



MECHANICAL TUBING BUYER'S GUIDE



Tubing Procurement Just Got Easier

As your one stop shop for all mechanical tubing, American Piping Products offers a robust inventory of mechanical tubing and full range of value-added services to deliver application-ready products. This buyer's guide serves as a comprehensive reference for all available tubing products, along with key measurements, chemical properties, tolerances, and available value-added services.

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Manufacturing Processes

Manufactured in accordance with various ASTM specifications, including A106, A519, and A513, mechanical tubing is designed to provide strength and durability in many applications.

The journey from raw materials to refined mechanical tubing involves a series of intricate manufacturing processes that significantly influence the tubing's properties and performance. Understanding these processes sheds light on how different production techniques impact the final product, enabling you to make informed decisions in material selection.

Hot Rolling: A foundational method, hot rolling involves subjecting the material to high temperatures and passing it through rollers to shape it into the desired dimensions. The elevated temperatures in this process refine the material's internal structure, enhancing its mechanical strength.

Cold Drawing: In contrast, cold drawing involves pulling the tubing through a die at room temperature to achieve precise dimensions and a smooth finish. This process enhances the tubing's surface quality and imparts tighter tolerances, ideal for applications requiring high dimensional accuracy.

Seamless vs. Welded: Two primary approaches—seamless and welded—exist in tubing manufacturing. Seamless tubing is crafted from a single billet, ensuring uniformity and improved corrosion resistance due to the absence of welded seams. Welded tubing, on the other hand, involves joining or welding the ends of a hot-rolled coil to create a tube. High-precision welding techniques offer key cost advantages while maintaining structural integrity.

Annealing and Heat Treatment: Annealing involves heating the tubing and cooling it slowly to relieve stress, improve ductility, and refine the microstructure. Heat treatment processes can also be applied to enhance specific properties, such as hardness or toughness, tailored to the intended application.

Value-Added Services

American Piping Products provides a wide range of value-added services for our mechanical tubing customers, simplifying your procurement process and cutting down your material costs. Our available mechanical tubing services include:

- Cutting
- Deburring
- Plating
- Heat Treating
- Turning, boring & honing
- Laser cutting
- Drilling
- Machining
- Trepanning
- Grinding

Tube Sizing | A516 1026 Hot Finished Seamless

American Piping Products offers a wide range of mechanical tubing, with a variety of OD and wall thickness combinations to minimize machining and material waste. Below is a full list of available sizes in our most common mechanical tubing, A519 1026 hot-finished seamless.



3" – 3.75" Outside Diameter

OD	ID	Wall Thickness	Weight/ft.
3.000	2.000	.500	13.36
	1.500	.750	18.04
	1.250	.875	19.88
3.250	2.250	0.500	14.70
	2.000	0.625	17.54
	1.750	0.750	20.04
	1.500	0.875	22.22
	1.250	1.000	24.05
3.500	3.068	0.216	7.58
	2.900	0.300	10.26
	2.624	0.438	14.34
	2.500	0.500	16.03
	2.300	0.600	18.60
	2.250	0.625	19.21
	2.000	0.750	22.05
	1.750	0.875	24.55
3.750	1.500	1.000	26.72
	2.750	0.500	17.37
	2.500	0.625	20.88
	2.250	0.750	24.05
	2.000	0.875	26.89
	1.750	1.000	29.39

4" – 4.75" Outside Diameter

OD	ID	Wall Thickness	Weight/ft.
4.000	3.548	0.226	9.12
	3.364	0.318	12.52
	3.000	0.500	18.71
	2.750	0.625	22.55
	2.728	0.636	22.87
	2.500	0.750	26.06
	2.250	0.875	29.23
	2.000	1.000	32.07
	1.750	1.125	34.57
4.250	1.500	1.250	36.75
	3.250	0.500	20.04
	3.000	0.625	24.22
	2.750	0.750	28.06
	2.500	0.875	31.57
	2.250	1.000	34.74
	2.000	1.125	37.58
4.500	1.750	1.250	40.09
	4.026	0.237	10.80
	3.826	0.337	15.00
	3.624	0.438	19.02
	3.500	0.500	21.38
	3.438	0.531	22.53
	3.152	0.674	27.57
	3.000	0.750	30.07
	2.750	0.875	33.91
	2.500	1.000	37.42
	2.250	1.125	40.59
4.750	2.000	1.250	43.43
	1.500	1.500	48.11
	3.750	0.500	22.72
	3.500	0.625	27.56
	3.250	0.750	32.07
	3.000	0.875	36.25
	2.750	1.000	40.09
	2.500	1.125	43.60
4.750	2.250	1.250	46.77
	1.750	1.500	52.11

