

# Digital rock strength index apparatus 100 kN cap

ASTM D5731 | ISRM

## MAIN FEATURES

- 100 kN capacity
- Superior functionality and usability of the equipment, since the pump is separate from the frame
- Ergonomic digital read out unit with wide graphical display and 6 keys membrane keyboard
- Effective resolution: 18 bit (1/262'000 div.)
- Load measurement accuracy:  $\pm 1 \%$
- Load resolution: 1 N
- Supplied complete with traceable calibration certificate for load measurement accuracy
- Set of lower and upper platen with spherical seat for compression tests on small cylinders available as accessory

## GENERAL DESCRIPTION

The rock strength index apparatus consists of a high stability load frame 100 kN cap. with hydraulic loading ram actuated by a hand pump. Loading frame and manual pump are independent resulting in a superior functionality and usability of the equipment. The unit is conforming to ASTM D5731 and ISRM suggested method and the wide testing area allows to test both rock cylinders and irregular shaped samples.

It features an ergonomic digital readout unit with graphic display battery operated and membrane keyboard.

The compression load is measured by a in-built pressure transducer, assuring the best accuracy and resistance to the failure shocks. A ruler is assembled on the frame allowing the direct measurement of the distance D between the conical platens before and after the test. The complete set is housed in an ergonomic carrying case with wheels.

## TECHNICAL SPECIFICATIONS

- 100 kN capacity
- 128 x 80 pixels graphic display with 6 keys membrane keyboard
- In-built rechargeable LiPo type battey
- Effective resolution: 18 bit (1/262'000 div.)
- Load measurement accuracy:  $\pm 1 \%$
- Load resolution: 1 N
- Load measurement by pressure transducer
- Lower crossbeam position measurement by in built meter
- Piston travel: 100 mm
- Distance between conical platens: 100 mm
- Distance between compression platens (accessory 45-D0550/D5): 102 mm
- Distance between columns: 108 mm
- Dimensions and weight of frame / hydraulic jack:
  - Dimensions (l x w x h): 200x200x418 mm
  - Weight: 14 kg
- Dimensions and weight of manual pump:
  - Dimensions (l x w x h): 798x160x310 mm
  - Weight: 8.3 kg
- Dimensions and weight of carrying case:
  - Dimensions (l x w x h): 447 x 265 x 558 mm
  - Weight: 7.7 kg

## DATA SHEET

### ORDERING INFO

#### 45-D0550

Digital rock strength index apparatus, 100 kN cap. conforming to ASTM D5731 and ISRM suggested method, complete with:

- Testing frame with high performances hydraulic jack and manual pump
  - Load measurement by pressure transducer (traceable calibration certificate included)
  - In built meter measuring the vertical clearance between the conical platens
  - Supplied with rigid ergonomic carrying case with wheels
- Battery charger 110-230 V, 50-60 Hz, 1 ph. Power cable included

