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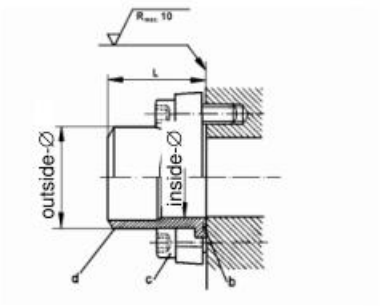
SMS DEMAG
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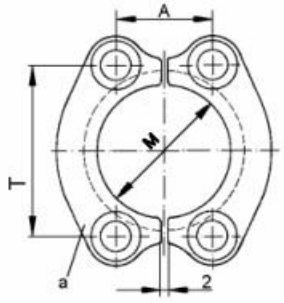
SAE-flanges with flanged welding neck
3000 PSI and 6000 PSI
Flange connection Flange-type coupling

SN 532
Part 1

Dimensions in mm

Type A
Flange connection





a = 2 semiflanges
b = O-ring
c = bolts
d = flanged welding neck with O-ring groove

Designation of a flange connection of type A and size DN 2" for flange drilling pattern 6000 psi (6) with pipe dimension 60,3 x 10,0, semiflanges, flanged welding neck and screws of steel (St), O-ring of Perbunan:

Flange connection SN 532 - A 2" - 6 / 60,3 x 10,0 St

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Table 1

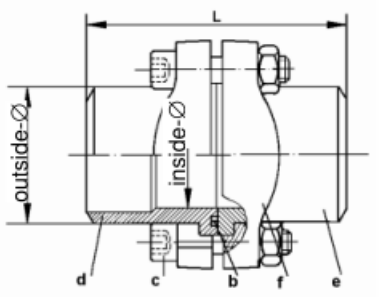
3000 PSI (PN acc. to pipe dimension)											
DN	PN max.	Pipe connection outer Ø max.	Pipe connection inside Ø [3] max.	A	T	L	M max.	Bolt ISO 4762	O-ring SN 430	Order example [2] [3]	Weight
½"	250	20,0	14,0	17,5	38,1	30	24,3	M 8 x 25	18,64 x 3,53	A ½"-3/ 20,0 x 2,5 St	0,238
¾"	250	30,0	20,0	22,3	47,6	35	32,2	M10 x 30	24,99 x 3,53	A ¾"-3/ 25,0 x 3,0 St	0,405
1"	250	38,0	28,0	26,2	52,4	40	38,5	M10 x 30	32,92 x 3,53	A 1" -3/ 30,0 x 4,0 St	0,500
1 ¼"	250	42,4	33,0	30,2	58,7	45	43,7	M10 x 35	37,69 x 3,53	A 1 ¼"-3/ 38,0 x 3,0 St	0,750
1 ½"	200	48,3	42,0	35,7	69,9	50	50,8	M12 x 35	47,22 x 3,53	A 1 ½"-3/ 48,3 x 2,6 St	1,048
2"	200	60,3	52,0	42,9	77,8	60	62,8	M12 x 35	56,74 x 3,53	A 2" -3/ 60,3 x 2,9 St	1,435
2 ½"	160	76,1 [1]	65,0	50,8	88,9	70	74,9 [1]	M12 x 40	69,44 x 3,53	A 2 ½"-3/ 76,1 x 2,9 St	2,500
3"	100	88,9	81,0	61,9	106,4	80	90,9	M16 x 45	85,32 x 3,53	A 3" -3/ 88,9 x 3,2 St	3,000
4"	25	114,3	106,0	77,8	130,2	80	115,0	M16 x 50	110,72 x 3,53	A 4" -3/114,3 x 3,6 St	4,260
5"	25	139,7	132,0	92,1	152,4	80	140,5	M16 x 50	136,12 x 3,53	A 5" -3/139,7 x 4,0 St	4,855
6000 PSI (PN acc. to pipe dimension)											
DN	PN max.	Pipe connection outer Ø max.	Pipe connection inside Ø [3] max.	A	T	L	M max.	Bolt ISO 4762	O-ring SN 430	Order example [2] [3]	Weight
½"	400	20,0	14,0	18,2	40,5	40	24,6	M 8 x 30	18,64 x 3,53	A ½"-6/20,0 x 3,0 St	0,345
¾"	400	30,0	20,0	23,8	50,8	45	32,5	M10 x 35	24,99 x 3,53	A ¾"-6/25,0 x 4,0 St	0,646
1"	400	38,0	28,0	27,8	57,2	50	38,8	M12 x 40	32,92 x 3,53	A 1" -6/30,0 x 5,0 St	1,051
1 ¼"	400	42,4	33,0	31,8	66,7	55	44,5	M14 x 45	37,69 x 3,53	A 1 ¼"-6/38,0 x 6,0 St	1,530
1 ½"	400	48,3	42,0	36,5	79,4	60	51,6	M16 x 50	47,22 x 3,53	A 1 ½"-6/48,3 x 8,0 St	2,465
2"	400	60,3	52,0	44,5	96,8	70	67,6	M20 x 60	56,74 x 3,53	A 2" -6/60,3 x 10,0 St	4,193
2 ½"	320	76,1	65,0	58,7	123,8	75	89,5	M24 x 80	69,44 x 3,53	A 2 ½"-6/76,1 x 12,5 St	8,050
3"	320	88,9	81,0	71,4	152,4	80	114,5	M30 x 100	85,32 x 3,53	A 3" -6/88,9 x 14,2 St	15,10

