

Auto Level

What does the AL series offer? The AL series available in the AL 32 auto level and the AL 24 auto level, both models come equipped with an air damped automatic compensator, has a x32 or a x24 magnification depending on the model.



DCP (Dynamic Cone Penetrometer)

- The Dynamic Cone Penetrometer is very useful for the testing of soil compaction and testing of the soils strength attributes of penetrability.
- The DCP test is used on-site for soil density tests; no samples need to be taken to a laboratory.
- The Dynamic Cone Penetrometer finds its application in geotechnical investigations to obtain information on the physical properties of soil and rock around a site to design earthworks and foundations for proposed structures and for repair of distress to earthworks and structures caused by subsurface conditions.
- The DCP test is used to measure the resistivity of soils or backfill materials required for underground transmission lines, oil and gas pipelines.
- The DCP is an in-situ tester to determine CBR of soil; it is a yardstick for the cell-tower site preparation as well as for trenching and laying of fibre-optical cables.



Schmidt Hammer

Schmidt type hammer is used in testing the strength of concrete. It assesses the rebound hardness of concrete (*elasticity of concrete*) and is directly related to the compressive strength of concrete such as that of which is obtained in a Lab test using a *Concrete Compressive Cube Press*.



Slump Cone

The concrete slump cone set is a sort of empirical test that measures the consistency of a batch of concrete, this usually refers to how well the concrete flows as wet concrete is much more workable than drier concrete.

To perform the slump test:

- 1) Place a base plate (600mmx600mm and about 3mm thick) on a level surface,
- 2) Place the slump cone on to this platform, and using the scoop fill the slump cone with 3 layers of fresh concrete.
- 3) Each layer should be tamped 25 times with a steel tamping rod (600mm with a rounded tip). After the last layer is tamped remove any excess concrete with the rod until the concrete is level with the slump cone.
- 4) The cone is then lifted and the concrete slumps and a measurement of the difference between the bottom of the slump cone and the top of the concrete slump is then measured to get the slump of the concrete. The slump may take one of 3 forms '**true slump**' (*the concrete keeps its shape*), '**shear slump**' (*the slump shears off and slips sideways*) and '**collapsed slump**' (*the slump collapses onto itself*). **Only a 'true slump' sample will be of any use in a test;** in the event that a '*collapsed*' or '*shear slump*' is achieved the test should be repeated. Each set includes the following.

- Slump cone
- Base plate
- Tamping rod
- Scoop
- Ruler



Cube Moulds

The purpose of the test Cube Mould is to pour 'Ready MIX' concrete inside at the construction site and take samples of the quality of the fresh poured concrete. It is practice making it in lots of threes. One for the Client, one for consulting engineer and lastly for the constructor.



The blocks are dried out and then afterwards, are cured in a curing bath first for seven days and then for an additional twenty-eight days.

It is then taken to a cube press and crushed to see the MPA or KN. All our cube moulds are made from the highest quality materials for guaranteed ruggedness and durability



Mining LED - Solar Traffic Lights -- Construction LED Robot

- Application: Opencast and Open Pit mines
- These LED Solar Robot traffic lights are specifically designed to control traffic in congested areas of the mines.
- The LED lights are highly visible for more than 200 meters at night and under dusty conditions!
- The structure is very light, very durable and it comes standard with a 2.8 metre pole with the solar panel atop (see picture)
- Most of the components are locally manufactured and assembled.
- Production time: two-to-six weeks.
- Infrared and RF controllers are also available.

Specifications

- 200mm diameter
- LED Light Source with 500000-100000 hrs continuous operation
- 12/24V DC Operation or 110/230V AC
- Available with either a Manual or Automatic Robot Controller @extra cost
- Available in a Solar powered version for either 12- or 24-hours continuous operation @extra cost
- Available in various combinations (Red – Green or Red – Amber – Green)

• LED Robots

LED Traffic Signals

LED Traffic Lights

The RT traffic signal lights are very durable and clearly visible on a mine or industrial property.

RT agencies supply the traffic signal lights in RED, GREEN AND AMBER OR RED AND GREEN.

RT controllers are either manual with infrared triggers or semi-automatic RF controllers.

Infrared Thermometers

An infrared thermometer is able to measure the thermal radiation that is emitted by an object. If the amount of radiation emitted along with emissivity of the object is known, it is possible to determine the temperature of the object.

We supply Infrared Thermometers in a varied range as follows:



DT8250 (-50°C to 250°C)
Accuracy: $\pm 2\%$ or 2°C
Distance Spot Ratio 1:1
recommend 8-10cm



DT8750 (-50°C to 750°C)
Accuracy: $\pm 2\%$ or 2°C
Distance Spot Ratio 12:1



DT8000 (-50°C to 1200°C)
Accuracy: $\pm 2\%$ or 2°C
Distance Spot Ratio 16:1

Leeb Hardness Tester THL210

Tool used to test hardness of varying surfaces.

Converts to all common hardness scales (HV; HB; HRC; HRB; HRA; HS)



Building Material Moisture Meter

Portable moisture measurement tool for concrete, masonry, brick. Does not damage the testing surface. Accurate measurements up to 20mm depth with working range of 0.1-65% Dependant on the surface.



Leica DISTO™ X3

Designed for tough, rugged conditions



The rugged Leica DISTO™ X-series combines innovative measuring technologies with a site-proof design and simple user interface. Together with the Leica DST 360, the X-series can be turned into a powerful 3D capturing station.



Leica DISTO™ X310

The original laser distance meter

Robust multifunctionality! The new Leica DISTO™ X310 is the only laser distance meter to be dust-tight and protected against water jets – to IP65. In addition, it passes drop tests of up to 2 m height. Thanks to the integrated tilt sensor, it can take indirect distance and height measurements absolutely precisely.

Featured with:

- IP65 water jet protection and dust-tight
 - 360°tilt sensor
 - Smart Horizontal Mode™
 - Height tracking Power Range Technology™
 - Illuminated 4-line display
 - Automatic multifunctional end-piece
- Leica DISTO™ X310 – guarantees reliable measurements, even under the harshest conditions*



Geo-Fennel Geo6X SP Red Kit & Geo-Fennel Geo6X SP Green Kit

Multi-functional for versatile levelling jobs

Features:

- 3 x 360°-Laser lines - form 6 laser crosses -
- Laser lines switchable separately
- Plumbing Function Laser plane distance to wall/ceiling min. 12 mm
- Magnets at the front and side for connection to dry wall track
- Use with receiver (optional)
- Self-levelling function can be locked for manual use (inclined applications)
- 5/8" & 1/4" connection at the instruments bottom
- The Geo6X can be operated with both battery box and Li-Ion battery

Supplied with:

- 4 x Alkaline batteries
- Magnetic target
- Softbag

