



THE GLOBAL STANDARD  
FOR LIVESTOCK DATA

# ICAR Guidelines for calibration of the milk meters

**Meltec Milk Meter, also called Memolac 2**

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Network. Guidelines. Certification.

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## **1 Frequency of periodic checking at least once in 12 months. General**

The testing procedure with water should be carried out with milk meters that are cleaned properly.

## **2 Reference value**

- a. The “reference value” of the “Meltec” milk meter is the average of the differences between display value and weigh-beam-/bascule-value, found during the testing procedure with water of the installation test or a reference value determined later.
- b. When proceeding to periodic checking, the reference values are handed over for support.

## **3 Required equipment**

- a. A sucking set:
- b. Tube with a sucking pipe with rubber top and a sucking opening of 3.5 mm.
- c. Air inlet of 1 mm.
- d. Electronic weigh-beam/bascule.
- e. Some buckets of sufficient capacity.
- f. Some receivers for the collecting of testing liquid.

## **4 Testing liquid**

- a. Tap water; temperature not critical
- b. No addition of salt or acids.

## **5 The principle of the test**

- a. Fill a bucket with exactly 15 kg of testing liquid.
- b. Suck an amount of water through the meter till 10 kg on the display.
- c. Weigh the bucket with the remaining water.
- d. Calculate the difference between the display-value and the sucked quantity of testing liquid.

## **6 Quality of the observations/measuring**

- a. If the first measuring value deviates +/- 0.1 kg from the reference value: meter = correct.
- b. If the first measuring value deviates more than 0.1 kg from the reference value, proceed to a second measuring.

- c. If duplicate measuring have an average deviation of  $< +/- 0.2$  kg from the reference value: meter = correct.
- d. Difference duplo's  $< 0.1$  kg.

## 7 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 impos-sible to come up to this standard, the meter should be recalibrated/ adjusted or replaced.

## 8 Replacement or repair of meters

- a. When meters are replaced or when repairs influence the measuring, the meters are to be tested during the milking, after which the testing procedure with water should be carried out twice.
- b. This water test will then serve as “reference value”.

## 9 Reporting of the results

The results of the periodic checking of the milk meters, as well as the 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.

## 10 Sampling equipment

- a. Check the sampling equipment for cleanness and parts.
- b. See to it that the sampling equipment is stored in a dry place, free from dust.

## 11 Hints for the sample taker and the farmer for correct sampling by means of Meltec Memolac 2

### 11.1 Before sampling

See to it that:

- a. the air inlet in the milk claw is opened;
- b. the sample test devices are con-nected to the meters in the right way; fast but not too tight, and the packing ring should be in-stalled properly;
- c. that there will be at least 2 reserve bottles (for good emptying);
- d. the sample bottle hangs free and in a vertical position;
- e. the flushing tap of the sample device is downwards during milk-ing in the direction of the measuring jug;
- f. the milk tube and the vacuum tube lead down to the sample cup;
- g. the equipment for sampling contains no water residues. (Uncarefulness in this mat-ter leads to a too low indica-tion of per-centages, espe-cial-ly where the first range of cows is concerned.).

### 11.2 Taking the sample

- a. The display of the meter should always be at zero before starting to milk another cow.
- b. See to it that the milk of the first discharge arrives in the sam-pling bowl.
- c. As soon as the cow has finished milking, the valve of the measuring chamber is open, then the display can be read off and the measuring cup can be changed.
- d. Transfuse the sample 3 times by means of a mixture bowl and take the sample with a sample spoon; see to it that the sample cup is emp-tied well (to prevent contamination) before the sample cup is placed again.

### 11.3 After sampling

- a. Remove the sampling equipment and clean all pieces carefully by hand in a cleaning-and disinfecting solution.
- b. See to it that the sampling equip-ment is stored on a dry place, free from dust and avoid direct sun light.
- c. Keep the tap of the sampling equipment upwards (air supply).

**Farmer, do rinse your equipment with acids on a regular basis!**