

GRUPO 
valsteel

TUBOS

**GAMA ESTRUTURAL /
ISO / MILIMETRICA / ASTM**

2026

Imagem ilustrativa do produto.

TUBO REDONDO AÇO INOXIDÁVEL - EN 10296-2 STAINLESS STEEL ROUND TUBE - EN 10296-2

Qualidade/Quality:

AISI 304L / EN 1.4307
AISI 316L / EN 1.4404

Normas/Norm:

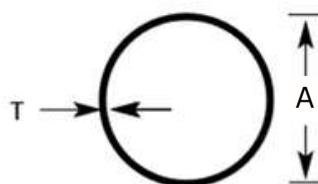
EN 10296-2
ASTM A554

Soldadura/Welde:

HF - Alta Frequência / HF Welded Tubes

Acabamento/Finish:

2B / Escovado / Esmerilado / Polido
2B / Brush / Grinding 180 to 400 / Mirror
outros acabamentos sobre consulta
more finish available on demand.



As medidas abaixo referidas estão sujeitas a confirmação pela Valsteel

Dimensão	Espessura (T)						
	1	1.2	1.5	1.6	2	2.5	3
A							
12	0,275	0,325	0,394	0,417	0,501		
14	0,326	0,385	0,470	0,497	0,601		
15	0,351	0,415	0,507	0,537	0,651		
16	0,376	0,445	0,545	0,577	0,701		
18	0,426	0,505	0,620	0,657	0,801	0,970	1,127
20	0,476	0,565	0,695	0,737	0,901	1,096	1,277
21.3	0,508	0,604	0,744	0,789	0,967	1,177	1,375
22	0,526	0,625	0,770	0,817	1,002	1,221	1,427
23	0,551	0,655	0,808	0,857	1,052	1,283	1,502
25	0,601	0,715	0,883	0,937	1,152	1,409	1,653
26.9	0,649	0,772	0,954	1,014	1,247	1,527	1,795
28	0,676	0,805	0,995	1,058	1,302	1,596	1,878
30	0,726	0,865	1,070	1,138	1,402	1,722	2,028
32	0,776	0,925	1,146	1,218	1,502	1,847	2,178
33	0,801	0,956	1,183	1,258	1,552	1,909	2,254
33.7	0,819	0,977	1,209	1,286	1,588	1,953	2,306
35	0,851	1,016	1,258	1,338	1,653	2,035	2,404
38	0,926	1,106	1,371	1,458	1,803	2,222	2,629
40	0,977	1,166	1,446	1,538	1,903	2,348	2,779
42	1,027	1,226	1,521	1,619	2,003	2,473	2,930
42.4	1,037	1,238	1,536	1,635	2,023	2,498	2,960
43	1,052	1,256	1,559	1,659	2,053	2,535	3,005
45	1,102	1,316	1,634	1,739	2,153	2,661	3,155
48	1,177	1,406	1,747	1,859	2,304	2,848	3,380
48.3	1,184	1,415	1,758	1,871	2,319	2,867	3,403
50	1,227	1,466	1,822	1,939	2,404	2,974	3,531
50.8	1,247	1,490	1,852	1,971	2,444	3,024	3,591
51	1,252	1,496	1,859	1,979	2,454	3,036	3,606
53	1,302	1,556	1,934	2,059	2,554	3,161	3,756
60.3	1,485	1,776	2,209	2,352	2,920	3,618	4,304
63.5	1,565	1,872	2,329	2,480	3,080	3,819	4,545
70	1,728	2,067	2,573	2,740	3,405	4,226	5,033
73	1,803	2,157	2,686	2,861	3,556	4,413	5,258
76.1	1,881	2,251	2,802	2,985	3,711	4,607	5,491
80	1,978	2,368	2,948	3,141	3,906	4,852	5,784
84	2,078	2,488	3,099	3,301	4,107	5,102	6,085
88.9		2,635	3,283	3,498	4,352	5,409	6,453
101.6			3,760	4,006	4,988	6,204	7,407
104			3,850	4,103	5,108	6,354	7,587
108			4,000	4,263	5,308	6,604	7,888
114.3			4,237	4,515	5,624	6,999	8,361

