

# Dimensions of butt welding elbows 2D 3D 5D EN 10253-2

## Dimensions and tolerances

### 11.1 Dimensions

#### 11.1.1 General

For reducers and tees it is not mandatory that the produced pieces correspond to the exact representation in the figures. Only the dimensions given in the relevant tables shall be respected.

#### 11.1.2 Elbows

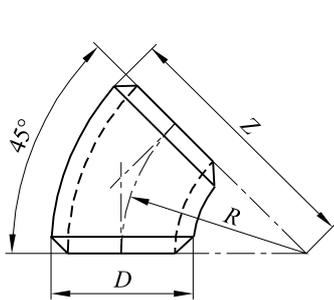


Figure 1 — 45° elbow

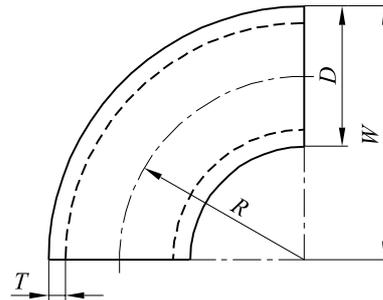


Figure 2 — 90° elbow

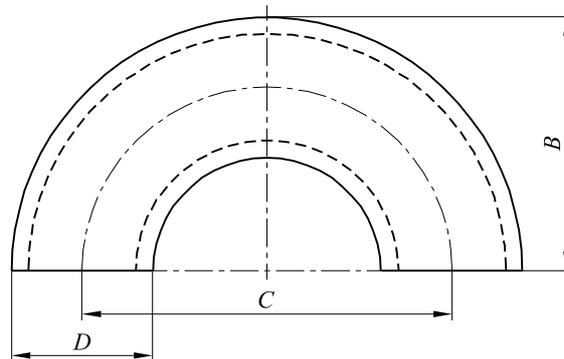


Figure 3 — Return bend

Elbows and return bends are produced according to Figures 1, 2 and 3 (45° - 90° - 180°). Specific dimensions are listed in Tables 10, 11 and 12.

The values given for W and Z in addition to those for R have been calculated from the values of R and shall be used to verify conformance of the elbow because measurement of R is not possible in practice.

Material available:

P235TR2, P265TR2, P235GH, and P265GH

16Mo3, 10CrMo5-5, 13CrMo4-5, 10CrMo9-10, X11CrMo5, X11CrMo9-1, and X10CrMoVNb9-1

P355N/NH/NL1, P215NL, P265NL, 12Ni14, and X10Ni9

**Table 10 — Elbows model 2D — Dimensions**

Dimensions in millimetres

<i>DN</i>	<i>D</i>	<i>R</i>	<i>C</i>	<i>B - W</i>
15	21,3	25	50	36
20	26,9	25	50	39
25	33,7	25	50	42
32	42,4	32	64	53
40	48,3	38	76	62
50	60,3	51	102	81
65	76,1	63	127	102
80	88,9	76	152	121
100	114,3	102	203	159
125	139,7	127	254	197
150	168,3	152	305	237
200	219,1	203	406	313
250	273	254	508	391
300	323,9	305	610	467
350	355,6	356	711	533
400	406,4	406	813	610
450	457	457	914	686
500	508	508	1 016	762
550	559	559	1 118	838
600	610	610	1 220	914
650	660	660	1 320	990
700	711	711	1 422	1 066
750	762	762	1 524	1 143
800	813	813	1 626	1 220
850	864	864	1 728	1 296
900	914	914	1 828	1 371
1 000	1 016	1 016	2 032	1 524
1 050	1 067	1 067	2 134	1 600
1 100	1 118	1 118	2 236	1 677
1 150	1 166	1 166	2 332	1 749
1 200	1 219	1 219	2 438	1 830

**Table 11 — Elbows model 3D — Dimensions**

Dimensions in millimetres

<i>DN</i>	<i>D</i>	<i>R</i>	<i>C</i>	<i>B - W - Z</i>
15	21,3	38	76	49
20	26,9	38	76	51
25	33,7	38	76	56
	38	45	90	64
32	42,4	48	96	69
40	48,3	57	114	82
	51	63	126	88
	57	72	144	100
50	60,3	76	152	106
	70	92	184	127
65	76,1	95	190	133
80	88,9	114	228	159
	101,6	133	267	184
	108	142,5	285	196
100	114,3	152	304	210
	133	181	362	247
125	139,7	190	380	260
	159	216	432	295
150	168,3	229	457	313
	193,7	270	540	367
200	219,1	305	610	414
	244,5	340	680	462
250	273	381	762	518
300	323,9	457	914	619
350	355,6	533	1 066	711
400	406,4	610	1 220	813
450	457	686	1 372	914
500	508	762	1 524	1 016
550	559	838	1 676	1 118
600	610	914	1 828	1 219
650	660	990	1 980	1 320
700	711	1 067	2 134	1 422
750	762	1 143	2 286	1 524
800	813	1 219	2 438	1 626
850	864	1 296	2 592	1 728
900	914	1 372	2 744	1 829
1 000	1 016	1 524	3 048	2 032
1 050	1 067	1 600	3 201	2 134
1 100	1 118	1 677	3 354	2 236
1 150	1 168	1 752	3 504	2 336
1 200	1 219	1 829	3 658	2 438

Table 12 — Elbows model 5D — Dimensions

Dimensions in millimetres

<i>DN</i>	<i>D</i>	<i>R</i>	<i>C</i>	<i>B - W - Z</i>
15	21,3	42,5	85	53
20	26,9	57,5	115	71
25	33,7	72,5	145	89
	38	82,5	165	101
32	42,4	92,5	185	114
40	48,3	109,5	219	134
	51	122,5	245	149
	57	130	260	158
50	60,3	137,5	275	168
	70	160	320	195
65	76,1	175	350	213
80	88,9	207,5	415	252
	101,6	235	470	286
	108	253	506	306
100	114,3	270	540	327
	133	311,5	623	378
125	139,7	330	660	400
	159	375	750	454
150	168,3	390	780	474
200	219,1	515	1030	624
	244,5	580	1160	702
250	273	650	1300	786
300	323,9	770	1540	932
350	355,6	850	1700	1 028
400	406,4	970	1940	1 173
450	457	1 122	2 244	1 350
500	508	1 245	2 490	1 500
550	559	1 398	2 796	1 677
600	610	1 525	3 050	1 830
650	660	1 650	3 300	1 980
700	711	1 778	3 556	2 133
750	762	1 905	3 810	2 286
800	813	2 033	4 066	2 439
850	864	2 155	4 310	2 587
900	914	2 285	4 570	2 742
1 000	1 016	2 540	5 080	3 048
1 050	1 067	2 665	5 335	3 201
1 100	1 118	2 790	5 580	3 354
1 150	1 168	2 915	5 830	3 504
1 200	1 219	3 050	6 100	3 657