Irish Standard
I.S. EN 12583:2014

Gas Infrastructure - Compressor stations - Functional requirements

I.S. EN 12583:2014

Incorporating amendments/corrigenda/National Annexes issued since publication:

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This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

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English Version

Gas Infrastructure - Compressor stations - Functional requirements

Infrastructures gazières - Stations de compression - Prescriptions fonctionnelles

Gasinfrastruktur - Verdichterstationen - Funktionale Anforderungen

This European Standard was approved by CEN on 20 December 2013.

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Foreword

This document (EN 12583:2014) has been prepared by Technical Committee CEN/TC 234 “Gas Infrastructure”, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by September 2014, and conflicting national standards shall be withdrawn at the latest by September 2014.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 12583:2000.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

Annex G provides details of significant technical changes between this European Standard and the previous edition.

There is a complete suite of functional standards prepared by CEN/TC 234 "Gas infrastructure" to cover all parts of the gas infrastructure from the input of gas into the on-shore transmission network up to the inlet connection of gas appliances, including transmission, distribution, storage, compression, pressure regulation and metering, installation, injection of non-conventional gases, gas quality issues and others. In preparing this standard a basic understanding of gas infrastructure by the user has been assumed.

The gas infrastructure is complex and the importance on safety of its construction and use has led to the development of very detailed codes of practice and operating manuals in the member countries. These detailed statements embrace recognised standards of gas engineering and the specific requirements imposed by the legal structures of the member countries.

Directive 2009/73/EC concerning common rules for the internal market in natural gas and the related Regulation (EC) No 715/2009 on conditions for access to the natural gas transmission networks also aim at technical safety (security) including technical reliability of the European gas system. These aspects are also in the scope of CEN/TC 234 standardisation. In this respect CEN/TC 234 evaluated the indicated EU legislation and amended this technical standard accordingly, where required and appropriate.

In this edition of EN 12583 environmental aspects relevant to the design, construction and testing, operation and maintenance, decommissioning and disposal of compressor stations in the scope of this standard are covered in accordance with CEN Guide 4 and CEN/TR 16388.

This European Standard supersedes all other European Standards for gas compressor stations in the gas infrastructure above 16 bar and with a total shaft power over 1 MW.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard describes the specific functional requirements for the design, construction, operation, maintenance and disposal activities for safe and secure gas compressor stations.

This European Standard applies to new gas compressor stations with a Maximum Operating Pressure (MOP) over 16 bar and with a total shaft power over 1 MW. For existing compressor stations, this European Standard applies to new compressor units. Where changes/modifications to existing installations take place, due account may be taken of the requirements of this European Standard.

This European Standard does not apply to gas compressor stations operating prior to the publication of this European Standard.

The purpose of this European Standard is intended to:

— ensure the health and safety of the public and all site personnel,

— to cover environmental issues and

— to avoid incidental damage to nearby property.

This European Standard specifies common basic principles for the gas infrastructure. Users of this European Standard should be aware that more detailed national standards and/or codes of practice may exist in the CEN member countries.

This European Standard is intended to be applied in association with these national standards and/or codes of practice setting out the above-mentioned basic principles.

In the event of conflicts in terms of more restrictive requirements in national legislation/regulation with the requirements of this European Standard, the national legislation/regulation takes precedence as illustrated in CEN/TR 13737 (all parts). CEN/TR 13737 (all parts) gives:

— clarification of all legislations/regulations applicable in a member state;

— if appropriate, more restrictive national requirements;

— a national contact point for the latest information.

This European Standard does not apply to:

— off-shore gas compressor stations;

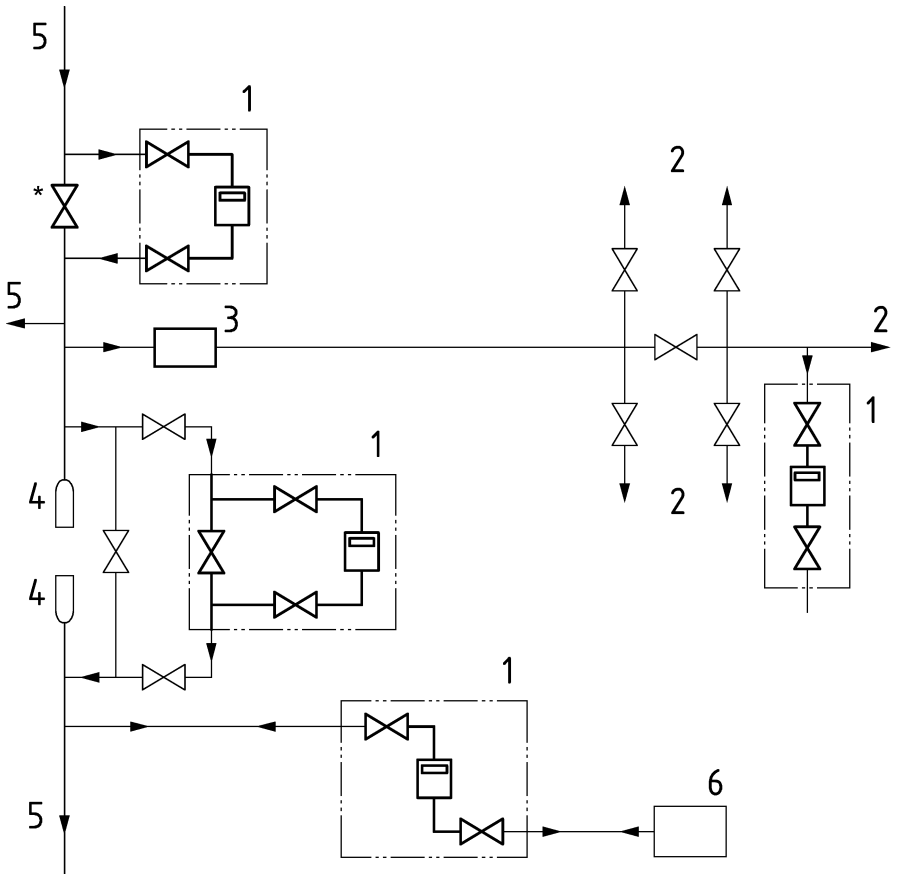
— gas compressor stations for compressed natural gas filling-stations;

— customer installations downstream of the point of custody transfer;

— design and construction of driver packages (see Annex C).

For supplies to utility services such as small central heating boilers reference should be made to EN 1775.

Figure 1 shows a schematic representation of compressor stations in a gas infrastructure.



Key

1	compressor station	4	pig traps
2	distribution system	5	transmission line
3	metering and/or pressure limiting or regulation station	6	storage facility

NOTE Parts indicated in frames by thick lines are within the scope of this European Standard (* part of pipeline but operated by SCS).

Figure 1 — Schematic representation of compressor stations in the gas infrastructure

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1012-3, *Compressors and vacuum pumps — Safety requirements — Part 3: Process compressors*

EN 1594, *Gas infrastructure — Pipelines for maximum operating pressure over 16 bar — Functional requirements*

EN 12186, *Gas supply systems — Gas pressure regulating stations for transmission and distribution — Functional requirements*

EN 12732, *Gas infrastructure — Welding steel pipework — Functional requirements*