

## Process Chiller Buyer's Guide

We are Challenging the Status Quo

Section Subject

Process Chiller Duty Cycle

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## Process Chiller - Duty Cycle



In the world of chillers, there are two major classifications (or duty cycles) that describe how a chiller is used. These duty cycles tend to be either **Process** or **Air Conditioning**. When buying a chiller it is important to first understand some of the key differences of these two classifications. We have illustrated some of the key differences in the table below. As with any machinery, it is very important to buy equipment that effectively addresses the operational requirements.

Operational Requirements	Air Conditioning Duty Chillers	Process Chillers
Annual usage hours	1080 Hours	2900 Hours
Operational conditions	Outdoor, rain, snow, wind, generally ground installed, coastal	Indoor (corrosive), outdoor, rain, snow, wind, ground installed, roof installed, coastal
Fluid pumping requirements	Narrow range generally between 20 and 50 PSI pump differential pressure	Wide range generally between 10 and 150 PSI pump differential pressure
Redundancy of both pumping and cooling	Moderate need	Critical need
Impact / cost of chiller downtime	Low to moderate	High to extremely high
Expected useful life of equipment with basic maintenance	10 to 15 years	20 to 25 years
Need for fluid freeze protection	Moderate need	Moderate to high