TUBO ESTRUTURAL

TUBO QUADRADO AÇO INOXIDÁVEL - EN 10296-2 STAINLESS STEEL SQUER TUBE - EN 10296-2

Qualidade/Quality:

AISI 304L / 1.4307
AISI 316L / 1.4404

Normas/Norm:

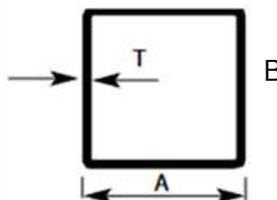
EN 10296-2
ASTM A554

Soldadura/Welde:

HF - Alta Frequência / HF Welded Tubes

Acabamento/Finish:

2B / Escovado / Esmerilado / Polido
2B / Brush / Grinding 180 to 400 / Mirror
outros acabamentos sobre consulta
more finish available on demand.



As medidas abaixo referidas estão sujeitas a confirmação pela Valsteel

Dimensão	Espessura (T)								
	Peso(Kg/mt)								
A x B	1.0	1.2	1.5	2.0	2.5	3.0	4.0	5.0	6.0
10x10	0.294	0.347	0.422	0.417	0.501				
15x15	0.453	0.538	0.661	0.857	0.601				
16x16	0.485	0.576	0.709	0.921	0.651				
20x20	0.613	0.729	0.901	1.176	0.701				
25x25	0.772	0.921	1.14	1.495	1.837	2.167	1,127		
30x30	0.932	1.112	1.379	1.814	2,236	2.645	1,277		
35x35	1.091	1.304	1.618	2.133	2,635	3.124	1,375		
40x40	1.251	1.495	1.858	2.452	3.033	3.602	4.703		
45x45	1,410	1,686	2,097	2,771	3,432	4,081	5,341		
50x50		1,878	2,336	3,09	3,831	4,559	5,979	7,349	
60x60			2,814	3,728	4,628	5,516	7,255	8,943	
70x70			3,293	4,366	5,426	6,473	8,531	10,538	
80x80			3,771	5,004	6,223	7,43	9,807	12,133	
100x100			4,728	6,279	7,818	9,344	12,359	15,323	22,065
120x120				7,555	9,413	11,258	14,91	18,513	25,893
150x150				9,469	11,805	14,129	18,738	23,298	27,807
200x200				12,659	15,793	18,913	25,118	31,272	37,380
250x250						23,698	31,497	39,247	

TUBO RECTANGULAR AÇO INOXIDÁVEL - EN 10296-2 STAINLESS STEEL RECTANGULAR TUBE - EN 10296-2

Qualidade/Quality:

AISI 304L / 1.4307
AISI 316L / 1.4404

Normas/Norm:

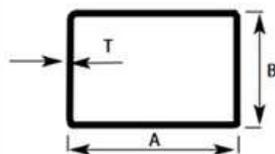
EN 10296-2
ASTM A554

Soldadura/Welde:

HF - Alta Frequência / HF Welded Tubes

Acabamento/Finish:

2B / Escovado / Esmerilado / Polido
2B / Brush / Grinding 180 to 400 / Mirror
outros acabamentos sobre consulta
more finish available on demand.



