

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

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 base (29) with a sample of fresh concrete, placing and consolidating it in the manner prescribed in the specification. Use the metal strike-off bar (68) provided to strike off the excess so the base is level full. Carefully wipe the rim clean.
2. Clamp on cover securely and ensure both petcocks (21) are open.
3. Using the syringe (69) provided, inject water through one petcock until all air is expelled through the opposite petcock. Do not tilt meter. Leave the petcocks open.
4. With built-in pump (22), pump air to the calibrated initial pressure line on the gauge (7).
5. Wait a few seconds for the gauge hand to stabilize, then pump additional air or bleed off as necessary using the air bleeder valve cap (6).
6. Close both petcocks, then press down on the needle valve lever (13) to release pressurized air into the base. Tap the gauge lightly with your finger while holding the lever down for a few seconds until the gauge hand stabilizes.
7. Read total concrete air content directly from dial gauge.
8. Carefully open petcocks to release air pressure, then remove cover. Clean and flush base, cover, and petcock openings thoroughly with running water.

CALIBRATION INSTRUCTIONS

NOTE: These instructions are intended to supplement specified procedures detailed in ASTM C231 or AASHTO T 152.

1. Fill the base completely with room temperature water.
2. Thread the short piece of straight tubing (66) provided into the threaded petcock opening on the underside of the cover. Clamp the cover on the base with the tube extending down into the water.
3. Using the syringe provided, add water to the base through the petcock with the threaded tube until all air is expelled through the opposite petcock.



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4. Pump up air pressure to just beyond the predetermined initial pressure line. Wait a few seconds for the gauge hand to stabilize, then add or release air as necessary to stabilize the gauge hand at the initial pressure line.
5. Close both petcocks and immediately press the needle valve lever (13) to release air into the base. 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 specification protocol to reestablish initial pressure line.
6. Screw the curved tube (65) provided into the threaded outside opening of the petcock. By pressing on the needle valve lever and controlling the flow with the petcock lever, carefully fill the included calibration vessel (64) with water. Make sure to fill the vessel completely.
7. Release air pressure by opening the free petcock. Open the other petcock and allow water from the tube to run back into the base. There is now 5% air in the base.
8. 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. The gauge should read 5%.
9. If two or more tests indicate a variation of more than 0.1%, reset the gauge pointer. Remove the bezel ring, gauge lens, and gasket and set aside.
 - For HM-30 models using the Gilson Gorilla Gauge with micro-adjustable pointer, gently hold the wider end of

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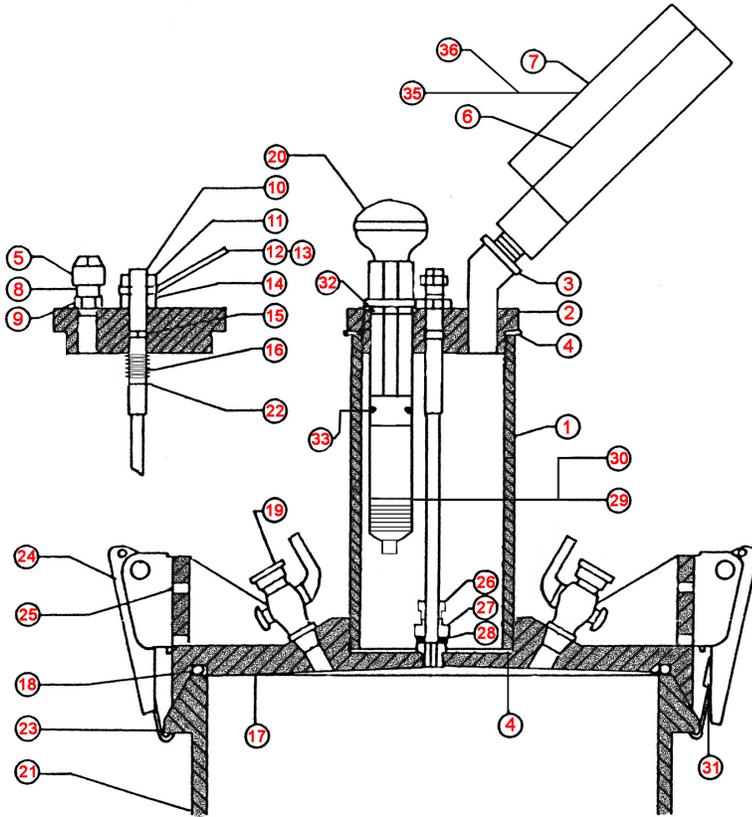
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the pointer. Using a small flathead screwdriver, turn the micro-adjusting screw on the wide end of the pointer until it indicates 5% (see image at bottom of page 3).

