#### **ARCHITECTURAL CEILING DIFFUSERS MN** Nailor<sup>®</sup> SQUARE PLAQUE • CORNER POSTS **ROUND NECK • ALUMINUM MODEL: AUNI2**

## TYPE L Lay-in T-Bar



Industries Inc.

## **Dimensional Data**

Ceiling M	odule CM	In	nperial	Units (	inch	es)		Metric Units (mm)					
Imperial Modules	Metric Modules	Duct Size D	N	Α	В	с	F	Duct Size D	Ν	A	в	С	F
		4*	3 1/4					102*	83				
12 x 12	300 x 300	5, 6, 7, 8	1 1/4	1	11	5/8	13	127, 152, 178, 203	32	25	279	16	330
24 x 24	600 x 600	6, 8, 10, 12, 14, 15	1 1/4	2 5/16	22	3/8	N/A	152, 203, 254, 305, 356, 381	32	59	559	10	N/A

\* Supplied with a reducer.

#### DESCRIPTION:

- 1. Material: Aluminum construction with corrosion resistant steel bracketry
- 2. The AUNI2 Diffuser has been designed to provide both the unobtrusive appearance for architectural excellence and engineered performance.
- 3. The diffuser delivers a tight 360° radial horizontal pattern allowing high turn down ratios with no dumping. Excellent for VAV systems.
- 4. The diffuser features a stamped one-piece outer-cone backpan which eliminates mitered corners. The plaque face features a hemmed edge for strength and a clean appearance. The corner posts are mechanically secured to a separate inner face panel. This design eliminates welding and assures a clean smooth blemish free painted finish under all lighting conditions.
- 5. The face panel is held in place by four hook corner posts that positively engage into slots in the backpan. The panel can be removed from the backpan for diffuser installation and to provide access to an optional inlet damper.
- 6. Standard finish is AW Appliance White.

#### **OPTIONS:**

CONTRACTOR:

🖵 MRI	100% Aluminum Construction. MRI room compatible (24 x 24 CM only).

- 🖵 EX External Foil-Back Insulation, installed - R-4.2

ENGINE	ER:				DATE	B SERIES	SUPERSEDES	DRAWING NO.
PROJE	CT:						e in inches (in	
SCHED	ULE TYPE:					monsions are	a in inches (m	um)
	2-Way Corner Blow	🖵 QB1	1-Way Blow		Fineline <sup>®</sup> is	a registered tra	ademark of USG	a Interiors Inc.
🖵 QB3	3-Way Blow	🖵 QB2	2-Way Opposite Blow					
QB Qua	adrant Blanks:							
🖵 SP	Special. Specify		·					
Finish:								
🖵 EQT	Earthquake Tabs							
MIB	Molded Insulation Bla with a 24 x 24 CM only	nket - R-6. y).	0 ('MIB' is available for	Frame Types L	and F			
	External Foil-Back Ins	ulation, ship	os loose - R-4.2					

CEILING OPENING = CM + 1/4" (6) → SUPPLIED WITH CM = CEILING MODULE SEPARATE CM - 1/4" (6) DFA FRAME CM + 1 1/2" (38) TYPE S Surface Mount (12 x 12 [305 x 305] module only) CM = CEILING MODULE -CEILING OPENING = CM - 1" (25) -OVERALL = F TYPE F Fineline® CM = CEILING MODULE CM - 1/4" (6) 5/16" (8) ¥ CM - 5/8" (16) 9/16" (14)

TYPE L Surface Mount

CM = CEILING MODULE

CEILING OPENING = B

CM - 1/4" (6)

Hard duct connection recommended.

 TYPE L Surface Mount With DFA Drywall/Plaster frame. Recommended for

flexible duct connection and ceiling access

Nailor Industries Inc. reserves the right to change any information concerning product or pricing without notice.

7 - 20 - 21

UNI

1 - 16 - 17

AUNI2

## ARCHITECTURAL CEILING DIFFUSERS SQUARE PLAQUE · CONCEALED NECK BRACKETRY STEEL • ROUND NECK MODEL: UNI

## TYPE L Lay-in T-Bar

**MN** Nailor<sup>®</sup>

Industries Inc.



## **Dimensional Data**

Ceiling M	odule CM	Ir	Metric Units (mm)										
Imperial Modules	Metric Modules	Duct Size D	N	Α	в	с	F	Duct Size D	N	A	в	с	F
		4*	3 1/4					102*	83			9 16	
12 x 12	300 x 300	5, 6, 7, 8	1 1/4	1	11	5/8	13	127, 152, 178, 203	32	25	279		330
24 x 24	600 x 600	6, 8, 10, 12, 14, 15	1 1/4	2 5/16	22	3/8	24 3/4	152, 203, 254, 305, 356, 381	32	59	559	10	629

\* Supplied with a reducer.

#### **DESCRIPTION:**

- 1. Material: Heavy gauge, corrosion-resistant steel.
- 2. The UNI Diffuser has been designed to provide both the unobtrusive appearance for architectural excellence and engineered performance. Unique, concealed neck bracketry design is virtually invisible from a normal viewing position, giving the appearance that the plaque face floats below the backpan. There are no visible corner posts as on competitor's models to detract from the aesthetically clean design.
- 3. The diffuser delivers a tight 360° radial horizontal pattern allowing high turn down ratios with no dumping. Excellent for VAV systems.
- 4. The diffuser features a stamped one-piece outer-cone which eliminates mitered corners and a double skinned inner face panel with a hemmed edge for strength and a clean appearance.
- 5. A spring clip arrangement permits quick, easy installation and removal of the inner core assembly.
- 6. Standard finish is AW Appliance White.

#### **OPTIONS:**

- EX External Foil-Back Insulation, installed R-4.2
- EXB External Foil-Back Insulation, ships loose R-4.2
- MIB Molded Insulation Blanket - R-6.0 (24 x 24 only)
- EIC Extended Inlet Collar (2.25") with bead
- EQT Earthquake Tabs
- Finish:

#### SP Special. Specify

#### QB Quadrant Blanks: For one directional exposed T-Bar or fully QB3 3-Way Blow concealed grid. 1 spline on two opposite sides. QC2 2-Way Corner Blow Steel lift brackets on other. QB2 2-Way Opposite Blow CM = CEILING MODULE QB1 1-Way Blow ¥. Fineline<sup>®</sup> is a registered trademark of USG Interiors Inc. Dimensions are in inches (mm). 3/8" (10) SCHEDULE TYPE: CM - 1/16" (2) **PROJECT: ENGINEER:** DATE **B SERIES** SUPERSEDES DRAWING NO. CONTRACTOR: 4 - 20 - 17 UNI 1 - 24 - 17 UNI-1



# **Nailor**<sup>®</sup> Industries Inc.

## ARCHITECTURAL CEILING DIFFUSERS SQUARE PLAQUE • CORNER POSTS ROUND NECK • STEEL

MODEL: UNI2

#### TYPE L Lay-in T-Bar



#### **Dimensional Data**

Ceiling M	odule CM	Ir	nperia	Units (	inch	es)		Me	Metric Units (mm)					
Imperial Modules	Metric Modules	Duct Size D	N	Α	в	с	F	Duct Size D	N	A	в	с	F	
		4*	3 1/4					102*	83					
12 x 12	300 x 300	5, 6, 7, 8	1 1/4	1	11	5/8	13	127, 152, 178, 203	32	25	279	16	330	
24 x 24	600 x 600	6, 8, 10, 12, 14, 15	1 1/4	2 5/16	22	3/8	N/A	152, 203, 254, 305, 356, 381	32	59	559	10	N/A	

\* Supplied with a reducer.

#### **DESCRIPTION:**

- 1. Material: Corrosion-resistant steel.
- 2. The UNI2 Diffuser has been designed to provide both the unobtrusive appearance for architectural excellence and engineered performance.
- 3. The diffuser delivers a tight 360° radial horizontal pattern allowing high turn down ratios with no dumping. Excellent for VAV systems.
- 4. The diffuser features a stamped one-piece outer-cone backpan which eliminates mitered corners. The inner face panel features a hemmed edge for strength and a clean appearance. The hemmed edge also mechanically captures the hanger brackets. This design eliminates welding and assures a clean smooth blemish free painted finish under all lighting conditions.
- 5. The face panel is held in place by four hook corner posts that positively engage into slots in the backpan. The panel can be removed from the backpan for diffuser installation and to provide access to an optional inlet damper.
- 6. Standard finish is AW Appliance White.

#### **OPTIONS:**

**CONTRACTOR:** 

EX EXB MIB EIC EQT Finish:	External Foil-Back Insulation, installed - R-4.2 External Foil-Back Insulation, ships loose - R-4.2 Molded Insulation Blanket - R-6.0 (24 x 24 only) Extended Inlet Collar (2.25") with bead Earthquake Tabs								
🖵 SP	Special. Specify								
QB Qua	drant Blanks:								
🖵 QB3	3-Way Blow								
QC2	2-Way Corner Blow 🛛 QB1 1-Way Blow								
Fineline®	is a registered trademark of USG Interiors Inc.								
SCHEDU	JLE TYPE:								
PROJEC	PROJECT:								
ENGINE	ENGINEER:								



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DATE

7 - 20 - 21

**B SERIES** 

UNI

SUPERSEDES DRAWING NO.

UNI2

10 - 29 - 19

# Nailor<sup>®</sup> Industries Inc.

## ARCHITECTURAL CEILING DIFFUSERS SQUARE PLAQUE • CONCEALED NECK BRACKETRY STEEL • ROUND NECK MODEL: UNI 20 x 20 MODULE

#### TYPE L Lay-in T-Bar



#### **Dimensional Data**

Ceiling M	odule CM	Imperial Unit	s (inches)	Metric Unit	s (mm)
Imperial Modules	Metric Modules	Duct Size D	В	Duct Size D	В
20 x 20	500 x 500	6, 8, 10	18 1/2	152, 203, 254	470

The 20 x 20 (500 x 500) module is only available with the Type L frame.

#### **DESCRIPTION:**

- 1. Material: Corrosion-resistant steel.
- 2. The UNI Diffuser has been designed to provide both the unobtrusive appearance for architectural excellence and engineered performance. Unique, concealed neck bracketry design is virtually invisible from a normal viewing position, giving the appearance that the plaque face floats below the backpan. There are no visible corner posts as on competitor's models to detract from the aesthetically clean design.
- 3. The diffuser delivers a tight 360° radial horizontal pattern allowing high turn down ratios with no dumping. Excellent for VAV systems.
- 4. The diffuser features a stamped one-piece outer-cone which eliminates mitered corners and a double skinned inner face panel with a hemmed edge for strength and a clean appearance.
- 5. A spring clip arrangement permits quick, easy installation and removal of the inner core assembly.
- 6. Standard finish is AW Appliance White.

#### **OPTIONS:**

- EX External Foil-Back Insulation, installed R-4.2
- EXB External Foil-Back Insulation, ships loose R-4.2
- □ EIC Extended Inlet Collar (2.25") with bead
- EQT Earthquake Tabs
- Finish:

SP Special. Specify \_\_\_\_\_.

- QB Quadrant Blanks:
- QB3 3-Way Blow
- QC2 2-Way Corner Blow
- QB2 2-Way Opposite Blow
- QB1 1-Way Blow

SCHEDULE TYPE:	Dimensions are in inches (mm)				
PROJECT:					
ENGINEER:	DATE	<b>B SERIES</b>	SUPERSEDES	DRAWING NO.	
CONTRACTOR:	4 - 20 - 17	UNI	1 - 24 - 17	UNI-2	

TYPE L Surface Mount Hard duct connection recommended. CM = CEILING MODULE CEILING OPENING = B CM - 1/4" (6) TYPE L Surface Mount With DFA Drywall/Plaster frame. Recommended for flexible duct connection and ceiling access CEILING OPENING = CM + 1/4" (6) → CM = CEILING MODULE -DFA FRAME CM - 1/4" (6) (ORDERED SEPARATELY) ¥

CM + 1 1/2" (38)



## ARCHITECTURAL DUAL INLET CEILING DIFFUSER CONDITIONED & VENTILATION AIR MIXING SQUARE PLAQUE • CORNER POSTS • ROUND NECK • STEEL MODEL: UNI2-DI

TYPE L Lay-in T-Bar





#### **Dimensional Data**

Ceiling	Ceiling Module Imperial Units (inches)							Metric Units (mm)									
Imperial Modules	Metric Modules	Cond. Duct Size D	Vent. O. A. Duct D2	N	E	F	A	в	с	Cond. Duct Size D	Vent. O. A. Duct D2	N	E	F	A	в	с
		8		44	3 7/8		0.5/10	00	0/0	203	100	070	98	<b>F</b> 4	50		10
04 × 04	600 v 600	10	4		2 7/8	2	2 5/16	22	3/8	254	102	279	73	51	59	559	10
24 X 24	600 x 600	12	c	14.0/4	5 1/8		0.5/10	00	3/8	305	152	375 130 105	130		50	<b>FFO</b>	10
		14		14 3/4	4 1/8	1 3/4	2 5/10	22		305			105	44	59	559	10

#### **DESCRIPTION:**

- 1. Material: Corrosion-resistant steel.
- 2. The UNI2-DI is a plaque diffuser that has two inlets. One from the main conditional air AHU and one from the Dedicated Outdoor Air System (DOAS). Utilizing the UNI2-DI within the entire space will allow for the required ventilation air and the conditioned air to be fully mixed and distributed evenly to all occupants.
- 3. The UNI2-DI is available with the following inlet size combinations. Conditioned air inlet: 8" (203), 10" (254) with 4" (102) OAI

#### 12" (305), 14" (356) with 6" (152) OAI

- 4. The UNI2-DI diffuser has been designed to provide both the unobtrusive appearance for architectural excellence and engineered performance.
- 5. The diffuser delivers a tight 360° radial horizontal pattern allowing high turn down ratios with no dumping.
- 6. The removable face panel is held in place by four hook corner posts that positively engage into slots in the backpan.
- 7. Standard finish is AW Appliance White.

