

A=440 - Chime Length Calculator for a Tube or Rod – Inches Version

unrestricted at both ends

To determine the resonant frequency for a rod, set the ID=0 and enter the OD and Metal Type
Enter values in BLUE, answers in ORANGE (inches) and YELLOW (mm)

OD inches = 1.750		ID inches = 1.500		Metal = Aluminum < Click to Select							
Wall = 0.125 inches		Length calculated for fundamental F						Hang Point is for fundamental F node			
Note	Freq Hz	Length inches	Hang Point	Length mm	Hang Point	Note	Freq Hz	Length inches	Hang Point	Length mm	Hang Point
C1	32.70	111 5/8	25	2,835.3	635.7	C5	523.30	27 7/8	6 1/4	708.0	158.7
C [#] /D ^b	34.60	108 1/2	24 5/16	2,755.9	617.9	C [#] /D ^b	554.40	27 1/8	6 1/16	689.0	154.5
D	36.70	105 3/8	23 5/8	2,676.5	600.1	D	587.30	26 5/16	5 7/8	668.3	149.8
D [#] /E ^b	38.90	102 5/16	22 15/16	2,598.7	582.6	D [#] /E ^b	622.30	25 9/16	5 3/4	649.3	145.6
E	41.21	99 7/16	22 5/16	2,525.7	566.3	E	659.30	24 7/8	5 9/16	631.8	141.7
F	43.70	96 9/16	21 5/8	2,452.7	549.9	F	698.50	24 1/8	5 7/16	612.8	137.4
F [#] /G ^b	46.30	93 13/16	21 1/16	2,382.8	534.2	F [#] /G ^b	740.00	23 7/16	5 1/4	595.3	133.5
G	49.00	91 3/16	20 7/16	2,316.2	519.3	G	784.00	22 13/16	5 1/8	579.4	129.9
G [#] /A ^b	51.90	88 5/8	19 7/8	2,251.1	504.7	G [#] /A ^b	830.60	22 1/8	4 15/16	562.0	126.0
A	55.00	86 1/16	19 5/16	2,186.0	490.1	A	880.00	21 1/2	4 13/16	546.1	122.4
A [#] /B ^b	58.30	83 5/8	18 3/4	2,124.1	476.2	A [#] /B ^b	932.30	20 7/8	4 11/16	530.2	118.9
B	61.70	81 1/4	18 3/16	2,063.8	462.7	B	987.80	20 5/16	4 9/16	515.9	115.7
C2	65.40	78 15/16	17 11/16	2,005.0	449.5	C6	1,046.50	19 3/4	4 7/16	501.7	112.5
C [#] /D ^b	69.30	76 11/16	17 3/16	1,947.9	436.7	C [#] /D ^b	1,108.70	19 3/16	4 5/16	487.4	109.3
D	73.41	74 1/2	16 11/16	1,892.3	424.3	D	1,174.61	18 5/8	4 3/16	473.1	106.1
D [#] /E ^b	77.80	72 3/8	16 1/4	1,838.3	412.2	D [#] /E ^b	1,244.50	18 1/16	4 1/16	458.8	102.9
E	82.40	70 5/16	15 3/4	1,785.9	400.4	E	1,318.50	17 9/16	3 15/16	446.1	100.0
F	87.30	68 5/16	15 5/16	1,735.1	389.0	F	1,397.00	17 1/16	3 13/16	433.4	97.2
F [#] /G ^b	92.50	66 3/8	14 7/8	1,685.9	378.0	F [#] /G ^b	1,480.00	16 9/16	3 11/16	420.7	94.3
G	98.01	64 1/2	14 7/16	1,638.3	367.3	G	1,568.00	16 1/8	3 5/8	409.6	91.8
G [#] /A ^b	103.80	62 5/8	14 1/16	1,590.7	356.6	G [#] /A ^b	1,661.20	15 11/16	3 1/2	398.5	89.3
A	110.00	60 7/8	13 5/8	1,546.2	346.7	A	1,760.00	15 3/16	3 3/8	385.8	86.5
