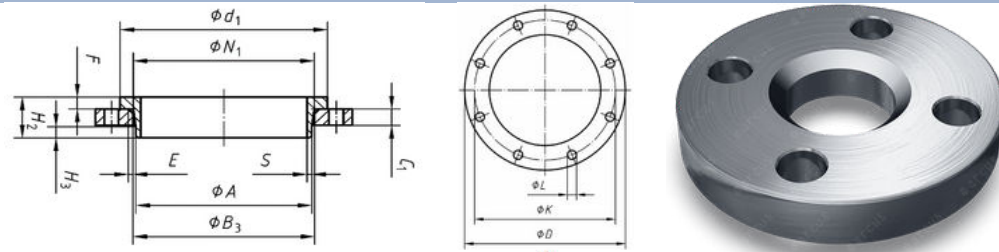


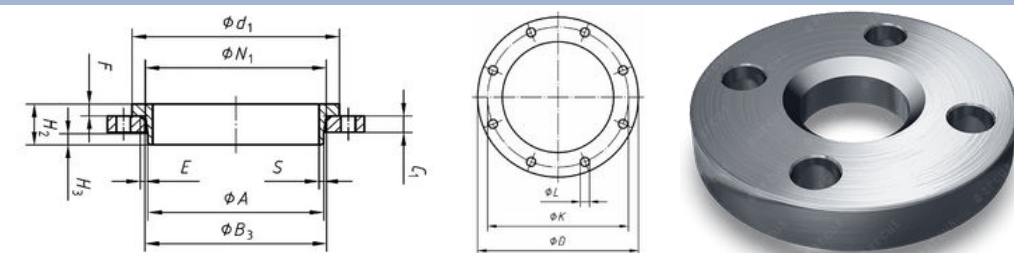
PIPE	FLANGE DATA		BORE DIAMETER	CHAMFER	DRILLING DATA			WEIGHT
Nominal pipe size	Outside diameter	Thickness			Number of holes	Bolt hole diameter	Diameter of bolt circle	Kg / piece
DN	D	C1	B2	E				
10	90.0	14.0	31.0	3.0	4	14.0	60.0	0.6
15	95.0	14.0	35.0	3.0	4	14.0	65.0	0.7
20	105.0	16.0	42.0	4.0	4	14.0	75.0	0.9
25	115.0	16.0	59.0	4.0	4	14.0	85.0	1.1
32	140.0	18.0	67.0	5.0	4	18.0	100.0	1.8
40	150.0	18.0	59.0	5.0	4	18.0	110.0	2.0
50	165.0	20.0	77.0	5.0	4	18.0	125.0	2.5
65	185.0	20.0	96.0	6.0	4 or 8	18.0	145.0	3.1
80	200.0	20.0	108.0	6.0	8	18.0	160.0	3.5
100	220.0	22.0	134.0	6.0	8	18.0	180.0	4.2
125	250.0	22.0	162.0	6.0	8	18.0	210.0	5.2
150	285.0	24.0	188.0	6.0	8	22.0	240.0	6.9
200	340.0	24.0	240.0	6.0	8	22.0	295.0	8.9
250	395.0	26.0	294.0	8.0	12	22.0	350.0	11.2
300	445.0	26.0	348.0	8.0	12	22.0	400.0	12.8
350	505.0	30.0	400.0	8.0	16	22.0	460.0	19.4
400	565.0	32.0	450.0	8.0	16	26.0	515.0	26.4
450	615.0	36.0	498.0	8.0	20	26.0	565.0	32.2
500	670.0	38.0	550.0	8.0	20	26.0	620.0	38.5
600	780.0	42.0	650.0	8.0	20	30.0	725.0	52.2

- > Weights are approximate.
- > DN65 available with 4 or 8 bolt holes.
- > In combination with type 34 weld-neck collar.
- > DN10 - DN40 = PN40.
- > DN50 - DN150 = PN16.
- > The visual is an illustration. The amount of bolt holes depends on the size of the flange.