# SCHEDULE TYPE: Page 1 of 2 PROJECT: Dimensions are in inches (mm). ENGINEER: DATE B SERIES SUPERSEDES DRAWING NO. CONTRACTOR: 11 - 3 - 23 UNI NEW UNI2-DI

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**OPTIONS:** 

Conditioned Air Damper:

- □ 4250 Radial Sliding
- 4275 Radial Opposed
- 4675 Butterfly
- OAB Outdoor Air Balancing damper with hand locking quadrant.
- QB Quadrant Blanks:
- QB3 3-Way Blow
- QC2 2-Way Corner Blow
- QB2 2-Way Opposite Blow
- QB1 1-Way Blow
- Finish:
- SP Special. Specify \_\_\_\_
- CVR Constant Volume Regulator (Order seperately. Ships loose for field installation.)



DFA

5/16" (8) t A

5/16" (8) V Ā

UNI2-DI

- FRAME (ORDERED SEPARATELY)



**Nailor**®

Industries Inc.



#### ARCHITECTURAL CEILING DIFFUSERS FOR HIGH HUMIDITY/LOW TEMPERATURE APPLICATIONS SQUARE PLAQUE • CORNER POSTS • INSULATION ROUND NECK MODELS: UNI2-HH. AUNI2-HH

TYPE L Lay-in T-Bar



#### **Dimensional Data**

С	М	Imperial Units (in	nches	)	Metric Units (mm)		
Imperial Modules	Metric Modules	Duct Size D	В	с	Duct Size D	В	С
24 x 24	600 x 600	6, 8, 10, 12, 14, 15	22	3/8	152, 203, 254, 305, 356, 381	559	10

#### STANDARD CONSTRUCTION:

- UNI2-HH Corrosion-resistant steel
- AUNI2-HH Aluminum

#### **DESCRIPTION:**

- 1. The diffuser provides condensation resistance, while delivering a tight 360° radial horizontal pattern allowing high turn down ratios with no dumping. Excellent for VAV systems.
- 2. The diffuser features a stamped one-piece outer-cone backpan which eliminates mitered corners. The backpan is covered with a foil faced R-6.0 molded insulation blanket which provides excellent condensation resistance. The inner face panel is backed by 3/8" (10) closed cell foam that insulates the plaque from cold supply air. The inner face panel features a hemmed edge for strength and a clean appearance. The hemmed edge also mechanically captures the hanger brackets. This design eliminates welding and assures a clean, smooth, blemish-free painted finish under all lighting conditions.
- 3. The face panel is held in place by four hook corner posts that positively engage into slots in the backpan. The panel can be removed from the backpan for diffuser installation and to provide access to an optional inlet damper.



Nailor Industries Inc. reserves the right to change any information concerning product or pricing without notice.



Hard duct connection recommended.

**TYPE L** Surface Mount



CM + 1 1/2" (38)

## ARCHITECTURAL CEILING DIFFUSERS SQUARE PLAQUE • HIGH INDUCTION CORNER POSTS • ROUND NECK MODELS: UNI2-HI, AUNI2-HI

#### TYPE L Lay-in T-Bar

**Nailor** 

Industries Inc.



#### **Dimensional Data**

C	М	Impe	erial Ur	nits (inch	ies)		Metric Units (mm)				
Imperial Modules	Metric Modules	Duct Size D	N	A	в	с	Duct Size D	N	A	В	с
24 x 24	600 x 600	6, 8, 10, 12, 14	1 1/4	2 5/16	22	3/8	152, 203, 254, 305, 356	32	59	559	10

## STANDARD CONSTRUCTION:

- UNI2-HI Corrosion-resistant steel
- AUNI2-HI Aluminum

#### **DESCRIPTION:**

- 1. The diffuser has been designed with an integral multi-port induction chamber to promote a high induction rate, rapidly mixing the supply air with the room air in order to eliminate drafts and provide improved thermal comfort.
- 2. The diffuser delivers a tight 360° radial horizontal pattern allowing high turn down ratios with no dumping. Excellent for VAV systems.
- 3. The diffuser features a stamped one-piece outer-cone backpan which eliminates mitered corners. The inner face panel features a hemmed edge for strength and a clean appearance. The hemmed edge also mechanically captures the hanger brackets. This design eliminates welding and assures a clean smooth blemish free painted finish under all lighting conditions.
- 4. The face panel is held in place by four hook corner posts that positively engage into slots in the backpan. The induction chamber is secured against the backpan with four mounting screws. The panel can be removed from the backpan for diffuser installation and to provide access to an optional inlet damper.
- 5. Standard finish is AW Appliance White.

#### **OPTIONS:**

Dampers: Finish: □ 4250 Radial Sliding Blade Damper SP Special. □ EIC Extended Inlet Collar (2.25") 4275 Radial Opposed Blade Damper Specify with bead (not available on □ 4675 Butterfly Damper AUNI2-HI) MIB Molded Insulation Blanket -□ EQT Earthquake Tabs R-6.0 SCHEDULE TYPE: Dimensions are in inches (mm).

PROJECT:			-	-
ENGINEER:	DATE	<b>B SERIES</b>	SUPERSEDES	DRAWING NO.
CONTRACTOR:	2 - 19 - 24	UNI	4 - 15 - 20	UNI2-HI

Drywall/Plaster frame. Recommended for flexible duct connection and ceiling access. CEILING OPENING = CM + 1/4" (6) → CM = CEILING MODULE -DFΔ CM - 1/4" (6) · - FRAMF (ORDERED SEPARATELY) CM + 1 1/2" (38) TYPE F Fineline<sup>®</sup> 9/16" Bolt Slot T-Bar - CM = CEILING MODULE → - CM - 1/4" (6) 5/16 (8) ¥ CM - 5/8" (16) 9/16" (14) TYPE F Fineline<sup>®</sup> 9/16" Tegular T-Bar - CM = CEILING MODULE -CM - 1/4" (6) 5/16" (8) ¥ CM - 5/8" (16) 9/16" (14)

TYPE L Surface Mount

- CM = CEILING MODULE

CEILING OPENING = B -

CM - 1/4" (6)

**TYPE L Surface Mount With DFA** 

Hard duct connection recommended.

## **ARCHITECTURAL CEILING DIFFUSERS** SQUARE PLAQUE • JET NOZZLE CORNER POSTS • ROUND NECK • STEEL **MODEL: UNI2-JN**

TYPE L Surface Mount

- CM = CEILING MODULE

CEILING OPENING = B -

CM - 1/4" (6)

CEILING OPENING = CM + 1/4" (6) →

CM + 1 1/2" (38)

CM = CEILING MODULE -

- CM - 1/4" (6)

CM - 5/8" (16)

CM - 1/4" (6)

TYPE F Fineline<sup>®</sup> 9/16" Bolt Slot T-Bar

9/16" (14) -

TYPE F Fineline<sup>®</sup> 9/16" Tegular T-Bar

CM = CEILING MODULE -

CM = CEILING MODULE -

CM - 1/4" (6) ·

**TYPE L Surface Mount With DFA** 

Drywall/Plaster frame. Recommended for flexible duct connection and ceiling access.

DFΔ

(ORDERED SÈPARATELY)

> 5/16' (8)

> > Ť

5/16"

(8)

¥

- FRAMF

Hard duct connection recommended.

TYPE L Lay-in T-Bar

**MN**Nailor<sup>®</sup>

Industries Inc.



#### **Dimensional Data**

C	M	Imper	ial Uni	ts (inche	s)		Metric Units (mm)				
Imperial Modules	Metric Modules	Duct Size D	N	Α	В	С	Duct Size D	Ν	Α	В	С
24 x 24	600 x 600	4, 5, 6, 7, 8	1 1/4	2 5/16	22	3/8	102, 127, 152, 178, 203	32	59	559	10

#### **DESCRIPTION:**

- 1. Material: Corrosion-resistant steel.
- 2. The UNI2-JN Diffuser is designed to optimize performance under low airflow. The jet nozzle chamber creates high velocity air jets, allowing for high throw with airflows under 100 CFM.
- 3. The diffuser delivers a tight 360° radial horizontal pattern allowing high turn down ratios with no dumping. Excellent for VAV systems.
- 4. The diffuser features a stamped one-piece outer-cone backpan which eliminates mitered corners. The inner face panel features a hemmed edge for strength and a clean appearance. The hemmed edge also mechanically captures the hanger brackets. This design eliminates welding and assures a clean smooth blemish free painted finish under all lighting conditions.
- 5. The face panel is held in place by four hook corner posts that positively engage into slots in the backpan. The induction chamber is secured against the backpan with four mounting screws. The panel can be removed from the backpan for diffuser installation and to provide access to an optional inlet damper.
- 6. Standard finish is AW Appliance White.

OPTIONS:				⊢ CM - 5/8" (	16)	
Dampers:	Finish:				3/10 (14)	
4250 Radial Sliding Blade Damper	🛛 SP	Special.				
4275 Radial Opposed Blade Damper		Specify	•			
4675 Butterfly Damper						
MIB Molded Insulation Blanket - R-6.0						
EIC Extended Inlet Collar (2.25") with bead						
EQT Earthquake Tabs						
SCHEDULE TYPE:				mensions are	in inches (m	um)
PROJECT:						
ENGINEER:			DATE	B SERIES	SUPERSEDES	DRAWING NO.
CONTRACTOR:			3 - 31 - 22	UNI	NEW	UNI2-JN



#### ARCHITECTURAL CEILING DIFFUSER FOR LOW TEMPERATURE APPLICATIONS SQUARE PLAQUE • CORNER POSTS HIGH INDUCTION • ROUND NECK MODELS: UNI2-LT, AUNI2-LT

#### **TYPE L Lay-in T-Bar**



#### **Dimensional Data**

СМ	Duct Size D	Ν	Α	В	С
24 x 24 (600 x 600)	4, 6, 8, 10 (102,152, 203, 254)	1 1/4 (32)	2 5/16 (59)	22 (559)	3/8 (10)

#### **STANDARD CONSTRUCTION:**

- UNI2-LT Corrosion-resistant steel
- AUNI2-LT Aluminum

#### **DESCRIPTION:**

- 1. The diffuser has an integral jet nozzle high induction chamber that rapidly mixes low temperature air jets with the room air. The design maintains throw at low airflows, eliminating drafts and providing high thermal comfort.
- 2. The diffuser delivers a tight 360° radial horizontal pattern allowing high turn down ratios with no dumping. Excellent for VAV systems.
- 3. The diffuser features a stamped one-piece outer-cone backpan which eliminates mitered corners. The inner face panel features a hemmed edge for strength and a clean appearance. The hemmed edge also mechanically captures the hanger brackets. This design eliminates welding and assures a clean smooth blemish free painted finish under all lighting conditions.
- 4. The face panel is held in place by four hook corner posts that positively engage into slots in the backpan.
- 5. Induction chamber internally insulated with 1/2" (13) fiber-free liner (closed cell foam) which meets requirement of NFPA 90A and UL181. Internal plaque face thermally protected with 3/8" (9.5) fiber-free liner. Diffuser backpan externally insulated with 1" (25) fiberglass with FSK foil face which meets requirement of NFPA 90A and UL181.

6. Standard finish is AW Appliance White.

#### **OPTIONS:**

Finish:

SP Special. Specify \_\_\_\_



SCHEDULE TYPE:							
PROJECT:	ווס		e in inches (m	nn).			
ENGINEER:	Dimensions are in inches (mm).           DATE         B SERIES         SUPERSEDES         DRA           2 - 16 - 24         UNI         3 - 11 - 21         UII		DRAWING NO.				
CONTRACTOR:	2 - 16 - 24	UNI	3 - 11 - 21	UNI2-LT			

CM - 1/4" (6) TYPE L Surface Mount With DFA Drywall/Plaster frame. Recommended for flexible duct connection and ceiling access. CEILING OPENING = CM + 1/4" (6) CM = CEILING MODULE -CM - 1/4" (6) · DFA FRAME (ORDERED SEPARATELY) TYPE F Fineline<sup>®</sup> 9/16" Bolt Slot T-Bar - CM = CEILING MODULE -CM - 1/4" (6) 5/16" (8) ¥ CM - 5/8" (16) 9/16" (14) TYPE F Fineline<sup>®</sup> 9/16" Tegular T-Bar - CM = CEILING MODULE -

TYPE L Surface Mount

CM = CEILING MODULE -

CEILING OPENING = B -

Hard duct connection recommended.



## Nailor<sup>®</sup> Industries Inc.

## ARCHITECTURAL CEILING DIFFUSERS SQUARE PLAQUE • CONCEALED NECK BRACKETRY CEILING TILE MOUNTING • STEEL • ROUND NECK MODEL: UNI WITH RC OPTION

TYPE L Surface Mount

CM = CEILING MODULE

CEILING OPENING = B -

CM - 1/4" (6)

CEILING OPENING = CM + 1/4" (6) →

Hard duct connection recommended.

