



## Standard Specification for Commercial Food Waste Disposers<sup>1</sup>

This standard is issued under the fixed designation F917; 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 U.S. Department of Defense.*

<sup>ε1</sup> NOTE—Editorially corrected Footnote 4 in December 2008.

### 1. Scope

1.1 This specification covers commercial food waste disposers intended for the grinding of food waste.

1.2 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

### 2. Referenced Documents

#### 2.1 ASTM Standards:<sup>2</sup>

- A29/A29M Specification for General Requirements for Steel Bars, Carbon and Alloy, Hot-Wrought
  - ~~A120/A53/A53M~~ Specification for Pipe, Steel, Black and ~~Hot-Dipped Zinc-Coated (Galvanized)~~ Hot-Dipped, Zinc-Coated, Welded and Seamless for Ordinary Uses; Replaced by A 53 (Withdrawn 1987)
  - ~~A167/A240~~ Specification for ~~Stainless Chromium and Heat-Resisting Chromium-Nickel~~ Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications (Withdrawn 2014)
  - A276 Specification for Stainless Steel Bars and Shapes
  - A436 Specification for Austenitic Gray Iron Castings
  - A532/A532M Specification for Abrasion-Resistant Cast Irons
  - A554 Specification for Welded Stainless Steel Mechanical Tubing
  - A582/A582M Specification for Free-Machining Stainless Steel Bars
  - A681 Specification for Tool Steels Alloy
  - B26/B26M Specification for Aluminum-Alloy Sand Castings
  - B43 Specification for Seamless Red Brass Pipe, Standard Sizes
  - B75 Specification for Seamless Copper Tube
  - B108 Specification for Aluminum-Alloy Permanent Mold Castings
  - D2000 Classification System for Rubber Products in Automotive Applications
  - D2287 Specification for Nonrigid Vinyl Chloride Polymer and Copolymer Molding and Extrusion Compounds
  - D3951 Practice for Commercial Packaging
  - E18 Test Methods for Rockwell Hardness of Metallic Materials
  - ~~E1842 Test Method for Macro-Rockwell Hardness Testing of Metallic Materials (Withdrawn 2002)~~<sup>3</sup>
  - F104 Classification System for Nonmetallic Gasket Materials
  - F760 Specification for Food Service Equipment Manuals
- #### 2.2 Other Publications:
- ASSE No. 1009 Commercial Food Waste Disposer Units<sup>3</sup>
  - UL 430 Waste Disposers<sup>4</sup>

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee F26 on Food Service Equipment and is the direct responsibility of Subcommittee F26.01 on Cleaning and Sanitation Equipment.

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<sup>2</sup> 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.

<sup>3</sup> Available from ASSE International, 901 Canterbury, Suite A, Westlake, OH 44145-18927 Hickory Creek Drive, Suite 220 Mokena, Illinois 60448.

<sup>4</sup> Available from Underwriters Laboratories (UL), Corporate Progress, 333 Pfingsten Rd., Northbrook, IL 60062.

### 3. Terminology

#### 3.1 Definitions:

3.1.1 *commercial food waste disposer*—intended for grinding food waste into small particles which are then flushed by water into a sanitary sewer system. Food wastes can be cooked or noncooked soils from the preparation or serving of foods. Disposers are not intended to be used for grinding glass, china, metals, clam or oyster shells, large bones, wood, paper, cardboard, or plastic. A disposer shall consist of the following principal parts: Motor, grind chamber, flywheel, shredder ring, hopper, leg(s) (see 7.12).

### 4. Classification

4.1 Commercial disposers shall be of the following types:

4.1.1 *Type I*—Cone.

4.1.2 *Type II*—Sink.

4.1.3 *Type III*—Trough mounted.

4.1.4 *Type IV*—Free standing.

4.1.5 *Type V*—Special.

4.2 ~~Horsepower~~Horsepower and drain sizes shall be as specified in Table 1.

### 5. Ordering Information

5.1 Purchasers should select the preferred options and include the following information in purchasing document:

5.1.1 Title, number, and date of this standard.

5.1.2 Type, horsepower, and drain size required (see Section 4).

5.1.3 Electrical power supply characteristics (HP, voltage, phase, frequency).

5.1.4 Spare and maintenance parts required.

5.1.5 Control panel, manual, magnetic, special, or motor-reversing control, manual or automatic.

5.1.6 Accessory equipment as required, such as: water inlet(s), solenoid valve, vacuum breaker, flow control(s), silverware trap, and splash guard.

5.2 *Interchangeability of Items*—All disposers of the same model and material list designation furnished with similar options under a specific purchase order shall be identical to the extent necessary to ensure interchangeability of component parts, assemblies, accessories, and spare parts.

### 6. Materials and Design

6.1 All materials shall be as specified as follows:

6.1.1 Materials used shall be free from defects that would adversely affect the performance or maintenance ability of individual components of the overall assembly.

6.1.2 *Corrosion Resistant Steel*—Corrosion-resistant steel and heat resisting steel shall conform to the requirements of any 300 or 400 series steel specified in Specifications ~~A167~~A240, ~~A554~~, ~~A276~~, and ~~A582~~A582M.

6.1.3 *Aluminum Alloy*—Aluminum alloy shall conform to the requirements specified in Specification ~~B108~~ or Specification ~~B26~~B26M.

6.1.4 *Abrasion-Resistant Cast Iron*—Abrasion-resistant cast iron shall conform to the requirements specified in Specification ~~A532~~A532M.

6.1.5 *Austenitic Gray Iron*—Austenitic gray iron shall conform to the requirements specified in Specification ~~A436~~.

6.1.6 *Copper Tube*—Copper tube used for water supply shall conform to the requirements specified in Specification ~~B75~~.

6.1.7 *Brass Pipe*—Brass pipe used for water supply shall conform to the requirements specified in Specification ~~B43~~.

6.1.8 *Alloy Steel*—Alloy steel shall conform to the requirements specified in Specification ~~A681~~ and Specification ~~A29~~A29M.

6.1.9 *Black and Galvanized Pipe*—Black and galvanized pipe shall conform to the requirements specified in Specification ~~A120~~A53/~~A53M~~.

6.1.10 *Gaskets/Seals*—All gaskets and seals shall conform to the requirements specified in Specification ~~D2287~~, Specification ~~D2000~~, and Classification ~~F104~~.

TABLE 1 Recommended Horsepower and Drain Size<sup>A</sup>

Drain Size	Light Duty			Medium Duty			Heavy Duty			Flow Rate	
	1/2	3/4	1	1 1/4	1 1/2	2	3	5	7	10	GPM
1 1/2 in. (3.81 cm)	X	X	X	X	X						5 (18.9 l/m)
2 in. (5.08 cm)				X	X	X	X	X			8 (30.3 l/m)
3 in. (7.62 cm)						X	X	X	X	X	10 (37.8 l/m)

<sup>A</sup> More or less water may be used, depending on waste load, drain size, and configuration.