



Air Meter

Press-Ur-Meter— H-2786

The original Press-Ur-Meter for field and laboratory tests, 1/4-cu.-ft. (.007m³) air meter is designed to determine air content, determination of specific gravity and free moisture test of aggregates. Designed to save time, reduce water used, ensure accuracy and maintain sample integrity (sample may be used for slump and compression tests). Features built-in, all-brass H-2785.DB super pump. Furnished with all necessary accessories for calibration and operation and carrying case. Overall height: 20-1/2" (521mm). Shipping wt. 36 lbs. (16.4kg)

All our Type-B Concrete Air Meters feature our all-brass H-2785.DB Super Pump for reliability and faster operation.

All air meters meet ASTM C231; AASHTO T152.

Operation Instructions

1. Fill the base with a sample of fresh concrete, placing it in the base by vibrating or tamping, in much the same manner as the concrete is to be placed on the job. Strike off the base, level full, with the bronze straight edge furnished. Wipe top edge clean.
2. Clamp cover on with petcocks open.
3. Using rubber syringe, inject water through one petcock. Leave petcocks open.
4. With built-in pump, pump up air to "initial pressure" line on gauge.
5. Wait a few seconds for compressed air to cool to normal temperature and then bleeding off, as needed.
6. Close both petcocks and press down on "thumb lever" to release the air into the base. Hold thumb lever down for a few seconds, lightly tapping the gauge with the finger to stabilize the hand on dial.

DO NOT TILT THE METER AT ANY TIME.

7. Read percent of air in concrete on dial.
8. Open the petcocks to release the pressure and then remove cover. Clean up the base, cover and petcock openings.

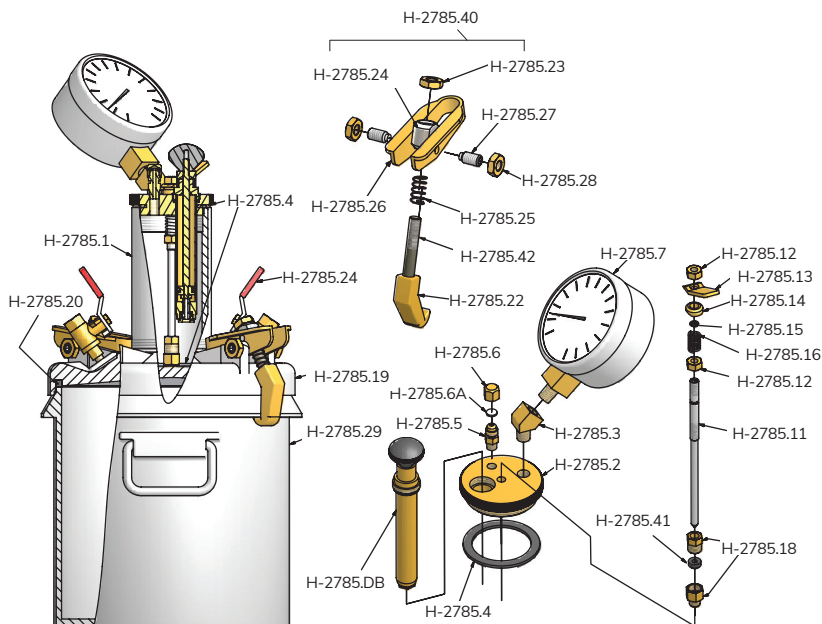
To Check Calibration of Meter Gauge

1. Fill the base full of water.
2. Screw the short piece of straight tubing into the threaded petcock hole on the underside of the cover. Clamp cover on the base with the tube extending down into the water.
3. With both petcocks open, add water with syringe through the petcock having the pipe extension below, until all air is forced out opposite petcock. Leave both petcocks open.
4. Pump up air pressure to a little beyond the pre-determined initial pressure line. Wait a few seconds 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.
5. 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% in the result, then change initial pressure line to compensate for the variation. Use the newly established "initial pressure" line for subsequent tests.

