

CUSTOM TUNING CHARTS

Sometime you will find that there are times when you need to use a different vent than the one that is specified in the enclosure recommendations. The Custom tuning chart can be used to adjust the vent diameter and length to give you a tuning frequency for the given box volume and filling requirements.

To use the Custom Tuning Chart, locate the enclosure volume you desire and find the row corresponding to the tuning frequency you are trying to match. Be sure that the enclosure volume that you are attempting to "tune" is compensated for vent displacement and driver volume.

The Custom tuning charts have been organized into two groups: lined and unlined. The lined tuning configurations are based on fill of 30%. If you want to build one of the enclosures in the recommendations and you don't want to use stuffing, cross-reference the recommended tuning frequency with the unlined Custom Tuning Chart for the given enclosure volume. This will give the the dimensions needed to modify the tuning recommendations to work in the un-filled enclosure. Multiple different vent configuration are provided using standard inside dimensions for ABS tubing. If square vents are going to be used, try to align the surface area of the square port with the equivalent ABS throat area.

0.25ft ³ LINED				
2x2"	3"	2x3"	4"	Tuning Freq. (Hz)
27"	30 ¹ / ₄ "	∞	∞	45
23 ¹ / ₈ "	26 ¹ / ₄ "	∞	∞	47
20 ¹ / ₄ "	22 ¹ / ₄ "	∞	∞	50
18 ¹ / ₈ "	20"	∞	∞	53
17"	18 ¹ / ₄ "	∞	∞	55
15 ¹ / ₄ "	17"	∞	31 ¹ / ₈ "	57
14"	15"	∞	28"	60
12 ¹ / ₄ "	13 ¹ / ₂ "	29 ¹ / ₈ "	25"	63
11 ¹ / ₈ "	12 ¹ / ₂ "	27 ¹ / ₈ "	23 ¹ / ₈ "	65
10 ¹ / ₈ "	11 ¹ / ₂ "	25 ¹ / ₈ "	21 ¹ / ₄ "	67
9 ¹ / ₄ "	10 ¹ / ₈ "	23 ¹ / ₄ "	19 ¹ / ₂ "	70
8 ¹ / ₈ "	9 ¹ / ₈ "	21 ¹ / ₄ "	17 ¹ / ₄ "	73
8 ¹ / ₄ "	8 ³ / ₄ "	20"	16 ¹ / ₈ "	75
7 ¹ / ₈ "	8 ¹ / ₈ "	18 ¹ / ₄ "	15 ¹ / ₈ "	77
7"	7 ¹ / ₄ "	17 ¹ / ₄ "	14 ¹ / ₄ "	80
6 ¹ / ₂ "	6 ³ / ₄ "	15 ¹ / ₄ "	13"	83
6"	6 ¹ / ₄ "	15"	12 ¹ / ₄ "	85
5 ¹ / ₄ "	8 ¹ / ₄ "	14 ¹ / ₄ "	11 ¹ / ₂ "	87
5 ¹ / ₂ "	5 ¹ / ₄ "	13"	10 ¹ / ₂ "	90

CUSTOM TUNING CHARTS

0.5ft³ LINED

2x2"	3"	2x3"	4"	2x4"	6"	Tuning Freq. (Hz)
29 1/4"	=	=	=	=	=	30
24"	26 1/8"	=	=	=	=	33
21 1/8"	23 1/8"	=	=	=	=	35
18 1/4"	20 1/8"	=	=	=	=	37
15 1/4"	17 1/4"	=	=	=	=	40
13 3/8"	14 1/8"	=	27 1/8"	=	=	43
12	13 1/8"	28 1/8"	24 1/8"	=	=	45
10 1/8"	11 1/8"	25 1/8"	22 1/8"	=	=	47
9 1/8"	10 1/8"	22 1/8"	19 1/8"	=	=	50
8 1/8"	8 1/8"	19 1/8"	16 1/8"	=	=	53
7 1/8"	7 1/8"	18 1/8"	15 1/8"	=	=	55
6 1/8"	7 1/8"	16 1/8"	14"	=	=	57
5 1/8"	6 1/8"	14 1/8"	12 1/8"	=	=	60
5 1/8"	5 1/8"	13 1/8"	10 1/8"	24 1/8"	26 1/8"	63
4 1/8"	5"	12 1/8"	10"	22 1/8"	24 1/8"	65
4 1/8"	4 1/8"	11 1/8"	9 1/8"	21 1/8"	23 1/8"	67
4"	4"	10"	8 1/8"	19 1/8"	20 1/8"	70
3 1/8"	3 1/8"	9"	7 1/8"	17 1/8"	18 1/8"	73
3 1/8"	3 1/8"	8 1/8"	6 1/8"	16 1/8"	17 1/8"	75
2 1/8"	2 1/8"	7 1/8"	6 1/8"	15 1/8"	16 1/8"	77
2 1/8"	2 1/8"	7"	5 1/8"	13 1/8"	14 1/8"	80

0.75ft³ LINED

2x2"	3"	2x3"	4"	2x4"	6"	2x6"	Tuning Freq. (Hz)
19"	21"	=	=	=	=	=	30
15 1/8"	16 1/8"	=	=	=	=	=	33
13 1/8"	14 1/8"	=	27 1/8"	=	=	=	35
11 1/8"	12 1/8"	27 1/8"	24"	=	=	=	37
9 1/8"	10 1/8"	23 1/8"	20 1/8"	=	=	=	40
8 1/8"	8 1/8"	19 1/8"	16 1/8"	=	=	=	43
7 1/8"	7 1/8"	18"	15 1/8"	=	=	=	45
6 1/8"	7"	16 1/8"	13 1/8"	=	=	=	47
5 1/8"	5 1/8"	14"	11 1/8"	26 1/8"	28 1/8"	=	50
4 1/8"	5"	12 1/8"	10"	22 1/8"	25"	=	53
4 1/8"	4 1/8"	11 1/8"	9"	21"	22 1/8"	=	55
3 1/8"	4"	10 1/8"	8 1/8"	19 1/8"	20 1/8"	=	57
3 1/8"	3 1/8"	8 1/8"	7"	17"	18 1/8"	=	60
2 1/8"	2 1/8"	7 1/8"	6 1/8"	15"	16 1/8"	=	63
2 1/8"	2 1/8"	7 1/8"	5 1/8"	13 1/8"	14 1/8"	=	65
2 1/8"	2 1/8"	6 1/8"	5"	12 1/8"	13 1/8"	=	67
1 1/8"	1 1/8"	5 1/8"	4 1/8"	11 1/8"	12 1/8"	28 1/8"	70
1 1/8"	1 1/8"	5"	3 1/8"	10 1/8"	10 1/8"	25 1/8"	73
1 1/8"	1 1/4"	4 1/8"	3 1/8"	9 1/8"	9 1/8"	24 1/8"	75
1 1/8"	1"	4 1/8"	2 1/8"	8 1/8"	9 1/8"	22 1/8"	77
1"	3/4"	3 1/8"	2 1/8"	7 1/8"	8 1/8"	20 1/8"	80

CUSTOM TUNING CHARTS

1.0ft³ LINED

2x2"	3"	2x3"	4"	2x4"	6"	2X6"	Tuning Freq. (Hz)
13 ¹ / ₂ "	15"	∞	27 ¹ / ₂ "	∞	∞	∞	30
11"	12"	26 ¹ / ₂ "	22 ¹ / ₂ "	∞	∞	∞	33
9 ¹ / ₂ "	10 ³ / ₈ "	23"	19 ¹ / ₂ "	∞	∞	∞	35
8 ¹ / ₂ "	9"	20 ³ / ₈ "	17 ¹ / ₂ "	∞	∞	∞	37
6 ¹ / ₂ "	7 ¹ / ₂ "	16 ¹ / ₂ "	14 ¹ / ₂ "	∞	∞	∞	40
5 ¹ / ₂ "	6"	14 ¹ / ₂ "	11 ¹ / ₂ "	26 ¹ / ₂ "	29 ¹ / ₂ "	∞	43
5 ¹ / ₈ "	5 ¹ / ₂ "	12 ³ / ₈ "	10 ¹ / ₂ "	24"	26 ¹ / ₂ "	∞	45
4 ¹ / ₂ "	4 ¹ / ₂ "	11 ³ / ₈ "	9 ¹ / ₂ "	21 ¹ / ₂ "	23 ¹ / ₂ "	∞	47
3 ³ / ₄ "	3 ³ / ₄ "	9 ¹ / ₂ "	7 ¹ / ₂ "	18 ¹ / ₂ "	20 ¹ / ₂ "	∞	50
3 ¹ / ₄ "	3 ¹ / ₂ "	8 ¹ / ₂ "	6 ¹ / ₂ "	16 ¹ / ₂ "	17 ¹ / ₂ "	∞	53
2 ¹ / ₂ "	2 ¹ / ₂ "	7 ¹ / ₂ "	5 ¹ / ₂ "	14 ¹ / ₂ "	15 ¹ / ₂ "	∞	55
2 ¹ / ₂ "	2 ¹ / ₂ "	6 ¹ / ₂ "	5 ¹ / ₂ "	13 ¹ / ₂ "	14 ¹ / ₂ "	∞	57
2"	1 ¹ / ₂ "	5 ¹ / ₂ "	4 ¹ / ₂ "	11 ¹ / ₂ "	12 ¹ / ₂ "	29 ¹ / ₂ "	60
1 ³ / ₄ "	1 ³ / ₂ "	5 ¹ / ₂ "	3 ³ / ₄ "	10 ¹ / ₂ "	10 ¹ / ₂ "	26"	63
1 ³ / ₈ "	1 ¹ / ₄ "	4 ¹ / ₂ "	3 ¹ / ₂ "	9 ¹ / ₂ "	9 ¹ / ₂ "	24"	65
1 ¹ / ₄ "	1"	4 ¹ / ₂ "	2 ¹ / ₂ "	8 ¹ / ₂ "	9"	22 ¹ / ₂ "	67
1"	∞	3 ¹ / ₂ "	2 ¹ / ₂ "	7 ¹ / ₂ "	7 ¹ / ₂ "	19 ¹ / ₂ "	70
3 ¹ / ₂ "	∞	3"	1 ¹ / ₂ "	6 ¹ / ₂ "	6 ¹ / ₂ "	17 ¹ / ₂ "	73
∞	∞	2 ¹ / ₂ "	1 ¹ / ₂ "	6 ¹ / ₂ "	6 ¹ / ₂ "	16 ¹ / ₂ "	75
∞	∞	2 ¹ / ₂ "	1 ¹ / ₂ "	5 ¹ / ₂ "	5 ¹ / ₂ "	15 ¹ / ₂ "	77
∞	∞	2"	1"	4 ¹ / ₂ "	4 ¹ / ₂ "	13 ¹ / ₂ "	80

