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ANSI/CAN/UL/ULC 180:2025

JOINT CANADA-UNITED STATES
NATIONAL STANDARD

STANDARD FOR SAFETY

Combustible Liquid Tank Accessories



ANSI/UL 180-2025



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UL Standard for Safety for Combustible Liquid Tank Accessories, ANSI/CAN/UL/ULC 180

Tenth Edition, Dated November 13, 2025

Summary of Topics

This new Tenth Edition of ANSI/CAN/UL/ULC 180 dated November 13, 2025 incorporates editorial changes including renumbering and reformatting to align with current style, and includes the following changes in requirements:

- ***UV Resistance for indoor-use-only rated products; [16.3.1](#)***
- ***Updated Standard References in the Scope; [1.3](#), [1.4](#)***
- ***Style Manual Updates and Editorial Corrections; [3](#), [4.4](#), [4.5\(b\)](#), [4.11](#), [10.2](#), [12.2.1](#), [12.7.1](#), [14.3.2](#), [15.2.1](#), [16.2.1\(c\)](#), [16.3.1\(c\)](#); [20.1\(c\)](#)***

The new requirements are substantially in accordance with Proposal(s) on this subject dated May 26, 2025.

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This ANSI/CAN/UL/ULC Safety Standard consists of the Tenth Edition.

The most recent designation of ANSI/UL 180 as an American National Standard (ANSI) occurred on November 13, 2025. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page, Preface or SCC Foreword.

This Standard has been designated as a National Standard of Canada (NSC) on November 13, 2025.

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Preface

This is the Tenth Edition of the ANSI/CAN/UL/ULC 180, Standard for Combustible Liquid Tank Accessories.

ULSE is accredited by the American National Standards Institute (ANSI) and the Standards Council of Canada (SCC) as a Standards Development Organization (SDO). ULC Standards is accredited by the Standards Council of Canada (SCC) as a Standards Development Organization (SDO).

This Standard has been developed in compliance with the requirements of ANSI and SCC for accreditation of a Standards Development Organization.

This ANSI/CAN/UL/ULC 180 Standard is under continuous maintenance, whereby each revision is approved in compliance with the requirements of ANSI and SCC for accreditation of a Standards Development Organization. In the event that no revisions are issued for a period of four years from the date of publication, action to revise, reaffirm, or withdraw the standard shall be initiated.

Annex [A](#) is identified as Normative, as such, form mandatory parts of this Standard.

Annex [B](#), identified as Informative, is for information purposes only.

In Canada, there are two official languages, English and French. All safety warnings must be in French and English. Attention is drawn to the possibility that some Canadian authorities may require additional markings and/or installation instructions to be in both official languages.

This Tenth Edition joint American National Standard and National Standard of Canada is based on, and now supersedes, the Ninth Edition of UL 180.

Requests for interpretation of this Standard should be sent to ULC Standards. The requests should be worded in such a manner as to permit a "yes" or "no" answer based on the literal text of the requirement concerned.

Comments or proposals for revisions on any part of the Standard may be submitted at any time. Proposals should be submitted via a Proposal Request in the Collaborative Standards Development System (CSDS) at <https://csds.ul.com>.

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This Edition of the Standard has been formally approved by the Technical Committee (TC) on Combustible Liquid Tanks and Accessories, TC 2258.

This list represents the TC 2258 membership when the final text in this Standard was balloted. Since that time, changes in the membership may have occurred.

TC 2258 Membership

Name	Representing	Interest Category	Region
Bourassa, Eric	Granby Industries L.P.	Producer	Canada
Carrington, James	Scully Signal Company	Producer	USA
Deschamps, Claude	Régie du Bâtiment du Québec (RBQ)	Authorities Having Jurisdiction / Regulator	Québec
Hall, Johnny	UL Standards & Engagement	TC Project Manager – Non-voting	USA
Legault, Pierre	Integrated Review Services – Consulting	General Interest	Canada
Levey, John	Oil Heat Associates	General Interest	USA
McBride, Christopher	Viega LLC	Producer	USA
Olszewski, Ted	R W Beckett Corp	Producer	USA
Orr, Brian	UL Solutions	Testing & Standards Org.	USA
Ramert, Jason	Innovative Outdoor Solutions Inc.	Producer	USA
Werner, Laura	UL Standards & Engagement	TC Chair – Non-voting	Canada

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This Standard is intended to be used for conformity assessment.

The intended primary application of this Standard is stated in its scope. It is important to note that it remains the responsibility of the user of the standard to judge its suitability for this particular application.

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INTRODUCTION

1 Scope

1.1 This Standard covers construction and performance requirements for the tank accessories identified in [1.2](#), for use on atmospheric aboveground tanks not exceeding 19,927 L (5,000 U.S. gal) which are intended for the storage and supply of heating fuels for oil burning equipment, diesel fuels for compression ignition engines, motor oils (new or used) for automotive service stations, and similar combustible liquid applications.

