

Phase 5 — Block 1 Overview

Block 1 introduces the refrigeration principles that form the foundation of refrigerated dryer operation and troubleshooting. You'll develop an understanding of how heat moves through a refrigeration system, how refrigerants change state, and

how pressure + temperature relationships are used to evaluate system performance. The concepts presented in this block serve as the basis for all subsequent refrigeration diagnostics, service procedures & troubleshooting activities throughout Phase 5.

Block Completion Requirements

For Block 1, complete all requirements listed below. Assigned *Absorb* resources can be accessed through the learning platform. Contact your mentor or supervisor if you need assistance with any topic or requirement.

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|--|---|---|
| <input type="checkbox"/> 1.
Review all <i>Absorb</i> resources | <input type="checkbox"/> 2.
Complete all Articulate questions | <input type="checkbox"/> 3.
Complete the Mastery Evaluation |
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Absorb Resources

Refer to the DRW Learning Block online for the complete list of assigned resources for this block. Topics to review include:

AST580 TRAINING MATLS.

- Refrigeration Basics
- Refrigeration Components
- Refrigeration Analysis

SUPPLEMENTAL

- AST580 Prework Manual
- Refrigeration Videos
- Tech Direct Articles
- Manufacturer Resources

LMS REFRIGERATION

- Refrigeration Heat Cycle
- Refrigeration Components
- Refrigerant Analysis

Resources

Key Competencies

By completion of this Learning Block, technicians should demonstrate competency in:

- | | | |
|--|---|--|
| <input type="checkbox"/> Heat Transfer Principles | <input type="checkbox"/> Condenser Function | <input type="checkbox"/> TXV Operation |
| <input type="checkbox"/> Sensible and Latent Heat | <input type="checkbox"/> Pressure-Temperature Relationships | <input type="checkbox"/> TXV Sensing Bulb Function |
| <input type="checkbox"/> BTU Fundamentals | <input type="checkbox"/> Saturated Temperature | <input type="checkbox"/> Refr. System Performance Evaluation |
| <input type="checkbox"/> Refrigeration Cycle Operation | <input type="checkbox"/> P-T Chart Interpretation | <input type="checkbox"/> System Heat Flow |
| <input type="checkbox"/> Refrigerant State Changes | <input type="checkbox"/> Superheat Fundamentals | <input type="checkbox"/> Glycol Circuit Verification |
| <input type="checkbox"/> Evaporator Function | <input type="checkbox"/> Subcooling Fundamentals | <input type="checkbox"/> Refrigerated Dryer Troubleshooting |

Competencies