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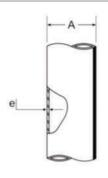
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### **CONEXÕES SOLDA**

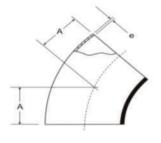
#### **Tubos**

Ø	Α	е	P. máx à 20º C [Kgf/cm?]
1"	25,4	1,2	95,0
11/2"	38,1	1,2	50,0
2"	50,8	1,2	30,0
2"	50,8	1,5	50,0
21/2"	63,5	1,5	30,0
3"	76,2	1,5	18,0
3"	76,2	2,0	36,0
4"	101,6	2,0	18,0
5"	127,0	2,0	17,0
6"	152,4	2,0	16,0



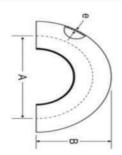
#### Curva 45º solda

Ø	Α	е
1"	14,6	1,5
11/2"	21,9	1,5
2"	29,2	1,5
21/2"	36,5	1,5
3"	43,7	2,0
4"	58,3	2,0
5"	72,9	2,5
6"	87,5	2,0
8"	116,6	3,0



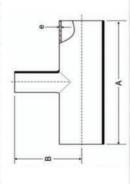
#### Curva 180º solda

Ø	Α	В	е
1"	76,2	50,8	1,5
11/2"	114,4	76,2	1,5
2"	152,4	101,6	1,5
21/2"	190,5	127,0	1,5
3"	228,6	152,4	2,0
4"	304,8	203,2	2,0
5"	381,0	254,0	2,5
6"	457,2	304,8	2,5



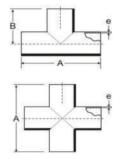
#### Tê Reto de Redução solda

	Q	)	Α	В	е	
11/2"	X	1"	114,4	57,2	1,5	
2"	X	1"	152,4	76,2	1,5	
2"	X	11/2"	152,4	76,2	1,5	
21/2"	X	1"	154,0	77,0	1,5	
21/2"	×	11/2"	154,0	77,0	1,5	
21/2"	×	2"	154,0	77,0	1,5	
3"	х	11/2"	166,0	83,0	2,0	
3"	X	2"	166,0	83,0	2,0	
3"	x	21/2"	166,0	83,0	2,0	
4"	х	2"	197,0	98,5	2,0	
4"	x	21/2"	197,0	98,5	2,0	
4"	Х	3"	197,0	95,5	2,0	
6"	x	4"	226.0	113.0	2.0	



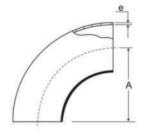
#### Tê Reto solda/cruzeta solda

Ø	Α	В	е
1"	96,0	48,0	1,5
11/2"	114,4	57,2	1,5
2"	152,4	76,2	1,5
21/2"	154,0	77,0	1,5
3"	166,0	83,0	2,0
4"	197,0	98,5	2,0
5"	211,4	105,7	2,5
6"	226,0	113,0	2,0
8"	241,4	120,7	3,0



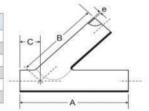
#### Curva 90º solda

Ø	Α	е
1"	38,1	1,5
11/2"	57,2	1,5
2"	76,2	1,5
21/2"	95,3	1,5
3"	114,3	2,0
4"	152,4	2,0
5"	190,5	2,5
6"	228,6	2,0
8"	304,8	3,0



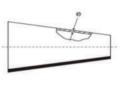
#### Tê 45º solda

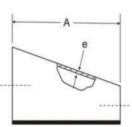
Ø	Α	В	С	е
1"	152,4	127,0	25,8	2,0
11/2"	187,3	157,1	30,4	2,0
2"	222,2	180,9	41,5	2,0
21/2"	254,0	215,7	38,2	2,0
3"	273,0	225,2	47,8	2,0
4"	325,4	272,8	52,0	2,0



#### Redução Solda

	Ø		A conc.	A exc.	е
11/2"	X	1"	44,0	39,0	2,0
2"	X	1"	86,0	78,0	2,0
2"	X	11/2"	42,0	39,0	2,0
21/2"	X	1"	128,0	117,0	2,0
21/2"	x	11/2"	84,0	78,0	2,0
21/2"	X	2"	42,0	39,0	2,0
3"	x	11/2"	126,0	117,0	2,0
3"	X	2"	84,0	78,0	2,0
3"	х	21/2"	42,0	40,0	2,0
4"	X	2"	167,0	157,0	2,0
4"	х	21/2"	125,0	118,0	2,0
4	X	3"	83,0	78,0	2,0
5"	х	4"	83,0	78,0	2,0
6"	X	4"	160,0	156,0	2,0
6"	X	5"	83,0	78,0	2,0
8"	X	6"	160,0	156,0	2,5



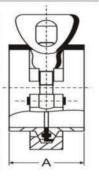




## **CONEXÕES TC**

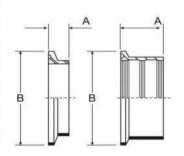
#### União TC

Ø		Α	
v	curta	longa	exp
1/2"	27,2	£ 1	*
3/4"	27,2	•	9
1"	27,2	59,0	39,8
11/2"	27,2	59,0	45,8
2"	27,2	59,0	52,6
21/2"	27,2	59,0	59,0
3"	27,2	59,0	61,8
4"	33,6	59,0	
6"	33,6	59,0	
8"	33,6	59,0	*



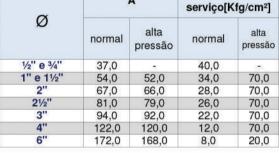
#### Niple solda TC / Niple expansão TC

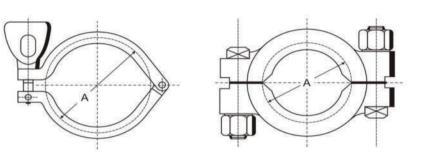
Ø	Α	Α	В	
v.	curto	longo		exp
1/2"	12,7	1960	32,0	(14)
3/4"	12,7	-	32,0	•
1"	12,7	21,5	50,0	
11/2"	12,7	21,5	50,0	19,0
2"	12,7	21,5	64,0	22,0
21/2"	12,7	21,5	77,0	25,4
3"	12,7	21,5	91,0	28,6
4"	15,9	28,6	119,0	30,0
5"	15,9	28,6	144,5	
6"	15,9	28,6	167,0	*
8"	15,9	28,6	220,6	828



#### Abraçadeira TC

~	A		Pressão de serviço[Kfg/cm²]	
Ø	normal	alta pressão	normal	alta pressão
1/2" e 3/4"	37,0	-	40,0	182
1" e 1½"	54.0	52,0	34,0	70,0
2"	67,0	66,0	28,0	70,0
21/2"	81,0	79,0	26,0	70,0
3"	94,0	92,0	22,0	70,0
4"	122,0	120,0	12,0	70,0
6"	172,0	168,0	8,0	20,0

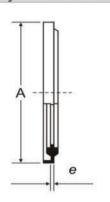




As pressões acima referem-se à t=20°C. Para t=120º reduzi-las em 40%

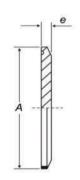
#### Anel de vedação TC

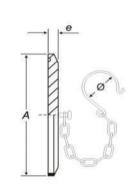
Ø	Α	е
1/2"	34,0	1,8
3/4"	34,0	1,8
1"	52,0	1,8
11/2"	52,0	1,8
2"	66,0	1,8
21/2"	79,0	1,8
3"	93,0	1,8
4"	121,0	1,8
6"	169,0	1,8
8"	223,0	1,8



#### Tampão TC

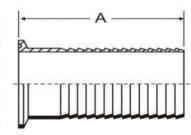
Ø	Α	е
1"	50,0	6,3
11/2"	50,0	6,3
2"	64,0	6,3
21/2"	77,0	6,3
3"	91,0	6,3
4"	119,0	7,9
6"	167,0	7,9





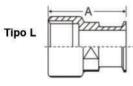
#### Niple adaptador TC x mangueira

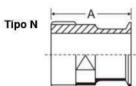
Ø	Α
1"	72,7
11/2"	92,7
2"	92,7
21/2"	112,7
3"	112,7
4"	115,9
6"	135,9



#### Niple adaptador TC tipo Luva / tipo Niple

Ø	Α			
	tipo L		tipo N	
	BSP	NPT	BSP/NPT	
1"	59,7	59,7	47,7	
11/2"	64,7	61,7	52,7	
2"	69,7	63,7	57,7	
21/2"	74,7	71,7	71,7	
3"	79,7	75,7	67,7	
4"	90,9	80,9	75,9	







### **CONEXÕES TC**

#### Curva 90º 2TC

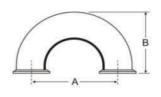
Ø	Α
1"	50,8
11/2"	69,9
2"	88,9
21/2"	108,0
3"	127,0
4"	168,3
6"	244,5

#### Tê reto 3TC

Ø	Α	В
1"	121,4	60,7
11/2"	139,8	69,9
2"	177,8	88,9
21/2"	179,4	89,7
3"	191,4	95,7
4"	228,8	114,4
6"	257,8	128,9

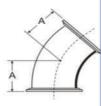
#### Curva 180º 2TC

Ø	Α	В
1"	76,2	63,5
11/2"	114,4	88,9
2"	152,4	114,3
21/2"	190,5	139,7
3"	228,6	165,1
4"	304,8	219,1
6"	457,2	320,7

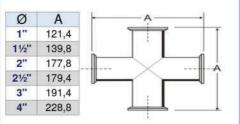


#### Curva 45º 2TC

Ø	Α	
1"	27,3	
11/2"	34,6	
2"	41,9	
21/2"	49,2	
3"	56,4	
4"	74,2	
6"	103,4	

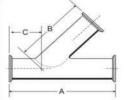


#### Cruzeta 4TC



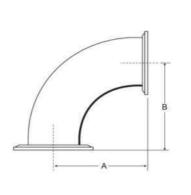
#### Tê 45º 3TC

Ø	Α	В	С
1"	177,8	139,7	38,5
11/2"	212,7	169,8	43,1
2"	247,6	193,6	54,2
21/2"	279,4	228,4	50,9
3"	298,4	237,9	60,5
4"	357,2	288,7	67,9



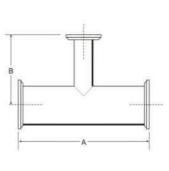
#### Curva de redução 90º 2TC

	2	Ď	Α	В
11/2"	x	1"	50,8	50,8
2"	X	1"	50,8	50,8
2"	x	11/2"	69,9	69,9
21/2"	X	1"	50,8	50,8
21/2"	x	11/2"	69,9	69,9
21/2"	x	2"	88,9	88,9
3"	x	11/2"	69,9	69,9
3"	x	2"	88,9	88,9
3"	x	21/2"	108,0	108,0
4"	x	2"	88,9	92,1
4"	x	21/2"	108,0	111,2
4"	X	3"	127,0	130,2
6"	x	4"	168,3	168,3



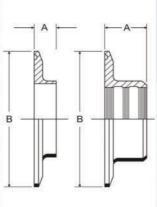
#### Tê redução 3TC

	Ø		Α	В
11/2"	X	1"	139,8	69,9
2"	X	1"	177,8	88,9
2"	X	11/2"	177,8	88,9
21/2"	X	1"	179,4	89,7
21/2"	X	11/2"	179,4	89,7
21/2"	x	2"	179,4	89,7
3"	x	11/2"	191,4	95,7
3"	X	2"	191,4	95,7
3"	X	11/2"	191,4	95,7
4"	X	2"	228,8	111,2
4"	X	21/2"	228,8	111,2
4"	X	3"	228,8	112,2
6"	х	4"	257,8	128,9



