

# Milking System Troubleshooting

*Inadequate vacuum or vacuum fluctuation* may have several possible causes:

- the vacuum pump is too small;
- restricted airflow in vacuum or pulsation line;
- sticky vacuum regulator;
- worn vacuum pump belt;
- air leaks in vacuum system due to cracks, poorly sealed junctions or broken components;
- vacuum lines or milk lines too small;

*High system vacuum level* may be due to:

- vacuum regulator out of adjustment;
- sticky vacuum regulator.

Reasons for *pulsators operating too fast or too slow* may include:

- pulsators out of adjustment;
- if pneumatic pulsators, system vacuum may be incorrect;
- pulsators may be dirty, air inlet constricted;
- worn pulsators may need repair or replacement.

The main cause of *teat cup drop-off* is low claw vacuum level. Check for the following:

- low system vacuum;
- milk pipeline too high;
- vacuum pump capacity inadequate for number of milking units;
- plugged claw or teat cup air inlets;
- air leaks in pipeline couplings, valves, junctions, air tubes.

If *milking times become extended*, check milking times for a number of cows on each milking unit. If slow milking is a problem for all cows at all milking units, check for:

- low system vacuum;
- pulsator controller out of adjustment – pulsation rate too slow or pulsation ratio too low.

If slow milking occurs at specific milking units only, check for:

- pulsator out of adjustment – pulsation rate too slow or pulsation ratio too low;
- cracked and leaking long vacuum tube or short vacuum tubes;
- plugged claw or teat cup air inlets;
- cracked and leaking teat cup liners.

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## Milking System Troubleshooting (continued)

The following may be causes of *incomplete milk removal*:

- inadequate premilking stimulation for maximum oxytocin release;
- delay in attachment of cluster after preparation;
- early removal of cluster;
- teat cup 'crawl' caused by excessive teat-end vacuum level;
- cow in heat;
- stray voltage;
- cow stress due to noise or changes in routine or personnel.

If *residue builds up in the milk pipeline* in spite of routine milk system cleaning, check:

- wash water temperature - check hot water heater thermostats and water pressure;
- detergent strength in alkaline wash solution – check manufacturer's recommendation;
- compatibility of alkaline wash and acid rinse products used – use products from single manufacturer recommended for use together.