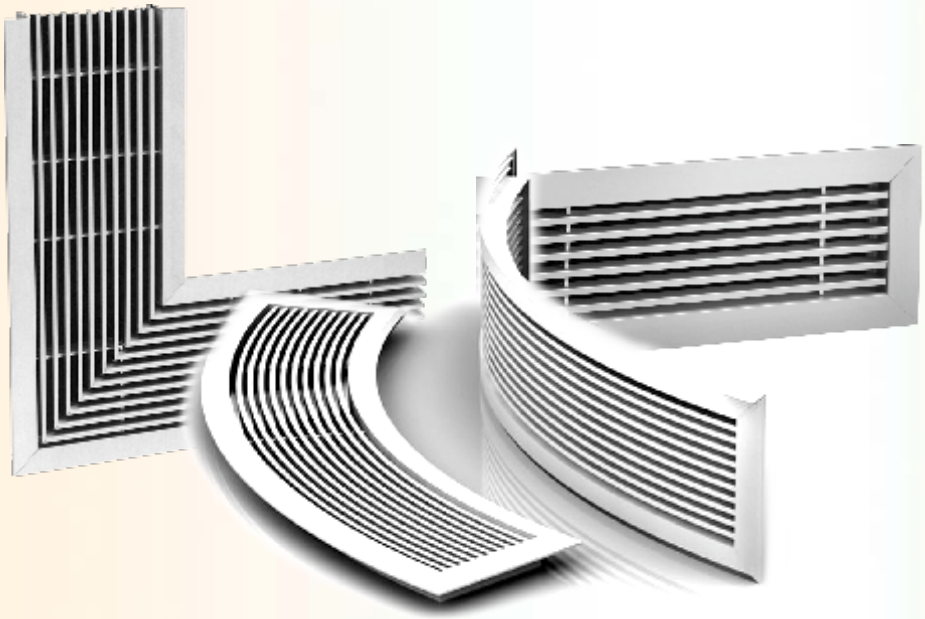
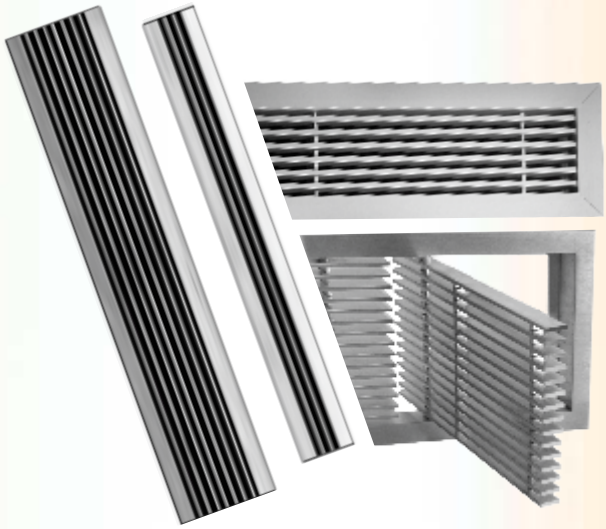
MASTER GRILLE

ماستر غريل



Linear Bar

Linear Bar ➤ Description



Linear Bar

Aluminum
Fied Bars

Models:

1/4" Spacing:

CT - 15 ■ 1/5" Bars
■ 0° Deflection

CT - 16 ■ 1/5" Bars
■ 15° Deflection

1/2" Spacing:

CMT - 15 ■ 1/5" Bars
■ 0° Deflection

CMT - 16 ■ 1/5" Bars
■ 15° Deflection

7/10" Spacing:

CMTE - 15 ■ 1/5" Bars
■ 0° Deflection

CMTE - 16 ■ 1/5" Bars
■ 15° Deflection

These Products Include:

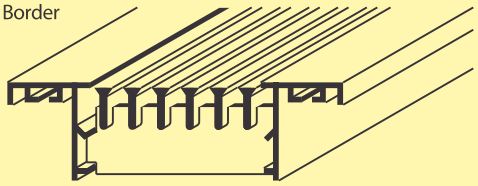
■ Standard Finish:
26# White

■ Optional Finishes:
01# Aluminum
34# Clear Anodized

- ➤ When both appearance and performance are of prime importance in an air distribution system, MASTER GRILLE linear bar diffusers are a logical choice.
- ➤ Designed for both heating and cooling applications, supply as well as return.
- ➤ Available in eight different core styles plus a wide selection of frames and borders.
- ➤ Can be selected for ceiling, side wall, or sill installations. Heavy duty models (Frames 6 ,5, and 15) are designed especially for typical floor installations.
- ➤ Accessories such as directional blades, dampers, blank-offs, access doors, and mitered corners make these diffusers even more versatile.
- ➤ Ideal for continuous length applications. Multiple sections are shipped with required alignment strips or pins for field installation.
- ➤ Maximum one piece section is 6 ft. Lengths greater than 6 ft. are furnished in multiple sections.
- ➤ Sections can be joined together end-to-end for continuous appearance, using standard alignment strips or alignment wires.
- ➤ All deflection bars are fixed and parallel to the long dimension.
- ➤ Fixed bars and support bars are extruded aluminum.
- ➤ Optional curving to a 6 ft. minimum radius on most models, available for architectural enhancement.

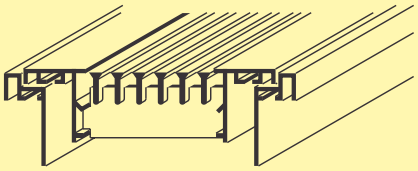
Linear Bar ➤ Border / Frame / Core Combinations

Core with Border



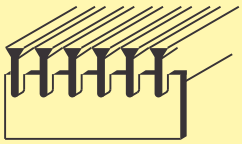
Type 13 border is shown.

Core with Frame & Border

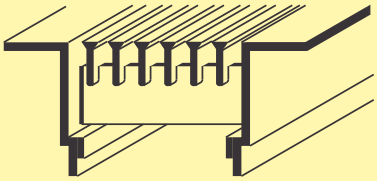


Type 1A frame & border combination is shown.

Core Only



Core with Heavy Duty Mounting Frame for Floor Applications



Core is always furnished with Type H additional reinforcing for frames 6 ,5, and 15.

