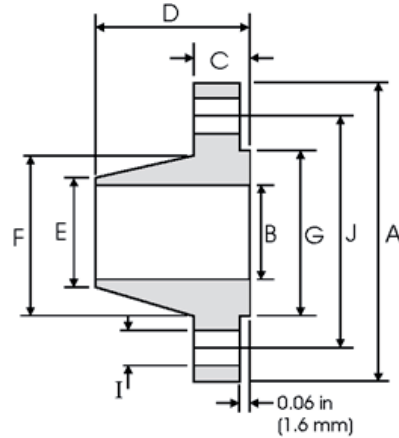


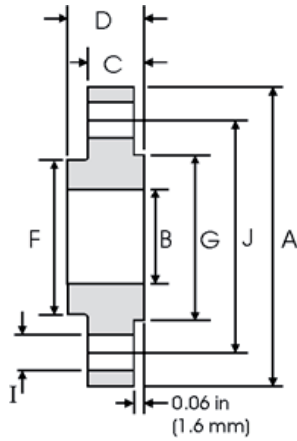


## WELD NECK - classe 150 ANSI



Tubo		Flange				Pescoço		Ressalto	Furos			Peso (Kg)
DN	Diâmetro do Tubo	Diâmetro Exterior (A)	Diâmetro Interior (B)	Espessura da Flange (C)	Altura Total (D)	Diâmetro Inicial (E)	Diâmetro Final (F)	Diâmetro (G)	Número de Furos (H)	Diâmetro dos Furos (I)	Diâmetro de Furação (J)	
1/2	21.30	88.90	15.70	11.20	47.80	21.30	30.20	35.00	4	15.70	60.45	0.48
3/4	26.70	98.60	20.80	12.70	52.30	26.70	38.10	42.90	4	15.70	69.85	0.71
1	33.40	108.0	26.70	14.20	55.60	33.50	49.30	50.80	4	15.70	79.25	1.01
1 1/4	42.20	117.3	35.10	15.70	57.15	42.20	58.70	63.50	4	15.70	88.90	1.33
1 1/2	48.30	127.0	40.90	17.50	62.00	48.30	65.00	73.15	4	15.70	98.60	1.72
2	60.30	152.4	52.60	19.10	63.50	60.45	77.70	91.90	4	19.10	120.7	2.58
2 1/2	73.00	177.8	62.70	22.40	69.85	73.15	90.40	104.6	4	19.10	139.7	4.11
3	88.90	190.5	78.00	23.90	69.85	88.90	108.0	127.0	4	19.10	152.4	4.92
3 1/2	101.6	215.9	90.20	23.90	71.40	101.6	122.2	139.7	8	19.10	177.8	6.08
4	114.3	228.6	102.4	23.90	76.20	114.3	134.9	157.2	8	19.10	190.5	6.84
5	141.3	254.0	128.3	23.90	88.90	141.2	163.6	185.7	8	22.40	215.9	8.56
6	168.3	279.4	154.2	25.40	88.90	168.4	192.0	215.9	8	22.40	241.3	10.6
8	219.1	342.9	202.7	28.40	101.6	219.2	246.1	269.7	8	22.40	298.5	17.6
10	273.0	406.4	254.5	30.20	101.6	273.0	304.8	323.8	12	25.40	362.0	24.0
12	323.8	482.6	304.8	31.75	114.3	323.8	365.3	381.0	12	25.40	431.8	36.5
14	355.6	533.4	*	35.10	127.0	355.6	400.1	412.7	12	28.40	476.3	48.4
16	406.4	596.9	*	36.60	127.0	406.4	475.2	469.9	16	28.40	539.8	60.6
18	457.2	635.0	*	39.60	139.7	457.2	505.0	533.4	16	31.75	577.9	68.3
20	508.0	698.5	*	42.90	144.5	508.0	558.8	584.2	20	31.75	635.0	84.5
24	609.6	812.8	*	47.80	152.4	609.6	663.4	692.1	20	35.10	749.3	115

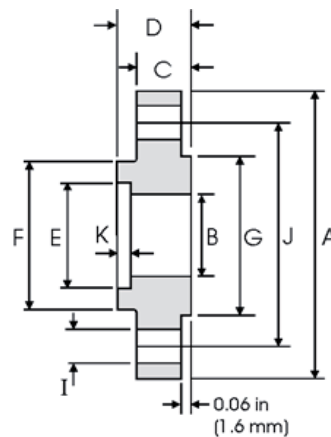
\* Será especificada pelo cliente.



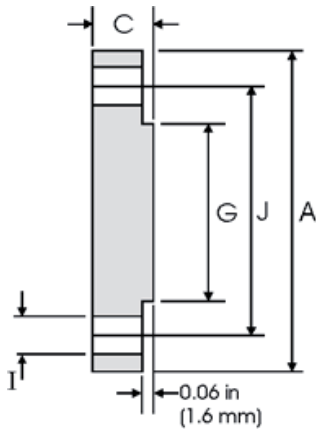
Tubo		Flange				Pescoço	Ressalto	Furos			Peso (Kg)
DN	Diâmetro do Tubo	Diâmetro Exterior (A)	Diâmetro Interior (B)	Espessura da Flange (C)	Altura Total (D)	Diâmetro (F)	Diâmetro (G)	Número de Furos (H)	Diâmetro dos Furos (I)	Diâmetro de Furação (J)	
1/2	21.30	88.90	22.40	11.20	15.70	30.20	35.10	4	15.70	60.45	0.39
3/4	26.70	98.60	27.70	12.70	15.70	38.10	42.90	4	15.70	69.85	0.56
1	33.40	108.0	34.50	14.20	17.50	49.30	50.80	4	15.70	79.25	0.78
1 1/4	42.20	117.3	43.20	15.70	20.60	58.70	63.50	4	15.70	88.90	1.03
1 1/2	48.30	127.0	49.50	17.50	22.40	65.00	73.15	4	15.70	98.60	1.32
2	60.30	152.4	62.00	19.10	25.40	77.70	91.90	4	19.10	120.7	2.06
2 1/2	73.00	177.8	74.70	22.40	28.40	90.40	104.6	4	19.10	139.7	3.28
3	88.90	190.5	90.70	23.90	30.20	108.0	127.0	4	19.10	152.4	3.85
3 1/2	101.6	215.9	103.4	23.90	31.75	122.2	139.7	8	19.10	177.8	4.81
4	114.3	228.6	116.1	23.90	33.30	134.9	157.2	8	19.10	190.5	5.30
5	141.3	254.0	143.8	23.90	36.60	163.6	185.7	8	22.40	215.9	6.07
6	168.3	279.4	170.7	25.40	39.60	192.0	215.9	8	22.40	241.3	7.45
8	219.1	342.9	221.5	28.40	44.50	246.1	269.7	8	22.40	298.5	12.1
10	273.0	406.4	276.3	30.20	49.30	304.8	323.9	12	25.40	362.0	16.5
12	323.8	482.6	327.1	31.75	55.60	365.3	381.0	12	25.40	431.8	26.2
14	355.6	533.4	359.1	35.10	57.15	400.1	412.8	12	28.40	476.3	34.6
16	406.4	596.9	410.5	36.60	63.50	457.2	469.9	16	28.40	539.8	44.8
18	457.2	635.0	461.8	39.60	68.30	505.0	533.4	16	31.75	577.9	48.9
20	508.0	698.5	513.1	42.90	73.15	558.8	584.2	20	31.75	635.0	61.9
24	609.6	812.8	616.0	47.80	82.60	663.4	692.2	20	35.10	749.3	86.9



## SOCKET WELDING - classe 150 ANSI



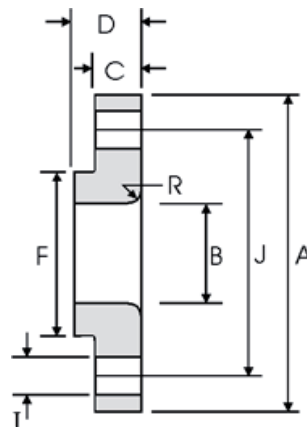
Tubo		Flange						Pescoço	Ressalto	Furos			Peso (Kg)
DN	Diâmetro do Tubo	Diâmetro Exterior (A)	Diâmetro Interior (B)	Espessura da Flange (C)	Altura Total (D)	Diâmetro de entrada (E)	Altura de entrada (K)	Diâmetro (F)	Diâmetro (G)	Número de Furos (H)	Diâmetro dos Furos (I)	Diâmetro de Furação (J)	
1/2	21.30	88.90	15.70	11.20	15.70	22.40	9.600	30.20	35.10	4	15.70	60.45	0.42
3/4	26.70	98.60	20.80	12.70	15.70	27.70	11.10	38.10	42.90	4	15.70	69.85	0.59
1	33.40	108.0	26.70	14.20	17.50	34.50	12.70	49.30	50.80	4	15.70	79.25	0.81
1 1/4	42.20	117.3	35.10	15.70	20.60	43.20	14.20	58.70	63.50	4	15.70	88.90	1.07
1 1/2	48.30	127.0	40.90	17.50	22.30	49.50	15.70	65.00	73.15	4	15.70	98.60	1.36
2	60.30	152.4	52.60	19.10	25.40	62.00	17.50	77.70	91.90	4	19.10	120.7	2.10
2 1/2	73.00	177.8	62.70	22.40	28.40	74.70	19.00	90.40	104.6	4	19.10	139.7	3.33
3	88.90	190.5	78.00	23.90	30.20	90.70	20.60	108.0	127.0	4	19.10	152.4	3.90



