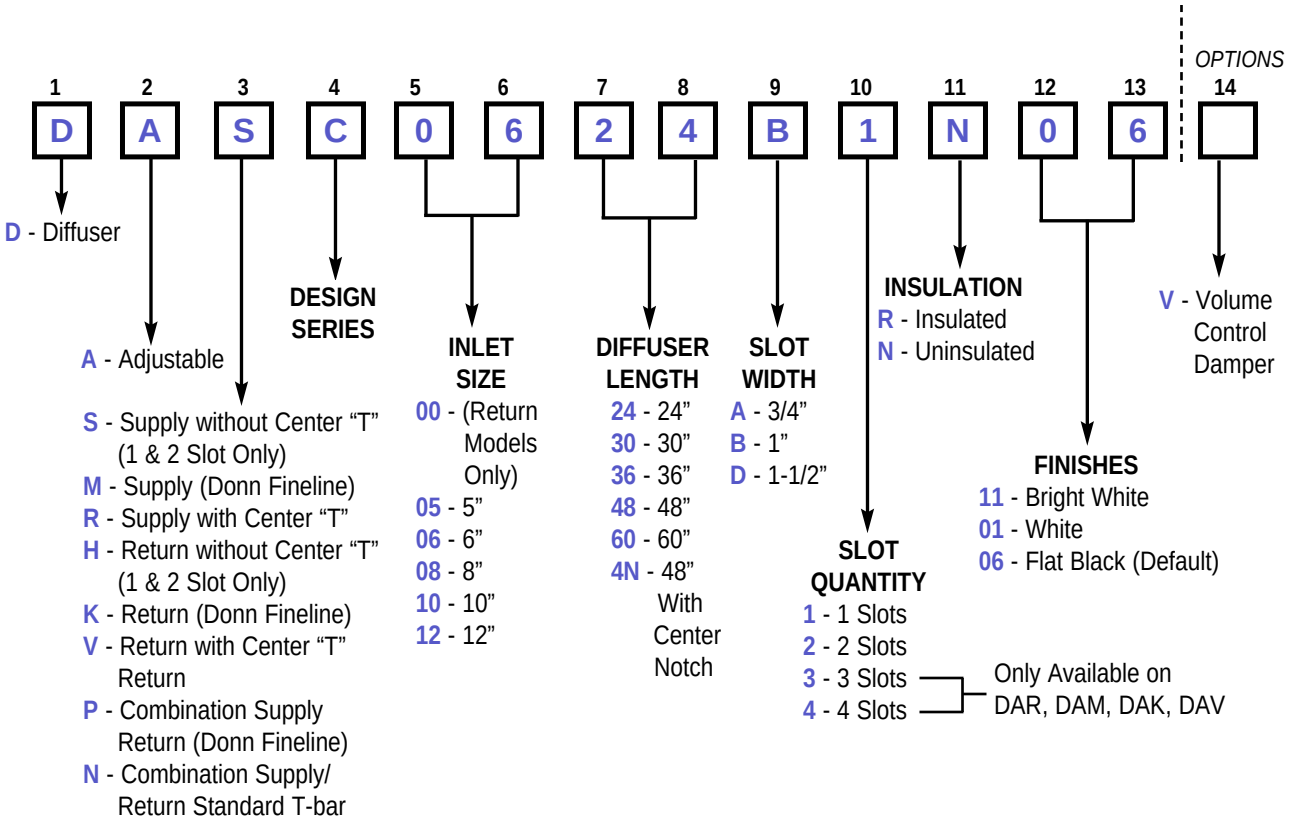
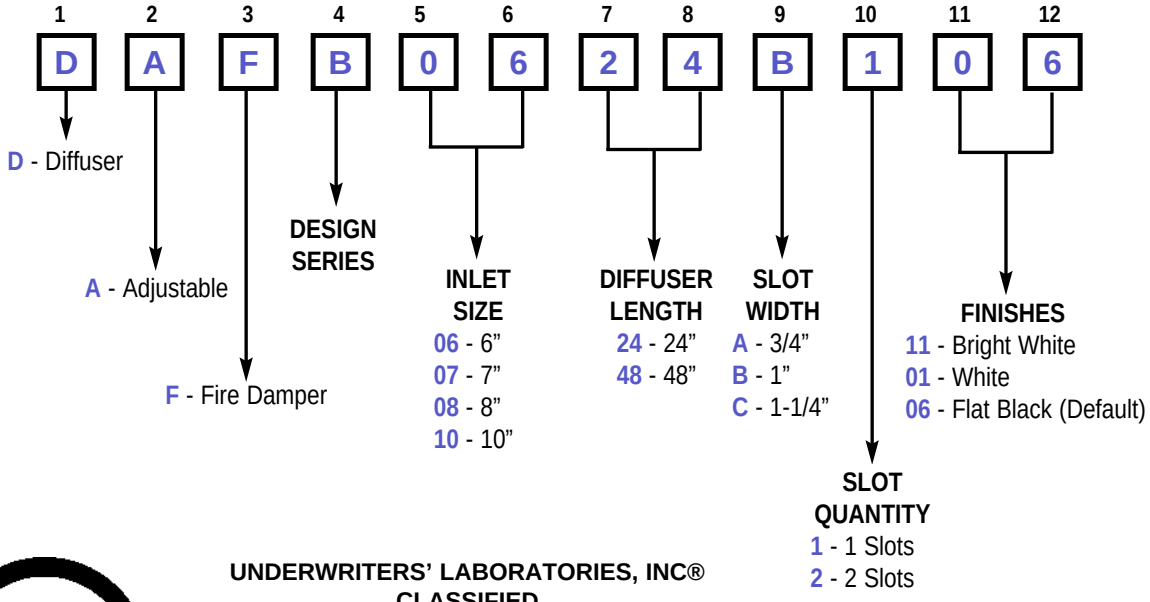
▼ DA Series — Adjustable Pattern



▼ Fire Slot — Adjustable Pattern



UNDERWRITERS' LABORATORIES, INC® CLASSIFIED
AIR TERMINAL UNITS
FIRE RESISTANCE CLASSIFICATION
DESIGN NOS. — SEE PRODUCT CATEGORY
IN UL FIRE RESISTANCE DIRECTORY
CONTROL NO. 241Y

Carnes DA Series Adjustable Slot Diffusers provide an economical method to incorporate horizontal or vertical discharge for either perimeter or interior zone application. Superior design makes the DA Series excellent for use in VAV systems. It will hold a horizontal pattern at less than 10% of nominal CFM (50 CFM per linear foot of slot). When set for vertical discharge, it provides an air curtain effect along exterior walls and windows.

DESCRIPTION — DA Series

The Carnes DA Series Adjustable Slot Diffusers are available in one, two, three or four slots for exposed T-bar ceilings. Models are also available for Donn Fineline type ceilings. The available slot widths are 3/4", 1" and 1-1/2". The DA Series Slot Diffuser utilizes an adjustable pattern control in each slot to control the direction of air discharge, either parallel with or perpendicular to the diffuser face. The adjustment from the face of the diffuser allows for control in a full 180° range for either right or left, horizontal or vertical. The four foot and five foot diffusers have a split pattern control in each slot. This enables one to obtain both horizontal left and horizontal right air flow from a single slot unit. These units are available with insulated or uninsulated plenums. The insulation used on the one slot units is 1/4" thick 3 pound density. The two, three and four slot units use 1/2" thick 1-1/2 pound density material. All insulation is internally mounted fiberglass with matte faced to prevent erosion. The insulation conforms to UL 181 and NFPA 90A requirements. The DA Series is available with 6", 8", 10" or 12" inlets. The duct collar is 1-3/4" deep for ease of flex duct connection.

DESCRIPTION — Model DAFB

The Carnes DAFB Adjustable Slot Diffusers are available in one or two slots for exposed T-bar ceilings. The available slot widths are 3/4", 1" and 1-1/4". The diffusers are constructed of 22 gauge galvanized steel and are available in 24" and 48" lengths. The diffuser face is painted flat black. The Model DAFB has all the features of air pattern adjustment that are available on the other DA Series Slots. The Model DAFB comes insulated as standard with 1/2" thick 1-1/2 lb. density fiberglass internally mounted and mat-faced to prevent erosion. The installation conforms to UL 181 and NFPA 90A requirements. When installed in accordance with the installation instructions, the diffusers are UL classified with a 3 hour fire rating.

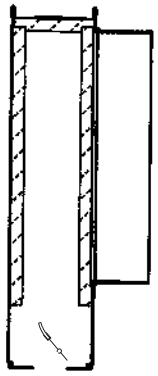
SPECIFICATIONS — DA Series

Carnes DA Series Adjustable Slot Diffusers shall be installed at each location as shown on the drawings. All diffusers are to have performance ratings of CFM, static pressure, noise criteria and throw as shown on the drawings. Each slot shall be equipped with an individually adjustable pattern control to insure full 180° air pattern. Unit sizes 48" and 60" shall have a split pattern control so two-way throw can be obtained from a single slot unit. The diffuser shall be constructed of 24 gauge galvanized steel with inlet size as specified. The inlet collar is to be 1-3/4" deep for easy flex duct connection. The diffuser plenum can be thermally and acoustically insulated with 1/4" 3 lb. density fiberglass internally mounted and matte faced to prevent erosion. The insulation must conform to UL 181 and NFPA 90A requirements.

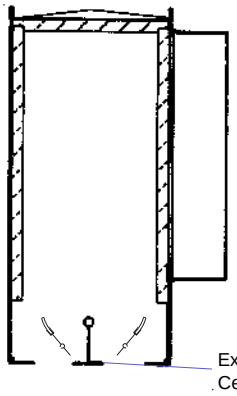
SPECIFICATIONS — Model DAFB

The Carnes Model DAFB, UL classified fire dampered slot diffuser shall be installed at each location as shown on the drawings. All diffusers are to have performance ratings in CFM, static pressure, noise criteria and throw as shown on the drawings. Each slot shall be equipped with an individually adjustable pattern control to insure full 180° air pattern. Unit size 48" shall have a split pattern control so two-way throw can be obtained from a single slot unit. The diffuser shall be constructed of 22 gauge galvanized steel with inlet size as specified. The inlet collar is to be 1-3/4" deep for easy flex duct connection. The diffuser plenum shall be thermally and acoustically insulated with 1/2" thick 1-1/2 lb. density fiberglass internally mounted and matte faced to prevent erosion. The insulation must conform to UL 181 and NFPA 90A requirement.

DASC

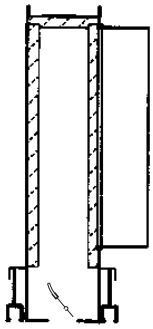


ONE SLOT
Specification Sheet 18643

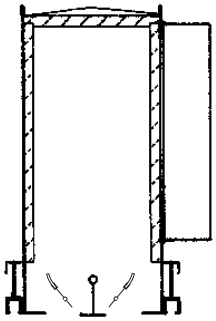


TWO SLOTS
Specification Sheet 18644

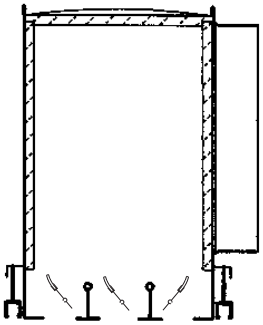
DAMC



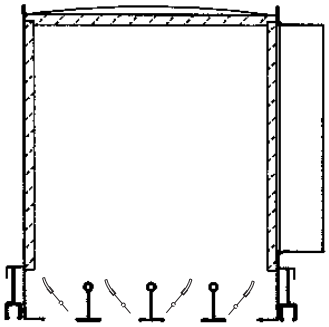
ONE SLOT
Specification Sheet 18801



TWO SLOTS
Specification Sheet 18802

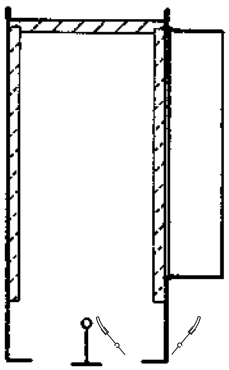


THREE SLOTS
Specification Sheet 18813

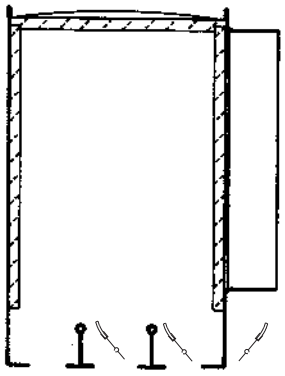


FOUR SLOTS
Specification Sheet 18814

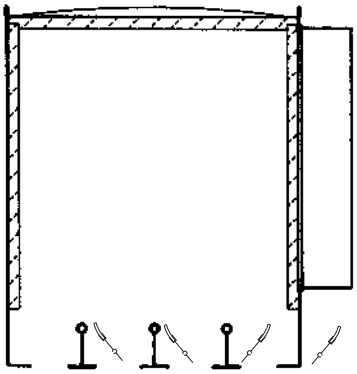
DARC



TWO SLOTS
Specification Sheet 18800



THREE SLOTS
Specification Sheet 18810



FOUR SLOTS
Specification Sheet 18811

DASC

Model DASC is a supply adjustable pattern T-bar slot diffuser. It is compatible with most conventional T-bar ceilings and is available with one or two slots.

Each slot has an individually adjustable pattern deflector to allow full 180 degree air pattern adjustment. Available slot widths are 3/4", 1" and 1-1/2". The Model DASC is available in nominal 24", 30", 36", 48" and 60" diffuser lengths. Inlet sizes 5", 6", 7" and 8" are round. Inlets above size 8" are oval.

These units are constructed of 24 gauge Galvanealed steel and are available with insulated or uninsulated plenums. Insulation for the one slot unit is 1/4" - 3 pound density. The two slot units have 1/2" thick 1-1/2 pound density insulation. The insulation is internally mounted and matte faced to prevent erosion. The insulation conforms to UL 181 and NFPA 90A requirements.

The face of the unit is painted number 06 flat black as standard. Number 01 white and Number 11 bright white are optional.

The one slot unit is installed along side the main T-bar and one additional T-bar is required. The two slot unit is installed straddling the main T-bar and two additional T-bars are required. All additional T-bars are by others.