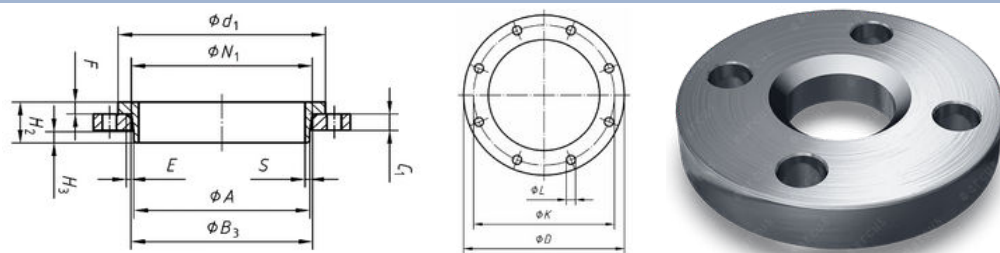
PIPE	FLANGE DATA		BORE DIAMETER	CHAMFER	DRILLING DATA			WEIGHT
Nominal pipe size	Outside diameter	Thickness			Number of holes	Bolt hole diameter	Diameter of bolt circle	Kg / piece
DN	D	C1	B2	E	I	K		
10	90.0	14.0	21.0	3.0	4	14.0	60.0	0.6
15	95.0	14.0	25.0	3.0	4	14.0	65.0	0.7
20	105.0	16.0	31.0	4.0	4	14.0	75.0	1.0
25	115.0	16.0	38.0	4.0	4	14.0	85.0	1.1
32	140.0	18.0	47.0	5.0	4	18.0	100.0	1.8
40	150.0	18.0	53.0	5.0	4	18.0	110.0	2.0
50	165.0	20.0	65.0	5.0	4	18.0	125.0	2.5
65	185.0	20.0	81.0	6.0	4 or 8	18.0	145.0	3.1
80	200.0	20.0	94.0	6.0	8	18.0	160.0	3.5
100	220.0	22.0	120.0	6.0	8	18.0	180.0	4.2
125	250.0	22.0	145.0	6.0	8	18.0	210.0	5.2
150	285.0	24.0	174.0	6.0	8	22.0	240.0	6.9
200	340.0	26.0	226.0	6.0	12	22.0	295.0	9.3
250	405.0	29.0	281.0	8.0	12	26.0	355.0	13.5
300	460.0	32.0	333.0	8.0	12	26.0	410.0	18.0
350	520.0	35.0	365.0	8.0	16	26.0	470.0	27.0
400	580.0	38.0	416.0	8.0	16	30.0	525.0	34.6
450	640.0	42.0	467.0	8.0	20	30.0	585.0	44.6
500	715.0	46.0	519.0	8.0	20	33.0	650.0	62.0
600	840.0	55.0	622.0	8.0	20	36.0	770.0	98.8

- > Weights are approximate.
- > DN65 available with 4 or 8 bolt holes.
- > In combination with type 34 weld-neck collar.
- > DN10 - DN40 = PN40.
- > The visual is an illustration. The amount of bolt holes depends on the size of the flange.



PIPE	FLANGE DATA		BORE DIAMETER	CHAMFER	DRILLING DATA			WEIGHT
	Nominal pipe size	Outside diameter			Thickness	Number of holes	Bolt hole diameter	
DN	D	C1	B2	E	I		K	
10	90.0	14.0	21.0	3.0	4	14.0	60.0	0.6
15	95.0	14.0	25.0	3.0	4	14.0	65.0	0.7
20	105.0	16.0	31.0	4.0	4	14.0	75.0	0,9
25	115.0	16.0	38.0	4.0	4	14.0	85.0	1.1
32	140.0	18.0	47.0	5.0	4	18.0	100.0	1.8
40	150.0	18.0	53.0	5.0	4	18.0	110.0	2.0
50	165.0	20.0	65.0	5.0	4	18.0	125.0	2.7
65	185.0	22.0	81.0	6.0	8	18.0	145.0	3.4
80	200.0	24.0	94.0	6.0	8	18.0	160.0	4.2
100	235.0	26.0	120.0	6.0	8	22.0	190.0	5.9
125	270.0	28.0	145.0	6.0	8	26.0	220.0	8.0
150	300.0	30.0	174.0	6.0	8	26.0	250.0	10.0
200	360.0	32.0	226.0	6.0	12	26.0	310.0	13.8
250	425.0	35.0	281.0	8.0	12	30.0	370.0	19.4
300	485.0	38.0	333.0	8.0	16	30.0	430.0	25.5
350	555.0	42.0	365.0	8.0	16	33.0	490.0	40.5
400	620.0	48.0	416.0	8.0	16	36.0	550.0	56.1
450	670.0	54.0	467.0	8.0	20	36.0	600.0	67.8
500	730.0	58.0	519.0	8.0	20	36.0	660.0	84.6
600	845.0	68.0	622.0	8.0	20	39.0	770.0	124.0

- > Weights are approximate.
- > In combination with type 34 weld-neck collar.
- > DN10 - DN150 = PN40.
- > The visual is an illustration. The amount of bolt holes depends on the size of the flange.