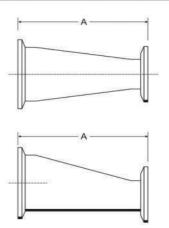
#### Niple de redução solda/expansão TC

Ø		×	Α		В	
	×	,	Solda	exp.		
11/2"	x	1"	12,7	19,0	50,0	
2"	X	1"	12,7	19,0	64,0	
2"	x	11/2"	12,7	22,0	64,0	
21/2"	X	1"	12,7	19,0	77,0	
21/2"	x	11/2"	12,7	22,0	77,0	
21/2"	X	2"	12,7	25,4	77,0	
3"	x	11/2"	12,7	22,0	91,0	
3"	X	2"	12,7	25,4	91,0	
3"	x	21/2"	12,7	28,6	91,0	
4"	X	2"	12,7	25,4	119,0	
4"	x	21/2"	12,7	28,6	119,0	
4"	X	3"	12,7	30,0	119,0	
6"	х	4"	15,9		167,0	



#### Redução 2TC (Concêntrica ou Excêntrica)

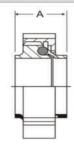
	Ø		Α
11/2"	X	1"	64,4
2"	X	1"	103,4
2"	X	11/2"	64,4
21/2"	X	1"	142,4
21/2"	x	11/2"	103,4
21/2"	X	2"	64,4
3"	X	11/2"	142,4
3"	X	2"	103,4
3"	X	11/2"	64,4
4"	X	2"	184,6
4"	X	21/2"	145,6
4"	X	3"	106,6
6"	x	4"	187,8





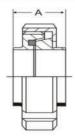
#### União RJT

Ø	1	4
Ø	solda	exp.
1"	35,9	41,2
11/2"	35,9	49,2
2"	35,9	53,2
21/2"	35,9	65,2
3"	35,9	65,2
4"	35,9	*
5"	47,8	<u> </u>
6"	47,8	=



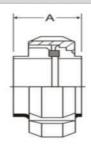
#### União DIN

Ø	Α
1/2"	34,0
3/4"	34,0
1"	38,0
11/2"	38,0
2"	39,0
21/2"	40,0
3"	48,8
4"	49,5
5"	62,0
6"	69,5



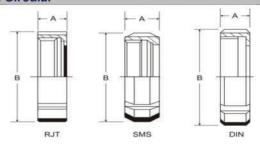
#### União SMS

Ø	A				
Ø	solda	exp			
11/2"	34,9	38,9			
2"	34,9	44,9			
21/2"	34,9	46,9			
1"	38,9	46,9			
3"	38,9	66,9			
4"	53,9	-			



#### Porca Circular

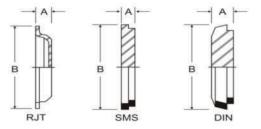
Ø	F	IJT	S	MS	DIN	
0	Α	В	Α	В	Α	В
1/2"	(m)	=	(Sp.)	=	18,0	38,0
3/4"	(4)	2	( <del>-</del> -)	2	18,0	44,0
1"	22,0	59,0	20,0	51,0	21,0	63,0
11/2"	22,0	72,0	25,0	74,0	21,0	78,0
2"	22,0	86,0	26,0	84,0	22,0	92,0
21/2"	22,0	98,0	30,0	100,0	25,0	112,0
3"	22,0	111,0	32,0	114,0	29,0	127,0
4"	22,0	136,0	45,0	154,0	31,0	148,0
5"	26,0	187,0	954	8	35,0	178,0
6"	26,0	225,0	: <del>-</del> :	*	40,0	210,0



Fornecemos também Porca Tampão e Porca Tampão com corrente.

#### Tampão

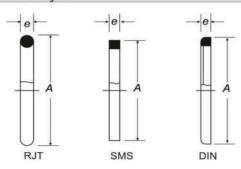
a	F	IJT	SI	MS	DIN	
Ø	Α	В	Α	В	Α	В
1"	10,0	42,0	7,5	35,5	10,0	44,0
11/2"	10,0	54,0	8,0	55,0	10,0	56,0
2"	10,0	67,0	9,0	65,0	11,0	68,0
21/2"	10,0	79,7	9,0	80,0	12,0	86,0
3"	10,0	92,6	11,0	93,0	12,0	100,0
4"	10,0	117,3	13,0	127,0	15,0	121,0
5"	10,0	143,0	898	-	17,0	156,0
6"	10,0	168,0	(a)	2	19,0	176,0



Fornecemos também tampão com corrente.

#### Anéis de Vedação

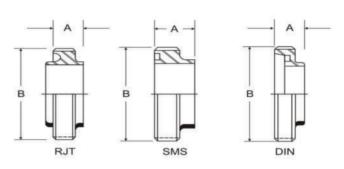
a	F	RJT	S	MS	DIN	
Ø	Α	В	Α	В	Α	В
1"	6,6	33,2	5,5	32,0	5,0	40,0
1/2"	6,6	45,9	5,5	48,0	5,0	52,0
2"	6,6	58,6	5,5	61,0	5,0	64,0
21/2"	6,6	71,3	5,5	73,5	5,0	81,0
3"	6,6	84,0	5,5	86,0	5,0	95,0
4"	6,6	109,7	5,5	103,5	6,0	114,0
5"	6,6	142,0	880	*	7,0	142,0
6"	6,6	158,0	12	2	7,0	167,0





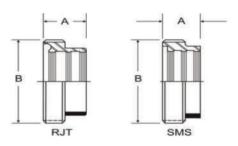
#### Macho Solda

Ø	RJT		SI	MS	DIN	
v	Α	В	Α	В	Α	В
1/2"	2	12	2	<u> </u>	21,0	28,0
3/4"				- 5	21,0	34,0
1"	26,5	49,4	16,0	39,8	24,0	52,0
11/2"	26,5	58,1	20,0	59,8	24,0	65,0
2"	26,5	72,4	20,0	69,8	24,0	78,0
21/2"	26,5	85,1	24,0	84,8	27,0	95,0
3"	26,5	97,8	24,0	97,8	31,0	110,0
4"	26,5	123,2	35,0	131,2	31,0	130,0
5"	26,5	150,0	87.5	Ħ:	46,0	170,0
6"	26,5	175,0	80	=	50,0	190,0



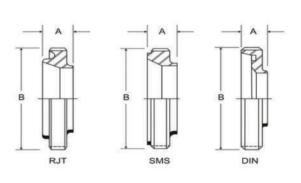
#### Macho Expansão

Ø	R	JT	SMS		
0	Α	В	Α	В	
1"	20,0	45,4	20,0	39,8	
11/2"	24,0	58,1	23,0	59,8	
2"	28,0	72,4	25,0	69,8	
21/2"	32,0	85,1	30,0	84,8	
3"	32,0	97,8	35,0	97,8	



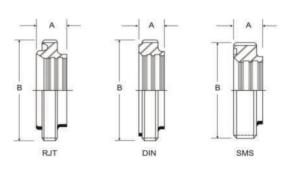
#### Macho de Redução Solda

	0	i	R	JT	SI	MS	D	IN
Ø		Α	В	Α	В	Α	В	
11/2"	X	1"	26,5	58,1	20,0	60,1	24,0	65,0
2"	X	1"	26,5	72,4	20,0	70,1	24,0	78,0
2"	X	11/2"	26,5	72,4	20,0	70,1	24,0	78,0
21/2"	X	1"	26,5	85,1	24,0	85,1	27,0	95,0
21/2"	х	11/2"	26,5	85,1	24,0	85,1	27,0	95,0
21/2"	X	2"	26,5	85,1	24,0	85,1	27,0	95,0
3"	х	11/2"	26,5	97,8	24,0	98,1	31,0	110,0
3"	X	2"	26,5	97,8	24,0	98,1	31,0	110,0
3"	X	21/2"	26,5	97,8	24,0	98,1	31,0	110,0
4"	X	2"	26,5	123,2	24,0	131,3	31,0	130,0
4"	X	21/2"	26,5	123,2	24,0	131,3	31,0	130,0
4"	X	3"	26,5	123,2	24,0	131,3	31,0	130,0
6"	X	4"	26,5	175,0	74	-	45,0	190,0



#### Macho de Redução Expansão

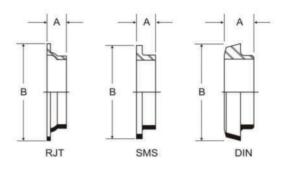
Ø		RJT		SN	/IS	D	IN	
	×	,	Α	В	Α	В	Α	В
11/2"	X	1"	25,0	58,1	25,0	59,8	22,5	50,6
2"	X	1"	26,0	72,4	26,5	69,8	26,0	64,1
2"	X	11/2"	28,5	72,4	28,0	69,8	22,5	64,1
21/2"	X	1"	25,5	85,1	30,0	84,8	23,5	77,6
21/2"	X	11/2"	30,0	85,1	28,0	84,8	26,0	77,6
21/2"	X	2"	33,0	85,1	30,0	84,8	22,5	77,6
3"	X	11/2"	30,0	97,8	29,0	97,8	23,5	91,1
3"	X	2"	34,0	97,8	31,0	97,8	26,0	91,1
3"	X	21/2"	36,0	97,8	35,0	97,8	22,5	91,1





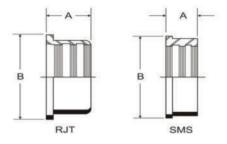
#### Niple Solda

Ø	R	JT	S	MS	DIN	
v	Α	В	Α	В	Α	В
1/2"		()#3	-	-	17,0	22,5
3/4"	12	7/21	12		17,0	28,5
1"	13,0	42,0	13,0	35,3	20,0	44,0
11/2"	13,0	53,9	13,0	55,0	20,0	56,0
2"	13,0	67,6	13,0	65,0	21,0	68,5
21/2"	13,0	80,3	13,0	80,0	24,0	86,0
3"	13,0	93,0	13,0	93,0	24,0	121,0
4"	15,0	117,7	17,0	127,0	28,0	121,0
5"	20,0	145,0	9		28,0	150,0
6"	20,0	168,0	14		37,0	176,0



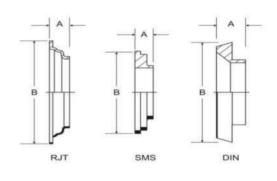
#### Niple Expansão

ø	R	JT	SMS		
v	Α	В	Α	В	
1"	20,0	41,3	17,0	35,5	
11/2"	24,0	54,0	20,0	55,0	
2"	28,0	66,7	20,0	65,0	
21/2"	32,0	79,3	25,0	80,0	
3"	32,0	92,0	30,0	93,0	



