



PRESSURE AIR METER INSTRUCTIONS AIR-METER (TYPE B)

Refer to ASTM C231 for further information and latest revisions.

OPERATING INSTRUCTIONS:

NOTE: Type B air meters are not to be used for concrete with lightweight or porous aggregate.

1. Wet the meter bowl, and then fill the bowl in three equal layers, uniformly rodding each layer twenty-five times, and penetrating 1" into previous layer. Rap the sides sharply ten to fifteen times, with a standard mallet, after rodding each layer. There should be no substantial excess or shortage of concrete after consolidation. An excess of 1/8" is optimum.
2. Strike off with a metal strike bar, clean contact surface, and dampen rubber seal on cover.
3. Open both petcocks and clamp on cover.
4. Syringe water through one petcock until water is ejected through the other petcock and all air is removed. Jar the meter gently until no air bubbles appear.
5. Close the air bleeder valve and adjust gauge to your initial pressure number, by pumping or bleeding, while tapping the gauge lightly.
6. Close both petcocks, and press and hold down the needle valve lever while rapping the base sharply and tapping the gauge lightly.
7. Read the air content on the gauge and subtract the aggregate correction factor (for aggregate correction factor see ASTM C231).
8. Release the pressure by opening both petcocks.
9. Clean air meter immediately with clean water.

CALIBRATION INSTRUCTIONS:

1. With NO pressure in chamber, adjust the gauge needle to the "HANDS FREE" line (use screw on needle).
2. Screw the short calibration tube into the underside of cover at petcock hole.
3. Fill base with water and clamp on cover. (The tube will extend into water.)
4. Open both petcocks, then add water (using syringe) through the petcock having the tube extended below, until water is expelled through the other petcock removing all air.
5. Pump air pressure until pressure reaches slightly beyond the initial pressure numbers. Allow a few seconds for compressed air to cool, and then adjust needle to initial pressure number by pumping, or bleeding. (Example 2.5-3.0-3.5)
Note: start with 3.0
6. Close both petcocks, press and hold down the needle valve lever, releasing air into base, and wait for gauge needle to stabilize. Needle will read zero if initial pressure number was correct. If two or more tests show a consistent variation from zero, change the initial pressure number (do not adjust needle) to read zero consistently.
7. Remove all air as in step #4. Screw curved calibration tube into other end of petcock having short tube, then press the needle valve lever and open petcock to fill calibration vessel to the top. When vessel is full, open opposite petcock so water in the tube can flow back into the base. There is now 5% air in the base (354 ml. of water removed).
8. With petcocks open, pump up gauge to your initial pressure number. Close petcocks, press and hold the needle valve lever, and wait for gauge needle to stabilize. Gauge should read 5%. If two or more tests show gauge reading incorrectly at 5%, remove the gauge glass and adjust gauge needle by turning the screw on the needle to 5%.
9. When gauge needle reads correctly at 5%, additional water may be withdrawn in the same manner, to check results at additional 5% increments.