5" – 5.75" Outside Diameter

OD	ID	Wall Thickness	Weight/ft.
5.000	4.000	0.500	24.06
	3.750	0.625	29.23
	3.500	0.750	34.07
	3.250	0.875	38.58
	3.000	1.000	42.76
	2.750	1.125	46.60
	2.500	1.250	50.11
5.250	2.000	1.500	56.12
	4.250	0.500	25.39
	3.750	0.750	36.08
	3.500	0.875	40.92
	3.250	1.000	45.43
	3.000	1.125	49.61
	2.750	1.250	53.45
5.500	2.250	1.500	60.13
	4.500	0.500	26.73
	4.250	0.625	32.57
	4.000	0.750	38.08
	3.750	0.875	43.26
	3.500	1.000	48.11
	3.250	1.125	52.61
5.563	3.000	1.250	56.79
	2.500	1.500	64.14
	5.047	0.258	14.63
	4.813	0.375	20.80
	4.563	0.500	27.06
5.750	4.313	0.625	32.99
	4.063	0.750	38.56
	4.750	0.500	28.06
	4.500	0.625	34.24
	4.250	0.750	40.09
	4.000	0.875	45.60
	3.750	1.000	50.78
5.750	3.250	1.250	60.13
	2.750	1.500	68.15

6" – 6.75" Outside Diameter

OD	ID	Wall Thickness	Weight/ft.
6.00	5.000	0.500	29.40
	4.750	0.625	35.91
	4.500	0.750	42.09
	4.250	0.875	47.94
	4.000	1.000	53.45
	3.750	1.125	58.63
	3.500	1.250	63.47
	3.000	1.500	72.16
	2.500	1.750	79.51
6.25	2.000	2.000	85.52
	5.250	0.500	30.73
	4.750	0.750	44.10
	4.250	1.000	56.12
	4.000	1.125	61.63
	3.750	1.250	66.81
6.5	3.250	1.500	76.17
	5.500	0.500	32.07
	5.000	0.750	46.10
	4.750	0.875	52.61
	4.500	1.000	58.80
	4.250	1.125	64.64
	4.000	1.250	70.15
	3.500	1.500	80.18
6.63	3.000	1.750	88.86
	2.500	2.000	96.21
	6.065	0.280	18.99
	5.761	0.432	28.60
	5.501	0.562	36.43
6.75	5.187	0.719	45.39
	4.897	0.864	53.21
	5.750	0.500	33.41
	5.250	0.750	48.11
	5.000	0.875	54.95
	4.750	1.000	61.47
6.75	4.250	1.250	73.49
	3.750	1.500	84.18

7" – 7.75" Outside Diameter

OD	ID	Wall Thickness	Weight/ft.
7.00	6.000	0.500	34.74
	5.750	0.625	42.59
	5.500	0.750	50.11
	5.000	1.000	64.14
	4.500	1.250	76.83
	4.000	1.500	88.19
	3.500	1.750	98.21
	3.000	2.000	106.9
7.25	2.500	2.250	114.25
	5.750	0.750	52.11
	5.250	1.000	66.81
	4.750	1.250	80.18
7.50	4.250	1.500	92.20
	6.500	0.500	37.41
	6.250	0.625	45.93
	6.000	0.750	54.12
	5.750	0.875	61.97
	5.500	1.000	69.49
	5.000	1.250	83.52
	4.500	1.500	96.21
	4.000	1.750	107.57
	3.500	2.000	117.59
7.63	2.500	2.500	133.63
	6.625	0.500	38.08
	6.125	0.750	55.12
7.75	5.625	1.000	70.82
	6.750	0.500	38.75
	6.250	0.750	56.12
	5.750	1.000	72.16
	5.500	1.125	79.67
	5.250	1.250	86.86
	4.750	1.500	100.22
	4.250	1.750	112.25

