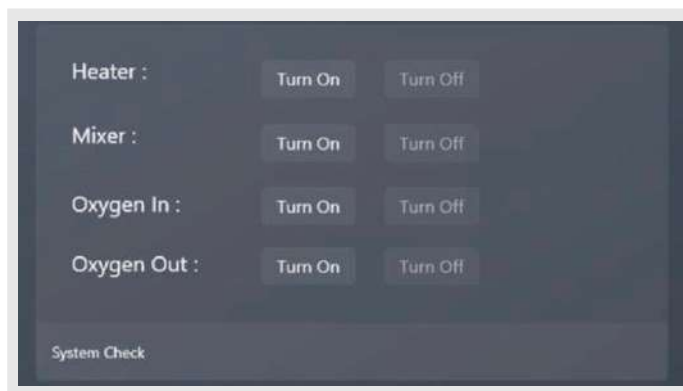


VeroXi INSTALLING AND SETTING UP

SYSTEM CHECK

This section allows you to verify the functionality of the system components:

1. Mixer: Check and control the mixer status.
2. Heater: Verify and regulate the heater operation.
3. Oxygen In: Monitor and manage the oxygen input.
4. Oxygen Out: Primarily used for maintenance purposes; check and adjust as needed.



HISTORY

This section provides access to historical data as displayed on the screen. The VeroXi is capable of storing up to 10,000 test results, ensuring comprehensive data retention.

GAS RELEASE

The gas release function is designed to remove residual gas from the system following a test. This function is inoperative if the ambient temperature exceeds 30°C (86°F).



VeroXi INSTALLING AND SETTING UP

ACCESSORIES



Device 1: Sample cup holder



Device 2: Copper coil



Device 3: Glass sample cup



Device 4: Stopper remover



Device 5: Screw remover



Device 6: Sample holder remover



Device 7: Power cable

VeroXi INSTALLING AND SETTING UP

ACCESSORIES



Device 8: Gas inlet house



Device 9: Stainless stopper with
spare O-ring



Device 10: Cell cover screws



Device 11: Sample cup
Teflon centralized



Device 12: Cell cover O-ring



Device 13: Centralized of
Sample cup holder

PHONE

+1 781 818 8133

EMAIL

sales@verosci.com

WEBSITE

www.verosci.com

ADDRESS

Vero Scientific LLC
867 Boylston Street
5th Floor #1409
Boston, MA 02116
United States

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