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LASER DISTANCE MEASURER

A Laser Distance Meter or Measurer sends a pulse of laser light to the target and measures the time it takes for the reflection to return. For distance upto 30 m., the accuracy is +3 mm. On-board processing allows the device to add, subtract, calculate areas and volumes and to triangulate. One can measure distances at a distance. A Laser Distance Meter has speed, accuracy, safety, versatility, convenience and functionality.

Basic Principles: A Laser Distance Meter sends out a finely focused pulse of light to the target and detects the reflection. The meter measures the time between those two events and converts this to a distance. The formula is simple: Distance = A (Speed x Time). However the speed of light is 300,000 kms. per second , so to resolve differences of (say) 1 cm, the meter must measure time intervals of the order of billionths of a second.

Advantages: A Laser Distance Meter is accurate to within a few millimeters, certainly equaling a tape for larger distances, and the line is always dead straight. One has a choice of units, and there is no risk of misreading, as with the intermediate marks on a tape. The Laser distance Meter is much faster; just it should be pointed to the target, clicked and the result will be displayed. The job is done in just a fraction of the time it would take to use a tape.

One doesn't need to walk to and fro, needs a helper at the other end. What is more, it can be used with one hand, leaving the other free to hold the notebook. With a backlit display and the laser dot itself, it can be used in poor lighting conditions. There is no need to wait until morning or to rig up lights. Any obstacles on the ground such as pipes or cable do not pose any hindrances. If there is a line of sight to the target, and it is within range, one can very quickly find out exactly how far away it is. For the same reason, one can measure upwards without climbing – to a ceiling or to the top of a building. So, the Laser Distance Meter brings safety benefits as well. There is no need to climb up ladders or even steep wet surfaces to get a measurement. These safety and versatility benefits are particularly valuable in hazardous environments and there will be occasions when one would not be able to do the job at all with a tape. Only a Laser Distance Meter will do.

Conclusions : A Laser Distance Meter is accurate and quick and requires only one person and one hand. It's easy to use and versatile. Laser distance Meters have on-board processing enabling the device to triangulate and calculate – the Pythagoras principle is laid in it .

Different Parts of a Laser Distance Measurer