8" – 8.75" Outside Diameter

OD	ID	Wall Thickness	Weight/ft.
8.00	7.000	0.500	40.10
	6.750	0.625	49.28
	6.500	0.750	58.13
	6.250	0.875	66.65
	6.000	1.000	74.83
	5.500	1.250	90.20
	5.000	1.500	104.23
	4.500	1.750	116.92
	4.000	2.000	128.28
	3.500	2.250	138.30
3.000	2.500	146.99	
8.25	7.250	0.500	41.42
	6.750	0.750	60.13
	6.500	0.875	68.98
	6.250	1.000	77.50
	5.750	1.250	93.54
	5.250	1.500	108.24
	4.250	2.000	133.63
8.50	7.500	0.500	42.76
	7.000	0.750	62.14
	6.750	0.875	71.32
	6.500	1.000	80.18
	6.250	1.125	88.69
	6.000	1.250	96.88
	5.500	1.500	112.25
	5.000	1.750	126.28
	4.500	2.000	138.97
3.500	2.500	160.35	
8.63	8.125	0.250	22.38
	7.981	0.322	28.58
	7.813	0.406	35.67
	7.625	0.500	43.43
	7.437	0.594	50.99
	7.187	0.719	60.77
	7.125	0.750	63.14
	7.001	0.812	67.82
	6.875	0.875	72.49
	6.813	0.906	74.76
	6.625	1.000	81.51
	6.375	1.125	90.20
	6.125	1.250	98.55
	5.625	1.500	114.25
5.125	1.750	128.61	
8.75	7.250	0.750	64.14
	7.000	0.875	73.66
	6.750	1.000	82.85
	6.250	1.250	100.22
	5.750	1.500	116.25
	4.750	2.000	144.31

9" – 9.75" Outside Diameter

OD	ID	Wall Thickness	Weight/ft.
9.00	8.000	0.500	45.43
	7.500	0.750	66.14
	7.250	0.875	75.99
	7.000	1.000	85.52
	6.750	1.125	94.71
	6.500	1.250	103.56
	6.000	1.500	120.26
	5.500	1.750	135.63
	5.000	2.000	149.66
	4.000	2.500	173.71
3.000	3.000	192.42	
9.25	7.750	0.750	68.15
	7.250	1.000	88.19
	6.750	1.250	106.9
	6.250	1.500	124.27
	5.250	2.000	155.01
9.50	8.500	0.500	48.11
	8.000	0.750	70.15
	7.750	0.875	80.68
	7.500	1.000	90.86
	7.250	1.125	100.72
	7.000	1.250	110.24
	6.500	1.500	128.28
	6.000	1.750	144.98
	5.500	2.000	160.35
	5.000	2.250	174.38
4.500	2.500	187.07	
3.500	3.000	208.46	
9.63	8.941	0.342	33.94
9.75	8.750	0.500	49.44
	8.250	0.750	72.16
	8.000	0.875	83.015
	7.750	1.000	93.54
	7.500	1.125	103.73
	7.250	1.250	113.58
	6.750	1.500	132.29

10" – 10.75" Outside Diameter

OD	ID	Wall Thickness	Weight/ft.
10.00	9.000	0.500	50.78
	8.500	0.750	74.16
	8.250	0.875	85.35
	8.000	1.000	96.21
	7.750	1.125	106.73
	7.500	1.250	116.92
	7.000	1.500	136.30
	6.500	1.750	154.34
	6.000	2.000	171.04
	5.500	2.250	186.41
10.25	5.000	2.500	200.44
	4.000	3.000	224.49
	8.750	0.750	76.17
	8.250	1.000	98.88
	7.750	1.250	120.26
	7.250	1.500	140.31
10.50	6.250	2.000	176.38
	5.750	2.250	192.42
	5.250	2.500	207.12
	9.500	0.500	53.45
	9.000	0.750	78.17
	8.500	1.000	101.55
	8.000	1.250	123.60
	7.500	1.500	144.32
	7.000	1.750	163.69
10.75	6.500	2.000	181.73
	6.000	2.250	198.43
	5.500	2.500	213.80
	4.500	3.000	240.53
	10.250	0.250	28.061
	10.020	0.365	40.52
	9.750	0.500	54.79
	9.562	0.594	64.49
	9.312	0.719	77.10
	9.250	0.750	80.17
	9.062	0.844	89.37
	8.750	1.000	104.23
	8.500	1.125	115.75
	8.250	1.250	126.94
7.750	1.500	148.32	
7.250	1.750	168.37	
6.750	2.000	187.08	
5.750	2.500	220.48	

