TENSILE STRENGTH TESTER (ELECTRICALLY OPERATED) AZA0799

The AZA0799 Tensile Strength Tester is a robust, electrically operated machine designed for determining the tensile strength of cement briquette specimens. It is widely used in cement plants, construction laboratories, and academic institutions for quality control and research applications.

The system ensures uniform and controlled load application, eliminating manual inconsistencies and providing reliable, repeatable test results in accordance with international standards.

Key Features

- Electrically operated for consistent and automated loading
- Standard loading rate compliant with testing standards
- Precision gear mechanism for smooth load application
- Load capacity up to 1000 kg (10 kN)
- Optional digital load indicator for enhanced accuracy
- Heavy-duty, corrosion-resistant construction
- Easy setup and user-friendly operation
- Supplied with calibration certificate

Applications

- Cement manufacturing quality control laboratories
- Civil engineering research and testing institutes
- On-site construction material testing
- Government and private testing laboratories
- Engineering colleges and universities

Working Principle

The machine determines tensile strength by applying a gradually increasing load to a standard cement briquette specimen:

- The briquette is fixed between two clamps
- Load is applied at a controlled rate
- The specimen fails under tension
- Maximum load at failure is recorded

This value is used to calculate the tensile strength of cement, which is critical for assessing cracking resistance and durability.

Performance & Benefits

- High Accuracy: Controlled loading eliminates operator error
- Repeatability: Consistent results across multiple tests
- Efficiency: Electrically operated for faster testing cycles
- Durability: Rugged construction ensures long service life
- Quality Assurance: Supports compliance with international standards

Standards & Compliance

- IS 4031 (Part 6) – Determination of tensile strength of cement
- ASTM C190 – Standard test method for tensile strength of hydraulic cement mortars

Safety & Handling

- Stable frame design for safe operation
- Smooth load application reduces mechanical shock
- Easy specimen mounting and removal
- Low maintenance requirements

TECHNICAL SPECIFICATION

Parameter	Specification
Operation	Electrically driven gear mechanism
Load Capacity	Up to 1000 kg (10 kN)
Test Type	Tensile strength of cement briquettes
Loading Rate	35 ± 5 kg/cm²/min
Standards Compliance	IS 4031 (Part 6), ASTM C190
Display Type	Analog / Digital (optional)
Body Material	Powder-coated MS steel
Power Supply	230V ±10%, 50 Hz, single phase
Accessories Included	Briquette molds, clamps, operation manual
Calibration	Factory calibrated with certificate

Operating Capability

- Suitable for routine laboratory and industrial testing
- Compatible with standard cement briquette molds
- Supports both analog and digital measurement systems
- Ideal for continuous QC testing environments