



# GEOTECHNICAL TESTING EQUIPMENT

THE BEST IN TEST

## CONCRETE



# Concrete

Concrete is used more than any other man-made material in the world, it is a composite construction material composed of cement (commonly Portland cement), coarse aggregates, sand, water and chemical admixtures.

The word concrete comes from the Latin word "concretus" (meaning compact or condensed) hence, concrete solidifies and hardens after mixing with water and placement due to a chemical process known as hydration.

The water reacts with the cement, which bonds the other components together, eventually creating a robust stone-like material that can be moulded in any shape we desire.

The quality of concrete is important if structures formed from this versatile material are to be safe and serve the purpose for which they were constructed therefore, several tests are conducted to identify the characteristics and parameters of concrete.

The testing equipment described in this section are special selected to test the physical parameters of concrete for consistency, degree of compaction, workability, setting time, segregation resistance, confined flowability, air content, bulk density, specific gravity, adhesion, water permeability and strength.



## Slump Cone Test set

EN 12350-2 ASTM C143 ASTM C143 M AASHTO T119 BS1881

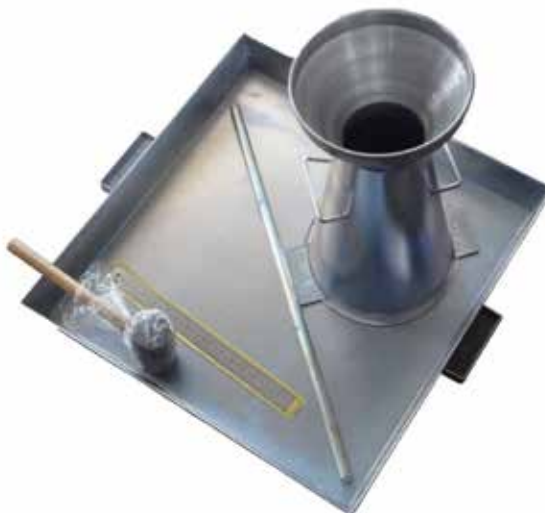
### DESCRIPTION:

Slump Cone test set is used for the determination of the consistency and workability of fresh concrete. The Concrete Slump Test Set is supplied complete with: Slump Cone, Slump Funnel, Base Plate, Tamping Rod, Rubber mallet, Steel ruler

### TECHNICAL SPECIFICATIONS:

	Dimensions
CN 0101-2	500x500x60 mm
CN 0101-4	Ø 16x600 mm
CN 0101-6	300x1 mm

	CN 0101-1
Top	100 ±2 mm Dia
Base	200 ±2 mm Dia
Height	300 ±2 mm Dia
Dimensions	550x600x250 mm
Weight	6 kg



### MAIN FEATURES:

- Heavy duty
- Made of thick galvanized steel

### ORDERING:

**CN 0101**  
Slump Cone test complete

### ACCESSORIES:

**CN 0101-1**  
Slump Cone  
**CN 0101-2**  
Base Plate  
**CN 0101-3**  
Slump Funnel  
**CN 0101-4**  
Tamping Rod  
**CN 0101-5**  
Rubber Mallet  
**CN 0101-6**  
Steel Ruler

## Concrete Flow Table

EN 12350-5, BS 1881-105

### DESCRIPTION:

The test set is used for concrete mixes of high workability and determines the flow index as an arithmetic means of the diameter of the specimen after working on a flow table. The apparatus consists of a double steel table, an upper table measuring 700x700 mm and hinged at one side to the lower table.

The top table is inscribed and all parts are protected against corrosion. The stainless steel cone has a 130 ±2 mm top diameter, 200 ±2 mm base diameter and 200 ±2 mm height and 1.5 mm thickness.

The Concrete Flow Table Set is complete with flow cone and wooden tamper

### TECHNICAL SPECIFICATIONS:

Dimensions	Weight (approx.)
700x850x300 mm	40 kg

### MAIN FEATURES:

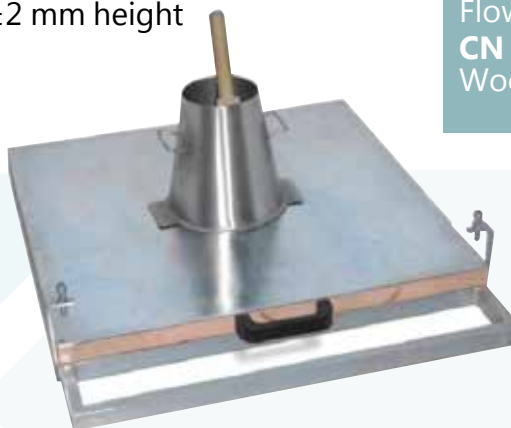
- High workability
- The apparatus consists of a double steel table
- All parts are protected against corrosion

### ORDERING:

**CN 0102**  
Concrete Flow Table Set

### ACCESSORIES:

**CN 0102-1**  
Flow Cone  
**CN 0102-2**  
Wooden Tamper



## J-ring, narrow gap

EN 12350-12; ASTM C1621; ASTM C1611

### DESCRIPTION:

The J-RING test, in conjunction with the Slump-flow test, is one way to determine the passing ability of SCC, defined as the ability of the concrete to flow under its weight to fill all spaces within the formwork.

The J-RING test set includes the J-RING, Modified Slump Cone, Strike-off bar and a plastic base plate with convenient cut-out carrying handles.

### TECHNICAL SPECIFICATIONS:

	CN 0103
Dimensions	350x350x140 mm
Weight (approx.)	10 kg



### MAIN FEATURES:

- Manufactured from stainless steel.
- Protected against corrosion

### ORDERING:

**CN 0103**

J Ring test set complete

### ACCESSORIES:

**CN 0103-1**

J Ring

**CN 0103-2**

Slump Cone

**CN 0103-3**

Base Plate

## Waltz Container

EN 12350-4

### DESCRIPTION:

The Waltz Container is used to measure the degree of compact ability of fresh concrete.

It consists of a 200x200x400 mm metal container with two carrying handles. Coated against corrosion.

### TECHNICAL SPECIFICATIONS:

Dimensions	Weight (approx.)
200x200x400 mm	5 kg



### MAIN FEATURES:

- The apparatus consists of a metal box with handles.

### ORDERING:

**CN 0104**

Waltz Container

## Water Cement Analyser

### DESCRIPTION:

Precise measurement of the water content of fresh concrete mixtures. As a user, you will obtain not only the percent moisture value but also the water content in liter per m<sup>3</sup> by considering the mass density entered by hand inside the measurement device.

Determination of the radar-based electrical conductivity which allows an evaluation of the used cement type. As a user, you can thus quickly see what is going on concerning the used cement type and if this value corresponds to the expected exposure class.

Simply place the innovative lance probe model 1 inside the fresh concrete. After 4 to 5 single measurements with the measuring device, an automatic averaging ensures precise results within 1 to 2 minutes – directly on site.

The Water Cement Analyser is delivered with a universal calibration that provides reliable results for most used concrete types. It is possible to adjust the measuring device with a correction value for measuring special concrete types like fiber concrete.

### MAIN FEATURES:

- Easy to handle

### ORDERING:

**CN 0105**  
Water cement analyser  
**CN 0105-1**  
Measuring device

### TECHNICAL SPECIFICATIONS:

Probe dimension sensor	154 x 60mm
Battery capacity	4.8V-DC, 2000mAh
Approximate field expansion measurement	40 - 80 mm



## Plasticity Meter

### DESCRIPTION:

The Plasticity Meter is used for quick and easy determination of the plasticity of a specimen, especially concrete, in order to easily detect a possible excess of water.

The measurement is related to shear concrete applied by a finned rod on the specimen. It is possible to measure plasticity at different points, immediately in the test tube, with several controls. The results can be compared with the values obtained by the cone of Abrams.

### ORDERING:

**CN 0106**  
Plasticity Meter

### TECHNICAL SPECIFICATIONS:

Dimensions	130x180 mm
Weight (approx.)	2 kg



## Bulk Unit Weight Measures

EN 12350-6 ASTM C29 C138

### DESCRIPTION:

The Bulk Density Measures are used to determine the weight per cubic meter of freshly mixed and compacted concrete.

Manufactured from heavy gauge steel complying with the related standard.

Available in 1, 3, 5, 7, 10, 15, 20 and 28 ltr. capacity models according to the requirements of different standards. Coated against corrosion.

### TECHNICAL

#### SPECIFICATIONS:

Product code	Dimensions	Weight (approx.)
CN 0107	100x170x150 mm	2.8 kg
CN 0108	150x210x210 mm	3.7 kg
CN 0109	170x240x250 mm	5.0 kg
CN 0110	190x260x270 mm	6.3 kg
CN 0111	210x290x310 mm	7.7 kg
CN 0112	250x340x330 mm	10 kg
CN 0113	270x370x380 mm	12 kg
CN 0114	310x410x430 mm	20 kg

### MAIN FEATURES:

- Bulk Unit Weight measures is made from heavy steel sheet protected against corrosion

### ORDERING:

**CN 0107**  
Bulk Unit 1 ltr  
**CN 0108**  
Bulk Unit 3 ltr  
**CN 0109**  
Bulk Unit 5 ltr  
**CN 0110**  
Bulk Unit 7 ltr  
**CN 0111**  
Bulk Unit 10 ltr  
**CN 0112**  
Bulk Unit 15 ltr  
**CN 0113**  
Bulk Unit 20 ltr  
**CN 0114**  
Bulk Unit 28 ltr



## Vebe Consistometer

EN 12350-3 ASTM C1170 C1176

### DESCRIPTION:

The Vebe Consistometer is used to determine the consistency of fresh concrete by subjecting the concrete specimen to vibration after removal of the slump cone.

The assembly is mounted upon a small vibrating table operating at a fixed amplitude and frequency.

The time to complete the required vibration indicates concrete consistency.

The set consists of a vibrating table, slump cone, graduated rod with transparent plate, filling cone and tamping rod.

### TECHNICAL

#### SPECIFICATIONS:

	CN 0115
Power	170 W
Dimensions	570x460x670 mm
Weight ( approx.)	87 kg

### MAIN FEATURES:

- Heavy duty

### ORDERING:

**CN 0115**  
Vebe Consistometer complete

### ACCESSORIES:

**CN 0115-1**  
Slump Cone  
**CN 0115-2**  
Filling cone  
**CN 0115-3**  
Transparent plate  
**CN 0115-4**  
Tamping rod.





## Pocket Penetrometer

EN 12350-5 BS 1881-105 ASTM C403- ASHTO T197

### DESCRIPTION:

The Pocket Penetrometer is designed for the determination of setting time of fresh concrete for field and laboratory use.

The stainless steel plunger has a 32.3 mm<sup>2</sup> (1/20 in<sup>2</sup>) area and 0-5 MPa measuring range.

### TECHNICAL SPECIFICATIONS:

Total length	155 mm
Maximum diameter	20 mm
Diameter of the tip	6.35 mm (1/4")
Penetration of the tip	6.35 mm
Cross section of the tip	0.3165 cm <sup>2</sup>
Net weight	0.150 kg
Force required to read 3 kg/cm <sup>2</sup>	5.10 ± 0.25 kgf
Force required to read 4.5 kg/cm <sup>2</sup>	7.71 ± 0.28 kgf
Compression of the spring for 4.5 kg/cm <sup>2</sup>	35.6 mm
Nominal calibration factor of the spring	0.2166 ± 0.01 kg/cm <sup>2</sup>

### MAIN FEATURES:

- Can be directly read from the scale of the instrument

### ORDERING:

**CN 0116**  
Pocket Penetrometer



## Concrete Mortar Penetrometer

ASTM C403; AASHTO T197

### DESCRIPTION:

The Concrete Mortar Penetrometer consists of a cylindrical spring housing with a plunger attached to the top of the spring. Penetration needle is attached to the other end of the spring housing.

The plunger is graduated in 1 kg divisions, to a maximum capacity of 60 kg, which can be read concerning the top end of the spring housing.

A set of six needle points with areas of 645, 323, 161, 65, 32 and 16 mm<sup>2</sup> are provided.

