

## Anexo 8:

## Espárragos para bridas según ASME B16.9

Primary Service Pressure Rating	Bolting	Flange Facing	NOMINAL PIPE SIZE																			
			1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3	3-1/2"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"
CLASS 150	Number		4	4	4	4	4	4	4	4	8	8	8	8	8	12	12	12	16	16	20	20
	Diameter		1/2"	1/2"	1/2"	1/2"	1/2"	5/8"	5/8"	5/8"	5/8"	5/8"	3/4"	3/4"	3/4"	7/8"	7/8"	1"	1"	1-1/8"	1-1/8"	1-1/4"
	Length of	1/16"RF	2-1/4"	2-1/2"	2-1/2"	2-3/4"	2-3/4"	3-1/4"	3-1/2"	3-1/2"	3-1/2"	3-1/2"	3-3/4"	4	4-1/4"	4-1/2"	4-3/4"	5-1/4"	5-1/4"	5-3/4"	6-1/4"	6-3/4"
	stud bolts	RTJ			3"	3-1/4"	3-1/4"	3-3/4"	4"	4"	4"	4"	4-1/4"	4-1/2"	4-3/4"	5	5-1/4"	5-3/4"	5-3/4"	6-1/4"	6-3/4"	7-1/4"
	Length bolts	1/16"RF	2"	2"	2-1/4"	2-1/4"	2-1/2"	2-3/4"	3"	3"	3"	3"	3-1/4"	3-1/4"	3-1/2"	4"	4"	4-1/2"	4-1/2"	5"	5-1/2"	6"
	Ring No.				R15	R17	R19	R22	R25	R29	R33	R36	R40	R43	R48	R52	R56	R59	R64	R68	R72	R76
CLASS 300	Number		4	4	4	4	4	8	8	8	8	8	8	12	12	16	16	20	20	24	24	24
	Diameter		1/2"	5/8"	5/8"	5/8"	3/4"	5/8"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	7/8"	1"	1-1/8"	1-1/8"	1-1/4"	1-1/4"	1-1/4"	1-1/2"
	Length of	1/16"RF	2-1/2"	3"	3"	3-1/4"	3-1/2"	3-1/2"	4"	4-1/4"	4-1/4"	4-1/2"	4-3/4"	4-3/4"	5-1/2"	6-1/4"	6-3/4"	7"	7-1/2"	7-3/4"	8"	9"
	stud bolts	RTJ	3"	3-1/2"	3-1/2"	3-3/4"	4"	4"	4-1/2"	4-3/4"	5"	5"	5-1/4"	5-1/2"	6"	6-3/4"	7-1/4"	7-1/2"	8"	8-1/4"	8-3/4"	10"
	Length bolts	1/16"RF	2-1/4"	2-1/2"	2-1/2"	2-3/4"	3"	3"	3-1/4"	3-1/2"	3-3/4"	3-3/4"	4-1/4"	4-1/4"	4-3/4"	5-1/2"	5-3/4"	6-1/4"	6-1/2"	6-3/4"	7-1/4"	8"
	Ring No.		R11	R15	R16	R18	R20	R23	R26	R31	R34	R37	R41	R45	R49	R53	R57	R61	R65	R69	R73	R77
CLASS 600	Number		4	4	4	4	4	8	8	8	8	8	8	12	12	16	20	20	20	20	24	24
	Diameter		1/2"	5/8"	5/8"	5/8"	3/4"	5/8"	3/4"	3/4"	7/8"	7/8"	1"	1"	1-1/8"	1-1/4"	1-1/4"	1-3/8"	1-1/2"	1-5/8"	1-5/8"	1-7/8"
	Length of	1/4"RF	3"	3-1/2"	3-1/2"	3-3/4"	4-1/4"	4-1/4"	4-3/4"	5"	5-1/2"	5-3/4"	6-1/2"	6-3/4"	7-1/2"	8-1/2"	8-3/4"	9-1/4"	10"	10-3/4"	11-1/4"	13"
	stud bolts	M&F T&G	2-3/4"	3-1/4"	3-1/4"	3-1/2"	4"	4"	4-1/2"	4-3/4"	5-1/4"	5-1/2"	6-1/4"	6-1/2"	7-1/4"	8-1/4"	8-1/2"	9"	9-3/4"	10-1/2"	11"	12-3/4"
