



CSA/ANSI NGV 4.8:21
National Standard of Canada
American National Standard



Natural gas vehicle fuelling station compressor packages



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Preface

This is the third edition of CSA/ANSI NGV 4.8, *Natural gas vehicle fuelling station compressor packages*. It supersedes the previous editions published in 2012 and 2002, published as ANSI/NGV 4.8/CSA 12.8 under the title *Standard for Natural gas vehicle fuel station reciprocating compressor guideline*.

The major changes to this edition include the following:

- the scope has been expanded to include but not limited to reciprocating compressors, integrated combustion engine and compressor package, and hydraulic intensifier compressors;
- oil free compress designs have been included;
- process tubing requirements have been included;
- powder coating parts have been included;
- updated marking material requirements allowing pressure sensitive labels;
- updated document requirement references to current industry standard practices; and
- reformatted to current CSA Group editorial requirements.

Portions of this Standard are taken from API 11P, *Specification for Packaged Reciprocating Compressors for Oil and Gas Production Services*, Second Edition, November 1989 (R1999) and reproduced with permission of the American Petroleum Institute (API), 200 Massachusetts Ave NW Suite 1100, Washington, DC 20001. Refer to Annex [B](#) for a complete list of clauses.

This Standard represents a standard for safe operation, substantial and durable construction, and performance testing of natural gas vehicle fuelling station compressor packages, within limitations given below and in the scope of this Standard.

This Standard is based on proven engineering principles, research, and the combined expertise of gas utilities, manufacturers, users, and others having specialized experience.

Nothing in this Standard is to be considered in any way as indicating a measure of quality beyond compliance with the provisions it contains. It is designed to allow compliance of products which may exceed that specified in the provisions herein. In its preparation, full recognition has been given to possibilities of improvement through ingenuity of design. This Standard is subject to revision as further experience and investigation may show it is necessary and desirable.

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This Standard is considered suitable for use for conformity assessment within the stated scope of the Standard.

CSA Group acknowledges that the development of this Standard was made possible, in part, by the financial support of Natural Resources Canada.

This Standard was prepared by the Subcommittee on Compressors for Natural Gas Refuelling Stations under the jurisdiction of the Technical Committee on Natural Gas Transportation and the Strategic Steering Committee on Transportation, and has been formally approved by the Technical Committee and the Interprovincial Gas Advisory Council.

This Standard has been developed in compliance with Standards Council of Canada requirements for National Standards of Canada. It has been published as a National Standard of Canada by CSA Group.

This Standard has been approved by the American National Standards Institute (ANSI) as an American National Standard.

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Natural gas vehicle fuelling station compressor packages

1 Scope

1.1 Inclusions — Compressor packages

This Standard describes the general requirements for compressor packages used in compressed natural gas fuelling station service.

1.2 Inclusions — Compressor designs

This Standard applies to compressor designs referenced in Clause [5](#).

1.3 Pressure references

All references to pressure throughout this Standard are to be considered gauge pressures unless otherwise specified.

1.4 Items unique to Canada

Annex [A](#) contains items that are unique to Canada.

1.5 Terminology

In this Standard, “shall” is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the Standard; “should” is used to express a recommendation or that which is advised but not required; and “may” is used to express an option or that which is permissible within the limits of the Standard.

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Annexes are designated normative (mandatory) or informative (non-mandatory) to define their application.

1.6 Units of measure

The values given in SI units are the units of record for the purposes of this Standard. The values given in parentheses are for information and comparison only.

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This Standard refers to the following publications. For dated references, only the edition cited shall apply. For undated references, the latest edition of the referenced document (including any amendments thereto) shall apply.