

## Concrete Air Meter Kit BCL-105

### OPERATING INSTRUCTIONS:

NOTE: Please refer to ASTM C 231 or AASHTO T 152 for complete and detailed test protocol. These instructions are intended only as a guide for general operation of this device.

1. Fill the base with a sample of fresh concrete, placing and consolidating it in the manner prescribed in the specification. Use the metal strike-off bar to strike off the excess so the base is level full. Carefully wipe the rim clean.
2. Clamp on cover securely and insure both petcocks are open.
3. Using the syringe, inject water through one petcock until all air is expelled through the opposite petcock. Do not tilt meter. Leave the petcocks open.
4. With built-in pump, pump air to the calibrated initial pressure line on the gauge.
5. Wait a few seconds for the gauge hand to stabilize, then pump additional air or bleed off as necessary using the air bleeder valve cap.
6. Close both petcocks, then press down on the needle valve lever to release pressurized air into the base. Tap the gauge lightly with your finger while holding the lever down for a few seconds until the gauge hand stabilizes.
7. Read total concrete air content directly from dial gauge.
8. Carefully open petcocks to release air pressure, then remove cover. Clean and flush base, cover and petcock openings thoroughly with running water.
3. Using the syringe provided, add water to the base through the petcock with the threaded tube until all air is expelled through the opposite petcock.
4. Pump up air pressure to just beyond the predetermined initial pressure line. Wait a few seconds for the gauge hand to stabilize, then add or release air as necessary to stabilize the gauge hand at the initial pressure line.
5. Close both petcocks and immediately press the needle valve lever to release air into the base. Tap the gauge lightly with your finger while holding down the lever. The gauge hand should read zero. If two or more tests show a variation greater than 0.1% from zero, follow specification protocol to reestablish initial pressure line.
6. Screw the curved tube provided into the threaded outside opening of the petcock. By pressing on the needle valve lever and controlling the flow with the petcock lever, carefully fill the included calibration vessel exactly full of water.
7. Release air pressure by opening the free petcock. Open the other petcock and allow water from the tube to run back into the base. There is now 5% air in the base.
8. With both petcocks open, follow the procedure in step four to pressurize the meter to the initial pressure line. Close the petcocks and immediately press the needle valve lever. Stabilize the gauge hand as before. The gauge should read 5.0%.
9. If two or more tests indicate a variation of more than 0.1%, reset the gauge hand. Remove the gauge glass and turn the calibration screw on the gauge hand to reset to 5%. Retest to insure settings are correct.
10. When gauge hand reads correctly at 5.0%, additional tests may be run in increments of 5% by withdrawing additional water with the calibration vessel.

### CALIBRATION INSTRUCTIONS:

NOTE: These instructions are intended to supplement specified procedures detailed in ASTM C 231 or AASHTO T 152.

1. Fill the base completely with room temperature water.
2. Thread the short piece of straight tubing into the threaded petcock opening on the underside of the cover. Clamp the cover on the base with the tube extending down into the water.

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