1.25ft³ LINED

2x2"	3"	2x3"	4"	2x4"	6"	2X6"	Tuning Freq. (Hz)
10 ¹ / ₂ "	11 ¹ / ₂ "	25 ¹ / ₂ "	21 ¹ / ₂ "	∞	∞	∞	30
8 ¹ / ₂ "	9 ¹ / ₂ "	20 ¹ / ₂ "	17 ¹ / ₂ "	∞	∞	∞	33
7 ¹ / ₂ "	7 ¹ / ₂ "	17 ¹ / ₂ "	15"	∞	∞	∞	35
6 ¹ / ₂ "	6 ¹ / ₂ "	15 ¹ / ₂ "	13 ¹ / ₂ "	29 ¹ / ₂ "	∞	∞	37
5 ¹ / ₂ "	5 ¹ / ₂ "	12 ¹ / ₂ "	10 ¹ / ₂ "	24 ¹ / ₂ "	26 ¹ / ₂ "	∞	40
4 ¹ / ₂ "	4 ¹ / ₂ "	10 ¹ / ₂ "	8 ¹ / ₂ "	20 ¹ / ₂ "	22 ¹ / ₂ "	∞	43
3 ³ / ₄ "	3 ³ / ₄ "	9 ¹ / ₂ "	7 ¹ / ₂ "	18 ¹ / ₂ "	20"	∞	45
3 ¹ / ₄ "	3 ¹ / ₂ "	8 ¹ / ₂ "	6 ¹ / ₂ "	16 ¹ / ₂ "	17 ¹ / ₂ "	∞	47
2 ¹ / ₂ "	2 ¹ / ₂ "	7 ¹ / ₂ "	5 ¹ / ₂ "	14 ¹ / ₂ "	15 ¹ / ₂ "	∞	50
2 ¹ / ₂ "	2"	6 ¹ / ₂ "	4 ¹ / ₂ "	12 ¹ / ₂ "	13"	∞	53
1 ³ / ₄ "	1 ³ / ₂ "	5 ¹ / ₂ "	4 ¹ / ₂ "	11"	11 ¹ / ₂ "	∞	55
1 ³ / ₈ "	1 ³ / ₂ "	4 ¹ / ₂ "	3 ³ / ₄ "	10"	10 ¹ / ₂ "	∞	57
1 ¹ / ₄ "	1"	4 ¹ / ₂ "	2 ¹ / ₂ "	8 ¹ / ₂ "	9"	22 ¹ / ₂ "	60
3 ¹ / ₂ "	∞	3 ¹ / ₂ "	2 ¹ / ₂ "	7 ¹ / ₂ "	7 ¹ / ₂ "	19 ¹ / ₂ "	63
3 ¹ / ₂ "	∞	3 ¹ / ₂ "	1 ¹ / ₂ "	6 ¹ / ₂ "	6 ¹ / ₂ "	18"	65
∞	∞	2 ¹ / ₂ "	1 ¹ / ₂ "	6 ¹ / ₂ "	6 ¹ / ₂ "	16 ¹ / ₂ "	67
∞	∞	2 ¹ / ₂ "	1 ¹ / ₂ "	5 ¹ / ₂ "	5 ¹ / ₂ "	14 ¹ / ₂ "	70
∞	∞	1 ³ / ₄ "	3 ¹ / ₄ "	4 ¹ / ₂ "	4 ¹ / ₂ "	13 ¹ / ₂ "	73
∞	∞	1 ³ / ₈ "	∞	4 ¹ / ₂ "	3 ³ / ₄ "	12"	75
∞	∞	1 ¹ / ₂ "	∞	3 ¹ / ₄ "	3 ¹ / ₂ "	11 ¹ / ₂ "	77
∞	∞	1"	∞	3 ¹ / ₄ "	2 ¹ / ₂ "	9 ¹ / ₂ "	80

CUSTOM TUNING CHARTS

1.5ft³ LINED

2x2"	3"	2x3"	4"	2x4"	6"	2X6"	Tuning Freq. (Hz)
8½"	9¼"	20¾"	17½"	∞	∞	∞	30
8¼"	7¼"	16½"	13½"	∞	∞	∞	33
5¾"	6½"	14¾"	11½"	26½"	29¾"	∞	35
5"	5½"	12½"	10¾"	23½"	25¾"	∞	37
4"	4½"	10¾"	8¾"	19½"	21¾"	∞	40
3½"	3¼"	8½"	6¾"	16½"	17¾"	∞	43
2¾"	2½"	7½"	5¾"	14½"	15¾"	∞	45
2½"	2½"	6¾"	5½"	13½"	14"	∞	47
1¾"	1¾"	5½"	4¾"	11½"	11¾"	27¾"	50
1¾"	1½"	4¾"	3¾"	9½"	10"	24¾"	53
1½"	1"	4¼"	2¾"	8½"	8¾"	22"	55
1"	¾"	3¾"	2¾"	7¾"	7½"	20"	57
¾"	∞	3"	1¾"	6½"	6¾"	17½"	60
∞	∞	2¾"	1¾"	5¾"	5¾"	15¾"	63
∞	∞	2½"	1½"	5"	4¾"	14"	65
∞	∞	1¾"	¾"	4½"	4¾"	12¾"	67
∞	∞	1½"	∞	3¾"	3½"	11¾"	70
∞	∞	1"	∞	3¼"	2½"	9¾"	73
∞	∞	¾"	∞	2¾"	2¾"	9"	75
∞	∞	∞	∞	2½"	2"	8¾"	77
∞	∞	∞	∞	2"	1½"	7½"	80

1.75ft³ LINED

2x2"	3"	2x3"	4"	2x4"	6"	2X6"	Tuning Freq. (Hz)
7"	7½"	17½"	14½"	∞	∞	∞	30
5½"	5¼"	13¾"	11½"	25¾"	28½"	∞	33
4¾"	4¾"	11¾"	9¾"	22½"	24¾"	∞	35
4"	4"	10¾"	8¾"	19½"	21¾"	∞	37
3½"	3½"	8¾"	6¾"	16½"	17¾"	∞	40
2¾"	2¾"	6¾"	5¾"	13½"	14¾"	∞	43
2½"	1¾"	6"	4¾"	12"	12¾"	29¾"	45
1¾"	1½"	5¾"	3¾"	10½"	11¾"	26¾"	47
1½"	1½"	4¾"	3"	9"	9¾"	23"	50
1"	∞	3½"	2¾"	7½"	7¾"	19¾"	53
¾"	∞	3¼"	1¾"	6¾"	6¾"	18"	55
∞	∞	2¾"	1¾"	6"	6¾"	16¾"	57
∞	∞	2½"	1½"	5¾"	5¾"	14¾"	60
∞	∞	1¾"	∞	4¾"	4"	12¾"	63
∞	∞	1½"	∞	3¾"	3½"	11¾"	65
∞	∞	1½"	∞	3½"	3"	10¾"	67
∞	∞	¾"	∞	2¾"	2¾"	8¾"	70
∞	∞	∞	∞	2½"	1¾"	7¾"	73
∞	∞	∞	∞	1¾"	1¾"	6¾"	75
∞	∞	∞	∞	1½"	1"	6¾"	77
∞	∞	∞	∞	1½"	∞	5¾"	80

