

High Frequency Induction (HFI) Welded Steel Pipes & Tubes

Description and specification.

Usage: Used for low pressure liquid delivery, such as water, gas, and oil.

Oil drilling and machinery manufacturing, fencing, construction, irrigation etc.

TIGER STEEL INDUSTRIES PRODUCT RANGE vs. SPECIFICATIONS

Section	Specifications	Steel Grade	Size Range (mm)
CHS - Circular Hollow Sections	ASTM A500, EN10219, EN10255, ASTM A53 Gr. A/Gr. B	ST37.2, S235, S275, S355	Dia 21.3 - 219.1
SHS - Square Hollow Sections	ASTM A500 Gr. A/B/C, EN10219	S235, S275, S355	16x16 - 180x180
RHS - Rectangular Hollow Sections	ASTM A500 Gr. A/B/C, EN10219	S235, S275, S355	40x20 - 200x100

Wall thickness : 1.0 - 8.0mm

Length : 4 - 12M

Surface : Varnish Coating, Bitumen Coating, Oil coating as per customer's requirement.

Test: Chemical Component Analysis, Mechanical Properties (Ultimate tensile strength, Yield strength, Elongation), Technical Properties (Flattening Test, Bending Test) Exterior Size Inspection, Hydrostatic Test.

Mill Test Certification: EN 10204/3.1B

TECHNICAL DATA SHEET FOR ASTM A 500 GR A/GR B & AS PER EN 10219 IN GRADES S235& S275

Circular hollow sections shall be manufactured from 1/2" to 8" as per clients requirements for structural purposes. And the tolerances are shown in the following table.

Specification	Tolerance on O.D	Tolerance On Thickness	Yst (Mpa) min	Uts (Mpa) min	EI%	c%	Mn%	P%	S%
ASTM A500 GR A	Upto 1 ^{1/2} " +/- 0.7% Of Std O.D.	-10% of Std thickness	228	310	25	0.3	-	0.045	0.045
	2" & ABOVE +/- 0.50% of Std O.D.								
ASTM A500 GR B	Upto 1 ^{1/2} " +/- 0.7% Of Std O.D.	-10% of Std thickness	290	400	23	0.3	-	0.045	0.045
	2" & ABOVE +/- 0.50% of Std O.D.								
EN: 10219 S 235 GRADE	± 1% with a minimum of ± 0.50mm a maximum of 1.0mm	Thickness 5mm ± 10%	235	360-510	24	0.17	1.4	0.04	0.04
EN: 10219 S 275 GRADE		Thickness > 5mm ± 0.50mm							
EN: 10219 S 275 GRADE	± 1% with a minimum of ± 0.50mm a maximum of 1.0mm	Thickness 5mm ± 10%	275	360-510	20	0.2	1.5	0.035	0.035
		Thickness > 5mm ± 0.50mm							

TOLERANCES ON DIMENSIONS, MECHANICAL AND CHEMICAL PROPERTIES

Spec	Tolerance on outside dimensions	Thickness tolerance	Squareness	Corner radii	Twist	Straightness
ASTM A500	Upto 63.5 MM — ±0.51mm	-10%	90°±2°	3 times the thickness	4 mm max	1 in 500 mm
	over 63.5mm to 88.9mm—±0.64mm					
	over 88.9mm to 139.7mm—±0.76mm					
	over 139.7mm—±0.01* of larger dia					
EN 10219	<100 mm ± 1% with a min of ±0.50mm	5mm— -10%	90° ± 1°	1.6*T -2.4* T	2mm +	0.15% of total length
	100 200mm—±0.80%	> 5mm—±0.50mm			0.50mm/meter	

MECHANICAL & CHEMICAL PROPERTIES

Specifications	Grade	MECHANICAL			CHEMICAL			
		Yst min	Uts min	EI%	C%	Mn%	P%	S%
		Mpa	Mpa		Max	Max	Max	Max
ASTM A500	A	269	310	25	0.3		0.045	0.035
	B	317	400	23				
EN 10219	S235	235	360-510	24	0.17	1.4	0.04	0.04
	S275	275	410-580	20	0.2	1.5	0.035	0.035

