A I R M E T E R

STUART HUNT & ASSOCIATES LTD.

COMPONENT PARTS

2300T Airmeter complete with carrying case and accessories.

The following are the catalogue numbers required to re-order:

1.	2300	Airmeter Only.
2.	2331	Calibration vessel (plastic).
3.	2332	Calibration vessel (plastic).
4.	2333	Straight calibration tube.
5.	2335 18”	Tamping rod.
6.	3399	Wash Bottle

NOTE:
SEE PARTS LIST FOR RE-ORDERING AIRMETER REPLACEMENT PARTS.

FEATURES OF THE MODEL 2300 AIRMETER

1. The Stuart Hunt & Associates Ltd. Airmeter is 9 pounds lighter than standard units.
2. Parts are interchangeable with the CCL Airmeter.
3. Extra high-top lip on the pot allows repairs of dents.
4. High volume pump (approximately 12 pumps versus 65).
5. Brass cap with removable pump - no tools required.
6. Does not use an aluminum cap, which corrodes easily.
7. Chamber cast into cover - cap always unscrews at top of chamber.
8. External hands free valve - top cap never needs removal for cleaning air release valve or check valve.
9. “O” Ring pump system - uses a standard 1”
10. Uses four clamps instead of three.
11. Stud in clamp replaceable as threads wear, rather than replacing the entire clamp.
12. Bronze movement gauge with external calibrator.
13. Calibrator does not rivet to plastic movement in gauge.
14. Pot machined inside and out. Therefore, easy to maintain clean from concrete.
15. Employs stainless steel pump stem.

SPECIFICATIONS

TOTAL WEIGHT	(Incl. Case and accessories)	20.0 kgs
NET WEIGHT	(Meter Only)	10.0 kgs
GAUGE DIAMETER		8.9 cm
VOLUME OF BASE		0.007 m-3

MODEL 2300 AIRMETER

OPERATING INSTRUCTIONS FOR THE MODEL 2300 AIRMETER

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 tamping rod. Wipe the flanges clean.
3. Clamp the cover on with the petcocks open.
4. Using the plastic wash bottle (supplied with the air meter), 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.

MODEL 2300 AIRMETER

PROCEDURE FOR CHECKING CALIBRATION OF METER GAUGE

The calibration of the meter may be check as follows:

1. Fill the base with water.
2. Screw the short piece of straight tubing into the treaded 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 opposite petcock. Leave both petcocks open.
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 it’s full capacity (354 ml) with water from the base of the airmeter.
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 petcocks open, pump air pressure in exact manner as outlined in step four. 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.

MODEL 2300 PARTS LIST

2300T	Airmeter complete with case and accessories
2300	Airmeter Only
2300L	Labels
2302	Pressure Chamber Cap
2303	Elbow
2304	Pressure Chamber Gasket Top
2305	Pressure Chamber Air Release Stem
2306	Air Release Cap and Gasket
2306A	Air Release Gasket
2307	Airmeter Gauge Complete
2308	Gauge Glass Gasket
2308N	New 4” Gauge Gasket
2309A	Adapter Slider without “O” Ring
2309R	Pump “O” Ring
2310	Adapter for Super Pump
2311	Hands Free Valve
2312	Chamber Fitting
2313	Nylon Tube
2314	“O” Ring for 2311 - Hands Free Valve
2315	Teflon Sleeve for Chamber Valve
2317	Dial Face Only for 2307 Gauge
2317N	New 4” Dial Face
2319	Cover Casting
2320	“O” ring for 2319 Cover
2321	Threaded Petcock
2321A	Unthreaded Petcock
2322	Cover Clamp c/w Stud
2322A	Cover Clamp Stud
2323	Cover Clamp Nut
2324	Cover Clamp Trunnion
2325	Cover Clamp Spring
2326	Cover Clamp Toggle
2327	Cover Clamp Set Screw
2328	Set Screw Lock Nut
2329	Base Casting
2331	Calibration Vessel - Plastic
2332	Calibration Tube - Curved
2333	Calibration Tube - Straight
2335	Tamping Rod - 18”
2336	Wash Bottle
2337	Gauge Glass
2337N	New 4” Gauge Glass
2338P	Plastic Carrying Case

2339	Check Valve Assembly
2339.1	Original Check Valve
2339R	“O” Ring for 2339.1
2339S	Slug for 2339 Check Valve
2340	Air Pump complete but without cap
2341	Knurled Cap for Air Pump
2342	Pump Assembly Complete with Cap
2343	“O” Ring for Pump Seat
2344	Strike off Bar
2346	Pump Stem Only
2347	Pump Knob Only
2348	Pump Tube c/w Check Valve
2348W	Pump Tube Only