- 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.
10. When gauge hand reads correctly at 5%, additional tests may be run in increments of 5% by withdrawing additional water with the calibration vessel.

PARTS DIAGRAM

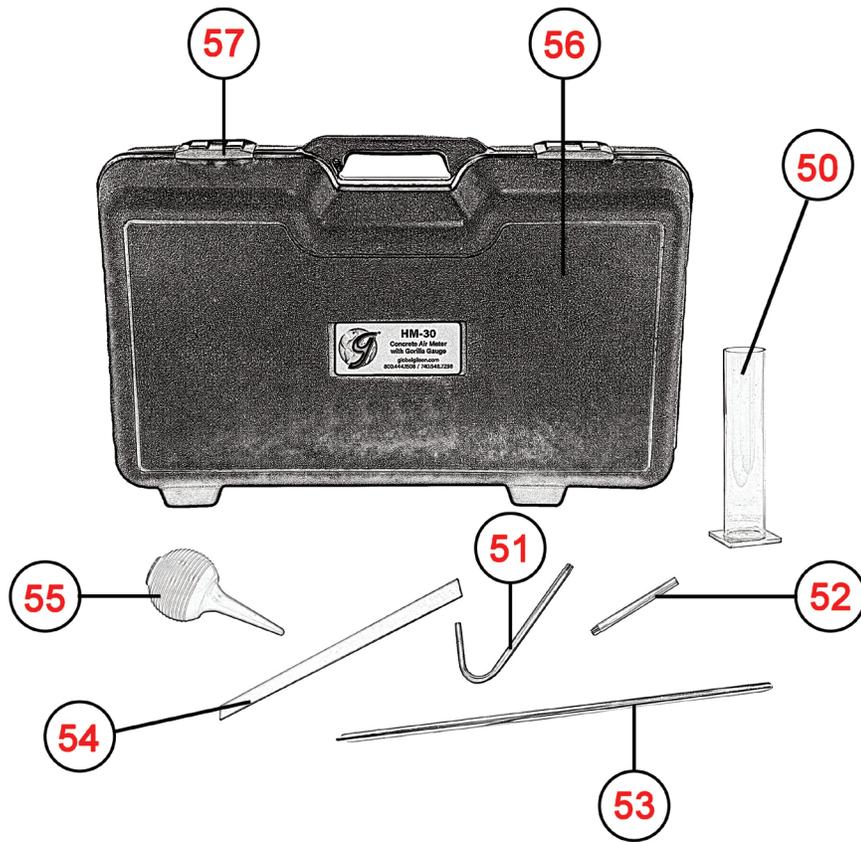


Item Number	Item Description
1	RPHM-30KEY1R Pressure Chamber
2	RPHM-30KEY2R Pressure Chamber Cap
3	RPHM-30KEY3R Pressure Chamber Elbow
4	RPHM-30KEY4R Pressure Chamber Gasket
5	RPHM-30KEY6R Air Bleeder Valve Cap
6	HMA-108 Gorilla Gauge
6	HMA-108S Stainless Steel Gauge
7	RPHM-30KEY37R-1 4in Poly-B Safety 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

Item Number	Item Description
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
36	RPHM-30KEY8R-1 Stainless Steel Gauge Glass Gasket
N/A	RPHM-30KEY57R Gasket Repair Kit

AIR METER SET REPLACEMENT COMPONENTS

Item Number	Item Description
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



MICRO-ADJUSTABLE GILSON GORILLA GAUGE FOR HM-30