CUSTOM TUNING CHARTS

2.0ft³ LINED

2x3"	3x3"	4"	2x4"	3x4"	6"	2X6"	Tuning Freq. (Hz)
14 1/4"	23 1/8"	12 1/4"	27 1/4"	∞	∞	∞	30
11 1/4"	18 1/4"	9 1/4"	22"	∞	24"	∞	33
10"	16 1/4"	8 1/4"	19 1/4"	∞	20 1/4"	∞	35
8 1/4"	14 1/8"	6 1/4"	16 1/4"	26 1/2"	18 1/4"	∞	37
7"	11 3/4"	5 1/4"	13 1/4"	22"	14 1/4"	∞	40
5 1/2"	9 1/4"	4 1/4"	11 1/4"	18 1/4"	12 1/4"	28 1/4"	43
4 1/4"	8 1/4"	3 1/4"	10"	16 1/4"	10 1/4"	25 1/4"	45
4 1/8"	7 1/4"	3"	8 1/4"	14 1/4"	9 1/4"	22 1/4"	47
3 1/4"	6 1/4"	2 1/4"	7 1/4"	12 1/4"	7 1/4"	19 1/4"	50
2 1/4"	5 1/4"	1 1/4"	6 1/4"	10 1/4"	6 1/4"	16 1/4"	53
2 1/8"	4 5/8"	1 1/8"	5 1/4"	9 1/4"	5 1/4"	15"	55
2"	4"	1 1/4"	4 1/4"	8 1/4"	4 1/4"	13 1/2"	57
1 1/2"	3 1/4"	∞	3 1/4"	7 1/4"	3 1/4"	11 1/4"	60
1 1/4"	2 3/4"	∞	3 1/4"	6 1/4"	2 1/4"	10"	63
3/4"	2 1/4"	∞	2 1/4"	5 1/4"	2 1/4"	9"	65
∞	2"	∞	2 1/4"	5"	2"	8 1/4"	67
∞	1 1/4"	∞	1 1/4"	4 1/4"	1 1/4"	7"	70
∞	1 1/4"	∞	1 1/4"	3 1/4"	1 1/4"	5 1/4"	73
∞	1 1/4"	∞	1 1/4"	3 1/4"	∞	5 1/4"	75
∞	1/4"	∞	3/4"	2 1/4"	∞	4 1/4"	77
∞	∞	∞	∞	2 1/4"	∞	3 1/4"	80

2.25ft³ LINED

2x3"	3x3"	4"	2x4"	3x4"	6"	2X6"	Tuning Freq. (Hz)
12 1/4"	20 1/4"	10 1/4"	24"	∞	26 1/4"	∞	30
10"	16 1/4"	8 1/4"	19 1/4"	∞	20 1/4"	∞	33
8 1/4"	14"	6 1/4"	16 1/4"	26 1/2"	17 1/4"	∞	35
7 1/4"	12 1/4"	5 1/4"	14 1/4"	23 1/4"	15 1/2"	∞	37
5 1/4"	9 1/4"	4 1/4"	11 1/4"	19 1/4"	12 1/4"	29 1/4"	40
4 1/4"	8 1/4"	3 1/4"	9 1/4"	15 1/4"	10 1/4"	24 1/4"	43
4"	7 1/4"	2 1/4"	8 1/4"	14 1/4"	8 1/4"	21 1/4"	45
3 1/4"	6 1/4"	2 1/4"	7 1/4"	12 1/4"	7 1/4"	19 1/4"	47
2 1/4"	5 1/4"	1 1/4"	6 1/4"	10 1/4"	6 1/4"	16 1/4"	50
2 1/8"	4 5/8"	1 1/8"	5"	9"	4 1/4"	14 1/4"	53
1 1/4"	3 3/4"	3/4"	4 1/4"	8"	4 1/4"	12 1/4"	55
1 1/4"	3 1/4"	∞	3 1/4"	7 1/4"	3 1/4"	11 1/4"	57
1"	2 3/4"	∞	3 1/4"	6"	2 1/4"	9 1/4"	60
∞	2"	∞	2 1/4"	5 1/4"	2"	8 1/4"	63
∞	1 1/4"	∞	2"	4 1/4"	1 1/4"	7 1/4"	65
∞	1 1/4"	∞	1 1/4"	4"	1 1/4"	6 1/4"	67
∞	1"	∞	1 1/4"	3 1/4"	∞	5 1/4"	70
∞	∞	∞	3/4"	2 1/4"	∞	4 1/4"	73
∞	∞	∞	∞	2 1/4"	∞	4"	75
∞	∞	∞	∞	1 1/4"	∞	3 1/2"	77
∞	∞	∞	∞	1 1/4"	∞	2 1/4"	80

CUSTOM TUNING CHARTS

2.5ft³ LINED

2x3"	3x3"	4"	2x4"	3x4"	6"	2X6"	Tuning Freq. (Hz)
11 1/4"	17 1/4"	9 1/2"	21 1/4"	=	23 1/2"	=	30
8 1/4"	14 1/4"	7"	16 1/4"	26 1/4"	18 1/4"	=	33
7 1/2"	12 1/4"	5 1/2"	14 1/2"	23 1/2"	15 1/2"	=	35
6 1/2"	10 1/4"	4 1/4"	12 1/2"	20 1/4"	13 1/2"	=	37
5"	8 1/2"	3 1/2"	10 1/4"	16 1/4"	10 1/4"	25 1/4"	40
3 1/2"	7"	2 1/2"	8 1/2"	13 1/2"	8 1/2"	21 1/4"	43
3 1/2"	6 1/4"	2 1/4"	7 1/4"	12 1/2"	7 1/4"	19 1/4"	45
2 1/4"	5 1/4"	1 1/4"	6 1/4"	10 1/4"	6 1/4"	17"	47
2 1/4"	4 1/4"	1 1/4"	5 1/4"	9 1/4"	5 1/4"	14 1/4"	50
1 1/4"	3 1/4"	=	4 1/4"	7 1/4"	3 1/4"	12 1/4"	53
1 1/4"	3"	=	3 1/4"	6 1/4"	3 1/4"	10 1/4"	55
1"	2 1/4"	=	3"	6"	2 1/4"	9 1/4"	57
=	1 1/4"	=	2 1/4"	5"	2"	8 1/4"	60
=	1 1/4"	=	1 1/4"	4 1/4"	1 1/4"	6 1/4"	63
=	1 1/4"	=	1 1/4"	3 1/4"	1 1/4"	6"	65
=	=	=	1 1/4"	3 1/4"	=	5 1/4"	67
=	=	=	1/2"	2 1/4"	=	4 1/4"	70
=	=	=	=	2"	=	3 1/4"	73
=	=	=	=	1 1/4"	=	3"	75
=	=	=	=	1 1/4"	=	2 1/4"	77
=	=	=	=	1/2"	=	1 1/4"	80

2.75ft³ LINED

2x3"	3x3"	4"	2x4"	3x4"	6"	2X6"	Tuning Freq. (Hz)
9 1/4"	15 1/4"	8"	18 1/4"	29 1/4"	20 1/2"	=	30
7 1/4"	12 1/4"	6"	14 1/4"	23 1/4"	16 1/4"	=	33
6 1/4"	10 1/4"	5"	12 1/4"	20 1/4"	13 1/4"	=	35
5 1/2"	9 1/4"	4 1/2"	11 1/4"	18 1/4"	11 1/4"	27 1/4"	37
4 1/2"	7 1/4"	3"	8 1/4"	14 1/4"	9 1/4"	22 1/4"	40
3 1/4"	6 1/4"	2 1/4"	7 1/4"	12 1/4"	7 1/4"	19"	43
2 1/4"	5 1/4"	1 1/4"	6 1/4"	10 1/4"	6 1/4"	16 1/4"	45
2 1/4"	4 1/4"	1 1/4"	5 1/4"	9 1/4"	5 1/4"	14 1/4"	47
1 1/4"	3 1/4"	1/2"	4 1/4"	7 1/4"	4 1/4"	12 1/4"	50
1 1/4"	2 1/4"	=	3 1/4"	6 1/4"	3 1/4"	10 1/4"	53
1/2"	2 1/4"	=	2 1/4"	5 1/4"	2 1/4"	9 1/4"	55
=	2"	=	2 1/4"	5 1/4"	2"	8 1/4"	57
=	1 1/2"	=	1 1/4"	4 1/4"	1 1/4"	6 1/4"	60
=	1 1/4"	=	1 1/4"	3 1/4"	1/2"	5 1/4"	63
=	1/2"	=	1"	2 1/4"	=	4 1/4"	65
=	=	=	=	2 1/4"	=	4 1/4"	67
=	=	=	=	1 1/4"	=	3 1/4"	70
=	=	=	=	4 1/4"	=	2 1/4"	73
=	=	=	=	1 1/4"	=	2 1/4"	75
=	=	=	=	1/2"	=	1 1/4"	77
=	=	=	=	=	=	1 1/4"	80

