



K.D. INDUSTRIES INC.





[www.kdindustriesinc.com](http://www.kdindustriesinc.com)



## Company Profile

We are one of the leading ISO 9001:2008 accredited manufacturers of Carbon Steel ERW, Black & Galvanized Pipes and Tubes in the UAE, with an annual production capacity of over 100,000 Metric Tons.

Established in the year 2000, with facilities spreading over an area of more than 60,000 Square Meters, an experienced workforce of more than 100 employees, utilizing latest technology and equipment, K.D. Industries Inc. can ensure 100% customer satisfaction.

Strategically located close to one of the leading ports in the world, and surrounded by world class infrastructure, we enjoy logistical advantages, as close proximity to the port ensure prompt imports of raw materials to our facilities, as well as delivery of finished goods to our clients regionally and across the globe.

## Quality Policy

We are committed to manufacturing tubular products to various international standards and specifications, and meet customers' requirements with highest quality, economical cost & timely delivery. We are committed to comply with and continually strive to enhance our quality management systems by upgradation of technology, dedicated teamwork and ensuring our quality policies are communicated, understood, implemented & maintained across all levels.

## Vision

- To become a world class tubular product supplier by constantly improving customer satisfaction levels.

## Mission

- To monitor and ensure on time delivery and Quality.
- To maximize yield through continual improvements & resource optimization.
- Training and development of employees across all levels.



# ASTM A795 SCH 10 Grade A B & Black and Hot Dip Galvanized Steel Pipes

Nominal Pipe	Outside diameter		Wall thickness		Nominal Weight (mass) per unit Length, Plain End			Test Pressure for Plain End Pipe			
	Standard		Standard		kg/mtr	lb/ft	Schedule	Grade A		Grade B	
Inch	Inch	mm	Inch	mm				psi	kpa	psi	kpa
1/2"	0.840	21.3	0.083	2.11	1	0.670	10				
3/4"	1.050	26.7	0.083	2.11	1.28	0.860	10	700	4800	700	4800
1"	1.315	33.4	0.109	2.77	2.09	1.400	10	700	4800	700	4800
1.1/4"	1.660	42.2	0.109	2.77	2.69	1.810	10	1000	6890	1000	6890
1.1/2"	1.900	48.3	0.109	2.77	3.11	2.090	10	1000	6890	1000	6890
2"	2.375	60.3	0.109	2.77	3.93	2.640	10	1000	6890	1000	6890
2.1/2"	2.875	73.0	0.120	3.050	5.26	3.530	10	1000	6890	1000	6890
3"	3.500	88.9	0.120	3.050	6.46	4.340	10	1000	6890	1000	6890
3.1/2"	4.000	101.6	0.120	3.050	7.41	4.980	10	1200	8270	1200	8270
4"	4.500	114.3	0.120	3.050	8.37	6.620	10	1200	8270	1200	8270
5"	5.563	141.3	0.134	3.400	11.58	7.780	10	1200	8270	1200	8270
6"	6.625	168.3	0.134	3.400	13.85	9.300	10	1000	6890	1000	6890

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|--|--|
| <p><b>1. Tolerances</b></p> <p style="padding-left: 20px;">a) On Thickness</p> <p style="padding-left: 20px;">b) On Diameter</p> <p style="padding-left: 20px;">c) On Weight</p> | <p>: As per standard.</p> <p>: For NPS 1 1/2" &amp; under any point shall not vary more than +0.4mm -0.8mm.<br/>For NPS 2" &amp; above shall not vary more than ± 1% from the standard specification.</p> <p>: The weight of the pipe shall not more than ±5% of the specified</p> |
| <p><b>2. Chemical Composition ASTM A795 Grade A</b></p>  | <p>: % Max C- 0.25%, Mn- 0.95%, P-0.035%, S- 0.035%</p>  |
| <p><b>3. Chemical Composition ASTM A795 Grade B</b></p>  | <p>: % Max C- 0.30%, Mn- 1.20%, P-0.035%, S- 0.035%</p>  |
| <p><b>4. Mechanical - Grade A</b></p>  | <p>: Min Yield Strength - 205 N/mm<sup>2</sup>, Tensile Strength - 330 N/mm<sup>2</sup>,<br/>Elongation 25-30%</p>   |
| <p><b>5. Mechanical - Grade B</b></p>  | <p>: Min Yield Strength - 240 N/mm<sup>2</sup>, Tensile Strength - 415 N/mm<sup>2</sup>,<br/>Elongation 25-30%</p>   |



