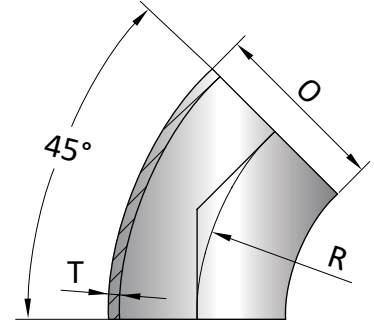


Bends

DIN 11852 Series 2
Form BS-45



Nominal Size	O	R	T	Ordering Code
10	13	26.0	1.5	010000-300-D* **
15	19	35.0	1.5	015000-300-D* **
20	23	40.0	1.5	020000-300-D* **
25	29	50.0	1.5	025000-300-D* **
32	35	55.0	1.5	032000-300-D* **
40	41	60.0	1.5	040000-300-D* **
50	53	70.0	1.5	050000-300-D* **
65	70	80.0	2.0	065000-300-D* **
80	85	90.0	2.0	080000-300-D* **
100	104	100.0	2.0	100000-300-D* **
125	129	187.5	2.0	125000-300-D* **
150	154	225.0	2.0	150000-300-D* **
200	204	300.0	2.0	200000-300-D* **



* The first digit refers to material guide, according to Table 1
 ** The last digit refers to surface quality, according to Table 2

Table 1

Material Guide	
1.4301 (304)	1
1.4307 (304L)	2
1.4404 (316L)	4
1.4435 (316L BPE)	7

Table 2

Inside Surface	Outside Surface	Ordering Code
Inside Surface	Outside Surface	
No finish requirement	No finish requirement	0
MP 30µ-in 0,8µm	No finish requirement	1
MP 20µ-in 0,51µm	No finish requirement	2
MP 30µ-in 0,8µm	MP 30µ-in 0,8µm	3
MP 20µ-in 0,51µm	MP 30µ-in 0,8µm	4
EP 20µ-in 0,51µm	EP 20µ-in 0,51µm	M
Mirror	Mirror	9

*MP: Mechanically Polished

Ordering Example

Description	Nominal Size	Ordering Code
Type 300	25	025000-300-D43*

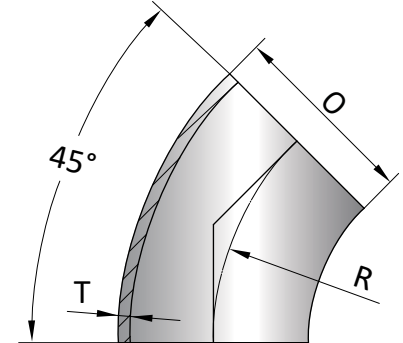
*Material and Surface are including to the ordering code

Bends

Short Elbow 45 for Tubes
DIN 11850 Serie 1



Nominal Size	O	R	T	Ordering Code
10	12	26	1.5	010000-300-D* **
15	18	35	1.5	015000-300-D* **
20	22	40	1.5	020000-300-D* **
25	28	50	1.5	025000-300-D* **
32	34	55	1.5	032000-300-D* **
40	40	60	1.5	040000-300-D* **
50	52	70	1.5	050000-300-D* **



* The first digit refers to material guide, according to Table 1
** The last digit refers to surface quality, according to Table 2

Table 1

Material Guide	
1.4301 (304)	1
1.4307 (304L)	2
1.4404 (316L)	4
1.4435 (316L BPE)	7

Table 2

Inside Surface	Outside Surface	Ordering Code
Inside Surface	Outside Surface	
No finish requirement	No finish requirement	0
MP 30μ-in 0,8μm	No finish requirement	1
MP 20μ-in 0,51μm	No finish requirement	2
MP 30μ-in 0,8μm	MP 30μ-in 0,8μm	3
MP 20μ-in 0,51μm	MP 30μ-in 0,8μm	4
EP 20μ-in 0,51μm	EP 20μ-in 0,51μm	M
Mirror	Mirror	9