CUSTOM TUNING CHARTS

3.0ft³ LINED

2x3"	3x3"	4"	2x4"	3x4"	6"	2X6"	Tuning Freq. (Hz)
8½"	14½"	7"	17"	26½"	18½"	—	30
6½"	11½"	5½"	13½"	21½"	14½"	—	33
5½"	9½"	4½"	11½"	18½"	12½"	28½"	35
4½"	8½"	3½"	9½"	16½"	10½"	24½"	37
3½"	6½"	2½"	7½"	13½"	8½"	20½"	40
2½"	5½"	1½"	6½"	10½"	6½"	18½"	43
2½"	4½"	¾"	5½"	9½"	5½"	14½"	45
1½"	3½"	—	4½"	8½"	4½"	13½"	47
1½"	3"	—	3½"	6½"	3½"	10½"	50
¾"	2½"	—	2½"	5½"	2½"	9½"	53
—	1½"	—	2½"	4½"	1½"	8"	55
—	1½"	—	1½"	4½"	1½"	7"	57
—	1½"	—	1½"	3½"	¾"	5½"	60
—	¾"	—	¾"	2½"	—	4½"	63
—	—	—	—	2½"	—	4"	65
—	—	—	—	1½"	—	3½"	67
—	—	—	—	1½"	—	2½"	70
—	—	—	—	¾"	—	1½"	73
—	—	—	—	—	—	1½"	75
—	—	—	—	—	—	1½"	77
—	—	—	—	—	—	¾"	80

3.25ft³ LINED

2x3"	3x3"	4"	2x4"	3x4"	6"	2X6"	Tuning Freq. (Hz)
7½"	13"	6½"	15½"	24½"	16½"	—	30
6"	10½"	4½"	12"	19½"	12½"	29½"	33
5"	8½"	3½"	10½"	16½"	10½"	25½"	35
4¼"	7½"	2½"	8½"	14½"	9½"	22½"	37
3½"	5½"	2"	7"	11½"	7"	18½"	40
2½"	4½"	1½"	5½"	9½"	5½"	15½"	43
1½"	3½"	¾"	4½"	8½"	4½"	13½"	45
1½"	3¼"	—	4"	7½"	3½"	11½"	47
1"	2½"	—	3"	6"	2½"	9½"	50
—	1½"	—	2½"	4½"	1½"	7½"	53
—	1½"	—	1½"	4½"	1½"	6½"	55
—	1¼"	—	1½"	3½"	¾"	6"	57
—	¾"	—	¾"	2½"	—	4½"	60
—	—	—	—	2½"	—	3½"	63
—	—	—	—	1½"	—	3¼"	65
—	—	—	—	1½"	—	2½"	67
—	—	—	—	¾"	—	2"	70
—	—	—	—	—	—	1½"	73
—	—	—	—	—	—	1"	75
—	—	—	—	—	—	—	77
—	—	—	—	—	—	—	80

CUSTOM TUNING CHARTS

2x3"	4"	2x4"	3x4"	4x4"	6"	2X6"	Tuning Freq. (Hz)
3.5ft³ LINED							
11 ¹ / ₂ "	9 ¹ / ₂ "	21 ¹ / ₂ "	∞	∞	23 ¹ / ₂ "	∞	25
9 ¹ / ₂ "	7 ¹ / ₂ "	18 ¹ / ₂ "	∞	∞	19 ¹ / ₂ "	∞	27
7 ¹ / ₂ "	5 ¹ / ₂ "	14"	22 ¹ / ₂ "	∞	15"	∞	30
5 ¹ / ₂ "	4"	10 ¹ / ₂ "	17 ¹ / ₂ "	24 ¹ / ₂ "	15 ¹ / ₂ "	27 ¹ / ₂ "	33
4 ¹ / ₂ "	3 ¹ / ₂ "	9 ¹ / ₂ "	15 ¹ / ₂ "	21 ¹ / ₂ "	9 ¹ / ₂ "	23 ¹ / ₂ "	35

3.75ft³ LINED							
10 ¹ / ₂ "	8 ¹ / ₂ "	20 ¹ / ₂ "	∞	∞	22"	∞	25
8 ¹ / ₂ "	6 ¹ / ₂ "	16 ¹ / ₂ "	26 ¹ / ₂ "	∞	18 ¹ / ₂ "	∞	27
6 ¹ / ₂ "	5"	12 ¹ / ₂ "	20 ¹ / ₂ "	28 ¹ / ₂ "	13 ¹ / ₂ "	∞	30
4 ¹ / ₂ "	3 ¹ / ₂ "	9 ¹ / ₂ "	16 ¹ / ₂ "	22 ¹ / ₂ "	10 ¹ / ₂ "	25 ¹ / ₂ "	33
4"	2 ¹ / ₂ "	8 ¹ / ₂ "	14"	19 ¹ / ₂ "	8 ¹ / ₂ "	21 ¹ / ₂ "	35

4.0ft³ LINED							
9 ¹ / ₂ "	7 ¹ / ₂ "	18 ¹ / ₂ "	∞	∞	20 ¹ / ₂ "	∞	25
8"	6 ¹ / ₂ "	15 ¹ / ₂ "	24 ¹ / ₂ "	∞	18 ¹ / ₂ "	∞	27
5 ¹ / ₂ "	4 ¹ / ₂ "	11 ¹ / ₂ "	19 ¹ / ₂ "	26 ¹ / ₂ "	12 ¹ / ₂ "	29 ¹ / ₂ "	30
4 ¹ / ₂ "	3 ¹ / ₂ "	9 ¹ / ₂ "	15"	21"	9 ¹ / ₂ "	23 ¹ / ₂ "	33
3 ¹ / ₂ "	2 ¹ / ₂ "	7 ¹ / ₂ "	12 ¹ / ₂ "	18 ¹ / ₂ "	7 ¹ / ₂ "	19 ¹ / ₂ "	35

4.25ft³ LINED							
9"	7 ¹ / ₂ "	17 ¹ / ₂ "	27 ¹ / ₂ "	∞	18 ¹ / ₂ "	∞	25
7 ¹ / ₂ "	5 ¹ / ₂ "	14 ¹ / ₂ "	22 ¹ / ₂ "	∞	15 ¹ / ₂ "	∞	27
5 ¹ / ₂ "	4"	18 ¹ / ₂ "	17 ¹ / ₂ "	24 ¹ / ₂ "	11 ¹ / ₂ "	27 ¹ / ₂ "	30
3 ¹ / ₂ "	2 ¹ / ₂ "	8 ¹ / ₂ "	13 ¹ / ₂ "	19 ¹ / ₂ "	8 ¹ / ₂ "	21 ¹ / ₂ "	33
3 ¹ / ₂ "	2"	6 ¹ / ₂ "	11 ¹ / ₂ "	16 ¹ / ₂ "	7 ¹ / ₂ "	18 ¹ / ₂ "	35

4.5ft³ LINED							
8 ¹ / ₂ "	6 ¹ / ₂ "	16 ¹ / ₂ "	25 ¹ / ₂ "	∞	17 ¹ / ₂ "	∞	25
6 ¹ / ₂ "	5 ¹ / ₂ "	13 ¹ / ₂ "	21 ¹ / ₂ "	29 ¹ / ₂ "	14 ¹ / ₂ "	∞	27
4 ¹ / ₂ "	3 ¹ / ₂ "	10"	16 ¹ / ₂ "	23"	10 ¹ / ₂ "	25 ¹ / ₂ "	30
3 ¹ / ₂ "	2 ¹ / ₂ "	7 ¹ / ₂ "	12 ¹ / ₂ "	18 ¹ / ₂ "	7 ¹ / ₂ "	19 ¹ / ₂ "	33
2 ¹ / ₂ "	1 ¹ / ₂ "	6 ¹ / ₂ "	10"	15 ¹ / ₂ "	6 ¹ / ₂ "	17"	35

4.75ft³ LINED							
7 ¹ / ₂ "	6 ¹ / ₂ "	15 ¹ / ₂ "	24 ¹ / ₂ "	∞	16 ¹ / ₂ "	∞	25
6 ¹ / ₂ "	4 ¹ / ₂ "	12 ¹ / ₂ "	20"	27 ¹ / ₂ "	13 ¹ / ₂ "	∞	27
4 ¹ / ₂ "	3 ¹ / ₂ "	9 ¹ / ₂ "	15 ¹ / ₂ "	21 ¹ / ₂ "	9 ¹ / ₂ "	23 ¹ / ₂ "	30
3 ¹ / ₂ "	2 ¹ / ₂ "	7"	12"	18 ¹ / ₂ "	7 ¹ / ₂ "	18 ¹ / ₂ "	33
2 ¹ / ₂ "	1 ¹ / ₂ "	5 ¹ / ₂ "	10 ¹ / ₂ "	14 ¹ / ₂ "	5 ¹ / ₂ "	15 ¹ / ₂ "	35

5.0ft³ LINED							
7 ¹ / ₂ "	5 ¹ / ₂ "	14 ¹ / ₂ "	22 ¹ / ₂ "	31 ¹ / ₂ "	15 ¹ / ₂ "	∞	25
5 ¹ / ₂ "	4 ¹ / ₂ "	11 ¹ / ₂ "	18 ¹ / ₂ "	26 ¹ / ₂ "	12 ¹ / ₂ "	28 ¹ / ₂ "	27
4 ¹ / ₂ "	2 ¹ / ₂ "	8 ¹ / ₂ "	14 ¹ / ₂ "	20 ¹ / ₂ "	9"	22 ¹ / ₂ "	30
2 ¹ / ₂ "	1 ¹ / ₂ "	6 ¹ / ₂ "	11 ¹ / ₂ "	15 ¹ / ₂ "	6 ¹ / ₂ "	17 ¹ / ₂ "	33
2 ¹ / ₂ "	1 ¹ / ₂ "	5 ¹ / ₂ "	9 ¹ / ₂ "	13 ¹ / ₂ "	5 ¹ / ₂ "	14 ¹ / ₂ "	35

