



EXPLORING DELMHORST'S CATALOG:

Navigator[™] Moisture Meters



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JX-20 & 30:

Moisture Detection for Woodwork, Lumber Processing & Hardwood Flooring

For professional woodworkers, there's rarely a bigger concern than unmanaged moisture levels. Wood that is too wet or too dry, even by a small percentage, is prone to movement and shrinking. No matter how high-grade the lumber you use or how good your woodworking equipment is, moisture alone can determine whether lumber is usable or not.

That's why the pros know that moisture meters are an essential tool to have. Using these devices, woodworkers can determine whether the wood they're working with is suitable at each step of a woodworking project.

Without the use of a quality moisture meter, a woodworker can only estimate moisture level – an inadequate method when you need to guarantee a quality final product. The problems that incorrect moisture levels introduce into your workflow mean that you can't depend on "eyeballing it."

Problems Caused by Unacceptable Moisture Levels in Wood

Failing to monitor the moisture content in lumber leads to a wide variety of issues that negatively impact the final product. If wood is too wet, it may be prone to:

- Shrinking after it's been processed.
- Warping, which is what happens when the wood dries out and causes the finished product to change shape.
- Developing mold or other microorganisms that damage wood and potentially cause health and safety issues.

On the other hand, wood that is too dry can also cause a host of issues:

- Wood that is too dry may swell when installed in an area with higher relative humidity.
- Doors made out of wood that is too dry may swell and stick within their frame.
- Wood that suddenly dries out can split, which, in addition to being aesthetically displeasing, may cause safety issues.
- Over-drying wood can make it brittle and cause it to lose structural integrity.

The pros know they need reliable moisture meters to do the job right and avoid these problems with the final product. Choosing the right one for your industry and applications is an important consideration. Is a pin-type meter right for your job, or would a pinless one be better? This article is the first in a series highlighting some new moisture meters from Delmhorst Instrument Co. and their use cases.



How Moisture Meters Check Moisture Content

Before you learn about some of those models, here's a quick rundown of how the two types of moisture meters work. Whichever type you choose, they both let you know whether a given piece of lumber is too wet or too dry.

Moisture meters use either a small electrical current or an electromagnetic sensor to get a reliable reading of the moisture content in lumber. As mentioned above, there are two primary types of moisture meters: pin-type meters (conductivity) and pinless meters (capacitance). Regardless of which model you choose, both effectively measure moisture content at every step of a woodworking project.

The pins in a pin-type moisture meter are inserted directly into the wood. An electrical current then runs between the pins, and the resistance to that current allows the meter to calculate the moisture content of the wood.

Pinless meters have a sensor that's placed on the wood's surface. An electromagnetic wave is then used to assess the moisture level.

What is considered an acceptable or target moisture level depends on a range of factors, including how the final product will be used and in which type of climate. Professional woodworkers will know the equilibrium moisture content (EMC) for where they are working and where the final product will end up.

Introducing the Delmhorst Navigator™ JX-20 and JX-30 Moisture Meters

At the IWF (International Woodworking Fair) in August 2022, Delmhorst introduced two exciting moisture meters in the new Navigator™ family, the JX-20 and JX-30. These models bring lumber, woodworking, and flooring professionals and inspectors two more professional-grade, accurate, and versatile tools to combat moisture issues.

Thanks to their new designs, both the JX-20 and JX-30 are incredibly intuitive and simple to use. Their large, dashboard-like display is backlit, which helps in the uneven lighting conditions that woodworkers often face. Contrast and brightness can be adjusted to suit your needs.

While previous models required more of a learning curve, the JX-20 and JX-30 are easier to navigate. They both group together all the features you need as you test wood moisture content, making everything easy to find and use.

With the JX-20 and JX-30, you can use the probes and electrodes you already have from previous Delmhorst meters. As each industry utilizes specific electrodes, the appropriate ones for your application still need to be used. But if you're upgrading from an older meter and still have electrodes or probes in good working order, the JX-20 and JX-30 can use them.