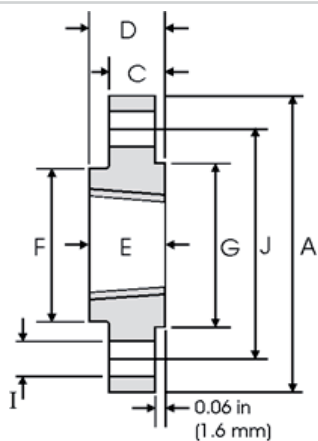
Tubo		Flange		Ressalto	Furos			Peso (Kg)
DN	Diâmetro do Tubo	Diâmetro Exterior (A)	Espessura da Flange (C)	Diâmetro (G)	Número de Furos (H)	Diâmetro dos Furos (I)	Diâmetro de Furação (J)	
1/2	21.30	88.90	11.20	35.10	4	15.70	60.45	0.42
3/4	26.70	98.60	12.70	42.90	4	15.70	69.85	0.61
1	33.40	108.0	14.20	50.80	4	15.70	79.25	0.86
1 1/4	42.20	117.3	15.70	63.50	4	15.70	88.90	1.17
1 1/2	48.30	127.0	17.50	73.15	4	15.70	98.60	1.53
2	60.30	152.4	19.10	91.90	4	19.10	120.7	2.42
2 1/2	73.00	177.8	22.40	104.6	4	19.10	139.7	3.94
3	88.90	190.5	23.90	127.0	4	19.10	152.4	4.93
3 1/2	101.6	215.9	23.90	139.7	8	19.10	177.8	6.17
4	114.3	228.6	23.90	157.2	8	19.10	190.5	7.00
5	141.3	254.0	23.90	185.7	8	22.40	215.9	8.63
6	168.3	279.4	25.40	215.9	8	22.40	241.3	11.3
8	219.1	342.9	28.40	269.7	8	22.40	298.5	19.6
10	273.0	406.4	30.20	323.9	12	25.40	362.0	28.8
12	323.8	482.6	31.75	381.0	12	25.40	431.8	43.2
14	355.6	533.4	35.10	412.8	12	28.40	476.3	58.1
16	406.4	596.9	36.60	469.9	16	28.40	539.8	76.0
18	457.2	635.0	39.60	533.4	16	31.75	577.9	93.7
20	508.0	698.5	42.90	584.2	20	31.75	635.0	122
24	609.6	812.8	47.80	692.2	20	35.10	749.3	185



## LAP JOINT - classe 150 ANSI



Tubo		Flange				Curvatura	Pescoço	Furos			Peso (Kg)
DN	Diâmetro do Tubo	Diâmetro Exterior (A)	Diâmetro Interior (B)	Espessura da Flange (C)	Altura Total (D)	Raio (R)	Diâmetro (F)	Número de Furos (H)	Diâmetro dos Furos (I)	Diâmetro de Furação (J)	
1/2	21.30	88.90	22.90	11.20	15.70	3.000	30.20	4	15.70	60.45	0.38
3/4	26.70	98.60	28.20	12.70	15.70	3.000	38.10	4	15.70	69.85	0.55
1	33.40	108.0	35.10	14.20	17.50	3.000	49.30	4	15.70	79.25	0.76
1 1/4	42.20	117.3	43.70	15.70	20.60	4.800	58.70	4	15.70	88.90	1.01
1 1/2	48.30	127.0	50.00	17.50	22.40	6.400	65.00	4	15.70	98.60	1.30
2	60.30	152.4	62.50	19.10	25.40	7.900	77.70	4	19.10	120.7	2.03
2 1/2	73.00	177.8	75.40	22.40	28.40	7.900	90.40	4	19.10	139.7	3.25
3	88.90	190.5	91.40	23.90	30.20	9.700	108.0	4	19.10	152.4	3.81
3 1/2	101.6	215.9	104.1	23.90	31.75	9.700	122.2	8	19.10	177.8	4.76
4	114.3	228.6	116.8	23.90	33.30	11.20	134.9	8	19.10	190.5	5.25
5	141.3	254.0	114.5	23.90	36.60	11.20	163.6	8	22.40	215.9	6.02
6	168.3	279.4	171.5	25.40	39.60	12.70	192.0	8	22.40	241.3	7.40
8	219.1	342.9	222.3	28.40	44.50	12.70	246.1	8	22.40	298.5	12.1
10	273.0	406.4	277.4	30.20	49.30	12.70	304.8	12	25.40	362.0	16.4
12	323.8	482.6	328.2	31.75	55.60	12.70	365.3	12	25.40	431.8	26.1
14	355.6	533.4	360.2	35.10	79.25	12.70	400.1	12	28.40	476.3	34.5
16	406.4	596.9	411.2	36.60	87.40	12.70	457.2	16	28.40	539.8	44.6
18	457.2	635.0	462.3	39.60	96.80	12.70	505.0	16	31.75	577.9	48.7
20	508.0	698.5	514.4	42.90	103.1	12.70	558.8	20	31.75	635.0	61.6
24	609.6	812.8	616.0	47.80	111.3	12.70	663.4	20	35.10	749.3	86.6

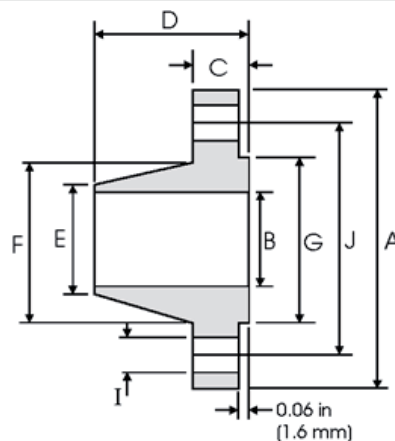


Tubo		Flange				Pescoço	Ressalto	Furos			Peso (Kg)
DN	Diâmetro do Tubo	Diâmetro Exterior (A)	Espessura da Flange (C)	Altura Total (D)	Altura da Rosca (E)	Diâmetro (F)	Diâmetro (G)	Número de Furos (H)	Diâmetro dos Furos (I)	Diâmetro de Furação (J)	
1/2	21.30	88.90	11.20	15.70	15.70	30.20	35.10	4	15.70	60.45	0.39
3/4	26.70	98.60	12.70	15.70	15.70	38.10	42.90	4	15.70	69.85	0.56
1	33.40	108.0	14.20	17.50	17.50	49.30	50.80	4	15.70	79.25	0.78
1 1/4	42.20	117.3	15.70	20.60	20.60	58.70	63.50	4	15.70	88.90	1.03
1 1/2	48.30	127.0	17.50	22.40	22.30	65.00	73.15	4	15.70	98.60	1.32
2	60.30	152.4	19.10	25.40	25.40	77.70	91.90	4	19.10	120.7	2.06
2 1/2	73.00	177.8	22.40	28.40	28.40	90.40	104.6	4	19.10	139.7	3.28
3	88.90	190.5	23.90	30.20	30.20	108.0	127.0	4	19.10	152.4	3.85
3 1/2	101.6	215.9	23.90	31.75	31.75	122.2	139.7	8	19.10	177.8	4.81
4	114.3	228.6	23.90	33.30	33.30	134.9	157.2	8	19.10	190.5	5.30
5	141.3	254.0	23.90	36.60	36.60	163.6	185.7	8	22.40	215.9	6.07
6	168.3	279.4	25.40	39.60	39.60	192.0	215.9	8	22.40	241.3	7.45
8	219.1	342.9	28.40	44.50	44.50	246.1	269.7	8	22.40	298.5	12.1
10	273.0	406.4	30.20	49.30	49.30	304.8	323.9	12	25.40	362.0	16.5
12	323.8	482.6	31.75	55.60	55.60	365.3	381.0	12	25.40	431.8	26.2
14	355.6	533.4	35.10	57.15	57.15	400.1	412.7	12	28.40	476.3	34.6
16	406.4	596.9	36.60	63.50	63.50	457.2	469.9	16	28.40	539.8	44.8
18	457.2	635.0	39.60	68.30	68.30	505.0	533.4	16	31.75	577.9	48.9
20	508.0	698.5	42.90	73.15	73.15	558.8	584.2	20	31.75	635.0	61.9
24	609.6	812.8	47.80	82.60	82.60	663.4	692.2	20	35.10	749.3	86.9



