



Rectangular tubes for vehicle body manufacturers

1.4003 The most versatile material concept for bus structures.

Tubes manufactured according to TLA Internal Standard N04 - based on EN-10305-5 for $T \leq 2$

Tubes manufactured according to TLA Internal Standard N05 - based on EN-10219-2 for $T \geq 2.5$

Sides (mm)		Thickness T (mm)					
B	B	1,2	1,5	2	2,5	3	4
20	10	0,522	0,641				
25	10	0,615	0,757				
25	15	0,707	0,873	1,140	1,395	1,637	
30	10	0,707	0,873	1,140	1,395	1,637	
30	15	0,800	0,989	1,295	1,588	1,869	
30	20	0,893	1,105	1,449	1,781	2,101	
35	10	0,800	0,989	1,295	1,588	1,869	
35	15	0,893	1,105	1,449	1,781	2,101	
35	20	0,986	1,221	1,604	1,975	2,333	
40	10	0,893	1,105	1,449	1,781	2,101	
40	15	0,986	1,221	1,604	1,975	2,333	
40	20	1,079	1,337	1,759	2,168	2,565	
40	27	1,208	1,500	1,975	2,439	2,890	
40	30	1,264	1,569	2,068	2,555	3,029	3,942
45	10	0,986	1,221	1,604	1,975	2,333	
45	15	1,079	1,337	1,759	2,168	2,565	
45	25	1,264	1,569	2,068	2,555	3,029	
50	10	1,079	1,337	1,759	2,168	2,565	
50	20	1,264	1,569	2,068	2,555	3,029	3,942
50	25	1,357	1,685	2,223	2,748	3,261	4,251
50	30	1,450	1,801	2,377	2,941	3,493	4,560
50	40	1,635	2,033	2,687	3,328	3,957	5,179
60	10	1,264	1,569	2,068	2,555	3,029	3,942
60	20	1,450	1,801	2,377	2,941	3,493	4,560
60	30	1,635	2,033	2,687	3,328	3,957	5,179
60	40	1,821	2,265	2,996	3,714	4,421	5,798
80	20	1,821	2,265	2,996	3,714	4,421	5,798
80	40	2,192	2,729	3,614	4,488	5,349	7,035
80	60	2,563	3,193	4,233	5,261	6,277	8,272
100	20	3,951	4,884	6,391	7,839	9,232	11,853
100	40		3,193	4,233	5,261	6,277	8,272
100	50		3,425	4,542	5,648	6,741	8,891
100	60		3,657	4,852	6,034	7,205	9,509
120	80		4,585	6,089	7,581	9,060	11,983

*Other sizes upon request

Tolerances

Tubes manufactured in accordance with EN-10219-2 in dimensional tolerances

Steel type 1.4003

Metrics	Tolerances
External dimensions	+/- 1%, min +/- 0,5 mm
Thickness	+/- 10%
Concavity / Convexity	For $T > 2$ mm +/- 0,8% of H/B, min +/- 0,5 mm
	Thicknesses ≤ 2 mm, upon request:
	Max. Convexity : 0,1 mm
	Max. Concavity:
Framing of the sides	If $H/B \leq 40$ mm : 0,1 mm
	If $40 < H/B \leq 60$ mm : 0,15 mm
	If $H/B > 60$ mm : 0,2 mm
Outside edge profile	90° +/- 1°
Twisting	1,6 T - 2,4 T
Straightness	<1° /mt
Length	0,15%, 1,5 mm/mt
	-0 + 50 mm