

Refrigeration Cycles

6.0 Introduction:

The term “refrigeration” is used to denote maintenance of a system or body at a temperature lower than that of its surroundings. The system maintained at the lower temperature is known as refrigerated system, while the equipment used to maintain this lower temperature is known as the refrigerating system or refrigerator.

Applications of Refrigeration:

1) Industrial Applications:

- a) *Processing of food products.*
- b) *Processing of farm crops.*
- c) *Processing of textiles, printing work, photographic materials, etc.*
- d) *Cooling of concrete for dams.*
- e) *Treatment of air for blast furnace.*
- f) *Processing of tobacco, petroleum and other chemical products.*

2) Preservation of Perishable Goods:

- a) *Manufacturing of ice.*
- b) *Freezing or chilling, storage and transportation of food stuffs including beverages, meat, poultry products, dairy products, fish, fruits, vegetables, fruit juices, etc.*
- c) *Preservation of photographic films, archeological documents etc.*

3) Providing comfortable environment:

- a) *Industrial air-conditioning.*
- b) *Comfort air-conditioning of hospitals, residences, hotels, restaurants, theatres, offices, etc.*