



Promising Reliability, For Now and Tomorrow

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# HOLLOW STRUCTURAL SECTIONS (HSS)

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# Product Range

Conforming to BS EN 10219

## Circular Hollow Sections (CHS)

Grade	Size (mm)	Thickness (mm)															
		2.00	2.50	3.00	3.20	3.60	4.00	4.50	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	
S235	33.7																
	42.4																
S235 & S275	48.3																
	60.3																
	63.5																
	76.1																
	88.9																
	101.6																
	114.3																
	139.7																
S235, S275 & S355	168.3																
	219.1																
	273.0																
	323.9																

1" = 25.4 mm

Intermediate thicknesses within the range can be provided upon request

Ex-Stock  
 Made to order

Steel Grade	Chemical Composition					Mechanical properties						
	C	Si	Mn	P	S	Tensile strength Mpa		Minimum yield strength Mpa %	"Minimum impact energy Kv <sup>®</sup> at least temperature of			
Name	Max %	Max %	Max %	Max %	Max %	<3mm Thickness	≥ 3mm Thickness			-20	0 °C	20 °C
S235JRH	0.17	—	1.40	0.040	0.040	360~510	360~510	235	-	-	27	
S275J0H	0.20	—	1.50	0.035	0.035	430~580	410~560	275	-	27	-	
S275J2H	0.20	—	1.50	0.030	0.030				27	-	-	
S355J0H	0.20	0.55	1.60	0.035	0.035	510~680	470~630	355	-	27	-	
S355J2H	0.20	0.55	1.60	0.030	0.030				27	-	-	
S355K2H	0.20	0.55	1.60	0.030	0.030				40	-	-	

# Product Range

Conforming to BS EN 10219

## Square Hollow Sections (SHS)

Grade	Size (mm)	Thickness (mm)															
		1.80	2.00	2.50	3.00	3.20	3.60	4.00	4.50	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00
S235 & S275	25 x 25	Ex-Stock	Made to order	Ex-Stock													
	30 x 30	Ex-Stock	Made to order	Ex-Stock													
	38 x 38	Ex-Stock	Made to order	Ex-Stock	Ex-Stock												
	40 x 40	Ex-Stock	Made to order	Ex-Stock	Ex-Stock	Ex-Stock											
S235, S275 & S355	50 x 50		Made to order	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock								
	60 x 60		Made to order	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock							
	63.5 x 63.5		Made to order	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock							
	70 x 70		Made to order	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock							
	75 x 75		Made to order	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock							
	80 x 80		Made to order	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock						
	90 x 90		Made to order	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock					
	100 x 100		Made to order	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock				
	127 x 127*									Made to order	Ex-Stock	Ex-Stock	Ex-Stock				
	152.4 x 152.4*									Made to order	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock			
	203.2 x 203.2*									Made to order	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock		
	254 x 254*									Made to order	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock

1" = 25.4 mm

Intermediate thicknesses within the range can be provided upon request

\* To be manufactured at negative tolerance

	Ex-Stock
	Made to order

Steel Grade Name	Chemical Composition					Mechanical properties					
	C	Si	Mn	P	S	Tensile strength Mpa		Minimum yield strength Mpa %	"Minimum impact energy Kv" at least temperature of		
	Max %	Max %	Max %	Max %	Max %	<3mm Thickness	≥ 3mm Thickness		-20 °C	0 °C	20 °C
	S235JRH	0.17	—	1.40	0.040	0.040	360~510		360~510	235	-
S275J0H	0.20	—	1.50	0.035	0.035	430~580	410~560	275	-	27	-
S275J2H	0.20	—	1.50	0.030	0.030				-	-	-
S355J0H	0.20	0.55	1.60	0.035	0.035	510~680	470~630	355	-	27	-
S355J2H	0.20	0.55	1.60	0.030	0.030				27	-	-
S355K2H	0.20	0.55	1.60	0.030	0.030				40	-	-

