

STEEL PIPES FOR FIRE SPRINKLER SYSTEMS



ASTM A795 Schedule 7 : 1" - 4"

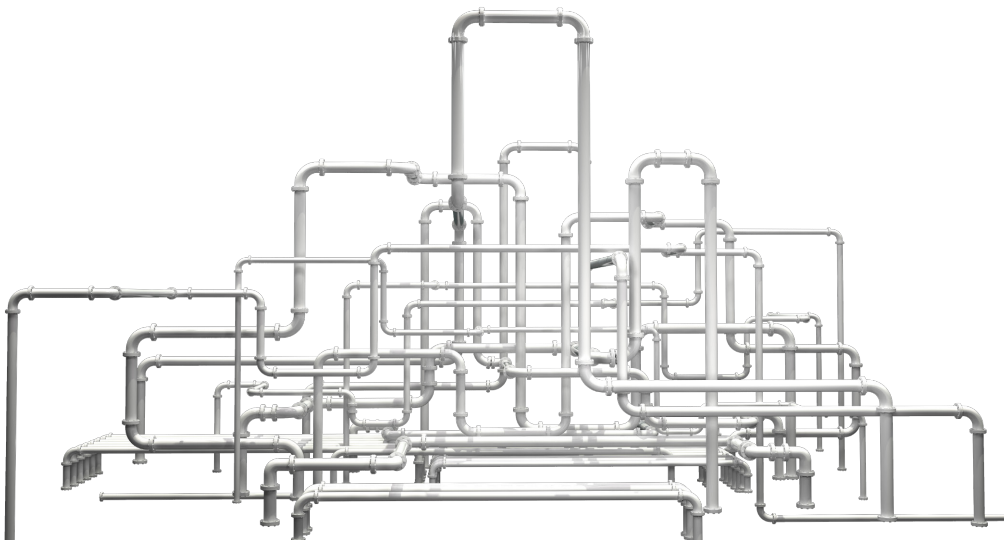
1", 1 1/4", 1 1/2", 2",
2 1/2", 3", 4" and 6"

ASTM A795 A53 Schedule 10 : 3/4" - 8"

3/4", 1", 1 1/4", 1 1/2", 2",
2 1/2", 3", 3 1/2", 4", 5", 6", 8"

ASTM A795 A53 Schedule 40 : 1/2" - 12"

1/2", 3/4", 1", 1 1/4", 1 1/2",
2", 2 1/2", 3", 3 1/2", 4", 5",
6", 8", 10", 12"



STEEL PIPES FOR FIRE SPRINKLER SYSTEMS

Chemical Composition

	Max
Carbon	0.25
Manganese	0.95
Phosphorus	0.035
Sulphur	0.035

Mechanical Properties

	Min
Tensile	-
Yield	-
Elongation	-



ASTM A795 SCHEDULE 10, TYPE E, GRADE A

Nominal Size		OD	Wall Thickness	Weight Plain-end		Rated Working Pressure	Hydro Test Pressure
mm	inch	mm	mm	kg/m	lb/ft	psi	psi
20	3/4"	26.70	2.11	1.28	0.86	300	1200
25	1"	33.40	2.77	2.09	1.41	300	1200
32	1 1/4"	42.20	2.77	2.69	1.81	300	1200
40	1 1/2"	48.30	2.77	3.11	2.09	300	1200
50	2"	60.30	2.77	3.93	2.64	300	1200
65	2 1/2"	73.00	3.05	5.26	3.53	300	1200
80	3"	88.90	3.05	6.46	4.34	300	1200
90	3 1/2"	101.60	3.05	7.41	4.98	300	1200
100	4"	114.30	3.05	8.37	5.62	300	1200
125	5"	141.30	3.40	11.58	7.78	300	1200
150	6"	168.30	3.40	13.85	9.30	300	1200

TOLERANCE

OD	NPS ≤ 1 1/2 in. (40 mm) : ± 0.016 in. (0.41 mm) NPS ≥ 2 in. (50 mm) : ±1% from specified OD
WT	- 12.5%, + not limit
Weight	± 5%

