



McLaren Central Michigan Hospital Cooling Tower Replacement



Location

Mt. Pleasant, MI

Design and Build Engineer:

[Resolute Building Intelligence](#)

Engineers:

Bill Jensen
Brad Basa

“Thanks to this new cooling tower system, the annual cooling season total water savings average is 70,000 gallons!”

- Bill Jensen, Project Engineer
Great Lakes Critical Power and Cooling

Challenge

In 2018, McLaren Central Michigan Hospital (MCM) required a new cooling tower to remedy a tremendous loss of water due to drift and cycles of concentration. In addition to reducing the drift losses, the new solution needed to provide water and electricity savings.

The hospital owner chose Resolute Building Intelligence of Birmingham, Michigan to provide equipment options that meet that would meet their needs. J William (Bill) Jensen, PE, along with Brad Basa, PE, were the engineers working on this project.

Why R.L. Deppmann?

R.L. Deppmann Company offered up a great solution (The Tower Tech TTXR) to the hospital and Resolute. This solution could help them meet their efficiency goals while still being within their equipment and installation budget.

The Tower Tech TTXR was clearly different from the hospital’s previous cooling towers. All parties spent a great deal of time understanding the new tower system, including visiting the Tower Tech facility to make sure the owner was comfortable with the manufacturer.

Solution

R.L. Deppmann Company was asked to provide a Tower Tech Inc. series TTXR 1290-ton fiberglass cooling tower with a capacity to cool 3000 GPM of water from 95°F to 85°F. Specifically, a variable speed 10 fan cooling tower was selected. The owner chose Bell & Gossett base-mounted pumps to serve the new cooling tower system.

Bill Jensen, currently with Great Lakes Critical Power and Cooling, performed an analysis to compare water savings from the 2020 season with previous years. The detailed analysis showed water consumption dropped significantly once the Tower Tech TTXR cooling tower was installed and operating. In particular, there was a 15% reduction in water use from the old tower by July of 2020 and an impressive 32% reduction for the month of August.