	Length bolts	RTJ	3"	3-1/2"	3-1/2"	3-3/4"	4-1/4"	4-1/4"	4-3/4"	5"	5-1/2"	5-3/4"	6-1/2"	6-3/4"	7-3/4"	8-1/2"	8-3/4"	9-1/4"	10"	10-3/4"	11-1/2"	13-1/4"
	Ring No.		R11	R13	R16	R18	R20	R23	R26	R31	R34	R37	R41	R45	R49	R53	R57	R61	R65	R69	R73	R77
CLASS 900	Number		4	4	4	4	4	8	8	8		8	8	12	12	16	20	20	20	20	20	20
	Diameter		3/4"	3/4"	7/8"	7/8"	1"	7/8"	1"	7/8"		1-1/8"	1-1/4"	1-1/8"	1-3/8"	1-3/8"	1-3/8"	1-1/2"	1-5/8"	1-17/8"	2"	2-1/2"
	Length of	1/4"RF	4-1/4"	4-1/2"	5"	5"	5-1/2"	5-3/4"	6-1/4"	5-3/4"		6-3/4"	7-1/2"	7-1/2"	8-3/4"	9-1/4"	10"	10-3/4"	11-1/4"	12-3/4"	13-3/4"	17-1/4"
	stud bolts	M&F T&G	4"	4-1/4"	4-3/4"	4-3/4"	5-1/4"	5-1/2"	6"	5-1/2"		6-1/2"	7-1/4"	7-1/4"	8-1/2"	9"	9-3/4"	10-1/2"	11"	12-1/2"	13-1/2"	17"
	Length bolts	RTJ	4-1/4"	4-1/2"	5"	5"	5-1/2"	5-3/4"	6-1/4"	5-3/4"		6-3/4"	7-1/2"	7-3/4"	8-3/4"	9-1/4"	10"	11"	11-1/2"	13-1/4"	14-1/4"	18"
	Ring No.		R12	R14	R16	R18	R20	R24	R27	R31		R37	R41	R45	R49	R53	R57	R62	R66	R70	R74	R78
CLASS 1500	Number		4	4	4	4	4	8	8	8		8	8	12	12	12	16	16	16	16	16	16
	Diameter		3/4"	3/4"	7/8"	7/8"	1"	7/8"	1"	1-1/8"		1-1/4"	1-1/2"	1-3/8"	1-5/8"	1-7/8"	2"	2-1/4"	2-1/2"	2-3/4"	3"	3-1/2"
	Length of	1/4"RF	4-1/4"	4-1/2"	5"	5"	5-1/2"	5-3/4"	6-1/4"	7"		7-3/4"	9-3/4"	10-1/4"	11-1/2"	13-1/4"	14-3/4"	16"	17-1/2"	19-1/2"	21-1/4"	24-1/4"
	stud bolts	M&F T&G	4"	4-1/4"	4-3/4"	4-3/4"	5-1/4"	5-1/2"	6"	6-3/4"		7-1/2"	9-1/2"	10"	11-1/4"	13"	14-1/2"	15-1/4"	17-1/4"	19-1/4"	21"	24"
	Length bolts	RTJ	4-1/4"	4-1/2"	5"	5"	5-1/2"	5-3/4"	6-1/4"	7"		7-3/4"	9-3/4"	10-1/2"	12-3/4"	13-1/2"	15-1/4"	16-3/4"	18-1/2"	20-3/4"	22-1/4"	25-1/2"
	Ring No.		R12	R14	R16	R18	R20	R24	R27	R35		R39	R44	R46	R50	R54	R58	R63	R67	R71	R75	R79
CLASS 2500	Number		4	4	4	4	4	8	8	8		8	8	8	12	12	12					
	Diameter		3/4"	3/4"	7/8"	1"	1-1/8"	1"	1-1/8"	1-1/4"		1-1/2"	1-3/4"	2"	2"	2-1/2"	2-3/4"					
	Length of	1/4"RF	4-3/4"	5"	5-1/2"	6"	6-3/4"	7"	7-3/4"	8-3/4"		10"	11-3/4"	13-1/2"	15"	19-1/4"	21-1/4"					
	stud bolts	M&F T&G	4-1/2"	4-3/4"	5-1/4"	5-3/4"	6-1/2"	6-3/4"	7-1/2"	8-1/2"		9-3/4"	11-1/2"	13-1/4"	14-3/4"	19"	21"					
	Length bolts	RTJ	4-3/4"	5"	5-1/2"	6"	6-3/4"	7"	8"	9"		10-1/4"	12-1/4"	14"	15-1/2"	20"	22"					
	Ring No.		R13	R16	R18	R21	R23	R26	R28	R32		R38	R42	R47	R51	R55	R60					