# Product Range

Conforming to BS EN 10219

## Rectangular Hollow Sections (RHS)

Grade	Size (mm)	Thickness (mm)											
		2.00	3.00	3.20	3.60	4.00	4.50	5.00	6.00	7.00	8.00	9.00	10.00
S235, S275 & S355	25 x 50	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock								
	30 x 60	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock								
	40 x 60	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock								
S235 & S275	40 x 80		Made to order	Made to order	Made to order	Made to order	Ex-Stock	Ex-Stock					
	50 x 75	Ex-Stock	Ex-Stock	Ex-Stock	Made to order	Ex-Stock	Ex-Stock	Ex-Stock					
	50 x 100	Ex-Stock	Ex-Stock	Ex-Stock	Made to order	Ex-Stock	Ex-Stock	Ex-Stock					
	75 x 100	Ex-Stock	Ex-Stock	Ex-Stock	Made to order	Ex-Stock	Ex-Stock	Made to order					
S235, S275 & S355	100 x 150					Ex-Stock	Ex-Stock	Made to order	Ex-Stock	Made to order	Ex-Stock		
	100 x 200					Ex-Stock	Ex-Stock	Made to order	Ex-Stock	Made to order	Ex-Stock	Made to order	
	100 x 250							Made to order	Ex-Stock	Made to order	Ex-Stock	Made to order	Ex-Stock

1" = 25.4 mm

Intermediate thicknesses within the range can be provided upon request

 Ex-Stock  
 Made to order

Steel Grade	Chemical Composition					Mechanical properties					
	C	Si	Mn	P	S	Tensile strength Mpa		Minimum yield strength Mpa %	"Minimum impact energy Kv" at least temperature of		
Name	Max %	Max %	Max %	Max %	Max %	<3mm Thickness	≥ 3mm Thickness			-20 °C	0 °C
S235JRH	0.17	—	1.40	0.040	0.040	360~510	360~510	235	-	-	27
S275J0H	0.20	—	1.50	0.035	0.035	430~580	410~560	275	-	27	-
S275J2H	0.20	—	1.50	0.030	0.030				-	-	-
S355J0H	0.20	0.55	1.60	0.035	0.035	510~680	470~630	355	-	27	-
S355J2H	0.20	0.55	1.60	0.030	0.030				27	-	-
S355K2H	0.20	0.55	1.60	0.030	0.030				40	-	-

# Product Range

Conforming to ASTM A500

## Circular Hollow Sections (CHS)

Grade	NPS	Thickness (mm)																																	
		2.11	2.77	2.87	2.90	3.05	3.18	3.38	3.56	3.68	3.91	4.57	4.78	5.16	5.49	5.74	6.02	6.35	6.55	7.04	7.11	7.62	7.92	8.08	8.18	8.38	8.56	##	9.53	10.31	10.97	11.13	12.70		
A	1	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Made to order																									
	1 1/4	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Made to order																									
B & C	1 1/2	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock		
	2	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock		
	2 1/2	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	
	3	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	
	3 1/2	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	
	4	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock
A,B & C	5	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	
	6	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock
	8	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock
	10	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock
12	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock

Intermediate thicknesses within the range can be provided upon request

Ex-Stock  
 Made to order

### Chemical Composition (max %)

Grade	Heat Analysis					
	C Max %	Mn Max %	Si Max %	P Max %	S Max %	Cu Min %
A	0.26	1.35	--	0.035	0.035	0.20
B	0.26	1.35		0.035	0.035	0.20
C	0.23	1.35		0.035	0.035	0.20

### Mechanical Properties (MPa)

Grade	Round Structural Tubing		
	Tensile Strength	Yield Strength	Elongation % Min
A	310	230	25
B	400	290	23
C	425	315	21

# Product Range

Conforming to ASTM A500

## Square Hollow Sections (SHS)

Grade	Size	Thickness (mm)																																				
		1.65	1.85	2.11	2.77	2.87	2.90	3.05	3.18	3.38	3.56	3.68	3.91	4.57	4.78	5.16	5.49	5.74	6.02	6.35	6.55	7.04	7.11	7.62	7.92	8.08	8.18	8.38	8.56	9.27	9.53	10.31	10.97	11.13	12.70			
A	1/2" x 1/2"	Ex-Stock																																				
	3/4" x 3/4"																																					
	1" x 1"				Ex-Stock	Ex-Stock																																
	1 1/4" x 1 1/4"				Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	
A & B	1 1/2" x 1 1/2"				Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock		
	2" X 2"				Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	
	2.5" x 2.5"				Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	
	3" x 3"				Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock
	3-1/2" X 3-1/2"				Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock
A, B & C	4" X 4"				Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	
	5" x 5"				Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	
	6" x 6"				Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock
	8" x 8"				Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock
	10" x 10"				Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock

1" = 25.4 mm

Intermediate thicknesses within the range can be provided upon request



### Chemical Composition (max %)

Grade	Heat Analysis					
	C Max %	Mn Max %	Si Max %	P Max %	S Max %	Cu Min %
A	0.26	1.35	--	0.035	0.035	0.20
B	0.26	1.35		0.035	0.035	0.20
C	0.23	1.35		0.035	0.035	0.20

