

Facility Dynamics

ENGINEERING

Introduction to the Controlled Systems

Refrigeration Cycles (Supplemental)

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What We Will Cover in This Module

- Saturated Multiphase Systems
- Basic Refrigeration Cycles

Many HVAC Refrigeration Cycles (and Some Heating Cycles) Exploit Saturated Multiphase Systems

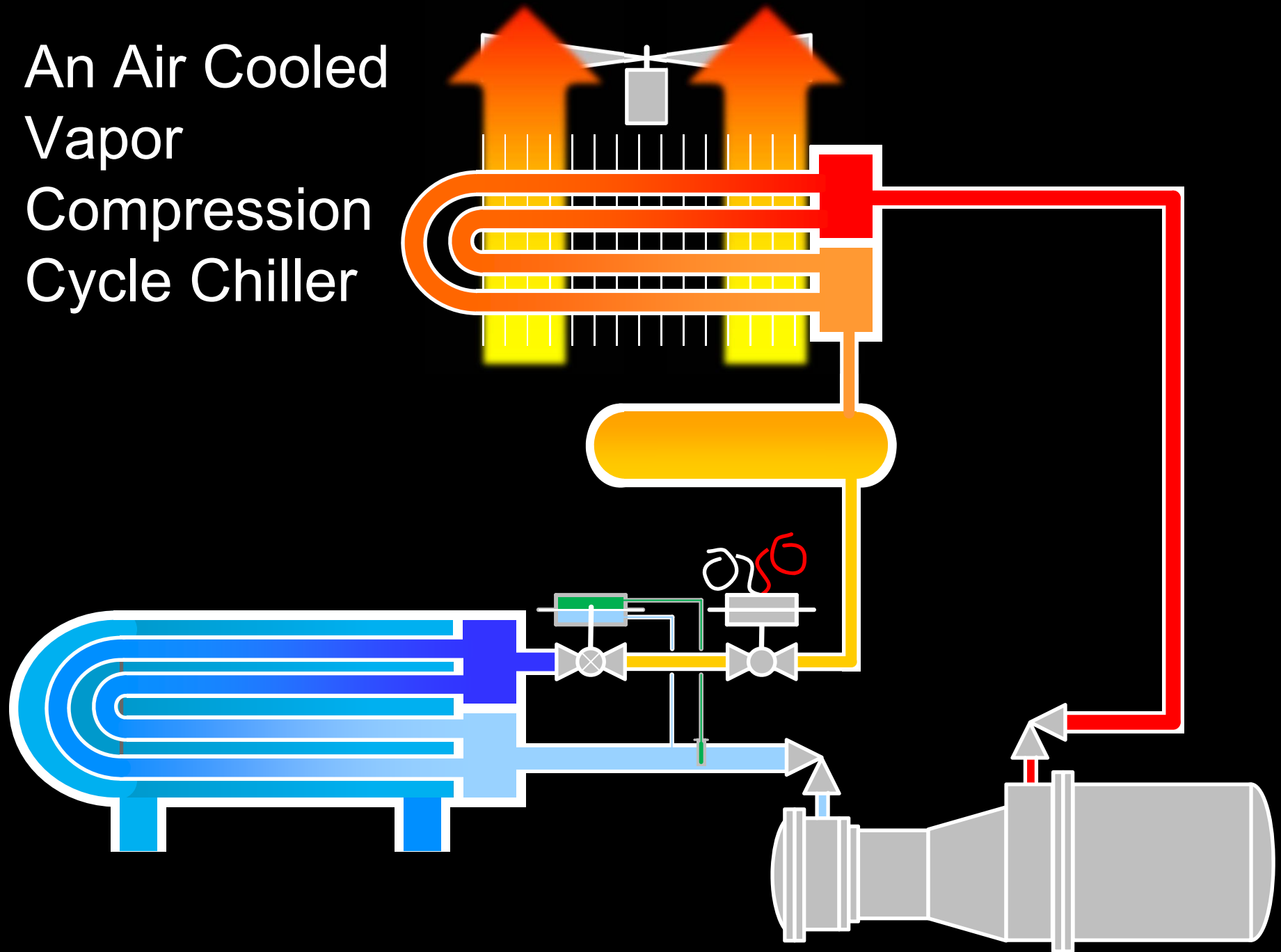


TAB 3-6 - REFRIGERATION CYCLES

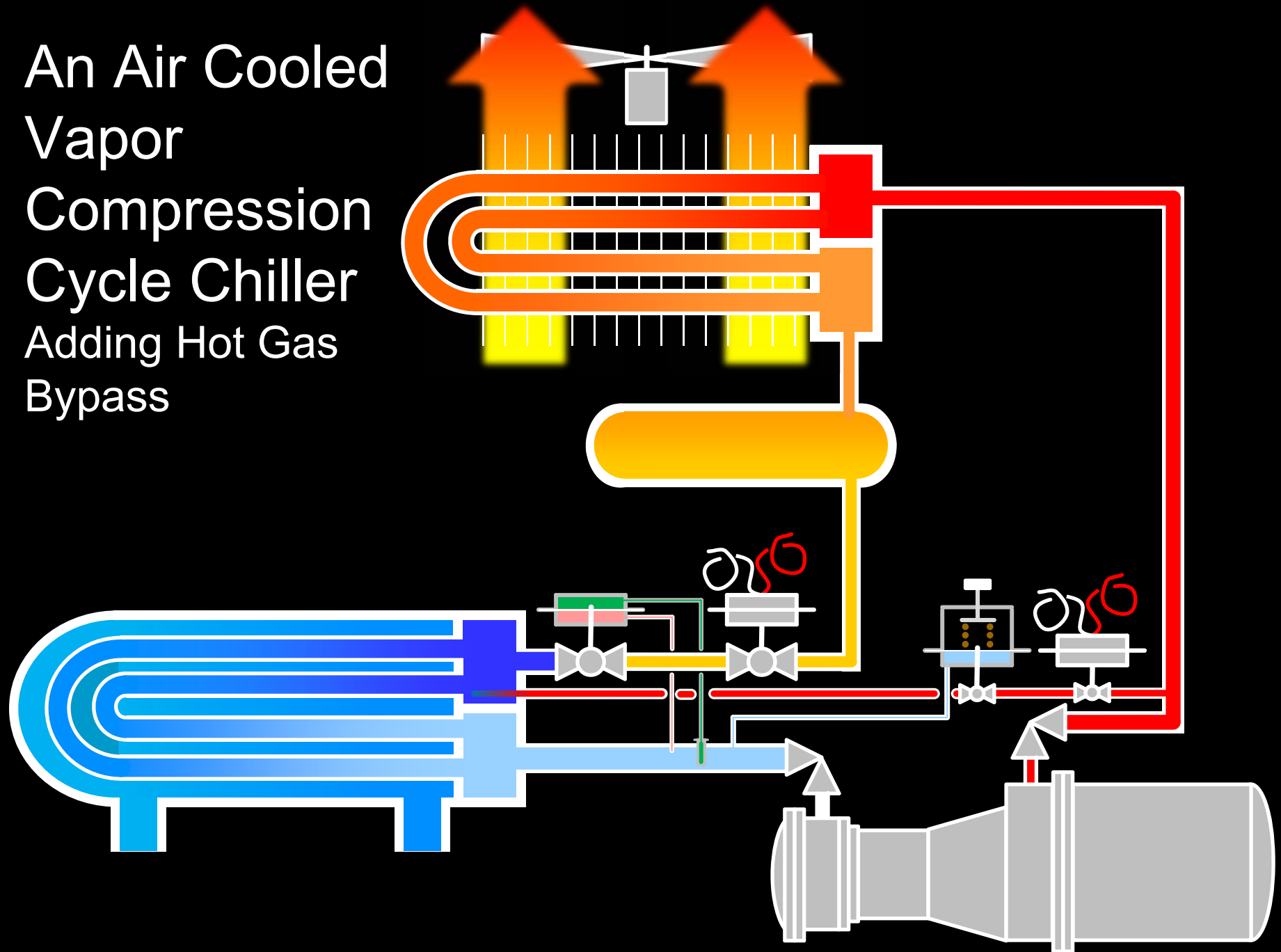
Many HVAC Refrigeration Cycles (and Some Heating Cycles) Exploit Saturated Multiphase Systems

