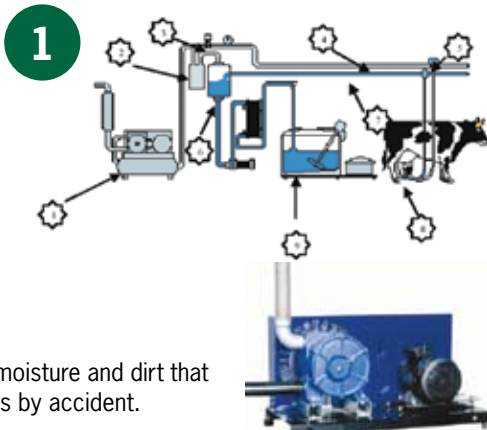


Important components

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(Suppliers of all your milking machine needs)

In the previous edition of *Ubisi Mail*, we discussed the importance of machine milking versus hand milking, and the benefits of machine milking. Now we will take a closer look at the major components of a typical milking machine. These components form an integral part of ensuring that we milk out our cows properly.

The following diagram shows all the important parts of a milking machine:



Components

1. Vacuum pump

This can be seen as the “heart” of the milking machine, without it we cannot milk. It creates vacuum by sucking air out of the system (pipes, receiver, etc) to suck the milk out of the cow’s udder.

2. Sanitary trap

This “trap” protects the vacuum pump from moisture and dirt that might be sucked up through the vacuum lines by accident.

3. Vacuum regulation

This can be seen as the “brain” of the milking machine, and controls the vacuum level in the system, by letting in extra air when the vacuum level rises too high and closing when the vacuum level drops too low. It can be very harmful to the cow if the vacuum level rises too high, and the teats of the cow can be damaged.

4. Vacuum line

This line transports the vacuum to the pulsators.

A typical vacuum pump

5. Pulsator

This important device simulates the suckling of the cow, and stimulates the cow to let down the milk to be sucked out by the vacuum. It also massages the teats of the cow.

6. Receiver

Because the milking machine works under vacuum, and we pump the milk



A typical pulsator



A typical receiver

of a milking machine

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to a cooling tank, we have to use a receiver to collect all the milk during the milking process, and then pump it to the cooling tank for refrigeration.

7. Milk line

This line transports the vacuum to the cluster and then transports milk from the cluster to the receiver.

8. Cluster

The cluster consists of the rubber liners that fit tightly around the teats to extract the milk and a collection bowl where the milk is collected from the four teats.



This picture shows a cluster on the cow's teats busy milking the cow

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The cooling tank

9. Cooling tank

The job of the cooling tank is to cool down the milk as fast as possible, preferable to about 4°C within 3 hours after milking. It is important that we cool down the milk to 4 °C as fast as possible to prevent bacteria growth. If we do not cool it down quickly enough, it will become sour.



Typical bucket milking



Typical trolley milking machine

Remember, we can either milk the cow with a bucket, or with a trolley milking machine, or with a direct in line machine as described above.

In the next edition we will have a look at simple layouts for milking sheds and calf housing – do not miss it!

Please feel free to contact the author should you need more information on machine milking. Tel 082 863 0364 or fax 012 430 2819 or e-mail rykie.visser@delaval.com **UM**