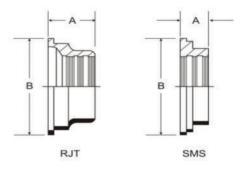
#### Niples Redução Solda

	Ø		R	JT	SI	MS	D	IN
	v		Α	В	Α	В	Α	В
11/2"	X	1"	13,0	53,9	13,0	55,0	20,0	56,0
2"	Х	1"	13,0	67,5	13,0	65,0	21,0	68,5
2"	X	11/2"	13,0	67,5	13,0	65,0	21,0	68,5
21/2"	X	1"	13,0	80,3	13,0	80,0	24,0	86,0
21/2"	X	11/2"	13,0	80,3	13,0	80,0	24,0	86,0
21/2"	X	2"	13,0	80,3	13,0	80,0	24,0	86,0
3"	X	11/2"	13,0	93,0	13,0	93,0	24,0	100,0
3"	X	2"	13,0	93,0	13,0	93,0	24,0	100,0
3"	X	21/2"	13,0	93,0	13,0	93,0	24,0	100,0
4"	X	2"	15,0	117,7	17,0	127,0	28,0	121,0
4"	х	21/2"	15,0	117,7	17,0	127,0	28,0	121,0
4"	X	3"	15,0	117,7	17,0	127,0	28,0	121,0
6"	X	4"	20,0	168,0	8		В	*



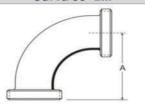
#### Niples de Redução Expansão

	Ø		R	JT	SMS		
	V		Α	В	Α	В	
11/2"	X	1"	24,0	54,0	17,0	55,0	
2"	X	1"	30,0	66,7	17,0	65,0	
2"	Х	11/2"	30,0	66,7	20,0	65,0	
21/2"	X	1"	32,0	79,3	17,0	80,0	
21/2"	X	11/2"	32,0	79,3	20,0	80,0	
21/2"	X	2"	32,0	79,3	20,0	80,0	
3"	X	11/2"	35,0	92,0	20,0	93,0	
3"	X	2"	32,0	92,0	20,0	93,0	
3"	х	21/2"	32,0	92,0	15,0	93,0	





#### Curva 90º 2M



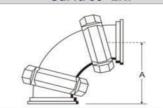
Ø	RJT	SMS	DIN	
Ø	Α	Α	Α	
1"	64,6	54,1	62,1	
11/2"	83,6	77,2	81,2	
2"	103,0	96,2	100,2	
21/2"	122,3	119,2	122,3	
3"	141,0	138,3	145,3	
4"	179,0	187,4	183,4	
6"	255,0	-	278,6	

#### Curva 90º M-NP



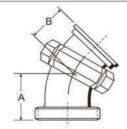
~	R	JT	SN	/IS	DIN	
Ø	Α	В	Α	В	Α	В
1"	51,1	64,6	51,1	54,1	58,1	62,1
11/2"	70,2	83,7	70,2	77,1	77,2	81,2
2"	89,2	102,7	89,2	96,2	97,2	100,2
21/2"	108,3	122,0	108,3	119,3	119,3	122,3
3"	127,3	140,8	127,3	138,3	138,3	145,3
4"	167,4	178,9	169,4	187,4	180,4	183,4
6"	248,6	255,1		186	265,6	278,6

#### Curva 90º 2NP



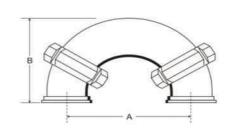
~	RJT	SMS	DIN
Ø	Α	Α	Α
1"	51,1	51,1	58,1
11/2"	70,2	70,2	77,2
2"	89,2	89,2	97,2
21/2"	108,2	108,2	119,3
3"	127,3	127,3	138,3
4"	167,4	167,4	180,4
6"	248,6	:=	265,6

#### Curva 45º M-NP



Ø	R	JT	SN	/IS	DIN		
V	Α	В	Α	В	Α	В	
1"	41,1	27,6	30,6	27,6	38,6	34,6	
11/2"	48,4	34,9	41,9	34,9	45,9	41,9	
2"	55,7	42,2	49,2	42,2	53,2	50,2	
21/2"	63,0	49,5	60,5	49,5	63,5	60,5	
3"	70,2	56,7	67,7	56,7	74,7	67,7	
4"	84,8	73,3	93,3	75,3	89,3	86,3	
6"	114,0	107,5	100	+0	137,0	124,5	

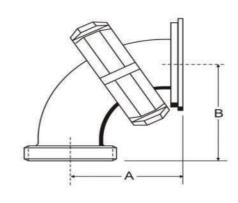
#### Curva 180º 2NP



Ø	A	RJT	SMS	DIN
Ø	A	В	В	В
1"	76,2	63,8	63,8	70,8
11/2"	114,3	89,2	89,2	96,2
2"	152,4	114,6	152,4	122,6
21/2"	190,5	140,0	140,0	151,0
3"	228,6	165,4	165,4	176,4
4"	304,8	218,2	220,2	231,2
6"	457,2	324,8	0.00	341,8

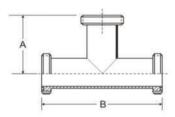
#### Curva de Redução 90º M-NP

	Ø		R	RJT		ИS	D	DIN	
	10		Α	В	Α	В	В		
11/2"	х	1"	51,1	64,6	51,1	54,1	58,1	62,1	
2"	X	1"	51,1	64,6	51,1	54,1	59,1	62,1	
2"	х	11/2"	70,2	83,6	70,2	77,2	78,2	81,2	
21/2"	X	1"	51,1	64,6	51,1	54,1	62,1	62,1	
21/2"	X	11/2"	70,2	83,6	70,2	77,2	82,2	81,2	
21/2"	х	2"	89,2	103,0	89,2	96,2	100,2	100,2	
3"	X	11/2"	70,2	83,6	70,2	77,2	81,2	81,2	
3"	X	2"	89,2	103,0	89,2	96,2	100,2	100,2	
3"	х	21/2"	108,3	122,3	108,3	119,2	119,3	122,3	
4"	X	2"	91,2	103,0	93,2	96,2	104,2	100,2	
4"	х	21/2"	110,3	122,3	112,3	119,2	123,3	122,3	
4"	X	3"	129,3	141,0	131,3	138,3	142,3	145,3	



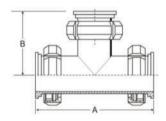


#### Tê Reto 3M



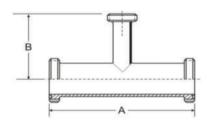
Ø	R	JT	SN	AS.	DIN		
v	Α	В	Α	В	Α	В	
1"	149,0	74,5	128,0	64,0	144,0	72,0	
11/2"	167,4	83,7	154,4	77,2	162,4	81,2	
2"	205,4	102,7	192,4	96,2	200,4	100,2	
21/2"	207,0	103,5	202,0	101,0	208,0	104,0	
3"	219,0	109,5	214,0	107,0	228,0	114,0	
4"	250,0	125,0	267,0	133,5	259,0	129,5	
6"	279,0	139,5	40	H.	326,0	163,0	

#### Tê Reto 3 NP



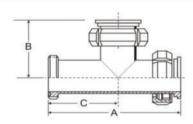
a	R	JT	SN	//S	DIN	
Ø	Α	В	Α	В	Α	В
1"	122,0	61,0	122,0	61,0	136,0	68,0
1.11/2"	140,4	70,2	140,4	70,2	154,4	77,2
2"	178,4	89,2	178,4	89,2	194,4	97,2
2.11/2"	180,0	90,0	180,0	90,0	202,0	101,0
3"	192,0	96,0	192,0	96,0	214,0	107,0
4"	227,0	113,5	231,0	115,5	253,0	126,5
6"	266,0	133,0	- 21	51	300,0	150,0

#### Tê Reto de Redução 3M



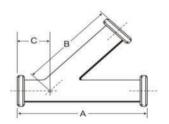
	ð	R	JT	SN	//S	D	IN
ા	0	Α	В	Α	В	Α	В
11/2"	1"	167,4	83,7	154,4	77,2	162,4	81,2
2"	1"	205,4	102,7	192,4	96,2	200,4	100,2
2"	11/2"	205,4	102,7	192,4	96,2	200,4	100,2
21/2"	1"	205,4	102,7	202,0	101,0	208,0	104,0
21/2"	11/2"	207,0	103,5	202,0	101,0	208,0	104,0
21/2"	2"	207,0	103,5	202,0	101,0	208,0	104,0
3"	11/2"	219,0	109,5	214,0	107,0	228,0	114,0
3"	2"	219,0	109,5	214,0	107,0	228,0	114,0
3"	21/2"	210,0	109,5	214,0	107,0	228,0	114,0
4"	2"	250,0	125,0	267,0	133,5	259,0	129,5
4"	21/2"	250,0	125,0	267,0	133,5	259,0	129,5
4"	3"	250,0	125,0	267,0	133,5	259,0	129,5
6"	4"	279,0	139,5	#	-	5 <del>4</del>	8

#### Tê Reto M-NP-NP



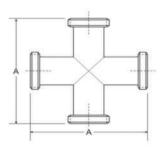
ø .		RJT			SMS			DIN		
Ø	Α	В	С	Α	В	С	Α	В	С	
1"	135,5	61,0	74,5	125,0	61,0	64,0	140,0	68,0	72,0	
11/2"	153,9	70,2	83,7	147,4	70,2	77,2	158,4	77,2	81,2	
2"	191,9	89,2	102,7	185,4	89,2	96,2	197,4	97,2	100,2	
21/2"	193,5	90,0	103,5	191,0	90,0	101,0	205,0	101,0	104,0	
3"	205,5	96,0	109,5	203,0	96,0	107,0	221,0	107,0	114,0	
4"	238,5	113,5	125,0	249,0	115,0	133,5	256,0	126,5	129,5	
6"	272,5	133,0	139,5	348	= "	141	313,0	150,0	163,0	

Tê 45º 3M



Ø		RJT			SMS			DIN		
6	Α	В	С	Α	В	С	Α	В	С	
1"	205,5	153,5	52,3	184,4	143,0	41,8	200,4	151,0	49,8	
11/2"	240,3	183,6	56,9	227,3	177,1	50,4	235,3	181,1	54,4	
2"	275,2	207,4	68,0	262,2	200,9	61,5	270,2	204,9	65,5	
21/2"	307,0	242,2	64,7	302,0	239,7	62,2	308,0	242,7	65,2	
3"	326,0	251,7	74,3	321,0	249,2	71,8	335,0	256,2	78,8	
4"	378,4	299,3	78,5	395,4	307,8	87,0	387,4	303,8	83,0	

#### Cruzeta 4M

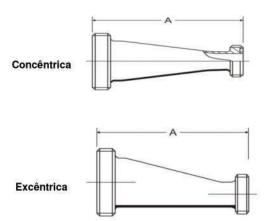


Ø	RJT	SMS	DIN
v	Α	Α	Α
1"	149,0	128,0	144,0
11/2"	167,4	154,4	162,4
2"	205,4	192,4	200,4
21/2"	207,0	202,0	208,0
3"	219.0	214,0	208,0
4"	250,0	267,0	259,0
6"	279.0	-	326,0



