



**NSAI**  
Standards

Irish Standard  
I.S. 291:2015

# Selection, commissioning, installation, inspection and maintenance of portable fire extinguishers

## I.S. 291:2015

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

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**DECLARATION**  
OF  
SPECIFICATION  
ENTITLED  
SELECTION, COMMISSIONING, INSTALLATION, INSPECTION  
AND MAINTENANCE OF PORTABLE FIRE EXTINGUISHERS  
AS  
THE IRISH STANDARD SPECIFICATION FOR  
SELECTION, COMMISSIONING, INSTALLATION, INSPECTION  
AND MAINTENANCE OF PORTABLE FIRE EXTINGUISHERS

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NSAI in exercise of the power conferred by section 16 (5) of the National Standards Authority of Ireland Act, 1996 (No. 28 of 1996) and with the consent of the Minister for Jobs, Enterprise, and Innovation, hereby declare as follows:

1. This instrument may be cited as the Standard Specification (Selection, commissioning, installation, inspection and maintenance of portable fire extinguishers) Declaration, 2015.
2.
  - (1) The Specification set forth in the Schedule to this declaration is hereby declared to be the standard specification for Selection, commissioning, installation, inspection and maintenance of portable fire extinguishers.
  - (2) The said standard specification may be cited as Irish Standard 291:2015 or as I.S. 291:2015.
3.
  - (1) The Standard Specification (The use, siting, inspection and maintenance of portable fire extinguishers) Declaration 2002, is hereby revoked.
  - (2) Reference in any other standard specification to the Instrument hereby revoked and to Irish Standard 291:2002 thereby prescribed, shall be construed, respectively, as references to this instrument and to Irish Standard 291:2015.

## Contents

	Page
DECLARATION.....	1
Foreword.....	5
1 Scope .....	7
2 Normative references .....	8
3 Terms and definitions .....	9
4 Responsibilities .....	11
4.1 Responsibility of the person having control over fire safety provisions .....	11
4.2 Responsibility of the competent person .....	11
5 Selection of PFEs.....	11
5.1 Suitability.....	11
5.2 Classification of Fires .....	11
5.3 Provision of PFEs .....	11
5.3.1 Minimum number of PFEs required for the various fire classifications .....	12
5.3.2 Provision of replacement and spare charges.....	14
5.4 Marking .....	14
5.5 Colour .....	14
5.6 Additional requirements .....	15
6 Commissioning PFEs.....	15
6.1 Commissioning.....	15
6.2 Person(s) responsible .....	15
6.3 Procedure for commissioning.....	15
6.3.1 Pressure release device, seal, safety pin and indicating devices .....	15
6.3.2 External examination.....	15
6.3.3 Check weight.....	15
6.3.4 Check operating instructions .....	15
6.3.5 Check discharge hose and nozzle .....	16
6.3.6 Stored pressure PFEs .....	16
6.3.7 Gas cartridge operated PFE .....	16
6.3.8 Manufacturers data sheets .....	16
6.3.9 Record keeping.....	16
7 Installation of PFEs.....	16
7.1 Person(s) responsible .....	16
7.2 Avoidance of multiplicity of types .....	16
7.3 Placement of PFEs.....	17
7.4 Visibility of PFEs.....	17
7.5 Mounting of PFEs .....	17
7.5.1 General.....	17
7.5.2 PFE mounting brackets.....	17
7.6 Operating instructions .....	18
7.7 Protection of PFEs.....	18
7.8 Operational condition of PFEs .....	18
7.9 PFEs used in vehicles .....	18
7.10 Record keeping.....	18
8 Visual inspection of PFEs.....	18
8.1 Frequency of Inspection .....	18
8.2 Person responsible.....	18

