



**PINNACLE
EQUIPMENT
CO. INC.**

IN STOCK

WAREHOUSE CATALOG

**1616 MILBURN STREET
INDIANAPOLIS, IN 46202**

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PRICES IN CATALOG ARE LIST PRICE
YOUR DISCOUNT MULTIPLIER IS:

X .

PRICES ARE SUBJECT TO CHANGE
WITHOUT NOTICE.

CROSS REFERENCE

NAILOR	TITUS	PRICE
RNS	TMS	SCD
6500	TDC	SMD
RNR	TMR	RCDE
UNI	OMNI	SPD
4360	PAR / PAS	PDF
5710	TBD-80	TBD4100
5715	TBD-80	TBD4150
61DV	300RS	520/S
6145H	350RL	530/L
51EC	50F	80
D3001	DESV	SDV

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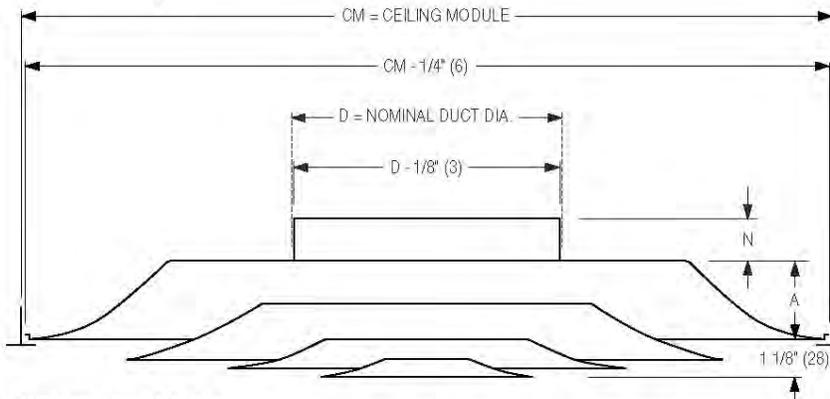
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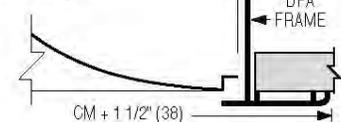
SQUARE CEILING DIFFUSERS
FIXED PATTERN • LOUVERED FACE
STEEL • ROUND NECK • 4 CONE
MODEL: RNS

TYPE L Lay-in T-Bar



TYPE L Surface Mount With DFA

Drywall/Plaster frame. Recommended for flexible duct connection and ceiling access
 CEILING OPENING = CM + 1/4" (6) → SUPPLIED WITH SEPARATE DFA FRAME



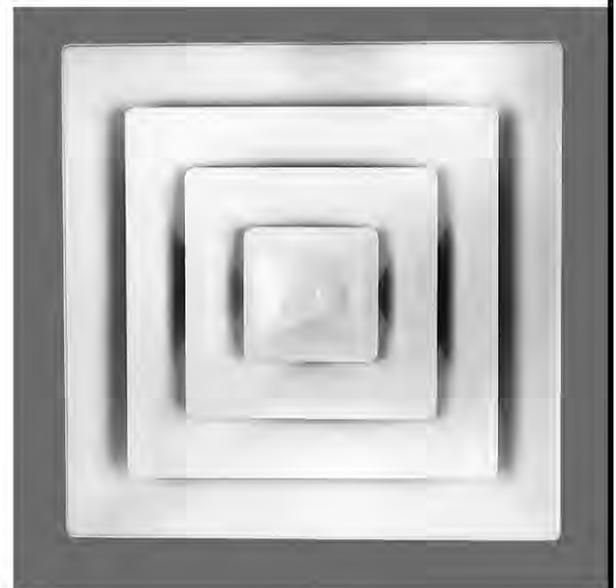
Dimensional Data

Ceiling Module CM	Imperial Units (inches)				
	Duct Size D	N	A	B	F
12 x 12	6" Ø	1 1/4"	1"	11"	13"
	8" Ø				

DESCRIPTION:

1. Material: Heavy gauge, corrosion-resistant steel.
2. The diffuser delivers the air in a true 360° radial horizontal pattern. Designed to minimize smudging and streaking of ceiling.
3. Excellent for VAV systems. The uniform near horizontal jets from the louvered cones maintain effective air motion over a considerable range of air volumes.
4. The models consist of four die-formed concentric cones in all sizes which eliminate mitered corners and provide uniform appearance in all neck sizes.
5. A spring clip arrangement permits quick, easy installation and removal of the inner cone assembly.
6. Diffuser has a removable plug for screwdriver adjustment of the optional damper without removing the inner core.
7. Standard finish is AW Appliance white baked enamel.

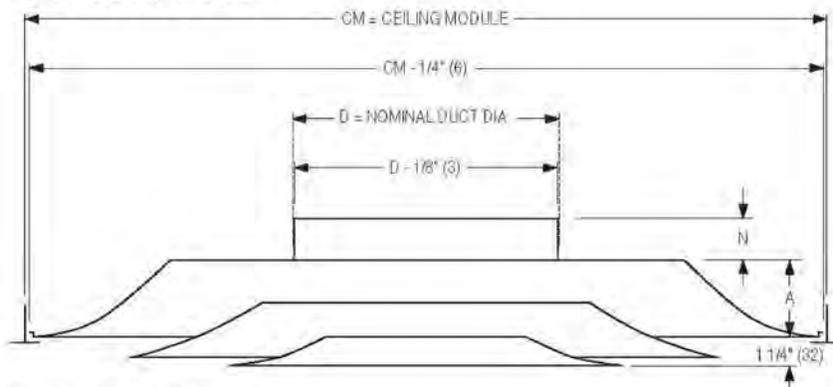
FACE SIZE	NECK SIZE	LIST EACH
12x12	6"Ø	\$40.00
12x12	8"Ø	\$40.00





SQUARE CEILING DIFFUSERS
 FIXED PATTERN • LOUVERED FACE
 STEEL • ROUND NECK • 3 CONE
MODEL: RNS3

TYPE L Lay-in T-Bar



Dimensional Data

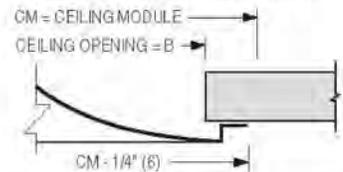
Ceiling Module CM		Imperial Units (Inches)				Metric Units (mm)			
Imperial Modules	Metric Modules	Duct Size D	N	A	B	Duct Size D	N	A	B
24 x 24	600 x 600	6, 8, 10, 12, 14, 15	1 1/4	2 5/16	22	152, 203, 254, 305, 356, 381	32	59	559

DESCRIPTION:

1. Material: Heavy gauge, corrosion-resistant steel.
2. The diffuser delivers the air in a true 360° radial horizontal pattern. Designed to minimize smudging and streaking of ceiling.
3. Excellent for VAV systems. The uniform near horizontal jets from the louvered cones maintain effective air motion over a considerable range of air volumes.
4. The models consist of three die-formed concentric cones in all sizes which eliminate mitered corners and provide uniform appearance in all neck sizes.
5. The inner cone assembly is held in place by four hook corner posts that positively engage into slots in the backpan. The core can be removed from the backpan for diffuser installation.
6. Diffuser has a removable plug for screwdriver adjustment of the optional damper.
7. Standard finish is AW Appliance White.

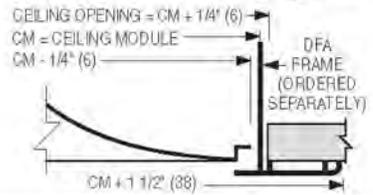
TYPE L Surface Mount

Hard duct connection recommended.



TYPE L Surface Mount With DFA

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

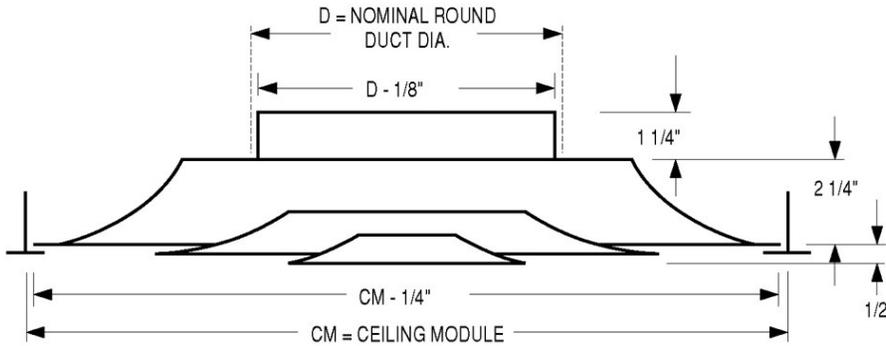


FACE SIZE	NECK SIZE	LIST EACH
24x24	6"Ø	\$56.00
24x24	8"Ø	\$56.00
24x24	10"Ø	\$56.00
24x24	12"Ø	\$56.00
24x24	14"Ø	\$56.00



SQUARE CEILING DIFFUSERS
 FIXED PATTERN • LOUVERED FACE
 STEEL • ROUND NECK • 3 CONE
MODEL: RNS 20 x 20 MODULE

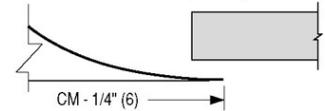
TYPE L Lay-in T-Bar



TYPE L Surface Mount

Hard duct connection recommended.

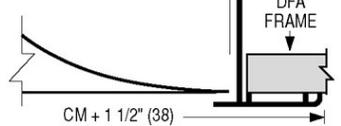
CM = CEILING MODULE
 CEILING OPENING = B



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)



Dimensional Data

CM	Imperial Units (inches)	
	Duct Size D	B
20 x 20	6"	18 1/2"

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

DESCRIPTION:

1. Material: Heavy gauge, corrosion-resistant steel.
2. The diffuser delivers the air in a true 360° radial horizontal pattern. Designed to minimize smudging and streaking of ceiling.
3. Excellent for VAV systems. The uniform near horizontal jets from the louvered cones maintain effective air motion over a considerable range of air volumes.
4. The RNS with 20" x 20" face, consists of three die-formed concentric cones which eliminate mitered corners and provide uniform appearance in all neck sizes.
5. A spring clip arrangement permits quick, easy installation and removal of the inner cone assembly.
6. Diffuser has a removable plug for screwdriver adjustment of the optional damper without removing the inner core.
7. Standard finish is AW Appliance white baked enamel.

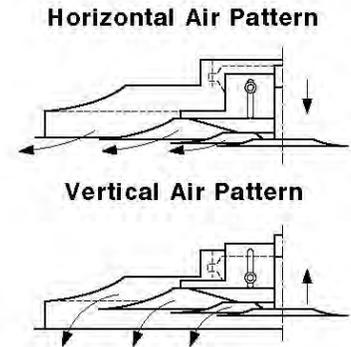
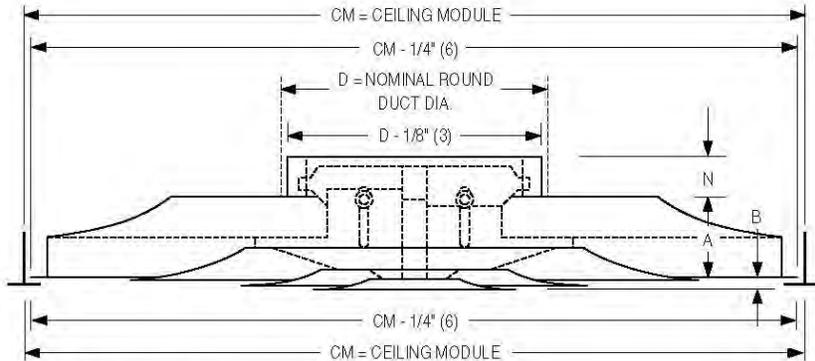
FACE SIZE	NECK SIZE	LIST EACH
20 x 20	6"Ø	\$46.00





SQUARE CEILING DIFFUSERS
 ADJUSTABLE PATTERN • LOUVERED FACE
 STEEL • ROUND NECK • 4 CONE
MODEL: RNSA1 'SLIDING TYPE'

TYPE L Lay-in T-Bar



Dimensional Data

Ceiling Module CM	Imperial Units (inches)			
	Duct Size D	N	A	B
12 x 12	4,* 5,*	3 1/4	2 1/4	0 to 1/2
	6, 7, 8	1 1/4		
24 x 24	6, 8, 10, 12, 14, 15	1 1/4	3 3/4	0 to 3/8

Not all sizes shown are stock. See below for stock sizes.

* Supplied with a reducer.

DESCRIPTION:

1. Material: Heavy-gauge corrosion-resistant steel.
2. The air discharge pattern on RNSA diffusers may be adjusted from horizontal to vertical by gradually moving the position of the inner three cone assembly from the down to an up (recessed) position - allowing a variable pattern adjustment. Model RNSA1 has a 'sliding type' (friction) arrangement.
3. The diffuser delivers the supply air in a true 360° streamline pattern. Excellent for VAV systems.
4. The RNSA consists of four die-formed concentric cones in all sizes which eliminate mitered corners and provide uniform appearance in all neck sizes. Outer cone is one piece construction.
5. A spring clip arrangement permits quick, easy installation and removal of the inner cone assembly.
6. Diffuser has a removable plug for screwdriver adjustment of the optional damper without removing the inner core.
7. Standard finish is AW Appliance white baked enamel.

SIZE	SIZE	EACH
12 x 12	6"Ø	\$54.00
12 x 12	8"Ø	\$54.00
24 x 24	6"Ø	\$84.00
24 x 24	8"Ø	\$84.00
24 x 24	10"Ø	\$84.00
24 x 24	12"Ø	\$84.00
24 x 24	14"Ø	\$84.00



Model RNSA

All prices subject to change without notification

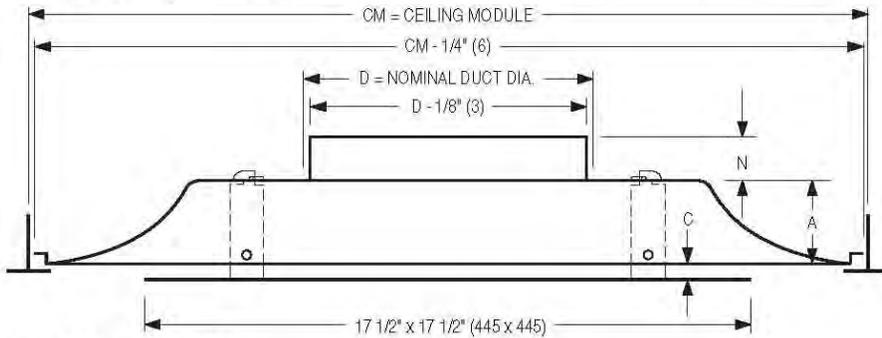


Phone: (317) 259-1180
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ARCHITECTURAL CEILING DIFFUSERS
 SQUARE PLAQUE • CORNER POSTS
 ROUND NECK • STEEL
MODEL: UNI2

TYPE L Lay-in T-Bar



Dimensional Data

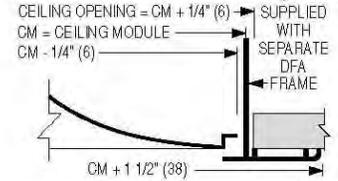
CM		Imperial Units (inches)				
Imperial Modules	Metric Modules	Duct Size D	N	A	B	C
24 x 24	600 x 600	6, 8, 10, 12, 14, 15	1 1/4	2 5/16	22	3/8

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 baked enamel.

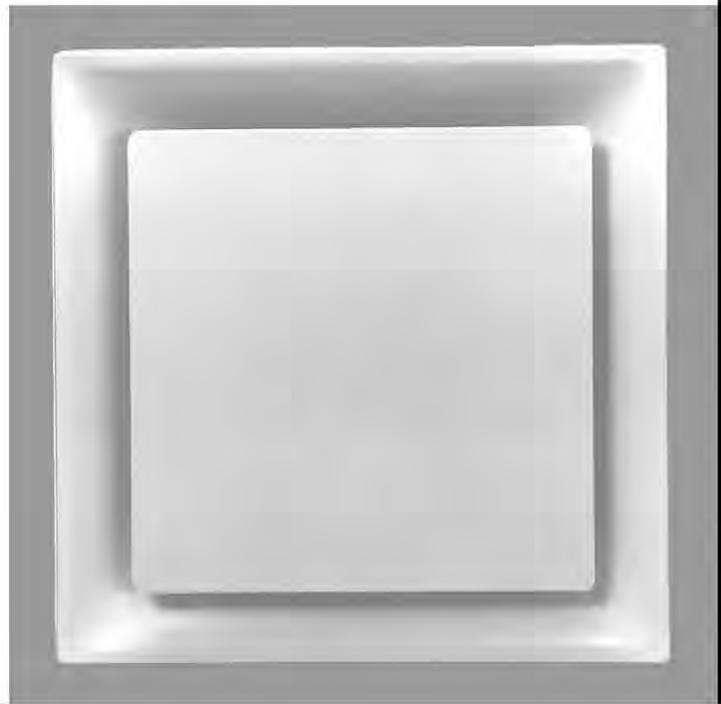
TYPE L Surface Mount With DFA

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



Drywall frame model DFA sold separately for drywall ceiling applications

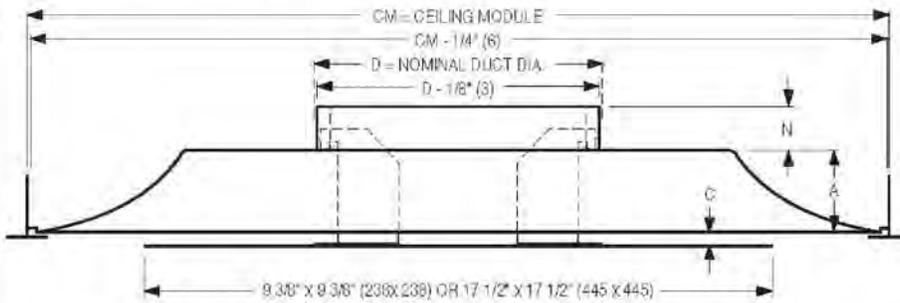
FACE SIZE	NECK SIZE	LIST EACH
24 x 24	6"Ø	\$62.00
24 x 24	8"Ø	\$62.00
24 x 24	10"Ø	\$62.00
24 x 24	12"Ø	\$62.00
24 x 24	14"Ø	\$62.00





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

TYPE L Lay-in T-Bar



Dimensional Data

Ceiling Module CM		Imperial Units (inches)						Metric Units (mm)					
Imperial Modules	Metric Modules	Duct Size D	N	A	B	C	F	Duct Size D	N	A	B	C	F
12 x 12	300 x 300	4*	3 1/4	1	11	5/8	13	102*	83	25	279	16	330
		5, 6, 7, 8	1 1/4					127, 152, 178, 203	32				

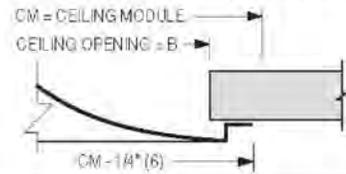
* Supplied with a reducer.

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 tum 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.

TYPE L Surface Mount

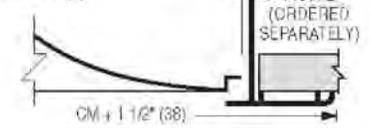
Hard duct connection recommended.