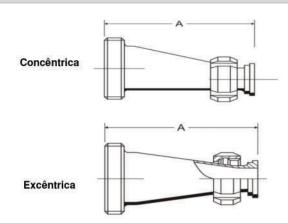
#### Redução 2M

	ø		RJT		SMS		DIN	
~			conc.	exc.	conc.	exc.	conc.	exc.
11/2"	х	1"	97,0	92,0	80,0	75,0	92,0	87,0
2"x1"	X	1"	139,0	131,0	122,0	114,0	134,0	126,0
2"	X	11/2"	95,0	92,0	82,0	79,0	90,0	87,0
21/2"	X	1"	181,0	170,0	168,0	157,0	182,0	171,0
2.1/2"	х	11/2"	137,0	131,0	128,0	122,0	135,0	129,0
2.1/2"	X	2"	95,0	92,0	86,0	83,0	93,0	90,0
3"	х	11/2"	179,0	170,0	170,0	161,0	181,0	172,0
3"	х	2"	137,0	131,0	128,0	122,0	139,0	133,0
3"	x	21/2"	95,0	93,0	90,0	88,0	100,0	98,0
4"	X	2"	220,0	210,0	222,0	212,0	222,0	212,0
4"	х	21/2"	178,0	171,0	184,0	177,0	183,0	176,0
4"	X	3"	136,0	131,0	142,0	137,0	145,0	140,0



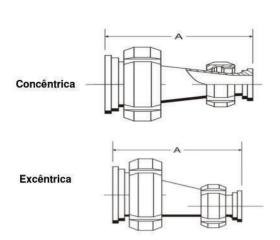
#### Redução M NP

	Ø		R	JT	SI	MS	D	IN
v			conc.	exc.	conc.	exc.	conc.	exc.
11/2"	х	1"	83,5	78,5	77,0	72,0	88,0	83,0
2"	х	1"	125,5	117,5	115,0	107,0	130,0	122,0
2"	X	11/2"	81,5	78,5	75,0	72,0	87,0	84,0
21/2"	X	1"	167,5	156,5	157,0	146,0	179,0	168,0
21/2"	x	11/2"	123,5	117,5	117,0	111,0	132,0	126,0
21/2"	х	2"	81,5	78,5	75,0	72,0	90,0	87,0
3"	x	11/2"	165,5	156,5	159,0	150,0	177,0	168,0
3"	X	2"	123,5	117,5	121,0	115,0	136,0	130,0
3"	x	21/2"	81,5	79,5	79,0	77,0	97,0	95,0
4"	х	2"	208,5	198,5	215,0	205,0	219,0	209,0
4"	x	21/2"	166,5	159,5	173,0	166,0	180,0	173,0
4"	х	3"	124,5	119,5	131,0	126,0	138,0	133,0



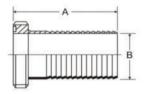
#### Redução 2 NP

	ø		R	JT	SI	SMS		DIN	
2			conc.	exc.	conc.	exc.	conc.	exc.	
11/2"	x	1"	70,0	65,0	70,0	65,0	84,0	79,0	
2"	X	1"	112,0	104,0	112,0	104,0	126,0	118,0	
2"	X	11/2"	68,0	65,0	68,0	65,0	83,0	80,0	
21/2"	х	1"	154,0	143,0	154,0	143,0	172,0	161,0	
21/2"	х	11/2"	110,0	104,0	110,0	104,0	128,0	122,0	
21/2"	X	2"	68,0	63,0	68,0	63,0	87,0	84,0	
3"	x	11/2"	152,0	143,0	152,0	143,0	170,0	161,0	
3"	х	2"	110,0	104,0	110,0	104,0	129,0	123,0	
3"	X	21/2"	68,0	66,0	68,0	66,0	90,0	88,0	
4"	х	2"	195,0	185,0	197,0	187,0	216,0	206,0	
4"	х	21/2"	153,0	146,0	155,0	148,0	177,0	170,0	
4"	х	3"	111,0	106,0	113,0	108,0	135,0	130,0	



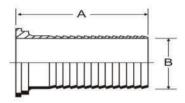


#### Macho adaptador p/ mangueira



Ø		Α		В	
Ø	RJT	SMS	DIN	В	
1"	86,5	76,0	84,0	25,5	
11/2"	106,5	100,0	104,0	38,1	
2"	106,5	100,0	104,0	50,8	
21/2"	126,5	124,0	127,0	63,5	
3"	126,5	124,0	131,0	76,2	
4"	126,5	135,0	131,0	101,6	
6"	126,5	1000	170,0	152,4	

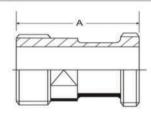
#### Niple Adaptador p/ mangueira



Ø		Α		В
<b>D</b>	RJT	SMS	DIN	В
1"	73,0	73,0	80,0	25,4
11/2"	93,0	93,0	100,0	38,1
2"	93,0	93,0	101,0	50,8
21/2"	113,0	113,0	124,0	63,5
3"	113,0	113,0	124,0	76,2
4"	115,0	117,0	128,0	101,6
6"	140,0		152,0	125,4

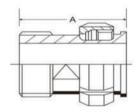
#### Macho Adaptador Tipo N

Ø	R	RJT		IS	DIN		
	BSP	NPT	BSP	NPT	BSP	NPT	
1"	73,5	73,5	63,0	63,0	71,0	71,0	
11/2"	78,5	75,5	72,0	69,0	76,0	73,0	
2"	83,5	77,5	77,0	71,0	81,0	75,0	
21/2"	88,5	85,5	86,0	83,0	89,0	86,0	
3"	93,5	89,5	91,0	87,0	98,0	94,0	
4"	101,5	91,5	110,0	100,0	106,0	96,0	



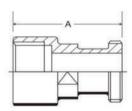
#### Niple Porca Adaptador Tipo N

Ø	RJT		SN	IS	DIN		
	BSP	NPT	BSP	NPT	BSP	NPT	
1"	60,0	60,0	60,0	60,0	67,0	67,0	
11/2"	65,0	62,0	65,0	62,0	72,0	69,0	
2"	70,0	64,0	70,0	64,0	78,0	72,0	
21/2"	75,0	72,0	75,0	72,0	86,0	83,0	
3"	80,0	76,0	80,0	76,0	95,0	91,0	
4"	90,0	80,0	92,0	82,0	107,0	97,0	



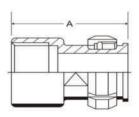
#### Macho Adaptador Tipo L

Ø	R	JT	SN	IS	DIN	
	BSP	NPT	BSP	NPT	BSP	NPT
1"	61,5	61,5	51,0	51,0	59,0	59,0
11/2"	66,5	66,5	60,0	60,0	64,0	64,0
2"	71,5	71,5	65,0	65,0	69,0	69,0
21/2"	76,5	76,5	74,0	74,0	77,0	77,0
3"	81,5	81,5	79,0	79,0	86,0	86,0
4"	86.5	86.5	95.0	95.0	91.0	91.0



#### Niple Porca Adaptador Tipo L

~	R	JT	SN	1S	.D	IN
Ø	BSP	NPT	BSP	NPT	BSP	NPT
1"	48,0	48,0	48,0	48,0	55,0	55,0
11/2"	53,0	53,0	53,0	53,0	60,0	60,0
2"	58,0	58,0	58,0	58,0	66,0	66,0
21/2"	63,0	63,0	63,0	63,0	74,0	74,0
3"	68,0	68,0	68,0	68,0	79,0	79,0
4"	75.0	75.0	77.0	77.0	88.0	88.0

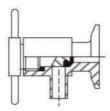


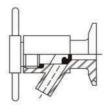


# **VISORES**

#### Torneira de Amostra

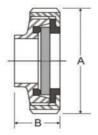
Termir	nais
тс	1/2" e 3/4"
10	1" e 11/2"
BSP	1/2"
DOP	3/4"
NPT	1/2"
NPI	3/4"





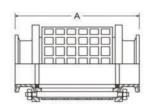
#### Visor de Linha Tipo Macho

ø	А	В	Pressão Máx. (Kgf/cm²)
1"	63,0	31,0	15,0
11/2"	78,0	31,0	11,0
2"	92,0	31,0	10,0
21/2"	112,0	35,0	10,0
3"	127,0	40,0	8,0
4"	148,0	41,0	6,0
5"	178,0	57,0	5,0
6"	210,0	62,0	4,0



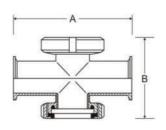
#### Visor de linha Tubular

				Α				
~	solda	2TC	RJT RJT		SMS		DIN	
Ø	Solda	210	2M	M-NP	2M	M-NP	2M	M-NP
1"	145,0	170,4	198,0	184,5	177,0	174,0	193,0	189,0
11/2"	145,0	170,4	198,0	184,5	185,0	178,0	193,0	189,0
2"	145,0	170,4	198,0	184,5	185,0	178,0	193,0	190,0
21/2"	149,0	174,4	202,0	188,5	197,0	186,0	203,0	200,0
3"	153,0	178,4	206,0	192,5	201,0	190,0	215,0	208,0
4"	171,0	202,8	224,0	217,5	241,0	223,0	233,0	230,0



#### Visor de Linha tipo cruzeta

ø		A				
U	solda	TC	SMS	RJT	DIN	В
1"	96,0	121,4	149,0	128,0	144,0	93,4
11/2"	114,4	140,0	167,4	154,4	163,0	105,0
2"	152,4	177,8	205,4	192,4	202,0	119,0
21/2"	154,0	179,4	207,0	202,0	208,0	139,5
3"	166,0	191,4	219,0	214,0	228,0	162,2
4"	197,0	228,8	250,0	267,0	258,5	189,6
5"	226,0	257,8	18	=	19	247,0
6"	226,0	257,8		-	8	282,4



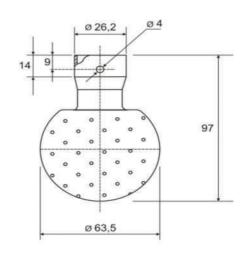
Os visores são fabricados em borosilicato temperado que possui alta resistência a ataques químicos, suporta temperaturas de até 320º C e tolera choques térmicos de até 265º C.



### **ACESSÓRIOS**

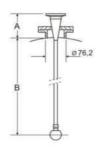
#### Aspersores "Spray-ball"

	SPRAY BALL				
Esferas	Entrada	Furação	Furo		
1"	1/2"	360°	1/16"		
1"	1/2"	360°	1/16"		
1"	1/2"	360°	1/16"		
1.1/2"	3/4"	360°	1/16" e 3/32"		
1.1/2"	3/4"	360°	1/16" e 3/32"		
1.1/2"	3/4"	360°	1/16" e 3/32"		
2.1/2"	1"	180° a 360°	1/16" e 3/32"		
2.1/2"	1"	180° a 360°	1/16" e 3/32"		
2.1/2"	1"	180° a 360°	1/16" e 3/32"		
2.1/2"	1.1/2"	180° a 360°	1/16" e 3/32'		
2.1/2"	1.1/2"	180° a 360°	1/16" e 3/32"		
2.1/2"	1.1/2 "	180° a 360°	1/16" e 3/32"		
91MM	2"	180° a 360°	3/32"		
91MM	2"	180° a 360°	3/32"		
91MM	2"	180° a 360°	3/32"		

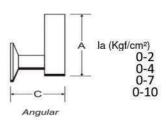


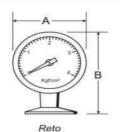
#### Adaptador para Aspersor

ø	A				
	TC	M RJT	M SMS	M DIN	
1"	92,2	106,0	95,5	103,5	800,0
11/2"	92,2	106,0	99,5	103,5	800,0
2"	128,2	142,0	135,3	139,3	800,0
21/2"	164,7	178,5	176,0	179,0	800,0



#### Manômetro

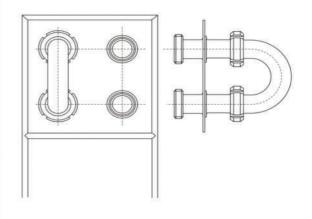




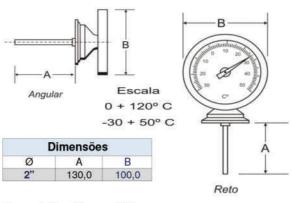
Dimensões				
Ø	Α	В	C	
2"	100.0	145.0	86.0	

Diafragma Sanitário Enchimento em glicerina para trabalho em tubulação sob efeito de vibrações

#### Painel de Distribuição de Fluxo



#### Termômetro



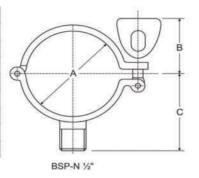
Com selo bimetálico sanitário.



