146 Helpsheet

GDS INSTRUMENTS LIMITED

World Leaders in Computer Controlled Testing Systems for Geotechnical Engineers and Geologists

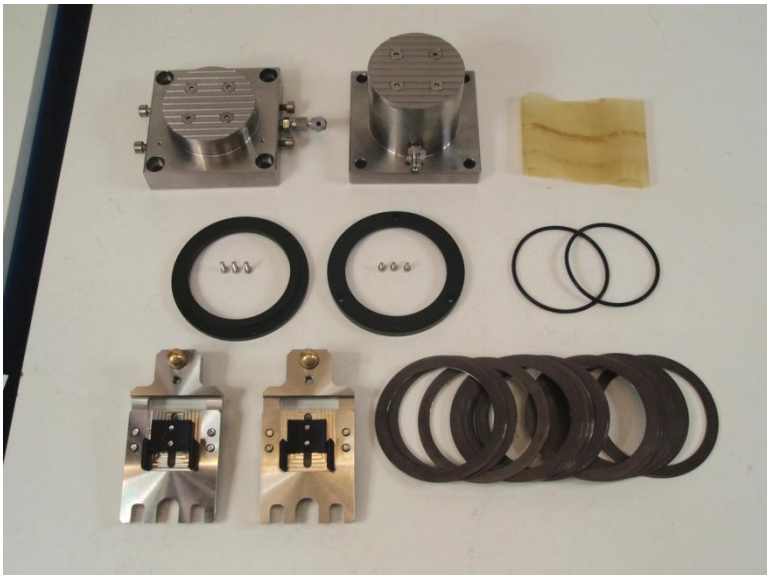
Hardware

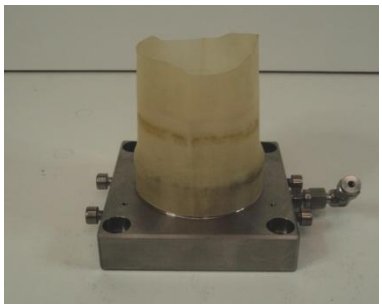
EMDCSS

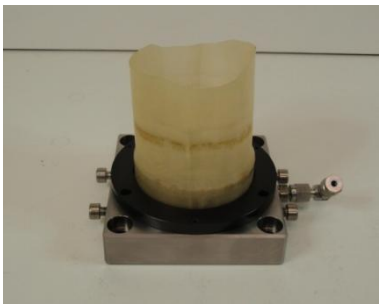
Sample preparation

Items Required:

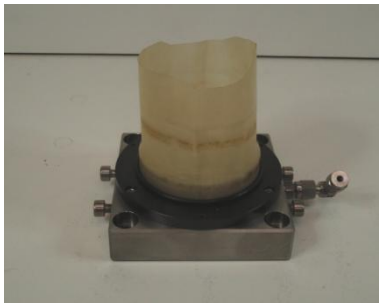
1. Base Pedestal with porous disk
2. Topcap with porous disk
3. Membrane
4. Both lower lock rings & screws
5. O-rings
6. Teflon coated sample rings
7. 2 off pedestal support brackets
8. Soil sample

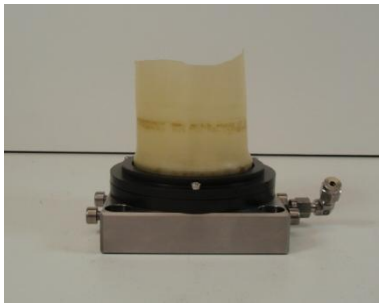


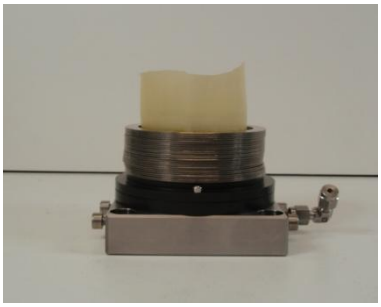




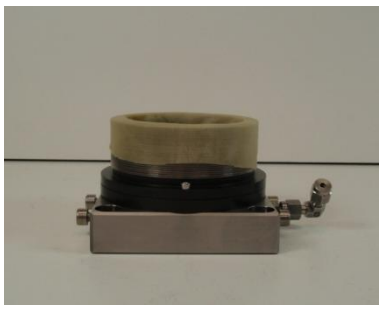
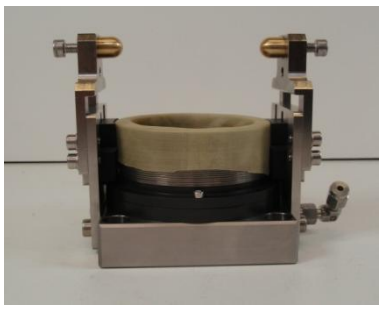
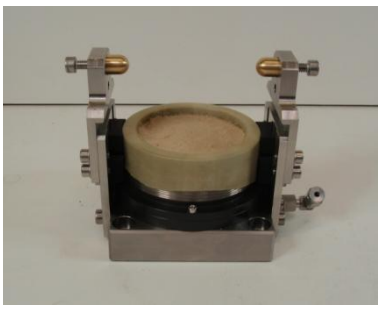
Away from the EMDCSS place the sample membrane over the pedestal then place and screw down lower lock ring.