*MP: Mechanically Polished

Ordering Example

Description	Nominal Size	Ordering Code
Type 301	25	025000-301-D43*

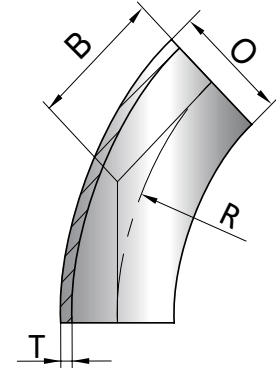
*Material and Surface are including to the ordering code

Bends

DIN 11852 Series 2 Form BL-45
DIN 11865 Series A Form BL-45



Nominal Size	O	T	R	B	Ordering Code
6	8	1.0	20.0	33.3	006000-350-D* **
8	10	1.0	25.0	35.4	008000-350-D* **
10	13	1.5	26.0	35.8	010000-350-D* **
15	19	1.5	35.0	39.5	015000-350-D* **
20	23	1.5	40.0	41.6	020000-350-D* **
25	29	1.5	50.0	60.7	025000-350-D* **
32	35	1.5	55.0	62.8	032000-350-D* **
40	41	1.5	60.0	64.9	040000-350-D* **
50	53	1.5	70.0	69.0	050000-350-D* **
65	70	2.0	80.0	73.1	065000-350-D* **
80	85	2.0	90.0	92.3	080000-350-D* **
100	104	2.0	100.0	96.4	100000-350-D* **
125	129	2.0	187.5	160.2	125000-350-D* **
150	154	2.0	225.0	193.2	150000-350-D* **
200	204	2.0	300.0	224.3	200000-350-D* **



* The first digit refers to material guide, according to Table 1
** The last digit refers to surface quality, according to Table 2

Table 1

Material Guide	
1.4301 (304)	1
1.4307 (304L)	2
1.4404 (316L)	4
1.4435 (316L BPE)	7

Table 2

Inside Surface	Outside Surface	Ordering Code
Inside Surface	Outside Surface	
No finish requirement	No finish requirement	0
MP 30µ-in 0,8µm	No finish requirement	1
MP 20µ-in 0,51µm	No finish requirement	2
MP 30µ-in 0,8µm	MP 30µ-in 0,8µm	3
MP 20µ-in 0,51µm	MP 30µ-in 0,8µm	4
EP 20µ-in 0,51µm	EP 20µ-in 0,51µm	M
Mirror	Mirror	9

*MP: Mechanically Polished

Ordering Example

Description	Nominal Size	Ordering Code
Type 350	25	025000-350-D43*

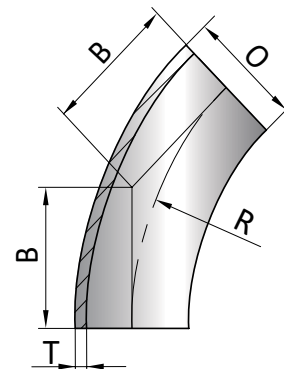
*Material and Surface are including to the ordering code

Bends

Long Elbow 45 for Tubes
DIN 11850 Serie 1



Nominal Size	O	R	B	T	Ordering Code
10	12	26	35.8	1.5	010000-351-D* **
15	18	35	39.5	1.5	015000-351-D* **
20	22	40	41.6	1.5	020000-351-D* **
25	28	50	60.7	1.5	025000-351-D* **
32	34	55	62.8	1.5	032000-351-D* **
40	40	60	64.9	1.5	040000-351-D* **
50	52	70	69.0	1.5	050000-351-D* **



* The first digit refers to material guide, according to Table 1

** The last digit refers to surface quality, according to Table 2

Table 1

Material Guide	
1.4301 (304)	1
1.4307 (304L)	2
1.4404 (316L)	4
1.4435 (316L BPE)	7

Table 2

Inside Surface	Outside Surface	Ordering Code
Inside Surface	Outside Surface	
No finish requirement	No finish requirement	0
MP 30 μ -in 0,8 μ m	No finish requirement	1
MP 20 μ -in 0,51 μ m	No finish requirement	2
MP 30 μ -in 0,8 μ m	MP 30 μ -in 0,8 μ m	3
MP 20 μ -in 0,51 μ m	MP 30 μ -in 0,8 μ m	4
EP 20 μ -in 0,51 μ m	EP 20 μ -in 0,51 μ m	M
Mirror	Mirror	9

