

ABBE

Quality Accredited



Level 5 Diploma in

System Classification & Design of Pre-Calculated Commercial Fire Sprinkler Systems

Qualification Specification

Qualification Recognition Number: 610/5366/1

ABBE Qualification Code: DipSCDPCFSSL525

February 2025

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Contents

1. ABBE	4
1.1 Introduction	4
1.2 Mission Statement	4
1.3 Qualification Specification	4
1.4 Enquiries	4
2. Qualification Information	5
2.1 Qualification Purpose	5
2.2 Who could take this Qualification?	5
2.3 Qualification Number	5
2.4 Qualification Level	5
2.5 Total Qualification Time	5
2.6 Age ranges	5
2.7 Structure of the Qualification	5
2.8 Grading	6
3. Qualification Unit(s)	7



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1. ABBE

1.1 Introduction

ABBE, the Awarding Body for the Built Environment, is a forward-thinking organisation that offers a range of qualifications, benefits and support.

ABBE is regulated by Ofqual for the delivery of a range of qualifications. Our qualifications are nationally recognised helping learners to achieve their full potential and ambitions.

The full range of qualifications can be found on our website at www.abbqa.co.uk

1.2 Mission Statement

Our Values - Quality through Standards: Our aim is to provide a high-quality experience by building a strong community of mutual support and trust. We can use our collective talents to build meaningful partnerships to help us all to achieve our goals. ABBE is a recognised Awarding Organisation with strong professional integrity.

Our Vision: Is that every learner is confident, successful and has the opportunity to achieve their full potential.

Our Mission: ABBE Educates, inspires and empowers learners

1.3 Qualification Specification

The aim of this specification is to provide learners and centres with information about the content of this qualification. This specification is a live document and, as such, will be updated when required.

1.4 Enquiries

Any enquiries relating to this qualification should be addressed to:

ABBE
Birmingham City University
University House
15 Bartholomew Row
Birmingham
B5 5JU

Tel: 0121 331 5174

Email: abbeenquiries@bcu.ac.uk

Website: www.abbqa.co.uk



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2. Qualification Information

2.1 Qualification Purpose

This qualification relates to the classification of sprinkler systems and the design of pre-calculated commercial fire sprinkler systems in accordance with the LPC rules incl. BS EN 12845.

2.2 Who could take this Qualification?

This qualification is being run on 2 different levels.

Experienced worker already within the industry can take the course which will entail a 5 day online virtual classroom over 1 week, with post course work to be completed within 12 months.

New entrants (new to the industry) can take the course which will entail a 15 day online virtual classroom over the course of 15 weeks, with post course work to be completed within 18 months.

The assessment and outcomes for both are exactly the same. However, new entrants will have additional teaching included within the delivery of this qualification to ensure they are confident in meeting the learning outcomes and assessment for the qualification.

2.3 Qualification Number

ABBE Level 5 Diploma in System Classification & Design of Pre-Calculated Commercial Fire Sprinkler Systems: 610/5366/1

2.4 Qualification Level

This qualification has been listed on the Regulated Qualifications Framework (RQF) at: Level 5

2.5 Total Qualification Time

This qualification is allocated Total Qualification Time (TQT) this includes Guided Learning (GL) expressed in hours, which indicates the number of hours of supervised or directed study time and assessment. Credit has also been allocated to this qualification.

- The Total Qualification Time (TQT) for this qualification is: 410 hours
- Guided Learning (GL) for this qualification is: 120 hours
- Credit Value: 41 credits

2.6 Age ranges

Pre 16	No
16-18	Yes
18+	Yes
19+	Yes

2.7 Structure of the Qualification

To achieve this qualification, learners must achieve **five** mandatory units.

Mandatory Units				
Unit No.	URN	Unit Name	Credit Value	Level
1	F/651/4987	Understanding Commercial Fire Sprinkler Systems	2	4



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2	H/651/4988	Classification of Commercial Fire Sprinkler Systems	3	5
3	J/651/4989	Fire Sprinkler System Head Spacing	12	4
4	M/651/4990	Fire Sprinkler System Pre-Calculated Pipework Sizes and Pressure Loss Calculations	12	5
5	R/651/4991	Pre-Calculated Design of Water Supplies for Commercial Fire Sprinkler Systems	12	5

2.8 Grading

This qualification is: Pass/Fail.



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3. Qualification Unit(s)

Unit 1 – Understanding Commercial Fire Sprinkler Systems

Unit reference Number: F/651/4987

Level: 4

Credit: 2

GLH: 6

Learning outcomes:

1. Understand fire sprinkler systems and building construction to determine the appropriate type of fire sprinkler system for buildings



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Unit 2 – Classification of Commercial Fire Sprinkler Systems

Unit reference Number: H/651/4988

Level: 5

Credit: 3

GLH: 9

Learning outcomes:

1. Understand the requirements to compile a sprinkler specification and who to engage with during the process
2. Be able to identify the occupancy of a building, determine the various risks present and specify the requirements for protection



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Unit 3 – Commercial Fire Sprinkler Systems Head Spacing

Unit reference Number: J/651/4989

Level: 4

Credit: 12

GLH: 35

Learning outcomes:

1. Be able to design and specify sprinkler heads and head spacing



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Unit 4 – Commercial Fire Sprinkler Systems – Pre-Calculated Pipework Sizing and Pressure Loss Calculations

Unit reference Number: M/651/4990

Level: 5

Credit: 12

GLH: 35

Learning outcomes:

1. Be able to select the correct Pipework and positions of bracketry
2. Be able to Size Pre-Calculated Pipework



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Unit 5 – Commercial Fire Sprinkler Systems, Design of Water Supplies

Unit reference Number: R/651/4991

Level: 5

Credit: 12

GLH: 35

Learning outcomes:

1. Be able to identify the grade of water supply and components
2. Be able to identify and correctly size a fire sprinkler tank for a pre calculated system
3. Be able to identify and correctly size a fire sprinkler Pump for a pre calculated system
4. Understand the controls of a fire sprinkler system and the level of monitoring required
5. Be able to produce a detailed installation drawing for a Commercial fire sprinkler system for a pre calculated system



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