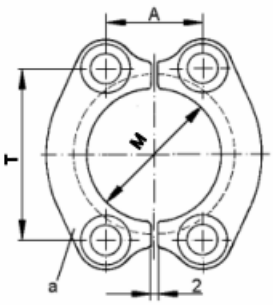
Footnotes see page 2

Continued on pages 2 to 5

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Type B
Flange-type coupling





a = 2 semiflanges
b = O-ring
c = bolts and nuts
d = flanges welding neck with O-ring groove
e = flanged welding neck without O-ring groove
f = solid flange

Designation of a flange-type coupling of type B and size DN 1 ½" for flange drilling pattern 3000 psi (3) with pipe dimension 48,3 x 2,6, flanges, flanged welding neck, bolts and nuts of steel (St), O-ring of Perbunan:

Flange-type coupling SN 532 - B 1 ½" - 3 / 48,3 x 2,6 St

Table 2

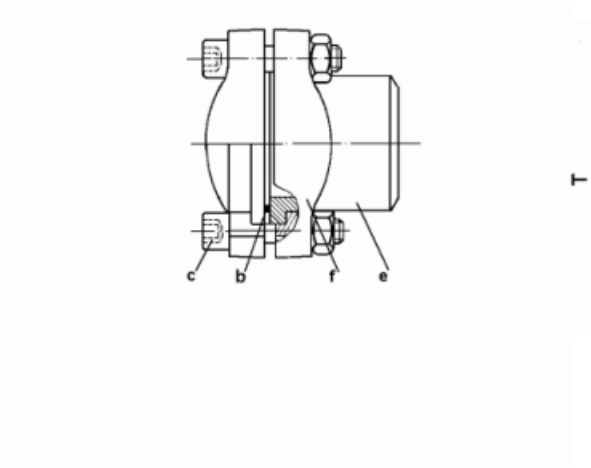
3000 PSI (PN acc. to pipe dimension)												
DN	PN max.	Pipe connection outer Ø max.	Pipe connection inside Ø [3] max.	A	T	L	M max.	Bolt ISO 4762	Nut ISO 4032	O-Ring SN 430	Order example [2] [3]	Weight
½"	250	20,0	14,0	17,5	38,1	60	24,3	M 8 x 40	M 8	18,64 x 3,53	B ½"-3/ 20,0 x 2,5 St	0,464
¾"	250	30,0	20,0	22,3	47,6	70	32,2	M10 x 40	M10	24,99 x 3,53	B ¾"-3/ 25,0 x 3,0 St	1,220
1"	250	38,0	28,0	26,2	52,4	80	38,5	M10 x 45		32,92 x 3,53	B 1" -3/ 30,0 x 4,0 St	0,979
1 ¼"	250	42,4	33,0	30,2	58,7	90	43,7	M10 x 45		37,69 x 3,53	B 1 ¼"-3/ 38,0 x 3,0 St	1,445
1 ½"	200	48,3	42,0	35,7	69,9	100	50,8	M12 x 50	M12	47,22 x 3,53	B 1 ½"-3/ 48,3 x 2,6 St	2,044
2"	200	60,3	52,0	42,9	77,8	120	62,8	M12 x 50		56,74 x 3,53	B 2" -3/ 60,3 x 2,9 St	2,822
2 ½"	160	76,1 [1]	65,0	50,8	88,9	140	74,9 [1]	M12 x 60		69,44 x 3,53	B 2 ½"-3/ 76,1 x 2,9 St	3,900
3"	100	88,9	81,0	61,9	106,4	160	90,9	M16 x 70	M16	85,32 x 3,53	B 3" -3/ 88,9 x 3,2 St	5,900
4"	25	114,3	106,0	77,8	130,2	160	115,0	M16 x 80		110,72 x 3,53	B 4" -3/114,3 x 3,6 St	8,475