# ASTM A53 SCH 40, 80 Grade A & B

Black and Hot Dip Galvanized Steel Pipes

Inal Pipe	Outside diameter		Wall thickness		Nominal Weight (mass) per unit Length, Plain End			Test Pressure for Plain End Pipe				Nominal Weight (Mass) per unit Length, Threaded & Coupled			Test Pressure for Threaded & Coupled			
	Standard		Standard		kg/mtr	lb/ft	Schedule	Grade A		Grade B		kg/mtr	lb/ft	Schedule	Grade A		Grade B	
Inch	Inch	mm	Inch	mm				psi	kpa	psi	kpa				psi	kpa	psi	kpa
1/2"	0.840	21.3	0.109	2.77	1.27	0.850	40	700	4800	700	4800	1.27	0.860	40	700	4800	700	4800
3/4"	1.050	26.7	0.113	2.87	1.69	1.130	40	700	4800	700	4800	1.69	1.140	40	700	4800	700	4800
1"	1.315	33.4	0.133	3.38	2.50	1.680	40	700	4800	700	4800	2.5	1.690	40	700	4800	700	4800
			0.179	4.55	3.24	2.170	80	850	5900	850	5900	3.25	2.19	80	850	5900	850	5900
1.1/4"	1.660	42.2	0.140	3.56	3.39	2.270	40	1200	8300	1300	9000	3.4	2.280	40	1000	6900	1100	7600
			0.191	4.85	4.47	3.000	80	1800	12400	1900	13100	4.49	3.03	80	1500	10300	1600	11000
1.1/2"	1.900	48.3	0.145	3.68	4.05	2.720	40	1200	8300	1300	9000	4.04	2.740	40	1000	6900	1100	7600
			0.200	5.08	5.41	3.630	80	1800	12400	1900	13100	5.39	3.65	80	1500	10300	1600	11000
2"	2.375	60.3	0.154	3.91	5.44	3.660	40	2300	15900	2500	17200	5.46	3.680	40	2300	15900	2500	17200
			0.218	5.54	7.48	5.030	80	2500	17200	2500	17200	7.55	5.08	80	2500	17200	2500	17200
2.1/2"	2.875	73.0	0.203	5.160	8.63	5.800	40	2500	17200	2500	17200	8.67	5.850	40	2500	17200	2500	17200
			0.276	7.010	11.41	7.670	80	2500	17200	2500	17200	11.52	7.75	80	2500	17200	2500	17200
3"	3.500	88.9	0.216	5.490	11.29	7.580	40	2220	15300	2500	17200	11.35	7.680	40	2200	15200	2500	17200
			0.300	7.620	15.27	10.260	80	2500	17200	2500	17200	15.39	10.35	80	2500	17200	2500	17200
3.1/2"	4.000	101.6	0.226	5.740	13.57	9.120	40	2030	14000	2370	16300	13.71	9.270	40	2000	13800	2400	16500
			0.318	8.080	18.63	12.520	80	2800	19300	2800	19300	18.82	12.67	80	2800	19300	2800	19300
4"	4.500	114.3	0.237	6.020	16.07	10.800	40	1900	13100	2210	15200	16.23	10.920	40	1900	13100	2200	15200
			0.337	8.560	22.32	15.000	80	2700	18600	2800	19300	22.60	15.20	80	2700	18600	2800	19300
5"	5.563	141.3	0.258	6.550	21.77	14.630	40	1670	11500	1950	13400	22.07	14.900	40	1700	11700	1900	13100
6"	6.625	168.3	0.280	7.110	28.26	18.990	40	1520	10500	1780	12300	28.58	19.340	40	1500	10300	1800	12400
			0.432	10.970	42.56	28.600	80	2350	16200	2740	18900	43.05	28.88	80	2300	15900	2700	18600

**1. Toleranc**  
**a) On Thickness** : As per standard  
**b) On Diameter** : For NPS 1 1/2" & under any point shall not vary more than ±0.4mm.  
 For NPS 2" & above shall not vary more than ± 1% from the standard  
**c) On Weight** : The weight of the pipe shall not more than ±10% of the specified

**2. Chemical Composition Grade A** : % Max C - 0.25%, Mn 0.95%, S - 0.045%, P - 0.050%, Cu - 0.40%  
 Ni - 0.40%, Cr - 0.40%, Mo - 0.15% & V - 0.08%  
 (Cu+Ni+Cr+Mo+V=1.0% max)  
**3. Chemical Composition Grade B** : % Max C - 0.30%, Mn 1.20%, S - 0.045%, P - 0.050%, Cu - 0.40%,  
 Ni - 0.40%, Cr - 0.40%, Mo - 0.15% & V - 0.08%  
 (Cu+Ni+Cr+Mo+V= 1.0% Max)

**4. Mechanical - Grade A** : Min Yield Strength - 205 N/mm2, Tensile Strength - 330 N/mm2,

**5. Mechanical - Grade B** : Yeild Strength - 240 N/mm2, Tensile Strength - 415 N/mm2,



K.D INDUSTRIES INC.

# AS1074

## BLACK AND HOT DIP GALVANIZED STEEL PIPES

TUBE	SIZE		OD(SPECIFIED)		WALL THICKNESS (MM)	WEIGHT OF TUBE(Kg/Mtr)		PRESSURE BAR
	Inch	NB	MIN	MAX		PLAIN OR SCREWED ENDS	SCREWED AND SOCKETED	
LIGHT	1/2"	15	21.0	21.4	2.0	0.947	0.956	50
	3/4"	20	26.4	26.9	2.3	1.380	1.390	50
	1"	25	33.2	33.8	2.6	1.980	2.000	50
	1.1/4"	32	41.9	42.5	2.6	2.540	2.570	50
	1.1/2"	40	47.8	48.4	2.9	3.230	3.270	50
	2"	50	59.6	60.2	2.9	4.080	4.150	50
	2.1/2"	65	75.2	76.0	3.2	5.710	5.830	50
	3"	80	87.9	88.7	3.2	6.720	6.890	50
	4"	100	113.0	113.9	3.6	9.750	10.000	50
MEDIUM	1/2"	15	21.1	21.7	2.6	1.210	1.220	50
	3/4"	20	26.6	27.2	2.6	1.560	1.570	50
	1"	25	33.4	34.2	3.2	2.410	2.430	50
	1.1/4"	32	42.1	42.9	3.2	3.100	3.130	50
	1.1/2"	40	48.0	48.8	3.2	3.570	3.610	50
	2"	50	59.8	60.8	3.6	5.030	5.100	50
	2.1/2"	65	75.4	76.6	3.6	6.430	6.550	50
	3"	80	88.1	89.5	4.0	8.370	8.540	50
	4"	100	113.3	114.9	4.5	12.200	12.500	50
		5"	125	138.7	140.6	5.0	16.600	17.100
	6"	150	164.1	166.1	5.0	19.700	20.300	50
HEAVY	1/2"	15	21.1	21.7	3.2	1.440	1.450	50
	3/4"	20	26.6	27.2	3.2	1.870	1.880	50
	1"	25	33.4	34.2	4.0	2.940	2.960	50
	1.1/4"	32	42.1	42.9	4.0	3.800	3.830	50
	1.1/2"	40	48.0	48.8	4.0	4.380	4.420	50
	2"	50	59.8	60.8	4.5	6.190	6.260	50
	2.1/2"	65	75.4	76.6	4.5	7.930	8.050	50
	3"	80	88.1	89.5	5.0	10.300	10.500	50
	4"	100	113.3	114.9	5.4	14.500	14.800	50
		5"	125	138.7	140.6	5.4	17.900	18.400
	6"	150	164.1	166.1	5.4	21.300	21.900	50