CUSTOM TUNING CHARTS

3.0ft³ LINED

2x2"	3"	2x3"	4"	2x4"	6"	2X6"	Tuning Freq. (Hz)
16 1/2"	18 1/2"	=	=	=	=	=	30
13 1/2"	14 1/2"	=	27 1/2"	=	=	=	33
11 1/2"	13"	28 1/2"	24 1/2"	=	=	=	35
10 1/2"	11 3/4"	24 1/2"	21 1/2"	=	=	=	37
8 1/2"	9 1/2"	20 1/2"	17 1/2"	=	=	=	40
7 1/2"	7 1/2"	17 1/2"	14 1/2"	=	=	=	43
6 1/2"	6 1/2"	15 1/2"	13 1/2"	29 1/2"	=	=	45
5 1/2"	6 1/4"	14 1/4"	11 1/4"	26 1/4"	29 1/4"	=	47
4 1/2"	5 1/4"	12 1/4"	10 1/4"	23 1/4"	25 1/4"	=	50
4 1/4"	4 1/4"	10 1/4"	8 1/4"	20 1/4"	22"	=	53
3 1/4"	3 1/4"	9 1/4"	7 1/4"	18 1/4"	20 1/4"	=	55
3 1/4"	3 3/8"	8 1/4"	7"	16 1/4"	18 1/4"	=	57
2 3/4"	2 1/2"	7 1/4"	6"	14 1/4"	16 1/4"	=	60
2 1/4"	2 1/4"	6 1/4"	5 1/4"	13 1/4"	14 1/4"	=	63
2 1/4"	2"	6"	4 1/4"	12 1/4"	12 1/4"	=	65
1 3/4"	1 3/4"	5 1/4"	4 1/4"	11 1/4"	11 1/4"	27 1/4"	67
1 1/2"	1 3/8"	4 1/4"	3 1/2"	9 1/4"	10 1/4"	25 1/4"	70
1 3/4"	1"	4 1/4"	3"	8 1/4"	9 1/4"	22 1/4"	73
1 1/2"	3/4"	3 1/4"	2 1/4"	8 1/4"	8 1/4"	21 1/4"	75
1"	=	3 1/4"	2 1/4"	7 1/4"	7 1/4"	19 1/4"	77
3/4"	=	3"	1 1/2"	6 1/4"	6 1/4"	17 1/4"	80

3.25ft³ LINED

2x2"	3"	2x3"	4"	2x4"	6"	2X6"	Tuning Freq. (Hz)
13 1/2"	14 1/2"	=	26 1/2"	=	=	=	30
10 1/2"	11 1/2"	25"	21 1/2"	=	=	=	33
9 1/4"	9 1/4"	21 1/4"	18 1/4"	=	=	=	35
8"	8 1/2"	13 1/2"	16 1/2"	=	=	=	37
6 1/2"	7"	16 1/2"	13 1/2"	29 1/2"	=	=	40
5 1/2"	5 1/4"	13 1/4"	11 1/4"	25 1/4"	27 1/4"	=	43
4 1/2"	5"	12 1/4"	10"	22 1/4"	25"	=	45
4 1/4"	4 1/2"	10 1/4"	8 1/4"	20 1/4"	22 1/4"	=	47
3 1/4"	3 1/2"	9 1/4"	7 1/4"	17 1/4"	19 1/4"	=	50
2 3/4"	2 1/2"	7 1/4"	6 1/4"	15 1/4"	16 1/4"	=	53
2 1/4"	2 1/4"	7 1/4"	5 1/4"	14"	15"	=	55
2 1/4"	2 1/8"	6 1/4"	4 1/4"	12 1/4"	13 1/4"	=	57
1 3/4"	1 3/4"	5 1/4"	4 1/4"	11 1/4"	11 1/4"	27 1/4"	60
1 1/2"	1 3/8"	4 1/4"	3 1/2"	9 1/4"	10 1/4"	24 1/4"	63
1 3/4"	1"	4 1/4"	3"	8 1/4"	9 1/4"	22 1/4"	65
1 1/2"	3/4"	3 1/4"	2 1/4"	8 1/4"	8 1/2"	21 1/4"	67
3/4"	=	3 1/4"	2 1/4"	7 1/4"	7 1/2"	18 1/4"	70
=	=	2 1/4"	1 1/2"	6 1/4"	6 1/4"	16 1/4"	73
=	=	2 1/4"	1 1/2"	5 1/4"	5 1/4"	15 1/4"	75
=	=	2 1/4"	1 1/4"	5 1/4"	5 1/4"	15 1/4"	77
=	=	1 1/4"	3/4"	4 1/4"	4 1/4"	13"	80

CUSTOM TUNING CHARTS

0.5ft³ UNLINED

2x2"	3"	2x3"	4"	2x4"	6"	2X6"	Tuning Freq. (Hz)
—	—	—	—	—	—	—	30
—	—	—	—	—	—	—	33
25 ¹ / ₄ "	28 ¹ / ₂ "	—	—	—	—	—	35
22 ¹ / ₄ "	25 ¹ / ₂ "	—	—	—	—	—	37
19 ¹ / ₄ "	21 ¹ / ₄ "	—	—	—	—	—	40
16 ¹ / ₄ "	18"	—	—	—	—	—	43
14 ¹ / ₄ "	16 ¹ / ₂ "	—	—	—	—	—	45
13 ¹ / ₂ "	14 ¹ / ₄ "	—	27 ¹ / ₄ "	—	—	—	47
11 ¹ / ₄ "	12 ¹ / ₄ "	27 ¹ / ₂ "	23 ¹ / ₄ "	—	—	—	50
10 ¹ / ₄ "	11"	24 ¹ / ₄ "	20 ¹ / ₄ "	—	—	—	53
9 ¹ / ₄ "	10"	22 ¹ / ₄ "	19"	—	—	—	55
8 ¹ / ₂ "	9 ¹ / ₄ "	20 ¹ / ₂ "	17 ¹ / ₄ "	—	—	—	57
7 ¹ / ₂ "	8"	18 ¹ / ₄ "	15 ¹ / ₄ "	—	—	—	60
6 ¹ / ₂ "	7"	16 ¹ / ₄ "	13 ¹ / ₄ "	—	—	—	63
6 ¹ / ₄ "	6 ¹ / ₂ "	15 ¹ / ₄ "	12 ¹ / ₄ "	28 ¹ / ₂ "	—	—	65
5 ¹ / ₂ "	5 ¹ / ₂ "	14"	11 ¹ / ₄ "	26 ¹ / ₂ "	28 ¹ / ₄ "	—	67
5"	5 ¹ / ₄ "	12 ¹ / ₄ "	10 ¹ / ₄ "	23 ¹ / ₄ "	26"	—	70
4 ¹ / ₂ "	4 ¹ / ₂ "	11 ¹ / ₄ "	9 ¹ / ₄ "	21 ¹ / ₂ "	23 ¹ / ₂ "	—	73
4 ¹ / ₄ "	4 ¹ / ₄ "	10 ¹ / ₄ "	8 ¹ / ₄ "	20 ¹ / ₄ "	22"	—	75
3 ¹ / ₄ "	3 ¹ / ₄ "	9 ¹ / ₄ "	8"	18 ¹ / ₄ "	20 ¹ / ₂ "	—	77
3 ¹ / ₂ "	3 ¹ / ₂ "	9"	7 ¹ / ₄ "	17 ¹ / ₂ "	18 ¹ / ₄ "	—	80

