

Why use automatic moisture control?

You've worked hard to optimize your mix designs and your TouchBatch system will take care of weighing up materials accurately. But if you're still "guesstimating" aggregate moisture percentages, you may be seriously throwing off the proportions in your mixes.

Consider the following facts:

Moisture contained in aggregates can represent as much as 2/3 of the water target in the mix design. If this moisture is not properly accounted for, it will affect both the water and the dry aggregate targets. Your original mix design is altered and factors such as water/cement ratio, yield and slump can all be compromised.



Hydroprobe-II, for sand and aggregate bins.

Moisture variations in aggregates are difficult to evaluate because they depend on so many factors. For example, aggregate moisture tends to accumulate towards the bottom of a bin; as a result, even within the same batch the moisture in the aggregates may change rapidly as the material flows from the bin into the scale hopper.

A microwave moisture sensor will accurately measure the moisture levels in your aggregates. By eliminating the guesswork, you will be able to:

- Automatically adjust the water and the aggregate targets to compensate for water present in the aggregates.
- Reduce material wastage due to "dry-up" batches.
- Improve the quality and consistency of your products for increased customer satisfaction.

Moisture probes and batch software

The TouchBatch system dynamically adjusts both the aggregates and water targets to compensate for the moisture in the aggregates

Bin probes measure moisture levels as materials flow from bins or conveyors. Mixer probes will measure moisture levels directly in the concrete mix. A Hydronix probe will take 25 readings per second as the material flows over or around the probe. These measurements (readings) are then fed back to the TouchBatch control system in real time.

As the aggregates are being weighed during a batch or as the concrete is being mixed in a mixer, our software dynamically adjusts both the water and aggregates targets to compensate for the moisture in the aggregates. This continuous re-adjustment of the targets maintains correct proportioning and accurate weighing of the materials.

The result is consistent concrete at any time of the day regardless of weather conditions. The TouchBatch will then log both the water present in the aggregates and the actual water batched for quality control reporting.



Hydro-mix VII, for concrete mixers

Of all aggregates, sand traps by far the most water and the sand bin is the first logical choice for a moisture probe. The sand's moisture will typically account for most of the aggregates' water content. However, especially when producing architectural concrete with aggregates of different colors, your plant should ideally have moisture probes in all fine aggregate bins.

Why Hydronix?

We recommend Hydronix based on our more than 22 years experience with various moisture probe suppliers. Hydronix was the first company to develop a microwave moisture sensor for the concrete industry and to this day remains the world leader in moisture sensing technology. They are regarded by our clients as the best choice because of the quality and durability of their products.

Manufactured of cast **stainless steel** and with an alumina **ceramic faceplate**, Hydronix sensors are built to last (over 10 years in many cases). They can be installed in a variety of locations where there is flow of material and each sensor is calibrated at the factory with identical parameters, ensuring that sensors can be **easily replaced without the need for re-calibration**.

The latest Hydronix probes offer a new **digital filtering** feature. When combined with the normal analog filtering, sophisticated software logic produces a linear and clean output measurement, even in difficult cases.

Support

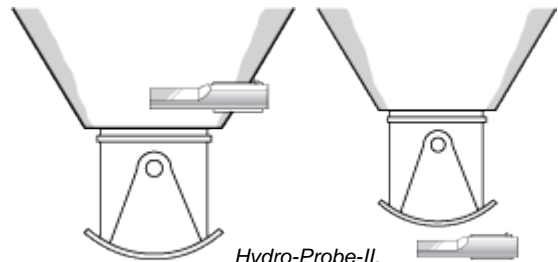
We understand the conditions of concrete production and the level of urgency when support is needed. Once you rely on automatic moisture measurement it's hard to go back to guessing the moisture of the aggregates for each batch. When you call us for support we have knowledgeable technicians to assist you, to troubleshoot the hardware and software involved and if the sensor is suspected, take care of logistics to provide a quick replacement. We work as a team with Hydronix to provide you with the training and assistance you need to take full advantage of you moisture sensor. The combined support of MPAQ and Hydronix is hard to beat!

Hydronix warranty

The two-year standard Hydronix warranty provides for immediate replacements and can be optionally extended to four years. All repairs have a minimum 6 month warranty reflecting Hydronix' confidence in their products.

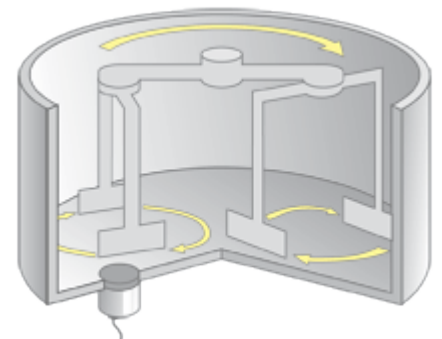
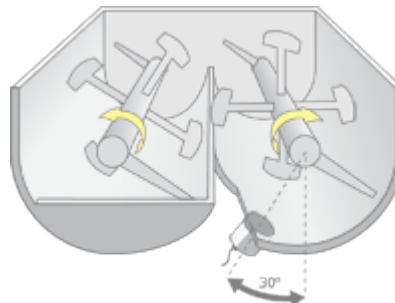


Hydro-Probe-II, clamp ring and mounting



Hydro-Probe-II, typical mounting locations.

Hydro-Mix-VII, clamp ring and replaceable ceramic element.



Hydro-Mix-VII, typical mounting locations.