Both the JX-20 and JX-30 have essential features for accuracy and convenience, including:

- Seventy-four wood species included.
- Wood temperature correction (°F/°C).
- Alarm set point that alerts the user to a pre-selected moisture content level.
- Internal calibration check.
- "Low battery" warning with audio.
- An auto-off timer that can be set to 1 minute, 4 minutes, or 10 minutes.

The JX-30 is compatible with the Delmhorst *EDGE™* app with access to 123 additional wood species on top of the standard 74, as well as customizable settings. One of the great features of the *EDGE™* app is the ability to share information from any location. Statistical data collected with the meter can be sent to an email or spreadsheet for easy recordkeeping.





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BDX-20 & 30:

Moisture Meters for Water Damage Restoration and General Contracting

In this chapter, you'll see how moisture meters are put to use by water damage restoration service providers and general contractors to ensure the highest quality end result is achieved in any project.

The Challenges of Water Damage Restoration

After a flood or any other situation where excessive water has damaged a home or building, restoration techs need to act quickly. Understanding the extent of water damage is the first step toward successful restoration. Time is not on your side. Restoration professionals depend on moisture meters to quickly make an accurate initial assessment of water damage as well as to monitor progress throughout restoration efforts.

Moisture meters streamline the restoration process as the information provided by the meters helps you focus restoration work where it's needed the most, potentially saving thousands of dollars in repair costs. At the same time, the excess moisture left behind after a flood has cleared leaves a home or other building prone to mold, mildew, and bacteria. Contractors rely on moisture meters during and after flood cleanup and remediation work to ensure that building structures are properly dried.

Some components of a building structure can be challenging to assess for water damage, as they're in tight spaces or not well-lit. These can include:

- Basement walls
- Flooring
- Building foundations
- The space between layers of drywall and insulation
- Surfaces beneath carpet or tile
- Masonry

Moisture meters can be used on most parts of a structure, making them an integral element of the damage assessment process. Restoration experts and general contractors must use a high-quality moisture meter so they can be sure they're getting the most reliable readings.

How Moisture Meters Check Moisture Content

Before diving into the specifics of the moisture meters best suited for water damage restoration, let's briefly review how these meters work to provide industry professionals with critical information about the moisture content of various materials. Moisture meters use a small electrical current or an electromagnetic sensor to accurately read the moisture content of wood, drywall, and other materials. The two primary types of moisture meters are pin-type meters and pinless meters. Both effectively measure moisture content, but deciding which one to use will depend on the needs of a particular job.

Pin-Type Moisture Meter

The electrode pins in a pin-type (conductance) moisture meter are inserted directly into the material. An electrical current runs between the pins, and the resistance to that current allows the meter to calculate the moisture content.

Pinless Moisture Meter

Pinless meters (capacitance) have a sensor that's placed on the material's surface. An electromagnetic wave is used to assess the moisture level.

What is considered an acceptable or target moisture level depends on various factors, such as the climate in which the structure is located. Pros working on water restoration and flood damage repair jobs will know the equilibrium moisture content (EMC) for where they work and be able to assess when water-damaged material has returned to an appropriate moisture level.

Introducing the Navigator™ BDX-20 & BDX-30

Water damage restoration service providers and general contractors alike agree that the Navigator™ BDX-20 and BDX-30 from Delmhorst Instrument Co. are the premier moisture meters available today for this type of work. As the first meters to be released in the Navigator™ family, they both offer the impressive feature set of the BDX series, including:

- Quantitative %MC readings - perfect for measuring moisture in wood and drywall
- Relative readings (as relative wetness or dryness) – ideal for measuring qualitative moisture levels in concrete, plaster, and other hygroscopic building materials

The Navigator™ BDX-20 and BDX-30 work with the probes and electrodes from your previous models, making them a cost-effective purchase. Keep in mind that each application uses specific electrodes and probes. As long as you already have the correct industry-specific electrodes and probes on hand, however, you can put them to use with the BDX-20 and BDX-30.

