

Pulsation Settings: Critical to Milking

Correct and consistent pulsation is a must in getting today's high performance cows to milk out comfortably. Pulsator ratio through all its phases and rate are directly related to how a liner affects the teat of a cow. Adjusting pulsation for the best performance is critical to the success of your milking performance. Consistent pulsation from pulsator to pulsator is the first step.

Inconsistent pulsation can come from several things:

1. Dirty pulsators
2. Pulsators with leaking gaskets
3. Faulty pulsation master controllers
4. Pulsators with weak solenoids
5. Pulsation vacuum lines with liquid or build up in them
6. Holes in short air tubes
7. Different size tees, shells or hoses

Having a good maintenance program, including regular checks by your dealer, will help ensure your pulsation is performing the way it should.

What is the correct ratio for your dairy? This is not a one answer question. Your goal should be to get the milk out of every cow as efficient and as comfortable as possible; which, can be 64/36, 65/35, 68/32, 70/30, etc. The important thing is finding out how your liner is reacting to your pulsation. Vacuum level does play a role in this equation as each liner does have a specific touch point. Setting up your pulsation to perform well is the key.

Pulsation has four phases:

1. A phase = the opening phase of the liner, milking begins during this phase.
2. B phase = the open phase of the liner, the milking phase.
3. C phase = the closing phase of the liner, milking ends during this phase.
4. D phase = the closed phase of the liner, no milk during this phase.

Fine tuning your phases and knowing when your liner is open and closed during the A and C phases are important. Looking at teats within 10 seconds from when the milking unit is removed tells you a lot. (see table below for teat conditions) These are a few more details that help high performance systems milk today's high performance cows.

Teat	Condition
White/Pink	Good
Red	Vacuum too high
Blue	Lack of Pulsation Vacuum too low B phase too long, D phase too short
Congestion	B phase to long