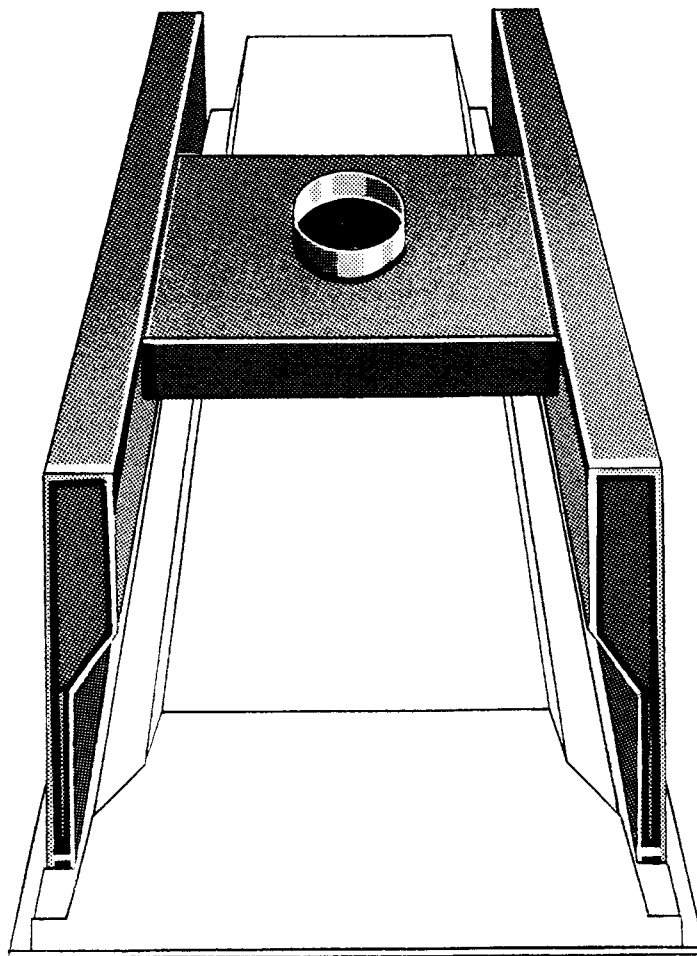




AIR ZONE INDUSTRIES, INC.

AIR DIFFUSERS
for
LIGHT FIXTURES

- *Single Side/Side Inlet*
- *Double Side/Top Inlet*
- *Double Side/Side Inlet*
- *Single Side/Side Return*



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- INTRODUCTION -

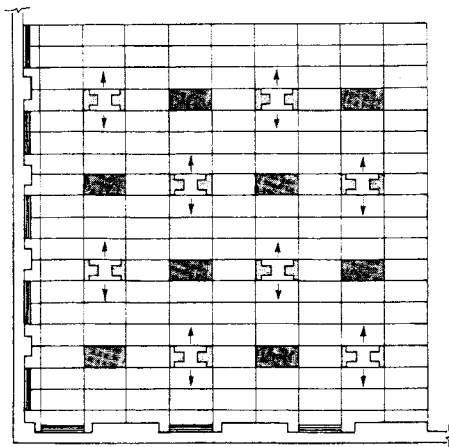
Air diffusers for light fixtures provide coordination of air distribution and lighting into a single, efficient ceiling unit of pleasing appearance, giving one of the most architecturally inconspicuous air distribution systems available.

Air Zone's designs of the diffusers, used in combination with light fixtures, are based on accepted air distribution principles. Our diffusers have a high air mixing effectiveness and a strong horizontal air pattern which can withstand a wide variation in supply air CFM without dumping. With these performance characteristics, Air Zone's air diffusers for light fixtures are ideally suited for VAV systems.

Selection of an Air Zone air diffuser must be coordinated and integrated with the lighting arrangement to uniformly condition the occupied space. The performance characteristics of the single side air diffuser are such that it should be selected when supply air of .5 to 2.0 CFM per square foot is required. When higher supply air CFM's are required, the double side air diffuser should be selected, as it can handle 1.5 to 3.0 supply air CFM per square foot adequately.

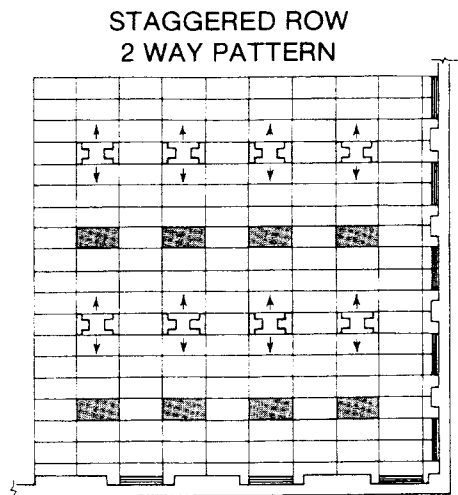
A contemporary VAV system usually incorporates slot diffusers along the perimeter of a building, using air diffusers for light fixtures within the core areas.

Diagrammed below are two methods of placement for air diffusers on uniformly located light fixtures in a ceiling plan. Both arrangements allow placement of the supply air duct between the light fixtures with only short runs of flexible duct necessary.







