

Interpretation Guide for Cleaning Monitoring Products

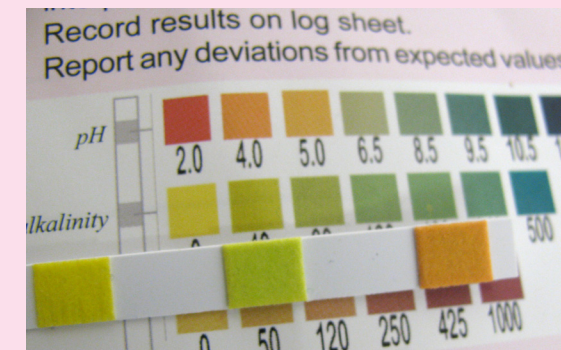
1 AquaTest™

Reorder# AT101

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.

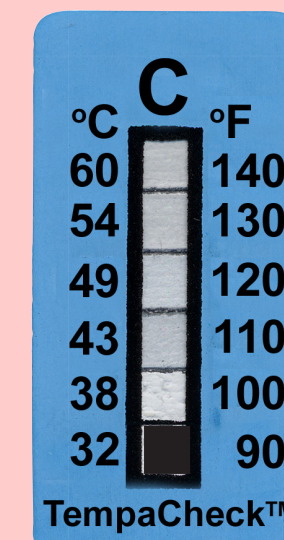
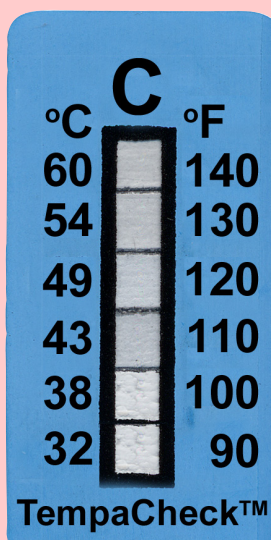


2 TempaChek™-90

Reorder# TEMP-90

A color change from silver to black records the highest temperature reached. At temperatures above 45°C (113°F), blood cooks on to 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, may be an enzyme or detergent wash). The temperature on the TempaChek™ should not exceed 100°F. Immediately report a result that exceeds this level.

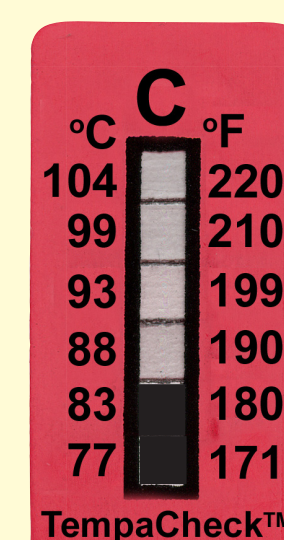
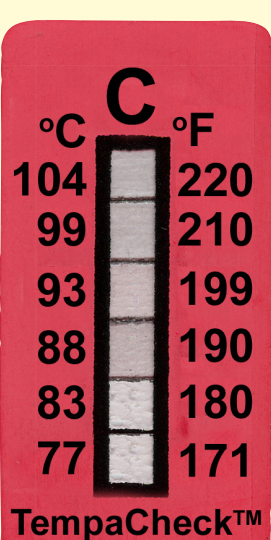


3 TempaChek™-170

Reorder# TEMP-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.

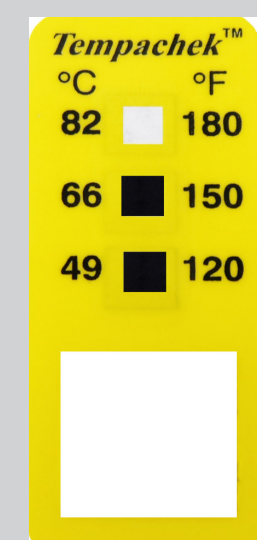
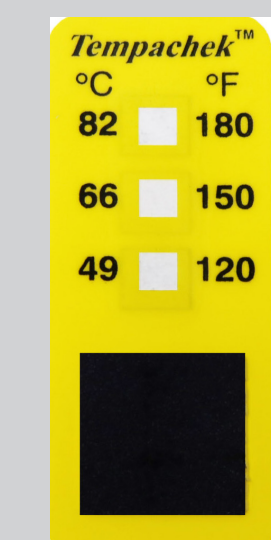
Place one TempaChek™-170 on each level of the instrument rack. TempaChek™-170 should be read after the Thermal Disinfection stage and before the Drying Stage. The targeted temperature varies with each brand of washer. Check with the manufacturer for your machine's targeted value and record here: _____



4 CartWashChek™

Reorder# CW-101

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 change color (from black to white) only if moistened by water. The irreversible thermometer will register the temperature levels of 120°F, 150°F, and 180°F, documenting the highest temperature reached during the cycle.