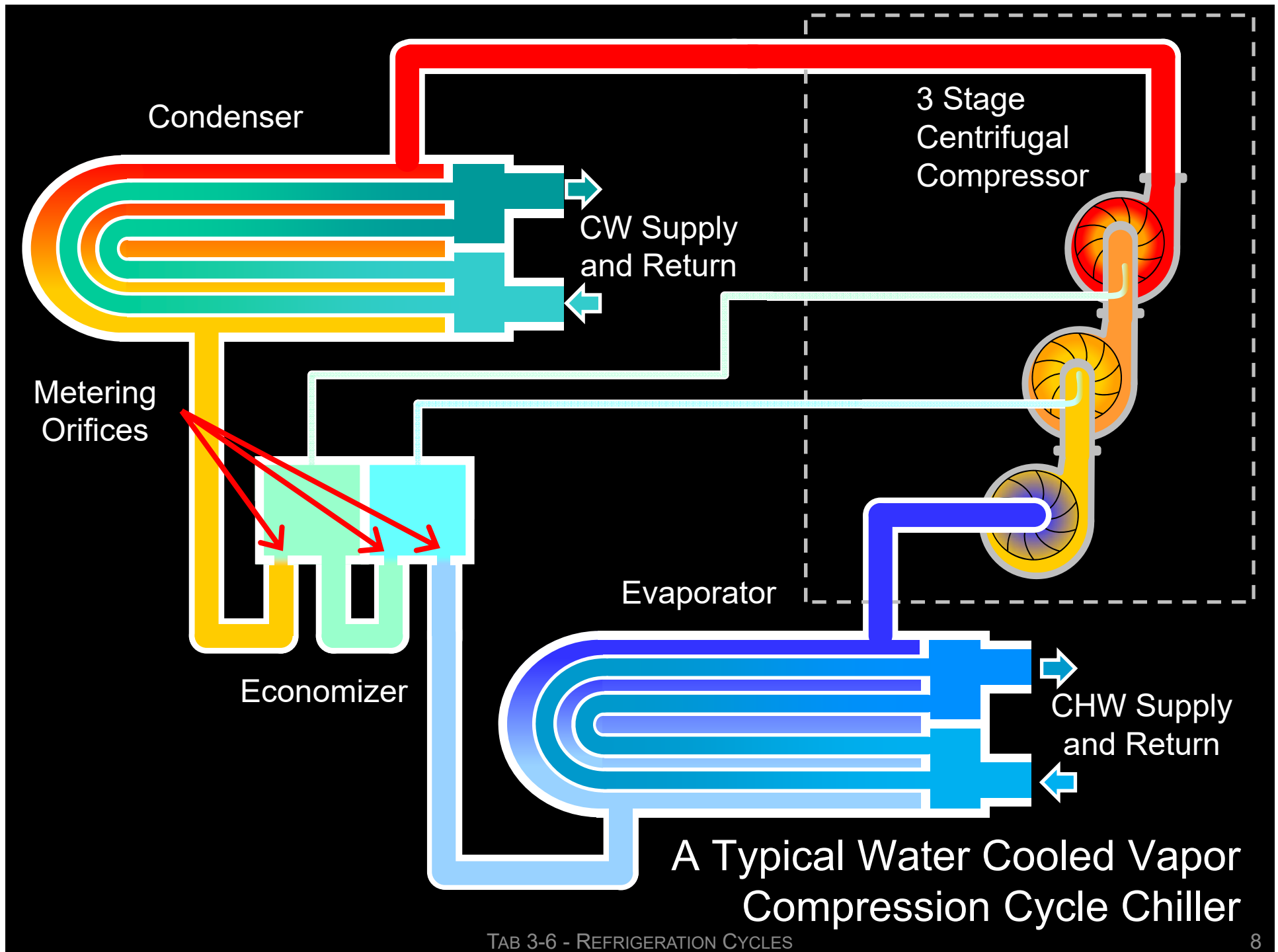


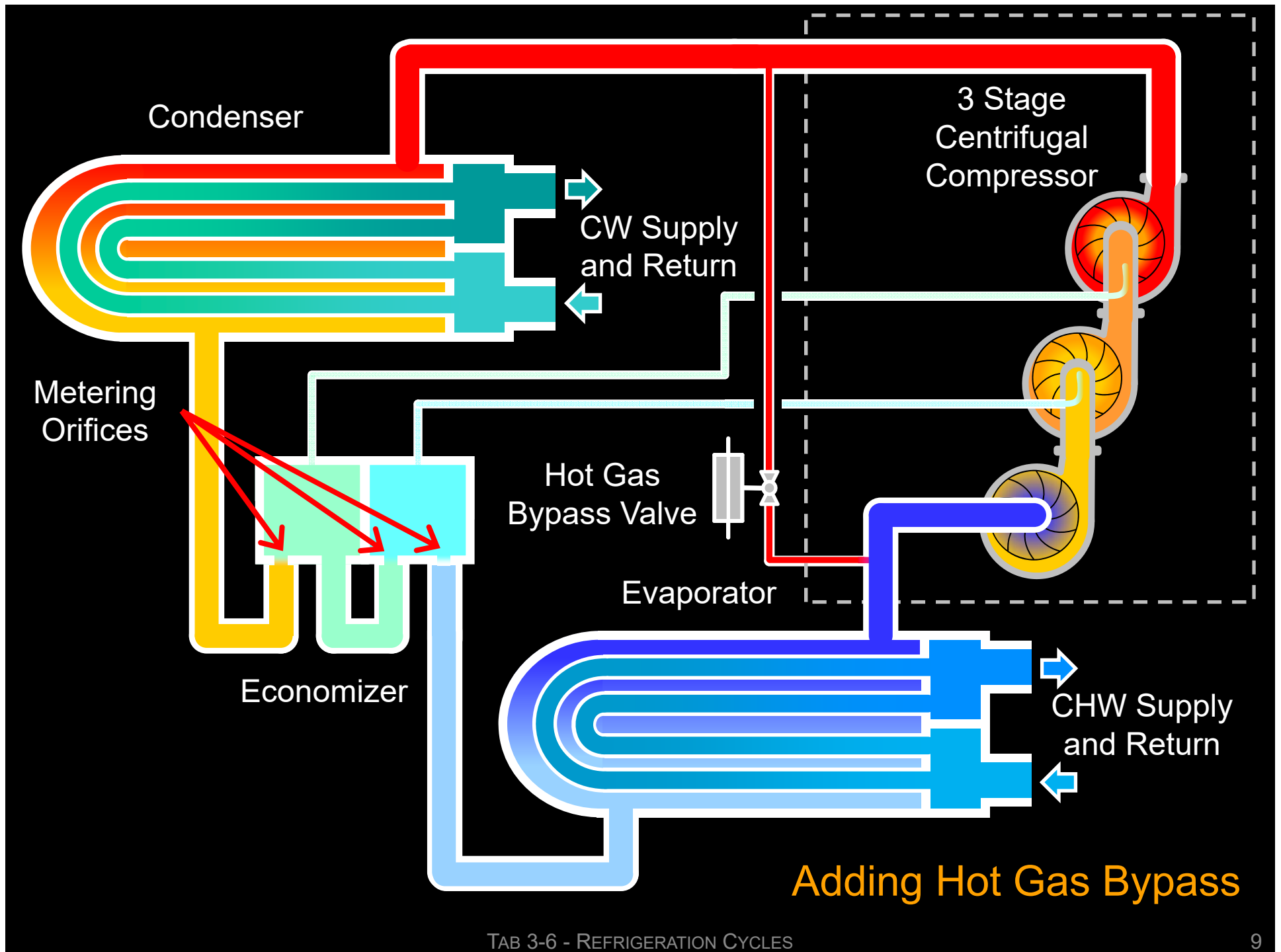
An Air Cooled Vapor Compression Cycle Chiller