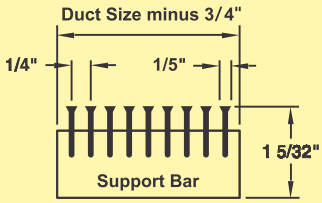
Type 5 heavy duty mounting frame is shown.

Available Cores

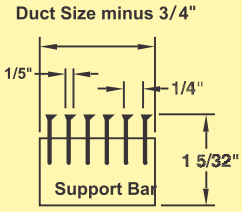
1/4" Spacing

1/5" Bars

Model CT - 15 ■ °0Deflection



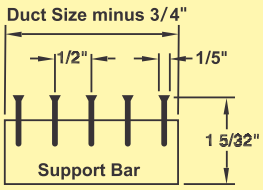
Model CT - 16 ■ °15Deflection



1/2" Spacing

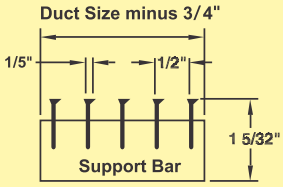
1/5" Bars

Model CMT - 15 ■ °0Deflection



*See Note Below

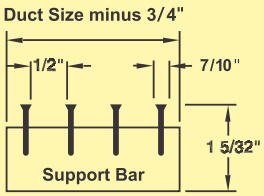
Model CMT - 16 ■ °15Deflection



*See Note Below

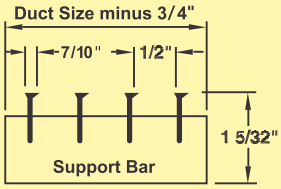
1/5" Bars

Model CMTE -15 ■ °0Deflection



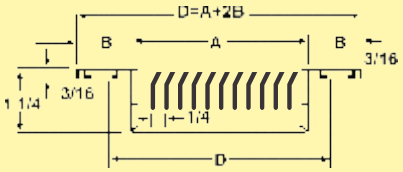
*See Note Below

Model CMTE -16 ■ °15Deflection

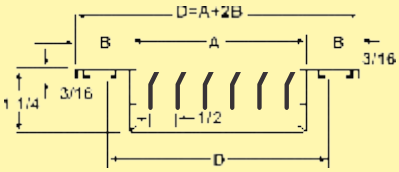


*See Note Below

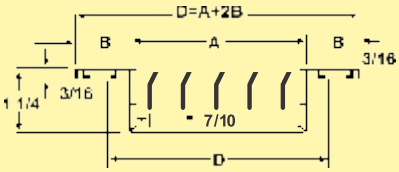
CT-B



CMT-B



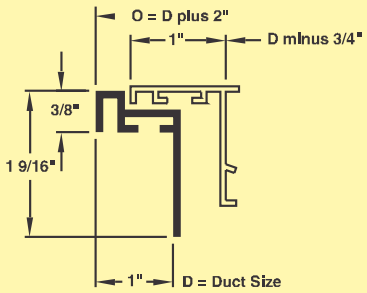
CMTE-B



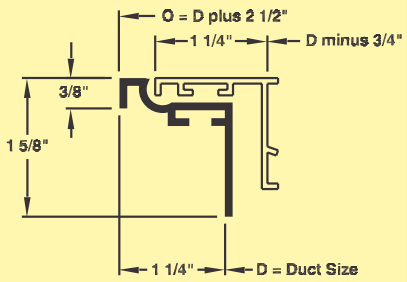
*Note: Not recommended for floor applications with heavy loads or high traffic. See page F38 for maximum floor loading.
All dimensions are in inches.

Linear Bar ➤ Border / Frame / Dimensions

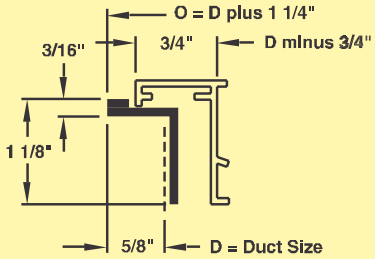
Frame & Border Type 1A with
- 1" Border



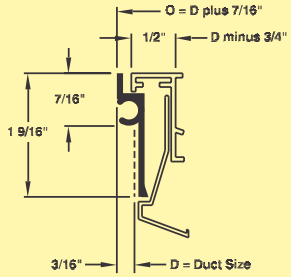
Frame & Border Type 1B with
- 1¼" Border



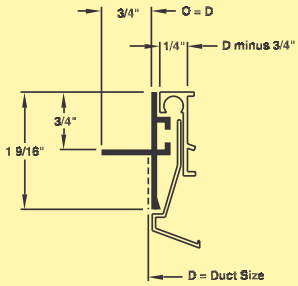
Frame & Border Type 2 with
- ¾" Border



Frame & Border Type 3 with
- ½" Border
- Spring Latch

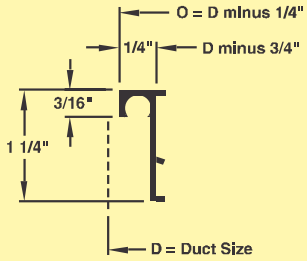


Frame & Border Type 4 with
- ¼" Border
- Spring Latch



Border Types ■ Dimensions

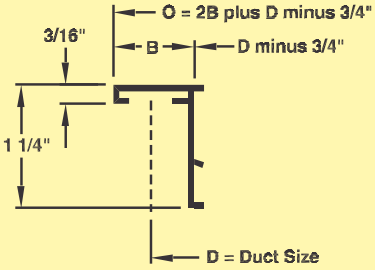
Border Type 7 with



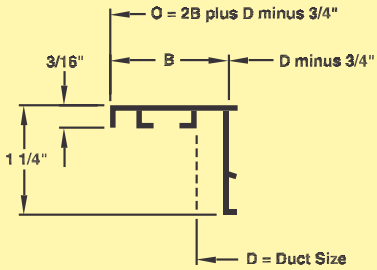
- ¼" Border

Border Type 7 is not available with type A (screw hole) fastening.

