Computer Servo Tensile Machine (1KN-20KN)
BGD 570

Product Description

It is a new material testing machine with powerful functions which combine electronic technique with mechanical drive. With controlling machine by computer, it accomplish all functions and deal with and analyze data, print testing results

This machine is driven by frequency conversion motor, servo motor drive movable cross-beam through gearing design to move up and down to accomplish force load. Use PC computer and interface board to collect data, store data, process data and print testing results. Can calculate maximum force, yield strength, average stripping strength, maximum distortion, yield point, elastic modulus parameters etc. Can process curve, support multi sensors, Figuring and Imaging operating windows, flexible processing data, support MS-ACCESS database etc, make the system function become more powerful...
These machines have a widely usage range, can test all sorts of materials, such as end products and semi-manufactures dumbbell specimen of plastic (cloth tube plate), rubber (plate tube), metal wire, tape, wheel, textile, acrylic, FRP, EVA, PE and shoes etc, testing their functions which include tensile strength, elongation, tearing, stripping, glue force etc.

Standards

- ISO 527
- ISO 604
- ISO 178
- ISO 1209
- ASTM D 638
- ASTM D 903

Technical Specification

Specifications:

- Standards: ISO 527, ISO 604, ISO 178, ISO 1209, ASTM D 638, ASTM D 903
- High precision sensor(use high precision ball screw as driving mechanism)
- Frequency of collecting data:200 times/second

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- Can store many testing results of referenced points, calculate average value automatically, grab automatically max. value, force value at break.
- Set range of break point proportion:0~99% ,and can set freely according to different samples, accomplish stopped status at different position.
- Safety Device:Over loading, Emergency shut down, limitation device for above travel and under travel.
- Collect date synchronously, conversable full 24 bits AD codes,, resolution arrives 1/500,000, surpass all competitors
- Voice prompts when testing, the unique technology in the field.
- Modularization+SQL technology+crystal report+database technology etc make establishing user, customizing report and multi-reports become more easy.
- More than one thousand clamps and grippers for selection.
- Support multi-sensors, can equip with a few sensors at the same time for different range.
- With many functions and user-friendly application such as language conversion, translate automatically testing results, units conversion, manage sample shape, manage users, process data, generate report etc. This system uses Microsoft Visual Studio.
- Supports nine languages English, Chinese, Traditional Chinese, Japanese, German, French, Spanish, Russian, Portuguese. Application programs and data Access database storage can be translated anytime.
- Supports three units Metric system N, kN, mm, MPa etc British System Lb, kP, Inch, kpsi and old system g, kg,Ton, cm, kg/cm2 etc
- Supports many international testing standard ISO, GB, ASTM, DIN, JIS ec. And also can add any standards. Manage testing methods for easy application.
- Testing report format On the base crystal report and VS.Net report and can be export as Word EXCEL PDF document. Can add users LOGO to report make the report become excellent.
- Super curve function Curve can be moved freely, zoom, sign important parameter, sign parallel line of E value. Can print separately high-resolution or export as picture document BMP or JEG 169 theory curves.
- Can manage users at different grades, ensure safe management and convenient usage for data and software..
- Figuring and Imaging operating windows which can be modified for distinguishing different users. Can set showing or hiding showing area of windows.
- Supports redevelop Parameter calculation is written by VBS script whose source codes have been opened. Separate
- Report document is written by crystal report whose system parameters are stored in the database, convenient for redevelop by senior user.
- VBS scriptize control process, many control parameters can be imported or exported according to users self-setting. Expand the use scope of machine.main procedures, convenient for debugging machine.

Hardware:

- Three-way independent simulant input channel, 24 bits AD converter, gain amplifier controlled by program.
- Uses USB 2.0 insulated photoelectricity to connect computer, reduce disturb and increase reliability.
- Unit for testing force uses the newest high-speed, high resolution, high precision, no dividual grade AD converter which can arrive ±250000 fractionized codes. Its superior to six grades amplifier and reach or approach advanced international standards.

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- Unit for testing big distortion this system use high-speed circuit system to accomplish four-quadrant collection of photoelectric encoder, solve all influence to testing results because of dithering under low speed and redirection thoroughly, and increase four times resolution to big distortion of test machine big distortion.
- Unit for testing displacement use high-speed circuit system to accomplish four-quadrant collection of photoelectric encoder, solve all influence to testing results because of dithering under low speed and redirection thoroughly, and increase four times resolution to big distortion of test machine big distortion.
- Unit for controlling speed full digital controlling unit and its speed regulation ratio arrive 1:50000, namely 0.001 ~ 500mm/min precision : 0.1% , and can be tested under the whole range.

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Main Technical Parameters

- Max. Range 1KN 2KN 5KN 10KN 20KN optional
- Precision Grade 0.3 grade
- Measuring range of test force 0.4% 100 FS   Full range
- Display error of test force ≤ ±0.3%
- Resolution of test force   ±1/250000 of max. test force no classify grade in the whole range, and keep a constant resolution
- Display error of displacement ≤ ±0.2% showing value
- Resolution of displacement 0.015mm
- Adjustable range of speed 0.005% 5% FS   Full range
- Control accuracy of speed Within ±2% of set value when speed 0.05%FS/s Within ±0.5 % of set value when speed ≥0.05%FS/s
- Adjustable range of deformation speed 0.005% 5% FS   Full range
- Control accuracy of deformation speed Within ±2% of set value when speed 0.05%FS/s Within ±0.5 % of set value when speed ≥0.05%FS/s
- Adjustable speed range of working platform 0.001 500mm/min
- Control accuracy of testing bench speed ≤ ±0.2% of set value
- Control range of constant force constant deformation constant displacement 0.5% 100% FS   Full range
- Constant deformation constant displacement Within ±0.5 % of set value when speed ≥10%FS Within±1 % of set value when speed 10%FS
- Effective tensile space no including clamp   1100mm
- Effective test width 380mm
- Overall Size 80×55×217 cm
- Weight 150 Kg
- Power supply 220V/50Hz
- Power 750 W
- **Ordering InformationBGD 570---Computer Servo Tensile Machine**

Disclaimer

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