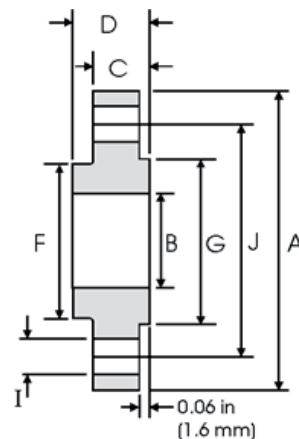
## WELD NECK - classe 300

ANSI



Tubo		Flange				Pescoço		Ressalto	Furos			Peso (Kg)
DN	Diâmetro do Tubo	Diâmetro Exterior (A)	Diâmetro Interior (B)	Espessura da Flange (C)	Altura Total (D)	Diâmetro Inicial (E)	Diâmetro Final (F)	Diâmetro (G)	Número de Furos (H)	Diâmetro dos Furos (I)	Diâmetro de Furação (J)	
1/2	21.30	95.20	15.70	14.20	52.30	21.30	38.10	35.00	4	15.70	66.55	0.75
3/4	26.70	117.3	20.80	15.70	57.15	26.70	47.70	42.90	4	19.00	82.50	1.26
1	33.40	123.9	26.70	17.50	62.00	33.50	53.80	50.80	4	19.00	88.90	1.52
1 1/4	42.20	133.3	35.10	19.00	65.00	42.20	63.50	63.50	4	19.00	98.50	2.03
1 1/2	48.30	155.4	40.90	20.60	68.30	48.30	69.85	73.15	4	22.30	114.3	2.89
2	60.30	165.1	52.60	22.30	69.85	60.45	84.00	91.90	8	19.00	127.0	3.40
2 1/2	73.00	190.5	62.70	25.40	76.20	73.15	100.0	104.6	8	22.30	149.3	5.17
3	88.90	209.5	78.00	28.40	79.25	88.90	117.3	127.0	8	22.30	168.1	6.93
3 1/2	101.6	228.6	90.20	30.20	81.00	101.6	133.3	139.7	8	22.30	184.1	8.67
4	114.3	254.0	102.4	31.70	85.80	114.3	146.0	157.2	8	22.30	200.1	11.2
5	141.3	279.4	128.3	35.00	98.50	141.2	177.8	185.7	8	22.30	234.9	15.1
6	168.3	317.5	154.2	36.50	98.50	168.4	206.2	215.9	12	22.30	269.7	19.1
8	219.1	381.0	202.7	41.10	111.2	219.2	260.3	269.7	12	25.40	330.2	29.9
10	273.0	444.5	254.5	47.70	117.3	273.0	320.5	323.8	16	28.40	387.3	42.7
12	323.8	520.7	304.8	50.80	130.0	323.8	374.6	381.0	16	31.70	450.8	61.8
14	355.6	584.2		53.80	142.7	355.6	425.4	412.7	20	31.70	514.3	85.8
16	406.4	647.7		57.15	146.0	406.4	482.6	469.9	20	35.00	571.5	106
18	457.2	711.2		60.45	158.7	457.2	533.4	533.4	24	35.00	628.6	131
20	508.0	774.7		63.50	162.0	508.0	587.2	584.2	24	35.00	685.8	158
24	609.6	914.4		69.85	168.1	609.6	701.5	692.1	24	41.10	812.8	230

**SLIP ON - classe 300**  
ANSI



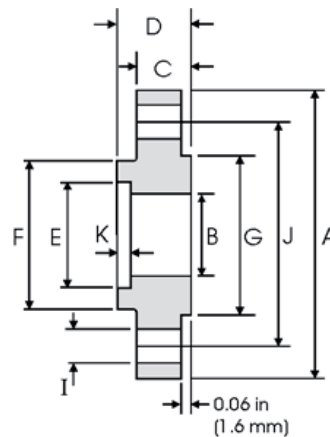
Tubo		Flange				Pescoço	Ressalto	Furos			Peso (Kg)
DN	Diâmetro do Tubo	Diâmetro Exterior (A)	Diâmetro Interior (B)	Espessura da Flange (C)	Altura Total (D)	Diâmetro (F)	Diâmetro (G)	Número de Furos (H)	Diâmetro dos Furos (I)	Diâmetro de Furação (J)	
1/2	21.30	95.20	22.40	14.20	22.40	38.10	35.10	4	15.70	66.55	0.64
3/4	26.70	117.3	27.70	15.70	25.40	47.70	42.90	4	19.10	82.50	1.12
1	33.40	123.9	34.50	17.50	26.90	53.80	50.80	4	19.10	88.90	1.36
1 1/4	42.20	133.3	43.20	19.00	26.90	63.50	63.50	4	19.10	98.60	1.68
1 1/2	48.30	155.4	49.50	20.60	30.20	69.85	73.15	4	22.40	114.3	2.49
2	60.30	165.1	62.00	22.30	33.20	84.00	91.90	8	19.10	127.0	2.87
2 1/2	73.00	190.5	74.70	25.40	38.10	100.0	104.6	8	22.40	149.4	4.32
3	88.90	209.5	90.70	28.40	42.90	117.3	127.0	8	22.40	168.1	5.85
3 1/2	101.6	228.6	103.4	30.20	44.40	133.3	139.7	8	22.40	184.2	7.34
4	114.3	254.0	116.1	31.70	47.70	146.0	157.2	8	22.40	200.1	9.61
5	141.3	279.4	143.8	35.00	50.80	177.8	185.7	8	22.40	234.9	12.3
6	168.3	317.5	170.7	36.50	52.30	206.2	215.9	12	22.40	269.7	15.6
8	219.1	381.0	221.5	41.10	61.90	260.3	269.7	12	25.40	330.2	24.2
10	273.0	444.5	276.3	47.70	66.55	320.5	323.9	16	28.40	387.3	34.1
12	323.8	520.7	327.1	50.80	73.15	374.6	381.0	16	31.70	450.8	49.8
14	355.6	584.2	359.1	53.80	76.20	425.4	412.8	20	31.70	514.4	69.9
16	406.4	647.7	410.5	57.15	82.50	482.6	469.9	20	35.00	571.5	88.1
18	457.2	711.2	461.8	60.45	88.90	533.4	533.4	24	35.00	628.7	109
20	508.0	774.7	513.1	63.50	95.20	587.2	584.2	24	35.00	685.8	134
24	609.6	914.4	616.0	69.85	106.4	701.5	692.2	24	41.00	812.8	201



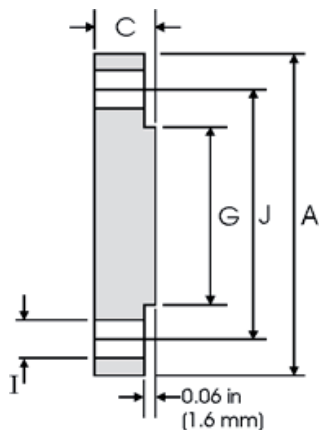


## SOCKET WELDING - classe 300

ANSI



Tubo		Flange						Pescoço	Ressalto	Furos			Peso (Kg)
DN	Diâmetro do Tubo	Diâmetro Exterior (A)	Diâmetro Interior (B)	Espessura da Flange (C)	Altura Total (D)	Diâmetro de entrada (E)	Altura de entrada (K)	Diâmetro (F)	Diâmetro (G)	Número de Furos (H)	Diâmetro dos Furos (I)	Diâmetro de Furação (J)	
1/2	21.30	95.20	15.70	14.20	22.30	22.40	9.600	38.10	35.10	4	15.70	66.55	0.66
3/4	26.70	117.3	20.80	15.70	25.40	27.70	11.10	47.70	42.90	4	19.10	82.50	1.15
1	33.40	123.9	26.70	17.50	26.90	34.50	12.70	53.80	50.80	4	19.10	88.90	1.40
1 1/4	42.20	133.3	35.10	19.00	26.90	43.20	14.20	63.50	63.50	4	19.10	98.60	1.75
1 1/2	48.30	155.4	40.90	20.60	30.20	49.50	15.70	69.85	73.15	4	22.30	114.3	2.55
2	60.30	165.1	52.60	22.30	33.20	62.00	17.50	84.00	91.90	8	19.10	127.0	2.93
2 1/2	73.00	190.5	62.70	25.40	38.10	74.70	19.00	100.0	104.6	8	22.30	149.3	4.40
3	88.90	209.5	78.00	28.40	42.90	90.70	20.60	117.3	127.0	8	22.30	168.1	5.92

