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

GB/T 25357-2010

**Petroleum, petrochemical and natural gas industries -- Process
positive-displacement rotary-type compressors**

石油、石化及天然气工业流程用容积式回转压缩机

(English Translation)

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Foreword

This revised standard adopts ISO 10440-1:2007 "Petroleum, petrochemical and natural gas industries - Rotary displacement compressors - Part 1.

Process compressor "(in English).

Accordance with the standards ISO 10440-1:2007 (Second Edition) redrafted and ISO 10440-1:2007 is based on APIStd619, fourth Edition, December 2004 drafted. ISO 10440-1:2007 will be the fifth edition with API619 equivalent to its intentions.

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 see Appendix K, other differences are as follows.

--- Of ISO 10440-1:2007 references to other international standards with international standards have been adopted in place of the corresponding standard.

The original international standard reference documents listed in Appendix J.

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

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

- a) "this International Standard" be replaced by "this standard";
- b) use a decimal point instead of a decimal comma " , " , " , " ;
- c) Remove the preface to the international standards.

The standard Appendix C, Appendix D and Appendix E are normative appendices, Appendix A, Appendix B, Appendix F, Appendix G, Appendix H, Appendix I, Appendices Appendix J and K are informative appendices.

In the beginning of this sub-standard terms or paragraph point (·) represents the requirements of the purchaser, or decided to provide further information. This information should on the data table shows; they should also be quoted or described in the application on the purchase order.

The standard proposed by China Machinery Industry Federation.

This standard by the National Standardization Technical Committee of the compressor (SAC/TC145) centralized.

Introduction

Users of this standard is appropriate for a particular purpose may be aware of the need for further or different requirements. This standard does not intend limiting Sell Provided by any device or purchaser receives for special purposes, the choice of equipment or engineering solutions to have at the technical innovation or development, this may be particularly suitable. To provide an alternative to the purchaser, the seller is appropriate to determine any deviation from this standard, and provide detailed Instructions.

This standard, using only the SI units. SI units dedicated data table provided in Appendix A.

Petroleum, petrochemical and natural gas industries Flow positive displacement rotary compressor with

1 Scope

The standard in the petroleum, petrochemical and natural gas industries facilities for extracting vacuum or elevated pressure, or both dry and injection screw Screw rotary

compressor (hereinafter referred to as the compressor, see Fig. 1) sets out the terms and definitions, basic design, auxiliary equipment, inspection, testing and shipment Preparation and seller information requirements. The process is used for special purpose compressors.

This standard does not apply to general air compressors, liquid ring compressors and vane compressors.

NOTE: The standard air compressor included in the GB/T 25358-2010 "Petroleum and natural gas industries Cartridge Rotary oil-free air compressor" in.

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 273.3-1999 Rolling overall program radial bearings Dimensions (eqvISO 15:1998) GB/T 275-1993 Rolling Shaft and housing complexes GB/T 1047 pipe element DN (nominal size) of the definition and selection (GB/T 1047-2005, ISO 6708:1995, MOD) GB/T 1095 flat key keyway cross-sectional dimensions (GB/T 1095-2003, neqASME B18.25.1M.1996) GB/T 3098.1-2000 Mechanical properties of fasteners Bolts, screws and studs (ISO 898-1:1999, IDT) GB/T 3098.2-2000 Mechanical properties of fasteners - Nuts - Coarse thread (ISO 898-2:1992, IDT) GB/T 3141 Industrial liquid lubricants - ISO viscosity classification (GB/T 3141-1994, eqvISO 3448:1992) GB 3836 (all parts), Electrical apparatus for explosive gas atmospheres GB/T 3853 displacement compressors acceptance test (GB/T 3853-1998, eqvISO 1217:1996) GB/T 4604-2006 Rolling radial clearance (ISO 5753:1991, MOD) GB/T 4980 Determination of volumetric compressor noise GB/T 5677-2007 steel castings radiographic testing (ISO 4993. 1987, IDT) GB/T 6391-2003 Rolling bearings - Dynamic load ratings and rating life (ISO 281:1990, IDT) GB/T 7216-2009 gray cast iron metallographic examination (ISO 945-1:2008, MOD) GB/T 7306 (all parts) 55 ° sealing pipe thread (GB/T 7306-2000, eqvISO 7-1:1994) GB/T 9112 ~ 9124-2000 steel pipe flanges GB/T 9239.1-2006 mechanical vibration steady state (rigid) rotor balance quality requirements - Part 1. specification of tolerance and balance Test (ISO 1940-1:2003, IDT) GB/T 9443-2007 Steel Castings penetrant testing (ISO 4987:1992, IDT) GB/T 10095.1-2008 Cylindrical gear accuracy system - Part 1. Definitions tooth surface deviation and ipsilateral tooth allowable value