

Moisture Meters 101 Guide



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WHEN ACCURACY IS THE POINT.™



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Introduction

Moisture meters are indispensable tools for contractors, restoration professionals, hay producers and anyone else who has to deal with the effects of moisture. Using these handy, rugged and reliable detection devices, highly experienced experts are able to accurately assess the risks for moisture-related damage in a structure, in wood floors, and when cutting, baling, and storing hay.

Given the tricky nature of detecting moisture in materials such as hay, insulation, framing lumber, flooring, concrete and drywall, tools that help professionals inspect, detect, restore and ensure that moisture remediation is complete are essential for any professional.

Moisture meters are just such a tool.

They help contractors save time, stay on budget, and avoid callbacks when used at the beginning, middle and end of any job, big or small. Hay producers also rely on moisture meters to minimize mold development and at the same time preserve leaves, color, and feed value.

Professionals have told us over and over that our meters are accurate, durable, and a great investment. Also, we're constantly receiving feedback that our meters have never let them down in the field. We've also been privy to many on the job tips and hidden benefits of using moisture meters and we wanted to share a few of them here with you—including 10 benefits we believe you may not have heard much about yet!

In this eGuide, you'll learn:

- ✓ Many of the benefits and possible uses for these devices that you may not have known about
- ✓ How to take care of your meter
- ✓ Why moisture meters are such important tools

Signs of Moisture in Homes and Businesses

For many home and business owners, the first signs that they have a moisture problem may be “standing” water on the floor, discoloration of the ceiling, or a persistent musty odor. Some of these early warning signs of excess moisture can be difficult to spot early on, which is why it is important to inspect a building for moisture, particularly after a major storm or other event that can cause damage to the integrity of a structure.

The specific signs of moisture in a building will vary based on the exact cause of the moisture problem. Common sources of excess moisture include:

Improperly Dried Concrete Subfloors

This problem is faced primarily in new construction, where a contractor may have failed to allow the concrete subfloor to dry out before beginning to build on top of the surface. Excess moisture trapped in the subfloor percolates to the surface, where it begins to wear on the surface material.

Interior Plumbing Failures

This is a problem that is more common in structures with an aging internal plumbing infrastructure. Over time, older pipes begin to develop any number of problems that can result in a fault in the pipe, allowing water to leak out of the pipes and into the building. Depending on the location of the faulty pipe, the first signs of moisture could be discoloration of a wall, standing water along the edge of a wall, or a musty odor in some parts of the building. Another common cause of pipe failure in homes is the freezing of water in the pipe during a period of intense cold.

Leaks in the Roof

Most building occupants expect to encounter moisture intrusion from the ceiling as a result of damage after a major storm, but improper sealing of newly-installed roofing tiles and flashing can also allow moisture to enter the structure. Either way, the first sign of damage that most of the building’s occupants will notice is typically a discoloration in the ceiling or a drip from the ceiling.

Natural Flooding

Sometimes, during prolonged or especially severe storms, water can be carried into a building from the outside. Signs of flooding are usually obvious, including large amounts of standing water and debris carried in by the water.



Whenever there are signs of moisture infiltration of a structure, it is imperative that the source of the water intrusion is found right away and that steps are taken to remediate the moisture. Left unchecked, the relatively minor warning signs of excess moisture can become full-fledged disasters, such as:



Buckled/Warped Flooring

The excess moisture left in insufficiently cured concrete subfloors and wood subfloors can cause severe damage to surface flooring. For example, wooden flooring can become warped or buckled, ruining the aesthetic value of the flooring, not to mention being expensive to repair and replace.

Mold

Moisture that collects in dark, cool areas of the building can become an ideal breeding ground for mold. Over time, mold growth in a structure can compromise the integrity of wall and flooring materials alike. Worse yet, mold spores released into the air by mold colonies can trigger severe, even potentially fatal, reactions in people who live or work in that building. The problem with mold is that it often develops in areas that are not directly visible to the naked eye, such as behind a wall.

Compromised Interior Structures

Beyond causing damage to the floor, moisture can also cause damage to many other interior structures, especially if key supports are made of wood or other permeable materials. In extreme cases, the walls themselves can develop cracks as the frame of the building becomes distorted.