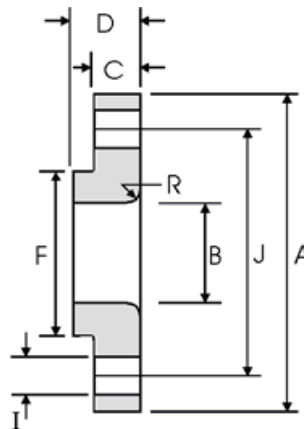


Tubo		Flange		Ressalto	Furos			Peso (Kg)
DN	Diâmetro do Tubo	Diâmetro Exterior (A)	Espessura da Flange (C)	Diâmetro (G)	Número de Furos (H)	Diâmetro dos Furos (I)	Diâmetro de Furações (J)	
1/2	21.30	95.20	14.20	35.10	4	15.70	66.55	0.64
3/4	26.70	117.3	15.70	42.90	4	19.00	82.50	1.11
1	33.40	123.9	17.50	50.80	4	19.00	88.90	1.39
1 1/4	42.20	133.3	19.00	63.50	4	19.00	98.50	1.79
1 1/2	48.30	155.4	20.60	73.15	4	22.3	114.3	2.66
2	60.30	165.1	22.30	91.90	8	19.10	127.0	3.18
2 1/2	73.00	190.5	25.40	104.6	8	22.30	1.493	4.85
3	88.90	209.5	28.40	127.0	8	22.30	168.1	6.81
3 1/2	101.6	228.6	30.20	139.7	8	22.30	184.1	8.71
4	114.3	254.0	31.70	157.2	8	22.30	200.1	11.5
5	141.3	279.4	35.00	185.7	8	22.30	234.9	15.6
6	168.3	317.5	36.50	215.9	12	22.30	269.7	20.9
8	219.1	381.0	41.10	269.7	12	25.40	330.2	34.3
10	273.0	444.5	47.70	323.9	16	28.40	387.3	53.3
12	323.8	520.7	50.80	381.0	16	31.70	450.8	78.8
14	355.6	584.2	53.80	412.8	20	31.70	514.3	105
16	406.4	647.7	57.15	469.9	20	35.00	571.5	137
18	457.2	711.2	60.45	533.4	24	35.00	628.6	175
20	508.0	774.7	63.50	584.2	24	35.00	685.8	221
24	609.6	914.4	69.85	692.2	24	41.10	812.8	339



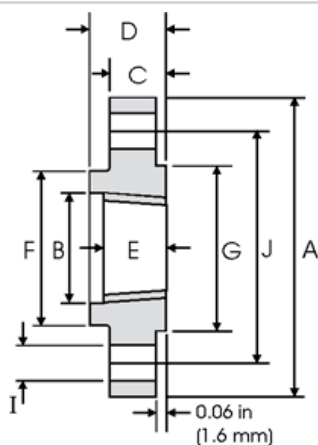
## LAP JOINT - classe 300

ANSI



Tubo		Flange				Curvatura	Pescoço	Furos			Peso (Kg)
DN	Diâmetro do Tubo	Diâmetro Exterior (A)	Diâmetro Interior (B)	Espessura da Flange (C)	Altura Total (D)	Raio (R)	Diâmetro (F)	Número de Furos (H)	Diâmetro dos Furos (I)	Diâmetro de Furação (J)	
1/2	21.30	95.20	22.90	14.20	22.30	3.000	38.10	4	15.70	66.55	0.62
3/4	26.70	117.3	28.20	15.70	25.40	3.000	47.70	4	19.00	82.50	1.10
1	33.40	123.9	35.10	17.50	26.90	3.000	53.80	4	19.0	88.90	1.33
1 1/4	42.20	133.3	43.70	19.00	26.90	4.800	63.50	4	19.00	98.50	1.65
1 1/2	48.30	155.4	50.00	20.60	30.20	6.400	69.85	4	22.30	114.3	2.44
2	60.30	165.1	62.50	22.30	33.20	7.900	84.00	8	19.10	127.0	2.83
2 1/2	73.00	190.5	75.40	25.40	38.10	7.900	100.0	8	22.30	149.3	4.25
3	88.90	209.5	91.40	28.40	42.90	9.700	117.3	8	22.30	168.1	5.78
3 1/2	101.6	228.6	104.1	30.20	44.40	9.700	133.3	8	22.30	184.1	7.27
4	114.3	254.0	116.8	31.70	47.70	11.20	146.0	8	22.30	200.1	9.55
5	141.3	279.4	114.5	35.00	50.80	11.20	177.8	8	22.30	234.9	12.2
6	168.3	317.5	171.5	36.50	52.30	12.70	206.2	12	22.30	269.7	15.5
8	219.1	381.0	222.3	41.10	61.90	12.70	260.3	12	25.40	330.2	24.1
10	273.0	444.5	277.4	47.70	95.20	12.70	320.5	16	28.40	387.3	34.4
12	323.8	520.7	328.2	50.80	101.6	12.70	374.6	16	31.70	450.8	50.4
14	355.6	584.2	360.2	53.80	111.2	12.70	425.4	20	31.70	514.3	70.9
16	406.4	647.7	411.2	57.15	120.6	12.70	482.6	20	35.00	571.5	89.5
18	457.2	711.2	462.3	60.45	130.0	12.70	533.4	24	35.00	628.6	111
20	508.0	774.7	514.4	63.50	139.7	12.70	587.2	24	35.0	685.8	137
24	609.6	914.4	616.0	69.8	152.4	12.70	701.5	24	41.10	812.8	204

**THREADED** - classe 300  
ANSI



Tubo		Flange					Pescoço	Ressalto	Furos			Peso (Kg)
DN	Diâmetro do Tubo	Diâmetro Exterior (A)	Borda (B)	Espessura da Flange (C)	Altura Total (D)	Altura da Rosca (E)	Diâmetro (F)	Diâmetro (G)	Número de Furos (H)	Diâmetro dos Furos (I)	Diâmetro de Furação (J)	
1/2	21.30	95.20	23.60	14.20	22.30	15.70	38.10	35.00	4	15.70	66.55	0.64
3/4	26.70	117.3	29.00	15.70	25.40	15.70	47.70	42.90	4	19.00	82.50	1.12
1	33.40	123.9	35.80	17.50	26.90	17.50	53.80	50.80	4	19.00	88.90	1.36
1 1/4	42.20	133.3	44.40	19.00	26.90	20.60	63.50	63.50	4	19.00	98.50	1.68
1 1/2	48.30	155.4	50.50	20.60	30.20	22.30	69.85	73.15	4	22.30	114.3	2.49
2	60.30	165.1	63.50	22.30	33.20	28.40	84.00	91.90	8	19.00	127.0	2.87
2 1/2	73.00	190.5	76.20	25.40	38.10	31.70	100.0	104.6	8	22.30	149.3	4.32
3	88.90	209.5	92.20	28.40	42.90	31.70	117.3	127.0	8	22.30	168.1	5.85
3 1/2	101.6	228.6	104.9	30.20	44.40	36.50	133.3	139.7	8	22.30	184.1	7.34
4	114.3	254.0	117.6	31.70	47.70	36.50	146.0	157.2	8	22.30	200.1	9.61
5	141.3	279.4	144.5	35.00	50.80	42.90	177.8	185.7	8	22.30	234.9	12.3
6	168.3	317.5	171.4	36.50	52.30	45.90	206.2	215.9	12	22.30	269.7	15.6
8	219.1	381.0	222.2	41.10	61.90	50.80	260.3	269.7	12	25.40	330.2	24.2
10	273.0	444.5	276.3	47.70	66.55	55.60	320.5	323.9	16	28.40	387.3	34.1
12	323.8	520.7	328.7	50.80	73.15	60.45	374.6	381.0	16	31.70	450.8	49.8
14	355.6	584.2	360.4	53.80	76.20	63.50	425.4	412.7	20	31.70	514.3	69.9
16	406.4	647.7	411.2	57.15	82.50	68.30	482.6	469.9	20	35.00	571.5	88.1
18	457.2	711.2	462.0	60.45	88.90	69.85	533.4	533.4	24	35.00	628.6	109
20	508.0	774.7	512.8	63.50	95.2	73.15	587.2	584.2	24	35.00	685.8	134
24	609.6	914.4	614.4	69.85	106.4	82.50	701.5	692.2	24	41.10	812.8	201

