

Complete Maintenance Services for Plate & Tubular Heat Exchangers

Testing, Re-Gasketing, Rebuilding, & Spare Parts

Complete on and off-site services for all makes and models with 24/7 support. Knowledgeable, professional technicians who understand the critical importance of Uptime.



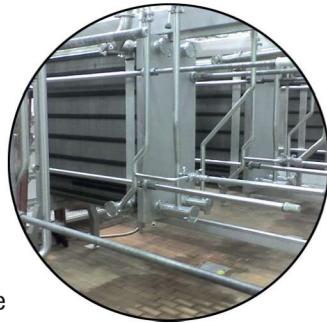
Purchase the CCT and/or have a factory trained technician perform the test.

- The patented CCT tests tubes and plates for defects
- Unit does not need to be disassembled
- Immediate test results
- Results documented on report for each test



Dye Testing

- Dye testing is used to locate the defect if the plates fail primary test with CCT 4.0
- Eco friendly water-based NDT dye used on each individual plate to locate the defect
- Results documented, and reports provided

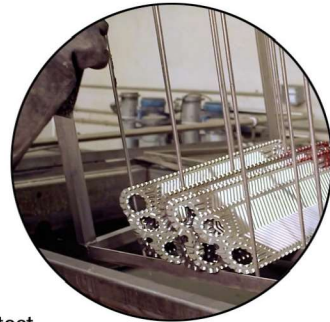


On Site Services

- Pipe Removal and Installation
- CCT Testing and Dye Testing
- Re-gasketing
- Open/Close - Inspect and advise
- Plate Installation/Restreaming

Shop Services

- Heated Chemical Baths for Deep Plate Cleaning
- Dye Testing
- Gasket Installation
- Plate pack set in order for easy installation
- Frame rebuilding, assembly test



Shell & Tube Heat Exchangers

- CIP, Hot water, Processing
- 304, 316, AL6XN, Duplex and other materials
- Single and multi-pass



New Heat Exchangers

- Plate Heat Exchangers
- Corrugated Tubular Heat Exchangers
- Shell & Tube Heat Exchangers
- Patented SIS plate identification system
- Unprecedented lead times

Spare Parts

- All Makes and Models
- Plates: 304/316/6Mo/Hastelloy/Titanium and more
- Gaskets: NBR/EPDM/Viton/Silicone



To jumpstart your maintenance program, call your local M.G. Newell office or visit our website:

www.mgnewell.com

MGNNewell

THERMALINE

CCT Testing System

Test for Defects in a Wide Range of Heat Exchangers

Plate • Tubular • Scraped Surface • Brazed • Shell & Tube

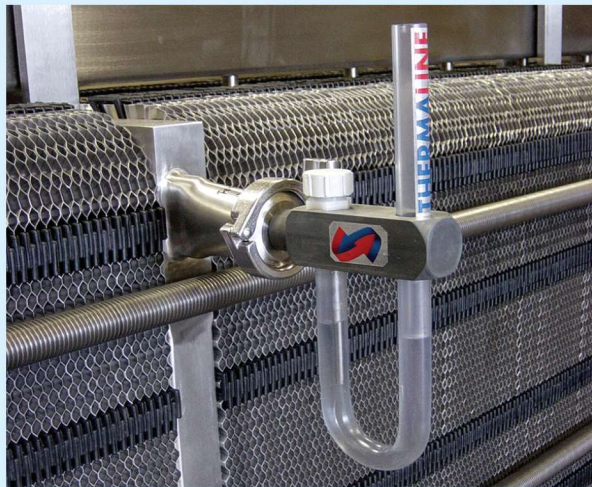
Safeguard your process from bacteria!

Heat Exchanger Testing Made Easy!

Save Money. Reduce Downtime.

Now you can test your heat exchangers for internal defects in a matter of minutes at any time. The Thermaline CCT (Cross Contamination Tester) is an easy-to-use primary testing device* that can be operated by your trained plant personnel and should be in every sanitary processor's Food Safety Plan.

Two models to choose from:

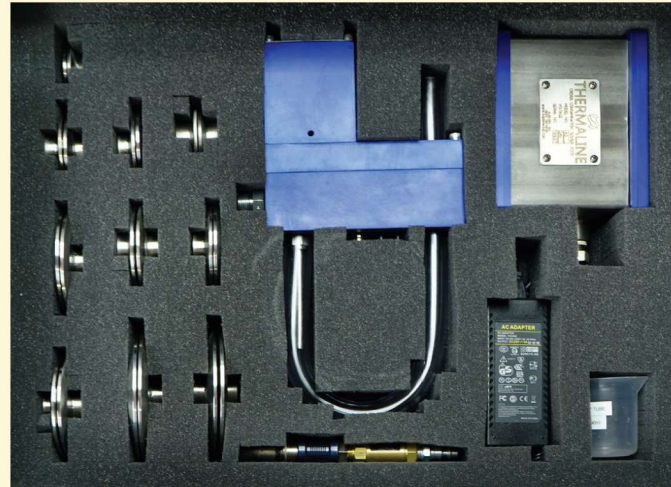


Cross Contamination Tester

The Patented CCT 2.0 is a primary tester* producing a pass or fail indication of internal defects regardless of the size of any particular heat exchanger. The Bubbler senses internal defects giving the operator visual results. The CCT 2.0 also performs a timed duration test based on heat exchanger volume.

