



# Standard Specification for Entrainment Separators for Use in Marine Piping Applications<sup>1</sup>

This standard is issued under the fixed designation F 1006; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

## 1. Scope

1.1 This specification provides the minimum requirements for the pressure-temperature rating, testing, and making of pressure containing vessels for entrainment separators.

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

1.3 The following safety hazards caveat pertains only to the test methods portion, Section 6, of this specification: *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 ANSI Standards:

**B2.1** Pipe Threads (Except Dryseal)<sup>2</sup>

**B16.1** Cast Iron Pipe Flanges and Flanged Fittings<sup>2</sup>

**B16.3** Malleable Iron Threaded Fittings, Class 150 and 300<sup>2</sup>

**B16.4** Cast Iron Threaded Fittings, Class 125 and 250<sup>2</sup>

**B16.5** Steel Pipe Flanges and Flanged Fittings<sup>2</sup>

**B16.11** Forged Steel Fittings, Socket Welding and Threaded<sup>2</sup>

**B16.15** Cast Bronze Threaded Fittings, Class 150 and 300<sup>2</sup>

**B16.24** Bronze Flanges and Flanged Fittings, Class 150 and 300<sup>2</sup>

**B16.25** Buttwelding Ends<sup>2</sup>

**B16.31** Nonferrous Pipe Flanges<sup>2</sup>

### 2.2 ASME Standards:

**SA278** Cast Gray Iron Pressure Vessels<sup>3</sup>

**SA395-60** Cast Ductile Iron<sup>3</sup>

**Boiler and Pressure Vessel Code, Section VIII**<sup>3</sup>

**Boiler and Pressure Vessel Code, Section II**<sup>3</sup>

*2.3 Manufacturer's Standardization Society of the Valve and Fittings Industry Standard:*

**MSSSP-51** 150 LB Corrosion Resistant Cast Flanges and Flanged Fittings<sup>4</sup>

*2.4 Military Standard:*

**MIL-F-1183** Fittings Tube, Bronze, Cast (Silver Brazings)<sup>5</sup>

## 3. Definitions of Terms Specific to This Standard

3.1 *entrainment separator*—a mechanical device inserted in a pipeline which by centrifugal force, baffles, or other means will separate a liquid from a gas (vapor).

3.2 *hydrostatic test*—the act of filling an entrainment separator vessel with water and applying internal pressure to all parts of the vessel.

3.3 *master gage*—the calibrated gage used to verify the accuracy of the test gage. This gage shall be recalibrated traceable to the National Bureau of Standards.

3.4 *pressure rating*—the maximum working pressure of an entrainment separator when operated at a specific temperature.

3.5 *proof test*—the act of filling an entrainment separator vessel with water and applying internal pressure to all parts of the vessel for the purpose of causing yielding of the vessel and bursting of the vessel.

3.6 *temperature ratings*—minimum and maximum temperatures at which the entrainment separator may be operated while at specific pressures.

3.7 *test gage*—the pressure gage that is used to check the internal pressure of the entrainment separator. The test gage shall be calibrated at least annually or at any time it is suspected to be in error by a calibrated master gage.

## 4. Materials and Manufacture

4.1 The pressure-temperature ratings established under this specification are based upon the manufacturer's usage of high quality materials produced under regular control of chemical and physical properties by a recognized process. The manufacturer shall be prepared to submit certification of compliance, verifying that his product has been so produced and that it has

<sup>1</sup> This specification is under the jurisdiction of [Committee F-25](#) on Ships and Marine Technology and is the direct responsibility of [Subcommittee F25.13](#) on Piping Systems.

Current edition approved July 25, 1986. Published September 1986.

<sup>2</sup> Available from American National Standards Institute, 11 W. 42nd St., 13th Floor, New York, NY 10036.

<sup>3</sup> Available from American Society of Mechanical Engineers, 345 E. 47th St., New York, NY 10017.

<sup>4</sup> Available from Manufacturer's Standardization Society of the Valve and Fittings Industry, 127 Park St., N.E., Vienna, VA 22180.

<sup>5</sup> Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.