Lecture 2.9

2.3 Expression for Refrigerating effect and coefficient of performance.

Refrigeration & Air Conditioning

Agenda

- 2.3 Expression for Refrigerating effect and coefficient of performance.

2.3 Expression for Refrigerati - Part 1

- RE = h1 - h4.
- Detailed explanation of the concept.
- Relevant theory and practical example.

2.3 Expression for Refrigerati - Part 2

- Work of compression (W) = h2 - h1.
- Detailed explanation of the concept.
- Relevant theory and practical example.

2.3 Expression for Refrigerati - Part 3

- COP = (h1 - h4) / (h2 - h1).
- Detailed explanation of the concept.
- Relevant theory and practical example.

2.3 Expression for Refrigerati - Part 4

- Power required (kW) = mass flow rate * W.
- Detailed explanation of the concept.
- Relevant theory and practical example.

2.3 Expression for Refrigerati - Part 5

- Enthalpy values from charts.
- Detailed explanation of the concept.
- Relevant theory and practical example.

2.3 Expression for Refrigerati - Part 6

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

2.3 Expression for Refrigerati - Part 7

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

Summary

Key Takeaways

Critical understanding of 2.3 Expression for Refrigerating effect and coefficient of performance. is essential for proper refrigeration and air conditioning system design.