

GP 10-03-02	Packaged, Integrally Geared Centrifugal Air Compressors	July 2001
-------------	---	-----------

Packaged, Integrally Geared Centrifugal Air Compressors

GP 10-03-02

Scope

[I] This Global Practice (GP) refers to API STD 672-3, third edition, September 1996, which is a part of this GP.

[I] This GP covers packaged, integrally geared centrifugal air compressors designed for operation in utility and instrument air service.

[I] All specifications in this GP are additions to those of API STD 672-3 unless specifically noted as exceptions. Paragraph numbers in this GP which do not appear in API STD 672-3 are new paragraphs.

[I] An asterisk (*) indicates that a decision by the Purchaser is required or that additional information is furnished by the Purchaser.

[I] Note: A bullet (•) is shown in API STD 672-3 indicating that a Purchaser's decision is required.

Downstream, Chemical, Upstream, Downstream Imperial Oil	For ExxonMobil Use Only	Version 1.0.0
Page 1 of 11	©ExxonMobil Development Company	



Documents

Document Sharing Hub

GP 10-03-02	Packaged, Integrally Geared Centrifugal Air Compressors	July 2001
-------------	---	-----------

Table of Contents

1. Required References.....	3
1.1. Global Practices–ExxonMobil Engineering Practices	3
1.2. API–American Petroleum Institute	3
2. Additional Requirements	3
2.1. Global Practices–ExxonMobil Engineering Practices	3
2.2. ASTM–American Society for Testing and Materials	4
3. Revisions to API Standard 672.....	4
Modifications to Section 1: General.....	4
Modifications to Section 2: Basic Design	4
Modifications to Section 3: Accessories	6
Modifications to Section 4: Inspection, Testing, and Preparation for Shipment.....	8
Modifications to Section 5: Vendor's Data	8
Record of Change	10
Attachment: Purpose Codes Definitions	11

DNST, CHEM, UPST, DIOL	For ExxonMobil Use Only	Version 1.0.0
Page 2 of 11	©ExxonMobil Development Company	 Documents Document Sharing Hub

GP 10-03-02	Packaged, Integrally Geared Centrifugal Air Compressors	July 2001
-------------	---	-----------

1. Required References

[I] 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 10-12-01	Vibration, Axial-Position, and Bearing-Temperature Monitoring Systems for Compressors and Drivers
GP 15-07-01	Electric Power Branch Circuit Design for Instrumentation
GP 15-07-02	Protective Systems
GP 18-12-01	Positive Material Identification
GP 20-01-01	Inspection of Equipment and Materials

1.2. API–American Petroleum Institute

API STD 672-3	Packaged, Integrally Geared Centrifugal Air Compressors for Petroleum, Chemical, and Gas Industry Services
---------------	--

2. Additional Requirements

* [I] The following Practices and Standards shall be used with this Practice as specified by the Purchaser.

2.1. Global Practices–ExxonMobil Engineering Practices

GP 03-09-01	Winterizing and Protection Against Ambient Temperatures
GP 10-07-01	General Purpose Steam Turbines
GP 10-10-02	General Purpose Gear Units
GP 15-11-01	Instrument Control Panels
GP 16-09-01	Low Voltage AC Motors Up to 200 HP (150 kW)
GP 16-09-02	AC Motors: Medium Voltage and Low Voltage Over 200 HP (150 kW)
GP 18-10-01	Additional Requirements for Materials

DNST, CHEM, UPST, DIOL	For ExxonMobil Use Only	Version 1.0.0
Page 3 of 11	©ExxonMobil Development Company	



Documents

Document Sharing Hub

GP 10-03-02	Packaged, Integrally Geared Centrifugal Air Compressors	July 2001
-------------	---	-----------

2.2. ASTM–American Society for Testing and Materials

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

3. Revisions to API Standard 672

[I] All headings contained herein correspond to paragraph numbering within API STD 672-3 and reflect additions, substitutions, modifications, and deletions. All provisions not modified or deleted remain in force.

Modifications to Section 1: General

1.1. Addition: Scope

- a. [I] Centrifugal compressor packages shall be supplied by Vendors qualified by experience in manufacturing the units proposed. To qualify, the Vendor shall have manufactured at the proposed point of manufacture, at least two air compressor packages of comparable speed, power rating, and discharge pressure, including the proposed control system. Each of these compressor packages shall have been in service for at least one year and be performing satisfactorily.
- b. [I] Where the Vendor qualification requirement of Item a above prevents the application of the latest technology, the Vendor shall submit to the Purchaser a second alternative proposal incorporating such features for review and approval by the Owner's Engineer. The proposal shall specifically identify the undemonstrated features and state their advantages.
- c. [I] Centrifugal compressors manufactured under a license agreement shall carry the Licensor's written guarantee.

Modifications to Section 2: Basic Design

2.1.4. Addition: Sound Pressure Level

- a. [E] Noise: Compressor vendors shall submit noise emission data for the quoted package with their proposal per [GP 02-01-01](#).

DNST, CHEM, UPST, DIOL	For ExxonMobil Use Only	Version 1.0.0
Page 4 of 11	©ExxonMobil Development Company	



Documents

Document Sharing Hub