Silclear
SILICONE SOLUTIONS

Optimising Pulsation Settings with Silclear Silicone Liners & Shells

Getting the pulsation settings right is essential for milking liners to perform at their best. Correct pulsation ensures smooth milk flow, healthy teat condition and consistent results.

While many systems run efficiently without adjustment, fine-tuning pulsation settings can make all the difference to liner performance. If cows are milking out slowly, or if flow seems inconsistent, pulsation settings are often the key.

This guide explains why pulsation matters, how to test it and what to look for when fine-tuning your system.

Static vs Dynamic Testing
When parlours are serviced, engineers typically carry out a static test (a 'dry' check of the equipment with no milk).

This test confirms basic setup, but doesn't reflect real conditions during milking.

A dynamic test measures vacuum and pulsation while cows are being milked, showing how the system behaves under real conditions. The results of a dynamic test are especially valuable when optimising Silclear liners and shells.

Understanding Pulsation
Pulsation controls the opening and closing of the liner around the teat. The balance of these phases affects cow comfort, milking speed and liner performance.

During a dynamic test, engineers look at the pulsation graph showing the A, B, C, and D phases, alongside vacuum readings.

For Silclear liners, the collapse force is approximately 7 kPa when new and 5 kPa after some use. This figure should be entered into the tester before starting.

For further assistance, please contact Silclear on +44 (0)1425 610700 or email info@silclear.com.

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General Guide to Optimum Ranges
While values can vary between parlours, the following ranges are a useful guide when testing with Silclear liners:

- Pulsations per minute (PPM): 50–65
- Milk % : 500–750 ms (lower = too slow, higher = too aggressive)
- Rest % : 200–350 ms
- A phase: 120–180 ms
- B phase: 450–500 ms
- C phase: 150 ms
- D phase: 240 ms
- Teat end vacuum: 37–44 kPa
- Pulse line vacuum: 0–10 kPa above teat end vacuum level

These figures provide a benchmark. The key is not just hitting the numbers, but ensuring stable vacuum levels and smooth liner action.

Resolving Liner Slip and Flow Issues

- Liner slip from the cow
  - Often linked to instability in teat-end vacuum.
  - Dynamic testing helps identify the cause so the setup can be corrected.

- Liner slipping from the claw
  - Usually a sizing or cleaning issue.
  - GRIPPAs or liner sleeves can resolve sizing mismatches.
  - Fat and grease build-up can reduce adhesion. Reconditioning the silicone and reviewing cleaning routines will restore grip.

Why Pulsation Matters
Correct pulsation is central to:

- Smooth, efficient milk flow.
- Healthy teat condition with less stress on the udder.
- Long-term liner performance and cow comfort.

Ensuring pulsation settings are properly optimised will unlock the full benefits of Silclear silicone liners.

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