

Welded Steel Tanks for Oil Storage

API STANDARD 650
TENTH EDITION, NOVEMBER 1998

ADDENDUM 1, JANUARY 2000
ADDENDUM 2, NOVEMBER 2001



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Downstream Segment

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FOREWORD

This standard is based on the accumulated knowledge and experience of purchasers and manufacturers of welded steel oil storage tanks of various sizes and capacities for internal pressures not more than 2¹/₂ pounds per square inch gauge. This standard is meant to be a purchase specification to facilitate the manufacture and procurement of storage tanks for the petroleum industry.

If the tanks are purchased in accordance with this standard, the purchaser is required to specify certain basic requirements. The purchaser may want to modify, delete, or amplify sections of this standard, but reference to this standard shall not be made on the nameplates of or on the manufacturer's certification for tanks that do not fulfill the minimum requirements of this standard or that exceed its limitations. It is strongly recommended that any modifications, deletions, or amplifications be made by supplementing this standard rather than by rewriting or incorporating sections of it into another complete standard.

The design rules given in this standard are minimum requirements. More stringent design rules specified by the purchaser or furnished by the manufacturer are acceptable when mutually agreed upon by the purchaser and the manufacturer. This standard is not to be interpreted as approving, recommending, or endorsing any specific design or as limiting the method of design or construction.

This standard is not intended to cover storage tanks that are to be erected in areas subject to regulations more stringent than the specifications in this standard. When this standard is specified for such tanks, it should be followed insofar as it does not conflict with local requirements.

After revisions to this standard have been issued, they may be applied to tanks that are to be completed after the date of issue. The tank nameplate shall state the date of the edition of the standard and any revision to that edition to which the tank has been designed and constructed.

Each edition, revision, or addenda to this API standard may be used beginning with the date of issuance shown on the cover page for that edition, revision, or addenda. Each edition, revision, or addenda to this API standard becomes effective six months after the date of issuance for equipment that is certified as being rerated, reconstructed, relocated, repaired, modified (altered), inspected, and tested per this standard. During the six-month time between the date of issuance of the edition, revision, or addenda and the effective date, the purchaser and manufacturer shall specify to which edition, revision, or addenda the equipment is to be rerated, reconstructed, relocated, repaired, modified (altered), inspected, and tested.

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The purchaser shall specify whether tanks supplied to this standard will have SI dimensions and comply with applicable ISO standards, or have U.S. Customary dimensions and comply with applicable U.S. standards. Where conflicts arise between SI and U.S. Customary units, the U.S. Customary units will govern.

Suggested revisions are invited and should be submitted to the American Petroleum Institute, 1220 L Street, N.W., Washington, D.C. 20005, standards@api.org.

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IMPORTANT INFORMATION CONCERNING USE OF ASBESTOS OR ALTERNATIVE MATERIALS

Asbestos is specified or referenced for certain components of the equipment described in some API standards. It has been of extreme usefulness in minimizing fire hazards associated with petroleum processing. It has also been a universal sealing material, compatible with most refining fluid services.

Certain serious adverse health effects are associated with asbestos, among them the serious and often fatal diseases of lung cancer, asbestosis, and mesothelioma (a cancer of the chest and abdominal linings). The degree of exposure to asbestos varies with the product and the work practices involved.

Consult the most recent edition of the Occupational Safety and Health Administration (OSHA), U.S. Department of Labor, Occupational Safety and Health Standard for Asbestos, Tremolite, Anthophyllite, and Actinolite, 29 *Code of Federal Regulations* Section 1910.1001; the U.S. Environmental Protection Agency, National Emission Standard for Asbestos, 40 *Code of Federal Regulations* Sections 61.140 through 61.156; and the U.S. Environmental Protection Agency (EPA) rule on labeling requirements and phased banning of asbestos products (Sections 763.160-179).

There are currently in use and under development a number of substitute materials to replace asbestos in certain applications. Manufacturers and users are encouraged to develop and use effective substitute materials that can meet the specifications for, and operating requirements of, the equipment to which they would apply.

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