8.3	Procedure for inspection of PFEs .....	19
8.4	Corrective action .....	19
8.5	PFEs that have been used .....	19
8.6	Replacement of PFEs during inspection .....	19
8.7	Record keeping.....	19
9	Maintenance of PFEs .....	19
9.1	Maintenance .....	19
9.2	Person(s) responsible.....	20
9.3	Frequency of maintenance .....	20
9.4	Procedure for maintenance of water, foam, wet chemical and dry powder/chemical PFEs .....	20
9.4.5	Stored pressure PFEs .....	20
9.4.6	Gas cartridge operated water PFEs.....	21
9.4.7	Gas cartridge operated water based PFEs including foam .....	21
9.4.8	Gas cartridge operated powder PFEs .....	21
9.4.9	Operating mechanism and air passages .....	21
9.4.10	Removable operating mechanism .....	22
9.4.11	Safety Pin .....	22
9.4.12	"O" rings and washers.....	22
9.4.13	Discharge, hose, nozzle, valve body and hose diaphragm.....	22
9.4.14	PFE Body: water, water-based and foam.....	22
9.4.15	PFE Body: powder.....	22
9.4.16	Water and water-based (including foam) charges .....	22
9.4.17	Reassembly.....	23
9.4.18	Mounting bracket, stand, cabinet .....	23
9.4.19	Record keeping.....	23
9.5	Procedure for maintenance of carbon dioxide PFEs.....	23
9.5.1	General .....	23
9.5.2	Safety pin.....	23
9.5.3	External examination .....	23
9.5.4	Check weight .....	23
9.5.5	Operating instructions .....	23
9.5.6	Seals for the discharge horn, hose, nozzle and valve body .....	23
9.5.7	Mounting bracket, stand, cabinet .....	24
9.5.8	Record keeping.....	24
9.6	Pressure testing carbon dioxide PFEs and gas cartridges .....	24
9.7	Defective equipment .....	24
10	Refilling and recharging of PFEs .....	24
10.1	Refilling and recharging .....	24
10.2	Person(s) responsible.....	24
10.3	Record keeping.....	25
11	Discharge testing of PFEs .....	25
11.1	General .....	25
11.2	Discharge testing .....	25
11.3	Person(s) responsible.....	25
11.4	Procedure for discharge test.....	25
11.5	Record keeping.....	26
Annex A (informative) PFE pictograms in accordance with I.S. EN 3-7 .....		27
Annex B (normative) Documentation .....		28
B.1	Introduction.....	28
B.2	Responsibilities .....	28
B.3	Service label/record .....	28
B.4	Maintenance/competent person's report.....	30
B.5	Certificate of Inspection/Maintenance.....	31
B.6	Fire Safety Register .....	31
Annex C (informative) PFEs containing foam .....		32
C.1	Foam and the environment.....	32

**I.S. 291:2015**

<b>C.2</b>	<b>Use of PFEs containing foam .....</b>	<b>32</b>
<b>C.3</b>	<b>Maintenance of PFEs containing foam.....</b>	<b>32</b>
<b>C.4</b>	<b>Use of PFEs containing foam in training and discharge testing .....</b>	<b>33</b>
<b>C.5</b>	<b>Storage of foam.....</b>	<b>33</b>
<b>C.6</b>	<b>Disposal of foam.....</b>	<b>33</b>
	<b>Annex D (informative) Important safety information .....</b>	<b>34</b>
	<b>Bibliography.....</b>	<b>36</b>

## **Foreword**

The aim of this Irish Standard is to promote wider understanding of the selection, commissioning, installation, inspection and maintenance of portable fire extinguishers (PFEs) as agreed by the expert Working Group established by the National Standards Authority of Ireland to revise I.S. 291:2002. It also aims to encourage uniformity of application, based on providing enhanced safety to persons in the event of an outbreak of fire.

This Standard has been prepared by of the National Standards Authority of Ireland Fire Safety Standards Committee.

### **Transition Arrangements from I.S. 291:2002 to I.S. 291:2015**

The scope of this standard, limiting its application to PFEs fitted with Pressure Relief Devices (PRDs), reflects concerns raised by a Coroner's Report into an accident that happened in Ireland in which a member of the public died as a result of being struck by part of an exploding PFE due to over pressurisation from excessive heat, in this case from a fire.