### TOLERANCES

- 1. OUTSIDE DIAMETER : As per above table
- 2. STRAIGHTNESS : 0.2% of the length
- 3. MASS : For quantities of 150Mtr. and over of one size = ±4%, for single tube = +10%, -8%.
- 4. THICKNESS : As per standard
- 5. CHEMICAL COMPOSITION : %Max: S - 0.045% & P - 0.045%, CE - 0.40%.
- 6. MECHANICAL : UTS - 320 to 460 N/mm<sup>2</sup>, YS - 195 N/mm<sup>2</sup>, (minimum) & % EL - 20(minimum)
- 7. COLOR CODE : For Light--- Brown  
: For Medium---Blue  
: For Heavy---Red

TUBE	SIZE		OD(SPECIFIED)		WALL THICKNESS (MM)	WEIGHT OF TUBE(Kg/Mtr)		PRESSURE BAR
	Inch	NB	MIN	MAX		PLAIN OR SCREWED ENDS	SCREWED AND SOCKETED	
TYPE - L	1/2"	15	21.0	21.7	2.3	1.080	1.090	50
	3/4"	20	26.4	27.1	2.3	1.400	1.410	50
	1"	25	33.2	34	2.9	2.200	2.220	50
	1.1/4"	32	41.9	42.7	2.9	2.820	2.850	50
	1.1/2"	40	47.8	48.6	2.9	3.250	3.290	50
	2"	50	59.6	60.7	3.2	4.510	4.580	50
	2.1/2"	65	75.2	76.0	3.2	5.750	5.870	50
	3"	80	87.9	88.7	3.2	6.760	6.930	50
	3 1/2"	90	100.3	101.2	3.6	8.700	8.880	50
	4"	100	113.0	113.9	3.6	9.830	10.100	50
TYPE - L1	1/2"	15	21.0	21.7	2.3	1.080	1.090	50
	3/4"	20	26.4	27.1	2.3	1.390	1.400	50
	1"	25	33.2	34.0	2.9	2.200	2.220	50
	1.1/4"	32	41.9	42.7	2.9	2.820	2.850	50
	1.1/2"	40	47.8	48.6	2.9	3.240	3.280	50
	2"	50	59.6	60.7	3.2	4.490	4.560	50
	2.1/2"	65	75.2	76.3	3.2	5.730	5.850	50
	3"	80	87.9	89.4	3.6	7.550	7.720	50
TYPE - L2	1/2"	15	21.0	21.4	2.0	0.947	0.956	50
	3/4"	20	26.4	26.9	2.3	1.380	1.390	50
	1"	25	33.2	33.8	2.6	1.980	2.000	50
	1.1/4"	32	41.9	42.5	2.6	2.540	2.570	50
	1.1/2"	40	47.8	48.4	2.9	3.230	3.270	50
	2"	50	59.6	60.2	2.9	4.080	4.150	50
	2.1/2"	65	75.2	76.0	3.2	5.710	5.830	50
	3"	80	87.9	88.7	3.2	6.720	6.890	50
MEDIUM	1/2"	15	21.1	21.8	2.6	1.210	1.220	50
	3/4"	20	26.5	27.3	2.6	1.560	1.570	50
	1"	25	33.3	34.2	3.2	2.410	2.430	50
	1.1/4"	32	42.0	42.9	3.2	3.100	3.130	50
	1.1/2"	40	47.9	48.8	3.2	3.560	3.600	50
	2"	50	59.7	60.8	3.6	5.030	5.100	50
	2.1/2"	65	75.3	76.6	3.6	6.420	6.540	50
	3"	80	88.0	89.5	4.0	8.360	8.530	50
	4"	100	113.1	115.0	4.5	12.200	12.500	50
	5"	125	138.5	140.8	5.0	16.600	17.100	50
HEAVY	1/2"	15	21.1	21.8	3.2	1.440	1.450	50
	3/4"	20	26.5	27.3	3.2	1.870	1.880	50
	1"	25	33.3	34.2	4.0	2.930	2.950	50
	1.1/4"	32	42.0	42.9	4.0	3.790	3.820	50
	1.1/2"	40	47.9	48.8	4.0	4.370	4.410	50
	2"	50	59.7	60.8	4.5	6.190	6.260	50
	2.1/2"	65	75.3	76.6	4.5	7.930	8.050	50
	3"	80	88.0	89.5	5.0	10.300	10.500	50
	4"	100	113.1	115.0	5.4	14.500	14.800	50
	5"	125	138.5	140.8	5.4	17.900	18.400	50
6"	150	163.9	166.5	5.4	21.300	21.900	50	

**TOLERANCES**

**1. OUTSIDE DIAMETER**

: As per above table

**2. STRAIGHTNESS**

: Straightness shall not exceed 0.002 l.

**3. MASS**

: ±7.5% on bundles of 10 ton or more, for M and H series and Type L.

: 10% -8% on individual tubes for Types L1 and L2.

**4. THICKNESS**

: As per standard.

**5. CHEMICAL COMPOSITION**

: %Max: C- 0.20%, mN - 1.40%, S-0.03% & P- 0.035%.

**6. MECHANICAL**

: UTS - 320 to 520 N/mm<sup>2</sup>, YS - 195 N/mm<sup>2</sup>, (minimum) & % EL- 20(minimum)