*MP: Mechanically Polished

Ordering Example

Description	Nominal Size	Ordering Code
Type 351	25	025000-351-D43*

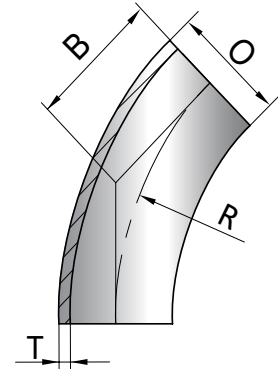
*Material and Surface are including to the ordering code

Bends

DIN 11865 Series B
Form BL-45



Nominal Size	O	T	R	B	Ordering Code
6	10.2	1.6	20.0	33.3	006000-350-G* **
8	13.5	1.6	20.0	33.3	008000-350-G* **
10	17.2	1.6	28.0	36.6	010000-350-G* **
15	21.3	1.6	30.0	37.4	015000-350-G* **
20	26.9	1.6	28.5	51.8	020000-350-G* **
25	33.7	2.0	38.0	55.7	025000-350-G* **
32	42.4	2.0	47.5	59.7	032000-350-G* **
40	48.3	2.0	57.0	63.6	040000-350-G* **
50	60.3	2.0	76.0	71.5	050000-350-G* **
65	76.1	2.0	95.0	94.4	065000-350-G* **
80	88.9	2.3	114.5	102.4	080000-350-G* **
100	114.3	2.3	152.5	118.2	100000-350-G* **
125	139.7	2.6	190.5	133.9	125000-350-G* **
150	168.3	2.6	228.5	149.7	150000-350-G* **
200	219.1	2.6	305.0	206.3	200000-350-G* **



* The first digit refers to material guide, according to Table 1
 ** The last digit refers to surface quality, according to Table 2

Table 1

Material Guide	
1.4301 (304)	1
1.4307 (304L)	2
1.4404 (316L)	4
1.4435 (316L BPE)	7

Table 2

Inside Surface	Outside Surface	Ordering Code
Inside Surface	Outside Surface	
No finish requirement	No finish requirement	0
MP 30µ-in 0,8µm	No finish requirement	1
MP 20µ-in 0,51µm	No finish requirement	2
MP 30µ-in 0,8µm	MP 30µ-in 0,8µm	3
MP 20µ-in 0,51µm	MP 30µ-in 0,8µm	4
EP 20µ-in 0,51µm	EP 20µ-in 0,51µm	M
Mirror	Mirror	9

*MP: Mechanically Polished

Ordering Example

Description	Nominal Size	Ordering Code
Type 350	25	025000-350-D43*

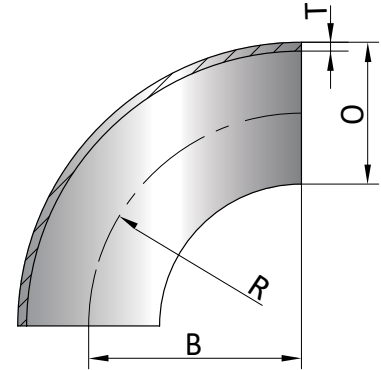
*Material and Surface are including to the ordering code

Bends

DIN 11852 Series 2
Form BL-90



Nominal Size	O	R	B	T	Ordering Code
10	13	26.0	26.0	1.5	010000-200-D* **
15	19	35.0	35.0	1.5	015000-200-D* **
20	23	40.0	40.0	1.5	020000-200-D* **
25	29	50.0	50.0	1.5	025000-200-D* **
32	35	55.0	55.0	1.5	032000-200-D* **
40	41	60.0	60.0	1.5	040000-200-D* **
50	53	70.0	70.0	1.5	050000-200-D* **
65	70	80.0	80.0	2.0	065000--200-D* **
80	85	90.0	90.0	2.0	080000-200-D* **
100	104	100.0	100.0	2.0	100000--200-D* **
125	129	187.5	187.5	2.0	125000-200-D* **
150	154	225.0	225.0	2.0	150000-200-D* **
200	204	300.0	300.0	2.0	200000-200-D* **