11" – 11.75" Outside Diameter

OD	ID	Wall Thickness	Weight/ft.
11.00	10.000	0.500	56.12
	9.500	0.750	82.18
	9.000	1.000	106.9
	8.500	1.250	130.28
	8.000	1.500	152.33
	7.500	1.750	173.04
	7.000	2.000	192.42
	6.500	2.250	210.46
	6.000	2.500	227.16
11.25	5.000	3.000	256.56
	9.250	1.000	109.57
	8.750	1.250	133.63
	8.250	1.500	156.34
	7.750	1.750	177.72
11.50	7.250	2.000	197.76
	6.750	2.250	216.47
	10.500	0.500	58.79
	10.000	0.750	86.19
	9.500	1.000	112.25
	9.000	1.250	136.96
	8.500	1.500	160.35
	8.000	1.750	182.40
	7.500	2.000	203.11
11.75	7.000	2.250	222.48
	6.500	2.500	240.53
	5.500	3.000	272.59
	10.250	0.750	88.19
	9.750	1.000	114.92
	9.500	1.125	127.78
	9.250	1.250	140.31
	8.750	1.500	164.36
	8.500	1.625	175.88
11.75	8.250	1.750	187.07
	7.750	2.000	208.45
	7.500	2.500	247.21
	6.750	2.500	247.21

12" – 12.75" Outside Diameter

OD	ID	Wall Thickness	Weight/ft.
12.00	11.000	0.500	61.47
	10.500	0.750	90.20
	10.250	0.875	104.06
	10.000	1.000	117.59
	9.500	1.250	143.65
	9.000	1.500	168.37
	8.500	1.750	191.75
	8.000	2.000	213.80
	7.500	2.250	234.51
	7.000	2.500	253.89
12.25	6.000	3.000	288.63
	10.750	0.750	92.20
	10.250	1.000	120.26
	9.750	1.250	146.99
	9.250	1.500	172.38
	8.750	1.750	196.43
12.50	8.250	2.000	219.14
	7.250	2.500	260.57
	11.500	0.500	64.14
	11.000	0.750	94.21
	10.750	0.875	108.74
	10.500	1.000	122.93
	10.000	1.250	150.33
	9.500	1.500	176.38
	9.000	1.750	201.11
	8.500	2.000	224.49
12.75	8.000	2.250	246.54
	7.500	2.500	267.25
	6.500	3.000	304.66
	12.250	0.250	33.41
	12.000	0.375	49.61
	11.938	0.406	53.57
	11.750	0.500	65.47
	11.374	0.688	88.71
	11.250	0.750	96.21
	11.062	0.844	107.42
	11.000	0.875	111.07
	10.750	1.000	125.61
	10.500	1.125	139.80
	10.250	1.250	153.67
	10.126	1.312	160.42
	9.750	1.500	180.39
	9.250	1.750	205.78
8.750	2.000	229.83	
7.750	2.500	273.93	

12" – 12.75" Outside Diameter

OD	ID	Wall Thickness	Weight/ft.
12.00	11.000	0.500	61.47
	10.500	0.750	90.20
	10.250	0.875	104.06
	10.000	1.000	117.59
	9.500	1.250	143.65
	9.000	1.500	168.37
	8.500	1.750	191.75
	8.000	2.000	213.80
	7.500	2.250	234.51
	7.000	2.500	253.89
12.25	6.000	3.000	288.63
	10.750	0.750	92.20
	10.250	1.000	120.26
	9.750	1.250	146.99
	9.250	1.500	172.38
	8.750	1.750	196.43
	8.250	2.000	219.14
12.50	7.250	2.500	260.57
	11.500	0.500	64.14
	11.000	0.750	94.21
	10.750	0.875	108.74
	10.500	1.000	122.93
	10.000	1.250	150.33
	9.500	1.500	176.38
	9.000	1.750	201.11
	8.500	2.000	224.49
	8.000	2.250	246.54
12.75	7.500	2.500	267.25
	6.500	3.000	304.66
	12.250	0.250	33.41
	12.000	0.375	49.61
	11.938	0.406	53.57
	11.750	0.500	65.47
	11.374	0.688	88.71
	11.250	0.750	96.21
	11.062	0.844	107.42
	11.000	0.875	111.07
	10.750	1.000	125.61
	10.500	1.125	139.80
	10.250	1.250	153.67
	10.126	1.312	160.42
	9.750	1.500	180.39
	9.250	1.750	205.78
	8.750	2.000	229.83
7.750	2.500	273.93	