As medidas abaixo referidas estão sujeitas a confirmação pela Valsteel

Dimensão	Espessura (T)								
	Peso(Kg/mt)								
A x B	1.0	1.2	1.5	2.0	2.5	3.0	4.0	5.0	6.0
20x10	0.453	0.538	0.661						
20x15	0.533	0.634	0.781	1,016					
25x10	0.533	0.634	0.781	1,016					
25x15	0.613	0.729	0.901	1,176					
30x10	0.613	0.729	0.901	1,176					
30x15	0.693	0.825	1,020	1,335					
30x20	0.772	0.921	1,140	1,495	1,837	2,167			
35x20	0.852	1,017	1,259	1,654	2,036	2,406			
40x10	0.772	0.921	1,140	1,495	1,837	2,167			
40x15	0.852	1,017	1,259	1,654	2,036	2,406			
40x20	0.932	1,112	1,379	1,814	2,236	2,645			
40x27	1,044	1,246	1,547	2,037	2,515	2,98			
40x30	1,091	1,304	1,618	2,133	2,635	3,124			
50x10	0.932	1,112	1,379	1,814	2,236	2,645			
50x20	1,091	1,304	1,618	2,133	2,635	3,124			
50x25	1,171	1,399	1,738	2,292	2,834	3,363			
50x30	1,251	1,495	1,858	2,452	3,033	3,602			
50x40	1,410	1,686	2,097	2,771	3,432	4,081			
60x10	1,091	1,304	1,618	2,133	2,635	3,124			
60x20	1,251	1,495	1,858	2,452	3,033	3,602			
60x30	1,410	1,686	2,097	2,771	3,432	4,081			
60x40			2,336	3,090	3,831	4,559	5,979		
70x20			2,097	2,771	3,432	4,081	5,341		
70x40			2,575	3,409	4,229	5,038	6,617		
80x20			2,336	3,090	3,831	4,559	5,979		
80x30			2,575	3,409	4,229	5,038	6,617		
80x40			2,814	3,728	4,628	5,516	7,255	8,943	10,582
80x50			3,054	4,047	5,027	5,995	7,893	9,741	11,464
80x60			3,293	4,366	5,426	6,473	8,531	10,538	12,496
100x40			3,293	4,366	5,426	6,473	8,531	10,538	12,496
100x50			3,532	4,685	5,824	6,952	9,169	11,336	13,453
100x60			3,771	5,004	6,223	7,430	9,807	12,133	14,410
100x80			4,250	5,641	7,021	8,387	11,083	13,728	16,324
120x40			3,771	5,004	6,223	7,430	9,807	12,133	14,410
120x60			4,250	5,641	7,021	8,387	11,083	13,728	16,324
120x80			4,728	6,279	7,818	9,344	12,359	15,323	18,237
150x50				6,279	7,818	9,344	12,359	15,323	18,237
150x100				7,874	9,812	11,736	15,548	19,310	23,022
160x80				7,555	9,413	11,258	14,910	18,513	22,065
200x100				9,469	11,805	14,129	18,738	23,298	27,807

TUBO ESTRUTURAL

TUBO REDONDO GAMA ISO EM AÇO INOXIDÁVEL 304 E 316 STAINLESS STEEL ROUND TUBE ISO-1127

Qualidade/Quality:

AISI 304L / 1.4307
AISI 316L 1.4571 - 1.4404

Normas/Norm:

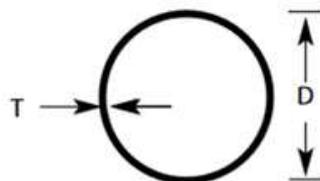
EN 10217-7
EN 10296-2

Soldadura/Welde:

HF - Alta Frequencia / HF Welded Tubes

Acabamento/Finish:

2B / Escovado / Esmerilado / Polido
2B / Brush / Grinding 180 to 400 / Mirror
outros acabamentos sobre consulta
more finish available on demand.



