

## BS 10 : 1962

British Standard BS 10 : 1962 - Specification for Flanges and Bolting for Pipes, Valves, and Fittings. This covers plain, boss, integrally cast or forged, and welding neck type flanges, in ten tables. Although BS 10 is obsolescent, it remains in use for the dimensions of light duty, economy stainless steel flanges in applications where corrosion resistance and/or hygiene, rather than high pressures and temperatures, are the primary considerations. The following tables detail the applicable standard dimensions from Tables D, E, F and H of BS 10.

### Flange Dimensions Based on Tables D and E of BS 10 : 1962

Common Flange Size Designation (Nominal Bore of Pipe)	BS 10 Table D Dimensions					BS 10 Table E Dimensions				
	Overall Diameter of Flange	Flange Thickness	Bolt Circle Diameter	Number of Bolts	Diameter of Bolts	Overall Diameter of Flange	Flange Thickness	Bolt Circle Diameter	Number of Bolts	Diameter of Bolts
					in					in
1/2	3 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>8</sub>	4	1/2	3 <sup>3</sup> / <sub>4</sub>	1/4	2 <sup>5</sup> / <sub>8</sub>	4	1/2
3/4	4	3 <sup>1</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>8</sub>	4	1/2	4	1/4	2 <sup>7</sup> / <sub>8</sub>	4	1/2
1	4 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>4</sub>	4	1/2	4 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>32</sub>	3 <sup>1</sup> / <sub>4</sub>	4	1/2
1 <sup>1</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>4</sub>	1/4	3 <sup>7</sup> / <sub>16</sub>	4	1/2	4 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>16</sub>	3 <sup>7</sup> / <sub>16</sub>	4	1/2
1 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>4</sub>	1/4	3 <sup>7</sup> / <sub>8</sub>	4	1/2	5 <sup>1</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>32</sub>	3 <sup>7</sup> / <sub>8</sub>	4	1/2
2	6	5 <sup>1</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>2</sub>	4	5/8	6	3/8	4 <sup>1</sup> / <sub>2</sub>	4	5/8
2 <sup>1</sup> / <sub>2</sub>	6 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>16</sub>	5	4	5/8	6 <sup>1</sup> / <sub>2</sub>	13 <sup>1</sup> / <sub>32</sub>	5	4	5/8
3	7 <sup>1</sup> / <sub>4</sub>	3/8	5 <sup>3</sup> / <sub>4</sub>	4	5/8	7 <sup>1</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>16</sub>	5 <sup>3</sup> / <sub>4</sub>	4	5/8
3 <sup>1</sup> / <sub>2</sub>	8	3/8	6 <sup>1</sup> / <sub>2</sub>	4	5/8	8	15 <sup>1</sup> / <sub>32</sub>	6 <sup>1</sup> / <sub>2</sub>	8	5/8
4	8 <sup>1</sup> / <sub>2</sub>	3/8	7	4	5/8	8 <sup>1</sup> / <sub>2</sub>	1/2	7	8	5/8
5	10	1/2	8 <sup>1</sup> / <sub>4</sub>	8	5/8	10	9 <sup>1</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>4</sub>	8	5/8
6	11	1/2	9 <sup>1</sup> / <sub>4</sub>	8	5/8	11	11 <sup>1</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>4</sub>	8	3/4
7	12	1/2	10 <sup>1</sup> / <sub>4</sub>	8	5/8	12	3/4	10 <sup>1</sup> / <sub>4</sub>	8	3/4
8	13 <sup>1</sup> / <sub>4</sub>	1/2	11 <sup>1</sup> / <sub>2</sub>	8	5/8	13 <sup>1</sup> / <sub>4</sub>	3/4	11 <sup>1</sup> / <sub>2</sub>	8	3/4
9	14 <sup>1</sup> / <sub>2</sub>	5/8	12 <sup>3</sup> / <sub>4</sub>	8	5/8	14 <sup>1</sup> / <sub>2</sub>	13 <sup>1</sup> / <sub>16</sub>	12 <sup>3</sup> / <sub>4</sub>	12	3/4
10	16	5/8	14	8	3/4	16	7/8	14	12	3/4
12	18	3/4	16	12	3/4	18	1	16	12	7/8
13	19 <sup>1</sup> / <sub>4</sub>	3/4	17 <sup>1</sup> / <sub>4</sub>	12	3/4	19 <sup>1</sup> / <sub>4</sub>	1	17 <sup>1</sup> / <sub>4</sub>	12	7/8
14	20 <sup>3</sup> / <sub>4</sub>	7/8	18 <sup>1</sup> / <sub>2</sub>	12	7/8	20 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	18 <sup>1</sup> / <sub>2</sub>	12	7/8
15	21 <sup>3</sup> / <sub>4</sub>	7/8	19 <sup>1</sup> / <sub>2</sub>	12	7/8	21 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	19 <sup>1</sup> / <sub>2</sub>	12	7/8
16	22 <sup>3</sup> / <sub>4</sub>	7/8	20 <sup>1</sup> / <sub>2</sub>	12	7/8	22 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	20 <sup>1</sup> / <sub>2</sub>	12	7/8
17	24	1	21 <sup>3</sup> / <sub>4</sub>	12	7/8	24	1 <sup>3</sup> / <sub>8</sub>	21 <sup>3</sup> / <sub>4</sub>	12	7/8
18	25 <sup>1</sup> / <sub>4</sub>	1	23	12	7/8	25 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>8</sub>	23	16	7/8
19	26 <sup>1</sup> / <sub>2</sub>	1	24	12	7/8	26 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	24	16	7/8
20	27 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	25 <sup>1</sup> / <sub>4</sub>	16	7/8	27 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	25 <sup>1</sup> / <sub>4</sub>	16	7/8
21	29	1 <sup>1</sup> / <sub>8</sub>	26 <sup>1</sup> / <sub>2</sub>	16	7/8	29	1 <sup>5</sup> / <sub>8</sub>	26 <sup>1</sup> / <sub>2</sub>	16	1
22	30	1 <sup>1</sup> / <sub>8</sub>	27 <sup>1</sup> / <sub>2</sub>	16	1	30	1 <sup>3</sup> / <sub>4</sub>	27 <sup>1</sup> / <sub>2</sub>	16	1
23	31	1 <sup>1</sup> / <sub>8</sub>	28 <sup>1</sup> / <sub>2</sub>	16	1	31	1 <sup>3</sup> / <sub>4</sub>	28 <sup>1</sup> / <sub>2</sub>	16	1
24	32 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>4</sub>	29 <sup>3</sup> / <sub>4</sub>	16	1	32 <sup>1</sup> / <sub>2</sub>	1 <sup>7</sup> / <sub>8</sub>	29 <sup>3</sup> / <sub>4</sub>	16	1 <sup>1</sup> / <sub>8</sub>