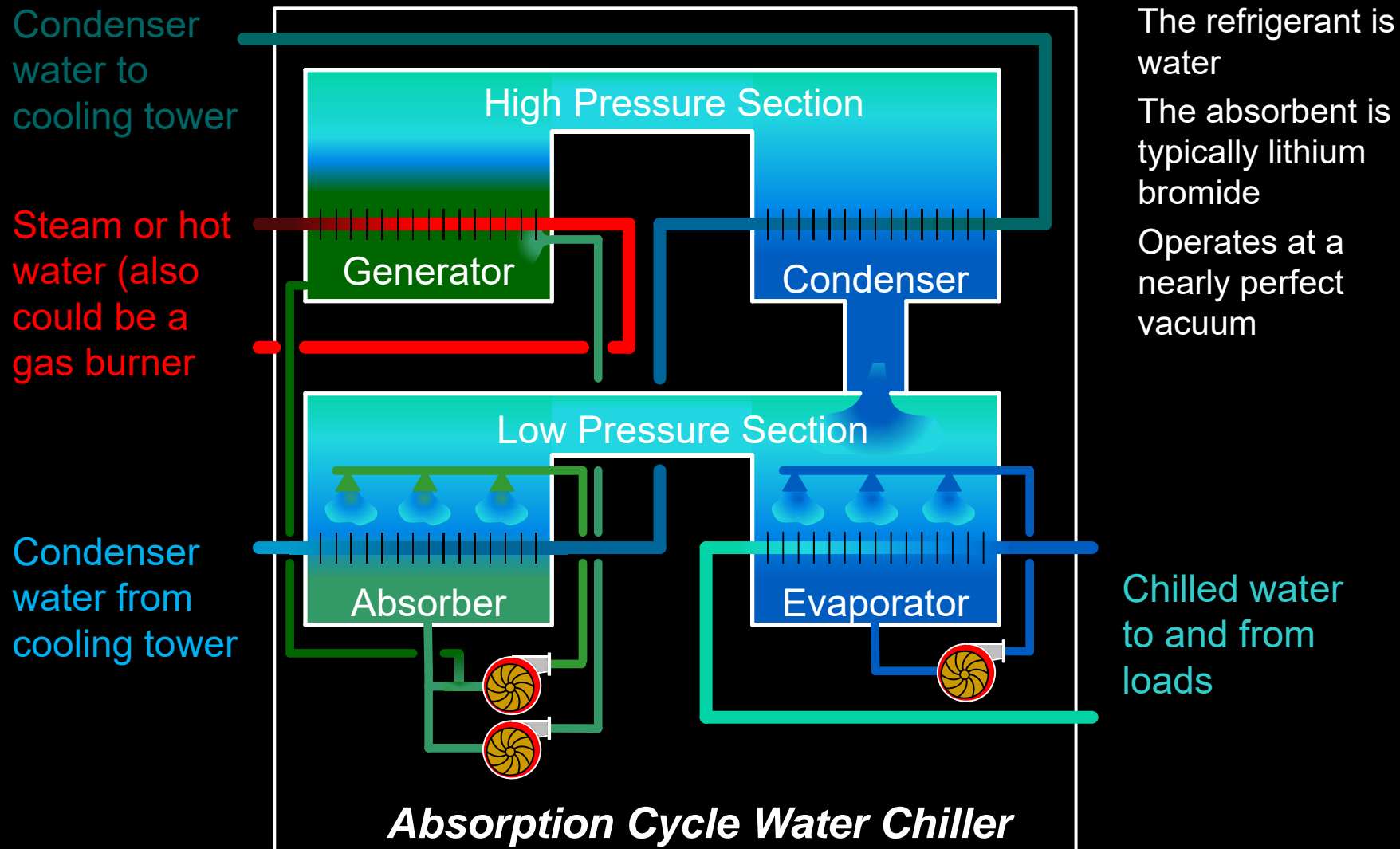
An Air Cooled
Vapor
Compression
Cycle Chiller
Adding Hot Gas
Bypass