The Concrete Mortar Penetrometer is supplied complete with:  
Set of interchangeable needle points of 645, 323, 161, 65, 32, 16 mm area

### MAIN FEATURES:

- Heavy Duty
- Rigid design
- Easy to use



### ORDERING:

**CN 0117**  
Concrete Mortar Penetrometer complete

### ACCESSORIES:

**CN 0117-1**  
Set of points needles  
**CN 0117-8**  
Carrying case

### TECHNICAL SPECIFICATIONS:

Dimensions	Weight (approx.)
540x260x60 mm (packed)	5 kg

	Needle Pos.	Face areas
CN 0117-2	11	16 mm <sup>2</sup> (1/40 inch <sup>2</sup> )
CN 0117-3	12	32 mm <sup>2</sup> (1/20 inch <sup>2</sup> )
CN 0117-4	12	65 mm <sup>2</sup> (1/10 inch <sup>2</sup> )
CN 0117-5	12	161 mm <sup>2</sup> (1/4 inch <sup>2</sup> )
CN 0117-6	12	323 mm <sup>2</sup> (1/2 inch <sup>2</sup> )
CN 0117-7	12	645 mm <sup>2</sup> (1 inch <sup>2</sup> )

## V-Funnel Apparatus

EN 12350-9

### DESCRIPTION:

The V-Funnel Apparatus is used to evaluate the segregation resistance of freshly mixed self-compacting concrete by observing the flowing speed due to the difference of samples remaining period in the funnel.

The test set consists of a stainless steel funnel placed vertically on a supporting stand. The discharge orifice is equipped with a lid, which can be momentarily opened.

### TECHNICAL

#### SPECIFICATIONS:

Dimensions	Weight (approx.)
525x300x1040 mm	18 kg



### MAIN FEATURES:

- Stainless steel funnel

### ORDERING:

**CN 0118**  
V-Funnel Apparatus

### ACCESSORIES:

**CN 0118-1**  
Filling Hopper

**CN 0118-2**  
Base

## U Shape Box Apparatus

UNI 11044

### DESCRIPTION:

The U shape Box is used to determine the confined (flowability) and the capacity of SCC concrete to flow within confined spaces.

The box is made of a galvanized steel frame consisting of four 10 mm diameter and three 13 mm diameter bars.

The U Shape box is mounted on a frame with a fixing mechanism.

### TECHNICAL

#### SPECIFICATIONS:

Dimensions	Weight (approx.)
650x650x1100 mm	20 kg



### MAIN FEATURES:

- Stainless steel funnel

### ORDERING:

**CN 0119**  
U Shape Box  
Apparatus

### ACCESSORIES:

**CN 0119-1**  
Filling Hopper

**CN 0119-2**  
Base

## Compacting Factor Apparatus

BS 1881-103 5075

### DESCRIPTION:

The Apparatus enables a check to be made on the weight of concrete when it falls from fixed heights into a cylindrical container of standard capacity.

The apparatus consists of two conical hoppers each with a hinged trap with a quick-release mechanism to allow free flow of the concrete sample.

A cylindrical mold is fitted beneath the hoppers.



### MAIN FEATURES:

- Heavy duty
- Made to last

### ORDERING:

**CN 0120**  
Compacting  
Factor Apparatus

### TECHNICAL SPECIFICATIONS:

Dimensions	Weight (approx.)
300x400x1300 mm	41 kg



## L Shape Apparatus

EN 12350-9

### DESCRIPTION:

The L Shape Box is used for evaluation of self compact ability (confined flowability) of freshly mixed self-compacting concrete.

The box allows evaluating different properties, such as filling ability, passing ability and resistance to segregation.

### TECHNICAL SPECIFICATIONS:

Dimensions	Weight (approx.)
300x1000x1350 mm	35 kg



### MAIN FEATURES:

- L shape box apparatus has resistance to segregation.

### ORDERING:

**CN 0121**

L Shape Box apparatus

### ACCESSORIES:

**CN 0121-1**

Filling Hopper

**CN 0121-2**

Base

## Air Entrainment Meter

EN 12350-7 ASTM C231 AASHTO T152

### DESCRIPTION:

The Air Entrainment Meter is used to determine the air content of fresh concrete. Our air entrainment meter is one of the most precise air content measuring devices available in the market. With heat-treated cast aluminum construction and cast in handles on the base, it is heavy-duty, yet lightweight, and easy to handle.

Our unit utilizes the best clamping system available, with large stainless steel clamp levers and a holding capacity of about 7 ltr each. This clamping system provides an easy, dependable operation.

Employing the use of a superior high volume Ultra Pump, this system makes operation efficient yet rapid.

This includes a larger more accurate pressure gauge with safety glass and bold color dial face. Color-coded for entrapped and entrained air readings.

Our equipment comes complete:

B pressure meter Calibrated Vessel, Calibration Outside Tube, Calibration Inside Tube, Strike-Off Bar, Tamping Rod rounded to a hemispherical tip at both ends, Bulb Syringe, Rubber Mallet, carrying case



### MAIN FEATURES:

- Superior meter
- Reliable device
- Quickly and easily
- Durability and effective

### ORDERING:

**CN 0122**

The Air Entrainment Meter set

### ACCESSORIES:

**CN 0122-1**

B pressure meter Calibrated Vessel

**CN 0122-2**

Calibration Outside Tube

**CN 0122-3**

Strike Off Bar

**CN 0122-4**

Tamping Rod

**CN 0122-5**

Bulb Syringe

**CN 0122-6**

Rubber Mallet

**CN 0122-7**

Carrying case

### TECHNICAL SPECIFICATIONS:

Capacity	7ltr
air content range	0-22%
Dimensions	700x300x500 mm
Weight ( approx.)	18 kg

## Specific Gravity Frame

EN 1097-6, 12390-7, BS 1881:114

### DESCRIPTION:

Specific Gravity Frame is used in conjunction with electronic balance for specific gravity or density determination of hardened concrete and aggregates.

Consisting of a purpose-built robust frame designed to support the electronic balance. The lower part of the frame incorporates a moving platform, which carries the water tank allowing the test specimens to be weighed in both air and water.

There are 3 choices of balances to choose from with different capacities.

Supplied complete with Cradle, Density Basket, hook and water tank.

### TECHNICAL SPECIFICATIONS:

Dimensions	600x500x1100 mm
Weight (approx.)	25 kg



### MAIN FEATURES:

- Under-bench weighing facility
- Robust frame

### ORDERING:

#### CN 0123

Specific Gravity Frame supplied complete

### ACCESSORIES:

#### CN 0123-1

Cradle and suspension hook

#### CN 0123-2

Water Tank

#### CN 0123-3

Density Basket

#### CN 0123-4

Buoyancy Balance, 15kg x 0.5g

#### CN 0123-5

Buoyancy Balance, 6kg x 0.01g

#### CN 0123-6

Buoyancy Balance, 32kg x 1 g

## Grout Flow Cones and Sets

ASTM C939

### DESCRIPTION:

Grout Flow Cones measure the flowability of hydraulic grout used in preplaced aggregate concrete. Flowability is measured by the time of discharge of a 1.725L sample of grout through a 12.7mm dia. discharge tube orifice from the cone. The cast aluminum Flow Cones all come with an adjustable point gauge assembly to indicate initial sample level.

Grout Flow Cone Set has a 12.7mm dia Orifice already installed, and a 3-Legged Steel Support Stand, and 2L stainless steel Beaker for use as a receiving container.

Grout Flow Cone Set has a 19mm Orifice to be used with alternate test methods.

### TECHNICAL SPECIFICATIONS:

Dimensions	178mm dia for top 76mm
Cone section	190mm
Discharge Tube	38.1mm
Grout volume	1,725 ±5ml



### ORDERING:

#### CN 0124

The Grout Flow Cone

### ACCESSORIES:

#### CN 0124-1

12.7mm Orifice

#### CN 0124-2

19 mm Orifice

#### CN 0124-3

Steel Stand

## Pan Concrete Mixer

EN 1766



### DESCRIPTION:

The Concrete Mixer is designed for laboratory use to give efficient mixing of both wet and dry materials.

The mixing pan is rotated by a turntable driven by an electric motor by a reduction gearbox. It has easily adjustable blades to fit different types and volumes of material to be mixed.

### TECHNICAL SPECIFICATIONS:

	CN 0125	CN 0126
Dimensions	950x1050x1250 mm	950x1050x1270 mm
Weight (approx.)	255 kg	285 kg
Power	1500 W	3800 W
Mixing capacity	56 ltr YIELD 42 ltr	100 ltr YIELD 80 ltr

### ORDERING:

#### CN 0125

Pan concrete Mixer type 56 ltr

#### CN 0126

Pan concrete Mixer type 100 ltr

### MAIN FEATURES:

- Dry and wet materials mixer.
- Adjustable blades
- The mixing pan can be tilted and removed.

## Drum Concrete Mixer

### DESCRIPTION:

The Mixer is used for the efficient mixing of concrete, plaster, and mortars.

The Concrete Drum Mixer comes complete with Drum, Lightweight mixer, Stand, rubber Wheels which provide high portability and a motor.



EN 12390-7, 1097-6, BS 1881:114

### MAIN FEATURES:

- This model comes both in electric and diesel
- Available in different capacity

### ORDERING:

#### CN 0127

Drum concrete Mixer 110 ltr

#### CN 0128

Drum concrete Mixer 190 ltr

#### CN 0129

Drum concrete Mixer 242 ltr

#### CN 0130

Drum concrete Mixer 312 ltr

#### CN 0131

Drum concrete Mixer 355 ltr

### TECHNICAL SPECIFICATIONS:

Product code	Dimensions	Weight (approx.)	Drum Capacity
CN 0127	145 x 80 x 125 mm	95 kg	110 ltr.
CN 0128	165 x 80 x 135 mm	120 kg	190 ltr.
CN 0129	175 x 96 x 145 mm	170 kg	242 ltr.
CN 0130	198 x 100 x 150 mm	220 kg	312 ltr.
CN 0131	200 x 100 x 150 mm	355 kg	355 ltr.

## Cylinder Molds



### DESCRIPTION:

The Cylinder Molds are designed to produce accurate specimens while avoiding distortion over the length of the mold.

Made from a reinforced steel construction for added rigidity and long service life.

The edge of the rim is of accurate finish to insure clean specimen results. Each mold is tested for conformity, supplied with an individual certificate.

Several models and sizes available 100X200, 150X300, 160X320mm, available in ring or clamp type.

EN 12390-1; ASTM C78, C293, C39,192

### MAIN FEATURES:

- Durable, corrosion resistant and easy to clean.

### ORDERING:

#### CN 0132

Cylinder mold steel ring type 100x200mm

#### CN 0133

Cylinder mold steel ring type 150x300mm

#### CN 0134

Cylinder mold steel ring type 160x320mm

#### CN 0135

Cylinder mold steel clamp type 100x200mm

#### CN 0136

Cylinder mold steel clamp type 150x300mm

#### CN 0137

Cylinder mold steel clamp type 160x320mm

### TECHNICAL

### SPECIFICATIONS:

	Dimensions
CN 0132 / CN 0135	200x100 mm
CN 0133 / CN 0136	300x150 mm
CN 0134 / CN 0137	360x160 mm

## Plastic Molds

### DESCRIPTION:

Our Plastic Cube and Cylinder Mold is manufactured from rigid high-quality plastic that is weather-resistant and has an unlimited shelf life. Cured specimens can easily be molded from the mold.

### TECHNICAL

### SPECIFICATIONS:

	Dimensions
CN 0142	100x200 mm
CN 0143	150x300mm.
CN 0144	

160x320mm.

	Dimensions
CN 0138	160x160 mm
CN 0139	160x160 mm
CN 0140	110x220 mm
CN 0141	160x160 mm

### ORDERING:

#### CN 0138

Plastic Cube Mold 150mm 1gang-standard density g. 1,200

#### CN 0139

Plastic Cube Mold 150mm 1gang - high density g. 1,700

#### CN 0140

Plastic Cube Mold 100mm. 2 gang

#### CN 0141

Plastic Cube Mold 150mm with steel base and handle

EN 12390-1; ASTM C78, C293, C39,192

### MAIN FEATURES:

- Heavy duty
- Easy to clean



#### CN 0142

Plastic Cylindrical Mold 150x300mm.

#### CN 0143

Plastic Cylindrical Mold 160x320mm.

#### CN 0144

Plastic Cylindrical Mold 100x200mm.