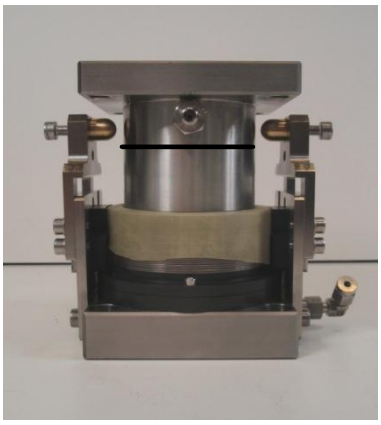
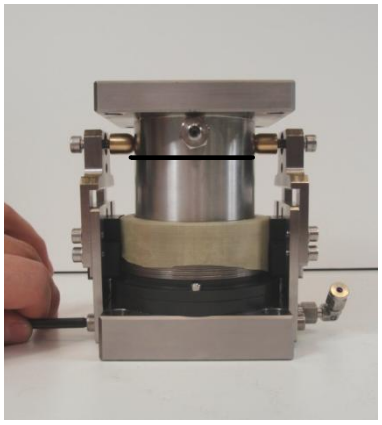
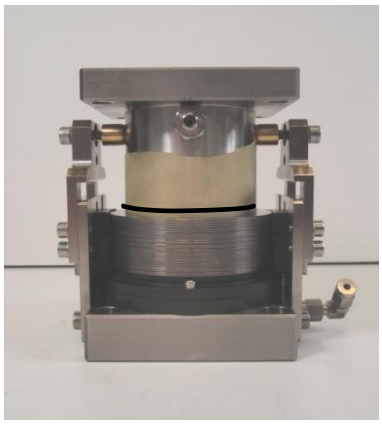




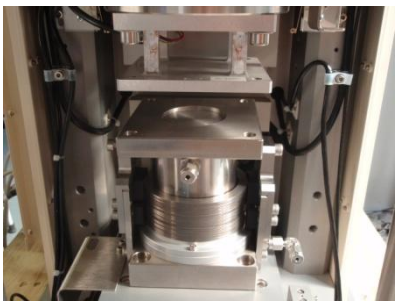
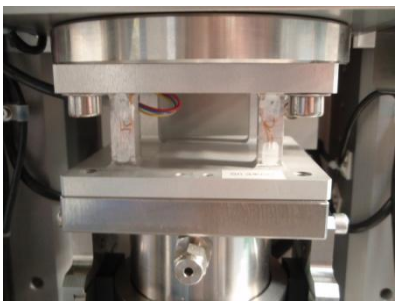
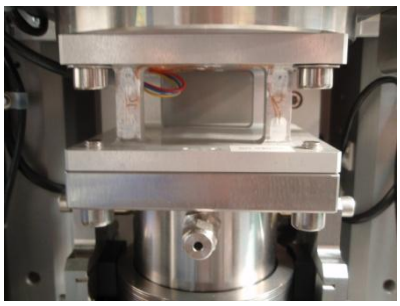
Place o-ring onto pedestal then place and screw down the upper lock ring to engage the o-ring. Place on the sample rings allowing 3 rings above the desired sample height

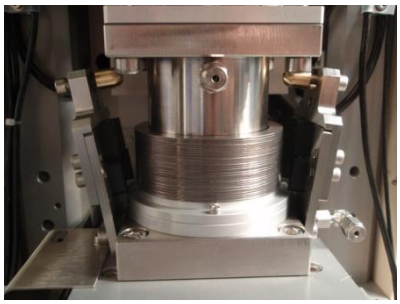
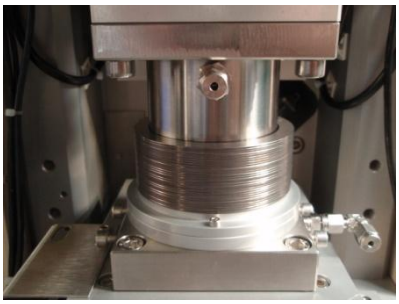
Wrap the membrane down over the sample rings. Fit the support brackets. Place, compact and level soil sample.

Place topcap on sample. Tighten topcap support bolts against topcap then slide membrane up around topcap. Roll the o-ring down over the membrane.

Place the prepared sample into the EMDCSS. Extend using vertical displacement control parameter so that the loadcell is within a few mm of the topcap. Target ≈0.01kN axial load in the object display. As the loadcell contacts the topcap ensure it is aligned correctly, gently correcting by hand if required. When they are correctly aligned and docked set the EMDCSS to hold displacement and screw the topcap into the loadcell above. Then zero both axial displacement transducers.

Loosen the topcap support brackets at the pedestal and remove. Finally screw in drainage tubes if required.