13" – 13.38" Outside Diameter

OD	ID	Wall Thickness	Weight/ft.
13.00	12.000	0.500	66.81
	11.750	0.625	82.68
	11.500	0.750	98.21
	11.000	1.000	128.28
	10.500	1.250	157.01
	10.000	1.500	184.40
	9.500	1.750	210.46
	9.000	2.000	235.18
	8.500	2.250	258.56
13.375	8.000	2.500	280.61
	7.000	3.000	320.70
	12.375	0.500	68.82
	11.875	0.750	101.22
	11.375	1.000	132.29
	10.875	1.250	162.02
	10.375	1.500	190.41
	9.875	1.750	217.47
	9.375	2.000	243.20
14.00	8.875	2.250	267.58
	8.375	2.500	290.63
	7.375	3.000	332.73

14" – 14.38" Outside Diameter

OD	ID	Wall Thickness	Weight/ft.
14.00	13.124	0.438	63.50
	13.000	0.500	72.16
	12.812	0.594	85.13
	12.500	0.750	106.23
	12.124	0.938	130.97
	12.000	1.000	138.97
	11.812	1.094	150.93
	11.500	1.250	170.37
	11.188	1.406	189.29
	11.000	1.500	200.44
	10.500	1.750	229.17
	10.000	2.000	256.56
	9.500	2.250	282.62
	9.000	2.500	307.34
	8.000	3.000	352.77
14.375	7.000	3.500	392.86
	12.875	0.750	109.24
	12.375	1.000	142.98
	11.875	1.250	175.38
	11.375	1.500	206.45
	10.875	1.750	236.18
	10.375	2.000	264.58
	9.875	2.250	291.64
	9.375	2.500	317.36
	8.375	3.000	364.80

15" – 15.50" Outside Diameter

OD	ID	Wall Thickness	Weight/ft.
15.00	14.000	0.500	77.50
	13.500	0.750	114.25
	13.000	1.000	149.66
	12.500	1.250	183.73
	12.000	1.500	216.47
	11.500	1.750	247.87
	11.000	2.000	277.94
	10.500	2.250	306.67
	10.000	2.500	334.06
	9.000	3.000	384.84
8.000	3.500	430.27	
15.50	14.000	0.750	118.26
	13.500	1.000	155.01
	13.000	1.250	190.41
	12.500	1.500	224.49
	12.000	1.750	257.23
	11.500	2.000	288.63
	11.000	2.250	318.69
	10.500	2.500	347.42
9.500	3.000	400.87	

16" – 16.50" Outside Diameter

OD	ID	Wall Thickness	Weight/ft.
16.00	15.500	0.250	42.09
	15.250	0.375	62.64
	15.000	0.500	82.85
	14.688	0.656	107.60
	14.500	0.750	122.27
	14.312	0.844	136.74
	13.938	1.031	164.98
	13.562	1.219	192.61
	13.500	1.250	197.09
	13.124	1.438	223.85
	13.000	1.500	232.51
	12.812	1.594	245.48
	12.500	1.750	266.58
	12.000	2.000	299.32
	11.500	2.250	330.72
	11.000	2.500	360.79
	10.000	3.000	416.91
9.000	3.500	467.69	
16.50	15.000	0.750	126.27
	14.500	1.000	165.69
	14.000	1.250	203.78
	13.500	1.500	240.52
	13.000	1.750	275.93
	12.500	2.000	310.01
	11.500	2.500	374.15
10.500	3.000	432.94	

17" – 17.50" Outside Diameter

OD	ID	Wall Thickness	Weight/ft.
17.00	16.000	0.500	88.19
	15.500	0.750	130.28
	15.000	1.000	171.04
	14.500	1.250	210.46
	14.000	1.500	248.54
	13.500	1.750	285.29
	13.000	2.000	320.70
	12.500	2.250	354.77
	12.000	2.500	387.51
	11.000	3.000	448.98
	10.000	3.500	505.10
	9.000	4.000	555.88
17.50	15.500	1.000	176.38
	14.500	1.500	256.56
	13.500	2.000	331.39
	12.500	2.500	400.87
	11.500	3.000	465.01