**7. COLOR CODE**

: For TYPE L --- GREEN

: For TYPE L1 --- WHITE

: For TYPE L2 --- BROWN

: For MEDIUM --- BLUE

: FOR HEAVY --- RED



## BS 1387

### BLACK AND HOT DIP GALVANIZED STEEL PIPES

NOMINAL SIZE	DESIGNATION OF THREAD	OUTSIDE DIAMETER		THICKNESS	MASS OF BLACK TUBE	
		MIN	MAX		PLAIN Kg/m	SCREWED AND SOCKETED Kg/m
15	1/2"	21.0	21.4	2.0	0.947	0.956
20	3/4"	26.4	26.9	2.3	1.380	1.390
25	1"	33.2	33.8	2.6	1.980	2.000
32	1.1/4"	41.9	42.5	2.6	2.540	2.570
40	1.1/2"	47.8	48.4	2.9	3.230	3.270
50	2"	59.6	60.2	2.9	4.080	4.150
65	2.1/2"	75.2	76.0	3.2	5.710	5.830
80	3"	87.9	88.7	3.2	6.720	6.890
100	4"	113.0	113.9	3.6	9.750	10.000
15	1/2"	21.1	21.7	2.6	1.210	1.220
20	3/4"	26.6	27.2	2.6	1.560	1.570
25	1"	33.4	34.2	3.2	2.410	2.430
32	1.1/4"	42.1	42.9	3.2	3.100	3.130
40	1.1/2"	48.0	48.8	3.2	3.570	3.610
50	2"	59.8	60.8	3.6	5.030	5.100
65	2.1/2"	75.4	76.6	3.6	6.430	6.550
80	3"	88.1	89.5	4.0	8.370	8.540
100	4"	113.3	114.9	4.5	12.200	12.500
125	5"	138.7	140.6	5.0	16.600	17.100
15	1/2"	21.1	21.7	3.2	1.440	1.450
20	3/4"	26.6	27.2	3.2	1.870	1.880
25	1"	33.4	34.2	4.0	2.940	2.960
32	1.1/4"	42.1	42.9	4.0	3.800	3.830
40	1.1/2"	48.0	48.8	4.0	4.380	4.420
50	2"	59.8	60.8	4.5	6.190	6.260
65	2.1/2"	75.4	76.6	4.5	7.930	8.050
80	3"	88.1	89.5	5.0	10.300	10.500
100	4"	113.3	114.9	5.4	14.500	14.800
125	5"	138.7	140.6	5.4	17.900	18.400

#### TOLERANCES

OUTSIDE DIAMETER		: AS GIVEN IN TABLE
THICKNESS	LIGHT	: As per standard
	MEDIUM & HEAVY	: As per standard
MASS	LIGHT	: For each tube, the weight ( mass) tolerance is -8% / +10%.
		: For ≥150m quantity of one size, the average weight (mass) tolerance is ±4%.
	MEDIUM & HEAVY	: For each tube, the weight ( mass) tolerance is -8% / +10%.
		: For ≥150m quantity of one size, the average weight (mass) tolerance is ±4%.
CHEMICAL COMPOSITION		: %Max. C-0.20%, Mn- 1.20%, P- 0.045%, S- 0.045%
MECHANICAL PROPERTIES		: UTS - 320 to 460 N/mm <sup>2</sup> , YS - 195 N/mm <sup>2</sup> , (minimum)& % EL- 20(minimum).

# PRODUCTS

Technical Data of Black and Hot Dip Galvanized Steel Pipes conforming to  
ASTM A795 SCH 10, ASTM A53 SCH 40, 80 Grade A & Grade B

Nominal Pipe Size		Outside diameter		Wall thickness		Nominal Weight (mass) per unit Length, Plain End			Test Pressure for Plain End Pipe				Nominal Weight (Mass) per unit Length, Threaded & Coupled			Test Pressure for Threaded & Coupled			
		Standard		Standard					Grade A		Grade B		kg/mtr	lb/ft	Schedule	Grade A		Grade B	
Inch	mm	Inch	mm	Inch	mm	kg/mtr	lb/ft	Schedule	psi	kpa	psi	kpa				psi	kpa	psi	kpa
1/2"	15	0.840	21.3	0.083	2.11	1	0.670	10											
				0.109	2.77	1.27	0.850	40	700	4800	700	4800	1.27	0.860	40	700	4800	700	4800
3/4"	20	1.050	26.7	0.083	2.11	1.28	0.860	10	700	4800	700	4800							
				0.113	2.87	1.69	1.130	40	700	4800	700	4800	1.69	1.140	40	700	4800	700	4800
1"	25	1.315	33.4	0.109	2.77	2.09	1.400	10	700	4800	700	4800							
				0.133	3.38	2.50	1.680	40	700	4800	700	4800	2.5	1.690	40	700	4800	700	4800
1.1/4"	32	1.660	42.2	0.179	4.55	3.24	2.170	80	850	5900	850	5900	3.25	2.19	80	850	5900	850	5900
				0.109	2.77	2.69	1.810	10	1000	6890	1000	6890							
1.1/2"	40	1.900	48.3	0.140	3.56	3.39	2.270	40	1200	8300	1300	9000	3.4	2.280	40	1000	6900	1100	7600
				0.191	4.85	4.47	3.000	80	1800	12400	1900	13100	4.49	3.03	80	1500	10300	1600	11000
2"	50	2.375	60.3	0.109	2.77	3.11	2.090	10	1000	6890	1000	6890							
				0.145	3.68	4.05	2.720	40	1200	8300	1300	9000	4.04	2.740	40	1000	6900	1100	7600
2.1/2"	65	2.875	73.0	0.200	5.08	5.41	3.630	80	1800	12400	1900	13100	5.39	3.65	80	1500	10300	1600	11000
				0.109	2.77	3.93	2.640	10	1000	6890	1000	6890							
3"	80	3.500	88.9	0.154	3.91	5.44	3.660	40	2300	15900	2500	17200	5.46	3.680	40	2300	15900	2500	17200
				0.218	5.54	7.48	5.030	80	2500	17200	2500	17200	7.55	5.08	80	2500	17200	2500	17200
3.1/2"	90	4.000	101.6	0.120	3.050	5.26	3.530	10	1000	6890	1000	6890							
				0.203	5.160	8.63	5.800	40	2500	17200	2500	17200	8.67	5.850	40	2500	17200	2500	17200
4"	100	4.500	114.3	0.276	7.010	11.41	7.670	80	2500	17200	2500	17200	11.52	7.75	80	2500	17200	2500	17200
				0.120	3.050	6.46	4.340	10	1000	6890	1000	6890							
5"	125	5.563	141.3	0.216	5.490	11.29	7.580	40	2220	15300	2500	17200	11.35	7.680	40	2200	15200	2500	17200
				0.300	7.620	15.27	10.260	80	2500	17200	2500	17200	15.39	10.35	80	2500	17200	2500	17200
6"	150	6.625	168.3	0.120	3.050	7.41	4.980	10	1200	8270	1200	8270							
				0.226	5.740	13.57	9.120	40	2030	14000	2370	16300	13.71	9.270	40	2000	13800	2400	16500
6"	150	6.625	168.3	0.318	8.080	18.63	12.520	80	2800	19300	2800	19300	18.82	12.67	80	2800	19300	2800	19300
				0.120	3.050	8.37	6.620	10	1200	8270	1200	8270							
6"	150	6.625	168.3	0.237	6.020	16.07	10.800	40	1900	13100	2210	15200	16.23	10.920	40	1900	13100	2200	15200
				0.337	8.560	22.32	15.000	80	2700	18600	2800	19300	22.60	15.20	80	2700	18600	2800	19300
6"	150	6.625	168.3	0.134	3.400	11.58	7.780	10	1200	8270	1200	8270							
				0.258	6.550	21.77	14.630	40	1670	11500	1950	13400	22.07	14.900	40	1700	11700	1900	13100
6"	150	6.625	168.3	0.134	3.400	13.85	9.300	10	1000	6890	1000	6890							
				0.280	7.110	28.26	18.990	40	1520	10500	1780	12300	28.58	19.340	40	1500	10300	1800	12400