In addition to this Standard's traditional safety requirements for tank accessories that primarily evaluate functional operation, structural integrity, and mitigate fire and environmental hazards from loss of liquid containment under expected normal conditions; optional construction and/or performance requirements, and associated ratings, intended to address more severe conditions associated with the effects of Climate Change are included in Annex [B](#).

1.2 These requirements cover the following tank accessories intended for installation in, on or connected to the storage tank or supply tank in accordance with the manufacturer's instructions:

- a) Liquid Level Gauges – mechanical float, low-voltage electric, or other types with integral or remote indicators;
- b) Fill Signal Devices –indicating devices with audible and/or visual signals, including "whistle vent" alarms;
- c) Aboveground Piping Systems – aboveground pipe and fittings for tank fill & venting and supply of utilization equipment, including flexible hose; and
- d) Fill Pipe Covers & Vent Pipe Caps.

1.3 These requirements do not cover any tank accessories for products covered by the requirements of:

- a) UL 565, Standard for Liquid-Level Gauges for Anhydrous Ammonia and LP-Gas for electrical liquid level gauges for flammable liquid tanks;
- b) UL 1238, Standard for Control Equipment for Use with Flammable Liquid and LP-Gas Dispensing Devices, and CSA C22.2 No. 61010-1, Safety requirements for electrical equipment for measurement, control, and laboratory use – Part 1: General requirements, for electrical fill signal devices for flammable liquid tanks;
- c) UL 971, Standard for Nonmetallic Underground Piping for Flammable Liquids, UL 971A, Standard for Metallic Underground Fuel Pipe, or ULC S679, Standard for Metallic and Nonmetallic Underground Piping for Flammable and Combustible Liquids, for underground piping systems, or UL/ULC 2039, Standard for Flexible Connector Piping for Flammable and Combustible Liquids, or for flexible connector pipe;
- d) UL 1238, Standard for Control Equipment for Use with Flammable Liquid and LP-Gas Dispensing Devices, and ULC S675.1, Standard for Volumetric Leak Detection Devices for Underground and Aboveground Storage Tanks for Flammable and Combustible Liquids, or ULC S675.2, Standard for Nonvolumetric Precision Leak Detection Devices for Underground and Aboveground Storage Tanks and Piping for Flammable and Combustible Liquids, for leak detection devices for flammable liquid tanks;
- e) UL/ULC 2583, Standard for Fuel Tank Accessories for Flammable and Combustible Liquids, for fill pipe covers, pressure vacuum vents or emergency vents for flammable liquid tanks;

- f) UL/ULC 2583, Standard for Fuel Tank Accessories for Flammable and Combustible Liquids, for spill containment devices for flammable liquid tanks;
- g) UL/ULC 2583, Standard for Fuel Tank Accessories for Flammable and Combustible Liquids, for overfill prevention devices for flammable liquid tanks;
- h) UL/ULC 331, Standard for Strainers for Flammable and Combustible Liquids, Anhydrous Ammonia and Non-potable Water, for filters and strainers for flammable and combustible liquids; or
- i) UL/ULC 1369, Standard for Aboveground Piping for Flammable and Combustible Liquids, for requirements applicable to larger diameter piping for flammable and combustible liquids intended for motor vehicle fueling and generator supply applications.

1.4 The products covered by this Standard are intended for installation and use in accordance with the applicable Codes and Regulations as determined by the Authority Having Jurisdiction (AHJ), such as:

a) In the United States:

- 1) Flammable and Combustible Liquids Code, NFPA 30;
- 2) Code for Motor Fuel Dispensing Facilities and Garages, NFPA 30A;
- 3) Standard for the Installation of Oil-Burning Equipment, NFPA 31;
- 4) Uniform Fire Code, NFPA 1;
- 5) International Fire Code published by the International Fire Council; and/or
- 6) Other applicable federal and state regulations for combustible liquid tank accessories.

b) In Canada:

- 1) National Fire Code of Canada, Part 4;
- 2) CSA B139 Series, Installation code for oil burning equipment;
- 3) CCME PN 1326, Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products; and/or
- 4) Provincial or other Regulations.

1.5 Except for optional Climate Change Adaptation requirements in Annex B, these requirements do not cover special evaluations for resistance to, or use after, earthquakes, floods, high wind events, or other natural disasters; or resistance to vehicle impact.

NOTE: See the Note at the beginning of Annex B for further information on the terms "Adaptation" and "Mitigation", as they pertain to Climate Change.

