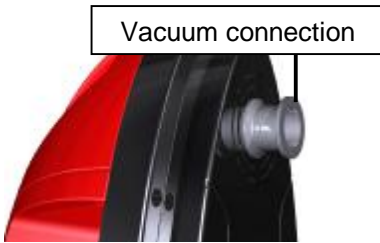


Quick-Start Guide: MiniTest 300 Leak Detector

Start-up



PREPARATION

- Connect the radio transmitter.
- Screw the plug from the power supply pack to the MiniTest 300; connect mains voltage.
- Remove the blank flange from the vacuum connection of the unit.
- Check vacuum connection flange to ensure it is clean.
- Connect the unit to the plant vacuum system.



SWITCHING ON THE UNIT

- Press the Power button on the remote control.
- After a few seconds the remote control establishes the wireless connection to the MiniTest 300.
- The system must be evacuated in order to find leaks.
- Open the shut-off valve upstream of the vacuum connection on the MiniTest 300.
- Vacuum: **Wait for vacuum**
- Warm-up phase: **Wait for heating**
- The unit is ready for operation: **READY TO START**

Note:

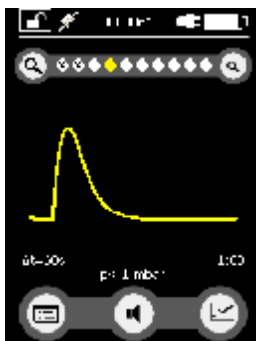
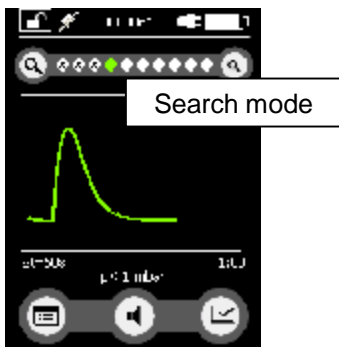
- Wait for completion of the warm-up phase (ca. 30-60 min) before calibrating or measuring.




DISPLAY

- Two measured value displays are available: **Measurement mode** and **search mode**
- **Measurement mode** ➔ **Quantitative measurement**
- **Search mode** ➔ **Qualitative measurement**
- The right key (toggle function) with the chart icon is used to switch from one mode to the other.

Localizing leaks



LOCALIZING LEAKS WITH SEARCH MODE

- The search mode can be used to conduct a fast qualitative localization.
 - The vertical white line represents the lower display limit.
- 
- The colored point (green in the illustration) shows the currently active measuring range.
 - The magnifying glasses to the left and right of the bar can be used to move the display limit.
 - If the measuring signal becomes larger, the colored point moves to the right. If the measured signal becomes smaller, the colored point moves to the left, as far as the maximum zoom limit.

Note: The zoom areas to the left of the colored point are blocked and are symbolized by crossed out points.

Measuring procedure in Search mode:

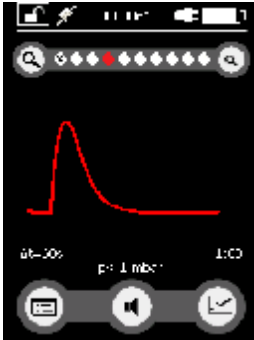
Comparison with reference leak:

1. Spray pin test leak (capillary leak) with helium.
2. Observe the helium signal until a maximum is perceptible.
3. Tap the bar between the magnifying glasses to reset the display limit based on the current measured values.

- Note: Do not change display limits once they have been set, since this could result in incorrect localization.

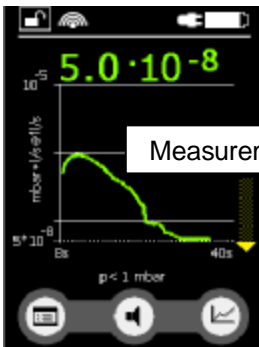
Localizing leaks:

- The measurement is conducted within the previously determined display limit.
- Spray the system with helium as usual.
- All leakage rate signals that are the same size or larger will be displayed immediately.
- If the leakage rate signal curve is yellow, the leak is 3 times larger than the reference leak.
- A red signal curve means that the detected leak is at least 10 times larger than the reference leak.



Leakage rate measurement

MEASURING LEAKAGE RATE



Measurement mode

- Shut off or disconnect the test leak.
- Press “Start/Stop” on the remote control.
- Spray the system with helium from outside.
- Observe the reading on the display.
- (In case the MiniTest 300 is not calibrated, the display corresponds to the measured helium partial pressure in hPa)**
- Press the Zero key to subtract the current helium background and set the value to zero.
- The yellow hatched bar indicates the range to which a quantitative measurement is possible.
- If only the yellow triangle is visible, quantitative leakage rate measurement is also possible in the lowest range.

Calibration

CALIBRATING THE UNIT



- Install pin test leak (capillary leak) on the system.
- Enter the leakage rate of the test leak on the remote control.
- Prompt: “Press OK on offset stable”**
(When the offset signal is stable, press “OK”)
- Prompt: “Spray as usual, then press OK on signal max”**
- Spray test leak with helium, exactly in the same manner as for the test leak later.
- The old and new calibration factors are displayed. Press “OK” to apply the new calibration factor or “X” to reject it.
- The MiniTest 300 is now calibrated to the system.

Purge

HELIUM CONTAMINATION



- The MiniTest 300 is equipped with a protection mode against contamination with large amounts of helium. This contamination mode speeds up cleaning of the unit after it has measured large leaks.
- Automatic purge is disabled by default. In case of helium contamination, purging can be enabled via the menu.
- The “Contamination” display remains until the quantity of helium in the system is reduced so far that measurements can be conducted again.
- Leak detection can be restarted by pressing “Clear” . If the MiniTest 300 is still contaminated with helium, the message “Contamination” will appear again.