DAMC

Model DAMC is a supply adjustable pattern T-bar slot diffuser. It is designed for installation in Donn Fineline type grid systems and is available with one, two, three or four slots.

Each slot has an individually adjustable pattern deflector to allow full 180 degrees air pattern adjustment. Available slot widths are 3/4", 1" and 1-1/2". The Model DAMC is available in nominal 24", 30", 36" 48" and 60" diffuser lengths. Inlet sizes 5", 6", 7" and 8" are round. Inlets above size 8" are oval.

These units are constructed of 24 gauge Galvanealed steel and are available with insulated or uninsulated plenums. Insulation for the one slot unit is 1/4" thick 3 pound density. The two, three and four slot models have 1/2" thick 3 pound density. The insulation is internally mounted and matte faced to prevent erosion. The insulation conforms to UL 181 and NFPA 90A requirements.

The face of the unit is painted number 06 flat black as standard. Number 01 white and Number 11 bright white are optional.

The slots of the diffuser are separated by standard 15/16" wide T-bar which are installed in the unit and painted number 01 white. The units are equipped with T-bar clips on each side that hook over the T-bar. All models require one additional T-bar. All additional T-bars are by others.

DARC

Model DARC is a supply adjustable pattern T-bar slot diffuser. It is compatible with most conventional T-bar ceilings and is available with two, three or four slots.

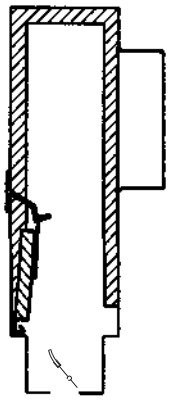
Each slot has an individually adjustable pattern deflector to allow full 180 degree air pattern adjustment. Available slot widths are 3/4", 1" and 1-1/2". The Model DARC is available in nominal 24", 30", 36", 48" and 60" diffuser lengths. Inlet sizes 5", 6", 7" and 8" are round. Inlets above 8" are oval.

These units are constructed of 24 gauge Galvanealed steel and are available with insulated or uninsulated plenums. Insulation is 1/2" thick 1-1/2 pound density. The insulation is internally mounted and matte faced to prevent erosion. The insulation conforms to UL 181 and NFPA 90A requirements.

The face of the unit is painted number 06 flat black as standard. Number 01 white and Number 11 bright white are optional.

The slots of the diffuser are separated by standard 15/16" T-bar which are installed in the unit and painted number 01 white. The Model DARC is installed along side main T-bar and one additional is required. All additional T-bars are by others.

DAFB



ONE SLOT

Specification Sheet 18664

UNDERWRITERS' LABORATORIES, INC ®
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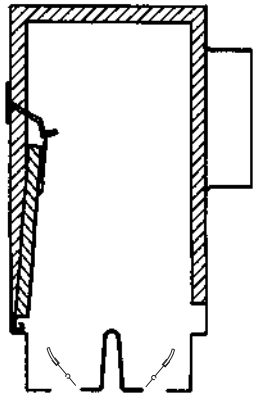
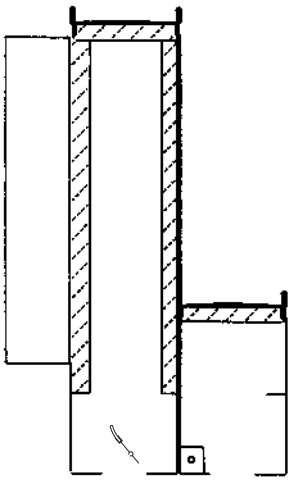
FIRE RESISTANCE CLASSIFICATION
DESIGN NOS. — SEE PRODUCT CATEGORY
IN UL FIRE RESISTANCE DIRECTORY
CONTROL NO. 241Y



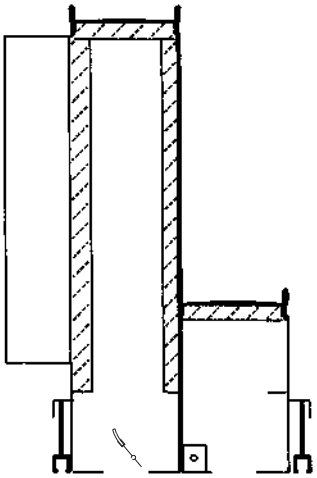
TWO SLOTS

Specification Sheet 18665

DANC-DAPC



Specification Sheet 18808

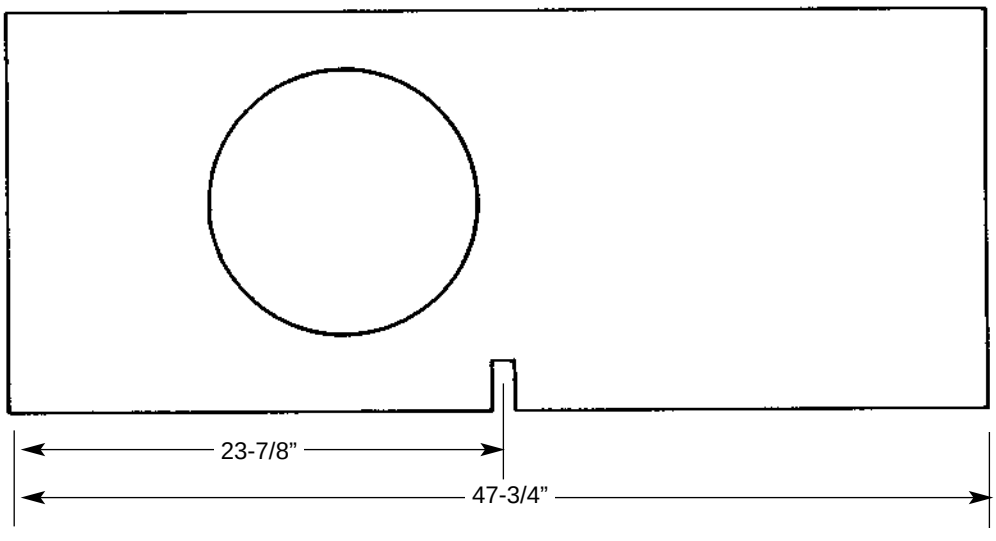


Specification Sheet 18809

Unit with Center Notch

DARC - Specification Sheet 18812

DASC - Specification Sheet 18680



DAFB

The Model DAFB is a UL classified adjustable pattern T-bar slot diffuser. They are available one or two slots wide. The available slot widths are 3/4", 1" and 1-1/4". The diffusers are constructed of 22 gauge galvanized steel and are available in 24" and 48" lengths. The Model DAFB has all the features of air pattern adjustment that are available on the other DA Series Diffusers. The DAFB comes insulated as standard with 1/2" thick - 1-1/2 pound density fiberglass internally mounted and matte-faced to prevent erosion. The insulation conforms to UL 181 and NFPA 90A requirements. The diffuser face is painted 06 flat black as standard. Number 01 white and Number 11 bright white are optional. When installed in accordance with the installation instructions, the diffusers are UL classified with a three hour fire rating.

DANC — DAPC

The Models DANC and DAPC are combination supply/return slot diffusers. The DANC is compatible with most conventional T-bar ceilings. The DAPC is designed for installation in Donn Fineline type grid systems. Both models consist of one slot supply and one return slot.

The supply slot has an adjustable pattern deflector to allow horizontal or vertical air pattern adjustment. The return slot which is equal in width to the supply slot returns air to ceiling Plenums. Available slot widths are 3/4", 1" and 1-1/2".

Diffusers are available in nominal 24", 30" 36", 48"and 60" lengths. Inlet sizes 5", 6", 7" and 8" on the supply side are round. Inlets above 8" are oval. These units are constructed of 24 gauge Galvanealed steel and are available with insulated or uninsulated plenums. The insulation is 1/4" thick 3 pound density. The insulation is internally mounted and matte-faced to prevent erosion. The insulation conforms to UL 181 and NFPA 90A requirements.

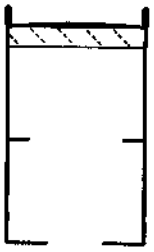
The face of the unit is painted number 06 flat black as standard. Number 01 white and Number 11 bright white are optional.

These units are installed along side the main grid member and one additional grid member is required. All additional grid members are by others.

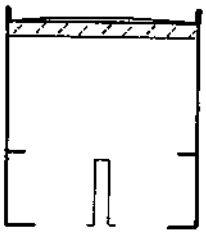
UNITS WITH CENTER NOTCH

All DA series adjustable T-bar slot diffusers, both supply and return models, size 48" are available with center notch. Some job specifications will call for a four foot adjustable T-bar slot diffuser to be mounted in a ceiling that has grid members on two foot centers. The DA series when ordered with listed size 4N will accomplish this.

DAHC *(No center T's)*

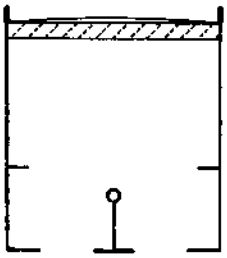


ONE SLOT
Specification Sheet 18803

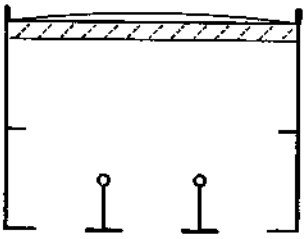


TWO SLOTS
Specification Sheet 18804

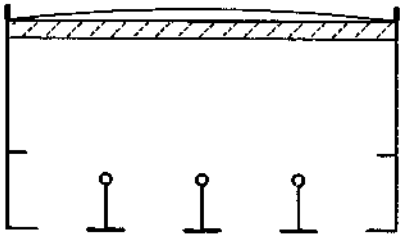
DAVC *(Factory installed center T's)*



TWO SLOTS
Specification Sheet 18805

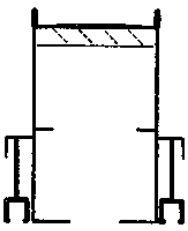


THREE SLOTS
Specification Sheet 18815

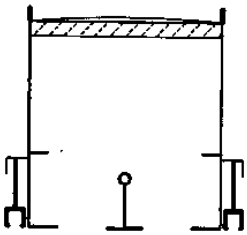


FOUR SLOTS
Specification Sheet 18816

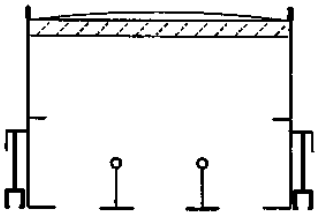
DAKC *(Fits Donn® Fineline® ceiling, factory installed center T's)*



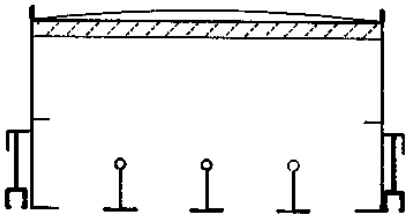
ONE SLOT
Specification Sheet 18806



TWO SLOTS
Specification Sheet 18807



THREE SLOTS
Specification Sheet 18817



FOUR SLOTS
Specification Sheet 18818

DAHC

Model DAHC is a return slot diffuser. It is compatible with most conventional T-bar ceilings. It is the matching return for the DASC supply diffuser and is available with one or two slots.

Available slot widths are 3/4", 1" and 1-1/2". The Model DAHC is available in nominal 24", 30", 36", 48" and 60" diffuser lengths.

They are constructed of 24 gauge Galvanealed steel and are available with insulated or uninsulated plenums. Insulation for the one slot is 1/4" thick 3 pound density. The two slot units have 1/2" thick 1-1/2 pound density insulation. The insulation is internally mounted and matte faced to prevent erosion. The insulation confirms to UL 181 and NFPA 90A requirements. The face of the unit is painted number 06 flat black as standard. Number 01 white and Number 11 bright white are optional.

The one slot unit is installed along side the main T-bar and one additional T-bar is required. The two slot is installed straddling the main T-bar and two additional T-bars are required. All additional T-bars are by others.

DAVC

The Model DAVC is a return slot diffuser. It is compatible with most conventional T-bar ceilings. It is the matching return for Model DARC supply diffuser and is available with two, three or four slots. Available slot widths are 3/4", 1" and 1-1/2".

The Model DAVC is available in nominal 24", 30", 36", 48" and 60" diffuser lengths. They are constructed of 24 gauge Galvanealed steel and are available with insulated or uninsulated plenums. Insulation is 1/2" thick 1-1/2 pound density. The insulation is internally mounted and matte faced to prevent erosion. The insulation confirms to UL 181 and NFPA 90A requirements. The face of the unit is painted number 06 flat black as standard. Number 01 white and Number 11 bright white are optional.

The slots of the diffuser are separated by standard 15/16" T-bar which are installed in the unit and painted number 11 bright white. The Model DAVB is installed along side the main T-bar and one additional T-bar is required. All additional T-bars are by others.

DAKC

Model DAKC is a return T-bar slot diffuser. It is designed for installation in Donn Fineline grid systems. It is the matching return for Model DAMC supply diffuser and is available with one, two, three or four slots. Available slot widths are 3/4", 1" and 1-1/2".

The Model DAKC is available in nominal 24", 30", 36", 48" and 60" diffuser lengths. They are constructed of 24 gauge Galvanealed steel and are available with insulated or uninsulated plenums. Insulation for the one slot unit is 1/4" thick 3 pound density. The two, three, and four slot models have 1/2" thick 1-1/2 pound density insulation. The insulation is internally mounted and matte faced to prevent erosion. The insulation conforms to UL 181 and NFPA 90A requirements.

The face of the unit is painted number 06 flat black as standard. Number 01 white and Number 11 bright white are optional.

The slots of the diffuser are separated by standard 15/16" T-bar which are installed in the unit and painted Number 01 white. The units are equipped with T-bar clips on each side that hook over the T-bar. All models require one additional T-bar. All additional T-bars are by others.

