



Standard Specification for Rotary Positive Displacement Pumps, Commercial Ships Use¹

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1. Scope

1.1 This specification defines the requirements applicable to design and construction of rotary positive displacement pumps for shipboard use. The classes of service are shown in Section 4.

1.2 This specification will not include pumps for hydraulic service or cargo unloading applications.

2. Referenced Documents

2.1 ASTM Standards:

A 27/A 27M Specification for Steel Castings, Carbon, for General Application²

A 36/A 36M Specification for Structural Steel³

A 48 Specification for Gray Iron Castings²

A 53 Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless⁴

A 159 Specification for Automotive Gray Iron Castings²

A 193/A 193M Specification for Alloy Steel and Stainless Steel Bolting Materials for High-Temperature Service⁴

A 194/A 194M Specification for Carbon and Alloy Steel Nuts for Bolts for High-Pressure and High-Temperature Service⁴

A 322 Specification for Steel Bars, Alloy, Standard Grades⁵

A 354 Specification for Quenched and Tempered Alloy Steel Bolts, Studs, and Other Externally Threaded Fasteners⁶

A 395/A 395M Specification for Ferritic Ductile Iron Pressure-Retaining Castings for Use at Elevated Temperatures²

A 434 Specification for Steel Bars, Alloy, Hot-Wrought or Cold-Finished, Quenched and Tempered⁵

A 449 Specification for Quenched and Tempered Steel Bolts and Studs⁶

A 515/A 515M Specification for Pressure Vessel Plates,

Carbon Steel, for Intermediate and Higher Temperature Service³

A 536 Specification for Ductile Iron Castings²

A 563 Specification for Carbon and Alloy Steel Nuts⁶

A 564/A 564M Specification for Hot-Rolled and Cold-Finished Age-Hardening Stainless Bars and Shapes⁷

A 574 Specification for Alloy Steel Socket-Head Cap Screws⁶

A 582/A 582M Specification for Free-Machining Stainless and Heat-Resisting Steel Bars⁷

A 743/A 743M Specification for Castings, Iron-Chromium, Iron-Chromium-Nickel, Corrosion-Resistant for General Application²

B 150 Specification for Aluminum Bronze Rod, Bar, and Shapes⁸

B 584 Specification for Copper Alloy Sand Castings for General Applications⁸

D 1418 Practice for Rubber and Rubber Lattices—Nomenclature⁹

D 2000 Classification System for Rubber Products in Automotive Applications¹⁰

D 3951 Practice for Commercial Packaging¹¹

F 104 Classification System for Nonmetallic Gasket Materials¹⁰

F 593 Specification for Stainless Steel Bolts, Hex Cap Screws, and Studs⁶

F 912 Specification for Alloy Steel Socket Set Screws⁶

F 1511 Specification for Mechanical Seals for Shipboard Pump Applications¹²

2.2 ANSI Standard:

B 16.5 Pipe Flanges and Flanged Fittings¹³

2.3 SAE Standards:

AS 568A Aerospace Size Standard for O-Rings¹⁴

J 429 Mechanical and Material Requirements for Externally Threaded Fasteners¹⁴

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² *Annual Book of ASTM Standards*, Vol 01.02.

³ *Annual Book of ASTM Standards*, Vol 01.04.

⁴ *Annual Book of ASTM Standards*, Vol 01.01.

⁵ *Annual Book of ASTM Standards*, Vol 01.05.

⁶ *Annual Book of ASTM Standards*, Vol 15.08.

⁷ *Annual Book of ASTM Standards*, Vol 01.03.

⁸ *Annual Book of ASTM Standards*, Vol 02.01.

⁹ *Annual Book of ASTM Standards*, Vol 09.01.

¹⁰ *Annual Book of ASTM Standards*, Vol 09.02.

¹¹ *Annual Book of ASTM Standards*, Vol 15.09.

¹² *Annual Book of ASTM Standards*, Vol 01.07.

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

¹⁴ Available from Society of Automotive Engineers, 400 Commonwealth Dr., Warrendale, PA 15096.