

Disinfection of Potable Water Systems

General

This Tech Note provides the disinfection procedure when using the Unico System with potable water systems.

Scope

When water coils for the Unico System are connected to a potable water system, Unico, Inc. recommends the following Building Officials Code Administrators (BOCA) plumbing code practice:

*“Section P-1509.0 Disinfection of potable water system”
P-1509.0 General: New or repaired potable water systems shall be purged of deleterious matter and disinfected prior to utilization. The method to be followed shall be that prescribed by the health authority having jurisdiction or, in the absence of a prescribed method, the procedure described in either AWWA C651 or AWWA C652 listed in Chapter 19, or as described in this section.*

Manufacturing Specifications

Unico System coils that are in contact with potable water are manufactured with copper tubing (UNS No. C12200) that conforms to ASTM Standard B88 and brazing materials that contain less than 0.2% lead.

Disinfection Procedures

1. The pipe system shall be flushed with clean, potable water until dirty water does not appear at the point of outlet.
2. The system or part thereof shall be filled with a water/chlorine solution containing at least 50 parts per million of chlorine, and the system or part thereof shall be valved off and allowed to stand for 24 hours; or the system thereof shall be filled with a water/chlorine solution containing at least 200 parts per million of chlorine and allowed to stand for 3 hours.
3. Following the required standing time, the system shall be flushed with clean potable water until the chlorine is purged from the system.
4. The procedure shall be repeated where shown by a bacteriological examination that contamination remains present in the system.

Desired Chlorine Concentration in water	Liquid Chlorine Required Ounces (wt)	Sodium Hypochlorite Required: 5% available Chlorine Ounces (fluid)	Sodium Hypochlorite Required: 10% available Chlorine Ounces (fluid)	Sodium Hypochlorite Required: 15% available Chlorine Ounces (fluid)	65% Available Chlorine Ounces (fluid) (Calcium Hypochlorite Required)
50 PPM	.025	4.0	2.0	1.5	0.4
200 PPM	1.0	17.0	8.5	6.5	1.6

Amounts Required for a 33 gal. system