Note

- Bolt hole diameters are as follows:  
For 1/2 in and 5/8 in bolts, the bolt hole shall be 1/16 in larger than the bolt diameter.  
For 3/4 in bolts and larger, the bolt hole shall be not more than 1/8 in larger than the bolt diameter.



## BS 10 : 1962

### Flange Dimensions Based on Tables F and H of BS 10 : 1962

Common Flange Size Designation (Nominal Bore of Pipe)	BS 10 Table F Dimensions					BS 10 Table H Dimensions				
	Overall Diameter of Flange	Flange Thickness	Bolt Circle Diameter	Number of Bolts	Diameter of Bolts	Overall Diameter of Flange	Flange Thickness	Bolt Circle Diameter	Number of Bolts	Diameter of Bolts
1/2	3 <sup>3</sup> / <sub>4</sub>	3/8	2 <sup>5</sup> / <sub>8</sub>	4	1/2	4 <sup>1</sup> / <sub>2</sub>	1/2	3 <sup>1</sup> / <sub>4</sub>	4	5/8
3/4	4	3/8	2 <sup>7</sup> / <sub>8</sub>	4	1/2	4 <sup>1</sup> / <sub>2</sub>	1/2	3 <sup>1</sup> / <sub>4</sub>	4	5/8
1	4 <sup>3</sup> / <sub>4</sub>	3/8	3 <sup>7</sup> / <sub>16</sub>	4	5/8	4 <sup>3</sup> / <sub>4</sub>	9/16	3 <sup>7</sup> / <sub>16</sub>	4	5/8
1 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>4</sub>	1/2	3 <sup>7</sup> / <sub>8</sub>	4	5/8	5 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>16</sub>	3 <sup>7</sup> / <sub>8</sub>	4	5/8
1 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>2</sub>	1/2	4 <sup>1</sup> / <sub>8</sub>	4	5/8	5 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>8</sub>	4	5/8
2	6 <sup>1</sup> / <sub>2</sub>	5/8	5	4	5/8	6 <sup>1</sup> / <sub>2</sub>	3/4	5	4	5/8
2 <sup>1</sup> / <sub>2</sub>	7 <sup>1</sup> / <sub>4</sub>	5/8	5 <sup>3</sup> / <sub>4</sub>	8	5/8	7 <sup>1</sup> / <sub>4</sub>	3/4	5 <sup>3</sup> / <sub>4</sub>	8	5/8
3	8	5/8	6 <sup>1</sup> / <sub>2</sub>	8	5/8	8	7/8	6 <sup>1</sup> / <sub>2</sub>	8	5/8
3 <sup>1</sup> / <sub>2</sub>	8 <sup>1</sup> / <sub>2</sub>	3/4	7	8	5/8	8 <sup>1</sup> / <sub>2</sub>	7/8	7	8	5/8
4	9	3/4	7 <sup>1</sup> / <sub>2</sub>	8	5/8	9	1	7 <sup>1</sup> / <sub>2</sub>	8	5/8
5	11	7/8	9 <sup>1</sup> / <sub>4</sub>	8	3/4	11	1 <sup>1</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>4</sub>	8	3/4
6	12	7/8	10 <sup>1</sup> / <sub>4</sub>	12	3/4	12	1 <sup>1</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>4</sub>	12	3/4
7	13 <sup>1</sup> / <sub>4</sub>	7/8	11 <sup>1</sup> / <sub>2</sub>	12	3/4	13 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>2</sub>	12	3/4
8	14 <sup>1</sup> / <sub>2</sub>	1	12 <sup>3</sup> / <sub>4</sub>	12	3/4	14 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>4</sub>	12 <sup>3</sup> / <sub>4</sub>	12	3/4
9	16	1 <sup>1</sup> / <sub>8</sub>	14	12	7/8	16	1 <sup>3</sup> / <sub>8</sub>	14	12	7/8
10	17	1 <sup>1</sup> / <sub>8</sub>	15	12	7/8	17	1 <sup>3</sup> / <sub>8</sub>	15	12	7/8