Pest Infestations

Many species of pests are drawn to concentrations of moisture in a building. The specific types of pests that will infiltrate a given building will naturally vary by geographic location and the composition of the structure in question, but common pests include ants, termites, and even rodents.

If moisture problems are not remedied or prevented, the damage caused can be severe enough to warrant condemning the structure in its entirety. Contractors do not want to have to deal with tearing up the flooring that they've installed because of a moisture problem, which is why they use moisture meters to ensure that they get the installation done right the first time.

How Professional Restorers Tackle Moisture on the Job

When they're called on to handle a moisture problem, a professional restoration service will come equipped to begin the dry-out process and track down the source of the moisture problem so that it can be taken care of before more damage can occur.

How do professionals find the source of a moisture intrusion? By using moisture meters, of course.

Using a moisture meter, professionals can track down the presence of hidden pockets of moisture that may be missed by a "naked eye" inspection of affected areas. For example, if there is moisture in the center of a wooden beam that looks dry from the outside, a professional can use a moisture meter to measure the moisture content of that wooden beam and find the hidden pocket of moisture inside. With the right moisture meter, that professional can accurately assess the structural risk posed by that wooden beam's moisture content (*more on this in the Moisture Meter Solutions section*).

For most major moisture problems, the services of an experienced professional are invaluable. The benefits of using a professional service include:



Thorough Solutions to the Problem

Many reputable contractors will handle the immediate "tear-out" part of the drying process, and also track down the source of any continuous moisture intrusions into the building to help resolve the problem.



The Work is Often Guaranteed

If a problem arises after the professional restorer is finished that should have been addressed during the initial service, many restoration companies will cover the costs of work to correct this second problem. Naturally, every company is different, so it is important to check the service contract for such guarantees before hiring a restorer.



Insurance May Cover the Cost of the Work

Depending on your coverage, and the nature of the moisture damage, some or even most of the cost of using a professional may be covered under the insurance policy of the building. Also, a professional service can document their repairs, and prove the necessity of their services by recording moisture content information. Such documentation may be hand-recorded, or, better yet, taken on meters such as the [TotalCheck](#), which saves the data and creates reports from that information.

If you're calling on the services of a professional, there are a few important things to keep in mind:

Cost

While it is definitely worthwhile to spend a little extra money in the present to avoid having to pay a lot more money in the future, the cost of hiring a professional service is important to consider. This is why it is important to ask yourself if the cost of hiring a professional is a sound investment for the future. Remember, a good rule of thumb is to say to yourself: "does this warrant filing an insurance claim?" If the answer is yes, then you'll want to consult with a professional about handling your moisture problem.

The Work They'll Do

Not all professional services are created equal. Some companies will provide "build-out" services, where they actually handle the replacement of damaged items and infrastructure, where others only handle the dry-out process itself. Certain companies may even specialize in serving either private homes or commercial structures, so it is important to research such information before signing a contract.

The Work They'll Do

If you are planning to hire a professional company to handle a moisture problem, be sure to check out their status with the Better Business Bureau, read recent reviews about them on business referral sites such as Yelp, and ask the company for references, then follow up with them.

With a bit of research, it should be easy to find a professional service to handle the moisture remediation of any type of structure.



How Do-It-Yourselfers Take Moisture Matters into Their Own Hands

When moisture has been found in a structure, it is important to take care of the issue as quickly as possible. The exact method for dealing with excess moisture will vary by where the moisture is located and its cause, but here are a few examples for how moisture might be handled by different people in different situations.

Some building owners, whether the building in question is a commercial space or a private residence, will try to take care of a moisture problem as soon as they possibly can before the problem gets worse.

However, in an effort to save money, these owners often attempt to handle the moisture problem themselves rather than acquiring the services of a professional restoration company.



For most of the common spills and accidents that can occur in a building, a simple “Do-It-Yourself” process goes something like this:

1. The spill happens.
2. Someone sees the spill happen or comes across it later.
3. That person takes a rag or paper towel to the spill and soaks up the spill.

