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Product Name : Flow Properties Of Bulk Solids	**Product Code :** LBNY-0005-1270008

Description :

The flow properties of a powder or bulk solid determine how it behaves during handling. A motor moves the shear cell relative to the lid in order to apply shear to the sample. For compaction (pre-shearing) the sample is subjected to a large normal force. In a ring shear tester, a bulk sample is contained in a ring-shaped shear cell. A normal force is exerted on the sample by way of a lid. A hanger from which a variable weight is suspended generates this normal force. For example, material may flow irregularly out of silos, or the flow of bulk solid may come to a stop. In order to avoid these problems in practice, soils can be designed on the basis of measurements using shear testers, such as the Jenike shear tester or a ring shear tester. From the shear force characteristics, properties such as the compressive strength and internal friction of the bulk solid can be determined. An electronically amplified force transducer measures the shear forces which are then recorded by data acquisition software over time. To determine the density of the bulk solid, the volume of the bulk sample is ascertained by recording the lowering of the lid using a vernier caliper gauge. After pre-shearing, shearing to failure is executed with a reduced normal force (strength measurement) and likewise recorded by the software.

Technical Specification :

Force sensor to measure the shear forces
vernier caliper gauge to measure the change in height and density of the bulk sample
Design of bulk solids silos using a ring shear tester
1 ring-shaped shear cell with sample of wall material to determine wall yield loci
1 ring-shaped shear cell to determine yield loci
Evaluation software to determine the relevant bulk solid parameters
Vertical loading of the sample via ring-shaped lid with weights
Shearing of the bulk solid sample by motor rotation of the shear cell.

Laboratory Instrument India