TYPE L Surface Mount With DFA

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

CEILING OPENING = CM + 1/4\"/>

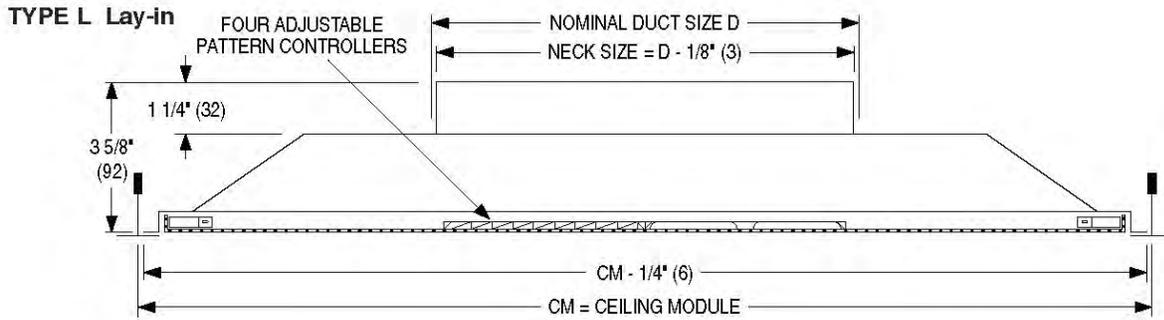


FACE SIZE	NECK SIZE	LIST EACH
12 x 12	6"Ø	\$62.00
12 x 12	8"Ø	\$62.00



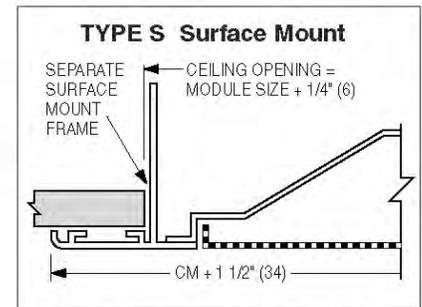
Nailor
Industries Inc.

PERFORATED CEILING DIFFUSERS
SUPPLY • FLUSH FACE • 1, 2, 3 OR 4-WAY
ADJUSTABLE DISCHARGE PATTERN
MODEL: 4320



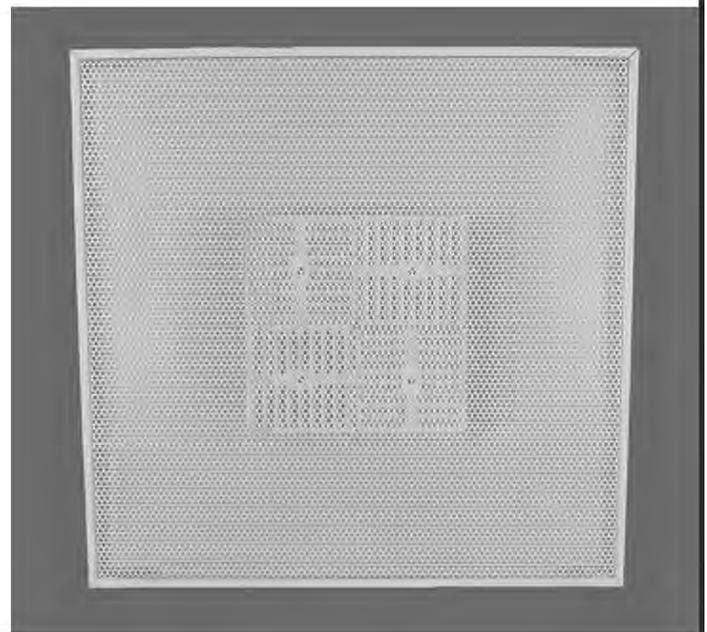
DESCRIPTION:

1. Material: Corrosion-resistant steel.
2. Discharge pattern can adjust to 1, 2, 3 or 4-way horizontal, before or after installation. Discharge pattern is adjusted by dropping the perforated face and rotating the pattern deflectors. Diffusers are shipped from the factory with a 4-way discharge pattern.
3. Removable face has concealed latches for easy access to core and optional damper.
4. Perforated face has 3/16" diameter holes on 1/4" staggered centres.
5. Excellent performance in VAV systems.
6. Standard finish is AW Appliance White.



Use drywall frame DFA for surface mount applications

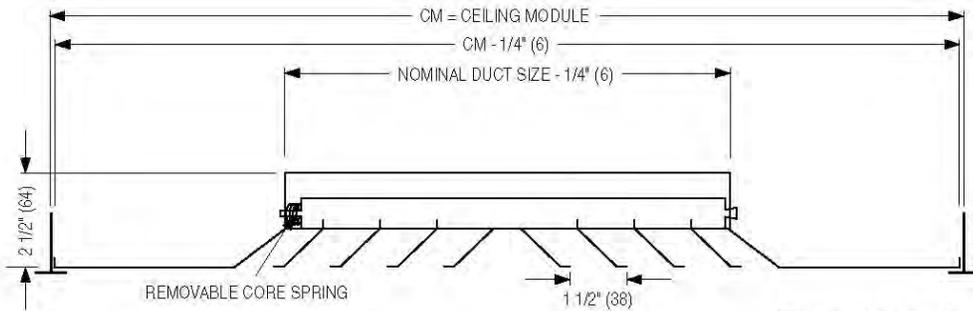
FACE SIZE	NECK SIZE	LIST EACH
24 x 24	6"Ø	\$50.00
24 x 24	8"Ø	\$50.00
24 x 24	10"Ø	\$50.00
24 x 24	12"Ø	\$50.00
24 x 24	14"Ø	\$50.00
24 x 24	16"Ø	\$50.00





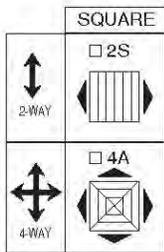
PATTERN CEILING DIFFUSERS
 STEEL • SQUARE, RECTANGULAR OR
 ROUND NECK
MODELS: 6500 AND 6500-O TYPE L

TYPE L LAY-IN T-BAR



Dimensions are in inches (mm).

CORE STYLE SELECTION



DESCRIPTION:

1. Material: Corrosion-resistant steel.
2. Model 6500 is a high capacity ceiling diffuser available in 1, 2, 3 or 4-way blow patterns to provide a tight horizontal airflow pattern from maximum to minimum airflow. Ideal for VAV applications.
3. Spring-loaded removable core.
4. Standard finish is AW Appliance White.

ACCESSORIES (OPTIONAL):

Accessories are sold seperately, see accessories pages

ROUND NECK

- SQR Square to round transition collar
- 4250 Radial Sliding Blade Damper (round)

Patterns are shown in plan view (looking down into inlet).

NECK SIZE	FACE SIZE	BLOW PATTERN	LIST EACH
12" x 12"	24" x 24"	2S	\$76.00
12" x 12"	24" x 24"	4A	\$90.00
15" x 15"	24" x 24"	2S	\$92.00
15" x 15"	24" x 24"	4A	\$104.00
18" x 18"	24" x 24"	2S	\$104.00
18" x 18"	24" x 24"	4A	\$104.00





PATTERN CEILING DIFFUSERS
STEEL • SQUARE NECK

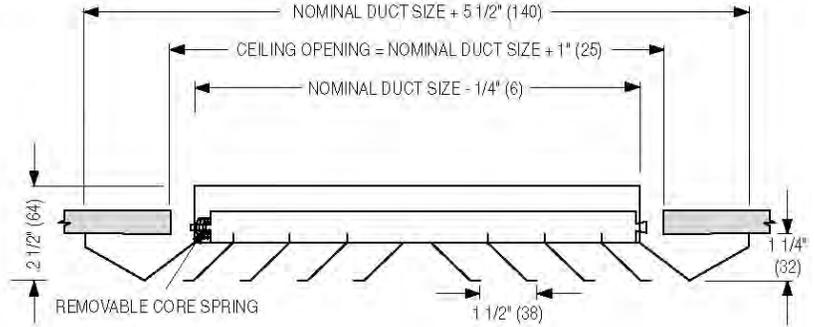
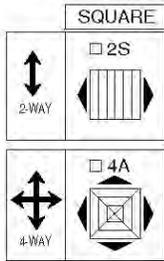
MODEL : 6500 TYPE B

TYPE B • BEVELED DROP FACE
• SURFACE MOUNT

Minimum duct size: 6 x 6
 Maximum duct size: 36 x 36

Available in 3" increments only.

CORE STYLE SELECTION



Dimensions are in inches (mm).

DESCRIPTION:

1. Material: Corrosion-resistant steel.
2. Model 6500 is a high capacity ceiling diffuser available in 1, 2, 3 or 4-way blow patterns to provide a tight horizontal airflow pattern from maximum to minimum airflow. Ideal for VAV applications.
3. Spring-loaded removable core.
4. Standard finish is AW Appliance White.

ACCESSORIES (OPTIONAL): *Accessories are sold separately, see accessories pages*

ROUND NECK

- SQR Square to round transition collar
- 4250 Radial Sliding Blade Damper (round)

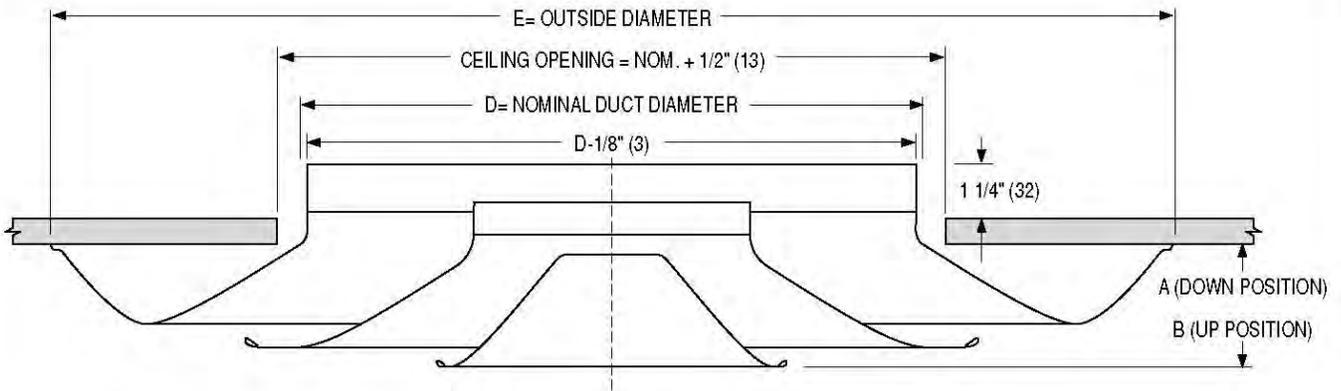
Patterns are shown in plan view (looking down into inlet).

NECK SIZE	FACE SIZE	BLOW PATTERN	LIST EACH
12" x 12"	17.5" x 17.5"	2S	\$60.00
12" x 12"	17.5" x 17.5"	4A	\$60.00
15" x 15"	20.5" x 20.5"	2S	\$72.00
15" x 15"	20.5" x 20.5"	4A	\$72.00
18" x 18"	23.5" x 23.5"	2S	\$100.00
18" x 18"	23.5" x 23.5"	4A	\$92.00





ROUND CEILING DIFFUSERS
 SPUN STEEL CONSTRUCTION
 TWO HORIZONTAL DISCHARGE PATTERNS
MODEL: RNR

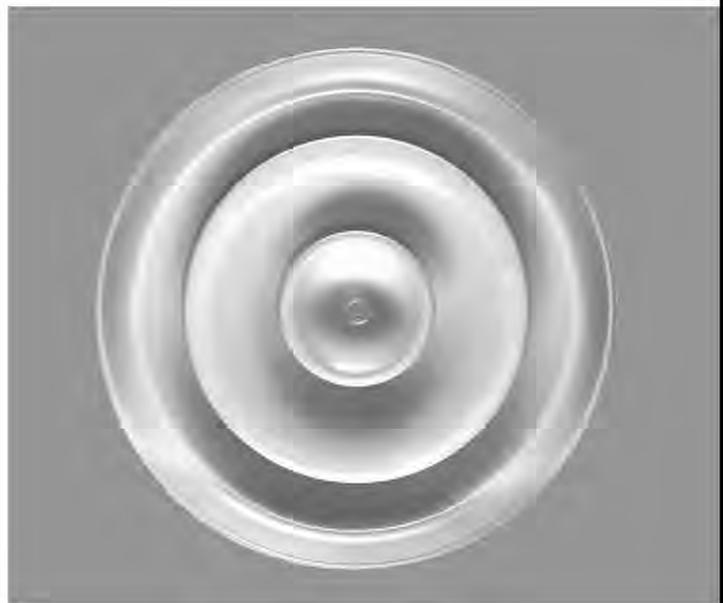


DESCRIPTION:

1. Material: Corrosion-resistant steel.
2. The Nailor RNR series round ceiling diffusers feature three concentric cones in all sizes to offer a balanced appearance where different sizes are used in the same area.
3. The diffusers deliver the air in a true 360° radial horizontal pattern and provide excellent performance in variable air volume systems.
4. A spring clip arrangement permits quick, easy installation and removal of the inner cone assembly.
5. Discharge settings are easily field set by repositioning the screws on the inner cone assembly.
6. Two horizontal discharge settings allow the diffusers to accommodate different flow conditions. Position A (cones down) provides maximum capacity at minimum NC levels while position B (cones up) provides higher induction and more air movement.
7. Designed for both heating and cooling applications.
8. An optional round opposed blade damper is screwdriver-operated through the face of the unit.
9. Standard finish is AW appliance white.

Dimensional Data

LISTED SIZE	Imperial Units (Inches)			
	A	B	E	
6	1 3/4	1 1/8	11 5/8	\$94.00
8	2 1/8	1 1/2	14 3/8	\$110.00
10	2 7/8	2 1/8	17 15/16	\$116.00
12	3 1/8	2 3/8	21 5/8	\$130.00
14	3 3/8	2 5/8	25 1/4	\$146.00





PLENUM SLOT DIFFUSER
SUPPLY • ADJUSTABLE
"WIPER BLADE" PATTERN CONTROLLERS
MODEL: 5710 AND 5715

DESCRIPTION:

The 5700 Series Plenum Slot Ceiling Diffusers have been designed for standard lay-in T-Bar ceiling grid applications. They integrate and blend with the suspended grid, so offering an extremely unobtrusive method of air distribution.

The 5700 Series incorporates an extruded aluminum adjustable pattern controller. The direction of airflow is adjustable from the face through a full 180°. The controller incorporates a soft gasket seal that seats against the inside of the plenum casing or center tee on multi-slot models in the horizontal setting, ensuring a tight projection of air across the ceiling. The horizontal pattern is maintained throughout a wide range of cataloged air volumes from maximum to minimum flow. They offer the discerning engineer and architect premium quality construction and design features, making them an excellent choice for VAV applications. Factory furnished center tees are dropped below diffuser face to match the ceiling grid. Standard nominal lengths: 24" and 48" to suit ceiling grids.

Slot width: Choice of 1" and 1 1/2"
 Standard inlet sizes: 6", 8", 10" and 12"

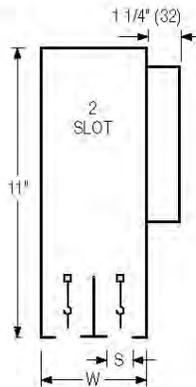
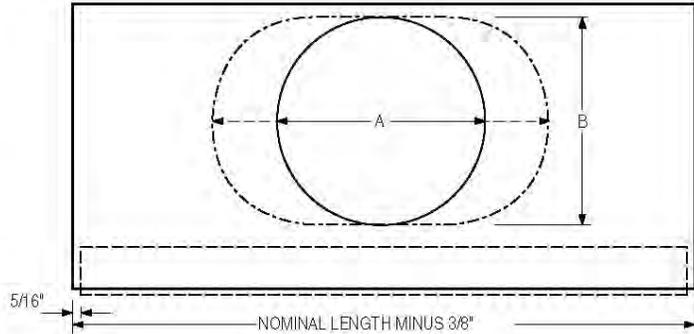
The pattern controller is split mid-way on units 36" (900) long and over. This allows a 2-way opposite blow pattern from a single slot.

Material: Corrosion resistant steel for plenum, pattern controllers and center tees.

Standard Finish:
 BK Black pattern controllers and exposed surfaces.
 AW Appliance White on center T-bars.

OPTIONS:

- CN Cross Notch. Bisects diffuser length to allow a 48" unit to install in a 2' x 2' grid.
- PF Plaster Frame



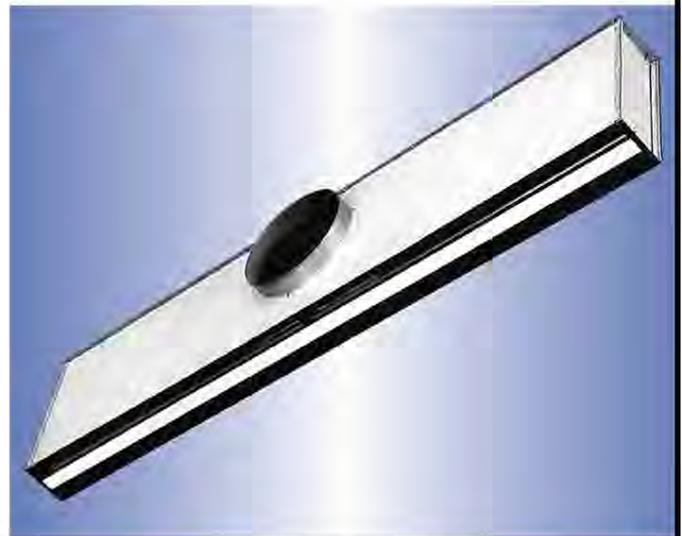
MODEL 5710
 1" (25) Slot width
MODEL 5715
 1 1/2" (38) Slot width

		S Slot Width	
		1"	1 1/2"
W Width	2 Slot	4	5

	Nominal Inlet Size			
	6 Round	8 Round	10 Oval	12 Oval
A	5 7/8	7 7/8	11	14 1/8
B	—	—	7 7/8	7 7/8

Dimensions are in inches

MODEL	LENGTH	NECK SIZE	SLOT WIDTH	# OF SLOTS	LIST EACH
5710	24"	6"Ø	1"	2	\$66.00
5710	24"	8"Ø	1"	2	\$66.00
5710	48"	8"Ø	1"	2	\$88.00
5715	48"	10"Ø	1 1/2"	2	\$88.00
5715	48"	12"Ø	1 1/2"	2	\$88.00



All prices subject to change without notification

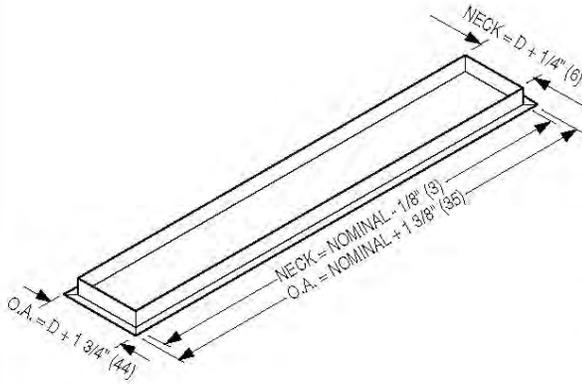


Phone: (317) 259-1180
 Fax: (317) 259-1190 **12**



**PLENUM SLOT DIFFUSER ACCESSORIES (OPT.)
MODEL SERIES: 5700**

PF Slot Diffuser Plaster Frame

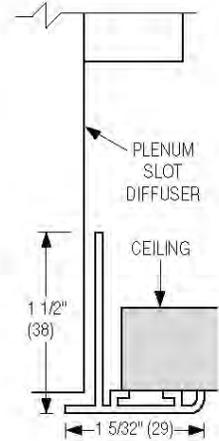


Slot diffuser mounting frames allow plenum slot diffusers to be installed in drywall or plaster ceilings. Installation of the frame in the ceiling is by others.