ALTERNATE ROW
2 WAY PATTERN

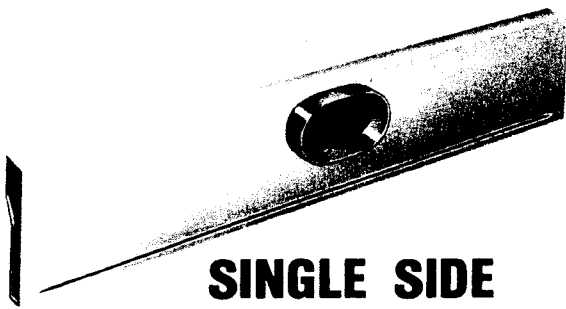
EXAMPLES OF AIR DIFFUSER PLACEMENT



STAGGERED ROW
2 WAY PATTERN

LEGEND

- | | | | |
|---|---|---|----------------------|
|  | 2'x4' light fixture with double side air diffuser |  | 2'x4' ceiling panels |
|  | 2'x4' fluorescent light fixture |  | Slot diffusers |



SINGLE SIDE SIDE INLET

AIR DIFFUSER FOR LIGHT FIXTURES

Air Zone's diffuser design is compatible with all air handling light fixture manufacturer's products, as we manufacture our diffuser to fit their dimensions. Thus, installation is made quickly with minimal air leakage. Air diffusers for light fixtures give the mechanical engineer one of the most architecturally inconspicuous air distribution devices available.

Air Zone's diffusers are ideally suited for variable air volume applications. A thin discharge air pattern will typically produce higher mixing of supply and room air in the air flow pattern. This, combined with a strong horizontal pattern, can withstand a wide variation in supply air CFM without dumping.

Air pattern and volume controllers, adjustable from the face of the light fixture through slot openings, are available with all models.

Air deflectors internal to the diffuser are designed to equalize air flow along full length of the slot openings.

Locating tabs serve two purposes: (1) To locate diffuser on the light fixture by inserting tabs into slots, and (2) to bend tabs upward to the light fixture housing, thus holding diffuser in place until securing mounting bracket to fixture housing.

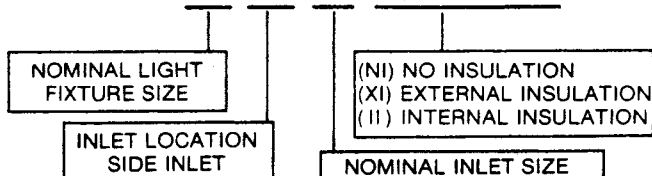
DIMENSIONS

MODEL	L	NOMINAL INLET SIZE	ACTUAL SIZE	
			W	H
2SI	17"	4"	3 7/8" Dia. Round	
3SI	29"	5"	5 15/16"	2 15/16"
4SI	41"	6"	6 15/16"	3 15/16"

Dimensions may vary from those shown depending on light fixture design and manufacturer. When ordering air diffuser, the approved light fixture manufacturer's name and fixture model number must appear on your order to insure compatibility.

UNIT DESIGNATION

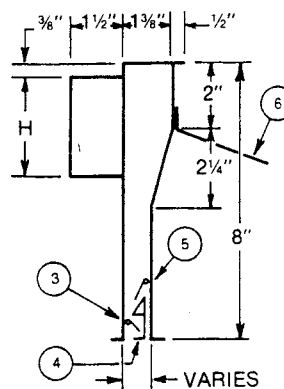
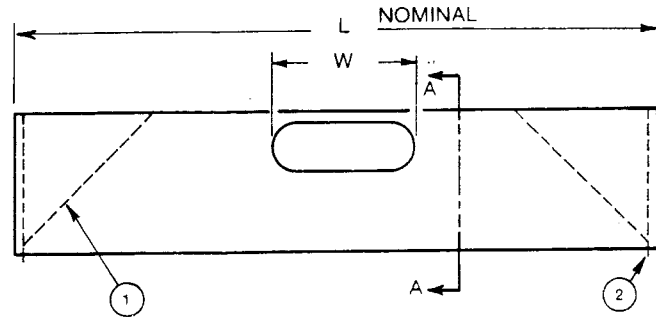
4 - SI - 6 - (NI) OR (XI) OR (II)



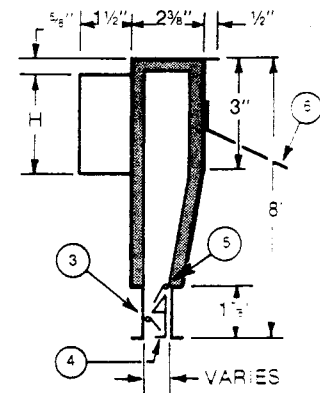
FEATURES

- Custom manufactured to fit all makes of air handling light fixtures.
- Air pattern adjustable from horizontal to vertical through light fixture slot openings.
- Air volume adjustable through light fixture slot openings for balancing.
- Can be used with surface slot or regressed slot light fixtures.
- Choice of non-insulated, internally insulated with 1/2" thick coated glass fiber, or externally insulated with 1/2" thick glass fiber blanket and aluminum vapor barrier on scrim kraft backing.
- Supply or return air application.
- Construction is 24 gauge zinc coated steel with slot area only painted flat black.

SPECIFICATION DRAWING



SECTION A+A



SECTION A+A
WITH INTERNAL INSULATION

OPTIONS

- ① AIR DEFLECTORS
- ② LOCATING TABS
- ③ AIR PATTERN CONTROLLER
- ④ VOLUME CONTROL HANDLE
- ⑤ AIR VOLUME CONTROLLER
- ⑥ MOUNTING BRACKET (SHIPPED FLAT) BEND IN FIELD