TYPE L Surface Mount With DFA

Drywall/Plaster frame. Recommended for flexible duct connection and ceiling access

#### TYPE L Lay-in T-Bar



#### **Dimensional Data**

Ceiling M	odule CM	In	Metric Units (mm)										
Imperial Modules	Metric Modules	Duct Size D	N	Α	в	B C F		Duct Size D	N	A	В	с	F
12 x 12	300 x 300	4*	3 1/4	1	11	5/8		102*	83		279	16	330
		5, 6, 7, 8	1 1/4				13	127, 152, 178, 203	32	25			
24 x 24	600 x 600	6, 8, 10, 12, 14, 15	1 1/4	2 5/16	22	3/8	24 3/4	152, 203, 254, 305, 356, 381	32	59	559	10	629



#### **DESCRIPTION:**

- 1. Material: Corrosion-resistant steel.
- 2. The UNI Diffuser has been designed to provide both the unobtrusive appearance for architectural excellence and engineered performance. Unique, concealed neck bracketry design is virtually invisible from a normal viewing position, giving the appearance that the plaque face floats below the backpan. There are no visible corner posts as on competitor's models to detract from the aesthetically clean design.
- 3. The diffuser delivers a tight 360° radial horizontal pattern allowing high turn down ratios with no dumping. Excellent for VAV systems.
- 4. Stamped one-piece outer cone eliminates mitered corners. Inner diffuser plate is supplied with a retaining channel for mounting a ceiling tile up to 5/8" (16) thick for a unique custom appearance. Blends harmoniously with architectural ceiling design. The RC retaining channel is shipped separately for field installation of a ceiling tile that has been cut to size. The RC channel is supplied in two pieces with pop rivets for field assembly.
- 5. A spring clip arrangement permits quick, easy installation and removal of the inner core assembly.
- 6. Standard finish is AW Appliance White.

#### **OPTIONS:**

Dir

-			
		CF	Ceiling tile cut and factory mounted (supplied by others)
		ΕX	External Foil-Back Insulation, installed - R-4.2
		EXB	External Foil-Back Insulation, ships loose - R-4.2
		MIB	Molded Insulation Blanket - R-6.0 (24 x 24 only)
		EIC	Extended Inlet Collar (2.25") with bead
		EQT	Earthquake Tabs
	Fini	ish:	

#### SP Special. Specify \_

- QB Quadrant Blanks:
- QB3 3-Way Blow
- QC2 2-Way Corner Blow
   QB2 2-Way Opposite Blow

SCHEDULE TYPE:

**PROJECT:** 

**ENGINEER:** 

**CONTRACTOR:** 

nensions are in inches (mm).	Fineline <sup>®</sup> is a registered trademark of USG Interiors In





## ARCHITECTURAL CEILING DIFFUSERS SQUARE PLAQUE • CONCEALED NECK BRACKETRY ROUND NECK • STEEL • PANEL MOUNTED MODEL: UNI TYPE PL

#### TYPE PL Panel Mounted Lay-in T-Bar



#### Dimensional Data

Ceiling M	odule CM		Imperial U	nits (in	ches)			n)				
Imperial Modules	Metric Modules	Face Size	Duct Size D	N	Α	с	Face Size	Duct Size D	N	A	С	
			4*	3 1/4				102*	83			
20 x 20	500 x 500		5, 6, 7, 8	1 1/4				127, 152, 178, 203	32			
		12	4*	3 1/4			300	102*	83			
24 x 12	600 x 300	x 12	5, 6, 7, 8	1 1/4	1	5/8	x 300	127, 152, 178, 203	32	25	16	
	600 x 600			4*	3 1/4	]			102*	83		
24 x 24			5, 6, 7, 8	1 1/4				127, 152, 178, 203	32			
30 x 30	750 x 750	24	6, 8, 10, 12, 14, 15	1 1/4	0.5/40.0/0	600	152, 203, 254, 305, 356, 381	30	50	10		
48 x 24	48 x 24 1200 x 600		6, 8, 10, 12, 14, 15	1 1/4	2 3/10	5/0	600	152, 203, 254, 305, 356, 381	02	55	10	

\* Supplied with a reducer.

#### **DESCRIPTION:**

- 1. Material: Corrosion-resistant steel.
- 2. The UNI Diffuser has been designed to provide both the unobtrusive appearance for architectural excellence and engineered performance. Unique, concealed neck bracketry design is virtually invisible from a normal viewing position, giving the appearance that the plaque face floats below the backpan. There are no visible corner posts as on competitor's models to detract from the aesthetically clean design.
- The diffuser delivers a tight 360° radial horizontal pattern allowing high turn down ratios with no dumping. Excellent for VAV systems.
- 4. The diffuser features a stamped one-piece outer-cone which eliminates mitered corners and a double skinned inner face panel with a hemmed edge for strength and a clean appearance.
- 5. A spring clip arrangement permits quick, easy installation and removal of the inner core assembly.
- 6. Standard finish is AW Appliance White.

#### **OPTIONS:**

- EX External Foil-Back Insulation, installed R-4.2
- EXB External Foil-Back Insulation, ships loose R-4.2
- □ MIB Molded Insulation Blanket R-6.0 (24 x 24 only)
- EIC Extended Inlet Collar (2.25") with bead
- EQT Earthquake Tabs
- Finish:
- SP Special. Specify \_\_\_\_\_
- QB Quadrant Blanks:
- QB3 3-Way Blow
- QC2 2-Way Corner Blow
- QB2 2-Way Opposite Blow
- QB1 1-Way Blow

SCHEDULE TYPE:	Dimensions are in inches (mm)						
PROJECT:	Dimensions are in inches (mm).						
ENGINEER:	DATE B SERIES SUPERSEDES DRAW						
CONTRACTOR:	4 - 20 - 17	UNI	5 - 5 - 16	UNI-4			



#### ARCHITECTURAL CEILING DIFFUSERS SQUARE PLAQUE • CONCEALED NECK BRACKETRY CEILING TILE MOUNTING • ROUND NECK STEEL • PANEL MOUNTED MODEL: UNI TYPE PL WITH RC OPTION

#### TYPE PL Panel Mounted, Lay-in T-Bar with RC Retaining Channel for Ceiling Tile



#### **Dimensional Data**

l	Ceiling M	odule CM	Imperial Units (inches)						Metric Units (mm)						
	Imperial Modules	Metric Modules	Face Size	Duct Size D	N	Α	С	Face Size	Duct Size D	N	Α	с			
ſ				4*	3 1/4				102*	83					
	20 x 20 500 24 x 12 600	500 x 500		5, 6, 7, 8	1 1/4				127, 152, 178, 203	32					
ſ			12	4*	3 1/4	]		300	102*	83					
		600 x 300	x 12	5, 6, 7, 8	1 1/4	1	1 3/8	x 300	127, 152, 178, 203	32	25	35			
ſ		600 x 600					4*	3 1/4	1			102*	83		
	24 x 24		00 x 600	5, 6, 7, 8	1 1/4				127, 152, 178, 203	32					
	30 x 30	750 x 750	24	6, 8, 10, 12, 14, 15	1 1/4	2 5/16		600	152, 203, 254, 305, 356, 381	30	50	20			
ſ	48 x 24 1	48 x 24 1200 x 600		6, 8, 10, 12, 14, 15	1 1/4	2 3/10	11/0	600	152, 203, 254, 305, 356, 381	02	39	29			

\* Supplied with a reducer.

#### **DESCRIPTION:**

- 1. Material: Corrosion-resistant steel.
- 2. The UNI Diffuser has been designed to provide both the unobtrusive appearance for architectural excellence and engineered performance. Unique, concealed neck bracketry design is virtually invisible from a normal viewing position, giving the appearance that the plaque face floats below the backpan. There are no visible corner posts as on competitor's models to detract from the aesthetically clean design.
- The diffuser delivers a tight 360° radial horizontal pattern allowing high turn down ratios with no dumping. Excellent for VAV systems.
- 4. Stamped one-piece outer cone eliminates mitered corners. Inner diffuser plate is supplied with a retaining channel for mounting a ceiling tile up to 5/8" (16) thick for a unique custom appearance. Blends harmoniously with architectural ceiling design. The RC retaining channel is shipped separately for field installation of a ceiling tile that has been cut to size. The RC channel is supplied in two pieces with pop rivets for field assembly.

- 5. A spring clip arrangement permits quick, easy installation and removal of the inner core assembly.
- 6. Standard finish is AW Appliance White.

#### **OPTIONS:**

- □ CF Ceiling tile cut and factory mounted (supplied by others)
- EX External Foil-Back Insulation, installed R-4.2
- LEXB External Foil-Back Insulation, ships loose R-4.2
- □ MIB Molded Insulation Blanket R-6.0 (24 x 24 only)
- EIC Extended Inlet Collar (2.25") with bead
- EQT Earthquake Tabs
- Finish:
- SP Special. Specify \_\_\_\_\_
- QB Quadrant Blanks:
- QB3 3-Way Blow
- QC2 2-Way Corner Blow
- QB2 2-Way Opposite Blow
- QB1 1-Way Blow

SCHEDULE TYPE:	Dimensions are in inches (mm)							
PROJECT:								
ENGINEER:	DATE	DATE B SERIES SUPERSEDES DRAW						
CONTRACTOR:	4 - 20 - 17	UNI	5 - 5 - 16	UNI-5				

## ARCHITECTURAL CEILING DIFFUSERS SQUARE PLAQUE • CONCEALED NECK BRACKETRY ALUMINUM • ROUND NECK MODEL: AUNI

## TYPE L Lay-in T-Bar

**Nailor**®

Industries Inc.



#### **Dimensional Data**

Ceiling M	odule CM	Ir	nperia	l Units (	Metric Units (mm)								
Imperial Modules	Metric Modules	Duct Size D	N	Α	в	3 C F		Duct Size D	N	A	в	с	F
12 x 12	300 x 300	4*	3 1/4	1		5/8		102*	83			16	330
		5, 6, 7, 8	1 1/4		11		13	127, 152, 178, 203	32	25	279		
24 x 24	600 x 600	6, 8, 10, 12, 14, 15	1 1/4	2 5/16	22	3/8	N/A	152, 203, 254, 305, 356, 381	32	59	559	10	N/A

\* Supplied with a reducer.

## DESCRIPTION:

- 1. Material: Aluminum with corrosion-resistant steel neck bracketry.
- 2. The AUNI Diffuser has been designed to provide both the unobtrusive appearance for architectural excellence and engineered performance. Unique, concealed neck bracketry design is virtually invisible from a normal viewing position, giving the appearance that the plaque face floats below the backpan. There are no visible corner posts as on competitor's models to detract from the aesthetically clean design.
- The diffuser delivers a tight 360° radial horizontal pattern allowing high turn down ratios with no dumping. Excellent for VAV systems.
- 4. The diffuser features a stamped one-piece outer-cone which eliminates mitered corners and a double skinned inner face panel with a hemmed edge for strength and a clean appearance.
- 5. A spring clip arrangement permits quick, easy installation and removal of the inner core assembly.
- 6. Standard finish is AW Appliance White.

#### **OPTIONS:**

- EX External Foil-Back Insulation, installed R-4.2
- EXB External Foil-Back Insulation, ships loose R-4.2
- MIB Molded Insulation Blanket R-6.0 (24 x 24 only)
- EQT Earthquake Tabs
- Finish:
- SP Special. Specify \_
- QB Quadrant Blanks:
- QB3 3-Way Blow
- QC2 2-Way Corner Blow
- QB2 2-Way Opposite Blow
- QB1 1-Way Blow

Fineline<sup>®</sup> is a registered trademark of USG Interiors Inc.

SCHEDULE TYPE:	Dimensions are in inches (mm)				
PROJECT:					
ENGINEER:	DATE	<b>B SERIES</b>	SUPERSEDES	DRAWING NO.	
CONTRACTOR:	1 - 24 - 17	UNI	7 - 25 - 16	UNI-6	

CM = CEILING MODULE CEILING OPENING = B -CM - 1/4" (6) TYPE L Surface Mount With DFA Drywall/Plaster frame. Recommended for flexible duct connection and ceiling access CEILING OPENING = CM + 1/4" (6) → CM = CEILING MODULE DFA CM - 1/4" (6) FRAME (ORDERED SEPARATELY) CM + 1 1/2" (38) TYPE S Surface Mount (12 x 12 [305 x 305] module only) CM = CEILING MODULE CEILING OPENING = CM - 1" (25) -OVERALL = F TYPE F Fineline<sup>®</sup> CM = CEILING MODULE CM - 1/4" (6)

TYPE L Surface Mount

Hard duct connection recommended.



## ARCHITECTURAL CEILING DIFFUSERS SQUARE PLAQUE • CONCEALED NECK BRACKETRY ALUMINUM • ROUND NECK MODEL: AUNI 20 x 20 MODULE

#### TYPE L Lay-in T-Bar

**Nailor**<sup>®</sup>

Industries Inc.



#### **Dimensional Data**

Ceiling M	odule CM	Imperial Unit	s (inches)	Metric Units (mm)		
Imperial Modules	Metric Modules	Duct Size D	В	Duct Size D	В	
20 x 20	500 x 500	6, 8, 10	18 1/2	152, 203, 254	470	

The 20 x 20 (500 x 500) module is only available with the Type L frame.

