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**Fire test procedures for divisional  
elements that are typically used in oil,  
gas and petrochemical industries —**

**Part 1:  
General requirements**

*Méthodes d'essais au feu des éléments de séparation habituellement  
utilisés dans les industries pétrolières, gazières et pétrochimiques —*

*Partie 1: Exigences générales*



Reference number  
ISO 20902-1:2018(E)

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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 92, *Fire safety*, Subcommittee SC 2, *Fire containment*.

This corrected version of ISO 20902-1:2018 incorporates the following correction:

— the second paragraph of [subclause 7.5.1](#) has been reworded for clarification purposes.

A list of all parts in the ISO 20902 series can be found on the ISO website.

## Introduction

This document describes a test procedure to assess the protection afforded by fire protection materials and systems to divisional elements. It gives an indication of how fire protection materials perform when exposed to a set of specified fire conditions.

The classification of divisional elements (bulkheads and decks) in the marine industry (i.e. ships as defined by IMO, SOLAS) is primarily undertaken in accordance with classification society procedures through testing to the FTP codes, IMO resolution 307(88), formerly IMO A.754(18). Historically FTP code compliant test evidence has been used to support non-marine applications by implementing hydrocarbon time temperature regime profiles. To reduce the burden on industry, this document is compatible with MSC 307(88) where relevant, allowing testing to both IMO and ISO test procedures for specific classification ratings.

# Fire test procedures for divisional elements that are typically used in oil, gas and petrochemical industries —

## Part 1: General requirements

### 1 Scope

This document specifies a test procedure for determining the fire resistance of divisional elements with a fire protection system, when exposed to cellulosic or hydrocarbon-pool type fire conditions. It is applicable to divisional elements intended for non-marine applications but suitable for offshore fixed and mobile installations.

The test data obtained, when used in conjunction with published fire test standards, permit subsequent classification of the divisional elements based on the duration of their performance against specified criteria.

### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 834-1:1999, *Fire-resistance tests — Elements of building construction — Part 1: General requirements*

ISO 13943, *Fire safety — Vocabulary*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions in ISO 13943 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

#### 3.1

##### **bulkhead**

vertical divisional element typically used in the marine industry

#### 3.2

##### **deck**

horizontal divisional element typically used in the marine industry

#### 3.3

##### **divisional element**

element that is intended for use in maintaining separation between two adjacent areas of facilities within the oil and gas industry, and which may or may not be load bearing