1 Slot	3/4" Slot Width	6", 8" Inlet	Flow	25	50	75	100	125	150
			Total Pressure	.015	.063	.142	.253	.397	.575
			NC	—	20	31	39	46	51
			Throw	3-6-12	9-13-19	13-16-23	15-18-26	16-20-29	18-22-31
	1" Slot Width	6", 8" Inlet	Flow	25	50	75	100	125	150
			Total Pressure	.009	.036	.081	.145	.230	.333
			NC	—	13	24	32	38	44
			Throw	2-5-11	7-11-18	12-16-22	15-18-25	16-20-28	17-21-30
	1-1/2" Slot Width	6", 8" Inlet	Flow	50	75	100	150	200	250
			Total Pressure	.009	.042	.075	.168	.303	.475
			NC	—	15	23	35	43	49
			Throw	5-9-17	8-13-20	11-16-24	17-21-29	19-23-33	21-26-37
2 Slots	3/4" Slot Width	6", 8" Inlet	Flow	50	75	100	150	200	250
			Total Pressure	.019	.042	.075	.168	.303	.475
			NC	—	15	23	35	43	49
			Throw	5-9-17	8-13-20	11-16-24	17-21-29	19-23-33	21-26-37
	1" Slot Width	6", 8" Inlet	Flow	50	75	100	150	200	250
			Total Pressure	.013	.029	.053	.118	.209	.334
			NC	—	—	16	28	36	43
			Throw	3-7-16	6-11-19	9-14-22	15-20-28	19-23-32	20-25-36
	1-1/2" Slot Width	6", 8" Inlet	Flow	100	150	200	250	300	350
			Total Pressure	.032	.073	.130	.205	.295	.401
			NC	—	20	28	34	39	44
			Throw	6-11-21	10-16-26	15-21-31	20-25-35	22-27-38	23-28-40
3 Slots	3/4" Slot Width	6", 8" Inlet	Flow	100	150	200	250	300	350
			Total Pressure	.046	.104	.185	.292	.418	.575
			NC	14	25	34	40	45	50
			Throw	8-13-22	14-19-27	19-23-32	20-25-36	23-28-39	24-29-41
	1" Slot Width	6", 8" Inlet	Flow	100	150	200	250	300	350
			Total Pressure	.032	.073	.130	.205	.295	.401
			NC	—	20	28	34	39	44
			Throw	6-11-21	10-16-26	15-21-31	20-25-35	22-27-38	23-28-40
	1-1/2" Slot Width	8", 10" Inlet	Flow	150	200	250	300	400	500
			Total Pressure	.046	.082	.128	.187	.332	.521
			NC	11	19	26	31	39	46
			Throw	7-13-25	11-18-29	14-21-33	18-25-36	23-29-41	26-32-45
4 Slots	3/4" Slot Width	6", 8" Inlet	Flow	100	150	200	250	300	350
			Total Pressure	.032	.073	.130	.205	.295	.401
			NC	—	20	28	34	39	44
			Throw	6-11-21	10-16-26	15-21-31	20-25-35	22-27-38	23-28-40
	1" Slot Width	8", 10" Inlet	Flow	150	200	250	300	400	500
			Total Pressure	.052	.094	.147	.212	.379	.592
			NC	14	22	28	34	42	48
			Throw	8-14-25	12-19-30	15-22-33	20-26-36	24-29-41	26-32-46
	1-1/2" Slot Width	8", 10" Inlet	Flow	200	300	400	500	600	700
			Total Pressure	.059	.134	.238	.374	.542	.735
			NC	14	26	34	40	46	50
			Throw	8-15-28	14-22-35	20-28-40	25-31-44	28-35-49	30-37-52

Notes on Performance Data

- Performance shown is based on testing in accordance with ANSI/ASHRAE Standard 70-1991.
- Flow is CFM of standard air.
- Total Pressure is inches of water gage.
- NC is noise criteria based on a room absorption of 10db re. 10^{-12} watts.
- Throw is in feet to terminal velocities of 150-100-50 FPM for isothermal conditions.
- Throws listed are for one way pattern. For two-way pattern choose the number of slots in each direction and distribute the total air flow proportionally.

1 Slot	3/4" Slot Width	6", 8" Inlet	Flow	25	50	75	100	125	150
			Total Pressure	.010	.041	.092	.166	.262	.377
			NC	—	14	26	34	40	45
			Throw	2-5-11	8-12-18	12-16-22	15-18-25	16-20-28	18-22-31
	1" Slot Width	6", 8" Inlet	Flow	50	75	100	150	200	250
			Total Pressure	.025	.056	.100	.227	.405	.638
			NC	—	19	27	39	47	53
			Throw	6-10-17	10-14-21	13-17-24	17-21-30	20-24-34	22-27-38
	1-1/2" Slot Width	6", 8" Inlet	Flow	50	75	100	150	200	250
			Total Pressure	.014	.032	.057	.128	.227	.363
			NC	—	10	18	30	38	44
			Throw	4-8-16	7-12-20	10-15-23	16-20-28	19-23-32	20-25-36
2 Slots	3/4" Slot Width	6", 8" Inlet	Flow	50	75	100	150	200	250
			Total Pressure	.014	.032	.057	.128	.227	.363
			NC	—	10	18	30	38	44
			Throw	4-8-16	7-12-20	10-15-23	16-20-28	19-23-32	20-25-36
	1" Slot Width	6", 8" Inlet	Flow	100	150	200	250	300	350
			Total Pressure	.040	.091	.162	.254	.367	.504
			NC	12	23	31	38	43	48
			Throw	8-13-22	12-18-27	17-22-31	20-25-35	22-27-38	24-29-41
	1-1/2" Slot Width	8", 10" Inlet	Flow	150	200	250	300	400	500
			Total Pressure	.057	.101	.158	.228	.408	.638
			NC	15	23	30	35	43	50
			Throw	9-15-25	13-19-30	17-24-34	20-26-37	24-29-41	27-33-46
3 Slots	3/4" Slot Width	6", 8" Inlet	Flow	100	150	200	250	300	350
			Total Pressure	.036	.080	.143	.226	.326	.445
			NC	10	21	29	36	41	45
			Throw	7-12-21	11-17-27	16-22-31	20-25-35	22-27-38	23-28-40
	1" Slot Width	8", 10" Inlet	Flow	150	200	250	300	400	500
			Total Pressure	.057	.101	.158	.228	.408	.638
			NC	15	23	30	35	43	50
			Throw	9-15-25	13-19-30	17-24-34	20-26-37	24-29-41	27-33-46
	1-1/2" Slot Width	8", 10" Inlet	Flow	200	300	400	500	600	700
			Total Pressure	.064	.144	.257	.404	.585	.790
			NC	16	27	36	42	47	52
			Throw	9-16-28	15-23-35	20-28-40	25-31-44	28-35-49	31-38-53
4 Slots	3/4" Slot Width	8", 10" Inlet	Flow	150	200	250	300	400	500
			Total Pressure	.057	.101	.158	.228	.408	.638
			NC	15	23	30	35	43	50
			Throw	9-15-25	13-19-30	17-24-34	20-26-37	24-29-41	27-33-46
	1" Slot Width	8", 10" Inlet	Flow	200	300	400	500	600	700
			Total Pressure	.073	.163	.294	.460	.665	.915
			NC	18	29	38	44	49	54
			Throw	10-17-29	17-24-36	22-28-40	26-32-45	28-35-49	31-38-53
	1-1/2" Slot Width	10", 12" Inlet	Flow	300	400	500	600	700	800
			Total Pressure	.103	.187	.288	.413	.562	.735
			NC	22	30	37	42	46	50
			Throw	12-20-34	17-25-39	21-29-43	26-34-48	29-36-51	32-39-55

Notes on Performance Data

- Performance shown is based on testing in accordance with ANSI/ASHRAE Standard 70-1991.
- Flow is CFM of standard air.
- Total Pressure is inches of water gage.
- NC is noise criteria based on a room absorption of 10db re. 10^{-12} watts.
- Throw is in feet to terminal velocities of 150-100-50 FPM for isothermal conditions.
- Throws listed are for one way pattern. For two-way pattern choose the number of slots in each direction and distribute the total air flow proportionally.

1 Slot	3/4" Slot Width	6", 8" Inlet	Flow	25	50	75	100	125	150
			Total Pressure	.007	.029	.066	.118	.187	.268
			NC	—	10	21	28	35	41
			Throw	2-4-10	7-11-18	12-15-22	15-18-25	16-19-27	17-21-30
	1" Slot Width	6", 8" Inlet	Flow	50	75	100	150	200	250
			Total Pressure	.019	.042	.075	.168	.303	.475
			NC	—	15	23	35	43	49
			Throw	5-9-17	8-13-20	11-16-24	17-21-29	19-23-33	21-26-37
	1-1/2" Slot Width	6", 8" Inlet	Flow	100	150	200	250	300	350
			Total Pressure	.046	.104	.185	.292	.418	.575
			NC	14	25	34	40	45	50
			Throw	8-13-22	14-19-27	19-23-32	20-25-36	23-28-39	24-29-41
2 Slots	3/4" Slot Width	6", 8" Inlet	Flow	100	150	200	250	300	350
			Total Pressure	.046	.104	.185	.292	.418	.575
			NC	14	25	34	40	45	50
			Throw	8-13-22	14-19-27	19-23-32	20-25-36	23-28-39	24-29-41
	1" Slot Width	6", 8" Inlet	Flow	100	150	200	250	300	350
			Total Pressure	.032	.073	.130	.205	.295	.401
			NC	—	20	28	34	39	44
			Throw	6-11-21	10-16-26	15-21-31	20-25-35	22-27-38	23-28-40
	1-1/2" Slot Width	8", 10" Inlet	Flow	150	200	250	300	400	500
			Total Pressure	.046	.082	.128	.187	.332	.521
			NC	11	19	26	31	39	46
			Throw	7-13-25	11-18-29	14-21-33	18-25-36	23-29-41	26-32-45
3 Slots	3/4" Slot Width	6", 8" Inlet	Flow	150	200	250	300	400	500
			Total Pressure	.064	.113	.178	.258	.460	.721
			NC	17	25	32	37	45	52
			Throw	10-16-26	14-20-30	18-24-34	21-26-37	24-30-42	27-33-46
	1" Slot Width	8", 10" Inlet	Flow	150	200	250	300	400	500
			Total Pressure	.046	.082	.128	.187	.332	.521
			NC	11	19	26	31	39	46
			Throw	7-13-25	11-18-29	14-21-33	18-25-36	23-29-41	26-32-45
	1-1/2" Slot Width	8", 10" Inlet	Flow	200	300	400	500	600	700
			Total Pressure	.051	.115	.206	.322	.465	.632
			NC	12	24	32	38	44	48
			Throw	7-14-28	13-21-34	18-26-39	23-31-44	27-34-48	30-37-52
4 Slots	3/4" Slot Width	8", 10" Inlet	Flow	150	200	250	300	400	500
			Total Pressure	.046	.082	.128	.187	.332	.521
			NC	11	19	26	31	39	46
			Throw	7-13-25	11-18-29	14-21-33	18-25-36	23-29-41	26-32-45
	1" Slot Width	8", 10" Inlet	Flow	200	300	400	500	600	700
			Total Pressure	.059	.134	.238	.374	.542	.735
			NC	14	26	34	40	46	50
			Throw	8-15-28	14-22-35	20-28-40	25-31-44	28-35-49	30-37-52
	1-1/2" Slot Width	10", 12" Inlet	Flow	300	400	500	600	700	800
			Total Pressure	.083	.148	.232	.334	.455	.603
			NC	19	27	33	38	43	47
			Throw	10-18-33	14-23-38	19-28-43	22-32-47	28-36-51	31-38-54

Notes on Performance Data

- Performance shown is based on testing in accordance with ANSI/ASHRAE Standard 70-1991.
- Flow is CFM of standard air.
- Total Pressure is inches of water gage.
- NC is noise criteria based on a room absorption of 10db re. 10^{-12} watts.
- Throw is in feet to terminal velocities of 150-100-50 FPM for isothermal conditions.
- Throws listed are for one way pattern. For two-way pattern choose the number of slots in each direction and distribute the total air flow proportionally.

1 Slot	3/4" Slot Width	6", 8" Inlet	Flow	50	75	100	150	200	250
			Total Pressure	.019	.042	.075	.168	.303	.475
			NC	—	15	23	35	43	49
			Throw	5-9-17	8-13-20	11-16-24	17-21-29	19-23-33	21-26-37
	1" Slot Width	6", 8" Inlet	Flow	50	75	100	150	200	250
			Total Pressure	.013	.029	.053	.118	.209	.334
			NC	—	—	16	28	36	43
			Throw	3-7-16	6-11-19	9-14-22	15-20-28	19-23-32	20-25-36
	1-1/2" Slot Width	6", 8" Inlet	Flow	100	150	200	250	300	350
			Total Pressure	.032	.073	.130	.205	.295	.401
			NC	—	20	28	34	39	44
			Throw	6-11-21	10-16-26	15-21-31	20-25-35	22-27-38	23-28-40
2 Slots	3/4" Slot Width	6", 8" Inlet	Flow	100	150	200	250	300	350
			Total Pressure	.032	.073	.130	.205	.295	.401
			NC	—	20	28	34	39	44
			Throw	6-11-21	10-16-26	15-21-31	20-25-35	22-27-38	23-28-40
	1" Slot Width	8", 10" Inlet	Flow	150	200	250	300	400	500
			Total Pressure	.052	.094	.147	.212	.379	.592
			NC	14	22	28	34	42	48
			Throw	8-14-25	12-19-30	15-22-33	20-26-36	24-29-41	26-32-46
	1-1/2" Slot Width	8", 10" Inlet	Flow	200	300	400	500	600	700
			Total Pressure	.059	.134	.238	.374	.542	.735
			NC	14	26	34	40	46	50
			Throw	8-15-28	14-22-35	20-28-40	25-31-44	28-35-49	30-37-52
3 Slots	3/4" Slot Width	8", 10" Inlet	Flow	150	200	250	300	400	500
			Total Pressure	.046	.082	.128	.187	.332	.521
			NC	11	19	26	31	39	46
			Throw	7-13-25	11-18-29	14-21-33	18-25-36	23-29-41	26-32-45
	1" Slot Width	8", 10" Inlet	Flow	200	300	400	500	600	700
			Total Pressure	.059	.134	.238	.374	.542	.735
			NC	14	26	34	40	46	50
			Throw	8-15-28	14-22-35	20-28-40	25-31-44	28-35-49	30-37-52
	1-1/2" Slot Width	10", 12" Inlet	Flow	300	400	500	600	700	800
			Total Pressure	.083	.148	.232	.334	.455	.603
			NC	19	27	33	38	43	47
			Throw	10-18-33	14-23-38	19-28-43	22-32-47	28-36-51	31-38-54
4 Slots	3/4" Slot Width	8", 10" Inlet	Flow	200	300	400	500	600	700
			Total Pressure	.059	.134	.238	.374	.542	.735
			NC	14	26	34	40	46	50
			Throw	8-15-28	14-22-35	20-28-40	25-31-44	28-35-49	30-37-52
	1" Slot Width	10", 12" Inlet	Flow	300	400	500	600	700	800
			Total Pressure	.095	.168	.266	.381	.519	.682
			NC	21	29	35	40	45	49
			Throw	11-19-34	16-25-39	20-29-43	25-33-47	29-36-51	32-39-55
	1-1/2" Slot Width	10", 12" Inlet	Flow	400	500	600	700	800	900
			Total Pressure	.105	.164	.238	.322	.424	.540
			NC	22	28	34	38	42	45
			Throw	11-20-37	15-25-42	19-29-46	22-33-50	26-37-53	30-40-57

Notes on Performance Data

- Performance shown is based on testing in accordance with ANSI/ASHRAE Standard 70-1991.
- Flow is CFM of standard air.
- Total Pressure is inches of water gage.
- NC is noise criteria based on a room absorption of 10db re. 10^{-12} watts.
- Throw is in feet to terminal velocities of 150-100-50 FPM for isothermal conditions.
- Throws listed are for one way pattern. For two-way pattern choose the number of slots in each direction and distribute the total air flow proportionally.