#### **DESCRIPTION:**

- 1. Material: Aluminum with corrosion-resistant steel neck bracketry.
- 2. The AUNI Diffuser has been designed to provide both the unobtrusive appearance for architectural excellence and engineered performance. Unique, concealed neck bracketry design is virtually invisible from a normal viewing position, giving the appearance that the plaque face floats below the backpan. There are no visible corner posts as on competitor's models to detract from the aesthetically clean design.
- 3. The diffuser delivers a tight 360° radial horizontal pattern allowing high turn down ratios with no dumping. Excellent for VAV systems.
- 4. The diffuser features a stamped one-piece outer-cone which eliminates mitered corners and a double skinned inner face panel with a hemmed edge for strength and a clean appearance.
- 5. A spring clip arrangement permits quick, easy installation and removal of the inner core assembly.
- 6. Standard finish is AW Appliance White.

#### **OPTIONS:**

- EX External Foil-Back Insulation, installed R-4.2
- EXB External Foil-Back Insulation, ships loose R-4.2
- □ EQT Earthquake Tabs

Finish:

- Graduate Special Specify \_\_\_\_\_\_.
- QB Quadrant Blanks:
- QB3 3-Way Blow
- QC2 2-Way Corner Blow
- QB2 2-Way Opposite Blow
- QB1 1-Way Blow

SCHEDULE TYPE:	Dimensions are in inches (mm)			um)
PROJECT:	Dimensions are in inches (mm).			
ENGINEER:	DATE	<b>B SERIES</b>	SUPERSEDES	DRAWING NO.
CONTRACTOR:	1 - 24 - 17	UNI	3 - 17 - 16	UNI-7

TYPE L Surface Mount Hard duct connection recommended. CM = CEILING MODULE CEILING OPENING = B CM - 1/4" (6) CM - 1/4" (7) CM - 1/4" (

CM + 1 1/2" (38)



## SQUARE CEILING DIFFUSER WITH ROUND PLAQUE FACE ARCHITECTURAL • ROUND NECK • STEEL

TYPE L Surface Mount

CM = CEILING MODULE -

CEILING OPENING = B -

CM - 1/4" (6)

CEILING OPENING = CM + 1/4" (6) → CM = CEILING MODULE

CM - 1/4" (6)

Hard duct connection recommended.

TYPE L Surface Mount With DFA
 Drywall/Plaster frame. Recommended for

flexible duct connection and ceiling access

DFA

FRAME
 (ORDERED
 SEPARATELY)

MODEL: UNI-RP



C	CM Imperial Units (inches) Metric Ur			nits (	nits (mm)								
Imperial Modules	Metric Modules	Duct Size D	N	A	в	С	F	Duct Size D	N	Α	В	С	F
24 x 24	600 x 600	6, 8, 10, 12, 14, 15	1 1/4	2 5/16	22	3/8	24 3/4	152, 203, 254, 305, 356, 381	32	59	559	10	629

#### **DESCRIPTION:**

- 1. Material: Corrosion-resistant steel.
- 2. The UNI-RP Diffuser has been designed to provide both the unobtrusive appearance for architectural excellence and engineered performance. Unique neck bracketry is virtually invisible from a normal viewing position, giving the appearance that the plaque face floats below the backpan. There are no visible corner posts as on competitor's models to detract from the aesthetically clean design.
- The diffuser delivers a tight 360° radial horizontal pattern allowing high turn down ratios with no dumping. Excellent for VAV systems.
- 4. The diffuser features a stamped one-piece outer-cone which eliminates mitered corners and a round inner face panel with a clean appearance.
- 5. A spring clip arrangement permits quick, easy installation and removal of the inner core assembly.
- 6. Standard finish is AW Appliance White.

#### **OPTIONS:**

- EX External Foil-Back Insulation, installed R-4.2
- □ EXB External Foil-Back Insulation, ships loose R-4.2
- □ MIB Molded Insulation Blanket R-6.0 (24 x 24 only)
- EQT Earthquake Tabs
- Finish:
- □ SP Special. Specify QB Quadrant Blanks:
- QB3 3-Way Blow
- QC2 2-Way Corner Blow

SCHEDULE TYPE:

**CONTRACTOR:** 

PROJECT: ENGINEER:

QB2 2-Way Opposite Blow
 QB1 1-Way Blow

```
psite Blow Fineline® is a registered trademark of USG Interiors Inc.
Dimensions are in inches (mm).
```

![](_page_15_Figure_23.jpeg)

Nailor Industries Inc. reserves the right to change any information concerning product or pricing without notice.

DATE

1 - 24 - 17

**B SERIES** 

UNI

SUPERSEDES

3 - 11 - 16

DRAWING NO.

**UNI-RP** 

![](_page_16_Picture_0.jpeg)

## RADIAL SLIDING BLADE DAMPER STEEL • FOR ROUND NECK DIFFUSERS MODEL: 4250

![](_page_16_Figure_2.jpeg)

![](_page_17_Picture_0.jpeg)

## AIR BALANCING DEVICE RADIAL OPPOSED BLADE DAMPER STEEL • FOR ROUND NECK DIFFUSERS

MODEL: 4275 (5" - 16" DIA.)

## **DESCRIPTION:**

A unique method of controlling volume through a diffuser providing premium design quality and performance. The multi-blade perimeter design offers true radial flow at any setting.

A screwdriver slot, accessible through the diffuser, requires only a half turn to adjust from fully closed to fully open. The damper is designed to fit directly on the neck of the diffuser. Simple convenient and accurate installation and operation.

## **OPERATION:**

Size 5 through 8 are friction type. Use screwdriver and turn operator to adjust damper setting.

Size 10 through 16 use a detent mechanism to positively hold damper setting. Using screwdriver, lift up and turn operator to desired damper setting.

- 1. Material: Corrosion-resistant steel construction.
- 2. Damper mounts directly to diffuser collar.
- 3. Standard Finish: Mill.

![](_page_17_Picture_12.jpeg)

Nominal Size (inches)								No	minal S	Size (m	m)					
	5	6	8	10	12	14	15	16	127	152	203	254	305	356	381	406
Α	4 7/8	5 7/8	7 7/8	9 7/8	11 7/8	13 7/8	14 7/8	15 7/8	124	149	200	251	302	352	378	403
В	1 1/8	1 5/8	2 1/2	2 1/4	2 7/8	3 3/8	3 3/4	4 3/8	29	41	64	57	73	86	95	111
С	1 5/8 2 1/2				41 64				4							

SCHEDULE TYPE:	Dimensions are in inches (mm).			
PROJECT:				
ENGINEER:	DATE	<b>B SERIES</b>	SUPERSEDES	DRAWING NO.
CONTRACTOR:	8 - 29 - 05	ABD	3 - 1 - 02	ABD-4275-1

![](_page_18_Picture_0.jpeg)

## AIR BALANCING DEVICE BUTTERFLY DAMPER STEEL • FOR ROUND NECK DIFFUSERS MODEL: 4675

![](_page_18_Picture_2.jpeg)

![](_page_18_Picture_3.jpeg)

## **DESCRIPTION:**

SCHEDULE TYPE:

**The Model 4675 Butterfly Damper** is an economical damper for volume balancing in round neck diffusers. Adjustable friction pivots hold the blades at the required setting.

- 1. Material: Corrosion-resistant steel. Mill finish.
- 2. The 4675 damper mounts directly to diffuser collar. Not compatible with Model Series RNSA, RNR, RNRA1, 6300 or 6300R diffusers.
- 3. Screwdriver slot operator is adjustable from the face of the diffuser.

Nominal Size (inches)						Nominal Size (mm)				
	6	8	10	12	14	152	203	254	305	356
Α	5 7/8	7 7/8	9 7/8	11 7/8	13 7/8	149	200	251	302	352
В	2 1/2	3 1/2	4 1/2	5 1/2	6 1/2	64	89	114	140	165

![](_page_18_Figure_10.jpeg)

PROJECT:				,
ENGINEER:	DATE	<b>B SERIES</b>	SUPERSEDES	DRAWING NO.
CONTRACTOR:	11 - 14 - 08	ACC.DIF.	5 - 28 - 08	ABD-4675

![](_page_19_Picture_0.jpeg)

## MOLDED INSULATION BLANKET CEILING DIFFUSER ACCESSORY 24" x 24" MODULE FOR CEILING DIFFUSERS MODEL/ACCESSORY: MIB

![](_page_19_Figure_2.jpeg)

![](_page_19_Picture_3.jpeg)

#### **DESCRIPTION:**

- 1. One piece molded fiberglass insulation blanket with foil back vapour barrier. 6.0 R-value.
- Pre-scored plenum 6", 8", 10", 12" or 14" (152, 203, 254, 305 or 356) dia. for field cutting.
- 3. The Nailor Model MIB fits over the backpan of most full face 24" x 24" diffusers and provides thermal protection to reduce the risk of condensation forming on the diffuser face.

Compatible models include RNS, RNS2, RNS3, UNI, 6200, 6400, 6500 and 4320 series.

- 4. The Nailor Model MIB: resists ageing, thermal shock, is incombustible, immune to rot, corrosion, oxidation and insects.
- 5. Tested in compliance with surface burning characteristics (ASTM E-84) and erosion test (UL 181).
- 6. Standard finish has a black interior.

SCHEDULE TYPE:	Dimensions are in inches (mm)			
PROJECT:				
ENGINEER:	DATE	<b>B SERIES</b>	SUPERSEDES	DRAWING NO.
CONTRACTOR:	1 - 16 - 17	MIB	2 - 1 - 11	MIB-1

![](_page_20_Picture_0.jpeg)

QUADRANT BLANKS FOR MODELS UNI AND AUNI ROUND NECK PLAQUE DIFFUSERS CEILING DIFFUSER ACCESSORY MODEL/ACCESSORY: 4695/QB

![](_page_20_Picture_2.jpeg)

![](_page_20_Picture_3.jpeg)

## Quadrant Blanks

4695 QB for Models UNI, AUNI Round Neck Plaque Diffusers

QB3	3-Way Blow
QB2	2-Way Blow
QC2	2-Way Corner Blow
QB1	1-Way Blow

Model 4695 Quadrant Blanks are specifically designed for use with the UNI Series Square Plaque Ceiling Diffusers. The Quadrant Blanks are constructed of aluminum and the "notched" appearance of the flange features pre-cut grooves that form around the concealed neck bracketry in the diffuser to provide 1, 2, or 3way discharge as required. The Quadrant Blanks are available for all neck sizes, (to blank-off areas greater than 90° [3-way blow], multiple quantities must be ordered. 2-way blow requires a quantity of two and 1-way blow requires a quantity of three, per diffuser. Quadrant blanks are shipped loose from the factory for trouble-free installation in the field [by others]).

\*\*Nailor recommends that ALL Quadrant Blanks are affixed prior to installation of the diffuser\*\*

#### Pre-Installation (Required Items)

- 1. Protective eyewear or safety glasses
- 2. Pair of work gloves
- 3. Flat Head Screwdriver (UNI & UNI2 models)

#### Installation Instructions

- 1. A Quadrant Blank is a notched aluminum flange that is shipped loose from the factory and installed in the field (by others).
- 2. Prior to installation, gently bend the center of the Quadrant Blank flange to 90°, additionally bending the end notches to 90° for trouble-free installation.
- 3. Once the Quadrant Blank flange is formed properly, position the flange behind the neck bracketry, closest to the round inlet (in the desired location for directional blow). Prior to fastening into place, make sure that the flange is even on both sides of the neck bracketry and flush to the bottom of the backpan.
- 4. Installing one side at a time, form the end of the notch around the neck bracketry (once completed, repeat on the opposite side).

**Note:** To prevent excessive wear to the Quadrant Blanks, do not bend repeatedly!

SCHEDULE TYPE:	Dimensions are in inches (mm).			
PROJECT:				
ENGINEER:	DATE	<b>B SERIES</b>	SUPERSEDES	DRAWING NO.
CONTRACTOR:	7 - 29 - 16	QB	NEW	QB-1

![](_page_21_Picture_0.jpeg)

## QUADRANT BLANKS FOR MODELS UNI2 AND AUNI2 SQUARE PLAQUE DIFFUSERS CEILING DIFFUSER ACCESSORY MODEL/ACCESSORY: 4693/QB

![](_page_21_Picture_2.jpeg)

![](_page_21_Picture_3.jpeg)

#### Quadrant Blanks

4693 for Models UNI2, AUNI2 Square Plaque Diffusers

QB3	3-Way Blow
QB2	2-Way Blow
QC2	2-Way Corner Blow
QB1	1-Way Blow

Model 4693 Quadrant Blanks are designed specifically for use with the UNI2 Series Square Plaque Ceiling Diffusers. The Quadrant Blanks are constructed of an aluminum T-shaped flange that forms around the corner post bracketry, providing 1, 2, or 3-way discharge as required. Quadrant Blanks are available in all neck sizes, (to blank-off areas greater than 90° [3-way blow], multiple quantities must be ordered. 2-way blow requires a quantity of two and 1-way blow requires a quantity of three per diffuser. Quadrant Blanks are shipped loose from the factory for trouble-free installation in the field by others).

