

# Why You Need a Moisture Meter

It can save you lots of money—and grief!

**ARE YOU A SCROUNGER?** Always looking for a deal? Self-reliant? Those words fit a lot of woodworkers, particularly those who search for unusual or inexpensive sources of wood. Once you stray from a lumberyard, there's one tool you really ought to have: a moisture meter.

A moisture meter, as you probably know, measures the percentage of water in a piece of wood, or moisture content (MC for short). When freshly cut, a piece of hardwood is quite wet, having an MC anywhere from 50% to 160%, depending on the species. When fully dried, the wood's MC usually is 6% to 11%, depending on where you live. That's a huge range! You can't figure out MC merely by looking at or handling a board; the most practical way is to use a meter.

Why does MC matter? As a piece of wood dries, it also shrinks, like a sponge. But unlike a sponge, it doesn't shrink uniformly. It can bow, twist or kink in a variety of ways. When you build a piece of furniture meant for indoor use, you want the wood to be thoroughly dry, so all that shrinking and warping has already taken place.

When you buy wood at the lumberyard, you can be pretty sure that it's dry enough to use right away (although a moisture meter is handy to confirm this). But if you come across a stash in a barn or a pile in somebody's basement, or if you cut your own wood, you'll want a moisture meter to tell you what state it's in now. If it's too wet, you can easily dry it further by stacking it in your shop or house and just letting it sit for a while. The moisture meter will tell you when it's ready to work.

## What type to buy?

There are two types of meters: pin and pinless. A pin meter has a pair of sharp probes that you push deep into the wood. A pinless meter has a sensing plate that you hold against the wood's surface.

The beauty of a pinless meter is that it can quickly scan a whole board without putting holes in the wood. However, the entire sensing plate must contact



the wood's surface. If the board is too rough or too warped, you won't get an accurate reading. (A few swipes with a block plane can make a surface that's flat enough, though.) Here's another limitation: You won't get a good reading from the edge of a 4/4 (1") board, because the sensing plates of most meters are too large. This factor makes it awkward to use a pinless meter on boards stacked in a pile. You have to unstack the pile and take readings from the faces of each board.

Pin meters, on the other hand, can take readings on virtually any piece of wood. The board doesn't have to be flat, smooth or a minimum size. All that's required is that both pins make contact with the wood. Unlike pinless meters, pin meters can take readings on the edges of 4/4 boards stacked on top of each other.

If you dry your own wood, pin meters have another advantage: They allow you to connect to remote probes. You can drive nails into a sample board in a stack of lumber, connect the nails to the meter with a couple of wires and monitor the wood as it dries.

So should you buy a pin or pinless meter? If you tend to buy surfaced stock and can't bear the thought of poking holes in expensive lumber, then a pinless meter is probably your best bet. If you buy rough stock, dry your own wood, use wood thicker than 2" or have a weakness for piles of rough lumber languishing in some old barn, a pin meter is for you. 🐿



For more information on buying a moisture meter, go to [AmericanWoodworker.com/WebExtras](http://AmericanWoodworker.com/WebExtras)