For a simple spill, this process is often more than sufficient. However, when a DIY enthusiast tries to correct moisture problems that are more severe, they can do more harm than good. When someone who is not a professional attempts to handle a dry-out on their own, they can run into numerous problems, including:

✓ **Not being able to find the source of the moisture.**

Many DIY enthusiasts have the common tools that they need for around-the-house jobs (hammer, nails, screwdrivers, and so on), but they typically don't have the specialist tools needed for moisture remediation, such as a moisture meter. This leads to the DIY person relying solely on visual inspections to check for moisture content in materials affected by moisture, which is woefully insufficient for finding hidden pockets of moisture. DIY enthusiasts might miss a major pocket of hidden moisture after they're "done" drying out a building, leading to more problems down the road.

✓ **Increased risk of injury.**

Where professionals are trained to handle the risks associated with moisture damage, and have experience working around moisture damage, DIY enthusiasts have no such training or experience. A Do-It-Yourselfer may not have the appropriate safety gear for handling moldy building materials and end up inhaling harmful toxins, or hurt themselves on an uneven floor or damaged area of the structure.

✓ **Causing more harm than good.**

DIY enthusiasts may try many things to clear out the moisture from an affected room, and their first resource for ideas is typically on the internet. While there are many great online resources that can give useful advice, the sheer amount of bad advice online is staggering. One piece of advice you might often see is to open up doors and windows to speed up the drying process. This is rarely a good idea. Opening up doors and windows lets in mold, pollen and insects that can cause even more damage. Improving air circulation in the building can be an effective way to speed up the dry out process, but a professional will be the best judge of how to accomplish this.

There are other potential problems associated with trying to handle moisture problems without the help of a trained professional, but these are three of the biggest potential problems. In addition to the above, many insurance policies will not cover accidental damages to a property that are caused by amateur DIY restoration efforts. As a general rule of thumb, if the damage caused by moisture intrusion is severe enough to warrant filing an insurance claim, then a professional service should be contracted to handle the dry out and repair processes.



Moisture Meter Solutions

Moisture meters are the go-to tool for any professional whose work is affected by moisture, not just in the building trades, but in agriculture as well. There are two types of moisture meters used by professionals: pin-type moisture meters and pin-less moisture meters. A pin or probe type meter is the only effective way to measure moisture content in hay. In addition to these moisture meters are thermo-hygrometers, which measure the temperature and relative humidity of the ambient conditions or inside a concrete slab. How a given meter works depends on what kind of meter it is, and each type of meter has its own uses, benefits, and limitations.

Pin-Type Moisture Meters

Ask an experienced professional to tell you what a moisture meter is and what it does, and the pin-type moisture meter is likely to be the first type of meter that they'll describe. These highly precise instruments have been the go-to devices for contractors and moisture specialists since the 1940's, when Delmhorst introduced our own ram-type electrode that featured two insulated pins.

How They Work

These reliable devices use the principle of electrical resistance to detect moisture in a given material. The user of the meter pushes two pins into the material to be measured until they've reached the desired depth. The same principle applies to testing hay, but instead of contact pins, a longer probe is used to insert into the bale of hay, or a multi-pin probe is used to check hay in the windrow.

Once the pins are in, the user turns the meter on, which causes one of the pins to emit an electric current while the material between it and other pin completes the circuit. The meter measures how much resistance there is to the current and displays a reading that can be used to determine how much moisture there is in the material.

Uses for Pin-Type Moisture Meters

The most common use for these meters is for wood/lumber products, such as wood flooring, ceilings, and support beams. As a natural insulator, wood typically resists electrical current. So, the higher the resistance measured by a pin meter, the drier the wood.

Pin meters are most commonly used on wood, but they can also be used on other permeable building materials, such as drywall and insulation.

Pin-type moisture meters excel at:

- ✓ **Finding the precise location and depth of a pocket of moisture.**
By testing the pins at multiple depths, it is possible to find out just how deep a moisture pocket is in a given object.
- ✓ **Providing an exact measurement of the moisture in a material.**
These moisture meters are ideal for establishing whether or not a given material is sufficiently dry.
- ✓ **Measuring moisture in loosely-packed or porous materials.**
Pin-type meters don't need a flat surface to work, and when used with extended-length probes, they can penetrate deep into loose materials such as insulation and hay.

As good as pin-type meters are at giving exacting measurements, they do have a few limitations:

- ▶ **Pin meters can only measure the moisture content of the material between the two pins.**
If you already have a good idea of where the moisture is, then this isn't much of a problem. Otherwise, finding a moisture pocket may take a while.