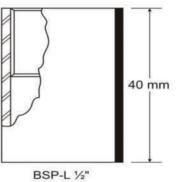
# **ACESSÓRIOS**

#### Abraçadeira Suporte para Tubo

ØA	В	С
1"	58,7	43,7
11/2"	65,0	50,0
2"	71,4	62,7
21/2"	84,1	56,4
3"	77,7	69,1
4"	96,8	81,8
5"	109,5	94,5
6"	122,2	107,2

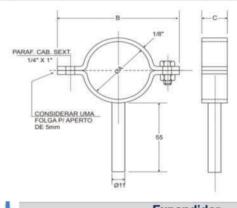


# Luva para Abraçadeira



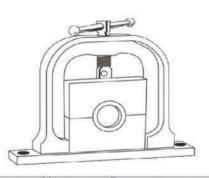
#### Abraçadeira Suporte para Tubo Haste Fixa

Ø	Α	В	С
1/2"	12,7	59,0	3/4"
3/4"	19,5	65,0	3/4"
1"	25,5	80,0	3/4"
11/2"	35,5	94,0	3/4"
2"	51,5	113,0	3/4"
21/2"	64,0	127,0	3/4"
3"	76,5	144,0	3/4"
4"	102,0	168,0	3/4"



#### Morsa e Bloco de Expansão

Bitola
1"
11/2"
2"
21/2"
3"



#### **Expandidor**

Bitola	torque p/exp
	Kgf.m
1"	2,0
11/2"	4,0
2"	8,0
21/2"	14,0
3"	17,0



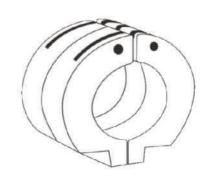
#### Chave para Porca

Bitola	
1"	
11/2"	
2"	
21/2"	
3'	
4"	
5"	
6"	



#### Guia para Corte de Tubo

Bit	ola
1	**
11	2"
2	
21/	2"
3	•••
4	



### **ÍNDICE / FLANGES**

•	Tipo de Flanges	. 1
•	Ansi B-16.5 Flanges Forjadas 150 LBS	. 2
•	Ansi B-16.5 Flanges Forjadas 300 LBS	. 3



### **INFORMAÇÕES GERAIS FLANGES**

As tlanges são normalmente utilizadas como elemento de ligação entre tubulações. Facilitam a montagem e desmontagem quando da limpeza, inspeção ou modificação a serem realizadas. Normalmente as Flanges são fixadas por parafusos.

	Tipo de Flanges
Pescoço Recebe solda circunferêncial no pescoço, o que facilita o exame da solda por raio X. São resistentes à tensões e reduzem as turbulências e erosões dentro das tubulações. São recomen dadas para trabalhos em qualquer situação de temperatura e pressão.	Encaixe Dotada de um encaixe que recebe a tubulação a ser soldada, utilizando somente a solda externa. Facilita a condução de fluídos. Recomendadas para trabalhar em qualquer situação de pressão e temperatura, desde que não sujeitas a severos gradientes térmicos. Aplicáveis em diâmetros menores.
Sobreposto Sobrepõe ao tubo e recebe solda interna e externa. De fácil aplicação e recomendadas para pressão e esforço moderados. Tem uma vantagem econômica sobre a flange de percoço.	Roscadas Provida de rosca interna e usada para conectar outros componentes roscados em baixa pressão. Recomendados para temperaturas e tensões moderadas em qualquer pressão. Também são aplicáveis em diâmetros menores.
Cego  Utilizadas para interromper a passagem de fluídos em tubulações, válvulas e bombas.  Usadas também para facilitar a inspeção da linha.  Recomendadas para trabalhos em qualquer situação de pressão e temperatura, desde que não sujeitos a golpes de ariete.	Solto Apropriadas para pestanas. Nao sao fixadas as tubulações por soldas, somente fixada a outra flange por parafusos, facilitando por estar solta na linha. Recomendadas para baixas pressões, representando baixo custo, pois são utilizadas em linhas de aço inox trabalhando em conjunto as pestanas.

#### **ESPECIFICAÇÕES**

Normalmente as flanges já são especificadas com a indicação do material que serão fabricadas e devem ser complementadas com as informações sobre o diametro, espessura do tubo para aiguns tipos, classe de pressao, tipos de faces e acabamento das faces.

A tabela abaixo indica as normas dimensionais com o enquadramento da bitola e as classes de pressão previstas.

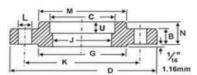
Os tipos de face tipicamente são: Face lisa, Face c/ ressalto, Face para junta anel e macho e fêmea. O acabamento da face pode ser pela AARH e normalmente chamado de liso, ranhurado concêntrico e ranhurado espiral.

Podemos fornecer flanges conforme dimenções DIN sob consulta.

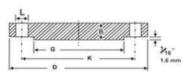


### **DIMENSIONAL DE FLANGES**

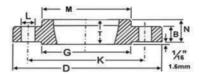
#### **Encaixe Solda (Socket Welding)**



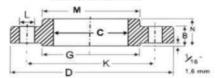
Cego (Blind)



Roscada (Threaded)

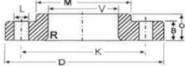


Sobreposto (Slip-On)



#### Pescoço (Welding Neck)





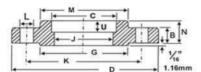
#### ANSI B-16.5 FLANGES FORJADAS 150 LBS

-		Medidas	Comuns	5			Altur	a Total I	Flange	Diân	netro Int	terno					Furos	
Diâmetro Nominal	Diâmetro Externo	Diâmetro Externo do Ressalto	Diâmetro Externo do Pescoço	Espessura da Flange	Centro entre Furos	Diâmetro Externo do Chanfro	Sobreposto Roscada Encaixe	Pescoço	Solto	Sobreposto Encaixe	Pescoço Encaixe	Solto	Raio da Ranhura	Profundidade da Rosca	Profundidade do Encaixe	Número de Furos	Diâmetro dos Furos	Diâmetro dos Parafusos
	D	G	М	В	K	A	N	Н	0	С	J	٧	R	T	U		L	
1/2	88,9	34,9	30,2	11,2	60,3	21,3	15,9	47,6	15,9	22,2	15,8	22,9	3,2	15,9	9,5	4	15,9	12,7
3/4	98,4	42,9	38,1	12,7	69,8	26,7	15,9	52,4	15,9	27,7	20,9	28,2	3,2	15,9	11,1	4	15,9	12,7
1	108,0	50,8	49,2	14,3	79,4	33,4	17,5	55,6	17,5	34,5	26,6	34,9	3,2	17,5	12,7	4	15,9	12,7
1%	117,0	63,5	58,7	15,9	88,9	42,2	20,6	57,2	20,6	43,2	35,1	43,7	4,8	20,6	14,3	4	15,9	12,7
11/2	127,0	73,0	65,1	17,5	98,4	48,3	22,2	61,9	22,2	49,5	40,9	50,0	6,4	22,2	15,9	4	15,9	12,7
2	152,0	92,1	77,8	19,1	121,0	60,3	25,4	63,5	25,4	61,9	52,5	62,5	7,9	25,4	17,5	4	19,0	15,9
21/2	178,0	105,0	90,5	22,2	140,0	73,0	28,6	69,8	28,6	74,6	62,7	75,4	7,9	28,6	19,0	4	19,0	15,9
3	190,0	127,0	108,0	23,9	152,0	88,9	30,2	69,8	30,2	90,7	77,9	91,4	9,5	30,2	20,6	4	19,0	15,9
31/2	216,0	140,0	122,0	23,9	178,0	101,6	31,8	71,4	31,8	103,4	90,1	104,1	9,5	31,8	22,2	8	19,0	15,9
4	229,0	157,0	135,0	23,9	190,0	114,3	33,3	76,2	33,3	116,1	102,3	116,8	11,1	33,3	23,8	8	19,0	15,9
5	254,0	186,0	164,0	23,9	216,0	141,3	36,5	88,9	36,5	143,8	128,2	144,4	11,1	36,5	23,8	8	22,2	19,0
6	279,0	216,0	192,0	25,4	241,0	168,3	39,7	88,9	39,7	170,7	154,1	171,4	12,7	39,7	27,0	8	22,2	19,0
8	343,0	270,0	246,0	28,6	298,0	219,1	44,4	102,0	44,4	221,5	202,7	222,2	12,7	44,4	31,7	8	22,2	19,0
10	406,0	324,0	305,0	30,2	362,0	273,0	49,2	102,0	49,2	276,2	254,6	277,4	12,7	49,2	33,3	12	25,4	22,2
12	483,0	381,0	365,0	31,8	432,0	323,8	55,6	114,0	55,6	327,0	304,8	328,2	12,7	55,6	39,7	12	25,4	22,2
14	533,0	413,0	400,0	34,9	476,0	355,6	57,2	127,0	79,4	359,2	336,5	360,2	12,7	57,2	41,3	12	28,6	25,4
16	597,0	470,0	457,0	36,6	540,0	406,4	63,5	127,0	87,3	410,5	387,0	411,2	12,7	63,5	44,4	16	28,6	25,4
18	635,0	533,0	505,0	39,7	578,0	457,0	68,3	140,0	96,8	461,8	438,0	462,3	12,7	68,3	49,2	16	31,8	28,6
20	698,0	584,0	559,0	42,9	635,0	508,0	73,0	144,0	103,0	513,1	489,0	514,4	12,7	73,0	54,0	20	31,8	28,6
24	813,0	692,0	664,0	47,7	749,0	610,0	82,6	152,0	111,0	616,0	590,5	616,0	12,7	82,6	63,5	20	34,9	31,8
26	869,9	742,9	723,9	50,8	806,4	660,4	85,7	127,0		666,8						24	34,9	31,8
28	927,1	793,7	781,0	52,4	863,6	711,2	87,3	128,6		717,6						28	34,9	31,8
30	984,2	857,2	831,8	54,0	914,4	762,0	88,9	130,2		768,4						28	34,9	31,8
32	1060,4	908,0	889,0	57,1	977,9	812,8	92,1	133,4		819,2						28	41,3	34,9
34	1111,2	958,8	939,8	58,7	1028,7	863,6	93,7	134,9		870,0						32	41,3	34,9
36	1168,4	1022,3	996,9	60,3	1085,8	914,4	95,2	136,5		920,8						32	41,3	34,9