## Beam Molds

EN 12390-1-2, ASTM C39, 192, AASHTO T23, T126

### DESCRIPTION:

Steel beam molds are manufactured by dimensions and tolerances stated in the related standards.

There are two types of ether heavy-duty plastic or steel.

The steel beam molds are made of Two-part and clamp attached base plate steel molds are designed to be durable, resistant and easy to clean.

The heavy-duty plastic beam mold which is much lighter is built to last a long time.



### MAIN FEATURES:

- Heavy duty

### ORDERING:

<b>CN 0145</b> Steel Beam Mold 100X100X400mm	<b>CN 0149</b> Plastic Beam Mold 100X100X400mm
<b>CN 0146</b> Steel Beam Mold 100x100x500mm	<b>CN 0150</b> Plastic Beam Mold 100x100x500mm
<b>CN 0147</b> Steel Beam Mold 150x150x600mm	<b>CN 0151</b> Plastic Beam Mold 150x150x600mm
<b>CN 0148</b> Steel Beam Mold 150x150x750mm	<b>CN 0152</b> Plastic Beam Mold 150x150x750mm

### TECHNICAL SPECIFICATIONS:

	Dimensions
CN 0145 / CN 0149	100x100x400 mm
CN 0146 / CN 0150	100x100x500 mm
CN 0147 / CN 0151	150x150x600 mm
CN 0148 / CN 0152	150x150x750 mm

## Cube Molds and Tamping Rods

EN 12390-2; BS 1881-108; ASTM C157; ASTM C192

### DESCRIPTION:

The cast iron steel cube molds are manufactured from heavy-duty durable material and per the dimensions and tolerances acceptable by the standard.

Each mold is numbered and tested for conformity, supplied with an individual certificate. There are several models and sizes available, 2 parts and 4 parts, 100mm, 150mm, and 200mm.

The Tamping Rod for compacting concrete into cube molds. This rod is made of steel bar it is 25 mm square face x 380 mm long with round side handle

### MAIN FEATURES:

- Durable, resistant and easy to clean.

### ORDERING:

<b>CN 0153</b> Cube Mold 100mm 2 parts
<b>CN 0154</b> Cube Mold 100mm 4 parts
<b>CN 0155</b> Cube Mold 150mm 2 parts
<b>CN 0156</b> Cube Mold 150mm 4 parts
<b>CN 0157</b> Cube Mold 200mm 2 parts
<b>CN 0158</b> Cube Mold 200mm 4 parts
<b>CN 0159</b> Concrete Tamping Rod
<b>CN 0160</b> Concrete Tamping Bar



### TECHNICAL SPECIFICATIONS:

	Dimensions	Parts
CN 0153	100 mm	2
CN 0154	100 mm	4
CN 0155	150 mm	2
CN 0156	150 mm	4
CN 0157	200 mm	2
CN 0158	200 mm	4

Dimensions 25 mm dia. x 380 mm long.



## Curing Tank

### DESCRIPTION:

The Curing Tanks are designed for curing concrete cubes, beams, and cylinders.

The temperature can be adjusted and can be set and maintained to the required value by an electric resistance incorporating as thermoregulator which maintains set temperature between ambient and 65 °C with  $\pm 1$  °C accuracy.

The tank is also supplied with a submersible circulator pump to assure good temperature uniformity and a bottom rack.



### TECHNICAL SPECIFICATIONS:

Product Code	Dimensions	Capacity	Weight approx.
CN 0161	660 mm x 480 mm x 510 mm	12 x 150 mm cubes	20 kg
CN 0162	970 mm x 610 mm x 610 mm	24 x 150 mm cubes	25 kg
CN 0163	1130 mm x 1130 mm x 760 mm	36 mm cubes	60 kg
CN 0164	1550 mm x 805 mm x 820 mm	64 mm cubes	110 kg



EN 12390-2; ASTM C31, C192, C511

### MAIN FEATURES:

- Manufactured from rigid material.
- Adjustable temperature
- Circulating pump for temp uniformity.

### ORDERING:

**CN 0161**  
Small Curing Tank complete

**CN 0162**  
Medium Curing Tank complete

**CN 0163**  
Large Curing Tank complete

**CN 0164**  
Extra Large Curing Tank complete

### ACCESSORIES:

**CN 0161-1**  
Circulating Pump

**CN 0161-2**  
Heater

## Melting pot

### DESCRIPTION:

The Melting Pot is mainly used for the melting capping compound.

The apparatus consists of an aluminum container in a well-lagged steel jacket, lid cover and a thermostatic control heater to adjust the temperature constant as required.

### TECHNICAL SPECIFICATIONS:

Product code	CN 0165
Dimensions	350 x 320 x 290 mm
Weight (approx.)	9 kg
Power	600 W



EN 12390-7, 1097-6, BS 1881:114

### MAIN FEATURES:

- Adjustable thermostat
- Complete with cover.

### ORDERING:

**CN 0165**  
Melting Pot 2.5 ltr

**CN 0166**  
Melting Pot 5 ltr

**CN 0167**  
Melting Pot 9 ltr

## Capping Compound

### DESCRIPTION:

100 kg bag of sulfur-based, flake-form capping compound melts and sets within minutes. The silica-filled compound has 150 psi bond strength, 9000 psi compressible strength, and 605 psi tensile strength. Compound pours between 129 and 143°C. Over-heated material's viscosity is reinstated by decreasing temperature.



### ORDERING:

**CN 0168**  
Capping Compound

### TECHNICAL SPECIFICATIONS:

Strength Compressive	Strength Tensile	Compound pours	Weight approx.
9000 psi	605 psi	265 and 290°F (129 to 143°C)	22.5 kg

## Cylinder Capping Equipment

EN 12390-3 AASHTO T23 AASHTO T126 ASTM C31  
ASTM C192 ASTM C617

### DESCRIPTION:

The Cylinder Capping Frame is used to assure plane and surfaces perpendicular to the axis of the cylinder during the capping.

Built to last the frame comprising vertical supports mounted on a steel base that can be disassembled for easy machining.

The Cylinder Capping is used in conjunction with flake capping compound and melting pot.

The equipment comes complete with: capping frame with one size capping flat to choose from.



### MAIN FEATURES:

- Made from steel, accurately machined.
- Protected against corrosion.

### ORDERING:

#### CN 0169

Cylinder Capping equipment complete with one size capping plate

### ACCESSORIES:

#### CN 0169-1

Capping plate 75mm dia

#### CN 0169-2

Capping plate 100mm dia

#### CN 0169-3

Capping plate 150mm dia specimens

#### CN 0169-4

Capping plate 160mm dia

#### CN 0169-5

Flake Capping compound pack of 100kg

### TECHNICAL SPECIFICATIONS:

Product	Dimensions
Cylinder carriers	50 mm (6"x12"9 and 160x320 mm sizes
Melting pot	internal 200 mm dia.160 mm depth external 285 mm dia.x 275 mm high
Capping plate for concrete blocks	500x300 mm, 20 mm thick
Weight	13 kg

## Steel Retainer Set

### DESCRIPTION:

Steel Retainer Set is used with neoprene pads (sold separately) in unbounded capping for compressive strength testing of Concrete Cylinders.

They hold and confine the neoprene pads, which are placed at each end of the concrete cylinder before testing.

Steel Retainers are constructed of alloy steel, precisely machined to specified dimensions and are plated inside out to resist corrosion.

Bearing surfaces are plane to within 0.002 in (0.05mm). Sold in sets of 2.

### TECHNICAL

#### SPECIFICATIONS:

Specimen Diameter	165 mm
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## ASTM C1231; ASHTO T22

### MAIN FEATURES:

- Rugged alloy steel construction
- Corrosion-resistant plating inside and out
- Plane bearing surfaces

### ORDERING:

- CN 0170**  
Steel Retainer Set 100mm
- CN 0171**  
Steel Retainer Set 150mm
- CN 0172**  
Steel Retainer Set 160mm

## Neoprene Pads

### DESCRIPTION:

Neoprene Pads are available in 50, 60, or 70 durometers for compressive strength testing of concrete cylinders, and meet requirements of ASTM C1231 and AASHTO T 22.

These thick pads flow during compression to fill irregularities in-cylinder ends and assure uniform load distribution.

Two pads are required for testing. Pads are reusable in up to 100 tests and are sold as a pair

### TECHNICAL

#### SPECIFICATIONS:

Specimen Diameter	100X20mm/ 150x20mm/160x20mm
Duro Strength	50 Duro: 1,500-6,000 psi (10-40 mPa)
	60 Duro: 2,500-7,000 psi (17-50 mPa)
	70 Duro: 4,000-7,000psi (28-50 mPa)



## AASHTO T 22,ASTM C1231, AASHTO T22,T851

### MAIN FEATURES:

- Available in three different durometer ratings
- Can be used up to 100 times before replacing

### ORDERING:

- CN 0173**  
Neoprene Pad in 50 Duro 100X20mm
- CN 0174**  
Neoprene Pad in 60 Duro 100X20mm
- CN 0175**  
Neoprene Pad in 70 Duro 100X20mm
- CN 0176**  
Neoprene Pad in 50 Duro 150X20mm
- CN 0177**  
Neoprene Pad in 60 Duro 150X20mm
- CN 0178**  
Neoprene Pad in 70 Duro 150X20mm
- CN 0179**  
Neoprene Pad in 50 Duro160X20mm
- CN 0180**  
Neoprene Pad in 60 Duro160X20mm
- CN 0181**  
Neoprene Pad in 70 Duro 160X20mm

## Concrete bleed water tester

### DESCRIPTION:

Concrete bleed water tester is used for the determination of the relative quantity of mixing water that will bleed from a sample of freshly mixed concrete.

### TECHNICAL SPECIFICATIONS:

Dimensions	Weight (approx.)
290x255x350 mm	6 kg



ASTM C 232 EN 480-4

### MAIN FEATURES:

- Heavy Duty material.

### ORDERING:

**CN 0182**  
Concrete bleed water tester

## Concrete electric masonry saw



### MAIN FEATURES:

- Delta motor starter
- Long life and easy cleaning
- High cutting performance
- Heavy duty water pump, High flow to improve blade cooling

### DESCRIPTION:

The Concrete Masonry Saws is ideal for trimming concrete, asphalt and other specimens to the desired size preparing a sample for testing.

It is designed to work in different cutting length and depth which allows cutting pre-cast concrete and blocks very easy and simple.

The Blade can be adjusted to suit several cutting heights in a single pass.

The equipment comes with a heavy duty belt driven by a high efficiency electric motor mounted on robust chassis and re-enforced based frame.

It comes complete with heavy duty water pump for wet cutting and blade cooling, automatic starter, slide rolling conveyor and movable wheels.

### TECHNICAL SPECIFICATIONS:

Motor Voltage	230 V	230 V	230 V
Max. cutting depth	200 mm	270 mm	420 mm
Net weight	89 kg	128 kg	303 kg
Packaging Dimensions	1214x839x1374 mm	1543x851x1571 mm	1982x1207x1549 mm

### ORDERING:

**CN 0183**  
Concrete electric masonry saw, max 200  
**CN 0184**  
Concrete electric masonry saw, max 270  
**CN 0185**  
Concrete electric masonry saw, max 420

### ACCESSORIES:

**CN 0183-1**  
Saw Blade 200  
**CN 0183-2**  
Saw Blade 270  
**CN 0183-3**  
Saw Blade 420



## Specimen Grinding machine

EN 12390-2, ASTM D4543

### DESCRIPTION:

The Grinding machine is used to grind and polish rock and concrete specimens, natural stones, ceramic materials, etc.

The cube and cylinder specimens can be easily locked on the table and the grinding head, 330 mm dia., can be radially moved either manually or automatically in both directions so, the only manual operation requested is the lowering of the grinding head by the top handwheel.

The machine is supplied complete with a safety chip guard that, when removed, stop automatically the machine, with coolant tank, motor pump and one set of abrasive sectors.

Diamond grinding sectors are available on request.

The machine is supplied complete with a clamping element for 100, 150 and 200 mm cubes. Clamping devices for cylinders and device for the dry grinding procedure is also available on request

The Core face preparation jigs can be easily fitted by the clamping element supplied with the machine.