Absorption Chiller





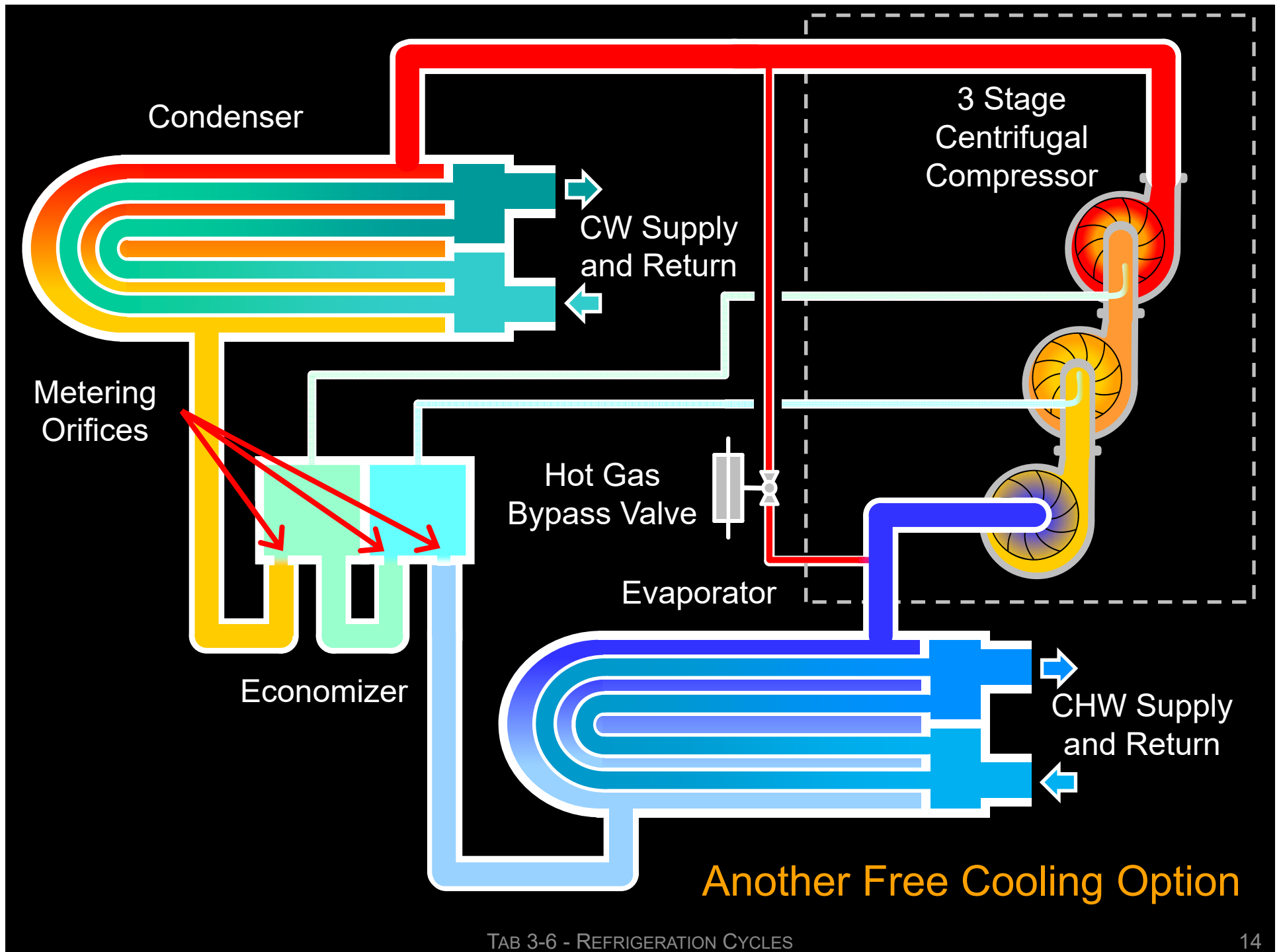
Free Cooling via Plate and Frame Heat Exchangers