Border Type 12 & 11
- (11) ½" Border
- (12) ¾" Border

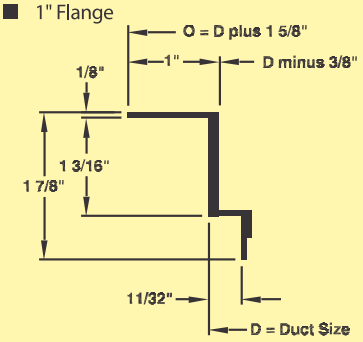


Border Type 14 & 13 with
- (1 (13" Border
- (1 (14 ¼" Border

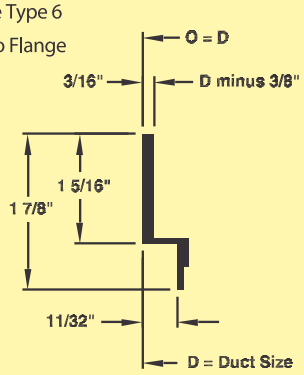


Heavy Duty Mounting Frames for Floor Applications

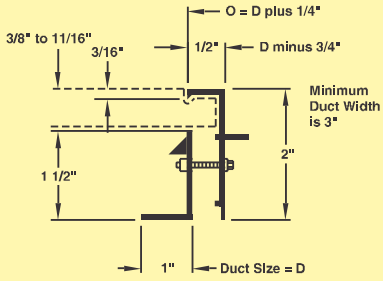
Frame Type 5
- 1" Flange



Frame Type 6
- No Flange



Frame Type 15
- Carpet Clamp Flange



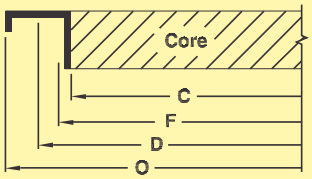
Note: Not for CT15 , CT16

All dimensions are in inches.

Linear Bar ➤ Dimensions

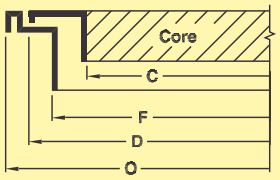
Overall Lengths and Widths of Various Frame & Border Types

Border Types
(Type 11 Shown)



Type	F Border Length	O Overall Length	C Core Opening Length
5	D	D plus 1 5/8	D - 3/8
6	D	D	D - 3/8
7	D minus 5/8	D minus 1/4	D minus 3/4
11	D minus 5/8	D plus 1/4	D minus 3/4
12	D minus 5/8	D plus 3/4	D minus 3/4
13	D minus 5/8	D plus 1 1/4	D minus 3/4
14	D minus 5/8	D plus 1 3/4	D minus 3/4

Frame & Border Type
(Type 1A & 1B Shown)



Type	F Frame Length	O Overall Length	C Core Opening Length
1A	D	D plus 2	D minus 3/4
1B	D	D plus 2 1/2	D minus 3/4
2	D	D plus 1 1/4	D minus 3/4
3	D	D plus 7/16	D minus 3/4
4	D	D	D minus 3/4
15	D	D plus 1/4	D minus 3/4

Dimensions are for length or width.

Standard Core Width Information

Number of Bars per Width	Border 1A, 1B, 2, 3, 4, 7, 11, 12, 13, 14			Border 5, 6, 15		
	CT - 15 CT - 16 1/4" Spacing	CMT - 15 CMT - 16 1/2" Spacing	CMTE - 15 CMTE - 16 7/10" Spacing	CT - 15 CT - 16 1/4" Spacing	CMT - 15 CMT - 16 1/2" Spacing	CMTE - 15 CMTE - 16 7/10" Spacing
2"	3	2	2	6	3	3
2 1/2"	5	3	3	8	4	4
3"	7	4	4	10	5	5
3 1/2"	9	5	5	12	6	7
4"	11	6	7	14	7	8
5"	15	8	9	18	9	10
6"	19	10	11	22	11	12

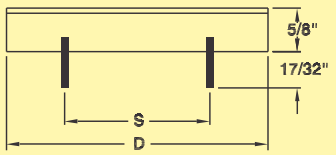
Maximum Floor Loading

(Frames 6 ,5, and 15 with standard support bars on 6" centers)

Model	Max. Vertical Distributed Load (lbs./in. 2)	Max. Vertical Live Load (lbs./ft. 2)	Max. Horizontal Load (lbs.)
CT - 15 / CT - 16	300	300	50-
CMT - 15 / CMT - 16	200	200	50-
CMTE-15 / CMTE-16	250	250	50-
CT-B	250	250	50-

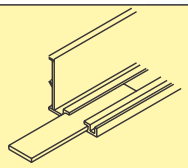
Note: If placing furniture on cores, furniture legs should be a minimum of core spacing plus two bars wide to avoid placing a horizontal load on cores. Maximum duct width available is 12".

Core Only Option



S = 9" maximum support bar spacing.
D = 72" maximum for one piece.
Core Only is an option available for field framing. Standard widths are as shown.
See page F36 for core details. Core will ship 3/4" smaller than the duct width.

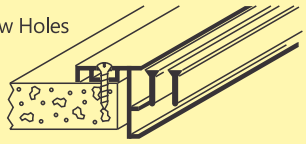
Alignment Strips



Used with border width 1/2" or wider. Alignment pins used with 1/4" borders.

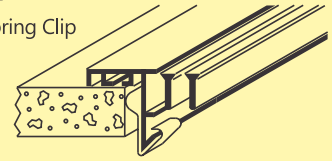
Available Fastenings

Type A
■ Screw Holes



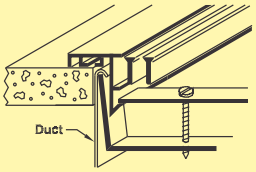
For ceiling, side wall, sill, or floor.
Used with Frame & Border Types 1B, 14 ,13 ,12 ,11 ,5.

Type B
■ Spring Clip



For sill installations.
Used with Frame & Border Types 14 ,13 ,12 ,11. Must use AG -95 Damper instead of AG - 65

Type C
■ Concealed Fastening



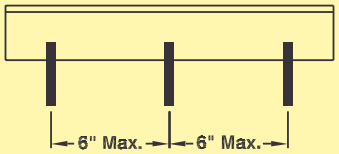
For ceiling, side wall, or sill.
Used with Frame & Border Types 1A, 1B, 14 ,13 ,12 ,11 ,7 ,4 ,3 ,2.

Notes:
■ Used without spring latch in Frame & Border Types 3 and 4.
■ Not for use with Cores CT - 15 and CT - 16 (1/4" bar spacing). Screwdriver will not fit between bars.