It is expected that all new PFEs selected, commissioned, installed and maintained to this Standard will fully comply within 12 months of its publication. This Standard applies to all new PFEs subject to the Pressure Equipment Directive (PED).

In recognition of the existing stock of PFEs in use it is expected that within 3 years from the publication date of this standard only PFEs coming under the scope of this standard will be installed and in use

**Compliance with an Irish Standard does not of itself confer immunity from legal obligations**

## I.S. 291:2015

### Introduction

This Irish Standard, I.S. 291 contains mandatory requirements known as normative requirements and explanatory and supporting information known as informative relating to the selection, commissioning installation, inspection and maintenance of portable fire extinguishers (PFEs) and gas cartridges for PFEs.

All PFEs and gas cartridges for PFEs are covered by the requirements of the European Pressure Equipment Directive 97/23/EC.

The requirements of I.S. 291 are minimum requirements. Nothing in this Standard is intended to restrict any person(s) and/or organisation(s) operating to higher performance levels if their Risk Assessment indicates that this should be done.

Under Irish legislation all organisations are obliged to implement safety procedures to reduce the possibility of uncontrolled fires. The National Parliament of Ireland, the Oireachtas, has enacted a number of laws requiring that legally, such action has to be taken. Some of these laws are listed in bibliography of this Standard.

Compliance with the responsibilities under the Fire Services Act requires that all premises must be suitable for their intended use, certain essential fire safety features appropriate to the use of the premises must be provided and a proactive fire safety management policy must be in place to minimise the risk of a fire occurring and to ensure the safety of persons on the premises in a fire emergency.

Effective fire safety policies advise that PFEs should be provided and are intended as a first line of defence to deal with fires at their incipient stages and/or of limited size. They are an important part of the fire protection that should be provided and installed regardless of whether or not fixed systems such as sprinklers, automatic suppression systems, fire hose, fire hose reels, hose racks etc. are also provided.

PFEs contain an extinguishing medium and an expelling gas and include;

- stored pressure PFEs, where the extinguishing medium is expelled by pressure stored within the body of the PFE,
- cartridge operated PFEs, where the extinguishing medium is expelled by pressure from a gas cartridge,
- carbon dioxide PFEs, where carbon dioxide, which is both the extinguishing and the expelling medium is stored within the body of the PFE.

Clause 1 sets out its scope and lists types of PFEs that are outside the scope of this Standard.

Training in the use of PFEs is an important part of compliance with fire safety management policy.

Clause 11 requires that PFEs are tested by discharge as part of the maintenance programme. Subject to the circumstances and schedule for the maintenance programme, if agreeable between the person having control over the premises and the competent person/the organisation employing the competent person carrying out the maintenance programme, this exercise could form part of a demonstration to provide an opportunity for the occupants of the premises to see the equipment operated by a competent person.



## Schedule

### Selection, commissioning, installation, inspection and maintenance of portable fire extinguishers

#### 1 Scope

The provisions of this Standard apply to the selection, commissioning, installation, inspection and maintenance of Portable Fire Extinguishers (PFEs) fitted with a suitably sized pressure relief device on all types and sizes of PFEs.

This Standard covers;

- water-based type PFEs,
- foam type PFEs,
- powder type PFEs,
- carbon dioxide type PFEs,
- wet chemical type PFEs.

This Standard does not cover the following types of PFEs:

- obsolete PFEs,
- soda acid and chemical foam PFEs,
- halon extinguishers,
- PFEs containing extinguishing media and/or expellant that are not allowed to be used under National Regulations,
- PFEs with copper or brass bodies including shell bodies joined by rivets or soft solder,
- carbon dioxide extinguishers with a tube connecting a metal horn to the valve,
- PFEs that are operated by inversion,
- PFEs with plastic and/or fibreglass body shells,
- aerosol type PFEs,
- disposable PFEs i.e. extinguishers not designed for recharging,
- PFEs with plastic heads i.e. headcaps manufactured from plastics designed to retain working pressure on actuation of the operating mechanism,
- PFEs that do not have a safety pressure release device,
- PFEs that cannot be serviced in accordance with the manufacturer's maintenance manual.

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