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Safety devices for protection against excessive pressure —

Part 3: Safety valves and bursting disc safety devices in combination

Dispositifs de sécurité pour protection contre les pressions excessives —

Partie 3: Soupapes de sûreté et dispositifs de sûreté à disque de rupture en combinaison



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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).

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This document was prepared by Technical Committee ISO/TC 185, *Safety devices for protection against excessive pressure*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 69, *Industrial valves*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 4126-3:2006), which has been technically revised.

The main changes compared to the previous edition are as follows:

- Eliminated unnecessary references and definitions throughout the document.
- [Clause 5](#): Inlet line and pressure drop requirements from prior 6.2 were moved to [Clause 5](#) and a reference to ISO 4126-9 was also added.
- [Clause 7](#): Deleted specific references to specific EN standards to refer to the applicable pressure vessel standard to reflect the global nature of this document.
- [Clause 9](#): The restrictions for F_d values less than 0,97 were eliminated.
- [Clause 12](#): Clarified the applicable minimum bursting pressure for which the F_d value can be used for sizes larger than those flow tested.
- [Clause 14](#): Added a requirement for the supplier to provide a test certificate if the F_d being used is a certified combination discharge coefficient.

A list of all parts in the ISO 4126 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

Bursting disc safety devices can be used upstream of safety valves in the following cases:

- a) to protect the safety valve against corrosion, fouling or operating conditions which could affect the safety valve performance;
- b) to prevent leakage;
- c) to prevent total loss of contents from the protected equipment following the bursting of the bursting disc.

The term *combination* is used to describe the close-coupled (i.e. within 5 pipe diameters) assembly of a bursting disc safety device upstream of a safety valve or controlled safety pressure relief systems (CSPRS), as defined by this document. Requirements for other installation arrangements of bursting discs with safety valves or CSPRS are defined in ISO 4126-9.