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DIAL-A-MATIC ELECTRIC TEL-A-SLUMP
MODEL II

TECHNICAL INSTRUCTIONS
062001A

DESCRIPTION

The Dial-A-Matic Electric Tel-A-Slump is an electrically operated instrument designed for exact control of slump in Ready-Mix, Precast, Prestressed, Cast Pipe and Slump Block operations.

The Dial-A-Matic Electric Tel-A-Slump will automatically add water to a low slump mix until the correct slump is achieved, thereby eliminating the need to "eyeball" the mix.

Use the setpoint to set the desired slump and the "Manual-Off-Auto" switch selects the desired water function.

The Delay Timer delays the addition of automatic finishing water until effective mixing is nearly complete.

The Dial-A-Matic Electric Tel-A-Slump can be used in any operation that depends on an electric motor to mix concrete to a positive slump. It works especially well in total automatic operations where the sole purpose of a batchman is to observe and adjust the slump.

APPLICATION

The Dial-A-Matic Electric Tel-A-Slump can be used in any operation that depends on an electric motor to mix concrete to a positive slump. It works especially well in total automatic operations where the sole purpose of a batchman is to observe and adjust the slump.



DETS II

TO INSTALL:

1. Placement of the instrument should be convenient to the mixer operator both visually and physically. Keep in mind the control unit needs a standard 110 VAC outlet and cables need to be run to the solenoid valve and the transducer.
2. Install the solenoid valve and flow control to by-pass the primary water valve, taking care to notice the direction of flow arrows stamped on both devices.
3. Install the transducer and current transformer(s) in the mixer starter box, or if space is restricted, in a separate enclosure. The purpose of the transducer is to reduce the high amperage mixer current to a one milliamp DC signal. This power reduction allows the installer to run the cable supplied from the transducer to the control instrument without using conduit. The wiring for the transducer is complex and the diagram must be followed exactly. **(see transducer for wiring diagram)**

When wiring the current transformer, be sure that the marked or X1 side of the transformer is towards the source of power.

4. Connect one end of the supplied two wire cable to the transducer, the red wire to terminal #15 and the other wire to terminal #16. At the control unit connect the red wire to the positive (+) terminal and the other wire to the negative (-) terminal.
5. Connect the solenoid direct or by an extension cable to the 6' yellow power cable provided. The power cable plugs into the rear of the control unit.
6. Plug the Dial-A-Matic Electric Tel-A-Slump, Model II, into any standard 110VAC outlet.

TO TEST:

1. Turn on power. Pilot lamp should light.
2. Place function switch in manual-"ADD" lamp should light and the solenoid valve should activate.
3. Return function switch to"OFF".
4. Start mixer - Meter indicator hand should move up-scale slowly to approximately 20.
5. Set function switch to "AUTO". Set water delay timer to .6 seconds and turn the set point of the meter to a reading below that of the indicator hand. The "REQUEST" lamp immediately followed by the "ADD" lamp should light and the solenoid should activate.
6. Slowly move the set point control up-scale until the lamps go off. This should be just as the two hands separate.

TO CALIBRATE:

1. With power switch ON and the function switch OFF, Batch and mix normally while noticing the indicator hand. To be most effective and assure the best possible slump change sensitivity, the indicator hand should be at 100 when dry material is batched into the mixer and a less than 1" slump is achieved. On the next batch be ready with a screwdriver to turn the calibration adjustment on the back of the control unit during the initial charging of the mixer. If this calibration adjustment does not cause the indicator to achieve full scale, loops can be added to the current transformer, to further increase the meter reading. Care must be taken when adding loops to insure the first passage through the current transformer is as previously stated, with the X1 side towards the source. Any additional loops must then also enter the current transformer by the X1 side. (See wiring diagram)

2. The batch operator should now observe the action of the meter. Manual addition of water will show what effect the additional water has on the indicator hand. After a few loads, the operator will know what the indicator hand should read for the required slump and load size. A Slump chart is provided to record these readings for future operations.

TO OPERATE:

1. Place the set point several marks above the desired indicator hand reading.
2. Set the function switch to "AUTO".
3. Set the time delay for approximately the time it takes to mix the batch to a stabilized meter indication. This time delay allows the batch operator to add most of the water (80-90%) during initial charging.
4. Proceed to charge the mixer.

If the load is still too dry after it is thoroughly mixed the Dial-A-Matic Electric Tel-A-Slump, Model II, will automatically add water until the slump is correct.

5. The number of marks needed to "lead" the desired slump indication is a function of the speed of trim water addition and effectiveness of the mixer. The batch operator should be able to hit the slump exactly after only a few batches.

IMPORTANT

If a SUPER PLASTICIZER is used, the best results will be obtained, if the super plasticizer is added AFTER the Dial-A-Matic Electric Tel-A-Slump, Model II, has completed the add water sequence. This is normally recommended by the suppliers of this material and is also necessary from the standpoint of good control, because the sensitivity of power measuring equipment is much better in the ranges of lower slump, than in the 7" plus range.