As medidas abaixo referidas estão sujeitas a confirmação pela Valsteel

Dimensão		Diám. ext. mm	Espessura - (T)												
DN	Pulg.		Peso(Kg/mt)												
			1	1.2	1.5	1.6	2	2.5	2.6	3	3.2	3.6	4	5	6
10	3/8"	17.2	0.329	0.406	0.481	0.625	0.761	0.92	0.951	1.067					
15	1/2"	21.3	0.411	0.508	0.604	0.789	0.967	1.177	1.217	1.375					
20	3/4"	26.9	0.523	0.649	0.772	1.014	1.247	1.527	1.582	1.795					
25	1"	33.7	0.659	0.819	0.977	1.286	1.588	1.953	2.025	2.306	2.444				
32	1 1/4"	42.4		1.037	1.238	1.536	2.023	2.498	2.591	2.96	3.141	3.498	3.846		
40	1 1/2"	48.3		1.184	1.415	1.758	2.319	2.867	2.975	3.403	3.614	4.029	4.437		
50	2"	60.3		1.485	1.776	2.209	2.92	3.618	3.757	4.304	4.575	5.111	5.639	6.924	
65	2 1/2"	76.1		1.881	2.251	2.802	3.711	4.607	4.785	5.491	5.841	6.535	7.222	8.902	
80	3"	88.9			2.635	3.283	3.498	5.409	5.618	6.453	6.867	7.689	8.504	10.504	
90	3 1/2"	101.6				3.76	4.006	4.988	6.445	7.407	7.885	8.834	9.776	12.094	
100	4"	114.3				4.237	4.515	5.624	7.272	8.361	8.902	9.979	11.048	13.684	16.271
125	5"	139.7				5.533	6.896	8.589	8.926	10.269	10.94	12.269	13.592	16.864	20.087
150	6"	168.3				6.679	8.328	10.38	10.788	12.417	13.23	14.847	16.456	20.445	24.384
200	8"	219.1					10.872	13.56	14.095	16.233	17.3	19.426	21.544	26.805	32.016
250	10"	273					13.572	16.93	17.604	20.282	21.62	24.285	26.943	33.554	40.114
300	12"	323.9					16.121	20.12	20.918	24.106	25.7	28.873	31.041	39.926	47.761
350	14"	355.6					17.708	22.1	22.982	26.487	28.24	31.731	35.216	43.895	52.524
400	16"	406.4					20.252	25.28	26.289	30.303	32.31	36.31	40.304	50.255	60.156
450	18"	457.2					22.759	28.46	29.594	34	36.32	40.82	45.32	56.612	67.784
500	20"	508					25.338	31.64	32.901	37.933	40.45	45.465	50.477	62.971	75.416
600	24"	609.6								45.565	48.59	54.623	60.635	75.691	90.679
700	28"	711.2											70.828	88.411	105.942
800	32"	812.8											81.004	101.136	121.206
900	36"	914.4											91.18	113.85	136.47
1000	40"	1016											101.335	126.597	151.733

TUBO REDONDO AÇO INOXIDÁVEL - EN 10296-2 STAINLESS STEEL ROUND TUBE - EN 10296-2

Qualidade/Quality:

AISI 304L / 1.4307
AISI 316L / 1.4404

Normas/Norm:

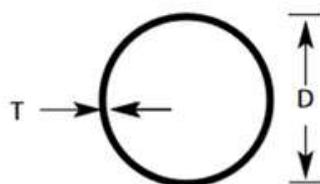
EN 10217-7
EN 10296-2

Soldadura/Welde:

HF - Alta Frequência / HF Welded Tubes

Acabamento/Finish:

2B / Escovado / Esmerilado / Polido
2B / Brush / Grinding 180 to 400 / Mirror
outros acabamentos sobre consulta
more finish available on demand.