0.75ft³ UNLINED

2x2"	3"	2x3"	4"	2x4"	6"	2X6"	Tuning Freq. (Hz)
23 ¹ / ₄ "	25 ¹ / ₂ "	—	—	—	—	—	30
18 ¹ / ₄ "	20 ¹ / ₄ "	—	—	—	—	—	33
16 ¹ / ₂ "	18 ¹ / ₄ "	—	—	—	—	—	35
14 ¹ / ₂ "	16"	—	29 ¹ / ₂ "	—	—	—	37
12 ¹ / ₄ "	13 ¹ / ₄ "	28 ¹ / ₄ "	24 ¹ / ₄ "	—	—	—	40
10 ¹ / ₂ "	11 ¹ / ₄ "	24 ¹ / ₂ "	21"	—	—	—	43
9 ¹ / ₄ "	10"	22 ¹ / ₂ "	18 ¹ / ₂ "	—	—	—	45
8 ¹ / ₄ "	8 ¹ / ₄ "	20 ¹ / ₄ "	17"	—	—	—	47
7 ¹ / ₄ "	7 ¹ / ₄ "	17 ¹ / ₄ "	14 ¹ / ₄ "	—	—	—	50
6 ¹ / ₂ "	6 ¹ / ₂ "	15 ¹ / ₄ "	12 ¹ / ₄ "	28 ¹ / ₄ "	—	—	53
5 ¹ / ₂ "	5 ¹ / ₄ "	13 ¹ / ₄ "	11 ¹ / ₂ "	25 ¹ / ₂ "	28 ¹ / ₂ "	—	55
5"	5 ¹ / ₄ "	12 ¹ / ₄ "	10 ¹ / ₂ "	23 ¹ / ₂ "	26 ¹ / ₂ "	—	57
4 ¹ / ₂ "	4 ¹ / ₂ "	11 ¹ / ₄ "	9 ¹ / ₂ "	21 ¹ / ₄ "	23 ¹ / ₂ "	—	60
3 ¹ / ₄ "	3 ¹ / ₄ "	9 ¹ / ₄ "	8"	18 ¹ / ₄ "	20 ¹ / ₂ "	—	63
3 ¹ / ₂ "	3 ¹ / ₂ "	9 ¹ / ₂ "	7 ¹ / ₄ "	17 ¹ / ₂ "	18 ¹ / ₂ "	—	65
3 ¹ / ₄ "	3 ¹ / ₄ "	8 ¹ / ₂ "	6 ¹ / ₂ "	16 ¹ / ₄ "	17 ¹ / ₂ "	—	67
2 ¹ / ₄ "	2 ¹ / ₄ "	7 ¹ / ₄ "	5 ¹ / ₄ "	14 ¹ / ₂ "	15 ¹ / ₂ "	—	70
2 ¹ / ₂ "	2 ¹ / ₄ "	6 ¹ / ₂ "	5 ¹ / ₂ "	13"	14"	—	73
2 ¹ / ₂ "	2"	6 ¹ / ₄ "	4 ¹ / ₂ "	12 ¹ / ₄ "	12 ¹ / ₄ "	—	75
1 ¹ / ₄ "	1 ¹ / ₄ "	5 ¹ / ₄ "	4 ¹ / ₄ "	11 ¹ / ₂ "	12"	28 ¹ / ₄ "	77
1 ¹ / ₂ "	1 ¹ / ₂ "	5"	3 ¹ / ₄ "	10 ¹ / ₄ "	10 ¹ / ₄ "	25 ¹ / ₄ "	80

CUSTOM TUNING CHARTS

1.5ft³ UNLINED

2x2"	3"	2x3"	4"	2x4"	6"	2X6"	Tuning Freq. (Hz)
10 ¹ / ₄ "	11 ¹ / ₄ "	25 ¹ / ₄ "	21 ¹ / ₄ "	∞	∞	∞	30
8 ¹ / ₄ "	9 ¹ / ₄ "	20 ¹ / ₄ "	17 ¹ / ₄ "	∞	∞	∞	33
7 ¹ / ₄ "	7 ¹ / ₄ "	17 ¹ / ₄ "	15"	∞	∞	∞	35
6 ¹ / ₄ "	6 ¹ / ₄ "	15 ¹ / ₄ "	13 ¹ / ₄ "	29 ¹ / ₄ "	∞	∞	37
5 ¹ / ₄ "	5 ¹ / ₄ "	12 ¹ / ₄ "	10 ¹ / ₄ "	24 ¹ / ₄ "	26 ¹ / ₄ "	∞	40
4 ¹ / ₄ "	4 ¹ / ₄ "	10 ¹ / ₄ "	8 ¹ / ₄ "	20 ¹ / ₄ "	22 ¹ / ₄ "	∞	43
3 ¹ / ₄ "	3 ¹ / ₄ "	9 ¹ / ₄ "	7 ¹ / ₄ "	18 ¹ / ₄ "	20"	∞	45
3 ¹ / ₄ "	3 ¹ / ₄ "	8 ¹ / ₄ "	6 ¹ / ₄ "	16 ¹ / ₄ "	17 ¹ / ₄ "	∞	47
2 ¹ / ₄ "	2 ¹ / ₄ "	7 ¹ / ₄ "	5 ¹ / ₄ "	14 ¹ / ₄ "	15 ¹ / ₄ "	∞	50
2 ¹ / ₄ "	2"	6 ¹ / ₄ "	4 ¹ / ₄ "	12 ¹ / ₄ "	13"	∞	53
1 ¹ / ₄ "	1 ¹ / ₄ "	5 ¹ / ₄ "	4 ¹ / ₄ "	11"	11 ¹ / ₄ "	27 ¹ / ₄ "	55
1 ¹ / ₄ "	1 ¹ / ₄ "	4 ¹ / ₄ "	3 ¹ / ₄ "	10"	10 ¹ / ₄ "	25 ¹ / ₄ "	57
1 ¹ / ₄ "	1"	4 ¹ / ₄ "	2 ¹ / ₄ "	8 ¹ / ₄ "	9"	22 ¹ / ₄ "	60
1"	∞	3 ¹ / ₄ "	2 ¹ / ₄ "	7 ¹ / ₄ "	7 ¹ / ₄ "	19 ¹ / ₄ "	63
3 ¹ / ₄ "	∞	3 ¹ / ₄ "	1 ¹ / ₄ "	6 ¹ / ₄ "	6 ¹ / ₄ "	18"	65
∞	∞	2 ¹ / ₄ "	1 ¹ / ₄ "	6 ¹ / ₄ "	6 ¹ / ₄ "	16 ¹ / ₄ "	67
∞	∞	2 ¹ / ₄ "	1 ¹ / ₄ "	5 ¹ / ₄ "	5 ¹ / ₄ "	14 ¹ / ₄ "	70
∞	∞	1 ¹ / ₄ "	3 ¹ / ₄ "	4 ¹ / ₄ "	4 ¹ / ₄ "	13 ¹ / ₄ "	73
∞	∞	1 ¹ / ₄ "	∞	4 ¹ / ₄ "	3 ¹ / ₄ "	12"	75
∞	∞	1 ¹ / ₄ "	∞	3 ¹ / ₄ "	3 ¹ / ₄ "	11 ¹ / ₄ "	77
∞	∞	1"	∞	3 ¹ / ₄ "	2 ¹ / ₄ "	9 ¹ / ₄ "	80

1.75ft³ UNLINED

2x2"	3"	2x3"	4"	2x4"	6"	2X6"	Tuning Freq. (Hz)
8 ¹ / ₄ "	9 ¹ / ₄ "	21 ¹ / ₄ "	18 ¹ / ₄ "	∞	∞	∞	30
7"	7 ¹ / ₄ "	17 ¹ / ₄ "	14 ¹ / ₄ "	∞	∞	∞	33
6"	6 ¹ / ₄ "	14 ¹ / ₄ "	12 ¹ / ₄ "	27 ¹ / ₄ "	∞	∞	35
5 ¹ / ₄ "	5 ¹ / ₄ "	13"	10 ¹ / ₄ "	24 ¹ / ₄ "	26 ¹ / ₄ "	∞	37
4 ¹ / ₄ "	4 ¹ / ₄ "	10 ¹ / ₄ "	8 ¹ / ₄ "	20 ¹ / ₄ "	22 ¹ / ₄ "	∞	40
3 ¹ / ₄ "	3 ¹ / ₄ "	8 ¹ / ₄ "	7 ¹ / ₄ "	17"	18 ¹ / ₄ "	∞	43
2 ¹ / ₄ "	2 ¹ / ₄ "	7 ¹ / ₄ "	6 ¹ / ₄ "	15 ¹ / ₄ "	16 ¹ / ₄ "	∞	45
2 ¹ / ₄ "	2 ¹ / ₄ "	6 ¹ / ₄ "	5 ¹ / ₄ "	13 ¹ / ₄ "	14 ¹ / ₄ "	∞	47
2"	1 ¹ / ₄ "	5 ¹ / ₄ "	4 ¹ / ₄ "	11 ¹ / ₄ "	12 ¹ / ₄ "	28 ¹ / ₄ "	50
1 ¹ / ₄ "	1 ¹ / ₄ "	4 ¹ / ₄ "	3 ¹ / ₄ "	9 ¹ / ₄ "	10 ¹ / ₄ "	25"	53
1 ¹ / ₄ "	1"	4 ¹ / ₄ "	3"	8 ¹ / ₄ "	9 ¹ / ₄ "	22 ¹ / ₄ "	55
1 ¹ / ₄ "	3 ¹ / ₄ "	3 ¹ / ₄ "	2 ¹ / ₄ "	8"	8 ¹ / ₄ "	20 ¹ / ₄ "	57
3 ¹ / ₄ "	∞	3 ¹ / ₄ "	1 ¹ / ₄ "	6 ¹ / ₄ "	7"	18 ¹ / ₄ "	60
∞	∞	2 ¹ / ₄ "	1 ¹ / ₄ "	5 ¹ / ₄ "	5 ¹ / ₄ "	15 ¹ / ₄ "	63
∞	∞	2 ¹ / ₄ "	3 ¹ / ₄ "	5 ¹ / ₄ "	5 ¹ / ₄ "	14 ¹ / ₄ "	65
∞	∞	1 ¹ / ₄ "	∞	4 ¹ / ₄ "	4 ¹ / ₄ "	13 ¹ / ₄ "	67
∞	∞	1 ¹ / ₄ "	∞	4"	3 ¹ / ₄ "	11 ¹ / ₄ "	70
∞	∞	1 ¹ / ₄ "	∞	3 ¹ / ₄ "	3 ¹ / ₄ "	10 ¹ / ₄ "	73
∞	∞	3 ¹ / ₄ "	∞	3"	2 ¹ / ₄ "	9 ¹ / ₄ "	75
∞	∞	3 ¹ / ₄ "	∞	2 ¹ / ₄ "	2 ¹ / ₄ "	8 ¹ / ₄ "	77
∞	∞	∞	∞	2 ¹ / ₄ "	1 ¹ / ₄ "	7 ¹ / ₄ "	80

