



ANSI HGV 3.1-2015
(reaffirmed 2019)

Fuel system components for compressed hydrogen gas powered vehicles



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***Fuel system components for
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Preface

This is the first edition of ANSI HGV 3.1, Fuel system components for compressed hydrogen gas powered vehicles. This precedes CSA HGV 3.1-2013.

This Standard was prepared by the NGV 3/HGV 3 Technical Subcommittee on Standard for Fuel System Components for Compressed Natural Gas and Hydrogen Powered Vehicles, under the jurisdiction of the Joint Automotive Technical Committee, and had been formally approved by the Technical Committee(s), American National Standards Institute.

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ANSI HGV 3.1-2015

Fuel system components for compressed hydrogen gas powered vehicles

1 Scope

1.1

This Standard establishes requirements for newly produced compressed hydrogen gas fuel system components, intended for use on hydrogen gas powered vehicles as listed below:

- a) check valves;
- b) manual valves;
- c) manual container valves;
- d) automatic valves;
- e) gas injectors;
- f) pressure indicators;
- g) pressure regulator;
- h) pressure relief valves;
- i) pressure relief devices;
- j) excess flow valves;
- k) gas-tight housing and leakage capture lines and passages;
- l) rigid fuel lines;
- m) flexible fuel lines;
- n) filter housing;
- o) fittings; and
- p) discharge line closures.

Note: *It is recognized that other components not specifically covered herein can be examined to meet the criteria of HGV 3.1 and tested according to the appropriate functional needs.*

1.2

This Standard applies to devices that have a service pressure of either 25MPa, 35MPa, 50MPa, or 70MPa hereinafter referred to in this Standard as the following:

- a) "H25" - 25 MPa;
- b) "H35" - 35 MPa;
- c) "H50" - 50 MPa;
- d) "H70" - 70 MPa.

This Standard also applies to components downstream of the first stage of pressure reduction with a maximum operating pressure designated by the manufacturer in kPa (psi).

1.3

This Standard addresses the pressure containment, performance, and safety characteristics of components listed Clause [1.1](#).