6. Screw curved tube into the outer end of petcock and by pressing on thumb lever and controlling flow with petcock lever, fill the 5% calibrating vessel level full of water from the base.
7. Release the air at the free petcock. Open the other pet cock and let the water in the curved pipe run back into the base. There is now 5% air in the base.
8. With petcocks open, pump air pressure in exact manner as outlined in paragraph 4. 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%.
9. If two or more consistent tests show that the gauge reads incorrectly at 5% air in excess of .2% (or whatever is considered satisfactory), then remove gauge glass and reset the dial hand to 5% by turning the recalibrating screw.
10. When gauge hand reads correctly at 5%, additional water may be withdrawn in same manner to check results at 10%, 15%, 20%, etc.
11. The recalibrating screw is located in the center of the pointer.

Maintenance Tips

1. Prompt cleaning with water of the air meter cover and pot, both inside and out will ensure a proper seal and volume are maintained.
2. Periodic oiling of petcock screws will prevent them from seizing. WD-40 or a similar product is sufficient.

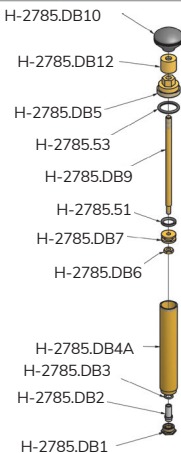


H-2786 Air Meter Replacement Items

Part No.	Description	Part No.	Description
H-2785.1	Pressure chamber	H-2785.19	Cover
H-2785.2	Pressure chamber cap	H-2785.20	Cover O-ring
H-2785.3	Pressure chamber elbow	H-2783.24	Cover Petcock
H-2785.4	Pressure chamber gasket	H-2785.22	Clamp with stud
H-2785.5	Air-release stem	H-2785.23	Clamp nut
H-2785.6	Air-release cap	H-2785.24	Clamp trunnion
H-2785.6A	Release cap gasket	H-2785.25	Clamp spring
H-2785.7	Air meter gauge	H-2785.26	Clamp toggle
H-2785.11	Needle valve stem	H-2785.27	Clamp toggle set screw
H-2785.12	Needle valve nut	H-2785.28	Clamp toggle lock nut
H-2785.13	Needle valve lever	H-2785.29	Base
H-2785.14	Needle valve spacer	H-2785.41	Needle valve seat gasket
H-2785.15	Needle valve o-ring	H-2785.42	Stud
H-2785.16	Needle valve spring	H-2785.DB	Super Pump assembly
H-2785.18	Needle valve spring retainer	H-2785.55	Gasket replacement kit
H-2785.18	Needle valve seat assy.	H-2785.40	Latch assembly complete

H-2785DB Super Pump Replacement Parts

Part No.	Description
H-2785.DB1	Valve nut
H-2785.DB2	Valve
H-2785.DB3	Valve O-ring
H-2785.DB4A	Pump tube
H-2785.DB5	Pump cap
H-2785.DB6	Stem nut
H-2785.DB7	Pump piston
H-2785.DB9	Pump stem
H-2785.DB10	Pump handle
H-2785.DB12	Stem cap
H-2785.51	Pump piston O-ring
H-2785.53	Pump tube O-ring





H-2789



H-2793



H-2788

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

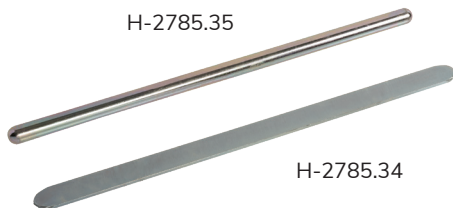
Air Meter Calibrator, Aluminum H-2793

Air Meter Calibrator, Plastic H-2788



Ship wt. 3 lb (1.3kg)

H-2785.35



H-2785.34



H-2785.32



H-2785.33



H-2785.31



H-3399

Air Meter Replacement Accessories

Item	Part No.
Calibration Vessel, metal	H-2785.31
Calibration Tube (outside)	H-2785.32
Calibration Tube (inside)	H-2785.33
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
Wooden Case, Press-Ur-Meter	H-2785.38
Plastic Case, Press-Ur-Meter, Horizontal	H-2785.38HP



H-2785.36



H-2785.38HP



H-2785.38

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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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Air Meters



