

TECHNICAL DATA OF BLACK AND HOT DIP GALVANIZED STEEL PIPES CONFORMING TO ASTM A 53 GRADE A & B SCH-40 ASTM A795 GRADE A & B SCH – 40

Nominal Pipe Size	Outside Diameter		Wall Thickness		Weight Of Black Pipes				Test Pressure				Socket Dimensions				No. Of Pcs Per Lift	
	Standard		Standard		Plain End		Grade A		Grade B		In		Out		Dia			Min Length
	inch	mm	inch	mm	m/MT	lbs/ft	ft/MT	psi	kPa	psi	kPa	inch	mm	inch	mm	mm		
1/2	15	0.840	21.3	2.77	0.109	0.113	2.87	1.13	1941	700	4800	700	4800	1.063	27.0	1.500	38.	120
3/4	20	1.050	26.7	3.38	0.133	0.140	3.56	1.27	2177	700	4800	700	4800	1.313	33.4	1.563	39.7	84
1	25	1.315	33.4	3.68	0.145	0.154	3.91	1.41	2425	700	4800	700	4800	1.576	40.0	1.938	49.2	60
1.1/4	32	1.660	42.2	3.68	0.145	0.154	3.91	1.41	2425	700	4800	700	4800	1.900	48.3	2.000	50.8	42
1.1/2	40	1.900	48.3	3.68	0.145	0.154	3.91	1.41	2425	700	4800	700	4800	2.200	55.9	2.000	50.8	36
2	50	2.375	60.3	3.68	0.145	0.154	3.91	1.41	2425	700	4800	700	4800	2.750	69.8	2.063	52.4	26
2.1/2	65	2.875	73.0	3.68	0.145	0.154	3.91	1.41	2425	700	4800	700	4800	3.250	82.5	3.063	77.8	18
3	80	3.500	88.9	3.68	0.145	0.154	3.91	1.41	2425	700	4800	700	4800	4.000	101.6	3.188	81.0	14
3.1/2	90	4.000	101.6	3.68	0.145	0.154	3.91	1.41	2425	700	4800	700	4800	4.625	117.5	3.313	84.1	12
4	100	4.500	114.3	3.68	0.145	0.154	3.91	1.41	2425	700	4800	700	4800	5.000	127.0	3.438	87.3	10
5	125	5.563	141.3	3.68	0.145	0.154	3.91	1.41	2425	700	4800	700	4800	6.296	159.9	3.688	93.7	7
6	150	6.625	168.3	3.68	0.145	0.154	3.91	1.41	2425	700	4800	700	4800	7.390	187.7	4.938	125.4	7
8	200	8.625	219.1	3.68	0.145	0.154	3.91	1.41	2425	700	4800	700	4800	--	--	--	--	--

TECHNICAL DATA OF BLACK AND HOT DIP GALVANIZED STEEL PIPES CONFORMING TO ASTM A53 GRADE A & B SCHEDULE 80

Nominal Pipe Size	Outside Diameter		Wall Thickness		Weight Of Black Pipes				Test Pressure				No. Of Pcs Per Lift			
	Standard		Standard		Plain End		Grade A		Grade B		In			Out		
	inch	mm	inch	mm	m/MT	lbs/ft	ft/MT	psi	kPa	psi	kPa	inch		mm	inch	mm
1-1/2	40	1.900	48.30	0.200	5.08	1.85	606	1800	12400	1800	12400	1.900	48.30	1.900	48.30	36
2	50	2.375	60.3	0.218	5.54	2.41	753	2500	17200	2500	17200	2.500	63.5	2.500	63.5	26
2.1/2	65	2.875	73	0.276	7.01	2.41	753	2500	17200	2500	17200	2.500	63.5	2.500	63.5	18
3	80	3.500	88.9	0.300	7.62	3.14	987	2500	17200	2500	17200	2.500	63.5	2.500	63.5	14
4	100	4.500	114.3	0.337	8.56	4.50	1417	2700	18600	2700	18600	2.800	71.1	2.800	71.1	10