STEEL PIPES FOR FIRE SPRINKLER SYSTEMS

Chemical Composition

	Max
Carbon	0.25
Manganese	0.95
Phosphorus	0.05
Sulphur	0.045

Mechanical Properties

	GRADE A	GRADE B
	Min	Min
Tensile	330 MPa	415 MPa
Yield	205 MPa	240 MPa
Elongation	22%	18%



ASTM A53 SCHEDULE 40, TYPE E, GRADE A, B

Nominal Size		OD	Wall Thickness	Weight Plain-end		Hydro Test Pressure
mm	inch	mm	mm	kg/m	lb/ft	psi
20	3/4"	26.70	2.87	1.69	1.13	1200
25	1"	33.40	3.38	2.50	1.68	1200
32	1 1/4"	42.20	3.56	3.39	2.27	1200
40	1 1/2"	48.30	3.68	4.05	2.72	1200
50	2"	60.30	3.91	5.44	3.66	1200
65	2 1/2"	73.00	5.16	8.63	5.80	1200
80	3"	88.90	5.49	11.29	7.58	1200
90	3 1/2"	101.60	5.74	13.57	9.12	1200
100	4"	114.30	6.02	16.07	10.80	1200
125	5"	141.30	6.55	21.77	14.63	1200
150	6"	168.30	7.11	28.26	18.99	1200

TOLERANCE

OD	NPS ≤ 1 1/2 in. (40 mm) : ± 0.016 in. (0.41 mm) NPS ≥ 2 in. (50 mm) : ±1% from specified OD
WT	- 12.5%, + not limit
Weight	± 10%

STEEL PIPES FOR ORDINARY PURPOSES AND PIPING SYSTEM

Chemical Composition

	GRADE A	GRADE B
	Max	Max
Carbon	0.25	0.30
Manganese	0.95	1.20
Phosphorus	0.05	0.05
Sulphur	0.045	0.045

Mechanical Properties

	GRADE A	GRADE B
	Min	Min
Tensile	330 MPa	415 MPa
Yield	205 MPa	240 MPa
Elongation	22%	18%



ASTM A53 SCHEDULE 40, TYPE E, GRADE A, B

Nominal Size		OD		Wall Thickness		Weight Plain-end		Hydro Test Pressure		Schedule
NPS	mm	inch	mm	inch	std	lb/ft	kg/m	Grade A	Grade B	
								psi	psi	
15	1/2"	0.84	21.3	0.083	2.11	0.67	0.997	700	700	10
				0.109	2.77	0.85	1.27	700	700	40(STD)
20	3/4"	1.05	26.7	0.083	2.11	0.86	1.28	700	700	10
				0.113	2.87	1.13	1.69	700	700	40(STD)
25	1"	1.315	33.4	0.109	2.77	1.40	2.08	700	700	10
				0.133	3.38	1.68	2.50	700	700	40(STD)
32	1-1/4"	1.66	42.2	0.109	2.77	1.81	2.69	1000	1000	10
				0.140	3.56	2.27	3.39	1200	1300	40(STD)
40	1-1/2"	1.90	48.3	0.109	2.77	2.09	3.11	1000	1000	10
				0.145	3.68	2.72	4.05	1200	1300	40(STD)
50	2"	2.375	60.3	0.109	2.77	2.64	3.93	1000	1000	10
				0.154	3.91	3.66	5.44	2300	2500	40(STD)
65	2-1/2"	2.875	73.0	0.120	3.05	3.53	5.25	1000	1000	10
				0.203	5.16	5.80	8.63	2500	2500	40(STD)
				0.276	7.01	7.67	11.41	2500	2500	80(XS)
80	3"	3.50	88.9	0.120	3.05	4.33	6.44	1000	1000	10
				0.125	3.18	4.51	6.72	1290	1500	10
				0.156	3.96	5.58	8.29	1600	1870	10
				0.188	4.78	6.66	9.92	1930	2260	10
				0.216	5.49	7.58	11.29	2220	2500	40(STD)
				0.250	6.35	8.69	12.93	2500	2500	40(STD)
				0.281	7.14	9.67	14.40	2500	2500	40(STD)
				0.300	7.62	10.26	15.27	2500	2500	80(XS)
90	3-1/2"	4.0	101.6	0.120	3.05	4.97	7.40	1080	1200	10
				0.125	3.18	5.18	7.72	1120	1310	10
				0.156	3.96	6.41	9.53	1400	1640	10
				0.188	4.78	7.66	11.41	1690	1970	10
				0.226	5.74	9.12	13.57	2030	2370	40(STD)
				0.250	6.35	10.02	14.92	2250	2500	40(STD)
				0.281	7.14	11.17	16.63	2500	2500	40(STD)
				0.318	8.08	12.52	18.63	2800	2800	80(XS)