### MAIN FEATURES:

- To grind concrete specimens, natural stones, tiles, block pavers, ceramic materials etc.
- Large base table for grinding contemporaneously up to three 100 mm cubes, or three 150 mm cubes, or two 200 mm cubes and concrete/tile blocks of various sizes.
- Suitable for cubes up to 200 mm and cylinders up to dia. 160x320 mm

### ORDERING:

#### CN 0186

Specimen Grinding Machine, standard model

#### CN 0187

Specimen Grinding Machine, automatic model

### ACCESSORIES:

#### CN 0186-1

Set of 10 diamond impregnated sectors.

#### CN 0186-2

Accessory to connect an aspirator for drying grinding procedure.

#### CN 0186-3

Clamping device for concrete cylinders from dia. 100x200 mm to 160x320 mm.

#### CN 0186-4

Device for clamping one additional cylindrical specimen from 100 up to 160mm dia

### TECHNICAL SPECIFICATIONS:

Table dimension	775x280 mm
Grinding wheel dia	330 mm
Max vertical daylight	350 mm
Min vertical daylight	145 mm
Max specimen size cubes	200 mm
Max specimen size cylinders	160x320 mm
Grinding head stroke	205 mm
N of grinding segments	10
Grinding wheel speed	1400 r.p.m.
Overall dimensions	1200x1020x1640 mm
Overall weight approx.	350 kg
Automatic cross feed in both directions	
Safety guard with door locking switch conforming to CE	

There are two models available:

Standard model in which the radial displacement of the grinding head is motor operated and actuated by a push-button.

Automatic model in which the radial displacement is fully automatic and controlled by travel limit switches



#### CN 0186-5

Clamping device for concrete cylinders from 50 to 100 mm dia.

#### CN 0186-6

Large base table for grinding contemporaneously up to three 100 mm cubes, or three 150 mm cubes, or two 200 mm cubes and concrete/tile blocks of various sizes.



## Poker Vibrator

EN 12390-2 ASTM C31 C192 AASHTO T23 T126

### DESCRIPTION:

The Concrete Poker Vibrator removes air bubbles and settles concrete quickly and effectively. It's designed to be used in freshly poured concrete, such as slabs, footings, small columns, and masonry blocks.

The powerful vibrations from this compact machine force air bubble out of the concrete, settling it as you watch.

The concrete vibrator can be used vertically, horizontally or at an angle. The 1.5m shaft and rotatable base make it easy to reach the required areas without excessive bending or stooping.

It operates with minimal noise, so you won't need protection during use.

### TECHNICAL SPECIFICATIONS:

Concrete Vibrator	with 35mm dia Vibrating Poker and 1.5m Hose
Item Weight	6.46 Kg
Package Dimensions	70 x 25.4 x 8 cm.

### MAIN FEATURES:

- Easy to use
- lightweight
- Ergonomically designed

### ORDERING:

**CN 0188**  
Vibrating Poker Complete



## Vibrating Table of Concrete

EN 12390-2

### DESCRIPTION:

The Vibrating Table is used to compact concrete materials inside cubes, cylinders and beam molds.

It can deliver the vibrating movement controls by Vibro compacting motor with fixed amplitude.

Vibrating tables consist of vibrating motor, control unit, and clamping assembly.

The table is available in two sizes: 610 x 380 mm and 1260 x 620 mm.



### MAIN FEATURES:

- Achieves maximum density of concrete mixture.
- Manufactured to operate with minimum noise level.

### ORDERING:

**CN 0189**  
Small Vibrating table  
**CN 0190**  
Large Vibrating table

### TECHNICAL SPECIFICATIONS:

Product Code	Dimensions	Weight approx.	Power
CN 0189	380x610x800 mm	52 kg	170 W
CN 0190	620x1260x1200 mm	135 kg	170 W

## Water Absorption

EN 12390-8

### DESCRIPTION:

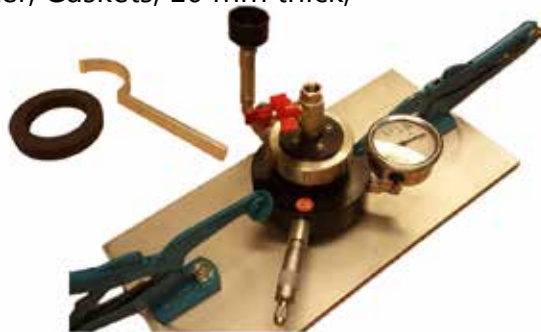
The Water Absorption set measures the penetration of water into the test surface under applied pressure, can be used to determine the water penetration characteristics of alternative concrete mixtures or surface sealers and also for in-place testing to demonstrate the characteristics of the concrete level of permeation.

The water absorption kit comes complete with :

Pressure chamber unit with 0-1.5 bar\* gauge Wrench for pressure lid, Extra 0-6.0, bar gauge, Water filling cup, Adjustable clamping suppliers, Set of anchoring tools, Wrenches: 14 and 17 mm, Sealant tape, Bottles with boiled water, Gaskets, 10 mm thick, Gaskets, 15 mm thick.

### TECHNICAL SPECIFICATIONS:

Wrenches	14 and 17 mm
Pressure chamber unit	0-1.5 bar
Weight	3 kg



### MAIN FEATURES:

- The Water Absorption set is used for on-site evaluation
- Effectiveness of water proofing membranes

### ORDERING:

**CN 0191**  
Water Absorption Kit

### ACCESSORIES:

**CN 0191-1**  
Pressure chamber unit with 0-1.5 bar\* gauge

**CN 0191-2**  
Wrench for pressure lid

**CN 0191-3**  
Extra 0-6.0 bar gauge

## Initial Absorption

BS 1881-208

### DESCRIPTION:

This apparatus is used to assess the surface absorption characteristics of concrete. The rate of flow of water per unit area into a concrete surface when subjected to a constant head of 200 mm is measured.

The unit consists of a capillary tube mounted on a scale, a water reservoir & connecting tubes.

### TECHNICAL SPECIFICATIONS:

Size	200 mm
Material for Construction	Stainless steel, Plastic
Accuracy	+/- 1%

### MAIN FEATURES:

- Easy to use
- Mounted on a stand.

### ORDERING:

**CN 0192**  
Initial Absorption Kit



## Concrete Water Impermeability

EN 12390-8

### DESCRIPTION:

The Concrete Impermeability Apparatus is used for the determining of the depth of penetration of water to hardened concrete specimens under pressure. 3 and 6 specimen capacity models are available.

The system can test 150x150x150 mm, 200x200x200 mm cube or 150x300 mm cylinder specimens. The pressure to the sample, up to 10 bar with 0,2 bar precision is generated by way of compressed air applied to the integral water tank and controlled by a pressure regulator; with a pressure gauge.

The penetration of water is measured through the buttresses supplied complete with the system.

There are two main models available, It can be with or without quantitative measure. The quantitative model allows you to measure water penetration through individual burettes. The system comprises impermeability gaskets for every cell. The measurement apparatus is supplied as standard either in a 3 or 6 sample model.

### MAIN FEATURES:

- Quantitative measurements of water penetration.
- Without quantitative measurements of water penetration.
- Accurate readings.
- High performance clamping system.

### ORDERING:

#### CN 0193

Concrete impermeability apparatus with quantitative measure, for 3 places

#### CN 0194

Concrete impermeability, Without quantitative measure, for 3 places

#### CN 0195

Concrete impermeability, with quantitative measure, for 6 places

#### CN 0196

Concrete water impermeability, Without quantitative measure, for 6 places

### ACCESSORIES:

#### CN 0193-1

Laboratory Air Compressor 15 bar, 380 V 50HZ



### TECHNICAL SPECIFICATIONS:

Dimensions	Weight (approx.)
1400x750x1850 mm	430 Kg

## Crack Detection Microscope

### DESCRIPTION:

The Crack Detection Microscope is a precision apparatus, used for measuring cracks in concrete.

It has its adjustable light source for darkened conditions.

The image is focused by turning a knurled knob on the side and the eyepiece scale can be rotated through 360 degrees to align with the crack under examination.

The 4mm range of measurement is divided into 0.02mm divisions.

The Crack Detection Microscope comes complete with a wooden box

Magnification	40 x
Measuring Range	4 mm
Subdivision	0.02 mm
Dimensions	150x80x45 mm
Weight approx	550 g

### TECHNICAL SPECIFICATIONS:

EN 12390-7 1097-6 BS 1881:114

### MAIN FEATURES:

- It has its own adjustable light source for darkened conditions.

### ORDERING:

**CN 0197**  
Crack Detection  
Microscope



## Ultrasonic Apparatus, Pundit Lab



### DESCRIPTION:

An essential tool for investigating the structural integrity of a wide range of materials. This new generation Concrete Ultrasonic can be used in the laboratory or on-site to investigate uniformity; cavities, cracks, fire/frost damage, delamination, deterioration, and strength.

It has memory storage of up to 100 sets of readings and a built-in RS232 serial port for download of data.

### MAIN FEATURES:

- Measurement performance
- Integrated waveform display
- On-line data acquisition
- USB interface and data analysis software

### ORDERING:

**CN 0198**  
Ultrasonic Apparatus, Pundit Lab

### ACCESSORIES:

**CN 0198-1**  
Transducer 24 kHz (Two required for operation)

**CN 0198-2**  
Transducer 54 kHz (Two required for operation)

**CN 0198-3**  
Transducer 150 kHz (Two required for operation)

BS 1881-203, EN 12504-4; ASTM C597

Supplied with a simple software download utility kit and does not require a reference bar as calibration is done by 'zeroing'. It can calculate and display additional parameters – velocity, pathlength, and Young's Modulus. It can be set to any pulse repetition frequency from 1 to 100 and has a pulse delay mode which allows the user to take readings at specified intervals from 1 per second up to 99 hours.

Pundit Lab consisting of Display unit, 2 transducers (54kHz), 2 BNC cables 1.5 m, couplant, calibration rod, battery charger with USB-cable, 4x AA(LR6) batteries, data carrier with software, documentation and carrying case.



## Construction Scan

### DESCRIPTION:

The Construction Scan is used for Detection and location of different defects in reinforced concrete such as Cells, cavities Foreign inclusions, Cracks, layering, it determines the reinforcement specifications such as Size Occurrence depth, Degree of corrosion, detect the buried wiring, cables and communications lines, the plastic and metal pipelines, the heterogeneities, anomalies and other buried in solid environment (which wood, brick, reinforced concrete, building constructions, soil, etc). It also Discovers the ventilation and communication channels and Detects shelters and covered-up holes.

Construction Scan includes a control processing unit, LCD display, the antenna unit and a power supply unit in one enclosure. The control processing unit provides processing, displaying and saving of the scanning results. The apparatus accumulates information in the internal 2 GB Flash memory card and transfers it to the PC via the USB interface. There is a special marking rug with a bar code for precision 3D scanning of objects.

### ArmScan 3D

Specialized software ArmScan is a new solution for automated location of reinforcement, cables, pipes. The software allows users to build the utilities (reinforcement, pipes, etc) in 3D. the user can locate defects, different anomalies, and other objects.

### MAIN FEATURES:

- All-in-one GPR system
- 5" colour display
- 3D visualization
- Built-in USB interface
- Internal 2 GB Flash memory card
- Detachable SD-card
- Guiding laser
- Data collection grids (3D system)
- Built-in bar code reader
- Quickly-detachable Li-io battery 15V

### ORDERING:

#### CN 0199

Construction scan model 1

#### CN 0200

Construction scan model 2



### TECHNICAL SPECIFICATIONS:

	Model 1	Model 2
Maximum Penetration depth	1 m	0.6 m
Maximum Resolution	3 cm	2 cm
Minimum diameter of detected semiconductor	0.3 mm	0.2 mm
Maximum Rate of penetration	1m/sec	1m/sec
Antenna central frequency	1700MHz	2500MHz
Weight	1.5 kg	1.5 kg
Dimensions	22x17x14 cm	22x17x14 cm
Running time	4 hours	4 hours



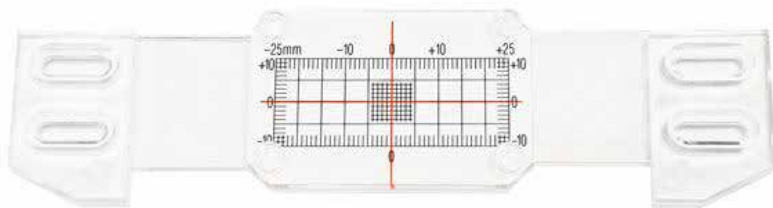
## Crack Meter Angular and Linear

### DESCRIPTION:

Crack meters are used to monitor the progress of surface cracks in structural components and buildings caused by subsidence or mechanical failure.

