**IMQCS MILKING MACHINE TEST REPORT**

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Date</th>
<th>Plant Type</th>
<th>No. of units</th>
<th>Tester's Signature</th>
<th>IMQCS Reg. no.</th>
</tr>
</thead>
</table>

**Vacuum and Airflow Tests**

1. **Working vacuum at Vm; machine in the milking position (liners plugged)**
   - Working vacuum recommended with the machine in the milking position (liners plugged)
   - Working vacuum at Vr; machine in the milking position (liners plugged)
   - Working vacuum at Vp; machine in the milking position (liners plugged)
1a. **Vacuum in the milking system at Vm; machine ready for milking**
1b. **Plant gauge vacuum level; machine ready for milking**
1c. **Vacuum near plant vacuum gauge at Vr; machine in the milking position (liners plugged)**
1d. **Pressure in the milking system at Vp; machine in the milking position (liners plugged)**
1e. **Vacuum near plant vacuum gauge at Vr; machine ready for milking**
1f. **Regulation sensitivity (1c-1) kPa**
1g. **Regulation undershoot _____ kPa**
1h. **Regulation overshoot _____ kPa**
1i. **Manual reserve; machine in the milking position (liners plugged)**
2. **Pump capacity; AFM direct to pump, test gauge at Vp**
2a. **Pump capacity at 50kPa; AFM direct to pump, test gauge at Vp**
2b. **Pump speed**
   - Estimated pump capacity required
3. **Airflow with vacuum system; machine in the milking position (liners plugged), airline only added, regulator(s) plugged, test at A2 and Vr or Vp**
   - Airline leakage (2-3) _____ l/min
4. **Airflow with auxiliary equipment added; machine in the milking position (liners plugged), close claw air admission; test at A2 and Vr or Vp**
   - Milking system leakage (3-4) _____ l/min
5. **Airflow with auxiliary equipment added; machine in the milking position (liners plugged), test at A2 and Vr or Vp**
   - Claw air admission (4-5) _____ l/min
6. **Airflow with auxiliary equipment added; machine in the milking position (liners plugged), test at A2 and Vr or Vp**
7. **Airflow with pulsators added; machine in the milking position (liners plugged), test at A2 and Vr or Vp**
8. **Airflow with auxiliary equipment added; machine in the milking position (liners plugged), test at A2 and Vr or Vp**
9. **Manual reserve; machine in the milking position (liners plugged), regulator(s) plugged, drop vacuum 2kPa below no. 1, test at A1 and Vm**
10. **Effective reserve; machine in the milking position (liners plugged), add regulator(s), drop vacuum 2kPa below no. 1, test at A1 and Vm**
11. **Regulation loss (9-10) l/min**
12. **Exhaust back pressure (positive pressure); test gauge at Pe**
13. **Fall-off/attachment vacuum drop; open one unit per 32 units below 1a, test at A1 and Vr**
14. **Airflow without regulator(s); machine in the milking position (liners plugged), regulator(s) plugged, drop vacuum 2kPa below 1a, test at A1 and Vr**
15. **Regulation overshoot _____ kPa**
16. **Airflow without regulator(s); machine in the milking position (liners plugged), regulator(s) plugged, drop vacuum 2kPa below 1a, test at A1 and Vr**
17. **Airflow with regulator(s); machine in the milking position (liners plugged), add regulator(s), drop vacuum 2kPa below 1a, test at A1 and Vr**

**Pulsation Tests**

<table>
<thead>
<tr>
<th>Rate c/min</th>
<th>Max</th>
<th>Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio “a+b” % or ms</td>
<td>Max</td>
<td>Min</td>
</tr>
<tr>
<td>“a” value % or ms</td>
<td>Max</td>
<td>Min</td>
</tr>
<tr>
<td>“b” value % or ms</td>
<td>Max</td>
<td>Min</td>
</tr>
<tr>
<td>“c” value % or ms</td>
<td>Max</td>
<td>Min</td>
</tr>
<tr>
<td>“d” value % or ms</td>
<td>Max</td>
<td>Min</td>
</tr>
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<tr>
<th>Pulsation graphs attached: yes/no</th>
<th>Simultaneous or Alternate</th>
<th>Limping (&lt; 5%)</th>
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**Faults**

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**Recommendations**

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______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

**Liners**

Make and identification no. ____________________________
Next liner change due ________________________________

**N.B. Items in Bold Type must always be filled in.** Tests 13, 14, and 15 may be completed instead of test number 10 for machines with 14 or more units. It is recommended that milking machines be tested at least twice per year.