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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

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**Packaged rotary oil-free air compressors for petroleum and
natural gas industries**

石油及天然气工业用集装型回转无油空气压缩机

(English Translation)

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Foreword

This revised standard adopts ISO 10440-2:2001 "oil and gas industry rotary displacement compressors - Part 2. Manifold Air Compressor (oil-free) "(in English).

This standard is based on ISO 10440-2:2001 redrafted and ISO 10440-2:2001 is based on API619, Second Edition, 1992 onwards Grass.

The standard in the use of international standards for technical content has been modified. These technical differences identified in a single vertical line to which they relate Terms of margin, technical differences and their causes, see Appendix E, other differences (major content modifications) as follows.

--- Of ISO 10440-2:2001 references other international standards, it has been adopted by our country instead of the standard corresponding to international standards;

--- A unit of measurement instead of legal units of measurement, and removed the brackets imperial units of measurement;

- Introduction of the latest ISO standards and related content is given in the Appendix;
- Taking into account the changes made to our country, its technical differences and their reasons are given in the Appendix.

For ease of use, this standard also made the following editorial changes.

- "This International Standard" be replaced by "this standard";
- With a decimal point instead of a comma as the decimal point, "";
- Deleted international standards foreword.

The Standard Appendix B, Appendix C are normative appendices, Appendix A, Appendix D, Appendix E is an information appendix.

The standard proposed by China Machinery Industry Federation.

This standard by the National Standardization Technical Committee of the compressor.

Introduction

This standard is based on rotary compressor manufacturers and users of the accumulated knowledge and experience. The goal is to provide a standard technical specifications for later Fan, facilitate the general oil and gas industry facilities rotary oil-free air compressor manufacturing and purchasing with container type, but its use is not limited to these facilities.

The purpose of this standard is to provide minimum requirements for design and construction, so that the device is suitable for the required purposes. The standard range limit Permit system is one of concern, not interests. Energy conservation and environmental protection are increasingly concerned, and in the design, application and operation There is an important aspect. Equipment manufacturers and users should not give up the premise of safety and reliability, and actively pursue other possible Improved energy use and minimize the environmental impact of the way. These pathways should fully research, selection and procurement should be increasingly Based on the cost of the entire budget and the use of environmental impact not only on the purchase cost.

This standard requires the purchaser given the exact details and performance details.

In order to effectively and ease of use of this standard reference text, recommended in Appendix A.

Users of this standard should be aware that for a particular purpose may require further or different requirements. This standard is not intended to limit the sale Provided by any device or purchaser receives for special purposes, the choice of equipment or engineering solutions. There are at or innovation of technology development, this may be particularly suitable. Provide replacement equipment, the vendor should determine this deviation from

the standard and provide detailed instructions.

Petroleum and natural gas industries Cartridge-type rotary oil-free air compressor

1 Scope

This standard specifies the oil refinery pressure not more than 0.2MPa helical teeth, twisting leaves and straight blade rotary oil-free air compressor (Hereinafter referred to as compressor) the minimum requirements, it is suitable for continuous operation in the process of air (and other inert gas) compressor.

This standard does not apply to fuel injection rotary compressors.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB 150 steel pressure vessels GB 151 shell and tube heat exchangers GB/T 193 series ordinary thread diameter and pitch (GB/T 193-2003, ISO 261:1998, MOD) GB/T 196 common thread basic size (GB/T 196-2003, ISO 724:1993, MOD) GB/T 197 common thread tolerance (GB/T 197-2003, ISO 965-1:1998, MOD) GB/T 2624.1 with the differential pressure measuring device mounted to round pipe full pipe fluid flow - Part 1. General principles and Requirements (GB/T 2624.1-2006, ISO 5167-1:2003, IDT) GB/T 3098.1 Mechanical properties of fasteners Bolts, screws and studs (GB/T 3098.1-2000, ISO 898-1:1999, IDT) GB/T 3098.2 Mechanical properties of fasteners - Nuts - Coarse thread (GB/T 3098.2-2000, ISO 898-2:1992, IDT) GB/T 3098.4 Mechanical properties of fasteners fine thread (GB/T 3098.4-2000, ISO 898-6:1994, IDT) GB/T 3098.6 Mechanical properties of fasteners stainless steel bolts, screws and studs (GB/T 3098.6-2000, ISO 3506-1.

1997, IDT)

GB/T 3098.15 mechanical properties of stainless steel fasteners nuts (GB/T 3098.15-2000, ISO 3506-2:1997, IDT) GB 3836.1-2000 Electrical equipment for explosive gas atmospheres - Part 1. General requirements (eqv IEC 60079-0:1998) GB/T 3853 displacement compressors acceptance test (GB/T 3853-1998, eqv ISO 1217:1996) GB/T 4980 Determination of volumetric compressor noise GB 5310 high-pressure boiler seamless steel pipe GB/T 6391 Rolling bearings - Dynamic load ratings and rating life (GB/T 6391-2003, ISO 281:1990, IDT) GB/T 7306.1 55 ° sealing pipe threads - Part 1. the inner cylindrical thread and taper external thread (GB/T 7306.1-2000, eqv ISO 7-1:1994) GB/T 7306.2 55 ° sealing pipe thread Part 2. internal Taper internal and external threads (GB/T 7306.2-2000, eqv ISO 7-1:1994) GB/T 8163 fluid seamless steel pipe (GB/T

8163-2008, neqEN10216.2004) GB/T 9112 ~ 9124 steel pipe flanges GB/T 9144 common thread preferred series (GB/T 9144-2003, ISO 262:1998, MOD) GB 9948 oil cracking seamless pipe (GB 9948-2006, ISO 9329-2:1997, MOD) GB/T 10095.2-2008 Cylindrical gear accuracy system - Part 2. radial composite deviations and runout Definitions and allowable values