They are composed of two transparent acrylic resin plates, overlapping and able to move relative to each other.

The upper plate is engraved with a reference cross, while the underlying one is marked with a grid in millimeters, both horizontal and vertical, which can be zeroed along its axes.



### MAIN FEATURES:

- Static monitoring of cracks
- Low risk applications

### ORDERING:

**CN 0201**

Linear crack meters

**CN 0202**

Angular crack meters

### TECHNICAL SPECIFICATIONS:

Linear crack meters quantity	10 pcs
Angular crack meters	5 pcs

## Profoscope

### DESCRIPTION:

The Profoscope uses electromagnetic pulse induction technology to detect rebars. Coils in the probe are periodically charged by current pulses and thus generate a magnetic field.

The Profoscope uses different coil arrangements to generate several magnetic fields.

Advanced signal processing allows

1. Localization of a rebar
2. Localization of the mid-point between rebars.
3. Determination of the cover
4. Estimation of the bar diameter

### TECHNICAL SPECIFICATIONS:

Measuring Range	Up to 185 mm
Cover Measuring Accuracy	$\pm 1$ to 4 mm, depending on cover
Diameter Measuring Range	Up to 63 mm
Diameter Measuring Accuracy	$\pm 1$ rebar size

**BS1881 part 204**

### MAIN FEATURES:

- Designed for single handed operation
- Intuitive icon-based interface for fast operation
- Rugged water-proof construction

### ORDERING:

**CN 0203**

Profoscope



## Profometer 630

BS 1881, Part 204; DIN 1045; SN 505262; SS 78-B4; BS 1881-204



### MAIN FEATURES:

- All features available on the touchscreen unit are also implemented on the PC
- Create custom reports with exported graphs and charts
- Support for the merging of several corrosion scans into a single graph
- Picture and table export (csv files)

### ORDERING:

**CN 0204**

Profometer 630 complete

### DESCRIPTION:

The Profometer 630 is the all-in-one solution for rebar assessment and corrosion analysis which increases productivity for civil engineers and inspection companies in charge of assessing the conformity of concrete cover of a new structure (quality check and fire resistance assessment) or dealing with corrosion analysis on Large elements.

Profometer Link PC tool is included with all Profometer Cover Meter and Corrosion units. It is based on an integrated suite enabling the user to process the data coming from rebar detection / concrete cover as well as corrosion potential measurement. The Profometer units can be connected to the PC via USB and the software is fully compatible

Consisting of Profometer touchscreen, universal probe with ruggedized scan cart, probe cable 1.5 m (5 ft), power supply, USB cable, chalk, DVD with software, documentation, carrying strap and carrying case

### TECHNICAL SPECIFICATIONS:

Cover measuring range	up to 185 mm
Cover measuring accuracy	± 1 to 4 mm, depending on cover
Path measuring accuracy on smooth surface	0.5 to 1.0 % of measured length
Diameter measuring range	Up to 63 mm
Diameter measuring accuracy	± 1 rebar size
Memory Internal	8 GB flash memory

## Resipod Resistivity Meter

AASHTO T 358 Provisional Standard TP 95-11

### DESCRIPTION:

Surface resistivity measurement provides extremely useful information about the state of a concrete structure. Not only has it been proven to be directly linked to the likelihood of corrosion and the corrosion rate, but recent studies have also shown that there is a direct correlation between resistivity and chloride diffusion rate.

ResiPod is a fully integrated 4-point Wenner probe, designed to perform concrete resistivity measurement in a completely non-destructive test. It is the most accurate instrument available, extremely fast and stable and packaged in a robust, waterproof housing designed to operate in a demanding site environment.

Resipod Concrete Resistivity Meter has probe spacing fixed at 38mm as required in AASHTO T 358, or 50mm probe spacing. The wider spacing allows a greater sampling size, but is still narrow enough to avoid interference from reinforcing steel in most cases.



### MAIN FEATURES:

- Easy to use, little training required
- Delivers fast, accurate measurement results
- Wide range of resistance measurement, 1 to 1000 kΩcm
- Dedicated Windows-based software
- Charger connects to standard USB computer or laptop ports

### ORDERING:

#### CN 0205

Resipod resistivity meter complete 38mm Probe Spacing

#### CN 0206

Resipod resistivity meter complete 50mm Probe Spacing

### ACCESSORIES:

#### CN 0205-1

Geometric Accessory (4-Probe Wenner Array Attachment) with adjustable spacing for testing different types of concrete samples and mix designs

#### CN 0205-2

Replacement Foam Contact Pads

#### CN 0205-3

Bulk Resistivity Accessory for measuring resistivity 100 x 200mm concrete cylinders

#### CN 0205-4

Resipod Test Strip to verify performance

### TECHNICAL

### SPECIFICATIONS:

Range	0–1000 kΩcm (depending on probe spacing)
Resolution (nominal current 200μA)	±0.2 kΩcm or ±1% (whichever is greater)
Resolution (nominal current 50μA)	±2 kΩcm or ±5% (whichever is greater)
Frequency	40 Hz
Memory Non volatile	500 measured values
Power Supply	> 50 hours autonomy
Charger connection	USB type B, (5V, 100mA)
Dimensions	197 x 53 x 69.7 mm
Weight	318 g
Operating temperature	0° to 50°C
Storage temperature	-10° to 70°C

## Ultrasonic Pulse Velocity

### DESCRIPTION:

The Velocity of the Ultrasonic waves in concrete is affected by elastic property or strength.

The equipment applies a high voltage and sends it to transit transducer to generate ultrasonic waves. This ultrasonic wave reaches the receive transducer through concrete. When elastic property or strength of concrete is high, the transit time is short. On the other hand, when the materials are contrary, the velocity is low.

The instrument measures the ultrasonic transit time accurately so it makes it possible to evaluate a material or find elastic properties non-destructively to investigate uniformity, cavities, cracks, fire/frost damage, declamation, deterioration, and strength.

It uses 54 kHz concrete transducers which were designed to send and receive ultrasonic signals effectively in highly attentive materials, including concrete, wood, stone, and plastic.

The Ultrasonic equipment contains:

The main machine

A pair of 54 kHz UT Transducer

RG 58 cable with BNC to XTR-9 Connector

Ultrasonic Couplant

Reference Block

Instruction Manual

Portable Aluminum Bag

BS 1881-203, EN 12504-4;ASTM C597

### MAIN FEATURES:

- Excellent accuracy
- Color LCD background changes according to measurement mode
- Perfect in thick and attentive materials
- It is possible to connect 2 to 16 transducers
- Rugged Aluminium case

### ORDERING:

#### CN 0207

Ultrasonic Pulse Velocity

### ACCESSORIES:

#### CN 0207-1

A pair of 54 kHz UT Transducer

#### CN 0207-2

RG 58 cable with BNC to XTR-9 Connector

#### CN 0207-3

Ultrasonic Couplant

#### CN 0207-4

Reference Block



## Mechanical Strain Gauge

BS 1881-206

### DESCRIPTION:

The mechanical strain gauge allows strain measurement to be made at different parts of a structure using a single instrument that comes with a digital gauge.

A fixed conical point is mounted at one end of the bar, and a moving conical point is mounted on a knife-edge pivot at the opposite end. A setting out bar is used to position pre-drilled stainless steel discs which are attached to the structure using a suitable adhesive.

The mechanical strain gauge is available in several sizes 100, 150 200, 250 and 300 mm.

### MAIN FEATURES:

- Manual single axis measurement of change in cracks
- Able to measure distance between two measurement points to a precision of 1 micron.

### ORDERING:

#### CN 0208

Mechanical strain gauge  
100 mm

#### CN 0209

Mechanical strain gauge  
150mm

#### CN 0210

Mechanical strain gauge  
200mm

#### CN 0211

Mechanical strain gauge  
250mm

#### CN 0212

Mechanical strain gauge  
300mm

### TECHNICAL SPECIFICATIONS:

Accuracy	Repeatability
0,001 mm type M 0,01 mm series C	0,001 mm e 0,01 mm





## Concrete Test Hammer

### DESCRIPTION:

The Concrete Test Hammer is the traditional instrument used for the non-destructive testing of hardened concrete. This easy-to-use instrument provides a quick and simple test for obtaining an immediate indication of concrete strength in various parts of a structure.

The verifiable strength is between 5 and 120N/mm<sup>2</sup>

There are four models available:

- Concrete test hammer normal type complete with carrying case, PSI curve, and carborundum stone.
- Concrete test hammer new shape comes complete with carrying case, PSI curve carborundum stone, Plastic grid 30x30 cm, Pencil, Fenolftaleina 100ml, Paper note, Operating manual and Calibration report
- Concrete test hammer digital type comes complete with Abrasion stone, Plastic case for stone, Plastic grid 30x30 cm, Pencil, Fenolftaleina 100ml, Paper note, Operating manual, Calibration report, Rechargeable feeder, Rigid case IP67, Mini portable printer (optional), Android application. Rock test hammer comes complete with Abrasion stone, Plastic case for stone, Plastic grid 30x30 cm, Pencil, Paper note, Operating manual, Calibration report, Rigid case IP67

EN 12 504-2; ENV 206; DIN 1048-2; BS 188-202;  
ASTM C 805; NFP 18-417; B 15-225

### ORDERING:

#### CN 0213

New Shape Concrete Hammer

#### CN 0214

Rock Concrete Hammer

#### CN 0215

Normal Concrete Hammer

#### CN 0216

Digital Concrete Hammer

#### CN 0217

Calibration anvil



### TECHNICAL SPECIFICATIONS:

	Range of Measurement	Impact energy
Rock	10-200 N/mm <sup>2</sup>	0,735 Nm
Normal	5-120 N/mm <sup>2</sup>	2,207 Nm
Digital	5-120 N/mm <sup>2</sup>	2,207 Nm

The test Anvil, on the other hand, is an essential semi-spherical steel block made of hard steel C45 with a diameter of about 150 mm and 150 mm in height. A semi-spherical shape which mirrors the rebound hammer strike piston surface has been created on one of the two flat surfaces.



The shaped surface where the impact occurs is characterized by a surface hardness no less than 52 HRC, the weight of this cylinder is 16Kg ±0.5 in full compliance with reference standards

## Covermeter

### DESCRIPTION:

The covermeter provides rebar location, sizing and cover measurement in a single weather-resistant instrument. For immediate results on-site, the onscreen gauge and audio feedback rapidly pin-point rebar location and orientation.

The Micro Covermeter is a developed model with a newly designed probe believed to incorporate the most accurate depth and bar size determination routines available.

Combined with extremely good resolution of multiple bars, sets the unit apart from others and sets the benchmark for covermeter surveying.

