

Title (en)

METHOD AND CIRCUITRY FOR CONTROLLING THE CONSISTENCY OF FRESH CONCRETE IN A FIXED CONCRETE MIXING DEVICE

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Application

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Priority

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Abstract (en)

[origin: EP0305574A1] According to the method of the invention, the final power value which occurs at the end of the mixing process is forecast during the mixing process as early as the water inflow phase with a discrete Kalman filter, using a relationship between the mean power value of the mixing motor, which correlates with the consistency, and the quantity of water currently admixed. This forecast final power value is compared to a desired final power value, which is fixed as a device and formulation parameter, and the difference is used to determine the residual quantity of water required and hence for controlling the water valve. The circuitry consists essentially of an active-power measuring device (13), which is connected via a time-controlled electronic change-over switch (14) to a first-order Kalman filter (15) or via measuring-transducer units (16, 17) to a third-order Kalman filter (20) and a circuit (23) for determining the final value. The signal present at the output of the circuit (23) for determining the final value, which signal characterises the consistency, is compared to a device and formulation parameter, fixed in a read-only memory, (25) by means of a differential amplifier (24). An evaluation circuit (27) uses the difference to derive the water-valve control times of the mixing installation (5).

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