▶ **Pins leave holes.**

The pin-type moisture meter works by penetrating the surface of the material to get a reading from the inside... which naturally means leaving a pair of holes where the reading was taken. Thankfully, most pin-type meters leave very small holes, and measurements can usually be taken in areas where the pin-holes are not immediately noticeable.

▶ **Readings are not universal for every material type.**

When taking a measurement of the moisture content of an object, it is important to adjust the results for the type of material being measured. Even two different species of wood will give different values when measured with the same meter. Because of this, it may be necessary to consult an adjustment chart when taking down results, or use a moisture meter that features built-in species correction capabilities.



Moisture Meter Electrodes

In addition to using the built-in pins, many pin-type moisture meters have the ability to accept custom moisture meter electrodes to accommodate different moisture testing tasks. For example, all of Delmhorst's pin-type moisture meters have a [universal probe socket](#) that allows them to be used with any Delmhorst electrode.

A moisture meter electrode can be made for a variety of tasks, from testing wet paper pulp on a rolling web, to testing moisture deep in a hay bale, to testing grain moisture content. The size, shape, and number of prods a meter has may have a significant impact on its functionality.

For example, the 12-E electrode is designed with two “roller” style electrodes that are meant to allow it to roll over wet paper pulp on a moving web without catching on the pulp. On the other hand, the 1235-series electrode is designed to get to the center of a dense hay bale so it can take moisture measurements from where they matter most.

When choosing a pin-type moisture meter and electrode combination, it's important to consider what type of work you need to do. While a universal probe socket can let any meter work with any electrode, it's important to choose electrodes and meters that are suited for the task at hand—such as pairing a grain-specific electrode with a grain moisture meter.

Pinless Moisture Meters

Where pin-type moisture meters send two invasive probes into material to get a precise moisture measurement, pinless moisture meters take their readings without having to penetrate the surface of the material being measured.

How They Work

When a pinless moisture meter is pressed onto a flat surface, the meter sends out an electromagnetic (think radio) wave into the material to be measured. The meter then interprets the fluctuations in the wave to establish the general moisture content of the material being measured.

Uses for Pinless Moisture Meters

Pinless meters are great for quickly identifying the general location of a pocket of moisture in a structure. These quick, easy-to-use tools are great for performing a general check for moisture in a structure that is “at risk” for moisture related problems. These meters can give a moisture reading on nearly any flat surface, such as walls, floors, or ceilings.

These meters can even be used to take a quick reading of moisture that could be hiding underneath wood, tile, marble or linoleum surfaces.

There are several advantages to the use of a pinless moisture meter, including:

- ✓ **The ability to scan large areas very quickly.**
Since there are no pins to constantly push in and out, you can quickly cover large areas in no time, however we do not recommend dragging the meter along the surface.
- ✓ **No pin-holes.**
Pinless moisture meters can take a reading without damaging the surface of an object.
- ✓ **Easy to use.**
These meters are newbie-friendly and don't take much time to master.

Pinless meters are a great way to quickly cover large areas and to find out if further testing is needed. However, there are a few things to keep in mind when using these meters:

- ▶ **They need a flat, smooth surface to work properly.**
Rough or porous surfaces can distort the readings given by the meter, and can even damage the meter.



▶ **Object thickness can be an issue.**

For thinner objects, this means that you may receive scan results for objects that are behind the material you wish to measure the moisture content of. For especially thick objects, you might not detect moisture at all if the electromagnetic waves are not penetrating deep enough.

▶ **Surface moisture can skew reading results.**

If you need to scan a material with a flat, smooth surface, then a pinless moisture meter is your go-to tool. A pinless meter can also be used to take a preliminary reading of concrete to see if more testing is needed to satisfy ASTM F-2170 standards.

For detecting moisture in loosely-packed materials, such as hay or fiberglass insulation, a pin-type moisture meter with extended-length probes would be a more ideal tool.

Thermo-Hygrometers

Unlike the pin-type and pinless moisture meters mentioned above, thermo-hygrometers don't measure a specific piece of material, but the ambient moisture conditions of a room, or the relative humidity (RH) in a concrete slab. These meters are often used by professionals outside the building, in areas that are unaffected by moisture, near dehumidifiers, and in rooms that are experiencing moisture problems so that they can have a complete picture of the moisture conditions of a structure. The readings given by thermo-hygrometers give contractors and restoration specialists information such as temperature, relative humidity (RH), Grains Per Pound (GPP), and dew point.

