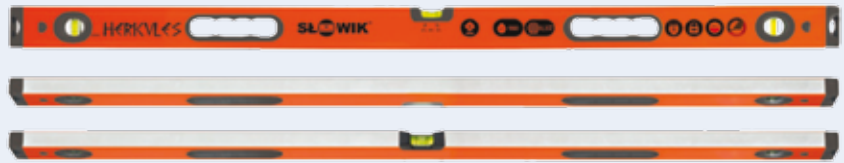




Measuring tools & equipment

One of the most common tools on construction sites are levels, used to measure the grade of the area or to take correct measurements of walls, elevation, floor, etc. Construction sites require a significant amount of precision when it comes to measuring. A level is used to measure the area accurately. Measurements can be done horizontally, vertically, or at an angle. It is an essential tool and there is a broad selection of levels available on the market today. With the various models, types and prices how to determine which level to use for a particular job?

The type of the level depends on the particular job. Firstly we can distinguish between levels for exteriors and interiors works. Exterior works often require larger levels or laser levels, which are used to determine the area. For interior works, basic spirit levels are the most common. Spirit level has



Slowik Level 'Herkules'

a tube mounted in the centre with an air bubble to check the horizontal levels, while some have additional tubes for checking angles too.

Examples of uses of level for exterior works

Site layout for a new foundation - any new site plan or foundation required the adequate measurements based on the structural engineering drawings- carpenter level

Shooting the grade for footer, foundation, excavation, drainage - laser level

Laying drainage - laser levels help to estimate the degree of slope and to lay the drainage in a way it will adequately channel the excess water

Levelling the elevation - to identify the horizontal and vertical levels

Sewage layout - often used to estimate the degree of pipe fall

Patios, paths and driveways - used to check the measurements and accurate levels

Bricklaying

Examples of uses of level for interior works

Floor installation, Dry lining, Door and window installation, Plastering, and many others

What type of level to purchase?

Depending on the application's requirements there are available levels with various cross-sections and wall thicknesses. The spirit level is mostly powder coated, painted or anodised. Below are some of the most common level measurement tools:

Anodised levels - made from an aluminium profile of section, with highly impact-resistant plastic plugs and acrylic indicators.

Painted levels - made from an aluminium profile of section, powder painted surface in orange, highly impact resistant plastic plugs. Weight 650g/m. Accuracy: 0,017=0,3 mm/m, for instance:



Slowik Level 'Atena' - stronger profile, height 50mm, used mainly for tiling, dry lining and other light construction jobs. It had the restricted slide thanks to pattern surface. Accuracy 0,3mm/m and grade 2%.

Slowik Level 'Herkules' - stronger profile, height 60mm, used mainly for levelling footers and foundation works (for lengths of 200cm and 240cm), for measuring of patios, terraces, pathways, bricklaying and other general building works

Electronic levels - made of aluminium profile of section, highly impact resistant plugs, acrylic indicators, silver colour anodised surface, Weight Accuracy: 0,017=0,3 mm/m

Traversing rules - made of an aluminium profile of section, highly impact-resistant plastic plugs. Accuracy: 0,057=1,0mm/m, weight 911 g/m

It is used in various construction and surveying works. Different models are available. Some of the rectangular cross section or with an integrated one or two vials, horizontal and vertical, so it is also possible to use the tool as a level.

Folding traversing rules - made of an aluminium profile with highly impact-resistant plastic plugs. Weight: 911 g/m, Accuracy: 0,057=1,0 mm/m Used for skin coat levelling.

Trapezoid floating rules - made of an aluminium profile highly impact-resistant plastic plugs. Weight: 840 g/m or 1070 g/m. Used for skin coat levelling, designed for smoothing gypsum plasters.

H-type floating rules - made of an aluminium profile highly impact-resistant plastic plugs. Weight:



Tool for string line level (PDM31) - designed to easier and quicker installation of string line level. It saves time (within year it saves up to nine working days in comparison to traditional method when string level is tied to the wooden stake.)

972 g/m or 700g/m. With the H-shaped cross section. Used for skin coat levelling, designed for smoothing gypsum plasters.

Angle Gauges - made of an aluminium profile highly impact-resistant plastic plugs. With acrylic indicators, some models with integrated voids. Accuracy: 0,0057=1,0 mm/m. Used to check the angles (bricklaying, plastering, tiling, dry lining, etc.)

Angle gauges twist - place the gauge in position, rotate the arms into position, and the angle will then be accurate. With integrated voids. Cross-level-used to level the surface correctly

Road building angle gauge - made of an aluminium profile highly impact-resistant plastic plugs. Silver colour anodised surface. Used for construction of pathways, driveways, patios, etc.

Masonry

Levelling T-bar - made of an aluminium profile highly impact-resistant plastic plugs. Silver colour anodised surface. Used for checking and measuring the angle (walls, floors, corners, etc.)

Optical surveyor's level with tripod - land surveyor kit

Telescopic measurement rule - telescopic rule is designed for measuring the widths and heights of openings. Easy to use- place the telescopic rule in position, pull out the extending sections and read the measurement.

Distance meter laser - used to measure distance and estimate an area, quickly measure difficult to access areas, like high ceilings, can be used outdoors and indoors, LCD display for measurements. Allow measurement with a millimetre accuracy.

Spirit level - Vials allow defining slopes (for pipes), horizontal and vertical levels. Spirit levels are one of the oldest tools used in construction. Vial consists of a barrelled glass or plastic tube, with two marking lines, containing a transparent liquid. When the level is correct, the bubble will come to rest between the two marked lines. There are several types of the vial to measure exact horizontal, vertical and different angles. Available in compact sizes can be used to measuring fence posts, plumbing pipes