A [#] /B ^b	116.50	59 1/8	13 1/4	1,501.8	336.7	A [#] /B ^b	1,864.60	14 13/16	3 5/16	376.2	84.4
B	123.50	57 7/16	12 7/8	1,458.9	327.1	B	1,975.50	14 3/8	3 1/4	365.1	81.9
C3	130.81	55 13/16	12 1/2	1,417.6	317.8	C7	2,093.00	13 15/16	3 1/8	354.0	79.4
C [#] /D ^b	138.60	54 3/16	12 1/8	1,376.4	308.6	C [#] /D ^b	2,217.40	13 9/16	3 1/16	344.5	77.2
D	146.80	52 11/16	11 13/16	1,338.3	300.0	D	2,349.20	13 3/16	2 15/16	335.0	75.1
D [#] /E ^b	155.60	51 3/16	11 1/2	1,300.2	291.5	D [#] /E ^b	2,489.01	12 13/16	2 7/8	325.4	73.0
E	164.80	49 3/4	11 1/8	1,263.7	283.3	E	2,637.00	12 7/16	2 13/16	315.9	70.8
F	174.61	48 5/16	10 13/16	1,227.1	275.1	F	2,794.00	12 1/16	2 11/16	306.4	68.7
F [#] /G ^b	185.00	46 15/16	10 1/2	1,192.2	267.3	F [#] /G ^b	2,960.00	11 3/4	2 5/8	298.5	66.9
G	196.00	45 9/16	10 3/16	1,157.3	259.5	G	3,136.00	11 3/8	2 9/16	288.9	64.8
G [#] /A ^b	207.70	44 5/16	9 15/16	1,125.5	252.3	G [#] /A ^b	3,322.41	11 1/16	2 1/2	281.0	63.0
A	220.00	43 1/16	9 5/8	1,093.8	245.2	A	3,520.00	10 3/4	2 7/16	273.1	61.2
A [#] /B ^b	233.10	41 13/16	9 3/8	1,062.0	238.1	A [#] /B ^b	3,729.20	10 7/16	2 5/16	265.1	59.4
B	246.90	40 5/8	9 1/8	1,031.9	231.3	B	3,951.00	10 1/8	2 1/4	257.2	57.7
C4	261.60	39 7/16	8 13/16	1,001.7	224.6	C8	4,186.00	9 7/8	2 3/16	250.8	56.2
C [#] /D ^b	277.20	38 5/16	8 9/16	973.1	218.2	C [#] /D ^b	4,434.81	9 9/16	2 1/8	242.9	54.5
D	293.70	37 1/4	8 3/8	946.2	212.1	D	4,698.40	9 5/16	2 1/16	236.5	53.0
D [#] /E ^b	311.10	36 3/16	8 1/8	919.2	206.1	D [#] /E ^b	4,978.00	9 1/16	2 1/16	230.2	51.6
E	329.61	35 3/16	7 7/8	893.8	200.4	E	5,274.00	8 13/16	2	223.8	50.2
F	349.30	34 1/8	7 5/8	866.8	194.3	F	5,588.00	8 9/16	1 15/16	217.5	48.8
F [#] /G ^b	370.00	33 3/16	7 7/16	843.0	189.0	F [#] /G ^b	5,920.00	8 5/16	1 7/8	211.1	47.3
G	392.00	32 1/4	7 1/4	819.2	183.7	G	6,272.00	8 1/16	1 13/16	204.8	45.9
G [#] /A ^b	415.30	31 5/16	7	795.3	178.3	G [#] /A ^b	6,644.80	7 13/16	1 3/4	198.4	44.5
A	440.00	30 7/16	6 13/16	773.1	173.3	A	7,040.00	7 5/8	1 11/16	193.7	43.4
A [#] /B ^b	466.20	29 9/16	6 5/8	750.9	168.3	A [#] /B ^b	7,458.40	7 3/8	1 5/8	187.3	42.0
B	493.91	28 3/4	6 7/16	730.3	163.7	B	7,902.01	7 3/16	1 5/8	182.6	40.9
Calculate Length or Frequency for ID & OD entered above						C9	8,367.01	7	1 9/16	177.8	39.9
Enter F	963.00	20 9/16	4 5/8	522.3	117.1	Convert	2.000	inches to	50.8	mm	
Enter L							25.4	mm to	1	inches	

F=	163.31	50	11 3/16	1,270.0	284.7
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<http://leehite.org/Chimes.htm>