Additional Reinforcing (Optional)

(Except frame types 6 ,5, and 15)*

Type H ■ Optional Heavy Duty Core*



Optional Heavy Duty Core has support bars on 6" maximum centers.
(Standard core has 9" maximum centers.)
See maximum floor loading shown above.

*Frame types 6 ,5, and 15 have support bars on 6" centers as standard.

All dimensions are in inches.

Linear Bar ➤ Performance Data

CT-15 — 0° Deflection — 1/4" Spacing

Size/Area	Total Pressure		.011	.024	.044	.069	.098	.133	.175	.222	.275
1 1/2"	Flow CFM/Ft.		12	19	25	31	37	43	50	56	62
	NC		-	-	13	19	24	28	32	35	38
.031	Throw Ft.	Sill or Floor	1 - 1 - 1	2 - 2 - 2	4 - 4 - 4	6 - 6 - 6	8 - 8 - 9	9 - 10 - 11	10 - 11 - 13	12 - 13 - 15	13 - 15 - 18
		Side Wall	2 - 4 - 6	4 - 7 - 10	6 - 9 - 13	7 - 11 - 16	8 - 13 - 19	9 - 15 - 21	10 - 16 - 23	12 - 18 - 25	13 - 20 - 28
2"	Flow CFM/Ft.		19	28	37	47	56	66	75	84	94
	NC		-	-	12	18	23	28	31	35	38
.047	Throw Ft.	Sill or Floor	1 - 1 - 1	4 - 4 - 4	6 - 6 - 6	9 - 9 - 9	11 - 11 - 12	12 - 13 - 15	14 - 15 - 17	15 - 17 - 19	16 - 18 - 20
		Side Wall	3 - 5 - 7	5 - 8 - 11	7 - 11 - 15	9 - 14 - 19	11 - 16 - 22	12 - 18 - 25	14 - 20 - 27	15 - 22 - 29	16 - 24 - 32
2 1/2"	Flow CFM/Ft.		26	39	52	65	78	91	104	117	130
	NC		-	-	13	19	24	29	33	36	39
.065	Throw Ft.	Sill or Floor	1 - 1 - 1	5 - 5 - 5	8 - 8 - 8	10 - 10 - 11	13 - 14 - 15	15 - 16 - 17	16 - 18 - 20	20 - 20 - 21	22 - 22 - 22
		Side Wall	4 - 6 - 8	6 - 9 - 12	8 - 12 - 16	10 - 15 - 20	13 - 18 - 24	15 - 21 - 27	16 - 22 - 30	20 - 27 - 34	22 - 30 - 38
3"	Flow CFM/Ft.		33	50	66	83	100	116	133	149	166
	NC		-	-	14	20	25	30	34	37	40
.083	Throw Ft.	Sill or Floor	2 - 2 - 2	6 - 6 - 6	9 - 9 - 10	12 - 12 - 13	15 - 16 - 17	18 - 19 - 20	20 - 21 - 22	23 - 23 - 23	25 - 25 - 25
		Side Wall	4 - 6 - 9	7 - 10 - 14	9 - 13 - 18	12 - 17 - 22	15 - 20 - 25	18 - 23 - 29	20 - 26 - 33	23 - 30 - 37	25 - 32 - 40
3 1/2"	Flow CFM/Ft.		41	61	82	102	122	143	163	148	204
	NC		-	-	15	21	26	31	35	38	41
.102	Throw Ft.	Sill or Floor	2 - 2 - 2	7 - 7 - 7	10 - 10 - 11	15 - 15 - 15	17 - 18 - 19	20 - 21 - 22	22 - 23 - 24	25 - 25 - 26	27 - 27 - 27
		Side Wall	5 - 7 - 10	8 - 11 - 15	10 - 15 - 20	15 - 19 - 24	17 - 22 - 27	20 - 25 - 31	22 - 28 - 35	25 - 32 - 39	27 - 34 - 42
4"	Flow CFM/Ft.		49	73	98	122	146	171	195	220	244
	NC		-	-	16	22	28	32	36	39	42
.122	Throw Ft.	Sill or Floor	3 - 3 - 3	8 - 8 - 8	12 - 12 - 13	15 - 15 - 15	19 - 19 - 20	21 - 22 - 23	24 - 24 - 25	26 - 26 - 27	29 - 29 - 30
		Side Wall	6 - 8 - 11	9 - 12 - 16	12 - 16 - 20	15 - 20 - 25	19 - 24 - 29	21 - 26 - 32	24 - 30 - 36	26 - 33 - 40	30 - 37 - 44
5"	Flow CFM/Ft.		63	94	125	157	188	220	251	282	314
	NC		-	-	16	22	27	32	36	39	42
.157	Throw Ft.	Sill or Floor	4 - 4 - 4	9 - 9 - 9	14 - 14 - 14	17 - 17 - 17	21 - 21 - 22	24 - 24 - 24	27 - 27 - 27	29 - 29 - 29	32 - 32 - 32
		Side Wall	7 - 9 - 12	11 - 14 - 18	14 - 18 - 22	17 - 21 - 28	21 - 26 - 31	24 - 29 - 35	27 - 33 - 39	30 - 36 - 43	33 - 40 - 47
6"	Flow CFM/Ft.		78	116	155	194	233	272	310	349	388
	NC		-	10	18	24	29	34	37	41	44
.194	Throw Ft.	Sill or Floor	5 - 5 - 5	10 - 10 - 10	15 - 15 - 15	18 - 18 - 18	23 - 23 - 23	25 - 25 - 25	28 - 28 - 29	31 - 31 - 31	34 - 34 - 34
		Side Wall	8 - 10 - 13	12 - 15 - 19	15 - 19 - 23	20 - 24 - 29	23 - 27 - 32	26 - 31 - 37	29 - 34 - 40	33 - 39 - 45	37 - 43 - 49