ENGINEERING PERFORMANCE DATA FOR SINGLE SIDE/SIDE INLET DIFFUSER

		FOR 1x4 OR 2x4 LIGHT FIXTURE								FOR 1x3 OR 3x3 LIGHT FIXTURE								FOR 1x2 OR 2x2 LIGHT FIXTURE							
		HORIZ AIR PATTERN		VERT AIR PATTERN		THROW IN FEET			SPREAD IN FEET	HORIZ AIR PATTERN		VERT AIR PATTERN		THROW IN FEET			SPREAD IN FEET	HORIZ AIR PATTERN		VERT AIR PATTERN		THROW IN FEET			SPREAD IN FEET
CFM	INLET SIZE	TOTAL PRESSURE INCHES H ₂ O	ALL NC SHOWN ARE <	TOTAL PRESSURE INCHES H ₂ O	ALL NC SHOWN ARE <	VT 150 FPM	VT 100 FPM	VT 75 FPM		TOTAL PRESSURE INCHES H ₂ O	ALL NC SHOWN ARE <	TOTAL PRESSURE INCHES H ₂ O	ALL NC SHOWN ARE <	VT 150 FPM	VT 100 FPM	VT 75 FPM		TOTAL PRESSURE INCHES H ₂ O	ALL NC SHOWN ARE <	TOTAL PRESSURE INCHES H ₂ O	ALL NC SHOWN ARE <	VT 150 FPM	VT 100 FPM	VT 75 FPM	
50	4	.08	20	.07	20	3	4	6	4-8	.11	25	.09	20	4	5	7	4-8	.16	30	.12	25	5	6	8	4-9
	5	.06	20	.05	20	3	5	6	4-8	.08	20	.07	20	4	5	7	4-9	.12	25	.09	20	5	6	8	5-9
	6	.04	20	.03	20	3	6	8	4-9	.06	20	.05	20	4	5	8	4-10	.08	20	.07	20	6	7	8	5-9
60	4	.11	25	.10	20	4	5	8	4-9	.15	30	.12	25	5	6	8	5-10	.22	35	.17	30	6	7	9	6-10
	5	.08	20	.07	20	4	6	8	4-10	.11	25	.09	20	5	7	8	5-11	.16	30	.12	25	6	7	9	6-10
	6	.06	20	.05	20	5	7	9	5-11	.08	20	.07	20	5	8	9	5-11	.12	25	.09	20	6	8	10	7-11
70	4	.14	25	.12	25	4	6	9	6-11	.20	30	.16	30	5	8	9	5-11	.27	35	.21	35	7	8	10	7-11
	5	.11	25	.09	20	4	7	9	6-12	.15	30	.12	25	5	8	10	6-12	.21	30	.16	30	7	9	11	7-12
	6	.09	20	.07	20	6	8	11	6-13	.13	25	.10	20	6	9	10	6-12	.17	30	.13	25	7	9	11	8-12
80	4	.18	30	.15	30	5	6	9	6-12	.25	35	.20	30	6	9	11	6-12	.34	40	.27	35	7	10	12	8-12
	5	.15	30	.12	25	5	7	9	6-12	.21	30	.16	30	7	9	12	6-12	.28	40	.22	35	8	10	12	9-13
	6	.12	25	.09	20	6	9	12	7-14	.17	30	.13	25	7	9	12	6-13	.23	35	.18	30	9	11	13	9-14
90	4	.22	35	.18	30	5	7	9	7-12	.31	40	.24	35	7	9	12	6-13								
	5	.19	30	.15	30	5	7	10	8-14	.27	35	.21	35	7	10	13	7-13								
	6	.15	30	.11	25	7	10	14	8-16	.21	30	.16	30	7	10	13	7-14								
100	4	.27	40	.22	35	6	7	10	7-13	.38	45	.30	40	8	11	14	7-14								
	5	.24	35	.19	30	6	8	11	8-16	.34	40	.27	35	8	12	15	7-14								
	6	.18	30	.14	30	8	11	16	9-18	.25	35	.20	30	8	12	16	7-16								
120	5	.34	40	.27	35	7	11	15	10-20																
	6	.26	35	.20	30	9	13	19	11-22																

DATA

The data shown in this table is for the combination of a surface slot air handling light fixture and Air Zone's diffuser. Performance can vary for different light fixture manufacturer's light fixtures and/or with regressed slot configuration style light fixtures.

TOTAL PRESSURE DATA

Total pressure is the sum of velocity pressure and static pressure and is given in inches H₂O.

NC SOUND DATA

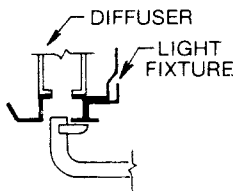
Ratings are based on a room absorption of 8 decibels (Re: 10⁻¹² watts).

THROW AND SPREAD DATA

Throw and spread values are shown in feet and are based on isothermal air. Feet shown in chart are horizontal projection distances to terminal velocities of 150 FPM, 100 FPM and 75 FPM.

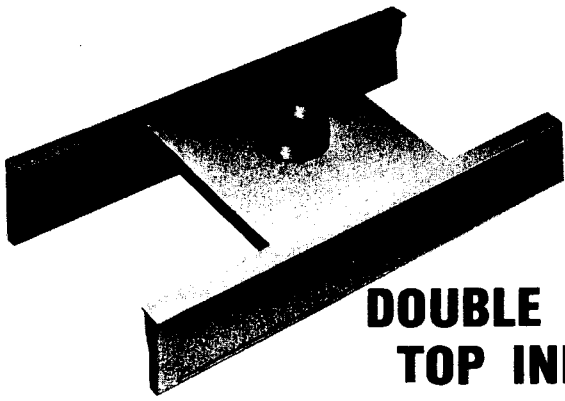
BALANCING DATA

- Locate probe in slot, as shown in sketch, and take 4 equispaced velocity readings per active slot.
- Record and average the velocity readings.
- Flow Rate in CFM = Average Velocity × Area Factor



ALNOR VELOMETER TIP
2220-A or 2220

AREA FACTORS A _K			
MODEL	SUPPLY AIR PATTERN		RETURN
	HORIZONTAL	VERTICAL	
4SI	.100	.106	.083
3SI	.067	.086	.050
2SI	.042	.052	.035



DOUBLE SIDE TOP INLET

FEATURES

- Custom manufactured to fit all makes of air handling light fixtures.
- Shipped completely assembled to assure seal at crossover and to minimize field installation time.
- Air pattern adjustable from horizontal to vertical through light fixture slot openings.
- Air volume adjustable through light fixture slot openings for balancing.
- Can be used with surface slot or regressed slot light fixtures.
- Choice of non-insulated, internally insulated with 1/2" thick coated glass fiber, or externally insulated with 1/2" thick glass fiber blanket and aluminum vapor barrier on scrim kraft backing.
- Supply or return air application.
- Construction is 24 gauge zinc coated steel with slot area only painted flat black.

