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# CERTIFIED COMMISSIONING TECHNICIAN

## CXT REFRESHER

ONLINE TRAINING BY KRISHNAJI PAWAR

LEED AP(BD+C),GSAS CGP,GCP,ISO 14001

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MODULE  
**6L2**

# Perform Installation Pre-functional tests

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# CERTIFIED COMMISSIONING TECHNICIAN CXT REFRESHER

Pre-functional testing is a crucial phase in the installation of systems, particularly in engineering, construction, and manufacturing. It serves as a preliminary verification process to confirm the correct installation and compliance of all system components with specified requirements. The primary objectives of pre-functional testing include verifying installation quality, compliance with design specifications, and documentation.

# Learning Objectives

- Course Overview and Introduction
- CxT's Technical, Communication, and Commissioning Skills
- HVAC Systems - Why is CxA of buildings necessary?
- Basics of field TAB , HVAC systems - Trained on jobsite safety and PPE
- CxT Responsibilities - Post Acceptance
- Perform installation pre-functional tests
- Point-to-point calibrate MEP and sensor systems.
- Verify TAB pre-functional tests and CxT responsibilities



## INTRODUCTION

### Introduction to Pre-Functional Testing

- Pre-functional testing is a crucial phase in system installation, confirming correct installation and compliance with specified requirements.
- It helps identify discrepancies early, reducing the risk of costly modifications and delays.

### Objectives of Pre-Functional Testing

- Verification of Installation Quality: Verifies the installation of all components in accordance with manufacturer specifications and applicable codes.
- Compliance with Design Specifications: Verifies adherence to design by comparing installed systems to detailed drawings and specifications.
- Documentation: Maintains a detailed record of observations, findings, and deviations from expected outcomes.

# COMPARISON OF INSTALLATION TO DETAIL DRAWINGS



- Preparation: Gathers all relevant documentation, including detailed drawings, installation manuals, and manufacturer specifications.
- Visual Inspection: Conducts a thorough visual inspection of the installed components.
- Dimension Check: Uses calibrated measuring tools to compare the actual dimensions of installed components against the specifications provided in the drawings.
- Functional Features: Verifies that all functional features are located and installed according to the drawings.
- Material Compliance: Ensures that the materials used in installation correspond to those specified in the drawings.

# DOCUMENTING OBSERVATIONS

- Observation Log: Maintains a detailed log that includes the date and time of inspection, the specific component or system evaluated, the inspector's name, and any observations made.
- Photographic Evidence: Captures photographs of installed components that demonstrate compliance or non-compliance.
- Non-Conformance Reports: Prepares a non-conformance report identifying discrepancies and suggests corrective actions.
- Sign-Off Procedures: Ensures that relevant stakeholders review and sign off on all inspection records to validate the installation's compliance.





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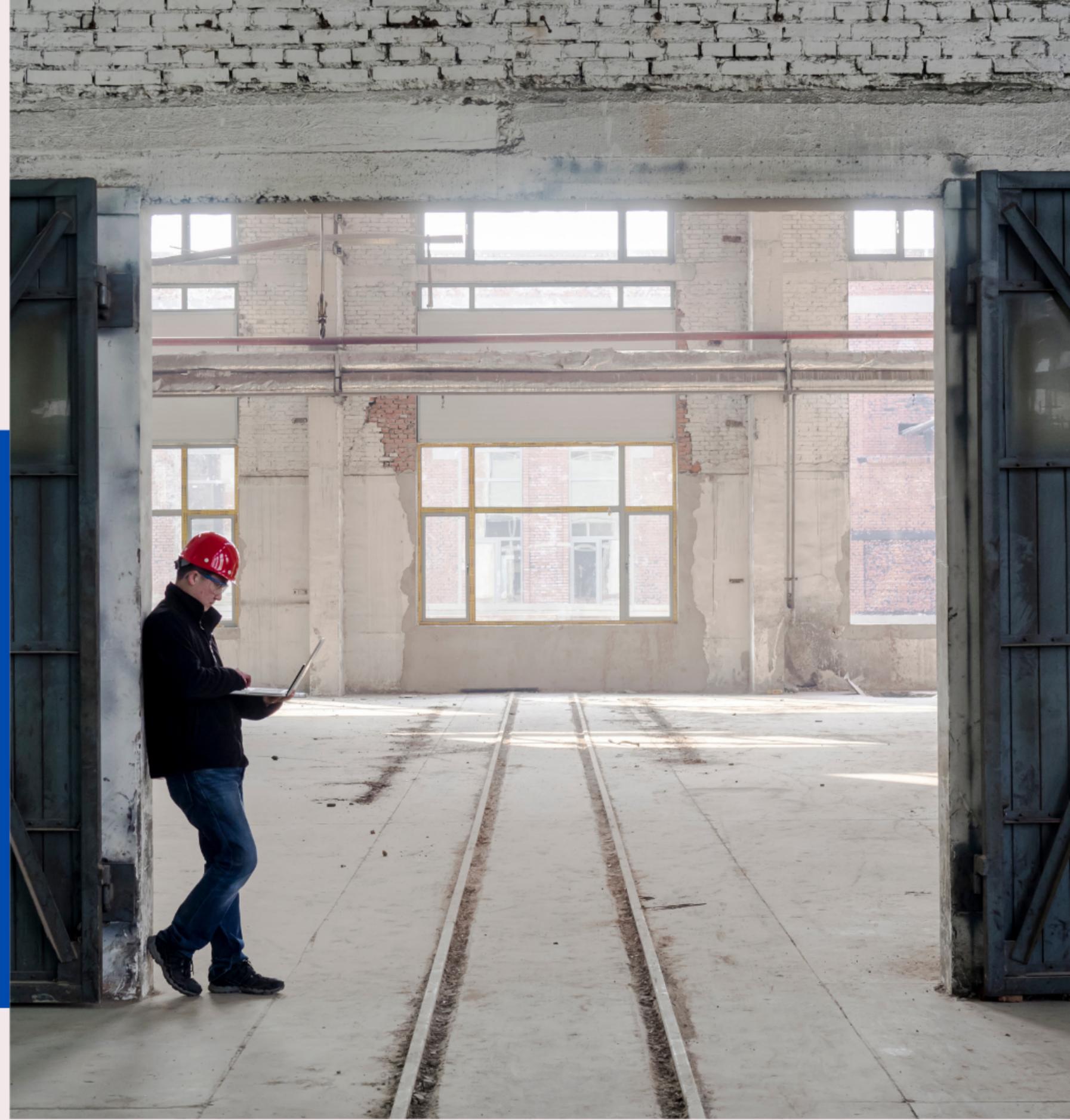
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