

# Petroleum, Petrochemical, and Natural Gas Industries—Air-cooled Heat Exchangers

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## Introduction

It is necessary that users of this standard be aware that further or differing requirements can be needed for individual applications. This 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 can be particularly applicable where there is innovative or developing technology. Where an alternative is offered, it is the responsibility of the Vendor to identify any variations from this standard and provide details.

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# Petroleum, Petrochemical, and Natural Gas Industries—Air-cooled Heat Exchangers

## 1 Scope

This standard gives requirements and recommendations for the design, materials, fabrication, inspection, testing, and preparation for shipment of air-cooled heat exchangers for use in the petroleum, petrochemical, and natural gas industries.

This standard is applicable to air-cooled heat exchangers with horizontal bundles, but the basic concepts can also be applied to other configurations.

## 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.

AGMA 6001 <sup>1</sup>, *Design and Selection of Components for Enclosed Gear Drives*

ANSI/AGMA 6010, *Spur, Helical, Herringbone and Bevel Enclosed Drives*

ASME PTC 30 <sup>2</sup>, *Air-Cooled Heat Exchangers*

ICC <sup>3</sup>, *International Building Code*

ISO 76 <sup>4</sup>, *Rolling bearings — Static load ratings*

ISO 281, *Rolling bearings — Dynamic load ratings and rating life*

ISO 286 (all parts), *Geometrical product specifications (GPS) — ISO code system for tolerances on linear sizes*

ISO 1081, *Belt drive — V-belts and V-ribbed belts, and corresponding grooved pulleys — Vocabulary*

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

ISO 2491, *Thin parallel keys and their corresponding keyways (dimensions in millimeters)*

ISO 4183, *Belt drives — Classical and narrow V-belts — Grooved pulleys (system based on datum width)*

ISO 4184, *Belt drives — Classical and narrow V-belts — Lengths in datum system*

ISO 5287, *Belt drives — Narrow V-belts for the automotive industry — Fatigue test*

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<sup>1</sup> American Gear Manufacturers Association, 1001 N. Fairfax Street, Suite 500, Alexandria, Virginia 22314, [www.agma.org](http://www.agma.org).

<sup>2</sup> American Society of Mechanical Engineers, Two Park Avenue, New York, NY 10016-5990, [www.asme.org](http://www.asme.org).

<sup>3</sup> International Code Council, 500 New Jersey Avenue, NW, 6th Floor, Washington, DC 20001, [www.iccsafe.org](http://www.iccsafe.org).

<sup>4</sup> International Organization for Standardization, 1, ch. de la Voie-Creuse, Case postale 56, CH-1211, Geneva 20, Switzerland, [www.iso.org](http://www.iso.org).