* The first digit refers to material guide, according to Table 1
 ** The last digit refers to surface quality, according to Table 2

Table 1

Material Guide	
1.4301 (304)	1
1.4307 (304L)	2
1.4404 (316L)	4
1.4435 (316L BPE)	7

Table 2

Inside Surface	Outside Surface	Ordering Code
Inside Surface	Outside Surface	
No finish requirement	No finish requirement	0
MP 30µ-in 0,8µm	No finish requirement	1
MP 20µ-in 0,51µm	No finish requirement	2
MP 30µ-in 0,8µm	MP 30µ-in 0,8µm	3
MP 20µ-in 0,51µm	MP 30µ-in 0,8µm	4
EP 20µ-in 0,51µm	EP 20µ-in 0,51µm	M
Mirror	Mirror	9

*MP: Mechanically Polished

Ordering Example

Description	Nominal Size	Ordering Code
Type 200	25	025000-200-D43*

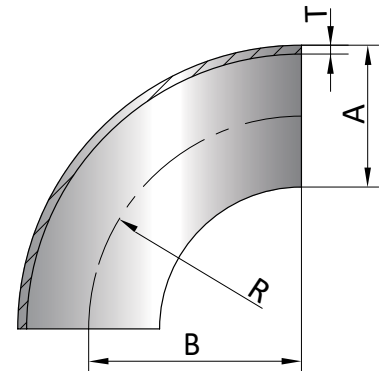
*Material and Surface are including to the ordering code

Bends

Short Elbow 90 for Tubes
DIN 11850 Serie 1



Nominal Size	A	R	B	T	Ordering Code
10	12	26	26	1.5	010000-201-D* **
15	18	35	35	1.5	015000-201-D* **
20	22	40	40	1.5	020000-201-D* **
25	28	50	50	1.5	025000-201-D* **
32	34	55	55	1.5	032000-201-D* **
40	40	60	60	1.5	040000-201-D* **
50	52	70	70	1.5	050000-201-D* **



* The first digit refers to material guide, according to Table 1

** The last digit refers to surface quality, according to Table 2

Table 1

Material Guide	
1.4301 (304)	1
1.4307 (304L)	2
1.4404 (316L)	4
1.4435 (316L BPE)	7

Table 2

Inside Surface	Outside Surface	Ordering Code
Inside Surface	Outside Surface	
No finish requirement	No finish requirement	0
MP 30 μ -in 0,8 μ m	No finish requirement	1
MP 20 μ -in 0,51 μ m	No finish requirement	2
MP 30 μ -in 0,8 μ m	MP 30 μ -in 0,8 μ m	3
MP 20 μ -in 0,51 μ m	MP 30 μ -in 0,8 μ m	4
EP 20 μ -in 0,51 μ m	EP 20 μ -in 0,51 μ m	M
Mirror	Mirror	9

*MP: Mechanically Polished

Ordering Example

Description	Nominal Size	Ordering Code
Type 201	25	025000-201-D43*

*Material and Surface are including to the ordering code

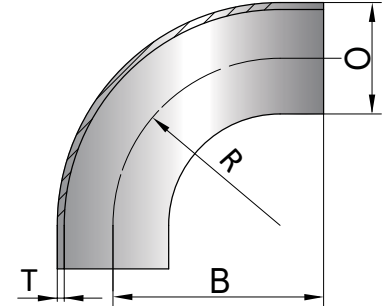
DIN

Bends

DIN 11852 Series 2 Form BL-90
DIN 11865 Series A Form BL-90



Nominal Size	O	T	R	B	Ordering Code
6	8	1.0	20.0	45	006000-250-D* **
8	10	1.0	25.0	50	08000-250-D* **
10	13	1.5	26.0	51	010000-250-D* **
15	19	1.5	35.0	60	015000-250-D* **
20	23	1.5	40.0	65	020000-250-D* **
25	29	1.5	50.0	90	025000-250-D* **
32	35	1.5	55.0	95	032000-250-D* **
40	41	1.5	60.0	100	040000-250-D* **
50	53	1.5	70.0	110	050000-250-D* **
65	70	2.0	80.0	120	065000-250-D* **
80	85	2.0	90.0	145	080000-250-D* **
100	104	2.0	100.0	155	100000-250-D* **
125	129	2.0	187.5	270	125000-250-D* **
150	154	2.0	225.0	325	150000-250-D* **
200	204	2.0	300.0	400	200000-250-D* **