1.6 These requirements do not cover evaluation of either resistance to, or emission of, electromagnetic interference, or compliance with Federal Communications Commission (FCC) or Industry Canada Department of Communications regulations for electrical products with local or remote signal features, or the effectiveness of optional wired or wireless signal communications to remote service providers or central station monitors.

1.7 These requirements do not cover any applications with flammable liquids, or for electric gauging or signaling, use in hazardous (classified) locations, or waste oils that may contain high levels of contaminants and/or flammable liquids.

1.8 These requirements do not cover the use of accessories with waste oils or other combustible liquids with different physical or material compatibility properties than they are evaluated for, but do cover use with bio diesel blends up to 20 %, or up to 100 % bio diesel if optionally tested.

2 Units of Measurement

2.1 When a value for measurement is followed by a value in other units in parentheses, the second unit is only approximate. The first stated value is the requirement.

3 Referenced Publications

3.1 Any undated reference to a code or standard appearing in the requirements of this Standard shall be interpreted as referring to the latest edition of that code or standard.

3.2 The following publications are referenced in this Standard:

ASME B36.10, *Welded and Seamless Wrought Steel Pipe*

ASTM A53/A53M, *Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless*

ASTM A269/A269M, *Standard Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service*

ASTM A312/A312M, *Standard Specification for Seamless, Welded, and Heavily Cold Worked Austenitic Stainless Steel Pipes*

ASTM A554, *Standard Specification for Welded Stainless Steel Mechanical Tubing*

ASTM A778/A778M, *Standard Specification for Welded, Unannealed Austenitic Stainless Steel Tubular Products*

ASTM B68/B68M, *Standard Specification for Seamless Copper Tube, Bright Annealed*

ASTM B75/B75M, *Standard Specification for Seamless Copper Tube*

ASTM B88, *Standard Specification for Seamless Copper Water Tube*

ASTM B88M, *Standard Specification for Seamless Copper Water Tube (Metric)*

ASTM B117, *Standard Practice for Operating Salt Spray (Fog) Apparatus*

ASTM B135, *Standard Specification for Seamless Brass Tube*

ASTM B135M, *Standard Specification for Seamless Brass Tube (Metric)*

ASTM B280, *Standard Specification for Seamless Copper Tube for Air Conditioning and Refrigeration Field Service*

ASTM B743, *Standard Specification for Seamless Copper Tube in Coils*

ASTM B837, *Standard Specification for Seamless Copper Tube for Natural Gas and Liquefied Petroleum (LP) Gas Fuel Distribution Systems*

ASTM D396, *Standard Specification for Fuel Oils*

ASTM D471, *Standard Test Method for Rubber Property-Effect of Liquids*

ASTM D975, *Standard Specification for Diesel Fuel*

ASTM D3699, *Standard Specification for Kerosine*

ASTM D6751, *Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels*

ASTM D7467, *Standard Specification for Diesel Fuel Oil, Biodiesel Blend (B6 to B20)*

ASTM F3226, *Standard Specification for Metallic Press-Connect Fittings for Piping and Tubing Systems*

ASTM G153, *Standard Practice for Operating Enclosed Carbon Arc Light Apparatus for Exposure of Nonmetallic Materials*

ASTM G155, *Standard Practice for Operating Xenon Arc Lamp Apparatus for Exposure of Materials*

Canadian Fuel Oil Learning Institute (CFLI), *Today's Oilheat Technician's Manual*

CCME PN 1326, *Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products*

CGSB-3.2, *Heating fuel oil*

CGSB-3.3, *Kerosene*

CSA B139, *Installation Code for Oil Burning Equipment*

CSA C22.2 No. 0.15, *Adhesive labels*

CSA C22.2 No. 0.17, *Evaluation of properties of polymeric materials*

CSA C22.2 No. 66.1, *Low Voltage Transformers – Part 1: General Requirements*

CSA C22.2 No. 66.3, *Low Voltage Transformers – Part 3: Class 2 and Class 3 Transformers*

CSA C22.2 No. 60950-1, *Information Technology Equipment – Safety – Part 1: General Requirements*

CSA C22.2 No. 61010-1, *Safety requirements for electrical equipment for measurement, control, and laboratory use – Part 1: General requirements*

International Fire Code (IFC)

National Fire Code of Canada, Part 4 (NFC)

NFPA 1, *Fire Code*

NFPA 30, *Flammable and Combustible Liquids Code*

NFPA 30A, *Code for Motor Fuel Dispensing Facilities and Repair Garages*

NFPA 31, *Standard for the Installation of Oil-Burning Equipment*

National Oilheat Research Alliance (NORA), *Heating Oil Storage Tanks, Guide for Quality Installation and Maintenance*