(Note: Diffuser will not fit through plaster frame opening).

Material: Extruded aluminum with mitered corners.

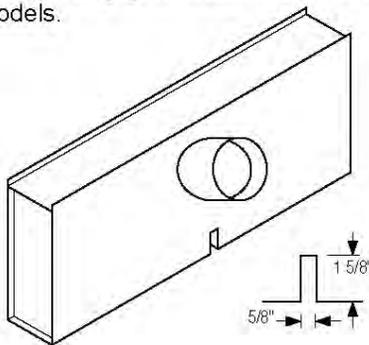
Recommended Ceiling Opening dimensions:
Width = Diffuser Width (D) + 1/2" (13)
Length = Nominal Diffuser Length + 1/4" (6)



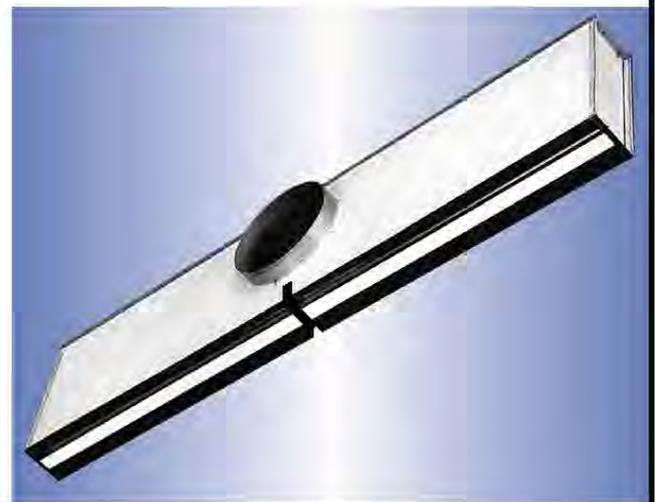
ITEM	SIZE	LIST EACH
5710 PF	24" long	\$22.00
5710 PF	48" long	\$32.00
5715 PF	48" long	\$32.00

CN Cross Notch

Allows a 48" (1200) unit to be installed in a 24" x 24" (600 x 600) ceiling grid. Available on both supply and return models.



MODEL	LENGTH	NECK SIZE	SLOT WIDTH	# OF SLOTS	LIST EACH
5710 CN	48"	8"Ø	1"	2	\$104.00
5715 CN	48"	10"Ø	1 1/2"	2	\$104.00
5715 CN	48"	12"Ø	1 1/2"	2	\$104.00

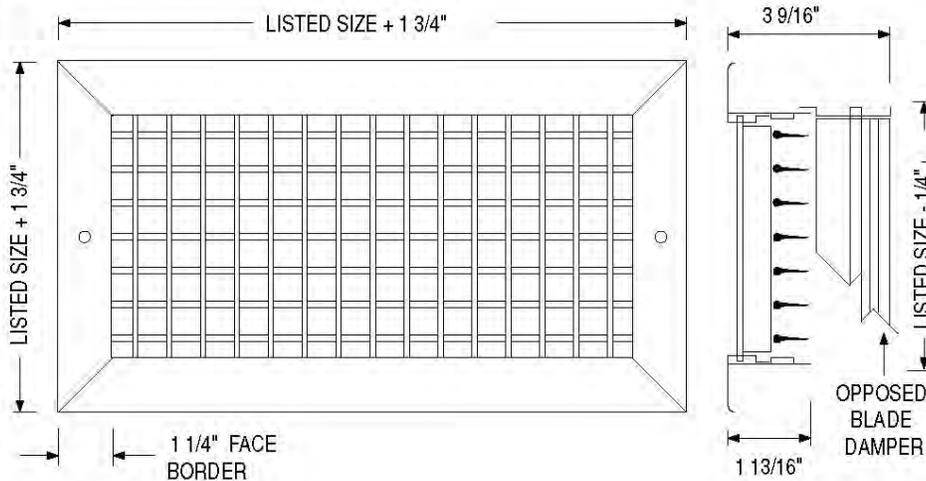


All prices subject to change without notification





STEEL SUPPLY GRILLES & REGISTERS DOUBLE DEFLECTION MODEL : 61DV-O



MODEL 61DV-O
Double Deflection Register
Vertical Front Blades
(Includes O. B. Damper)

Dimensions are in inches (mm).

DESCRIPTION:

Construction: Corrosion resistant steel. Roll-formed frame mechanically interlocked with mitered corners for strength. Two sets of perpendicular roll-formed 'teardrop' blades on 3/4" centers provide air pattern control in two planes. Blades are individually pivoted to ensure positive positioning when adjusted to desired deflection setting.

Optional roll-formed steel opposed blade damper has a screw driver slot operator accessible through face of register.

Frame has a 1 1/4" face border and a 1" overlap margin.

Standard fastening is Type A countersunk screw holes.

Standard finish is AW Appliance White baked enamel.

SIZE (inches)	LIST EACH	SIZE (inches)	LIST EACH
6x6	\$35.00	16x8	\$52.00
8x6	\$36.00	16x10	\$52.00
8x8	\$36.00	16x12	\$58.00
10x4	\$34.00	16x14	\$66.00
10x6	\$40.00	16x16	\$80.00
10x8	\$44.00	18x10	\$72.00
10x10	\$48.00	18x12	\$70.00
12x4	\$36.00	18x18	\$100.00
12x6	\$40.00	20x12	\$76.00
12x8	\$48.00	20x16	\$88.00
12x10	\$50.00	20x20*	\$80.00
12x12	\$54.00	22x22	\$130.00
14x6	\$46.00	24x12	\$76.00
14x8	\$48.00	24x16	\$114.00
14x10	\$48.00	24x20	\$124.00
14x12	\$52.00	24x24*	\$114.00
14x14	\$66.00	36x12	\$140.00

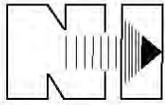
* - Model 61DV (NO DAMPER)



All prices subject to change
without notification

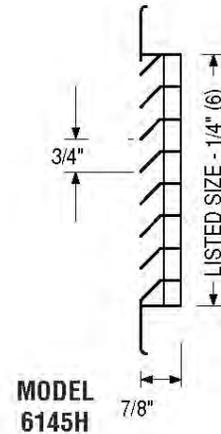
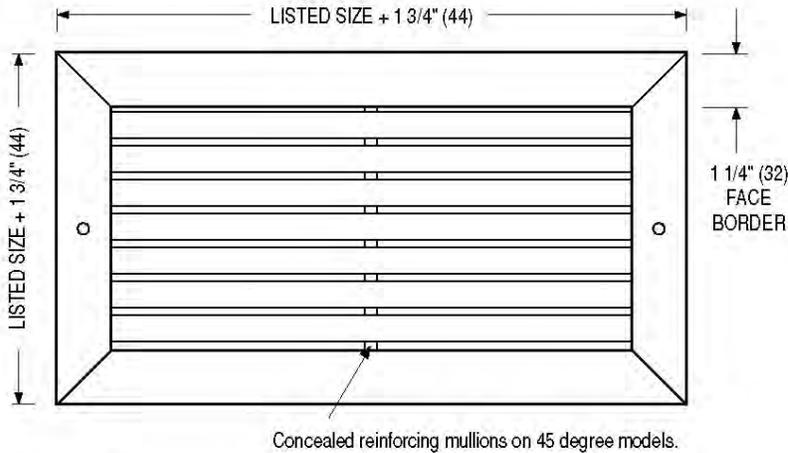


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Fax: (317) 259-1190



Nailor
Industries Inc.

STEEL RETURN GRILLES & REGISTERS
FIXED BLADES • 3/4" SPACING
MODEL : 6145H



DESCRIPTION:

1. Construction: Corrosion resistant steel. Roll-formed frame mechanically interlocked with reinforced mitered corners for strength. Roll-formed blades on 3/4" (19) centers are fixed at 45 degrees to match and compliment the supply grilles and registers. 45 degree model utilizes a concealed rear reinforcing mullion (max. 16" (406) centers) and a single blade pack that provides a continuous louvered appearance.
2. Optional roll-formed steel opposed blade damper has a screwdriver slot operator accessible through face of register.
3. Minimum size is 4" x 4" (102 x 102).
Maximum size is 48" x 36" (1219 x 914).
4. Frame has a 1 1/4" (32) face border and a 1" (25) overlap margin.
5. Standard fastening is Type A countersunk screw holes.
6. Standard finish is AW Appliance White baked enamel.

MODEL 6145H

Single Deflection Grille
Fixed 45° Horizontal Blades

LAY-IN SIZES(No screw holes)

NECK SIZE	FACE SIZE	LIST EACH
22x10	24x12	\$34.00
22x22	24x24	\$70.00

SIZE (inches)	LIST EACH
6x6	\$14.00
8x6	\$16.00
8x8	\$22.00
10x6	\$18.00
10x8	\$18.00
10x10	\$24.00
12x6	\$18.00
12x8	\$20.00
12x10	\$22.00
12x12	\$30.00
14x10	\$24.00
14x12	\$28.00
14x14	\$36.00
16x8	\$24.00

SIZE (inches)	LIST EACH
16x10	\$28.00
16x12	\$30.00
16x14	\$32.00
16x16	\$40.00
18x10	\$30.00
18x12	\$32.00
18x14	\$34.00
18x18	\$40.00
20x12	\$30.00
20x16	\$44.00
20x20	\$52.00
22x22	\$66.00
24x12	\$38.00
24x16	\$46.00

SIZE (inches)	LIST EACH
24x20	\$54.00
24x24	\$70.00
30x12	\$46.00



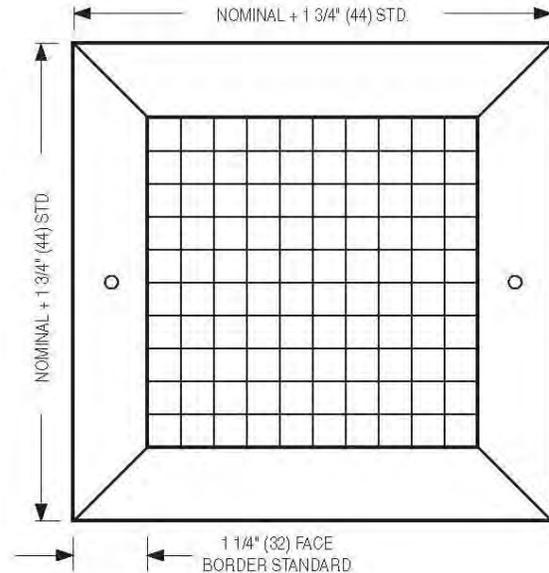
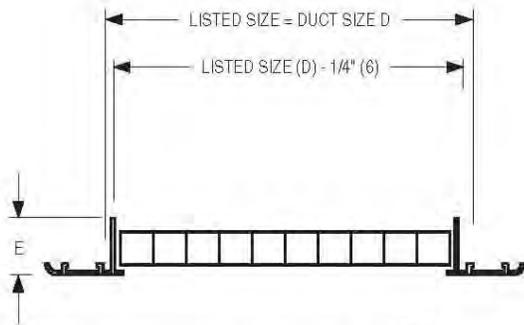
All prices subject to change without notification



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Fax: (317) 259-1190



**ALUMINUM EGGCRATE RETURN GRILLES
AND REGISTERS
SURFACE MOUNT
MODELS: 51EC TYPE S**



DIMENSION	STANDARD FRAME WITH 1/2 x 1/2 x 1/2 STD. CORE
E	7/8"

Model 51EC Grille Type S.
For surface mount applications.

DESCRIPTION:

Construction: Extruded aluminum heavy gauge frame mechanically interlocked with hairline mitered corners for strength. 1/2 x 1/2 x 1/2 (13 x 13 x 13) aluminum grid core (code CA) is standard. A high capacity return or exhaust outlet with maximum free area for minimum pressure drop and sound generation.

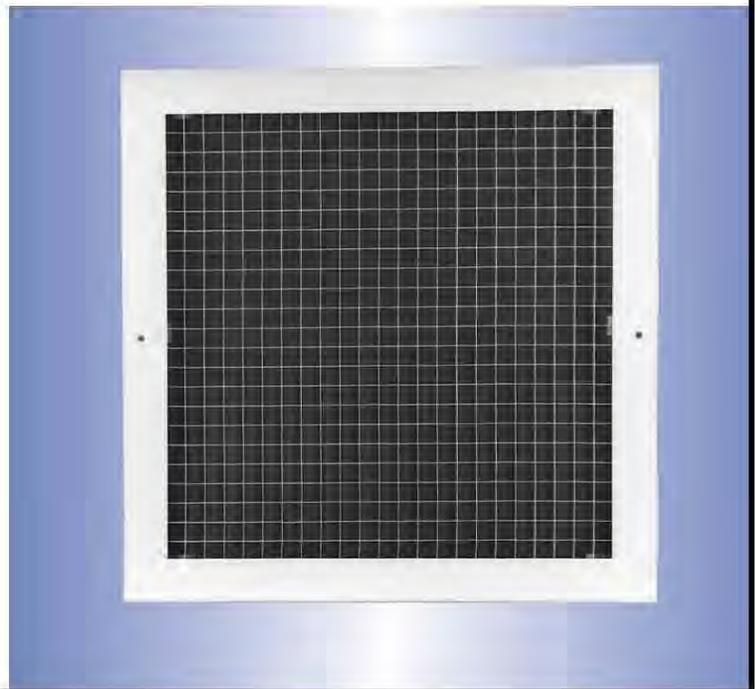
Type S Surface mount standard frame has a 1 1/4" (32) face border and a 1" (25) overlap margin.

Standard fastening is Type A countersunk screw holes.

Standard finish is AW Appliance White.

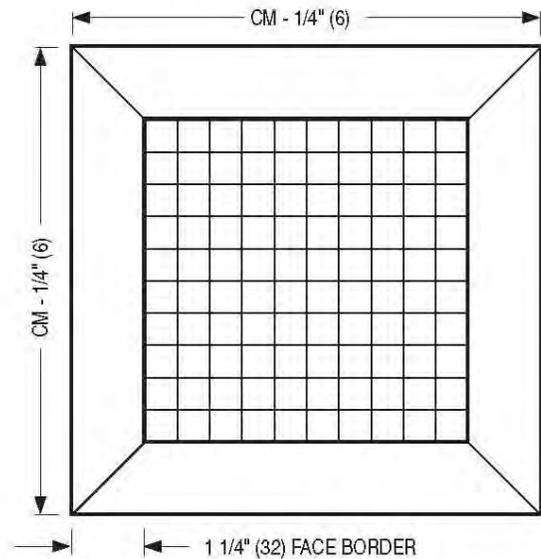
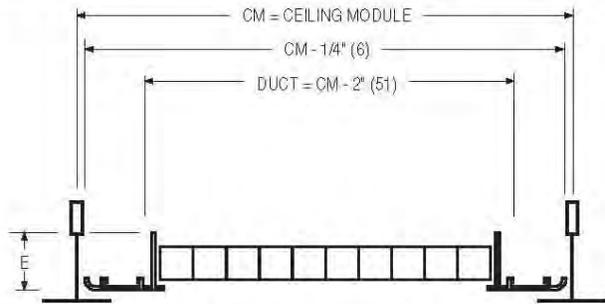
Dimensions are in inches (mm).

NECK SIZE	LIST EACH
8x8	\$24.00
10x10	\$28.00
12x12	\$32.00
24x12	\$44.00
24x24	\$82.00





**ALUMINUM EGGCRATE RETURN
GRILLES AND REGISTERS
LAY-IN T-BAR
MODELS: 51EC TYPE L**



TYPE L ALUMINUM FRAME/BORDER

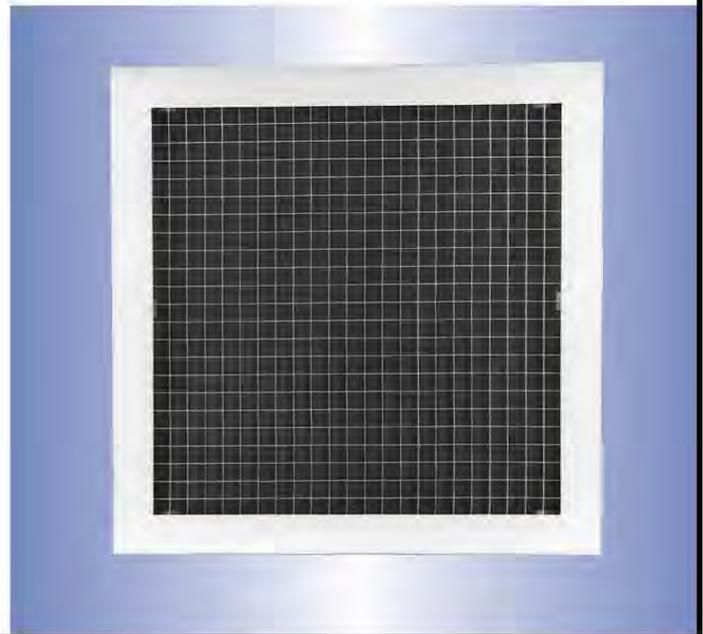
DIMENSION	STANDARD FRAME WITH 1/2 x 1/2 x 1/2 STD. CORE
E	7/8" (22)

DESCRIPTION:

Construction: Extruded aluminum heavy gauge frame mechanically interlocked with hairline mitered corners for strength on Type L. 1/2 x 1/2 x 1/2 (13 x 13 x 13) aluminum grid core (code CA) is standard on all models. A high capacity return or exhaust outlet with maximum free area for minimum pressure drop and sound generation.

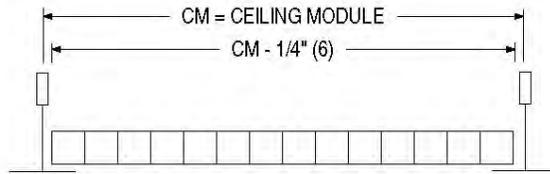
Nominal List Size = Ceiling Module Size.
Standard finish is AW Appliance White.