* The first digit refers to material guide, according to Table 1
** The last digit refers to surface quality, according to Table 2

Table 1

Material Guide	
1.4301 (304)	1
1.4307 (304L)	2
1.4404 (316L)	4
1.4435 (316L BPE)	7

Table 2

Inside Surface	Outside Surface	Ordering Code
Inside Surface	Outside Surface	
No finish requirement	No finish requirement	0
MP 30µ-in 0,8µm	No finish requirement	1
MP 20µ-in 0,51µm	No finish requirement	2
MP 30µ-in 0,8µm	MP 30µ-in 0,8µm	3
MP 20µ-in 0,51µm	MP 30µ-in 0,8µm	4
EP 20µ-in 0,51µm	EP 20µ-in 0,51µm	M
Mirror	Mirror	9

*MP: Mechanically Polished

Ordering Example

Description	Nominal Size	Ordering Code
Type 250	25	025000-250-D43*

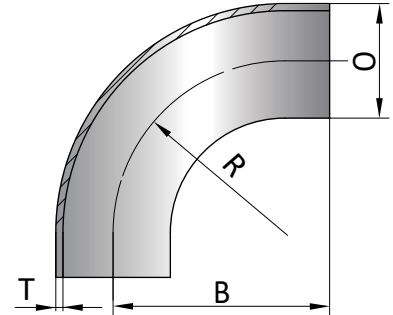
*Material and Surface are including to the ordering code

Bends

Long Elbow 90 for Tubes
DIN 11850 Serie 1



Nominal Size	O	R	B	T	Ordering Code
10	12	26	38	1.5	010000-255-D* **
15	18	35	47	1.5	015000-255-D* **
20	22	40	52	1.5	020000-255-D* **
25	28	50	70	1.5	025000-255-D* **
32	34	55	78	1.5	032000-255-D* **
40	40	60	85	1.5	040000-255-D* **
50	52	70	97	1.5	050000-255-D* **



* The first digit refers to material guide, according to Table 1

** The last digit refers to surface quality, according to Table 2

Table 1

Material Guide	
1.4301 (304)	1
1.4307 (304L)	2
1.4404 (316L)	4
1.4435 (316L BPE)	7

Table 2

Inside Surface	Outside Surface	Ordering Code
Inside Surface	Outside Surface	
No finish requirement	No finish requirement	0
MP 30 μ -in 0,8 μ m	No finish requirement	1
MP 20 μ -in 0,51 μ m	No finish requirement	2
MP 30 μ -in 0,8 μ m	MP 30 μ -in 0,8 μ m	3
MP 20 μ -in 0,51 μ m	MP 30 μ -in 0,8 μ m	4
EP 20 μ -in 0,51 μ m	EP 20 μ -in 0,51 μ m	M
Mirror	Mirror	9

*MP: Mechanically Polished

Ordering Example

Description	Nominal Size	Ordering Code
Type 255	25	025000-255-D43*

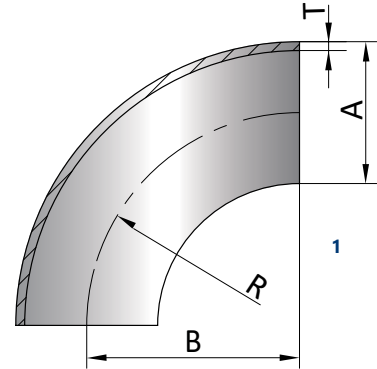
*Material and Surface are including to the ordering code