AIR DIFFUSER FOR LIGHT FIXTURES

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Air deflectors internal to the diffuser are designed to equalize air flow along full length of the slot openings.

Locating tabs serve two purposes: (1) To locate diffuser on the light fixture by inserting tabs into slots, and (2) to bend tabs upward to the light fixture housing, thus holding diffuser in place.

DIMENSIONS

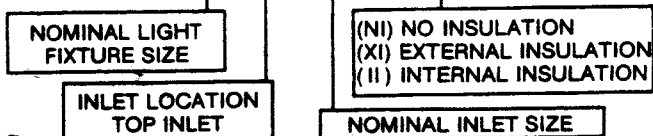
MODEL	B	L	C
12TI	11"	17"	12"
22TI	23"	17"	12"
13TI	11"	29"	18"
33TI	35"	29"	18"
14TI	11"	41"	18"
24TI	23"	41"	18"

NOMINAL INLET SIZE	D Dia
4"	3 7/8"
5"	4 7/8"
6"	5 7/8"

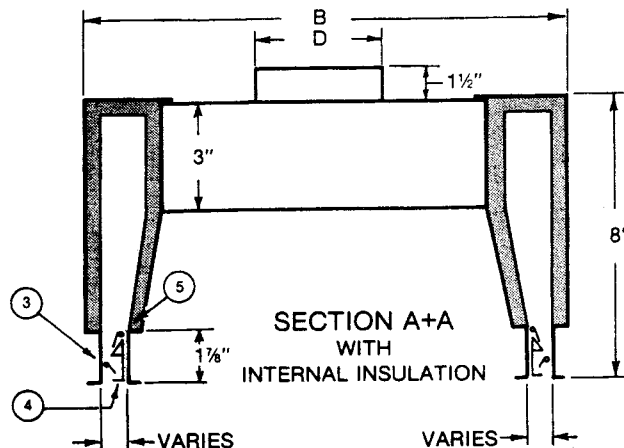
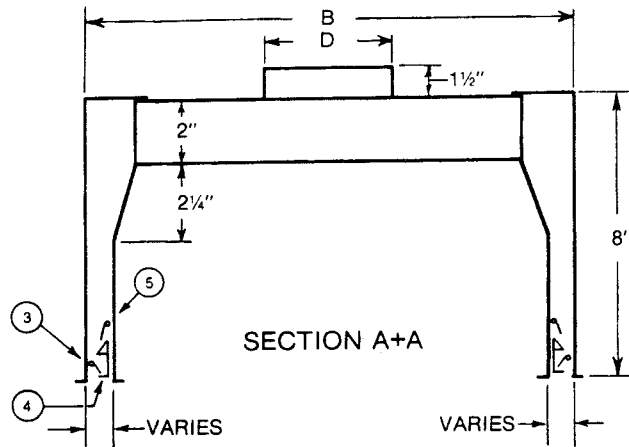
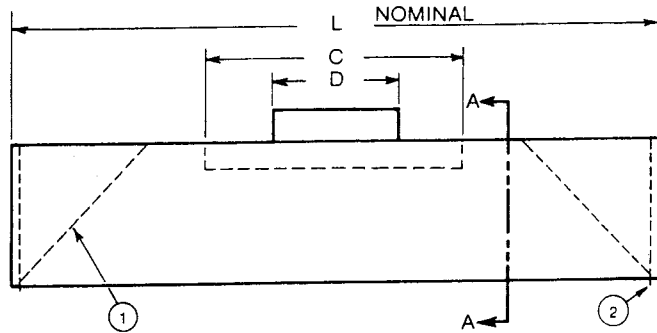
Dimensions may vary from those shown depending on light fixture design and manufacturer. When ordering air diffuser, the approved light fixture manufacturer's name and fixture model number must appear on your order to insure compatibility.

UNIT DESIGNATION

24 - TI - 6 - (NI) OR (XI) OR (II)