FACE SIZE	NECK SIZE	LIST EACH
24x12	22x10	\$40.00
24x24	22x22	\$80.00
48x24	46x22	\$154.00





**ALUMINUM EGG CRATE RETURN
GRILLES AND REGISTERS
LAY-IN T-BAR
MODEL : 51EC TYPE C**



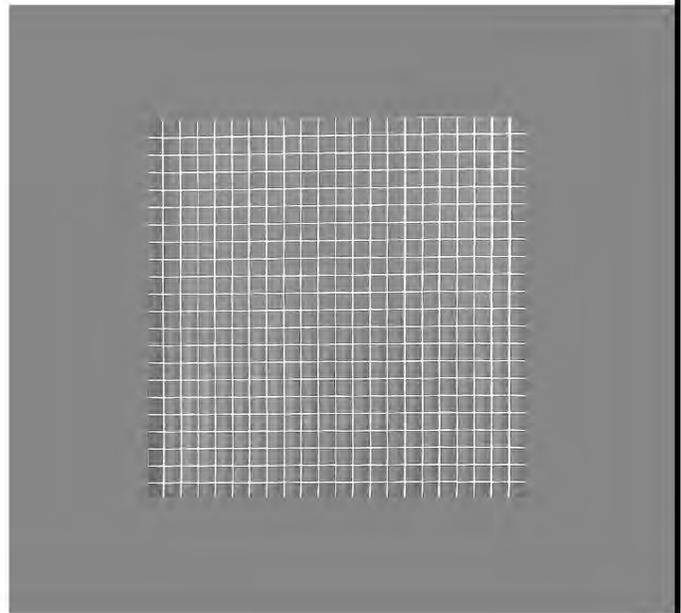
TYPE C CORE ONLY (for non-ducted applications)

Model 51EC

DESCRIPTION:

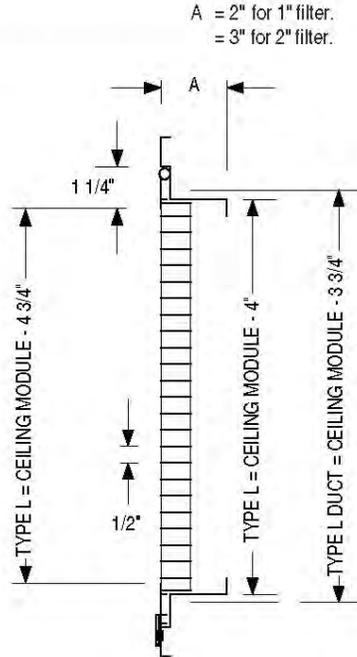
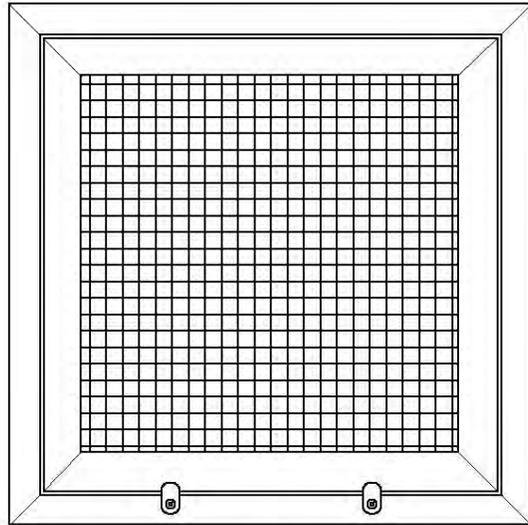
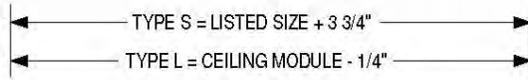
1. 1/2 x 1/2 x 1/2 aluminum grid core, no frame.
2. Standard finish is Appliance White (AW)

SIZE	LIST EACH
24x12	\$28.00
24x24	\$44.00
48x24	\$90.00





STEEL FILTER RETURN GRILLES
EGGCRATE GRID CORE
MODEL: 61FE



FRAME/BORDER: Type L Lay-in T-Bar

DESCRIPTION:

Material: Corrosion-resistant steel.

Eggcrate core is 1/2" x 1/2" x 1/2"

Core is hinged and secured by 1/4 turn latches.
 Core panel is hinged on width dimension at top as standard (HT).

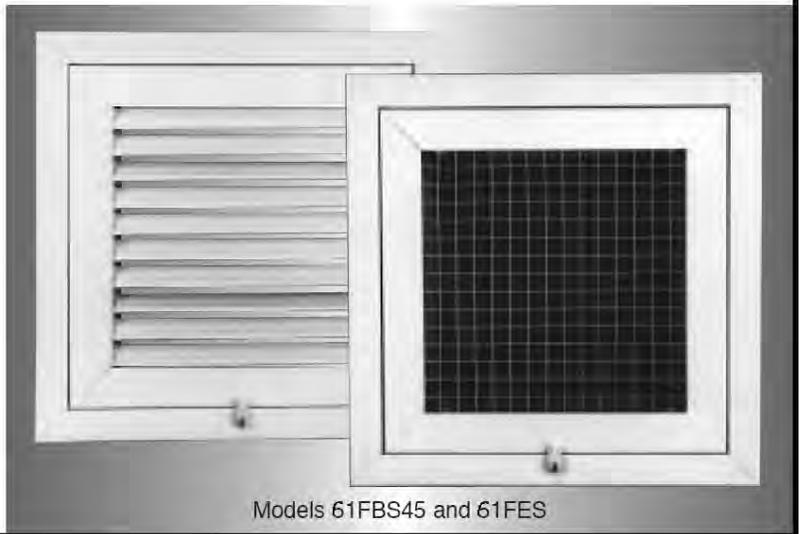
Standard Finish: AW Appliance white baked enamel.

Dimensions are in inches

NOMINAL SIZE	FRAME TYPE	FILTER DEPTH	LIST PRICE
24x24	L	1"	\$126.00
24x24	L	2"	\$152.00

MERV 8 PLEATED FILTERS

NOMINAL SIZE	FILTER DEPTH	LIST PRICE
20x20	1"	\$12.00
20x20	2"	\$18.00
24x24	1"	\$16.00



Models 61FBS45 and 61FES

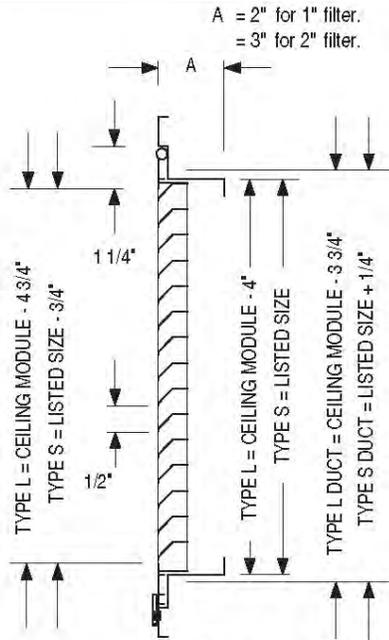
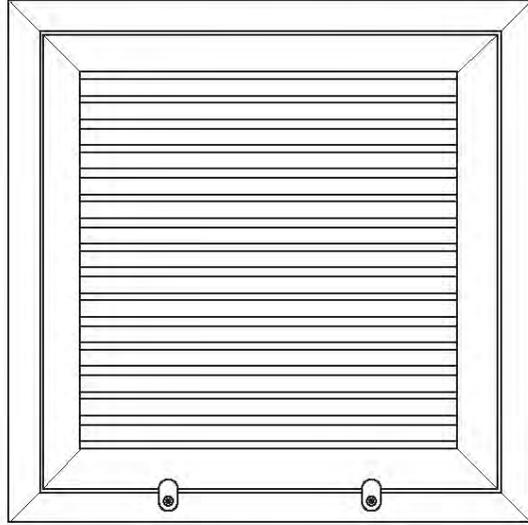
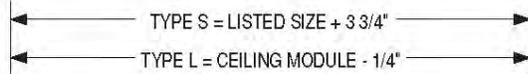
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**STEEL FILTER RETURN GRILLES
FIXED LOUVERED BLADES
MODEL : 61FB45**



Dimensions are in inches

MODEL : 61FB45

MODEL : 61FB45 45° deflection, 3/4" spacing

FRAME/BORDER:

- Type S** Surface Mount
- Type L** Lay-in T-Bar

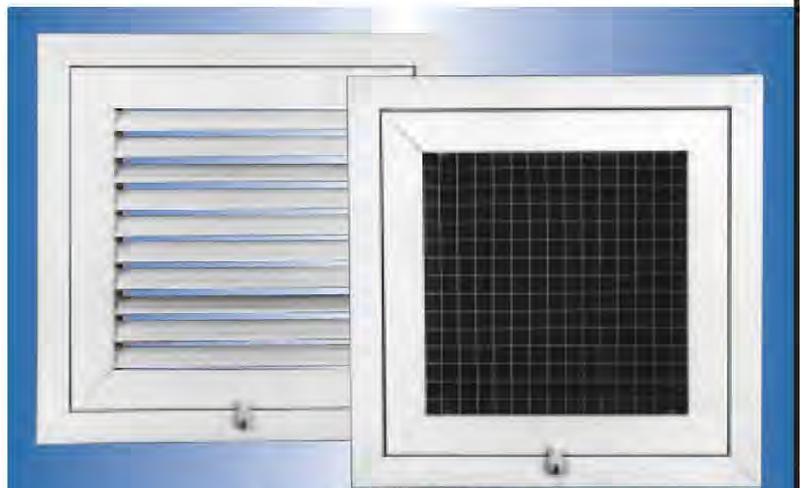
DESCRIPTION:

Material: Corrosion-resistant steel.
Core is hinged and secured by 1/4 turn latches.
Core panel is hinged on width dimension at top as standard (HT).
Finish: AW Appliance white baked enamel.
Countersunk screwholes on face of outer frame (Type S Model only).

NOMINAL SIZE	FRAME TYPE	FILTER DEPTH	LIST PRICE
24x24	L	1"	\$112.00
24x24	L	2"	\$144.00
24x24	S	1"	\$148.00
24x24	S	2"	\$180.00

MERV 8 PLEATED FILTERS

NOMINAL SIZE	FILTER DEPTH	LIST PRICE
20X20	1"	\$12.00
20X20	2"	\$18.00
24x24	1"	\$16.00



Models 61FBS45 and 61FES

All prices subject to change without notification

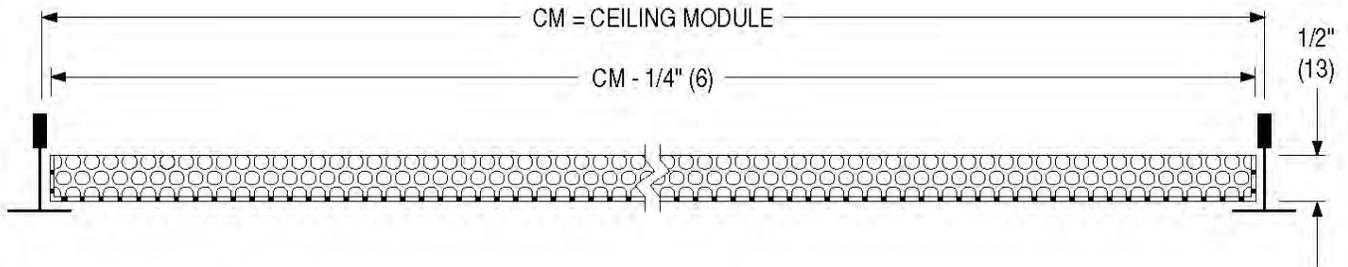


**Phone: (317) 259-1180
Fax: (317) 259-1190 20**



**PERFORATED CEILING DIFFUSERS
RETURN PANEL
MODEL : 4302**

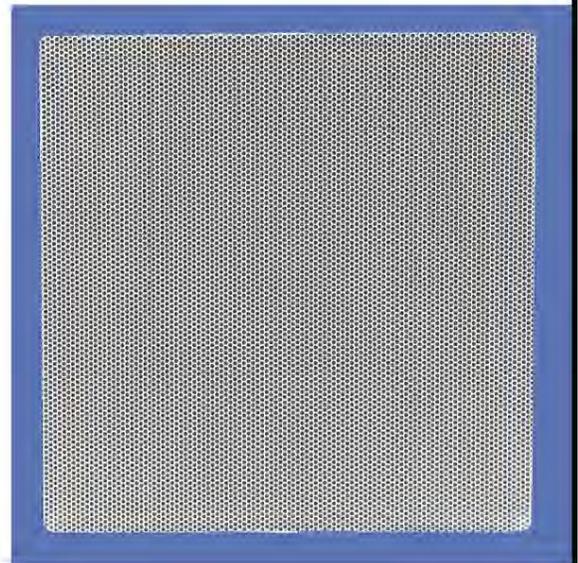
TYPE L Lay-in



DESCRIPTION:

1. Material: Corrosion-resistant steel.
2. Model 4302 perforated return is designed for non-ducted return or exhaust air applications.
3. Panels match Models 4320, 4320CB, 4320F and 4320M in appearance after installation.
4. Installs in Lay-in T-Bar ceiling systems.
5. Perforated face has 3/16" diameter holes on 1/4" staggered centres.
6. Standard finish is AW Appliance White.

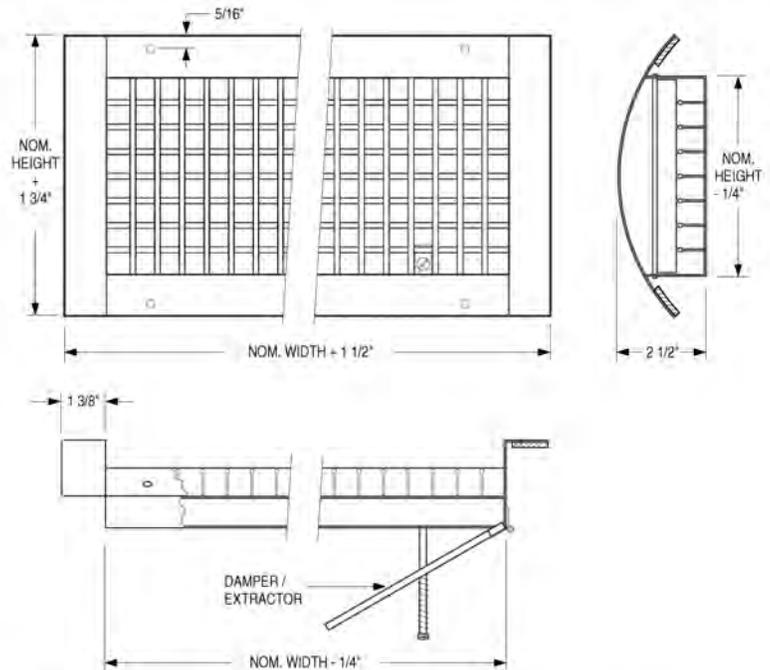
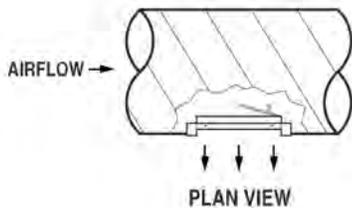
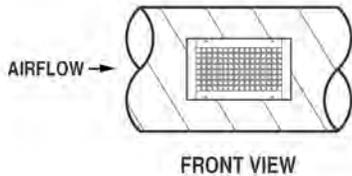
SIZE	LIST EACH
24x12	\$22.00
24x24	\$30.00





CURVED SPIRAL DUCT GRILLES
 TRUE FULL RADIUS DESIGN
 DOUBLE DEFLECTION • ADJUSTABLE BLADES
MODEL : 61DVC WITH EXTRACTOR

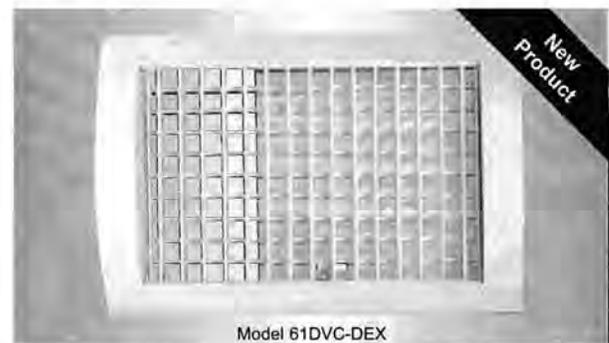
MODEL 61DVC
 Double Deflection
 Vertical Front Blades



DESCRIPTION:

1. Nailor's unique curved spiral duct grille design offers an architecturally superior appearance and saves installation time and money by directly mounting to the duct and hence eliminating the need to fabricate stand-off saddles for standard grilles.
2. Construction: Unique corrosion resistant steel frame design is rolled to match required duct radius. Two sets of perpendicular extruded aluminum "teardrop" blades on 3/4" (19) centers provide air control in two planes. Individually adjustable blades are friction pivoted to ensure positive positioning when adjusted to desired deflection setting.
3. A thick foam gasket is provided as standard to ensure a tight seal to duct.
4. Standard fastening is Type A screw holes.
5. Stock finish is Silver Painted finish. Also available in Appliance White & Black

GRILLE SIZE	SPIRAL SIZE	LIST EACH
10" x 3"	6"Ø	\$110.00
10" x 3"	8"Ø	\$110.00
12" x 4"	8"Ø	\$120.00
12" x 4"	10"Ø	\$120.00
12" x 4"	12"Ø	\$120.00
12" x 6"	12"Ø	\$126.00
12" x 6"	14"Ø	\$126.00
12" x 6"	16"Ø	\$126.00
12" x 8"	16"Ø	\$130.00
12" x 8"	18"Ø	\$130.00
12" x 8"	20"Ø	\$130.00
12" x 8"	22"Ø	\$130.00
12" x 8"	24"Ø	\$130.00

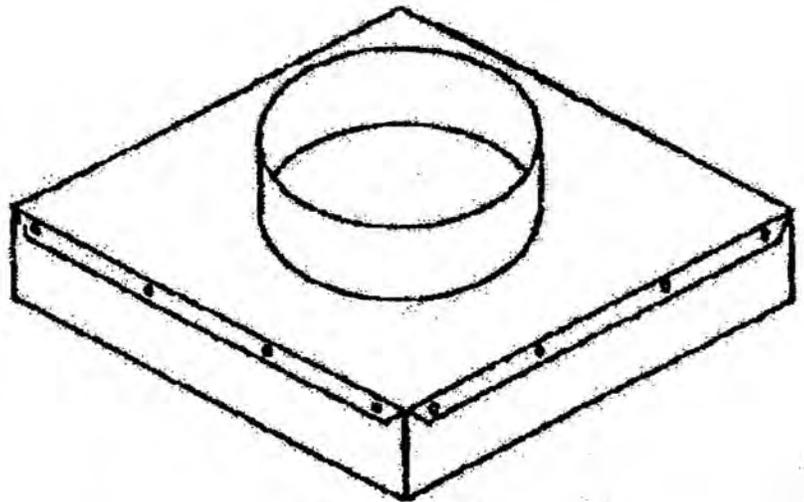


SQUARE-TO-ROUNDS

SIZE	LIST EACH
6 x 6 x 6"Ø	\$18.00
8 x 8 x 6"Ø	\$20.00
8 x 8 x 8"Ø	\$20.00
10 x 10 x 6"Ø	\$22.00
10 x 10 x 8"Ø	\$22.00
10 x 10 x 10"Ø	\$22.00
12 x 12 x 6"Ø	\$26.00
12 x 12 x 8"Ø	\$26.00
12 x 12 x 10"Ø	\$26.00
12 x 12 x 12"Ø	\$26.00
15 x 15 x 12"Ø	\$32.00
15 x 15 x 14"Ø	\$32.00
18 x 18 x 16"Ø	\$36.00
18 x 18 x 18"Ø	\$36.00
20 x 20 x 10"Ø	\$40.00
20 x 20 x 12"Ø	\$40.00
20 x 20 x 14"Ø	\$40.00
20 x 20 x 16"Ø	\$40.00
20 x 20 x 18"Ø	\$48.00
20 x 20 x 20"Ø	\$48.00
22 x 10 x 6"Ø	\$42.00
22 x 10 x 8"Ø	\$42.00
22 x 10 x 10"Ø	\$42.00
22 x 22 x 8"Ø	\$44.00
22 x 22 x 10"Ø	\$44.00
22 x 22 x 12"Ø	\$44.00
22 x 22 x 14"Ø	\$44.00
22 x 22 x 16"Ø	\$44.00
22 x 22 x 18"Ø	\$48.00
22 x 22 x 20"Ø	\$48.00
24 x 24 x 10"Ø	\$46.00
24 x 24 x 12"Ø	\$46.00
24 x 24 x 14"Ø	\$46.00
24 x 24 x 16"Ø	\$50.00
24 x 24 x 18"Ø	\$50.00
24 x 24 x 20"Ø	\$50.00

