

### Calculated Design / Burst Pressures for Tube (PSI)

Tube OD (in)	Tube ID (in)	Tube Wall (in)	STAUFF Nominal pressure (bar)	Calculated Design Pressure (PSI) in accordance with DIN 2413 - Load Case I (primary static loads, up to +248 °F)			Calculated Design Pressure (PSI) in accordance with DIN 2413 - Load Case III (dynamic loads, up to +248 °F)			Calculated Burst Pressure (PSI) in accordance with ISO 10763			
				Light Series	Heavy Series	Material E235+N	Material E355	Material 1.4571	Material E235+N	Material E355	Material 1.4571	Material E235+N	Material E355
D1	D2	S											
.24	.18	.03	7252	11603	4901	7120	5337	4394	4495	3713	16182	22113	19522
.24	.16	.04	7252	11603	6525	9498	7107	5670	5800	4786	22809	31161	27529
.24	.12	.06	7252	11603	9788	14254	10660	7990	8164	6744	38991	53273	47051
.24*	.08	.08	7252	11603	13050	18995	14214	10034	10266	8485	61814	84434	74580
.24*	.06	.09	7252	11603	14689	21373	15998	10977	11223	9268	77996	106532	94102
.31	.24	.04	7252	11603	4901	7120	5337	4394	4495	3713	16182	22113	19522
.31	.20	.06	7252	11603	7337	10687	7992	6279	6424	5308	26448	36120	31909
.31	.16	.08	7252	11603	9788	14254	10660	7990	8164	6744	38991	53273	47051
.31*	.12	.10	7252	11603	12238	17806	13329	9556	9759	8064	55187	75371	66573
.39	.31	.04	7252	11603	3915	5699	4264	3596	3669	3031	12557	17154	15142
.39	.28	.06	7252	11603	5873	8555	6396	5177	5293	4366	20068	27405	24207
.39	.24	.08	7252	11603	7830	11397	8528	6641	6786	5599	28739	39252	34679
.39	.20	.10	7252	11603	9788	14254	10660	7990	8164	6744	38991	53273	47051
.39*	.16	.12	7252	11603	11745	17096	12793	9251	9454	7818	51548	70412	62193
.47	.39	.04	5802	9138	3263	4756	3553	3031	3103	2567	10252	14007	12372
.47	.35	.06	5802	9138	4901	7120	5337	4394	4495	3713	16182	22113	19522
.47	.31	.08	5802	9138	6525	9498	7107	5670	5800	4786	22809	31161	27529
.47	.28	.10	5802	9138	8164	11876	8891	6873	7018	5802	30320	41427	36594
.47	.24	.12	5802	9138	9788	14254	10660	7990	8164	6744	38991	53273	47051
.47*	.20	.14	5802	9138	11934	17110	12444	9048	9251	7644	49257	67280	59423
.47*	.16	.16	5802	9138	13630	19546	14214	10034	10266	8485	61814	84434	74580
.55	.47	.04		9138	2799	4075	3046	2625	2683	2219	8671	11847	10457
.55	.43	.06		9138	4191	6105	4569	3828	3915	3234	13572	18531	16375
.55	.39	.08		9138	5597	8135	6092	4959	5061	4192	18937	25854	22844
.55	.35	.10		9138	6989	10179	7615	6018	6163	5091	24853	33959	29994
.55	.31	.12		9138	8396	12209	435	7033	7192	5947	31480	43007	37986
.55	.28	.14		9138	10223	14660	10660	7990	8164	6744	38991	53273	47051
.59	.51	.04	5802		2610	3799	2843	2465	2523	2074	8048	10991	9718
.59	.47	.06	5802		3915	5699	4264	3596	3669	3031	12557	17154	15142
.59	.43	.08	5802		5220	7598	5686	4655	4771	3931	17444	23838	21060
.59	.39	.10	5802		6525	9498	7107	5670	5800	4786	22809	31161	27529
.59	.35	.12	5802		7830	11397	8528	6641	6786	5599	28739	39252	34679
.63	.55	.04		9138	2451	3567	2669	2320	2364	1958	7511	10266	9065
.63	.51	.06		9138	3669	5336	4003	3379	3466	2857	11687	15950	14098
.63	.47	.08		9138	4901	7120	5337	4394	4495	3713	16182	22113	19522
.63	.43	.10		9138	6119	8903	6657	5365	5481	4525	21083	28797	25440
.63	.39	.12		9138	7337	10687	7992	6279	6424	5308	26448	36120	31909
.63	.31	.16		9138	10223	14660	10660	7990	8164	6744	38991	53273	47051
.71	.63	.04	5802		2175	3161	2364	2074	2117	1755	6627	9048	7992
.71	.59	.06	5802		3263	4756	3553	3031	3103	2567	10252	14007	12372
.71	.55	.08	5802		4350	6337	4743	3959	4046	3336	14138	19314	17057
.71	.51	.10	5802		5438	7917	5918	4829	4945	4076	18314	25013	22090
.71	.47	.12	5802		6525	9498	7107	5670	5800	4786	22809	31161	27529
.71	.39	.16	5802		9092	13036	9471	7250	7410	6121	33075	45168	39901
.79	.67	.06		6092	2944	4278	3205	2755	2813	2321	9150	12485	11038
.79	.63	.08		6092	3915	5699	4264	3596	3669	3031	12557	17154	15142
.79	.59	.10		6092	4901	7120	5337	4394	4495	3713	16182	22113	19522
.79	.55	.12		6092	5873	8555	6396	5177	5293	4366	20068	27405	24207
.79	.51	.14		6092	7163	10266	7470	5916	6047	5004	24230	33104	29240
.79	.47	.16		6092	8178	11731	8528	6641	6786	5599	28739	39252	34679
.79	.39	.20		6092	10223	14660	10660	7990	8164	6744	38991	53273	47051