H-2783A

Humboldt Concrete Air Meter

ASTM C231, AASHTO T152

The H-2783A air meter, which exceeds ASTM requirements, features the Humboldt, all-brass super pump, the most reliable and highest quality pump available. The meter's easy-to-use, and extra durable stainless steel clamping system employs four, one-piece, self-locking clamps that quickly seal the lid to the base with proper tension aided by an o-ring to assure a water-tight seal. The large, easy-to-read, 4-inch diameter, heavy-duty, direct percentage gauge with calibration adjustments is accurate to the nearest 0.1%. The bucket, or pressure chamber,

features EZ-grip, cast handles, which improve usability. This is especially true when the bucket is also used as a 0.25 cu. ft. unit weight measure. The lid of the pressure meter features a smooth sloped top so water and concrete wipe right off.

By eliminating the cavities in the lid that trap and hold concrete, maintenance and repair problems are greatly reduced. The meter also features a machined base, which ensures the meter sets level when conducting tests. The kit includes a durable plastic carrying case; a tamping rod; strike-off bar; rubber bulb syringe; plastic calibration vessel; inside calibration tube,

outside calibration tube and operating instructions.

Features Include:

- Humboldt all-brass Super Pump
- Large, heavy-duty, easy-to-read gauge
- Cast handles for secure grip
- Bucket can be used as a 0.25 cu. ft. unit weight measure
- Complete with all needed accessories and case.

Air Meters



H-2786



H-2786P



H-2784

Press-Ur-Meter Concrete Air Meter, Wood Case

ASTM C231, AASHTO T152

This is the original Press-Ur-Meter for field and laboratory tests. This air meter is designed to provide air content and the determination of specific gravity and free moisture of aggregate. Designed to save time, reduce water use, ensure accuracy and maintain sample integrity (sample may also be used for slump and compression tests). The meter uses brass cover clamps, which can be adjusted for clamping pressure. A large, easy-to-read, 4" diameter, direct percentage gauge with calibration adjustments is accurate to nearest 0.1%. The H-2786 meter also features the Humboldt, all-brass super pump, the most reliable and highest quality pump available. The meter's base/bucket can be used as a 0.25 cu. ft. unit weight measure. This kit includes a wood carrying case; tamping rod; strike-off bar; rubber bulb syringe; aluminum calibration vessel; inside calibration tube, outside calibration tube and operating instructions.

Press-Ur-Meter Concrete Air Meter, Plastic Case

ASTM C231, AASHTO T152

This is the original Press-Ur-Meter for field and laboratory tests. This air meter is designed to provide air content and the determination of specific gravity and free moisture of aggregate. Designed to save time, reduce water use, ensure accuracy and maintain sample integrity (sample may also be used for slump and compression tests). The meter uses brass cover clamps, which can be adjusted for clamping pressure. A large, easy-to-read, 4" diameter, direct percentage gauge with calibration adjustments is accurate to nearest 0.1%. The H-2786 meter also features the Humboldt, all-brass super pump, the most reliable and highest quality pump available. The meter's base/bucket can be used as a 0.25 cu. ft. unit weight measure. This kit includes a molded-plastic carrying case; tamping rod; strike-off bar; rubber bulb syringe; aluminum calibration vessel; inside calibration tube, outside calibration tube and operating instructions.

Humboldt Super Air Meter

ASTM C231, AASHTO T152, T395

The Humboldt H-2784 Super Air Meter (SAM) quickly measures air void spacing and volume in fresh concrete, providing crucial data for freeze-thaw durability. Unlike conventional methods, the SAM assesses air-void spacing, which is a better indicator of durability than total air content. It operates in two modes: first, as a standard Type B meter (ASTM C231), then under higher pressures to evaluate the concrete's air-void system in more detail. The SAM uses two sequential pressurizations at 14.5, 30, and 45 psi to calculate the SAM number, which correlates to the average spacing of air voids. A SAM number of 0.20 or lower indicates concrete that is less likely to experience freeze-thaw damage. The H-2784 includes the SAM device, calibration tools, and accessories for both Type B and SAM tests. It is recommended to pair the SAM with the CAPE System for optimal results.