



SECTION 03300 - CAST-IN-PLACE CONCRETE

Metered Water Additions in Transit

Note to Specifier

ASTM C94/C94M was revised in 2013 to allow water additions during transit for trucks equipped with automated slump and water management systems. Check your specification to ensure it does not prohibit in-transit addition of water. Add the following text.

Water additions during transportation shall be made in accordance with ASTM C94/C94M.

Automated Quality Control and Quality Assurance

Note to Specifier

The following text defines minimum requirements for an automated slump management system for ensuring consistent quality concrete.

PART 1 - GENERAL

1.X Quality Control By Contractor

- A. **Automated Slump Management System.** Ready mix trucks shall be equipped with the Verifi Slump Management System (Verifi LLC, www.verificoncrete.com, 9466 Meridian Way, West Chester, OH 45069) or equivalent system capable of the following:
 - a. Monitor concrete slump to an accuracy of +/- 1 in. (25 mm). The equipment shall obtain one or more physical measurements on the truck mixer related to concrete slump and provide an indication of slump based on pre-established correlations. Equipment shall be accurate for 50% to 100% of mixing drum volume capacity. Upon request, concrete supplier shall provide data no older than 24 months confirming the accuracy of calibration for each truck type.
 - b. Meter water added to the truck to an accuracy of +/-3% of the amount added or +/- 1 quart (1 liter), whichever is greater. Upon request, concrete supplier shall provide data no older than 12 months confirming the accuracy of calibration.
 - c. Meter admixture added to the truck to an accuracy of +/-3% of the amount added or +/- 1 quart (1 liter), whichever is greater. Upon request, concrete supplier shall provide data no older than 24 months confirming the accuracy of calibration.
 - d. Monitor concrete temperature to an accuracy of +/- 2°F (1°C). Upon request, concrete supplier shall provide data no older than 24 months confirming the accuracy of calibration.
 - e. Perform automated additions of water, admixture, or both to achieve a target slump.
 - f. Stop additions of water when reaching the maximum water content for the mixture design.
 - g. Provide the following via electronic means or visual display to an inspector upon request at the jobsite: concrete slump, concrete temperature, water added, admixture added, age, total revolutions, total revolutions at mixing speed since last water addition.
 - h. Provide the following via electronic means to the engineer: concrete slump, concrete temperature, water added, admixture added, age, total revolutions, total revolutions at mixing speed since last water addition. All data shall be for the start of discharge.

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