\*\*Nailor recommends that ALL Quadrant Blanks are affixed prior to installation of the diffuser\*\*

#### **Required Items**

- 1. Protective eyewear or safety glasses
- 2. Pair of work gloves
- 3. Flat Head Screwdriver (UNI & UNI2 models)

#### Installation Instructions

- 1. The Quadrant Blank is shipped loose from the factory and shall be installed in the field (by others).
- 2. Prior to installation, position and center the T-shaped flange on the outside of the corner posts so that the extension ears are on top and the base of the flange is on the bottom, resting flush against the back of the plaque face. Flange ears shall be equal distance apart before folding around the corner post bracketry.
- 3. Carefully bend one side of the flange ears around the corner post bracketry (repeat on the opposite side of the post).
- 4. If installed properly, the base of the flange shall rest flush against the plaque face, ensuring that the airflow is restricted in that area. The ears of the flange shall be securely fastened around the corner post bracketry, equal distance apart on both sides, nearly touching the center of the corner post.

**Note:** To prevent excessive wear to the Quadrant Blanks, do not bend repeatedly!

SCHEDULE TYPE:	וֹם	monsions ar	a in inches (m	um)	
PROJECT:	Dimensions are in inches (mm).				
ENGINEER:	DATE	<b>B SERIES</b>	SUPERSEDES	DRAWING NO.	
CONTRACTOR:	1 - 16 - 17	QB	7 - 29 - 16	QB-2	

![](_page_22_Picture_0.jpeg)

Nailor offers a selection of standard

colors and finishes available on our

grilles, registers and diffusers. For

painted finishes, our state-of-the-art

paint systems provide environmentally

friendly finishing solutions with uniform

coverage and coating thickness. The

result is an exceptionally durable finish

that resists scratching, corrosion and

general wear. Additional facilities

for special requirements, as well as

a selection of anodized or brushed

finishes, complete our ability to provide

unmatched beauty and durability for

NAILOR POWDER COAT PROPERTIES

2.0 to 3.0 mils

2 H

Direct: 160 inch - lbs.

Reverse 160 inch - lbs.

1000 hours

.8 to 1.2 mils

HB TO H

80 inch - lbs

100 hours

any application.

**FILM THICKNESS** 

HARDNESS

IMPACT

RESISTANCE

SALT SPRAY

FILM THICKNESS

HARDNESS

IMPACT

RESISTANCE

SALT SPRAY

200 - 212 - 202 - 202 Ref. - 212 - 202 - 202 - 202 Ref. - 212 - 202 - 202 - 202 - 202

ELECTROCOATING PROPERTIES

## STANDARD AND OPTIONAL FINISHES FOR GRILLES AND DIFFUSERS

## POWDER COAT

Nailor's powder coat is a high-tech thermosetting polyester powder coating with superior physical properties that provide excellent color and gloss retention. The finish offers extreme durability and hardness that resists scratching, chipping and general wear. Surface preparation includes degreasing and a chemical cleaning followed by a clean rinse before a final powder coat finish is applied and baked. The environmentally friendly Nailor powder coat system assures uniform coverage and color consistency resulting in a long lasting superior finish. Colors, including simulated anodizing, which is far more economical than color anodizing, can be selected from Nailor's standard color chart or non-standard colors and can be matched from sample chips provided to Nailor.

#### **ELECTROCOATING**

E-Coat is an environmentally friendly coating that provides complete coverage and a wide range of performance properties, formulated to meet corrosion, durability and other performance specifications. Electrocoating is a highly automated process in which paint is electrically deposited onto a metal foundation. Film build thickness is uniform and overall application efficiencies are in excess of 90%. Paint is consistent on all part-to-part surfaces, preventing sags, runs or drips. E-Coat offers flexibility, better first yield pass and quicker production times compared to other forms of paint applications. Electrocoating is an excellent solution that offers superior properties and uniform finish.

#### **CLEAR ANODIZING** (Aluminum products only)

Clear anodizing is a clear oxide coating that exemplifies an aluminum surface's natural oxide coating producing a hard, scratch resistant surface that is resistant to general wear and mild chemicals. The process provides a natural looking, virtually maintenance free finish that will endure for many years.

#### **COLOR ANODIZING** (Aluminum products only)

Color anodizing is an electrolytic process where, after standard anodizing procedures, colored metallic pigments penetrate the oxide surface pores producing a corrosion resistant, colorfast finish. The process results in a natural metallic appearance that requires little maintenance.

#### **BRUSHED AND CLEAR COAT**

Available on specific aluminum products (consult applicable product page for availability). Surface is brushed to achieve a scratch finish texture before being degreased and chemically cleaned. A clear lacquer coating is then applied to provide a durable protective finish.

#### #4 BRUSHED SATIN POLISHED (Stainless Steel products only)

Surface is polished to ASTM A480 #4 standard to achieve a bright durable finish that is resistant to mild chemicals and corrosion. A final coating is not required due to the inherent anti-corrosion properties of the stainless steel.

#### PRIME COAT

Prime coat provides a stable base for painting in the field. Surface pretreatment includes degreasing and a chemical cleaning before an alkyd prime coat is applied. After a thorough cleaning for dust, etc. that can contaminate the final finish and cause premature flaking or peeling, finish coat should be field applied as soon as possible.

## PAINT PREPARED ALUMINUM (Aluminum products only)

Allows for field applied paint. Surface preparation includes degreasing and a chemical cleaning followed by a clean rinse. Finish coat should be field applied as soon as possible.

#### **MILL FINISH**

Surface is left untreated and requires cleaning, degreasing, etc. in the field before final finish can be applied if required.

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![](_page_23_Picture_0.jpeg)

## STANDARD AND OPTIONAL FINISHES FOR GRILLES AND DIFFUSERS

The following standard colors and finishes are available on applicable Nailor air distribution products. Consult individual product pages for availability

![](_page_23_Picture_3.jpeg)

The pictured finishes have been represented as best as possible within printing limitations. However, actual finish may vary. Contact your Nailor representative for a color chip sample on the material specified for a more accurate representation.

DBK - Black (for registers ordered with factory mounted dampers) - BA - Perforated Diffusers (4300 series only) Appliance White (AW) face with black back pan and pattern controllers.

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## ARCHITECTURAL SQUARE CEILING DIFFUSERS

## **PERFORMANCE DATA:**

## Models UNI and AUNI • 12 x 12 (300 x 300) Face Size • 4-way Blow (360° Pattern)

			-				-	-			
Nominal	Neck Velocity, FPM	400	500	600	700	800	900	1000	1200	1400	1600
Neck Size	Velocity Pressure	.010	.016	.023	.031	.040	.051	.063	.090	.122	.160
	Total Pressure	.023	.036	.051	.070	.091	.115	.142	.205	.279	.364
4"	Airflow, CFM	35	45	50	60	70	80	85	105	120	140
Dia.	Throw	1-2-3	1-2-4	2-2-5	2-3-6	2-3-6	2-4-7	3-4-7	3-5-7	4-6-7	5-7-8
	Noise Criteria	—	—	—	13	17	21	24	30	35	40
	Total Pressure	.027	.043	.061	.083	.109	.138	.170	.245	.334	.436
5"	Airflow, CFM	55	70	80	95	110	125	135	165	190	220
Dia.	Throw	2-2-4	2-3-5	2-3-6	3-4-7	3-5-8	4-6-9	4-7-9	4-8-10	5-8-10	6-9-11
	Noise Criteria	—	—	—	14	18	22	25	31	36	41
	Total Pressure	.033	.052	.074	.101	.131	.166	.205	.295	.402	.525
6"	Airflow, CFM	80	100	120	140	160	180	200	235	275	315
Dia.	Throw	2-3-5	3-4-6	3-5-7	4-5-8	5-6-9	5-7-10	5-8-10	6-9-11	7-10-12	7-10-13
	Noise Criteria	—	—	10	15	19	23	26	32	37	42
	Total Pressure	.056	.089	.127	.172	.225	.285	.352	.506	.689	.900
7"	Airflow, CFM	105	135	160	190	215	240	265	320	375	430
Dia.	Throw	3-4-6	3-5-7	4-6-9	4-7-10	5-8-10	6-8-11	6-9-12	7-10-13	8-11-14	9-12-15
	Noise Criteria	—	_	11	16	20	24	27	33	38	43
	Total Pressure	.067	.105	.160	.205	.268	.340	.418	.600	.821	1.070
8"	Airflow, CFM	140	175	210	245	280	315	350	420	490	560
Dia.	Throw	3-5-7	4-6-9	5-7-10	6-8-11	6-9-12	7-9-13	7-10-14	8-11-15	9-12-16	9-12-17
	Noise Criteria	_	_	12	17	21	25	28	34	39	44

## Models UNI and AUNI • 20 x 20 (500 x 500) Face Size • 4-way Blow (360° Pattern)

Nominal	Neck Velocity, FPM	400	500	600	700	800	900	1000	1200	1400	1600
Neck Size	Velocity Pressure	.010	.016	.023	.031	.040	.051	.063	.090	.122	.160
	Total Pressure	.014	.021	.031	.042	.055	.070	.086	.124	.168	.220
6"	Airflow, CFM	80	100	120	140	160	180	200	235	275	315
Dia.	Throw	1-3-5	2-3-4	2-4-5	2-4-6	2-5-6	3-4-7	3-5-8	4-6-9	4-6-10	5-6-10
	Noise Criteria	—	—	—	—	14	18	22	28	34	39
	Total Pressure	.019	.029	.042	.057	.074	.094	.116	.167	.227	.296
8"	Airflow, CFM	140	175	210	245	280	315	350	420	490	560
Dia.	Throw	2-2-4	2-3-5	2-3-7	3-4-8	3-5-9	4-6-9	5-7-10	6-8-11	7-9-12	8-10-13
	Noise Criteria	—	—	—	13	18	22	26	32	38	43
	Total Pressure	. 031	.049	.071	.096	.126	.159	.196	.283	.385	.503
10"	Airflow, CFM	220	270	330	380	435	490	545	655	765	875
Dia.	Throw	3-4-7	3-5-9	3-5-10	4-6-12	5-7-13	6-8-12	7-9-14	8-11-15	10-12-17	11-13-18
	Noise Criteria	_	_	10	16	21	25	29	35	41	46

#### **Performance Notes:**

1. Throws are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions.

2. All pressures are in inches w.g.. To obtain static pressure, subtract the velocitiy pressure from the total pressure.

3. Return Applications:

Use the following correction factors with the supply data.

Noise Criteria = + 3 Noise Criteria (NC)

Negative Static Pressure = Total Pressure x .45

4. Noise Criteria (NC) values are based upon 10dB room absorption, re 10<sup>-12</sup> watts. Dash (—) in space indicates an Noise Criteria of less than 10.

5. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

Neck Size Diameter in Inches	Nominal Overall Face Size	Ak Factor
6	12 x 12	.105
8	12 x 12	.129
6	24 x 24	.206
8	24 x 24	.248
10	24 x 24	.315
12	24 x 24	.384
14	24 x 24	.437
15	24 x 24	.485

## Models UNI and AUNI • 24 x 24 (600 x 600) Face Size • 4-way Blow (360° Pattern)

Nominal	Neck Velocity, FPM	400	500	600	700	800	900	1000	1200	1400	1600
Neck Size	Velocity Pressure	.010	.016	.023	.031	.040	.051	.063	.090	.122	.160
	Total Pressure	.010	.020	.030	.041	.053	.068	.084	.120	.164	.214
6"	Airflow, CFM	80	100	120	140	160	180	200	235	275	315
Dia.	Throw	1-3-4	1-3-4	2-4-5	2-4-6	2-5-6	3-4-7	3-5-8	4-6-9	4-6-10	5-6-10
	Noise Criteria	_		—	—	14	18	22	28	34	39
	Total Pressure	.018	.028	.037	.056	.072	.092	.112	.162	.220	.288
8"	Airflow, CFM	140	175	210	245	280	315	350	420	490	560
Dia.	Throw	2-2-4	2-3-5	2-3-7	3-4-8	3-5-9	4-6-9	5-7-10	6-8-11	7-9-12	8-10-13
	Noise Criteria	_		—	13	18	22	26	32	38	43
	Total Pressure	.031	.048	.069	.093	.122	.155	.191	.275	.375	.489
10"	Airflow, CFM	220	270	330	380	435	490	545	655	765	870
Dia.	Throw	3-4-7	3-5-9	3-5-10	4-6-12	5-7-13	5-8-12	7-9-14	8-11-15	10-12-17	11-13-18
	Noise Criteria	_	_	10	16	21	25	29	35	41	46
	Total Pressure	.040	.063	.090	.123	.161	.203	.251	.361	.492	.643
12"	Airflow, CFM	315	390	470	550	630	705	785	940	1100	1255
Dia.	Throw	4-5-10	4-7-13	5-8-14	7-9-16	8-11-17	8-12-17	10-14-19	11-15-20	14-17-23	16-18-25
	Noise Criteria	_		13	19	24	28	32	38	44	49
	Total Pressure	.054	.083	.120	.163	.214	.270	.334	.481	.655	.855
14"	Airflow, CFM	425	530	635	745	850	955	1060	1270	1490	1695
Dia.	Throw	5-7-14	6-9-16	7-11-18	10-13-20	11-15-23	11-17-23	14-19-26	16-21-28	19-22-31	20-24-33
	Noise Criteria	—	_	15	21	26	30	34	40	46	51
	Total Pressure	.065	.102	.147	.200	.260	.330	.408	.588	.799	1.044
15"	Airflow, CFM	490	615	735	860	985	1110	1230	1470	1720	1970
Dia.	Throw	6-9-17	7-11-19	9-13-21	11-16-24	14-19-26	14-20-27	16-21-30	19-24-33	23-26-35	23-27-38
	Noise Criteria	_	_	16	22	27	31	35	41	47	52

#### **Performance Notes:**

1. Throws are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions.

2. All pressures are in inches w.g.. To obtain static pressure, subtract the velocitiy pressure from the total pressure.

3. Return Applications:

Use the following correction factors with the supply data.