TECHNICAL DATA OF BLACK AND HOT DIP GALVANIZED STEEL PIPES CONFORMING TO ASTM A53 GRADE A & B/ ASTM A 795 GRADE A & B SCH-10

Nominal Pipe Size	Outside Diameter		Wall Thickness		Weight Of Black Pipes				Test Pressure				No. Of Pcs Per Lift			
	Standard		Standard		Plain End		Grade A		Grade B		In			Out		
	inch	mm	inch	mm	m/MT	lbs/ft	ft/MT	psi	kPa	psi	kPa	inch		mm	inch	mm
3/4	20	1.050	26.7	0.083	2.11	0.86	2563	700	4800	700	4800	0.700	17.8	0.700	17.8	84
1	25	1.315	33.4	0.109	2.77	1.41	439	700	4800	700	4800	0.700	17.8	0.700	17.8	60
1.1/4	32	1.660	42.2	0.109	2.77	1.81	555	1000	6900	1000	6900	0.700	17.8	0.700	17.8	42
1.1/2	40	1.900	48.3	0.109	2.77	2.09	624	1000	6900	1000	6900	0.700	17.8	0.700	17.8	36
2	50	2.375	60.3	0.109	2.77	2.64	835	1000	6900	1000	6900	0.700	17.8	0.700	17.8	26
2.1/2	65	2.875	73	0.120	3.05	3.53	624	1000	6900	1000	6900	0.700	17.8	0.700	17.8	18
3	80	3.500	88.9	0.120	3.05	4.34	508	1000	6900	1000	6900	0.700	17.8	0.700	17.8	14
3.1/2	90	4.000	101.6	0.120	3.05	4.98	443	1200	8300	1200	8300	0.700	17.8	0.700	17.8	12
4	100	4.500	114.3	0.120	3.05	5.62	392	1200	8300	1200	8300	0.700	17.8	0.700	17.8	10
5	125	5.563	141.3	0.134	3.4	7.78	283	1200	8300	1200	8300	0.700	17.8	0.700	17.8	7
6	150	6.625	168.3	0.134	3.4	9.30	237	1000	6900	1000	6900	0.700	17.8	0.700	17.8	7
8	200	8.625	219.1	0.188*	4.78	16.96	130	800	5500	800	5500	0.700	17.8	0.700	17.8	5
8	200	8.625	219.1	0.148	3.76	13.41	164	800	5500	800	5500	0.700	17.8	0.700	17.8	5

MECHANICAL PROPERTIES

Properties	Tensile Strength		Yield Strength	
	psi	MPa	psi	MPa
Grade-A	48000	330	30000	205
Grade-B	60000	415	35000	240

Min Percentage Elongation in 2"[50mm] rounded to nearest 1/2

$$e = 625,000[1940] \times (A^{0.2}/U^{0.9})$$

A= cross sectional area of the tension specimen, rounded to the nearest 0.01 inch²[1mm²], based on specified outside diameter. If the area is more than 0.75 inch² [500mm²], then the value 0.75 inch² [500mm²] shall be used.

U= specified minimum tensile strength, psi[MPa].

TOLERANCES

OUTSIDE DIAMETER

Size From	Size To	Tolerance inch (mm)	
		Positive	Negative
inch (mm)	inch (mm)		
1/2 (15)	1.1/2(40)	1/64 (0.40)	1/64 (0.40)
2 (50)	8 (200)	1% OF OD	1% OF OD

THICKNESS : 12.5% max under the nominal wall thickness.

WEIGHT : + / - 10% on calculated standard weight.

END FINISH : Square Cut Ends for sizes less than or equal to 1.1/2" NPS
Beveled Ends at 30° -0°/+5° for sizes 2" NPS and above.

BEND TEST : Applicable for sizes 2" NPS and below 90° bending radius should be 12 times of the tube diameter.

FLATTENING TEST : Applicable for sizes 2" NPS and above in three stages.

