

Fired Heaters for General Refinery Service

ANSI/API STANDARD 560
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ISO 13705:2006 (Identical), Petroleum, petrochemical and natural gas industries—Fired heaters for general refinery service



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Foreword

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ISO 13705 was prepared by Technical Committee ISO/TC 67, *Machinery, equipment and offshore structures for petroleum, petrochemical and natural gas industries*, Subcommittee SC 6, *Processing equipment and systems*.

This second edition cancels and replaces the first edition (ISO 13705:2001), which has been technically revised.

Introduction

Users of this International Standard should be aware that further or differing requirements may be needed for individual applications. This International Standard is not intended to inhibit a vendor from offering, or the purchaser from accepting, alternative equipment or engineering solutions for the individual application. This may be particularly applicable where there is innovative or developing technology. Where an alternative is offered, the vendor should identify any variations from this International Standard and provide details.

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Petroleum, petrochemical and natural gas industries — Fired heaters for general refinery service

1 Scope

This International Standard specifies requirements and gives recommendations for the design, materials, fabrication, inspection, testing, preparation for shipment, and erection of fired heaters, air preheaters, fans and burners for general refinery service.

This International Standard is not intended to apply to the design of steam reformers or pyrolysis furnaces.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 1461, *Hot dip galvanized coatings on fabricated iron and steel articles — Specifications and test methods*

ISO 1940-1:2003, *Mechanical vibration — Balance quality requirements for rotors in a constant (rigid) state — Part 1: Specification and verification of balance tolerances*

ISO 8501-1, *Preparation of steel substrates before application of paints and related products — Visual assessment of surface cleanliness — Part 1: Rust grades and preparation grades of uncoated steel substrates and of steel substrates after overall removal of previous coatings*

ISO 10684, *Fasteners — Hot dip galvanized coatings*

ISO 13704, *Petroleum, petrochemical and natural gas industries — Calculation of heater-tube thickness in petroleum refineries*

ISO 15649, *Petroleum and natural gas industries — Piping*

IEC 60079 (all parts), *Electrical apparatus for explosive gas atmospheres*

EN 10025-2:2004¹⁾, *Hot rolled products of structural steels — Part 2: Technical delivery conditions for non-alloy structural steels*

ABMA Standard²⁾, *Load Ratings and Fatigue Life for Ball Bearings*

AMCA 210³⁾, *Laboratory Methods of Testing Fans for Aerodynamic Performance Rating*

AMCA 201:2001, *Industrial Process/Power Generation Fans — Specifications and Guidelines*

API 673⁴⁾, *Centrifugal Fans for Petroleum, Chemical and Gas Industry Services*

1) European Committee for Standardization (CEN), Rue de Stassart 36, B-1050 Brussels, Belgium.

2) American Bearing Manufacturers Association, 2025 M. Street, NW, Suite 800, Washington, DC 20036, USA.

3) Air Movement and Control Association, 30 West University Drive, Arlington Heights, IL 60004, USA.

4) American Petroleum Institute, 1220 L Street NW, Washington, DC 20005-4070, USA.