

Gilson Concrete Air Meter HM-30 and HM-30S



HM-30

OPERATING INSTRUCTIONS

NOTE: Please refer to ASTM C231 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 measuring bowl with a sample of fresh concrete, placing and consolidating it as specified in the ASTM or AASHTO test procedure.
 - Using the metal strike-off bar provided, strike off the excess concrete until the measuring bowl is level full.
2. Ensure both petcocks are open, then carefully wipe the measuring bowl rim and cover O-Ring clean and clamp the cover securely to the measuring bowl.
3. Using the syringe provided, inject water through one petcock until all air is expelled through the opposite petcock. Do not tilt the meter. Leave the petcocks open.
4. Prior to pressurizing the chamber, open the bleeder valve and ensure the gauge hand returns to zero pressure. Close the bleeder valve.
5. With the built-in pump, pressurize the air in the air chamber until the gauge hand reaches the calibrated initial pressure.
6. Wait a few seconds and lightly tap the gauge until the gauge hand stabilizes. If necessary, adjust the air pressure using the pump or the bleeder valve.

7. Close both petcocks and hold the needle valve lever down to release air into the measuring bowl and strike with a mallet.
8. Continue holding down the needle valve lever and lightly tap the gauge until the gauge hand stabilizes.
9. With the needle valve lever depressed, read air content percentage directly from the gauge.
10. Carefully open petcocks to release air pressure, then remove the cover. Clean and flush measuring bowl, cover, and petcock openings thoroughly with running water.

CALIBRATION INSTRUCTIONS

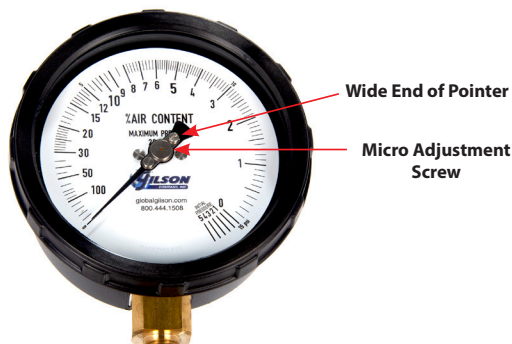
NOTE: Please refer to ASTM C231 or AASHTO T 152 for complete and detailed calibration procedures. These instructions are intended only as a guide for general calibration of this device.

1. Fill the measuring bowl completely with room temperature water.
2. Thread the piece of straight tubing provided into the threaded petcock opening on the underside of the cover. Clamp the cover on the measuring bowl with the tube extending down into the water.
3. Using the syringe provided, add water to the measuring bowl through the petcock with the threaded tube until all air is expelled through the opposite petcock. Do not tilt the meter.
4. With the built-in pump, pressurize the air in the air chamber until the gauge hand reaches the calibrated initial pressure. Wait a few seconds and lightly tap the gauge until the gauge hand stabilizes. If necessary, adjust the air pressure using the pump or the bleeder valve. Close both petcocks and immediately press the needle valve lever to release air into the measuring bowl. 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 ASTM or AASHTO test method procedures to reestablish initial pressure line.
5. Screw the curved tube provided into the internal threads of the petcock. Make sure the petcock is the same one that has the straight tube attached below. Depress and hold the needle valve lever. Controlling the flow of water with the petcock lever, carefully fill the included calibration vessel with water. Make sure to fill the vessel completely.
6. Release air pressure by opening the free petcock. Open the other petcock and allow water from the tube to run back into the measuring bowl. There is now 5% air in the measuring bowl.
7. 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. A properly calibrated gauge will read 5%.

- If two or more tests indicate a variation of more than 0.1%, remove the bezel ring, gauge lens, and gasket and set aside. Adjust the gauge hand using the corresponding method below.

- For HM-30 models using the Gilson Gorilla Gauge with micro-adjustable pointer: Gently hold the wider end of the pointer. Using a small flathead screwdriver, turn the micro-adjusting screw on the wide end of the pointer until it indicates 5%.



Micro-adjustable Gilson Gorilla Gauge for HM-30

- For HM-30S models using the gauge with stainless steel housing: Use a small flathead screwdriver to loosen the pointer screw. Gently adjust the pointer to indicate 5% and retighten the screw.
 - Reinstall the bezel ring, gauge lens, and gasket. Retest to ensure settings are correct.
- When gauge hand reads correctly at 5%, repeat steps 4 through 7 to verify calibration. Additional verifications may be run in increments of 5% by withdrawing additional water with the calibration vessel.