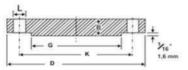


### **DIMENSIONAL DE FLANGES**

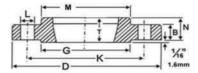
#### Encaixe Solda (Socket Welding)



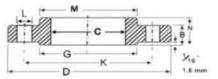
Cego (Blind)



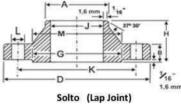
Roscada (Threaded)

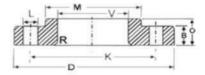


Sobreposto (Slip-On)



#### Pescoço (Welding Neck)





#### **ANSI B-16.5 FLANGES FORJADAS**

#### **300 LBS**

=		Med	idas Cor	nuns			Altura	a Total da	Flange	Diâm	netro In	terno					Furos	
Diâmetro Nominal	Diâmetro Externo	Diametro Externo do Rescalto	Diametro Externo do Pescoco	Espessura da Flange	Centro entre Furos	Diâmetro Externo do Chanfro	Sobreposto Roscada Encaixe	Pescoço	Solto	Sobreposto Encaixe	Pescoço Encaixe	Solto	Raio da Ranhura	Profundidade da Rosca	Profundidade do Encaixe	Número de furos	Diâmetro dos Furos	Diâmetro dos Parafusos
	D	G	М	В	K	Α	N	н	0	С	J	٧	R	T	U	1	L	0.000
1/2	95,2	34,9	38,1	14,3	66,7	21,3	22,2	52,4	22,2	22,2	15,8	22,9	3,2	15,9	9,5	4	15,9	12,7
3/4	117,0	42,9	47,6	15,9	82,6	26,7	25,4	57,2	25,4	27,7	20,9	28,2	3,2	15,9	11,1	4	19,0	15,9
1	124,0	50,8	54,0	17,5	88,9	33,4	27,0	61,9	27,0	34,5	26,6	34,9	3,2	17,5	12,7	4	19,0	15,9
1%	133,0	63,5	63,5	19,1	98,4	42,2	27,0	65,1	27,0	43,2	35,1	43,7	4,8	20,6	14,3	4	19,0	15,9
1½	156,0	73,0	69,8	20,7	114,0	48,3	30,2	68,3	30,2	49,5	40,9	50,0	6,4	22,2	15,9	4	22,2	19,0
2	165,0	92,1	84,1	22,3	127,0	60,3	33,3	69,8	33,3	61,9	52,5	62,5	7,9	28,6	17,5	8	19,0	15,9
21/2	190,0	105,0	100,0	25,4	149,0	73,0	38,1	76,2	38,1	74,6	62,7	75,4	7,9	31,8	19,0	8	22,2	19,0
3	210,0	127,0	117,0	28,6	168,0	88,9	42,9	79,4	42,9	90,7	77,9	91,4	9,5	31,8	20,6	8	22,2	19,0
31/2	229,0	140,0	133,0	30,2	184,0	101,6	44,4	81,0	44,4	103,4	90,1	104,1	9,5	36,5	22,2	8	22,2	19,0
4	254,0	157,0	146,0	31,8	200,0	114,3	47,6	85,7	47,6	116,1	102,3	116,8	11,1	36,5	23,8	8	22,2	19,0
5	279,0	186,0	178,0	35,0	235,0	141,3	50,8	98,4	50,8	143,8	128,2	144,4	11,1	42,9		8	22,2	19,0
6	318,0	216,0	206,0	36,6	270,0	168,3	52,4	98,4	52,4	170,7	154,1	171,4	12,7	46,0		12	22,2	19,0
8	381,0	270,0	260,0	41,3	330,0	219,1	61,9	111,0	61,9	221,5	202,7	222,2	12,7	50,8		12	25,4	22,2
10	444,0	324,0	321,0	47,7	387,0	273,0	66,7	117,0	95,2	276,2	254,6	277,4	12,7	55,6		16	28,6	25,4
12	521,0	381,0	375,0	50,8	451,0	323,8	73,0	130,0	102,0	327,0	304,8	328,2	12,7	60,3		16	31,8	28,6
14	584,0	413,0	425,0	54,0	514,0	355,6	76,2	143,0	111,0	359,2	336,5	360,2	12,7	63,5		20	31,8	28,6
16	648,0	470,0	483,0	57,2	572,0	406,4	82,6	146,0	121,0	410,5	387,0	411,2	12,7	68,3		20	34,9	31,8
18	711,0	533,0	533,0	60,4	629,0	457,0	88,9	159,0	130,0	461,8	438,0	462,3	12,7	69,8		24	34,9	31,8
20	775,0	584,0	587,0	63,5	686,0	508,0	95,2	162,0	140,0	513,1	489,0	514,4	12,7	73,0		24	34,9	31,8
24	914,0	692,0	702,0	69,9	813,0	610,0	106,0	168,0	152,0	616,0	590,5	616,0	12,7	82,6		24	41,3	34,9
26	971,5	749,3	720,7	79,4	876,3	666,7	184,2	184,2		666,8						28	44,4	41,3
28	1035,0	800,1	774,7	85,7	939,8	717,5	196,9	196,9		717,6						28	44,4	41,3
30	1092,2	857,2	827,1	92,1	996,9	768,3	209,6	209,6		768,4						28	47,6	44,4
32	1149,3	914,4	881,0	98,4	1054,1	819,1	222,3	222,3		819,2						28	50,8	47,6
34	1206,5	965,2	936,6	101,6	1104,9	871,5	231,8	231,8		870,0						28	50,8	47,6
36	1270,0	1022,3	990,6	104,8	1168,4	922,3	241,3	241,3		920,8						32	54,0	50,8

## ÍNDICE / VÁLVULAS

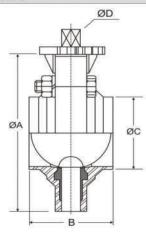
Valvula Borboleta tipo VB com terminais para Solda	1
Válvula Borboleta tipo VB com dois machos	
The state of the s	
Válvula de Retenção para Solda (VRA)	
Válvula Quebra Vácuo	2
Válvula Borboleta Pneumática	3
Válvula Borboleta tipo VB com dois Niples e Porca	4
Válvula Borboleta tipo VB com dois Niples Clamp	
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Válvula Micrométrica	6
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Válvula SMF e SPF Modelo 21	7
	Válvula Borboleta tipo VB com dois machos  Válvula Borboleta tipo VB com Macho / Niple e Porca  Válvula de Retenção para Solda (VRA)  Válvula Quebra Vácuo  Válvula Borboleta Pneumática  Válvula Borboleta tipo VB com dois Niples e Porca  Válvula Borboleta tipo VB com dois Niples Clamp  Vedação para Válvula Borboleta tipo VB  Manipulo com trava e regulagem de 0 a 90 graus  Válvula Borboleta  Válvula Borboleta SMF Modelo 20  Válvula Planagem Reta  Válvula Micrométrica  Válvula Segurança



### **VÁLVULA BORBOLETA**

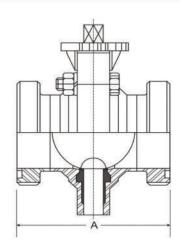
#### Válvula Borboleta tipo (VBA)- Solda

	ØA	В	ØС	ØD
1"	74,0	36,0	25,4	9,5
1.11/2"	97,0	44,0	38,1	9,5
2"	110,0	44,0	50,8	9,5
2.11/2"	127,0	44,0	63,5	9,5
3"	140,0	48,0	76,2	9,5
4"	160,0	48,0	101,6	9,5
5"	192,0	60,0	127,0	15,0
6"	220,0	60,0	152,4	15,0



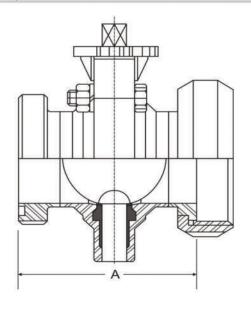
#### Válvula Borboleta tipo (VBB) - 2M

		Α		
	DIN	RJT	SMS	IDF
1"	80,0	84,0	76,0	79,0
1.11/2"	88,0	92,0	84,0	87,0
2"	88,0	92,0	84,0	87,0
2.1½"	96,0	92,0	92,0	87,0
3"	108,0	96,0	96,0	91,0
4"	108,0	96,0	118,0	91,0
5"	128,0	110,0	130,0	103,0
6"	140,0	118,0	130,0	103,0



#### Válvula Borboleta tipo (VBC) - MNP

		A		
	DIN	RJT	SMS	IDF
1"	78,0	74,0	69,0	79,0
1.11/2"	86,0	83,0	77,0	87,0
2"	88,0	84,0	77,0	87,0
2.1½"	94,0	84,0	81,0	87,0
3"	102,0	88,0	86,0	91,0
4"	105,0	88,0	99,0	91,0
5"	124,0	104,0	115,0	103,0
6"	130,0	109,0	115,0	103,0

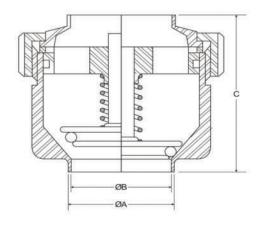




## **VÁLVULAS**

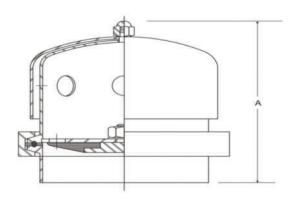
#### Válvula de Retenção para solda (VRA)

	ØA	ØB	С
1"	25,4	22,4	93,0
11/2"	38,1	35,1	93,0
2"	50,8	47,8	104,0
21/2"	63,5	59,5	122,0
3"	76,2	72,2	122,0
4"	101,6	97,6	154,0
5"	127,0	122,0	176,0
6"	152,4	147,4	176,0
8"	203,2	198,2	212,0



#### Válvula Quebra Vácuo

Ø	Α
2"	82,0
4"	117,0





### VÁLVULA BORBOLETA PNEUMÁTICA

#### Pneumática

Para operações automatizadas a Válvula Borboleta pode ser fornecida com Atuador pneumático com acionamento por AR retorno por AR ou acionamento por AR e retorno por Mola, assumindo a posição NF (normalmente fechada) ou NA (normalmente aberta)

#### Opcionais:

Uma ou duas chaves de fim de curso (microswitches) para indicação remota da posição da válvula (alternativa) também disponível na Válvula Manuel) Válvula Solenóide para controle do ar do Atuador

#### Torque da Válvula Borboleta:

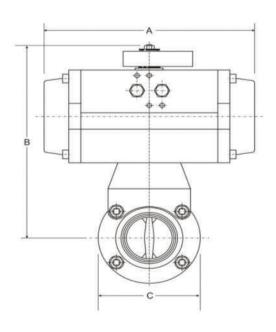
Bitola 1" 1½" 2" 2½" 3" 4"
Torque Kgf.m 0,7 1,0 1,4 2,0 2,4 3,1

#### Ar Comprimido:

Pressão mínima de ar recomendável: 6,0 Kgf/cm² Pressão máxima de ar recomendável: 10,0 Kgf/cm²

Ø	Α	В	С
1"	152,0	148,6	80,0
11/2"	152,0	176,3	96,0
2"	152,0	173,4	111,0
21/2"	193,0	184,4	125,0
3"	193,0	201,8	132,0
4"	225.0	210.1	156.0

DEMAIS NORMAS OU GRAUS, SOB CONSULTA.