<b>1. Thickness Tolerance</b>	: The minimum wall thickness at any point shall be not more than 12.5% under the specified wall thickness	<b>5. Chemical Composition ASTM A53 Grade B</b>	: % Max C -0.30%, Mn 1.20%, S - 0.045%, P -0.050%, Cu - 0.40%, Ni - 0.40%, Cr - 0.40%, Mo - 0.15% & V - 0.08% (Cu+Ni+Cr+Mo+V= 1.0% Max)
<b>2. Internal Debeading</b>	: 2" and above	<b>6. Chemical Composition ASTM A795 Grade B</b>	: % Max C- 0.30%, Mn- 1.20%, P-0.035%, S- 0.035%
<b>3. Chemical Composition ASTM A53 Grade A</b>	: % Max C - 0.25%, Mn 0.95%, S - 0.045%, P - 0.050%, Cu - 0.40% Ni - 0.40%, Cr - 0.40%, Mo - 0.15% & V - 0.08% (Cu+Ni+Cr+Mo+V=1.0% max)	<b>7. Mechanical - Grade A</b>	: Min Yield Strength - 205 N/mm2, Tensile Strength - 330 N/mm2, Elongation 24-36%
<b>4. Chemical Composition ASTM A795 Grade A</b>	: % Max C- 0.25%, Mn- 0.95%, P-0.035%, S- 0.035%	<b>8. Mechanical - Grade B</b>	: Yeild Strength - 240 N/mm2, Tensile Strength - 415 N/mm2, Elongation 19-30%



# Products

ASTM A795.  
Dimensions and Weights for Light-Weight Fire Protection Pipe-Schedule 10

NPS Designator	DN Designator	Outside Diameter		Nominal Wall Thickness		Weight Plain End	
		inch	mm	inch	mm	lb/ft	kg/m
3/4	20	1.050	26.7	0.083	2.11	0.86	1.28
1	25	1.315	33.4	0.109	2.77	1.41	2.09
1.1/4	32	1.660	42.2	0.109	2.77	1.81	2.69
1.1/2	40	1.900	48.3	0.109	2.77	2.09	3.11
2	50	2.375	60.3	0.109	2.77	2.64	3.93
2.1/2	65	2.875	73.0	0.120	3.05	3.53	5.26
3	80	3.500	88.9	0.120	3.05	4.34	6.46
3.1/2	90	4.000	101.6	0.120	3.05	4.98	7.41
4	100	4.500	114.3	0.120	3.05	5.62	8.37
5	125	5.563	141.3	0.134	3.40	7.78	11.58
6	150	6.625	168.3	0.134	3.40	9.30	13.85

**1. Tolerance**

- a) On thickness :The minimum wall thickness at any point shall be not more than 12.5% under the specified wall thickness.
- b) On Diameter : For NPS 1 1/2" & under any point shall not vary more than +0.4 mm -0.8mm.  
: For NPS 2" & above shall not vary more than +/-1% from the standard specified.
- c) On weight : The weight of the pipe shall not vary more than +/-5% of the specified weight.

WT-40  
Dimensions & Strength Characteristics

Fence Industry	Decimal OD Equivalent		Pipe Wall Thickness		Weight		Section Modulus		x	Min. Yield Strength	=	Max. Bending Moment	Calculated Load (Lbs.)				
	OD	in.	(mm)	in.	(mm)	lb/ ft.	(kg/ m)	in <sup>3</sup> .					(mm <sup>3</sup> )	psi	(MPa)	=	lb./ in.
									x							4'	6'
1 5/2"	1.660	42.16	0.111	2.82	1.84	2.74	0.1962	4.98	x	50000	345	=	9810	327	204	136	
1 7/8"	1.900	48.26	0.120	3.05	2.28	3.39	0.2810	7.14	x	50000	345	=	14050	468	293	195	
2 3/2"	2.375	60.33	0.130	3.30	3.12	4.64	0.4881	12.40	x	50000	345	=	24405	814	508	339	
2 7/2"	2.875	73.03	0.160	4.06	4.64	6.91	0.8778	22.30	x	50000	345	=	43890	1463	914	610	
3 1/4"	3.500	88.90	0.160	4.06	5.71	8.50	1.3408	34.06	x	50000	345	=	67042	2235	1397	931	
4"	4.000	101.60	0.160	4.06	6.56	9.76	1.7820	45.26	x	50000	345	=	89098	2970	1856	1237	

ASTM A795.  
Dimensions and Weights for Standard-Weight Fire Protection Pipe-Schedule 30 & 40

