

ICS 21.140
CCS J 22



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

GB/T 29463.1-2012

Replacing GB/T 29463.1-2012, GB/T 29463.2-2012, GB/T 29463.3-2012

Gaskets used in tube-shell heat exchangers

管壳式热交换器用垫片 第1部分：金属包垫片

(English Translation)

Issued on: September 7, 2023

Implemented on: September 7, 2023

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

Table of Contents

1 Scope	1
2 Normative reference documents	1
3 Terms and Definitions	1
4 Code and type	2
5 Structure and basic dimensions	6
6 Made	30
7 Inspection	33
8 Labeling, packaging and storage	34

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 replaces GB/T 29463.1-2012 "Gaskets for shell and tube heat exchangers - Part 1: Metal-clad gaskets", GB/T 29463.2-2012 "Gaskets for Shell and Tube Heat Exchangers Part 2: Wound Gaskets", GB/T 29463.3-2012 "Gaskets for Shell and Tube Heat Exchangers" Part 3: Non-metallic soft gaskets", compared with GB/T 29463.1-2012, GB/T 29463.2-2012, GB/T 29463.3-2012, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

- a) Add the content of metal corrugated composite gaskets and metal toothed composite gaskets (see Chapter 1);
- b) The nominal diameter of the gasket is increased from DN2000 to DN2600 (see Chapter 1, 4.2 of the 2012 edition);
- c) Added gasket structure type and marking parameters (see 4.2, 8.1);
- d) Added the structure, dimensional parameters and manufacturing of metal corrugated composite gaskets (see Chapters 5 and 6);
- e) Added the structure, dimensional parameters and manufacturing of metal toothed combination gaskets (see Chapters 5 and 6);
- f) Added the diameter of the outer head cover flange of the floating head heat exchanger to be 150mm, 200mm and 250mm larger than the diameter of the outer head cover side flange.

Series gasket dimensions (see 5.2);

g) Added requirements for penetration testing of gasket metal material spliced joints (see 6.1.2);

h) Added environmental requirements for packaging materials (see 8.2.3).

Please note that some content in this document may be subject to patents. The publisher of this document assumes no responsibility for identifying patents.

1 Scope

This document stipulates that the design pressure is 0.25MPa~6.4MPa, the design temperature is -196°C~450°C, and the nominal diameter is Code, type and structure of gaskets for shell and tube heat exchangers (hereinafter referred to as gaskets) with concave and convex sealing surfaces for DN159~DN2600 with basic dimensions, manufacturing, inspection, marking, packaging and storage requirements.

This document applies to gaskets such as wound, metal corrugated tooth composite, metal cladding, non-metallic, metal tooth-shaped combination gaskets for shell and tube heat exchangers.

Design and manufacture.

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 151 heat exchanger GB/T 1184-1996 Shape and position tolerances No tolerance values noted GB/T 1804 General tolerances Tolerances for linear and angular dimensions without tolerances noted GB/T 3003 Refractory fibers and products GB/T 3280 Stainless steel cold-rolled steel plates and strips GB/T 4622.1 Wound gaskets for pipe flanges Part 1: PN series GB/T 5574 Industrial rubber sheet GB/T 9129 Technical specifications for non-metallic flat gaskets for pipe flanges GB/T 15601 Metal-coated gaskets for pipe flanges GB/T 19066.1 Metal corrugated composite gaskets for pipe flanges Part 1: PN series GB/T 25712 Vibration aging process parameter selection and effect evaluation method GB/T 39245.1 Metal toothed combination gaskets for pipe flanges Part 1: PN series JB/T 6618 Technical specifications for polytetrafluoroethylene tapes for metal winding gaskets JB/T 6628 Flexible graphite composite reinforced (plate) pad JB/T 7758.2 Technical conditions for flexible graphite plates JC/T 2052 Roll-pressed asbestos-free fiber gasket material NB/T 47013.5 Non-destructive testing of pressure equipment Part 5: Penetration testing QB/T 5257 Polytetrafluoroethylene (PTFE) sheet

3 Terms and definitions

The terms and definitions defined in GB/T 151 and the following apply to this document.

channelgasket

The sealing gasket at the connection between the pipe box flange and the tube plate or pipe box flat cover.