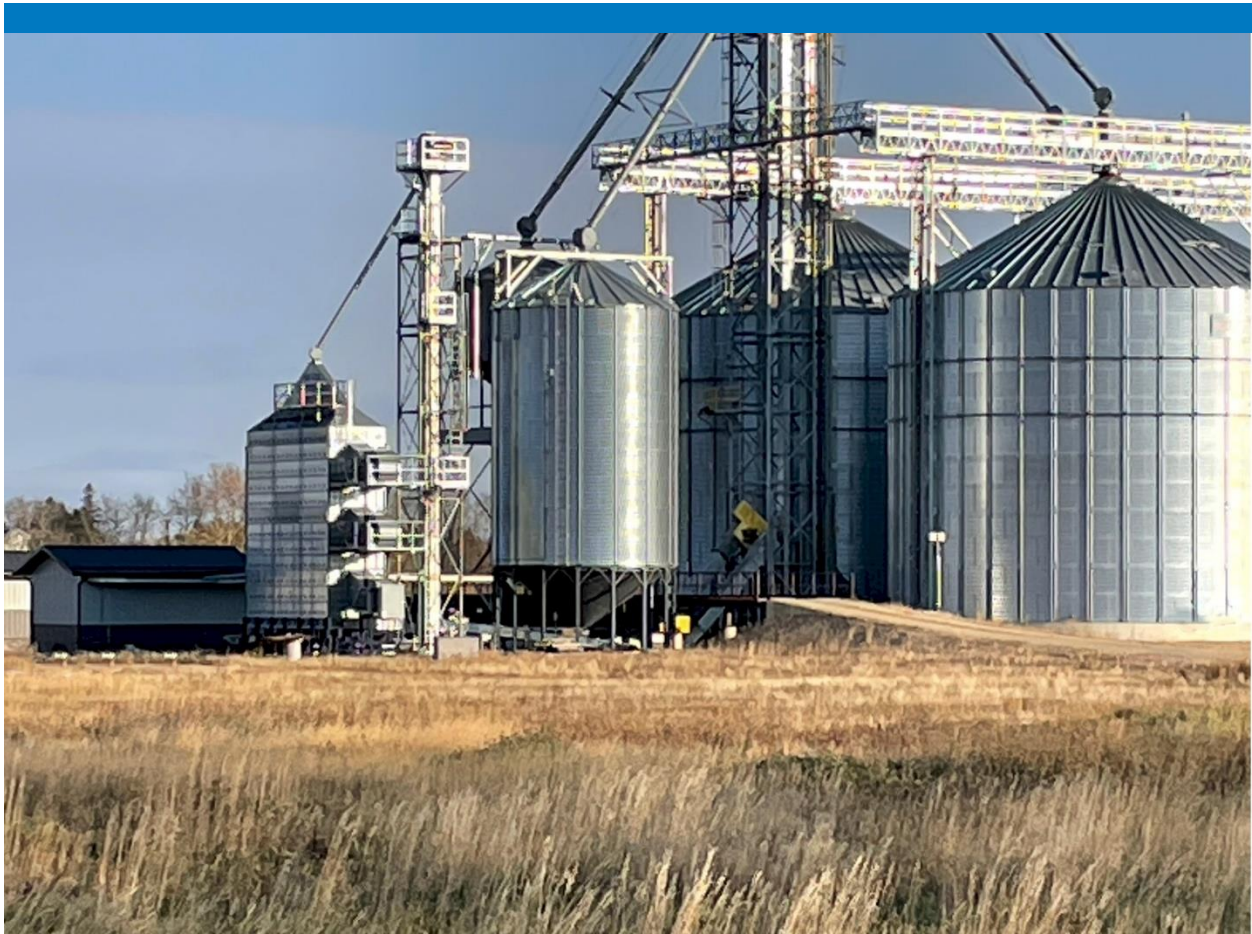


BUYING A GRAIN DRYER



WHAT YOU NEED TO KNOW



1. DETERMINE YOUR FUEL REQUIREMENTS – NATURAL GAS VS PROPANE

Natural Gas

If you are considering a natural gas grain dryer, contact SaskEnergy regarding the natural gas requirements of your new grain dryer (btu/hr). SaskEnergy will determine whether there is an adequate supply of natural gas to meet your needs or if upgrades to their gas distribution system and metering are necessary.

Call 1-800-567-8899 to speak to a SaskEnergy representative.

Propane

If you are considering a propane grain dryer, contact your Propane Supplier regarding the propane fuel requirements of your new grain dryer (btu/hr), including whether the dryer is designed for a liquid propane supply connection or a vapour propane supply connection. Your Propane Supplier will determine the size of storage tank(s) required and where tank(s) can be located. Grain dryers with large vapour propane supply requirements may require a vaporizer to generate the required vapour fuel flow.

