



Case Study - Food Processing Cooling Tower - Scale, Bio & Corrosion

(4 month evaluation)

- Installer:** MBI Water Solutions - *HydroFLOW* Master Distributor in WA, ID, MT and WY.
- Customer:** G & G Orchards
- Location:** Yakima, Washington - USA
- Application:** Cooling Tower (4.6" OD Pipe)
- Unit:** *HydroFLOW* 120 Water Conditioner
- Goal:** Remove existing limescale deposits, prevent limescale accumulation and eliminate the need for chemicals
- Inspections:** September 20, 2011 (installation) and March 1, 2012 (after 22 weeks)
- Testing method:** Before & after photo documentation, conductivity measurements and chemical usage reduction

Cooling Tower

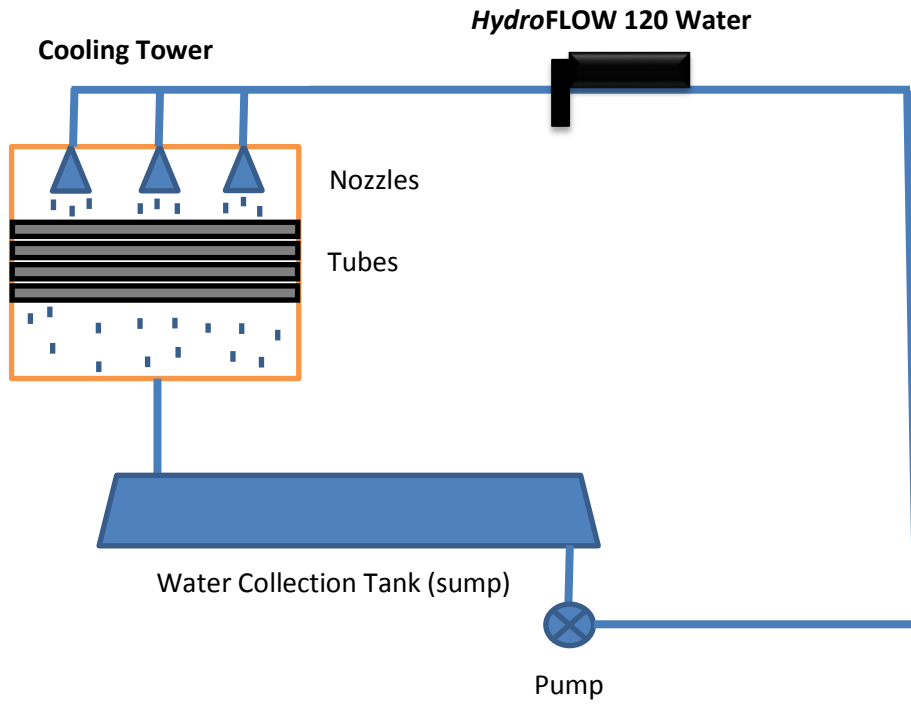


BAC Condenser

EVAPCO Condenser



Line Drawing of Application



Sump



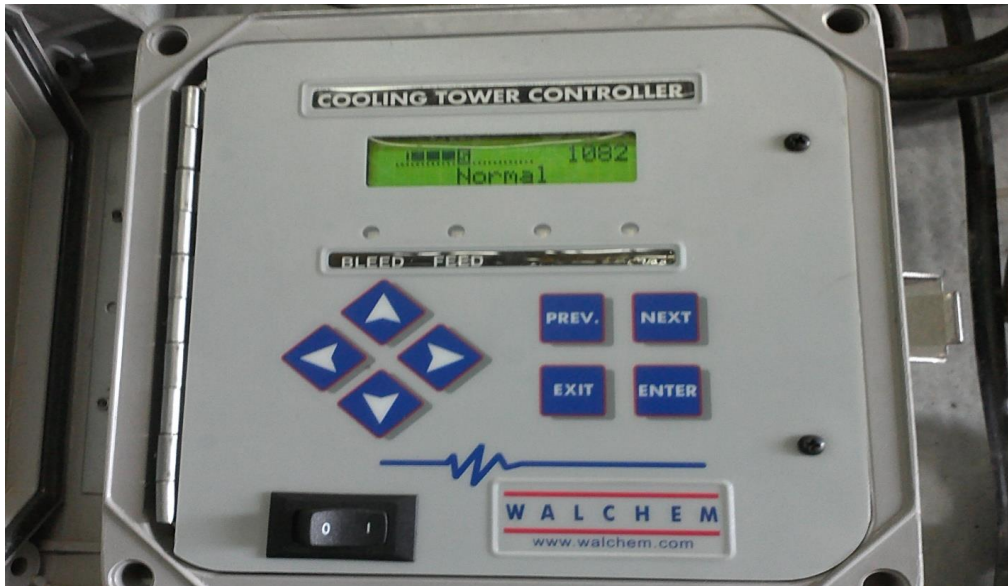
Installed *HydroFLOW 120* Water Conditioner



TDS and conductivity over a span of 22 weeks

Date	TDS	Conductivity	Chemical Usage
Sep. 20, 2011	620	1245	Yes
Oct. 27, 2011	790	1580	Yes
Nov. 11, 2011	491	984	No
Dec. 7, 2011	554	1108	No
Jan. 27, 2012	457	914	No
March 1, 2012	543	1082	No

Conductivity Meter



March 1, 2012

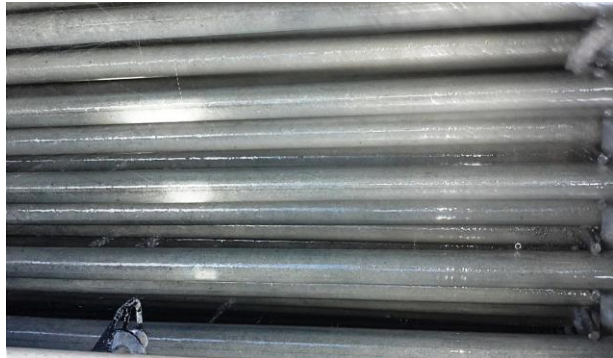
Note: Low conductivity is still being maintained, 14 weeks after chemical usage was discontinued



Tubes



September 20, 2011



March 1, 2012

Note: Without the usage of chemicals, the limescale crystallization is gone and bare metal is beginning to show

Tower Fins



September 20, 2011



March 1, 2012

Note: Without the usage of chemicals, limescale and biological residue is gradually being removed from the fins



Water Collection Tank (sump)



September 20, 2011



March 1, 2012

Note: Without the usage of chemicals, the water in the sump is much clearer

Results after 22 weeks:

- Chemical usage was discontinued after 8 weeks
- Low conductivity maintained: blow-down reduced by 50%
- Limescale deposits on tubes and fins are gradually being removed
- Water in the sump is clear of algae and bio deposits
- Estimated return on investment (ROI): under 18 months

Quote from the customer

"With *HydroFLOW*, my cooling tower is much cleaner than it was with chemicals"

Customer contact information for referral purposes

Name: Rene Garcia **Email:** gginc@gandgorchards.com **Phone:** (509) 678-4920