

ERW/HFRW Product Specification (BS)



PT. SINAR SURYA BAJAPROFILINDO



BS 1387 - 1995 STEEL PIPE

Grade	Nominal Size		Outside Diameter				Wall Thickness		Weight (Plain End)	
			Minimum		Maximum					
	In	mm	In	mm	In	mm	In	mm	lbs/ft	kg/m
Light	1/2	15	0.852	21	0.841	21.4	0.079	2	0.64	0.947
	3/4	20	1.041	26.4	1.059	26.9	0.091	2.3	0.93	1.38
	1	25	1.309	33.2	1.328	33.8	0.102	2.6	1.33	1.98
	1 1/4	32	1.650	41.9	1.67	42.5	0.102	2.6	1.70	2.54
	1 1/2	40	1.882	47.8	1.903	48.4	0.114	2.9	2.17	3.23
	2	50	2.347	59.6	2.37	60.2	0.114	2.9	2.74	4.08
	2 1/2	65	2.960	75.2	2.991	76	0.126	3.2	3.83	5.71
	3	80	3.460	87.9	3.491	88.7	0.126	3.2	4.51	6.72
	4	100	4.450	113	4.481	113.9	0.142	3.6	6.54	9.75
Medium	1/2	15	0.831	21.1	0.856	21.7	0.102	2.6	0.81	1.21
	3/4	20	1.047	26.6	1.072	27.2	0.102	2.6	1.05	1.56
	1	25	1.316	33.4	1.346	34.2	0.126	3.2	1.62	2.41
	1 1/4	32	1.657	42.1	1.678	42.9	0.126	3.2	2.08	3.10
	1 1/2	40	1.889	48	1.919	48.8	0.126	3.2	2.39	3.57
	2	50	2.354	59.8	2.394	60.8	0.142	3.6	3.37	5.03
	2 1/2	65	2.969	75.4	3.014	76.6	0.142	3.6	4.31	6.43
	3	80	3.469	88.1	3.524	89.5	0.157	4	5.61	8.37
	4	100	4.459	113.3	4.524	114.9	0.177	4.5	8.18	12.20

NOTE:

Tolerance

Wall Thickness : (+) not specified
 (-) 8% (Light)
 (-) 10% (Medium)

Chemical Composition (%)

Carbon (Max.)	Manganese (Max.)	Sulfur (Max.)	Phosphorus (Max.)
0.20	1.20	0.045	0.045

Chemical Properties

Yield Strength (N/mm ²) (Min.)	Tensile Strength (N/mm ²)	Elongation (min)
195	320 - 460	20%

ERW/HFRW Product Specification (ASTM)



PT. SINAR SURYA BAJAPROFILINDO



ASTM A 53 STEEL PIPE GRADE A & B

Nominal Size : 1/2 Inch (21.3 mm) - 4 Inch (114.3 mm)
 Wall Thickness : 2.77 mm up to 6.02 mm
 Pipe Length : 5 up to 12 meter/pcs

Nominal Size In	Outside Diameter		Wall Thickness		Sch. No.	Weight		Test Pressure			
								Grade A		Grade B	
	In	mm	In	mm		lbs/ft	kg/m	Psi	kPa	Psi	kPa
1/2	0.840	21.3	0.109	2.77	40/STD	0.85	1.27	700	4,000	700	4,800
3/4	1.050	26.7	0.113	2.87	40/STD	1.13	1.69	700	4,000	700	4,800
1	1.315	33.4	0.133	3.38	40/STD	1.68	2.50	700	4,000	700	4,800
1 1/4	1.660	42.2	0.140	3.56	40/STD	2.27	3.39	1,200	8,300	1,300	9,000
1 1/2	1.900	48.3	0.145	3.68	40/STD	2.72	4.05	1,200	8,300	1,300	9,000
2	2.375	60.3	0.154	3.91	40/STD	3.66	5.44	2,300	15,900	2,500	17,200
2 1/2	2.875	73.0	0.203	5.16	40/STD	5.80	8.63	2,500	17,200	2,500	17,200
3	3.500	88.9	0.125	3.18	-	4.51	6.72	1,290	8,900	1,500	10,000
			0.156	3.96	-	5.58	8.29	1,600	11,000	1,870	12,900
			0.188	4.78	-	6.66	9.92	1,930	13,330	2,260	15,600
			0.216	5.49	40/STD	7.58	11.29	2,220	15,300	2,500	17,200
4	4.500	114.3	0.188	4.78	-	8.67	12.91	1,500	10,300	1,750	12,100
			0.219	5.56	-	10.02	14.91	1,750	12,100	2,040	14,100
			0.237	6.02	40/STD	10.80	16.07	1,900	13,100	2,210	15,200