5"	25	139,7	132,0	92,1	152,4	160	140,5	M16 x 80		136,12 x 3,53	B 5" -3/139,7 x 4,0 St	9,615
6000 PSI (PN acc. to pipe dimension)												
DN	PN max.	Pipe connection outer Ø max.	Pipe connection inside Ø [3] max.	A	T	L	M max.	Bolt ISO 4762	Nut ISO 4032	O-ring SN 430	Order example [2] [3]	Weight
½"	400	20,0	14,0	18,2	40,5	80	24,6	M 8 x 45	M 8	18,64 x 3,53	B ½"-6/20,0 x 3,0 St	0,671
¾"	400	30,0	20,0	23,8	50,8	90	32,5	M10 x 50	M10	24,99 x 3,53	B ¾"-6/25,0 x 4,0 St	1,246
1"	400	38,0	28,0	27,8	57,2	100	38,8	M12 x 65	M12	32,92 x 3,53	B 1" -6/30,0 x 5,0 St	2,076
1 ¼"	400	42,4	33,0	31,8	66,7	110	44,5	M14 x 70	M14	37,69 x 3,53	B 1 ¼"-6/38,0 x 6,0 St	3,000
1 ½"	400	48,3	42,0	36,5	79,4	120	51,6	M16 x 80	M16	47,22 x 3,53	B 1 ½"-6/48,3 x 8,0 St	4,830
2"	400	60,3	52,0	44,5	96,8	140	67,6	M20 x 100	M20	56,74 x 3,53	B 2" -6/60,3 x 10,0 St	8,274
2 ½"	320	76,1	65,0	58,7	123,8	150	89,5	M24 x 120	M24	69,44 x 3,53	B 2 ½"-6/76,1 x 12,5 St	16,10
3"	320	88,9	81,0	71,4	152,4	160	114,5	M30 x 140	M30	85,32 x 3,53	B 3" -6/88,9 x 14,2 St	28,70

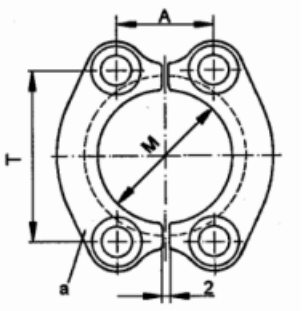
[1] Here the max. outside diameter of the flanged welding neck must be reduced to Ø 74,5 mm the specified wall thickness, however, must be observed.

[2] Outer pipe dimensions can also be ordered according to this standard, the standard dimensions of SN 553 must be observed. The outside diameter of the pipe must not exceed the value M stated in the tables.

[3] The max. inside diameter must not be exceeded, the O-ring groove must be maintained as „compartment". The demanded pipe dimension at the joint must be adhered to. This is to be implemented by way of a typered transition or by turning off.