CT-16 — 15° Deflection — 1/4" Spacing

Size/Area	Total Pressure		.0125	.027	.050	.079	.111	.151	.199	.252	.310
1 1/2"	Flow CFM/Ft.		14	20	27	34	41	48	54	61	68
	NC		-	14	22	29	34	38	42	45	48
.034	Throw Ft.	Sill or Floor	1 - 1 - 1	3 - 3 - 3	4 - 4 - 4	7 - 7 - 7	9 - 9 - 10	10 - 11 - 12	12 - 13 - 15	13 - 14 - 16	14 - 16 - 18
		Side Wall	2 - 4 - 6	4 - 7 - 10	6 - 10 - 14	7 - 12 - 17	9 - 14 - 20	10 - 16 - 22	12 - 18 - 25	13 - 20 - 27	14 - 22 - 30
2"	Flow CFM/Ft.		20	29	39	49	59	69	78	88	98
	NC		-	12	20	26	31	36	40	43	46
.049	Throw Ft.	Sill or Floor	1 - 1 - 1	4 - 4 - 4	6 - 6 - 6	9 - 9 - 9	11 - 11 - 12	12 - 13 - 15	14 - 15 - 18	15 - 17 - 19	16 - 18 - 20
		Side Wall	3 - 5 - 7	5 - 8 - 11	7 - 11 - 15	9 - 14 - 19	11 - 16 - 22	12 - 18 - 25	14 - 20 - 27	15 - 22 - 30	16 - 24 - 32
2 1/2"	Flow CFM/Ft.		26	39	52	65	78	91	104	117	130
	NC		-	12	20	26	31	36	40	43	46
.065	Throw Ft.	Sill or Floor	1 - 1 - 1	5 - 5 - 5	8 - 8 - 8	10 - 10 - 11	13 - 14 - 15	14 - 15 - 17	17 - 18 - 20	19 - 20 - 21	21 - 21 - 22
		Side Wall	4 - 6 - 8	6 - 9 - 12	8 - 12 - 16	10 - 15 - 20	13 - 19 - 24	14 - 20 - 26	17 - 23 - 30	19 - 26 - 33	21 - 28 - 36
3"	Flow CFM/Ft.		33	49	66	82	98	115	131	148	164
	NC		-	12	20	26	31	36	40	43	46
.082	Throw Ft.	Sill or Floor	2 - 2 - 2	6 - 6 - 6	9 - 9 - 9	12 - 12 - 13	15 - 15 - 16	17 - 18 - 19	20 - 21 - 22	21 - 22 - 23	23 - 23 - 24
		Side Wall	4 - 6 - 9	7 - 10 - 13	9 - 13 - 17	12 - 16 - 21	15 - 20 - 25	17 - 22 - 28	20 - 25 - 32	21 - 28 - 35	23 - 31 - 39
3 1/2"	Flow CFM/Ft.		40	59	79	99	119	138	158	178	198
	NC		-	12	20	27	32	36	40	43	46
.099	Throw Ft.	Sill or Floor	2 - 2 - 2	8 - 8 - 8	11 - 11 - 11	13 - 13 - 14	16 - 17 - 18	19 - 20 - 21	22 - 22 - 23	23 - 24 - 25	26 - 26 - 26
		Side Wall	5 - 7 - 9	8 - 11 - 14	11 - 15 - 19	13 - 17 - 22	16 - 21 - 26	19 - 24 - 30	22 - 28 - 34	23 - 30 - 37	26 - 33 - 41
4"	Flow CFM/Ft.		47	70	94	117	140	164	187	220	234
	NC		-	13	21	27	33	37	41	44	47
.117	Throw Ft.	Sill or Floor	3 - 3 - 3	9 - 9 - 9	12 - 12 - 12	15 - 15 - 15	18 - 19 - 20	21 - 21 - 22	23 - 24 - 25	25 - 25 - 26	28 - 28 - 28
		Side Wall	5 - 7 - 10	9 - 12 - 15	12 - 16 - 20	15 - 19 - 24	18 - 23 - 28	21 - 26 - 32	23 - 29 - 35	25 - 32 - 39	29 - 36 - 43
5"	Flow CFM/Ft.		61	91	121	152	182	212	243	274	304
	NC		-	14	22	28	33	38	42	45	48
.152	Throw Ft.	Sill or Floor	3 - 3 - 3	9 - 9 - 9	13 - 13 - 13	16 - 16 - 17	20 - 20 - 21	23 - 23 - 24	25 - 25 - 26	28 - 28 - 28	31 - 31 - 31
		Side Wall	7 - 9 - 12	10 - 13 - 17	14 - 18 - 22	16 - 21 - 26	20 - 25 - 30	23 - 28 - 34	25 - 31 - 37	28 - 34 - 41	31 - 38 - 45
6"	Flow CFM/Ft.		74	111	149	186	223	260	298	335	372
	NC		-	14	22	29	34	39	42	46	49
.186	Throw Ft.	Sill or Floor	4 - 4 - 4	10 - 10 - 10	14 - 14 - 14	18 - 18 - 18	22 - 22 - 22	25 - 25 - 25	28 - 28 - 28	30 - 30 - 30	32 - 32 - 32
		Side Wall	8 - 10 - 13	11 - 14 - 18	15 - 19 - 23	18 - 23 - 27	22 - 27 - 31	25 - 30 - 35	28 - 33 - 39	31 - 37 - 43	34 - 40 - 46

