



Standard Specification for Fabricated or Cast Automatic Self-Cleaning, Fuel Oil and Lubricating Oil Strainers¹

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1. Scope

1.1 This specification covers automatic or continuously self-cleaning automatic strainers, or both, for use in fuel and lubrication oil systems. The strainer is designed to operate under positive pressure (discharge side of the pump). Strainers manufactured to this specification are suitable for use in any marine environment.

1.2 It is not the intent of this document to redefine existing filtration standards. The intent is to provide sound guidelines for purchasers and designers of lube oil and fuel oil systems. Nominal micron requirements and filter efficiencies shall be as agreed upon by the purchaser and manufacturer and stated in the purchase order document.

2. Referenced Documents

2.1 ASTM Standards:

D 3951 Practice for Commercial Packaging²

F 795 Practice for Determining the Performance of a Filter Medium Employing a Single-Pass, Constant-Rate, Liquid Test³

F 1199 Specification for Cast (All Temperatures And Pressures) and Welded Pipe Line Strainers (150 psig And 150°F Maximum)⁴

F 1200 Specification for Fabricated (Welded) Pipe Line Strainers (Above 150 psig and 150°F)⁴

2.2 ASME/ANSI Standards:

ASME Boiler and Pressure Vessel Code: Section VIII Division 1, Pressure Vessels⁵

ASME Boiler and Pressure Vessel Code: Section IX, Welding and Brazing Procedures⁵

B16.5 Steel Pipe Flanges and Flanged Fittings (Including Ratings for Class 150, 300, 400, 600, 900, 1500, and 2500)⁵

B16.42 Ductile Iron Pipe Flanges and Flanged Fittings Class 150 and 300⁵

Y14.5 Dimensioning and Tolerancing⁵

2.3 *American Welding Society Standard:*

AWS D1.3 Structural Welding Code⁶

2.4 *MSS Standards:*

SP25 Standard Marking Systems for Valves and Fittings⁷

SP55 Quality Standards for Valve, Flanges and Fittings and Other Piping Components (Visual Method)⁷

2.5 *Federal Specification:*

PPP-F-320 Fiberboard: Corrugate and Solid Sheet Stock (Container Grade) and Cut Shapes⁸

2.6 *Military Specifications:*

MIL-P-116 Preservation, Methods of⁹

MIL-B-121 Barrier Material, Greaseproofed, Water Proofed, Flexible⁹

MIL-S-901 Shock Tests, H.I. (High Impact): Shipboard Machinery, Equipment and Systems, Requirements for⁹

MIL-P-15024 Plates, Tags and Bands for Identification of Equipment⁹

MIL-P-15024/5 Plates, Identification⁹

2.7 *Military Standards:*

MIL-STD-167-1 Mechanical Vibrations of Shipboard Equipment (Type I—Environmental and Type II Internally Induced)⁹

MIL-STD-740 Airborne and Structureborne Noise Measurement and Acceptance Criteria of Shipboard Equipment⁹

MIL-STD-2073-1 Material Procedures for Development and Application of Packaging Requirements⁹

3. Terminology

3.1 Definitions of Terms Specific to This Standard:

3.1.1 *filter, or straining element*—the replaceable component in a strainer that performs the barrier separation of solid particles from flowing fluid. It shall be removable for cleaning and servicing.

3.1.2 *maximum allowable working pressure (MAWP)*—the highest internal pressure that the strainer can be subjected to in

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² *Annual Book of ASTM Standards*, Vol 15.09.

³ *Annual Book of ASTM Standards*, Vol 14.02.

⁴ *Annual Book of ASTM Standards*, Vol 01.07.

⁵ Available from the American Society of Mechanical Engineers, Headquarters, Three Park Ave., New York, NY 10016-5990.

⁶ Available from American Welding Society, 550 N.W. LeJune Rd., Miami, FL 33126.

⁷ Available from Manufacture's Standardization Society of the Valve and Fittings Industry, 1815 N. Fort Myer Dr., Arlington, VA 22209.

⁸ Available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

⁹ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.