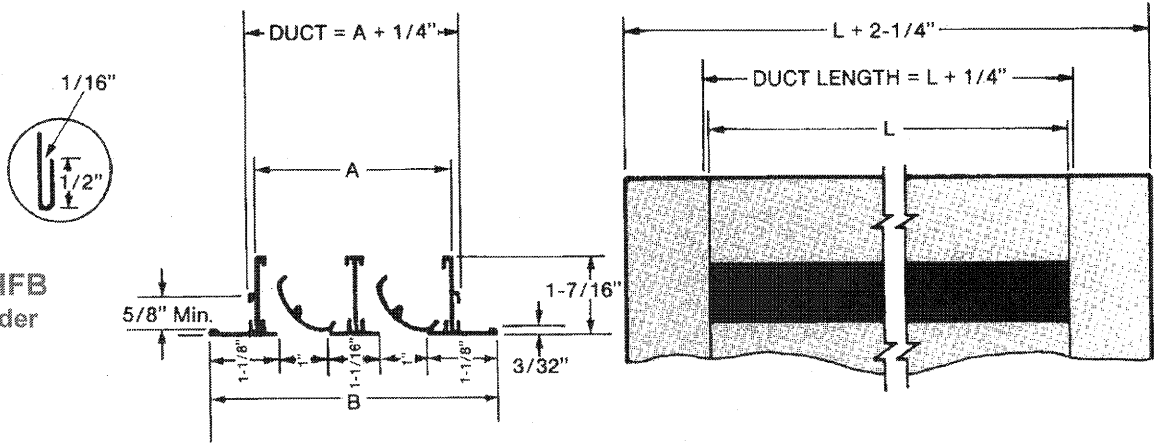


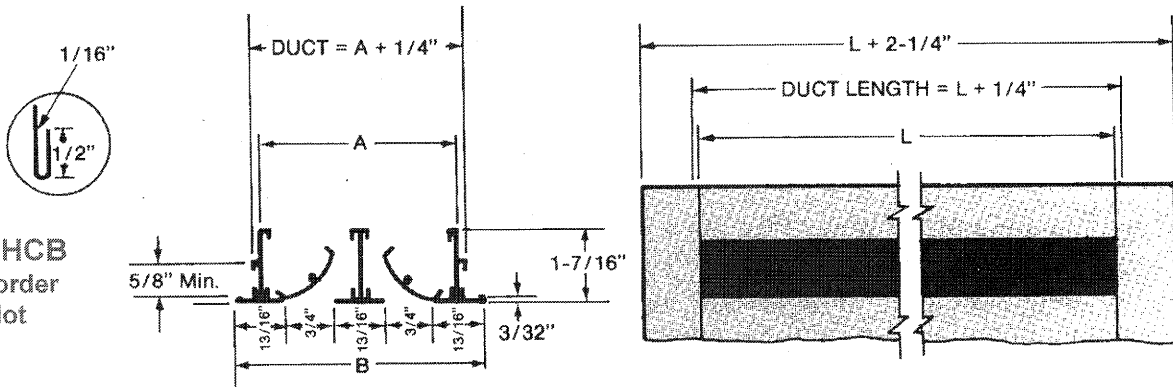
DIMENSIONAL DATA - Channelaire Linear Diffuser (CH_B)

Model CHFB
1-1/8" Border
1" Slot



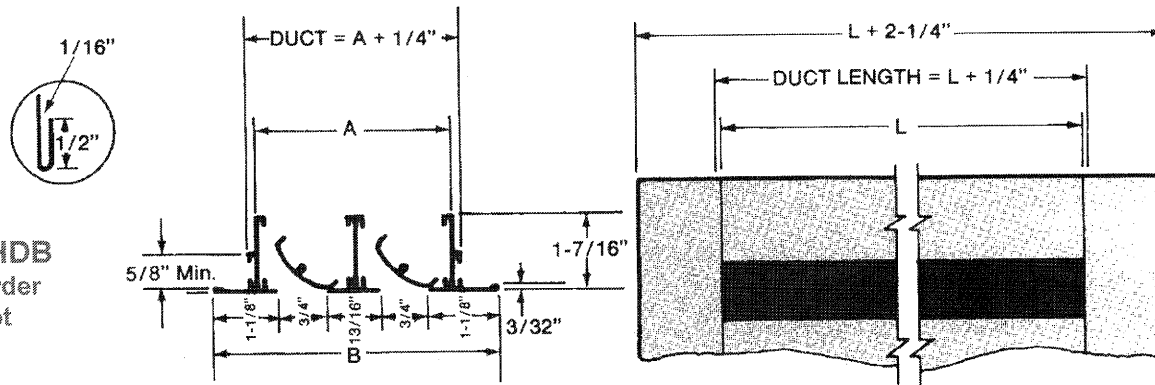
Dim.	No. of Slots							
	1	2	3	4	5	6	7	8
A	2-1/8	4-3/16	6-1/4	8-5/16	10-3/8	12-7/16	14-1/2	16-9/16
B	3-1/4	5-5/16	7-3/8	9-7/16	11-1/2	13-9/16	15-5/8	17-11/16

