

Digital control unit for compression and flexure frames for tests on construction material.

New

CONTROLS



SERCOMP 7 model 50-C7022, with expansion accessory 50-C7022/UP2 for connection of extra two frames, connected to 3000 kN concrete compression frame, 150 kN concrete flexure frame and 250/15 kN cement compression/flexure frame.

*Ideal for advanced test laboratories,
intensive use for high test output,
complex tests for research.*

MAIN FEATURES

- Drives up to 4 test frames (not simultaneously).
- Allows certification of correct test procedure thanks to the display, saving and printing of not only the test results but also the load/time graph.
- Test report can be printed directly on commercial ink jet printers.
- Allows complex tests with various phases to be programmed by the user (e.g. for elastic modulus determination).
- Digital linear calibration function for large calibrated range to class 1 EN 12390-4 for each test frame connected.

Construction materials test laboratories require advanced and accurate testing machines which conform to the relevant test Standards and guarantee long trouble free testing. The high performance must also be combined with ease of use and maximum productivity. The new SERCOMP 7 digital control unit fully satisfies these requirements. It is used to drive hydraulic test frames and allows automatic testing with the following phases: rapid approach, zeroing, test cycle (or cycles), identification of sample failure, unloading, saving of test data and results. High accuracy is assured thanks to a closed loop control system.

Archive

the archive can store up to 500 tests, each with its relative load/time graph.

Each test is characterised by the following parameters:

- time and date of test
- test number
- type of test
- type of sample
- type of test frame
- sample age
- test identification (alpha-numerical)
- maximum load
- maximum sample resistance
- sample area
- operator name
- test load/time graph

The archive menu is equipped with a potent database which allows easy access to filed tests via the identification of various parameters. A summary selected test is shown on the display.



Technical characteristics

General

- Can be connected up to 4 test frames (for non simultaneous use).
- Power rating 750 W.
- 230V 50-60 Hz 1 ph or 110 V 60 Hz 1 ph.
- Approx. dimensions 470 x 410 x 1000 mm (l x w x h)
- Approx. weight 120 kg.

Hydraulics

- High performance pump with proportional valve and electronic control.
- Maximum working pressure 700 bar.
- Maximum oil feed 0.7 l/min.
- Oil tank capacity 22,8 l.
- Oil cooling with heat exchanger system.

Electronics and user interface

- Closed loop system.
- High resolution: 65,000 divisions.
- RS 232 serial port for downloading to PC and parallel port for connection to A4 format ink jet printer.
- Memory for up to 500 tests including load/time graph.
- Graphical display 320 x 240 pixel and alpha-numerical touch keypad.
- Control menu with icons and immediate graphical representation of main functions.
- Graphical and numerical representation of test results including the load/time graph.
- Easy and rapid access to file tests.
- Display language selectable between English, French, Spanish and Italian.
- Up to 100 test cycle phases can be programmed by the operator.
- Calibration via software with linear function
- Remote trouble shooting feature.

Remote trouble shooting feature

To make trouble shooting easier, SERCOMP 7 is fitted with a diagnose function which can generate a coded file of all the system set up parameters, D/A, A/D converter settings, calibration, test settings and alarm settings. This coded file, collected on a PC, can be sent by e-mail to our after sales service department to allow quick and efficient identifications of any problems that may be encountered. This file is bi-directional, thus allowing re-configuration of the unit via computer.

