



# Division 236400

# Packaged Water Chillers

## DESIGN GUIDE

## 1 General

### 1.1 General

- A. Outside of the central plant, the campus has very few chillers and they are only provided where critical cooling is needed year round. These chillers are primarily air cooled.
- B. Wherever possible, HVAC cooling units shall have multiple compressors for part load performance and redundancy with independent refrigeration circuits. This is not a requirement in central plants where multiple chillers service a larger load and are staged to meet demand.

## 2 Materials

### 2.1 Chiller

- A. All mechanical equipment must be located and/or positioned so as to be easily serviceable. Water cooled chillers shall have full service clearances for tube pull.
- B. Provide water taps for water treatment testing on all closed circulating pipe systems.
- C. Water cooler chiller coils and other seasonally drained chillers without glycol must be 100% drainable. Slope coil towards drain end. Provide vents to enable draining coils when valves are closed. Consultant to provide chiller coil installation detail(s).



- D. The central plant chillers are historically water cooled chillers with centrifugal compressors without VFD's (capacity controlled with staging chillers or inlet vanes on smaller loads).
- E. Air cooled chillers at buildings scroll compressors are preferred over rotary screw when practical for maintenance purposes but not at the expense of energy efficiency.
- F. Approved Manufacturers (air cooled): Daikin, Trane, Carrier and York
- G. Approved Manufacturers (water cooled, centrifugal): York

## 3 Execution

### 3.1 Reserved for future content.

## 4 Appendix

### 4.1 Reserved for future content.