



Standard Specification for Frying and Braising Pans, Tilting Type¹

This standard is issued under the fixed designation F1047; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

This standard has been approved for use by agencies of the Department of Defense.

1. Scope

1.1 This specification covers tilting frying and braising pans (also known as tilting skillets; hereinafter called braising pans) suitable for the preparation of foods by several methods, such as frying, braising, and boiling.

1.2 Braising pans shall be self-contained units with all required operating and safety controls ready for connection to utilities.

1.3 The values as stated in inch-pound units are to be regarded as the standard. The values in parentheses are provided for information only.

1.4 This specification may involve hazardous materials, operations, and equipment. *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:²

A36/A36M Specification for Carbon Structural Steel

A167 Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip

A176 Specification for Stainless and Heat-Resisting Chromium Steel Plate, Sheet, and Strip

A240/A240M Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications

A263 Specification for Stainless Chromium Steel-Clad Plate

A268/A268M Specification for Seamless and Welded Ferritic and Martensitic Stainless Steel Tubing for General Service

A269 Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service

A276 Specification for Stainless Steel Bars and Shapes

A366/A366M Specification for Steel, Sheet, Carbon, Cold-Rolled, Commercial Quality³

568/A568M Specification for Steel, Sheet, Carbon, Structural, and High-Strength, Low-Alloy, Hot-Rolled and Cold-Rolled, General Requirements for

A569/A569M Specification for Steel, Carbon (0.15 Maximum Percent), Hot-Rolled Sheet and Strip Commercial Quality³

635/A635M Specification for Steel, Sheet and Strip, Heavy-Thickness Coils, Hot-Rolled, Alloy, Carbon, Structural, High-Strength Low-Alloy, and High-Strength Low-Alloy with Improved Formability, General Requirements for

A1011/A1011M Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength

D3951 Practice for Commercial Packaging

F760 Specification for Food Service Equipment Manuals

F1786 Test Method for Performance of Braising Pans

2.2 ANSI Standards:³

ANSI B1.1 Unified Inch Screw Threads (UN and UNR Thread Form)

ANSI Z1.4 Sampling Procedures and Tables for Inspection by Attributes

¹ This specification is under the jurisdiction of ASTM Committee F26 on Food Service Equipment and is the direct responsibility of Subcommittee F26.02 on Cooking and Warming Equipment.

Current edition approved April 1, 2004. Published April 2004. Originally approved in 1987. Last previous edition approved in 2001 as F1047-95(2001). DOI: 10.1520/F1047-04.

Current edition approved Nov. 1, 2010. Published December 2010. Originally approved in 1987. Last previous edition approved in 2004 as F1047-04. DOI: 10.1520/F1047-10.

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ Withdrawn.

³ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036.

ANSI Z21.41 Quick-Disconnect Devices for Use with Gas ~~Fired~~Fuel Appliances

~~ANSI A21.45 Flexible Connectors of Other than All-Metal Construction for Gas Appliances~~ ANSI A21.69 Connectors for Moveable Gas Appliances

ANSI Z83.11 Gas Food Service Equipment

2.3 *National Fire Protection Association Standards:*⁴

ANSI/NFPA 54 National Fuel Gas Code

ANSI Z223/NFPA 70 National Electrical Code

2.4 ~~National Sanitation Foundation Standard~~ NSF International Standard:⁵

~~NSF/ANSI Standard No. 4 Commercial Cooking and Hot Food Storage Equipment~~ Commercial Cooking, Rethermalization, and Powered Hot Food Holding and Transportation Equipment

2.5 *Underwriters Laboratories Standard:*⁶

UL/ANSI Standard No. 197 Commercial Electric Cooking Appliances

2.6 *Military Standards:*⁷

MIL-STD-167/1 Mechanical Vibration of Shipboard Equipment (Type 1—Environmental and Type 2—Internally Excited)

MIL-STD-461 Requirements For the Control Of Electromagnetic Interference Characteristics of Subsystems and Equipment

MIL-STD-1399/300 Interface Standard For Shipboard Systems Section 300A Electric Power, Alternating Current

3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

3.1.1 *braising pan (tilting skillet)*—a device where the cooking energy is stored in a steel plate that is clad with a layer of stainless steel. The clad plate has stainless steel sides to accommodate various food products.

3.1.2 *capacity*—capacity of a braising pan is determined by the volume of water that it is designed to hold during cooking.

4. Classification

4.1 Braising pans covered by this specification are classified by type, grade, class, size, style, and capacity.

4.2 *Type:*

4.2.1 *Type IA*—table or countertop units with rectangular shaped clad plate and pan sides.

4.2.2 *Type IB*—table or countertop units with circularly shaped clad plate and pan sides.

4.2.3 *Type II*—floor mounted pans with an open stand.

4.2.4 *Type III*—floor mounted pans with a cabinet base.

4.2.5 *Type IV*—wall mounted pans.

4.3 *Grade:*

4.3.1 *Grade A*—manual tilting system.

4.3.2 *Grade B*—power tilting system.

4.4 *Class:* standards.iteh.ai/catalog/standards/sist/fcc4170d-3186-474e-a7bf-311a9d73611a/astm-f1047-10

4.4.1 *Class 1*—208 V, 60 Hz, 1 phase.

4.4.2 *Class 2*—208 V, 60 Hz, 3 phase.

4.4.3 *Class 3*—240 V, 60 Hz, 1 phase.

4.4.4 *Class 4*—240 V, 60 Hz, 3 phase.

4.4.5 *Class 5*—480 V, 60 Hz, 1 phase.

4.4.6 *Class 6*—480 V, 60 Hz, 3 phase.