Chemical Composition (%)

ASTM A 53	Carbon (Max.)	Manganese (Max.)	Phosphorus (Max.)	Sulfur (Max.)	Copper (Max.)	Nickel (Max.)	Chromium (Max.)	Molybdenum (Max.)	Vanadium (Max.)	Cu + Ni + Cr + Mo + V (Max.)
Grade A	0.25	0.950	0.05	0.045	0.40	0.40	0.40	0.15	0.08	1
Grade B	0.30	1.200	0.05	0.045	0.40	0.40	0.40	0.15	0.08	1

Mechanical Properties

ASTM A 53	Yield Strength (min)	Tensile Strength (min)
Grade A	30,000 psi (205 Mpa)	48,000 psi (330 Mpa)
Grade B	35,000 psi (240 Mpa)	60,000 psi (415 Mpa)

NOTE:

Dimensional Tolerance

Outside Diameter : ± 1/64 Inch (0.4 mm), for Pipe NPS 1 1/2 or smaller
 ± 1%, for Pipe NPS 2 or larger.

Wall Thickness : (-) 12.5%
 (+) unlimited

ERW/HFRW Product Specification (SNI)



PT. SINAR SURYA BAJAPROFILINDO



SNI : 07 - 0068 - 2013 & JIS G 3444 - 2007 & JIS G 3444 - 2007

CARBON STEEL TUBES FOR GENERAL STRUCTURAL PURPOSE

Nominal Inside Diameter		Outside Diameter	Wall Thickness	Calculated Weight
(mm)	(Inch)	(mm) Nominal	(mm)	(kg / m)
15	1/2	21.7	2	0.972
20	3/4	27.2	2	1.24
			2.3	1.41
25	1	34.0	2.3	1.89
			2.3	2.29
32	1 1/4	42.7	2.8	2.48
			2.3	2.63
			2.8	3.16
40	1 1/2	48.6	3.2	3.58
			2.3	3.30
			4	5.57
			2.8	5.08
65	2 1/2	76.3	3.2	5.77
			4	7.13
			2.8	5.96
80	3	88.1	3.2	6.78
			4	8.39
			3.2	8.77
100	4	114.3	3.6	9.83
			4.5	12.2
			5.6	15
			3.2	11.43

UKURAN		BERAT (KG/M)
SISI (MM) A + B	TEBAL t (MM)	
38 x 38	1.85	2.13
60 x 30	1.6	2.13
	2.3	2.98
	3.2	3.99
60 x 60	1.6	2.38
	2.3	3.34
	3.2	4.50
100 x 60	2.3	5.14
	3.2	7.01

Dimensions Tolerance			
Ukuran	Toleransi dimensi dan sudut		
Panjang stiel	Tidak lebih dari 100 mm	± 1.5 mm	
	Melebihi 100 mm	± 1.5%	
Ketidak ratahan stiel	Panjang stiel tidak melebihi 100 mm	0.5 mm dari panjang stiel maksimum	
	Panjang stiel melebihi 100 mm	0.5% dari panjang stiel maksimum	
Sudut antara 2 stiel yang berdekatan		± 1.5°	
Radius luar: R		3t (maksimum)	
Panjang		(+) 50 mm (-) 0 mm	
Lengkungan (kelurusan)		0.3% dari panjang pipa maksimum	
Tebal	Pipa persegi dengan las	di bawah 3 mm	± 0.3 mm
		di atas 3 mm	± 10%