# Flanges

## PN 6

### Dimensões DIN EN 1092-1

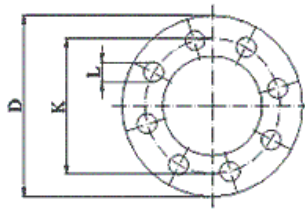
DN	Dimensões Principais					Diâmetro Exterior do Pescoço	Diâmetro Interior		Espessura			Chanfro	Espessura do Colar	Diâmetro do ressalto	Altura			Diâmetro do pescoço			Raio do canto	Espessura do Pescoço	
	∅ Exterior	∅ entre Furos	∅ do Furo	Furos			B <sub>1</sub>	B <sub>2</sub>	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>				C <sub>4</sub>	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	N <sub>1</sub>	N <sub>2</sub>			N <sub>3</sub>
	D	K	L	N.º	∅	A	B <sub>1</sub>	B <sub>2</sub>	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>	E	F	G <sub>max</sub>	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	N <sub>1</sub>	N <sub>2</sub>	N <sub>3</sub>	R	S
	Tipo de Flange					11 21	01 12 32	02	01 02 04	11 12 13 21	05	02	32	05	12 13	11	11	11	12 13	21	11 12 13 21	11	
10	75	50	11	4	M10	17,2	18,0	21	12	12	12	3	10		20	28	6	26	25	20	4	1,8	
15	80	55	11	4	M10	21,3	22,0	25	12	12	12	3	10		20	30	6	30	30	26	4	2,0	
20	90	65	11	4	M10	26,9	27,5	31	14	14	14	4	10		24	32	6	38	40	34	4	2,3	
25	100	75	11	4	M10	33,7	34,5	38	14	14	14	4	10		24	35	6	42	50	44	4	2,6	
32	120	90	14	4	M12	42,4	43,5	46	16	14	14	5	10		26	35	6	55	60	54	6	2,6	
40	130	100	14	4	M12	48,3	49,5	53	16	14	14	5	10		26	38	7	62	70	64	6	2,6	
50	140	110	14	4	M12	60,3	61,5	65	16	14	14	5	12		28	38	8	74	80	74	6	2,9	
65	160	130	14	4	M12	76,1	77,5	81	16	14	14	6	12	55	32	38	9	88	100	94	6	2,9	
80	190	150	18	4	M16	88,9	90,5	94	18	16	16	6	12	70	34	42	10	102	110	110	8	3,2	
100	210	170	18	4	M16	114,3	116,0	120	18	16	16	6	14	90	40	45	10	130	130	130	8	3,6	
125	240	200	18	8	M16	139,7	141,5	145	20	18	18	6	14	115	44	48	10	155	160	160	8	4,0	
150	265	225	18	8	M16	168,3	170,5	174	20	18	18	6	14	140	44	48	12	184	185	182	10	4,5	
200	320	280	18	8	M16	219,1	221,5	226	22	20	20	6	16	190	44	55	15	236	240	238	10	5,9	
250	375	335	18	12	M16	273,0	276,5	281	24	22	22	8	18	235	44	60	15	290	295	284	12	6,3	
300	440	395	22	12	M20	323,9	327,5	333	24	22	22	8	18	285	44	62	15	342	355	342	12	7,1	
350	490	445	22	12	M20	355,6	359,5	365	26	22	22	8	18	330	62	15	385		392	12	7,1		
400	540	495	22	16	M20	406,4	411,0	416	28	22	22	8	20	380	65	15	438		442	12	7,1		
450	595	550	22	16	M20	457,0	462,0	467	30	22	24	8	20	425	65	15	492		494	12	7,1		
500	645	600	22	20	M20	508,0	513,5	519	30	24	24	8	22	475	68	15	538		544	12	7,1		
600	755	705	26	20	M24	610,0	616,5	622	32	30	30	8	22	575	70	16	640		642	12	7,1		
700	860	810	26	24	M24	711,0			24	40	40			670	70	16	740		746	12	7,1		
800	975	920	30	24	M27	813,0			24	44	44			770	70	16	842		850	12	7,1		
900	1075	1020	30	24	M27	914,0			26	48	48			860	70	16	942		950	12	7,1		
1000	1175	1120	30	28	M27	1016,0			26	52	52			960	70	16	1045		1050	16	7,1		
1200	1405	1340	33	32	M30	1219,0			28	60	60			1160	90	20	1248		1264	16	8,0		
1400	1630	1560	36	36	M33	1422,0			32	68	68			1346	90	20	1452		1480	16	8,0		
1600	1830	1760	36	40	M33	1626,0			34	76	76			1546	90	20	1655		1680	16	9,0		
1800	2045	1970	39	44	M36	1829,0			36	84	84			1746	100	20	1855		1878	16	10,0		
2000	2265	2180	42	48	M39	2032,0			38	92	92			1950	110	25	2058		2082	16	11,0		
2200	2475	2390	42	52	M39	2035,0			42						115	25	2260			18	12,0		
2400	2685	2600	42	56	M39	2438,0			44						125	25	2462			18	13,0		
2600	2905	2710	48	60	M45	2620,0			46						130	25	2665			18	14,0		
2800	3115	3020	48	64	M45	2820,0			48						135	30	2865			18	15,0		
3000	3315	3220	48	68	M45	3020,0			50						140	30	3068			18	16,0		
3200	3525	3430	48	72	M45	3220,0			54						150	30	3272			20	16,0		
3400	3735	3640	48	76	M45	3420,0			56						160	35	3475			20	18,0		
3600	3970	3860	56	80	M52	3620,0			60						165	35	3678			20	18,0		

\* Acima de DN 600 a dimensão C1 será especificada pelo cliente.

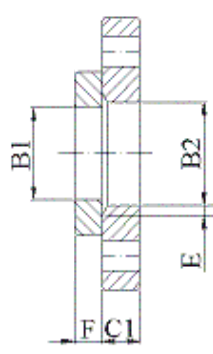
Dimensões em milímetros.



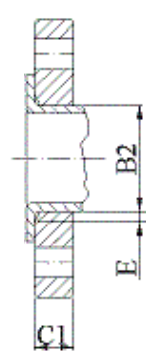
- |                              |                                |
|------------------------------|--------------------------------|
| 01. Flange plana para soldar | 13. Flange roscada com pescoço |
| 02. Flange louca com aro     | 21. Flange integral            |
| 04. Flange louca com colar   | 32. Aros para soldar           |
| 05. Flange cega              | 33. Colares                    |
| 11. Flange com pescoço       | 34. Aros para soldar a topo    |
| 12. Flange com pescoço curto |                                |



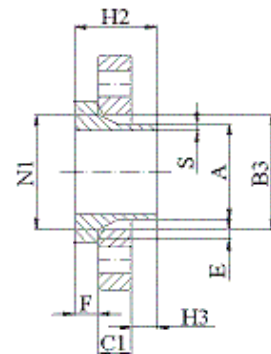
Tipo 01



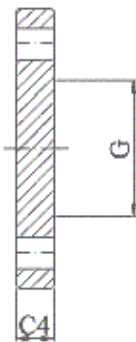
Tipo 02 e 32



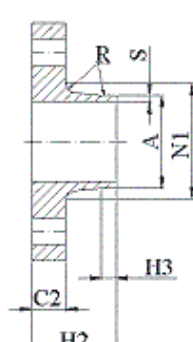
Tipo 02 e 33



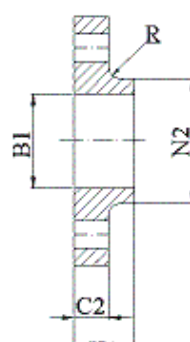
Tipo 04 e 34



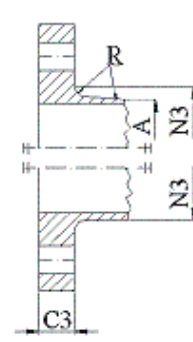
Tipo 05



Tipo 11



Tipo 12



Tipo 21

Nota: As dimensões N1, N2 e N3 são medidas na intersecção do plano do pescoço com o corpo da flange.