TECHNICAL SUPPORT

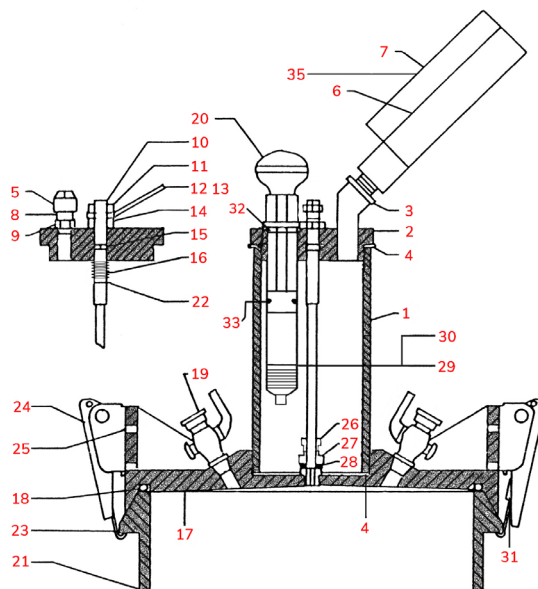
Contact Gilson Technical Support for assistance with applications, operation, maintenance, or repair.

- Telephone: 800-444-1508 / 740-548-7298
- Email: techsupport@gilsonco.com
- Web: globalgilson.com



Air Meter Set Replacement Component Identification

PARTS AND COMPONENTS



Parts and Replacement Components for Concrete Air Meter

Item Number	Item Description
1	RPHM-30KEY1R Pressure Chamber
2	RPHM-30KEY2R Pressure Chamber Cap
3	RPHM-30KEY3R Pressure Chamber Elbow
4	RPHM-30KEY4U Pressure Chamber Upper Gasket RPHM-30KEY4L Pressure Chamber Lower Gasket
5	RPHM-30KEY6R Air Bleeder Valve Cap
6	HMA-108 Gorilla Gauge
6	HMA-108S Stainless Steel Gauge
6	HMA-108D Digital Gauge
7	RPHM-30KEY37R-1 4in Poly-B Safety Glass for Gorilla Gauge
7	RPHM-30KEY37R-2 4in Glass Lens for Stainless Steel Air Meter Gauge
8	RPHM-30KEY5R Air Bleeder Valve Stem
9	RPHM-30KEY6AR Air Bleeder Valve Gasket
10	RPHM-30KEY11R Needle Valve Stem
11	RPHM-30KEY12R Needle Valve Nut
12	RPHM-30KEY13R Needle Valve Lever
13	RPHM-30KEY13AR Needle Valve Lever Cover
14	RPHM-30KEY14R Needle Valve Spacer
15	RPHM-30KEY15R Needle Valve O-Ring
16	RPHM-30KEY16R Needle Valve Spring
17	RPHM-30KEY19R Replacement Lid
18	RPHM-30KEY20R 8in Lid Seal O-Ring
19	RPHM-30KEY21R Lid Petcock
20	HMA-107R Pump Assembly
21	RPHM-30KEY29R Concrete Air Meter Base
22	RPHM-30KEY18BR Needle Valve Snap Ring
23	RPHM-30KEY23R Clamp Tab
24	RPHM-30KEY22R Latch Assembly
25	RPHM-30KEY25R Pan Head Screw
26	RPHM-30KEY17R 5/16in Brass Nut
27	RPHM-30KEY18R 5/16in Male Connector
28	RPHM-30KEY18AR No.2-201 O-Ring
29	RPHM-30KEY66R Pump Check Valve
30	RPHM-30KEY66RP Pump Plastic Check Valve
31	RPHM-30KEY24R Clamp Tab Adjusting Rod
32	RPHM-30KEY63R Pump Housing O-Ring
33	RPHM-30KEY61R Pump Plunger O-Ring
35	RPHM-30KEY8R Gorilla Gauge Glass Gasket RPHM-30KEY8R-1 Stainless Steel Gauge Glass Gasket
N/A	RPHM-30KEY57K Gasket Repair Kit
50	RPHM-30KEY31R Calibrating Vessel
51	RPHM-30KEY32R External Bent Calibration Tube
52	RPHM-30KEY33R Internal Calibration Tube
53	HM-48A Tamping Rod
54	HMA-368 Strike Off Bar
55	RPHM-30KEY36R 3oz Replacement Syringe
56	RPHM-30KEY38R Black Plastic Carrying Case for Type B Air Meter
57	RPHM-30KEY35RL Latches for Black Plastic Case, Set of 2