The Covermeter kit comes complete with:

- Probe with integral cable
- Battery charger
- Spare probe sole-plate
- Certificate of Conformity
- Light & tough equipment bag



### MAIN FEATURES:

- Fast, accurate measurement of concrete cover
- Quick, clear indication of rebar location
- Automatic measurement of bar size
- Rapid area scanning for low-cover
- Built-in data logging

### ORDERING:

#### CN 0218

Standard Covermeter kit

### ACCESSORIES:

#### CN 0218-1

Probe with integral cable

#### CN 0218-2

Battery charger

#### CN 0218-3

Spare probe sole-plate

#### CN 0218-4

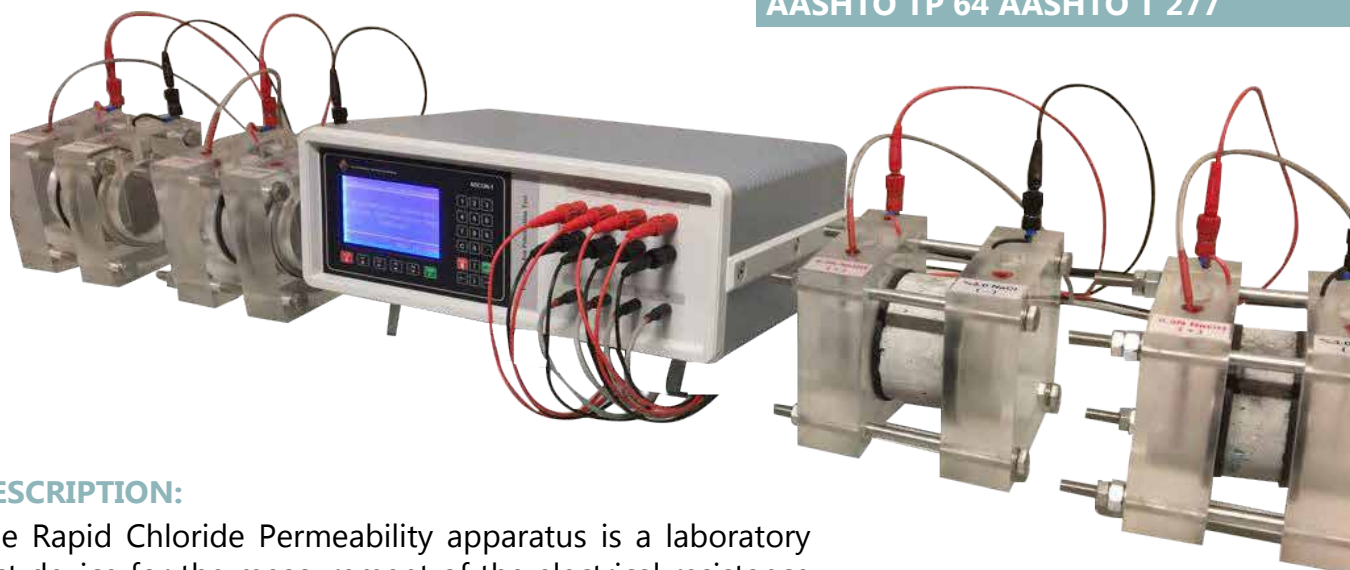
Light & tough equipment bag

### TECHNICAL SPECIFICATIONS:

		Cover Range	Accuracy
Cover measurement		5 mm – 185 mm	± 1 mm up to 60 mm depth ± 2 mm up to 120 mm depth ± 3 mm up to 160 mm depth ± 4 mm over 160 mm depth
Operating Parameters			
Operating Weight (instrument+probe+cable)	800 g		
Battery Operation	20 hrs		

## Rapid Chloride Permeability

ASTM C1202; ASTM C1760; ASTM C1556;  
AASHTO TP 64 AASHTO T 277



### DESCRIPTION:

The Rapid Chloride Permeability apparatus is a laboratory test device for the measurement of the electrical resistance of concrete against the penetration of chloride (RCPT) according to the standard methods such as ASTM C1202, AASHTO T277, and ASTM C1760.

The measurement data can be used to estimate the chloride diffusion coefficient of concrete for the service life prediction and design of concrete structures as well as the durability-based quality control of the concrete.

In concrete materials, the DC electrical resistance of concrete is correlated with important durability parameters of concrete such as chloride diffusion coefficient and the chloride migration coefficient that are used for the durability design or service life design of concrete structures.

The set comes complete with:

- 4 set of test cells ,
- 4 set of temperature sensors
- 4 pairs of test cables
- Power cord
- USB cable
- User manual
- Standard Sample Preparation Package.

### TECHNICAL SPECIFICATIONS:

Testing up to	4 cells simultaneously
Voltage settings in 5 V increments	5 to 60 VDC

### MAIN FEATURES:

- Digital Readout and logging system
- Stand alone operation
- Easy-to-assemble
- Accurate ( $\pm 0.1$  mA)
- Flexible logging interval time (1 to 10 min)
- Four measurement channels

### ORDERING:

**CN 0219**  
Rapid Chloride Permeability test set

### ACCESSORIES:

- CN 0219-1**  
Test Cell
- CN 0219-2**  
Stainless Steel Mesh - Pair
- CN 0219-3**  
Sample Prep Package
- CN 0219-4**  
Rubber Gasket Cast – Pair
- CN 0219-5**  
Test Cable Set
- CN 0219-6**  
Temperature Sensor

## Carbonation Depth Determination

EN 13295 ; UNI 9944

### DESCRIPTION:

Carbonation is a precursory condition for corrosion, which will take place when there are oxygen and water present. Preventing carbonation is the only possible way of preventing the decay of a reinforced concrete structure. therefore carbonation test is used to establish the depth of carbonation.

The test is based on collecting the powder, after analysis of the powder, making use of the chemical color change of phenolphthalein.

### TECHNICAL SPECIFICATIONS:

Hole Depth	40 cm
Hole Diameter	10 mm
Phenolphthalein: Sensitivity	pH 8.3 to pH 10.0
Dimensions	390x340x140 mm
Weight approx.	3 Kg

Kit is complete with:

- 1 no. picker to collect the powder.
- 25 no. test tubes
- 1 no. measuring ruler
- 1 no. bottle of 1% solution of phenolphthalein
- 1 no. Pasteur pipette
- 1 no. cartridge
- 1 no. block of survey sheets



### MAIN FEATURES:

- Innovative, easy to use and portable.

### ORDERING:

**CN 0220**  
Carbonation Depth Determination kit.

### ACCESSORIES:

- CN 0220-1**  
1 no. picker to collect the powder.
- CN 0220-2**  
25 no. test tubes
- CN 0220-3**  
1 no. bottle of 1% solution of phenolphthalein
- CN 0220-4**  
1 no. Pasteur pipette
- CN 0220-5**  
1 no. cartridge
- CN 0220-6**  
1 no. block of survey sheets

## Rebar Pull Out Force Test

ASTM C1583/D4541/D7234/D7522, ISO 4624/16276-1, BS EN 12004-2, AS/NZS 1580.408.5

### DESCRIPTION:

The Apparatus is used for determining the bond strength between anchored reinforcing steel bar (rebar) and concrete and for checking anchorage performance in-situ.

Digital Readout Unit connected to a 30 tons capacity hydraulic jack and hand pump provides 1 % sensitive load or tensional strength value readings.

The Digital Rebar Pull-Out Force Tester has a steel hydraulic cylinder. For ease of handling.

The apparatus is supplied complete with three different jaw sets which allow the user to test anchorage rebar with different diameters. These jaws are made of high strength steel. The three-jaw sets are for 4-8 mm, 10-20mm and 20-32mm dia. rebars.

### ORDERING:

**CN 0221**  
Rebar Pull Out Force Test complete

### ACCESSORIES:

**CN 0221-1**  
Jaw set



## Rebar Pull Out Force Test

ASTM C1583/D4541/D7234/D7522, ISO 4624/16276-1, BS EN 12004-2, AS/NZS 1580.408.5



### TECHNICAL SPECIFICATIONS:

Working ability	30 tons
Rebar diameters can be tested	Up to 32 mm
Tension journey (stroke)	50 mm
Dimensions	205x175x175 mm
Weight (approx.)	28 kg



## Bond Strength/Pull Off Test Digital

ASTM C1583/D4541/D7234/D7522, ISO 4624/16276-1, BS EN 12004-2, AS/NZS 1580.408.5

### DESCRIPTION:

Bond Strength Pull off tester is used to measure the adhesion of coatings to metal, wood, concrete.

It measures the force required to pull a specified test diameter of coating away from its substrate using hydraulic pressure.

The pressure is displayed on a precision digital indicator and can be related to the strength of adhesion to the substrate.

There are 2 models available Manual Hydraulic pump with:

Digital Read-out, Automatic Electronically controlled Hydraulic pump with Digital Read-out

### MAIN FEATURES:

- Portable requires no external power source
- Can be used in any position
- Self-aligning dolly enables accurate measurements on smooth or uneven surfaces
- Sealed USB port for fast, simple connection to a PC



## Bond strenght/pull off test digital

ASTM C1583/D4541/D7234/D7522, ISO 4624/  
16276-1, BS EN 12004-2, AS/NZS 1580.408.5

The Bond Strenght Pull off tester comes complete with all accessories.

Ordering guide	50 mm Kit	50 x 50 mm Tile Kit (BS EN 12004-2)	50 mm C1533 Kit (ASTM C1583)
Typical application	Lower bond strength coatings on wood, concrete and plastic	Cementitious adhesive for tiles	Concrete surfaces and overlays
Manual model with protective case	0.4 – 3.3 MPa 50 – 480 psi	0.4 – 2.585 MPa 50 – 375 psi	0.4 – 3.3 MPa 50 – 480 psi
Automatic Models with protective case	0.4 – 3.8 MPa 50 – 560 psi 100 – 7550 N	0.4 – 3.033 MPa 50 – 440 psi 100 – 7550 N	0.4 – 3.8 MPa 50 – 560 psi 100 – 7550 N
Typical Application	Lower bond strength coatings on wood, concrete and plastic	Cementitious adhesive for tiles	Concrete surfaces and overlays
Included Dollies	Ø50 mm (qty 8) Aluminum	50 x 50 mm Plate (qty 4) with threaded post Steel	Ø50 mm (qty 4) with >25 mm thickness Steel
Cutting Tool	50 mm hole saw	-----	50 mm diamond grit hole saw with arbor
Adhesive	ResinLab EP11HT 2-Part Epoxy	ResinLab EP11HT 2-Part Epoxy	ResinLab EP11HT 2-Part Epoxy

### ORDERING:

#### CN 0222

Adhesion Tester Manual Model 50 mm kit

#### CN 0223

Adhesion tester Automatic Model 50 mm kit

#### CN 0224

Adhesion Tester Manual Model 50X50 mm  
(BS EN 12004-2)Tile Kit

#### CN 0225

Adhesion Tester Automatic Model  
50X50 mm (BS EN 12004-2)Tile Kit

#### CN 0226

Adhesion Tester Manual Model  
50 mm C1533 Kit

#### CN 0227

Adhesion Tester Automatic Model  
50 mm C1533 Kit

### ACCESSORIES:

#### CN 0222-1

Dollies Ø50 mm

## Column Load cell

ASTM E74 CLASS A EN 10002-3 CLASS 2

### DESCRIPTION:

The high accuracy column load cell is designed for use in applications where precise compression measurement of mid to high loads and forces is required.

The majority of high accuracy canister load cells that we manufacture are used as reference standards for the calibration or verification of other force transducers and testing machines such as compression testers.

The high accuracy column load cell can be supplied with a calibration certificate issued by a UKAS laboratory or the National Physical Laboratory (NPL) if required.



### MAIN FEATURES:

Capacities 500 KN  
to 3000 KN

### ORDERING:

#### CN 0228

Column Load Cell 500

#### CN 0229

Column Load Cell 1000

#### CN 0230

Column Load Cell 2000

#### CN 0231

Column Load Cell 3000

### TECHNICAL SPECIFICATIONS:

Weight (approx.)

3kg

## Handheld Load Cell Indicator

### DESCRIPTION:

The handheld load cell indicator is a high-resolution handheld load cell indicator designed to work with all types of load cell and strain gauge based transducer.

The handheld load cell indicator's dual-range facility allows for calibration in two different engineering units, i.e. Newton and kg. Alternatively, it is possible to calibrate two separate load cells or sensors with a single handheld load cell indicator display.

### TECHNICAL SPECIFICATIONS:

	Weight	Depth	Height
Dimensions	90 mm	34 mm	152 mm



### MAIN FEATURES:

- Portable for On-Site Monitoring
- Simple to Use
- Calibrate 2 Individual Load Cells

### ORDERING:

#### CN 0232

The Handheld Load Cell Indicator

#### CN 0233

The Wireless Handheld Load Cell Indicator

## Compressometer

### DESCRIPTION:

Concrete Compressometers are used to determine the deformation (both axial and diametrical) of concrete cylinder specimens during the compression test.

There are 4 different models available for Ø4"x8" or Ø100x200 mm cylinders, Ø6"x12" or Ø150x300 mm.

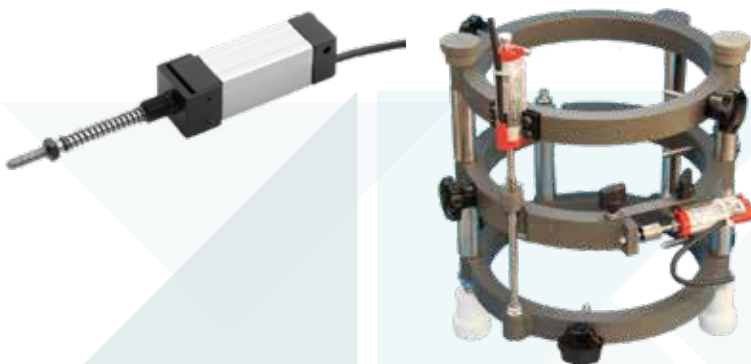
The apparatus work in conjunction with a Data Logger ordered separately.