NPS Designator	DN Designator	Specified Outside Diameter		Nominal Wall Thickness		Weight Plain End		Weight Threaded & Coupled	
		inch	mm	inch	mm	lb/ft	kg/m	lb/ft	kg/m
1/2	15	0.840	21.3	0.109	2.77	0.85	1.27	0.85	1.27
3/4	20	1.050	26.7	0.113	2.87	1.13	1.69	1.13	1.68
1	25	1.315	33.4	0.133	3.38	1.68	2.50	1.68	2.50
1.1/4	32	1.660	42.2	0.140	3.56	2.27	3.39	2.28	3.40
1.1/2	40	1.900	48.3	0.145	3.68	2.72	4.05	2.73	4.07
2	50	2.375	60.3	0.154	3.91	3.66	5.45	3.69	5.50
2.1/2	65	2.875	73.0	0.203	5.16	5.80	8.64	5.83	8.68
3	80	3.500	88.9	0.216	5.49	7.58	11.29	7.62	11.35
3.1/2	90	4.000	101.6	0.226	5.74	9.12	13.58	9.21	13.71
4	100	4.500	114.3	0.237	6.02	10.80	16.09	10.91	16.25
5	125	5.563	141.3	0.258	6.55	14.63	21.79	14.82	22.07
6	150	6.625	168.3	0.280	7.11	18.99	28.29	19.20	28.60

**2. Chemical Composition Grade A** : %Max C - 0.25%, Mn 0.95%, S - 0.035%, P - 0.035%

**3. Chemical Composition Grade B** : %Max C - 0.30%, Mn 1.20%, S - 0.035%, P - 0.035%

# Products

Technical Data of Square and Rectangle Hollow Section conforming to the specification ASTM A500 Grade A.

Size		Thickness		Section Weight Details	
mm	inches	mm	inches	kg/mtr	lb/ft
19 X 19	3/4 X 3/4	1.20	0.047	0.641	0.431
		1.50	0.059	0.778	0.523
		1.80	0.071	0.910	0.609
		2.00	0.079	0.990	0.663
		2.50	0.098	1.170	0.785
		3.00	0.118	1.330	0.890
25 X 25	1 X 1	1.20	0.047	0.867	0.583
		1.50	0.059	1.060	0.712
		1.80	0.071	1.245	0.837
		2.00	0.079	1.360	0.914
		2.50	0.098	1.640	1.102
		3.00	0.118	1.890	1.270
30 X 30	1 1/5 X 1 1/5	1.20	0.047	0.867	0.710
		1.50	0.059	1.060	0.872
		1.80	0.071	1.245	1.027
		2.00	0.079	1.360	1.128
		3.00	0.118	2.360	1.586
		4.00	0.157	2.940	1.977
31 X 31	1 1/4 X 1 1/4	1.20	0.047	1.094	0.735
		1.50	0.059	1.340	0.900
		1.80	0.071	1.584	1.064
		2.00	0.079	1.740	1.169
		2.50	0.098	2.111	1.419
		3.00	0.118	2.455	1.650
38 X 38	1 1/2 X 1 1/2	1.20	0.047	1.357	0.912
		1.50	0.059	1.673	1.124
		1.80	0.071	1.980	1.330
		2.00	0.079	2.179	1.464
		2.50	0.098	2.660	1.787
		3.00	0.118	3.114	2.093
		3.50	0.138	3.544	2.381
		4.00	0.157	3.946	2.652

Technical Data of Square and Rectangle Hollow Section conforming to the specification ASTM A500 Grade A.

Size		Thickness		Section Weight Details	
mm	inches	mm	inches	kg/mtr	lb/ft
40 x 40	1 3/5 x 1 3/5	2.00	0.079	2.310	1.552
		2.50	0.098	2.820	1.895
		3.00	0.118	3.300	2.217
		4.00	0.157	4.200	2.822
50 X 50	2 X 2	1.20	0.047	1.810	1.216
		1.50	0.059	2.239	1.505
		1.80	0.071	2.659	1.787
		2.00	0.079	2.934	1.972
		2.50	0.098	3.602	2.420
		3.00	0.118	4.246	2.853
		3.50	0.138	4.863	3.268
		4.00	0.157	5.454	3.665
60 x 60	2 1/3 x 2 1/3	4.50	0.177	6.020	4.045
		5.00	0.197	6.560	4.408
		2.00	0.079	3.560	2.392
		2.50	0.098	4.390	2.950
75 X 75	3 X 3	3.00	0.118	5.190	3.488
		4.00	0.157	6.710	4.509
		1.80	0.071	4.072	2.736
		2.00	0.079	4.504	3.027
		2.30	0.091	5.144	3.457
		2.50	0.098	5.565	3.740
		3.00	0.118	6.601	4.436
		3.50	0.138	7.610	5.114
		4.00	0.157	8.594	5.775
		4.50	0.177	9.552	6.419
5.00	0.197	10.485	7.046		
6.00	0.236	12.273	8.247		

Size		Thickness		Section Weight Details	
mm	inches	mm	inches	kg/mtr	lb/ft
80 X 80	3 1/7 X 3 1/7	1.80	0.071	4.354	2.926
		2.00	0.079	4.818	3.238
		2.30	0.091	5.505	3.699
		2.50	0.098	5.958	4.004
		3.00	0.118	7.072	4.752
		3.50	0.138	8.160	5.483
		4.00	0.157	9.223	6.198
		4.50	0.177	10.259	6.894
		5.00	0.197	11.270	7.573
		5.50	0.217	12.256	8.236
100 X100	4 X4	2.00	0.079	6.074	4.082
		2.50	0.098	7.527	5.058
		3.00	0.118	8.956	6.018
		3.50	0.138	10.358	6.960
		4.00	0.157	11.734	7.885
		4.50	0.177	13.085	8.793
		5.00	0.197	14.410	9.683
		5.50	0.217	15.709	10.556
		6.00	0.236	16.982	11.411
		6.50	0.256	18.231	12.251
125 X 125	5 X 5	2.00	0.079	7.644	5.137
		2.50	0.098	9.490	6.377
		3.00	0.118	11.311	7.601
		3.50	0.138	13.105	8.806
		4.00	0.157	14.874	9.995
		4.50	0.177	16.617	11.166
		5.00	0.197	18.335	12.321
		5.50	0.217	20.026	13.457
		6.00	0.236	21.693	14.577
		6.50	0.256	23.333	15.679
7.00	0.276	24.947	16.764		
7.50	0.295	26.536	17.831		