# Flanges

## PN 10

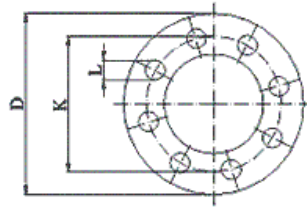
### Dimensões DIN EN 1092-1

DN	Dimensões Principais					Diâmetro Exterior do Pescoço	Diâmetro Interior			Espessura				Chanfro	Espessura do Colar	Diâmetro do ressalto	Altura			Diâmetro do pescoço			Raio do canto	Espessura do Pescoço
	∅ Exterior	∅ entre Furos	∅ do Furo	Furos			B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>				E	F	G <sub>max</sub>	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>		
	D	K	L	N.º	∅	A	B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>	E	F	G <sub>max</sub>	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	N <sub>1</sub>	N <sub>2</sub>	N <sub>3</sub>	R	S
	Tipo de Flange					11 21 34	01 12 32	02	04	01 02 04	11 12	21	05	02 04	32 34	05	12	11 34	11 34	11 34	12	21	11 12 21	11 34
10	usar dimensões de PN40																							
15	usar dimensões de PN40																							
20	usar dimensões de PN40																							
25	usar dimensões de PN40																							
32	usar dimensões de PN40																							
40	usar dimensões de PN40																							
50	usar dimensões de PN16																							
65	usar dimensões de PN16																							
80	usar dimensões de PN16																							
100	usar dimensões de PN16																							
125	usar dimensões de PN16																							
150	usar dimensões de PN16																							
200	340	295	22	8	M20	219,1	221,5	226	240	24	24	24	24	6	20	190	44	62	16	234	246	246	10	5,9
250	395	350	22	12	M20	273,0	276,5	218	294	26	26	26	26	8	22	235	46	68	16	292	298	298	12	6,3
300	445	400	22	12	M20	323,9	327,5	333	348	26	26	26	26	8	22	285	46	68	16	342	350	348	12	7,1
350	505	460	22	16	M20	335,6	359,5	365	400	28	26	26	26	8	22	330	53	68	16	385	400	408	12	7,1
400	565	515	26	16	M24	406,4	411,0	416	450	32	26	26	26	8	24	380	57	72	16	440	456	456	12	7,1
450	615	565	26	20	M24	457,0	462,0	467	498	36	28	28	28	8	24	425	63	72	16	488	502	502	12	7,1
500	670	620	26	20	M24	508,0	513,5	519	550	38	28	28	28	8	26	475	67	75	16	542	559	559	12	7,1
600	780	725	30	20	M27	610,0	616,5	622	650	42	34	34	34	8	26	575	75	80	18	642	658	658	12	7,1
700	895	840	30	24	M27	711,1					30	34	38			670	80	18	746		772	12	8,0	
800	1015	950	33	24	M30	813,0					32	36	42			770	90	18	850		876	12	8,0	
900	1115	1050	33	28	M30	914,0					34	38	46			860	95	20	950		976	12	10,0	
1000	1230	1160	36	28	M33	1016,0					34	38	52			960	95	20	1052		1080	16	10,0	
1200	1455	1380	39	32	M36	1219,0					38	44	60			1160	115	25	1256		1292	16	11,0	
1400	1675	1590	42	36	M39	1422,0					42	48				1346	120	25	1460		1496	16	12,0	
1600	1915	1820	48	40	M45	1626,0					46	52				1546	130	25	1666		1712	16	14,0	
1800	2115	2020	48	44	M45	1829,0					50	56				1746	140	30	1868		1910	16	15,0	
2000	2325	2230	48	48	M45	2032,0					54	60				1950	150	30	2072		2120	16	16,0	
2200	2550	2440	56	52	M52	2235,0					58						160	35	2275			18	18,0	
2400	2760	2650	56	56	M52	2438,0					62						170	35	2478			18	20,0	
2600	2960	2850	56	60	M52	2620,0					66						180	40	2680			18	22,0	
2800	3180	3070	56	64	M52	2820,0					70						190	40	2882			18	22,0	
3000	3405	3290	62	68	M56	3020,0					75						200	45	3085			18	24,0	

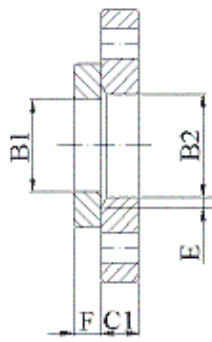
Dimensões em milímetros.



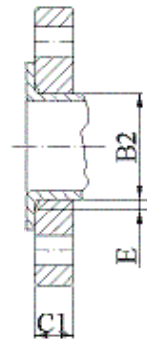
- |                              |                                |
|------------------------------|--------------------------------|
| 01. Flange plana para soldar | 13. Flange roscada com pescoço |
| 02. Flange louca com aro     | 21. Flange integral            |
| 04. Flange louca com colar   | 32. Aros para soldar           |
| 05. Flange cega              | 33. Colares                    |
| 11. Flange com pescoço       | 34. Aros para soldar a topo    |
| 12. Flange com pescoço curto |                                |



