



Exploration & Production

GENERAL SPECIFICATION

PIPING VALVES VESSELS

GS EP PVV 415

Design and fabrication of air cooler

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1. Scope

This standard specification covers the engineering, design, fabrication and inspection of air cooled heat exchangers according to [API 661-ISO 13706](#).

[API 661-ISO 13706](#) shall be used in conjunction with the ASME or [CODAP](#) code. The code shall be defined in the job specification, and shall then become the reference to be applied to the word "code".

The term "air cooled heat exchanger" designates coolers and condensers in which the cooling agent is the ambient air, possibly associated with spraying.

The minimum rules and requirements to be fulfilled with respect to the choice of material, design, fabrication, Manufacturer quality control, inspection, as well as pressure relief devices, are those stated in the above documents. All these rules and requirements are applicable, only requirements in addition to these documents are detailed in this specification.

2. Reference documents

The reference documents listed below form an integral part of this General Specification. Unless otherwise stipulated, the applicable version of these documents, including relevant appendices and supplements, is the latest revision published at the EFFECTIVE DATE of the CONTRACT.

When national regulations exist, their recommendations shall always apply, together with the standards or codes to which they refer. Such national regulations shall therefore supplement or amend the provisions of the present document.

Unless otherwise indicated in the detailed contractual conditions all the reference documents to be used as well their supplements shall be the latest editions.

Standards

Reference	Title
API 661-ISO 13706	Petroleum and Natural Gas Industries - Air-cooled Heat Exchangers
ASME B16.20	Metallic gaskets for pipe flanges. Ring joint, spiral wound, and jacketed
EN 10204	Metallic products - Type of inspection documents
ISO 1940-1	Mechanical vibrations - Quality requirements for the balancing of rigid rotors. Part 1: Determination of acceptable residual unbalance
ISO 2372	Mechanical vibrations of machinery having a rotation frequency in the range between 10 S ⁻¹ and 200 S ⁻¹
ISO 4042	Fasteners. Electroplated coatings

**Professional Documents**

Reference	Title
WRC 107	Bulletin No. 107: Local stresses in spherical and cylindrical shells due to external loading
WRC 297	Bulletin No. 297: Local stresses in cylindrical shells due to external loadings on nozzles, supplement to WRC Bulletin No. 107

Regulations

Reference	Title
Not applicable	

Codes

Reference	Title
AISC	Code for design criteria for steel structures
ASME VIII	Boiler and pressure vessel code
BSI PD 5500	Specification for unfired fusion welded pressure vessels
CODAP	French code governing the construction of unfired pressure vessels

Other documents

Reference	Title
Not applicable	