

## DATA SHEET

# GENERAL UTILITY - Standard Automatic Compression Testers for Cubes, Cylinders and Blocks WIZARD AUTO



3000 kN compression machine model 50-C35W02 with pedestal 50-C39/B and frontal door 50-C35/FG

## General description

### Main features include:

- Rigid welded steel construction
- Accuracy Class 1/A (EN/ASTM) starting from 10% of full scale (from 1% on request)
- Two channels for load sensors
- Wide graphic display 128 x 80 pixel
- Graphic printer available as option
- AC motor fitted with VFD INVERTER device: high efficiency, low consumption, silent operation
- Dual stage pump for fast approach and automatic switch to high pressure for loading
- Second frame optional facility

### Frame

Rigid welded steel construction. Spherical seat allows free alignment at the initial contact with the specimen.

### Compression platens

See table. Traceable certificate of surface hardness available on request.

### Safety features

Includes: Max. pressure valve to avoid machine overloading; piston travel limit switch; emergency stop button; front and rear flexible transparent fragment guard.

## Main features

**WIZARD AUTO is CONTROLS new standard automatic Quality Control machine for compression and flexural testing and includes many new features and enhancements to improve the user-friendliness, efficiency, operator comfort and energy savings.**

QC testing performance has just taken a step change improvement with CONTROLS abandoning manual test control and now feature automatic closed-loop PID control of loading-rate using VFD inverter-technology control of the high specification AC motor.

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Wizard Auto automatically and accurately performs tests at the correct test speed, ensuring compliance to Standards and with no effect due to operator variables.

Mainly dedicated to routine failure tests (compression, flexure and indirect tensile), WIZARD AUTO is the perfect solution to ensure total certainty of testing accuracy and strict conformity to international Standards. In fact being an automatic system it allows:

- **Reduced opportunities for operator errors**, improving accuracy of results and repeatability
- **Easy-to-use**: even for operators with limited expertise.
- **Conforming to Standards**: the machine automatically performs the test at correct test speed. Conformance to Standards can be easily proven.
- **High performance**: high speed pump closes the daylight above the specimen at the fasted speed allowing a very high throughput of tests.
- **Operator comfort** due to the significant noise reduction.
- **Energy saving**, with 50% reduction in energy consumption.

## Specifications

### WIZARD AUTO AUTOMATIC POWER AND CONTROL SYSTEM

#### Hydraulic

Max pressure 700 bar

Power 750 W

Dual stage pump: low pressure/high delivery for fast piston approach and high pressure/low delivery for loading.

AC motor fitted with VFD inverter device featuring high efficiency, reduction of power consumption and silent operation.

Second frame optional facility using valve selector.

#### Hardware

Two 16 bit analog channels for load sensors

Wide graphic display 128 x 80 pixel

Sampling rate 50 Hz

Internal memory

RS 232 port for data download (including load/time graph points) to PC in ASCII format

Integrated printer as optional. See accessories

#### Firmware

Real time display of load and stress

Automatic application of the selected load rate

Execution of loading ramps with the possibility to manually increase or decrease the test speed during the test

Peak detection and saving

Language selection

Multi-coefficient linearization of the calibration curve for better accuracy at low loads

Multiple units: Lbf / Ton / kN.

#### PHYSICAL SPECIFICATION TABLE

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Model 50-	C45W02 C45W04	C35W02 C35W04
Capacity kN	2000	3000
Max vertical daylight, mm	370	350*
Horizontal daylight, mm	350	370
Max. piston travel*, mm	50	50
Platen dimensions, mm	310 x 510 x 50	310 x 510 x 50
Platen surface hardness	55.5 HRC (600 HV)	55.5 HRC (600 HV)
Platens flatness toll, mm	0.05	0.05
Overall dimensions, mm	835 x 555 x 1090	805 x 600 x 1160
Weight approx., kg	610	815

\*With accessory 50-C50/CYL vertical clearance is increased by 20 mm. See test accessories