As medidas abaixo referidas estão sujeitas a confirmação pela Valsteel

Diám. Exterior		Espessura (T)												
		Peso(Kg/mt)												
mm	0.8	1	1.2	1.5	1.6	2	2.5	2.6	3	3.2	3.6	4	5	6
6		0.125												
8	0.144	0.175												
10	0.184	0.225	0.264	0.319										
12	0.224	0.275	0.325	0.394	0.417	0.501								
14	0.264	0.326	0.385	0.47	0.497	0.601								
15	0.284	0.351	0.415	0.507	0.537	0.651								
16	0.304	0.376	0.445	0.545	0.577	0.701								
18	0.345	0.426	0.505	0.620	0.657	0.801	0.970	1.003	1.127					
19	0.365	0.451	0.535	0.657	0.697	0.851	1.033	1.066	1.202					
20	0.385	0.476	0.565	0.695	0.737	0.901	1.096	1.133	1.277					
22	0.425	0.526	0.625	0.770	0.817	1.002	1.221	1.263	1.427					
23	0.445	0.551	0.655	0.808	0.857	1.052	1.283	1.328	1.502					
24	0.465	0.576	0.685	0.845	0.897	1.102	1.346	1.393	1.578					
25	0.485	0.601	0.715	0.883	0.937	1.152	1.409	1.458	1.653					
28	0.545	0.676	0.805	0.995	1.058	1.302	1.596	1.654	1.878					
29	0.565	0.701	0.835	1.033	1.098	1.352	1.659	1.719	1.953					
30	0.585	0.726	0.865	1.070	1.138	1.402	1.722	1.784	2.028					
32	0.625	0.776	0.925	1.146	1.218	1.502	1.847	1.914	2.178					
33	0.645	0.801	0.956	1.183	1.258	1.552	1.909	1.979	2.254					
35	0.685	0.851	1.016	1.258	1.338	1.653	2.035	2.109	2.404	2.548				
38	0.745	0.926	1.106	1.371	1.458	1.803	2.222	2.305	2.629	2.788	3.101	3.405		
41		1.002	1.196	1.484	1.579	1.953	2.410	2.500	2.855	3.029	3.371	3.706		
42		1.027	1.226	1.521	1.619	2.003	2.473	2.565	2.930	3.109	3.462	3.806		
43		1.052	1.256	1.559	1.659	2.053	2.535	2.630	3.005	3.189	3.552	3.906		
44.5		1.089	1.301	1.615	1.719	2.128	2.629	2.728	3.117	3.309	3.687	4.056		
45		1.102	1.316	1.634	1.739	2.153	2.661	2.760	3.155	3.349	3.732	4.107		
48		1.177	1.406	1.747	1.859	2.304	2.848	2.956	3.380	3.590	4.002	4.407		
50		1.227	1.466	1.822	1.939	2.404	2.974	3.086	3.531	3.750	4.183	4.607		
50.8		1.247	1.490	1.852	1.917	2.444	3.024	3.138	3.591	3.814	4.255	4.687		
53		1.302	1.556	1.934	2.059	2.554	3.161	3.281	3.756	3.990	4.453	4.908		
54		1.327	1.587	1.972	2.099	2.604	3.224	3.346	3.831	4.071	4.543	5.008		
55		1.352	1.617	2.009	2.139	2.654	3.287	3.411	3.906	4.151	4.633	5.108		
57		1.402	1.677	2.085	2.220	2.754	3.412	3.542	4.056	4.311	4.814	5.308		
63.5		1.565	1.872	2.329	2.480	3.080	3.819	3.965	4.545	4.832	5.400	5.960	7.324	

