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Guidance on Industry Standard for API 672 Integrally Geared Centrifugal Compressors

GIS 34-102

BP GROUP
ENGINEERING TECHNICAL PRACTICES

Foreword

This revision of Engineering Technical Practice (ETP) BP GIS 34-102 consists of updating to align to the fourth edition of API STD 672 and several simplifications including:

- a. Adding BP approval for major defect repair.
- b. Deletion of segment specific requirements.
- c. Deletion of location-specific instrumentation requirements.

Physical changes to the document resulting from alignment with the fourth edition of API 672 are very extensive and are not identified with revision bars in the margin. Changes to the technical content summarised above are identified with revision bars.

This Guidance on Industry Standard (GIS) is based on parts of heritage documents from the merged BP companies as follows:

Amoco

A RE-COMP-672-P	Rotating Equipment—Compressors—API 672 Integrally Geared Centrifugal Air—Procurement Specification.
A RE-COMP-00-G	Rotating Equipment—Compressors—Guide (excerpts).

ARCO

Std 18-90	Packaged, Integrally Geared Centrifugal Air Compressors for General Refinery Service.
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PTA

PTA RE-COMP-672-P	Rotating Equipment—Compressors—API 672 Integrally Geared Centrifugal Air—Procurement Specification.
PTA RE-COMP-00-G	Rotating Equipment—Compressors—Guide (excerpts).

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Introduction

- a. Guidance for integrally geared centrifugal compressors is based on American Petroleum Institute (API) Standard 672, "Packaged, Integrally Geared Centrifugal Air Compressors for Petroleum, Chemical, and Gas Industry Services", Fourth Edition, March 2004.
- b. Guidance statements of this GIS are modifications to API 672.
- c. Modifications to API 672 are identified as Add, Modify to Read, or Delete.
- d. Paragraph numbers in this specification correspond to API 672.
- e. Paragraphs of API 672 that are not revised remain applicable.



1. Scope

1.1 Add

This GIS provides guidance for design, materials, fabrication, inspection, testing, documentation, and preparation for shipment for packaged integrally geared centrifugal compressors for plant air service. Other process applications should refer to GIS 34-108. If oil free air is a requirement then this should be clearly stated in the data sheets.

If oil free air is a requirement then compressor packages designed to API 672 inherently comply provided the sealing system is working properly.

1.2 Add

- a. Vendor quotation shall comply with this GIS.
- b. Basic quotation may be supplemented with alternate quotations that comply with the following two conditions:
 1. Significant process, price, or delivery date advantage is indicated, or superior product is offered at justifiably higher price or product of equal quality at lower price.
 2. Deviations from this GIS shall be documented. Complete engineering details of alternate material and design shall be submitted for BP review.

5. Requirements

5.4 Conflicting requirements

Modify to Read

In case of conflicts, order of precedence shall be:

- a. Purchase order/requisition/contract.
- b. Project data sheet/drawings.
- c. Local codes and standards.
- d. This GIS.
- e. Referenced BP documents.

6 Basic design

6.1 General

6.1.3 Sound pressure level

Modify to Read

Sound pressure levels shall comply with GIS 14-011.

6.1.4 Packaged equipment

g. When specifying a motor, the vendor standard scope of supply is usually based on a 2 pole motor.

