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**SIST EN 12845:2015+A1:2020**

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**Vgrajene naprave za gašenje - Avtomatski sprinklerski sistemi - Projektiranje, vgradnja in vzdrževanje**

Fixed firefighting systems - Automatic sprinkler systems - Design, installation and maintenance

**iTeh STANDARD PREVIEW**

Ortsfeste Brandbekämpfungsanlagen - Automatische Sprinkleranlagen - Planung, Installation und Instandhaltung (standards.itteh.ai)

Installations fixes de lutte contre l'incendie - Systèmes d'extinction automatique du type sprinkleur - Conception, installation et maintenance

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## Fixed firefighting systems - Automatic sprinkler systems - Design, installation and maintenance

Installations fixes de lutte contre l'incendie - Systèmes  
d'extinction automatique du type sprinkleur -  
Conception, installation et maintenance

Ortsfeste Brandbekämpfungsanlagen - Automatische  
Sprinkleranlagen - Planung, Installation und  
Instandhaltung

This European Standard was approved by CEN on 20 December 2014 and includes Amendment 1 approved by CEN on 2 October 2019.

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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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**EN 12845:2015+A1:2019 (E)****European foreword**

This document (EN 12845:2015+A1:2019) has been prepared by Technical Committee CEN/TC 191 “Fixed firefighting systems”, the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2020, and conflicting national standards shall be withdrawn at the latest by June 2020.

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This document supersedes A1 EN 12845:2015 and EN 12845:2015/AC:2016 A1.

The start and finish of text introduced or altered by amendment is indicated in the text by tags AC AC and A1 A1.

It is included in a series of European Standards planned to cover:

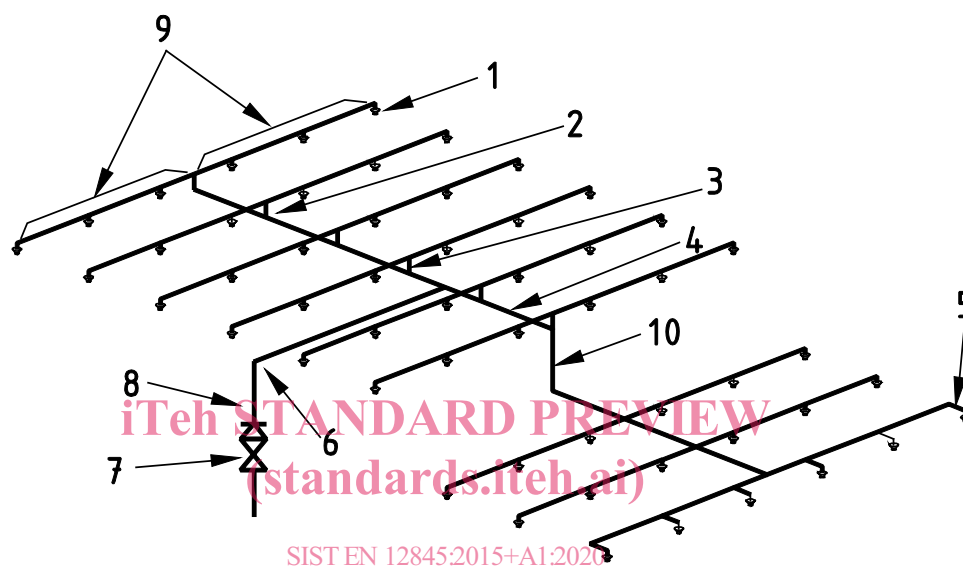
- automatic sprinkler systems (EN 12259);
- gas extinguishing systems (EN 12094);
- powder systems (EN 12416);
- explosion protection systems (ISO 6184);
- foam systems (EN 13565);
- gas systems (EN 12094);
- hydrant and hose reel systems (EN 671);
- smoke and heat control systems (EN 12101).

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## Introduction

An automatic sprinkler system is designed to detect a fire and extinguish it with water in its early stages or hold the fire in check so that extinguishment can be completed by other means.

A sprinkler system consists of a water supply (or supplies) and one or more sprinkler installations; each installation consists of a set of installation main control valves and a pipe array fitted with sprinkler heads. The sprinkler heads are fitted at specified locations at the roof or ceiling, and where necessary between racks, below shelves, and in ovens or stoves. The main elements of a typical installation are shown in Figure 1.



### Key

1	sprinkler head	6	main distribution pipe
2	riser	7	control valve set
3	design point	8	riser
4	distribution pipe spur	9	range pipes
5	arm pipe	10	drop

**Figure 1 — Main elements of a sprinkler installation**

The sprinklers operate at predetermined temperatures to discharge water over the affected part of the area below. The flow of water through the alarm valve initiates a fire alarm. The operating temperature is generally selected to suit ambient temperature conditions.

Only sprinklers in the vicinity of the fire, i.e. those which become sufficiently heated, operate.

The sprinkler system is intended to extend throughout the premises with only limited exceptions.

It should not be assumed that the provision of a sprinkler system entirely obviates the need for other means of fighting fires and it is important to consider the fire precautions in the premises as a whole.

Structural fire resistance, escape routes, fire alarm systems, particular hazards needing other fire protection methods, provision of hose reels and fire hydrants and portable fire extinguishers, etc., safe working and goods handling methods, management supervision and good housekeeping all need consideration.

It is essential that sprinkler systems should be properly maintained to ensure operation when required. This routine is liable to be overlooked or given insufficient attention by supervisors. It is, however,