### Mechanical Properties (MPa)

Grade	Square Structural Tubing		
	Tensile Strength	Yield Strength	Elongation % Min
A	310	270	25
B	400	315	23
C	425	345	21



# Product Range

Conforming to ASTM A53

## Circular Hollow Sections (CHS)

Grade	NPS	Thickness (mm)																																				
		1.65	1.85	2.11	2.77	2.87	2.90	3.05	3.18	3.38	3.56	3.68	3.91	4.57	4.78	5.16	5.49	5.74	6.02	6.35	6.55	7.04	7.11	7.62	7.92	8.08	8.18	8.38	8.56	9.27	9.53	10.31	10.97	11.13	12.70			
A & B	1/2	Ex-Stock	Ex-Stock																																			
	3/4	Ex-Stock	Ex-Stock																																			
	1			Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock
	1 1/4			Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock
	1-1/2			Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock
	2			Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock
	2-1/2			Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock
	3			Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock
	3-1/2			Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock
	4			Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock
	5			Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock
	6			Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock
8			Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock
10			Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock
12			Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock	Ex-Stock

\*ASTM A53 standard contains Sch-10, Sch-20, Sch-30, Sch-40, Sch-60 & Sch-80. Intermediate thickness can be provided upon demand.

 Ex-Stock  
 Made to order

### Chemical Composition (max %)

Grade	C (Max)	Mn (Max)	P (Max)	S (Max)	Al (Max)	Cu*	Ni*	Cr*	Mo*	V*
A	0.25	0.95	0.05	0.045	--	0.40	0.40	0.40	0.15	0.08
B	0.30	1.20								

\* The total composition for these five elements shall not exceed 1.00%

### Mechanical Properties (MPa)

Steel Grade	Tensile Strength (Mpa) minimum	Yield Strength (Mpa) minimum
A	330	205
B	415	240



# Product Range

Conforming to ASTM A252

## Circular Hollow Sections (CHS)

Grade	NPS	Thickness (mm)																		
		4.78	5.16	5.49	5.74	6.02	6.35	6.55	7.04	7.11	7.92	8.18	8.38	8.74	9.27	9.53	10.31	10.97	11.13	12.70
1 & 2	4	Ex-Stock	Ex-Stock	Made to order	Made to order	Ex-Stock	Made to order	Made to order	Made to order	Made to order	Made to order	Made to order	Made to order	Made to order	Made to order	Made to order	Made to order	Made to order	Made to order	Made to order
1, 2 & 3	6	Ex-Stock	Ex-Stock	Made to order	Made to order	Ex-Stock	Made to order	Made to order	Made to order	Made to order	Made to order	Made to order	Made to order	Made to order	Made to order	Made to order	Made to order	Made to order	Made to order	Made to order
	8	Ex-Stock	Ex-Stock	Made to order	Made to order	Ex-Stock	Made to order	Made to order	Made to order	Made to order	Made to order	Ex-Stock	Ex-Stock	Ex-Stock	Made to order	Made to order	Made to order	Made to order	Made to order	Made to order
	10	Ex-Stock	Ex-Stock	Made to order	Made to order	Ex-Stock	Made to order	Made to order	Made to order	Made to order	Made to order	Ex-Stock	Ex-Stock	Ex-Stock	Made to order	Made to order	Made to order	Made to order	Made to order	Made to order
	12	Ex-Stock	Ex-Stock	Made to order	Made to order	Ex-Stock	Made to order	Made to order	Made to order	Made to order	Made to order	Ex-Stock	Ex-Stock	Ex-Stock	Made to order	Made to order	Made to order	Made to order	Made to order	Made to order

Ex-Stock  
 Made to order

### Chemical Composition

The Steel shall contain no more than 0.050% phosphorous

### Mechanical Properties (MPa)

Steel Grade	Tensile Strength (Mpa) minimum	Yield Strength (Mpa) minimum
1	345	205
2	415	240
3	455	310

### Calculated minimum Elongatin values

A- % Elongation (min) for thickness 7.90mm or more at 50mm gauge length:

Grade 1	30%
Grade 2	25%
Grade 3	20%

B-For wall thickness <7.90mm, the min. elongation values shall be calculated as:

Grade 1	48t+15
Grade 2	40t+12.5
Grade 3	32t+10.00

where  
t= specified nominal wall thickness, in