



Technical Help Plant Moisture Systems

Annual Safety Checks

Skye's Plant Moisture Pressure System for the measurement of Plant Water Potential has a number of safety features included.

Each Skye plant moisture system is individually tested to pressure far greater than the working pressure by an independent test house. A certificate of this test is supplied with every system.

There is a safety release pressure valve fitted to each system, this is set to automatically evacuate the chamber if the maximum working pressure is exceeded at any time.

It is recommended to return the Plant Moisture System to Skye every 5 years for safety check, where it will be thoroughly tested and again sent for certification by the independent test house. A new test certificate will be issued.

There is also a quick safety check on the pressure release valve that the user can do for himself it is advised that only an experienced Skye Plant Moisture System user should perform this test, at least annually:

- 1) Place a blank (no holes or slits) rubber seal in the chamber head
- 2) Attach the chamber head to the pressure chamber as usual, ensuring the O ring seal is in place and in good condition
- 3) Attach the clear perspex safety screen and put on the safety spectacles
- 4) Turn the large black tap to Off, and gently close the needle valve
- 5) Attach the gas supply as usual and switch on
- 6) Turn the large black tap to Fill Chamber, and gently open the needle valve
- 7) Watch the pressure rise in the chamber on the display adjust the gas flow for a slow, steady rise
- 8) As the pressure approaches the maximum working pressure (40, 50 or 80 bar depending on your system), slow the gas flow down to a gradual rise
- 9) At a pressure of approximately 4 or 5 bar above the maximum working pressure (i.e. 44, 55 or 85 bar) the safety release valve should open and you will hear an escape of gas. The safety release valve will close again once the excess pressure has been relieved
- 10) Close the needle valve gently and turn the large black tap to off
- 11) Switch off the gas supply
- 12) Turn the large black tap to Vent to empty the chamber

IMPORTANT: if the safety release valve does not activate at the required pressure, the system is unsafe to use. Please return the Plant Moisture System to Skye for repair and test.

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