INTERNATIONAL STANDARD

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 4126-3 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 69, *Industrial valves*, ISO/TC 185, *Safety devices for protection against excessive pressure*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This first edition of ISO 4126-3 cancels and replaces ISO 6718:1991, of which it constitutes a technical revision.

ISO 4126 consists of the following parts, under the general title *Safety devices for protection against excessive pressure*:

— *Part 1: Safety valves*

— *Part 2: Bursting disc safety devices*

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

— *Part 4: Pilot-operated safety valves*

— *Part 5: Controlled safety pressure relief systems (CSPRS)*

— *Part 6: Application, selection and installation of bursting disc safety devices*

— *Part 7: Common data*

— *Part 9: Application and installation of safety devices excluding stand-alone bursting disc safety devices*

Part 7 contains data which is common to more than one of the parts of this standard to avoid unnecessary repetition.

Introduction

Bursting disc safety devices can be used in conjunction with safety valves in 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 with a safety valve or CSPRS, as defined by this part of ISO 4126. In some cases, the bursting disc safety device and the safety valve or CSPRS are connected together to form the combination by a short length of pipe or a spool piece.

Safety devices for protection against excessive pressure —

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

1 Scope

This part of ISO 4126 specifies the requirements for a product assembled from the in-series combination of safety valves or CSPRS (controlled safety pressure relief systems) according to ISO 4126-1, ISO 4126-4 and ISO 4126-5, and bursting disc safety devices according to ISO 4126-2 installed within no more than five pipe diameters from the valve inlet. It specifies the design, application and marking requirements for such products, which are used to protect pressure vessels, piping or other enclosures from excessive pressure, and which comprise the bursting disc safety device, a safety valve or CSPRS and, where applicable, a short length of connecting pipe or spool piece. In addition, it gives a method for establishing the combination discharge factor used in sizing combinations.

2 Normative references

The following referenced documents are indispensable for the application 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 4126-1:2004, *Safety devices for protection against excessive pressure — Part 1: Safety valves*

ISO 4126-2:2003, *Safety devices for protection against excessive pressure — Part 2: Bursting disc safety devices*

ISO 4126-4:2004, *Safety devices for protection against excessive pressure — Part 4: Pilot-operated safety valves*

ISO 4126-5:2004, *Safety devices for protection against excessive pressure — Part 5: Controlled safety pressure relief systems (CSPRS)*

ISO 4126-6:2003, *Safety devices for protection against excessive pressure — Part 6: Application, selection and installation of bursting disc safety devices*

EN 764-7:2002, *Pressure equipment — Part 7: Safety systems for unfired pressure equipment*

EN 13480-1:2002, *Metallic industrial piping — Part 1: General*

EN 13480-2:2002, *Metallic industrial piping — Part 2: Materials*

EN 13480-3:2002, *Metallic industrial piping — Part 3: Design and calculation*

EN 13480-4:2002, *Metallic industrial piping — Part 4: Fabrication and installation*

EN 13480-5:2002, *Metallic industrial piping — Part 5: Inspection and testing*

EN 13480-6:2002, *Metallic industrial piping — Part 6: Additional requirements for buried piping*

CEN/TR 13480-7:2002, *Metallic industrial piping — Part 7: Guidance on the use of conformity assessment procedures*