

Automatic concrete compression Tester 4

This NEW generation series of compression machines featuring Energy Saving technology ("ES technology") has been developed to satisfy Standard requirements and high quality of testing. The test cycle with closed loop digital feedback is automatically performed by simply pressing the start button. The load-time graph and the actual load rate are displayed in real time during the test. Correct test execution according the selected Standard, is continuously and automatically controlled.

High Productivity

Dual stage pump driven by DC motor, centrifugal low pressure high delivery stage for fast ram approach (40 mm/min) and radial multipiston high pressure loading stage, automatically controlled by the system.

Energy Saving Test System

"ES technology" features accurate oil flow control, conforming to Standards, resulting in no oil dispersion, silent operation, cold oil temperature and low energy consumption (save over 30% compared to traditional systems)

AUTOMATIC TEST EXECUTION

Once the machine has been switched on, the specimen positioned and centered, the only required operations are:

- Set test parameters, including load rate, on the touch screen (can be avoided by default for repetitive tests)
- Press the start button on the touch screen
- Move the oil delivery valve upwards
- The machine automatically: starts the rapid approach; switches to the test speed once the specimen comes into contact with the upper platen; releases the pressure upon specimen failure
- Save the test including data results and load-time graph. The test execution conforming to Standards can be easily proved

Frame

Four column high stiffness welded frame tested for stability conforming to EN 12390-4; spherical seat in oil bath; platens diameter 300 mm, surface hardness 600 HV30 (55 HRC), flatness tolerance 0.03 mm, roughness value in the range between 0.4 µm and 3.2µm. Traceable certificate of surface hardness available on request. Horizontal daylight 350 mm for 50-C4644 and 370 mm for 50-C5644. Maximum vertical daylight 350 mm reduced with the suitable distance pieces; piston travel 50 mm.

Hydraulic Group

- Dual stage pump: centrifugal low pressure high delivery for fast approach and automatic switch to radial multipiston high pressure for loading
- DC motor, 720 W, 50-60 Hz.
- Max. working pressure 650 bar

Hardware

- 32 bit processor
- 1 GB data storing capacity
- Analogical channels for connection to strain gauge transducers (pressure transducers or load cells), 130000 points real resolution for each channel
- RS 232 port and USB in built host controller for HP A4 printers
- Graphical display,
- touch screen 240x128 pixel



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Firmware

- 12 languages
- Unit selection: kN, ton or lb
- Real time clock/date
- Simultaneous display of load, specific load, actual load rate and load time graph
- Serial port transmission in real time, during loading, of load and time values
- Large internal memory for thousands of tests (over 100,000) including load vs time graph
- Memory management with display of stored tests, download of data to serial printer or PC via RS 232 port, download to USB HP printer, delete single test or reset entire memory

Safety Features

The Pilot 4 series machines are fitted with:

- Max. pressure valve to avoid machine overloading
- Ram travel switch, which prevents the excessive piston travel
- Front and rear transparent fragment guard
- Optional: front fragment guard with door locking switch to cut off mains when the door is open.

Features

- Automatic test execution
- Silent operations
- High stability frame and spherical seat in oil bath
- Conforming to EN 12390-4 Class 1 and ASTM E74 Class A accuracy
- Simplified control by touch screen display
- 1 GB Memory card for data storage. USB and RS 232 ports for printer/PC connection
- For testing cubes up to 200 mm and cylinders up to dia. 160x320 mm
- Second frame option
- Wide range of accessories suitable for compression tests on blocks, cement, splitting tests on cubes or cylinders

Physical Specifications

Overall dimensions (lxdxh approx.):

2000 kN (440,000lbf) 850x385x1010 mm
3000 kN (660,000lbf) 940x445x1090 mm

Weight approx:

2000 kN model 900 kg - 3000 kN model 1120 kg