CUSTOM TUNING CHARTS

2.5ft³ UNLINED

2x3"	3x3"	4"	2x4"	3x4"	6"	2X6"	Tuning Freq. (Hz)
18 1/2"	28 1/4"	15 1/4"	—	—	—	—	30
14 1/4"	22 1/4"	12 1/4"	27 1/4"	—	29 1/4"	—	33
12 1/4"	20"	10 1/4"	23 1/4"	—	26"	—	35
11"	17 1/4"	9"	20 1/4"	—	22 1/4"	—	37
9"	14 1/4"	7 1/4"	17 1/4"	27 1/4"	18 1/4"	—	40
7 1/4"	12 1/4"	5 1/4"	14 1/4"	23 1/4"	15 1/4"	—	43
6 1/4"	10 1/4"	5"	12 1/4"	20 1/4"	13 1/4"	—	45
5 1/4"	9 1/4"	4 1/4"	11 1/4"	18 1/4"	12 1/4"	28 1/4"	47
4 1/4"	8 1/4"	3 1/4"	9 1/4"	15 1/4"	10 1/4"	24 1/4"	50
3 1/4"	6 1/4"	2 1/4"	8 1/4"	13 1/4"	8 1/4"	21 1/4"	53
3 1/4"	6 1/4"	2 1/4"	7 1/4"	12 1/4"	7 1/4"	19 1/4"	55
2 1/4"	5 1/4"	1 1/4"	6 1/4"	11 1/4"	6 1/4"	17 1/4"	57
2 1/4"	4 1/4"	1 1/4"	5 1/4"	9 1/4"	5 1/4"	15 1/4"	60
1 1/4"	3 1/4"	3/4"	4 1/4"	8 1/4"	4 1/4"	13 1/4"	63
1 1/4"	3 1/4"	—	4 1/4"	7 1/4"	3 1/4"	12"	65
1 1/4"	3 1/4"	—	3 1/4"	6 1/4"	3 1/4"	11"	67
1"	2 1/4"	—	3"	6"	2 1/4"	9 1/4"	70
—	2 1/4"	—	2 1/4"	5 1/4"	2"	8 1/4"	73
—	1 1/4"	—	2 1/4"	4 1/4"	1 1/4"	7 1/4"	75
—	1 1/4"	—	1 1/4"	4 1/4"	1 1/4"	6 1/4"	77
—	1 1/4"	—	1 1/4"	3 1/4"	3/4"	5 1/4"	80

2.25ft³ UNLINED

2x3"	3x3"	4"	2x4"	3x4"	6"	2X6"	Tuning Freq. (Hz)
15 1/2"	24 1/4"	13 1/4"	29 1/4"	—	—	—	30
12 1/4"	20"	10 1/4"	23 1/4"	—	26"	—	33
10 1/4"	17 1/4"	8 1/4"	20 1/4"	—	22 1/4"	—	35
9 1/4"	15 1/4"	7 1/4"	18 1/4"	28 1/4"	19 1/4"	—	37
7 1/4"	12 1/4"	6"	14 1/4"	23 1/4"	16 1/4"	—	40
6 1/4"	10 1/4"	4 1/4"	12 1/4"	20"	13 1/4"	—	43
5 1/4"	9 1/4"	4"	11"	17 1/4"	11 1/4"	27 1/4"	45
4 1/4"	8 1/4"	3 1/4"	9 1/4"	16"	10 1/4"	24 1/4"	47
3 1/4"	6 1/4"	2 1/4"	8 1/4"	13 1/4"	8 1/4"	21 1/4"	50
3 1/4"	5 1/4"	2"	6 1/4"	11 1/4"	6 1/4"	18 1/4"	53
2 1/4"	5 1/4"	1 1/4"	6"	10 1/4"	6 1/4"	16 1/4"	55
2 1/4"	4 1/4"	1 1/4"	5 1/4"	9 1/4"	5 1/4"	14 1/4"	57
1 1/4"	3 1/4"	3/4"	4 1/4"	8 1/4"	4 1/4"	12 1/4"	60
1 1/4"	3 1/4"	—	3 1/4"	7"	3 1/4"	11 1/4"	63
1 1/4"	2 1/4"	—	3 1/4"	6 1/4"	2 1/4"	10"	65
3/4"	2 1/4"	—	2 1/4"	5 1/4"	2 1/4"	9 1/4"	67
—	1 1/4"	—	2 1/4"	4 1/4"	1 1/4"	7 1/4"	70
—	1 1/4"	—	1 1/4"	4 1/4"	1 1/4"	6 1/4"	73
—	1 1/4"	—	1 1/4"	3 1/4"	3/4"	6"	75
—	1"	—	1 1/4"	3 1/4"	—	5 1/4"	77
—	—	—	3/4"	2 1/4"	—	4 1/4"	80

CUSTOM TUNING CHARTS

2.5ft³ UNLINED

2x3"	3x3"	4"	2x4"	3x4"	6"	2X6"	Tuning Freq. (Hz)
14"	22 1/8"	11 1/8"	26 1/4"	∞	28 1/4"	∞	30
11 1/8"	17 1/4"	9"	21"	∞	22 1/8"	∞	33
9 1/2"	15 1/8"	7 1/4"	18 1/4"	28 1/8"	19 1/4"	∞	35
8 1/2"	13 3/8"	6 1/2"	15 1/8"	25 1/8"	17 1/8"	∞	37
6 1/8"	11"	5 1/8"	13"	21"	13 3/8"	∞	40
5 1/8"	9 1/8"	3 3/4"	10 1/4"	17 1/8"	11 1/8"	26 1/8"	43
4 1/8"	8"	3 1/8"	9 1/8"	15 1/8"	9 1/8"	24 1/8"	45
4"	7"	2 1/4"	8 1/8"	14"	8 1/8"	21 1/8"	47
3 1/4"	5 1/4"	2"	6 1/8"	11 1/4"	7 1/8"	18 1/8"	50
2 1/8"	4 1/4"	1 1/2"	5 1/8"	10 1/8"	5 1/8"	15 1/8"	53
2 1/8"	4 1/4"	1 1/8"	5 1/8"	9"	5"	14 1/8"	55
1 3/4"	3 1/4"	3/4"	4 1/8"	8 1/8"	4 1/8"	12 1/8"	57
1 1/2"	3"	∞	3 1/8"	6 1/8"	3 1/8"	10 1/8"	60
3/4"	2 1/2"	∞	2 1/8"	5 1/4"	2 1/8"	9 1/8"	63
∞	2 1/8"	∞	2 1/8"	5 1/4"	2 1/8"	8 1/8"	65
∞	1 1/4"	∞	2 1/8"	4 1/4"	1 1/4"	7 1/8"	67
∞	1 1/8"	∞	1 3/8"	3 1/4"	1 1/8"	6 1/8"	70
∞	1"	∞	1 1/4"	3 1/4"	∞	5 1/8"	73
∞	3/4"	∞	3/4"	2 1/8"	∞	4 1/8"	75
∞	∞	∞	∞	2 1/8"	∞	4 1/8"	77
∞	∞	∞	∞	1 1/8"	∞	3 1/8"	80

2.75ft³ UNLINED

2x3"	3x3"	4"	2x4"	3x4"	6"	2X6"	Tuning Freq. (Hz)
12 1/2"	19 1/4"	10 1/8"	23 1/8"	∞	25 1/8"	∞	30
9 1/8"	15 1/4"	7 1/8"	18 1/4"	29 1/8"	20 1/8"	∞	33
8 1/8"	13 1/4"	6 1/8"	16 1/4"	25 1/8"	17 1/8"	∞	35
7 1/8"	11 1/8"	5 1/8"	14 1/8"	22 1/8"	15 1/8"	∞	37
5 1/4"	9 1/8"	4 1/8"	11 1/8"	18 1/8"	12 1/8"	28 1/8"	40
4 1/8"	7 1/8"	3 1/4"	9 1/8"	15 1/8"	9 1/8"	23 1/8"	43
3 1/8"	7"	2 3/4"	8 1/8"	13 1/4"	8 1/8"	21 1/8"	45
3 1/8"	6 1/8"	2 1/8"	7 1/8"	12 1/8"	7 1/8"	19 1/8"	47
2 1/8"	5"	1 1/2"	5 1/8"	10 1/8"	6"	16 1/8"	50
2"	4 1/8"	1"	4 1/8"	8 1/4"	4 1/8"	13 1/8"	53
1 3/4"	3 1/4"	∞	4 1/8"	7 1/8"	4 1/8"	12 1/8"	55
1 3/4"	1 1/8"	∞	3 1/4"	7"	3 1/4"	11"	57
3/4"	2 1/8"	∞	2 1/8"	5 1/8"	2 1/8"	9 1/8"	60
∞	1 1/8"	∞	2 1/8"	4 1/8"	1 1/8"	8"	63
∞	1 1/8"	∞	1 1/8"	4 1/8"	1 1/8"	7 1/8"	65
∞	1 1/8"	∞	1 1/8"	3 1/4"	1 1/8"	6 1/8"	67
∞	3/4"	∞	1 1/8"	3 1/8"	∞	5 1/8"	70
∞	∞	∞	3/4"	2 1/8"	∞	4 1/8"	73
∞	∞	∞	∞	2 1/8"	∞	3 1/8"	75
∞	∞	∞	∞	1 1/4"	∞	3 1/8"	77
∞	∞	∞	∞	1 1/8"	∞	2 1/8"	80