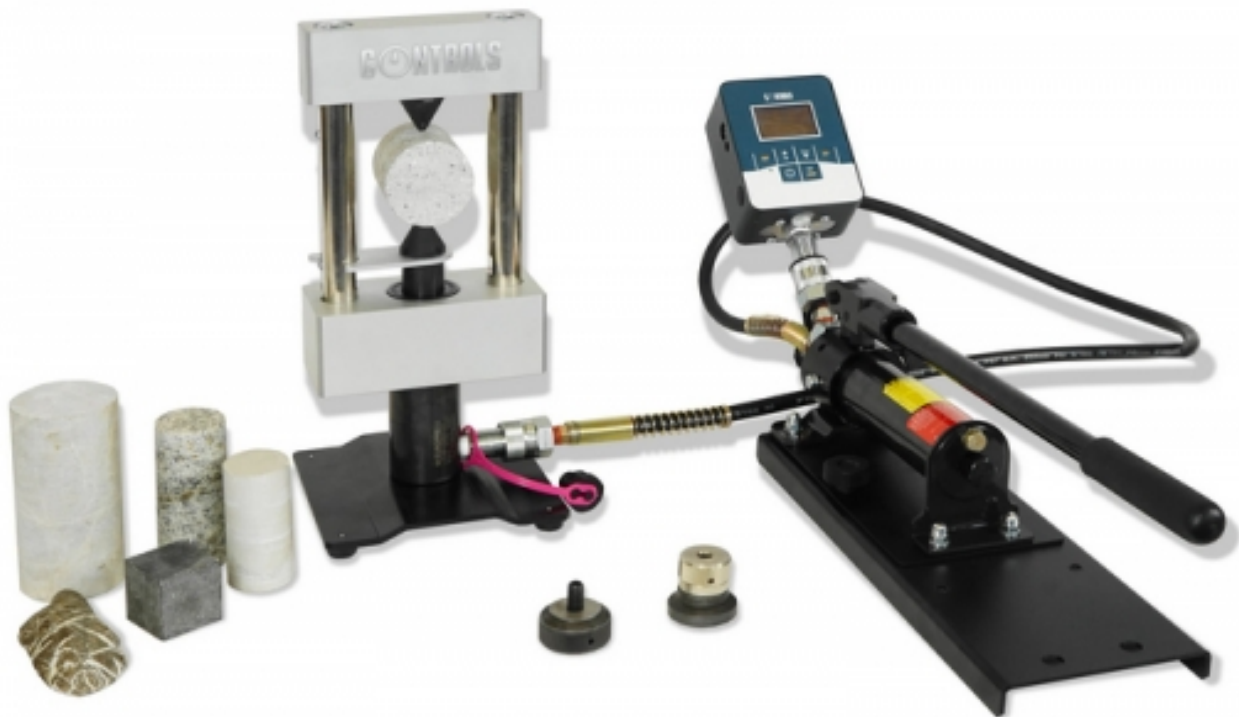
### ACCESSORIES

#### Accessories

- 45-D0550/D5** Set of lower and upper platen 52 mm dia. with spherical seat
- 45-D0550/D6** Mounting tool suitable for the conical points fitted on point load machine 45-D0550

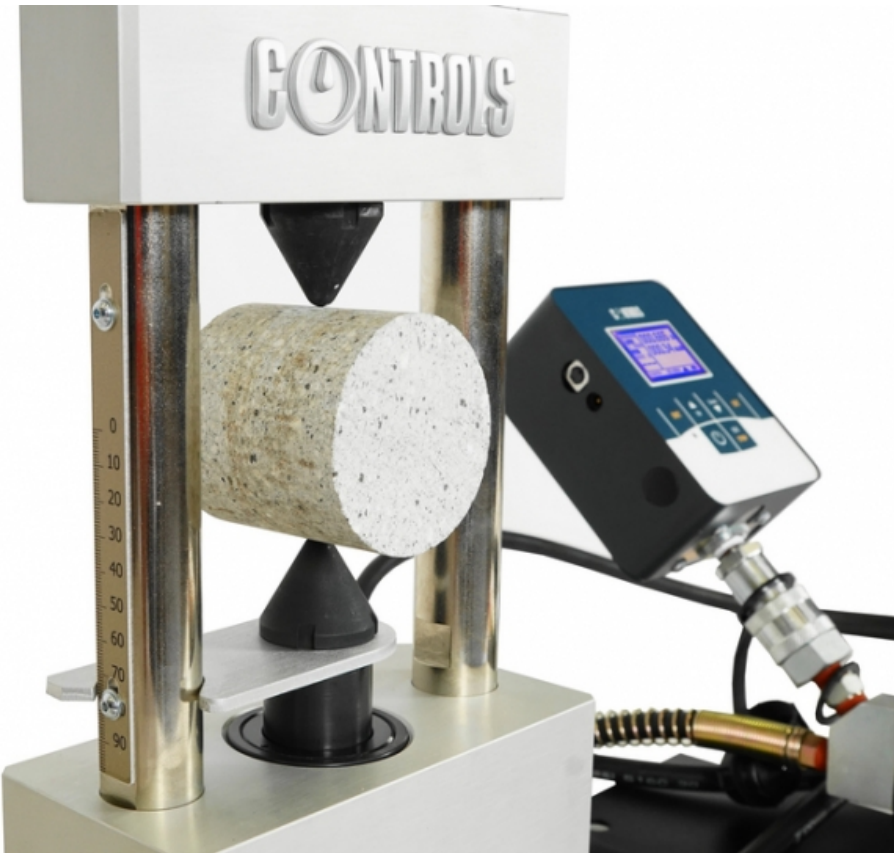
#### Spare parts

- 45-D1717** Clear safety goggles
- 45-D0550/A7** Set of hardened conical points
- 45-D0550/A9** Set of spare gaskets for the hydraulic cylinder fitted in the point load tester model 45-D0550



Digital rock strength index apparatus 100 kN capacity, model 45-D0550  
complete with set of upper and lower platen 45-D0550/D5 (accessory)

## DATA SHEET



Digital rock strength index apparatus, 100kN capacity, model 45-D0550  
Detail of Loading Frame



Digital rock strength index apparatus  
housed in practical robust carrying case  
with wheels for easy transportation



Set of upper & lower plate, 52mm dia.,  
with spherical seat, model 45-D0550/D5  
for compression tests