PIPE	FLANGE DATA		BORE DIAMETER	CHAMFER	DRILLING DATA			WEIGHT
	Nominal pipe size	Outside diameter			Thickness	Number of holes	Bolt hole diameter	
DN	D	C1	B2	E	I		K	
10	90.0	14.0	21.0	3.0	4	14.0	60.0	0.6
15	95.0	14.0	25.0	3.0	4	14.0	65.0	0.7
20	105.0	16.0	31.0	4.0	4	14.0	75.0	1.0
25	115.0	16.0	38.0	4.0	4	14.0	85.0	1.1
32	140.0	18.0	47.0	5.0	4	18.0	100.0	1.8
40	150.0	18.0	53.0	5.0	4	18.0	110.0	2.0
50	165.0	20.0	65.0	5.0	4	18.0	125.0	2.7
65	185.0	22.0	81.0	6.0	8	18.0	145.0	3.4
80	200.0	24.0	94.0	6.0	8	18.0	160.0	4.2
100	235.0	26.0	120.0	6.0	8	22.0	190.0	5.9
125	270.0	28.0	145.0	6.0	8	26.0	220.0	8.0
150	300.0	30.0	174.0	6.0	8	26.0	250.0	10.0
200	375.0	36.0	226.0	6.0	12	30.0	320.0	17.4
250	450.0	42.0	281.0	8.0	12	33.0	385.0	28.4
300	515.0	52.0	333.0	8.0	16	33.0	450.0	43.6
350	580.0	58.0	365.0	8.0	16	36.0	510.0	64.9
400	660.0	65.0	416.0	8.0	16	39.0	585.0	95.1
450	685.0	To be specified by purchaser	467.0	8.0	20	39.0	610.0	-
500	755.0		519.0	8.0	20	42.0	670.0	-
600	890.0		622.0	8.0	20	48.0	795.0	-

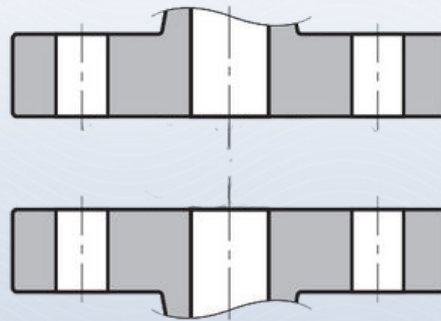
- > Weights are approximate.
- > In combination with type 34 weld-neck collar.
- > The visual is an illustration. The amount of bolt holes depends on the size of the flange.

FLANGE FACING TYPES

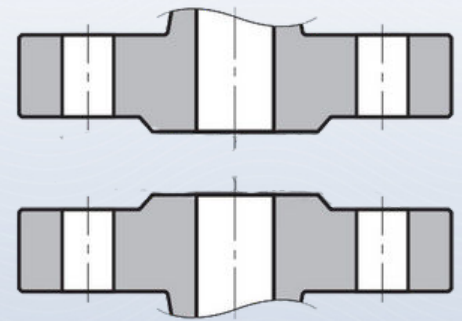
EN 1092-1



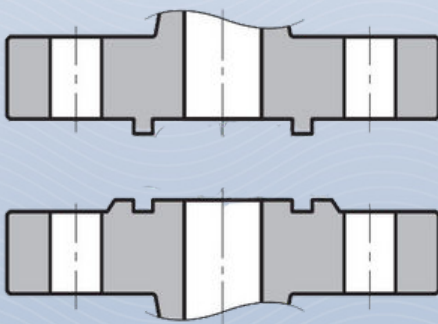
TYPE A	FLAT FACE
TYPE B	RAISED FACE
TYPE C	TONGUE
TYPE D	GROOVE
TYPE E	SPIGOT
TYPE F	RECESS
TYPE G	O-RING SPIGOT
TYPE H	O-RING GROOVE



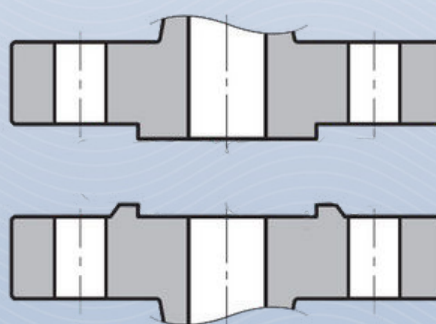
TYPE A - FLAT FACE



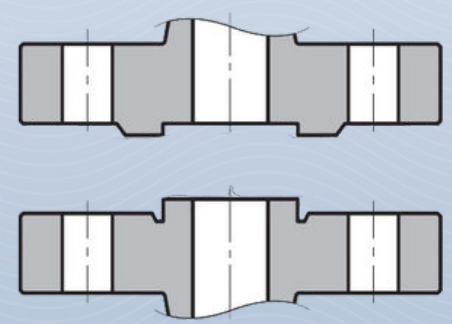
TYPE B - RAISED FACE



TYPE C AND D -
TONGUE AND GROOVE FACE



TYPE E AND F -
SPIGOT AND RECESS FACE



TYPE G AND O -
O-RING SPIGOT
AND
O- GROOVE FACE

FACING TYPES	METHODE OF MACHINING	RADIUS OF TOOL NOSE MM	RA μm		RZ μm	
		min.	min.	max.	min.	max.
A, B1 b, E, F	Turning c	1.0	3.2	12.5	12.5	50
B2b, C, D, G, H	Turning c	-	0.8	3.2	3.2	12.5

For certain applications, e.g. low temperatures gases, it may be necessary to stipulate closer controle to the surface finish.

A	Ra and Rz are defined in EN ISO 4287
B	Types B1 and B2 are raised face (type B) flanges with different specified surface roughness values.
B1	Standard facing for all PN numbers.
B2	Only if agreed between the purchser and the flange manufacturer.
C	The term "turning" includes any method of machine operation producing either serrated concentric or serrated spiral grooves.