MILIMETRICA

TUBOS GAMA MILIMETRICA



MILIMETRICA

Diám. Exterior		Espessura (T)													
		Peso(Kg/mt)													
mm	0.8	1	1.2	1.5	1.6	2	2.5	2.6	3	3.2	3.6	4	5	6	
73		1.803	2.157	2.686	2.861	3.556	4.413	4.583	5.258	5.593	6.256	6.911	8.514		
76.1		1.881	2.251	2.802	2.985	3.711	4.607	4.785	5.491	5.841	6.535	7.222	8.902		
80		1.978	2.368	2.948	3.141	3.906	4.852	5.039	5.784	6.154	6.887	7.612	9.390		
83		2.053	2.458	3.061	3.261	4.056	5.039	5.234	6.010	6.394	7.157	7.913	9.766		
84		2.078	2.488	3.099	3.301	4.107	5.102	5.299	6.085	6.474	7.248	8.013	9.891		
95				3.512	3.742	4.657	5.791	6.016	6.911	7.356	8.239	9.115	11.268		
103				3.812	4.062	5.058	6.291	6.536	7.512	7.997	8.960	9.916	12.270		
104				3.850	4.103	5.108	6.354	6.602	7.587	8.077	9.050	10.016	12.395		
108				4.000	4.263	5.308	6.604	6.862	7.888	8.397	9.411	10.417	12.896		
127				4.714	5.024	6.260	7.794	8.099	9.315	9.920	11.124	12.320	15.274	18.179	
129				4.789	5.104	6.360	7.919	8.229	9.465	10.080	11.304	12.520	15.525	18.480	
133				4.939	5.264	6.560	8.169	8.490	9.766	10.401	11.665	12.921	16.026	19.080	
153				5.690	6.066	7.562	9.421	9.792	11.268	12.003	13.468	14.924	18.530	22.085	
154				5.728	6.106	7.612	9.484	9.857	11.343	12.083	13.558	15.024	18.655	22.236	
155				5.765	6.146	7.662	9.547	9.922	11.418	12.163	13.648	15.124	18.780	22.386	
156				5.803	6.186	7.712	9.609	9.987	11.493	12.244	13.738	15.224	18.905	22.536	
159				5.916	6.306	7.863	9.797	10.182	11.719	12.484	14.008	15.525	19.281	22.987	
204				7.606	8.109	10.116	12.614	13.112	15.099	16.090	18.065	20.032	24.915	29.748	
205				7.643	8.149	10.166	12.677	13.177	15.174	16.170	18.155	20.132	25.040	29.898	
206						10.216	12.739	13.242	15.249	16.250	18.245	20.232	25.165	30.048	
254						12.620	15.744	16.367	18.855	20.096	22.572	25.040	31.175	37.260	
255						12.670	15.807	16.432	18.930	20.176	22.662	25.140	31.300	37.410	
256						12.720	15.869	16.497	19.005	20.256	22.752	25.240	31.425	37.560	
304						15.124	18.874	19.622	22.611	24.103	27.079	30.048	37.435	44.772	
306						15.224	18.999	19.753	22.761	24.263	27.260	30.248	37.685	45.072	
355.6						17.708	22.104	22.982	26.487	28.237	31.731	35.216	43.895	52.524	
406.4						20.252	25.284	26.289	30.303	32.308	36.310	40.304	50.255	60.156	
457.2									34.000	36.320	40.820	45.320			
508							31.644	32.904	37.936	40.449	45.469	50.481	62.976	75.420	