How They Work

There are a number of different types of thermo-hygrometers, so there is no one universal measure for how they work. Different sensor materials and hygrometer types will have different operating principles.

Uses for Thermo-Hygrometers

Knowing the ambient moisture conditions of the structure gives contractors important information, and can also help them calculate how long a freshly poured concrete slab will take to cure, or how well the dry-out process for a water damage restoration job is going.

Using a thermo-hygrometer is an integral part of conforming to the ASTM F-2170-11 standard for measuring the RH in a concrete slab. Plus, being able to measure the ambient moisture and temperature of a room is critical to identifying the risk of mold growth in a moisture-affected building.

However, there are a few things to keep in mind when using a thermo-hygrometer:

▶ **The temperature of the building can influence the RH reading.**

The higher the humidity, the larger the difference will be between measurements taken at different temperatures. For example, if the RH in a room is 80% at 91.4 °F (or 33 °C), then an increase of 1 °C (1.8 °F) could change the RH measurement by as much as 4 percent.

▶ **There is a built-in “margin of error” in all thermo-hygrometers.**

Also known as “sensor tolerance,” this means that there may be a difference between the reading given, and the actual RH in a room. For example, if you put two thermo-hygrometers with a sensor tolerance of +/- 4% side by side in a room with 54% RH, one might read as low as 50%, and the other as high as 58%. A certain degree of error is tolerable if factors such as temperature have been accounted for. To get the most accurate readings, using two or more sensors with a minimal sensor tolerance (+/-2%) and averaging the results is helpful.

▶ **RH sensors need care and verification of calibration.**

As an RH sensor is used, it is exposed to chemicals and moisture that can contaminate the sensor itself, leading to inaccuracies (also called “drift”). In extreme cases of misuse, the PC board in the meter can be damaged by lack of care. Since different contaminants and use conditions can cause damage to the sensor at different speeds, it is nearly impossible to give a definitive answer for how long a given sensor will remain “within tolerance” before needing to be repaired or replaced. Sooner or later, however, all RH sensors will need to be replaced.

▶ **Storage.**

To keep a thermo-hygrometer’s sensor operating at peak efficiency for longer, it is important to store the meter in the proper conditions. Typically, this means avoiding placing the meter in extreme temperatures, harsh chemical environments, and using the meter only as intended. For example, DO use the meter to measure ambient humidity, DON'T use the meter as a mallet.

Delmhorst’s thermo-hygrometers are calibrated using nationally recognized standards and practices, which are traceable through the [National Institute of Standards and Technology](#) (NIST) and checked against a chilled mirror hygrometer.

You can perform in-field calibration check of a thermo-hygrometer by testing the meter against a second, reference sensor, or by using a saturated salt solution. Learn more about how to care for your hygrometer in our whitepaper on the subject, [Relative Humidity Sensor Behavior and Care](#).



Countless Applications

There are innumerable ways that you could use the different moisture meters, such as:

Construction

This is one of the most common uses for moisture meters. Contractors who are curing a new concrete slab need a reliable, accurate thermo-hygrometer that allows them to meet ASTM F-2170 standards if they are to guarantee their work. Thermo-hygrometers with removable probes can be extracted from the concrete slab for their mandatory calibration verification, allowing them to be reused throughout an entire project, unlike probes that are designed to be left in concrete permanently.

Water Damage Restoration

Another common use for moisture meters is in dry-out efforts. With thermo-hygrometers, pinless meters, and pin-type meters, water damage restoration experts can track the overall progress of their dry-out efforts, and quickly track down stubborn pockets of moisture in a building before they can become mold colonies.

Home Inspection

Before buying a home, it can pay to have an inspector use a moisture meter or thermo-hygrometer to establish the risk of mold growth or compromised infrastructure to make sure that your dream home won't become a crumbling nightmare after the purchase.

Pest Control

Vermin such as insects are drawn to moist areas of a building, and use these areas as a breeding ground. Pest control experts can use moisture meters to hunt down possible insect breeding grounds so that they can remove the source of the problem.

