

Specifications of Equipment for Tender Bid cum Quotation

Name of Equipment/ Assembly	Interface friction Measurement Apparatus (Shear Box Assembly) for Modified Direct Shear Apparatus
Related Standards to be accorded	IS: 11593, IS 13326 (Part 1)
Features/capabilities /Specifications	<ul style="list-style-type: none"> • The apparatus shall enable testing for a shear box having size of 300 mm × 300 mm samples having upper and lower halves having the clear space of 75 mm each in accordance with IS: 11593. • The Robust & accurate 16 channel Data Acquisition System with data logging for atleast 10 set of tests bottom half of the box should have facility to be made into a solid block spacer of size 300 mm × 300 mm × 75 mm in accordance with IS 13326 (Part 1). • Variable Speeds: 0.05 mm/min to 1 mm/min in steps of 0.05 mm/min • Two sets of Geosynthetic holder strip in accordance to IS 13326 (Part 1), i.e. Each set containing two mild steel strips 350 mm × 25 mm × 5 mm with clamped into the two outer sides of the bottom half of the shear box by six screws. • Loading frame capable to apply normal stresses of 50, 100, 200 and 300 kPa, with suitable mounts for horizontal and vertical displacement transducers. • Water jacket/Flood container so to allow up to 60 mm displacement. • Two set of grid plates (i) with perforation and (ii) without perforation shall be provided. • Operation: Moment in forward and reverse direction • Load cell (Tension/compression) 02 Nos. with Maximum Capacities respectively 20 kN and 50 kN with sensitivity of 0.1% • Displacement Measurement Devices Comprising – 02 LVDTs (i) 25 mm stroke length and (ii) 100 mm Stroke length • Data Acquisition System with data logging for atleast 10 set of tests • Digital display for all parameters • System password to be provided for calibration
Make	<ul style="list-style-type: none"> • Clear mention Make in the bid
Electrical Supply Requirement	<ul style="list-style-type: none"> • Electricity supply requirements (voltage and phase) shall be clearly mentioned • Mention in case of Requirement of UPS (Uninterrupted Power Supply) with capacity
Size and weight	<ul style="list-style-type: none"> • Mention area required for positioning of equipment. • Mention total weight of the equipment. • Mention specific requirement of foundation/pedestal for resting the equipment, if any. • Mentioned need of vibration isolated, if needed
Water and air supply requirements	<ul style="list-style-type: none"> • Mention the requirement to supply of compressed air, if any. • Mention the requirement and arrangement of water supply, if any.
Compatibility of parts	<ul style="list-style-type: none"> • In case of accessories from make differing to the make of equipment, compatibility shall be checked and certified by the bidder.

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Calibration Certificates, technical manual and SOP	<ul style="list-style-type: none">• The calibration certificates shall be provided with equipment and accessories.• Validity of calibration certificate for all devices shall not be less than one year.• Technical manual and Standard Operating Procedure document shall be provided.
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