

SEMI F103-0307

SPECIFICATION FOR SIZE RANGES OF STAINLESS STEEL CANISTERS TO CONTAIN LIQUID CHEMICALS

This standard was technically approved by the global Liquid Chemicals Committee. This edition was approved for publication by the global Audits and Reviews Subcommittee on November 21, 2006. It was available at www.semi.org in February 2007.

NOTICE: This Standard or Safety Guideline has an Inactive Status because the conditions to maintain Current Status have not been met. Inactive Standards or Safety Guidelines are available from SEMI and continue to be valid for use.

1 Purpose

1.1 This Standard specifies the maximum outer diameter, maximum height and nominal volume of canisters. The canister, made of stainless steel, which is designed to contain liquid chemicals, is used as a bubbler in process equipment or a container for liquid chemical distribution system in semiconductor/flat panel display manufacturing.

2 Scope

2.1 This Standard applies to the cylindrical canisters made of stainless steel that have a flat bottom or a skirt shaped bottom in order to be stable.

2.2 The nominal volume of the canister which is over 40 liters is exempt from the scope.

NOTICE: SEMI Standards and Safety Guidelines do not purport to address all safety issues associated with their use. It is the responsibility of the users of the Documents to establish appropriate safety and health practices, and determine the applicability of regulatory or other limitations prior to use.

3 Referenced Standards and Documents

3.1 None.

NOTICE: Unless otherwise indicated, all documents cited shall be the latest published versions.

4 Terminology

4.1 Definitions

4.1.1 *liquid chemicals* — organic and inorganic liquid chemical used for semiconductor or flat panel display manufacturing. [SEMI F66]

4.1.2 *nominal volume* — approximate inner volume of a canister.

4.1.3 *skirt* — the base for holding the container with non-flat bottom.

5 Size Ranges of Canisters

5.1 Canister Classification by the Range of the Nominal Volume

5.1.1 Canisters are classified into three classes according to its nominal volume. Three classes are named S, M, and L. The relation of the name and the range of the nominal volume are shown in Table 1.

Table 1 Canister Classification and Range of Nominal Volume

<i>Class</i>	<i>Range of Nominal Volume (NV)</i>
S	$NV < 4L$
M	$4L \leq NV \leq 20L$
L	$20L < NV \leq 40L$

5.2 Maximum Outer Diameter and Maximum Height by the Canister Classification

5.2.1 The cylindrical maximum outer diameter of the canister and the maximum height are specified by each class and shown in Table 2. The maximum outer diameter includes cylindrical body diameter, skirt diameter, and carrying handle. If a skirt is attached to a container, the maximum height is measured from the bottom of a skirt to the top of the cover.

Table 2 Maximum Outer Diameter and Maximum Height

<i>Class</i>	<i>Maximum Outer Diameter</i>	<i>Maximum Height</i>
S	155 mm	700 mm
M	280 mm	700 mm
L	365 mm	800 mm

6 Related Documents

6.1 SEMI Standards and Safety Guidelines

SEMI F66 — Specification for Port Marking and Symbol of Stainless Steel Vessels for Liquid Chemicals

SEMI F96 — Specification for Port Configuration of Canisters to Contain CVD Precursors

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