2. DETERMINE YOUR ELECTRICAL SUPPLY REQUIREMENTS

It is equally important to consider the electrical requirements of your new grain dryer. Contact your local Saskatchewan Licensed Electrical Contractor to determine if your electrical service is adequate or will need upgrading. An Electrical Permit will also need to be taken out for the installation of the grain dryer (see step 5, Installing your grain dryer, below).

3. DETERMINE IF THE GRAIN DRYER IS CERTIFIED OR IN NEED OF FIELD APPROVAL

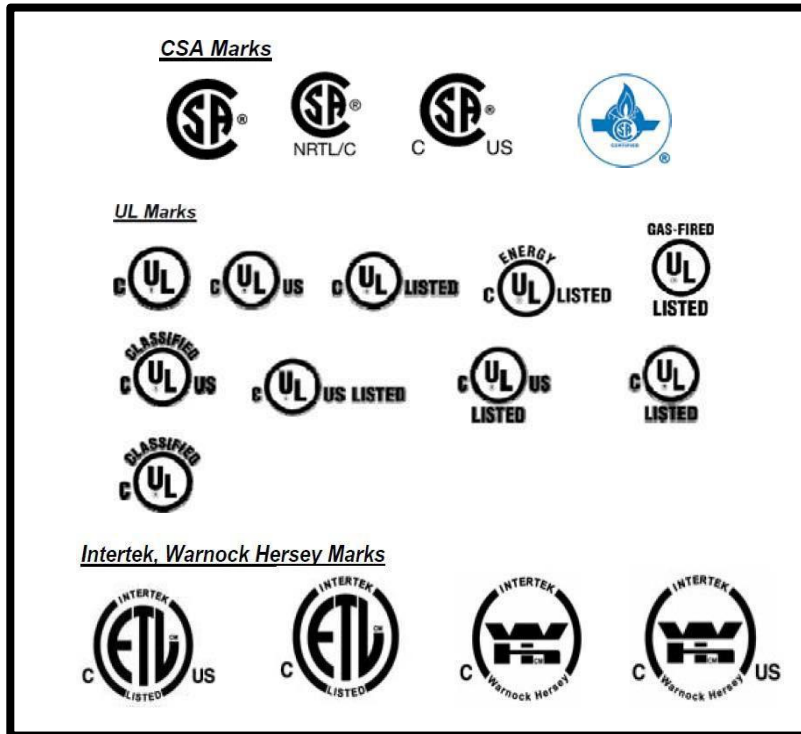
To be installed in Saskatchewan, all grain dryers must be certified or field approved.

New Grain Dryers

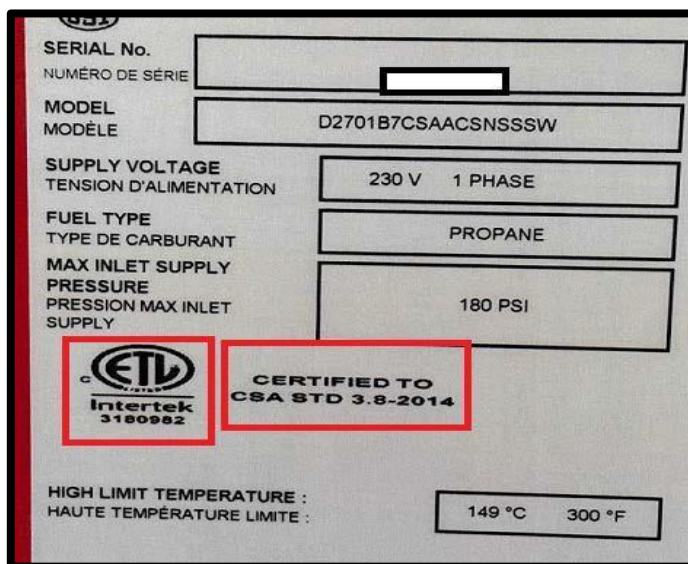
CSA 3.8 is the Standard in Canada for the construction of grain dryers with inputs of 20 million btu/hr or less. Grain dryers with an input greater than 20 million btu/hr will require a TSASK Field Approval in accordance with the national code CSA B149.3.

Check the nameplate of the grain dryer to see if it bears a certification mark. A valid certification mark will contain the following information:

- a) A recognized certification mark or label (see examples below), AND



- b) A statement that the equipment is certified to the CSA 3.8 Standard, an example of a label on a certified grain dryer:



Used Grain Dryers

Used grain dryers are accepted as certified or otherwise approved when bearing:

- CSA 3.8 certification.
- Special Inspection or Field Approval label from a Standards Council of Canada accredited Certification Body (e.g. CSA, Intertek) as meeting either CSA 3.8 or CSA B149.3.
- An existing Gas Inspections Field Approval tag.

