

# Vapor Pro<sup>®</sup> XL, VPXL Quick Start Guide

## Instrument Operation Instructions and Product Registration



### Download Manual:

Visit the Resource Library:

<https://www.brookfieldengineering.com/resourcelibrary>

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### Register Your Instrument:

<http://www.brookfieldengineering.com/contactus/register-product>



## Unboxing & Instrument Setup



### 1. Unpack the Instrument

- Remove the VPXL from the packaging.
- **Do not lift using the vial ramp.** Lift only from the instrument body.
- Retain **all packaging materials** for future shipment.

*Returned instruments must be shipped in original packaging.*

### 2. Instrument Placement

- Place the VPXL:
  - In a well-ventilated area or fume hood
  - On a firm, level, vibration-free surface
- Maintain clearance:
  - **20 cm (8 in)** on all sides
  - **1 m (3 ft)** above the instrument

### 3. Power Connection

- Verify the instrument voltage matches the local power supply.
- Connect the power cable directly to a wall outlet.

*Use of extension cords is not recommended*

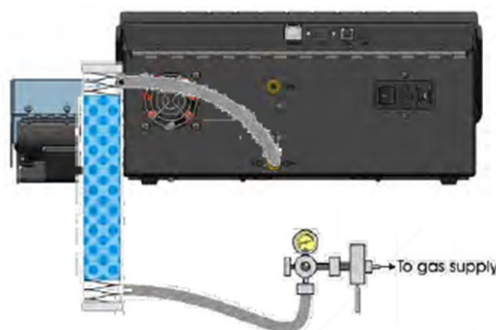


## Carrier Gas Connection



### 1. Install Desiccator

- Install the **inline desiccator (P/N Y990-0116)**:
  - Gas source → bottom of desiccator
  - Top of desiccator → VPXL inlet



## 2. Connect Gas Supply

- Using **1/8" ID clear tubing (P/N 345-0050)**, connect the gas source to the **Flow Inlet Port** on the back of the instrument.
- Acceptable gas sources:
  - Nitrogen cylinder
  - Facility nitrogen or dry air
  - AMETEK Brookfield Dry Air Generator (P/N Y990-0143)



Dry Air or N2 inlet

## 3. Set Gas Pressure

- For all sources:
  - Set pressure between **17-22 psi (118-152 kPa)**
    - The pressure from a compressed gas cylinder is very high and is normally reduced by a two-stage regulator.
    - The pressure from the "house" nitrogen system in most facilities will be moderate and usually requires only a single-stage regulator.
    - The dry air generator (PN Y990-0143) produces the pressure required by the instrument and therefore, no additional regulator is needed.

# Power-Up & System Checks



## 1. Power On

- Turn on the carrier gas supply.
- Switch the VPXL power to **ON**.
- Allow the instrument to warm up **20 minutes** with gas connected.
  - This allows the internal flow regulator to stabilize.

## 2. Verify Flow Settings

From the **Main Screen**:

1. Navigate: **MENU** → **SERVICE MENU** → **SENSOR READINGS**
2. Confirm:
  - a. **N2/ Air FLOW: ON**
  - b. **HIGH FLOW: OFF**
3. Verify flow reading:
  - a. **95.0 ± 5.0 mL/min**
  - b. If outside range, refer to the User Manual

SERVICE MENU	SENSOR READINGS	
MANIFOLD TEMP:	67.99 °C	
OVEN TEMP:	175.07 °C	N2 FLOW: <input type="checkbox"/> On
RH TEMP:	67.96 °C	HIGH FLOW: <input type="checkbox"/> Off
RH:	-2.772 %	
FLOW:	93.33 cc/min	
PRESSURE:	8.11 psi	<input type="checkbox"/> IN <input type="checkbox"/> OUT
RTC BATTERY:	2.94 V	
		TRANSPORT POS: -150

# Capillary Verification Test



Daily verification ensures accurate moisture measurement.

## 1. Start Calibration Test

- Navigate: **CALIBRATION MENU** → **CALIBRATE**

## 2. Fill Capillary

- Fill a small container with **DI water**.
- Using tweezers, remove **1.0 µL microcap pipette**. (PN 990-0150)
- Insert the pipette tip just below the water meniscus.
- Hold in place **~15 seconds** until filled.
- Remove straight out of the water.
- Lightly wipe excess water from the outside of the pipette.

*Do not touch the tip.*

## 3. Load Sample Vial

- Gently slide the pipette into the vial - do **not** drop or shake the pipette.
- Install a septum (PN 990-0207) into the cap:
  - **Shiny (Teflon®) side facing into the vial**
- Secure the cap.



## 4. Run Test

- Place vial on the transport.
- Close the vial ramp cover.
- Press the red **TEST** button.

## 5. Verify Results

- Acceptable result:
  - **950-1,050 µg water**
- If within range, the sensor is calibrated and ready for testing.
- If not, 3 more pipettes will need to be ran to calibrate the sensor.
- After tests complete select results → CALC

# Running a Moisture Test



## 1. Select or Confirm Test Program

- Navigate: **Main Screen** → **Program** → **Select the desired program** → **TEST**
- Wait until status bar shows **READY**

## 2. Prepare Sample

- Use a clean, cool sample vial.
- For % water or ppm results:
  - Tare empty vial (or enter vial weight later)
- Load sample and record weight if prompted.

## 3. Run Test

- Press [TEST].
- Enter or accept sample weight.
- Cap vial with Teflon side of septa facing the sample.
- Insert vial and close cover.
- Select TEST.

## 4. View Results

- Results display on Main Screen
  - Optional: [GRAPH] to view moisture curve
  - MENU → TEST RESULTS to print or review data