For connecting flex duct to square neck diffusers and grilles

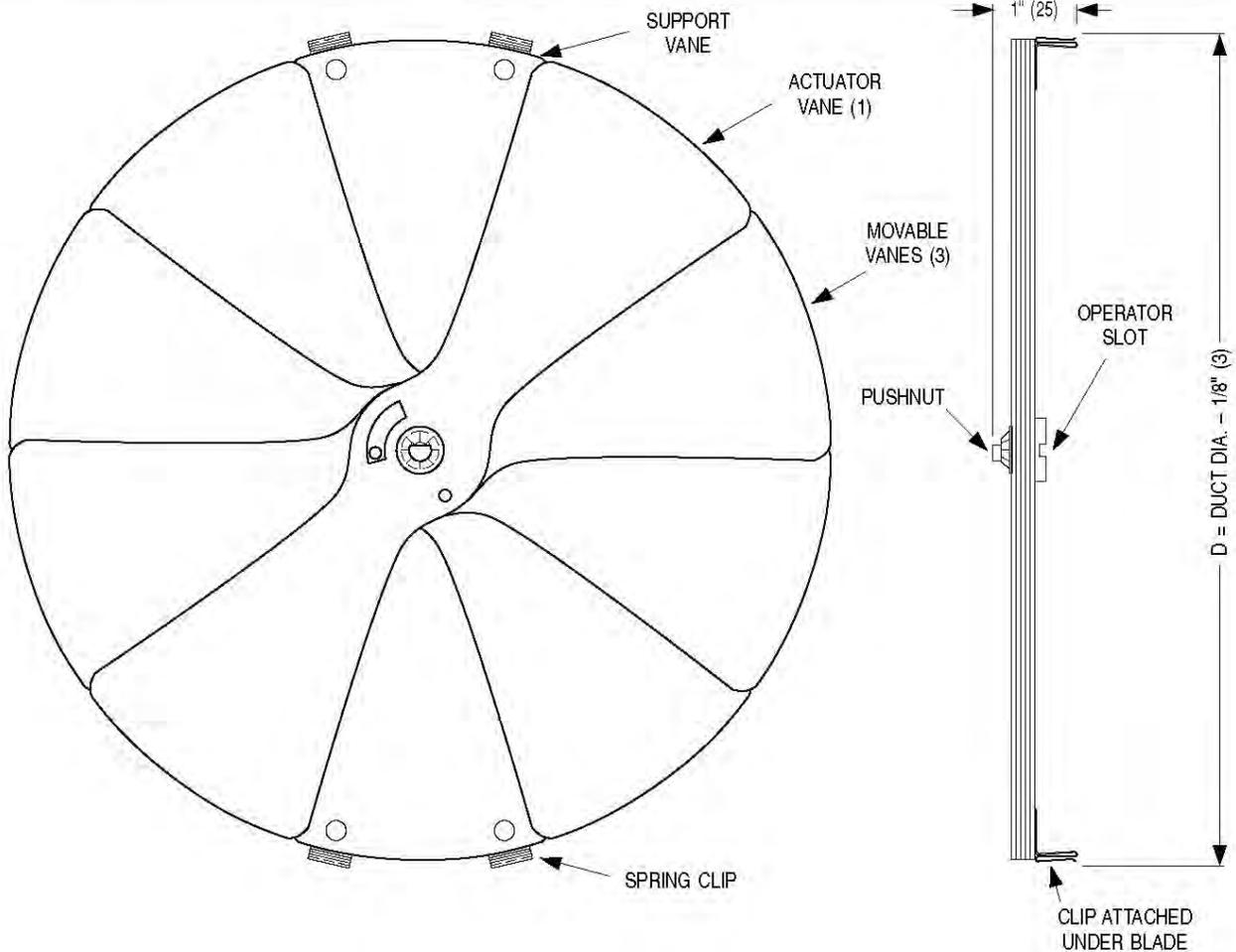
Square-to-rounds are 4" deep





RADIAL SLIDING BLADE DAMPER

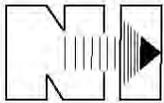
STEEL • FOR ROUND NECK DIFFUSERS
MODEL: 4250



DESCRIPTION:

1. Material: Heavy gauge corrosion-resistant steel.
2. The Nailor Model 4250 is a neck mounted, radial sliding blade damper used in round neck diffuser applications to provide fine volume control.
3. Dampers have gang operated radial blades. Blades slide at right angles to the duct with protrusion above the diffuser neck, allowing the damper to work effectively in flexible duct applications.
4. The 4250 is neck mounted with steel barb clips providing secure attachment.
5. Adjustments are made at the screwdriver operator slot.
6. Available Sizes: 6", 8", 10", 12"

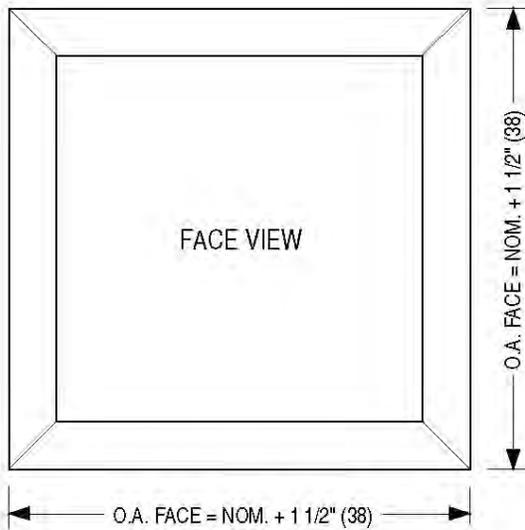
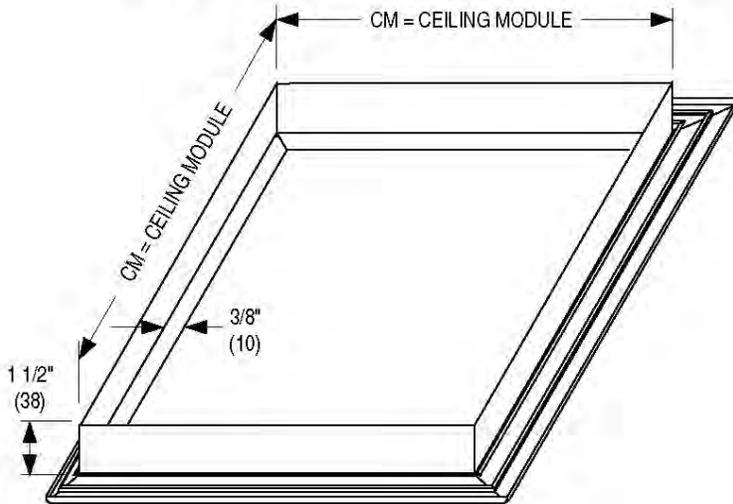
SIZE	LIST EACH
6"Ø	\$14.00
8"Ø	\$16.00
10"Ø	\$18.00
12"Ø	\$20.00
14"Ø	\$22.00



Nailor
Industries Inc.

**CEILING DIFFUSER ACCESSORIES
DRYWALL/PLASTER FRAME • ALUMINUM
MODEL: DFA**

**ALUMINUM SURFACE MOUNT ADAPTOR FRAME FOR
MODEL SERIES RNS, 4300, 4600 OR UNI LAY-IN T-BAR DIFFUSERS**



DESCRIPTION:

The Model DFA is for mounting in finished drywall or plaster ceilings to accept any standard lay-in type diffuser.

It allows the retrofit of lay-in diffusers and simplified installation of flexible duct in surface mount applications.

Model DFA is installed quickly and easily and is suitable for variable ceiling thicknesses. Installation requires framing of the opening with "C" channel or wood for attachment with mounting screws (by others).

The finished appearance is professional and aesthetically pleasing.

Model DFA simplifies and reduces installation time compared with surface mount type diffusers.

A major benefit is that the diffuser allows ceiling access for maintenance purposes in lieu of separate access doors.

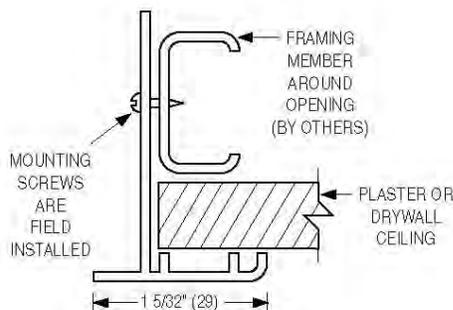
Material: Aluminum extrusion with staked and mitered corners.

Standard Finish: AW Appliance white baked enamel.

AVAILABLE CEILING MODULES:

SIZE	LIST EACH
12x12	\$30.00
24x12	\$32.00
20x20	\$34.00
24x24	\$40.00
48x24	\$70.00

**TYPICAL
INSTALLATION**

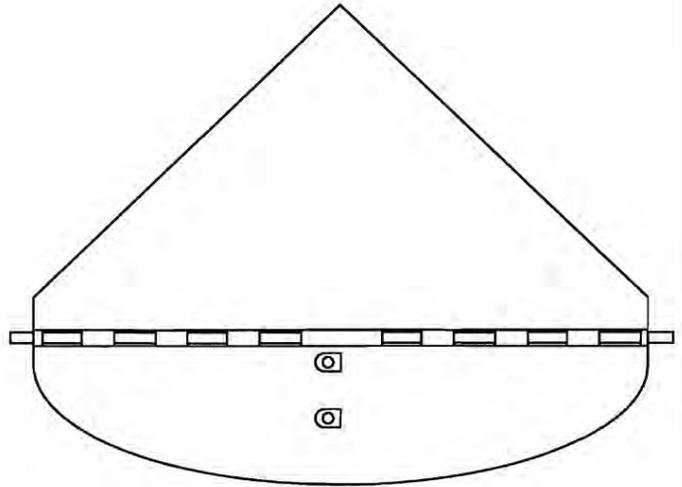


CEILING OPENING = CM + 1/4"

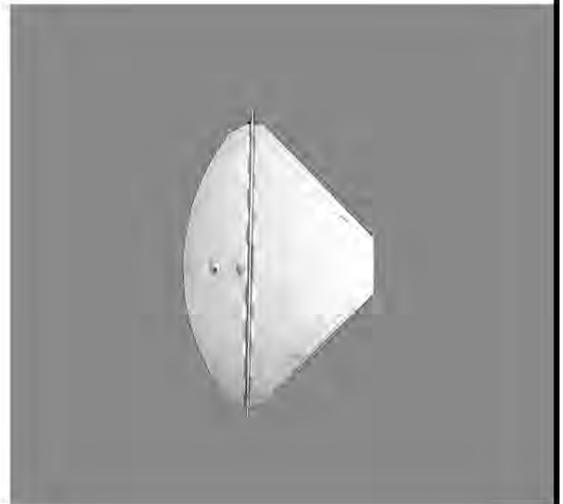
Dimensions are in inches

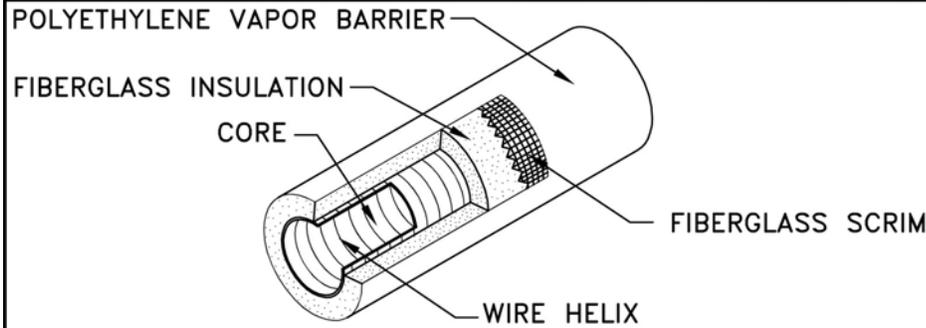
Quadrant Blanks • Model 4295 for Round Neck Diffusers

The Model 4295 Quadrant Blanks are for insertion into the diffuser neck to provide one, two or three-way discharge as may be required to accommodate nearby airflow obstructions. **Quadrant Blanks** are available for all neck sizes. Hinge pins on the unit clip easily into pre-set holes on the collar for simple installation.



SIZE	LIST EACH
6"Ø	\$8.00
8"Ø	\$8.00
10"Ø	\$8.00
12"Ø	\$8.00
14"Ø	\$8.00





F114
 Insulated Flexible Air Duct
 Class 1, R-4.2
 Polyester Core
 Polyethylene Vapor Barrier

CORE

- Two plies of black polyester film encapsulate a steel wire helix.
- Rated pressures (UL-181): 12 in. W.C. positive, 3/4 in. W.C. negative ($\leq 12''\phi$) & 1/2" W.C. negative ($> 12''\phi$).
- Recommended maximum operating pressures (ADC Test FD 72-R1):
 6 in. W.C. positive for 12 in. diameter and under.
 4 in. W.C. positive for 14 in. diameter and over.
- Rated maximum air velocity: 5000 FPM.

THERMAL CHARACTERISTICS

- R-4.2 formaldehyde free insulation certified by UL and the Air Diffusion Council in accordance with ADC Flexible Duct Performance and Installation Standards using ASTM C-518 at installed wall thickness on flat insulation only.

VAPOR BARRIER

- A durable black polyethylene vapor barrier
- High tensile multi-directional fiberglass scrim is used under the vapor barrier to provide additional strength and tear resistance.
- Perm rating of 0.1 perms when measured per ASTM E96, Method A.

SURFACE BURNING CHARACTERISTICS

- Flame Spread: Less than 25
- Smoke Developed: Less than 50

OPERATING TEMPERATURE RANGE

- -20°F to 140°F Continuous
- -20°F to 250°F Intermittent

SIZE AVAILABILITY

- Standard length: 25 feet
- Diameters offered: 6", 8", 10", 12", 14", 16", 18" & 20"
- F114 - Packaged in boxes

APPROVALS/COMPLIANCE

- UL-181 (UL LISTED)
- NFPA 90A & 90B
- HUD
- California Bureau of Home Furnishings
- Most Federal, State, and Local Codes and Standards.

DIA	LIST PER BOX
6"	\$56.00
8"	\$64.00
10"	\$76.00
12"	\$96.00
14"	\$124.00
16"	\$140.00
18"	\$156.00
20"	\$190.00

Nelco Ductmaster™ Duct Straps

Extra Heavy-Duty Cable Ties:



Extra-heavy duty bundling applications not to exceed 175 lbs. of bundling force. 0.35" Wide x 36" Long.

Product	LIST EACH
36" Duct Strap (pkg. 50)	\$16.00



CURTAIN TYPE FIRE DAMPER

1 1/2 HR. LABEL • VERT. OR HORIZONTAL
FOR USE IN STATIC SYSTEMS
MODEL 0110H TYPE A



QUALIFICATIONS:

- UL 555 Classified Fire Damper. 1 1/2 hr. label. (File # 9492).
- Meets all the requirements of UL and NFPA 90A for fire dampers in static HVAC systems.
- Meets the requirements for BOCA, SBCCI, UBC, IBC and associated local building codes.
- California State Fire Marshal Listing No. 03225-0935:100.
- City of New York Board of Standards and Appeals. Cal. No. 460-88-SA.

The 0110 curtain fire damper is UL approved for use where local building codes require the protection of HVAC ductwork penetrations in walls, partitions or floors that have a fire resistance rating of up to 2 hours. The 0110 is classified for use only in static "fans off" systems where the HVAC system is automatically shut down in the event of a fire alarm.

STANDARD SPECIFICATION:

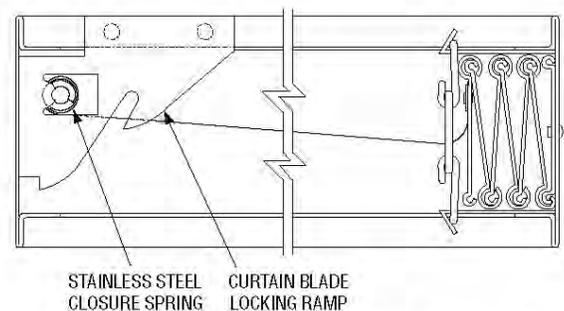
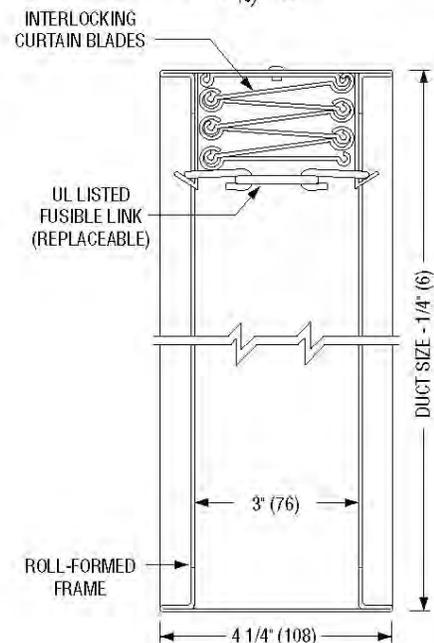
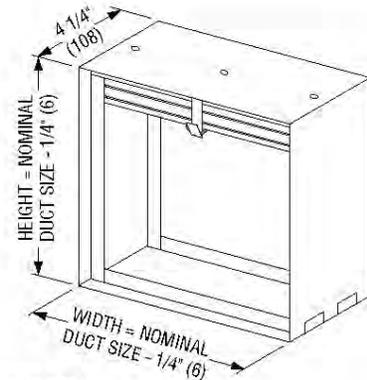
- FRAME:** 4 1/4" (108) wide, 22 ga. (0.85) roll-formed G60 galvanized steel.
- BLADES:** Curtain type interlocking blades, 22 ga. (0.85) roll-formed G60 galvanized steel.
- FUSIBLE LINK:** 165°F (74°C) standard. UL Listed.
- BLADE CLOSURE:** Horizontal mount models are equipped with stainless steel closure springs and galvanized steel locking ramps.

NOTES:

1. Units are manufactured 1/4" (6) under nominal duct size.
2. Building code and UL Classification require damper installation in accordance with manufacturer's instructions. Refer to doc. IOM-FDINST.

Manufactured by members of S.M.W.I.A.

SIZE	LIST EACH
8x8	\$32.00
12x8	\$38.00
12x12	\$40.00
16x8	\$40.00
16x16	\$60.00
20x12	\$56.00
20x20	\$68.00
24x12	\$60.00
24x16	\$68.00
24x24	\$74.00



MODEL 0110H – HORIZONTAL MOUNT

Dimensions are in inches (mm).