Mechanical Properties		Dimensions Tolerance	
Kelas 1		Outside Diameter	< 50 mm : ± 0.5 mm
Tensile strength : 30 Kgf/mm2 (Min)			> 50 mm : ± 1%
Yield Strength :			
Kelas 2		Wall Thickness	< 4 mm : 0.5 mm
Tensile strength : 41 Kgf/mm2 (Min)			4 mm - 12 mm : (+)15.0%
Yield Strength : 24 Kgf/mm2 (Min)			(-)12.5%

SNI 0039 : 2013

PIPA BAJA SALURAN AIR DENGAN ATAU TANPA LAPISAN SENG

Nominal Inside Diameter		Outside Diameter			Wall Thickness	Calculated Weight
(mm)	(Inch)	Nominal	Min	Max	(mm)	(kg / m)
15	1/2	21.3	21.0	21.8	2.6	1.21
20	3/4	26.9	26.5	27.3	2.6	1.56
25	1	33.7	33.3	34.2	3.2	2.41
32	1 1/4	42.4	42.0	42.9	3.2	3.10
40	1 1/2	48.3	47.9	48.8	3.2	3.56
50	2	60.3	59.7	60.8	3.6	5.03
65	2 1/2	76.1	75.3	76.6	3.6	6.42
80	3	88.9	88.0	89.5	4.0	8.36
100	4	114.3	113.1	115.0	4.5	12.20

Mechanical Properties	
Pipa Baja Karbon	
Tensile strength :	33 Kgf/mm2 (Min)
	47 Kgf/mm2 (Maks)
Yield strength :	20 Kgf/mm2 (Min)
Elongation :	20% (Min)

Dimensions Tolerance	
Pipa Baja Karbon	
Wall Thickness :	(+) 15%
	(-) 10%

C - CHANNEL & SSBP Standard ERW/HFRW Product Specification



PT. SINAR SURYA BAJAPROFILINDO

SNI : 07 - 0138 - 1987

C-CHANNEL

PIPE NON STANDARD / PT SSBP STANDARD

Wall Thickness : 0.6 mm up to 6.0 mm
Pipe Length : 5 up to 12 meter/pos



DIMENSIONAL (MM)	WALL THICKNESS (MM)	WEIGHT (KG/M)
11 x A x C	t	
100 x 50 x 20	1.6	2.08
	2	3.56
	2.3	4.06
	2.8	4.87
	3.2	5.50
125 x 50 x 20	2.3	4.51
	3.2	6.13
150 x 50 x 20	2.3	4.96
	3.2	6.76
150 x 65 x 20	2.3	5.50
	3.2	7.51
	4	9.22
200 x 75 x 20	3.2	9.26
	4	11.40
	4.5	12.70

Dimensional Tolerances		
Thickness Tolerances	Tolerances (mm)	
t (mm)	< 1.6	± 0.22
	≤ 2.3	± 0.24
	3.2	± 0.30
	4.5	± 0.45
Height Tolerances		
11 (mm) :	≤ 125	± 1.5
	≤ 250	± 2.0
Wide Tolerances		
A (mm) :	≤ 75	± 2.0
Up tolerances		
C (mm) :	≤ 25	± 2.0
Weight tolerances		
		± 10%

NOMINAL SIZE (INCH)	OUTSIDE DIAMETER (MM)		
SSBP Standard	Min	Max	
1/2	19	15.9	22.2
3/4	25	25	27
1	30	29.5	33.4
1 1/4	40	38.1	42.8
1 1/2	45	44.5	48.3
2	57	57	60.2
2 1/2	75	73	76.3
3	87.5	87.5	89.1
4	112.5	112.5	114.3
□	15 x 15	-	-
□	15 x 30	-	-
□	15 x 35	-	-
□	20 x 20	-	-
□	20 x 40	-	-
□	25 x 25	-	-
□	25 x 50	-	-
□	30 x 30	-	-
□	30 x 60	-	-
□	35 x 35	-	-
□	35 x 55	-	-
□	40 x 40	-	-
□	40 x 60	-	-
□	40 x 80	-	-
□	50 x 50	-	-
□	50 X 100	-	-

NOTE:

Mechanical Tolerance

Kelas 1

Tensile Strength : 41 Kgf/mm² min.

Yield Strength : 25 Kgf/mm² min.

Kelas 2

Tensile Strength : 38 Kgf/mm² min.

Yield Strength : 18 Kgf/mm² min.