Kentucky Method 64-303-0~~82~~
Revised ~~12/13/01~~02/22/08
Supersedes KM 64-303-0~~20~~
Dated ~~1/00~~12/13/01

AIR CONTENT OF FRESHLY MIXED CONCRETE BY THE PRESSURE METHOD

Perform Test procedure according to ASTM C-231 with the following exceptions:

1. Obtain sample in accordance with KM 64-301, Sampling Fresh Concrete.

2. The aggregate correction factor for limestone coarse aggregate is 0.2% and for gravel coarse aggregate, 0.4%. Subtract the aggregate correction factor from the dial reading for the type coarse aggregate used.

3. See appendix for alternate calibration procedure.

4. Meters shall be calibrated on an annual basis or ~~whenever~~ more frequently if there is a question about accuracy.

APPROVED _____
DIRECTOR
DIVISION OF MATERIALS

DATE 02/22/08

~~APPROVED _____~~
~~Director~~
~~Division of Materials~~

~~DATE 12/13/01~~

Kentucky Method 64-303-0~~82~~
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Attachment

CALIBRATION OF THE "WATTS AIR METER"

Alternative Calibration---
An alternate method of calibration utilizes a device, namely Cali-Can, which replaces 5% of the water necessary to fill a $1/4ft^3$ bucket. This device eliminates the tubes and measure used in the original procedure.

However, this device shall be calibrated yearly by comparing to the original procedure. The variation between the original procedure and the Cali-Can should be no more than ± 0.2 %.

The Cali-Can is very useful for on-site calibration checks and is advantageous when calibrating numerous air meters.

The procedure is as follows:

1. Fill base with water. Clamp on cover. With both petcocks open, add water with a syringe through one petcock until all air is forced out opposite petcock. Leave both petcocks open.

2. Pump up air pressure to a little beyond the predetermined initial pressure line. Wait approximately 2 minutes for compressed air to cool to normal temperature and then stabilize the gauge hand at the proper initial pressure line by pumping or bleeding off as needed.

3. Close both petcocks and immediately press down on the thumb lever exhausting air into the base. Wait a few seconds until the hand is stabilized. If all the air was eliminated and the initial pressure line was correctly selected, the gauge should read 0%. If two or more tests show a consistent variation from 0%, then change initial pressure line to compensate for the variation. Use the newly established "initial pressure" line for subsequent tests.

4. Remove cover and place the calibration canister upright at the bottom of the already filled meter base. Replace cover on the base and top off with water.

5. With petcocks open, pump air pressure in exact manner as in paragraph 2. Close petcocks and immediately press the thumb lever. Wait a few seconds for exhaust air to warm to normal temperature and for the needle to stabilize. The dial should now read 5%.

6. If two or more consecutive tests show that the gauge reads incorrectly at 5% air (in excess of 0.2%) remove gauge glass and reset the dial hand to 5% by turning the calibrating screw located just below and to the right of the center dial.

7. After any adjustments, repeat procedure.

~~NOTE: ASTM does not have this alternate method.~~