



**THE VALUE OF RELIABLE MOISTURE METERS  
In The Water Damage  
Restoration Industry**



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# Moisture Meters: An Essential Tool in the Water Damage Restoration Industry

Welcome to Delmhorst's exclusive guide exploring water damage restoration and the importance of moisture meters within this industry. Water damage affects hundreds of thousands of homes and businesses in America every year. Floods, weather events, and faulty plumbing all contribute to this, keeping water damage restoration professionals very busy indeed.

The true extent of water damage can go far beyond the destruction visible on the surface. Seemingly whole timber and flooring sections can harbor insidious water damage that will only worsen over time. Moisture meters are the only way to accurately detect the internal ravages of water damage. Here, Delmhorst Instrument explores the pivotal role high-quality moisture meters play in water damage restoration.

## **Water Damage – The National Impact**

As weather patterns become more unpredictable and the number of severe storms increases, more homes and businesses are at risk of water damage. Hurricane season is a particularly tricky time, especially for buildings that may already suffer from water damage from previous inclement weather. Hygroscopic materials like wood and drywall can lose their strength and integrity if exposed to high levels of moisture and even increased levels of humidity in the atmosphere. This can put buildings at risk of further damage or even destruction once the next bout of strong winds and rains comes around.

iProperty Management reports that 14.6 million homes in the U.S. are now at risk of flooding, with water damage costing households around \$20 billion annually. That figure doesn't even consider the value of damage to businesses and industrial facilities. Even a minor flood can cause water damage that is invisible on the surface and only detectable using specialist tools like reliable and highly accurate moisture meters. Floods can occur due to landslides, soil erosion, heavy rainfall events, and other natural disasters. Of course, water damage can come from more mundane causes such as burst water pipes within and outside a property, faulty appliances such as dishwashers and washing machines, or even blocked drains and gutters.

## **Water Damage Restoration Challenges**

Evaluating the extent of water damage is an absolutely critical step for restoration professionals. Some materials may dry out independently without assistance, but without measuring the moisture content in these materials, there is no way to monitor this progress. Other materials may be soaked beyond repair and need stripping away. Only an accurate assessment of moisture levels can confirm this.

Preparing for hurricane season could involve checking for existing water damage or finding the source of a persistent leak. For example, a visible damp patch may emanate from a loose tile on a roof. Without a way to trace where that moisture is coming from by evaluating the moisture levels in surrounding materials, that leak could compromise the integrity of the entire roof once gale-force winds hit.

Beyond the physically practical points of assessing the extent of water damage and understanding the next steps in your restoration project, you may need to provide detailed moisture level information to insurers. The only way to do this is with a high-quality, accurate, reliable moisture meter.

## **Why Moisture Meters Are Essential in Water Damage Restoration**

Investing in a top-end moisture meter lets you know that you're always equipped to fully assess and understand the extent of any water damage. This empowers you to keep clients apprised of progress and set any timescales for water damage restoration projects. Detecting water damage is simpler when you can use a finely tuned instrument to create a map of anomalous moisture content readings.

Creating this visual impression of where moisture damage exists allows you to set out your drying equipment more accurately and for better results. Fans and dehumidifiers are more efficient when positioned correctly. This helps save power, which is better for the environment and less costly; plus, your water damage restoration jobs get done faster. You can use your moisture meter to track the drying progress and note any materials hanging onto moisture that may need replacing altogether.

Some of the best moisture meters can help with your reporting and documentation by providing storage and data transfer capabilities or exporting your readings to a computer or smartphone app. Detailed figures like these are often required for insurance purposes, and the right moisture meter can be critical in furnishing complete and data-backed information for smoother claims processing.

## Types of Moisture Meters

When choosing a moisture meter, it's important to know that there are two main types. Pin-type moisture meters use two pins inserted into a material. An electrical charge passes between the pins, and the level of resistance it encounters indicates the material's moisture level. Pinless moisture meters use a flat sensor and electromagnetic signals for measuring moisture content and are ideal for larger, flat areas. Each type has its uses for detecting water damage, which we'll explore in greater detail in the upcoming chapters.





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## YOUR GUIDE TO CHOOSING THE BEST MOISTURE METER FOR YOUR WATER DAMAGE RESTORATION APPLICATIONS

We've established that moisture meters are essential tools in the water damage restoration industry; here, we'll explore why it's critical to choose a high-quality device that makes it easy to detect and deal with water damage – and how to do so.

Flooding in America is on the rise, as are severe weather conditions such as hurricanes. CNN recently reported that weather disasters have cost the United States \$750 billion over the last five years, and that trend is only set to grow. The increasing cost of living means homeowners and businesses aren't maintaining appliances like washers and boilers as often, leading to leaks and even burst pipes. Water damage restoration is, therefore, a fast-growing industry in need of precise and efficient instruments. Let's talk you through choosing and using the best moisture meter for your projects.

