Interpretation Guide for Cleaning Monitoring Products

### AquaTest™
Mineral contaminants in water bind with detergents, reducing the effectiveness of those agents. If hardness increases, detergent volume should be increased and vice versa.
Alkaline substances buffer the water against sudden changes in pH. Sudden changes in Total Alkalinity may be a forerunner to changes in the pH level.
Enzymes cleaners operate best within a certain pH level. Changes in the pH level away from the optimal range will result in reduced effectiveness of the enzyme cleaner.

### TempaChek™-90
A color change from silver to black records the highest temperature reached.
At temperatures above 45°C (113°F), blood coagulates on instruments and becomes highly insolvent. In an instrument washer the initial rinse (prewash) stage, water temperature should not exceed 110°F and ideally remain significantly below this level. TempaChek™-90 should be read after the Cold Water Rinse and before the next stage (depending on the cycle, either an enzyme or detergent wash). The temperature on the TempaChek™ should not exceed 100°F immediately after a result that exceeds this level.

### TempaChek™-170
A color change from silver to black records the highest temperature reached.
Water temperature is the key source of thermal disinfection. The targeted disinfection temperature is the surface temperature, not the temperature of the water injected into the chamber (as measured by the washer). TempaChek™ is a permanent and independent measure of the surface temperature achieved. Place one TempaChek™-170 on each level of the instrument rack. TempaChek™-170 should be read after the Thermal Disinfection stage and before the Drying Stage. The targeted temperature varies with each brand of washer. Check with the manufacturer for your machine’s targeted value and record here.

### CartWashChck™
Designed to challenge the mechanical efficiency of a cart washer. It combines the measurement of two key parameters of cleaning in one convenient test strip. The hydrophilic ink square will result in reduced effectiveness of the enzyme cleaner.

### LumCheck™
Hat combines the measurement of two key parameters of cleaning in one convenient test strip. The hydrophilic ink square will result in reduced effectiveness of the enzyme cleaner.

### FlexiCheck™
It combines the measurement of two key parameters of cleaning in one convenient test strip. The hydrophilic ink square will result in reduced effectiveness of the enzyme cleaner.

### SonoCheck™

### Test Results - Rating - Description

<table>
<thead>
<tr>
<th>Test Soil</th>
<th>Optimum Result</th>
<th>Possible Reasons for TOSI Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>A) Mucin (red) proteins visible, but no water soluble proteins visible</td>
<td>a) Incorrect positioning of Test</td>
<td>a) Incorrect positioning of Test</td>
</tr>
<tr>
<td>B) Mucin (red) proteins visible, but no water soluble proteins visible</td>
<td>b) Overloading/incorrect loading*</td>
<td>b) Overloading/incorrect loading*</td>
</tr>
<tr>
<td>C) Mucin (red) proteins visible, but no water soluble proteins visible</td>
<td>c) Temperature not optimal</td>
<td>c) Temperature not optimal</td>
</tr>
<tr>
<td>D) Mucin (red) proteins visible, but no water soluble proteins visible</td>
<td>d) Dosage of cleaner too low</td>
<td>d) Dosage of cleaner too low</td>
</tr>
<tr>
<td>E) Mucin (red) proteins visible, but no water soluble proteins visible</td>
<td>e) Incorrect positioning of Test</td>
<td>e) Incorrect positioning of Test</td>
</tr>
<tr>
<td>F) Mucin (red) proteins visible, but no water soluble proteins visible</td>
<td>f) Overloading/incorrect loading*</td>
<td>f) Overloading/incorrect loading*</td>
</tr>
<tr>
<td>G) Mucin (red) proteins visible, but no water soluble proteins visible</td>
<td>g) Cleaning time too short</td>
<td>g) Cleaning time too short</td>
</tr>
<tr>
<td>H) Mucin (red) proteins visible, but no water soluble proteins visible</td>
<td>h) Insufficient detergent efficiency</td>
<td>h) Insufficient detergent efficiency</td>
</tr>
<tr>
<td>I) Mucin (red) proteins visible, but no water soluble proteins visible</td>
<td>i) Defective pump</td>
<td>i) Defective pump</td>
</tr>
<tr>
<td>J) Mucin (red) proteins visible, but no water soluble proteins visible</td>
<td>j) Loss of pressure or other defect</td>
<td>j) Loss of pressure or other defect</td>
</tr>
<tr>
<td>K) Mucin (red) proteins visible, but no water soluble proteins visible</td>
<td>k) Insufficient water pressure</td>
<td>k) Insufficient water pressure</td>
</tr>
<tr>
<td>L) Mucin (red) proteins visible, but no water soluble proteins visible</td>
<td>l) Insufficient water pressure</td>
<td>l) Insufficient water pressure</td>
</tr>
</tbody>
</table>