NOTE: All stocked fire dampers have closure springs and are suitable for horizontal or vertical mount



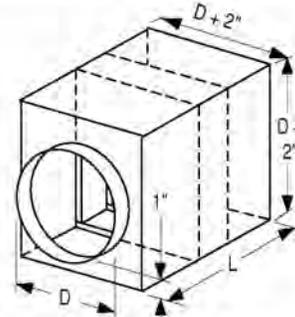
**INTEGRAL SLEEVE CURTAIN TYPE
FIRE DAMPERS**
1 1/2 HR. LABEL • VERT. OR HORIZ. MOUNT
FOR USE IN STATIC SYSTEMS
MODEL: 0134-12H



QUALIFICATIONS:

- UL 555 Classified Fire Damper. 1 1/2 hr. label. (File # 9492).
- CAN/ULC-S112 Fire Damper Assemblies.
- Meets all the requirements of UL and NFPA 90A for fire dampers in static HVAC systems.
- Meets the requirements for BOCA, SBCCI, UBC, IBC, NBC (Canada) and associated local building codes.
- California State Fire Marshal Listing No. 03225-0935:100.
- City of New York Board of Standards and Appeals. Cal. No. 460-88-SA.

The 0100 curtain fire dampers are UL approved for use where local building codes require the protection of HVAC ductwork penetrations in walls, partitions or floors that have a fire resistance rating of up to 2 hours. The 0100s are classified for use only in static "fans off" systems where the HVAC system is automatically shut down in the event of a fire alarm. Integral sleeve fire dampers offer convenience and labor savings. The costly requirement to field or shop fabricate custom sleeves is eliminated and dampers can therefore ship directly from the manufacturer to the job site – saving time and money.



Type 'CR' – Round transition collars. Blades partially in airstream.
Model : 0134H Horizontal

STANDARD SPECIFICATION:

INTEGRAL

SLEEVE/FRAME: 22 ga. (0.85) roll-formed G60 galvanized steel.
Length 12"

BLADES: Curtain type interlocking blades, 22 ga. (0.85) roll-formed G60 galvanized steel.

FUSIBLE LINK: 165°F (74°C) standard. UL Listed.

BLADE CLOSURE: Horizontal mount models are equipped with stainless steel closure springs and galvanized steel locking ramps.

NOTES:

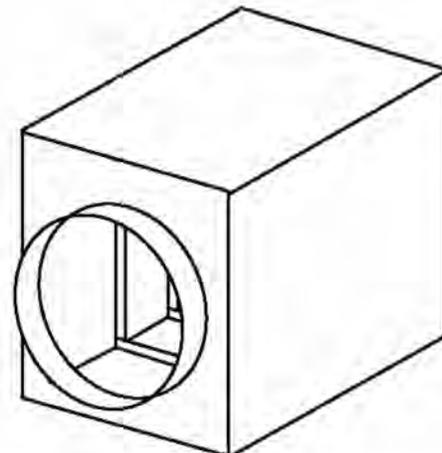
1. Building code and UL Classification require damper installation in accordance with manufacturer's instructions. Refer to doc. IOM-FDINST.

Manufactured by members of S.M.W.I.A.

EXTRA FUSIBLE LINKS

TEMP (Deg. F)	LIST EACH
165	\$10.00
212	\$10.00
350	\$10.00
Ruskin 'A' 165	\$14.00

SIZE	LIST EACH
6"Ø	\$58.00
8"Ø	\$64.00
10"Ø	\$74.00
12"Ø	\$86.00
14"Ø	\$106.00
16"Ø	\$116.00





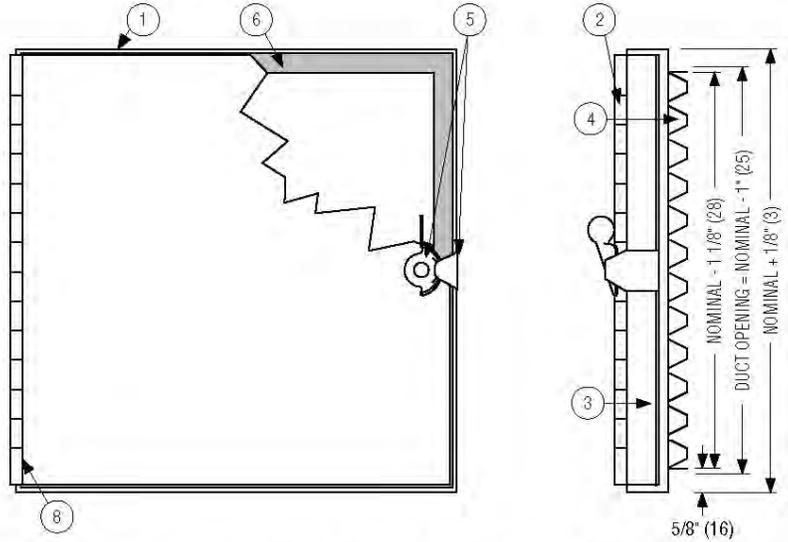
SMACNA STANDARD DUCT ACCESS DOORS
SQUARE • INSULATED
MODEL : 08SH

MODEL DESCRIPTION:

These economical quality access doors meet SMACNA requirements and provide quick, simple installation wherever duct access is required. Available in 20 sizes to meet all access requirements. Camlock operation for positive seal and easy opening.

CONSTRUCTION DETAILS:

1. Die-formed 22 ga. (0.86) galvanized steel flanged frame for strength.
2. Die-formed double skin 22 ga. (0.86) galvanized door panel for extra strength.
3. 1" (25) insulation.
4. Notched knock-over tabs.
5. Plated steel camlock fasteners.
6. Positive seal polyethylene gasket.
8. Continuous piano-type hinge standard on Model 08SH.
9. Hinged door Model 08SH is furnished with two camlocks on sizes over 14" in height.
10. Meet SMACNA construction specifications for systems up to 2" w.g. (500 Pa).



MODEL 08SH HINGED DOOR (WITH CAMLOCK CLOSURE)

Manufactured by members of S.M.W.I.A.

Dimensions are in inches (mm).

SIZE	LIST EACH
6x6	\$20.00
8x8	\$24.00
12x12	\$30.00
14x14	\$32.00
18x18	\$50.00
24x24	\$64.00

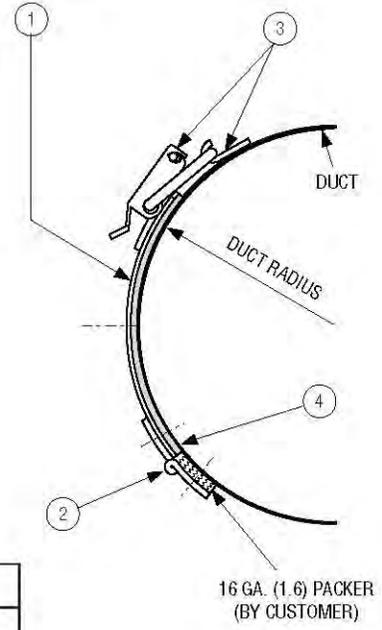
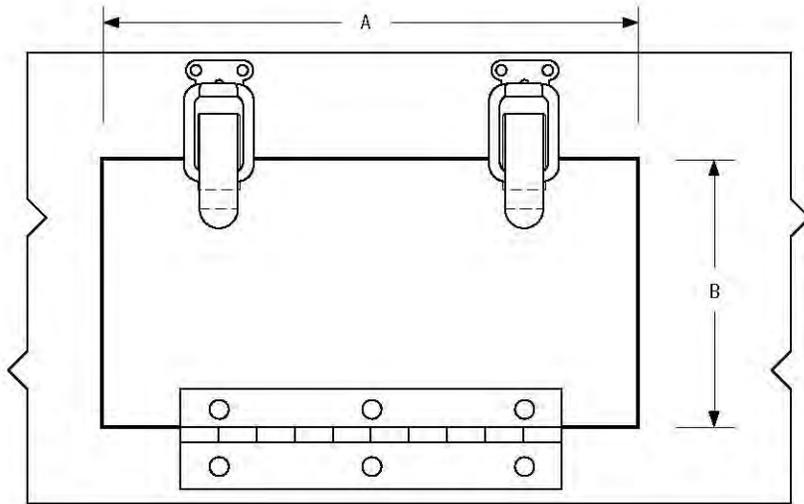


Model 08SH



**LOW PRESSURE DUCT ACCESS DOOR
FOR USE ON ROUND DUCT
MODEL: 0890**

FOR USE IN LOW PRESSURE DUCT SYSTEMS



DUCT SIZE	DIMENSION "A"	DIMENSION "B"
6 (152)	8 (203)	5 (127)
8 (203)	10 (254)	7 (178)
10 (254)	12 (305)	9 (229)
12 (305)	14 (356)	10 (254)
14 (356)	16 (406)	12 (305)
16 (406)	16 (406)	12 (305)

Dimensions are in inches (mm).

MODEL DESCRIPTION:

Hinged door installs easily onto low pressure round duct providing convenient access. Strike and catch style closure and factory installed gasket ensure positive seal.

STANDARD CONSTRUCTION:

1. Duct access door 16 ga. (1.6) galvanized steel.
2. Zinc plated hinge.
3. Strike and catch. Zinc plated steel.
4. Polyethylene gasket.
5. Other sizes are available; contact factory.

DIA	LIST EACH
8"	\$40.00
12"	\$64.00



Model 0890

RUSKIN®

3900 Dr. Greaves Rd. • Kansas City, MO 64030 • (816) 761-7476 • FAX (816) 765-8955

STANDARD ACCESS DOORS

APPLICATION

Ruskin access doors offer quick, easy and economical installation wherever duct access is needed. Manual locks assure tight door closure and the continuous piano-type hinge models give smooth operation. The ADCW and ADHW models feature a "see through" panel that permits visual duct inspection without door removal.

STANDARD CONSTRUCTION

FRAME

22 gage (.8) galvanized steel with seal.

DOOR

ADH24 – Hinged, double skin.

HINGE (ADH Models Only)

Continuous piano type.

LOCKS

ADH Models – Doors 16" (406) and under have one lock, doors over 16" (406) have two locks.

MAXIMUM STATIC PRESSURE

Double skin access doors have been tested to 6" w.g. Leakage increases as system pressure increases. Refer to chart on page 2.

SEALS

Foam gasket.

INSULATION

1" (25) fiberglass.

MINIMUM SIZE

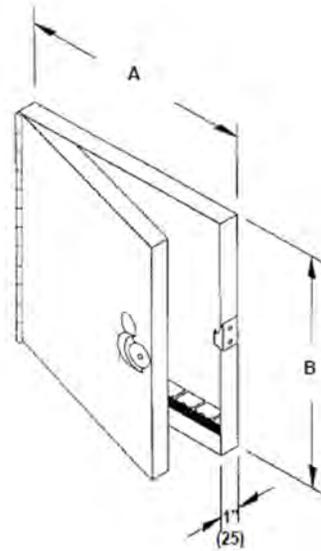
6"w x 6"h (152 x 152).

MAXIMUM SIZE

24"w x 24"h (610 x 610).

INSTALLATION

Cut hole 1 1/8" (28) smaller than door size.



SIZE	LIST EACH
6x6	\$24.00
8x8	\$26.00
12x12	\$34.00
14x14	\$42.00
18x18	\$50.00
24x24	\$70.00

NOTES

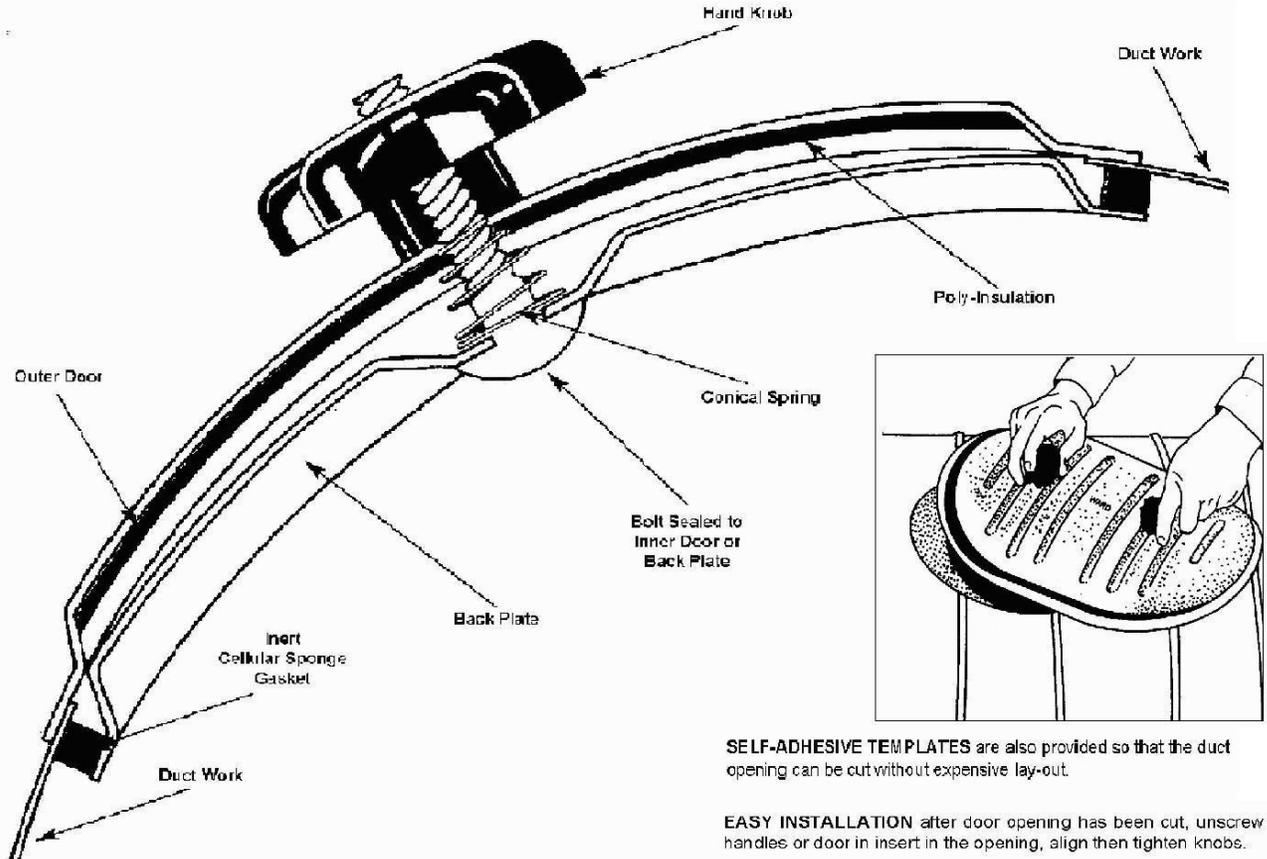
1. Dimensions shown in parenthesis () indicate millimeters.
2. Access doors furnished actual size.
3. For doors larger than 24" x 24" (610 x 610) see GPAD



ADR ACCESS DOORS

Ruskin ADR and ADF access doors are an inexpensive and trouble-free way to gain access into sheet metal ductwork systems for resetting dampers, cleaning filters, or access for general maintenance. The oval shaped opening permits the back plate or "inner plate" to be easily passed through the duct openings, and the neoprene gasket on the inner plate provides for an absolutely air-tight

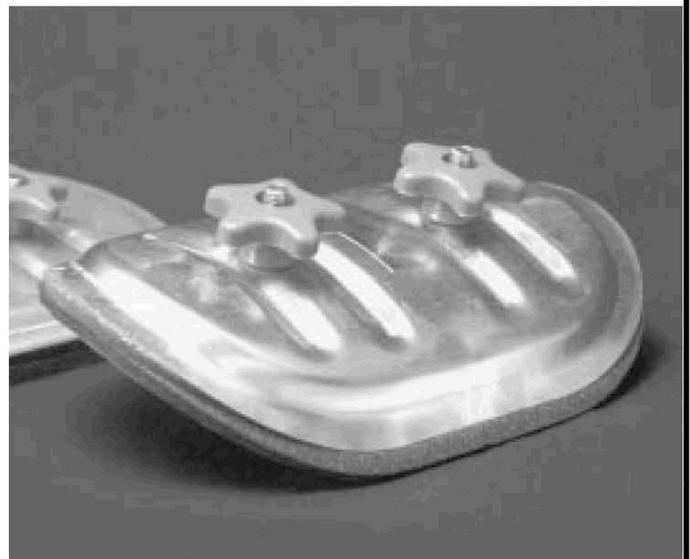
seal. The large hand knobs insure a quick method to remove and reinstall the door without the use of special tools. The ADR (for round duct work) and ADF (for flat duct work) are available in three sizes, 16" x 12", 10" x 6" and 8" x 4" to accommodate the many different sizes of duct work that are available.



SELF-ADHESIVE TEMPLATES are also provided so that the duct opening can be cut without expensive lay-out.

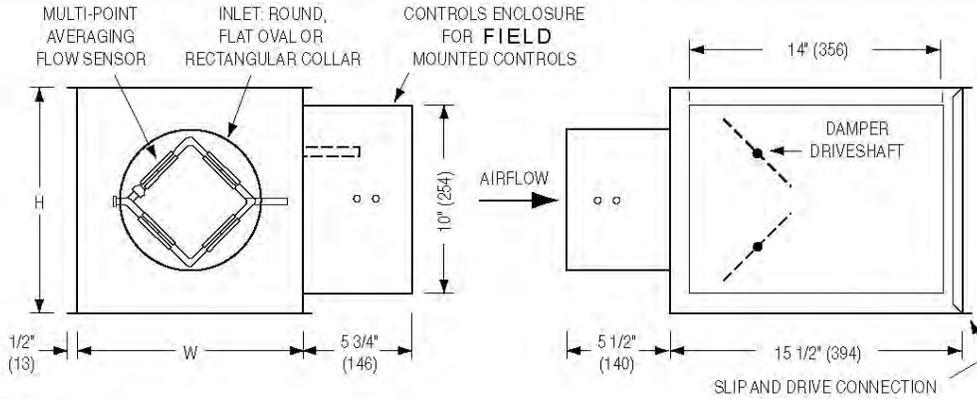
EASY INSTALLATION after door opening has been cut, unscrew handles or door in insert in the opening, align then tighten knobs.

DOOR SIZE	DUCT DIA	LIST EACH
8x4	6"	\$50.00
8x4	8"	\$50.00
10x6	10"	\$64.00
10x6	12"	\$64.00
10x6	14"	\$64.00
10x6	16"	\$64.00





SINGLE DUCT TERMINAL UNIT
 DIGITAL OR ANALOG ELECTRONIC CONTROL
 VARIABLE OR CONSTANT VOLUME
 MODELS: D3001 AND A3001



Standard Features:

- 22 ga. (0.86) zinc coated steel casing, mechanically sealed, low leakage construction.
- 16 ga. (1.63) corrosion-resistant steel inclined opposed blade damper with extruded PVC seals (single blade on size 4, 5, 6). 45° rotation CW to close. Tight close-off. Damper leakage is less than 2% of the terminal rated airflow at 3" wg (750 Pa).
- 1/2" (13) dia. plated steel drive shaft. An indicator mark on the end of the shaft shows damper position.
- Multi-point averaging Diamond Flow Sensor. Aluminum construction. Supplied with balancing tees.
- Rectangular discharge with slip and drive cleat duct connection.
- Full NEMA 1 type controls enclosure
- 3/4" (19), dual density insulation, exposed edges coated to prevent air erosion. Meets the requirements of NFPA 90A and UL 181.
- Right-hand controls location is standard (shown) when looking in direction of airflow.