Noise Criteria = + 3 Noise Criteria (NC)

Negative Static Pressure = Total Pressure x .45

4. Noise Criteria (NC) values are based upon 10dB room absorption, re 10<sup>-12</sup> watts. Dash (—) in space indicates an Noise Criteria of less than 10.

5. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

Neck Size Diameter in Inches	Nominal Overall Face Size	Ak Factor
6	12 x 12	.105
8	12 x 12	.129
6	24 x 24	.206
8	24 x 24	.248
10	24 x 24	.315
12	24 x 24	.384
14	24 x 24	.437
15	24 x 24	.485

D

## Models UNI and AUNI • 12 x 12 (300 x 300) Face Size • 3-way Blow

Nominal	Neck Velocity, FPM	300	400	500	600	700	800	900	1000	1200	1400
Neck Size	Velocity Pressure	.006	.010	.016	.023	.031	.040	.051	.063	.090	.122
	Total Pressure	.035	.061	.096	.138	.188	.245	.311	.383	.529	.725
6"	Airflow, CFM	60	80	100	120	140	160	180	200	235	275
Dia.	Throw	2-4-6	3-6-9	5-7-9	5-8-10	6-9-12	7-9-13	7-10-14	8-11-15	8-12-16	9-13-17
	Noise Criteria	_	_	12	18	23	27	31	34	40	45
	Total Pressure	.076	.135	.211	.304	.414	.540	.684	.844	1.215	1.654
8"	Airflow, CFM	105	140	175	210	245	280	315	350	420	490
Dia.	Throw	3-5-7	5-7-10	5-8-11	6-9-12	7-10-13	7-10-14	8-11-15	9-12-16	9-12-17	10-13-18
	Noise Criteria	—	_	14	20	25	29	33	36	42	47

## Models UNI and AUNI • 24 x 24 (600 x 600) Face Size • 3-Way Blow

Nominal	Neck Velocity, FPM	300	400	500	600	700	800	900	1000	1200	1400
Neck Size	Velocity Pressure	.006	.010	.016	.023	.031	.040	.051	.063	.090	.122
	Total Pressure	.010	.018	.028	.041	.055	.072	.091	.113	.155	.213
6"	Airflow, CFM	60	80	100	120	140	160	180	200	235	275
Dia.	Throw	1-3-4	1-3-4	2-4-5	2-5-6	3-4-7	4-5-8	4-6-9	4-6-10	5-6-10	6-7-11
	Noise Criteria	_	_	_	11	17	22	26	30	36	42
	Total Pressure	.016	.028	.043	.062	.085	.111	.140	.173	.249	.339
8"	Airflow, CFM	105	140	175	210	245	280	315	350	420	490
Dia.	Throw	2-2-4	2-3-6	3-4-8	3-5-8	4-6-9	5-7-10	6-8-11	7-9-12	8-10-13	9-11-14
	Noise Criteria	_	_	_	15	21	26	30	34	40	46
	Total Pressure	.032	.057	.085	.127	.169	.221	.281	.347	.501	.684
10"	Airflow, CFM	165	220	270	330	380	435	490	545	655	765
Dia.	Throw	3-4-7	3-5-9	4-6-10	5-7-11	5-8-12	7-10-13	8-11-15	9-12-16	11-13-18	12-14-19
	Noise Criteria	_		—	18	24	29	33	37	43	49
	Total Pressure	.043	.077	.118	.171	.235	.308	.386	.478	.686	.939
12"	Airflow, CFM	235	315	390	470	550	630	705	785	940	1100
Dia.	Throw	4-5-10	5-7-13	6-9-15	8-11-17	9-13-18	10-14-19	11-15-20	13-16-22	16-18-25	18-21-28
	Noise Criteria	—	—	12	21	27	32	36	40	46	52
	Total Pressure	.060	.106	.165	.237	.326	.425	.536	.661	.949	1.306
14"	Airflow, CFM	320	425	530	635	745	850	955	1060	1270	1490
Dia.	Throw	5-7-14	6-9-16	9-12-19	11-15-23	12-18-24	14-19-26	16-21-28	19-21-30	20-24-33	21-26-35
	Noise Criteria	—		14	23	29	34	38	42	48	54
	Total Pressure	.074	.130	.205	.293	.401	.526	.668	.820	1.172	1.604
15"	Airflow, CFM	370	490	615	735	860	985	1110	1230	1470	1720
Dia.	Throw	6-9-17	8-12-20	11-16-24	14-19-26	14-20-27	17-22-31	19-24-33	22-25-35	23-27-38	24-29-40
	Noise Criteria	-	_	15	24	30	35	39	43	49	55

#### **Performance Notes:**

1. Throws are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions.

2. All pressures are in inches w.g.. To obtain static pressure, subtract the velocitiy pressure from the total pressure.

3. Noise Criteria (NC) values are based upon 10dB room absorption, re 10<sup>-12</sup> watts. Dash (—) in space indicates an Noise Criteria of less than 10.

4. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

Neck Size Diameter in Inches	Nominal Overall Face Size	Ak Factor
6	12 x 12	.079
8	12 x 12	.098
6	24 x 24	.155
8	24 x 24	.186
10	24 x 24	.236
12	24 x 24	.288
14	24 x 24	.328
15	24 x 24	.364

## Models UNI and AUNI • 12 x 12 (300 x 300) Face Size • 2-way Blow

Nominal	Neck Velocity, FPM	200	300	400	500	600	700	800	900	1000	1200
Neck Size	Velocity Pressure	.003	.006	.010	.016	.023	.031	.040	.051	.063	.090
	Total Pressure	.032	.071	.126	.198	.284	.387	.506	.640	.790	1.091
6"	Airflow, CFM	40	60	80	100	120	140	160	180	200	235
Dia.	Throw	2-4-6	4-6-9	5-8-10	6-9-12	7-9-13	8-11-15	8-12-16	9-12-17	9-13-18	10-13-19
	Noise Criteria	—	—	16	22	25	30	34	38	41	47
	Total Pressure	.074	.166	.294	.460	.662	.902	1.178	1.491	1.840	2.650
8"	Airflow, CFM	70	105	140	175	210	245	280	315	350	420
Dia.	Throw	3-5-7	5-7-10	6-9-12	7-10-14	8-11-15	9-12-16	9-12-17	10-12-18	10-13-19	11-14-20
	Noise Criteria	—	11	18	24	27	32	36	40	43	49

## Models UNI and AUNI • 24 x 24 (600 x 600) Face Size • 2-Way Blow

Nominal	Neck Velocity, FPM	300	400	500	600	700	800	900	1000	1200	1400
Neck Size	Velocity Pressure	.006	.010	.016	.023	.031	.040	.051	.063	.090	.122
	Total Pressure	.007	.016	.028	.043	.063	.085	.111	.141	.174	.240
6"	Airflow, CFM	40	60	80	100	120	140	160	180	200	235
Dia.	Throw	1-3-4	2-4-5	2-5-6	3-4-7	4-6-9	4-6-10	5-6-10	6-7-11	6-8-12	7-9-13
	Noise Criteria	_	_	_	12	18	24	29	33	37	43
	Total Pressure	.013	.028	.050	.078	.113	.153	.200	.253	.313	.450
8"	Airflow, CFM	70	105	140	175	210	245	280	315	350	420
Dia.	Throw	2-2-4	2-3-7	3-5-9	5-7-9	6-8-11	7-9-12	8-10-13	9-11-14	10-12-15	11-13-17
	Noise Criteria	_	_	—	16	22	28	33	37	41	47
	Total Pressure	.029	.065	.115	.174	.259	.344	.451	.572	.707	1.022
10"	Airflow, CFM	110	165	220	270	330	380	435	490	545	655
Dia.	Throw	3-4-7	3-5-10	5-7-13	7-9-14	8-11-15	10-12-17	11-13-18	11-14-18	12-15-19	13-17-22
	Noise Criteria	_	_	12	19	25	31	36	41	44	50
	Total Pressure	.042	.09	.162	.248	.36	.493	.647	.811	1.005	1.441
12"	Airflow, CFM	160	235	315	390	470	550	630	705	785	940
Dia.	Throw	4-5-10	5-8-14	8-11-17	10-14-19	11-15-20	14-17-23	16-18-25	16-19-25	18-21-27	19-22-29
	Noise Criteria	—	—	15	22	28	34	39	43	47	53
	Total Pressure	.056	.130	.229	.356	.511	.704	.916	1.156	1.425	2.045
14"	Airflow, CFM	210	320	425	530	635	745	850	955	1060	1270
Dia.	Throw	5-7-14	7-11-18	11-15-23	14-19-26	16-21-28	19-22-31	20-24-33	20-26-33	23-28-36	25-30-38
	Noise Criteria	—	_	17	24	30	36	41	45	49	55
	Total Pressure	.071	.161	.283	.446	.637	.872	1.144	1.453	1.784	2.548
15"	Airflow, CFM	245	370	490	615	735	860	985	1110	1230	1470
Dia.	Throw	6-9-17	9-13-21	14-19-26	16-21-30	19-24-33	23-26-35	23-27-38	23-28-39	25-29-42	28-31-42
	Noise Criteria	_	10	18	25	31	37	42	46	50	56

#### **Performance Notes:**

1. Throws are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions.

2. All pressures are in inches w.g.. To obtain static pressure, subtract the velocitiy pressure from the total pressure.

3. Noise Criteria (NC) values are based upon 10dB room absorption, re 10<sup>-12</sup> watts. Dash (—) in space indicates an Noise Criteria of less than 10.

4. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

Neck Size Diameter in Inches	Nominal Overall Face Size	Ak Factor
6	12 x 12	.053
8	12 x 12	.065
6	24 x 24	.103
8	24 x 24	.124
10	24 x 24	.158
12	24 x 24	.192
14	24 x 24	.219
15	24 x 24	.243

## ARCHITECTURAL SQUARE CEILING DIFFUSERS

## **PERFORMANCE DATA:**

## Models UNI2, AUNI2 and UNI2-HH • 24 x 24 (600 x 600) Face Size • 4-Way Blow (360° Pattern)

	-					,					,
Nominal	Neck Velocity, FPM	400	500	600	700	800	900	1000	1200	1400	1600
Neck Size	Velocity Pressure	.010	.016	.023	.031	.040	.051	.063	.090	.122	.160
6" Dia.	Total Pressure	.010	.020	.030	.041	.053	.068	.084	.120	.164	.214
	Airflow, CFM	80	100	120	140	160	180	200	235	275	315
	Throw	1-3-4	1-3-4	2-4-5	2-4-6	2-5-6	3-4-7	3-5-8	4-6-9	4-6-10	5-6-10
	Noise Criteria	—	_	—	_	14	18	22	28	34	39
	Total Pressure	.018	.028	.037	.056	.072	.092	.112	.162	.220	.288
8"	Airflow, CFM	140	175	210	245	280	315	350	420	490	560
Dia.	Throw	2-2-4	2-3-5	2-3-7	3-4-8	3-5-9	4-6-9	5-7-10	6-8-11	7-9-12	8-10-13
	Noise Criteria	—	—	—	13	18	22	26	32	38	43
	Total Pressure	.031	.048	.069	.093	.122	.155	.191	.275	.375	.489
10"	Airflow, CFM	220	270	330	380	435	490	545	655	765	870
Dia.	Throw	3-4-7	3-5-9	3-5-10	4-6-12	5-7-13	5-8-13	7-9-14	8-11-15	10-12-17	11-13-18
	Noise Criteria	—	—	10	16	21	25	29	35	41	46
	Total Pressure	.040	.063	.090	.123	.161	.203	.251	.361	.492	.643
12"	Airflow, CFM	315	390	470	550	630	705	785	940	1100	1255
Dia.	Throw	4-5-10	4-7-13	5-8-14	7-9-16	8-11-17	8-12-17	10-14-19	11-15-20	14-17-23	16-18-25
	Noise Criteria	—	—	13	19	24	28	32	38	44	49
	Total Pressure	.054	.083	.120	.163	.214	.270	.334	.481	.655	.855
14"	Airflow, CFM	425	530	635	745	850	955	1060	1270	1490	1695
Dia.	Throw	5-7-14	6-9-16	7-11-18	10-13-20	11-15-23	11-17-23	14-19-26	16-21-28	19-22-31	20-24-33
	Noise Criteria	—	_	15	21	26	30	34	40	46	51
	Total Pressure	.065	.102	.147	.200	.260	.330	.408	.588	.799	1.044
15"	Airflow, CFM	490	615	735	860	985	1110	1230	1470	1720	1970
Dia.	Throw	6-9-17	7-11-19	9-13-21	11-16-24	14-19-26	14-20-27	16-21-30	19-24-33	23-26-35	23-27-38
	Noise Criteria	_	_	16	22	27	31	35	41	47	52

D

## Performance Notes:

1. Throws are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions.

2. All pressures are in inches w.g.. To obtain static pressure, subtract the velocitiy pressure from the total pressure.

3. Noise Criteria (NC) values are based upon 10dB room absorption, re 10<sup>-12</sup> watts. Dash (—) in space indicates an Noise Criteria of less than 10.

4. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

Neck Size Diameter in Inches	Nominal Overall Face Size	Ak Factor			
6	24 x 24	.206			
8	24 x 24	.248			
10	24 x 24	.315			
12	24 x 24	.384			
14	24 x 24	.437			
15	24 x 24	.485			

## Model UNI2-DI • 24 x 24 (600 x 600) Face Size • Dual Inlet Diffuser

Cond. Neck Size	Vent. Neck Size											
		Total Pressure	.01	.02	.03	.05	.06	.08	.09	.13	.18	.24
		Total CFM	140	175	209	244	279	314	349	419	489	559
8"	4"	Prim CFM	105	131	157	183	209	236	262	329	399	469
Dia.	Dia.	Vent CFM	35	44	52	61	70	79	87	90	90	90
		Throw	2-3-6	2-4-7	3-4-9	3-5-10	4-6-12	4-6-12	5-7-13	6-9-14	7-10-15	8-12-16
		Noise Criteria	—	—	—	—	—	20	24	31	36	41
		Total Pressure	.02	.04	.05	.07	.09	.12	.15	.21	.29	.37
		Total CFM	218	273	327	382	436	491	545	654	764	873
10"	4"	Prim CFM	164	205	245	292	346	401	455	564	674	783
Dia.	Dia.	Vent CFM	55	68	82	90	90	90	90	90	90	90
		Throw	3-4-8	3-5-10	4-6-12	5-7-13	5-8-14	6-9-15	7-10-16	8-12-18	10-13-19	11-14-20
		Noise Criteria	—	_	—	13	18	22	26	32	38	43
		Total Pressure	.02	.04	.06	.09	.12	.16	.20	.24	.35	.48
		Total CFM	236	314	393	471	550	638	707	785	942	1100
12"	6"	Prim CFM	177	236	295	353	413	479	530	585	742	900
Dia.	Dia.	Vent CFM	59	79	98	118	138	160	177	200	200	200
		Throw	3-4-8	4-5-11	4-7-13	5-8-15	6-9-16	7-11-17	8-12-18	9-13-19	11-15-21	13-16-23
		Noise Criteria				13	19	24	28	32	38	44
		Total Pressure	.03	.06	.09	.13	.17	.23	.29	.36	.43	.51
		Total CFM	321	428	535	641	748	855	962	1069	1176	1283
14"	6"	Prim CFM	241	321	401	481	548	655	762	869	976	1083
Dia.	Dia.	Vent CFM	80	107	134	160	200	200	200	200	200	200
		Throw	3-5-10	4-7-13	6-8-16	7-10-17	8-12-19	9-13-20	10-15-21	11-16-23	12-17-24	13-17-25
		Noise Criteria	—	_	12	19	24	29	33	37	41	44

#### **Performance Notes:**

1. Throws are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions.

2. All pressures are in inches w.g.. Total Pressure is based on total airflow. Minimum Ventilation Inlet Static Pressure = Total Pressure.

3. Maximum ventilation inlet airflow based on 1000 fpm.

4. Noise Criteria (NC) values are based upon 10dB room absorption, re 10<sup>-12</sup> watts. Dash (---) in space indicates a Noise Criteria of less than 10.

5. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 - 2006.

## Model UNI2-HI • 24 x 24 (600 x 600) Face Size • High Induction

Nominal	Neck Velocity, FPM	200	300	400	500	600	700	800	900	1000	1200
Neck Size	Velocity Pressure	.003	.006	.010	.016	.023	.031	.040	.051	.063	.090
	Total Pressure	.005	.011	.020	.031	.044	.059	.076	.096	.118	.161
6"	Airflow, CFM	40	60	80	100	120	140	160	180	200	235
Dia.	Throw	1-1-1	1-1-1	1-1-2	1-1-3	1-1-3	1-1-4	1-2-4	1-2-4	1-2-5	1-2-5
	Noise Criteria	_	_	—	_	15	20	24	27	30	35
	Total Pressure	.008	.016	.032	.050	.072	.098	.128	.161	.199	.285
8"	Airflow, CFM	70	100	140	175	210	245	280	315	350	420
Dia.	Throw	1-1-2	1-1-4	1-3-6	2-3-7	2-4-8	3-5-9	3-5-10	4-6-10	4-6-11	4-7-12
	Noise Criteria	_	_	—	16	22	26	31	34	37	43
	Total Pressure	.012	.025	.045	.068	.102	.136	.179	.228	.283	.411
10"	Airflow, CFM	110	165	220	270	330	380	435	490	545	655
Dia.	Throw	1-1-4	2-3-8	3-5-10	4-6-12	5-8-14	6-9-15	6-10-16	7-10-17	7-11-18	8-12-20
	Noise Criteria	—	_	15	22	38	33	38	46	45	52
	Total Pressure	.021	.046	.086	.0132	.191	.261	.343	.429	.532	.763
12"	Airflow, CFM	155	230	315	390	470	550	630	705	785	940
Dia.	Throw	2-4-9	5-7-13	7-9-16	8-11-18	9-13-19	10-14-21	11-15-22	12-16-23	13-17-24	14-18-26
	Noise Criteria	_	_	21	28	33	38	42	45	48	53
	Total Pressure	.032	.072	.125	.193	.276	.380	.494	.623	.767	1.100
14"	Airflow, CFM	210	320	425	530	635	745	850	955	1060	1270
Dia.	Throw	5-8-14	8-12-18	10-14-21	12-16-24	14-18-26	15-19-27	16-21-29	17-22-30	18-23-31	19-24-33
	Noise Criteria	_	18	26	32	37	42	45	49	52	57

#### **Performance Notes:**

1. Throws are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions.

2. All pressures are in inches w.g.. To obtain static pressure, subtract the velocitiy pressure from the total pressure.

upon 10dB room absorption, re 10<sup>-12</sup> watts. in accordance with ANSI/ASHRAE Dash (---) in space indicates a Noise Standard 70 - 2006. Criteria of less than 15.

3. Noise Criteria (NC) values are based 4. Data derived from tests conducted

Nominal	Neck Velocity, FPM	250	300	350	400	450	500	600
Neck Size	Velocity Pressure, Inches w.g.	.004	.006	.008	.010	.013	.016	.022
	Total Pressure. Inches w.g.	.098	.142	.193	.252	.319	.393	.566
4"	Airflow, CFM	22	26	31	35	39	44	52
Dia.	Throw, Feet	5-7-13	6-9-15	7-10-17	8-11-18	9-13-19	10-14-20	12-17-22
	Noise Criteria (NC)	-	-	-	-	15	17	19
Nominal	Neck Velocity, FPM	100	125	155	180	205	230	255
Neck Size	Velocity Pressure, Inches w.g.	.001	.001	.001	.002	.003	.003	.004
	Total Pressure. Inches w.g.	.077	.120	.185	.249	.323	.406	.500
6"	Airflow, CFM	20	25	30	35	40	45	50
Dia.	Throw, Feet	5-6-11	6-8-14	7-10-17	8-12-18	9-13-19	10-15-20	11-16-21
	Noise Criteria (NC)	-	-	-	-	15	17	18

## Model UNI2-JN • 24 x 24 (600 x 600) Face Size • Jet Nozzle

#### **Performance Notes:**

 Throw values are given at 50, 35 and 20 fpm terminal velocities under isothermal conditions.

2. All pressures are in inches w.g.. To obtain static pressure, subtract the velocitiy pressure from the total pressure. 3. Noise Criteria (NC) values are based on Octave Band 2 - 7 sound pressure levels minus a room absorption of 10dB. Dash (-) in space indicates a Noise Criteria of less than 15. 4. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 1991.