18" – 18.50" Outside Diameter

OD	ID	Wall Thickness	Weight/ft.
18.00	17.500	0.250	47.44
	17.250	0.375	70.65
	17.124	0.438	82.23
	17.000	0.500	93.54
	16.876	0.562	104.76
	16.500	0.750	138.30
	16.124	0.938	171.08
	16.000	1.000	181.73
	15.688	1.156	208.15
	15.250	1.375	244.37
	14.876	1.562	274.48
	14.438	1.781	308.79
	14.000	2.000	342.08
	13.500	2.250	378.83
	13.000	2.500	414.24
	12.000	3.000	481.05
	11.000	3.500	542.52
	10.000	4.000	598.64
	18.50	16.500	1.000
16.000		1.250	230.50
15.500		1.500	272.59
14.500		2.000	352.77
13.500		2.500	427.60
	12.500	3.000	497.08

19" Outside Diameter

OD	ID	Wall Thickness	Weight/ft.
19.00	18.000	0.500	98.88
	17.500	0.750	146.32
	17.000	1.000	192.42
	16.500	1.250	237.18
	16.000	1.500	280.61
	15.500	1.750	322.70
	15.000	2.000	363.46
	14.500	2.250	402.88
	14.000	2.500	440.96
	13.000	3.000	513.12
	12.000	3.500	579.93
	11.000	4.000	641.40

20" – 20.25" Outside Diameter

OD	ID	Wall Thickness	Weight/ft.
20.000	19.500	0.250	52.78
	19.250	0.375	78.67
	19.000	0.500	104.23
	18.812	0.594	123.22
	18.376	0.812	166.56
	17.938	1.031	209.06
	17.438	1.281	256.33
	17.000	1.500	296.65
	16.500	1.750	341.41
	16.064	1.968	379.35
	16.000	2.000	384.84
	15.500	2.250	426.93
	15.000	2.500	467.68
	14.000	3.000	545.19
	13.000	3.500	617.35
12.000	4.000	684.16	
20.250	15.750	2.250	432.94

21" Outside Diameter

OD	ID	Wall Thickness	Weight/ft.
21.000	19.500	0.750	162.35
	19.000	1.000	213.80
	18.500	1.250	263.91
	18.000	1.500	312.68
	17.500	1.750	360.12
	17.000	2.000	406.22
	16.000	2.500	494.41
	15.000	3.000	577.26
	14.000	3.500	654.76
	13.000	4.000	726.92

22" Outside Diameter

OD	ID	Wall Thickness	Weight/ft.
22.000	21.500	0.250	58.13
	21.250	0.375	86.69
	21.000	0.500	114.92
	20.500	0.750	170.37
	20.250	0.875	197.60
	20.000	1.000	224.49
	19.750	1.125	251.05
	19.500	1.250	277.27
	19.250	1.375	303.16
	19.000	1.500	328.72
	18.750	1.625	353.94
	18.500	1.750	378.83
	18.250	1.875	403.38
	18.000	2.000	427.60
	17.750	2.125	451.48
	17.000	2.500	521.14
	16.000	3.000	609.33
15.000	3.500	692.18	
14.000	4.000	769.68	

23" Outside Diameter

OD	ID	Wall Thickness	Weight/ft.
23.000	21.500	0.750	178.39
	21.000	1.000	235.18
	20.000	1.500	344.75
	19.000	2.000	448.98
	18.000	2.500	547.86
	17.000	3.000	641.40
	16.000	3.500	729.59
	15.000	4.000	812.44

24" Outside Diameter

OD	ID	Wall Thickness	Weight/ft.
24.000	23.500	0.250	63.47
	23.250	0.375	94.71
	23.000	0.500	125.61
	22.876	0.562	140.81
	22.624	0.688	171.45
	22.500	0.750	186.41
	22.062	0.969	238.57
	21.562	1.219	296.86
	20.938	1.531	367.74
	20.376	1.812	429.79
	20.000	2.000	470.36
	19.876	2.062	483.57
	19.312	2.344	542.64
	19.000	2.500	574.59
	18.000	3.000	673.47
	16.000	4.000	855.20
	13.000	5.500	1087.71

