

Gas-fired equipment for drying farm crops



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CSA 3.8:14
***Gas-fired equipment for drying farm
crops***

IGAC

Interprovincial Gas Advisory Council



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Preface

This is the sixth edition of CSA 3.8, Gas-Fired Equipment for Drying Farm Crops. It supersedes the previous editions published in 1999, 1986, 1977, 1972, and 1968.

This Standard was prepared by the Z83/CSA Joint Technical Advisory Group on Gas Operated Agricultural Equipment, under the jurisdiction of the Technical Committee on Gas Appliances and Related Accessories and the Strategic Steering Committee on Standards for Fuel Burning Equipment, and had been formally approved by the CSA Technical Committee, and the Interprovincial Gas Advisory Council.

Interpretations: The Strategic Steering Committee on Standards for Fuel Burning Equipment has provided the following direction for the interpretation of standards under its jurisdiction. “The literal text shall be used in judging compliance of products with the safety requirements of this Standard. When the literal text cannot be applied to the product, such as for new materials or construction, and when a relevant committee interpretation has not already been published, CSA Group’s procedures for interpretation shall be followed to determine the intended safety principle.”

Notes:

- 1) *Use of the singular does not exclude the plural (and vice versa) when the sense allows.*
- 2) *Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.*
- 3) *This publication was developed by consensus, which is defined by CSA Policy governing standardization – Code of good practice for standardization as “substantial agreement.” Consensus implies much more than a simple majority, but not necessarily unanimity.” It is consistent with this definition that a member may be included in the Technical Committee list and yet not be in full agreement with all clauses of this publication.*
- 4) *This Standard is subject to periodic review, and suggestions for their improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to inquiries@csagroup.org and include “Proposal for change” in the subject line:*
 - a) *Standard designation (number)*
 - b) *relevant clause, table, and/or figure number;*
 - c) *wording of the proposed change; and*
 - d) *rationale for the change.*
- 5) *To submit a request for interpretation of this Standard, please send the following information to*
- 6) *inquiries@csagroup.org and include “Request for interpretation” in the subject line:*
 - a) *define the problem, making reference to the specific clause, and, where appropriate, include an illustrative sketch;*
 - b) *provide an explanation of circumstances surrounding the actual field condition; and*
 - c) *where possible phrase the request in such a way that a specific “yes” or “no” answer will address the issue.*

Committee interpretations are processed in accordance with the CSA Directives and guidelines governing standardization and are available on the Current Standards Activities page at standardsactivities.csa.ca.

CSA 3.8:14

Gas-fired equipment for drying farm crops

1 Scope

1.1

This Standard applies to newly produced direct gas-fired crop dryers of the recirculating or non-recirculating type hereinafter referred to as “dryers”, whose primary purpose is to provide process heating to dry farm crops. These dryers are used in non-occupied spaces and are constructed of non-combustible materials having input ratings of 12,500,000 Btu/hr (3 663 389 W) or less, constructed entirely of new unused parts and materials.

This Standard refers to equipment in which heated air is used to reduce the moisture content of farm crops.

The installation is to conform with local codes, or in the absence of local codes, in accordance with the *Natural Gas and Propane Installation Code, CSA B149.1*, and the *Propane Storage and Handling Code, CSA B149.2*.

This Standard is intended to cover complete dryers with integral air moving components, i.e., those which are designed by, catalogued by, and built on a repetitive basis by the manufacturer and those in which the dryer and air moving components are tested as an assembly and available for separate sale.

1.2

Dryers covered under this Standard are for use:

- a) with natural gas; and
- b) with propane in the liquid and vapour phases.

1.3

This Standard applies to dryers intended for outdoor use only.

1.4

This Standard is limited to dryers that are equipped with forced draft burner(s), which relies on combustion air supplied by a mechanical device such as a fan or blower.

1.5

The construction of dryers for use with the above mentioned gases is covered under Clause [4](#).

1.6

The performance of dryers for use with the above mentioned gases is covered under Clause [5](#).

1.7

If a value for measurement as given in this Standard is followed by an equivalent value in other units, the first stated value is to be regarded as the specification.