

Model 310915 Milk Meter

The following information and suggestions will help you get maximum benefits from your MILK METER:

How to Use the Milk Meter

There are many good ways to use your MILK METER. Some dairymen use it every milking to monitor production day in and day out.

Some use it once a week or once a month.

Many dairymen don't keep any permanent records at all, but use the MILK METER just once or twice a month to determine which cows aren't paying their way. Nonprofit cows go to the packing house. At the same time, they decide which cows get extra grain ration and which ones get only the basic ration.

Using only this simple system, which anyone can use without special training, it is often possible to double or triple net income in one to six months without buying any more cows.

Whether you keep complete records, or none at all, your guiding precept for maximum profits should be to never again milk an unprofitable cow.

Accuracy of Your Milk Meter

Under most conditions, the MILK METER is amazingly accurate. . . to within one cupful per gallon or one pound in 20. Results obtained by one state university were as follows:

- 84% of the readings were within one pound, or 95% accurate
- 14% of the readings were between 90% and 95% accurate
- 2% of the readings were less than 90% accurate

Average Reading was 97% Accurate

It is interesting to note that each and every reading was near enough correct that NO mistakes would have been made in feeding and culling had the MILK METER readings been used for this purpose.

A university professor reports, "On the basis of our work, I feel that this meter has a lot of possibilities as a quick check on milk production. On herds of cows with good udders and teats, the average error would be considerably less than 5%."

If you are presently using, or anticipate using, a one-day-a-month testing program as most dairymen do, then multiplying by 30 to obtain monthly production, your system is only an approximation at best.

How to Test for Accuracy

The easy way to test for accuracy is to install a MILK METER for each milking machine. Add up all the readings for one milking and compare with the tank reading. (If you use milk from the tank for calves or household use, etc., be sure to take this into account). The sum of the meter readings should be within 5% of the tank reading.

If you do not experience the accuracy indicated above, recheck your figures to eliminate the possibility of errors in addition. Repeat the test enough to establish whether the meters are consistently high or low. If your readings are inconsistent, it probably means that you are not using the meters correctly.

Following are the common causes of poor or incorrect readings.

Low readings may be caused by . . .

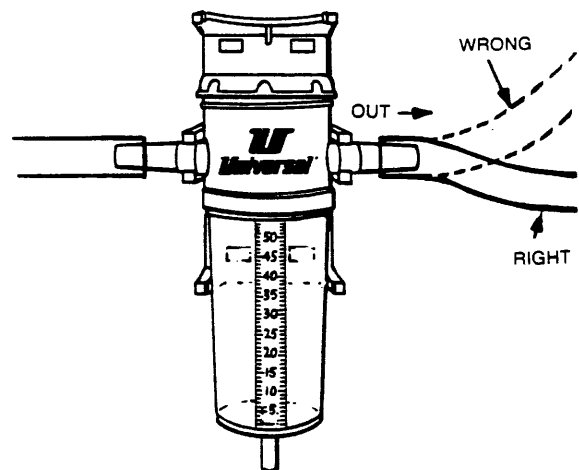
- A. Air leaks at the meter. Each meter is furnished with a gasket and "O" Ring. BOTH MUST BE USED. The meter must be sealed airtight for best results. Replace old or worn seals and sample valves before they start leaking.
- B. Low line systems, vacuum-mizer systems and extremely fast milking systems tend to read slightly low.
- C. The small orifice is seldom plugged with milk solids because the rapidly flowing milk carries the solids to the milk line. The best solution is to find the offending cows and cure them.

High readings may be caused by . . .

- A. Air leaks at the claw or inflations.
- B. Not having a drip-loop or low spot in the flexible hose on "leaving side" of the meter (see illustration).

Flexible hose on discharge side of meter should drop down two inches or more to form drip-loop or low spot.

In the "wrong" position, the last few ounces of milk from the cow tend to run back and forth through the meter, measuring out a few drops each time into the calibrated jar. With the loop, the last few ounces of milk will oscillate back and forth in the low spots (not through the meter).



Quick-Sampler Valve

The Quick-Sampler valve serves two vital functions:

- A. To take samples from the meter with the vacuum shut off, and . . .
- B. To provide quick emptying of the meter between cows with the meter in the inverted position and with the vacuum ON.

Professional testers usually shake up the milk in the reservoir to mix thoroughly before taking a sample. An easy way to do this is to open the valve for an instant with the vacuum on, to let air bubbles through the milk. Then shut off the vacuum to take the sample.

The Quick-Sampler valve fits tightly in the jar to prevent air leaks. It is installed in the jar with a pushing-twisting action. Just wet the valve before installing.

Plastic Materials

The meter and jar are injection molded of Lexan Polycarbonate resin. This material was chosen because of its high impact strength and wide temperature range (up to 250°F).

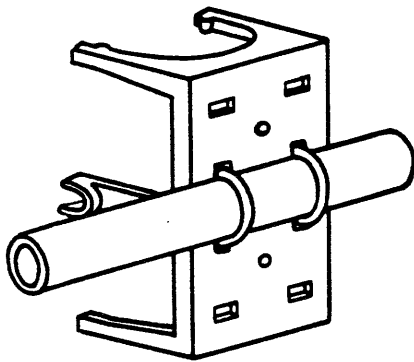
Health Department Approvals

This MILK METER meets the requirements of U.S. Public Health Service and the Food and Drug Administration.

Cleaning and Storage

Use any sanitizing solution approved by local health authorities for ordinary cleaning. Temperatures up to 250°F are permissible; but prolonged immersion in liquid above 180°F is not recommended. Store disassembled meter in clean, cool place. Do not store tightly assembled or in direct sunlight.