STEEL PIPES FOR ORDINARY PURPOSES AND PIPING SYSTEM

Chemical Composition

Mechanical Properties

	GRADE A	GRADE B		GRADE A	GRADE B
	Max	Max		Min	Min
Carbon	0.25	0.30	Tensile	330 MPa	415 MPa
Manganese	0.95	1.20	Yield	205 MPa	240 MPa
Phosphorus	0.05	0.05	Elongation	22%	18%
Sulphur	0.045	0.045			



ASTM A53 SCHEDULE 40, TYPE E, GRADE A, B (CONTINUED)

Nominal Size		OD		Wall Thickness		Weight Plain-end		Hydro Test Pressure		Schedule
NPS	mm	inch	mm	inch	std	lb/ft	kg/m	Grade A	Grade B	
								psi	psi	
100	4"	4.50	114.3	0.120	3.05	5.61	8.35	960	1200	10
				0.125	3.18	5.85	8.71	1000	1170	10
				0.156	3.96	7.24	10.78	1250	1460	10
				0.188	4.78	8.67	12.91	1500	1750	10
				0.219	5.56	10.02	14.91	1750	2040	10
				0.237	6.02	10.80	16.07	1900	2210	40(STD)
				0.250	6.35	11.36	16.90	2000	2330	40(STD)
				0.281	7.14	12.67	18.87	2250	2620	40(STD)
				0.312	7.92	13.97	20.78	2500	2800	40(STD)
				0.337	8.56	15.00	22.32	2700	2800	80(XS)
125	5"	5.563	141.3	0.134	3.40	7.77	11.60	870	1200	10
				0.156	3.96	9.02	13.41	1010	1180	10
				0.188	4.78	10.80	16.09	1220	1420	10
				0.219	5.56	12.51	18.61	1420	1650	10
				0.258	6.55	14.63	21.77	1670	1950	40(STD)
				0.281	7.14	15.87	23.62	1820	2120	40(STD)
				0.312	7.92	17.51	26.05	2020	2360	40(STD)
0.344	8.74	19.19	28.57	2230	2600	40(STD)				
0.375	9.52	20.80	30.94	2430	2800	80(XS)				
150	6"	6.625	168.3	0.134	3.40	9.27	13.80	730	1200	10
				0.188	4.78	12.92	19.23	1020	1190	10
				0.219	5.56	14.98	22.29	1190	1390	10
				0.250	6.35	17.02	25.33	1360	1580	10
				0.280	7.11	18.97	28.26	1520	1780	40(STD)
				0.312	7.92	21.04	31.32	1700	1980	40(STD)
				0.344	8.74	23.08	34.39	1870	2180	40(STD)
				0.375	9.52	25.03	37.28	2040	2380	40(STD)
				0.432	10.97	28.57	42.56	2350	2470	80(XS)

TOLERANCE

OD	NPS ≤ 1 1/2 in. (40 mm) : ± 0.016 in. (0.41 mm)
	NPS ≥ 2 in. (50 mm) : ±1% from specified OD
WT	- 12.5%, + not limit
Weight	± 10%