



## **Humboldt Pressure Meter— H-2787**

The H-2787 air meter is one of the most precise air content measuring devices available. With heat-treated, cast aluminum construction and cast-in handles on the base, the H-2787 is heavy duty, yet lightweight, and easy to handle.

This air meter utilizes the best clamping system available, with large stainless steel clamp levers and a holding capacity of 2500 lbs. each. This clamping system provides an easy, dependable operation. Employing the use of a superior, high-volume Pump, this system makes operation efficient yet rapid. The meter includes a large, accurate pressure gauge with safety glass and bold color dial face. Color coded for entrapped and entrained air readings.

The H-2787 air meter is furnished complete with the following items:

- Type B pressure meter
- Precisely molded polyethylene case with inner molded reinforced walls to hold the meter and accessories in place.
- Calibrated Vessel
- Calibration Outside Tube
- Calibration Inside Tube
- Strike-off Bar
- 24" Long Tamping Rod 5/8" diameter rounded to a hemispherical tip at both ends
- 3 oz. Bulb Syringe
- 16 oz. Rubber Mallet

Conforms to ASTM C231 & AASHTO T152

Shipping Info: 28" x 11" x 20" – 38 lbs.

## Operation 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 16 oz. rubber 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, press and hold down the needle valve lever while rapping the base sharply and tapping the gauge lightly.
7. Read the air content on gauge and subtract 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. refer to the calibration instructions below.

## Calibration Instructions

1. With NO pressure in chamber, adjust 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 up 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 the 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 percent in 5% increments.
10. Prompt cleaning with water of the air meter cover and pot, both inside and out will ensure a proper seal and volume are maintained.
11. Periodic oiling of petcock screws will prevent them from seizing. WD-40 or a similar product is sufficient.



H-2789



H-2793



H-2788



H-2785.35

H-2785.34

### Air Meter Calibrators (5%)

Calibrators check the accuracy of any pressure-type concrete air meter. Set the specially-designed canister upright at the bottom of the water-filled base, and the meter should read 5% air by volume. Two calibrators are used for a 10% air reading.

- Air Meter Calibrator, Brass H-2789
- Air Meter Calibrator, Aluminum H-2793
- Air Meter Calibrator, Plastic H-2788



Ship wt. 3 lb (1.3kg)



H-3399



H-2783.30



H-2785.36



H-2783.31

H-2783.32

### Air Meter Replacement Accessories

Item	Part No.
Calibration Vessel, plastic	H-2783.30
Calibration Tube (outside)	H-2783.31
Calibration Tube (inside)	H-2783.32
Wash Bottle	H-3399
Strike-off Bar	H-2785.34
Tamping Rod 5/8" x 16"	H-2785.35
Syringe, Rubber Bulb	H-2785.36

**CLEAN, REPAIR  
CALIBRATE**



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**Warranty**

Humboldt Mfg. Co. warrants its products to be free from defects in material or workmanship. The exclusive remedy for this warranty is Humboldt Mfg. Co., factory replacement of any part or parts of such product, for the warranty of this product please refer to Humboldt Mfg. Co. catalog on Terms and Conditions of Sale. The purchaser is responsible for the transportation charges. Humboldt Mfg. Co. shall not be responsible under this warranty if the goods have been improperly maintained, installed, operated or the goods have been altered or modified so as to adversely affect the operation, use performance or durability or so as to change their intended use. The Humboldt Mfg. Co. liability under the warranty contained in this clause is limited to the repair or replacement of defective goods and making good, defective workmanship.

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