

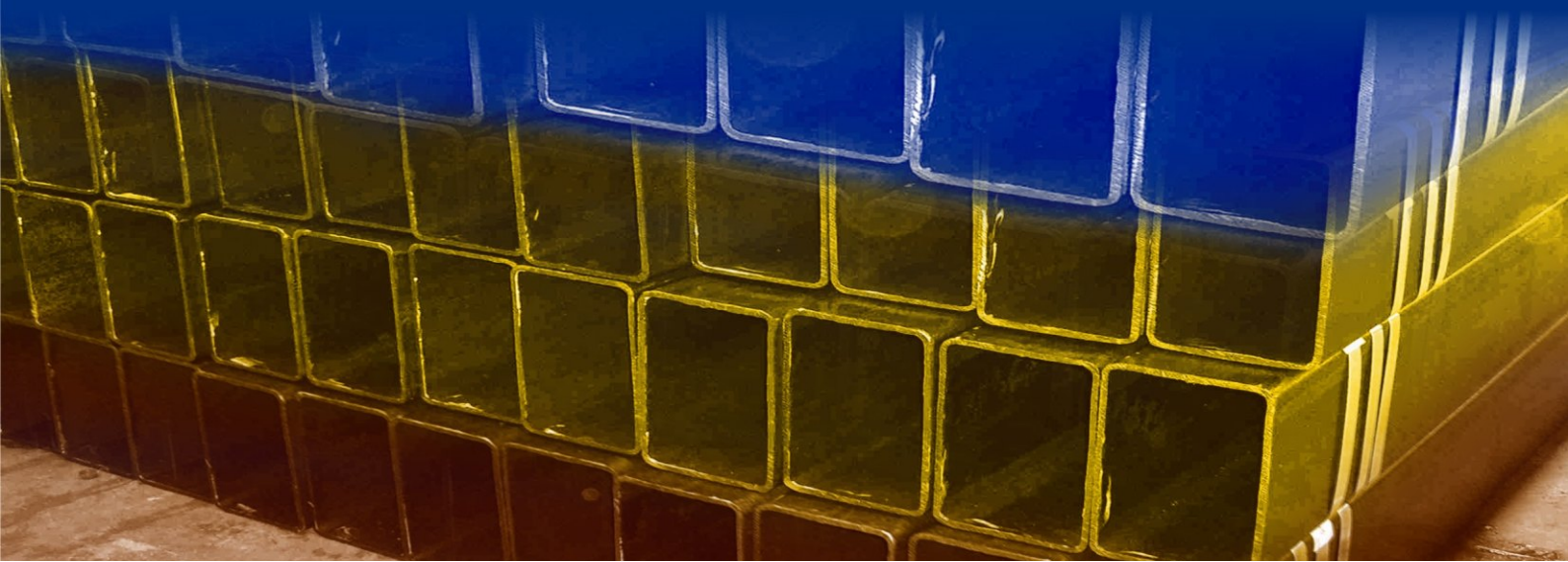


# STEEL PIPES & FITTINGS

(PTY) LTD

Your One Stop Steel Tubing and Hardware Shop

## TUBE Mechanical and Structural Tube



Rectangles									
Size dxh (mm)	Wall Thickness (mm)								
	1.6	2.0	2.5	3.0	3.5	4.0	4.5	5.0	6.0
25x13	0.939								
32x19	1.19	1.47	1.84						
38x19	1.44	1.78	2.09	2.47	2.83	3.19			
38x25	1.52	1.88	2.33	2.76					
50x25*	1.85	2.29	2.83	3.36	3.88	4.38			
50x38*	2.19	2.72	3.37	4.01	4.57	5.17			
63x25*	2.19	2.72	3.37	4.01	4.57	5.17			
76x25*	2.44	3.03	3.76	4.48	5.18	5.87			
60x40	2.44	3.03	3.76	4.48	5.18	5.87	6.55		
76x38	2.82	3.50	4.35	5.18	6.00	6.81	7.60		
76x50	3.09	3.85	4.78	5.70	6.60	7.50	8.38		
80x40	2.94	3.66	4.55	5.42	6.28	7.12	7.96		
100x50	3.69	4.59	5.70	6.81	7.90	8.98	10.04	11.10	
120x60		5.54	6.89	8.24	9.57	10.88	12.19	13.48	16.03
120x80		7.17	7.68	9.18	10.66	12.14	13.60	15.05	17.91
160x80				11.06	12.85	14.64	16.41	18.18	21.67