Inspecting Hay Bales

The moisture content of baled hay needs to be carefully monitored. If hay is too moist, it is at risk for rotting, lower feed value and unsafe for long term storage. Probe-type moisture meters give accurate readings of the moisture conditions deep in a hay bale, allowing farmers to know if the hay is at appropriate moisture levels in order to avoid rot and have high feed value.

Really, anyone who encounters issues caused by moisture can have a use for moisture meters.



Tips for Using Moisture Testing Tools

Here are a few tips for getting the most out of your moisture meter or thermo-hygrometer:



Tip #1: Make Sure to Keep Your Equipment Clean

This piece of advice is true for nearly any item that you would use on the job, from the simple yet reliable hammer, all the way to your computer. Proper maintenance of your equipment is a must.

For moisture meters, this means performing regular inspections of the equipment to check for signs of damage to the scanning equipment, such as:

Rust or corrosion on pins.

Scratches or dents on scanning plates.

Contaminants inside of sensor materials.

Be sure to clean your tools after every use to

prevent corrosion and other forms of damage. Keep your tools in top shape, and they'll keep providing you with reliable information to make your job easier.

Tip #2: Verify Your Calibration!

This is especially true if you want to follow [ASTM F-2170 standards](#) (and every professional should). For example, the calibration of thermo-hygrometers used to track moisture in concrete need to be verified at least once every 30 days. Without proper calibration, sensor results can “drift,” giving you faulty information. Bad information can lead to bad decisions, so make certain to verify calibrations for accurate readings.

Tip #3: Keep the Material in Mind

Remember, not all building materials are created equally. This is where moisture reading scales become important. A moisture reading scale is an indication of what kind of material the moisture meter is optimized for. Some moisture reading scales include wood, drywall, and gypsum scales.

Moisture meters can give you different readings in different materials, even if the actual %MC in them is the same.

When taking a reading in wood, for example, you may need to adjust your reading results based on the specific species of wood, such as Douglas fir or redwood vs. pine or walnut. Check the [wood species correction chart](#) for specific corrections. Some moisture meters may offer built-in species corrections to make these adjustments automatically.

Also, remember that some types of materials are easier to check with one type of meter than another. For example, loosely-packed materials such as hay are nearly impossible to scan with a pinless meter, but probe, or pin-type meters can check them easily.



Tip #4: Use Multiple Meters for Different Tasks

While it may be tempting to pick one kind of meter for a specific job and stick with it, you can often get jobs done much more quickly by combining meters. For example, if you are trying to pinpoint the location of a pocket of moisture, not only where it is but how deep in the material it goes, you can use both pinless and pin-type moisture meters. Use the pinless meter to quickly scan the object in question to find the general location of the moisture pocket, then use the pin meter to find out the depth at which the moisture pocket occurs.

For thermo-hygrometers, using two meters in a single area allows you to average their results, minimizing the risk of sensor tolerance causing an inaccurate reading.

Tip #5: Get a Quality Meter

When looking for a thermo-hygrometer, it is important to choose a type with as small of a margin of error as possible, which is generally +/-2% for a top-of-the-line commercial meter. Not only should the meter be accurate, it needs to be durable, easy to use, and simple to maintain/calibrate.

While you're shopping around for any kind of moisture meter, check out the manufacturer's reputation; do they have an extensive history of recalls? How long have they been in business? Do they check their meters against established standards? Do they provide tech support? If not, then they might not have the meters you are looking for.

Ten Benefits of Moisture Meters You Never Knew About

1. They can be a powerful tool for negotiating the sale or purchase of a home or office. With a moisture meter and a thermo-hygrometer, you can check the structure of a building for moisture damage quickly and reliably, finding faults before you move in, or proving that the building is moisture-intrusion-free.
2. They can be useful to help minimize the risks of defects in flooring after installation. When a contractor pours a concrete subfloor, they have to let that subfloor finish curing before laying a new floor over it. With a thermo-hygrometer, contractors can reliably track the moisture content of the concrete slab, and avoid unsightly damage later. It's like a low-cost insurance policy against having to re-floor a newly-constructed building.
3. They can help prove damage claims for flood insurance. Some moisture meters, such as the [Navigator Pro](#), can store moisture readings so that water damage remediation specialists can put them into a report later. This gives people who are making water damage or flood insurance claims the documentation that they need to make sure that their insurance policies are honored.
4. They can help you determine the effectiveness and accuracy of your HVAC system. Have you ever looked at a thermostat that said the room was maintaining a cool 72 °F, but the room felt hot? A thermo-hygrometer can be used to check the ambient temperature and humidity of the room to tell you if it's really the heat or the humidity.