Load case I according to DIN 2413 describes predominantly static loads at temperatures not exceeding +248 °F.  
 Load case III according to DIN 2413 describes dynamic / pulsating loads at temperatures not exceeding +248 °F.

For some sizes of thin-walled steel tube, support sleeves are highly recommended and in some case generally required.  
 Please see page G11 for selection charts and detailed assembly instructions.

Tube OD (in)	Tube ID (in)	Tube Wall (in)	STAUFF Nominal pressure (bar)	Calculated Design Pressure (PSI) in accordance with DIN 2413 - Load Case I (primary static loads, up to +248 °F)			Calculated Design Pressure (PSI) in accordance with DIN 2413 - Load Case III (dynamic loads, up to +248 °F)			Calculated Burst Pressure (PSI) in accordance with ISO 10763			
				Light Series	Heavy Series	Material E235+N	Material E355	Material 1.4571	Material E235+N	Material E355	Material 1.4571	Material E235+N	Material E355
.87	.79	.04	3626		1784	2596	1944	1711	1755	1450	5365	7323	6469
.87	.75	.06	3626		2668	3886	2901	2509	2567	2118	8251	11267	9950
.87	.71	.08	3626		3553	5177	3873	3292	3364	2785	11296	15428	13619
.87	.67	.10	3626		4452	6482	4844	4031	4133	3408	14500	19807	17506
.87	.63	.12	3626		5336	7772	5816	4756	4858	4018	17922	24476	21611
.87	.59	.14	3626		6511	9324	6788	5452	5568	4598	21547	29435	25991
.87	.55	.16	3626		7439	10658	7760	6119	6250	5163	25433	34742	30676
.98	.87	.06		6092	2349	3422	2553	2233	2277	1886	7192	9831	8673
.98	.83	.08		6092	3132	4553	3408	2915	2987	2466	9802	13398	11835
.98	.79	.10		6092	3915	5699	4264	3596	3669	3031	12557	17154	15142
.98	.75	.12		6092	4698	6844	5120	4234	4336	3582	15443	21098	18623
.98	.71	.14		6092	5728	8207	5976	4872	4974	4105	18488	25245	22293
.98	.67	.16		6092	6540	9382	6817	5481	5597	4627	21692	29638	26180
.98	.63	.18		6092	7366	10556	7673	6061	6206	5120	25114	34293	30299
.98	.59	.20		6092	8178	11731	8528	6641	6786	5599	28739	39252	34679
1.10	.98	.06	3626		2103	3060	2292	2001	2045	1697	6380	8715	7687
1.10	.94	.08	3626		2799	4075	3046	2625	2683	2219	8671	11847	10457
1.10	.91	.10	3626		3495	5090	3815	3234	3306	2727	11064	15124	13358
1.10	.87	.12	3626		4191	6105	4569	3828	3915	3234	13572	18531	16375
1.10	.83	.14	3626		5119	7337	5337	4394	4495	3713	16182	22113	19522