Linear Bar ➤ Performance Data

CMT-15 0° Deflection 1/2" Spacing

Size/Area	Total Pressure		.009	.020	.036	.057	.080	.109	.143	.182	.225
1 1/2"	Flow CFM/Ft.		14	21	28	35	42	49	56	63	70
	NC		-	-	16	22	27	31	35	38	41
.035	Throw, Ft.	Sill or Floor	1 - 1 - 1	2 - 2 - 2	4 - 4 - 4	7 - 7 - 7	8 - 9 - 10	10 - 11 - 12	11 - 12 - 14	12 - 14 - 17	13 - 15 - 18
		Side Wall	2 - 4 - 6	4 - 7 - 10	6 - 7 - 13	7 - 12 - 17	8 - 13 - 19	10 - 16 - 22	11 - 17 - 24	12 - 19 - 25	13 - 21 - 29
2"	Flow CFM/Ft.		22	33	44	55	66	77	88	99	110
	NC		-	-	12	18	23	27	31	34	37
.055	Throw, Ft.	Sill or Floor	1 - 1 - 1	4 - 4 - 4	7 - 7 - 7	9 - 9 - 10	11 - 11 - 12	13 - 14 - 16	14 - 16 - 18	15 - 17 - 20	17 - 19 - 21
		Side Wall	3 - 5 - 7	5 - 8 - 12	7 - 11 - 16	9 - 14 - 20	11 - 17 - 23	13 - 19 - 28	14 - 21 - 29	15 - 22 - 30	17 - 25 - 33
2 1/2"	Flow CFM/Ft.		30	44	59	74	89	104	118	133	148
	NC		-	-	11	17	22	26	30	33	36
.074	Throw, Ft.	Sill or Floor	1 - 1 - 1	5 - 5 - 5	8 - 8 - 9	11 - 11 - 13	13 - 14 - 15	15 - 16 - 17	18 - 19 - 20	20 - 21 - 23	23 - 24 - 25
		Side Wall	4 - 6 - 8	6 - 9 - 13	9 - 13 - 17	11 - 16 - 21	13 - 18 - 24	15 - 21 - 28	17 - 24 - 31	20 - 27 - 35	23 - 31 - 39
3"	Flow CFM/Ft.		38	58	77	96	115	134	154	173	192
	NC		-	-	11	17	22	26	30	33	36
.98	Throw, Ft.	Sill or Floor	2 - 2 - 2	7 - 7 - 7	10 - 10 - 11	12 - 13 - 14	15 - 16 - 17	18 - 19 - 20	20 - 21 - 23	23 - 24 - 25	25 - 25 - 26
		Side Wall	5 - 7 - 10	7 - 10 - 14	10 - 14 - 19	12 - 17 - 23	15 - 20 - 26	18 - 24 - 30	20 - 27 - 34	23 - 30 - 38	25 - 33 - 41
3 1/2"	Flow CFM/Ft.		46	69	93	116	139	162	186	209	232
	NC		-	-	11	17	22	26	30	33	36
.116	Throw, Ft.	Sill or Floor	3 - 3 - 3	8 - 8 - 8	12 - 12 - 12	15 - 15 - 16	18 - 19 - 20	20 - 21 - 23	23 - 24 - 25	25 - 26 - 27	29 - 29 - 29
		Side Wall	5 - 7 - 10	9 - 12 - 16	12 - 16 - 20	15 - 20 - 25	18 - 23 - 28	20 - 26 - 32	23 - 29 - 36	25 - 32 - 40	29 - 36 - 44
4"	Flow CFM/Ft.		56	83	111	139	167	195	222	250	278
	NC		-	-	12	18	23	27	31	34	37
.138	Throw, Ft.	Sill or Floor	3 - 3 - 3	9 - 9 - 9	13 - 13 - 13	16 - 16 - 17	20 - 20 - 21	22 - 23 - 24	24 - 25 - 26	27 - 27 - 27	30 - 30 - 30
		Side Wall	6 - 8 - 11	10 - 13 - 17	13 - 17 - 21	16 - 20 - 25	20 - 25 - 30	22 - 28 - 34	24 - 30 - 37	28 - 35 - 42	31 - 38 - 45
5"	Flow CFM/Ft.		72	107	143	179	215	250	286	322	358
	NC		-	-	12	18	23	27	31	34	37
.178	Throw, Ft.	Sill or Floor	4 - 4 - 4	10 - 10 - 10	14 - 14 - 14	18 - 18 - 18	22 - 22 - 23	24 - 24 - 24	27 - 27 - 28	30 - 30 - 31	32 - 32 - 32
		Side Wall	8 - 10 - 13	11 - 14 - 18	15 - 19 - 23	18 - 22 - 27	22 - 27 - 32	24 - 30 - 38	27 - 33 - 40	30 - 37 - 44	34 - 41 - 48
6"	Flow CFM/Ft.		88	133	177	221	265	310	354	398	442
	NC		-	-	13	19	24	28	32	35	38
.221	Throw, Ft.	Sill or Floor	5 - 5 - 5	10 - 10 - 10	15 - 15 - 15	18 - 18 - 18	23 - 23 - 23	25 - 25 - 25	28 - 28 - 28	31 - 31 - 31	32 - 32 - 32
		Side Wall	8 - 12 - 15	13 - 16 - 20	16 - 20 - 24	20 - 24 - 29	24 - 29 - 34	28 - 33 - 38	30 - 35 - 41	34 - 40 - 46	38 - 44 - 50