4.4.7 *Class 7*—120 V, 60 Hz, 1 phase.

4.4.8 *Class 8*—220 V, 60 Hz, 3 phase.

4.4.9 *Class 9*—230 V, 50 Hz, 1 phase.

4.4.10 *Class 10*—400 V, 50 Hz, 3 phase.

4.4.11 *Class 11*—440 V, 60 Hz, 3 phase (marine use).

4.4.12 *Class 12*—No external electric power supply (standing pilot with milli-volt control system).

4.5 *Size:*

4.5.1 *Size a*—less than 500 in.² (3225.8 cm²) of cooking surface.

4.5.2 *Size b*—501 to 750 in.² (3225.9 to 4838.7 cm²) of cooking surface.

⁴ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036.

⁴ Available from National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02269-9101.

⁶ Available from National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02269-9101.

⁵ Available from NSF International, P.O. Box 130140, 789 N. Dixboro Rd., Ann Arbor, MI 48113-0140, <http://www.nsf.org>.

⁶ Available from the National Sanitation Foundation, NSF Building, Ann Arbor, MI 48105.

⁶ Available from Underwriters Laboratories Inc., 333 Pfingsten Rd., Northbrook, IL 60062-2096, <http://www.ul.com>.

⁷ Available from Underwriters Laboratories (UL), Corporate Progress, 333 Pfingsten Rd., Northbrook, IL 60062.

⁷ Available from Standardization Documents Order Desk, DODSSP, Bldg. 4, Section D, 700 Robbins Ave., Philadelphia, PA 19111-5098, <http://dodssp.daps.dla.mil>.

4.5.3 *Size c*—751 to 1000 in.² (4838.8 to 6451.6 cm²) of cooking surface.

4.5.4 *Size d*—more than 1000 in.² (6451.7 cm²) inch of cooking surface

4.6 *Style*:

4.6.1 *Style i*—electric heated.

4.6.2 *Style ii*—gas heated.

4.7 *Capacity*:

4.7.1 Maximum 12 gal (45 L) pan.

4.7.2 Maximum 20 gal (76 L) pan.

4.7.23 Maximum 30 gal (114 L) pan.

4.7.34 Maximum 40 gal (152 L) pan.

4.7.45 Greater than 40 gal (152 L) pan.

5. Ordering Information

5.1 Orders for braising pans under this specification shall include the following information:

5.1.1 ASTM specification number and date of issue.

5.1.2 Quantity to be furnished.

5.1.3 Type.

5.1.4 Grade.

5.1.5 Class.

5.1.6 Size.

5.1.7 Style.

5.1.8 Capacity.

5.2 The following options should be reviewed and if any are desired they should be included in the order.

5.2.1 When Federal/Military procurement(s) is involved, refer to the supplement pages.

~~5.2.2 Type of gas, if applicable: natural, propane, other (specify dry gas energy content in Btu per cubic feet and specific gravity).~~

5.2.2 Type of gas, if applicable: natural, propane, other (specify high heating value of gas in Btu per cubic feet, specific gravity, and composition of gas for other gases).

5.2.3 Electrical power supply connection (except for Class 12 braising pans) and, if applicable, power cord with plug or conduit connection and size.

5.2.4 When other than manufacturer's standard, commercial, domestic packaging is required, specify packaging requirements.

5.2.5 Specify special requirements, such as inspections, accessories, additional nameplate data, anchorable feet, and so forth.

5.2.6 When specified, a certification to ensure that samples representing each lot have been either tested or inspected as directed and the requirements have been met. When specified, a copy of the certification or test results, or both, shall be furnished to the purchaser.

5.2.7 If Type 430 corrosion-resistant steel is not desired.

5.2.8 When specified, all control components and exposed electrical wiring shall be resistant to cleaning by a non-pressurizing spray nozzle connected to domestic city water supply.

5.2.9 When specified, a quick-disconnect gas supply, an approved quick disconnect (socket and plug) conforming to ANSI Z21.41, ~~a flexible metal connector conforming to ANSI Z21.45 and consisting of a male pipe thread fitting on one end, and a union with female thread on the opposite end shall be provided with the braising pan.~~

~~5.2.10 When specified, additional accessories such as casters, draw-off valve with strainer, faucet, spray nozzle with wand hose assembly or lip strainer shall be provided., and a flexible connector conforming to ANSI Z21.69 shall be provided with the braising pan.~~

5.2.10 When specified, additional accessories such as casters, flanged feet, draw-off valve with strainer, faucet, spray nozzle with wand hose assembly, pouring lip strainer, steamer pan holder, or lift off cover (for Type I pans) shall be provided.

6. Materials and Manufacture

6.1 *General*:

6.1.1 Braising pans shall conform to Specifications A36/A36M, A167, A176, A240/A240M, ~~A263, A268/A268M, A269, A276, A366/A366M, and A569/A569M, A568/A568M, A635/A635M, and A1011/A1011M,~~ as applicable (see 2.1).

6.1.2 Materials used shall be free from defects, which would affect the performance or maintainability of individual components, or of the overall assembly.

6.1.3 Materials not specified herein shall be of the same quality used for the intended purpose in commercial practice.

6.1.4 Use of used or rebuilt products is not allowed under this specification.

6.2 *Cover*—The cover shall be constructed of Types 300 series corrosion-resistant steel conforming to Specifications A167 or A240/A240M.

6.3 *Pan Interior*—Pan interior shall be constructed of Types 300 series corrosion-resistant steel conforming to Specifications A167 or A240/A240M.

6.4 *Exterior*—Unless otherwise specified, material shall be Types 300 series or 400 series corrosion-resistant stainless steel