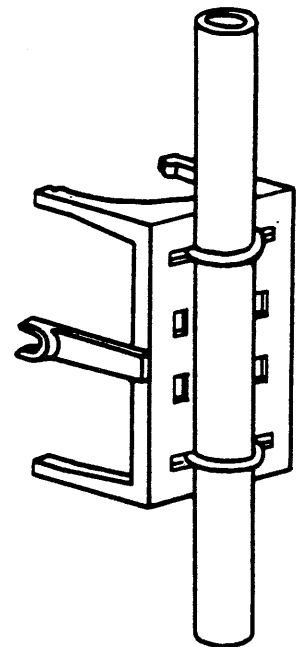
MOUNTING BRACKETS



HORIZONTAL
PIPE MOUNTING



MOUNTING TO WALL,
STANCHION, BOARD, ETC.



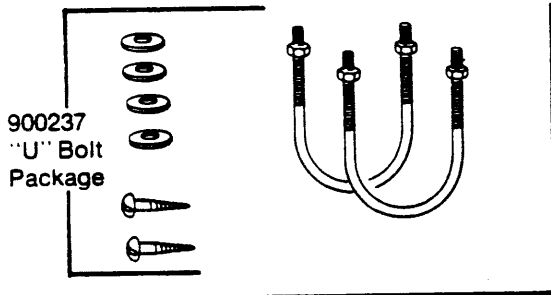
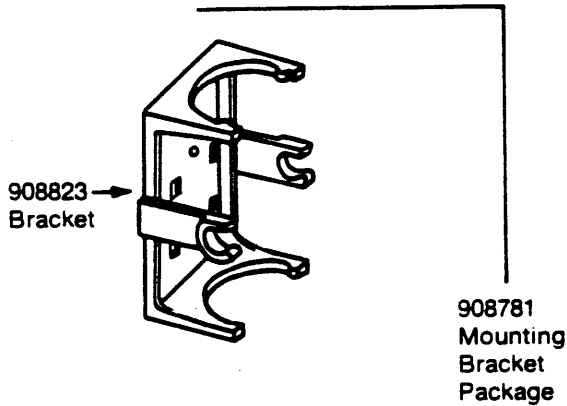
VERTICAL
PIPE MOUNTING

Fasten mounting bracket to wall, pipe, stanchion, post, etc. as illustrated, positioned between the milker and the pipe line. A reasonably stable and level installation is recommended for best results. Be sure the short side of the mounting bracket is in the UP position. Snap meter in place as shown.

When ready to use, connect the flexible hose from the milker to the left or IN side of the meter, and connect the hose to the pipe line to the right or OUT side of the meter. Flow through the meter is from left to right when looking at the front side of the meter. When the milk flow stops and the cow is finished milking, the reading is taken by observing the level of milk contained in the reservoir. The graduated scale is calibrated to indicate the number of pounds of milk given. To empty the meter, simply snap the reservoir out of the bottom clamp (leave the hose connections in place), rotate up to the inverted position and snap into the top clamp. The vacuum will empty the meter. By returning the reservoir to the "down" position, you are ready to start on the next cow.

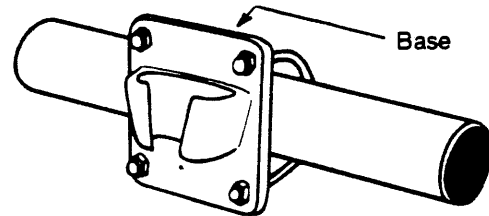
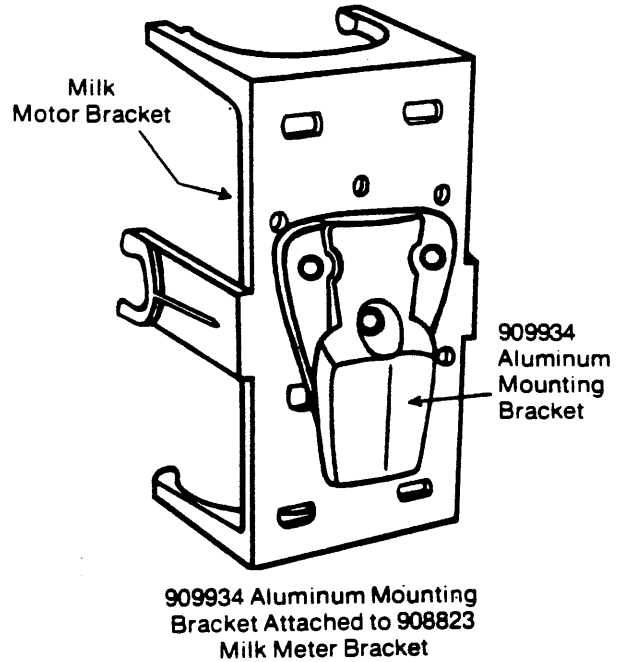
Remember the Following

- DO NOT store meter with lid and reservoir screwed tightly in place.
- DO NOT use abrasive materials for cleaning.
- DO NOT use pliers or other tools on the meter.
- DO clean the meter thoroughly after each use.
- DO store in clean place, disassembled or loosely assembled.



Hanger Bracket Assembly

Assembly includes Base, Clip, "U" Bolts, Hex Nuts



The 909934 Mounting Bracket and 909933 Hanger Bracket Assembly provides convenience for mounting various milk weighing devices in stanchion barns or parlors. The base is normally mounted on each stall with "U" bolts provided. On extremely small pipe, the clip is clamped to the pipe first and then the base is mounted against the flat side of the clip.

The base is designed to accommodate the mounting bracket. Normally the mounting bracket is bolted permanently to the weighing device.