5 LumCheck™

Reorder# WLC-101

0		Optimum Result, No residue remaining
1		Some fibrin remains, check cleaning agent levels, delivery
2		Much fibrin remains, check cleaning agent levels, delivery
3		Some hemoglobin remains, check cold water rinse, mechanical action
4		Some fibrin & hemoglobin remains, check cleaning agent levels, delivery, mechanical action, cold water rinse, etc.
5		Much fibrin & hemoglobin remains, check all aspects of process

FlexiCheck™

Reorder# FLEXCHK-101

0		Optimum Result, No residue remaining
1		Hemoglobin & polysaccharide are gone, but some fibrin remains, check cleaning agent levels, delivery
2		Hemoglobin & polysaccharide are gone, but much fibrin remains, check cleaning agent levels, delivery
3		Some hemoglobin and polysaccharide remains, check cold water rinse, mechanical action
4		Some fibrin, hemoglobin & polysaccharide remains, check cleaning agent, delivery, mechanical action, cold water rinse, etc.
5		Much fibrin, hemoglobin & polysaccharide remains, check all aspects of process

6 SonoCheck™

Reorder# T1108

Problem	Reason	Corrective Action
De-Gassing	Dissolved gasses will absorb ultrasonic energy	De-gas solution according to equipment manual
Water Level	Ultrasonic energy may reflect off of the surface of the solution and change energy distribution	Check equipment manual for correct water level
Operating Cycle Time	Time varies with the amount of ultrasonic energy available	Longer operating cycles generally provide better results
Instrument Load	Heavy instrument loading and certain materials can absorb ultrasonic energy	Look for weak points using the periodic functional test and check for ultrasonic absorbent material like silicone or plastics
Transducer Failure	Transducer efficiency may decrease with age. Individual transducers may fail while others in the equipment continue to function	Perform periodic functional test, placing SonoCheck monitors in each transducer location (see equipment manual)
Low Energy	Transducer inefficiency or the ultrasonic basket may absorb too much energy	Check performance without basket in place. Compare performance against another ultrasonic cleaner if available. Call for service



7 TOSI®

When following "Daily Protocol" for testing. See www.hmark.com.

Reorder# WT101

Test Results	Rating	Description	Possible Reasons for TOSI Test Results	Immediate corrective action (to be conducted by SPD personnel)	Proposal for optimization of relevant process parameters (requiring Service Engineer)
	0	Optimum Result Test soil is completely dissolved, no test soil residuals left	Optimum result	not necessary	not necessary
	1	Completely rinsed = no water soluble proteins visible, but small amount of fibrin residuals remains	a) Incorrect positioning of Test b) Overloading/incorrect loading* c) Temperature not optimal d) Dosage of cleaner too low	a) Repeat test protocol with small load* b) Investigate cleaning time c) Investigate cleaning temperature d) Check dosage/concentration of detergent	a) In case of confirmation: Consider other possible reasons b) Adjust cleaning time to type of cleaner or extend time c) Adjust cleaning temperature to type of detergent d) Increase dosage
	2	Completely rinsed = no water soluble proteins visible, but most or all of the fibrin layer remains	a) Incorrect positioning of Test b) Overloading/incorrect loading* c) Cleaning time too short d) Temperature not optimal e) Dosage of cleaner too low f) Insufficient detergent efficiency	a) Repeat test protocol with small load* b) Repeat test protocol with correct load* c) Investigate cleaning time d) Investigate cleaning temperature e) Check dosage/reservoir or cleaner f) Check storage conditions and expiration Date of detergent.	a) In case of confirmation: Consider other possible reasons b) In case of confirmation: Consider other possible reasons c) Adjust cleaning time to type of cleaner or extend time d) Adjust cleaning temperature to type of detergent e) Increase dosage or refill/replace reservoir f) Replace wrongly stored or expired detergent
	3	Incompletely rinsed = small residuals of the water soluble (red) proteins visible, no or only little amount of fibrin layer remains visible	a) Incorrect positioning of Test b) Overloading/incorrect loading* c) Non-uniform water distribution d) Blocked spray system e) Blocked filter f) Insufficient water pressure g) Foaming tensides left over from pre-cleaning or ultrasonic bath	a) Repeat test protocol with small load* b) Repeat test protocol with correct load* c) Check coupling of spray system d) Check movement of spray arms and clean e) Check filter f) - g) Rinse medical devices more carefully after pre-cleaning or ultrasonic treatment	a) In case of confirmation: Consider other possible reasons b) In case of confirmation: Consider other possible reasons c) Install spray system correctly or replace by a suitable one d) Replace defective spray arm if necessary e) Replace Filter if necessary f) Check/increase water pressure, check function of pump g) -
	4	Incompletely rinsed = significant residuals of the water soluble (red) proteins visible, in addition most or all of the fibrin layer remains	a-g) same as rating 3 but more distinct h) Defective pump i) Loss of pressure or other defect j) Incorrect temp for detergent k) Failure of chemistry in use	a-g) Same as rating 3 h) Refer to Service Engineer i) Made any observations about leakages? j) Investigate cleaning temperature k) Check tube connections/reservoir/storage conditions/expiration date of detergent	a - g) same as rating 3 h) Replace pump i) Repair leakage and/or replace defective spare parts j) Select and set appropriate parameters for detergent in use k) Reconnect tubing refill or replace reservoir/replace wrongly stored or expired detergent
	5	TOSI - Test soil is largely or completely remaining	a-k) same as rating 4 l) No cold pre-rinsing step in place or too hot pre-rinsing m) Complete breakdown of the washer and/or the chemistry	a-k) Same as rating 4 l) Investigate pre-rinsing temperature and/or availability of a pre-rinsing step m) It is strongly recommended not to use the washer/disinfectant until problems have been identified and resolved	a - k) same as rating 4 l) Reduce pre-rinsing temperature below 40°C or install cold pre-rinsing cycle m) Investigate carefully all relevant cleaning parameters and make necessary corrections