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

GB/T 9128-2003

Replacing GB/T 9128-2003, GB/T 9130-2007

**Metallic ring joint gaskets for steel pipe flanges - Part 1: PN
designated
(English Translation)**

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents" Drafting.

This document is Part 1 of GB/T 9128 "Metal Ring Gasket for Steel Pipe Flanges". GB/T 9128 has released the following parts.

---Part 1: PN series;

---Part 2: Class Series.

This document partially replaces GB/T 9128-2003 "Metal Ring Gasket Dimensions for Steel Pipe Flanges" and GB/T 9130-2007 "Steel Pipe Flange Dimensions" "Technical Conditions for Metal Ring Gaskets for Flanges", compared with GB/T 9128-2003 and GB/T 9130-2007, except for structural adjustments and editorial changes in addition, the main technical changes are as follows.

a) The dimensions of PN series metal ring gaskets are added (see Table 2), and the dimensions of Class series metal ring gaskets are deleted (see GB/T 9128-

Table 1 of 2003);

b) The material name/grade of the metal ring gasket has been changed (see Table 3, Table 1 of GB/T 9130-2007);

c) Added common materials for metal ring gaskets and recommended maximum operating temperatures (see Table 3);

d) Changed the dimensional limit deviation of metal ring gasket (see Table 4, Table 4 of GB/T 9130-2007);

e) Added manufacturing requirements for metal ring gaskets (see 6.2.1, 6.2.2);

f) The recommended maximum hardness value of commonly used materials for metal ring gaskets has been changed (see Table 5, Table 3 of GB/T 9130-2007);

g) Added provisions for selecting metal ring pad hardness test methods (see 8.3.1);

h) The inspection rules have been changed (see Chapter 9, Chapter 6 of GB/T 9130-2007);

i) Added the content of signs (see 10.2.1).

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Introduction

Metal ring gasket is a commonly used sealing gasket in flange joints. Current pipe flange standard GB/T 9124.1-2019 "Steel Pipe Flange the PN series ring connection flanges specified in Part 1: PN Series require corresponding PN series metal ring gaskets to match them, and are currently Metal ring gasket standards GB/T 9128-2003 "Metal ring gasket dimensions for steel pipe flanges", GB/T 9130-2007 "Metal ring gaskets for steel pipe flanges" it has been more than ten years since the release and implementation of "Technical Conditions for Metal Ring Gaskets". During this period, the materials used for metal ring gaskets have been updated, and certain process requirements for metal ring gaskets have Unable to meet market demand, therefore, in order to adapt to the pipe flange standards written in two series. PN and Class, the metal ring gasket the standard is also divided into PN series and Class series accordingly.

GB/T 9128 aims to establish the necessary requirements for the design, manufacture, performance and selection of metal ring gaskets for steel pipe flanges. It is planned to be composed of two parts composition.

---Part 1: PN series. The purpose is to establish the specifications, dimensions and technical requirements for metal ring gaskets for PN series steel pipe flanges.

---Part 2: Class Series. The purpose is to establish the specifications, dimensions and technology of metal ring gaskets for Class series steel pipe flanges Require.

Metal ring gasket for steel pipe flange Part 1: PN Series

1 Scope

This document specifies the type and code, dimensions, materials and manufacturing, requirements, and test methods of metal ring gaskets for PN-marked steel pipe flanges.

laws, inspection rules and marking,, packaging, storage and transportation.

This document is applicable to steel pipe flange metal for ring connection sealing surfaces with nominal pressures PN63~PN400 specified in GB/T 9124.1 it is a ring pad.

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, the dated quotations for undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to this document.

GB/T 230.1 Rockwell hardness test of metallic materials Part 1: Test methods GB/T 231.1 Brinell hardness test of metallic materials Part 1: Test method GB/T 699 High-quality carbon

structural steel GB/T 1220 stainless steel rod GB/T 1221 Heat-resistant steel rods GB/T 6060.2 Surface roughness comparison sample grinding, turning, boring, milling, inserting and planing surface GB/T 6983 Electromagnetic pure iron GB/T 15008 Corrosion-resistant alloy rod

3 Terms and definitions

There are no terms or definitions to be defined in this document.

4.1 Type

Metal ring gaskets for steel pipe flanges (hereinafter referred to as "metal ring gaskets") are divided into oval metal ring gaskets (hereinafter referred to as "elliptical gaskets") and eight-shaped metal ring gaskets (hereinafter referred to as "metal ring gaskets") according to their cross-sectional shapes.

There are two types of angular metal ring pads (octagonal pads for short). The structures of the two types of metal ring pads are shown in Figure 1 and Figure 2.