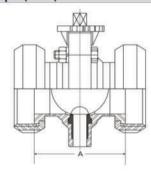




### **VÁLVULA BORBOLETA**

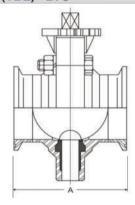
#### Válvula Borboleta tipo (VBD) - 2NP

		Α		
	DIN	RJT	SMS	IDF
1"	76,0	64,0	62,0	79,0
1.11/2"	84,0	74,0	70,0	87,0
2"	88,0	76,0	70,0	87,0
2.11/2"	92,0	76,0	70,0	87,0
3"	96,0	80,0	76,0	91,0
4"	102,0	80,0	80,0	91,0
5"	120,0	100,0	100,0	103,0
6"	120.0	100.0	100,0	103.0



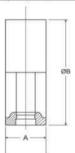
#### Válvula Borbolete tipo (VBE) - 2TC

Ø	Α
1"	62,0
1.11/2"	70,0
2"	70,0
2.11/2"	70,0
3"	74,0
4"	74,0
5"	90,0
6"	90.0



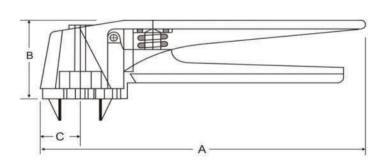
#### Vedação para Válvula Borboleta tipo (VB)

Ø	Α	
1"	22,7	35,8
1.11/2"	22,7	54,0
2"	22,7	66,0
2.11/2"	22,7	82,0
3"	22,7	97,0
4"	26,5	116,4
5"	32,5	143,0
6"	32.5	168.0



#### Manipulo com trava e regulagem de 0 a 90 graus

Α	В	С
171	46,0	21,0

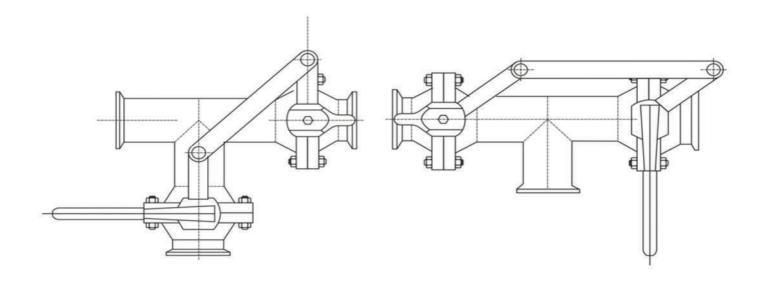




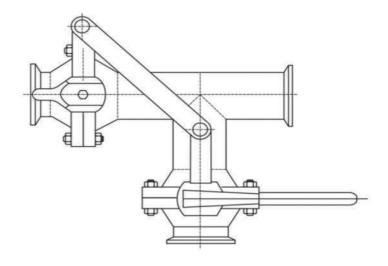
### VÁLVULA BORBOLETA MULTIVIAS

~		_			С					D		
Ø	Α	В	тс	RJT	SMS	IDF	DIM	TC	RJT	SMS	IDF	DIM
1"	40,0	148,0	61,0	75,0	64,0	70,0	72,0	131,0	145,0	134,0	140,0	142,0
1.1/2"	48,0	148,0	70,0	84,0	77,2	79,0	81,0	140,0	153,5	147,0	149,0	151,0
2"	55,5	148,0	89,0	103,0	96,2	98,0	100,0	159,0	172,5	166,0	168,0	170,0
2.1/2"	52,5	194,0	90,0	104,0	101,0	99,0	104,0	160,0	173,5	171,0	169,0	174,0
3"	66,0	194,0	96,0	110,0	107,0	105,0	114,0	166,0	179,5	177,0	175,0	184,0
4"	78,0	194,0	114,0	125,0	134,0	129,0	130,0	184,0	195,0	204,0	199,0	200,0
5"	92,0	230,0	122,0	132,0	æ	-	152,0	212,0	122,5	-	101	242,0
6"	108,5	230,0	129,0	140,0	77	157.1	163,0	244,0	254,5	-	S#3	278,0

Modelo T1 Modelo T2



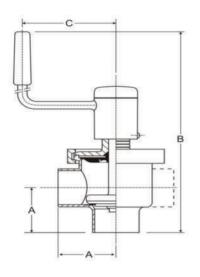
#### Modelo T3



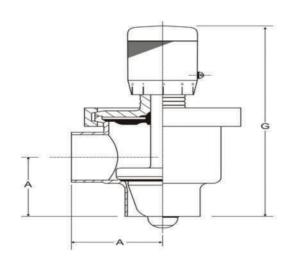


### **VÁLVULAS SMF E SPF**

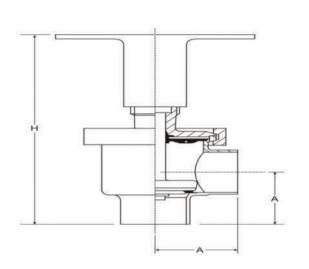
#### SMF Modelo 20



### Micrométrica



#### Segurança



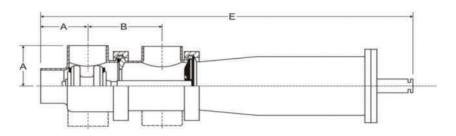
Ø	Α	В	С	D	E	F	G	Н
1"	48,2	298,5	100,0	(e.)	8 <b>8</b> 0	(*)	214,5	272,5
11/2"	48,5	292,5	100,0		•	y <del>.=</del> :	208,5	266,5
2"	61,5	302,5	100,0	182,0	204,0	289,5	218,5	276,5
21/2"	82,3	337,6	100,0	+		-	253,6	311,6
3"	87,3	355,2	100,0	Œ .	92	-	271,2	329,2
4"	133,0	425,0	100,0	<b>34</b> 1	*	-	341,0	399,0

As dimensões referem-se à válvula para solda. Fornecemos também soldadas à terminais TC, RJT, SMS E DIN.

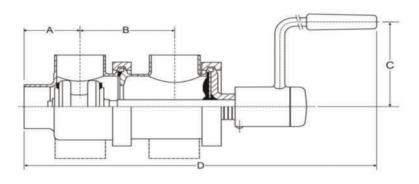


### **VÁLVULAS SMF E SPF**

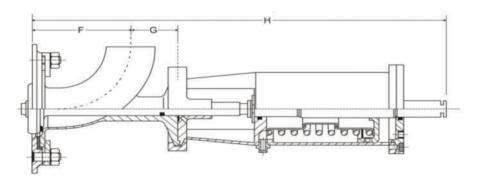
#### SRC Pneumática - Modelo 21



#### SRC Pneumátiva - Modelo 30



#### Válvula Fundo de Tanque Pneumática



Ø	Α	В	С	D	E	F	G	Н
1"	48,2	85,7	100,0	298,5	377,0	63,5	38,1	384,8
11/2"	48,5	79,5	100,0	292,5	371,0	82,6	44,5	410,3
2"	61,5	94,0	100,0	302,5	381,0	101,6	50,8	435,6
21/2"	82,3	113,1	100,0	337,6	416,1	120,7	57,2	461,1
3"	87,3	131,9	100,0	355,2	438,2	139,7	63,5	486,4
4"	133,0	181,0	100,0	425,0	508,0	179,0	76,2	538,4

Nossa linha de válvulas da série SMF / SPF possuem peças modulares e intercambiáveis, facilitando assim a transformação de um modelo em outro. As válvulas manuais podem ser convertidas em pneumáticas apenas trocando-se o comando manual pelo atuador.

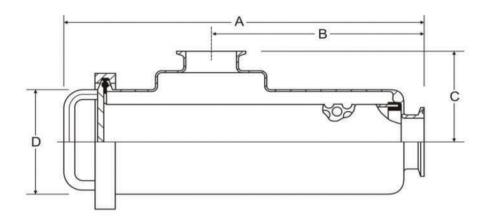
### **ÍNDICE / FILTROS**

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# **FILTROS**

#### **Dimensões Gerais**



#### **MODELO F600**

Bitola			Α					В			С					ØD
Ø	solda	TC	RJT	SMS	DIN	solda	TC	RJT	SMS	DIN	solda	TC	RJT	SMS	DIN	, DD
1"	320,5	333,2	347,0	336,5	344,5	182,1	194,8	208,6	198,1	206,1	72,0	84,7	98,5	88,0	96,0	101,6
11/2"	320,5	333,2	347,0	340,5	344,5	182,1	194,8	208,6	202,1	206,1	72,0	84,7	98,5	92,0	96,0	101,6
2"	320,5	333,2	347,0	340,5	344,5	182,1	194,8	208,6	202,1	206,1	72,0	84,7	98,5	92,0	96,0	101,6
21/2"	320,5	333,2	347,0	344,5	347,5	182,1	194,8	208,6	206,1	209,1	72,0	84,7	98,5	96,0	99,0	101,6
3"	331,5	344,2	358,0	355,5	362,5	193,1	205,8	219,6	217,1	224,1	72,0	84,7	98,5	96,0	103,0	101,6
4"	339,5	355,4	366,0	374,5	370,5	201,1	217,0	227,6	236,1	232,1	55,0	71,0	81,5	90,0	86,0	101,6

#### **MODELO F1200**

Bitola			Α						С		ØD					
Ø	solda	TC	RJT	SMS	DIN	solda	TC	RJT	SMS	DIN	solda	TC	RJT	SMS	DIN	DD
1"	600,5	613,2	627,0	616,5	624,5	462,1	474,8	488,6	478,1	486,1	72,0	84,7	98,5	88,0	96,0	101,6
11/2"	600,5	613,2	627,0	620,5	624,5	462,1	474,8	488,6	482,1	486,1	72,0	84,7	98,5	92,0	96,0	101,6
2"	600,5	613,2	627,0	620,5	624,5	462,1	474,8	488,6	482,1	486,1	72,0	84,7	98,5	92,0	96,0	101,6
21/2"	600,5	613,2	627,0	624,5	627,5	462,1	474,8	488,6	486,1	489,1	72,0	84,7	98,5	96,0	99,0	101,6
3"	611,5	624,2	638,0	635,5	642,5	473,1	485,8	499,6	497,1	504,1	72,0	84,7	98,5	96,0	103,0	101,6
4"	619.5	635,3	646,0	654,5	650,5	481,1	497,0	507,6	516.1	512,1	55,0	71,0	81.5	90,0	86,0	101,6

