



Technical Help

Plant Moisture Systems

Sealing Tips

When making measurements on petioles which are not smooth and round, making a good seal with the rubber stem seals can be difficult. Here are some tips to try and improve the seal.

However, a valid water potential measurement can still be made even if the seal is leaking a little. The Skye Plant Moisture System will always display the pressure inside the chamber, even if the gas is leaking a little. This is of course wasteful on gas.

If the petiole is 'knobbly' use some 'BluTack' (the soft blue or white rubber type material used to stick posters to walls) around the area to be sealed before inserting into the rubber stem seal. The BluTack is intended to bring the petiole back to a round shape for easier sealing.

Try some clear plastic foodwrap (Clingfilm) wrapped around the stem to build it up to a round shape.

A similar approach can be tried with silicon grease if the space from which the gas escapes is quite small.

For very difficult specimens you may choose to partly mould your own rubber stem seals. Remove a small area from the centre of a blank rubber stem seal and refill with soft silicon sealant (like bathroom sealant). Drill (or mould) a hole in the sealant much smaller than the petiole, as this sealant is very soft and pliable.

NOTE: make the area of the sealant seal as small as is practical and always make sure the perspex safety shield is used, as there is a possibility of high gas pressures deforming this soft sealant.

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