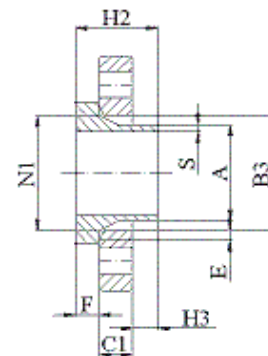
Tipo 01



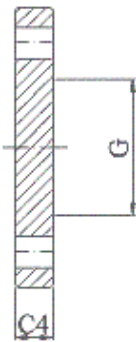
Tipo 02 e 32



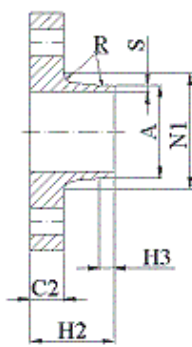
Tipo 02 e 33



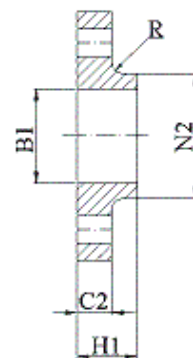
Tipo 04 e 34



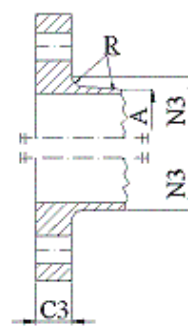
Tipo 05



Tipo 11



Tipo 12



Tipo 21

**Nota:** As dimensões N1, N2 e N3 são medidas na intersecção do plano do pescoço com o corpo da flange.



# Flanges

## PN 16

### Dimensões DIN EN 1092-1

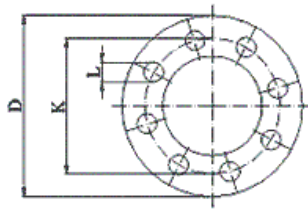
DN	Dimensões Principais					Diâmetro Exterior do Pescoço	Diâmetro Interior			Espessura				Chanfro	Espessura do Colar	Diâmetro do ressalto	Altura			Diâmetro do pescoço			Raio do canto	Espessura do Pescoço
	∅ Exterior	∅ entre Furos	∅ do Furo	Furos			B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>				H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	N <sub>1</sub>	N <sub>2</sub>	N <sub>3</sub>		
	D	K	L	N.º	∅	A	B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>	E	F	G <sub>max</sub>	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	N <sub>1</sub>	N <sub>2</sub>	N <sub>3</sub>	R	S
Tipo de Flange						11 21 34	01 12 32	02	04	01 02 04	11 12 13	21	05	02 04	32 34	05	12 13	11 34	11 34	11 34	12 13	21	11 12 13 21	11 34
10	usar dimensões de PN40																							
15	usar dimensões de PN40																							
20	usar dimensões de PN40																							
25	usar dimensões de PN40																							
32	usar dimensões de PN40																							
40	usar dimensões de PN40																							
50	165	125	18	4	M16	60,3	61,5	65	77	19	18	18	18	5	16		28	45	8	74	84	84	5	2,9
65	185	145	18	*	M16	76,1	77,5	81	96	20	18	18	18	6	16	55	32	45	10	92	104	104	6	2,9
80	200	160	18	8	M16	88,9	90,5	94	108	20	20	20	20	6	16	70	34	50	10	105	118	120	6	3,2
100	220	180	18	8	M16	114,3	116,0	120	134	22	20	20	20	6	18	90	40	52	12	131	140	140	8	3,6
125	250	210	18	8	M16	139,7	141,5	145	162	22	22	22	22	6	18	115	44	55	12	156	168	170	8	4,0
150	285	240	22	8	M20	168,3	170,5	174	188	24	22	22	22	6	20	140	44	55	12	184	195	190	10	4,5
200	340	295	22	12	M20	219,1	221,5	226	240	26	24	24	24	6	20	190	44	62	16	235	246	246	10	5,9
250	405	355	26	12	M24	273,0	276,5	281	294	29	26	26	26	8	22	235	46	70	16	292	298	296	12	6,3
300	460	410	26	12	M24	323,9	327,5	333	348	32	28	28	28	8	24	285	46	78	16	344	350	350	12	7,1
350	520	470	26	16	M24	355,6	359,0	365	400	35	30	30	30	8	26	330	57	82	16	390	400	410	12	8,0
400	580	525	30	16	M27	406,4	411,0	416	454	38	32	32	32	8	28	380	63	85	16	445	456	458	12	8,0
450	640	585	30	20	M27	457,0	462,0	467	500	42	40	40	40	8	30	425	68	87	16	490	502	516	12	8,0
500	715	650	33	20	M30	508,0	513,5	510	556	46	44	44	44	8	32	475	73	90	16	548	559	576	12	8,0
600	840	770	36	20	M33	610,0	616,5	622	660	52	54	54	54	8	32	575	83	95	18	652	658	690	12	8,8
700	910	840	36	24	M33	711,0				36	42	48				670	83	100	18	755	760	760	12	8,8
800	1025	950	39	24	M36	813,0				38	42	52				770	90	105	20	855	864	862	12	10,0
900	1125	1050	39	28	M36	914,0				40	44	58				860	94	110	20	955	968	962	12	10,0
1000	1255	1170	42	28	M39	1016,0				42	46	64				960	100	120	22	1058	1072	1076	16	10,0
1200	1485	1390	48	32	M45	1219,0				48	52	76				1160		130	30	1262		1282	16	12,5
1400	1685	1590	48	36	M45	1422,0				52	58					1346		145	30	1465		1482	16	14,2
1600	1930	1820	56	40	M52	1626,0				58	64					1546		160	35	1668		1696	16	16,0
1800	2130	2020	56	44	M52	1829,0				62	68					1746		170	35	1870		1896	16	17,5
2000	2345	2230	62	48	M56	2032,0				66	70					1950		180	40	2100		2100	16	20,0

\* Standard com 8 furos, podendo ser fornecido com 4 furos a pedido do cliente.

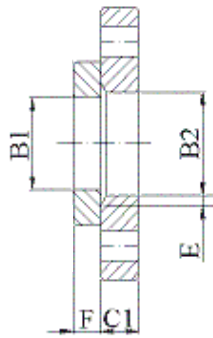
Dimensões em milímetros.



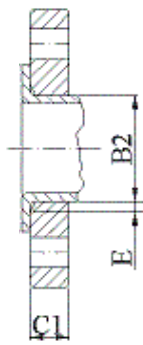
- |                              |                                |
|------------------------------|--------------------------------|
| 01. Flange plana para soldar | 13. Flange roscada com pescoço |
| 02. Flange louca com aro     | 21. Flange integral            |
| 04. Flange louca com colar   | 32. Aros para soldar           |
| 05. Flange cega              | 33. Colares                    |
| 11. Flange com pescoço       | 34. Aros para soldar a topo    |
| 12. Flange com pescoço curto |                                |



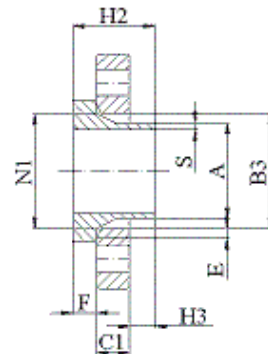
Tipo 01



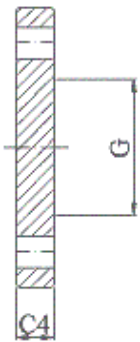
Tipo 02 e 32



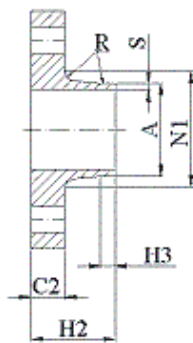
Tipo 02 e 33



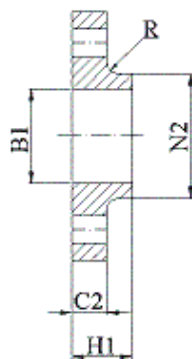
Tipo 04 e 34



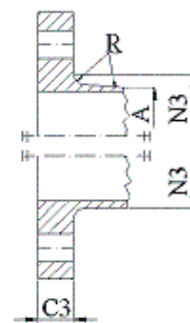
Tipo 05



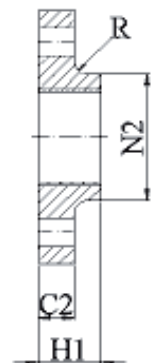
Tipo 11



Tipo 12



Tipo 21



Tipo 13

Nota: As dimensões N1, N2 e N3 são medidas na intersecção do plano do pescoço com o corpo da flange.

# Flanges

## PN 25

Dimensões DIN EN 1092-1

DN	Dimensões Principais					Diâmetro Exterior do Pescoço	Diâmetro Interior				Espessura				Chanfro	Espessura do Colar	Diâmetro do ressalto	Altura			Diâmetro do pescoço			Raio do canto	Espessura do Pescoço
	∅ Exterior	∅ entre Furos	∅ do Furo	Furos			B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>	E				F	G <sub>max</sub>	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	N <sub>1</sub>		
	D	K	L	N.º	∅	A	B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>	E	F	G <sub>max</sub>	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	N <sub>1</sub>	N <sub>2</sub>	N <sub>3</sub>	R	S	
Tipo de Flange																									
01, 02, 05, 11, 12, 21					11 21 34	01 12 32	02	04	01 02 04	11 12 13	21	05	02 04	32 34	05	12 13	11 34	11 34	11 34	11 12 13	21	11 12 13 21	11 34		

10  
15  
20  
25  
32  
40  
50  
65  
80  
100  
125  
150

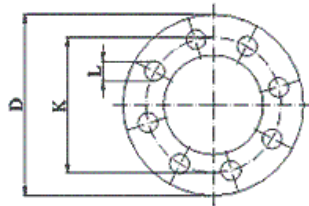
usar dimensões de PN40

200	360	310	26	12	M24	219,1	221,5	226	250	32	30	30	30	6	26	190	52	80	16	244	256	252	10	6,3
250	425	370	30	12	M27	273,0	276,5	281	302	35	32	32	32	8	26	235	60	88	18	298	310	304	12	7,1
300	485	430	30	16	M27	323,9	327,5	333	356	38	34	34	34	8	28	285	67	92	18	352	364	364	12	8,0
350	555	490	33	16	M30	355,6	359,5	365	408	42	38	38	38	8	32	332	72	100	20	398	418	418	12	8,0
400	620	550	36	16	M33	406,4	411,0	416	462	46	40	40	40	8	34	380	78	110	20	452	472	472	12	8,8
450	670	600	36	20	M33	457,0	462,0	467	510	50	46	46	46	8	36	425	84	110	20	500	520	520	12	8,8
500	730	660	36	20	M33	508,0	513,5	519	568	56	48	48	48	8	38	475	90	125	20	558	580	580	12	10,0
600	845	770	39	20	M36	610,0	616,5	622	670	68	58	58	58	8	40	575	100	125	20	660	684	684	12	11,0
700	960	875	42	24	M39	711,0					46	50					125	20	760		780	12	12,5	
800	1085	990	48	24	M45	813,0					50	54					135	22	864		882	12	14,2	
900	1158	1090	48	28	M45	914,0					54	58					145	24	968		982	12	16,0	
1000	1320	1210	56	28	M52	1016,0					58	62					155	24	1070		1086	16	17,5	
1200	1530	1420	56	32	M52	1219,0						70									1296	18		
1400	1755	1640	62	36	M56	1422,0						76									1508	18		
1600	1975	1860	62	40	M56	1626,0						84									1726	20		
1800	2195	2070	70	44	M64	1829,0						90									1920	20		
2000	2425	2300	70	48	M64	2032,0						96									2150	20		

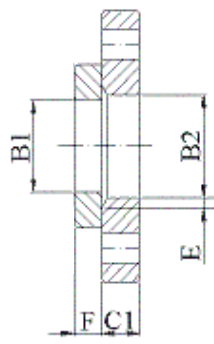
Dimensões em milímetros.



