Concrete is created based on specific water-cement ratios depending on the application. Extra water, however, is often added to clean concrete chutes or to attain the desired stiffness in concrete mixes. Additional water presents serious strength and durability concerns and concrete that does not meet required strength standards must be removed and rebuilt with a new mix. Quality Control personnel must either take samples to a laboratory site or wait until concrete has hardened to determine whether the appropriate water-cement ratio was used. The Concrete Microwave Moisture Meter utilizes rectangular waveguides to instantly measure the water content of any concrete mix before it hardens. An electromagnetic field is applied to the concrete sample, which polarizes the water molecules. The degree of polarization can then be measured, providing the volumetric ratio of water in the concrete.

- Facilitates rapid analysis of water content in concrete samples.
- Improves accuracy of water-cement ratio measurement.
- Reduces time and money associated with replacing concrete batches that do not meet durability requirements.
- Allows quality engineers to accept or reject a batch of concrete within minutes.

**INVENTOR PROFILE**

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