SPECIFICATION DRAWING



OPTIONS

- ① AIR DEFLECTORS
- ② VOLUME CONTROL HANDLE
- ③ LOCATING TABS
- ④ AIR VOLUME CONTROLLER
- ⑤ AIR PATTERN CONTROLLER

ENGINEERING PERFORMANCE DATA FOR DOUBLE SIDE/TOP INLET DIFFUSER

CFM	INLET SIZE	FOR 1x4 OR 2x4 LIGHT FIXTURE								FOR 1x3 OR 3x3 LIGHT FIXTURE								FOR 1x2 OR 2x2 LIGHT FIXTURE							
		HORIZ. AIR PATTERN		VERT. AIR PATTERN		THROW IN FEET		SPREAD IN FEET	HORIZ. AIR PATTERN		VERT. AIR PATTERN		THROW IN FEET		SPREAD IN FEET	HORIZ. AIR PATTERN		VERT. AIR PATTERN		THROW IN FEET		SPREAD IN FEET			
		TOTAL PRESSURE INCHES H ₂ O	ALL NC SHOWN ARE ✓	TOTAL PRESSURE INCHES H ₂ O	ALL NC SHOWN ARE ✓	VT 150 FPM	VT 100 FPM		VT 75 FPM	TOTAL PRESSURE INCHES H ₂ O	ALL NC SHOWN ARE ✓	TOTAL PRESSURE INCHES H ₂ O	ALL NC SHOWN ARE ✓	VT 150 FPM		VT 100 FPM	VT 75 FPM	TOTAL PRESSURE INCHES H ₂ O	ALL NC SHOWN ARE ✓	TOTAL PRESSURE INCHES H ₂ O	ALL NC SHOWN ARE ✓		VT 150 FPM	VT 100 FPM	VT 75 FPM
70	4	.06	20	.05	20	1	2	4	4-5	.07	20	.06	20	3	5	6	4-7	.10	25	.08	20	4	6	8	4-9
	5	.04	20	.03	20	1	2	4	4-5	.05	20	.04	20	3	5	6	4-7	.08	20	.05	20	4	6	8	4-9
	6	.04	20	.02	20	1	2	4	4-5	.05	20	.03	20	3	5	7	4-8	.07	20	.04	20	4	7	9	4-9
80	4	.09	25	.08	20	1	2	4	4-5	.12	25	.10	25	3	5	7	4-9	.21	35	.13	25	4	7	9	4-10
	5	.06	20	.05	20	1	3	4	4-5	.09	25	.07	20	3	5	7	4-9	.14	30	.08	20	5	8	10	4-10
	6	.05	20	.04	20	1	3	4	4-5	.08	20	.04	20	3	6	8	4-10	.11	25	.07	20	5	8	10	4-11
100	4	.13	25	.11	25	1	3	4	4-5	.17	30	.14	30	4	6	8	4-10	.32	40	.19	35	5	8	10	4-11
	5	.08	20	.07	20	2	4	5	4-6	.12	25	.10	25	4	6	9	4-10	.21	35	.13	25	6	8	11	5-11
	6	.07	20	.06	20	2	4	5	4-6	.10	25	.07	20	4	7	10	4-10	.18	30	.11	25	6	8	11	5-12
120	4	.20	35	.17	30	2	4	5	4-6	.26	40	.22	35	4	7	10	5-11	.41	45	.25	35	6	9	12	5-12
	5	.13	25	.11	25	2	4	6	4-7	.19	35	.16	30	5	8	10	5-11	.31	40	.19	35	7	10	14	6-13
	6	.10	25	.08	20	3	5	6	4-7	.16	30	.09	20	6	9	12	5-11	.24	35	.14	30	7	11	15	6-14
140	4	.27	40	.23	35	3	5	6	4-7	.34	40	.29	40	6	9	12	6-11								
	5	.18	30	.15	30	3	5	6	4-7	.25	35	.21	35	6	9	12	6-12								
	6	.14	30	.12	20	4	5	7	4-8	.21	35	.13	25	7	10	14	6-12								
160	5	.24	40	.20	35	4	5	7	5-9	.34	45	.29	40	7	11	15	6-12								
	6	.19	35	.15	30	4	6	8	5-10	.26	40	.17	30	8	12	16	7-14								
180	5	.30	40	.25	35	5	6	8	5-10																
	6	.24	35	.19	30	5	7	9	5-11																
200	6	.29	40	.24	30	5	8	10	6-12																

DATA

The data shown in this table is for the combination of a surface slot air handling light fixture and Air Zone's diffuser. Performance can vary for different light fixture manufacturer's light fixtures and/or with regressed slot configuration style light fixtures.

TOTAL PRESSURE DATA

Total pressure is the sum of velocity pressure and static pressure and is given in inches H₂O.

NC SOUND DATA

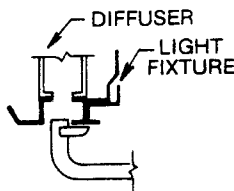
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THROW AND SPREAD DATA

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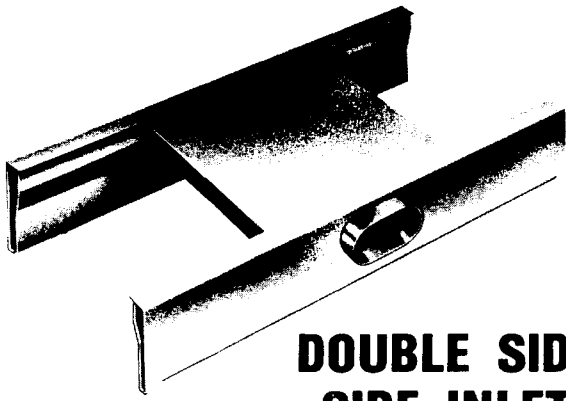
BALANCING DATA

- Locate probe in slot, as shown in sketch, and take 4 equispaced velocity readings per active slot.
- Record and average the velocity readings.
- Flow Rate in CFM = Average Velocity × Area Factor



ALNOR VELOMETER TIP 2220-A or 2220

MODEL	SUPPLY AIR PATTERN		RETURN
	HORIZONTAL	VERTICAL	
14TI	.197	.211	.172
24TI	.198	.203	.067
13TI	.129	.157	.107
33TI	.130	.149	.117
12TI	.076	.104	.056
22TI	.077	.096	.157



DOUBLE SIDE SIDE INLET

AIR DIFFUSER FOR LIGHT FIXTURES

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DIMENSIONS

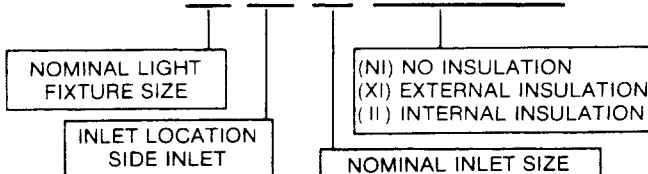
MODEL	B	L	G
12SI	11"	17"	12"
22SI	23"	17"	12"
13SI	11"	29"	18"
33SI	35"	29"	18"
14SI	11"	41"	18"
24SI	23"	41"	18"

NOMINAL INLET SIZE	ACTUAL SIZE	
	W	H
4"	3 ⁷ / ₁₆ " Dia. Round	
5"	5 ¹⁵ / ₁₆ "	2 ¹⁵ / ₁₆ "
6"	6 ¹⁵ / ₁₆ "	3 ¹⁵ / ₁₆ "

Dimensions may vary from those shown depending on light fixture design and manufacturer. When ordering air diffuser, the approved light fixture manufacturer's name and fixture model number must appear on your order to insure compatibility.

