

3-A Sanitary Standard for Farm Raw Milk Storage Tanks, Number 30-02

Standards Developing Organizations

3-A Sanitary Standards, Inc. (3-A SSI)

In collaboration with

United States Public Health Service (USPHS)/

United States Food and Drug Administration (USFDA)

United States Department of Agriculture (USDA)

European Hygienic Engineering & Design Group (EHEDG)

Effective: July 15, 2018

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Disclaimers

3-A Sanitary Standards and 3-A Accepted Practices are developed through the efforts of experts, working on a volunteer basis, using science-based information and their professional experiences to reach consensus decisions on the sanitary (hygienic) criteria in these 3-A documents.

3-A Sanitary Standards Inc. (SSI), its employees and its volunteer committees/working groups shall not incur any obligation or liability for damages, including consequential damages, arising from or in connection with the development, use, interpretation, or reliance upon this 3-A Sanitary Standard.

3-A Sanitary Standards and 3-A Accepted Practices do not include provisions for mechanical, electrical, or personnel safety. Such safety criteria are established by government regulations and other standards development organizations (SDOs). Other SDO standards may be referenced.

Drawings and illustrations contained herein are examples to assist in understanding the criteria in this 3-A Sanitary Standard. Appendix illustrations are not intended to show all variations of the equipment or system nor are they exclusive of alternate approved methods. Appendix illustrations are non-normative.

Metric conversions are provided for convenience and are not intended to be mandatory.

The Appendix is an advisory or informative section unless specifically cited in the Materials or Fabrication Section as requiring conformance.

Foreword

This 3-A Sanitary Standard establishes minimum sanitary (hygienic) requirements for design, materials, fabrication, and/or installation of Farm Raw Milk Storage Tanks.

This 3-A Sanitary Standard is for use on a voluntary basis by directly and materially affected organizations such as equipment and machinery fabricators, processors, and regulatory agencies, and by other SDOs to assure that adequate public health protections exist for the equipment or systems and covered products. 3-A SSI uses these documents as its source of sanitary criteria for 3-A Symbol authorization.

This 3-A Sanitary Standard was developed jointly by 3-A SSI, the United States Public Health Service (USPHS), United States Food and Drug Administration (USFDA), the United States Department of Agriculture – Dairy Programs (USDA), and the European Hygienic Engineering & Design Group (EHEDG).

It is our intent to encourage inventive genius and provide a forum to discuss new developments. Suggestions for improvement and new technology are welcome at any time for consideration by 3-A SSI. Please forward comments to: 3-A SSI, 6888 Elm Street, Suite 2D, McLean, VA 22101-3829, USA or by fax: 703-761-6284, or by e-mail to: 3-ainfo@3-a.org.

A SCOPE

- A1 This 3-A Sanitary Standard applies the sanitary aspects of storage tanks in which product is stored on dairy farms. Product enters at the inlet and exits at the outlet.
- A2 This standard does not apply to farm milk cooling and holding tanks, which are covered by 3-A Sanitary Standard for Farm Milk Cooling and Holding Tanks, 13-.
- A3 Tanks made in conformance to this 3-A Sanitary Standard will prevent a significant increase in the temperature of the product stored in the tank by the insulation or by the combination of the insulation and maintenance refrigeration. These tanks will not provide the means for reducing the temperature of the product.
- A4 To conform to this 3-A Sanitary Standard, farm raw milk storage tanks shall conform to the following criteria for design, materials of construction, fabrication techniques and installation, as applicable, and the current revisions or editions of all referenced documents cited herein.

B NORMATIVE REFERENCES

- B1 The following listed 3-A Sanitary Standards, 3-A Accepted Practices and other documents shall be considered as Normative References and the provisions of the referenced documents shall apply to this Standard without further reference in this document unless necessary to describe special considerations.
- B2 **3-A Sanitary Standards**

Doc. No. Title (3-A Sanitary Standard for:)

00-	General Requirements
33-	Metal Tubing
51-	Plug-Type Valves
52-	Plastic Plug-Type Valves
53-	Compression-Type Valves
55-	Boot Seal Type Valves
57-	Disc-Type Valves
63-	Sanitary Fittings
65-	Sight and/or Light Windows and Sight Indicators in Contact With Product
73-	Shear Mixers, Mixers, and Agitators
74-	Sensors and Sensor Fittings and Connections
78-	Spray Cleaning Devices Intended to Remain in Place
84-	Personnel Access Ports for Wet Applications
85-	Double-Seat Mixproof Valves
88-	Machine Leveling Feet and Supports

B3 3-A Accepted Practices**Doc. No. Title (3-A Accepted Practice for:)**

604-	Supplying Air Under Pressure in Contact with Product, and Product Contact Surfaces
611-	Farm Milk Cooling and Storage Systems

B4 Other References and Standards**Ref. No. Title**

1. Official Methods of Analysis: Available from the AOAC International, 481 Frederick Ave., Ste. 500, Gaithersburg, MD 20877-2417. Phone (301) 924-7077; Fax (301) 924-7089. E-mail: AOAC@aoac.org.
2. National Institute of Standards and Technology Handbook 44 "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices"

C DEFINITIONS

The most current approved version of the *3-A Sanitary Standard for General Requirements, 00-* shall apply, unless otherwise noted herein with additions, clarifications, exceptions, modification or exclusions.

- C1** *Breast:* That portion of the metal used to join the top of the lining to the top of the shell on an open top type tank.
- C2** *Farm Milk Storage Tank:* An insulated cylindrical, rectangular, oval or other equally satisfactorily shaped tank installed vertically or horizontally.
- C3** *Inlet:* The point where the product enters the tank. The inlet may be the same fitting as the outlet.
- C4** *Lining:* All surfaces used to contain the product, including the ends, sides, bottom and top.
- C5** *Outlet:* The opening in the lining and the passage for milk to the exterior of the tank. The outlet passage starts at the opening in the lining and terminates at the connection for the outlet valve.
- C6** *Product:* Raw milk.
- C7** *Shell:* The material covering the exterior of the insulation and, if provided, the refrigerated surface.