### TOSI - Immediate corrective action (to be conducted by SPD personnel)

1. a) Repeat test protocol with correct load*  
   b) Checking movement of spray arms and clean spray arms  
   c) Installing spray system correctly or replace by a suitable one  
   d) Check storage conditions and expiration date of detergent  
   e) Replace wrongly stored or expired detergent  
   f) Replace membrane or replace by a suitable one  
   g) Increase dosage  
   h) Replace defect pump  
   i) Increase energy  
   j) Replace detergent  
   k) Replace cleaning agent  
   l) Check cleaning temperature  
   m) Increase cleaning temperature

2. a) Repeat test protocol with correct load*  
   b) Check cleaning phase  
   c) Check loading and/or change load  
   d) Check movement of spray arms and clean spray arms  
   e) Replace wrongly stored or expired detergent  
   f) Replace detergent  
   g) Increase dosage  
   h) Replace membrane or replace by a suitable one  
   i) Increase energy  
   j) Replace detergent  
   k) Increase cleaning temperature

3. a) Repeat test protocol with correct load*  
   b) Check cleaning phase  
   c) Check loading and/or change load  
   d) Replace wrongly stored or expired detergent  
   e) Increase dosage  
   f) Replace membrane or replace by a suitable one  
   g) Increase energy  
   h) Replace detergent  
   i) Increase cleaning temperature

4. a) Repeat test protocol with correct load*  
   b) Check cleaning phase  
   c) Check loading and/or change load  
   d) Replace wrongly stored or expired detergent  
   e) Increase dosage  
   f) Replace membrane or replace by a suitable one  
   g) Increase energy  
   h) Replace detergent  
   i) Increase cleaning temperature

5. a) Repeat test protocol with correct load*  
   b) Check cleaning phase  
   c) Check loading and/or change load  
   d) Replace wrongly stored or expired detergent  
   e) Increase dosage  
   f) Replace membrane or replace by a suitable one  
   g) Increase energy  
   h) Replace detergent  
   i) Increase cleaning temperature

6. a) Repeat test protocol with correct load*  
   b) Check loading and/or change load  
   c) Replace wrongly stored or expired detergent  
   d) Increase dosage  
   e) Replace membrane or replace by a suitable one  
   f) Increase energy  
   g) Replace detergent  
   h) Increase cleaning temperature

7. a) Repeat test protocol with correct load*  
   b) Check cleaning phase  
   c) Check loading and/or change load  
   d) Replace wrongly stored or expired detergent  
   e) Increase dosage  
   f) Replace membrane or replace by a suitable one  
   g) Increase energy  
   h) Replace detergent  
   i) Increase cleaning temperature

### Summary

- **Optimum result**
  - Test soil is completely dissolved, no test soil residues remain
  - Optimum result

- **Not necessary**
  - Test soil is completely dissolved, no test soil residues remain

- **Immediate corrective action**
  - Test soil is completely dissolved, no test soil residues remain

- **Proposal for optimization of relevant process parameters (requiring Service Engineer)**
  - Test soil is completely dissolved, no test soil residues remain

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