5. Hay bales. For many years, farmers in America and abroad have needed to maintain clear, accurate and precise moisture control of their hay bales. Too much moisture and the hay will rot, rendering it useless. By using a pin-type meter with extended-length probes, value minded farmer can enhance quality control.
6. They can be used to warn you of an impending structural failure, or even help prevent one. Moisture in the walls of a building can cause damage to that building's structure over time. By finding pockets of moisture early, moisture meters can allow restoration experts or construction contractors to remove the moisture before it causes a major fault in the structure, or at least draw attention to a problem.
7. Moisture meters can help you determine if you can save insulation, or if you need to throw it away. This can save a building's owners money either on the cost of replacing insulation, or having to make more thorough repairs to the building caused by moisture damage from damp insulation materials.
8. They can indirectly help find pest infestations. As mentioned earlier, moisture concentrations are often a gathering point for common household pests, such as ants, termites, and even rodents. Using a moisture meter to track down pockets of excess moisture can help pest exterminators find the source of an infestation so they can eliminate it.
9. Moisture meters can help make the workplace safer. By detecting high levels of moisture in a room, a thermo-hygrometer can serve as an early warning system to detect mold risks. Detecting pockets of moisture in the structure so that they can be eliminated can improve the sanitary conditions of a building by removing bacterial breeding grounds, meaning less sick days used by employees.
10. Purchasing a Delmhorst moisture meter means supporting an American company. Not only do we market our meters in America, we make them here, too.

Why Choose Delmhorst?

Given the sheer number of moisture meter manufacturers out there, it can be difficult to find that one company to provide you with the high-quality, reliable moisture meters that you need to get the job done right.



Delmhorst Instrument Company is the go-to moisture meter manufacturer.

Experience

Delmhorst has been manufacturing moisture meters for decades.

The 26-ES ram type electrode was developed in the 50's. Our pin meter wowed the building supers of New York then, and we've remained a trusted manufacturer of moisture meters ever since.

Excellent Quality

Delmhorst has a long-standing reputation for designing, building, and distributing the highest-quality moisture meters around. We are dedicated to making sure that our products are the best that they can be, and this dedication has become our hallmark.

Dedication to the Customer

We listen to our customers when they give us suggestions about our products. Customers such as Craig L. of San Diego, CA have praised us for adding “features that help us do high-quality work on every job.” Our instruments are designed to meet our customer’s needs, and paying attention to and incorporating suggestions from our customers is the way we ensure that our products are the top-quality devices that professionals will want to use.

Rob L. says: “Just wanted to stop and let you know that I have been using your products with my own company back in Pennsylvania and now using them here in NYC with a restoration contractor in Long Island. Thanks again for making the BEST meters!!”



Reliability

Our meters are built to provide consistent, accurate readings of the moisture level in your floors, rooms, hay bales or whatever else you are measuring moisture in.

Lynn D. says: “Delmhorst instruments are not only reliable but Delmhorst stands behind both its products and repairs without question... a breath of fresh air in today’s marketplace.”

Made in America

Delmhorst is an American company, and we pride ourselves on making our products in the country we call home. Our products are designed and manufactured in the USA, and have been for more than 65 years. We plan to keep it that way.

Superior Service

Delmhorst offers the services of a dedicated team of customer support personnel to all of our customers, who are equipped to help users of our product get the most out of their moisture meters. We also have owner’s manuals, [correction tables](#), advice about caring for your moisture meter, and more convenient resources on the [product resources page](#) of our website.

Thank You for Reading

We know that choosing a moisture meter is an important decision, and we hope that this guide has helped you learn about the different types of meters, and how they can be used to help you.

If you would like to learn more about Delmhorst Instrument Co. or our products, [contact us](#) today. We are here to help you, so don't hesitate.

Find the Right Moisture Meter for Your Needs

[VIEW OUR PRODUCTS](#)

