

# Introduction

## General Description

The McQuay Model WMC Centrifugal Water Chillers are complete, self-contained, automatically controlled, fluid-chilling units featuring oil-free, magnetic bearing compressors. Each unit is completely assembled and factory tested before shipment.

The WMC chillers are equipped with two compressors operating in parallel with a single evaporator and single condenser. The model WMC 145S has a single compressor.

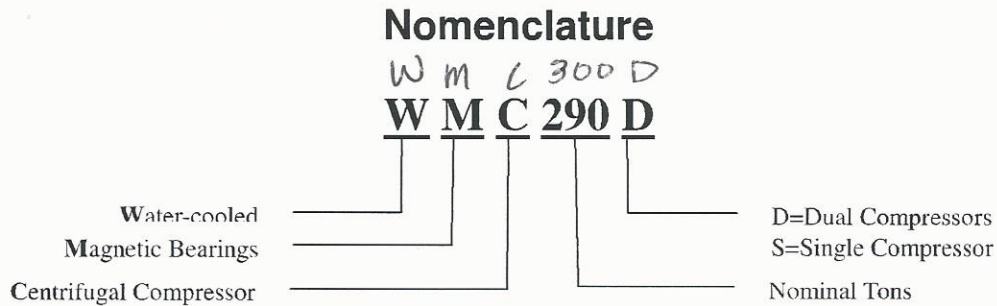
The chillers use refrigerant R-134a that operates at a positive pressure over the entire operation range, so no purge system is required.

The controls are pre-wired, adjusted and tested. Only normal field connections such as water piping, relief valve piping, electric power and control interlocks are required, thereby simplifying installation and increasing reliability. Necessary equipment protection and operating controls are included.

All McQuay centrifugal chillers are factory-tested prior to shipment and must be commissioned by a factory-trained McQuay service technician. Failure to follow this startup procedure can affect the equipment warranty.

The standard limited warranty on this equipment covers parts that prove defective in material or workmanship. Specific details of this warranty can be found in the warranty statement furnished with the equipment.

Cooling towers used with McQuay centrifugal chillers are normally selected for condenser water inlet water temperatures between 75°F and 90°F (24°C and 32°C). Lower entering water temperatures are desirable from the standpoint of energy reduction, but a minimum does exist. For recommendations on optimum entering water temperature and cooling tower fan control, consult the "Condenser Water" section on page 7.



## HAZARD IDENTIFICATION INFORMATION

### **⚠ DANGER**

Dangers indicate a hazardous situation which will result in death or serious injury if not avoided.

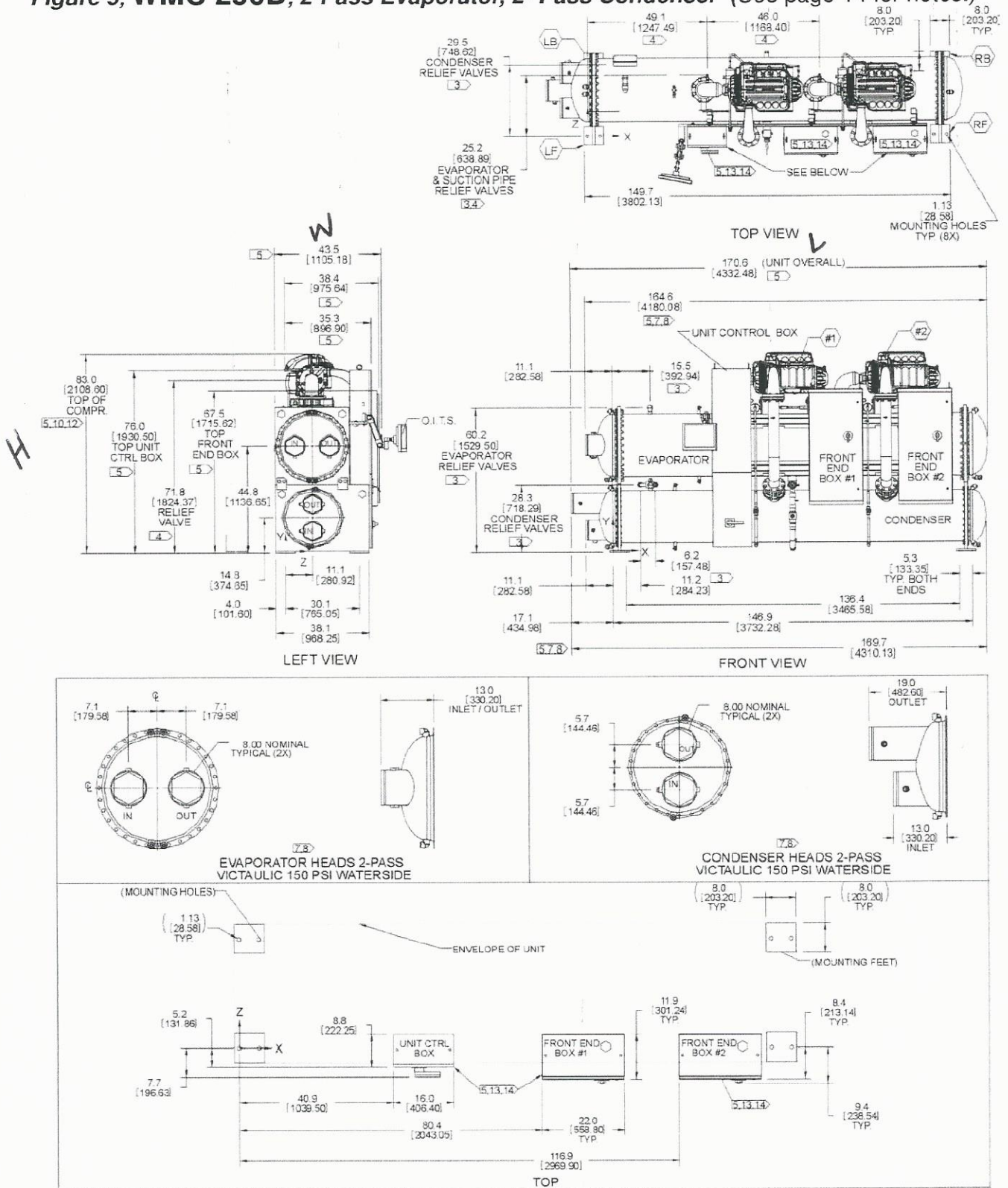
### **⚠ WARNING**

Warnings indicate potentially hazardous situations, which can result in property damage, severe personal injury, or death if not avoided.

### **⚠ CAUTION**

Cautions indicate potentially hazardous situations, which can result in personal injury or equipment damage if not avoided.

**Figure 9, WMC 290D, 2-Pass Evaporator, 2-Pass Condenser (See page 14 for notes.)**



**WMC 290D**  
 ALL DIMENSIONS ARE IN DECIMAL INCHES AND (MILLIMETERS)  
 R3318482C 00 SCALE  
 DRAWING NUMBER REV NONE