



Concrete Air Meter — H-2786C

The H-2786C air meter features a simplified, low-maintenance design, which uses no moving parts inside the chamber. Pressure is released into the base by an external, brass, quick-release T-valve. 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 the nearest 0.1%. The base is machined inside and out for easy cleaning and the chamber and cover are one solid component, eliminating bottom gasket leaks. The H-2786C air 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. The kit includes a durable plastic carrying case; tamping rod; strike-off bar; wash bottle; plastic calibration vessel; inside calibration tube, outside calibration tube and operating instructions.

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. Place a representative sample of concrete in 3 equal layers, consolidating each layer by rodding and tapping the bowl, vibration may be substituted.
2. Using a sawing motion, strike off the excess concrete across the top flange with the screeding tool. Wipe the flanges clean.
3. Clamp the cover on with the petcocks open.
4. Using the plastic wash bottle (supplied), inject water through one petcock until all the air is expelled through the opposite petcock.
5. Roll the air meter on the perimeter of the base while lightly tapping the sides to release entrapped air and to ensure complete filling. Gently close the “hands-free” valve.
6. Pump up air to the initial pressure point, as shown for your meter, using the super pump.
7. Wait a few seconds and stabilize the gauge needle on the “initial pressure” line by pumping up or by loosening the bleeder cap, whichever is necessary.
8. Close both petcocks and open the “hands-free” valve. Lightly tap the gauge with fingertips to stabilize the gauge needle.
9. Read and record the percent of air shown on the dial.
10. Gently close the “hands-free” valve. Open the petcocks to release the pressure. Remove the cover.
11. Clean the petcock openings, air meter and accessories with water.
12. Open the “hands-free” valve to release the pressure on the gauge.

To Check Calibration of Meter Gauge

The calibration of the meter may be checked as follows:

1. Fill the base with 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. Open both petcocks, introduce water via the wash bottle through the threaded petcock until all the air is forced out the opposite petcock. Leave both petcocks open.bleeding off as needed.

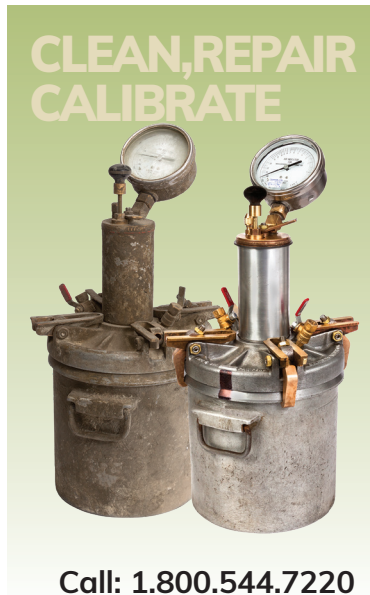
4. Pump up air pressure to a little beyond the pre-determined initial pressure line.
5. Wait a few seconds for the compressed air to cool to ambient temperature, then stabilize the gauge hand at the proper initial pressure point by pumping or bleeding off as needed.
6. Close both petcocks and immediately crack open the “hands-free” valve, exhausting air into the base.
7. Wait a few seconds until the hand is stabilized. If all the air has been 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 the initial pressure line to compensate for the variation. Use the newly established “initial pressure” point for subsequent tests.
8. Screw the curved tube into the outer end of the threaded petcock. Controlling the flow with the petcock lever, fill the 5% calibration vessel to its full capacity (354ml) with water from the base of the air meter.
9. Close the “hands-free” valve.
10. Release the air at the free petcock. Open the other petcock and let the water in the curved pipe run back into the base. There is now 5% air in the base.
11. With the petcocks open, pump air pressure in the exact manner as outlined in step 4. Close petcocks and immediately open the “hands-free” valve. Wait a few seconds for the needle to stabilize and for the exhaust air to warm to ambient temperature. The dial should now read 5%.
12. If two or more consistent tests show that the gauge reads incorrectly at 5% air (in excess of 0.2%, or whatever is considered satisfactory), then remove the gauge glass and reset the dial hand to 5%. Do this by turning the recalibration screw, located just below and to the right of the center dial.
13. When the gauge hand reads correctly at 5%, additional water may be withdrawn in the same manner to check results at 10, 15, 20%, etc.

