

GUIDELINE 25

Test, service and upgrade milking machines

In this guideline:

25.1 Fully test and service your milking machine twice a year

25.2 Use a milking machine technician who tests to NZMPTA standards

25.3 Insist that the technician provides and explains a full written report

25.4 Carry out all recommendations

Virtually all infections enter the udder through the teat openings. Your milking machine spends 50 - 100 hours attached to each teat in a lactation. Machine malfunctions cause teat damage and increase the risk of infection.

Regular service and maintenance of your milking machine will help ensure that:

- Speed and completeness of milking is maintained
- Risk of mastitis due to milking machine faults is minimised.



Good Read

[Technote 25 - Test and service milking machines](#)

25.1 Fully test and service your milking machine twice per year.

Your milking machine should be monitored, tested and adjusted as often as necessary during lactation.

Don't rely on an annual service.

Additional testing and service is recommended if any of the following are observed:



- Cows appear to milk slowly or incompletely
- Teatcups slip or fall frequently
- Teat condition is poor; or
- Cows appear nervous or uncomfortable.

Machine testing

Conduct a complete NZMPTA test when:



- A new milking system has been installed, before acceptance and supplying final payment
- Major service work or an upgrade on an existing installation has been completed
- At least once per year.



See [Guideline 6](#) for practical tips on checking milking machine function

25.2 Use a milking machine technician who tests to NZMPTA standards.

Make sure your technician performs tests according to [NZMPTA \(NZ Milking & Pumping Trade Association\)](#) standards.

Confirm this before making the booking; the technician should have a current NZMPTA certification. A full list of current certified technicians can be found online at <http://www.nzmpta.co.nz/>.

There are 5 different types of tests that most milking machine testers can undertake:

1. Physical measurements
2. Dry tests
3. Wet tests
4. Milking-time tests
5. Cleaning-time tests

Different machine tests that can be undertaken by certified milking machine testers.

1. Physical measurements	2. Dry tests	3. Wet tests
Machine is not running. Specific dimensions of the machine and certain components measured. Used as part of a full milking machine test, and as part of an acceptance test for a new installation, or after a major upgrade, to ensure compliance with contract of sale.	Machine is running but not milking cows. Only air is flowing through the machine. Measures various vacuum and pulsation characteristics. Standard NZMPTA test involves dry tests and some physical measurements.	Machine is running but not milking cows. Air and liquid (water, milk, or artificial milk) is flowing through the machine. Usually carried out by equipment manufacturers or testing authorities to test equipment. Also used for acceptance of a new installation or major upgrade.
4. Milking-time tests	5. Cleaning-time tests	
Machine is running and milking cows. Cows' biological and behavioural responses to milking are observed as well as mechanical measurements of vacuum and pulsation. Gives most direct measure of milking performance. Best used when trouble-shooting problems.	Machine or bulk tank is in cleaning phase. Used to test a newly installed cleaning system or trouble-shoot cleaning problems and milk quality downgrades.	

25.3 Insist that the technician provides and explains a full written report.

An NZMPTA test report form provides a summary on the first 3 pages, and full details of milking machine performance, before and after adjustment. The report will compare your machine performance against the current NZMPTA recommendations.

The technician should explain the details of the report to you.



See [Technote 25](#) for more information on interpreting a milking machine test report.

25.4 Carry out all recommendations.

Make sure that the report describes which recommendations are:

- Urgent and require immediate action
- Important but not urgent
- Ideal or cosmetic changes

Make a plan with a schedule that will fit in with other work commitments and cash flow. Don't put off making the plan until some other time.

You may find it useful to discuss the plan with other milk quality advisers (your milk quality advisor, veterinarian or other milk harvesting specialist).