### **Detecting Water Damage – Why an Accurate Instrument Is Vital**

It's vital for restoration experts to quickly and accurately assess the damage caused by a flood or leak. This means you can start working to prevent further water damage by removing unsalvageable materials and setting up drying solutions where appropriate.

An accurate moisture meter allows you to check the ambient conditions plus specific materials such as flooring, drywall, and various types of wood. It also allows you to see how widespread the damage is, accurately mapping out the spread of water within walls, floors, and even insulation.

Your moisture meter helps you work more efficiently and set expectations for property owners and occupants, letting them know when they can expect the project to be finished. It enables you to choose the correct drying equipment, assess the risks of mold or other health and safety concerns, and carefully monitor the entire drying process. You can ensure structures are completely dry before finishing a project and reassure clients that they can return to their homes or businesses safely.

## Choosing a Moisture Meter – What To Look Out For

Knowing what type of moisture meter to choose for detecting water damage can be challenging. Pinless moisture meters send an RF signal into the material to measure the dielectric factor – how well or poorly the material conducts electricity. Your moisture meter converts this measurement into a moisture content level reading (%MC) that you can record. Pinless meters are ideal for speed and monitoring large areas, but they're not as effective for uneven surfaces or highly variant moisture levels – such as you often get with flood damage or leaks. This is why most water damage restoration professionals choose a pin-type moisture meter for a more detailed assessment.

Pin-type meters include two pins that the user inserts directly into the material they're investigating. The device sends a small electrical charge between the two pins, and the level of resistance encountered indicates the moisture content. Look for moisture meters that have built-in corrections for a variety of materials or species of wood. These are the most effective, as the optimal moisture content level for drywall is very different from that of seasoned oak, for example. Making adjustments or corrections manually for different materials is tedious and can significantly lengthen the time it takes to complete a job. A meter that can quickly make corrections for material types saves time.

Other questions to ask when choosing a moisture meter for water damage restoration are:

- Is it robust? Will it shatter if knocked or dropped?
- Is it waterproof and dustproof?
- Is it ergonomic? If you're using your device all day, you don't want one that's uncomfortable to use.
- How easy is it to customize?
- Is the display suitable for all light conditions?

## Delmhorst BDX Moisture Meters – Ideal for Water Damage Restoration Projects

Restoration and radiation specialists often choose the Navigator™ BDX range of moisture meters for ease of use, efficiency, and, most importantly, accuracy. The BDX is a pin-type meter with an intuitive dashboard featuring a large, custom display highlighting all the key information you need. It can display statistics for up to 120 readings, and gives professionals the ability to view wood temperature corrections in both Fahrenheit and Celsius. The display is backlit so you can take readings even in the most cramped, dark, dusty environments.

Color-coded LEDs help you quickly assess whether moisture content levels are optimal or not, while built-in device calibration and battery checks keep your meter in top condition use after use. The BDX-30 has the added benefit of Bluetooth capability, allowing you to connect to Edge™. Edge™ is a unique mobile app that enables you to adjust and customize your meter settings and share your readings wherever you are. Geotagging allows you to map out moisture levels across large areas, while timestamping empowers you to accurately report your progress. You can even easily export all your data in CSV format.

All of these features are packed into a robust and highly ergonomic case, meaning you can use the meter efficiently and comfortably even on long, time-consuming jobs.







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## HOW TO GET THE MOST OUT OF YOUR MOISTURE METER: A GUIDE FOR WATER DAMAGE RESTORATION PROFESSIONALS

Water damage is a major contributor to home insurance claims in America, with online experts iPropertyManagement reporting that the average claim for water damage is over \$11,000. Therefore, restoration professionals must have the right equipment for detecting water damage to aid in the drying of materials and other factors such as mold remediation.

Buying any high-quality tool for your profession is an investment, so how do you make the most of your moisture meter and get the best value and product life for your money? Delmhorst Instrument Co. has put together this guide to using your moisture meter so you can get the best out of it, time after time.

### **The Right Moisture Meter for the Job**

In the last chapter, we took an in-depth look at choosing the right moisture meter for water damage restoration work. The choice is between a pinless or a pin-type meter. Pinless meters use a flat scanning surface and RF signals, ideal for detecting water damage in large, smooth areas. They allow for rapid investigation and mapping out the extent of the moisture damage throughout a space.

Pin-type meters include two pins that are inserted into the potentially water-damaged material. An electric current passes between the pins, and the resistance indicates the moisture content reading (%MC). This allows you to pinpoint %MC for a wide range of materials, surfaces, and even tight spaces.

The Delmhorst Navigator™ family of moisture meters is popular with restoration professionals for accuracy, ergonomic design, and a range of practical features. These include a backlit screen, ideal for dark and cramped spaces; geotagging and timestamping for accurate reporting; a variety of material and wood species adjustments; and built-in device calibration check. The BDX-30 even offers a Bluetooth connection to the EDGE™ app for additional features and benefits.

Once you've invested in a high-quality moisture meter, you want to know that it will last you for many years and across a spectrum of projects. Here are a few ways to get the most out of your device and extend its life as long as possible.