Type C
Flange-type coupling without flanged welding neck (d)





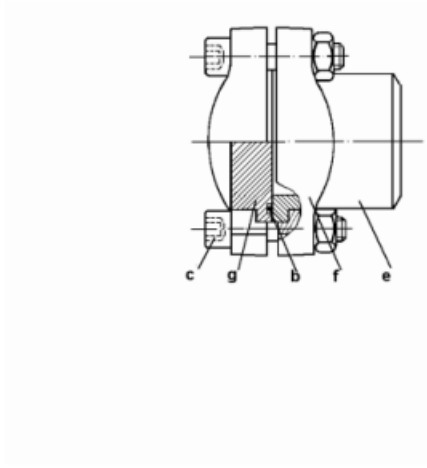
a = 2 semiflanges
b = O-ring
c = bolts and nuts
e = flanged welding neck without O-ring groove
f = solid flange

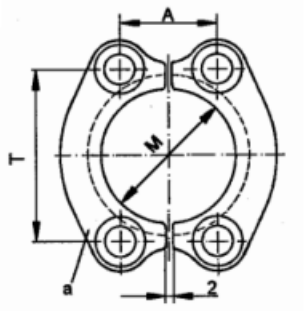
Dimensions see table 2

Designation of a flange-type coupling of type C and size DN ½" for flange drilling pattern 6000 psi (6) with pipe dimension 20,0 x 3,0, flanges, flanged welding neck (without O-ring groove), bolts and nuts of steel (St), O-ring of Perbunan:

Flange-type coupling SN 532 - C ½" - 6 / 20,0 x 3,0 St

Type D
Flange-type coupling with blind collar





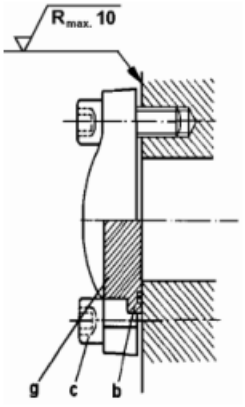
a = 2 semiflanges
b = O-ring
c = bolts and nuts
e = flanged welding neck without O-ring groove
f = solid flange
g = blind collar with O-ring groove

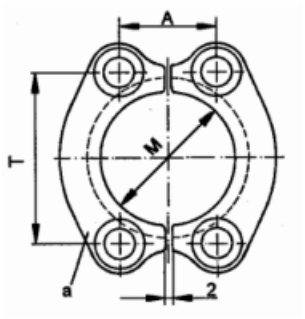
Dimensions see table 2

Designation of a flange-type coupling of type D and size DN ½" for flange drilling pattern 3000 psi (3) with pipe dimension 20,0 x 2,5, flanges, flanged welding neck (without O-ring groove), blind collar, bolts and nuts of steel (St), O-ring of Perbunan:

Flange-type coupling SN 532 - D ½" - 3 / 20,0 x 2,5 St

Type E
Flange connection with blind collar





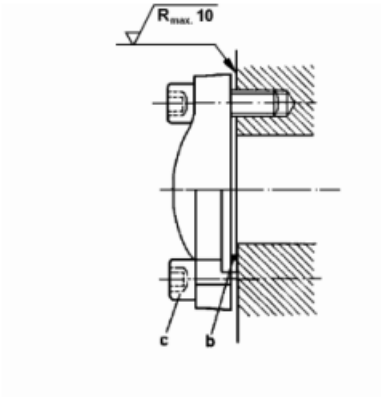
a = 2 semiflanges
b = O-ring
c = screws
g = blind collar with O-ring groove

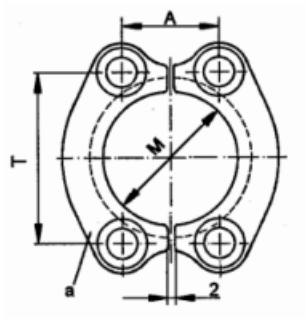
Dimensions see table 1

Designation of a flange connection of type E and size DN 1" for flange drilling pattern 6000 psi (6) semiflanges, blind collar and screws of steel (St), O-ring of Viton:

Flange connection SN 532 - E 1" - 6 St/Viton

Type F
Flange connection without flanged welding neck





a = 2 semiflanges
b = O-ring
c = screws

Dimensions see table 1

Designation of a flange connection of type F and size DN 1" for flange drilling pattern 3000 psi (3) semiflanges and screws of Steel (St), O-ring of Perbunan:

Flange connection SN 532 - F 1" - 3 St

Material: steel (St)
stainless steel (1.4571)
steel, electrogalvanised (galvanised)

