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

GB/T 17185-2012

**Steel flanged fittings
(English Translation)**

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Table of Contents

Foreword...	3
1 Scope...	4
2 Normative references...	4
3 Expression method of designation...	4
4 Dimensions and tolerance...	5
5 Technical Requirements...	11
6 Hydraulic Test...	12
7 Inspection...	13

Foreword

This Standard was drafted according to the rules specified in GB/T 1.1-2009.

This Standard replaces GB/T 17185-1997, "Steel Pipe Fittings for Flanged Joint".

Compared with GB/T 17185-1979, this Standard has the main technical changes as follows.

- ADJUST the standard structure dimension; DELETE the dimension data of PN11.0, PN15.0 and PN26.0 according to ASME B16.5.2009;
- REVISE the nominal pressures of PN2.0 and PN5.0 TO Class 150 and Class 300, and ADJUST the specific dimension values such as the distance between end surfaces of the reducing joint etc.;
- MODIFY the categories and designations of steel flanged fittings;
- ADD the related technical specifications of reducing fittings;
- ADD the materials of steel flanged fittings;
- MODIFY the mark and its contents.

This Standard is modified in relation to flanged fittings in ASME B16.5.2009 "Pipe Flanges and Flanged Fittings", and the types, dimensions and technical requirements are basically consistent with those specified in ASME B16.5.2009.

This Standard is proposed by China Machinery Industry Federation.

This Standard is under the jurisdiction of China State Technical Committee for Standardization of Pipe Fittings (SAC/TC 237).

Drafting organizations of this Standard. China Productivity Center for Machinery, East China Design Branch of China Petroleum Engineering Construction Corporation, China Tianchen Engineering Corporation, Jintong Petrochemical Pipe Fittings Co., Ltd. (Jiang Yin), Huzhou Jiuli Pipe Fittings Co., Ltd., Yangzhou Pipe Fitting Factory Co., Ltd.

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The previous edition of the standard replaced by this standard is as.

- GB/T 17185-1997.

Steel Flanged Fittings

1 Scope

This Standard specifies the category and designation, dimensions and tolerances, technical requirements, hydrostatic test, inspection mark and package of the class-designated steel flanged fittings.

This Standard is applicable to the steel flanged fittings with the nominal pressures of Class 150 and Class 300.

2 Normative references

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) are applicable to this document.

GB/T 9113-2010 Integral Steel Pipe Flanges

GB/T 9124-2010 Specification for Steel Pipe Flanges

3 Expression method of designation

The categories and designations of steel flanged fittings are as those specified in Table 1.

Table 1 Categories and Designations of Steel Flanged Fittings

Variety	Category	Designation
45° elbow	Straight	F45ES
	Reducing	F45ER
90° elbow		
	Straight	F90ES
	Reducing	F90ER
	Straight long radius	F90ELS
	Reducing long radius	F90ELR
Tee	Straight	FTS
	Reducing	FTR
Cross	Straight	FCRS

Table 2 Dimensions of Class 150 Steel Flanged Fittings In mm

Nominal
dimensions
Minimum
wall
thickness
t _{ma}
Inner
diameter
Raised face
Ring joint face
NPS DN
Distance between the center and joint face
of the elbow, tee and cross A
Distance between the center and joint face
of the long radius elbow B

Distance between the center and joint face
of 45° elbow C

Distance between the long center and joint
face of the lateral tee E

Distance between the short center and
joint face of the lateral tee F

Distance between joint faces of the
reducing joint G

Distance between the center and end of
the elbow, tee and cross A

Distance between the center and end of
the long radius elbow B

Distance between the center to end face of
45° elbow C

Distance between the long center and end
face of the lateral tee E

Distance between the short center and end
face of the lateral tee F

Distance between end faces of a reducing
joint G

1 25 4.0 25 89 127 44 146 44 114 95 133 51 152 51 127

1 1/4 32 4.8 32 95 140 51 159 44 114 102 146 57 165 51 127

1 1/2 40 4.8 38 102 152 57 178 51 114 108 159 64 184 57 127

2 50 5.6 51 114 165 64 203 64 127 121 171 70 210 70 140

2 1/2 65 5.6 64 127 178 76 241 64 140 133 184 83 248 70 153

3 80 5.6 76 140 197 76 254 76 152 146 203 83 260 70 165

4 100 6.4 102 165 229 102 305 76 178 171 235 108 311 83 191

5 125 7.1 127 190 260 114 343 89 203 197 267 121 349 95 216