25" Outside Diameter

OD	ID	Wall Thickness	Weight/ft.
25.000	23.000	1.000	256.56
	22.000	1.500	376.82
	21.000	2.000	491.74
	20.000	2.500	601.31
	19.000	3.000	705.54

26" Outside Diameter

OD	ID	Wall Thickness	Weight/ft.
26.000	25.250	0.375	102.72
	25.000	0.500	136.30
	24.000	1.000	267.25
	23.000	1.500	392.86
	22.000	2.000	513.12
	21.500	2.250	571.25
	21.000	2.500	628.04
	20.000	3.000	737.61
	19.000	3.500	841.84
	18.000	4.000	940.72

27" Outside Diameter

OD	ID	Wall Thickness	Weight/ft.
27.000	24.000	1.500	408.89
	23.000	2.000	534.50
	21.000	3.000	769.68

28" Outside Diameter

OD	ID	Wall Thickness	Weight/ft.
28.000	27.250	0.375	110.74
	27.000	0.500	146.99
	26.000	1.000	288.63
	25.000	1.500	424.93
	24.000	2.000	555.88
	23.000	2.500	681.49
	22.000	3.000	801.75
	20.000	4.000	1026.24

30" Outside Diameter

OD	ID	Wall Thickness	Weight/ft.
30.000	29.250	0.375	118.76
	29.000	0.500	157.68
	28.500	0.750	234.51
	28.000	1.000	310.01
	27.000	1.500	456.99
	26.000	2.000	598.64
	25.000	2.500	734.93
	24.000	3.000	865.89

A519 Chemical Properties

ASTM A519 covers several grades of carbon and alloy steel seamless mechanical tubing.

AISI 1026 Chemistry

Carbon %	0.22 - 0.28
Manganese %	0.60 - .90
Phosphorus, max. %	0.04
Sulphur, max. %	0.05

AISI 4130 Chemistry

Carbon %	0.28 - 0.33
Manganese %	0.40 - 0.60
Phosphorus, max. %	0.04
Sulphur, max. %	0.04
Silicon %	0.15 - 0.35
Chromium %	0.80 - 1.10
Molybdenum %	0.15 - 0.25

AISI 4140 Chemistry

Carbon %	0.38 - 0.43
Manganese %	0.75 - 1.00
Phosphorus, max. %	0.04
Sulphur, max. %	0.04
Silicon %	0.15 - 0.35
Chromium %	0.80 - 1.10
Molybdenum %	0.15 - 0.25

A519 Tolerances

A519 OD Tolerances

Most steel pipe and tubing mills take exception to A519 OD tolerances, offering a +/- 1% tolerance unless stated otherwise.

A519 Wall Tolerances for Round Hot-Finished Tubing, % Over and Under Nominal Wall

Wall Thickness Range as Percent of OD	≤ 2.999" OD	3.000" - 5.999" OD	6.000" - 10.750" OD
Under 15%	12.5%	10.0%	10.0%
15% and Over	10.0%	7.5%	10.0%

A519 Straightness Tolerances for Round Hot-Finished Tubing

Size Limits	Max Curvature in Any 3 ft/in	Max Curvature in Total Length	Max Curvature for Lengths < 3 ft.
≤ 5" OD with wall thickness over 3%	0.030"	0.030" x (# ft. of length/3)	Ratio of 0.030 in/ft
5.001" - 8.000" OD with wall thickness over 4%	0.045"	0.045" x (# ft. of length/3)	Ratio of 0.015 in/ft
8.001" - 12.750" OD with wall thickness over 4%	0.060"	0.060 x (# ft. of length/3)	Ratio of 0.020 in/ft

NOTE 1—The straightness variation for any 3 ft of length is determined by measuring the concavity between the tube and a 3-ft straightedge with a feeler gauge. The total variation, that is, the maximum curvature at any point in the total length of tube, is determined by rolling the tube on a surface plate and measuring the concavity with a feeler gauge.

NOTE 2—The tolerances apply generally to unannealed, finish-annealed, and medium-annealed cold-finished or hot-finished tubes. When straightening stress would interfere with the use of the end product, the straightness tolerances shown do not apply when tubing is specified "not to be straightened after furnace treatment." These straightness tolerances do not apply to soft-annealed or quenched and tempered tubes.



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