Seal: Perbunan, Viton

with the material below	the associated parts are made of						
	a	b	c	d	e	f	g
St	St-galvanised and yellow chromalised	Perbunan	8.8 / 8 electrogal-vanised	St 52.3	St 52.3	St-galvanised and yellow chromalised	C22 or St 52.3
St/Viton	St-galvanised and yellow chromalised	Viton	8.8 / 8 electrogal-vanised	St 52.3	St 52.3	St-galvanised and yellow chromalised	C22 or St 52.3
1.4571- St-galvanised	St-galvanised and yellow chromalised	Perbunan	8.8 / 8 electrogal-vanised	1.4571	1.4571	1.4404	1.4571
only for areas in which liquid or steamy media are used							
1.4571/Viton	1.4404	Viton	A 2-80/A2	1.4571	1.4571	1.4404	1.4571

Components see SN 532 Part 2
All other dimensions are given in ISO 6162.

Supplier: Fa. AVIT, 45141 Essen
Fa. Havit (Busse), 46240 Bottrop

Revision of March 2006
Change of outside dia. to max. outside dia. 30, 38, 42.4.

Previous edition
1996-11, 1997-05, 2000-07, 2001-01, 2002-03, 2005-02

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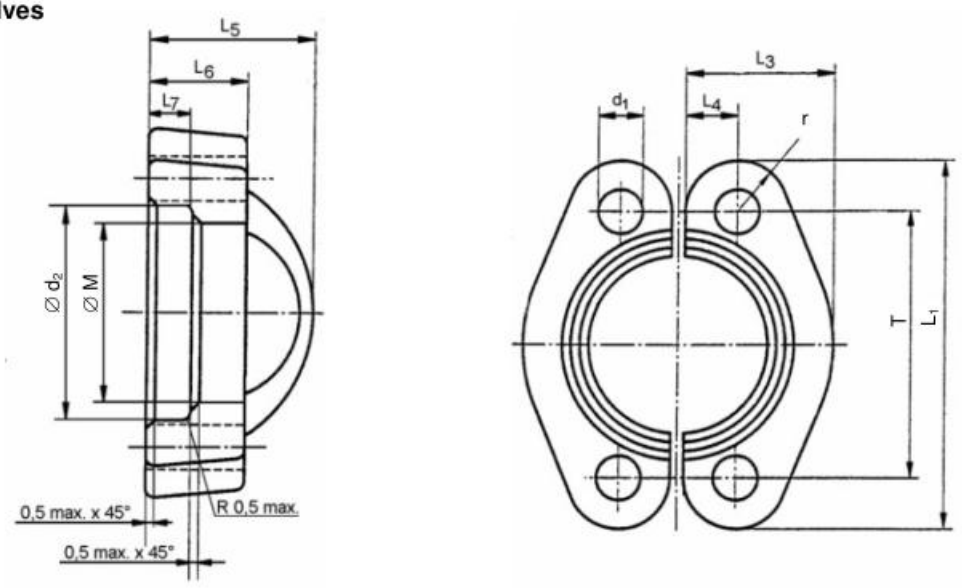
SAE flange
Flange halves, solid flanges, welding collars, blind collars

SN 532
Part 2

Dimensions in mm

Flanges are supplied without bolts, nuts and O-rings; these parts must be specified separately.

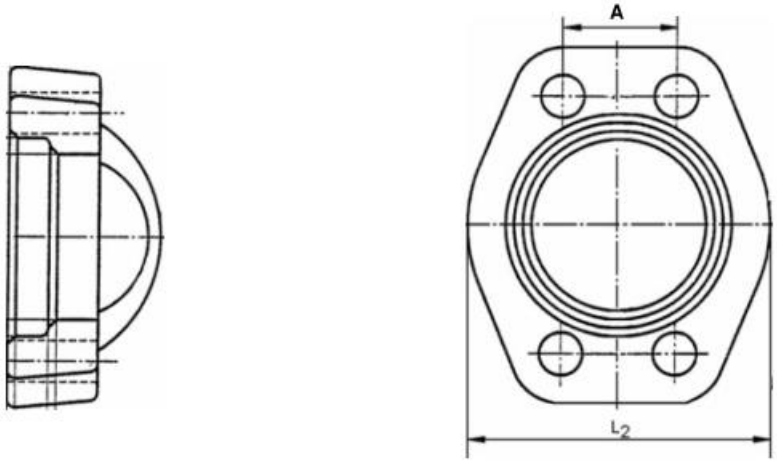
Type H
Flange halves



Dimensions are given in table 1

Designation of a pair of flange halves, type H, size DN 1 ½"
for hole pattern 6000 psi (6), in steel, galvanised and yellow chromalised:
Flange halves SN 532 – H 1 ½" – 6 St - galvanised