1.10	.79	.16	3626		5844	8381	6092	4959	5061	4192	18937	25854	22844
1.18	1.02	.08		6092	2610	3799	2843	2465	2523	2074	8048	10991	9718
1.18	.98	.10		6092	3263	4756	3553	3031	3103	2567	10252	14007	12372
1.18	.94	.12		6092	3915	5699	4264	3596	3669	3031	12557	17154	15142
1.18	.91	.14		6092	4771	6844	4975	4133	4220	3495	14950	20416	18028
1.18	.87	.16		6092	5452	7816	5686	4655	4771	3931	17444	23838	21060
1.18	.79	.20		6092	6815	9773	7107	5670	5800	4786	22809	31161	27529
1.18	.71	.24		6092	8178	11731	8528	6641	6786	5599	28739	39252	34679
1.38	1.26	.06	3626		1755	2509	1828	1610	1653	1363	5046	6888	6077
1.38	1.22	.08	3626		2335	3350	2437	2132	2175	1798	6830	9324	8238
1.38	1.18	.10	3626		2915	4191	3046	2625	2683	2219	8671	11847	10457
1.38	1.14	.12	3626		3509	5032	3655	3118	3190	2625	10585	14457	12764
1.38	1.06	.16	3626		4669	6699	4873	4060	4147	3423	14602	19938	17622
1.38	.98	.20	3626		5844	8381	6092	4959	5061	4192	18937	25854	22844
1.50	1.34	.08		6092	2146	3089	2248	1972	2016	1668	6264	8541	7557
1.50	1.30	.10		6092	2697	3857	2799	2436	2480	2060	7932	10846	9573
1.50	1.26	.12		6092	3234	4626	3365	2886	2944	2437	9672	13210	11661
1.50	1.18	.16		6092	4307	6177	4482	3770	3843	3176	13297	18169	16041
1.50	1.10	.20		6092	5380	7714	5613	4611	4713	3887	17183	23476	20726
1.50	1.02	.24		6092	6453	9266	6730	5409	5539	4569	21344	29160	25759
1.50	.94	.28		6092	7526	10803	7861	6192	6322	5221	25854	35322	31198
1.50	.87	.31		6092	8613	12340	8978	6931	7076	5860	30755	42007	37101
1.65	1.54	.06	3626		1465	2088	1523	1349	1392	1146	4176	5699	5033
1.65	1.50	.08	3626		1943	2799	2031	1784	1827	1508	5626	7685	6788
1.65	1.46	.10	3626		2436	3495	2538	2219	2262	1871	7134	9744	8601
1.65	1.42	.12	3626		2915	4191	3046	2625	2683	2219	8671	11847	10457
1.65	1.34	.16	3626		3901	5583	4061	3437	3509	2901	11890	16240	14344
1.65	1.26	.20	3626		4872	6975	5076	4205	4307	3553		20895	18464

All figures are based on calculations carried out in accordance with DIN 2413 and ISO 10763.

They are intended to assist the user in the pre-selection of the correct tube only, and do not discharge the obligation to carry out own calculations in consideration of the actual conditions of use.

DIN 2413 does not apply to tube sizes marked by \* (where D1/D2 > 2).