

# H S E

HEALTH

SAFETY

ENVIRONMENT



Contact us

**Website:** <https://btsconsultant.com/>

**Email:** [info@btsconsultant.com](mailto:info@btsconsultant.com)

**UAE office Tel:** +971 26446633

**Egypt Office Tel:** +2 0502308081

# Modern Firefighting & Suppression Systems

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**Duration:** 5 Days



## Introduction:

The history of fire accidents in industrial plants is full of total loss disasters that sometimes put the whole business to a dramatic end. The increased impact of fire accident on people and prosperities has made it mandatory for organizations to adopt a modern effective firefighting and suppression system.

This program is designed to provide the participants with the due knowledge and skills

that enable them to select, manage and maintain an effective firefighting and suppression system.

## Methodology

This interactive Training will be highly interactive, with opportunities to advance your opinions and ideas and will include;

- Lectures
- Workshop & Work Presentation
- Case Studies and Practical Exercise
- Videos and General Discussions

## Certificate

**BTS** attendance certificate will be issued to all attendees completing minimum of 80% of the total course duration.

## **Course Objectives:**

**After this course, the participants will be able to:**

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- Identify the different types of fire hazards
- Properly select a type of firefighting and suppression system based on fire risk assessment
- Identify the manual and automatic firefighting systems
- Identify the application and usage of different types of extinguishing agents
- Identify some modern manual fire suppression system
- Identify different types of automatic sprinkler systems
- Identify the different applications of the automatic fire suppression systems
- Properly select and maintain fire pumps
- Ensure and maintain a water-source plan for fire operations
- Identify fire truck content and operation
- Select and maintain firefighters' PPE

## **Course Outline:**

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### **DAY ONE**

#### **Introduction**

- Introduction to fire hazards (**video case studies**)
- Active & Passive firefighting Systems
- Overview of NFPA fire protection and suppression codes
- Components of fire prevention and firefighting systems
- Manual & Automatic fire suppression systems
- Fire Risk assessment and Selection of fire suppression System

### **DAY TWO**

#### **Conventional & Modern Extinguishing Agents**

- FM-200
- 3M Novec 1230 Fire Protection Fluid
- Aragonite

- FE-13
- Wet Chemical
- ABC Dry Chemical
- Regular Dry Chemical
- Carbon Dioxide
- Foam
- Purple KDry Chemical
- Solid aerosol particulate
- Halotron 1
- Water Mist
- Water
- (video clips )

### **DAY THREE**

#### **Manual fire Suppression Systems**

- Types of fire extinguishers
- Fire extinguisher usage and inspection (practical)
- Modern types of fire extinguishers
- Ball fire extinguishers
- FM 200 fire Extinguishers
- Halotron I extinguishers
- Water mist extinguishers
- Fire hydrants ( types , usage and inspection)
- Fire hose reel ( types , usage and inspection)
- Practical (fire hydrant , fire hose reel inspection)

### **DAY FOUR**

#### **Automatic Sprinkler System**

- Introduction to automatic sprinkler system
- System types & components
- Simple calculation based on occupancy classification
- Automatic sprinkler systems:
- Dry system
- Wet system
- Pre-action system
- Deluge system
- System inspection and maintenance
- Automatic suppression system
- Co2 system
- FM 200
- Foam Deluge System
- Halon system
- Fire pumps (types , components , selection & maintenance)
- Workshop (sprinkler layout)

## **DAY FIVE**

### **Firefighting logistics**

- Fire truck (content & operations)
- Firefighters PPE
- Firefighter clothing
- Self-Contained Breathing Apparatus SCBA, (types –donning – inspection)
- Forcible entry equipment
- Course wrap-up
- Forcible entry video
- Oil Field case studies