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# Milking Unit Introduction Components

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1

# Objectives

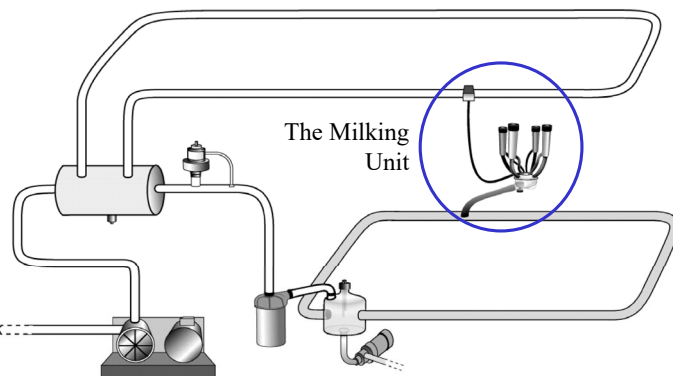
Describe the components of the milking unit.

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2

Lets have a closer look at the milking unit



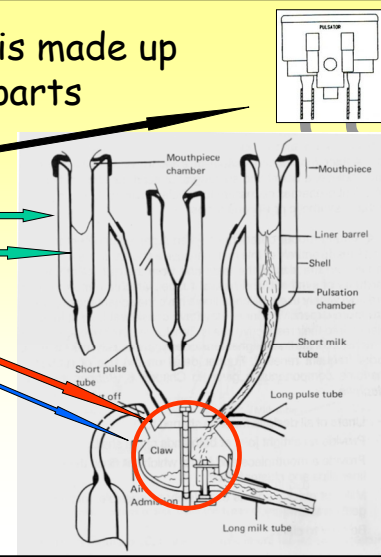
The Milking Unit

3

3

The milking unit is made up of several parts

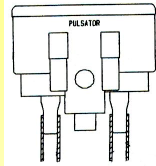
- Pulsator
- Teatcups / shells
- Liners
- Claw
- Air vents
- Connecting tubes



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4

## The Pulsator



- Each milking unit has a pulsator
  - That can be either its own individual pulsator or a "shared pulsator" that controls pulsation to more than one milking unit.
- The pulsator is an air valve connected to the pulsator airline.
- The pulsator provides vacuum and air to the opening and closing of the liners.

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5

## Examples of Pulsators



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6

## Teatcups

- Each milking unit designed for cows has 4 (four) teatcups.
  - Milking units designed for sheep and goats have two teatcups.
- Teatcups are rigid metal or plastic shells fitted with a soft rubber liner.



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7

## Examples of Teatcups



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8

## Liners



- 🐄 Liners are made of soft rubber or silicon.
- 🐄 Liners are mounted in a shell.
  - ❶ Liners are stretched from their un-mounted length to produce tension in the liner wall.
- 🐄 Liners are the only parts of the machine that touch the teats.

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9

9

## Examples of Liners



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400M 500M

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10

## Milk Claw



- 🐄 Each milking unit has one claw.
- 🐄 The claw collects milk from all the teatcups to the long milktube.
- 🐄 Other functions of the milk claw include:
  - ❶ Distribute vacuum from the long milktube to the short milk tubes and liners.
  - ❷ Distribute pulsation air and vacuum to each pulsation chamber.
  - ❸ Provide planned air admission through claw air vents to aid in milk transport through the long milk tube.
  - ❹ Collect unplanned air admitted at liner mouthpiece and transport to long milk tube.

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11

11

## Examples of Milk Claws



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12

12

## Connecting Tubes

Teatcups, Liners and Claw are connected by:

- The air fork is connected to the teatcups by the "short pulse tubes."
- Liners are connected to the claw by the "short milk tubes."

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13

13

## Teatcups, Liners and Claw Connecting tubes

Short pulse  
tube (shell  
to air  
fork)



Short milk tube  
(liner to  
claw)

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14

14

Altogether, shells, liners, claw and  
connecting short milk and air tube  
compose "The Cluster"



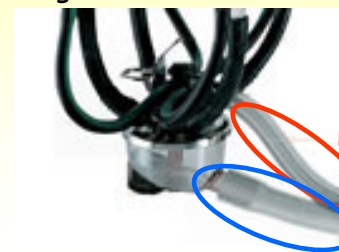
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15

15

## The cluster is connected to the pulsator and milking line

- The pulsator is connected to the air fork by the "long pulse tubes."
- The claw is connected to the milking line by the "long milk tube."



Long pulse tube

Long milk tube

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16

16

The cluster is connected to the pulsator and milkline

Long pulse tube (air fork to pulsator)



Long milk tube (claw to milkline)

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17