Compressometer Ø4"x8" or Ø100x200 mm cylinders comes complete with 2 transducers.

Compressometer Ø6"x12" or Ø150x300 mm cylinders comes complete with 2 transducers.

Compressometer Ø4"x8" or Ø100x200 mm cylinders comes complete with 2 dial gauge.

Compressometer Ø6"x12" or Ø150x300 mm cylinders comes complete with 2 dial gauge.



### TECHNICAL SPECIFICATIONS:

Weight (approx.)
1kg

### ASTM C469

### ORDERING:

#### CN 0234

Compressometer Ø100x200 mm with 2 transducers.

#### CN 0235

Compressometer Ø150x300 mm cylinders with 2 transducers.

#### CN 0236

Compressometer Ø100x200 mm cylinders with 2 dial gauge.

#### CN 0237

Compressometer Ø150x300 mm cylinders with 2 dial gauge.

### ACCESSORIES:

#### CN 0234-1

Digital dial Gauge

#### CN 0234-2

LVDT displacement and position transducer

#### CN 0234-3

Data Acquisition 4 Channels

#### CN 0234-4

Data Acquisition 8 Channels

#### CN 0234-5

Connection wires

## Concrete Embedded Strain Gauge

### DESCRIPTION:

The Concrete-embedded Strain Gauge is designed to measure shrinkage and stress of cement and concrete materials.

The Strain Gauge is connected to the Datalogger using the thermocouple wire.

There are several forms and shapes of a strain gauge that can be ordered, please consult with our sales team for available options.

### MAIN FEATURES:

- Strain Gauge for Static and Dynamic Applications
- Very Flexible, Mechanically Strong
- Broad Temperature Range

### ORDERING:

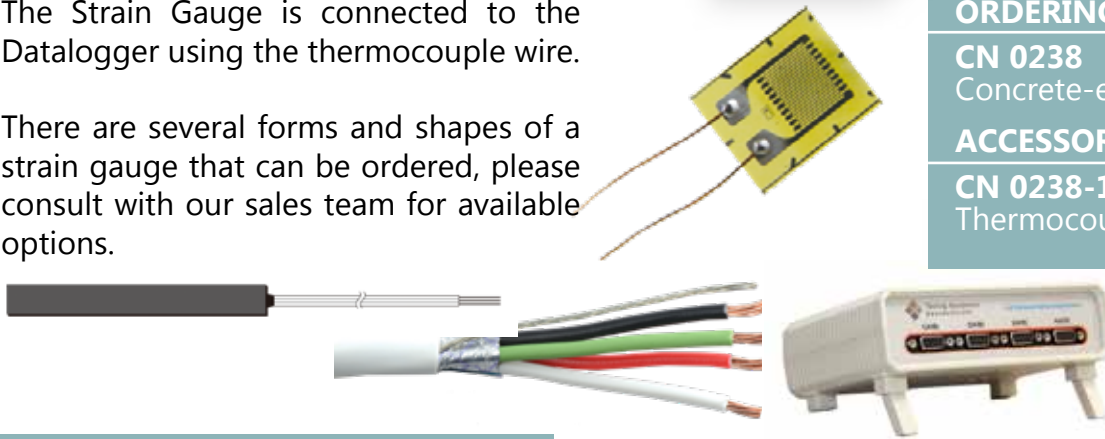
**CN 0238**

Concrete-embedded Strain Gauge

### ACCESSORIES:

**CN 0238-1**

Thermocouple wire



## Compression Testing Machine

EN 12390-3, 4, 5, 6; EN 12504-1, 1354, 1521, 13161, 1338, 1340, 196, 772-1, -6, 13286-41, BS 1881 3892-3, 187, 6073-1, 6717 ASTM C39

### DESCRIPTION:

The Compression Testing Machine is a very common testing method that is used to establish the compressive force or crush resistance of a material and the ability of the material to recover after a specified compressive force is applied and even held over a defined period of time by measuring fundamental variables, such as, strain, stress, and deformation.

There are several models and capacities available for the compression test machine designed to meet the need for reliable and consistent testing of concrete samples.

Ranging from Full automatic or Semi-automatic, hydraulic controlled or servo-controlled. Designed to meet all standards requirements, BE, EN, ASTM.

Our range of compression machines vary from 1500 KN up to 5000 KN compression capacity.

The compression frame can be purchased separately or with a hydraulic or servo-controlled power pack.

The Control Power Pack, in turn, can be connected to another frame, such as a flexural machine or another compression machine. Additional accessories such as distance pieces, Printer connection, software, block testing assembly, rail.

### MAIN FEATURES:

- Designed for reliable and consistent testing of a wide range of specimens.
- User-friendly design enable an inexperienced operator to perform the test.





# Compression Testing Machine

EN 12390-3, 4, 5,6; EN 12504-1, 1354, 1521, 13161, 1338, 1340, 196, 772-1, -6, 13286-41, BS 1881 3892-3, 187, 6073-1, 6717 ASTM C39

## TECHNICAL SPECIFICATIONS:

Product Code	CN 0239-CN 0249	CN 0240-CN 0250	CN 0241-CN 0251	CN 0242-CN 0252	CN 0243-CN 0253
Capacity	1500 kN	2000 kN	3000 kN	4000 kN	5000 kN
Standard	EN 12390-4	EN 12390-4	EN 12390-4	EN 12390-4	EN 12390-4
Lower Platens Dimensions	Ø300 mm	Ø300 mm	Ø300 mm	Ø300 mm	Ø300 mm
Upper Platens	Ø300 mm	Ø300 mm	Ø300 mm	Ø300 mm	Ø300 mm
Maximum vertical clearance between platens	340 mm	340 mm	340 mm	520 mm	520 mm
Piston Diameter	300 mm	300 mm	350 mm	400 mm	420 mm
Maximum piston movement	50 mm	50 mm	50 mm	100 mm	120 mm
Horizontal Clearance	385 mm	385 mm	445 mm	495 mm	515 mm
Maximum working pressure	280 Bar	280 Bar	310 Bar	315 Bar	350 Bar
Frame	CN 0259	CN 0260	CN 0261	CN 0262	CN 0263
Power Pack	CN 0269/ CN 0270	CN 0269/ CN 0270	CN 0269/ CN 0270	CN 0269/ CN 0270	CN 0269/ CN 0270
Dimensions Frame	630x660x1090 mm	630x660x1090 mm	735x670x1140 mm	805x710x1370 mm	865x640x1555 mm
Dimensions Power Pack	370x400x920 mm	370x400x920 mm	370x400x920 mm	605x455x1015 mm	605x455x1015 mm
Weight Frame	1030 kg	1030 kg	1800 kg	2350 kg	3150 kg
Weight Power Pack	85 kg	85 kg	85 kg	150 kg	150 kg

Product Code	CN 0244-CN 0254	CN 0245-CN 0255	CN 0246-CN 0256	CN 0247-CN 0257	CN 0248-CN 0258
Capacity	1500 kN	2000 kN	3000 kN	4000 kN	5000 kN
Standard	ASTM C39	ASTM C39	ASTM C39	ASTM C39	ASTM C39
Lower Platens Dimensions	Ø300 mm	Ø300 mm	Ø300 mm	Ø300 mm	Ø300 mm
Upper Platens	Ø300 mm	Ø300 mm	Ø300 mm	Ø300 mm	Ø300 mm
Maximum vertical clearance between platens	370 mm	370 mm	370 mm	520 mm	520 mm
Piston Diameter	300 mm	300 mm	350 mm	400 mm	420 mm
Maximum piston movement	50 mm	50 mm	50 mm	100 mm	120 mm
Horizontal Clearance	385 mm	385 mm	445 mm	495 mm	515 mm
Maximum working pressure	280 Bar	280 Bar	310 Bar	315 Bar	350 Bar
Frame	CN 0264	CN 0265	CN 0266	CN 0267	CN 0268
Power Pack	CN 0269/ CN 0270	CN 0269/ CN 0270	CN 0269/ CN 0270	CN 0269/ CN 0270	CN 0269/ CN 0270
Dimensions Frame	630x660x1090 mm	630x660x1090 mm	735x670x1140 mm	805x710x1370 mm	865x640x1555 mm
Dimensions Power Pack	370x400x920 mm	370x400x920 mm	370x400x920 mm	605x455x1015 mm	605x455x1015 mm
Weight Frame	1030 kg	1030 kg	1800 kg	2350 kg	3150 kg
Weight Power Pack	85 kg	85 kg	85 kg	150 kg	150 kg

The full automatic models come with a complete automatic test cycle, a closed-loop digital readout unit. Once the specimen parameters have been introduced, it is sufficient to press the START button to complete the test.

Full automatic compression machines consist of their main parts: Frame, power pack and data acquisition control system.

The compression machines consist of a heavy-duty frame, 4 columns or welded type, depending on the standard required. connected to the automatic hydraulic power pack with data acquisition and digital control system.

The digital control system Button type or touch screen models are also available, depending on the user preference.

The Full automatic compression machine can be fully controlled and operated from a PC connected directly to the machine. A small printer's connection is also available for a quick printout.



## Compression Testing Machine

EN 12390-3, 4, 5,6; EN 12504-1, 1354, 1521, 13161, 1338, 1340, 196, 772-1, -6, 13286-41, BS 1881 3892-3, 187, 6073-1, 6717 ASTM C39

### DESCRIPTION:

The dual stage power pack which controlled by the control system is designed to supply the required oil pressure to the frame.

The Semi-automatic models come with a complete valve controlled test cycle, There are two valves on the oil tank. One valve is the pacing rate control valve. It is used for controlling the pacing rate. When you push it forward, the pacing rate increases fast.

To make fine-tuning, the top valve is turned clockwise to increase the load in a small amount or counter-clockwise direction to decrease.

The Semi-automatic compression machines consist of their main parts: Frame, power pack with valve control and digital readout unit.

The valve control power pack is designed to supply the required oil pressure to the frame. The very silent power pack can load specimens between 1KN/sec to 20KN/sec. On all power packs, the maximum pressure valve is used to avoid machine overloading.

The very silent power pack can load specimens between 1KN/sec to 20KN/sec. On the dual-stage pump, a high delivery low-pressure pump is used for rapid approach and delivery high-pressure radial piston pump is used for test execution. On all power packs, the maximum pressure valve is used to avoid machine overloading.

The Servo controlled hydraulic pack is an advanced system that can very accurately control the speed loading rate.

The user has full control of the load cycle before or during the test. In a way that you can set the machine preplanned cycle or change speed, even hold the load during the test cycle for a period of time.

The servo-controlled hydraulic system comes complete with a digital touch screen control system and data acquisition that can send the result either by blue tooth, email, printout or save.



