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

**GB/T 17241.6-2008**

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**Integral cast iron flanges [including MODIFICATION 1]  
(English Translation)**

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### Foreword

"Cast Iron Pipe Flanges" (GB/T 17241) is divided into 7 parts.

- GB/T 17241.1 Synoptic Table for Cast Iron Pipe Flanges;
- GB/T 17241.2 Cast Iron Pipe Blank Flanges;
- GB/T 17241.3 Hubbed Threaded Cast Iron Pipe Flanges;
- GB/T 27241.4 Hubbed Slip-on-welding and Hubbed Socket Welding Cast Iron Pipe Flanges;
- GB/T 17241.5 Loose Hubbed Cast Iron Pipe Flanges for Lapped Pipe End;
- GB/T 17241.6 Integral Cast Iron Flanges;
- GB/T 17241.7 Specifications for Cast Iron Pipe Flanges.

This part adopts the relevant parts of ISO 7005-2:1988 "Metallic Flanges - Part 2. Cast Iron Flanges" by reference. The types and dimensions of the integral cast iron flanges in this part are consistent with those specified in ISO 7005-2:1988, but compiled in different formats.

This part is the revision of GB/T 17241.6-1998 "Integral Cast iron Pipe Flanges" and GB/T 2503-1989 "Marine Cast Iron Pipe Flanges".

Compared with the original standard, the main changes of this standard are as follows.

- The original two standards are integrated into one; and the standard name and compiling format are modified;
- The flange rating marks belonging to American System in the former standard are

modified, e.g. PN20 is marked as Class150, and PN50 is marked as Class300;

- Marking examples are modified.

This standard shall replace GB/T 17241.6-1998 and GB/T 2503-1989, from the implementation date.

This part was proposed by China Machinery Industry Federation.

This part shall be under the jurisdiction of National Technical Committee on Pipe Fitting of Standardization Administration of China.

Drafting organizations of this part. China Productivity Center for Machinery, and Zhejiang Gaoqiangdu Fasteners Co., Ltd.

Participating drafting organizations of this part. China Technology Research & Economy Development Institute, and Jinan Meide Casting Co., Ltd.

Chief drafting staffs of this part. Li Junying, Luo Fayuan, Ge Haiquan, Feng, and Zang Guiming.

The previous editions replaced by this part are.

- GB/T 17241.6-1998;

- GB 2503-81 and GB/T 2503-1989.

Integral Cast Iron Flanges

## 1 Scope

This part of GB/T 17241 specifies the types and dimensions of the integral gray cast iron, malleable cast iron and ductile cast iron flanges with the nominal pressure of PN2.5, PN6, PN10, PN16, PN25, PN40, Class150, and Class300.

This part is applicable to the design, manufacture and acceptance of DN10~DN4000 gray cast iron, malleable cast iron, and ductile cast iron integral cast iron flanges.

## 2 Normative References

The following standards contain provisions which, through reference in this part of GB/T 17241, constitute provisions of this part. For dated reference, the subsequent amendments (excluding correction) or revisions of these publications do not apply.

However, the parties who enter into an agreement based on this part are encouraged to

investigate the possibility of applying the most recent editions of the standards. For undated references, the latest edition of the normative document referred to applies.

GB/T 17241.7 Specifications for Cast Iron Pipe Flanges

### 3.1 The types and dimensions of PN2.5, PN6, PN10, PN16, PN25 and PN40

flanges shall meet the requirements of Figure 1 and Tables 1 ~ 6.

### 3.2 The types and dimensions of Class150 and Class300 flanges shall meet the

requirements of Figure 1 and Table 7 ~ Table 8.

500 670 620 28 20 M24 582 4 3d 26.5 - 559 12

600 780 725 31 20 M27 682 5 36 30 - 658 12

700 895 840 31 24 M27 794 5 40 32.5 - 772 12

800 1015 950 34 24 M30 901 5 44 35 - 876 12

900 1115 1050 34 28 M30 1001 5 46 37.5 - 976 12

1000 1230 1160 37 28 M33 1112 5 50 40 - 1080 12

1200 1455 1380 40 32 M36 1328 5 56 45 - 1292 12

1400 1675 1590 43 36 M39 1530 5 62 46 - 1496 12

1600 1915 1820 49 40 M45 1750 5 68 49 - 1712 12

1800 2115 2020 49 44 M45 1950 5 70 52 - 1910 15

2000 2325 2230 49 48 M45 2150 5 74 55 - 2120 15

Table 4 Dimensions of PN 16 Integral Cast Iron Flanges

mm

Nominal

dimension

DN

Connection dimension Sealing surface Flange thickness

Neck

diameter

Corner

radius

Outer

diameter of

flange D

Diameter of

center circle

of bolt hole

Diameter of

bolt hole

Bolt Outer

diameter

Height

Number

Thread

specification

Gray cast

iron

Ductile cast

iron

Malleable

cast iron

10 90 60 14 4 M12 41 2 14 - 14 28 3

15 95 60 14 4 M12 46 2 14 - 14 32 3

20 105 75 14 4 M12 56 2 16 - 16 40 4

25 115 85 14 4 M12 65 3 16 - 16 50 4

32 140 100 19 4 M16 76 3 18 - 18 60 5

40 150 110 19 4 M16 84 3 18 19 18 70 5

500 730 660 37 20 M33 609 4 52 36.5 - 580 12

600 845 770 40 20 M36 720 5 56 42 - 684 12