

HG

**CHEMICAL INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

HG/T 20612-2009

**Metallic ring joint gaskets for use with steel pipe flanges (PN
designated)**

钢制管法兰用金属环形垫(PN系列)

(English Translation)

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3.0.1 Type

According to the section forms, the ring joint flanges for metallic ring joint gaskets can be divided into the following two types. elliptic type and octagonal type, see Figure 3.0.1.

Table 5.0.2 Dimension tolerance of Metallic Ring Joint Gaskets (mm)

Item	Dimension tolerance	Item	Dimension tolerance
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P	± 0.18	C	± 0.20
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A	± 0.20	r	± 0.5
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B or H	± 0.50	23o	± 0.50
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5.0.3 Manufacture

1 Generally, the metallic ring joint gaskets are manufactured integrally with steel bars, seamless steel tubes and forgings, and if other blank is to be adopted, approval shall be got from users.

2 Pony-dimension ring joint gaskets can be manufactured directly with steel bars and seamless steel tube through mechanical processing, while for the larger-dimension air rings, they shall be made through thermally treating and mechanically processing forgings.

3 As for the metallic ring joint gaskets which are made up of readily-rusting materials (pure iron, Grade 10 steel, 1Cr5Mo), their surface shall be coated with antirust after inspection. Anti-corrosive treatment shall be carried out for stainless steel ring joint gaskets according to users' requirements.

1 Appearance and dimension inspection

The appearance of ring joint gaskets shall be inspected visually before leaving the factory.

Its surface roughness may be compared with that of the standard sample block with visual method (GB/T 6060.2). While for its pitch diameter, ring width, ring height, octagonal gasket angle and flat width, they shall be inspected with special measuring device in accordance with the provisions of Table 5.0.2 of this standard.

2 Material inspection

The chemical composition of metallic ring joint gaskets shall meet the provisions of Table 3.0.3 of this standard and those of the relevant standards. The allowable deviation between the values from product analysis and specified values of the standard shall meet the provisions of GB/T 222.

3 Hardness inspections.

1) The blank hardness shall be inspected randomly with the Brinell hardness method and also meet the provisions of Table 3.0.3 of this standard.

2) The hardness of the product shall be inspected randomly with the Rockwell

Hardness method. Inspect two sections symmetrically below R23 and four sections above R24; their average value shall meet the provisions of Table 3.0.3 of this standard.

5.0.5 Performance test and method

The performance test and method of metallic ring joint gaskets shall meet the relevant provisions specified by users.

6. Inspection

6.0.1 The material, dimension, appearance and hardness of gaskets shall be compliant to the provisions of this standard.

6.0.2 Other inspection requirements may be determined through negotiating with the producers at ordering.

7. Labeling

7.0.1 Labeling and illustration

1 The gasket shall be labeled according to the following provisions.

1) Standard name;

2) Gasket type;

- 3) Nominal dimension (DN);
- 4) Nominal pressure (PN);
- 5) Material marking (according to the provisions of Table 3.0.3 of this standard).

2 Illustration.

As for the metallic ring joint gaskets (elliptic type) for steel pipe flanges whose nominal dimension is DN100, nominal pressure is PN63, the used material is 0Cr18Ni9, it can be marked as.

HG/T 20612 Elliptic gasket 100-63 304

7.0.2 Marking

A permanent marking (e.g.. steel seal) shall be made on the lateral surface of the metallic ring joint gaskets. The marking contents are as follows.

- 1 Name or trademark of the producer;
- 2 Standard No.;
- 3 Nominal dimension (DN);
- 4 Nominal pressure (PN);

5 Material marking (according to the provisions of Table 3.0.3 of this standard)

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