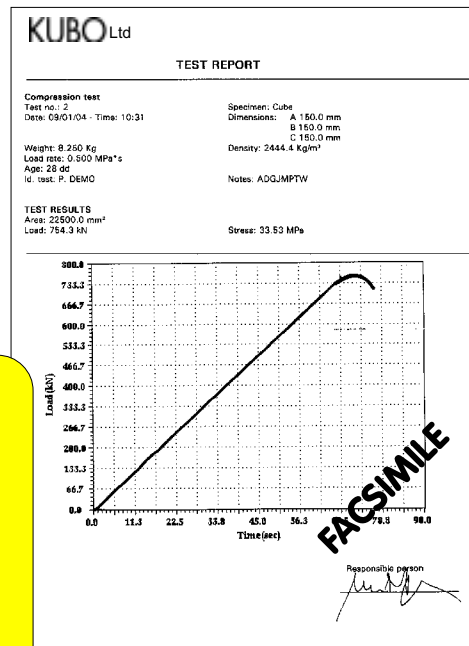
Load Rate

Since the results of mechanical tests on construction materials is influenced by the applied load rate, reference Standards indicate which load rate to use. The SERCOMP 7 automatically maintains the load rate and certifies its correct application. Indeed, the load/time graph is shown in real time during the test, saved together with the test results at the end of the test and printed on the test report.

Printing on A4 paper

Using an ink jet printer (HP 600, 700 or 800 series) connected to the parallel port of the unit it is possible to print a test report on A4 paper (both at end of test or from archive) in three different formats:

- single test report including description, results and load/time graph
- single test report including description and test results but without load/time graph
- multiple test report including description and test results of each sample in table format (this report does not foresee printing of the load/time graph).

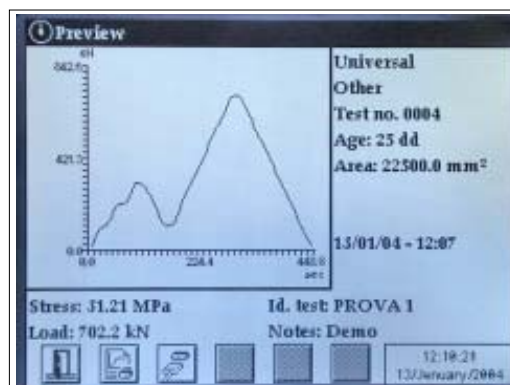
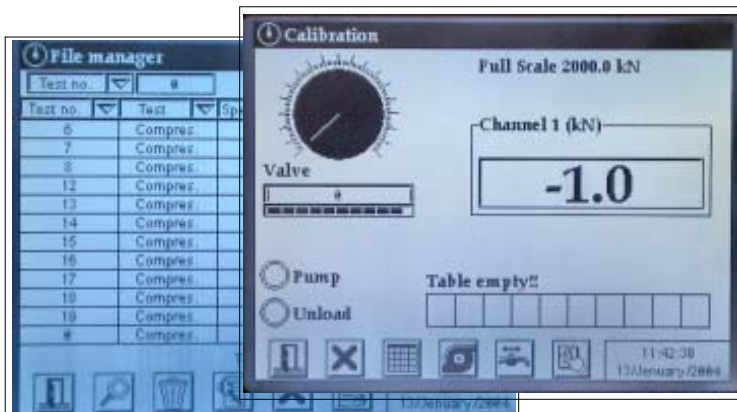


Complex Tests

As well as normal tests (compression and flexure) the SERCOMP 7 can also be user programmed to perform complex tests with load/unload phases. Each phase is characterised by its load rate (positive, negative or nil) and target load to be reached. Up to 100 phases may be programmed. For example this feature can be used to program test for elastic modulus determination or special research tests.



Examples of some of SERCOMP 7 displays.



Ordering information

Standard units (for connection to up to 2 frames)

Code	Description
50-C7022	SERCOMP 7 control unit for connection to test frames for automatic tests. 230 V, 50-60 Hz, 1 Ph.
50-C7022	SERCOMP 7 control unit for connection to test frames for automatic tests. 110 V, 60 Hz, 1 Ph.

Note. The ink jet printer is not included with the unit. Hewlett Packard series 600, 700 and 800 series are compatible with the unit.

Expansions to connect up to 4 frames

To be ordered with the unit, must be factory installed.

The SERCOMP 7 is supplied as standard with facility for the connection of 2 frames.

Code	Description
50-C7022/UP1	Upgrading of the SERCOMP 7 for the control of a third frame.
50-C7022/UP2	Upgrading of the SERCOMP 7 for the control of up to four frames.



SERCOMP 7 50-C7022 connected to 3000 kN concrete compression frame.

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