

7 Questions to ask before you buy a Laser Distance Meter (LDM)

Written by Hugh.Baertlein on September 18th, 2014

I've done a ton of renovation work on a house that was built in the 1880s. Every square inch has been rebuilt with a cellar full of power tools that I use almost every weekend.

I remember the day it occurred to me how many cheap, broken tools I've tossed.

I'm an engineer. As much as I hate to perpetuate the stereotype, I normally don't part with a buck unless I've done my homework and in this case it was obvious that the dog ate my homework.

Now I spend the extra couple of bucks to buy a tool that will last.

I've been working in measurement technology for almost 25 years, and 12 of those have been with Laser Distance Meters (or Laser Distance Measurers) aka LDMs. When people ask, "What is the best laser measure?" I tell them to ask the following questions to narrow down the choices:

1. **Do you measure outside?**

If you work outside an optical scope or digital point finder is a must.

Without a scope or a point finder you can see a laser point at a maximum distance of about 30 feet on a bright day. Chances are, if you are measuring outside, 30 feet isn't going to cut it.

A sighting scope – similar to a range finder on an old fixed lens camera – was the technology we first used to solve the outdoor use problem as far back as the first DISTO, and there are still LDMs with optical scopes on the market today.

Leica Geosystems has moved on to 4x zoom digital point finder technology similar to the zoom function on a digital camera. The cross hairs on the LCD display are precisely calibrated with the laser, so you know that you are measuring to the point you want when you put it in the crosshairs whether you can see the laser point or not.

2. **Are you using design software?**

If you create sketches or work in programs like Autodesk or Chief Architect, there are mobile apps you can use to create detailed plans on site. Some, like our free DISTO Sketch App, enable you to overlay measurements on photos you take with your mobile device.

Bluetooth-enabled LDMs transmit precise measurements to these apps in real time, as you take them. We hear from interior designers, Building Information Modelers, and design architects who tell us that this technology has cut the time it takes to build an accurate floor plan in *half*.

Yes, sometimes Bluetooth LDMs are the more expensive, top-of-the line models. But, what is your time worth? If you cut your measuring time in half while getting accurate measurements the first time, how long would it take before you are in the black on a \$500 or \$800 investment? With new entry level LDMs, you can get an LDM with Bluetooth for under \$150. Bluetooth is a "must-have" for me.

3. Are you replacing another measuring tool?

If you use a measuring wheel or a long tape, think about the measurements that take the most time or are the most difficult to get and select a measuring tool that solves the problems you struggle with the most.

For example, on many active construction sites, it can be difficult to get a level horizontal distance from point A to point B simply because there are materials stacked up against the wall and/or people and machinery in the way.

An LDM with a tilt sensor measures the angle and distance of the shot to subtract down to the level horizontal distance to your target. That means you can shoot over pallets, people or whatever else is in the way and still get the measurement you need.

That's a lot easier, and a lot safer, than climbing over stuff or dodging man lifts with a tape measure in your hand.

4. How much time do you spend measuring every week?

This is all about return on investment: How much time do you spend walking around dragging a tape or a ladder to take a measurement?

What if you didn't have to do that anymore and you got more accurate measurements to boot? How would you better use that time?

Did you have a bad experience with sonic "laser tape" or other cheap product?

You are not alone. A few years ago a supplier who shall remain nameless flooded the market for the holiday season with a cheap sonic distance estimator that had a laser pointer built in "for Dad".

As the name implies, a sonic device bounces sound off an object to get a rough distance. These things are just not accurate, and pairing it with an "aiming laser" convinced a lot of people that LDMs are a gimmick.

5. What accuracy do you need?

Accuracy really isn't an issue if you get a tool from a reputable company. Look for an ISO 16331-1 (International Standards Organization) certified tool.

Tools with ISO certs cost a little more, but they cost way less than an engineered beam that is cut 1" too short thanks to a low budget LDM.

6. What range do you need?

Again, look for an ISO certified tool. This is about comparing apples with apples. Many things influence accuracy and range – the top two are ambient light and target color.

An ISO certified tool gives you a specification that you can count on, not a spec that is achievable only in perfect measurement conditions.

Those are the key questions to ask about any LDM. In my next post, I'll get into what makes Leica LDMs unique.



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