Imperial Units (inches)				
Unit Size	cfm Range	W	H	Inlet Size
6	0 – 500	10	10	5 7/8 Round
8	0 – 1000	12	12 1/2	7 7/8 Round
10	0 – 1435	14	12 1/2	9 7/8 Round
12	0 – 2185	18	12 1/2	12 1/8 x 9 1/8 Oval
14	0 – 2745	24	12 1/2	16 1/8 x 9 1/8 Oval

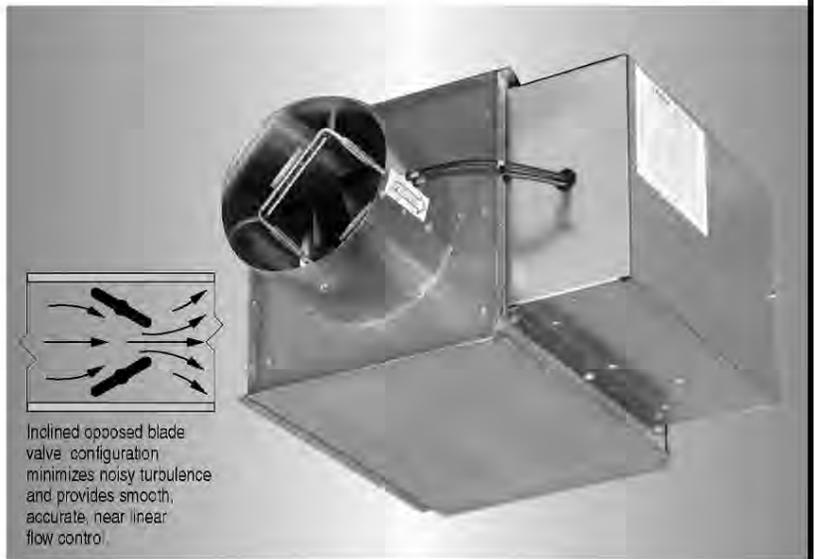


Options and Accessories:

- Controls enclosure for field mounted controls.

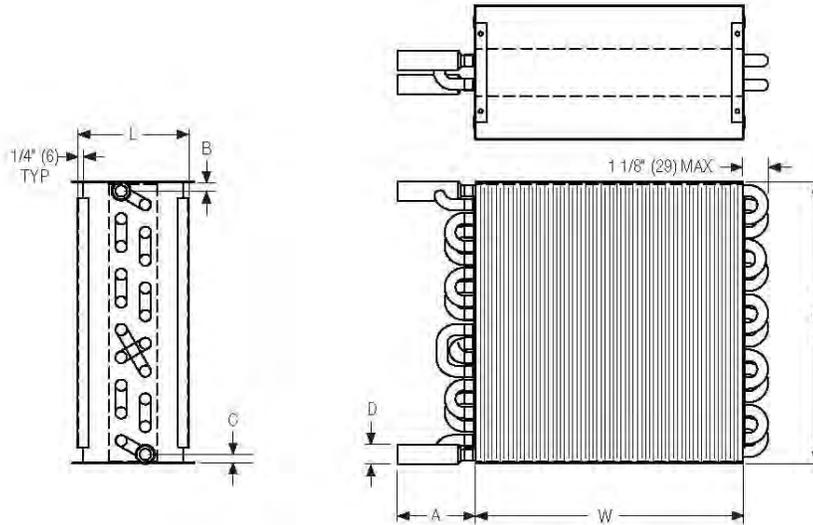
Dimensions are in inches (mm).

INLET SIZE	LIST EACH
6"Ø	\$240.00
8"Ø	\$280.00
10"Ø	\$300.00
12"Ø	\$320.00
14"Ø	\$350.00





SINGLE DUCT TERMINAL HOT WATER REHEAT COILS
 FOR USE WITH MODELS: (D, A or P)30RW
 MODEL SERIES: 30HWC



Dimensional Data

Unit Size	W	H	2 Row					
			Part No.	L	A	B	C	D
6	10 (254)	10 (254)	V30HWC206	5 (127)	4 (102)	1/32 (10)	1/32 (10)	3/8 (22)
8	12 (305)	12 1/2 (318)	V30HWC208	5 (127)	3 1/2 (89)	3/8 (10)	3/8 (10)	3/8 (22)
10	14 (356)	12 1/2 (318)	V30HWC210	5 (127)	3 1/2 (89)	3/8 (10)	3/8 (10)	3/8 (22)
12	18 (457)	12 1/2 (318)	V30HWC212	5 (127)	3 1/2 (89)	1/32 (10)	1/32 (10)	3/8 (22)
14	24 (610)	12 1/2 (318)	V30HWC214	5 (127)	3 1/2 (89)	3/8 (10)	3/8 (10)	3/8 (22)

Description:

- 0.0045" (0.11) Aluminum sine-wave corrugation and rippled fins, 10 fins per inch.
- 1/2" (13) O.D. copper tubes, 0.016" (0.41) wall thickness.
- 20 ga. (1.0) galvanized steel casing.
- 1/2" (13), 7/8" (22) or 1 3/8" (35) O.D. copper male solder sweat connections.
- Connection is slip and drive to ductwork, both sides.
- Leakage tested to 360 psi (2481 kPa).
- AHRI Certified.

UNIT SIZE	LIST EACH
6"Ø	\$0.00
8"Ø	\$220.00
10"Ø	\$240.00
12"Ø	\$360.00
14"Ø	\$390.00

Universal pneumatic reset controller

Control is pressure independent w/ adjustable minimum & maximum air volume settings. Can be used for any combination of direct or reverse acting thermostat action w/ a normally open or normally closed damper fail position.

Model CSC-3011

LIST PRICE: \$200.00

**Pneumatic actuator**

'Piston type' spring return pneumatic damper actuator; totally enclosed all metal casing w/ neoprene diaphragm. 5 - 10 p.s.i. spring range.

Model MCP-8031

LIST PRICE: \$100.00

**LINE VOLTAGE THERMOSTAT**

Voltage rating: 125/277 volts

Power rating @ 125 VAC Inductive: 3/4 HP

Power rating @ 277 VAC Inductive: 1 1/2 HP

Resistive: 22 Amps @ 125/277 VAC

Switch: SPDT

Temperature differential: 2/4 Degrees F.

Height: 4-3/4" Width: 2-3/4" Depth: 2-3/4"

Color: White

Model SPDT

LIST PRICE: \$92.00



BROAN®

MODELS 688

CEILING/WALL FAN

Versatile, high quality ventilators at economy prices.

FEATURES

GRILLE:

- White polymeric - blends well with any decor
- Torsion spring grille mounting - no tools required

MOTOR:

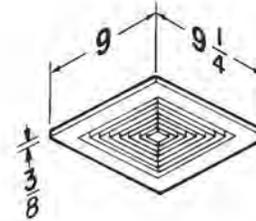
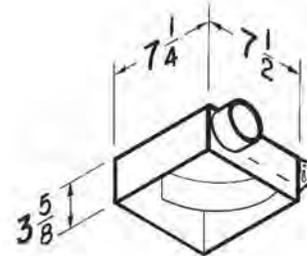
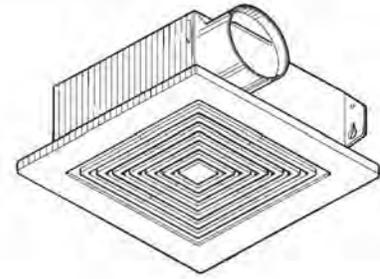
- Plug-in, permanently lubricated
- Broan-designed polymeric blower wheel
- Snap in/out motor assembly for easy cleaning - no screws to drive or drop

HOUSING:

- Compact, 25 gage galvanized steel - attaches easily to wall or ceiling joists
- Double strength mounting flanges with keyhole slots
- Removable wiring cover - make connections away from tight corners
- No electrical knockout to remove
- Polymeric duct fitting with tapered sleeve for easy, positive duct connection
- Quiet polymeric damper prevents cold backdrafts-no metallic clatter
- U.L. Listed for use over bathtubs and showers when connected to a GFCI protected branch circuit.

SPECIFICATIONS

MODEL	VOLTS	AMPS	SONES	CFM	DUCT
688	120	0.9	4.0	50	3" Round



HVI-2100 CERTIFIED RATINGS comply with new testing technologies and procedures prescribed by the Home Ventilating Institute, for off-the-shelf products, as they are available to consumers. Product performance is rated at 0.1 in. static pressure, based on tests conducted in AMCA's state-of-the-art test laboratory. Sones are a measure of humanly-perceived loudness, based on laboratory measurements.



Broan-NuTone LLC, 926 West State Street, Hartford, WI 53027 (1-800-637-1453)

LIST PRICE: \$50.00



All prices subject to change without notification



Phone: (317) 259-1180
Fax: (317) 259-1190

T-Model Fans



MODEL NO.	PART NO.	RPM	AMPS @ 60 HZ	WATTS	CFM/SONES									
					STATIC PRESSURES (IN. W.G.)									
					0"	1/10"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	7/8"	1"
T100	59120101	650	1.1	87	138 0.7	117 0.9	112 1.0	94 1.3	80 1.8	67 2.2	46 2.8	13 3.0		
T200	59120103	760	1.8	127	224 1.5	210 1.8	207 2.0	197 2.3	187 2.7	179 3.4	167 4.0	144 4.5	99 5.1	41 5.2
T300	59120105	940	2.6	212	319 2.6	314 2.9	313 3.0	306 3.4	299 3.6	288 3.9	274 4.4	251 4.7	219 5.0	120 5.5
T400	59120106	755	1.4	146	467 2.3	428 2.6	416 2.6	378 3.0	335 3.5	291 4.0	237 5.1	170 5.5	85 5.7	8 5.9
T500	59120107	865	2.2	232	539 2.9	517 3.1	512 3.2	481 3.4	451 3.8	418 4.2	367 4.8	319 5.9	247 6.3	137 6.4

Performance ratings include the effects of an inlet grille and backdraft damper. Speed (RPM) shown is nominal. Performance is based on actual speed of test. The sound ratings shown are loudness values in fan sones at 5 ft.

Construction Features

- Horizontal or vertical installations
- Low profile white grille conceals interior and blends with any décor
- Low RPM centrifugal blower wheel
- Resilient anti-vibration mounts
- Designed for continuous operation
- Dynamically balanced centrifugal blower wheel
- Permanently lubricated, thermally protected motor

Accessories Included

- Integral Backdraft Damper
- Internal Plug Type Disconnect
- Insulated Cabinet



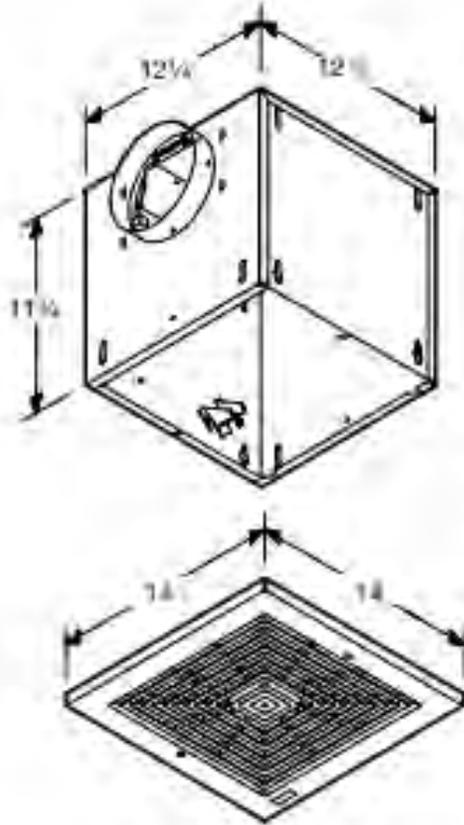
ITEM	LIST EACH
T-100	\$210.00
T-200	\$270.00
T-300	\$410.00
T-400	\$440.00
T-500	\$480.00

All Stock T-Model Fans are 115 Volt

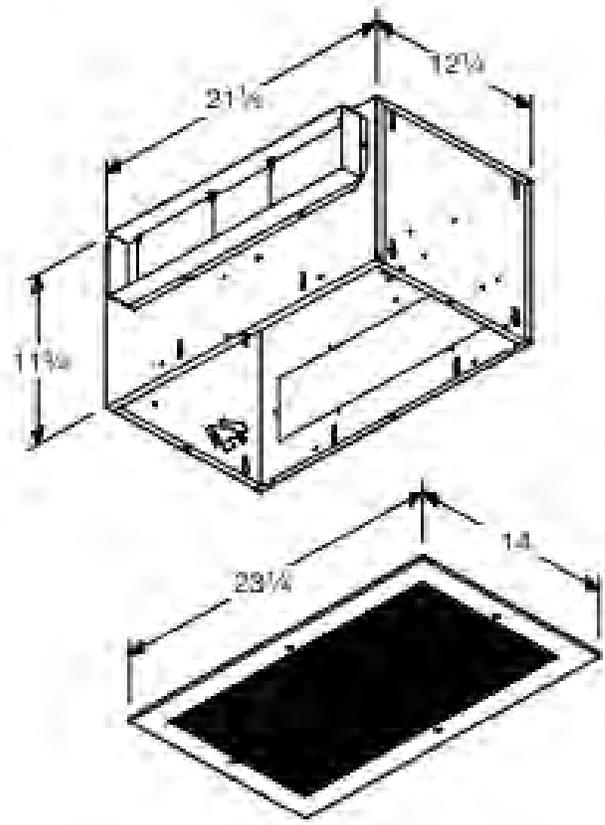


T-Model Fan Dimensional Data

Model T-100, T-200, & T-300



Model T-400 & T-500



Twin City Fan & Blower certifies that the T Ceiling and TL Inline/ Cabinet Ventilators shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements to the AMCA Certified Ratings Program.

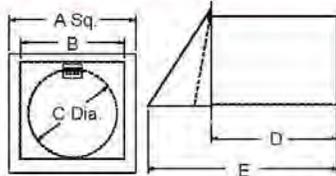
The AMCA Certified Ratings Seal applies to air and sound performance for all Model T and TL fans shown with exception of the T080LP, T110 and T150LP.



T-Model Fan Accessories



Round Duct Wall Cap with Damper



Round Duct Wall Cap w/ Damper Dimension Data

Size	Part #	A Sq.	B	C Dia.	D	E
4	WCR4 - Alum.	6	5	4	8-1/2	10-3/4
6	WCR6 - Alum.	8	7	6	8-1/2	12-3/4
8	WCR8 - Alum.	10	9	8	8-1/2	14-1/4

All dimensions in inches. Standard construction features - Corrosion resistant aluminum with integral aluminum backdraft damper.

WCR4 List Price: **\$50.00**

WCR6 List Price: **\$70.00**

WCR8 List Price: **\$94.00**

Roof Jack

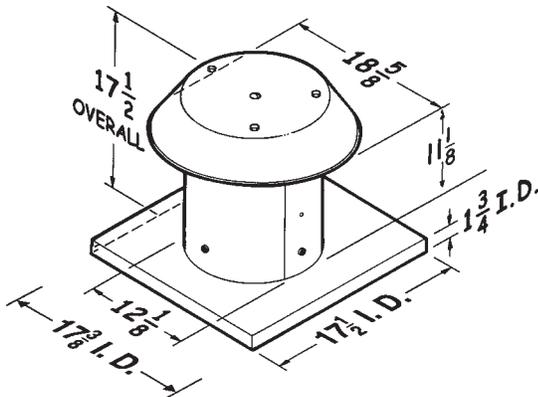


Model T634M

- 24 GA. CRCQ steel, black electrically-bonded epoxy finish
- Built-In backdraft damper and bird screen
- 6" round duct collar
- For 3 1/4" x 10" or up to 6" round duct

List Price: **\$66.00**

Roof Cap Curb Mounted



Model T612CM

- Roof Curb Mounted (Curb not included)
- Aluminum natural finish
- For up to 12" round duct
- Bird screen

List Price: **\$240.00**

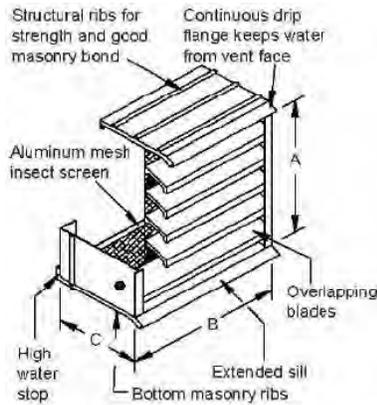
T-Model Fan Accessories



FSC is a variable speed controller which can offer excellent energy conservation and lower sound levels when 100 percent of a direct drive fan operating capacity is not required. The FSC employs solid state circuitry for long life dependability. The FSC are only available for 115V and 230V single phase shaded pole or permanent split capacitor direct drive motors.

Model SC 5amp

List Price: **\$80.00**



Brick Vent Dimension Data

Model	A	B	C
BV168	7-3/4	16-1/2	4

All dimensions are in inches. Frames and blades are constructed of .125" thick materials. Designed for maximum protection against water entering building with 4" deep frame and 45 degree blades. The vents come standard with clear anodized finish.

List Price: **\$180.00**



Model 961L In-Line Adaptor Kit

- 24 Gage galvanized steel
- Fits Twin City Model T100 Fan Series 6" round duct intake

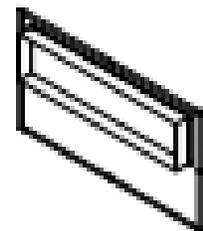
List Price: **\$50.00**



Model 981L In-Line Adaptor Kit

- 24 Gage galvanized steel
- Fits Twin City Model T200 & T300 Series 8" round duct intake

List Price: **\$50.00**



Model 982L In-Line Adaptor Kit

- 24 Gage galvanized steel
- Fits Twin City Model T400 & T500 fans
- Mounting hard-ware included

List Price: **\$60.00**

Model DCRD



TCF certifies that the DCRD series shown herein is licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA publication 211 and AMCA publication 311 and comply with the requirements of the AMCA certified ratings program.



All DCRD models are available U.L. 705 listed, for electrical, file NO. E158680

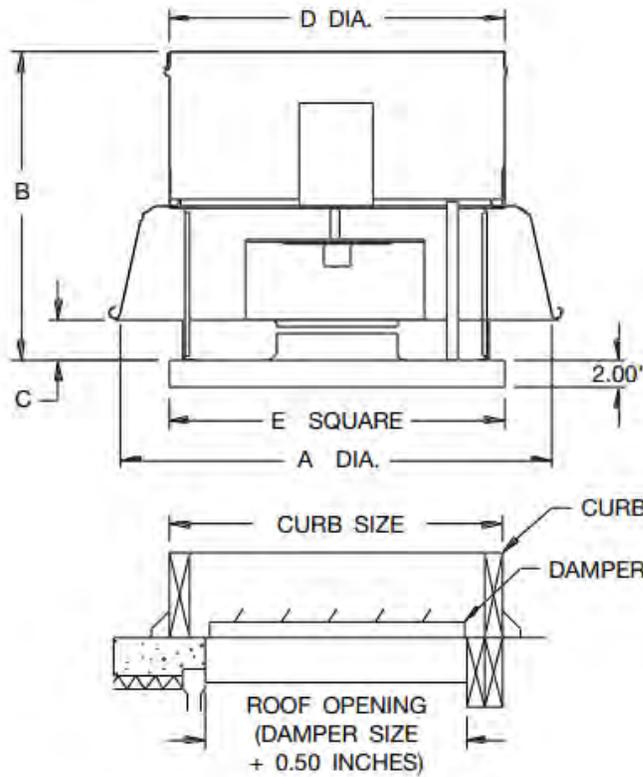
All stock DCRD come standard with pre-wired NEMA 1 disconnects and galvanized bird screen.

