

Bend-Break Testing Machine

CBT Series (100kN-300kN)

Introduction:

CBT Series (Fig1) Electromechanical Bend-break Testing Machine mainly applied to perform bricks, stone panel, tile and concrete block of bend-break resistance according to current and popular international testing standards such as ASTM C78, ASTM C293.AASHTO T97, and EN538.... CBT Series provides three different models which applying rigid and robust columns and equipping with load cell capacity of 100kN, 200kN and 300kN. The relative model: CBT105, CBT205 and CBT305.

Fig1. CBT Series Bend-break Testing machine



Common feature:

The CBT Series offers service to the industrial fields of construction, architecture and others, which adopts servomotor drive system and combine the SANS patent testing software and control system to control the full testing processing. Standard PC equipped with SANS PowerTest testing software assure the data and curve of tests can be indicated on the screen on real-time, and the tests result also can be printed via the printer synchronously. Upper and lower compression rollers with same length to perform bend test and also do

compression tests for concrete cylinder or stone (Fig 3). Suitable operation height and single testing area is convenient to insert and take out the specimens, the manual control operation panel (Fig 2.) fixed on the column is capable of controlling test.

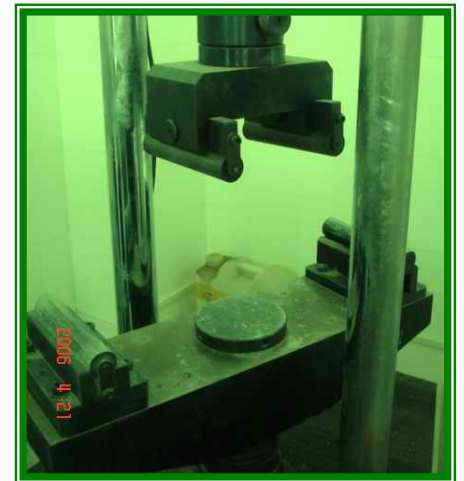


Fig3. Compression rollers with compression platens on CBT 305



Fig2. Operation panel

Key features:

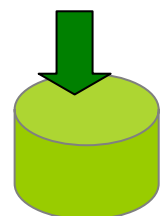
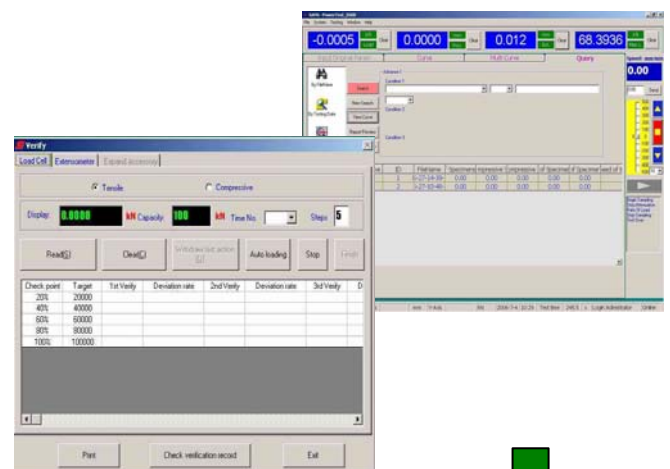
- Apply ball lead screw ensure high precise crosshead guidance
- Advanced servomotor drive system ensure high precision and low noise
- Complete automatic testing processing control by microcomputer.
- Three closed loop servo control function.
- Constant velocity and equivalent loading.
- A high standard of comfort and user ergonomics is created in synergy with the test software PowerTest®
- High load weighing resolution reaches 1/300000 of capacity in full range, no steps and no change.
- High sampling rate: The sampling rate 50Hz, reaching advanced international level
- Real time indicating of load, deformation, speed and testing graph.
- Powerful PowerTest software process and analysis the testing data, the testing results stored and recalled automatically, the curve of tests can be reviewed at the any points with indicating their character.
- CE and ISO9001-2000 Conform design.
- High security: The system can inspect and protect automatically once overload, over currency; Position limiter; Emergency stop

PowerTest Software

Building on our long history of providing solutions to an enormous variety of different testing problems, SANS offers a comprehensive range of software products, each design in the hope of making testing simple, precise and efficient. Specific and focused application software products have been developed in close cooperation with our customers around the world.

There are several valuable features that are common to all. Perhaps the most important is the ability to further customize the testing parameters that are used to collect and document testing data, as well as control the testing machine. Specifically, our range of application software is for data acquisition, data analysis, and closed loop control of SANS testing machines that have a compatible servo system or four-quadrant drive. All versions of our focused application

software are rich with standard features that improve productivity and enable you to build, access, and use a powerful materials testing database:



- Use of modern databases.
- Generation of user customized reports.
- Standard SPC programs for X-bar, R, and frequency distributions/histograms.
- Ability to recall, replot, and rescale curves.
- Recall of data that spans different test modules.
- User-configurable machine parameter and control setting

Technical Specifications

| Model | CBT105 | CBT205 | CBT305 |
|--|--------------------|--------|--------|
| Maximum load capacity (kN) | 100 | 200 | 300 |
| Accuracy level | Grade1 | | |
| Load measurement range | 0.4%-100% | | |
| Load measurement accuracy | ≤±1% of indicating | | |
| Column | 2 | | |
| Distance between columns (mm) | 300 | | |
| Load resolution | 1/300000 | | |
| Maximum speed of loading | 0.02-5%FS/S | | |
| Accuracy of loading speed | ±1% | | |
| Space between upper and lower compression rollers (mm) | 180 | | |
| Span between upper compression rollers (mm) | 150/110 | | |
| Span between lower compression rollers (mm) | 450/300 | | |
| Length of upper and lower compression roller (mm) | 160 | | |
| Diameter of upper and lower compression roller (mm) | 30 | | |
| Ram stroke (mm) | 100 | | |
| Maximum speed of I loading (mm/min) | 50 | | |
| Dimension (mm) | 1230x700x1650 | | |
| Weight (kg) | 1100 | | |
| Power (kW) | 1.5 | | |

