Automatic Compression Testing Equipment







- An instrument operated full automatically by computer programs.
- Group testing procedure simplifies operating procedures.
- Stress and strain plotting programs are provided.
- Servo control system with analogical pressure velocity.
- Automatically save the testing report and stress/strain Curve.
- Appropriate for compression testing of mold or drill point specimens.
- Perform bisectional or trisection bending resistance testing.

This testing machine always prints the testing report once the testing task has been completed.

Operation: All the works are done automatically by the computer provided that the master power switch should be turned on/off manually.

Display: Computer monitor.

Contents Shown: Tested values, stress and strain diagram, machine status, and warning message.

Gross weight of mechanism: Automatic deduction.

Range control: Automatic re-scales by program.

Servo system: Analogical twin servo control system automatically operated and manipulated by computer program (For detailed information about the velocity control range, see the mechanism specification table).

Display rate: Stress compression rate (kgf/sq.cm/sec.).

Full automation: The interactive software performs the operating procedures automatically. For example, all the tasks involved in the oil motor, such as start or stop, pressurization or pressure-relief, pressure velocity, start/end point of test, are detected and recognized automatically by the computer program.

Control parameters: The control parameter files can be created as many as possible in accordance with the various tests standards (CNS, ASTM, etc.). Before test, you may select on of the files for the computer program to performing test in accordance with the contents of parameters.

Test loops: When specimens have been placed on the test bench, the operator needs only to press the Esc key, the computer

program will automatically perform the testing procedures in accordance with the control parameters specified by the operator.

Test report: The formal testing report will be printed each time when a batch of specimens has completed test. Stress and strain curve: The dimensional fitting program for lines or curves self-determined is provided, that can accurately fit the tested values of various stress paths. In addition to make up smooth curves, this program can also display the following information: Testing date, specimen numbering, section area, specimen height, piston rate (mm/min), and compression rate (kgf/sq.cm/sec), maximum load, correction coefficient, pressure resistance (both metric and English systems), vertical deformation, deviation value, net deformation, net strain, elasticity modulus.

Data access: The specified disk drives.

Test report: Access to a complete report (measured in group).

Stress and strain diagram: Access to Single specimen.

Pressure power: Hydraulic system. Piston type: Multiple pistons.

Pressurizing method: stress/strain servo control system and oil pressure loop control system automatically handled by computer program.

Pressure relief method: Speedy positioning loop of pressure relief automatically handled by computer program.

Cooling system: Air-cooling liquid pressure heat sink with automatically electronic control.

Safe system: High protection with oil piston stork protection, piston low limit circuits, and examination performed by computer program. Fuses have been installed on every separate driven system, thus the system can be shutdown when overloaded.

Control case: A noble grounding control case for use with desk, capable of containing all the control system, oil pressure system, computer and peripheral devices.

Specification of Mechanism and Detection Components:

Mechanism Type	Compression Machine	Compression Machine	Compression Machine	Compression Machine
Model	CTM120AS	CTM150AS	CTM200AS	CTM20AS
Load Capability	120 max. Tons	150 max. Tons	200 max. Tons	20 max. Tons
Load Sensor	0-120000 kgf	0-150000 kgf	0-200000 kgf	0-20000 kgf
Load Resolution	7.3 kgf/div	9.1 kgf/div	12.2 kgf/div	1.2 kgf/div
LVDT	0-50 mm	0-50 mm	0-50 mm	0-50 mm
Strain Resolution	0.003 mm/div	0.003 mm/div	0.003 mm/div	0.003 mm/div
Numbers of Tie Bars	4 tie bars	4 tie bars	4 tie bars	4 tie bars
Compression Plate Spacing	About 420 mm	About 420 mm	About 420 mm	Over 300 mm
Tie Bar Spacing	About 500 mm	About 500 mm	About 600 mm	About 450mm
Piston Speed	0-60 mm/min	0-50 mm/min	0-40 mm/min	0-100 mm/min
Pressuring Velocity (kgf/sq.cm/sec)	Operator can do any settings according to the testing standards.	Operator can do any settings according to the testing standards.	Operator can do any settings according to the testing standards.	Operator can do any settings according to the testing standards.
Upper / lower Platen dimensions	Diameter 160 mm	Diameter 160 mm	Diameter 180 mm	Diameter 120 mm
Maximum ram travel	100 mm			
Protecting cover	Four sides protecting cover.			
Liquid Pressure Cylinder	Multiple transmissions.			
Computer System	Personal computer.			
Oil Temperature Control	Air-cooling liquid pressure heat sink with automatically electronic control.			
Electric Power	220 VAC, 60 Hz., 3 Phases.			



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