# HydroFLOW Cooling Tower-Chiller Installation

# California Medical Center

Updated on August 23, 2017

#### **HydroFLOW West Inc.**



### Aerial view of the Medical Center



#### **HydroFLOW West Inc.**



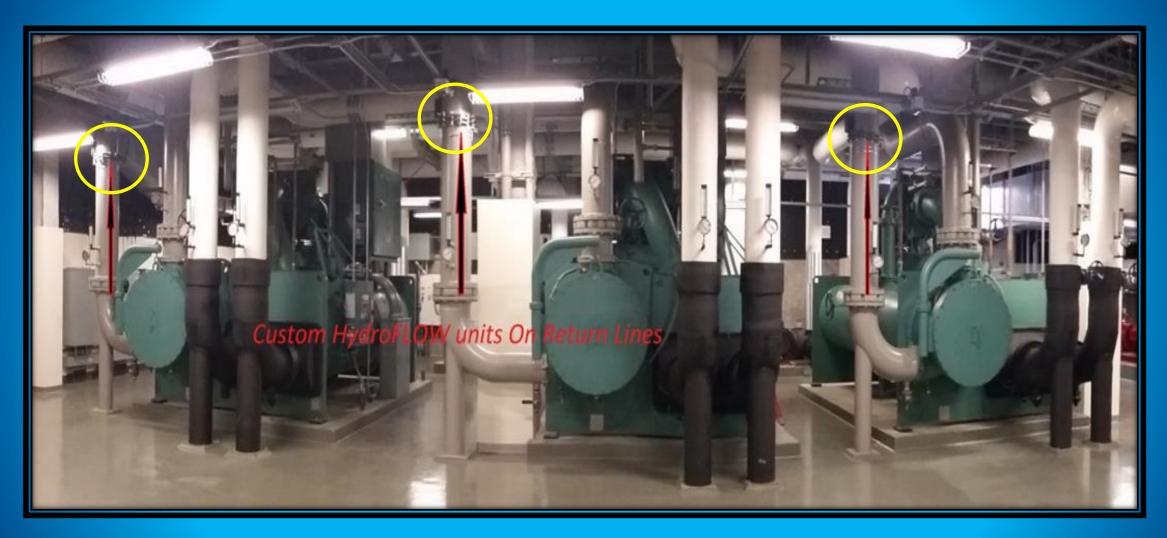
# Custom 24<sup>99</sup> HydroFLOW unit on condenser return line



#### **HydroFLOW** West Inc.



# Custom 14" HydroFLOW units on chillers



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## Chemicals, conductivity and side stream filtration

Chemicals were gradually reduced during the first few months after the installation of the *Hydro*FLOW eco-friendly devices. Since the cooling tower-chiller system did not show signs of fouling, it was decided to steadily increase the conductivity, with the objective of saving water via reduced blowdown.

Prior to HydroFLOW, conductivity had to be maintained at 1,400 µS due to fouling of the

system. After chemicals were reduced, the conductivity was steadily increased to  $4{,}000~\mu S$ . The tower and chillers remain in excellent condition after months of running at high conductivity.

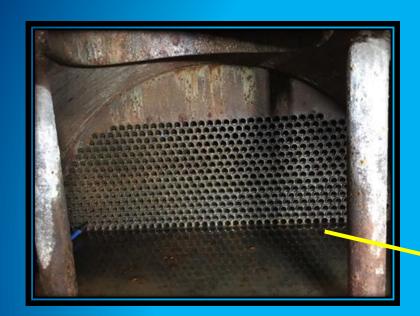
It's important to note that after running at high conductivity for a few months, the sand in the side stream filter was not performing efficiently. It was replaced with glass bead media, which achieved much better results.



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# February 10, 2017 - After 7 month using HydroFLOW



Comment by the Medical Center's head of maintenance at the 7 month chiller tube inspection: "This is the cleanest the chiller tubes had ever been."



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## Achieved key success factors - over a year after installation

- The cooling tower and chillers were maintained within industry standards while reducing chemicals and blowdown water.
- Biocide chemicals were reduced by 75% while keeping CFU counts under 1,000 (close to drinking water quality).
- Due to its ability to remove biofilm colonies, *Hydro*FLOW greatly reduced the chance of a legionnaires disease outbreak.
- Anti-scalant and anti-corrosive chemicals were discontinued 4 months after installation.
- Blow-down was reduced by over 65%.
- Payback period was under two years.

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