UNIT DESIGNATION

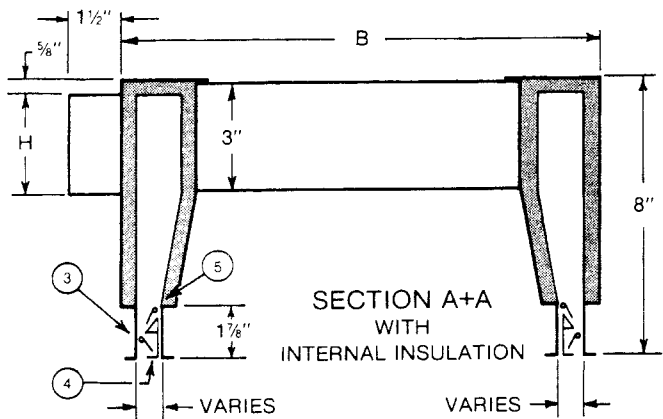
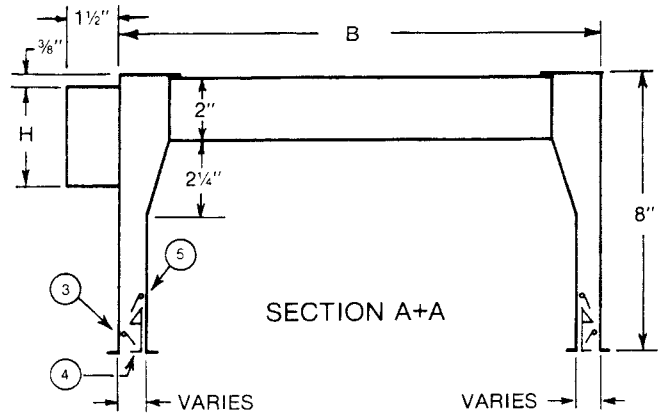
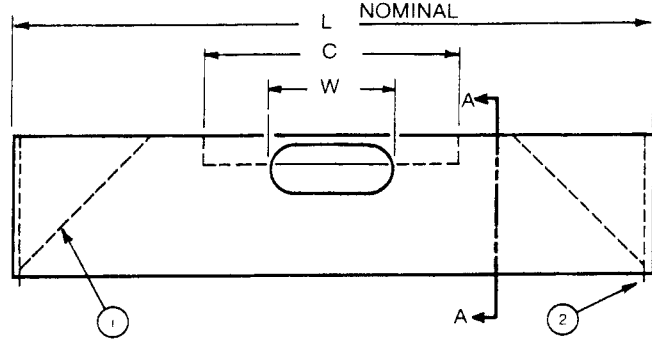
24 - SI - 6 - (NI) OR (XI) OR (II)



FEATURES

- Custom manufactured to fit all makes of air handling light fixtures.
- Shipped completely assembled to assure seal at crossover and to minimize field installation time.
- Air pattern adjustable from horizontal to vertical through light fixture slot openings.
- Air volume adjustable through light fixture slot openings for balancing.
- Can be used with surface slot or regressed slot light fixtures.
- Choice of non-insulated, internally insulated with 1/2" thick coated glass fiber, or externally insulated with 1/2" thick glass fiber blanket and aluminum vapor barrier on scrim kraft backing.
- Supply or return air application.
- Construction is 24 gauge zinc coated steel with slot area only painted flat black.

SPECIFICATION DRAWING



OPTIONS

- ① AIR DEFLECTORS
- ② LOCATING TABS
- ③ AIR PATTERN CONTROLLER
- ④ VOLUME CONTROL HANDLE
- ⑤ AIR VOLUME CONTROLLER

ENGINEERING PERFORMANCE DATA FOR DOUBLE SIDE/SIDE INLET DIFFUSER

CFM	INLET SIZE	FOR 1x4 OR 2x4 LIGHT FIXTURE								FOR 1x3 OR 3x3 LIGHT FIXTURE								FOR 1x2 OR 2x2 LIGHT FIXTURE										
		HORIZ AIR PATTERN		VERT AIR PATTERN		THROW IN FEET				SPREAD IN FEET	HORIZ AIR PATTERN		VERT AIR PATTERN		THROW IN FEET				SPREAD IN FEET	HORIZ AIR PATTERN		VERT AIR PATTERN		THROW IN FEET				SPREAD IN FEET
		TOTAL PRESSURE INCHES H ₂ O	ALL NC SHOWN ARE <	TOTAL PRESSURE INCHES H ₂ O	ALL NC SHOWN ARE <	VT 150 FPM	VT 100 FPM	VT 75 FPM	TOTAL PRESSURE INCHES H ₂ O		ALL NC SHOWN ARE <	TOTAL PRESSURE INCHES H ₂ O	ALL NC SHOWN ARE <	VT 150 FPM	VT 100 FPM	VT 75 FPM	TOTAL PRESSURE INCHES H ₂ O	ALL NC SHOWN ARE <		TOTAL PRESSURE INCHES H ₂ O	ALL NC SHOWN ARE <	VT 150 FPM	VT 100 FPM	VT 75 FPM				
70	4	.07	20	.05	20	1	2	3	2-7	.08	20	.05	20	2	3	4	3-7	.11	25	.07	20	3	5	8	3-9			
70	5	.05	20	.04	20	1	2	3	2-7	.06	20	.04	20	2	3	5	3-7	.09	20	.06	20	3	5	8	4-9			
70	6	.05	20	.03	20	1	2	5	2-7	.06	20	.04	20	2	3	5	3-7	.08	20	.05	20	3	6	9	4-9			
80	4	.10	25	.07	20	1	2	5	2-7	.11	25	.07	20	2	4	5	4-8	.14	25	.10	25	3	7	9	4-10			
80	5	.07	20	.05	20	1	3	5	2-7	.08	20	.05	20	2	4	6	4-8	.11	25	.07	20	4	8	10	5-11			
80	6	.06	20	.04	20	2	4	5	2-7	.09	20	.06	20	2	4	6	4-8	.12	25	.08	20	4	8	10	5-11			
100	4	.14	25	.10	25	2	4	6	2-7	.18	25	.12	25	3	5	7	4-8	.33	40	.22	35	4	9	11	5-12			
100	5	.09	20	.06	20	2	4	6	3-8	.13	25	.09	20	3	5	7	4-9	.22	35	.15	25	5	9	12	6-13			
100	6	.08	20	.05	20	3	5	6	3-9	.11	25	.08	20	3	5	7	4-9	.19	30	.13	25	5	9	12	6-14			
120	4	.24	35	.16	25	3	5	6	4-9	.28	35	.19	25	4	6	8	5-10	.43	45	.29	40	6	9	13	6-14			
120	5	.17	25	.12	25	4	5	7	4-10	.21	30	.14	25	4	6	8	5-10	.32	40	.22	35	6	10	14	7-16			
120	6	.14	25	.09	20	4	5	7	5-11	.18	25	.12	20	4	7	9	5-11	.26	35	.18	30	6	10	14	7-16			
140	4	.31	40	.21	35	4	6	8	5-11	.35	40	.24	35	5	7	9	6-12											
140	5	.22	35	.15	25	4	6	8	5-11	.26	35	.18	30	5	7	9	6-12											
140	6	.18	30	.12	30	4	6	8	6-12	.22	30	.14	25	5	8	10	6-12											
160	5	.28	35	.19	25	5	7	9	6-12	.36	40	.25	35	6	8	11	7-13											
160	6	.23	35	.17	30	5	7	10	7-14	.28	35	.19	30	6	9	12	7-14											
180	5	.37	40	.25	35	5	7	10	7-14																			
180	6	.31	40	.21	35	5	8	11	8-16																			
200	6	.38	40	.26	35	6	9	12	9-18																			

