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

GB/T 9113-2010

Replacing GB/T 2504-1989; GB/T 9113.1-2000; GB/T 9113.2-2000; GB/T 9113.3-2000; GB/T 9113.4-2000

**Integral steel pipe flanges
(English Translation)**

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Foreword

GB/T 9112 ~ 9124-2010 "steel pipe flanges" series Standard is a modified ASMEB16.5-2009 "pipe flanges and flanged pipe Member (NPS1/ ~ NPS24) "and EN1092-1:2007" Flanges and their connecting pipes, valves, fittings and accessories, circular flange, PN labeled Part 1. steel flanges. " ASMEB16.5-2009 is a complete standards for Class marks flange, EN1092-1:2007 is a complete standard PN mark on the flange. This series of standards using a combination of the above two criteria, including Mark the relevant technical content Class flange and flange PN mark. This series of standards for a total 13 standard, this standard is one of a standard.

This standard ASMEB16.5-2009 and EN1092-1:2007 standard main difference is as follows.

--- The preparation of this standard format ASMEB16.5-2009 and EN1092-1:2007 different standards;

--- ASMEB16.5-2009 standard includes a flange nominal pressure Class400 data, not included in this standard Class400 flange data;

--- ASMEB16.5-2009 standard includes flange nominal size of the data NPS31/, this standard does not NPS31/ law LAN data;

--- ASMEB16.5-2009 standard includes flanges and flanged fittings, this standard does not include pipe flanges;

--- ASMEB16.5-2009 standard with inch bolt, bolt aperture is also used in inch sizes, this standard to metric bolts, Aperture pattern also uses metric dimensions;

--- According to user requirements of the standard PN labeled flange nominal size range in EN1092-1:2007 standard Done on the basis of appropriate expansion, including the addition of PN160 ~ PN400 nominal pressure range of DN20 and DN32 two A nominal size;

--- EN1092-1:2007 standard does not include ring joint face flange, according to our user's requirements, the standard increases the standard PN flange ring joint face flange;

--- EN1092-1:2007 standard does not include two DN175 and DN225 nominal size, according to users of marine flange Requirements, this standard PN flange marked increase of DN175 and DN225 only two male marine said flange size.

This standard replaces GB/T 9113.1-2000 "flat projection surface Integral steel pipe flanges", GB/T 9113.2-2000 "overall convex surface Steel pipe flanges ", GB/T 9113.3-2000 "tongue and groove face Integral steel pipe flanges ", GB/T 9113.4-2000 "Integral steel connecting ring Pipe flange "and GB/T 2504-1989" marine steel flange (four into bits) ", compared with the original standard main changes are as follows.

--- The original four overall steel pipe flanges standards and GB/T 2504-1989 integrated as a standard;

--- According to EN1092-1:2007 standard, the flange nominal pressure range PN labeled expanded from the original PN6 ~ PN160 to PN2.5 ~ PN400;

--- According to EN1092-1:2007 standard, PN flange marked increase in the O-ring sealing surface type;

--- According to user requirements, PN series flanges increasing the ring joint face type (RJ);

--- PN flange marked increase in the DN175 and DN225 only two male Marine flange nominal size;

--- According to EN1092-1:2007 standard, flange dimensions data PN-labeled comprehensive revision;

--- According ASME B16.5-2009 standard, flange dimensions data Class marks a comprehensive modification;

--- Increasing the variety of sealing surface of the scope of application form;

--- According ASME B16.5-2009, belonging to the original standard flange nominal inter-American system has been modified tag; PN20 to Class150, PN50 to Class300, PN110 to Class600, PN150 to Class900, PN260 to Class1500, PN420 to Class2500.

The standard proposed by China Machinery Industry Federation.

This standard by the National Standardization Technical Committee pipe accessories.

This standard was drafted. Zhejiang Chaoda Valve Co., Paul Group Co., Ltd., the machine Productivity Promotion Center, Chinese ship Industrial Technology & Economy Institute.

1 Scope

This standard specifies the type, size and technical requirements with nominal pressure PN tag and labeled with Class Integral steel pipe flanges.

This standard applies to nominal pressure PN2.5 ~ PN400 and Class150 ~ Class2500 overall steel pipe flanges.

2 Normative references

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

GB/T 9112 steel pipe flanges with type parameters GB/T 9124 steel pipe flanges

3.1 Integral steel pipe flanges with PN labeled type and size

3.1.1

labeled with PN Integral steel pipe flange sealing surface type and application of nominal pressure and nominal size range specified in Table 1.

Table 1 Integral steel pipe flanges PN labeled sealing surface type and application of nominal pressure and nominal size range

Sealing surface

Type

Nominal

PN2.5	PN6	PN10	PN16	PN25	PN40	PN63	PN100	PN160	PN250	PN320	PN400	flat (FF)
DN10 ~ DN2000	DN10 ~ DN600	Raised face (RF)	DN10 ~ DN2000	DN10 ~ DN600	DN10 ~ DN400	DN10 ~ DN350	DN10 ~ DN300	DN10 ~ DN250	DN10 ~ DN200	Convex surface (MF)	DN10 ~ DN2000	DN10 ~ DN600
DN10 ~ DN400	DN10 ~ DN350	DN10 ~ DN300	DN10 ~ DN250	DN10 ~ DN200	Tongue and groove (TG)	DN10 ~ DN2000	DN10 ~ DN600	DN10 ~ DN400	DN10 ~ DN350	DN10 ~ DN300	DN10 ~ DN250	DN10 ~ DN200
DN10 ~ DN400	DN10 ~ DN350	DN10 ~ DN300	DN10 ~ DN250	DN10 ~ DN200	O-ring face (OSG)	DN10 ~ DN2000	DN10 ~ DN600	Ring Joint (RJ)	DN15 ~ DN400	DN15 ~ DN350	DN15 ~ DN300	DN15 ~ DN250
DN15 ~ DN250	DN15 ~ DN200											

3.1.2

Integral steel pipe flanges with PN-labeled type shall comply with Figs. 1 to 6, flange sealing surface dimensions shall comply with Table 2 and Specified in Table 3, the other flange dimensions shall comply with the requirements in Table 4 to Table 15.