1 Slot	3/4" Slot Width	6", 8" Inlet	Flow	50	75	100	150	200	250
			Total Pressure	.014	.032	.057	.128	.227	.363
			NC	—	10	18	30	38	44
			Throw	4-8-16	7-12-20	10-15-23	16-20-28	19-23-32	20-25-36
	1" Slot Width	6", 8" Inlet	Flow	100	150	200	250	300	350
			Total Pressure	.040	.091	.162	.254	.367	.504
			NC	12	23	31	38	43	48
			Throw	8-13-22	12-18-27	17-22-31	20-25-35	22-27-38	24-29-41
	1-1/2" Slot Width	8", 10" Inlet	Flow	150	200	250	300	400	500
			Total Pressure	.057	.101	.158	.228	.408	.638
			NC	15	23	30	35	43	50
			Throw	9-15-25	13-19-30	17-24-34	20-26-37	24-29-41	27-33-46
2 Slots	3/4" Slot Width	8", 10" Inlet	Flow	150	200	250	300	400	500
			Total Pressure	.057	.101	.158	.228	.408	.638
			NC	15	23	30	35	43	50
			Throw	9-15-25	13-19-30	17-24-34	20-26-37	24-29-41	27-33-46
	1" Slot Width	8", 10" Inlet	Flow	200	300	400	500	600	700
			Total Pressure	.073	.163	.294	.460	.665	.915
			NC	18	29	38	44	49	54
			Throw	10-17-29	17-24-36	22-28-40	26-32-45	28-35-49	31-38-53
	1-1/2" Slot Width	10", 12" Inlet	Flow	300	400	500	600	700	800
			Total Pressure	.103	.187	.288	.413	.562	.735
			NC	22	30	37	42	46	50
			Throw	12-20-34	17-25-39	21-29-43	26-34-48	29-36-51	32-39-55
3 Slots	3/4" Slot Width	8", 10" Inlet	Flow	200	300	400	500	600	700
			Total Pressure	.064	.144	.257	.404	.585	.790
			NC	16	27	36	42	47	52
			Throw	9-16-28	15-23-35	20-28-40	25-31-44	28-35-49	31-38-53
	1" Slot Width	10", 12" Inlet	Flow	300	400	500	600	700	800
			Total Pressure	.103	.187	.288	.413	.562	.735
			NC	22	30	37	42	46	50
			Throw	12-20-34	17-25-39	21-29-43	26-34-48	29-36-51	32-39-55
	1-1/2" Slot Width	10", 12" Inlet	Flow	400	500	600	700	800	900
			Total Pressure	.115	.180	.259	.352	.459	.588
			NC	23	30	35	40	43	47
			Throw	12-21-37	15-25-42	20-30-46	24-34-50	28-38-54	31-40-57
4 Slots	3/4" Slot Width	10", 12" Inlet	Flow	300	400	500	600	700	800
			Total Pressure	.103	.187	.288	.413	.562	.735
			NC	22	30	37	42	46	50
			Throw	12-20-34	17-25-39	21-29-43	26-34-48	29-36-51	32-39-55
	1" Slot Width	10", 12" Inlet	Flow	300	400	500	600	700	800
			Total Pressure	.073	.133	.205	.296	.404	.527
			NC	17	25	31	37	41	45
			Throw	8-17-33	13-22-38	17-26-42	21-31-47	26-35-50	30-38-54
	1-1/2" Slot Width	10", 12" Inlet	Flow	500	600	700	800	900	1000
			Total Pressure	.127	.183	.252	.327	.417	.517
			NC	25	30	35	38	42	45
			Throw	12-22-41	15-26-45	19-30-49	22-34-52	25-37-56	30-42-59

Notes on Performance Data

- Performance shown is based on testing in accordance with ANSI/ASHRAE Standard 70-1991.
- Flow is CFM of standard air.
- Total Pressure is inches of water gage.
- NC is noise criteria based on a room absorption of 10db re. 10^{-12} watts.
- Throw is in feet to terminal velocities of 150-100-50 FPM for isothermal conditions.
- Throws listed are for one way pattern. For two-way pattern choose the number of slots in each direction and distribute the total air flow proportionally.

	3/4"	Flow	31	50	75	100	125	150
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	15	24	30	35
1	1"	Flow	42	67	100	133	167	200
Slot	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	17	26	32	37
	1-1/2"	Flow	63	100	150	200	250	300
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	18	27	33	38
	3/4"	Flow	63	100	150	200	250	300
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	18	27	33	38
2	1"	Flow	83	133	200	267	333	400
Slots	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	20	29	35	40
	1-1/2"	Flow	125	200	300	400	500	600
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	10	21	30	36	41
	3/4"	Flow	94	150	225	300	375	450
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	20	29	35	40
3	1"	Flow	125	200	300	400	500	600
Slots	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	11	22	31	37	42
	1-1/2"	Flow	188	300	450	600	750	900
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	12	23	32	38	43
	3/4"	Flow	125	200	300	400	500	600
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	10	21	30	36	41
4	1"	Flow	167	267	400	533	667	800
Slots	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	12	23	32	38	43
	1-1/2"	Flow	250	400	600	800	1000	1200
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	13	24	33	39	44

Notes on Performance Data

- Performance shown is based on testing in accordance with ANSI/ASHRAE Standard 70-1991.
- Flow is CFM of standard air.
- Static pressure is negative inches of water gage.
- NC is noise criteria based on a room absorption of 10db re. 10^{-12} watts.

	3/4"	Flow	39	63	94	125	156	188
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	15	24	30	35
1	1"	Flow	52	83	125	167	208	250
Slot	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	17	26	32	37
	1-1/2"	Flow	78	125	188	250	313	375
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	18	27	33	38
	3/4"	Flow	78	125	188	250	313	375
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	18	27	33	38
2	1"	Flow	104	167	250	333	417	500
Slots	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	20	29	35	40
	1-1/2"	Flow	156	250	375	500	625	750
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	10	21	30	36	41
	3/4"	Flow	117	188	281	375	469	563
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	20	29	35	40
3	1"	Flow	156	250	375	500	625	750
Slots	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	11	22	31	37	42
	1-1/2"	Flow	234	375	563	750	938	1125
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	12	23	32	38	43
	3/4"	Flow	156	250	375	500	625	750
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	10	21	30	36	41
4	1"	Flow	208	333	500	667	833	1000
Slots	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	12	23	32	38	43
	1-1/2"	Flow	313	500	750	1000	1250	1500
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	13	24	33	39	44

Notes on Performance Data

- Performance shown is based on testing in accordance with ANSI/ASHRAE Standard 70-1991.
- Flow is CFM of standard air.
- Static pressure is negative inches of water gage.
- NC is noise criteria based on a room absorption of 10db re. 10^{-12} watts.

	3/4”	Flow	47	75	113	150	188	225
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	15	24	30	35
1	1”	Flow	63	100	150	200	250	300
Slot	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	17	26	32	37
	1-1/2”	Flow	94	150	225	300	375	450
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	18	27	33	38
	3/4”	Flow	94	150	225	300	375	450
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	18	27	33	38
2	1”	Flow	125	200	300	400	500	600
Slots	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	20	29	35	40
	1-1/2”	Flow	188	300	450	600	750	900
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	10	21	30	36	41
	3/4”	Flow	141	225	338	450	563	675
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	20	29	35	40
3	1”	Flow	188	300	450	600	750	900
Slots	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	11	22	31	37	42
	1-1/2”	Flow	281	450	675	900	1125	1350
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	12	23	32	38	43
	3/4”	Flow	188	300	450	600	750	900
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	10	21	30	36	41
4	1”	Flow	250	400	600	800	1000	1200
Slots	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	12	23	32	38	43
	1-1/2”	Flow	375	600	900	1200	1500	1800
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	13	24	33	39	44

Notes on Performance Data

- Performance shown is based on testing in accordance with ANSI/ASHRAE Standard 70-1991.
- Flow is CFM of standard air.
- Static pressure is negative inches of water gage.
- NC is noise criteria based on a room absorption of 10db re. 10^{-12} watts.

	3/4”	Flow	63	100	150	200	250	300
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	15	24	30	35
1	1”	Flow	83	133	200	267	333	400
Slot	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	17	26	32	37
	1-1/2”	Flow	125	200	300	400	500	600
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	18	27	33	38
	3/4”	Flow	125	200	300	400	500	600
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	18	27	33	38
2	1”	Flow	167	267	400	533	667	800
Slots	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	20	29	35	40
	1-1/2”	Flow	250	400	600	800	1000	1200
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	10	21	30	36	41
	3/4”	Flow	188	300	450	600	750	900
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	20	29	35	40
3	1”	Flow	250	400	600	800	1000	1200
Slots	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	11	22	31	37	42
	1-1/2”	Flow	375	600	900	1200	1500	1800
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	12	23	32	38	43
	3/4”	Flow	250	400	600	800	1000	1200
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	10	21	30	36	41
4	1”	Flow	333	533	800	1067	1333	1600
Slots	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	12	23	32	38	43
	1-1/2”	Flow	500	800	1200	1600	2000	2400
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	13	24	33	39	44

Notes on Performance Data

- Performance shown is based on testing in accordance with ANSI/ASHRAE Standard 70-1991.
- Flow is CFM of standard air.
- Static pressure is negative inches of water gage.
- NC is noise criteria based on a room absorption of 10db re. 10^{-12} watts.

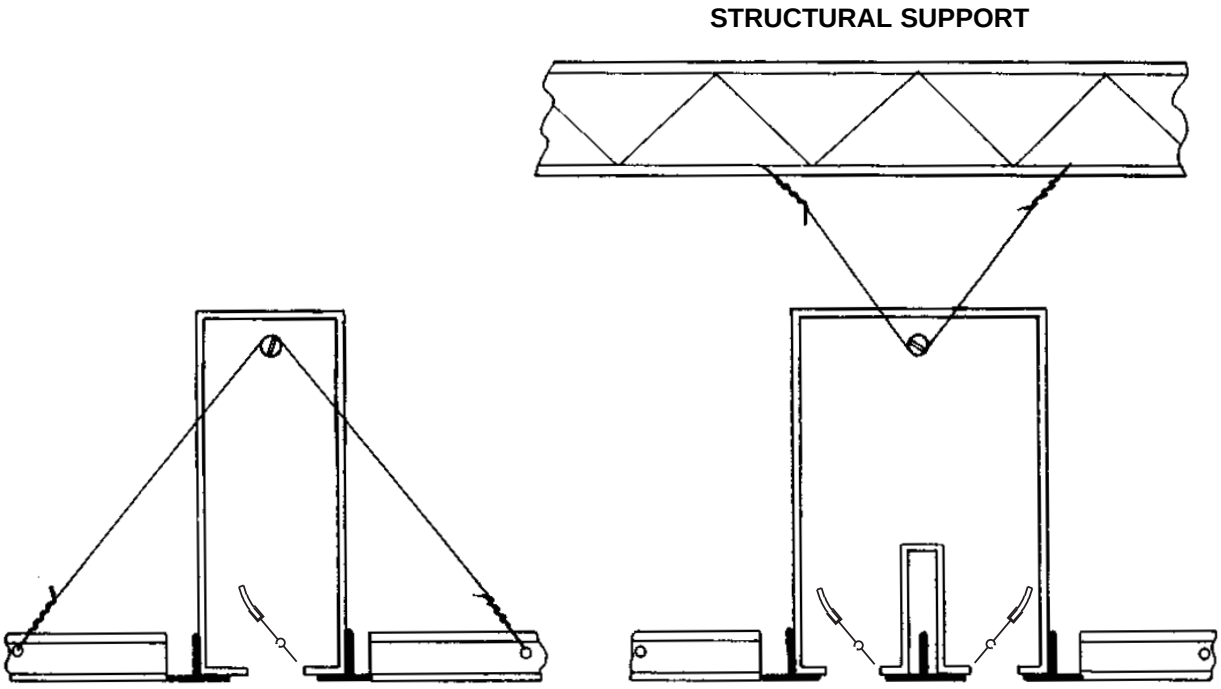
	3/4"	Flow	78	125	188	250	313	375
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	15	24	30	35
1	1"	Flow	104	167	250	333	417	500
Slot	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	17	26	32	37
	1-1/2"	Flow	156	250	375	500	625	750
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	18	27	33	38
	3/4"	Flow	156	250	375	500	625	750
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	18	27	33	38
2	1"	Flow	208	333	500	667	833	1000
Slots	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	20	29	35	40
	1-1/2"	Flow	313	500	750	1000	1250	1500
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	10	21	30	36	41
	3/4"	Flow	234	375	563	750	938	1125
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	—	20	29	35	40
3	1"	Flow	313	500	750	1000	1250	1500
Slots	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	11	22	31	37	42
	1-1/2"	Flow	469	750	1125	1500	1875	2250
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	12	23	32	38	43
	3/4"	Flow	313	500	750	1000	1250	1500
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	10	21	30	36	41
4	1"	Flow	417	667	1000	1333	1667	2000
Slots	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	12	23	32	38	43
	1-1/2"	Flow	625	1000	1500	2000	2500	3000
	Slot	S. P. (Neg.)	.010	.025	.056	.100	.156	.224
	Width	NC	—	13	24	33	39	44

Notes on Performance Data

- Performance shown is based on testing in accordance with ANSI/ASHRAE Standard 70-1991.
- Flow is CFM of standard air.
- Static pressure is negative inches of water gage.
- NC is noise criteria based on a room absorption of 10db re. 10^{-12} watts.