Certification or approval of a grain dryer is invalidated if the gas valve train has been modified or converted from one fuel to another using a non-certified conversion kit. Grain dryers that have been modified, or converted from one fuel to another, will require a TSASK Gas Inspections Field Approval unless a certified conversion kit for that grain dryer was utilized.

Notes:

- Replacement of components on a gas valve train, like-for-like, is considered maintenance and does not constitute a modification.
- A Special Inspection or Field Approval label marked as meeting SPE- 1000 is an electrical approval label. This label does not indicate a certification or approval to operate on natural gas or propane.

Uncertified Grain Dryers (New or Used)

An uncertified grain dryer will require a Field Approval by Gas Inspections. Example situations which will result in a grain dryer being uncertified include:

- The input is greater than the scope of CSA 3.8 (greater than 20 million btu/hr),
- It has been converted from one fuel type to another (unless a certified conversion kit for that grain dryer was utilized) since its last inspection or certification.
- The gas valve train has been upgraded or modified from the original design.

4. OBTAINING FIELD APPROVAL OF A GRAIN DRYER (WHERE NECESSARY)

TSASK Field Approval Program

The Field Approval program is for the approval of uncertified gas-fired equipment meeting the requirements prescribed by the latest edition of CSA B149.3 Code for the field approval of fuel-burning appliances and equipment.

Unless the Chief Gas Inspector approves otherwise, only Gas Inspections can field approve gas-fired equipment in Saskatchewan.

Applications for a Field Approval are not complete unless the required documentation has been provided. Allow at least two weeks for the documentation of a completed Field Approval application to be reviewed. An acceptable Field Approval application will receive permission to proceed with the installation (see below).

For Field Approval application forms or more information:

<https://www.tsask.ca/gas/field-approval-program> or email geis@tsask.ca.



Field Approval fees are in addition to the regular gas permit fees that are required for the gas installation permit. Field Approval fees for grain dryers are currently as follows:

- Up to and including 5 million btu/hr \$1,250.00 plus GST
- Over 5 million btu/hr and less than 12.5 million btu/hr \$2,500.00 plus GST
- 12.5 million btu/hr and larger, up to 50 million btu/hr \$3,000.00 plus GST

Field Approval fees can be found in the complete Gas Fee Schedule:

<https://www.tsask.ca/gas/fee-schedule>

A Field Approval of gas-fired equipment is not complete until the Gas Inspector has witnessed the testing and activation of the equipment and informs you that the equipment may be placed into operation as installed.

This Field Approval is provided by Gas Inspections in compliance with CSA B149.3. It does not certify the gas-fired equipment as meeting the Canadian Electrical Code or any installation requirements of Electrical Inspections.

5. OBTAINING AN INSTALLATION OF YOUR GRAIN DRYER

Gas connection to your propane or natural gas grain dryer must be completed by a Licensed Saskatchewan General Gas Contractor under the authority of a permit issued by TSASK Gas Inspections.

Electrical connection to your grain dryer must be completed by a Licensed Saskatchewan Electrical Contractor under the authority of a permit issued by TSASK Electrical Inspections

The installation shall meet the requirements of the current:

- CSA B149.1 standard for the installation of natural gas and propane systems.
- CSA B149.2 standard for the storage and handling of propane (if applicable).
- CSA C22 Canadian Electrical Code.

The installation shall also meet the requirements of the Manufacturer's Instructions supplied with the grain dryer.

6. OBTAINING AN INSPECTION AND APPROVAL OF YOUR GRAIN DRYER

Due to their high input, the activation of your grain dryer must be completed in the presence of the Gas Inspector. The Licensed Gas Contractor who holds the installation permit and a Manufacturer's Representative is also required to be present during activation. During the activation, it will need to be demonstrated to the Gas Inspector that grain dryer is working safely and properly. Some of the items that will need to be confirmed during the inspection include:

- The gas supply pressure to the appliance is correct.
- The gas pressure at the burner is correct.
- High and low gas pressure switches are functioning.
- The air supply switch is functioning.
- Purge times and cycles are correct.
- The flame safety system is functioning.



Gas Inspections require a minimum of 48 hours of notice when booking your activation.

Other items the Gas Inspector will look at during the inspection:

- The grain dryer must be installed on a concrete base.
- Propane tank(s) must be adequately supported according to code.
- Gas piping, tubing and hoses must be of the correct material and size.
- An excess flow valve must be installed on the propane tank.
- Above ground, gas piping must be protected from damage.
- Propane tanks must be protected from vehicular damage and clear of combustible materials.
- Grain dryers and propane tanks must have required minimum clearances according to code.

The inspection of the electrical permit will be conducted by an Electrical Inspector in coordination with your Licensed Saskatchewan Electrical Contractor.

For any other general inquiries related to the installation of your grain drying equipment, please contact TSASK Gas and Electrical Inspections at 1-866-530-8599 or email geis@tsask.ca.