MAINTENANCE TIPS FOR 2300 AIRMETER

1. Prompt cleaning of the airmeter cover and pot - inside and outside - with water ensures a proper seal and volume.

2. Periodic oiling of petcock screws will prevent them for sizing. WD-40 or a similar product is sufficient.

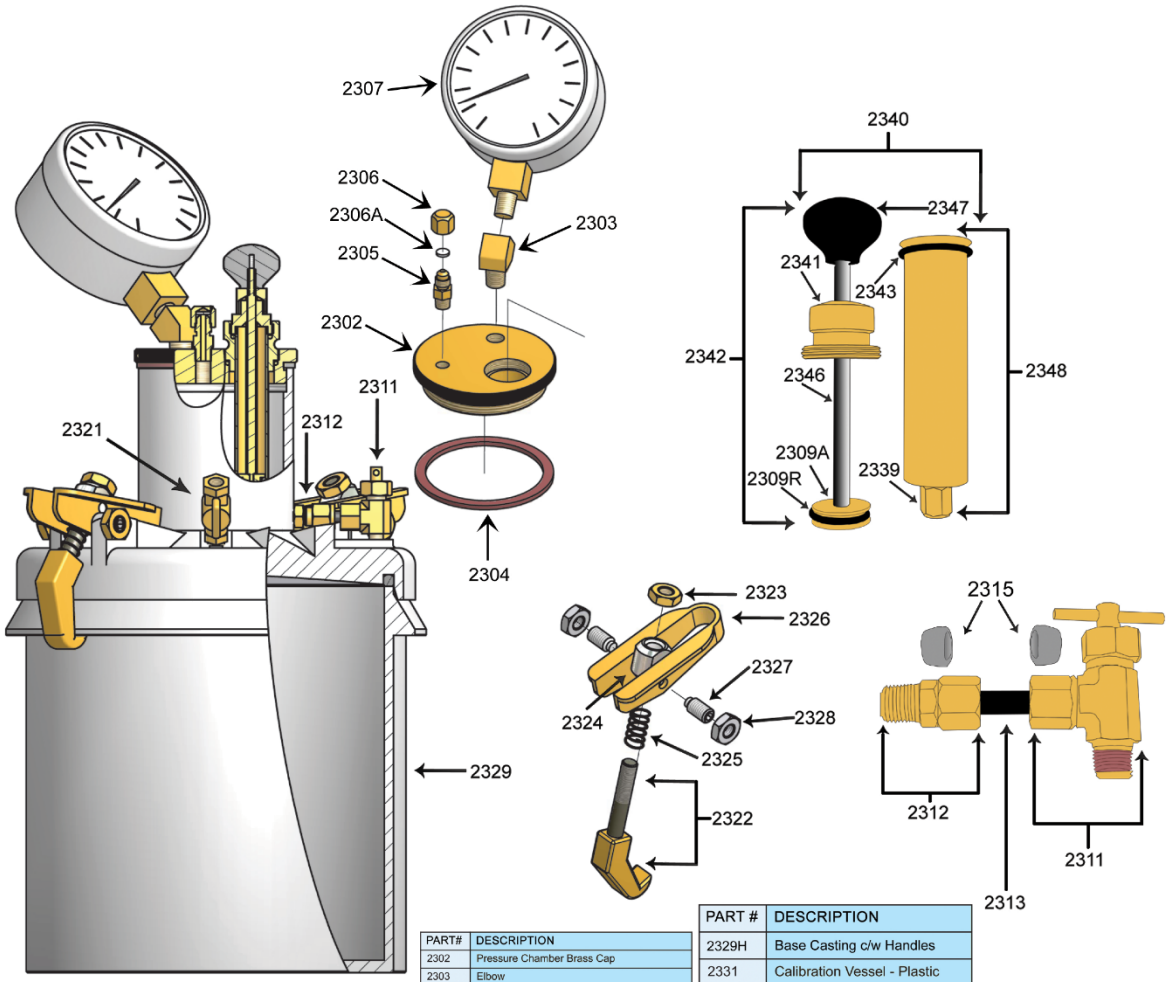
3. Under normal use the hand’s free valve will never need replacement.

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 or finer paper finishes the cleaning. Coat the valve taper with white lithium or plumbers’ 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.

2300 Air Meter Replacement Parts



PART#	DESCRIPTION
2302	Pressure Chamber Brass Cap
2303	Elbow
2304	Pressure Chamber Gasket Top
2305	Pressure Chamber Air Release Stem
2306	Air Release Cap and Gasket
2306A	Air Release Gasket
2307	Air meter Gauge Complete
2308N	Gauge Glass Gasket
2309A	Adpater Slider without "O" Ring
2309R	Pump "O" Ring
2311	Quick Release T-valve
2312	Chamber Fitting
2313	Nylon Tube
2314	"O" Ring for 2311 - Hands Free T-valve
2315	Teflon Sleeve for Chamber Fitting and T-valve
2318	Gauge Rim/Bezel
2319	Cover Casting
2320	"O" Ring for 2319 Cover
2321	Threaded Petcock
2321A	Unthreaded Petcock
2322	Cover Clamp c/w Stud
2322A	Cover Clamp Stud
2323	Cover Clamp Nut
2324	Cover Clamp Trunnion
2325	Cover Clamp Spring
2326	Cover Clamp Toggle
2327	Cover Clamp Set Screw
2328	Set Screw Lock Nut
2329	Base Casting (Pot)

PART #	DESCRIPTION
2329H	Base Casting c/w Handles
2331	Calibration Vessel - Plastic
2332	Calibration Tube - Curved
2333	Calibration Tube - Straight
2335	Tamping Rod - 18"
2336	Wash Bottle
2337N	Gauge Glass
2338	Metal Carrying Case
2338P	Plastic Carrying Case
2339	Check Valve Assembly
2339S	Slug for 2339 Check Valve
2340	Air Pump Complete
2341	Knurled Cap for Air Pump
2342	Pump Assembly Complete
2343	"O" Ring for Pump Seat
2344	Strike-Off Bar
2346	Pump Stem Only
2347	Pump Knob Only
2348	Pump Tube c/w Check Valve
2348W	Pump Tube Only