Thanks to new developments in moisture meter design, models in the Navigator™ series are incredibly user-friendly and simple to use. The features of both BDX series models include:

- A large, custom display with an auto backlight that's easy to read under all conditions
- 3 measurement scales: 6%-60% wood (Douglas Fir); 0.1%-6% drywall; 0-100 reference scale
- Wood temperature correction (°F/°C)
- Audio and visual alerts at a user-set moisture content level
- On-screen statistics: High, Low, Average, Standard Deviation, and View All Readings
- Internal calibration check
- Pins/electrode correction (insulated or non-insulated)



Plus, the BDX-30 is compatible with the *EDGE™* app with Bluetooth connectivity. The *EDGE™* app features unlimited data storage for different readings and an expanded catalog of wood species. It also enables you to gather data collected on the meter and share it via email or spreadsheet.

As restoration work is often done in uneven lighting conditions, the large lighted displays on both the Navigator™ BDX-20 and BDX-30 make each ideal for water damage restoration. The displays feature a simple and intuitive dashboard layout that has earned the Navigator™ series a reputation as the gold standard in building trades moisture meters. Adjustable contrast and brightness features ensure the display lighting is always perfect, no matter your job site.



3

FX-20 & 30: Moisture Detection Solutions for Hay

Next, let's discuss moisture levels in hay production and storage. Delmhorst's upcoming release of two new moisture meters for agriculture will reduce losses and enhance profitability for both hay and livestock producers.

Uncertain Markets Emphasize Quality Management Values

A series of events caused hay production prices to skyrocket through 2022. Fluctuations in oil prices led to a rise in diesel fuel prices, escalating the costs involved in hay harvesting and transportation. At the same time, fertilizer costs doubled from 2021 levels, adding more expenses to the hay grower budget. In response, the price of hay per ton rose by as much as \$250 over 2021 prices. Both hay producers and their customers absorbed those added costs.

As a result, it's more crucial than ever for industry professionals to focus on protecting their hay product investments by appropriately preserving its quality until consumption. Delmhorst's soon-to-be-released FX-20 and FX-30 hay moisture meters will provide them with cutting-edge tools to ensure product stability and reduce the risk of loss due to mold or mildew development.

Ensuring High-Quality Hay

Two factors will determine the relative quality of hay:

Accurate Testing Procedures

Procedures for testing moisture levels differ when the hay is in a windrow or a bale:

- The moisture level of loose hay in a windrow is measured by packing as much of it as possible into a five or 10-gallon drum, then testing it after several repacking efforts. The functional moisture level will be the average of those repacks.
- Measuring the moisture level in hay bales requires several penetrations of the bale using extended-length probes. The bale size determines the probe length, and the moisture level is the average level indicated by those penetrations.

Accurate Moisture Levels

Too little or too much moisture in pre- and post-baled hay can cause several issues, which will reduce the quality and desirability of the product.

Not enough moisture within the hay often means its nutritional value failed to develop while still in the field. Drought conditions can prevent the plant from producing seeds and/or leaves, each of which provides critical nutrients for livestock consumers. The resulting feed consists of just stems, which don't carry much nutritional value, nor are they palatable for those animals.

On the other hand, too much moisture in the hay can also erode its nutritional value. Hay baled with a 20% moisture level or higher can develop mold, decreasing its protein and carbohydrate levels. Mold can also trigger the growth of fungi and microorganisms, which will consume the plant's nutritional elements, reducing its quality as a food for livestock. In extreme cases, the eroded product could even prove toxic, especially to horses.

Ironically, too much moisture can also generate heat within the bale itself, potentially triggering combustion and fire. Hay bales reaching an internal temperature of 180° are much more likely to spontaneously combust than bales maintained with appropriate moisture levels.



Benefits of the FX-20 and FX-30

Delmhorst redesigned these two moisture meters to augment their moisture measuring capacities, make them easier to use, and improving their user's overall experience.

Lighting

The newly designed moisture meters accommodate the uneven lighting conditions typically found in hay storage facilities. The brightly lit dashboard is adjustable for contrast and brightness, providing an easy-to-read, accurate, and convenient moisture-tracking tool.

Maximize Existing Investments

These new moisture meters, designed specifically for the hay industry, use the same insulated and non-insulated pins for their electrodes and probes that you've already used in previous meters, so your existing pin inventory retains its value.

Ease of Use

Perhaps the most significant advantage of the FX-20 and FX-30 for both hay and livestock producers is how easy it is to use the revamped hay moisture meters.