Squares									
Size dxh (mm)	Wall Thickness (mm)								
	1.6	2.0	2.5	3.0	3.5	4.0	4.5	5.0	6.0
13x13	0.560								
16x16	0.680								
19x19	0.939	1.150							
25x25	1.19	1.47	1.80	2.13					
32x32	1.52	1.88	2.31	2.74					
38x38*	1.85	2.29	2.83	3.36	3.86	4.37			
50x50	2.44	3.03	3.76	4.48	5.18	5.87	6.55		
60x60	2.94	3.66	4.55	5.42	6.28	7.12	7.96		
63x63	3.09	3.85	4.78	5.70	6.60	7.50	8.38		
75x75	3.69	4.59	5.70	6.81	7.90	8.98	10.04	11.10	
80x80	3.95	4.91	6.11	7.30	8.47	9.63	10.78	11.91	
90x90	4.45	5.54	6.89	8.24	9.57	10.88	12.19	13.48	16.03
100x100		6.17	7.68	9.18	10.66	12.14	13.60	15.05	17.91
120x120				11.06	12.85	14.64	16.41	18.18	21.67
152x152					16.42		21.00		27.78

Rounds										
Outside Diameter (mm)	Wall Thickness (mm)									
	1.6	2.0	2.5	3.0	3.5	4.0	4.5	5.0	6.0	
15.8	0.564									
19.1	0.689	0.841								
21.4	0.783	0.959	1.17	1.36						
25.4	0.939	1.15	1.41							
26.9	1.00	1.233	1.51	1.78						
32.0	1.19	1.47	1.80	2.13						
34.1*	1.28	1.59	1.95	2.30	2.64	2.97				
38.1*	1.44	1.78	2.20	2.60	2.99					
42.8*	1.63	2.02	2.49	2.95	3.39	3.83				
48.5*	1.85	2.29	2.83	3.36	3.88	4.38	4.88			
50.8*	1.91	2.37	2.93	3.48	4.08	4.62				
57.1*	2.19	2.72	3.37	4.01	4.63	5.24				
60.3	2.32	2.88	3.57	4.24	4.91	5.56	6.20			
63.5	2.44	3.03	3.76	4.48	5.18	5.87	6.55			
76.2	2.94	3.66	4.55	5.42	6.28	7.12	7.96	8.78	10.39	
88.9	3.45	4.29	5.33	6.36	7.37	8.38	9.37	10.35	12.27	
101.6	3.95	4.91	6.11	7.30	8.47	9.63	10.78	11.91	14.15	
114.3		5.54	6.89	8.24	9.57	10.88	12.19	13.48	16.03	
127.0		6.17	7.68	9.18	10.66	12.14	13.60	15.05	17.91	
139.7				10.12	11.76	13.39	15.01	16.61	19.79	
152.4				11.06	12.85	14.64	16.41	18.18	21.67	
165.1				12.00	13.95	15.89	17.83	19.74	23.55	
177.8				12.93	15.05	17.07	19.15	21.31	25.42	
193.7					16.42		21.00		27.18	
219.1					18.60		23.81		31.52	

\* Also available in Structatube 300 (conforms to SABS / SANS 1431 300WA) in 3mm and thicker but is non standard, minimum order quantities apply.

Table 1 - Chemical and Mechanical properties of ( SABS / SANS 1431 300WA modified) Structatube 300

Chemical Composition					Mechanical Properties			
C	Mn	Si	P	S	Carbon equivalent	Yield Strength MPa	UTS MPa	Elongation
0.20	1.2	0.04	0.02	0.015	0.39	300 - 400	420	(min) * 25%

\* Minimum 50mm gauge length

Table 2 - Chemical properties of grade SAE 1008 ( Si less than 0.03)

Chemical analysis (maximums)					Chemical composition of steel ensures good galvanizability, weldability, and formability.
C	Mn	P	S	Si	
0.1	0.5	0.025	0.025	0.03	

Colour code relating to grade of steel  
 SABS 1431 300WA (modified) - Structatube 300 - Refer to Table 1 for details  
 SAE 1008 (Si less than 0.03) Refer to Table 2 for more details

\*\* Colour code relating to the thickness of the tube ( in accordance with SABS 0202 / SANS 10202 )  
■ 1.6mm ■ 3.0mm ■ 4.5mm  
■ 2.0mm ■ 3.5mm ■ 5.0mm  
■ 2.5mm ■ 4.0mm ■ 6.0mm