12	19 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	17 <sup>1</sup> / <sub>4</sub>	16	7/8	19 <sup>1</sup> / <sub>4</sub>	1 <sup>5</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>4</sub>	16	7/8
13	20 <sup>3</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>8</sub>	18 <sup>1</sup> / <sub>2</sub>	16	1	20 <sup>3</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>4</sub>	18 <sup>1</sup> / <sub>2</sub>	16	1
14	21 <sup>3</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>8</sub>	19 <sup>1</sup> / <sub>2</sub>	16	1	21 <sup>3</sup> / <sub>4</sub>	1 <sup>7</sup> / <sub>8</sub>	19 <sup>1</sup> / <sub>2</sub>	16	1
15	22 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	20 <sup>1</sup> / <sub>2</sub>	16	1	22 <sup>3</sup> / <sub>4</sub>	2	20 <sup>1</sup> / <sub>2</sub>	16	1
16	24	1 <sup>5</sup> / <sub>8</sub>	21 <sup>3</sup> / <sub>4</sub>	20	1	24	2 <sup>1</sup> / <sub>8</sub>	21 <sup>3</sup> / <sub>4</sub>	20	1
17	25 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>4</sub>	23	20	1	25 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>4</sub>	23	20	1
18	26 <sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>4</sub>	24	20	1 <sup>1</sup> / <sub>8</sub>	26 <sup>1</sup> / <sub>2</sub>	2 <sup>3</sup> / <sub>8</sub>	24	20	1 <sup>1</sup> / <sub>8</sub>
19	27 <sup>3</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>4</sub>	25 <sup>1</sup> / <sub>4</sub>	20	1 <sup>1</sup> / <sub>8</sub>	27 <sup>3</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>2</sub>	25 <sup>1</sup> / <sub>4</sub>	20	1 <sup>1</sup> / <sub>8</sub>
20	29	2	26 <sup>1</sup> / <sub>2</sub>	24	1 <sup>1</sup> / <sub>8</sub>	29	2 <sup>5</sup> / <sub>8</sub>	26 <sup>1</sup> / <sub>2</sub>	24	1 <sup>1</sup> / <sub>8</sub>
21	30	2	27 <sup>1</sup> / <sub>2</sub>	24	1 <sup>1</sup> / <sub>8</sub>	30	2 <sup>3</sup> / <sub>4</sub>	27 <sup>1</sup> / <sub>2</sub>	24	1 <sup>1</sup> / <sub>8</sub>
22	31	2 <sup>1</sup> / <sub>8</sub>	28 <sup>1</sup> / <sub>2</sub>	24	1 <sup>1</sup> / <sub>8</sub>	31	2 <sup>3</sup> / <sub>4</sub>	28 <sup>1</sup> / <sub>2</sub>	24	1 <sup>1</sup> / <sub>8</sub>
23	32 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>4</sub>	29 <sup>3</sup> / <sub>4</sub>	24	1 <sup>1</sup> / <sub>4</sub>	32 <sup>1</sup> / <sub>2</sub>	3	29 <sup>3</sup> / <sub>4</sub>	24	1 <sup>1</sup> / <sub>4</sub>
24	33 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>4</sub>	30 <sup>3</sup> / <sub>4</sub>	24	1 <sup>1</sup> / <sub>4</sub>	33 <sup>1</sup> / <sub>2</sub>	3	30 <sup>3</sup> / <sub>4</sub>	24	1 <sup>1</sup> / <sub>4</sub>

Note

- Bolt hole diameters are as follows:

For 1/2 in and 5/8 in bolts, the bolt hole shall be 1/16 in larger than the bolt diameter.

For 3/4 in bolts and larger, the bolt hole shall be not more than 1/8 in larger than the bolt diameter.