Carnes DA Series Adjustable Pattern Slot Diffusers are designed for use in most standard exposed suspended grid systems. The Model DASC two slot straddles the main T-bar and is supported by T-bars on the diffuser perimeter. The Model DASC one slot is supported on one side by the main T-bar and on the other side by an additional T-bar. Models DARC and DAMC have center T-bars as part of the unit so they are installed in the same method as the Model DASC one slot.

In order to maintain color continuity all required additional T-bars are by others. Although support is provided by the T-bar, additional support may be advisable. Supply units are provided with a wire support screw in each end of the diffuser plenum. These can be used to connect wire supports from the T-bar or from structural support.



Model DAFB

Carnes Model DAFB UL Classified Slot Diffuser is designed for use in most standard exposed T-bar ceilings. The two slot models straddle the main T-bar and are supported by T-bars on the diffuser perimeter. One slot units are supported on one side by the main T-bar and on the other side by an additional T-bar. In order to maintain color continuity, all required T-bars are by others. When installed in accordance with the installation instructions, the Model DAFB is UL Classified with a 3 hour fire rating.

DFSB — Fixed Pattern Slot Diffuser — DFRB

Carnes Matched Fixed Pattern Slot Diffuser and Return Air Slot

Model DFSB — Supply

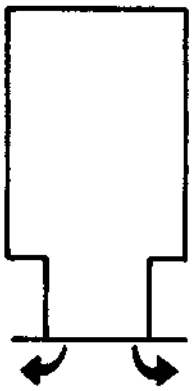
Model DFRB — Return

Features

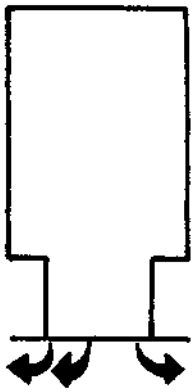
- Eliminates drafts. Maintain horizontal air flow at levels below 10% of nominal CFM (50 CFM per linear foot of slot.
- The diffuser, in conjunction with return air slot, produces a high level of air induction to cause rapid and complete mixing of room air.
- Supplies uniform air distribution along the entire length of the slot (well within 10%).
- Available in one, two, three or four slots in four diffuser lengths.
- The T-bar type diffuser fits over T's, eliminating the need to add or remove grid members.
- Lower installation costs due to Carnes' innovative design of the linear slot diffuser eliminating 50% of the tile cost.
- Visual conformity. Linear slot diffusers and return air slots are identical in appearance.

INTRODUCTION

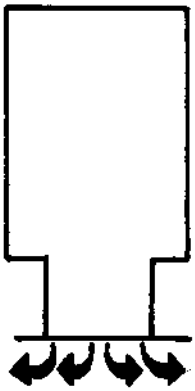
Carnes Models DFSB supply and DFRB return are fixed horizontal pattern slot diffusers for use in most exposed T-bar ceilings. The DFSB will hold a horizontal air pattern at less than 10% of nominal CFM (50 per linear foot of slot). The return diffuser Model DFRB is identical in appearance to the DFSB to allow for complete continuity to ceiling appearance.



2 Slots — 2 Ways



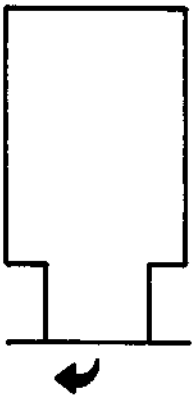
3 Slots — 2 Ways



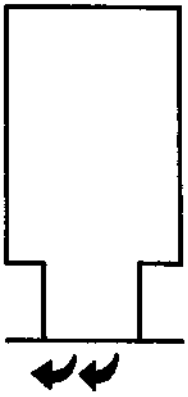
4 Slot — 2 Ways

DESCRIPTION

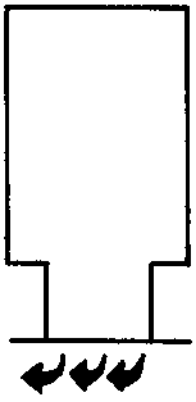
Carnes fixed horizontal pattern slot diffusers are available in 1, 2, 3 or 4 slot models, and can be ordered in 24", 30", 48" and 60" lengths. The DFSB supply and DFRB return diffusers are constructed of 24 gauge painted formed galvanealed steel. The bright white finish matches most ceiling T-bars and tile. The integral insulated plenum is of 24 gauge galvanized construction. The plenum insulation is 1/4" - 3 lb. density fiberglass internally mounted and matte faced to prevent erosion. The insulation meets UL 181 and NFPA 90A requirements. Each supply diffuser can be furnished with a 5", 6", 7" or 8" round plenum inlet. The 10" inlet, when specified, has an oval configuration. The supply diffuser plenum inlet collar is 1-3/4" deep for easy flex duct connections. The return diffuser plenum is also insulated and has open sides to return air to the ceiling plenum. The Carnes DFSB has an excellent air distribution pattern, no butterfly pattern. Slot velocity is uniform and sound levels are very low, giving you an efficient diffuser with excellent performance.



1 Slot — 1 Way



2 Slots — 1 Way

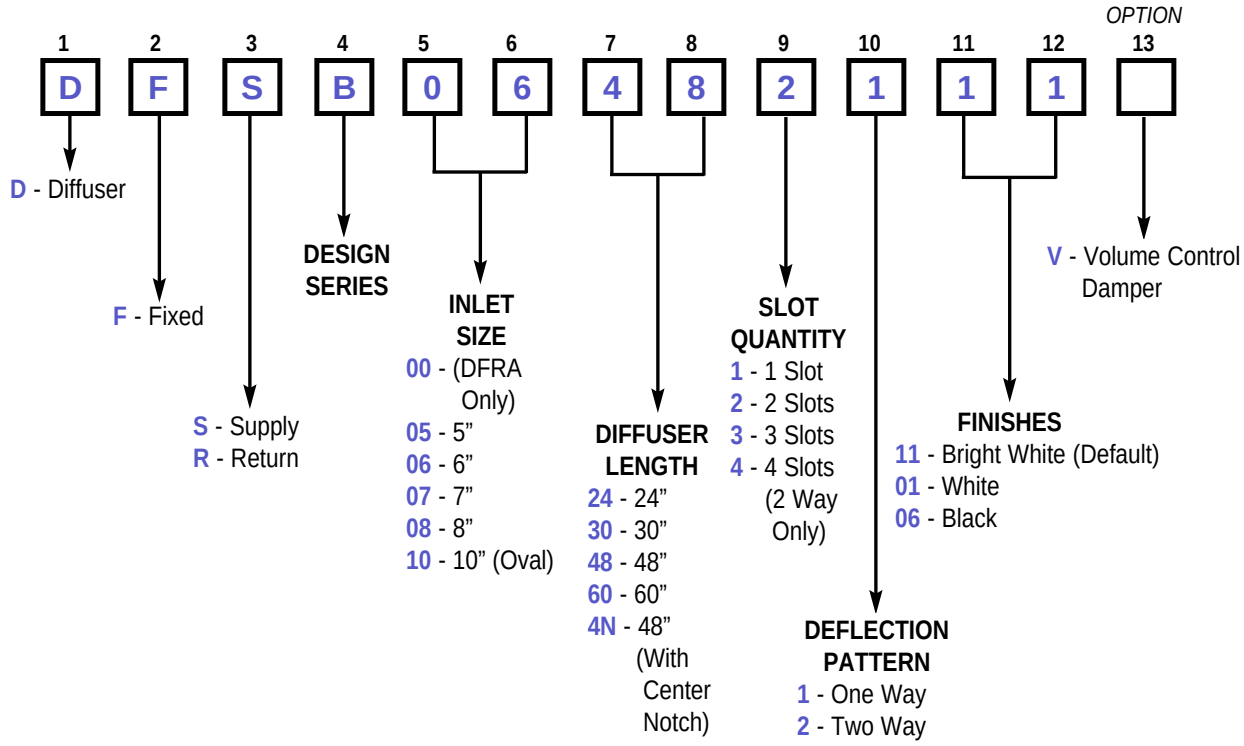


3 Slots — 1 Way

SPECIFICATION GUIDELINES

Carnes Models DFSB Supply and DFRB Return, horizontal pattern slot diffusers shall be installed at each location as shown on the drawings. All diffusers to have performance ratings of CFM, static pressure, noise criteria and throw as shown on the drawings. The diffusers shall be formed galvanealed steel construction in 1, 2, 3 or 4 slots.They shall be of 1 or 2 way throw patterns, with diffuser length as shown on the drawings. The diffuser plenum shall be thermally and acoustically insulated with 1/4" thick 3 lb. density fiberglass internally mounted and matte faced to prevent erosion. The insulation shall meet UL 181 and NFPA 90A requirements.

▼ MODEL NUMBERING SYSTEM – Models DFSB and DFRB



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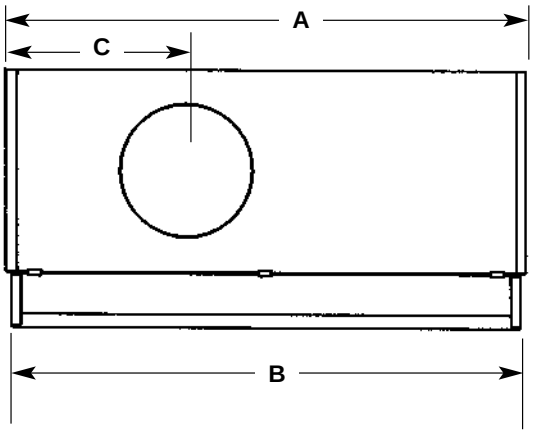
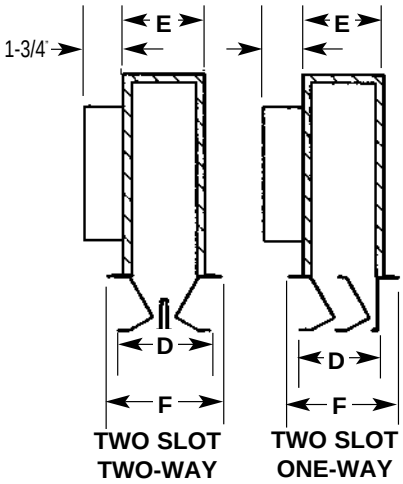
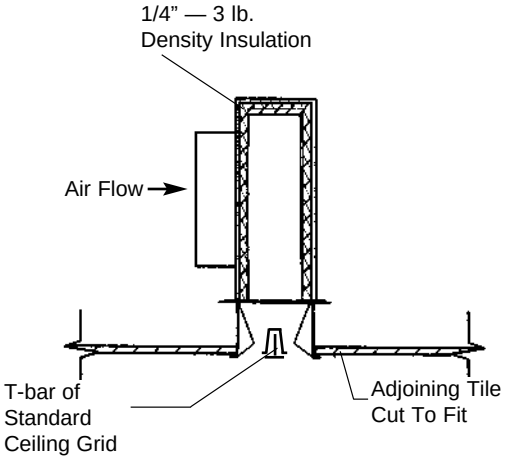
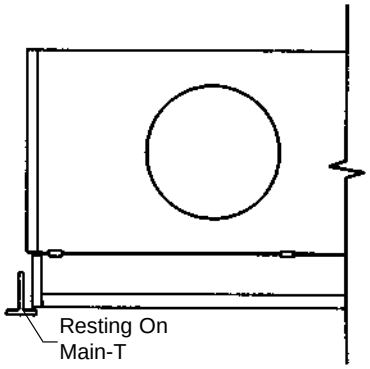
Model DFSB	(Inches) C
24 - 05	9-1/4
24 - 06	8-3/4
24 - 07	8-1/4
24 - 08	7-3/4
24 - 09	6-7/8
24 - 10	11-7/8
24 - 12	11-7/8
24 - 14	11-7/8
30 - 05	12-1/4
30 - 06	11-3/4
30 - 07	11-1/4
30 - 08	10-3/4
30 - 09	9-7/8
30 - 10	9-1/8
30 - 12	14-7/8
30 - 14	14-7/8
48 - 05	21-1/4
48 - 06	20-3/4
48 - 07	20-1/4
48 - 08	19-3/4
48 - 09	18-7/8
48 - 10	18-1/8
48 - 12	16-5/8
48 - 14	15
60 - 05	27-1/4
60 - 06	26-3/4
60 - 07	26-1/4
60 - 08	25-3/4
60 - 09	24-7/8
60 - 10	24-1/8
60 - 12	22-5/8
60 - 14	21