Size		Thickness		Section Weight Details	
mm	inches	mm	inches	kg/mtr	lb/ft
40 X 20	1 3/5 X 3/4	1.50	0.059	1.297	0.872
		1.80	0.071	1.528	1.027
		2.00	0.079	1.678	1.128
		2.50	0.098	2.032	1.365
		3.00	0.118	2.362	1.587
50 X 25	2 X 1	1.50	0.059	1.650	1.109
		1.80	0.071	1.952	1.312
		2.00	0.079	2.148	1.443
		2.50	0.098	2.621	1.761
50 X 40	2 X 1 3/5	3.00	0.118	3.068	2.062
		1.50	0.059	2.000	1.344
		1.80	0.071	2.376	1.597
		2.00	0.079	2.619	1.760
		2.50	0.098	3.210	2.157
60 X 30	2 1/3 X 1 1/5	3.00	0.118	3.774	2.536
		1.50	0.059	2.000	1.344
		1.80	0.071	2.376	1.597
		2.00	0.079	2.619	1.760
		2.50	0.098	3.210	2.157
60 X 40	2 1/3 X 1 3/5	3.00	0.118	3.774	2.536
		1.50	0.059	2.239	1.505
		1.80	0.071	2.659	1.787
		2.00	0.079	2.934	1.972
80 X 40	3 1/7 X 1 3/5	2.50	0.098	3.603	2.421
		3.00	0.118	4.246	2.853
		1.50	0.059	2.709	1.820
		1.80	0.071	3.220	2.164
		2.00	0.079	3.560	2.392
		2.50	0.098	4.390	2.950
		3.00	0.118	5.187	3.486
		3.50	0.138	5.962	4.006
		4.00	0.157	6.709	4.508
		4.80	0.189	7.853	5.277
5.00	0.197	8.130	5.463		

Technical Data of Square and Rectangle Hollow Section conforming to the specification ASTM A500 Grade A.

Size		Thickness		Section Weight Details	
mm	inches	mm	inches	kg/mtr	lb/ft
80 X 60	3 1/7 X 2 1/3	2.00	0.059	4.190	2.816
		2.50	0.071	5.170	3.474
		3.00	0.079	6.130	4.119
		4.00	0.098	7.970	5.356
		5.00	0.118	9.700	6.518
100 x 40	4 x 1 3/5	2.50	0.098	5.170	3.474
		3.00	0.118	6.130	4.119
		4.00	0.157	7.970	5.356
100 X 50	4 X 2	2.00	0.079	4.504	3.027
		2.30	0.091	5.144	3.457
		2.50	0.098	5.565	3.740
		3.00	0.118	6.601	4.436
		3.50	0.138	7.610	5.114
		4.00	0.157	8.595	5.776
		4.50	0.177	9.553	6.419
		5.00	0.197	10.485	7.046
		6.00	0.236	12.273	8.247
120 X 60	4 1/16 X 2 1/3	2.00	0.079	5.446	3.660
		2.30	0.091	6.227	4.184
		2.50	0.098	6.743	4.531
		3.00	0.118	8.014	5.385
		3.50	0.138	9.259	6.222
		4.00	0.157	10.479	7.042
		4.50	0.177	11.672	7.843
		5.00	0.197	12.840	8.628
		5.50	0.217	13.983	9.396
		6.00	0.236	15.099	10.146
		7.00	0.276	17.254	11.594

Technical Data of Square and Rectangle Hollow Section conforming to the specification ASTM A500 Grade A.

Size		Thickness		Section Weight Details	
mm	inches	mm	inches	kg/mtr	lb/ft
120 X 100	4 1/16 X 4	2.00	0.079	6.702	4.503
		2.30	0.091	7.671	5.155
		2.50	0.098	8.313	5.586
		3.00	0.118	9.898	6.651
		3.50	0.138	11.457	7.699
		4.00	0.157	12.991	8.729
		4.50	0.177	14.498	9.742
		5.00	0.197	15.980	10.738
		5.50	0.217	17.437	11.717
125 X 50	5 X 2	6.00	0.236	18.867	12.678
		7.00	0.276	21.650	14.548
		2.00	0.079	5.289	3.554
		2.50	0.098	6.546	4.399
		3.00	0.118	7.778	5.227
		3.50	0.138	8.984	6.037
		4.00	0.157	10.165	6.830
125 X 75	5 X 3	4.50	0.177	11.319	7.606
		5.00	0.197	12.448	8.365
		5.50	0.217	13.551	9.106
		6.00	0.236	14.628	9.830
		7.00	0.276	16.705	11.225
		2.00	0.079	6.074	4.081
		2.50	0.098	7.528	5.058
		3.00	0.118	8.956	6.018
		3.50	0.138	10.358	6.960
		4.00	0.157	11.735	7.885
		4.50	0.177	13.085	8.793
5.00	0.197	14.410	9.683		
5.50	0.217	15.710	10.556		
6.00	0.236	16.983	11.412		
7.00	0.276	19.452	13.071		

# Tolerance

Size		Thickness		Section Weight Details	
mm	inches	mm	inches	kg/mtr	lb/ft
150 X 75	6 X 3	2.00	0.079	6.859	4.609
		2.50	0.098	8.509	5.718
		3.00	0.118	10.133	6.809
		3.50	0.138	11.732	7.883
		4.00	0.157	13.305	8.940
		4.50	0.177	14.852	9.980
		5.00	0.197	16.373	11.002
		5.50	0.217	17.868	12.007
		6.00	0.236	19.338	12.994
		7.00	0.276	22.200	14.918
150 X 100	6 X 4	2.00	0.079	7.644	5.136
		2.30	0.091	8.755	5.883
		2.50	0.098	9.490	6.377
		3.00	0.118	11.311	7.600
		3.50	0.138	13.106	8.807
		4.00	0.157	14.875	9.995
		4.50	0.177	16.618	11.167
		5.00	0.197	18.335	12.321
		5.50	0.217	20.027	13.458
		7.00	0.276	24.947	16.764

## Tolerances Outer Dimensions

Specified Outside Large Flat Dimension Inch {mm}	Permissible Variations Over and Under Specified Outside Flat Dimensions Inch {mm}
2.1/2" [63.5] or under	0.020 [0.51]
Over 2.1/2" to 3.1/2 [63.5 to 88.9], incl	0.025 [0.64]
Over 3.1/2" to 5.1/2 [88.9 to 139.7], incl	0.030 [0.76]
Over 5.1/2 [139.7]	0.01 times large flat dimension