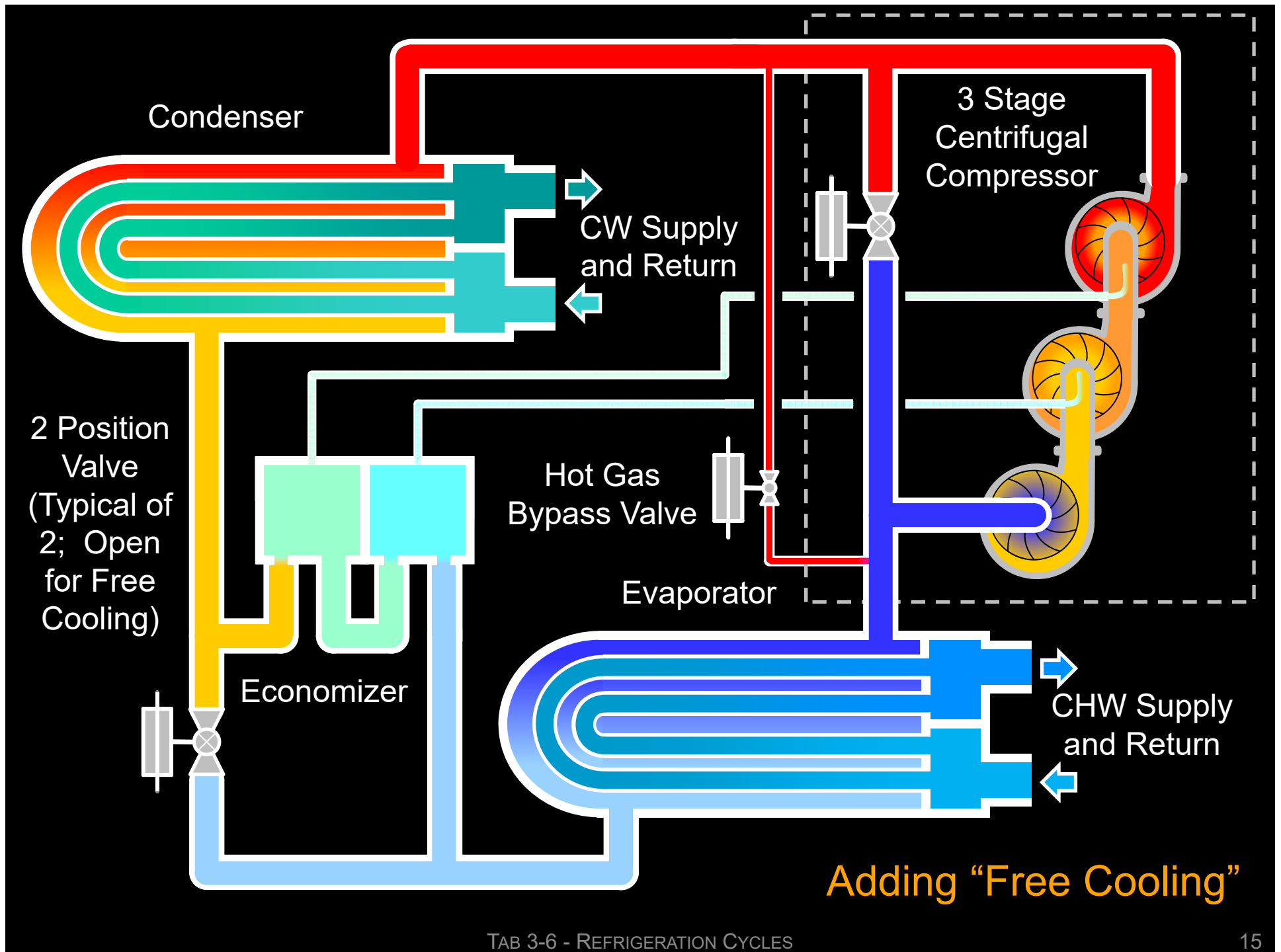


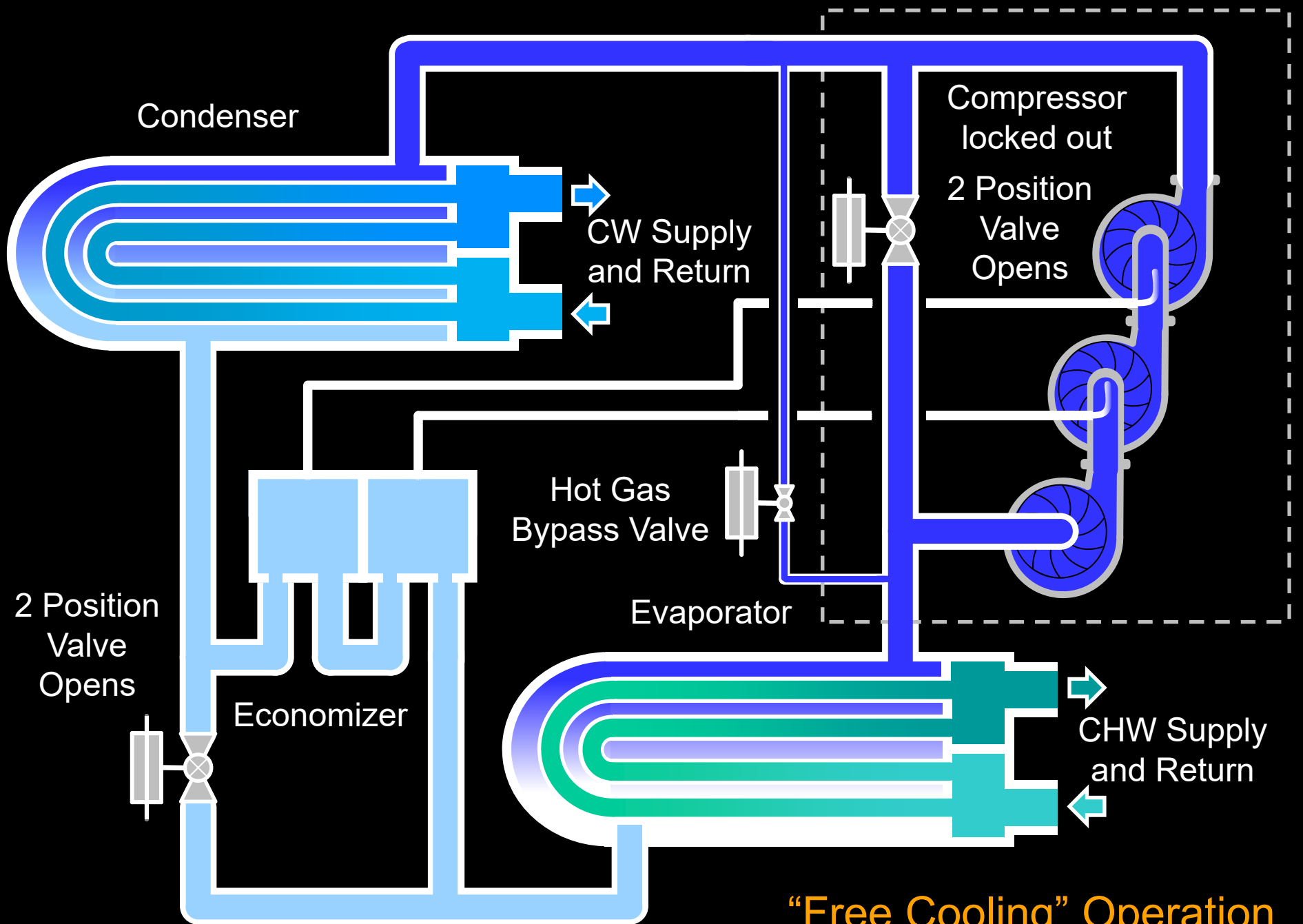
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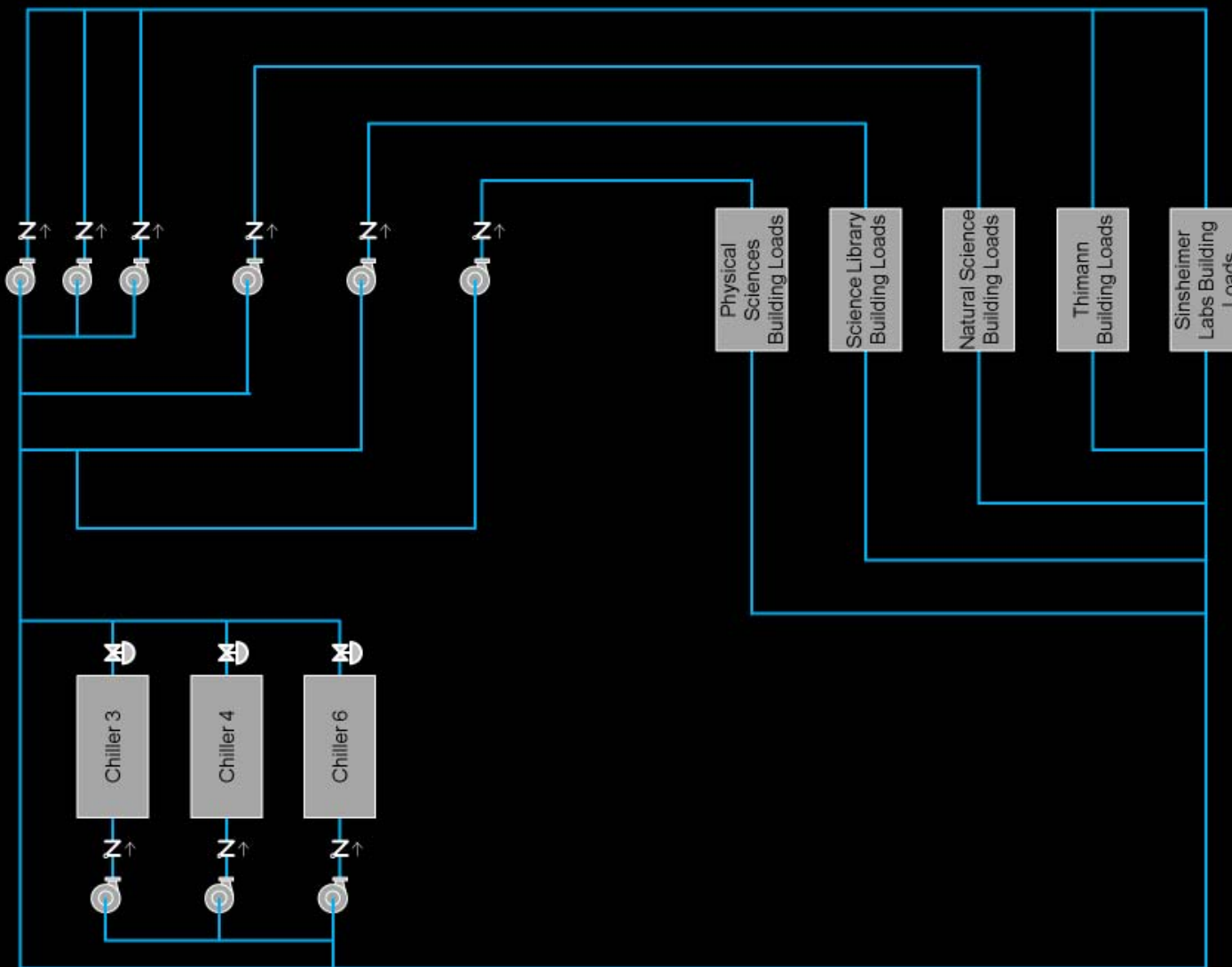
Free Cooling via Plate and Frame Heat Exchangers







"Free Cooling" Operation



UC Santa Cruz

Pre-Wet Economizer System

2016-01-29

Drawn By : DS

Creative Free Cooling

TAB 3-6 - REFRIGERATION CYCLES

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