Model DFSB	Nominal Length	Slot Quantity	Pattern Deflection	DIMENSIONS LISTED IN INCHES				
				A	B	D	E	F
2411	24	1	One Way	23-13/16	23-1/8	1-7/8	2-5/8	2-7/8
2421	24	2	One Way	23-13/16	23-1/8	3-15/32	3-23/32	4-1/2
2422	24	2	Two Way	23-13/16	23-1/8	4-1/16	4-1/8	5-1/16
2431	24	3	One Way	23-13/16	23-1/8	5-1/16	5-5/16	6-1/16
2432	24	3	Two Way	23-13/16	23-1/8	5-21/32	5-29/32	6-21/32
2442	24	4	Two Way	23-13/16	23-1/8	7-1/4	7-1/2	8-1/4
3011	30	1	One Way	29-13/16	29-1/8	1-7/8	2-5/8	2-7/8
3021	30	2	One Way	29-13/16	29-1/8	3-15/32	3-23/32	4-1/2
3022	30	2	Two Way	29-13/16	29-1/8	4-1/16	4-1/8	5-1/16
3031	30	3	One Way	29-13/16	29-1/8	5-1/16	5-5/16	6-1/16
3032	30	3	Two Way	29-13/16	29-1/8	5-21/32	5-29/32	6-21/32
3042	30	4	Two Way	29-13/16	29-1/8	7-1/4	7-1/2	8-1/4
4811	48	1	One Way	47-13/16	47-1/8	1-7/8	2-5/8	2-7/8
4821	48	2	One Way	47-13/16	47-1/8	3-15/32	3-23/32	4-1/2
4822	48	2	Two Way	47-13/16	47-1/8	4-1/16	4-1/8	5-1/16
4831	48	3	One Way	47-13/16	47-1/8	5-1/16	5-5/16	6-1/16
4832	48	3	Two Way	47-13/16	47-1/8	5-21/32	5-29/32	6-21/32
4842	48	4	Two Way	47-13/16	47-1/8	7-1/4	7-1/2	8-1/4
6011	60	1	One Way	59-13/16	59-1/8	1-7/8	2-5/8	2-7/8
6021	60	2	One Way	59-13/16	59-1/8	3-15/32	3-23/32	4-1/2
6022	60	2	Two Way	59-13/16	59-1/8	4-1/16	4-1/8	5-1/16
6031	60	3	One Way	59-13/16	59-1/8	5-1/16	5-5/16	6-1/16
6032	60	3	Two Way	59-13/16	59-1/8	5-21/32	5-29/32	6-21/32
6042	60	4	Two Way	59-13/16	59-1/8	7-1/4	7-1/2	8-1/4

NOTES:

1. *Inlet size to be specified.*
2. *Inlet sizes 5", 6", 7" and 8" are round. Size 9" & 10" (12" & 14" available) inlet is oval.*
3. *Diffuser is 24 gauge formed steel, painted.*
4. *Plenum is 24 gauge galvanized steel.*
5. *Plenums are insulated with 1/4" thick 3 lb. density matte-faced insulation.*
6. *Not recommended for 9/16" flat T-bar.*

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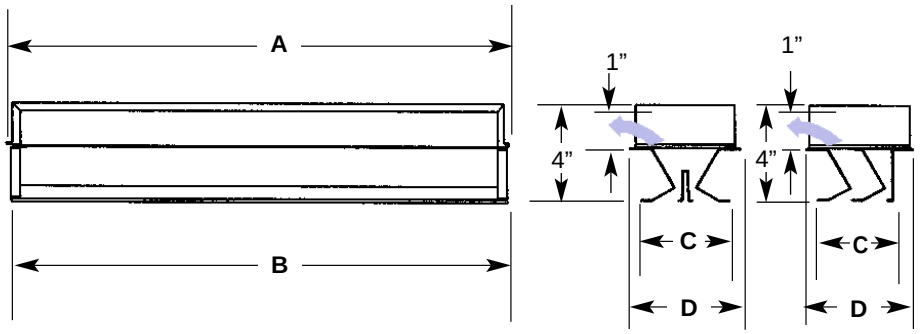
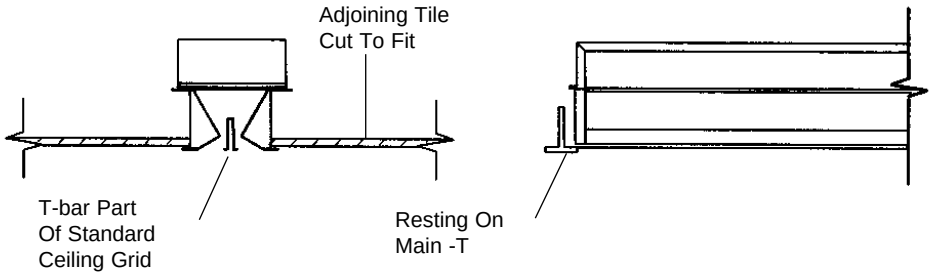
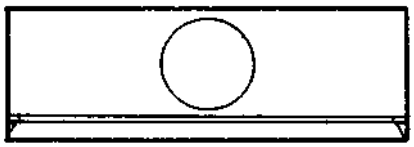




Model DFRB	Nominal Length	Slot Quantity	Pattern Deflection	DIMENSIONS LISTED IN INCHES			
				A	B	C	D
2411	24	1	One Way	23-13/16	23-1/8	1-7/8	2-7/8
2421	24	2	One Way	23-13/16	23-1/8	3-15/32	4-1/2
2422	24	2	Two Way	23-13/16	23-1/8	4-1/16	5-1/16
2431	24	3	One Way	23-13/16	23-1/8	5-1/16	6-1/16
2432	24	3	Two Way	23-13/16	23-1/8	5-21/32	6-21/32
2442	24	4	Two Way	23-13/16	23-1/8	7-1/4	8-1/4
3011	30	1	One Way	29-13/16	29-1/8	1-7/8	2-7/8
3021	30	2	One Way	29-13/16	29-1/8	3-15/32	4-1/2
3022	30	2	Two Way	29-13/16	29-1/8	4-1/6	5-1/16
3031	30	3	One Way	29-13/16	29-1/8	5-1/16	6-1/16
3032	30	3	Two Way	29-13/16	29-1/8	5-21/32	6-21/32
3042	30	4	Two Way	29-13/16	29-1/8	7-1/4	8-1/4
4811	48	1	One Way	47-13/16	47-1/8	1-7/8	2-7/8
4821	48	2	One Way	47-13/16	47-1/8	3-15/32	4-1/2
4822	48	2	Two Way	47-13/16	47-1/8	4-1/16	5-1/16
4831	48	3	One Way	47-13/16	47-1/8	5-1/16	6-1/16
4832	48	3	Two Way	47-13/16	47-1/8	5-21/32	6-21/32
4842	48	4	Two Way	47-13/16	47-1/8	7-1/4	8-1/4
6011	60	1	One Way	59-13/16	59-1/8	1-7/8	2-7/8
6021	60	2	One Way	59-13/16	59-1/8	3-15/32	4-1/2
6022	60	2	Two Way	59-13/16	59-1/8	4-1/16	5-1/16
6031	60	3	One Way	59-13/16	59-1/8	5-1/16	6-1/16
6032	60	3	Two Way	59-13/16	59-1/8	5-21/32	6-21/32
6042	60	4	Two Way	59-13/16	59-1/8	7-1/4	8-1/4

NOTES:

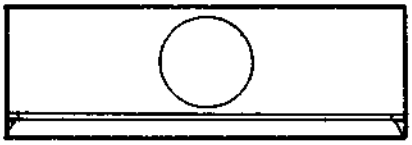
1. *Diffuser is 24 gauge formed galvanealed steel painted.*
2. *Light baffle is 24 gauge galvanized steel.*
3. *Not recommended for 9/16" flat T-bar.*



Front View

Model DFSB	Nominal Length	Number of Slot	CFM	Static Pressure Drop (Inches)	THROW FEET Distance From Discharge Device, When FPM Equals 50 FPM	75 FPM	100 FPM	150 FPM	Sound Power db Octave Band 2	3	4	5	6	7	NC
			25	.01	5	2	1	1	—	—	—	—	—	—	—
			50	.02	13	9	5	2	—	—	—	—	—	—	—
2411	24”	1	75	.06	19	13	10	5	—	36	32	—	—	—	—
			100	.11	22	18	13	9	47	45	40	33	27	—	24
			125	.20	24	20	16	11	49	49	45	40	35	30	30
			50	.01	12	5	3	1	—	—	—	—	—	—	—
			100	.04	22	15	10	5	—	34	—	—	—	—	—
2421	24”	2	150	.09	28	22	17	10	47	44	36	34	25	—	23
			200	.15	32	27	22	15	48	50	44	42	28	—	31
			250	.24	35	30	24	19	49	55	50	48	31	—	37
			50	.01	7	4	2	1	—	—	—	—	—	—	—
			100	.03	14	9	7	4	—	30	—	—	—	—	—
2422	24”	2	150	.06	22	14	10	7	—	41	35	30	—	—	20
			200	.15	25	19	14	10	45	48	42	40	35	—	29
			250	.22	28	23	18	12	50	52	48	46	42	33	35
			75	.01	18	14	7	4	—	—	—	—	—	—	—
			150	.03	28	23	18	12	—	34	—	—	—	—	—
2431	24”	3	225	.07	36	28	24	18	—	44	37	33	—	—	23
			300	.13	40	33	28	23	47	50	44	42	34	27	31
			375	.20	46	36	33	25	51	57	49	49	42	36	37
					1-Slot 2-Slot	1-Slot 2-Slot	1-Slot 2-Slot	1-Slot 2 Slot							
			75	.01	5 12	2 5	1 3	1 1	—	—	—	—	—	—	—
			150	.03	13 22	9 15	5 10	2 5	—	33	—	—	—	—	—
2432	24”	3	225	.07	19 28	13 22	10 17	5 10	—	42	36	—	—	—	22
			300	.14	22 32	18 27	13 22	9 15	47	49	43	42	37	30	31
			375	.23	24 35	20 30	16 24	11 19	51	58	48	49	45	38	38
			100	.01	12	5	3	1	—	—	—	—	—	—	—
			200	.05	22	15	10	5	48	35	29	—	—	—	—
2442	24”	4	300	.11	28	22	17	10	50	45	39	36	26	—	25
			400	.19	32	27	22	15	51	52	46	44	38	31	33
			500	.29	35	30	24	19	53	58	52	51	47	38	39

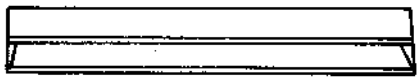
Model DFSB	Nominal Length	Number of Slot	CFM	Static Pressure Drop (Inches)	THROW FEET Distance From Discharge Device, When FPM Equals 50 FPM	75 FPM	100 FPM	150 FPM	Sound Power db Octave Band 2	3	4	5	6	7	NC
			25	.01	5	2	1	—	—	—	—	—	—	—	—
			50	.02	9	4	2	1	—	—	—	—	—	—	—
3011	30”	1	75	.05	20	9	5	2	—	35	28	—	—	—	—
			100	.09	24	18	10	4	44	43	37	27	—	—	22
			125	.15	27	22	13	6	47	48	43	36	27	—	26
			50	.01	3	2	1	—	—	—	—	—	—	—	—
			100	.02	15	6	3	2	—	30	—	—	—	—	—
3021	30”	2	150	.05	21	15	8	3	44	41	33	27	—	—	20
			200	.09	24	19	15	6	44	47	39	36	28	—	26
			250	.14	27	23	18	10	50	52	46	41	34	29	32
			50	.01	4	2	1	—	—	—	—	—	—	—	—
			100	.02	9	6	4	2	—	27	—	—	—	—	—
3022	30”	2	150	.05	14	9	7	4	—	38	28	—	—	—	—
			200	.09	17	12	9	6	44	45	37	33	28	—	24
			250	.14	19	15	11	8	49	50	43	40	36	28	30
			100	.01	12	9	5	2	—	—	—	—	—	—	—
			200	.03	23	17	12	9	—	37	29	—	—	—	—
3031	30”	3	300	.09	28	23	19	12	44	47	40	37	27	—	27
			400	.16	33	27	24	17	49	53	50	48	41	37	36
			500	.25	37	31	26	21	52	58	56	55	52	42	44
					1-Slot 2-Slot	1-Slot 2-Slot	1-Slot 2-Slot	1-Slot 2 Slot							
			100	.01	2 3	1 2	1 1	— —	—	—	—	—	—	—	—
			200	.03	9 15	4 6	2 3	1 2	—	34	—	—	—	—	—
3032	30”	3	300	.08	20 21	9 15	5 8	2 3	—	44	37	35	28	—	24
			400	.15	24 24	18 19	10 15	4 6	48	51	45	44	39	32	33
			500	.23	27 27	22 23	13 18	6 10	51	56	51	52	48	38	30
			150	.01	3	1	1	—	—	—	—	—	—	—	—
			300	.04	12	6	3	1	—	41	34	30	—	—	—
3042	30”	4	450	.11	18	12	7	3	50	53	47	46	39	32	35
			600	.21	22	17	12	6	55	59	56	55	50	42	44
			750	.35	25	20	16	8	59	65	63	62	58	52	51



Front View

Model DFSB	Nominal Length	Number of Slot	CFM	Static Pressure Drop (Inches)	THROW FEET Distance From Discharge Device, When FPM Equals 50 FPM	75 FPM	100 FPM	150 FPM	Sound Power db Octave Band 2	3	4	5	6	7	NC
4811	48”	1	50	.01	6	3	1	1	—	—	—	—	—	—	—
			100	.04	15	10	6	3	—	29	—	—	—	—	—
			150	.10	21	16	11	6	—	39	35	28	—	—	—
			200	.18	24	20	15	10	46	44	41	37	31	27	24
			250	.30	27	22	19	12	48	50	46	43	39	37	30
4821	48”	2	100	.015	12	8	5	2	—	—	—	—	—	—	—
			200	.07	20	16	12	8	—	40	34	30	—	—	—
			300	.16	25	20	18	12	45	49	44	44	36	29	33
			400	.29	29	24	20	16	49	54	50	51	46	38	39
			500	.44	33	26	22	18	52	59	56	57	54	46	46
4822	48”	2	100	.01	8	4	2	1	—	33	—	—	—	—	—
			200	.05	17	11	8	4	—	36	29	—	—	—	—
			300	.12	22	17	13	8	46	46	41	39	31	—	28
			400	.24	25	21	17	11	49	52	48	47	43	34	36
			500	.38	28	23	20	14	52	56	53	54	51	45	43
4831	48”	3	150	.01	20	13	8	4	—	—	—	—	—	—	—
			300	.07	28	22	20	13	—	40	33	—	—	—	—
			450	.15	35	28	24	20	45	50	44	44	37	28	33
			600	.21	40	33	28	22	51	56	52	54	48	40	43
			750	.40	45	36	31	25	56	61	58	62	57	49	51
					1-Slot 2-Slot	1-Slot 2-Slot	1-Slot 2-Slot	1-Slot 2 Slot							
4832	48”	3	150	.01	6 12	3 8	1 5	1 2	—	—	—	—	—	—	—
			300	.05	15 20	10 16	6 12	3 8	—	38	30	—	—	—	—
			450	.13	21 25	16 20	11 18	6 12	44	50	42	42	34	—	31
			600	.23	24 29	20 24	15 20	10 16	51	55	52	51	45	38	39
			750	.36	27 33	22 26	19 22	12 18	56	62	59	58	54	47	47
4842	48”	4	200	.015	12	8	5	2	—	—	—	—	—	—	—
			400	.07	20	16	12	8	—	43	36	35	26	25	24
			600	.17	25	20	18	12	47	52	49	49	42	35	37
			800	.32	29	24	20	16	52	57	55	56	52	45	45
			1000	.50	33	26	22	18	60	62	62	62	60	53	51