- Redesigned navigation screens make it simple to find and use the features you're looking for as you move through your moisture-measuring project. With the new models, there's next to no learning curve standing between you and productive use of the tool.
- The devices are now also programmed to collect and transmit statistical data to an e-mail address or spreadsheet for easy record-keeping. The digital aspect eliminates the need to manually input information and collects more accurate and reliable data for analysis. It also generates year-over-year reports so you can track your operations from season to season.



The FX-30 Extends Industry Availability

Delmhorst's new moisture meter devices aren't limited to hay growers. While the FX-20 version is specific to the hay production industry, the FX-30 device adds extended settings for several other agricultural materials. It will be a valuable and reliable moisture measurement tool for growers of hemp, Brazil nuts, hops, and other crops that require careful control and management of moisture levels to optimize production quality.

Additionally, the FX-30 is compatible with Delmhorst's *EDGE™* application, which provides unlimited data storage capacities for an expanded catalog of material types. The digital tool also allows users to create and build Excel data sheets, view their statistics in real-time, append notes to each meter reading, and create a graphical histogram that charts how their hay harvest, baling, and storage activities impact their productivity over time.





PX-20 & 30: Detecting Moisture for Paper Production

In the paper industry, Delmhorst moisture meters have always provided the highest level of MC control service. With two new Delmhorst devices soon entering the market, paper commodity producers will have even better tools to use to protect the quality of their stock.

Unlimited Opportunities For Paper and Paper Products

Regardless of digitization, paper remains a stalwart foundation of today's industrial complex. Worldwide, more than 417 million tons of paper are produced each year, and that global market value now sits at ~USD 351B. On average, Americans consume approximately 31.5 million tons of printed and written paper stock each year, and that volume continues to rise.

The uses for paper continue to expand, as well.

- Basic print paper is ubiquitous, as is newsprint, tissue, packaging paper, book paper, etc.
- The COVID-19 pandemic generated an explosion in the use of cardboard for packaging deliverable goods.
- Paper cores are integral to the success of the paper commodity industry. These sturdy cardboard tubes provide the rigidity and infrastructure necessary to transport billions of linear feet of paper products around the world.

Further, the number of paper types is expanding. Acid-free paper, for example, is a staple for many media publication entities. Blotting paper, archival paper, business cards and form stock, and calculator and cash register roles are other examples of how people and industries use paper.

In all these instances, the quality of the paper is vital to the success of the product or service into which it is incorporated.

Moisture Levels Matter in Paper Production and Storage

Many paper producers who want to maintain or grow their market share already use Delmhorst moisture meters to verify that the MC of their product is optimal for its purpose. Their goal is to confirm that the moisture content of the foundational pulp material is appropriate for production. Note, too, that optimal moisture levels in pulp are different from optimal levels in paper. Consequently, paper commodity manufacturers must maintain exacting MC measurements throughout the entire span of the production line.

Moisture in Process

Managing the MC in the wood pulp that becomes paper is critical to that paper's ultimate quality. Too much water in the wood chip slurry affects the chemical and physical properties that facilitate paper production. Both excess and insufficient moisture levels can cause the subsequent paper product to disintegrate or fall apart.

Additionally, international specifications mandated for the pulp industry control the relative volume of moisture in pulp depending on how it's dried. Air-dried pulp contains about 10% moisture, which minimizes fiber bonding and facilitates easier water dispersal. Conversely, the roll pulp is dried to a 5 to 6% MC, enabling easier processing from that status.

Wood pulp moisture meters track the relative moisture levels within the pulp mixture to certify that after it is pressed, the resulting paper contains the accurate and specific MC needed.



Moisture in Product

All paper products contain certain physical properties that ensure they perform appropriately for their producers and ultimate consumers. Attributes such as porosity, permeability, smoothness, opacity, and roughness affect how print will appear on the paper's surface. Other qualities, including stiffness, breaking strength, and tear resistance impact the handling and usage management of the commodity.

The many varieties of paper products provide an almost unlimited variety of service opportunities, and the physical components of each batch of pulp must be matched to achieve the exact specifications required for each individual purpose. Delmhorst designed its new moisture meters to assure its customers that they will fulfill those particular pulp and paper MC requirements in every batch.