Kit includes the following:

- *CCT 2.0 Primary Tester
- Air Pressure regulator and dump valve
- Heavy duty carrying case
- Volume/Duration lookup chart
- Spare connection O rings
- Tri Clamp connection kit 1", 1-1/2", 2", 2-1/2" and 3" (other connections available)



Cross Contamination Tester

The Patented CCT 4.0 is a primary tester* which uses an IDEC PLC to calculate the volume of the heat exchanger and produces a PDF report of the results for your record retention. The CCT 4.0 also has a bubbler feature for a quick visual indication of internal defects. The rugged CCT 4.0 is constructed of stainless steel and aluminum to give years of service in today's rough environments.

Kit includes the following:

- *CCT 4.0 Primary Tester and pressure sensing PLC driver
- Power supply and interconnecting cable
- Air Pressure regulator and dump valve
- Heavy duty carrying case
- Spare connection O rings
- Tri Clamp connection kit 1", 1-1/2", 2", 2-1/2" and 3" (other connections available)

For information and pricing, email us at sales@mgnewell.com or visit our website: www.mgnewell.com

Primary Test:

CCT Test quickly produces a pass or fail result for a group of plates.

Secondary Test:

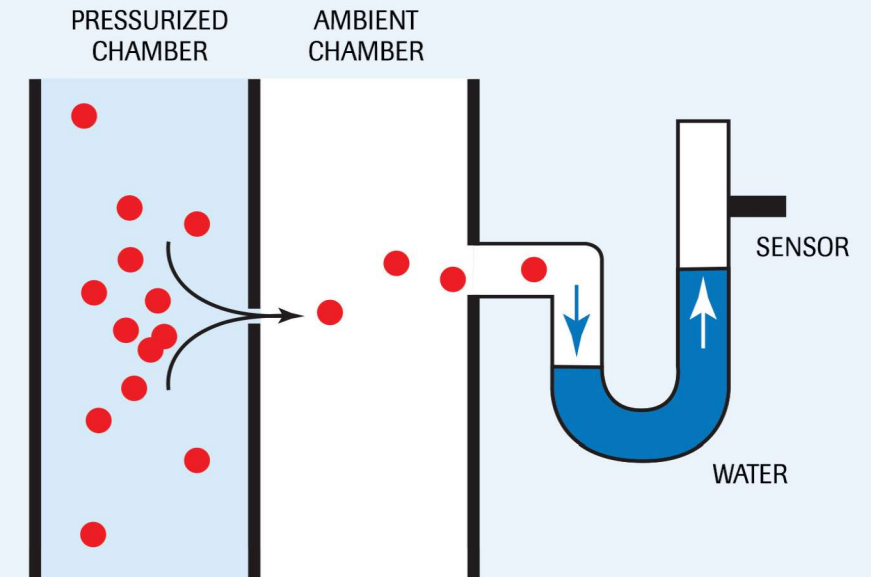
A dye test is used to isolate the defect should the CCT sense an issue.

The Facts:

- You can test your own heat exchangers
- You can choose the method used to test
- You should do a periodic internal inspection
- CCT can be used on any size, make or model of heat exchanger

The Testing Process:

One chamber of the heat exchanger is pressurized with compressed air and if a defect exists air molecules will pass through the defect to the ambient chamber where it is sensed by the CCT either as a bubble in the bubble mode or shifting the water column in the elapsed time mode.



What if I find a problem?

A Primary test is a pass/fail test used to identify an internal defect. A secondary test, such as dye testing, is used to locate the issue. Thermaline provides full support for all of your needs. *See back page for complete details.*

3A Recommended Practices on Testing Your Heat Exchangers

PMO, FDA USDA Adoption of 3-A Practices and Recommendation for Frequent Testing and Documentation* New 3-A Sanitary Standards 11-09

J. PLATE HEAT EXCHANGER LEAK TESTING AND VISUAL INSPECTION

J1. It is recommended that leak detection and visual inspection of all plate heat exchangers be performed at least once every 12 months and a record of the inspection results maintained. More frequent testing and inspection may be appropriate when process conditions cause additional stress on plate surfaces. Tests and inspection should be performed by a qualified technician who is knowledgeable in the field and who is capable of interpreting the results.

J2. Methods used for leak testing should be capable of detecting any leakage within the heat exchanger irrespective of the size of the unit and should also incorporate a visual inspection of the plate surfaces for pin-holes, corrosion, excess wear, gasket conditions, correct plate installation, proper flow, and cleaning response. The frame and frame components (terminals, dividers and ports) should also be checked for structural integrity.

J3. All materials which contact plate surfaces during leak testing procedures are to be capable of rinsing clean from the plate surfaces and not damage or discolor the plates which are returned to service.

J4. Corrective and preventative action(s) should be immediate and appropriate upon discovery of any deficiencies.



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