DATA

The data shown in this table is for the combination of a surface slot air handling light fixture and Air Zone's diffuser. Performance can vary for different light fixture manufacturer's light fixtures and/or with regressed slot configuration style light fixtures.

TOTAL PRESSURE DATA

Total pressure is the sum of velocity pressure and static pressure and is given in inches H₂O.

NC SOUND DATA

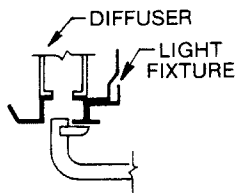
Ratings are based on a room absorption of 8 decibels (Re: 10⁻¹² watts).

THROW AND SPREAD DATA

Throw and spread values are shown in feet and are based on isothermal air. Feet shown in chart are horizontal projection distances to terminal velocities of 150 FPM, 100 FPM and 75 FPM.

BALANCING DATA

- Locate probe in slot, as shown in sketch, and take 4 equispaced velocity readings per active slot.
- Record and average the velocity readings.
- Flow Rate in CFM = Average Velocity × Area Factor



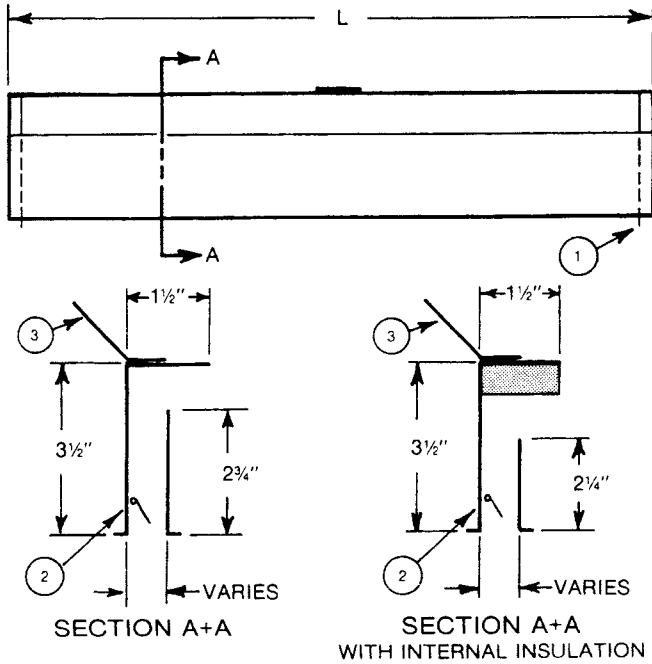
ALNOR VELOMETER TIP
2220-A or 2220

AREA FACTORS AK			
MODEL	SUPPLY AIR PATTERN		RETURN
	HORIZONTAL	VERTICAL	
14SI	.177	.198	.166
24SI	.199	.199	.162
13SI	.112	.160	.101
33SI	.134	.161	.122
12SI	.061	.097	.050
22SI	.083	.098	.070

SR MODEL NON-DUCTED RETURN

DESIGNED TO CONTROL RETURN AIR THROUGH LIGHT
FIXTURE SLOTS TO CEILING RETURN AIR PLENUM

SPECIFICATION DRAWING



FEATURES

- Custom manufactured to fit all makes of air handling light fixtures.
- Lightproof design assures no straight line of sight into ceiling plenum.
- Air volume adjustable through light fixture slot openings for balancing.
- Can be used with surface slot or regressed slot light fixtures.
- Choice of non-insulated, internally insulated with 1/2" thick coated glass fiber, or externally insulated with 1/2" thick glass fiber blanket and aluminum vapor barrier on scrim kraft backing.
- Construction is 24 gauge zinc coated steel with slot area only painted flat black.

DIMENSIONS:

MODEL	L
2SR	17"
3SR	29"
4SR	41"

Dimensions may vary from those shown depending on light fixture design and manufacturer. When ordering Model SR, the approved light fixture manufacturer's name and fixture model number must appear on your order to insure compatibility.