Delmhorst's PX-20 & PX-30 Moisture Meters for Paper

These new devices include three calibrations made specifically for paper MC testing – one for kraft stock, one for baled or recycled stock, and one for paper materials that don't have identified material calibrations. Both devices enhance the service qualities found in earlier moisture meters for paper devices.

- Their large dashboard-like displays clearly illuminate moisture level measurements as they are taken, even in the darkest environments. They also offer adjustable lighting to suit the users' preferences. The devices display accurate, up-to-the-minute MC levels in complete dark, full light, and even unevenly lit industrial environments.
- They were also designed to make it as easy to use as possible, with intuitive programming that eliminates the need for special training before using the tool.

The PX-30 is distinct from the PX-20, in that it includes Bluetooth® functionality for use with Delmhorst's *EDGE™* application. The *EDGE™* application gives users more control over their moisture-measuring activities and enables critical data streaming to corporate databases. The PX-30 also sends statistical data to users' databases and spreadsheets for analysis and future use. Long-term tracking of production data provides additional business intelligence to inform the decisions of paper and pulp commodity manufacturers.

Delmhorst is also mindful of its customer's current moisture meter appliance and accessory inventories. Accordingly, both the PX-20 and the PX-30 use the same electrodes and probes already acquired for use with other Delmhorst tools designed for the paper and pulp industry. The opportunity for valued customers to retain already-acquired assets reduces their cost of adoption and maximizes their existing investments.

There appears to be no end to the global growth of the paper and pulp industry. Manufacturers looking to retain or grow their market share can contact Delmhorst anytime to discuss how these two new devices can help them achieve those industrial goals.



CX-20 & 30: Moisture Meter Benefits for the Cotton Industry

Cotton is one of the world's most versatile resources because its fabric can be processed into an almost unlimited line of products. Consequently, global cotton industries are constantly evolving their capacities and product lines. The competition is intense, so cotton producers must ensure their product is of the highest quality if they intend to maintain their market share.

Let's discuss how Delmhorst's meters can provide critical quality data to every cotton producer and manufacturer throughout the growing, ginning, and fabricating processes.

Stable, Sustainable Cotton

America is the world's third largest cotton producer, behind India and China. Brazil is fourth on this list, and these four countries reliably produce an average of three-quarters of the global raw cotton supply. Cotton consumption (as opposed to cotton supply) is a much broader global market, as are the regions where raw cotton is processed into fabrics. These fabrics are then distributed even further abroad for manufacturing into clothing and other textile products. Textile mills that process raw cotton into cloth are springing up in more countries around the world, including Vietnam, Bangladesh, Pakistan, and Turkey, adding to the number already existing in the four top cotton-producing countries.

Throughout this cotton industry, the supply chain matrix is a constellation of regionally-based rules and customs that guide or mandate cotton quality. Growers, manufacturers, and fabricators must maintain the quality of their cotton stock throughout their processing to ensure it complies with regulations and standards in any of its stages – raw, milled, or in product form. Delmhorst designed its soon-to-be-released CX-20 and CX-30 moisture meters as devices to help all players in the cotton trade achieve their corporate and marketplace goals.

Enhance Cotton Quality Using the Delmhorst CX-20 and CX-30 Moisture Meters

These new Delmhorst meters were designed specifically for the cotton industry. They build on the quality resources and capacities of Delmhorst's earlier cotton moisture meter versions while adding the latest in cutting-edge technological innovations. They also incorporate Delmhorst's existing probes and electrodes into their functioning, so users can continue to leverage those assets as they reap the added benefits and capabilities of the new meters.

The efficient and convenient CX-20 and CX-30 moisture meters capture accurate moisture content (MC) levels across the entire cotton collection and delivery life cycle, including during harvest, while in storage, and during transport. They are calibrated into four categories for cotton and material testing.

