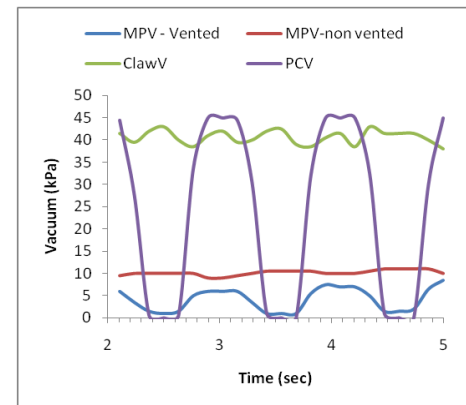


# IP-MV & Mouthpiece Chamber Vacuum

The vacuum developed in the mouthpiece chamber (MPC) plays a major role in the development of congestion in the teat wall, especially during the low flow period of milking. Adding a MPC vent to the LP3 LM liner significantly reduces mouthpiece chamber vacuum; during the peak flow phase of milking and especially during the low flow period of milking. The mouthpiece vented liner will reduce teat wall congestion resulting in fewer rings at the base of teats.

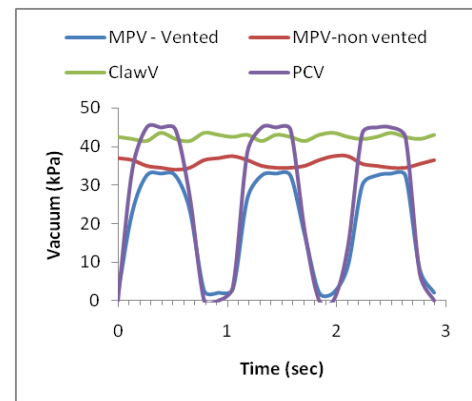
At Peak Flow:

Figure 1. Vacuum measurements during the peak flow period of milking. The mouthpiece chamber vacuum for the vented liner is lower, on average, than for the non-vented liner and is reduced to near zero during the d-phase of pulsation (massage phase).



At Low Flow:

Figure 2. Vacuum measurements during the low flow period of milking. The mouthpiece chamber vacuum for the vented liner is lower, on average, than for the non-vented liner and is reduced to near zero during the d-phase of pulsation (massage phase). This allows more complete congestive relief during this phase. MPV increases during the d phase of pulsation for the non-vented liner.



At Detach:

Figure 3. Vacuum measurements during detach. The MPC vacuum in the vented liner decays faster than the MPC vacuum in the non-vented liner. The positive aspect of this is easier unit removal and reduced chances of introducing bacteria. Removal of milking units while vacuum is still applied to teat ends has been shown to be a risk factor for introducing bacteria into the teat sinus. This risk is greatly increased when the teat sinus has also developed vacuum during the low flow period of milking.