## Model UNI2-LT • 24 x 24 (600 x 600) Face Size • Low Temperature Construction

Nominal	Neck Velocity, FPM	575	860	1150	1430	1720	2000	2289		
Neck Size	Velocity Pressure, in. w.g.	0.021	0.046	0.082	0.127	0.184	0.249	0.327		
4" Round	Airflow, CFM	50	75	100	125	150	175	200		
	Total Pressure, in. w.g.	.06	.12	.21	.31	.45	.60	.77		
	Throw, Isothermal	2-4-8	3-6-12	6-8-14	6-10-17	8-12-18	9 13-20	9-16-22		
	Throw, $\Delta T$	2-3-5	3-6-8	6-7-9	6-7-10	8-9-11	9-10-12	9-12-13		
Dia.	Noise Criteria (NC)	-	24	33	38	43	48	51		
	Drop, ∆T	2.3	1.4	0.8	0.6	0.4	0.3	0.2		
Nominal	Neck Velocity, FPM	255	385	510	640	765	895	1020		
Neck Size	Velocity Pressure, in. w.g.	0.004	0.009	0.016	0.026	0.036	0.050	0.065		
	Airflow, CFM	50	75	100	125	150	175	200		
6"	Total Pressure, in. w.g.	.05	.08	.13	.19	.27	.36	.46		
Round	Throw, Isothermal	2-4-8	3-6-12	6-8-14	6-10-17	8-12-18	9 13-20	9-16-22		
Dia	Throw, $\Delta T$	2-3-5	3-6-8	6-7-9	6-7-10	8-9-11	9-10-12	9-12-13		
Dia.	Noise Criteria (NC)		19	26	31	37	40	43		
	Drop, $\Delta T$	2.3	1.4	0.8	0.6	0.4	0.3	0.2		
Nominal	Neck Velocity, FPM	144	215	287	358	430	500	573		
Nominal Neck Size	Neck Velocity, FPM Velocity Pressure, in. w.g.	144 0.001	215 0.003	287 0.005	358 0.008	430 0.012	500 0.016	573 0.020		
Nominal Neck Size	Neck Velocity, FPM Velocity Pressure, in. w.g. Airflow, CFM	<b>144</b> <b>0.001</b> 50	<b>215</b> <b>0.003</b> 75	<b>287</b> <b>0.005</b> 100	<b>358</b> <b>0.008</b> 125	<b>430</b> <b>0.012</b> 150	<b>500</b> <b>0.016</b> 175	<b>573</b> <b>0.020</b> 200		
Nominal Neck Size 8"	Neck Velocity, FPM Velocity Pressure, in. w.g. Airflow, CFM Total Pressure, in. w.g.	144 0.001 50 .03	<b>215</b> <b>0.003</b> 75 .06	<b>287</b> <b>0.005</b> 100 .10	<b>358</b> 0.008 125 .15	<b>430</b> <b>0.012</b> 150 .22	<b>500</b> <b>0.016</b> 175 .30	<b>573</b> <b>0.020</b> 200 .40		
Nominal Neck Size 8'' Bound	Neck Velocity, FPM Velocity Pressure, in. w.g. Airflow, CFM Total Pressure, in. w.g. Throw, Isothermal	144 0.001 50 .03 2-4-8	215 0.003 75 .06 3-6-12	287 0.005 100 .10 6-8-14	<b>358</b> <b>0.008</b> 125 .15 6-10-17	430 0.012 150 .22 8-12-18	500 0.016 175 .30 9 13-20	<b>573</b> <b>0.020</b> 200 .40 9-16-22		
Nominal Neck Size 8'' Round Dia	Neck Velocity, FPM           Velocity Pressure, in. w.g.           Airflow, CFM           Total Pressure, in. w.g.           Throw, Isothermal           Throw, ΔT	144 0.001 50 .03 2-4-8 2-3-5	215 0.003 75 .06 3-6-12 3-6-8	287 0.005 100 .10 6-8-14 6-7-9	<b>358</b> <b>0.008</b> 125 .15 6-10-17 6-7-10	430 0.012 150 .22 8-12-18 8-9-11	500 0.016 175 .30 9 13-20 9-10-12	<b>573</b> <b>0.020</b> 200 .40 9-16-22 9-12-13		
Nominal Neck Size 8" Round Dia.	$\begin{tabular}{ c c c c } \hline Neck Velocity, FPM \\\hline Velocity Pressure, in. w.g. \\\hline Airflow, CFM \\\hline Total Pressure, in. w.g. \\\hline Throw, Isothermal \\\hline Throw, $\Delta$T \\\hline Noise Criteria (NC) \\\hline \end{tabular}$	144 0.001 50 .03 2-4-8 2-3-5 -	215 0.003 75 .06 3-6-12 3-6-8 -	287 0.005 100 .10 6-8-14 6-7-9 21	<b>358</b> <b>0.008</b> 125 .15 6-10-17 6-7-10 27	430 0.012 150 .22 8-12-18 8-9-11 32	500 0.016 175 .30 9 13-20 9-10-12 37	<b>573</b> <b>0.020</b> 200 .40 9-16-22 9-12-13 40		
Nominal Neck Size 8'' Round Dia.	$\begin{tabular}{ c c c c } \hline Neck Velocity, FPM \\\hline Velocity Pressure, in. w.g. \\\hline Airflow, CFM \\\hline Total Pressure, in. w.g. \\\hline Throw, Isothermal \\\hline Throw, \Delta T \\\hline Noise Criteria (NC) \\\hline Drop, $\Delta T$ \\\hline \end{tabular}$	144 0.001 50 .03 2-4-8 2-3-5 - 2.3	215 0.003 75 .06 3-6-12 3-6-8 - 1.4	287 0.005 100 .10 6-8-14 6-7-9 21 0.8	358 0.008 125 .15 6-10-17 6-7-10 27 0.6	430 0.012 150 .22 8-12-18 8-9-11 32 0.4	500 0.016 175 .30 9 13-20 9-10-12 37 0.3	<b>573</b> <b>0.020</b> 200 .40 9-16-22 9-12-13 40 0.2		
Nominal Neck Size 8" Round Dia.	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	144 0.001 50 .03 2-4-8 2-3-5 - 2.3	215 0.003 75 .06 3-6-12 3-6-8 - 1.4	287 0.005 100 .10 6-8-14 6-7-9 21 0.8	358 0.008 125 .15 6-10-17 6-7-10 27 0.6	430 0.012 150 .22 8-12-18 8-9-11 32 0.4	500 0.016 175 .30 9 13-20 9-10-12 37 0.3	<b>573</b> <b>0.020</b> 200 .40 9-16-22 9-12-13 40 0.2		
Nominal Neck Size 8" Round Dia. Nominal	$\begin{tabular}{ c c c c c } \hline Neck Velocity, FPM \\\hline Velocity Pressure, in. w.g. \\\hline Airflow, CFM \\\hline Total Pressure, in. w.g. \\\hline Throw, Isothermal \\\hline Throw, \Delta T \\\hline Noise Criteria (NC) \\\hline Drop, \Delta T \\\hline \hline Neck Velocity, FPM \\\hline \end{tabular}$	144 0.001 50 .03 2-4-8 2-3-5 - 2.3 91	215 0.003 75 .06 3-6-12 3-6-8 - 1.4 <b>137</b>	287 0.005 100 .10 6-8-14 6-7-9 21 0.8 184	358 0.008 125 .15 6-10-17 6-7-10 27 0.6 230	430 0.012 150 .22 8-12-18 8-9-11 32 0.4 275	500 0.016 175 .30 9 13-20 9-10-12 37 0.3 321	<b>573</b> <b>0.020</b> 200 .40 9-16-22 9-12-13 40 0.2 <b>367</b>		
Nominal Neck Size 8" Round Dia. Nominal Neck Size	$\begin{tabular}{ c c c c c } \hline Neck Velocity, FPM \\\hline Velocity Pressure, in. w.g. \\\hline Airflow, CFM \\\hline Total Pressure, in. w.g. \\\hline Throw, Isothermal \\\hline Throw, $\Delta T$ \\\hline Noise Criteria (NC) \\\hline Drop, $\Delta T$ \\\hline \hline Neck Velocity, FPM \\\hline Velocity Pressure, in. w.g. \\\hline \end{tabular}$	144 0.001 50 .03 2-4-8 2-3-5 - 2.3 91 0.001	215 0.003 75 .06 3-6-12 3-6-8 - 1.4 1.4 137 0.001	287 0.005 100 .10 6-8-14 6-7-9 21 0.8 184 0.002	358 0.008 125 .15 6-10-17 6-7-10 27 0.6 230 0.003	430 0.012 150 .22 8-12-18 8-9-11 32 0.4 275 0.005	500 0.016 175 .30 9 13-20 9-10-12 37 0.3 321 0.006	<b>573</b> <b>0.020</b> 200 .40 9-16-22 9-12-13 40 0.2 <b>367</b> <b>0.008</b>		
Nominal Neck Size 8" Round Dia. Nominal Neck Size	Neck Velocity, FPM         Velocity Pressure, in. w.g.         Airflow, CFM         Total Pressure, in. w.g.         Throw, Isothermal         Throw, ΔT         Noise Criteria (NC)         Drop, ΔT         Neck Velocity, FPM         Velocity Pressure, in. w.g.         Airflow, CFM	144 0.001 50 .03 2-4-8 2-3-5 - 2.3 91 0.001 50	215 0.003 75 .06 3-6-12 3-6-8 - 1.4 1.4 137 0.001 75	287 0.005 100 .10 6-8-14 6-7-9 21 0.8 184 0.002 100	358 0.008 125 .15 6-10-17 6-7-10 27 0.6 230 0.003 125	430 0.012 150 .22 8-12-18 8-9-11 32 0.4 275 0.005 150	500 0.016 175 .30 9 13-20 9-10-12 37 0.3 321 0.006 175	<b>573</b> <b>0.020</b> 200 .40 9-16-22 9-12-13 40 0.2 <b>367</b> <b>0.008</b> 200		
Nominal Neck Size 8" Round Dia. Nominal Neck Size	Neck Velocity, FPM         Velocity Pressure, in. w.g.         Airflow, CFM         Total Pressure, in. w.g.         Throw, Isothermal         Throw, ΔT         Noise Criteria (NC)         Drop, ΔT         Neck Velocity, FPM         Velocity Pressure, in. w.g.         Airflow, CFM         Total Pressure, in. w.g.	144 0.001 50 .03 2-4-8 2-3-5 - 2.3 91 0.001 50 .03	215 0.003 75 .06 3-6-12 3-6-8 - 1.4 1.4 137 0.001 75 .05	287 0.005 100 .10 6-8-14 6-7-9 21 0.8 184 0.002 100 .11	358 0.008 125 .15 6-10-17 6-7-10 27 0.6 230 0.003 125 .16	430 0.012 150 .22 8-12-18 8-9-11 32 0.4 275 0.005 150 .23	500 0.016 175 .30 9 13-20 9-10-12 37 0.3 321 0.006 175 .32	<b>573</b> 0.020 200 .40 9-16-22 9-12-13 40 0.2 <b>367</b> 0.008 200 .42		
Nominal Neck Size 8" Round Dia. Nominal Neck Size 10" Oval	Neck Velocity, FPM         Velocity Pressure, in. w.g.         Airflow, CFM         Total Pressure, in. w.g.         Throw, Isothermal         Throw, ΔT         Noise Criteria (NC)         Drop, ΔT         Neck Velocity, FPM         Velocity Pressure, in. w.g.         Airflow, CFM         Total Pressure, in. w.g.         Throw, Isothermal	144 0.001 50 .03 2-4-8 2-3-5 - 2.3 91 0.001 50 .03 2-4-8	215 0.003 75 .06 3-6-12 3-6-8 - 1.4 137 0.001 75 .05 3-6-12	287 0.005 100 .10 6-8-14 6-7-9 21 0.8 184 0.002 100 .11 6-8-14	358 0.008 125 .15 6-10-17 6-7-10 27 0.6 230 0.003 125 .16 6-10-17	430 0.012 150 .22 8-12-18 8-9-11 32 0.4 275 0.005 150 .23 8-12-18	500 0.016 175 .30 9 13-20 9-10-12 37 0.3 321 0.006 175 .32 9 13-20	<b>573</b> <b>0.020</b> 200 .40 9-16-22 9-12-13 40 0.2 <b>367</b> <b>0.008</b> 200 .42 9-16-22		
Nominal Neck Size 8" Round Dia. Nominal Neck Size 10" Oval Dia	Neck Velocity, FPM         Velocity Pressure, in. w.g.         Airflow, CFM         Total Pressure, in. w.g.         Throw, Isothermal         Throw, ΔT         Noise Criteria (NC)         Drop, ΔT         Neck Velocity, FPM         Velocity Pressure, in. w.g.         Airflow, CFM         Total Pressure, in. w.g.         Throw, Isothermal         Throw, CFM         Total Pressure, in. w.g.         Throw, Isothermal         Throw, AT	144 0.001 50 .03 2-4-8 2-3-5 - 2.3 91 0.001 50 .03 2-4-8 2-3-5	215 0.003 75 .06 3-6-12 3-6-8 - 1.4 137 0.001 75 .05 3-6-12 3-6-8	287 0.005 100 .10 6-8-14 6-7-9 21 0.8 100 .100 .11 6-8-14 6-7-9	358 0.008 125 .15 6-10-17 6-7-10 27 0.6 27 0.6 230 0.003 125 .16 6-10-17 6-7-10	430 0.012 150 .22 8-12-18 8-9-11 32 0.4 275 0.005 150 .23 8-12-18 8-9-11	500 0.016 175 .30 9 13-20 9-10-12 37 0.3 321 0.006 175 .32 9 13-20 9-10-12	<b>573</b> <b>0.020</b> 200 .40 9-16-22 9-12-13 40 0.2 <b>367</b> <b>0.008</b> 200 .42 9-16-22 9-12-13		
Nominal Neck Size 8" Round Dia. Nominal Neck Size 10" Oval Dia.	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	144 0.001 50 .03 2-4-8 2-3-5 - 2.3 91 0.001 50 .03 2-4-8 2-3-5 -	215 0.003 75 .06 3-6-12 3-6-8 - 1.4 137 0.001 75 .05 3-6-12 3-6-8 - -	287 0.005 100 .10 6-8-14 6-7-9 21 0.8 184 0.002 100 .11 6-8-14 6-7-9 18	358 0.008 125 .15 6-10-17 6-7-10 27 0.6 230 0.003 125 .16 6-10-17 6-7-10 24	430 0.012 150 .22 8-12-18 8-9-11 32 0.4 275 0.005 150 .23 8-12-18 8-9-11 29	500 0.016 175 .30 9 13-20 9-10-12 37 0.3 321 0.006 175 .32 9 13-20 9 13-20 9-10-12 34	<b>573</b> <b>0.020</b> 200 .40 9-16-22 9-12-13 40 0.2 <b>367</b> <b>0.008</b> 200 .42 9-16-22 9-12-13 37		

#### **Performance Notes:**

1. Throws values are given in feet for terminal velocities of 150, 100 and 50 fpm.

2. All pressures are in inches w.g.. To obtain static pressure, subtract the velocity pressure from the total pressure.

3. Isothermal throw values indicate supply air temperature is equal to room air temperature.

4.  $\Delta T$  Throw values (cooling) are based on a supply air temperature of 40°F and a room temperature of 75°F (35°F  $\Delta T$ ).

5. Noise Criteria (NC) values are based on 10dB room absorption, re  $10^{-12}$  watts. Dash (—) in space indicates an Noise Criteria of less than 15.

6. Drop values are given in feet at a terminal velocity of 50 fpm.

7. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 1991.

## Models UNI-RP • 24 x 24 (600 x 600) Face Size

Nominal	Neck Velocity, FPM	400	500	600	700	800	900	1000	1100	1200	1400
Neck Size	Velocity Pressure	.010	.016	.022	.031	.040	.050	.062	.075	.090	.122
	Total Pressure	.019	.028	.040	.052	.067	.084	.102	.122	.147	.193
6"	Airflow, CFM	80	100	120	135	155	175	195	215	235	275
Dia.	Throw	1-1-4	1-2-5	2-2-5	2-3-5	2-3-6	2-3-7	2-4-7	3-4-7	3-5-8	4-6-8
	Noise Criteria	—	_	_	15	20	24	28	31	34	37
	Total Pressure	.023	.035	.047	.066	.085	.106	.132	.161	.190	.258
8"	Airflow, CFM	140	175	210	245	280	315	350	385	420	490
Dia.	Throw	2-3-7	2-4-7	3-4-8	3-5-9	4-6-9	4-6-10	5-7-11	5-8-11	6-8-12	7-10-13
	Noise Criteria	—	—	_	16	20	25	29	32	35	39
	Total Pressure	.030	.047	.066	.092	.120	.152	.186	.225	.267	.365
10"	Airflow, CFM	220	275	325	380	435	490	545	600	655	765
Dia.	Throw	3-4-9	3-5-10	4-6-11	5-7-12	5-8-13	6-8-14	6-9-15	7-10-15	8-11-16	9-13-17
	Noise Criteria	—	_	15	20	22	26	31	35	38	43
	Total Pressure	.045	.075	.103	.140	.184	.233	.283	.339	.411	.552
12"	Airflow, CFM	315	395	470	550	630	705	785	865	940	1100
Dia.	Throw	3-5-11	4-6-13	5-7-14	5-8-15	6-9-16	7-10-17	8-11-18	8-12-19	9-13-20	10-16-21
	Noise Criteria	—	19.000	22	25	30	35	38	42	45	51
	Total Pressure	.069	.111	.159	.211	.278	.352	.426	.516	.616	.842
14"	Airflow, CFM	430	535	640	750	855	960	1070	1175	1285	1495
Dia.	Throw	4-6-12	5-8-14	6-9-15	7-11-16	8-12-17	9-13-18	10-14-19	11-15-20	12-16-21	14-18-23
	Noise Criteria	15	21	24	30	35	39	42	46	49	56
	Total Pressure	.077	.134	.186	.260	.343	.436	.532	.646	.773	1.075
15"	Airflow, CFM	490	615	735	860	980	1105	1225	1350	1475	1720
Dia.	Throw	5-7-13	6-9-15	7-10-16	8-11-18	9-12-19	11-15-20	12-16-21	13-17-22	14-18-23	16-20-26
	Noise Criteria	17	23	26	32	38	41	45	48	51	60

#### **Performance Notes:**

1. Throws are given at 150, 100 and 50 fpm terminal velocities, under isothermal conditions.

2. All pressures are in inches w.g.. To obtain static pressure, subtract the velocitiy pressure from the total pressure.

3. Noise Criteria (NC) values are based upon 10dB room absorption, re  $10^{-12}$  watts. Dash (—) in space indicates an Noise Criteria of less than 15.

4. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

#### **Balancing:**

It is recommended that a commercially available 'Flow Hood' is used for field balancing. The airflow meter directly reads average flow rate with great accuracy at all volumes. It is a much faster and more accurate alternative to time consuming multiple velocity readings, eliminating the use of Ak factors and the calculations required to convert the average velocity into airflow. D