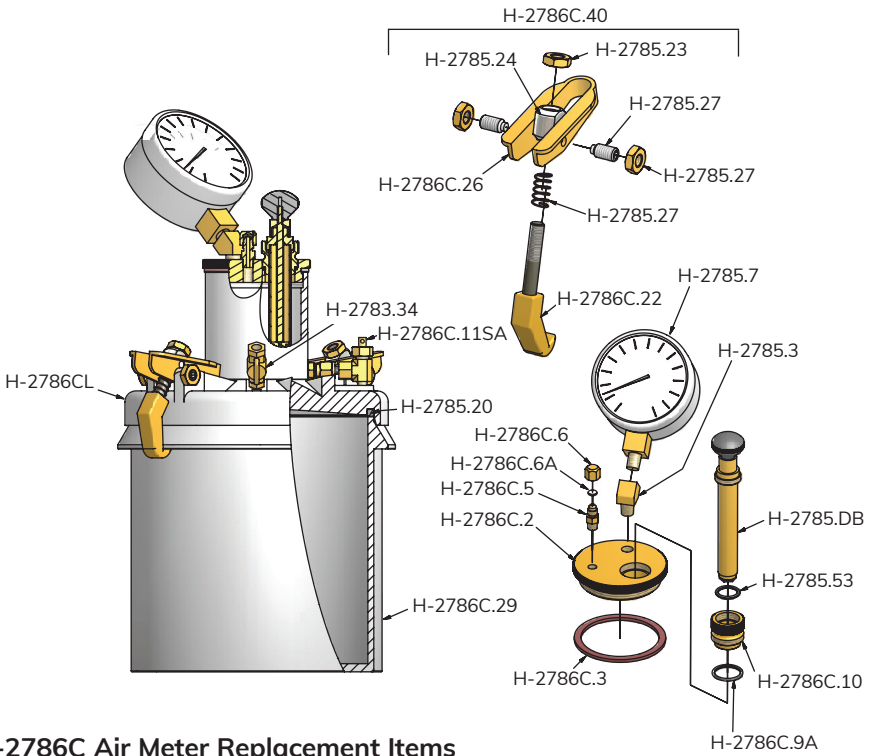
Maintenance Tips

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.
3. Under normal use the Hand's-free valve will never need replacement.

If the valve is leaking, the following quick procedure will correct the problem:

Unscrew the valve stem from the valve body using the top brass hex nut. Using a coarse piece of emery cloth or sandpaper, remove the debris and wear lines on the brass valve taper with 2 or 3 quick sandings. One, or two quick polishes with 500 emery cloth finishes the cleaning. Coat the valve taper with white lithium or plumber's grease. Before returning the valve stem to the valve, ensure that the valve hole is clear all the way through to the underside of the cover. Screw the valve stem back into the valve.



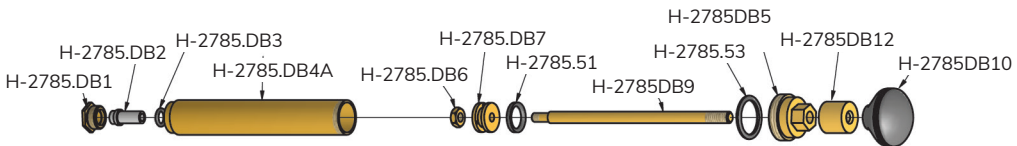


H-2786C Air Meter Replacement Items

Part No.	Description	Part No.	Description
H-2785.7	Gauge, complete	H-2785.27	Clamp toggle lock nut
H-2785.3	Pressure chamber elbow	H-2785.25	Spring
H-2786C.3	Gasket, pressure chamber	H-2786C.26	Toggle
H-2786C.2	Pressure chamber cap	H-2786C.22	Clamp
H-2786C.5	Air-release stem	H-2786C.10	Super Pump adapter
H-2786C.29	Pot (base only)	H-2786C.9A	O-ring, lower for adapter
H-2786C.6	Release cap and gasket	H-2785.53	O-ring for tube
H-2786C.6A	Release cap gasket only	H-2786C.29	Pot, base only
H-2786C.11SA	Valve assembly, complete	H-2786CL	Lid only
H-2785.20	Cover o-ring	H-2785.DB	Super Pump
H-2785.24	Clamp trunion	H-2786C.55.24	Gasket replacement kit
H-2785.23	Nut, clamp	H-2786C.40	Latch assembly complete

H-2785DB Super Pump Replacement Parts

Part No.	Description	Part No.	Description
H-2785.DB1	Valve Nut	H-2785.DB7	Pump Piston
H-2785.DB2	Valve	H-2785.DB9	Pump Stem
H-2785.DB3	Valve O-ring	H-2785.DB10	Pump Handle
H-2785.DB4A	Pump Tube	H-2785.DB12	Stem Cap
H-2785.DB5	Pump Cap	H-2785.51	Pump Piston O-ring
H-2785.DB6	Stem Nut	H-2785.53	Pump Tube O-ring





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-2786C.32



H-2786C.33

Air Meter Replacement Accessories

Item	Part No.
Calibration Vessel, plastic	H-2783.30
Calibration Tube (outside)	H-2786C.32
Calibration Tube (inside)	H-2786C.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
Plastic Case, H-2783A	H-2783A.62H



H-2785.36



H-3399



H-2783.30



H-2783A.62H

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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