



# Division 236500

# Cooling Towers

## DESIGN GUIDE

## 1 General

### 1.1 General

- A. Consult with the Mechanical HVAC manager early in the design stage to discuss available tower types as well as advantages and disadvantages offered by each tower.
- B. Towers shall have fan capacity controlled with VFD's and operate with full water flow through the fill material.
- C. Manufacturer shall have demonstrated experience and prove operation of misters to consistently keep fill material wet especially at the edges.

## 2 Materials

### 2.1 Cooling Towers

- A. All mechanical equipment must be located and/or positioned so as to be easily serviceable.
- B. Make-up water to be protected with approved back-flow preventers.
- C. One tower shall be provided for each central plant chiller.
- D. Provide one (1) 20 amp, 115 volt GFI duplex outlet per National Electric Code, and one (1) back-flow protected hose bib at each cooling tower.



- E. Provide water taps for water treatment testing on all closed circulating pipe systems.
- F. Provide service platforms for access and service of spray nozzles and fill materials.
- G. Provide electric pan heaters in tower basins.
- H. Drain pans/basins shall be all stainless steel unless composed of non-metallic composite materials.
- I. Towers shall be equipped with basin sweeps and nozzles as part of a Lakos system to remove sediment from the basin the tower.
- J. Basin shall be equipped with electronic level sensor and controls in lieu of mechanical floats. Controls shall be interlocked with the solenoid valve for water make up.

## 3 Execution

### 3.1 Reserved for future content.

## 4 Appendix

### 4.1 Reserved for future content.