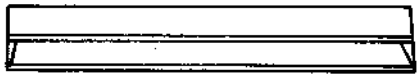
Model DFSB	Nominal Length	Number of Slot	CFM	Static Pressure Drop (Inches)	THROW FEET Distance From Discharge Device, When FPM Equals 50 FPM	75 FPM	100 FPM	150 FPM	Sound Power db Octave Band 2	3	4	5	6	7	NC
6011	60”	1	50	.01	4	2	1	—	—	—	—	—	—	—	—
			100	.04	12	8	4	2	—	29	—	—	—	—	—
			150	.10	15	12	9	4	—	39	33	31	—	—	20
			200	.18	17	14	12	8	—	47	39	38	34	27	26
			250	.26	19	16	14	10	46	50	44	42	42	39	31
6021	60”	2	100	.01	9	6	3	2	37	30	—	—	—	—	—
			200	.04	15	13	9	6	39	41	30	27	—	—	—
			300	.04	19	15	13	9	43	48	42	40	33	—	29
			400	.20	22	17	15	13	47	53	50	49	44	34	37
			500	.31	25	20	16	14	52	57	56	55	53	48	44
6022	60”	2	100	.01	3	2	1	—	—	—	—	—	—	—	—
			200	.05	10	6	3	2	—	37	28	—	—	—	—
			300	.10	15	10	3	2	44	46	39	36	29	—	24
			400	.18	18	14	10	6	48	52	48	45	41	32	32
			500	.28	19	16	13	9	53	57	53	51	48	43	39
6031	60”	3	150	.01	10	5	3	1	44	—	—	—	—	—	—
			300	.04	24	17	10	5	46	39	30	30	—	—	—
			450	.10	30	24	19	10	47	49	42	42	35	—	31
			600	.18	33	28	24	17	50	54	50	51	46	35	39
			750	.33	38	30	26	21	53	61	56	56	54	45	45
					1-Slot 2-Slot	1-Slot 2-Slot	1-Slot 2-Slot	1-Slot 2 Slot							
6032	60”	3	150	.01	4 7	2 6	1 3	— 2	—	—	—	—	—	—	—
			300	.04	12 15	8 13	4 9	2 6	—	37	27	24	—	—	—
			450	.10	15 19	12 15	9 13	4 9	44	47	39	39	31	—	28
			600	.18	17 22	14 17	12 15	8 13	50	52	47	48	41	35	36
			750	.27	19 25	16 20	14 16	10 14	58	58	53	53	49	43	42
6042	60”	4	200	.01	9	6	3	2	—	—	—	—	—	—	—
			400	.04	15	13	9	6	48	35	31	32	—	—	—
			600	.10	19	15	13	9	53	51	46	47	36	30	32
			800	.20	22	17	15	13	57	59	51	52	48	40	40
			1000	.34	25	20	16	14	60	65	57	58	57	48	48



Front View

Model DFRB	Nominal Length	Number of Slots	CFM	Static Pressure Drop (Inches)	Sound Power db Octave Band 2	3	4	5	6	7	NC
2411	24”	1	25	.01	—	—	—	—	—	—	—
			50	.06	—	31	27	24	—	—	—
			75	.11	40	39	36	34	32	—	23
			100	.24	46	45	43	42	41	32	32
2421	24”	2	50	.01	—	25	—	—	—	—	L
			100	.07	—	34	30	27	—	—	L
			150	.17	43	42	39	37	35	26	26
			200	.33	49	48	47	45	44	35	35
2422	24”	2	50	.01	—	—	—	—	—	—	—
			100	.05	—	30	22	—	—	—	—
			150	.11	43	41	34	31	30	23	21
			200	.25	47	48	44	40	38	31	29
2431	24”	3	75	.01	—	24	—	—	—	—	L
			150	.05	—	43	29	26	—	—	L
			225	.12	45	44	38	35	35	27	26
			300	.23	48	46	45	42	43	33	34
2432	24”	3	75	.01	—	—	—	—	—	—	L
			150	.05	—	37	28	25	—	—	L
			225	.12	46	45	39	35	31	27	23
			300	.24	49	51	47	43	39	31	32
2442	24”	4	100	.01	—	24	—	—	—	—	L
			200	.05	—	33	25	—	—	—	L
			300	.13	46	44	37	34	33	26	24
			400	.25	50	51	47	43	41	34	32

Model DFRB	Nominal Length	Number of Slots	CFM	Static Pressure Drop (Inches)	Sound Power db Octave Band 2	3	4	5	6	7	NC
3011	30”	1	30	.01	—	—	—	—	—	—	L
			65	.06	—	31	27	24	—	—	L
			95	.11	—	41	37	35	33	—	25
			125	.24	47	46	44	43	42	33	33
3021	30”	2	65	.01	—	26	—	—	—	—	L
			125	.07	—	35	31	28	—	—	L
			190	.17	44	42	39	37	35	26	26
			250	.23	50	49	48	46	45	36	36
3022	30”	2	65	.01	—	—	—	—	—	—	L
			125	.05	—	31	23	—	—	—	L
			190	.13	44	42	35	32	31	24	21
			250	.25	48	49	45	50	39	32	29
3031	30”	3	95	.01	—	25	—	—	—	—	L
			190	.05	—	44	29	26	—	—	L
			280	.12	46	45	39	36	36	27	27
			375	.23	49	47	46	43	44	34	35
3032	30”	3	95	.01	—	—	—	—	—	—	L
			190	.05	—	37	29	26	—	—	L
			280	.12	47	46	40	36	32	28	24
			375	.24	50	52	48	44	40	32	33
3042	30”	4	125	.01	—	25	—	—	—	—	L
			250	.05	—	34	26	—	—	—	L
			375	.13	47	45	38	35	34	27	25
			500	.25	51	52	48	44	42	35	33



Front View

Model Number	Nominal Length	Number of Slots	CFM	Static Pressure Drop (Inches)	Sound Power db Octave Band 2	3	4	5	6	7	NC
4811	48”	1	50	.01	—	—	—	—	—	—	—
			100	.06	—	34	27	24	—	—	—
			150	.11	43	39	36	34	32	—	26
			200	.24	49	48	46	45	44	35	35
4821	48”	2	100	.01	—	—	—	—	—	—	—
			200	.06	52	45	36	30	27	25	24
			300	.15	56	51	46	41	35	28	37
			400	.26	60	62	55	50	44	34	42
4822	48”	2	100	.01	—	—	—	—	—	—	—
			200	.06	—	33	25	—	—	—	—
			300	.14	46	44	37	34	33	26	24
			400	.26	50	51	47	43	41	34	32
4831	48”	3	150	.02	—	—	—	—	—	—	—
			300	.09	52	44	38	31	24	—	23
			450	.19	58	56	48	45	37	27	36
			600	.32	61	66	55	51	49	38	47
4832	48”	3	150	.01	—	—	—	—	—	—	—
			300	.06	50	42	41	25	—	—	25
			450	.15	54	56	44	39	31	—	36
			600	.25	64	63	54	48	40	31	43
4842	48”	4	200	.025	—	28	—	—	—	—	—
			400	.09	55	46	35	31	27	26	27
			600	.19	58	58	49	45	41	31	38
			800	.31	64	65	58	53	45	37	46

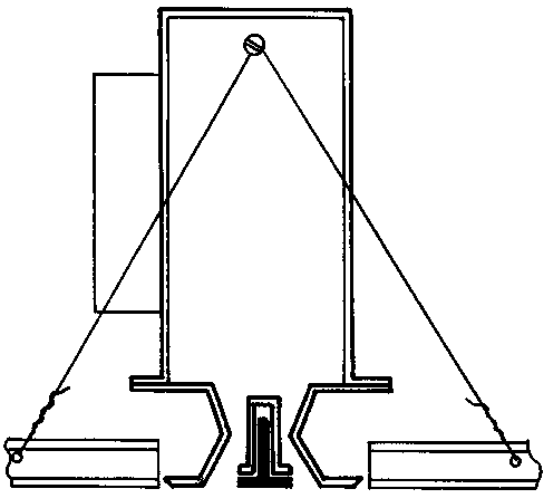
Model Number	Nominal Length	Number of Slots	CFM	Static Pressure Drop (Inches)	Sound Power db Octave Band 2	3	4	5	6	7	NC
6011	60”	1	63	.01	—	—	—	—	—	—	—
			125	.06	—	35	28	25	—	—	—
			190	.11	44	40	37	35	33	—	27
			250	.24	50	49	47	45	45	46	36
6021	60”	2	125	.01	—	—	—	—	—	—	—
			250	.07	53	46	37	31	28	26	25
			375	.15	57	58	47	42	36	29	38
			500	.28	61	63	56	51	45	35	43
6022	60”	2	125	.01	—	—	—	—	—	—	—
			250	.06	—	34	26	—	—	—	—
			375	.14	47	45	38	35	34	27	25
			500	.26	51	52	48	46	42	35	33
6031	60”	3	190	.02	—	—	—	—	—	—	—
			375	.09	53	45	39	32	25	—	24
			560	.19	59	57	49	46	38	28	37
			750	.32	62	67	56	52	50	39	48
6032	60”	3	190	.01	—	—	—	—	—	—	L
			375	.06	51	43	42	26	—	—	26
			560	.15	55	57	45	40	31	—	37
			750	.25	65	64	55	49	41	32	44
6042	60”	4	250	.03	—	28	—	—	—	—	L
			500	.09	56	47	36	33	28	27	28
			750	.19	59	59	50	46	42	32	39
			1000	.31	65	66	59	54	46	38	47

Carnes Fixed Pattern Slot Diffusers Models DFSB Supply and DFRB Return are designed to be supported by the T-bar ceiling grid system. The diffuser utilizes the "T" for control of the air distribution pattern. If T-bars with a face dimension of less than 15/16" are used, there may be dumping of supply air at low CFM's.

The two way blow units straddle the main T-bar and are either wired to the T-bars that run perpendicular to the diffuser at each end or wired to structural supports above. The methods are shown below.

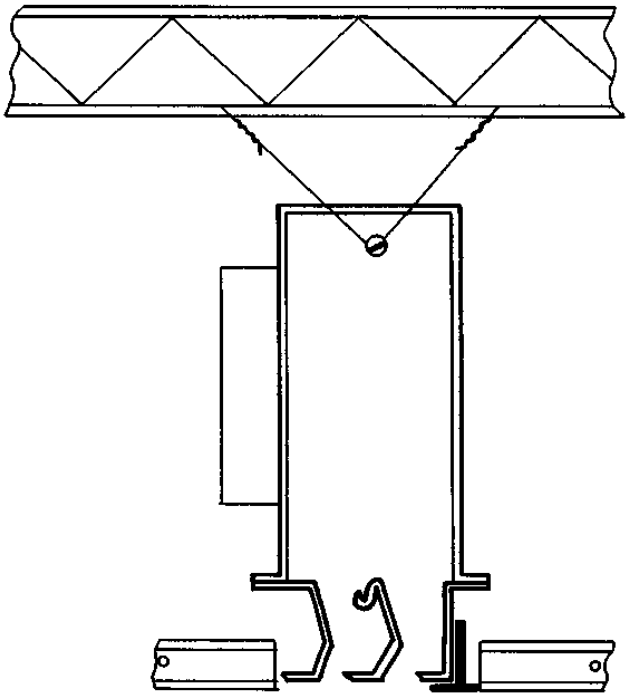
One way blow units are set along side the T-bar with the air pattern blowing away from the T-bar. The one way blow units are supported in the same manner as the two way units.

After the slot diffusers are installed the support tile must be trimmed and laid on the edge of the louver to fill out the opening. No additional T-bars are required.

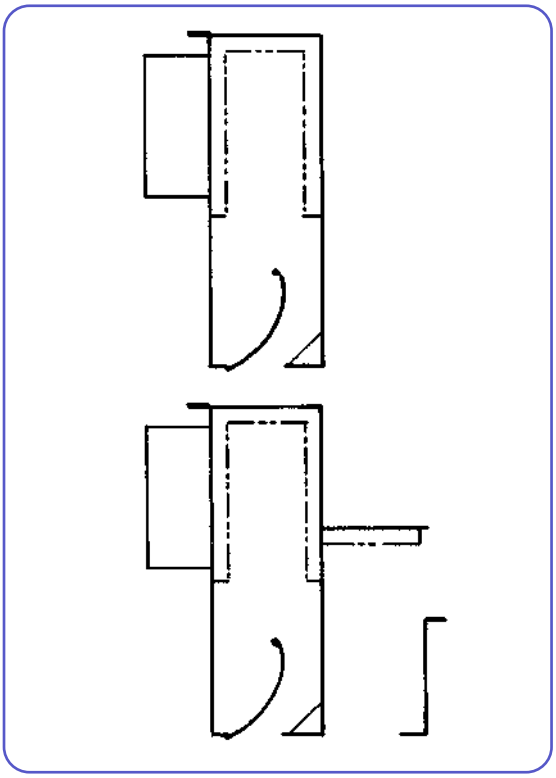


TWO WAY BLOW

STRUCTURAL SUPPORT



ONE WAY BLOW



Features

- High induction horizontal air flow.
- Center down blow provides a vertical air pattern for exterior walls or glass.
- Supply/Return combination diffuser allows room air to be returned to ceiling plenums.
- Choice of 24”, 36”, 48” and 60” sizes.
- Choice of insulated or uninsulated units.
- Constructed of 24 gauge galvanealed steel. Deflector vane is extruded aluminum.
- Exposed surfaces painted flat black.