#### **MODELO F750**

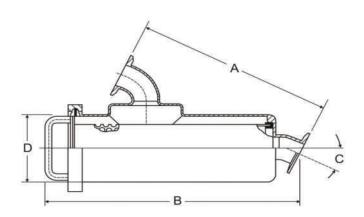
Bitola			Α				В					C						
Ø	solda	TC	RJT	SMS	DIN	solda	TC	RJT	SMS	DIN	solda	TC	RJT	SMS	DIN	ØD		
1"	320,0	332,7	346,5	336,0	344,0	156,1	168,8	182,6	172,1	180,1	97,0	109,7	123,5	113,0	121,0	152,4		
11/2"	320,0	332,7	346,5	336,0	344,0	156,1	168,8	182,6	176,1	180,1	97,0	109,7	123,5	117,0	121,0	152,4		
2"	320,0	332,7	346,5	336,0	344,0	156,1	168,8	182,6	176,1	180,1	97,0	109,7	123,5	117,0	121,0	152,4		
21/2"	320,0	332,7	346,5	336,0	347,0	156,1	168,8	182,6	180,1	183,1	97,0	109,7	123,5	121,0	124,0	152,4		
3"	320,0	332,7	346,5	344,0	351,0	156,1	168,8	182,6	180,1	187,1	97,0	109,7	123,5	121,0	128,0	152,4		
4"	327,0	343,4	353,5	362,0	358,0	163,6	179,5	190,1	198,6	194,6	80,0	96,0	106,5	115,0	111,0	152,4		
5"	343,5	359,4	370,0	378,5	393,5	177,4	193,3	203,9	212,4	227,4	80,0	96,0	106,5	115,0	111,0	152,4		
6"	343,5	359,4	370,0	378,5	393,5	177,4	193,3	203,9	212,4	227,4	80,0	96,0	106,5	115,0	111,0	152,4		

#### **MODELO F1500**

Bitola			Α					В				С			ØD	
Ø	solda	TC	RJT	SMS	DIN	solda	TC	RJT	SMS	DIN	solda	TC	RJT	SMS	DIN	DD
1"	602,5	615,2	629,0	618,5	626,5	436,1	448,8	462,6	452,1	460,1	97,0	109,7	123,5	113,0	121,0	152,4
11/2"	602,5	615,2	629,0	622,5	626,5	436,1	448,8	462,6	456,1	460,1	97,0	109,7	123,5	117,0	121,0	152,4
2"	602,5	615,2	629,0	622,5	626,5	436,1	448,8	462,6	456,1	460,1	97,0	109,7	123,5	117,0	121,0	152,4
21/2"	602,5	615,2	629,0	626,5	629,5	436,1	448,8	462,6	460,1	463,1	97,0	109,7	123,5	121,0	124,0	152,4
3"	602,5	615,2	629,0	626,5	633,5	436,1	448,8	462,6	460,1	467,1	97,0	109,7	123,5	121,0	128,0	152,4
4"	610,0	625,9	636,5	645,0	641,0	443,6	459,5	470,1	478,6	474,6	80,0	95,9	106,5	115,0	111,0	152,4
5"	623,5	639,4	650,0	658,5	673,5	457,0	472,9	483,5	492,0	503,0	80,0	95,9	106,5	115,0	126,0	152,4
6"	623,5	639,4	650,0	658,5	673,5	457,0	472,9	483,5	492,0	507,0	80,0	95,9	106,5	115,0	130,0	152,4



# **FILTROS**



#### MODELO F600 tipo Y

Bitola	A									
Ø	solda	TC	RJT	SMS	DIN					
1"	246,2	271,6	299,2	278,2	294,2					
11/2"	273,3	298,7	326,3	313,3	321,3					
2"	300,0	325,4	353,0	340,0	348,0					
21/2"	326,6	352,0	379,6	374,3	380,6					
3"	352,8	278,2	405,8	400,8	414,8					
4"	404,3	429,4	457,3	474,3	466,3					

		В			С	ØD
solda	TC	RJT	SMS	DIN		ØD.
199,1	217,0	226,6	226,3	226,3	26⁰	101,6
209,3	232,2	239,9	239,9	239,9	28⁰	101,6
220,0	248,4	254,9	254,9	254,9	29⁰	101,6
231,3	265,3	271,1	271,1	272,9	31º	101,6
252,3	292,5	297,3	297,3	301,4	31º	101,6
278,2	331,5	334,3	339,8	332,7	30º	101,6

MODELO F750 tipo y

Bitola	A									
ø	solda	TC	RJT	SMS	DIN					
1"	236,8	262,2	289,8	268,8	284,8					
1½"	263,6	289,0	316,6	303,6	311,6					
2"	290,4	315,8	343,4	330,4	338,4					
2½"	317,3	342,7	370,3	365,3	371,3					
3"	344,2	369,6	397,2	392,2	406,2					
4"	397,2	428,9	450,2	467,2	459,2					
6"	510,0	541,8	563,0	580,0	610,0					

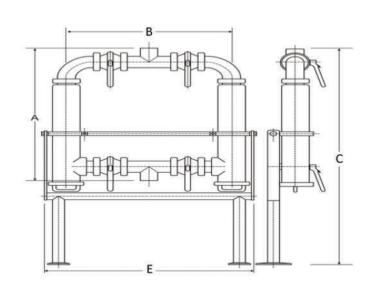
		В				an
solda	TC	RJT	SMS	DIN	С	ØD
341,7	359,7	341,6	362,8	368,8	34º	152,4
353,5	376,4	386,1	381,1	384,1	35⁰	152,4
365,4	393,8	402,3	397,3	400,3	36⁰	152,4
377,9	411,9	419,7	417,7	419,5	37⁰	152,4
390,4	430,5	437,4	435,4	439,5	38⁰	152,4
417,7	471,1	475,8	479,4	477,3	36⁰	152,4
481,2	493,9	501,9	509,2	520,7	37⁰	152,4

#### **MODELO 2F 1200**

Bitola	Α	В	С	E
1"	624,0	490,0	1414,0	754,0
11/2"	661,4	508,0	1442,0	772,0
2"	718,0	547,0	1480,0	811,0
21/2"	739,1	549,0	1500,0	813,0
3"	770,1	560,4	1525,0	824,4
4"	842,4	576,6	1565,0	840,6

#### **MODELO 2F 1500**

Bitola	A	В	С	E
1"	500,5	538,4	1415,0	802,4
11/2"	520,4	556,8	1444,0	820,8
2"	539,4	594,8	1482,0	858,8
21/2"	558,5	596,4	1502,0	860,4
3"	577,5	608,4	1527,0	872,4
4"	629,5	631,0	1579,0	895,0
5"	665,9	700,0	1629,0	964,0
6"	705,3	750,0	1669,0	1014,0





### **ELEMENTOS FILTRANTES**

-						
-	00	10	nл	$\boldsymbol{\Delta}$	-	ico

Abertura (microns)	Malha	Correção	CÓDIGO F600	CÓDIGO F1200	CÓDIGO F750	CÓDIGO F1500
1750	12,0	0,48	278092B-2	278094B-2	278092B-5	278094B-5
1130	16,0	0,50	278068B-2	278078B-2	278068B-5	278078B-5
910	20,0	0,63	278069B-2	278079B-2	278069B-5	278079B-5
640	30,0	0,79	278070B-2	278080B-2	278070B-5	278080B-5
430	40,0	0,87	278071B-2	278081B-2	278071B-5	278081B-5
308	50,0	0,92	278072B-2	278082B-2	278072B-5	278082B-5
263	60,0	0,95	278073B-2	278083B-2	278073B-5	818083B-5
192	80,0	0,97	278074B-2	278084B-2	278074B-5	278084B-5
154	100,0	1,00	278075B-2	278085B-2	278075B-5	278085B-5
131	120,0	1,10	278076B-2	278086B-2	278076B-5	278086B-5
106	150,0	1,30	278077B-2	278087B-2	278077B-5	278087B-5
96	180,0	1,34	278178B-2	278187B-2	278178B-5	278187B-5
82	200,0	1,43	278179B-2	278188B-2	278079B-5	278188B-5
70	220,0	1,55	2781802B-2	278189B-2	278180B-5	278189B-5
61	250,0	1,65	278181B-2	278190B-2	278181B-5	278190B-5
54	270,0	1,70	278182B-2	278191B-2	278182B-5	278191B-5
44	300,0	1,74	278183B-2	278192B-2	278183B-5	278192B-5
42	235,0	1,80	278184B-2	278193B-2	278184B-5	278193B-5

#### Chapa Pefurada

Abertura(microns)	Furo	Correção	CÓDIGO F600	CÓDIGO F1200	CÓDIGO F750	CÓDIGO F1500
502	0,8	0,5	278-060B2	278-064B2	278-060B5	278-064B5
785	1,0	0,5	278-061B2	278-065B2	278-061B5	278-065B5
1130	1,2	0,4	278-062B2	278-066B2	278-062B5	278-066B5
1767	1,5	0,4	278-063B2	278-067B2	278-063B5	278-067B5
2010	1,6	0,4	278-095B2	278-096B2	278-095B5	278-096B5
3141	2,0	0,3	278-088B2	278-090B2	278-088B5	278-090B5
4908	2,5	0,3	278-089B2	278-091B2	278-089B5	278-091B5

#### Técido não Metálico

Abertura(microns)	Material	CÓDIGO F600	CÓDIGO F1200	CÓDIGO F750	CÓDIGO F1500
760	Tecido de Nylon	278097-12	278098-12	278097-15	278098-15
500	Flanela de Algodão	278042-12	278043-12	278042-15	278043-15
200	Tecido de Polyester	278099-12	278099-12	278100-l5	278100-15
20	Tecido de Nylon	278095-15	278099-12	278096-15	278096-15
5	Feltro Agulhado	278040-12	278041-I2	278040-I5	278041-15

#### Técido Metálico

Abertura(microns)	Malha	Correção	CÓDIGO F600	CÓDIGO F1200	CÓDIGO F750	CÓDIGO F1500
1750	12,0	0,44	278592,0	278594B-2	278592B-5	278594B-5
1130	16,0	0,45	278568,0	278078B-2	278568B-5	278578B-5
910	20,0	0,55	278569,0	278079B-2	278569B-5	278579B-5
640	30,0	0,70	278570,0	278080B-2	278570B-5	278580B-5
430	40,0	0,78	278571,0	278081B-2	278571B-5	27858B-5
308	50,0	0,83	278572,0	278082B-2	278572B-5	278582B-5
263	60,0	0,85	278573,0	278083B-2	278573B-5	278583B-5
192	80,0	0,87	278574,0	278084B-2	278574B-5	278584B-5
154	100,0	0,94	278575,0	278085B-2	278575B-5	278585B-5
131	120,0	0,99	278576,0	278086B-2	278576B-5	278586B-5
106	150,0	1,20	278577,0	278087B-2	278577B-5	278587B-5
96	180,0	1,22	278578,0	278187B-2	278578B-5	278588B-5
82	200,0	1,28	278579,0	278188B-2	278579B-5	278589B-5
70	220,0	1,40	278580,0	278189B-2	278580B-5	278590B-5
61	250,0	1,50	278581,0	278190B-2	278581B-5	278591B-5
54	270,0	1,53	278582,0	278191B-2	278582B-5	278592B-5
44	300,0	1,57	278583,0	278192B-2	278483B-5	278593B-5
42	235,0	1,65	278584,0	278193B-2	278584B-5	278594B-5



# **FILTROS**

#### São fornecidos em 06 modelos básicos:

MODELO	ÁREA DE FILTRAÇÃO (cm²)
F600 e F600 tipo Y	606,0
F750 e F750 tipo Y	757,0
F1200	1239,0
F1500	1549,0
2F1200 (duplo)	2X1239
2F1200 (duplo)	2X1549

São fornecidas para solda ou acopladas à terminais conforme as normas sanitárias ISO 2852 (TC), BS 1864 (RJT), SMS 1145 e DIN 11851 nas bitolas de 1" à 6".