UL 80, *Steel Tanks for Oil-Burner Fuels and Other Combustible Liquids*

UL 565, *Liquid-Level Gauges for Anhydrous Ammonia and LP-Gas*

UL 746C, *Polymeric Materials – Use in Electrical Equipment Evaluations*

UL 969, *Marking and Labeling Systems*

UL 971, *Nonmetallic Underground Piping for Flammable Liquids*

UL 971A, *Outline of Investigation for Metallic Underground Fuel Pipe*

UL 1238, *Control Equipment for Use with Flammable Liquid and LP-Gas Dispensing Devices*

UL 1310, *Class 2 Power Units*

UL 5085-1, *Low Voltage Transformers – Part 1: General Requirements*

UL 5085-3, *Low Voltage Transformers – Part 3: Class 2 and Class 3 Transformers*

UL 60950-1, *Information Technology Equipment – Safety – Part 1: General Requirements*

UL 62368-1, *Audio/Video, Information and Communication Technology Equipment – Part 1: Safety Requirements*

UL/ULC 331, *Strainers for Flammable and Combustible Liquids, Anhydrous Ammonia and Non-potable Water*

UL/ULC 1369, *Aboveground Piping for Flammable and Combustible Liquids*

UL/ULC 2039, *Flexible Connector Piping for Flammable and Combustible Liquids*

UL/ULC 2583, *Fuel Tank Accessories for Flammable and Combustible Liquids*

ULC S602, *Aboveground Steel Tanks for Fuel Oil and Lubricating Oil*

ULC S675.1, *Volumetric Leak Detection Devices for Underground and Aboveground Storage Tanks for Flammable and Combustible Liquids*

ULC S675.2, *Nonvolumetric Precision Leak Detection Devices for Underground and Aboveground Storage Tanks and Piping for Flammable and Combustible Liquids*

ULC S679, *Metallic and Nonmetallic Underground Piping for Flammable and Combustible Liquids*

4 Glossary

4.1 For the purpose of this Standard the following definitions apply.

4.2 ABOVEGROUND – Physically located on or above the earth's surface. Aboveground location ratings include:

- a) Indoor – Locations generally protected after installation from physical damage, extreme temperatures, precipitation and sunlight, which typically include inside buildings that are occupied and environmentally controlled; and
- b) Outdoor – Locations generally unprotected after installation from physical damage, extreme temperatures, precipitation and sunlight, which for pipe runs can include on exterior structures, within below grade sumps, and underground where routed through chase piping (but not direct burial).

4.3 ABOVEGROUND PIPING SYSTEMS – Combinations of small diameter pipe, tubing, or hose and their connection or termination fittings for containment and transfer of combustible liquids in applications identified in the scope of this Standard. Aboveground piping system may be of different containment designs for different application types:

- a) Fill & Vent Pipe – Intended for transfer of liquids from a delivery truck to a supply tank and venting of displaced vapors in the tank during fill operations. Vent pipe also provides combined normal and emergency venting of the tank. These pipes are typically rigid types in the 25.4 mm – 101.6 mm (1.0 inch – 4.0 inch) size range;
- b) Flexible Hose – Special highly flexible hose connectors of short length/small diameter intended for transfer of liquids typically from a supply pipe end to the utilization equipment, where tight bending and frequent disconnection for installation and maintenance is required. Flexible hose are typically elastomeric hose with metal braid sleeves in a 1/4 inch – 3/8 inch size range;
- c) Special piping/tubing – Engineered piping or tubing that does not conform to common tubing standards (i.e. Schedule or SDR) for dimension or wall thickness as part of an engineered piping system for filling and venting of above ground combustible liquid tanks; or
- d) Supply Pipe – Intended for transfer of liquids from a fuel storage tank or supply tank to utilization equipment, such as an oil burner or diesel generator. These pipes are typically flexible in the 9.5 mm – 25.4 mm (3/8 inch – 1.0 inch) size range.

4.4 AUTHORITY HAVING JURISDICTION (AHJ) – The governmental body responsible for the enforcement of any part of this Standard or the official or agency designated by that body to exercise such a function.

4.5 COMBUSTIBLE LIQUIDS – A wide range of Class II and III liquids that has a closed cup flash point equal to or above 37.8 °C (100 °F). Combustible Liquid types include:

- a) Bio Diesel – General description of various Class II to IIIB range of long chain fatty acid ester fuels complying with the ASTM D6751 processed from vegetable oils or animal fats in pure form (B100). Bio diesel may also be blended with heating fuels or diesel fuels (B1 – B99) denoting the percent volume of bio diesel in the mix;

NOTE: "triglyceride fuels" using alternative oil sources and production processes are covered under the ASTM D6751 blendstock or ASTM D975 and ASTM D396 finished fuel specifications.

- b) Diesel Fuels – General description of various Class II petroleum distillate grades complying with ASTM D975 including No. 1 and No. 2 Diesel Fuel (also known as on-road diesel, including low