OPTIONS

- ① LOCATING TABS
- ② AIR VOLUME CONTROLLER
- ③ MOUNTING BRACKET (SHIPPED FLAT)
BEND IN FIELD

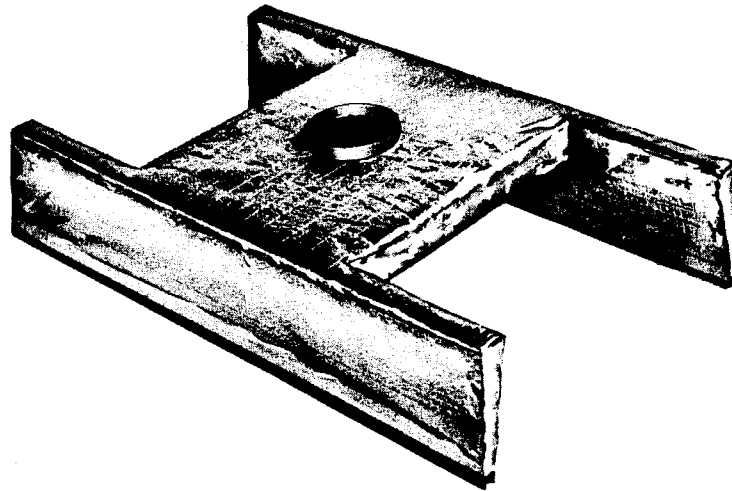
ENGINEERING PERFORMANCE DATA FOR RETURNS

UNIT CONFIGURATION	NOMINAL LIGHT FIXTURE LENGTH IN FEET	RETURN CFM															
		30		40		50		60		70		80		90		100	
		S.P.	<NC	S.P.	<NC	S.P.	<NC	S.P.	<NC	S.P.	<NC	S.P.	<NC	S.P.	<NC	S.P.	<NC
SINGLE SIDE	2	.04	20	.08	20	.11	20	.18	25	.22	30	—	—	—	—	—	—
SIDE RETURN	3	.02	20	.03	20	.04	20	.06	20	.08	20	.10	20	.12	20	.16	25
MODEL SR	4	.01	20	.01	20	.02	20	.03	20	.04	20	.05	20	.06	20	.08	20
SINGLE SIDE	2	.04	20	.05	20	.09	20	.12	20	.18	25	.21	30	—	—	—	—
6"	3	.02	20	.03	20	.07	20	.09	20	.14	20	.17	25	.20	30	—	—
SIDE INLET	4	.01	20	.02	20	.05	20	.07	20	.10	20	.13	20	.17	25	.21	30
DOUBLE SIDE	2	.01	20	.02	20	.04	20	.05	20	.07	20	.09	20	.11	20	.13	25
6"	3	.01	20	.02	20	.02	20	.03	20	.04	20	.05	20	.08	20	.10	25
TOP INLET	4	.01	20	.01	20	.01	20	.02	20	.03	20	.04	20	.05	20	.06	20
DOUBLE SIDE	2	.01	20	.02	20	.04	20	.06	20	.08	20	.10	20	.13	20	.16	25
6"	3	.01	20	.01	20	.02	20	.03	20	.05	20	.06	20	.09	20	.12	25
SIDE INLET	4	.01	20	.01	20	.01	20	.03	20	.04	20	.05	20	.07	20	.09	20

DATA

The data shown in this table is for the combination of a surface slot air handling light fixture and Air Zone's diffuser. Performance can vary for different light fixture manufacturer's light fixtures and/or with regressed slot configuration style light fixtures.

NC SOUND DATA - Ratings are based on a room absorption of 8 decibels (Re: 10⁻¹² watts).



EXTERNALLY INSULATED AIR DIFFUSERS

All of Air Zone's air diffusers for light fixtures can be furnished with internal insulation.

Non-insulated air diffusers in direct contact with light fixtures can allow heat transfer by conduction. Therefore, in critical applications requiring minimum heat transfer, we recommend the use of internal or external insulation with the diffusers.

Air Zone Industries, Inc. uses a 1/2" thick glass fiber blanket with an aluminum vapor barrier on scrim kraft backing for externally insulated air diffusers.

DIFFUSER TYPE AND FIXTURE SIZE

AIR DIFFUSER CONFIGURATION	LIGHT FIXTURE SIZE IN FEET					
	1x2	2x2	1x3	3x3	1x4	2x4
SINGLE SIDE SIDE INLET	2SI	2SI	3SI	3SI	4SI	4SI
DOUBLE SIDE TOP INLET	12TI	22TI	13TI	33TI	14TI	24TI
DOUBLE SIDE SIDE INLET	12SI	22SI	13SI	33SI	14SI	24SI
SINGLE SIDE SIDE RETURN	2SR	2SR	3SR	3SR	4SR	4SR

GUARANTEE

Air Zone Industries, Inc. warrants the products it manufactures to be of finest quality materials and workmanship and to perform according to published ratings when properly installed and operated under normal conditions. AZI's obligation is limited to making good at its factory any part, parts or complete assemblies which shall, within one year of shipment to the original purchaser, be returned with transportation charges prepaid, and which shall, to AZI's satisfaction, be proven defective. Warranty will be honored only after products are paid for in full prior to their being returned for repair or replacement. Correction of such defects shall be by repair or replacement and shall constitute fulfillment of all AZI obligations to purchaser. AZI shall not be liable for loss, damage, or expenses directly or indirectly arising from the installation and/or use of its products or from any other cause.

AZI assumes no liability for expenses or repairs made outside its factory except by prior written consent. No liability of any kind shall attach to AZI until said products have been paid for in full. This warranty supersedes and is in lieu of all other warranties, expressed or implied and no person or representative is authorized to give any other warranties, nor to assume any other liability in connection with AZI products. No warranty is made by AZI on motors or accessories, since they are covered separately by the warranties of their respective manufacturers.

This catalog shows the general appearance of products and details of their design at the time of publication. AZI reserves the right to change design, materials and/or construction at any time without notice.



AIR ZONE INDUSTRIES, INC.