- Lint cotton is the fibrous, hairy coat that covers the cotton seed. Lint is processed ('ginned') off the seed and into cotton fabric. Before ginning, the ideal MC for lint is between 6.5% and 8%.
- Seed cotton comes from the hard center of the boll. Cotton seeds are processed into cottonseed oil, which has many uses. The optimal MC for cotton seed ranges from less than 5% (at 10% relative humidity) to 18% (at 90% humidity).
- Viscose rayon, often used in conjunction with cotton for clothing manufacturing, is optimal for use with an MC level of 11%.
- Nylon, also a common garb partner with cotton, holds an equilibrium MC of about 2%.



Relative humidity in storage or transport can affect raw cotton's quality by increasing or decreasing its MC. Too much moisture can render the stock unmarketable, while too little moisture can cause shorter fiber length and reduced fiber uniformity. The Delmhorst cotton moisture meter can alert producers to MC concerns before damage or loss can occur.

Capture Quality Data with the Delmhorst CX-20 and CX-30 Moisture Meters

Delmhorst's two incoming moisture meters for cotton are highly anticipated by industry participants. They incorporate state-of-the-art digital resources into their standard functions:

- **Improved Visibility:** Both meters have a large dashboard that is easy to read and see. The displays are designed to accurately inform users of MC levels in a range of lighting conditions, from very dim to very bright. They also adjust their contrast and brightness features to meet users' preferences. Whether meter readings are taken in a dark barn or a bright warehouse, meter readers will capture accurate and appropriate MC levels of their cotton stock.
- **Added Intuitive Controls:** Navigating the new meter's functions and capacities is even easier than it was in previous versions. A redesigned interface allows streamlined access to and use of the features you need as you progress through your cotton moisture content project. Further, the ability to assess relevant, up-to-the-minute information as it streams across the dashboard lets cotton producers respond immediately if their stock is compromised by either too much or too little moisture.
- **Capture and Save Data:** Each device also connects digitally to spreadsheets or through email to transmit data via Delmhorst's *Edge™* App. The *Edge™* App facilitates unlimited data storage for a variety of readings and materials.

While America's cotton production region is relatively small, the global market for its products is large and is growing. Delmhorst cotton moisture meters assure businesses with investments in high-quality cotton products that their agricultural resource maintains optimal MC for its ultimate purpose.





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JLX-30: Superior Quality Control for Leather

Producers of fine leather goods are anticipating an expanding market for their products over the next five to seven years. Those who want to maximize their growth opportunities will be eager to ensure their leather is of the highest quality – and the soon-to-be-released Delmhorst JLX-30 moisture meter for leather will help monitor the moisture content of your leather supply, from acquisition and tanning to the sale of the final commodity.

Managing the Post-Covid Demand Surge for Leather Goods

Evolving fashion trends have always triggered surges in the industries that supply those industrial markets. An uptick in using leather as a fashionable embellishment or accessory to an outfit is driving the global market for high-quality leather supply. In a report by Statista, the luxury leather goods market is growing from approximately USD 50.74 billion in 2021 to almost 64.5 billion in 2025.

Further, the demand for leather merchandise is expected to grow at a ~7.5% CAGR through 2029. Consequently, there are billions of reasons why leather goods manufacturers need to monitor moisture levels within their leather stock to ensure their end products can command the highest possible price.

The imminent release of the Delmhorst JLX-30 leather moisture meter will give these producers the tool they need to protect the value of their raw stock and maintain its quality throughout all manufacturing stages.

One Device. Two Tools.

Inappropriate moisture content can ruin leather at any time, whether it's exposed to too high or too low humidity during its processing, or doused with water in its final product form. Ambient humidity can cause the moisture level to rise or fall in the raw or processed leather, which in turn can interfere with its tensile strength. The concern is present for both vegetable and chrome-tanned leather. Manufacturers of leather products must monitor this moisture content to ensure the level is appropriate for the product's intended use – and the JLX-30 allows them to do just that.

The JLX-30 moisture meter provides a single calibration to accurately detect moisture in leather. In addition, it also provides a state-of-the-art digital tool that is fully compatible with Delmhorst's *EDGE™* App, giving users total control over leather moisture levels as well as management of the data those processes generate.

