TECHNICAL
EDUCATION
ACADEMY

School of Engineering

COURSE PROGRAMME

000274

VEND005 - Installation, Recharging, Inspection, and Maintenance of the ANSUL A101-30 Automatic Fire Suppression System

This comprehensive training program on fire suppression systems offers an in-depth study of advanced safety technologies essential for various industrial applications.



Learn from the Best in the Business!

Course overview

Duration: 3 days / 24 hours · Intermediate level

Why take this course

This comprehensive training program on fire suppression systems offers an in-depth study of advanced safety technologies essential for various industrial applications. The program includes an introductory course explaining the basic principles and applications of fire suppression systems, as well as a detailed examination of components such as powder cylinders, gas expulsion cartridges, valves, and actuators. Participants will learn about the differences between A-101 and LT-A-101 systems, as well as electrical detection and activation systems, enabling them to correctly select and use components for each type of system.

The course also covers important aspects of installation, operation, and maintenance of fire suppression systems. Participants will receive instructions on setting up powder discharge lines, differentiating between balanced and unbalanced discharge systems, and best practices for conducting regular inspections, maintenance, and recharging of systems. The program also includes specialized training on LVS liquid systems and ANSUL LVS system components, expanding participants' competencies and enhancing their ability to effectively manage diverse fire safety solutions.

Who it is for and how it helps

This course is intended for various professionals responsible for the installation, maintenance, and management of fire suppression systems in industrial facilities, commercial buildings, and other locations requiring high levels of fire safety. It is beneficial for:

• Technical Specialists and Engineers – Professionals involved in the installation and maintenance of mechanical and electrical systems, including fire suppression systems.

• Operations Staff – Workers who directly operate or maintain equipment and systems on site and need knowledge of proper operation and maintenance of fire suppression systems.

• Safety Maintenance Technicians – Specialists responsible for ensuring safety on premises, including fire safety and prevention systems.

• Facility Maintenance and Operations Managers – Managers coordinating maintenance and management of buildings and industrial sites, requiring a deep understanding of fire suppression systems for developing and implementing safety policies.

• Emergency Service Personnel – Individuals working in emergency and rescue services needing to understand the operation of modern fire suppression systems for quick and effective response during fires.

This course will also be useful for newcomers seeking to start a career in fire safety and experienced professionals looking to update their skills and knowledge in line with the latest technological advancements and regulatory requirements.

Course overview — continued

What you will learn

- Understand the Fundamental Principles and Applications of Fire Suppression Systems: Participants will gain foundational knowledge about how fire suppression systems operate and the scenarios in which they are most effective
- Identify and Utilize Fire Suppression System Components: Attendees will be able to recognize various components such as powder cylinders, gas expulsion cartridges, valves, and actuators, and correctly apply them in the respective A-101 and LT-A-101 systems
- Configure and Install Powder Discharge Lines: Participants will acquire skills in setting up and configuring powder discharge lines with various nozzle quantities, understanding the differences between balanced and unbalanced discharge systems
- Perform Maintenance and Recharge of Systems: Attendees will learn best practices for regular inspections, maintenance, and recharging procedures, ensuring the long-term reliability and efficiency of fire suppression systems
- Work with LVS Liquid Systems and ANSUL LVS Systems: Participants will expand their competencies by studying specialized liquid fire suppression systems, enhancing their ability to manage diverse fire safety solutions

Curriculum

Modules 01–03

01 Introduction

- Introduction
- Operating Principles of the System
- Application Methods

02 Components of the A-101-10/20/30, LT-A-101-10/20/30 Systems

- Powder Cylinder and Cylinder Bracket
- Gas Expulsion Cartridge
- System Activation Cartridge
- Cartridge Bracket
- Pneumatic Actuator
- Manual Actuator
- 1/4 IN Check Valve
- Distribution Tee
- Tee
- Triple Tee
- Pressure Relief Safety Valve
- Air Cylinder
- Pressure Relay - Moisture-Proof
- Spray Nozzles, Types of Nozzles
- Spray Nozzle Bracket
- Burst Disc
- CHECKFIRE Electrical Detection and Activation System

03 Components of the LT-A-101-50/125/250 Systems

- Powder Cylinder
- Gas Expulsion Cartridge
- Pneumatic Actuator
- System Activation Cartridge
- Burst Disc
- Manual Actuator

Curriculum

Modules 03–07 · Module 03 — continued

- Check Valve
- Primary Triple Delivery Line Tee (16 and 24 Nozzles)
- Primary Delivery Line Distribution Tee (12 Nozzles)
- Secondary Delivery Line Distribution Tee (24 Nozzles)
- Secondary Triple Delivery Line Tee (8 and 16 Nozzles)
- Primary Triple Delivery Line Tee (8 Nozzles)
- Tee
- Pressure Relief Valve
- Pressure Relay - Moisture-Proof
- Air Cylinder
- Spray Nozzles
- Nozzle Bracket
- CHECKFIRE Electrical Detection and Activation System

04 Powder Discharge Lines, Installation Rules, Types

- Powder Discharge Lines
- Powder Discharge Line with Two Nozzles
- Powder Discharge Line with Four Nozzles
- Powder Discharge Line with Six Nozzles
- Balanced and Unbalanced Discharge Systems

05 Fire Suppression and Expulsion Activation Line

- Fire Suppression and Expulsion Activation Line

06 Inspection and Maintenance, Recharging

- System Inspection
- System Maintenance
- System Recharging

07 LVS Liquid System

- LVS Liquid System

Curriculum

Modules 08

08 Components of the ANSUL LVS System

- Components of the ANSUL LVS System

Joining the programme

Contact the Academy and quote course code 000274 to confirm dates, delivery format, prices and enrolment terms.

Training for your team

Tell us your business goals, the roles and number of participants, and your preferred dates and location. This will help us discuss the right training option.

Preparing for the programme

The published programme does not specify any prerequisites. Contact us before enrolling to confirm how to prepare.

Discuss your training needs

mail@tecedu.org
www.tecedu.academy

Learn from the Best in the Business!