CMT-16 15° Deflection 1/2" Spacing

Size/Area	Total Pressure		.009	.020	.036	.057	.080	.109	.143	.182	.225
1 1/2"	Flow CFM/Ft.		16	23	31	39	47	55	62	70	78
	NC		-	17	26	32	37	42	46	49	52
.039	Throw, Ft.	Sill or Floor	1 - 1 - 1	3 - 3 - 3	5 - 5 - 5	8 - 8 - 8	9 - 9 - 10	10 - 11 - 13	12 - 13 - 15	13 - 15 - 17	14 - 16 - 18
		Side Wall	2 - 4 - 6	4 - 7 - 10	6 - 10 - 14	8 - 13 - 18	9 - 14 - 20	10 - 16 - 23	12 - 18 - 25	13 - 20 - 27	14 - 22 - 30
2"	Flow CFM/Ft.		22	34	45	56	67	78	90	101	112
	NC		-	11	19	25	30	35	39	43	46
.056	Throw, Ft.	Sill or Floor	1 - 1 - 1	4 - 4 - 4	7 - 7 - 7	9 - 9 - 10	11 - 12 - 13	12 - 14 - 16	14 - 16 - 18	15 - 17 - 20	18 - 19 - 21
		Side Wall	3 - 5 - 7	5 - 8 - 12	7 - 11 - 16	9 - 14 - 20	11 - 17 - 23	12 - 18 - 25	14 - 20 - 27	15 - 22 - 30	18 - 26 - 34
2 1/2"	Flow CFM/Ft.		30	45	60	75	90	105	120	135	150
	NC		-	10	18	24	29	34	38	42	45
.075	Throw, Ft.	Sill or Floor	1 - 1 - 1	5 - 5 - 5	8 - 8 - 9	11 - 11 - 12	13 - 14 - 15	15 - 16 - 18	17 - 19 - 21	20 - 21 - 22	22 - 22 - 23
		Side Wall	4 - 6 - 8	6 - 9 - 13	8 - 12 - 17	11 - 16 - 21	13 - 19 - 25	15 - 21 - 27	17 - 24 - 31	20 - 27 - 35	22 - 30 - 38
3"	Flow CFM/Ft.		37	56	74	93	112	130	149	167	186
	NC		-	-	17	23	28	33	37	41	44
.093	Throw, Ft.	Sill or Floor	2 - 2 - 2	6 - 6 - 6	10 - 10 - 10	12 - 12 - 13	15 - 16 - 17	18 - 19 - 20	20 - 21 - 23	23 - 23 - 24	25 - 25 - 25
		Side Wall	4 - 6 - 9	7 - 10 - 14	10 - 13 - 18	12 - 17 - 22	15 - 20 - 26	16 - 24 - 30	20 - 26 - 33	23 - 30 - 37	25 - 32 - 40
3 1/2"	Flow CFM/Ft.		45	68	90	113	136	158	181	203	226
	NC		-	-	17	23	28	33	37	41	44
.113	Throw, Ft.	Sill or Floor	2 - 2 - 2	7 - 7 - 7	12 - 12 - 12	14 - 14 - 15	17 - 18 - 19	20 - 21 - 22	22 - 23 - 24	25 - 25 - 26	27 - 27 - 27
		Side Wall	5 - 7 - 10	9 - 11 - 15	12 - 16 - 20	14 - 18 - 23	17 - 22 - 27	20 - 25 - 31	22 - 28 - 35	25 - 32 - 39	27 - 34 - 42
4"	Flow CFM/Ft.		53	80	106	133	160	186	212	239	266
	NC		-	10	18	24	29	34	38	42	45
.133	Throw, Ft.	Sill or Floor	3 - 3 - 3	8 - 8 - 9	13 - 13 - 13	15 - 15 - 16	19 - 19 - 20	22 - 22 - 23	24 - 24 - 25	26 - 26 - 27	30 - 30 - 30
		Side Wall	6 - 8 - 11	9 - 12 - 16	13 - 17 - 21	15 - 19 - 24	19 - 24 - 29	22 - 27 - 33	24 - 30 - 36	28 - 33 - 40	30 - 37 - 44
5"	Flow CFM/Ft.		69	104	138	173	208	242	277	312	346
	NC		-	10	18	24	29	34	38	42	45
.173	Throw, Ft.	Sill or Floor	4 - 4 - 4	9 - 9 - 9	14 - 14 - 14	17 - 17 - 17	20 - 21 - 22	24 - 24 - 24	26 - 26 - 27	29 - 29 - 29	32 - 32 - 32
		Side Wall	8 - 10 - 13	11 - 14 - 18	15 - 19 - 23	17 - 21 - 26	20 - 25 - 31	24 - 29 - 35	26 - 33 - 38	29 - 35 - 42	32 - 39 - 46
6"	Flow CFM/Ft.		85	127	170	212	254	296	339	382	424
	NC		-	10	18	24	29	34	38	42	45
.211	Throw, Ft.	Sill or Floor	5 - 5 - 5	10 - 10 - 10	15 - 15 - 15	18 - 18 - 18	23 - 23 - 23	25 - 25 - 25	28 - 28 - 28	30 - 30 - 30	34 - 34 - 34
		Side Wall	9 - 11 - 14	13 - 16 - 20	16 - 20 - 24	20 - 24 - 28	23 - 27 - 32	25 - 30 - 36	28 - 33 - 39	31 - 37 - 43	35 - 41 - 47

Linear Bar ➤ Performance Data

CMTE - 15 ■ 1/5" Bars ■ 0° Deflection 7/10" Spacing
CMTE - 16 ■ 1/5" Bars ■ 15° Deflection 7/10" Spacing

Air flow rate	Nominal dimensions	max. Throw Lt	pressure drop	Effective Velocity	Sound Level
(m3/h)	(B x H (mm	(m)	(pa)	(Vk (m/s	(Db)
100	200x73	5	14	4.2	30-35
150	200x73	6.5	37	6.7	40-45
	300x73	5	13	4.4	30-35
	200x100	5	14	4.2	30-35
	400x73	4.5	9	3.1	20-25
	300x100	4.5	8	3	20-25
	500x73	4	5	2.1	15-20
	300x125	3.5	4.5	1.9	15-20
200	300x73	7	30	6.3	35-40
	200x100	7	29	6.1	35-40
	400x73	5.5	15	4.2	25-30
	300x100	5.5	13	4	25-30
	500x73	5	9	3.3	20-25
	300x 125	5	8	3.1	20-25
	400x100	4.5	6.5	2.9	20-25
	600x73	4.5	6.0	2.5	20-25
250	400x73	7	20	5.3	30-35
	300x100	7	19	5.1	30-35
	500x73	6.5	13	4.2	25-30
	300x125	6.5	12	4.0	25-30
	400x100	5.5	9.5	3.2	20-25
	600x73	5.5	9	2.9	20-25
	500x100	5	7	2.8	15-20
	400x125	5	6.5	2.7	15-20
	800x73	4.5	5	2.6	15-20
	600x100	4.5	4.5	2.2	15-20
300	500x73	7.5	19	5	30-35
	300x125	7.5	17	4.9	30-35
	400x100	6.5	15	4.5	30-35
	600x73	6.5	13	4.2	30-35
	500x100	6	9.5	3.7	20-25
	400x125	6	8	3.4	20-25
	800x73	5.5	7	3.0	20-25
	600x100	5	6.5	2.8	20-25
	400x150	5	6.0	2.6	20-25
	500x125	4.5	5	2.4	15-20

Linear Bar ➤ Performance Data

CMTE - 15 ■ 1/5" Bars ■ 0° Deflection 7/10" Spacing
CMTE - 16 ■ 1/5" Bars ■ 15° Deflection 7/10" Spacing

