

Moisture Measurement in Concrete Production

[Hydronix sensors](#) were originally designed for moisture measurement in concrete production, and are built to survive the harsh environment of flowing aggregates and the turbulence of a concrete mixer. Manufacturers need to produce quality concrete to a rigorous specification, batch after batch while keeping costs to a minimum.

Benefits

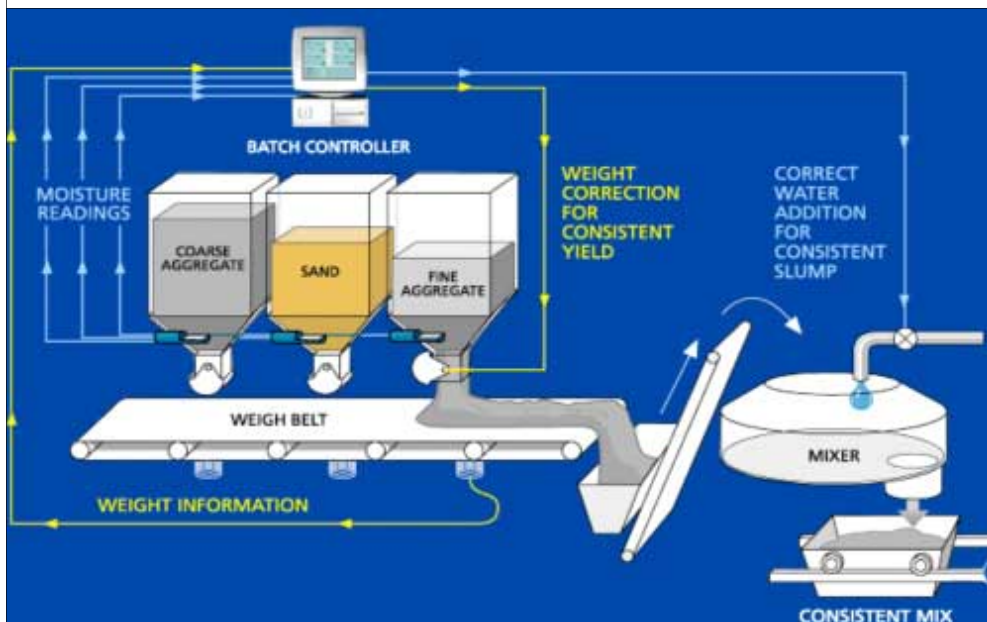
- Consistent batch quality
- Consistent batch sizes when using the Hydro-Probe
- Alarm function for high or low moisture contents
- Reduction in cement use
- Reduction in wastage due to incorrect moisture or slump
- Reduced mix cycle times

One of the major problems of inconsistency in batching concrete is the ever varying moisture content of the sand and aggregates from one batch to another. Good storage of the sand and aggregates can help, but even for materials stored in covered silos the moisture will be forever changing due the inevitable effects of drainage. Moisture content in stored sand and aggregates can have dramatic effects on the water/cement ratio, the aggregate/cement ratio, yield and the color of the mix. **Measuring the moisture content of the raw materials can enable the plant controller to adjust water addition into his mix in real time, minimizing these effects.** This enables batch after batch of concrete to be produced to the same, consistent quality.

The installation of moisture measurement sensors into the manufacturing process provides the producer with an on-line system that operates in real time and enables the accurate control of the water/cement or aggregate/cement ratios. Knowing the moisture levels of the raw materials allows the producer to accurately calculate not only the amount of water to be added to the mix but also the correct amount of cement and aggregates. **This will reduce costs and also the level of rejected batches.**

[Hydronix microwave moisture measurement sensors](#) can be installed in a variety of locations depending upon the individual requirements of the plant. The **Hydro-Probe** can be installed either in or underneath an aggregate bin and measures moisture as the raw material exits the bin. Alternatively it could be mounted above a conveyor and measure the aggregate as it flows past the sensor face plate. The **Hydro-Mix** has been designed to fit level with the floor and

measures moisture in the mixer. Alternatively, the **Hydro-Probe Orbiter** can be mounted to the scraper arm or the side of the mixer and measures moisture content directly



For More Information
or to Get a Brochure,
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