

Lecture 2.10

2.4 Effects of changes in operating conditions (sub-cooling, super heati...

Refrigeration & Air Conditioning

- 2.4 Effects of changes in operating conditions (sub-cooling, super heating of suction vapor and change in suction pressure of compressor) on performance of vapor compression refrigeration cycle.

2.4 Effects of changes in oper - Part 1

- Subcooling of liquid increases RE.
- Detailed explanation of the concept.
- Relevant theory and practical example.

2.4 Effects of changes in oper - Part 2

- Superheating increases RE but also increases Work.
- Detailed explanation of the concept.
- Relevant theory and practical example.

2.4 Effects of changes in oper - Part 3

- Lowering evaporator pressure decreases COP heavily.
- Detailed explanation of the concept.
- Relevant theory and practical example.

2.4 Effects of changes in oper - Part 4

- Increasing condenser pressure decreases COP.
- Detailed explanation of the concept.
- Relevant theory and practical example.

2.4 Effects of changes in oper - Part 5

- Optimization of pressures is needed.
- Detailed explanation of the concept.
- Relevant theory and practical example.

2.4 Effects of changes in oper - Part 6

- Additional detail 6
- Detailed explanation of the concept.
- Relevant theory and practical example.

2.4 Effects of changes in oper - Part 7

- Additional detail 7
- Detailed explanation of the concept.
- Relevant theory and practical example.

Key Takeaways

Critical understanding of 2.4 Effects of changes in operating conditions (sub-cooling, super heati... is essential for proper refrigeration and air conditioning system design.