Type V
Solid flange



Other dimensions same as type H
see table 1

Designation of a solid flange, type V, size DN 1 ½"
for hole pattern 6000 psi (6), in steel, galvanised and yellow chromalised:

Solid flange SN 532 – V 1 ½" – 6 St – galvanised

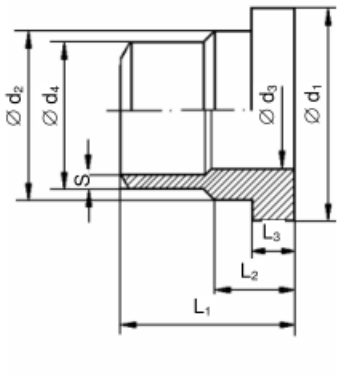
Continued on pages 2 and 3

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The welding collar type N and the blind collar type S are supplied without O-rings. The O-ring must be specified separately (see SN 532-1).

Type G
Welding collar without O-ring groove (smooth)



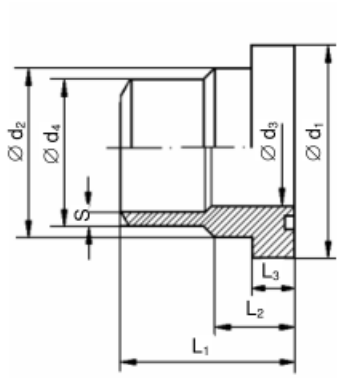
Edge form per DIN 2559
s ≤ 12 = code number 22
s > 12 = code number 3

Dimensions are given in table 2

Designation of a welding collar without O-ring groove, type G, size 2", for hole pattern 3000 psi (3) with pipe dimension 60.3 x 2.9, and made of steel (St):

Welding collar SN 532 – G 2" – 3 / 60.3 x 2.9 St)

Type N
Welding collar with O-ring groove



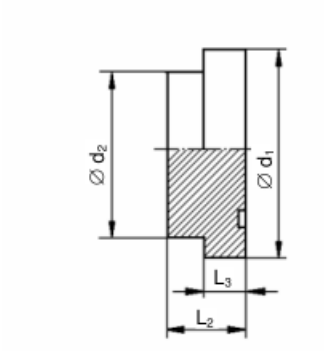
Edge form per DIN 2559
s ≤ 12 = code number 22
s > 12 = code number 3

Dimensions are given in table 2

Designation of a welding collar with O-ring groove, type N, size 2", for hole pattern 3000 psi (3) with pipe dimension 60.3 x 2.9, and made of steel (St):

Welding collar SN 532 – N 2" – 3 / 60.3 x 2.9 St

Type S
Blind collar



Dimensions are given in table 2

Designation of a blind collar, type S, size DN 2", for hole pattern 6000 psi (6), and made of stainless steel (1.4571):