CUSTOM TUNING CHARTS

3.0ft³ UNLINED

2x3"	3x3"	4"	2x4"	3x4"	6"	2X6"	Tuning Freq. (Hz)
11 1/2"	17 1/8"	9 1/8"	21 1/8"	—	23 1/8"	—	30
8 1/2"	14 1/8"	7"	16 1/8"	26 1/8"	18 1/8"	—	33
7 1/8"	12 1/8"	5 1/2"	14 1/2"	23 1/2"	15 1/2"	—	35
6 1/8"	10 1/8"	4 1/2"	12 1/8"	20 1/8"	13 1/8"	—	37
5"	8 1/8"	3 1/2"	10 1/8"	16 1/8"	10 1/8"	25 1/8"	40
3 1/8"	7"	2 1/2"	8 1/8"	13 1/8"	8 1/8"	21 1/8"	43
3 1/8"	6 1/8"	2 1/2"	7 1/2"	12 1/8"	7 1/8"	19 1/8"	45
2 1/2"	5 1/8"	1 1/2"	6 1/8"	10 1/8"	6 1/8"	17"	47
1 1/8"	4 1/8"	1 1/8"	5 1/8"	9 1/8"	5 1/8"	14 1/8"	50
1 1/8"	3 1/2"	—	4 1/8"	7 1/8"	3 1/8"	12 1/8"	53
1 1/2"	3"	—	3 1/8"	6 1/8"	3 1/8"	10 1/8"	55
1"	2 1/8"	—	3"	6"	2 1/8"	9 1/8"	57
—	2"	—	2 1/8"	5"	2"	8 1/8"	60
—	1 1/8"	—	1 1/8"	4 1/8"	1 1/8"	6 1/8"	63
—	1 1/8"	—	1 1/8"	3 1/8"	1/4"	6"	65
—	1/2"	—	1 1/8"	3 1/8"	—	5 1/8"	67
—	—	—	3/4"	2 1/8"	—	4 1/8"	70
—	—	—	—	2"	—	3 1/8"	73
—	—	—	—	1 1/2"	—	3"	75
—	—	—	—	1 1/4"	—	2 1/8"	77
—	—	—	—	3/4"	—	1 1/8"	80

3.25ft³ UNLINED

2x3"	3x3"	4"	2x4"	3x4"	6"	2X6"	Tuning Freq. (Hz)
10 1/8"	16 1/8"	8 1/8"	19 1/8"	—	20 1/8"	—	30
7 1/4"	12 1/8"	6 1/8"	15 1/8"	24 1/8"	16 1/8"	—	33
6 1/8"	11"	5 1/8"	13 1/8"	21 1/8"	14"	—	35
5 1/8"	9 1/8"	4 1/8"	11 1/8"	18 1/8"	12"	28 1/8"	37
4 1/8"	7 1/8"	3 1/8"	9 1/8"	15 1/8"	9 1/8"	23 1/8"	40
3 1/8"	6 1/8"	2 1/2"	7 1/8"	12 1/8"	7 1/8"	19 1/8"	43
2 1/8"	5 1/8"	1 1/2"	6 1/8"	11"	6 1/8"	17 1/8"	45
2 1/8"	4 1/8"	1 1/8"	5 1/8"	9 1/8"	5 1/8"	12 1/8"	47
1 1/2"	3 1/2"	3/4"	4 1/8"	8 1/8"	4 1/8"	12 1/8"	50
1 1/8"	3"	—	3 1/8"	6 1/8"	3 1/8"	10 1/8"	53
1"	2 1/8"	—	3"	5 1/8"	2 1/8"	9 1/8"	55
—	2 1/8"	—	2 1/2"	5 1/8"	2 1/8"	8 1/8"	57
—	1 1/8"	—	1 1/8"	4 1/8"	1 1/8"	7"	60
—	1 1/8"	—	1 1/8"	3 1/8"	1/4"	5 1/8"	63
—	1/2"	—	1"	3"	—	5 1/8"	65
—	—	—	3/4"	2 1/8"	—	4 1/8"	67
—	—	—	—	2"	—	3 1/8"	70
—	—	—	—	1 1/2"	—	2 1/8"	73
—	—	—	—	1 1/4"	—	2 1/8"	75
—	—	—	—	3/4"	—	1 1/8"	77
—	—	—	—	—	—	1 1/8"	80

CUSTOM TUNING CHARTS

2x3"	4"	2x4"	3x4"	4x4"	6"	2X6"	Tuning Freq. (Hz)
3.5ft³ UNLINED							
14 1/2"	12 1/4"	27"	∞	∞	29 1/4"	∞	25
12"	9 1/4"	22 1/2"	∞	∞	24 1/4"	∞	27
9 1/4"	7 1/4"	17 1/2"	27 1/4"	∞	19 1/4"	∞	30
7 1/4"	5 1/4"	13 1/4"	22 1/2"	∞	14 1/4"	∞	33
6"	4 1/4"	12"	19 1/4"	26 1/4"	12 1/4"	29 1/4"	35
3.75ft³ UNLINED							
13 1/4"	11"	25"	∞	∞	27 1/4"	∞	25
11"	8"	20 1/2"	∞	∞	22 1/4"	∞	27
8 1/4"	6 1/4"	16 1/4"	25 1/4"	∞	17 1/4"	∞	30
6 1/4"	4 1/4"	12 1/4"	20 1/4"	28 1/2"	13 1/4"	∞	33
5 1/4"	4"	10 1/4"	17 1/4"	24 1/2"	11 1/2"	27 1/4"	35
4.0ft³ UNLINED							
12 1/4"	10 1/4"	23 1/4"	∞	∞	25 1/4"	∞	25
10 1/4"	8 1/4"	19 1/4"	∞	∞	21"	∞	27
7 1/4"	6"	14 1/4"	23 1/4"	∞	16 1/4"	∞	30
5 1/4"	4 1/4"	11 1/4"	18 1/4"	26 1/4"	12 1/4"	29"	33
4 1/4"	3 1/2"	9 1/4"	16 1/2"	22 1/2"	10 1/4"	25 1/4"	35
4.25ft³ UNLINED							
11 1/4"	9 1/4"	21 1/4"	∞	∞	23 1/4"	∞	25
9 1/4"	7 1/4"	18"	28 1/4"	∞	19 1/2"	∞	27
7"	5 1/4"	13 1/4"	22 1/4"	∞	14 1/4"	∞	30
5 1/4"	3 1/4"	10 1/4"	17 1/2"	24 1/4"	11 1/4"	26 1/4"	33
4 1/4"	3 1/4"	9 1/4"	15 1/4"	21 1/4"	9 1/2"	23 1/4"	35
4.5ft³ UNLINED							
10 1/4"	8 1/4"	20 1/4"	∞	∞	22"	∞	25
8 1/4"	6 1/4"	16 1/4"	26 1/4"	∞	18 1/4"	∞	27
6 1/4"	5"	12 1/4"	20 1/4"	28 1/2"	13 1/4"	∞	30
4 1/4"	3 1/4"	9 1/4"	16 1/4"	22 1/4"	10 1/4"	25 1/4"	33
4"	2 1/4"	8 1/4"	14"	20"	8 1/4"	21 1/4"	35
4.75ft³ UNLINED							
9 1/4"	8"	18 1/4"	29 1/4"	∞	20 1/4"	∞	25
8 1/4"	6 1/4"	15 1/4"	24 1/4"	∞	16 1/4"	∞	27
6"	4 1/4"	11 1/4"	19 1/4"	26 1/4"	12 1/4"	29 1/4"	30
4 1/4"	3 1/4"	9 1/4"	15 1/4"	21 1/4"	9 1/4"	23 1/4"	33
3 1/4"	2 1/4"	7 1/4"	13 1/4"	18 1/4"	8"	20 1/4"	35
5.0ft³ UNLINED							
9 1/4"	7 1/4"	17 1/4"	28 1/4"	∞	19 1/4"	∞	25
7 1/2"	5 1/4"	14 1/4"	23 1/4"	∞	15 1/4"	∞	27
5 1/4"	4 1/4"	11 1/4"	18 1/4"	25 1/4"	11 1/4"	27 1/4"	30
4 1/4"	2 1/4"	8 1/4"	14 1/4"	20 1/4"	8 1/4"	22"	33
3 1/4"	2 1/4"	7 1/4"	12 1/4"	17 1/4"	7 1/4"	18 1/4"	35