

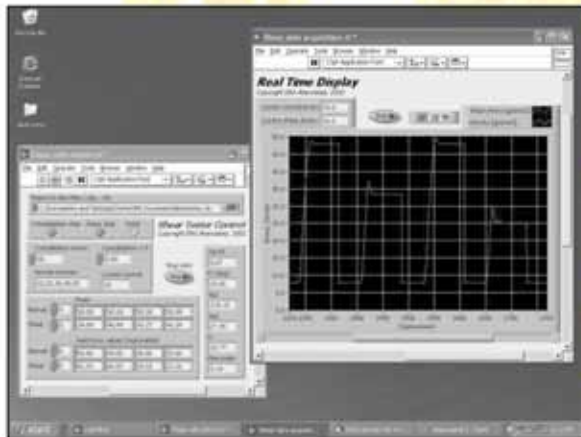
## iShear™ - A Powder Flow Rotary Shear Tester



Automatic powder flow rotary shear tester with standard rotational split cell.



Small volume split cell.



Shear tester instrument panel with real-time graphical display and instrument control.

### Technical Specifications

- An automated, rotary split-level shear tester used to characterize powder flowability, friction, and density relevant to material handling, segregation, caking, filling and feeding operations, particle/granule strength and compaction studies.
- Measurements of powder flow index, internal powder friction, wall & die friction, bulk density, cohesive strength, and sample degradation versus compaction pressure.
- Based on ASTM flow standards (Committee D18.25, D6682-01, D6128-97), and supplied with Bureau of Common Reference standard validation powder & yield loci, flow function, and flow index factory calibration receipt. Units are factory and site validated to within 5% of and traceable to BCR116 standard limestone powder.
- Reproducible measurements which are operator independent. Repeated consolidation shear measurements to within user specified standard deviations, and automated weight application.
- Unlimited rotational shear and automated measurement allows complete and rapid flow characterization with a single sample, eliminating time consuming multiple measurements and samples as with traditional shear testers.
- Standard equipment includes one shear cell (30 cm<sup>2</sup> area, 45 cm<sup>3</sup> volume), filling and consolidation accessories, wall friction coupons, validation powder, computer data acquisition unit, & calibration receipt. Appropriate safety & instrument protection interrupts.
- Instrument controlled by a rugged CompactPCI® data acquisition chassis with embedded Pentium processor, and user friendly point-and-click visual interface software running under Microsoft® Windows XP operating system. Real time graphical display of all data, automatic flow index calculations, & report generation for Microsoft® Excel.
- Optional equipment includes: small pharmaceutical cell (3 cm<sup>2</sup> area), density compressibility cell, automated consolidation bench, and an automated filling sieve. QC/manufacturing suitable manual version of shear tester also available.
- One day training & installation. Optional material handling/compaction courses available on request.