STAGE-1 : For weld ductility until 2/3 of outside dia of specimen tube.

STAGE-2 : For ductility of steel until 1/3 of outside dia of specimen tube.

STAGE-3 : Full flattening for testing of laminated and unsound material.

ZINC COATING : MINIMUM : 1.60 oz / ft² [490 GSM]

AVERAGE : 1.80 oz / ft² [550 GSM]



MARKING

1. METALLIC SPRINKLER PIPES

For ½" & ¾" ASTM A53 Grade A and Grade B SCH 40 and SCH 10


(UL) LISTED 3KBY STEEL AJSPC/ASTM A53/ASME SA53/SIZE/SCH 40/GRADE A /TYPE E/NDE/LENGTH/ HEAT NO...../OMAN.

For 1" to 8" ASTM A53 Grade A & B SCH 40

(UL) LISTED 3KBY STEEL  AJSPC/ASTM A53/ASTM A795/ ASME SA53/SIZE/ SCH 40/
APPROVED

GRADE /TYPE E /NDE/LENGTH/ HEAT NO/OMAN.

For 1" to 6" ASTM A53 Gr A/B & ASTM A795 Grade A/B SCH 10

(UL) LISTED 3KBY STEEL  AJSPC/ASTM A53/ASTM A795/SIZE/SCH 10/GRADE/TYPE E/NDE/
APPROVED
LENGTH / HEAT NO/ OMAN.

For 8" ASTM A53 Gr A/B & ASTM A795 Grade A/B 0.188" WALL THICKNESS

(UL) LISTED 3KBY STEEL AJSPC/ASTM A53/ASTM A795/SIZE 0.188"/GRADE/TYPE E/NDE/LENGTH/ HEAT NO/
OMAN.

2. GALVANIZED NSF 372 CERTIFIED PIPES

(Galvanized Steel Pipes: ½" to 3/4" diameter size in Schedule 40)

UND LAB CLFD STEEL PIPE NSF 372 MH49792 AJSPC/ASTM A53/ SIZE/SCH 40/GRADE/ TYPE E/NDE/LENGTH/ HEAT NO/OMAN.

(Galvanized Steel Pipes: 1" to 8" diameter size in Schedule 40)

UND LAB CLFD STEEL PIPE NSF 372 MH49792  AJSPC/ASTM A53/ASTM A795/SIZE/SCH 40/GRADE/
APPROVED
TYPE E/NDE/LENGTH/ HEAT NO/OMAN.

(Galvanized Steel Pipes: ½" to 8" diameter size in Schedule 10)

UND LAB CLFD STEEL PIPE NSF 372 MH49792 AJSPC/ASTM A53/ASTM A795/SIZE/SCH 10/GRADE/TYPE E/
NDE/LENGTH/ HEAT NO/OMAN.

NOTE: A) AJSPC – AL JAZEERA STEEL PRODUCTS CO. SAOG

3. BLACK STEEL NSF/ ANSI 61 AND NSF/ ANSI 372 CERTIFIED PIPES

(Black Steel Pipes) – ½" to 3/4" diameter in Schedule 40)

UL CLFD PIPE NSF 61/NSF 372 MH49792 AJSPC/ASTM A53/SIZE/ SCH 40/ GRADE /TYPE E/NDE/LENGTH/ HEAT NO/OMAN.

(Black Steel Pipes) – 1" to 3", 5" to 08" diameter in Schedule 40)

UL CLFD PIPE NSF 61/NSF 372 MH49792  AJSPC/ASTM A53/ASTM A795/ SIZE/ SCH 40/ GRADE/
APPROVED

TYPE E/NDE/LENGTH/ HEAT NO/OMAN.

(Black Steel Pipes – ½" to 3", 5" to 08" diameter in Schedule 10)

UL CLFD PIPE NSF 61/NSF 372 MH49792 AJSPC/ASTM A53/ASTM A795/ SIZE/SCH 10/ GRADE/ TYPE E/NDE/LENGTH/
HEAT NO/OMAN.