The device offers users a full range of capacities that make capturing and monitoring moisture levels easy and comprehensive:

- Its large, well-lit display facilitates easy reading even in the darkest environments. Adjustable light levels let individual users set their preferences for contrast and brightness features.
- The new model is also easier to use than previous device iterations because it highlights feature controls on its face. Intuitive navigation allows workers to move through the measurement process smoothly and quickly.
- The JLX-30 incorporates using both insulated and non-insulated pins. In addition, you can cut down on costs by using the industry-specific Delmhorst electrodes and probes you may already have in your inventory.
- The embedded *EDGE™* App transmits your statistical data to your e-mail or spreadsheets for record-keeping and logistics purposes.





Case Study

Delmhorst's Moisture Meters: The Wood Flooring Installation Experts' Choice

Industry-specific advice is always helpful, especially when the authority is also a master craftsman. To close out our guide featuring the value of Delmhorst moisture meters in a number of applications, we are sharing the insights and opinions of Billy Simmons, founder of ITAC International. As an expert hardwood flooring professional, Simmons not only installs and inspects high-quality hardwood floors, but also advises the industry and the legal system about what it means to lay and maintain a quality hardwood surface in a high humidity environment.

Our Client: A Hardwood Flooring Industry Expert

Billy Simmons of ITAC International is a long-time contractor from America's deep south, where high humidity is a constant factor in every building project. On the job in his family-owned business, he's been engaging with high-end flooring surfaces for years as an installer, as a repair professional, and as a consultant.

A recognized expert in his field, Simmons teaches the art of wood flooring selection, installation, and maintenance to new generations of artisans. He also acts as an expert witness in legal cases where flooring decisions and actions have gone wrong.

The Need: Humidity and Moisture Control

Many buildings in the south are well known for their stunning architecture and highly styled interiors, and many of them include high-end hardwood floors. An inappropriate wood choice or poor installation practice can cause serious problems with the functionality of the floor, including failures that require expensive removal and replacement costs.

These types of challenges are presented to Simmons on a regular basis, either through his business, by one of his students, or by industry clients. Simmons states that in many instances, high moisture content within the flooring is the challenge of the day. That situation could have been prevented if the installer had used a quality moisture meter like the ones offered by Delmhorst.

The Solution: Delmhorst's JX-30 Moisture Meter

The JX-30 moisture meter for wood is the most recent Delmhorst instrument he's been using, but Simmons says he's used Delmhorst meters his whole career. He began with the J-2000 many years ago and, since then, has had the opportunity to compare and contrast Delmhorst's tools against other moisture meters in the industry.

Simmons cites several factors to explain why he continues to rely on Delmhorst despite the availability of so many other options:

- Delmhorst designs each of its wood-focused instruments to precisely meet the environmental exposure conditions those woods will encounter.
- Delmhorst tools are also the most accurate devices he's used. Simmons notes that Delmhorst meters maintain their calibration over time, which is not always the case with devices from other manufacturers. All too often with other brands, the accuracy of the moisture content reading is skewed because the meter itself isn't properly calibrated for the situation.
- The *EDGE™* app, which is exclusive to Delmhorst's Navigator™ series of meters, eliminates the need to scroll through lists of wood species to find the one required for the case at hand. With the *EDGE™* app, Simmons can just select one or more species from the initial drop-down list – and he doesn't need to waste time re-executing that search again throughout the project.
- The app also logs and maintains the data generated with each reading, including both numerical measurements and accompanying screen-shot images. This data management function, Simmons asserts, is especially significant for the legal issues he's asked to explain, because the accurate moisture content data supports the visual relevance of the images. The combined presentation of both visual and factual data eliminates the possibility of human error and makes the device a powerful tool in court.



The Impact: Expertise Shared

As a leading voice in the wood flooring industry, Simmons recommends Delmhorst moisture meters for wood to both his students and his clients. His advice helps new wood flooring installers launch their careers with the best quality tools available, while his clients avoid costly repair or replacements because they are equipped to install their new hardwood floors properly.

You can learn more about the value of the Delmhorst JX-30 and how it can relieve your wood-based moisture content woes by [contacting Delmhorst's professionals](#) today.





Delmhorst Instrument Co. has built a reputation for designing, manufacturing, and marketing the highest quality moisture meters available on the market— right here in the USA!

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