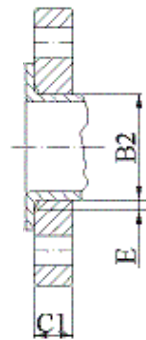
- |                              |                                |
|------------------------------|--------------------------------|
| 01. Flange plana para soldar | 13. Flange roscada com pescoço |
| 02. Flange louca com aro     | 21. Flange integral            |
| 04. Flange louca com colar   | 32. Aros para soldar           |
| 05. Flange cega              | 33. Colares                    |
| 11. Flange com pescoço       | 34. Aros para soldar a topo    |
| 12. Flange com pescoço curto |                                |



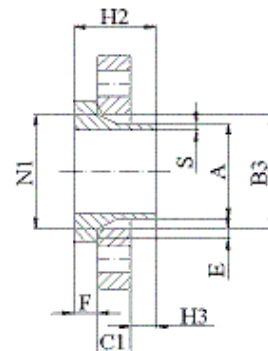
Tipo 01



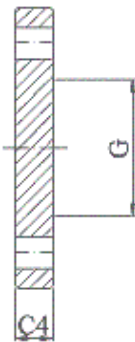
Tipo 02 e 32



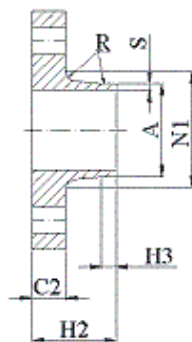
Tipo 02 e 33



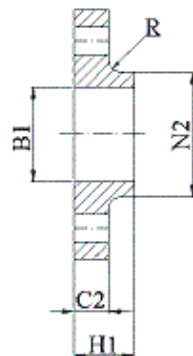
Tipo 04 e 34



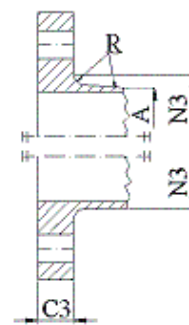
Tipo 05



Tipo 11



Tipo 12



Tipo 21

Nota: As dimensões N1, N2 e N3 são medidas na intersecção do plano do pescoço com o corpo da flange.

# Flanges

## PN 40

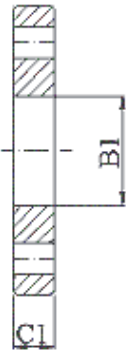
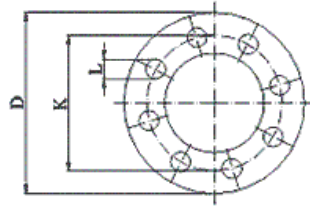
### Dimensões DIN EN 1092-1

DN	Dimensões Principais					Diâmetro Exterior do Pescoço	Diâmetro Interior				Espessura				Chanfro	Espessura do Colar	Diâmetro do ressalto	Altura			Diâmetro do pescoço			Raio do canto	Espessura do Pescoço
	∅ Exterior	∅ entre Furos	∅ do Furo	Furos			B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>	E				F	G <sub>max</sub>	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	N <sub>1</sub>		
	D	K	L	N.º	∅	A	B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>	E	F	G <sub>max</sub>	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	N <sub>1</sub>	N <sub>2</sub>	N <sub>3</sub>	R	S	
	Tipo de Flange					11 21 34	01 12 32	02	04	01 02 04	11 12 13	21	05	02 04	32 34	05	12 13	11 34	11 34	11 34	12 13	21	11 12 13 21	11 34	
10	90	60	14	4	M12	17,2	18,0	21	31	14	16	16	3	12			22	35	6	28	30	28	4	1,8	
15	95	65	14	4	M12	21,3	22,0	25	35	14	16	16	3	12			22	38	6	32	35	32	4	2,0	
20	105	75	14	4	M12	26,9	27,5	31	42	16	18	18	4	14			26	40	6	40	45	40	4	2,3	
25	115	85	14	4	M12	33,7	34,5	38	49	16	18	18	4	14			28	40	6	46	52	52	4	2,6	
32	140	100	18	4	M16	42,4	43,5	47	59	18	18	18	5	14			30	42	6	56	60	60	6	2,6	
40	150	110	18	4	M16	48,3	49,5	53	67	18	18	18	5	14			32	45	7	64	70	70	6	2,6	
50	165	125	18	4	M16	60,3	61,5	65	77	20	20	20	5	16			34	48	8	75	84	84	6	2,9	
65	185	145	18	8	M16	76,1	77,5	81	96	22	22	22	6	16	55		38	52	10	90	104	104	6	2,9	
80	200	160	18	8	M16	88,9	90,5	94	114	24	24	24	6	18	70		40	58	12	105	118	120	8	3,2	
100	235	190	22	8	M20	114,3	116,0	120	138	26	24	24	6	20	90		44	65	12	134	145	142	8	3,6	
125	270	220	26	8	M24	139,7	141,5	145	166	28	26	26	6	22	115		48	68	12	162	170	162	8	4,0	
150	300	250	26	8	M24	168,3	170,5	174	194	30	28	28	6	24	140		52	75	12	192	200	192	10	4,5	
200	375	320	30	12	M27	219,1	221,5	226	250	36	34	36	6	28	190		52	88	16	244	260	254	10	6,3	
250	450	385	33	12	M30	273,0	276,5	281	312	42	38	38	8	30	235		60	105	18	306	312	312	12	7,1	
300	515	450	33	16	M30	323,9	327,5	333	368	48	42	42	8	34	285		67	115	18	362	380	378	12	8,0	
350	580	510	36	16	M33	355,6	359,5	365	418	54	46	46	8	36	330		72	125	20	408	424	432	12	8,8	
400	660	585	39	16	M36	406,4	411,0	416	472	60	50	50	8	42	380		78	135	20	462	478	498	12	11,0	
450	685	610	39	20	M36	457,0	462,0	467	510	66	57	57	8	46	425		84	135	20	500	522	522	12	12,5	
500	755	670	42	20	M39	508,0	513,5	519	572	72	57	57	8	50	475		90	140	20	562	576	576	12	14,2	
600	890	795	48	20	M45	610,0	616,5	622	676	84	72	72	8	54	575		100	150	20	666	686	686	12	16,0	

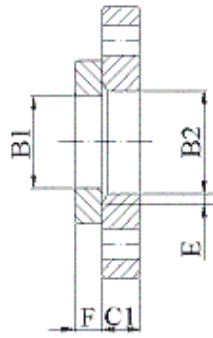
Dimensões em milímetros.



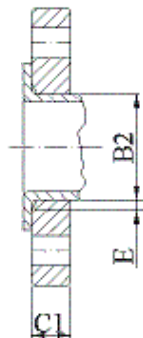
- |                              |                                |
|------------------------------|--------------------------------|
| 01. Flange plana para soldar | 13. Flange roscada com pescoço |
| 02. Flange louca com aro     | 21. Flange integral            |
| 04. Flange louca com colar   | 32. Aros para soldar           |
| 05. Flange cega              | 33. Colares                    |
| 11. Flange com pescoço       | 34. Aros para soldar a topo    |
| 12. Flange com pescoço curto |                                |



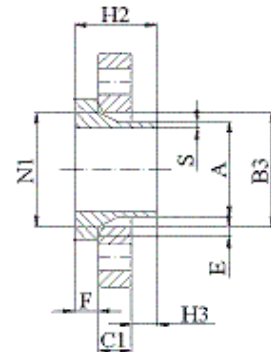
Tipo 01



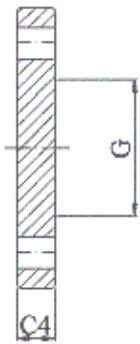
Tipo 02 e 32



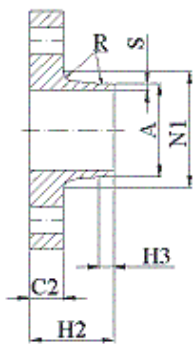
Tipo 02 e 33



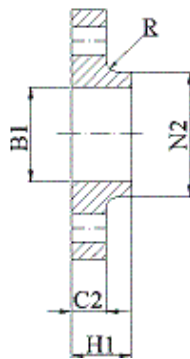
Tipo 04 e 34



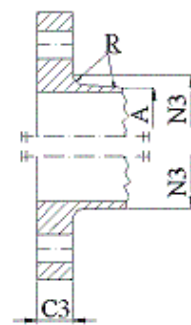
Tipo 05



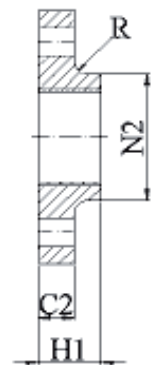
Tipo 11



Tipo 12



Tipo 21



Tipo 13

Nota: As dimensões N1, N2 e N3 são medidas na intersecção do plano do pescoço com o corpo da flange.