Model CHCB
13/16" Border
3/4" Slot



Dim.	No. of Slots							
	1	2	3	4	5	6	7	8
A	1-5/8	3-3/16	4-3/4	6-5/16	7-7/8	9-7/16	11	12-9/16
B	2-3/8	3-15/16	5-1/2	7-1/16	8-5/8	10-3/16	11-3/4	13-5/16

Model CHDB
1-1/8" Border
3/4" Slot



Dim.	No. of Slots							
	1	2	3	4	5	6	7	8
A	1-5/8	3-3/16	4-3/4	6-5/16	7-7/8	9-7/16	11	12-9/16
B	3	4-9/16	6-1/8	7-11/16	9-1/4	10-13/16	12-3/8	13-15/16

Guide Specifications

Diffusers shall be adjustable slot type of extruded aluminum construction with one or more parallel slots. Each slot shall contain pattern controls, adjustable from the face of the diffuser to deflect the discharge air along a selected axis within a semi-circle of 180°. The same pattern controls shall function as volume control dampers without affecting the air discharge pattern.

For continuous installations, butted units shall be provided with alignment splines. Screws or other fasteners shall not be visible after installation.

Definition of Terms

TOTAL PRESSURE (*Inches of Water*)

Total pressure is equal to static pressure + velocity pressure immediately upstream of the diffuser with pattern control set for minimum resistance (i.e., in each slot the pattern control is set at 3/8" opening).

THROW (*Feet*)

Throws are based on supply air temperature equal to room temperature; thus, chilled supply air will result in throw values less than tabulated.

Throw data is shown for terminal velocities of 150, 100 and 50 feet per minute.

Throw data is based on a 6 foot length of diffuser as a continuous installation in a 9 foot ceiling. For higher ceilings reduce the throw rating by 1 foot for each 1 foot increase in ceiling height.

Throw data is based on all slots discharging air in the same direction. For 2-way pattern, select throws on the basis of CFM/Foot per number of slots blowing in each direction.

SOUND DATA

NC = Noise Criteria, db based on 10 db room attenuation. (Rating "L" means lower than 20 db.)

Sound ratings are based on a 4 foot long unit. For greater lengths add correction to rating.

No. of 4 Foot Lengths	db To Be Added
1	0
2	3
3	5
4	6
6	8
10	10

If pattern control is in dampering position, sound levels will be increased as follows:

Slot Opening	Effective Damper Opening %	Total Resistance %	db To Be Added
3/8	100	100 Minimum	0
5/16	80	150	6
1/4	65	220	13
3/16	50	420	20

Finish shall consist of natural anodized exterior surfaces and flat black finish on visible interior deflector member.

Mounting frames, where specified, shall contain flanges for attaching to framing members and flanges for engaging plaster or spline type tile. frames shall also contain alignment spline sockets.

Plenums, if required, shall be Carnes Model CXPB either insulated or uninsulated.

PERPENDICULAR DISCHARGE

When pattern control is adjusted for discharge perpendicular to the face of the diffuser, (i.e., in neutral attitude and positioned 3/8" from face of diffuser) these factors apply to the performance data.

Total Pressure:

Slot Width	Multiply Tabulated Data By
1/2"	0.90
3/4"	0.80
1"	0.70

Slot Width	Subtract from Tabulated NC
1/2"	2 db
3/4"	3 db
1"	4 db

RETURN AIR

When Channelaire is used as an air return, either ducted or plenum, the pattern control is used for dampering only. With pattern control set at wide open, (i.e., 7/16") these correction factors apply to the performance data.

Slot Width	Multiply Tabulated Data By
1/2"	0.65
3/4"	0.60
1"	0.55

Slot Width	Subtract from Tabulated NC
1/2" & 3/4"	7 db
1"	8 db

PERFORMANCE DATA - Linear Slot Diffusers (CH_B)

