



## Equipment IV Refrigeration Systems

### Course Objectives

1. Describe the process of refrigeration.
2. Identify the major components and their function in a refrigeration cycle.
3. Define the theory of heat transfer and phase change.
4. Describe how refrigeration systems are used for cooling in chemical production process.
5. Describe the operation and use of a chilled water system.
6. Identify operational problems that can occur with a refrigeration system.
7. Describe issues related to dangers and hazards operators may encounter when working with a refrigeration system.
8. Recognize the importance of lockout/tagout of refrigeration equipment.



### Key Terms (Define the following)

refrigeration - \_\_\_\_\_  
\_\_\_\_\_

compressor - \_\_\_\_\_  
\_\_\_\_\_

condenser - \_\_\_\_\_  
\_\_\_\_\_

metering device - \_\_\_\_\_  
\_\_\_\_\_

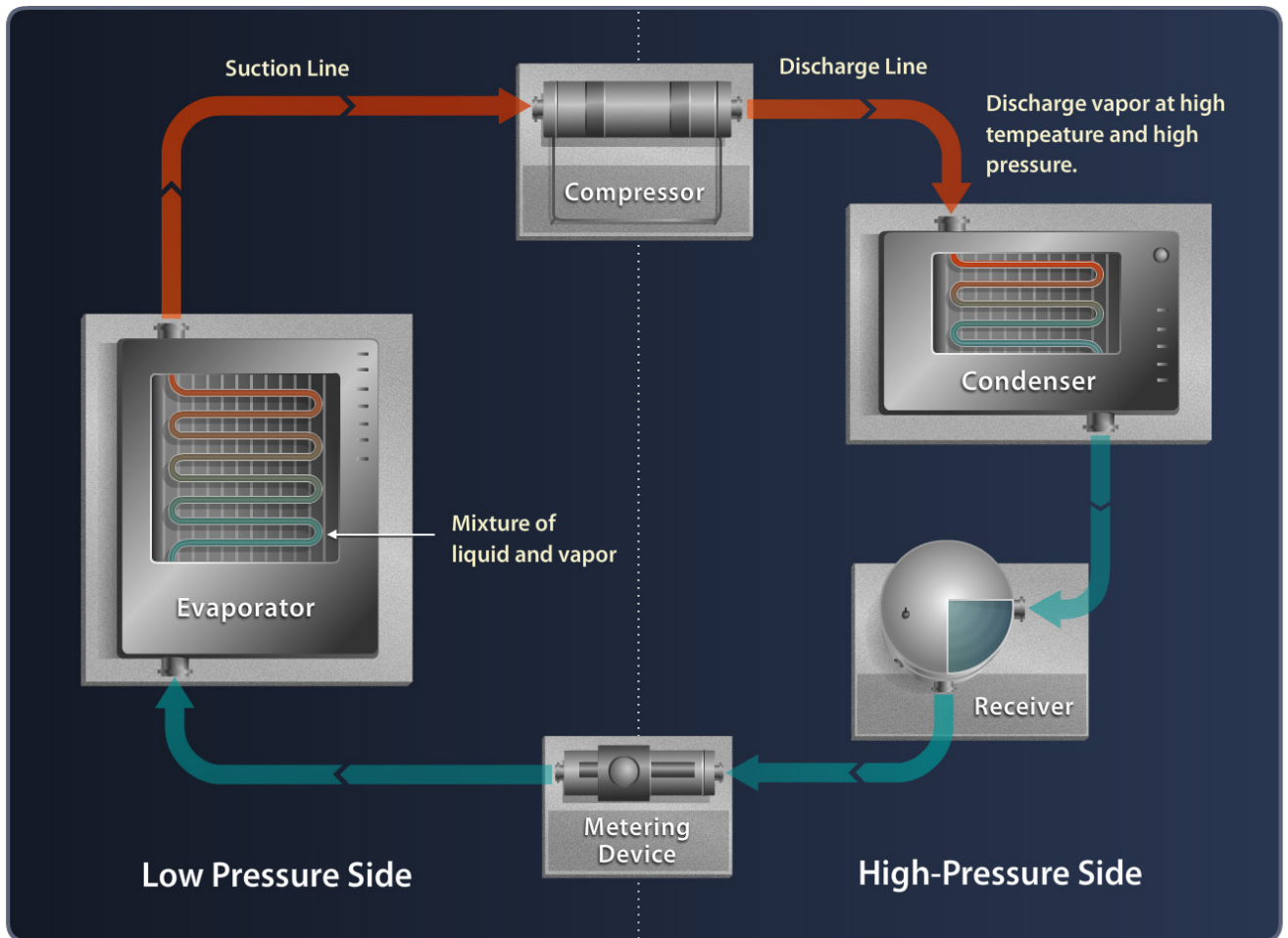
evaporator - \_\_\_\_\_  
\_\_\_\_\_

chilled water system - \_\_\_\_\_  
\_\_\_\_\_

heat transfer - \_\_\_\_\_  
\_\_\_\_\_

phase change - \_\_\_\_\_  
\_\_\_\_\_

## Principles





## Questions

1. List the major components and their function that makes up the refrigeration cycle.

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2. List four factors that must occur for a refrigeration system to operate efficiently.

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