TUBOS GAMA MILIMETRICA

TUBO SOLDADO E SEM SOLDADURA

Dimensões segundo ASME B36.19 e B36.10

Polegadas nominais	Diâmetro D		Schedule 5 S		Schedule 10 S		Schedule 40/STD		Schedule 80 S/XS		Schedule 160		Schedule XXS		
	Exterior		Espessura T	Peso	Espessura T	Peso	Espessura T	Peso	Espessura T	Peso	Espessura T	Peso	Espessura T	Peso	
	Polegadas	mm	Polegadas	lbs/p	Polegadas	lbs/p	Polegadas	lbs/p	Polegadas	lbs/p	Polegadas	lbs/p	Polegadas	lbs/p	
	mm	mm	Kg/m	mm	Kg/m	mm	Kg/m	mm	Kg/m	mm	Kg/m	mm	Kg/m	mm	Kg/m
1/4"	0,54				0,065	0,33	0,088	0,43	0,119	0,54					
	13,7				1,65	0,49									
3/8"	0,675				0,065	0,42	0,091	0,57	0,126	0,74					
	17,1				1,65	0,63									
1/2"	0,84	0,065	0,54	0,083	0,67	0,109	0,85	0,147	1,09	0,188	1,31				
	21,3	1,65	0,8	2,11	1	2,77	1,27	3,73	1,62	4,78	1,95				
3/4"	1,05	0,065	0,69	0,083	0,86	0,113	1,13	0,154	1,47	0,219	1,95	0,308	2,44		
	26,7	1,65	1,03	2,11	1,28	2,87	1,69	3,91	2,2	5,56	2,9	7,82	3,64		
1"	1,315	0,065	0,87	0,109	1,4	0,133	1,68	0,179	2,17	0,25	2,85	0,358	3,66		
	33,4	1,65	1,3	2,77	2,09	3,38	2,5	4,55	3,24	6,35	4,24	9,09	5,45		
1 1/4"	1,66	0,065	1,11	0,109	1,81	0,14	2,27	0,191	3	0,25	3,77	0,382	5,22		
	42,2	1,65	1,65	2,77	2,7	3,56	3,39	4,85	4,47	6,35	5,61	9,7	7,77		
1 1/2"	1,9	0,065	1,28	0,109	2,09	0,145	2,72	0,2	3,63	0,281	4,86	0,4	6,41		
	48,3	1,65	1,91	2,77	3,11	3,68	4,05	5,08	5,41	7,14	7,25	10,15	9,55		
2"	2,375	0,065	1,61	0,109	2,64	0,154	3,65	0,218	5,02	0,344	7,47	0,436	9,04		
	60,3	1,65	2,4	2,77	3,93	3,91	5,44	5,54	7,48	8,74	11,11	11,07	13,44		
2 1/2"	2,875	0,083	2,48	0,12	3,53	0,203	5,79	0,276	7,66	0,375	10,02	0,552	13,71		
	73	2,11	3,69	3,05	5,26	5,16	8,63	7,01	11,41	9,53	14,92	14,02	20,39		
3"	3,5	0,083	3,03	0,12	4,33	0,216	7,58	0,3	10,25	0,438	14	0,6	18,6		
	88,9	2,11	4,51	3,05	6,45	5,49	11,29	7,62	15,27	11,13	21,35	15,24	27,68		
3 1/2"	4	0,083	3,48	0,12	4,97	0,226	9,11	0,318	12,51						
	101,6	2,11	5,18	3,05	7,4	5,74	13,57	8,08	18,63						
4"	4,5	0,083	3,92	0,12	5,61	0,237	10,79	0,337	14,98	0,531	22,53	0,674	27,57		
	114,3	2,11	5,84	3,05	8,36	6,02	16,07	8,56	22,32	13,49	33,54	17,12	41,03		
5"	5,563	0,109	6,36	0,134	7,77	0,258	14,62	0,375	20,78	0,625	32,99	0,75	38,59		
	141,3	2,77	9,47	3,4	11,57	6,55	21,77	9,53	30,97	15,88	49,12	19,05	57,43		
6"	6,625	0,109	7,6	0,134	9,29	0,28	18,97	0,432	28,57	0,719	45,39	0,864	53,21		
	168,3	2,77	11,32	3,4	13,84	7,11	28,26	10,97	42,56	18,26	67,57	21,95	79,22		
8"	8,625	0,109	9,93	0,148	13,4	0,322	28,56	0,5	43,39	0,906	74,76	0,875	72,49		
	219,1	2,77	14,79	3,76	19,96	8,18	42,55	12,7	64,64	23,01	111,27	22,23	107,93		
10"	10,75	0,134	15,2	0,165	18,65	0,365	40,48	0,5	54,74	1,125	115,75	1	104,23		
	273,1	3,4	22,63	4,19	27,78	9,27	60,31	12,7	96,01	28,58	172,27	25,4	155,1		
12"	12,75	0,156	21,1	0,18	24,17	0,375	49,56	0,5	65,42	1,312	160,42	1	125,61		
	323,9	3,96	31,25	4,57	36	9,53	73,88	12,70*	97,46	33,32	238,69	25,4	186,92		
14"	14	0,156	23,07	0,188	27,73	0,375	54,66	0,5	72,16	1,406	189,29				
	355,6	3,96	34,36	4,78*	41,3	9,53	81,28	12,7	107,4	35,71	281,72				
16"	16	0,165	27,9	0,188	31,75	0,375	62,64	0,5	82,85	1,594	245,48				
	406,4	4,19	41,56	4,78*	47,29	9,53	93,27	12,7	123,31	40,49	365,38				
18"	18	0,165	31,43	0,188	35,76	0,375	70,65	0,5	93,54	1,781	308,79				
	457	4,19	46,81	4,78*	53,26	9,53	105,17	12,7	139,16	45,24	459,39				
20"	20	0,188	39,78	0,218	46,06	0,375	78,67	0,5	104,23	1,969	379,53				
	508	4,78	59,25	5,54*	68,61	9,53	117,15	12,7	155,13	50,01	564,85				
24"	24	0,218	55,37	0,25	63,41	0,375	94,71	0,5	125,61	2,344	542,64				
	610	5,54	82,47	6,35	94,45	9,53	141,12	12,7	187,07	59,54	808,27				

TUBOS GAMA ASTM