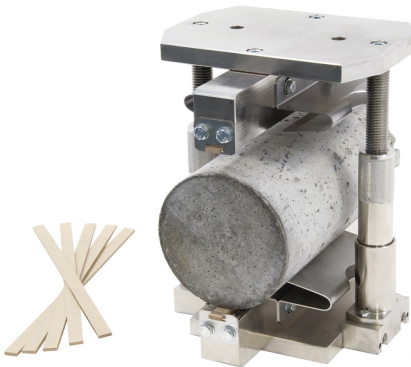


All testers are verified and delivered with traceable certificate of the verification of force transfer

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Unbonded caps: steel cap retainers and neoprene pads



Splitting tensile test device for cylinders (50-C9000/C)



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In-built serial printer



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Language selection

### Products

#### 50-C45W02

WIZARD AUTO COMPACT-Line automatic compression machine, 2000 kN cap. for blocks, cylinders up to 160 x 320 mm and cubes up to 200mm. - Compression platens 310 x 510 mm - 230 V, 50-60 Hz, 1 Ph.

#### 50-C45W04

WIZARD AUTO COMPACT-Line automatic compression machine, 2000 kN cap. for blocks, cylinders up to 160 x 320 mm and cubes up to 200mm. - Compression platens 310 x 510 mm - 110 V, 60 Hz, 1 Ph.

#### 50-C35W02

WIZARD AUTO COMPACT-Line automatic compression machine, 3000 kN cap. for blocks, cylinders up to 160 x 320 mm and cubes up to 200mm. - Compression platens 310 x 510 mm - 230 V, 50-60 Hz, 1 Ph.

#### 50-C35W04

WIZARD AUTO COMPACT-Line automatic compression machine, 3000 kN cap. for blocks, cylinders up to 160 x 320 mm and cubes up to 200mm. - Compression platens 310 x 510 mm - 110 V, 60 Hz, 1 Ph.

### Accessories and consumables

#### 50-C9060/A

Heavy duty manually operated lifting device for lower platen for block compression machines. Compatible platen size 310x510 mm x 50 mm thickness

#### 50-C0050/HRD7

Supply of the compression machine with 310x510x50 mm platens complete with traceable certificate of hardness of testing platens surfaces (upper and bottom platen certification included). Available only for ordering with compression machine.

#### 50-C0050/CAL

Special calibration of load digital readout unit assuring class 1 from 1% of testing machine full scale (maximum load)

#### 50-C39/B

Base for frames and testing machines model 50-C34xxx, 50-C35xxx and 50-A32xxx

#### 50-C49/B

Base for 2000 kN 50-C46xxx, 50-C47xxx, 50-C43xxx, 50-A42xxx and 50-C45xxx frames/machines

#### 50-C50/CYL

Lower compression platen dia. 165 x 30 mm for testing capped cylinders dia. 150 x 300 mm (6"x12"). Resulting compression machine vertical clearance is increased by 20 mm

#### 50-C10W/2F

Second frame facility for WIZARD AUTO series. Frame selection via manual lever

#### 50-Q60W/PR

Upgrading the WIZARD AUTO series to incorporate a serial graphic printer in the rear panel

#### 50-C50/P1

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Application of a magnetic switch to the safety guard (for automatic testers only). Suitable for automatic compression machines.

**50-C9080**

Distance piece dia 200 x 30 mm

**50-C9082**

Distance piece dia 200 x 50 mm

**50-C9083**

Distance piece dia 200 x 68 mm

**50-C9086**

Distance piece dia 200 x 100 mm.

**50-C45/FG**

Upgrading of the 50-C45xxx series 2000 kN compression frames with front rigid door (for frames fitted with rectangular platens 310x510 mm)

**50-C35/FG**

Upgrading of the 50-C35xxx, A29xxx and A39xxx compression frames with front rigid door (for frames fitted with rectangular block platens)