Blind collar SN 532 - S 2" - 6 1.4571

Table 1 Dimensions of the flange halves and solid flanges

3000 PSI													
DN	A	T	M	L_1	L_2	L_3	L_4	L_5	L_6	L_7	d_1	d_2	r
1/2“	17,5	38,1	24,3	54	46	22	8	19	13	6,2	9	31	8
3/4“	22,3	47,6	32,2	65	52	25	10	22	14	6,2	11	38,9	9
1”	26,2	52,4	38,5	70	59	28,5	12	22	14	7,5	11	45,3	9
1 1/4“	30,2	58,7	43,7	80	73	35,5	14	24	16	7,5	11	51,6	10
1 1/2“	35,7	69,9	50,8	94	83	40,5	17	25	16	7,5	13,5	61,1	12
2”	42,9	77,8	62,8	102	97	47,5	20,5	26	16	9	13,5	72,3	12
2 1/2“	50,8	88,9	74,9	115	101	49,5	24,5	38	19	9	13,5	84,9	13
3”	61,9	106,4	90,9	135	131	64,5	30	41	21	9	17,5	102,4	14
4”	77,8	130,2	115,0	163	147	72,5	38	35	24	10,7	17,5	127,8	16
5”	92,1	152,4	140,5	184	165	81,5	45	41	30	10,7	17,5	153,2	16
6000 PSI													
DN	A	T	M	L_1	L_2	L_3	L_4	L_5	L_6	L_7	d_1	d_2	r
1/2“	18,2	40,5	24,6	56	48	23	8	22	16	7,2	9	32,5	8
3/4“	23,8	50,8	32,5	71	60	29	11	28	19	8,2	11	42	10
1”	27,8	57,2	38,8	81	70	34	13	33	24	9,0	13,5	48,4	12
1 1/4“	31,8	66,7	44,5	95	78	38	15	38	27	9,8	15,5	54,8	14
1 1/2“	36,5	79,4	51,6	113	95	46,5	17	43	30	12,0	17,5	64,3	17
2”	44,5	96,8	67,6	133	114	56	21	52	37	12,0	22	80,2	18
2 1/2“	58,7	123,8	89,5	180	150	75	29	-	45	20,5	26	108,9	25
3”	71,4	152,4	114,5	215	198	99	35	-	55	25,5	32	132,5	31

Material: St50-2 or C60, galvanised and yellow chromalised (St-galvanised)
stainless steel (1.4404)

Table 2 Dimensions of the welding and blind collars

3000 PSI							
DN	d_1	D_2	d_3 [3] max.	L_1	L_2	L_3	Pipe dimension [2] [3] d_4 x s
1/2“	30,1	24	14	30	13	6,8	20 x 2,5
3/4“	38,1	31,5	20	35	14	6,8	25 x 3,0
1"	44,4	38	28	40	14	8	30 x 4,0
1 1/4“	50,8	43	33	45	16	8	38 x 3,0
1 1/2“	60,3	50	42	50	16	8	48,3 x 2,6
2"	71,0	62	52	60	16	9,6	60,3 x 2,9
2 1/2“	84,1	74,5 [1]	65	70	19	9,6	76,1 x 2,9 [1]
3"	101,6	89	81	80	21	9,6	88,9 x 3,2
4"	127,0	114	106	80	24	11,3	114,3 x 3,6
5"	152,4	140	132	80	30	11,3	139,7 x 4,0
6000 PSI							
DN	d_1	D_2	d_3 [3] max.	L_1	L_2	L_3	Pipe dimension [2] [3] d_4 x s
1/2“	31,7	24	14	40	16	7,8	20 x 3,0
3/4“	41,3	32	20	45	19	8,8	25 x 4,0
1"	47,6	38	28	50	24	9,5	30 x 5,0
1 1/4“	54,0	44	33	55	27	10,3	38 x 6,0
1 1/2“	63,5	51	42	60	30	12,6	48,3 x 8,0
2"	79,4	67	52	70	37	12,6	60,3 x 10,0
2 1/2“	108,0	89	65	75	45	21,2	76,1 x 12,5
3"	132,0	114	81	80	55	26,5	88,9 x 14,2

Material: C22; St52-3 (St)
stainless steel (1.4571)

Revision of October 2007
Values L_1 & L_2 of 6000 psi flanges
altered from 175 to 180 and from 178 to 198.

Previous editions
1996-11, 1997-05, 2000-07, 2002-01, 2005-02

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[1] Here the max. outside diameter of the welding collar must be reduced to 74.5 mm, the stated wall thickness must be kept.

[2] Other pipe dimensions and wall thicknesses are possible (stick to specifications for the pipe classes). However, the outside diameter of the pipe must not exceed the value M stated in Table 1.

[3] The max. inside diameter must not be exceeded, the O-ring groove must be maintained as a "chamber". At the connection, however, the specified pipe dimension must be kept by using either a tapered transition piece or a recess.