Bends

DIN 11865 Series B
Form BL-90



Nominal Size	A	R	B	T	Ordering Code
8	13.5	20.0	20.0	1.6	008000-200-G* **
10	17.2	28.0	28.0	1.6	010000-200-G* **
15	21.3	30.0	30.0	1.6	015000-200-G* **
20	26.9	28 (min)	28 (min)	1.6	020000-200-G* **
25	33.7	38.0	38.0	2.0	025000-200-G* **
32	42.4	47.5	47.5	2.0	032000-200-G* **
40	48.3	57.0	57.0	2.0	040000-200-G* **
50	60.3	76.0	76.0	2.0	050000-200-G* **
65	76.1	95.0	95.0	2.0	065000-200-G* **
80	88.9	114.5	114.5	2.3	080000-200-G* **
100	114.3	152.5	207.5	2.3	100000-200-G* **



* The first digit refers to material guide, according to Table 1
 ** The last digit refers to surface quality, according to Table 2

Table 1

Material Guide	
1.4301 (304)	1
1.4307 (304L)	2
1.4404 (316L)	4
1.4435 (316L BPE)	7

Table 2

Inside Surface	Outside Surface	Ordering Code
Inside Surface	Outside Surface	
No finish requirement	No finish requirement	0
MP 30µ-in 0,8µm	No finish requirement	1
MP 20µ-in 0,51µm	No finish requirement	2
MP 30µ-in 0,8µm	MP 30µ-in 0,8µm	3
MP 20µ-in 0,51µm	MP 30µ-in 0,8µm	4
EP 20µ-in 0,51µm	EP 20µ-in 0,51µm	M
Mirror	Mirror	9

*MP: Mechanically Polished

Ordering Example

Description	Nominal Size	Ordering Code
Type 200	25	025000-200-G43*

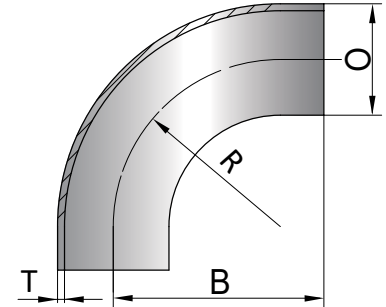
*Material and Surface are including to the ordering code

Bends

DIN 11865 Series B
Form BL-90



Nominal Size	O	T	R	B	Ordering Code
6	10.2	1.6	20.0	33.3	006000-250-G* **
8	13.5	1.6	20.0	33.3	008000-250-G* **
10	17.2	1.6	28.0	36.6	010000-250-G* **
15	21.3	1.6	30.0	37.4	015000-250-G* **
20	26.9	1.6	28.5	51.8	020000-250-G* **
25	33.7	2.0	38.0	55.7	025000-250-G* **
32	42.4	2.0	47.5	59.7	032000-250-G* **
40	48.3	2.0	57.0	63.6	040000-250-G* **
50	60.3	2.0	76.0	71.5	050000-250-G* **
65	76.1	2.0	95.0	94.4	065000-250-G* **
80	88.9	2.3	114.5	102.4	080000-250-G* **
100	114.3	2.3	152.5	118.2	100000-250-G* **
125	139.7	2.6	190.5	133.9	125000-250-G* **
150	168.3	2.6	228.5	149.7	150000-250-G* **
200	219.1	2.6	305.0	206.3	200000-250-G* **



* The first digit refers to material guide, according to Table 1

** The last digit refers to surface quality, according to Table 2

Table 1

Material Guide	
1.4301 (304)	1
1.4307 (304L)	2
1.4404 (316L)	4
1.4435 (316L BPE)	7

Table 2

Inside Surface	Outside Surface	Ordering Code
Inside Surface	Outside Surface	
No finish requirement	No finish requirement	0
MP 30µ-in 0,8µm	No finish requirement	1
MP 20µ-in 0,51µm	No finish requirement	2
MP 30µ-in 0,8µm	MP 30µ-in 0,8µm	3
MP 20µ-in 0,51µm	MP 30µ-in 0,8µm	4
EP 20µ-in 0,51µm	EP 20µ-in 0,51µm	M
Mirror	Mirror	9

