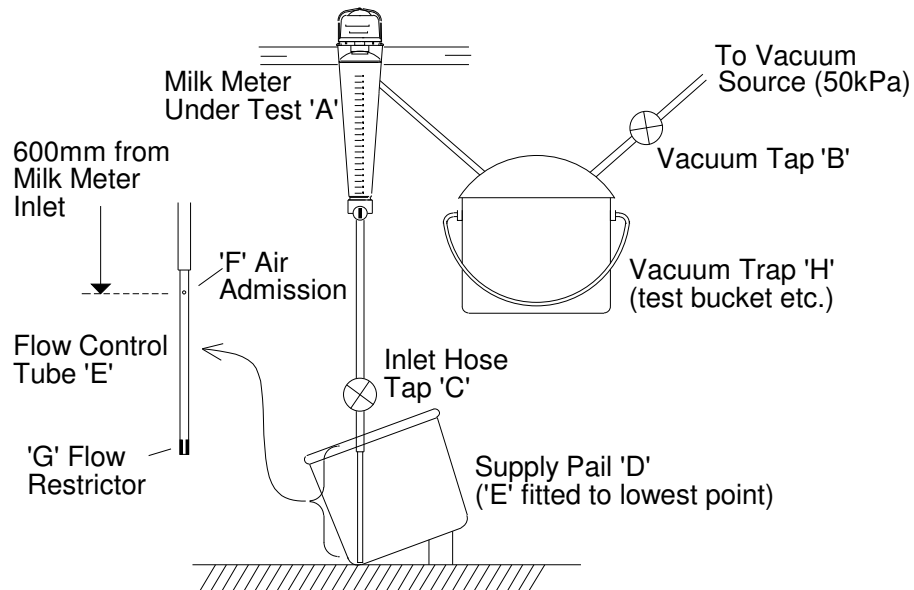


This test procedure is specified by the DHIA and approved by ICAR.

### 10.1. TEST RIG SET UP



- 10.1.1** Mount the **SPEEDSAMPLER** ensuring that the base of the metering head is horizontal.
- 10.1.2** Place the **SPEEDSAMPLER** inlet hose into an open 18 litre (40lb) pail (D) directly below the meter. The inlet hose must contain a restrictor (G) to ensure a flow of 3.5 to 4.0 litres per minute at the available vacuum level, and a 1 mm diameter (No.60 drill) air admission hole (F) located 600mm (24 inches) from the metering head inlet to admit 15 l/min (0.5 cfm) free air.
- 10.1.3** Fall the **SPEEDSAMPLER** outlet hose directly into the inlet of a vacuum trap (H), (for example test bucket, pail milker, or weigh jar). Connect the vacuum trap outlet to a stable 50 kPa (15" Hg) vacuum source.
- 10.1.4** Include vacuum taps in the inlet hose (C) and the vacuum source hose (B).
- 10.1.5** Volumetric flasks or accurate scales will be required.

### 10.2. TEST PROCEDURE

- 10.2.1** Using water as the working fluid fill the supply pail (D) with 16 litres (16 kg or 35.26 lb).
- 10.2.2** With the inlet tap (C) closed, open the source vacuum tap (B).

- 10.2.3 Ensure that the internal surfaces of the **SPEEDSAMPLER** are damp so that valves seal properly, and that the flask tap is in the **MILK** position.
- 10.2.4 Open the inlet hose vacuum tap (C).
- 10.2.5 Draw all of the water from the supply pail (D) through tube (E) past the air admission hole (F) through the metering head (A) and into the vacuum trap (H).
- 10.2.6 Record the flask reading. (Read the bottom of the meniscus).
- 10.2.7 Purge the flask by simultaneously blocking the **ACTIVATOR HOLE** and pressing the **AGITATOR BUTTON**.
- 10.2.8 When flask is empty close the source vacuum tap (B).
- 10.2.9 When vacuum trap (H) has returned to atmospheric pressure close the inlet hose tap (C).
- 10.2.10 Refill the supply pail with exactly 16 litres of water and repeat the procedure, to obtain two results per meter.

**10.3. RESULTS ANALYSIS**

Calculate the 'p-values' for each reading as follows:

$$p = \frac{\text{meter reading in kg}}{16.48} \times 100\%$$

If both 'p-values' are in the range 97% to 103% the meter is acceptable.

If only one of the 'p-values' is outside the range 97% to 103%, perform the test a third time. The meter is then considered acceptable if no single 'p-value' is outside the range 95% to 105% and the mean of all three values is within the range 97% to 103%.

**Withdraw from service any meter that fails this test, and submit it to a certified service agent for repair and recalibration.**



## WAIKATO MK 5 MILK METER

### Frequency of periodic

- A sucking set: checking at least once in 12 months.

### General

Besides measuring accuracy, also check on cleanliness, quality of rubber parts, functioning of clip mechanism (hanging crooked) and readability calibration.

### Reference value

None; see below the principle of the test and quality of the observations/measuring.

### Required equipment

- Tube with a sucking opening of 8 mm.
- No air inlet.
- Electronic weigh-beam/bascule.
- Some buckets of sufficient capacity.

### Testing liquid

- Normal tap water.
- Eventually addition of a little chlorine (in connection with infection) or regularly refreshing the test water.

### The principle of the test and evaluation of the observations/measuring

- Suck 10 kg of the liquid.
- Read the display value (without use of a reading ring).
- The result of the measure tube should be  $10.3 \text{ kg} \pm 0.2 \text{ kg}$ .

### Deviating meters

When the measuring do not come up to this standard, the testing procedure should be repeated after checking and, if necessary, dismantling of the meter. If it is still impossible to come up to this standard, the meter should be recalibrated/adjusted or replaced.

### Replacement or repair of meters

All new meters are to be tested on measuring accuracy before deploying. This also applies for meters from which the measuring spout is renewed during control.

### Reporting the results



## Periodic checking of approved and provisionally approved meters

The results of the periodic checking of the milk meters, as well as interim changes and the checks that go with these changes will be reported to those concerned, among others to the farmer, to the main supplier and to the national milk-recording organization.

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