Air flow rate	Nominal dimensions	max. Throw Lt	pressure drop	Effective Velocity	Sound Level
(m3/h)	(B x H (mm	(m)	(pa)	(Vk (m/s	(Db)
400	400x100	8.5	28	5.9	35-40
	600x73	8.5	24	5.6	35-40
	500x100	8	17	4.9	30-35
	400x125	8	15	4.3	30-35
	800x73	7	13	4.0	25-30
	600x100	7	10	3.7	25-30
	400x150	6.5	9.5	3.6	25-30
	500x125	6.5	9	3.4	20-25
	1000x73	6.5	8	3.1	20-25
	600x125	6	6.5	3	20-25
	800x100	6	6.0	2.9	25-30
	500x150	6	7	3.2	20-25
	400x203	5.5	5.5	2.8	15-20
	600x150	5.5	5	2.6	15-20
	1000x100	5	4.5	2.4	15-20
	800x125	5	4.0	2.1	15-20
500	500x100	9	28	6.2	35-40
	400x125	9	24	5.5	35-40
	800x73	8.5	21	5	30-35
	600x100	8.5	18	4.9	30-35
	400x150	8.5	17	4.7	30-35
	500x125	8	13	4.5	25-30
	1000x73	8	12	4	25-30
	600x125	7.5	9.5	3.9	20-25
	800x100	7.5	9	3.6	20-25
	500x150	7.5	10	3.5	20-25
	400x203	7.5	9	3.4	20-25
	600x150	6.5	8	3.1	20-25
	1000x100	6.5	6	2.7	15-20
	800x125	6	5.5	2.8	15-20
	500x203	6	5	2.4	15-20
	800x150	6	4.5	2.5	15-20
	1000x125	6	4	2.3	15-20

Linear Bar ➤ Performance Data

CMTE - 15 ■ 1/5" Bars ■ 0° Deflection 7/10" Spacing
CMTE - 16 ■ 1/5" Bars ■ 15° Deflection 7/10" Spacing

Air flow rate	Nominal dimensions	max. Throw Lt	pressure drop	Effective Velocity	Sound Level
(m3/h)	(B x H (mm	(m)	(pa)	(Vk (m/s	(Db)
600	500x125	9.5	22	5.1	30-35
	1000x73	9	18	4	30-35
	600x125	8.5	14	4.1	30-35
	800x100	8.5	12	4.4	25-30
	500x150	8.5	11	4.5	25-30
	400x203	8	11	4.2	25-30
	600x150	7.5	10	3.6	25-30
	1000x100	7.5	9	3.5	20-25
	800x125	7.5	8.5	3.3	20-25
	500x203	7	8	3.1	20-25
	800x150	7	7	2.4	20-25
	1000x125	7	5.5	2.5	15-20
	600x203	7	5	2.4	15-20
700	1000x73	10	24	5.9	35-40
	600x125	9.5	20	5.3	35-40
	800x100	9.5	18	5	30-35
	500x150	9.5	23	5.6	35-40
	400x203	9.5	17	4.5	30-35
	600x150	9.0	14	4.2	30-35
	1000x100	8.5	12	3.7	25-30
	800x125	8.5	10	3.3	25-30
	500x203	8.5	19	3.5	25-30
	800x150	8	8	3.1	20-25
	1000x125	8	7	3	15-20
	600x203	8	5	3.3	15-20
	1000x150	7.5	4.5	2.4	15-20
	500x203	7	4	2.1	15-20
800	400x203	10.5	25	5.5	35-40
	600x150	10	18	5.0	35-40
	1000x100	9.5	14	4.7	30-35
	800x125	9.5	12	4.4	25-30
	500x203	9.5	14	4.6	30-35
	800x150	9	10	3.6	20-25
	1000x125	9	9.0	3.4	20-25
	600x203	9	8.5	3.3	20-25
	1000x150	8.5	6.5	2.8	20-25
	500x297	8	6.0	2.6	20-25
	800x203	8	5.5	2.5	15-20
	600x297	7	5.0	2.2	15-20

Linear Bar ➤ Performance Data

CMTE - 15 ■ 1/5" Bars ■ 0° Deflection 7/10" Spacing
CMTE - 16 ■ 1/5" Bars ■ 15° Deflection 7/10" Spacing

Air flow rate (m3/h)	Nominal dimensions (B x H (mm	max. Throw Lt (m)	pressure drop (pa)	Effective Velocity (Vk (m/s	Sound Level (Db)
900	1000x100	10.5	20	5.3	35-40
	800x125	10.5	18	4.8	35-40
	500x203	10.5	19	5	35-40
	800x150	10	15	4.1	30-35
	1000x125	9.5	14	3.7	25-30
	600x203	9.5	12	4.0	25-30
	1000x150	9	9.5	3.2	20-25
	500x297	8.5	8	3.0	20-25
	800x203	8.5	7	2.9	20-25
	600x297	8	5.5	2.7	15-20
	1000x203	8.0	5	2.3	15-20
1000	1000x125	11	15	4.1	25-30
	600x203	10.5	17	4.7	30-35
	1000x150	9.5	10	3.6	20-25
	500x297	9.5	8.5	3.4	20-25
	800x203	9	7.5	3.2	20-25
	600x297	8.5	5.5	2.9	15-20
	1000x203	8.5	5	2.7	15-20
	800x297	7.5	4.5	2.0	15-20
1200	600x203	13	24	5.3	35-40
	1000x150	11	16	4.2	30-35
	500x297	11	15	4.0	25-30
	800x203	10.5	13	3.9	25-30
	600x297	10	9	3.6	20-25
	1000x203	9.5	8.5	3.2	20-25
	800x297	8.5	6	2.8	15-20

Linear Bar ➤ Specifications

Performance Notes:

- ➤ All pressures are in inches of water.
- ➤ Throw velocities are given for terminal velocities of 100 ,150, and 50 fpm. For an explanation of catalog throw data, see page B13.
- ➤ Throw values are based on an active section 4 ft. long. Multipliers for correcting the throw for other lengths are shown in the table below.

Throw Correction for Length (multiply)

Active Length (ft)	2	4	8	10
Throw Correction	0.72	1	1.5	1.7

- ➤ NC values are based on a room absorption of 10 dB, re 10^{12-} watts, with a 4ft. active diffuser section. Corrections for other lengths are shown in the table below.

NC Correction for Length (add)

Active Length (ft)	2	4	6	8	10
NC Correction	3	0	2	3	5-

- ➤ When the diffuser is used as a return intake, the NC value is increased by 4, and the negative static pressure is 0.8 times the listed total pressure.
- ➤ Dash (-) in space denotes an NC value less than 10.

- ➤ For continuous lengths, the selection for NC is usually based on a 10 ft. section.
- ➤ Maximum available width 24 in. except frames 6 ,5, and 15 (12 in. width). Consult your MASTER GRILLE representative for performance data.
- ➤ For continuous lengths it is recommended that maximum active lengths are no longer than 10 feet.