## Compression Testing Machine

EN 12390-3, 4, 5,6; EN 12504-1, 1354, 1521, 13161, 1338, 1340, 196, 772-1, -6, 13286-41, BS 1881 3892-3, 187, 6073-1, 6717 ASTM C39

### MAIN FEATURES:

- Pace rate control from 0.01 kN/s to 100kN/s (depend on the specimen stiffness)
- Extra channels for displacement transducers, extensometers, etc. built in the system as an addition to frame loadcell (pressure transducer) or displacement transducer
- Ethernet port for connecting to computer
- 240x320 pixel LCD digital display, Touchscreen operator panel, Can control 2 frames
- Can execute load, displacement or strain controlled tests.
- Free of charge PC software for test control and advanced report printout
- Multiple language support
- Real time clock/date

### ORDERING:

#### CN 0239

Full Auto Compression Machine, 1500KN, EN

#### CN 0240

Full Auto Compression Machine, 2000KN, EN

#### CN 0241

Full Auto Compression Machine, 3000KN, EN

#### CN 0242

Full Auto Compression Machine, 4000KN, EN

#### CN 0243

Full Auto Compression Machine, 5000KN, EN

#### CN 0244

Full Auto Compression Machine, 1500KN, ASTM

#### CN 0245

Full Auto Compression Machine 2000KN, ASTM

#### CN 0246

Full Auto Compression Machine, 3000KN, ASTM

#### CN 0247

Full Auto Compression Machine, 4000KN, ASTM

#### CN 0248

Full Auto Compression Machine, 5000KN, ASTM

#### CN 0249

Semi Automatic Compression Machine, 1500KN, EN

#### CN 0250

Semi Automatic Compression Machine, 2000KN, EN

#### CN 0251

Semi Automatic Compression Machine, 3000KN, EN

#### CN 0252

Semi Automatic Compression Machine, 4000KN, EN

#### CN 0253

Semi Automatic Compression Machine, 5000KN, EN

#### CN 0254

Semi Automatic Compression Machine, 1500KN, ASTM

#### CN 0255

Semi Automatic Compression Machine, 2000KN, ASTM

#### CN 0256

Semi Automatic Compression Machine, 3000KN, ASTM

#### CN 0257

Semi Automatic Compression Machine, 4000KN, ASTM

#### CN 0258

Semi Automatic Compression Machine, 5000KN, ASTM

#### CN 0259

Frame 1500KN, EN

#### CN 0260

Frame 2000KN, EN

#### CN 0261

Frame 3000KN, EN

#### CN 0262

Frame 4000KN, EN

#### CN 0263

Frame 5000KN, EN

#### CN 0264

Frame 1500KN, ASTM

#### CN 0265

Frame 2000KN, ASTM

#### CN 0266

Frame 3000KN, ASTM

#### CN 0267

Frame 4000KN, ASTM

#### CN 0268

Frame 5000KN, ASTM

#### CN 0269

Full Automatic Hydraulic Power Pack, Rapid approach pump, data acquisition and control system, Digital display, pressure transducers sensors. The unit can be used for 2 frames.

#### CN 0270

Semi Automatic Power pack, variable output pump, Rapid approach pump, pressure transducer, digital readout unit.

#### CN 0271

Full Automatic Servo Hydraulic Power Pack, Rapid approach pump, data acquisition and control system, Digital display, pressure transducers sensors. The unit can be used for 4 frames.

### ACCESSORIES:

#### CN 0239-1

Distance Piece 20mm

#### CN 0239-2

Distance Piece 30mm

#### CN 0239-3

Distance Piece 50mm

#### CN 0239-4

Distance Piece 90mm

#### CN 0239-5

Distance Piece 100mm

## Block Test Platens Sliding

EN 772-1, 12390-4, BS 6073-1

### DESCRIPTION:

The Block Platens 460x280x65 mm with Sliding Rail Assembly are installed on the compression testing machines for testing concrete blocks and other structural materials. The Sliding Rail Assembly allows the platens to be easily installed without removing the existing compression platens. This assembly should be factory installed.

Block Platen Lifting Assembly is used for easy removal of the lower platen and easy replacement of the distance pieces between the piston and the lower platen without lifting the heavy platform or causing injury.

### TECHNICAL SPECIFICATIONS:

Dimensions	Weight (approx.)
500x300x150 mm	175 kg



### ORDERING:

- CN 0272**  
Block Test Platens
- CN 0273**  
Block Test Platens  
Sliding Rail Assembly
- CN 0274**  
Lifting mechanism

## Splitting Tensile Device

EN 1338, EN 12390-6, ASTM C 496

### DESCRIPTION:

The Splitting Tensile Device consists of two column steel frame with a self-centering base specimen holder and an upper load beam suspended with springs for easy adjustment of the specimen. The devices can be easily placed on the lower platen of the compression tester using suitable distance pieces to adjust the vertical daylight. The device have to be completed with the packing strips to be inserted between the specimen and the load beams.

CN 0275 is used for splitting tensile tests on cylindrical specimens. CN 0276 is used for splitting tensile tests on concrete block pavers and concrete cubes.

For both models, the max total height is 370 mm. The 370 mm vertical daylight can easily obtain removing the lower platen of the compression tester.

### TECHNICAL SPECIFICATIONS:

	Dimensions
Cylindrical Specimens	Ø150x300 mm / Ø160x320 mm
Concrete Block Pavers	60-150x220 mm
Concrete Cubes	150x150 mm

### ORDERING:

- CN 0275**  
Splitting Tensile Test Device for  
cylinders, Ø150x300 mm and  
Ø160x320 mm
- CN 0276**  
Splitting Tensile Test Device for  
Concrete Block Pavers , 60-150  
mm height x 220 mm length
- CN 0277**  
Splitting Tensile Test Device for  
Cubes, 150x150 mm





## Flexural Test Equipment

EN 1338, 1339, 1340, 1341, 1343, 13748-1, 13748-2, 12390-5, 12390-6; BS 1881; ASTM C78, C293, C496

### DESCRIPTION:

The Flexural test equipment is used to test flexural strength of concrete beams, kerbs, interlocking pavers, flagstones and blocks of different sizes.

The flexural test equipment ranges from 100 kN to 300 kN capacity, it has been designed for reliable and consistent testing due to its heavy steel fabrication and design.

The flexural test equipment comes in two types of frames, the U type and the C type frame. Both very rigid design is ideal either for a conventional flexural test or for more sophisticated tests such as deformability and ductility index.

### MAIN FEATURES:

- 2 different designs
- 4 different capacities
- Safety limit switch for 100 or 120 mm piston stroke
- High accuracy load measurement with strain gauge load cells
- Accept a wide range of assemblies to satisfy all tests
- Can be connected to compression machine or power pack

The Flexural machines feature the complete automatic test cycle with a closed-loop digital readout. Once the specimen parameter has been introduced, it is sufficient to press the START button to complete the test.

The Flexural Frame can be connected to any Geotechnical compression machine as a second frame or can be used individually with any power pack as an independent Flexural Machine.

Flexural test assemblies should be ordered separately.

- Bearers for flexure test on flagstones and kerbs to EN 1339 and 1340. Consist of two lower rollers of 20 mm dia. x 600 mm length and upper load point of 40 mm dia with ball seating
- Bearers for flexural test on concrete blocks Consist of two lower rollers and one upper roller of 20 mm dia. x 600 mm length
- Bearers for flexural test on concrete beams of 100x100x400-500 mm, 150x150x600-750 mm. Consist of two upper rollers and two lower rollers of 40 dia and 160 mm length. Complying to EN 12390-5 and ASTM C78.

The distance of the lower bearers can be adjusted between 100mm and 800mm. The distance between upper bearers can be set to 100mm or 150 mm.

During the 3 point Flexural testing one of the bearers can be removed and the other placed in the centre.

### TECHNICAL SPECIFICATIONS:

Max. Vertical Clearance	425 mm (without accessories)
Max. Horizontal Clearance	650 mm
Max. Clearance Between Lower Rollers	900 mm
The Distance Between The Center of The Piston to The Side of The Frame	320 mm
Overall Dimensions	1000x950x1250 mm
Weight (approx.)	425 kg

## Flexural Test Equipment



EN 1338, 1339, 1340, 1341, 1343, 13748-1, 13748-2, 12390-5, 12390-6; BS 1881; ASTM C78, C293, C496

### ORDERING:

#### **CN 0278**

Flexural Testing Machine, 100 kN capacity U Type Frame

#### **CN 0279**

Flexural Testing Machine, 150 kN capacity U Type Frame

#### **CN 0280**

Flexural Testing Machine, 200 kN capacity U Type Frame

#### **CN 0281**

Flexural Testing Machine, 300 kN capacity U Type Frame

#### **CN 0282**

Flexural Testing Machine, 100 kN capacity C Type Frame

#### **CN 0283**

Flexural Testing Machine, 150 kN capacity C Type Frame

#### **CN 0284**

Flexural Testing Machine, 200 kN capacity C Type Frame

#### **CN 0285**

Flexural Testing Machine, 300 kN capacity C Type Frame

#### **CN 0269**

Full Automatic Hydraulic Power Pack, Rapid approach pump, data acquisition and control system, Digital display, pressure transducers sensors. The unit can be used for 2 frames.

#### **CN 0270**

Semi Automatic Power pack, variable output pump, Rapid approach pump, pressure transducer, digital readout unit.

#### **CN 0271**

Full Automatic Servo Hydraulic Power Pack, Rapid approach pump, data acquisition and control system, Digital display, pressure transducers sensors. The unit can be used for 4 frames.

### ACCESSORIES:

#### **CN 0278-1**

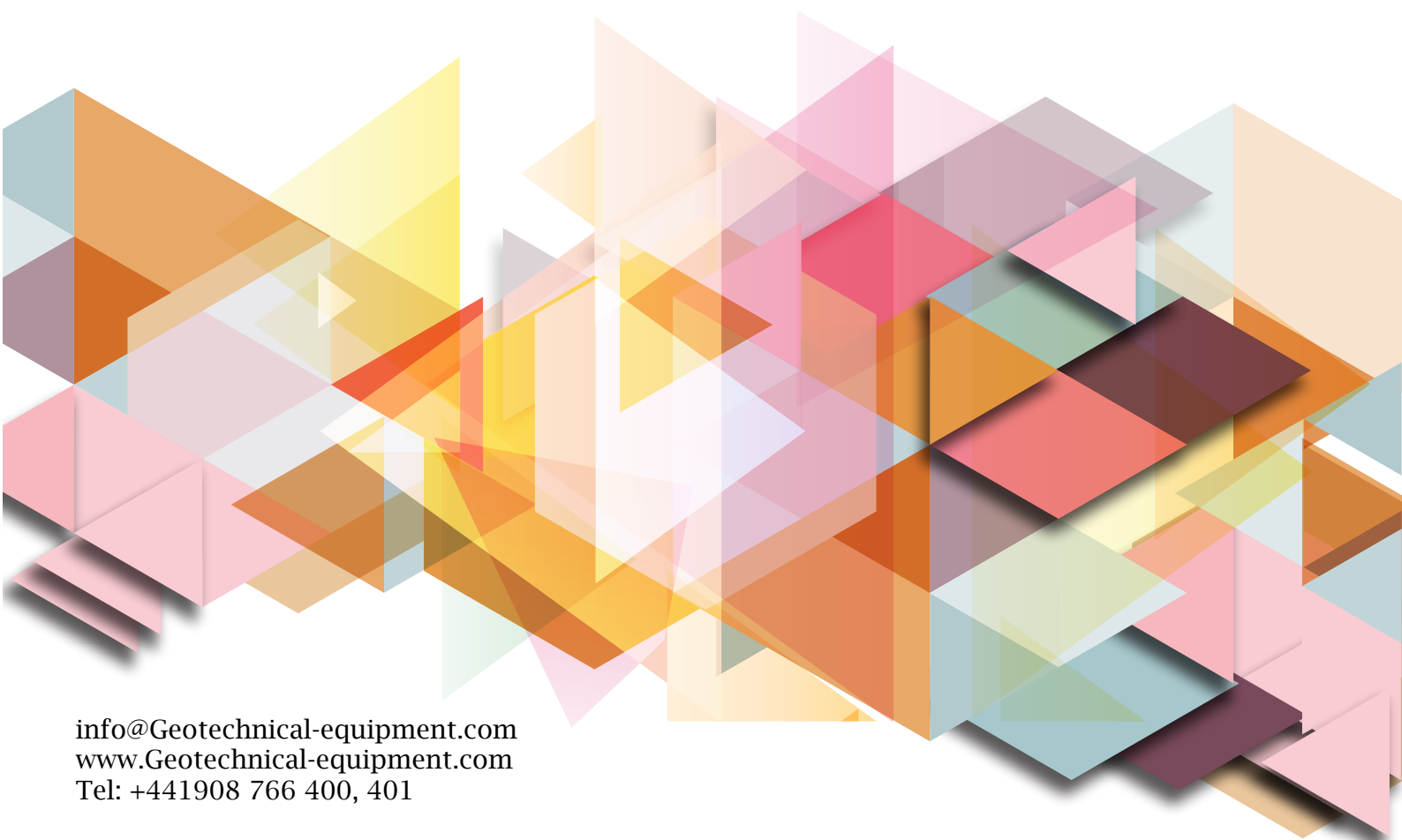
Bearers for flexure test on flagstones and kerbs

#### **CN 0278-2**

Bearers for flexure test on concrete blocks

#### **CN 0278-3**

Flexural Test assembly on Concrete Beams



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