



**Summary of Substantive Changes
between the 2012 edition of ASME A112.14.4,
2012 edition of CSA B481.5 and the
2022 edition of ASME A112.14.4/CSA B481.5 Grease removal devices
(New Harmonized Standard)**

Presented to the IAPMO Standards Review Committee on January 9, 2023

General: The changes to this standard will have an impact on currently listed products.

- Pass fail for volume of grease removed by the GRD changed from 50% to 100% of its rated capacity.

ASME A112.14.4 vs ASME A112.14.4/CSA B481.5 Harmonized
Original standard in black text. **Harmonized standard in red text.**

2. Reference publications

~~ASTM A888, Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications~~

~~ANSI/NFPA 70, National Electrical Code~~

ASME A112.14.3, Grease Interceptors

~~ASME B1.20.1, Pipe Threads, General Purpose (Inch)~~

ANSI/UL 499, Electrically Heated Appliances

ANSI/UL 917, Electric Timers and Switches

ANSI/UL 1004, Electric Motors

2.1 Construction

2.1.1 Design Considerations. The GRD shall automatically remove fats, oils, and grease from the separation chamber to a point outside of the GRD. The removal process shall be such that the removed fats, oils, and grease shall be 95% by volume free of water when tested according to this Standard.

2.1.2 Size. The flo and grease retention of each GRD shall be tested and rated in accordance with ASME A112.14.3.

vs

5.2 Construction

5.2.1 Design considerations



The GRD shall mechanically remove FOG from the separation chamber to a point outside of the GRD without user intervention. The removal process shall be such that the removed FOG shall be 95% by volume free of water when tested according to the Standard.

5.2.2 Size

The flow and grease retention of each GRD shall be tested and rated in accordance with ASME A112.14.3/CSA 8481.1.

~~**2.1.3 Inlet and Outlet Connections.** The inlet and outlet connections of the GRD shall be either female pipe thread or a plain end diameter to allow hubless coupling connections. Tapered threads shall comply with ASME B1.20.1. Hubless connections shall comply with the outside dimension for the given pipe size in accordance with ASTM A888.~~

2.3 Maintenance and Operating Instructions

Each GRD shall be provided with service instructions, which include a trouble shooting guide as well as instructions for performing necessary servicing or obtaining outside servicing. Units shall be provided with complete maintenance and operating instructions.

vs

7.2.2 Maintenance and operating instructions

Each GRD shall be provided with service instructions, which include a troubleshooting guide, as well as instructions for performing necessary servicing or obtaining outside servicing. Units shall be provided with complete maintenance and operating instructions. Refer to ASME A112.14.3/CSA 8481.1, Annex G, Clause G4.1.1 for regular servicing requirements.

2.4 Electrical Requirements

All electrical components used in the GRD shall conform to the appropriate standards listed in para. 1.3.

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5.3 Electrical requirements

5.3.1 Low voltage circuits

Electrical power to low-voltage circuits involving a peak open-circuit potential of not more than 42.2 V shall be supplied by a

- a) primary battery supply;
- b) suitable Class 2 low-voltage transformer complying with the applicable CSA or UL electrical standards; or
- c) combination of a transformer and fixed impedance that, as a unit, complies with the requirements for a Class 2 transformer specified in Item b).

5.3.2 Other circuits

Fittings incorporating electrical features other than low-voltage circuits shall comply with the applicable CSA or UL electrical Standards.

Note: *These standards include the following:*

- a) *For lighting products, CSA C22.2 No. 250.0 or CSA C22.2 No. 250.13 for Canada and UL 1598 or UL 8750 for the US.*

Lighting products might be required to comply with the applicable standards even if they are in low-voltage



circuits.

b) For audio and video products, CSA C22.2 No. 60065 or CSA C22.2 No. 62368 for Canada and UL 60065 or UL 62368 for the US.

c) For controls, CSA C22.2 No. 24 or the applicable CSA E60730 series standard for Canada and UL 873 or the applicable UL 60730 series standard for the US.

d) For electric plumbing products and accessories, CSA C22.2 No. 14 or CSA C22.2 No. 68 for Canada and UL 1951 for the US.

e) For parts intended for installation in wet locations, CSA C22.2 No. 94.2 for Canada or UL SOE for the US, for the appropriate degree of protection from ingress of moisture if applicable.

f) For electrical heating components, CSA C22.2 No. 64, CSA C22.2 No. 88 for Canada and UL 499 for the US.

g) For electric timers and switches, CSA C22.2 No. 177 or CSA-E60730-2-7 for Canada and UL 917 or UL 60730-2-7 for the US.

h) For electric motors, CSA C22.2 No. 100 for Canada and UL 1004-1 for the US.

i) For electric pumps, CSA C22.2 No. 108 for Canada and UL 778 for the US.

3.4 Grease Removal Test

~~**3.4.1** The rated retention capacity of the GRD submitted for test shall be determined in accordance with ASME A112.14.3.~~

3.5 Accept/Reject Criteria

3.5.1 After completion of the removal test, the volume of grease removed by the GRD shall be not less than 50% of its rated capacity.

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6.5 Pass/fail criteria

6.5.1 Removed grease

Upon completion of the removal test, the volume of grease removed by the GRD shall be not less than 100% of its rated capacity.

7.1.3 Electrical markings

Other markings (for mounting on the unit or in an accessible location) shall contain the electrical requirements. For units sold in Canada, the markings shall be provided in both English and French in accordance with the applicable CSA C22.2, Part II standard(s).

7.3 Marking quality

Markings shall be

- a) permanent or indelible;
- b) legible or readable; and
- c) accessible after installation.

Note: *A permanent label/chip on the cover of the grease interceptor may be used.*

7.4 Permanent markings

Examples of acceptable means of applying permanent markings shall include firing on, etching, sand



blasting, mechanical stamping, stamping with a permanent (non-water soluble) ink, or casting in. Adhesive labels that comply with CSA C22.2 No. 0.15 or UL 969 shall also be considered permanent when placed on a surface that is not normally submerged in water. The exposure conditions specified in Clause 7.1 of UL 969 shall apply.

CSA B481.5 vs ASME A112.14.4/CSA B481.5 Harmonized

Original standard in black text. Harmonized standard in red text.

4 General requirements

4.1

~~GRD Grease interceptors shall comply with the requirements specified in CSA B481.0 and B481.1. (See above)~~

4.2

~~GRD Maintenance shall comply with the requirements specified in CSA B481.4~~

5 Test methods

~~GRD Grease interceptors shall be tested and rated in accordance with ASME A112.14.4.~~

6 Markings

6.1

~~GRD Grease interceptors shall be marked in accordance with Clause 7 of CSA B481.0. A sample label is provided in Figure 1.~~

6.2

~~Other markings (for mounting on the unit or in an accessible location) shall contain the following information:~~

- ~~(a) electrical requirements;~~
- ~~(b) daily maintenance procedures; and~~
- ~~(c) operating instructions.~~

Reference ASME A112.14.4/CSA B481.5