## Check Your Meter is in Calibration

Moisture meters need to be checked from time to time to ensure they are giving accurate readings. Even a small difference between the reading your meter provides and the actual moisture content of the damaged materials could make a notable difference in the quality of your work.

Owners of pin meters can use a manufacturer supplied moisture content standard tool (MCS) to check calibration of their device. Pinless meters need a sensor block for this purpose instead. In either case, if the values don't match after following the instructions for either calibration tool, the manufacturer may need to repair and/or calibrate the meter before it regains its accuracy.

One last check before you go out on site – check your battery life! You don't want to be caught unaware with a dying battery on a job that will take many hours. For peace of mind, the BDX moisture meters have internal calibration and low battery alerts to help maximize your efficiency while working.

## Check Your Settings

Using your instrument to measure the moisture content of flood-damaged drywall while the device is still adjusted for oak will give inaccurate readings that cause preventable delays to your project. Check that your moisture meter is set for the right wood species or other material and ensure your meter's other settings like temperature and electrode are correct as required.

These also could include ensuring your Bluetooth is switched on if you plan to use the EDGE™ app or other connective functionality. It's also a good practice to periodically check features like your brightness and contrast settings to ensure you can continue to use your meter effectively in dark or cramped spaces.

## Look After the Physical Condition of Your Moisture Meter

Even normal on the job handling can eventually cause damage no matter how sturdy or robust your device is. Delmhorst meters always include a carrying case and it's a good idea to use it for protection. Look for devices that feel solid and are built to withstand any professional instrument's day-to-day wear and tear.

Always use the correct batteries as specified by the manufacturer and try not to expose your moisture meter to extreme heat, cold or humid conditions. Over time such exposure will damage the internal components.

Most importantly, make sure you choose the right device from the outset so you can use the appropriate meter for every job. Take the time to get to know the settings and menus, and look after your moisture meter to give it the longest life possible.





## SUCCESS

# VIA MOISTURE ACCURACY: PARKER CONSTRUCTION AND DELMHORST INSTRUMENT CO.

Over the last few chapters exploring moisture meters for water damage restoration, we've considered how accurate, reliable devices can improve efficiency and outcomes for professionals in the industry. Now it's time to look at a real-life situation where Delmhorst's meters made a significant, positive impact on the success of Washington-based water damage mitigation specialists, Parker Construction.

### Client Profile

Parker Olsen is the President of Parker Construction, a water damage mitigation organization based in Washington State. Parker Construction specializes in residential water damage restoration, primarily homes affected by floods or leaks that people need access to as quickly as possible. The company holds numerous industry certifications and prides itself on having more specialized training certifications than most competitors in the area. Their services run from initial mitigation to full water damage restoration.

## THE NEED

A primary need within the water damage restoration industry is moisture measurement accuracy. Parker told us that one of the major problems he comes across while working on residential water damage mitigation is the massive variation in the materials that his team has to measure. These include drywall, different flooring types, different wood species, and even different forms of wood. OSB particle board is, for example, very different from solid wood in terms of how much moisture it absorbs and when it's considered at a nominal moisture level content. Getting accurate readings for all these different materials is essential but challenging.

## THE SOLUTION

In his search for accurate moisture meters for water damage restoration, Parker discovered the Navigator™ range from Delmhorst Instrument Co. These moisture meters have unmatched reliability. Most importantly for Parker Construction, 37 different wood species and materials are pre-set when using the moisture meter with the compatible Edge™ app. With Navigator™ meters, there is no need to manually adjust the settings for each material – Parker and his team can simply choose the relevant material and know that the device will provide accurate measurements every time.

## THE IMPACT

Accuracy has been the key to Parker Construction's success. By having access to these finely calibrated material settings, professionals working on a project get a more accurate dry standard, allowing them to be more efficient in their processes of drying out structures. Parker even cross-checked the readings from one Delmhorst meter to another, and they gave the same, highly precise readings. This was a startling difference from other brands of moisture meters Parker had tried where, even with two identical meters, they could show a 10% variation in a material's readings. This never happened with the Delmhorst tools.

Another benefit he notes is that the Delmhorst meters rarely need calibrating, a contributing factor in their success as a tool for water damage restoration professionals.

By getting consistently accurate readings, Parker Construction could speak more intelligently on the drying processes taking place in the structure, including providing correct expectations for each material. Parker says, "I think [it] gave us a more professional appearance to our clients, whether that was a homeowner or an adjuster that we're working with; just being able to speak more intelligently on [the project], having better readings than we did before."

Parker also notes that the moisture meters from Delmhorst are very durable, which makes them a great investment for anyone working in water damage mitigation.

Interested in bringing this level of precision and efficiency to your projects? Contact Delmhorst for more information on reliable, accurate, and durable moisture meters for the water damage restoration industry.



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!

51 Indian Lane East  
Towaco, NJ 07082-1025

877-335-6467