▼ MODEL NUMBERING SYSTEM –

FIXED PATTERN - Models DFCA & DFDA

		1	2	3	4	5	6	7	8	9	OPTIONS 10	11
D	F	C	A	0	8	4	8	N	0	6		

D - Diffuser

F - Fixed Pattern

C - Supply T-bar Diffuser
D - Combination Supply/Return Diffuser

DESIGN SERIES

INLET SIZE
06 - 6” Oval
07 - 7” Oval
08 - 8” Oval
10 - 10” Oval
12 - 12” Oval

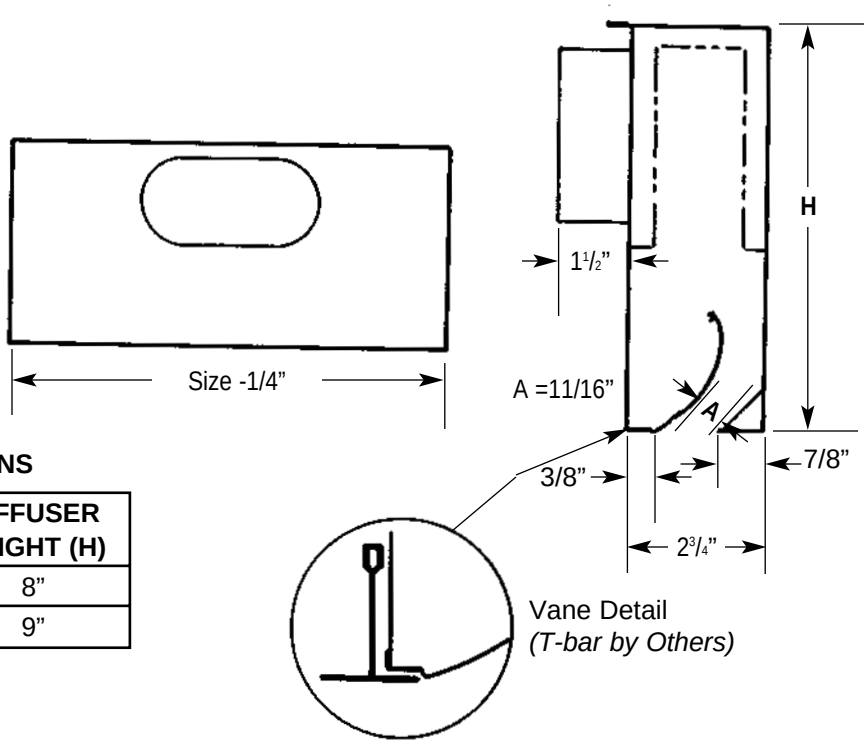
DIFFUSER LENGTH
24 - 24”
36 - 36”
48 - 48”
60 - 60”

INSULATION
N - Uninsulated
R - Internal Insulation

FINISH
06 - Flat Black (Default)
11 - Bright White
01 - White

V - Volume Control Damper

D - Down Blow (Sizes 36”, 48” and 60” Only) (Only Available on Model DFCA



DIMENSIONS

INLET SIZE	DIFFUSER HEIGHT (H)
6	8"
8, 10	9"

MODEL DFCA — PRODUCT DESCRIPTION

Model DFCA is a one slot, one way, fixed pattern T-bar slot diffuser. The Model DFCA is an excellent device for perimeter application and performs equally well for constant volume or variable air volume application. The Model DFCA is constructed of zinc coated steel with an extruded aluminum fixed air pattern deflector. The exposed face of the unit is painted No. 06 flat black as standard. The unit face can be painted No. 11 bright white. Units are available in nominal 24", 36", 48" and 60" lengths. Standard inlet sizes are 6", 8" 10" and 12". All inlets are oval construction.

The Model DFCA is uninsulated as standard, but available with 1/2" black matte internal insulation.

An optional inlet mounted volume control damper is also available.

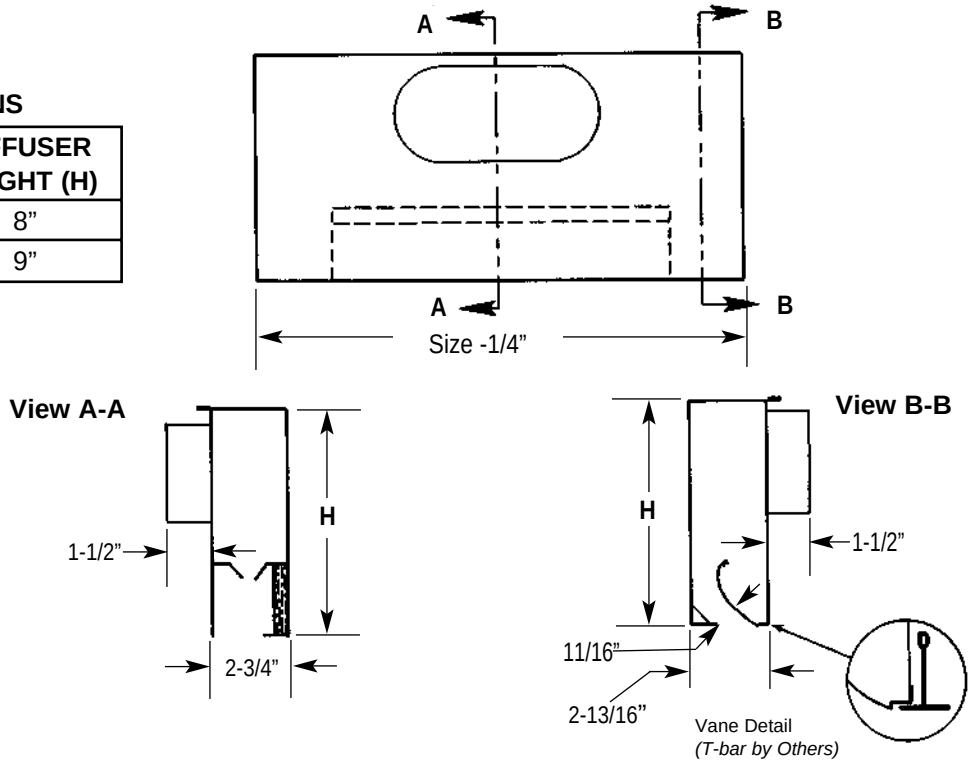
MODEL DFCA — PERFORMANCE DATA

	CFM	**60**	**80**	**100**	**120**	**140**	**160**	**180**	**200**
24"	P_S	.02	.03	.06	.08	.11	.14	.19	.23
LENGTH	Throw	13	16	19	22	24	25	26	29
	NC	(20)	(20)	(20)	(20)	(20)	22	26	29
	CFM	**90**	**120**	**150**	**180**	**210**	**240**	**270**	**300**
36"	P_S	.03	.04	.07	.10	.14	.18	.23	.29
LENGTH	Throw	13	16	20	22	24	26	27	29
	NC	(20)	(20)	(20)	22	25	29	32	35
	CFM	**120**	**160**	**200**	**240**	**280**	**320**	**360**	**400**
48"	P_S	.03	.05	.09	.12	.17	.22	.29	.36
LENGTH	Throw	11	14	17	19	21	23	24	25
	NC	(20)	(20)	21	26	29	33	37	40
	CFM	**150**	**200**	**250**	**300**	**350**	**400**	**450**	**500**
60"	P_S	.03	.05	.10	.13	.18	.24	.31	.39
LENGTH	Throw	9	11	14	15	17	18	19	20
	NC	(20)	21	25	29	33	37	41	44

P_S — Static Pressure in inches of water
Throw — Distances in feet to terminal velocity of 50 fpm.
NC — Noise Criteria based on 10 db room absorption.

DIMENSIONS

INLET SIZE	DIFFUSER HEIGHT (H)
6	8”
8, 10	9”



MODEL DFCA w/OPTION D — PRODUCT DESCRIPTION

Model DFCA with Option “D” has all the features of the standard Model DFCA with the addition of a 12” long down blow section located in the center of the diffuser. With the down blow option air is delivered both horizontally and vertically. Both end sections of the diffuser deliver entering air in a horizontal air pattern effective distribution throughout the space. The vertical air pattern delivered by the down blow section projects entering air down over the surface of a wall or window. The Model DFCA with option “D” is available in nominal 36”, 48” and 60” lengths.

MODEL DFCA w/OPTION D — PERFORMANCE DATA

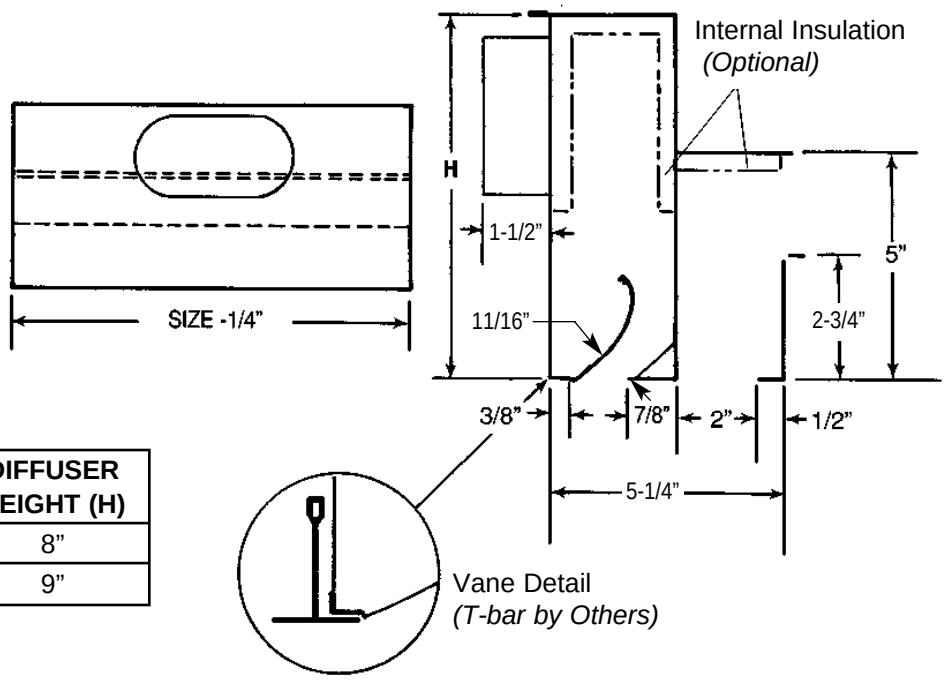
	CFM	**90**	**120**	**150**	**180**	**210**	**240**	**270**	**300**
36” LENGTH	P_S	.03	.06	.09	.13	.18	.23	.29	.35
	Throw H	11	16	19	22	24	26	27	29
	Throw V	4	5	5	6	6	7	7	8
	NC	20	25	31	35	40	43	45	48
	CFM	**120**	**160**	**200**	**240**	**280**	**320**	**360**	**400**
48” LENGTH	P_S	.03	.06	.09	.13	.18	.23	.29	.36
	Throw H	11	16	19	22	25	26	27	29
	Throw V	4	5	5	6	6	7	7	8
	NC	(20)	24	30	33	39	42	45	48
	CFM	**150**	**200**	**250**	**300**	**350**	**400**	**450**	**500**
60” LENGTH	P_S	.03	.06	.09	.14	.19	.24	.30	.38
	Throw H	11	16	19	21	24	25	26	27
	Throw V	4	5	5	6	6	7	7	8
	NC	(20)	24	30	33	38	42	44	47

P_S — Static Pressure in inches of water

Throw — Distances in feet to terminal velocity of 50 fpm.

NC — Noise Criteria based on 10 db room absorption.

Vertical throw values are based on standard 12” long down blow slot and 3/8” width setting.



INLET SIZE	DIFFUSER HEIGHT (H)
6	8"
8, 10	9"

MODEL DFDA — PRODUCT DESCRIPTION

Model DFDA is a combination supply/return T-bar slot diffuser. It combines the Model DFCA supply fixed pattern one slot diffuser with an integral return air slot. The Model DFDA offers an excellent and cost effective method to supply conditioned air to the space and return air to the ceiling plenum.

The Model DFDA is constructed of zinc coated steel on the supply and return sections. The air slot has an extruded aluminum fixed air pattern deflector. The exposed face of the unit is painted No. 06 flat black as standard. The unit face can be painted No. 11 bright white.

Units are available in nominal 24", 36" 48" and 60" lengths. Standard inlet sizes are 6", 8", 10" and 12". All inlets are oval construction.

The Model DFDA is uninsulated as standard, but is available with 1/2" thick black matte internal insulation. An optional inlet mounted volume control damper is available on the supply inlet.

MODEL DFDA — PERFORMANCE DATA

24" LENGTH	**CFM**	**60**	**80**	**100**	**120**	**140**	**160**	**180**	**200**
	P_S	.02	.03	.06	.08	.11	.14	.19	.23
	Throw	13	16	19	22	24	25	26	29
	NC	(20)	(20)	(20)	(20)	(20)	22	26	29
36" LENGTH	**CFM**	**90**	**120**	**150**	**180**	**210**	**240**	**270**	**300**
	P_S	.03	.04	.07	.10	.14	.18	.23	.29
	Throw	13	16	20	22	24	26	27	29
	NC	(20)	(20)	(20)	22	25	29	32	35
48" LENGTH	**CFM**	**120**	**160**	**200**	**240**	**280**	**320**	**360**	**400**
	P_S	.03	.05	.09	.12	.17	.22	.29	.36
	Throw	11	14	17	19	21	23	24	25
	NC	(20)	(20)	21	26	29	33	37	40
60" LENGTH	**CFM**	**150**	**200**	**250**	**300**	**350**	**400**	**450**	**500**
	P_S	.03	.05	.10	.13	.18	.24	.31	.39
	Throw	9	11	14	15	17	18	19	20
	NC	(20)	21	25	29	33	37	41	44

RETURN SLOT PERFORMANCE

CFM PER FOOT	30	40	50	60	70	80	90	100
NEGATIVE P_S	.01	.02	.03	.04	.06	.07	.09	.11

P_S — Static Pressure in inches of water
Throw — Distances in feet to terminal velocity of 50 fpm.
NC — Noise Criteria based on 10 db room absorption.
Vertical throw values are based on standard 12" long down blow slot and 3/8" width setting.