- 1. Thickness** : + / - 10% of Wall Thickness
- 2. Squareness of Sides** : 90° + / - 2°
- 3. Corner Radius** : 3 times Wall Thickness (Maximum)
- 4. Straightness** : 1mm in 500 mm
- 5. Twist** : 2 mm plus 0.5 mm per mtr length (Maximum)
- 6. Mechanical** : Yield Strength: 270 N/mm2 (Min) Tensile Strength : 310 N/mm2 (Min)  
Elongation: 25% Minimum on 2.0" Gauge Length
- 7. Chemical** : C 0.26% Max, Mn 1.35% Max, Cu 0.20% Min, P 0.035% Max, Su 0.035% Max

# Certification



ISO 9001:2019



ISO 14001:2015



ISO 18001:2015



UAE Civil Defence



NSF International



Saber



Underwriters Laboratories



Conformité Européenne



FM Approval

**Applications**



Fencing



Scaffolding



Parking Shade



Handrail

**Applications**



Water Line Pipes



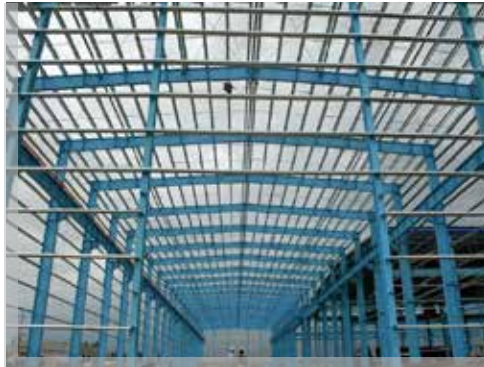
Sprinkler Pipes



Oil & gas



Irrigation & Agriculture



Engineering



Fabrication

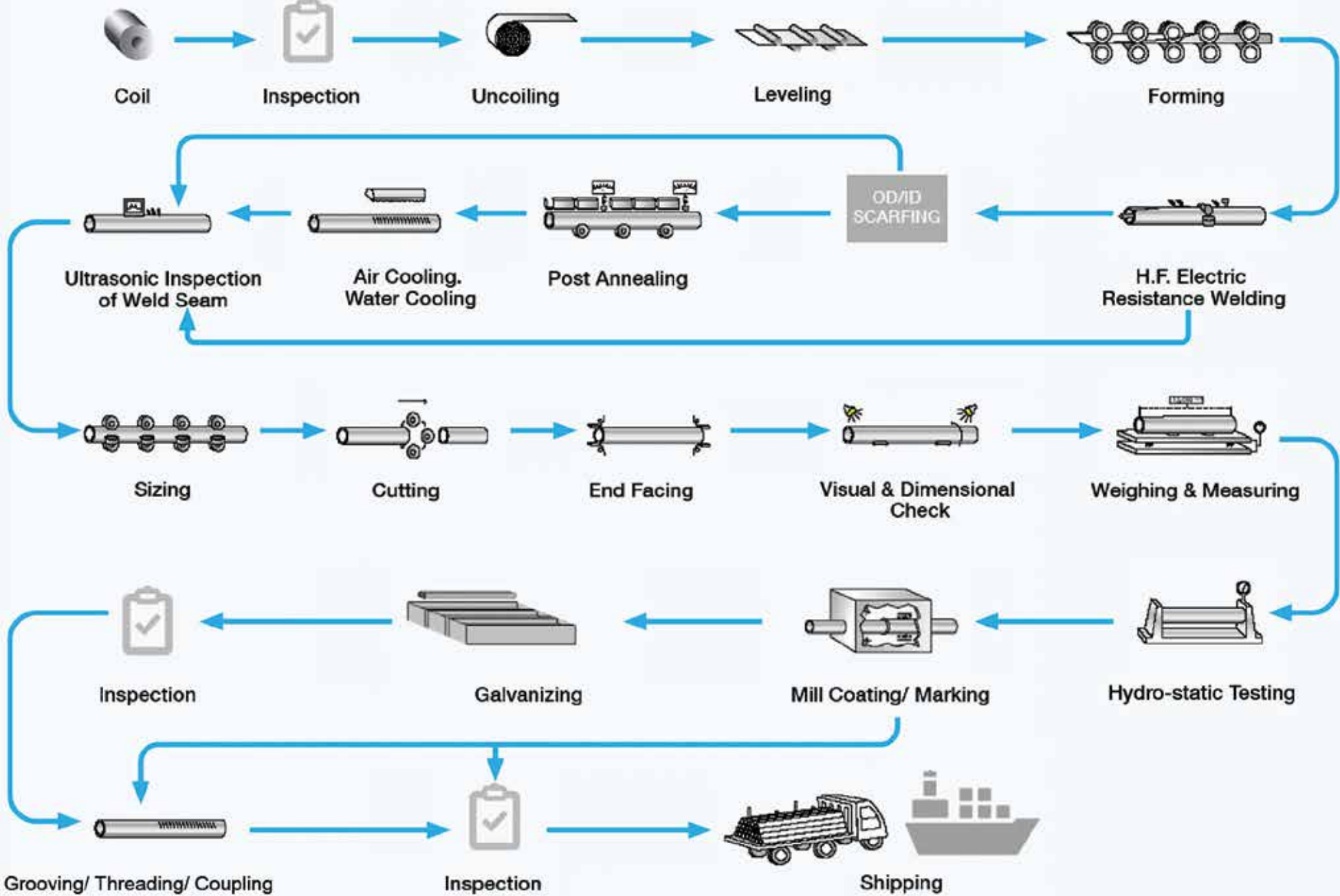


Boring



Furniture

# Manufacturing Process











## K.D. INDUSTRIES INC.



Jebel Ali Free Zone  
P.O.Box 17810, Dubai, United Arab Emirates  
**T:** +971 4 883 3707 **F:** +971 4 883 3705  
**E:** [info@kdindustriesinc.com](mailto:info@kdindustriesinc.com)  
**W:** [www.kdindustriesinc.com](http://www.kdindustriesinc.com)

 24.958665, 55.066915  
+24° 57' 31.19", +55° 4' 0.89"