*MP: Mechanically Polished

Ordering Example

Description	Nominal Size	Ordering Code
Type 250	25	025000-250-G43*

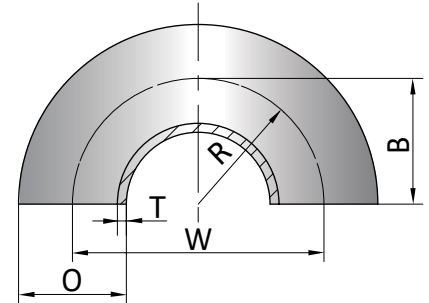
*Material and Surface are including to the ordering code

Bends

DIN 11865 Series B
Form BS-180



Nominal Size	O	W	R	B	T	Ordering Code
20	23	80	40.0	40.0	1.5	020000-380-D***
25	29	100	50.0	50.0	1.5	025000-380-D***
32	35	110	55.0	55.0	1.5	032000-380-D***
40	41	120	60.0	60.0	1.5	040000-380-D***
50	53	140	70.0	70.0	1.5	050000-380-D***
65	70	160	80.0	80.0	1.5	065000-380-D***
80	85	180	90.0	90.0	1.5	080000-380-D***
100	104	200	100.0	100.0	2.0	100000-380-D***
125	129	375	187.5	187.5	2.0	125000-380-D***
150	154	450	225.0	225.0	2.0	150000-380-D***



* The first digit refers to material guide, according to Table 1
 ** The last digit refers to surface quality, according to Table 2

Table 1

Material Guide	
1.4301 (304)	1
1.4307 (304L)	2
1.4404 (316L)	4
1.4435 (316L BPE)	7

Table 2

Inside Surface	Outside Surface	Ordering Code
Inside Surface	Outside Surface	
No finish requirement	No finish requirement	0
MP 30µ-in 0,8µm	No finish requirement	1
MP 20µ-in 0,51µm	No finish requirement	2
MP 30µ-in 0,8µm	MP 30µ-in 0,8µm	3
MP 20µ-in 0,51µm	MP 30µ-in 0,8µm	4
EP 20µ-in 0,51µm	EP 20µ-in 0,51µm	M
Mirror	Mirror	9

*MP: Mechanically Polished

Ordering Example

Description	Nominal Size	Ordering Code
Type 380	25	025000-380-D43*

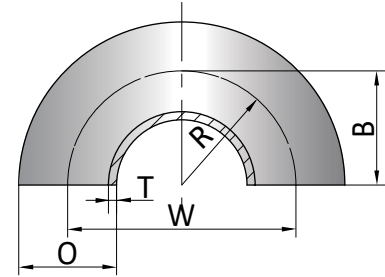
*Material and Surface are including to the ordering code

Bends

Bend 180 Degrees for Tubes
DIN 11850 Serie 1



Nominal Size	O	W	R	B	T	Ordering Code
20	22	80	40	40	1.5	020000-383-D* **
25	28	100	50	50	1.5	025000-383-D* **
32	34	110	55	55	1.5	032000-383-D* **
40	40	120	60	60	1.5	040000-383-D* **
50	52	140	70	70	1.5	050000-383-D* **



* The first digit refers to material guide, according to Table 1

** The last digit refers to surface quality, according to Table 2

Table 1

Material Guide	
1.4301 (304)	1
1.4307 (304L)	2
1.4404 (316L)	4
1.4435 (316L BPE)	7

Table 2

Inside Surface	Outside Surface	Ordering Code
Inside Surface	Outside Surface	
No finish requirement	No finish requirement	0
MP 30μ-in 0,8μm	No finish requirement	1
MP 20μ-in 0,51μm	No finish requirement	2
MP 30μ-in 0,8μm	MP 30μ-in 0,8μm	3
MP 20μ-in 0,51μm	MP 30μ-in 0,8μm	4
EP 20μ-in 0,51μm	EP 20μ-in 0,51μm	M
Mirror	Mirror	9

*MP: Mechanically Polished

Ordering Example

Description	Nominal Size	Ordering Code
Type 383	25	025000-383-D43*

*Material and Surface are including to the ordering code