

GP 10-07-01	General Purpose Steam Turbines	March 2002
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General Purpose Steam Turbines

GP 10-07-01

Scope

- 1) [I] This Global Practice (GP) covers General Purpose Steam Turbines.
- 2) [I] All requirements specified in this GP are additions to those of API STD 611-4, 4th Edition, June 1997, unless specifically noted as exceptions. Paragraph numbers in this GP which do not appear in API STD 611-4 are new paragraphs.
- 3) An asterisk (*) indicates that a decision by the Purchaser is required or that additional information is furnished by the Purchaser.
- 4) Note: A bullet (•) is shown in API STD 611-4, indicating that a Purchaser decision is required.
- 5) * [I] General purpose steam turbines, unless otherwise specified, are intended as drivers for:
 - a) Pumps, centrifugal and reciprocating utility, instrument air compressors and fans.
 - b) Reciprocating process gas compressors with single reduction gearing.
 - c) Reciprocating process gas compressors with double reduction gearing and less than 1000 hp (750 kW).
 - d) Generators less than 1000 hp (750 kW).
- 6) [I] Steam turbines shall be supplied by qualified vendors, with experience in manufacturing the units proposed. To qualify, the Vendor shall have manufactured, at the proposed point of manufacture, at least two turbines of comparable power and speed with comparable steam conditions. Such turbines shall have provided satisfactory service for one year minimum.

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1. Required References

This Section lists Practices and Standards that are generically referenced and assumed to be a part of this document. Unless otherwise specified herein, use the latest edition.

1.1. Global Practices–ExxonMobil Engineering Practices

GP 02-01-01	Plant Noise Design Criteria
GP 18-03-04	Pressure Casting Quality and Inspection
GP 18-12-01	Positive Material Identification
GP 20-01-01	Inspection of Equipment and Materials

1.2. API–American Petroleum Institute

API STD 611-4	General-Purpose Steam Turbines for Petroleum, Chemical, and Gas Industry Services Fourth Edition
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1.3. ASME–American Society of Mechanical Engineers

ASME B16.11	Forged Fittings, Socket-Welding and Threaded
ASME B31.3	Process Piping

1.4. NEMA–National Electrical Manufacturers Association

NEMA SM 23	Steam Turbines for Mechanical Drive Service
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2. Additional Requirements

The following Practices and Standards shall be used with this Practice as specified by the Owner's Engineer.

2.1. Global Practices–ExxonMobil Engineering Practices

GP 10-10-01	Special Purpose Gear Units
GP 10-10-02	General Purpose Gear Units
GP 16-09-01	Low Voltage AC Motors Up to 200 HP (150 kW)
GP 18-10-01	Additional Requirements for Materials

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2.2. ASTM–American Society for Testing and Materials

ASTM A488/A488M	Steel Castings, Welding, Qualifications of Procedures and Personnel
ASTM B 111	Standard Specification for Copper and Copper-Alloy Seamless Condenser Tubes and Ferrule Stock
ASTM B 169/B 169M	Standard Specification for Aluminum Bronze Sheet, Strip, and Rolled Bar
ASTM B 171/B 171M	Standard Specification for Copper-Alloy Plate and Sheet for Pressure Vessels, Condensers, and Heat Exchangers
ASTM B 584	Standard Specification for Copper Alloy Sand Castings for General Applications

2.3. API–American Petroleum Institute

API STD 671	Special-Purpose Couplings for Petroleum, Chemical, and Gas Industry Services
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2.4. AGMA–American Gear Manufacturers' Association

AGMA 6010-F97	Standard for Spur, Helical, Herringbone and Bevel Enclosed Drives
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3. Revisions to API Standard 611

[I] All headings contained herein correspond to paragraph numbering within API STD 611-4 and reflect additions, substitutions, modifications, and deletions. All provisions not modified or deleted remain in force.

Modifications to Section 4: Basic Design

4.1.12. Exception: General

[E] Vendors shall furnish noise emission data for the quoted equipment with their Proposal in accordance with [GP 02-01-01](#).

4.1.14 Addition: General

* [O], [R] Turbine and auxiliaries shall be suitable for outdoor installation in the climatic zone specified.

4.1.17 Addition: General

* [R] When specified, a spare rotor shall be furnished for and delivered with each turbine. If the rotors of two or more machines are duplicates, a single spare rotor is sufficient.

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