No. of Slot	CFM/ Foot	1/2" Slot					3/4" Slot					1" Slot				
		Pt	NC	Throw-FPM			Pt	NC	Throw-FPM			Pt	NC	Throw-FPM		
				150	100	50			150	100	50			150	100	50
1	10	.01	L	1	3	6	.01	L	1	2	5	.01	L	1	2	3
	15	.03	L	4	6	12	.02	L	3	5	10	.01	L	2	4	8
	20	.05	L	6	10	17	.03	L	5	9	15	.02	L	4	7	12
	25	.07	L	9	13	22	.05	L	8	12	19	.02	L	7	10	16
	30	.11	22	12	16	25	.07	L	11	15	23	.04	L	9	12	19
	40	.19	30	16	21	30	.13	25	15	20	28	.06	20	12	17	24
	50	.30	37	19	24	34	.20	31	18	23	32	.10	27	15	19	27
	60						.29	37	20	25	35	.15	32	18	22	31
70											.20	36	19	24	34	
2	20	.01	L	2	4	10	.01	L	2	3	8	.01				
	25	.02	L	4	7	14	.01	L	4	6	13	.01	L	2	4	8
	30	.03	L	5	9	18	.02	L	5	8	16	.01	L	3	6	11
	40	.05	L	8	13	23	.03	L	8	12	21	.02	L	6	10	17
	50	.07	20	11	16	27	.05	L	11	15	25	.02	L	9	13	21
	60	.11	25	14	20	30	.07	20	13	18	28	.04	L	11	16	24
	70	.14	30	16	22	33	.10	24	15	21	31	.05	L	13	18	27
	80	.19	34	19	25	36	.13	28	17	23	33	.06	23	16	21	30
	90	.24	37	21	27	38	.16	31	19	26	36	.08	26	17	23	32
	100	.29	40	22	28	40	.20	34	21	27	38	.10	30	19	24	34
120						.29	40	23	30	41	.15	35	21	27	37	
140											.20	39	23	29	40	
3	30	.01	L	3	6	14	.01	L	3	5	12					
	40	.02	L	6	10	20	.01	L	5	8	17	.01	L	4	7	14
	50	.03	L	8	13	24	.02	L	7	11	21	.01	L	6	10	18
	60	.05	L	10	16	27	.03	L	9	15	25	.02	L	8	12	21
	70	.06	20	12	18	30	.04	L	11	17	28	.02	L	10	15	24
	80	.08	23	14	20	32	.06	L	13	19	30	.03	L	11	16	26
	90	.11	27	16	22	34	.07	21	15	21	32	.03	L	13	18	28
	100	.13	30	18	24	36	.09	24	17	23	34	.04	20	15	20	30
	120	.19	35	20	27	39	.13	30	20	27	38	.06	25	18	24	34
	140	.25	40	23	30	42	.17	34	22	28	40	.09	30	19	26	36
160	.33	44	25	32	45	.23	38	24	30	42	.11	33	22	28	39	
180						.29	42	26	32	45	.15	37	23	20	41	
200											.18	40	25	31	43	
4	40	.01	L	4	7	17	.01	L	4	6	15					
	50	.02	L	6	10	21	.01	L	5	9	19	.01	L	4	7	15
	60	.03	L	7	12	24	.02	L	7	11	22	.01	L	6	10	19
	70	.03	L	9	15	27	.02	L	8	14	25	.01	L	7	12	21
	80	.05	L	11	17	30	.03	L	10	16	28	.02	L	9	14	24
	90	.06	20	12	19	32	.04	L	12	18	30	.02	L	10	16	26
	100	.07	23	14	21	34	.05	L	13	20	32	.02	L	12	17	28
	120	.10	28	17	24	37	.07	23	16	23	35	.03	L	14	20	31
	140	.14	33	20	27	40	.10	27	19	26	38	.05	22	17	23	34
	160	.18	37	22	29	42	.13	31	21	28	40	.06	26	19	26	37
	180	.23	40	24	31	44	.16	34	23	30	42	.08	30	21	27	38
	200	.28	43	25	33	46	.20	38	24	31	44	.10	33	22	28	40
220						.24	40	26	33	46	.11	35	24	30	42	
240						.29	43	27	35	48	.15	38	25	32	44	
260											.17	40	26	32	45	
280											.20	42	26	33	46	
5	50	.01	L	5	8	20										
	60	.02	L	6	11	24	.01	L	6	10	22					
	70	.03	L	8	13	26	.01	L	8	13	15	.01	L	6	11	21
	80	.03	L	9	15	29	.02	L	9	14	27	.01	L	7	12	23
	90	.04	L	11	17	31	.02	L	10	16	29	.01	L	9	14	25
	100	.05	L	12	19	33	.03	L	11	18	31	.02	L	10	16	27
	120	.07	23	14	22	36	.05	L	14	21	34	.02	L	12	18	30
	140	.10	27	17	25	39	.06	22	16	23	37	.03	L	15	21	33
	160	.13	31	19	26	40	.08	26	18	25	38	.04	21	16	23	35
	180	.16	34	22	29	43	.10	29	21	28	41	.05	24	19	25	37
	200	.19	37	23	32	45	.12	32	22	30	43	.06	27	20	27	39
	220	.23	40	25	33	47	.15	35	23	31	44	.08	30	22	29	41
	240	.27	43	26	34	48	.18	38	25	33	46	.09	33	23	31	43
	260	.31	45	27	35	49	.21	40	26	33	47	.11	35	24	31	44
280						.26	42	27	35	48	.12	37	25	32	45	
300											.15	39	26	33	46	
325											.17	42	27	34	47	
350											.20	44	28	35	49	

Linear, Plenum & Lt. Troffer S&R