MODEL	COMPLETE MODEL #	LIST EACH
DCRD 085B	DCRD085B 1650RPM	\$560.00
DCRD 100B	DCRD100B 1750 RPM	\$840.00
DCRD 130B	DCRD130B 1750 RPM	\$890.00
DCRD 170B	DCRD170B 1750 RPM	\$1,260.00

All stock DCRD fans are 115 Volt

Visit tcf.com for a complete line of Twin City products available for order.

DCRD Dimensional Data



TCF certifies that the DCRD series shown herein is licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA publication 211 and AMCA publication 311 and comply with the requirements of the AMCA certified ratings program.



All DCRD models are available U.L. 705 listed, for electrical, file NO. E158680

Notes:

1. All dimensions are in inches unless otherwise noted.
2. Dimensions are not to be used for construction.
3. Outside dimensions of dampers are nominal.
4. Outside dimensions of roof curb should be 1" to 1.50" less than inside curb cap dimension 'E', depending on thickness of flashing material used. If curb hinges are used, specify 1.50" difference.
5. Self-flashing roof curbs are 1" larger than canted curbs.

EC MOTOR SIZES	PSC MOTOR SIZES	FAN DIMENSIONS					CANTED CURB SIZE	DAMPER SIZE	AVG. SHIP WT. (LBS.)
		A	B	C	D	E			
060BE/070BE	060B/070B	18.50	15.63	2.06	15.12	17.00	15.5x15.5	10x10	30
080BE	080B	18.50	15.63	2.06	15.12	17.00	15.5x15.5	10x10	32
085BE/090BE/095BE	085B/090B/095B	21.00	19.31	2.63	15.12	17.00	15.5x15.5	10x10	43
100BE	100B	21.00	17.31	2.63	15.12	17.00	15.5x15.5	10x10	48
120BE	120B	27.50	22.38	3.63	22.00	20.00	18.5x18.5	14x14	50
130BE	130B	27.50	23.25	4.44	22.00	24.00	22.5x22.5	18x18	65
140BE	140B	27.50	23.50	4.69	22.00	24.00	22.5x22.5	18x18	67
150BE	150B	30.44	26.75	4.63	24.00	24.00	22.5x22.5	18x18	77
160BE	160B	30.44	27.25	5.19	24.00	24.00	22.5x22.5	18x18	82
170BE	170B	38.38	29.25	4.06	30.00	30.00	28.5x28.5	24x24	95
180BE	180B	38.38	30.25	5.06	30.00	30.00	28.5x28.5	24x24	100

DCRD Performance Data



PSC MOTOR			STATIC PRESSURE (INCHES W.G.)															
SIZE	MTR HP	RPM	0	0.100	0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.000						
			CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM				
			BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone				
085B	1/8	950	401	331	311	185												
			0.02 4.0	0.02 3.4	0.02 3.4	0.02 3.4	0.02 3.4											
		1150	485	430	414	325	214											
			0.04 5.8	0.04 5.7	0.04 5.2	0.04 5.3	0.04 5.0											
		1350	570	524	512	443	364	268										
			0.06 7.7	0.06 7.7	0.06 7.7	0.06 6.8	0.06 7.0	0.06 6.7										
		1425	601	558	547	483	412	328	202									
			0.07 8.4	0.07 8.4	0.07 8.4	0.07 7.3	0.07 7.8	0.07 7.3	0.06 7.1									
1500	633	592	581	522	457	381	291											
	0.08 8.9	0.08 8.9	0.08 8.9	0.08 7.9	0.09 8.4	0.08 7.6	0.08 7.9											
1575	665	626	616	560	499	431	353	244										
	0.09 9.6	0.09 9.6	0.10 9.6	0.10 8.8	0.10 8.5	0.10 8.9	0.10 8.4	0.08 8.4										
1650	696	660	650	596	540	479	325											
	0.10 10.2	0.11 10.2	0.11 10.2	0.11 9.6	0.11 9.1	0.11 9.6	0.10 9.0	0.11 9.1										

PSC MOTOR			STATIC PRESSURE (INCHES W.G.)														
SIZE	MTR HP	RPM	0	0.100	0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.000					
			CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM			
			BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone			
100B	1/3'	1450	1247	1158	1135	1015	877	713	524								
			0.12 12.9	0.13 12.9	0.13 12.9	0.13 11.8	0.13 12.4	0.13 11.4	0.12 11.6								
		1750	1505	1432	1413	1317	1216	1103	977	834	677	517					
			0.22 17.5	0.22 17.5	0.22 17.5	0.23 16.7	0.23 16.0	0.23 16.7	0.23 16.6	0.22 15.7	0.21 16.0	0.19 15.9					

PSC MOTOR			STATIC PRESSURE (INCHES W.G.)														
SIZE	MTR HP	RPM	0	0.100	0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.000					
			CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM			
			BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone			
130B	1/2	1450	2256	2156	2131	1998	1856	1709	1550	1362	1139	904					
			0.33 17.0	0.34 17.0	0.34 17.0	0.35 17.2	0.36 17.1	0.37 16.0	0.37 18.7	0.37 17.2	0.36 18.0	0.34 18.0					
		1750	2723	2641	2620	2513	2402	2285	2164	2041	1910	1763					
			0.58 22	0.59 22	0.59 22	0.60 22	0.62 23	0.62 22	0.63 23	0.64 24	0.65 25	0.65 24					

PSC MOTOR			STATIC PRESSURE (INCHES W.G.)														
SIZE	MTR HP	RPM	0	0.100	0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.000					
			CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM			
			BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone			
170B	1/2'	1000	3338	3118	3061	2768	2437	2063	1663	1260							
			0.40 13.8	0.40 13.8	0.40 13.8	0.42 12.2	0.43 12.4	0.42 11.5	0.41 11.6	0.38 12.2							
		1160	3872	3684	3636	3398	3128	2839	2521	2182	1837	1488					
			0.62 17.4	0.62 17.4	0.63 17.4	0.64 16.5	0.66 15.4	0.67 15.8	0.66 15.7	0.65 14.4	0.63 15.3	0.60 15.4					

NOTES:

1. The AMCA Seal for sound ratings does not apply to units with speed control.
2. Performance certified is for installation Type A: Free inlet, Free outlet.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. Sound ratings shown are loudness values in fan zones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301-90. Type A: Free inlet fan hemispherical zone levels.
5. Highlighted speeds indicate nominal speeds without speed control on PSC motors. All other speeds are intermediate speeds set with the solid-state speed controller.
6. Speed control on PSC motors is available for ODP 115/60/1 only.

DCRD Accessories

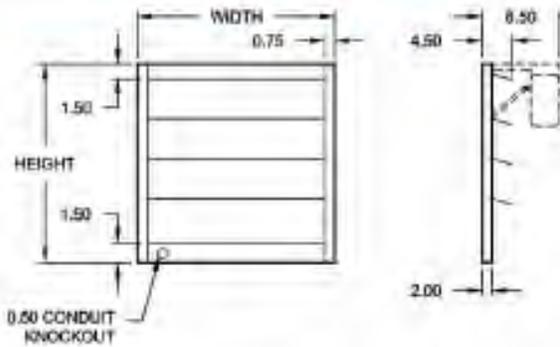


Fan Speed Control



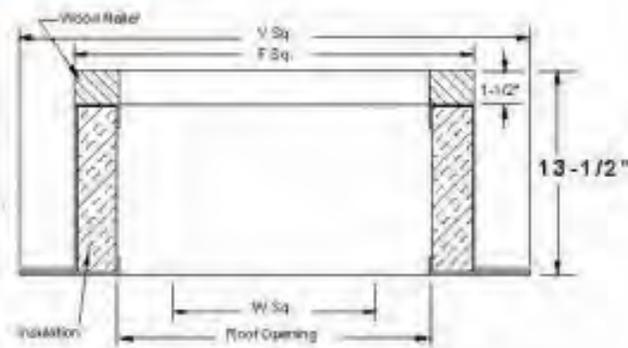
MODEL	USE FOR	LIST EACH
5 AMP	DCRD 085B and all T fans	\$80.00
10 AMP	DCRD 100B, 130B & 170B	\$140.00

Gravity Backdraft Dampers



Catalog Number	E Sq.	LIST EACH
BD-10	9 3/4	\$50.00
BD-12	11 3/4	\$70.00
BD-14	13 3/4	\$80.00
BD-18	17 3/4	\$90.00
BD-24	23 3/4	\$120.00

Roof Curbs



Construction Features

- 18 gauge galvanized steel
- 1-1/2", 3lbs. Density thermal and acoustical insulation
- Continuously welded corners
- Wood nailer
- 13-1/2" tall construction

Catalog Number	F Sq.	V Sq.	Roof Opening	LIST EACH
RCG-12	12	16	9	\$110.00
RCG-15	15 1/2	19	12 1/2	\$160.00
RCG-18	18 1/2	22 1/2	15 1/2	\$150.00
RCG-22	22 1/2	26 1/2	19 1/2	\$180.00
RCG-28	28 1/2	32 1/2	25 1/2	\$220.00
RCG-34	34 1/2	38 1/2	31 1/2	\$240.00
RCG-40	40 1/2	44 1/2	37 1/2	\$280.00

All prices subject to change without notification



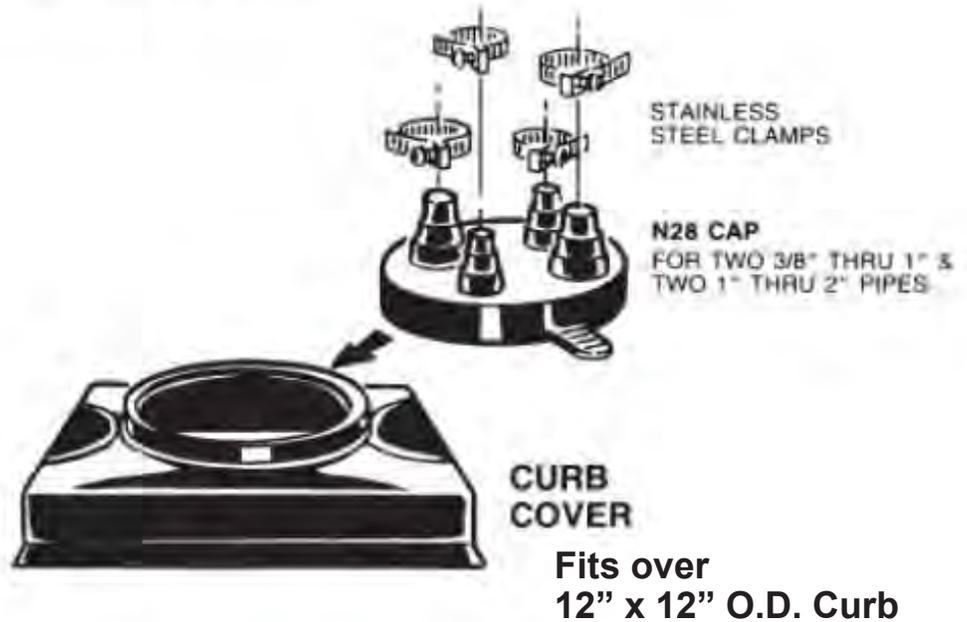
Phone: (317) 259-1180
 Fax: (317) 259-1190 **45**



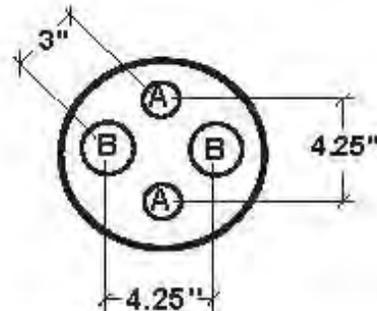
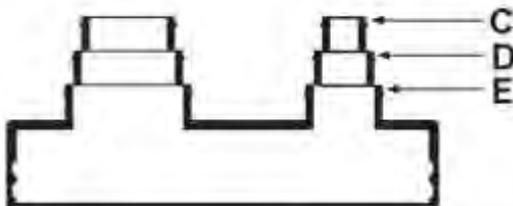
Pipe Flashing Systems

Pipe Portal® Cover and Caps

For pipe penetrations from 3/8" to 2"



PIPE LAYOUT REFERENCE CHART



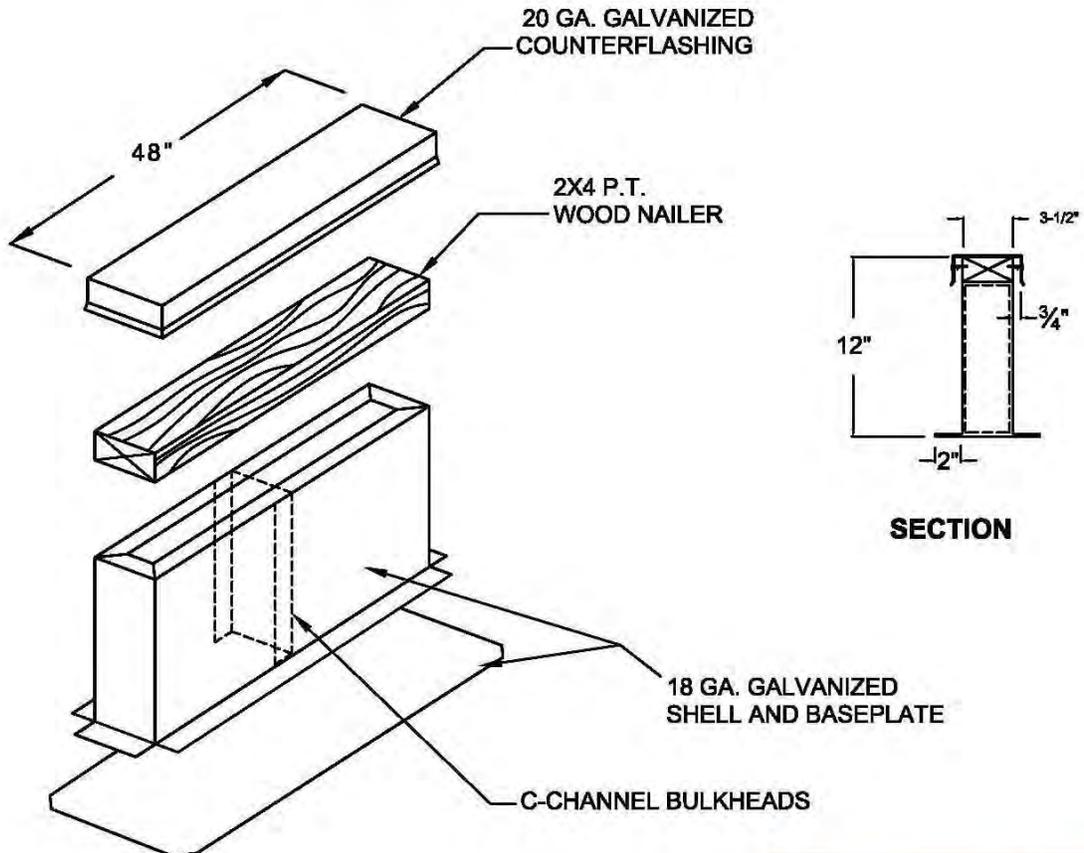
CAP MODEL	A			B		
	C	D	E	C	D	E
N28	.375"	.75"	1"	1"	1.5"	2"

\$170.00 each
(includes cover, cap and 4 clamps)

Equipment Support

Standard Construction:

18 ga. Galvanized steel shell and baseplate; 12" minimum height,
 2 x 4 pressure treated wood nailer (std.); C-channel bulkheads as required;
 Fully welded one piece construction, 20 ga galvanized counterflashing
 All welds prime painted after fabrication.



EQUIPMENT RAILS

48" long x 3 1/2" wide x 12" tall

LIST PRICE: **\$200.00 each**



Hanger Calculator

Please Note: Calculations do NOT take into account weight of connectors.

Single Wall Spiral Duct: based on 10' hanger spacing

Pipe Diameter	Pipe Circumference	GRIPPLE SIZE		
		26 GAUGE	24 GAUGE	22 GAUGE
12"	3' 2"	2	2	2
16"	4' 2"	2	2	2
20"	5' 3"	2	2	2
24"	6' 3"	2	2	2
28"	7' 4"	2	2	3
32"	8' 5"	2	3	3
36"	9' 5"	2	3	3
40"	10' 6"	3	3	3
44"	11' 6"	3	3	3
48"	12' 7"	3	3	3
52"	13' 7"	3	3	4
56"	14' 8"	3	3	4
60"	15' 8"	3	4	4

Double Wall Spiral Duct: based on 10' hanger spacing

Inside Diameter (in.)	Outside Gauge	Inside Gauge	Wt/Ft (lbs)	Gripple Size
12"	26	26	8.0	2
16"	24	24	11.0	3
20"	24	24	13.4	3
24"	24	24	18.0	3
28"	22	24	22.3	4
32"	22	24	25.2	4
36"	20	22	31.2	4
40"	20	22	36.7	4
44"	20	22	40.2	4
48"	20	22	43.8	4
52"	18	20	56.2	5
56"	18	20	60.8	5

Square/Rectangular Duct : based on 5' hanger spacing

Duct Size Total	SQ. FT.	GRIPPLE SIZE		
		26 GAUGE	24 GAUGE	22 GAUGE
20"	3.4	2	2	2
28"	4.8	2	2	2
36"	6.2	2	2	2
40"	6.9	2	2	2
48"	8.2	2	2	2
52"	8.9	2	2	2
60"	10.3	2	2	2
64"	11.0	2	2	2
72"	12.4	2	2	2
80"	13.7	2	2	2
84"	14.4	2	2	3
92"	15.8	2	2	3
96"	16.5	2	2	3
100"	17.2	2	3	3
116"	19.9	2	3	3
120"	20.6	2	3	3

Gripple Size Charts

HOW TO USE THE CALCULATION CHARTS

- Select Gripple size based on gauge of steel and duct dimensions (e.g.. 44" Duct, 24 gauge = No. 2)

Spiral

- Choose required diameter
- Choose required steel gauge
- Chart shows correct Gripple size

Rectangular

- Add vertical & horizontal planes to determine total duct size (e.g.. 16" x 20" = 36")
- Choose required steel gauge
- Chart shows correct Gripple size

Hanging at Angles

Hanger Size	Maximum Load (lbs) at an Angle from Vertical				
	0° Vertical	15°	30°	45°	60°
#2	100	96	86	70	50
#3	200	192	172	140	100
Load %	100	96	86	70	50

The load rating for a Gripple hanger is based on the suspension being hung vertically. If the cable is suspended at an angle, an additional sideways load is applied, which reduces the load capacity of the suspension. The net effect is shown in the table above.

Working Load Limits

No. 2 23-100 lbs

No. 3 101-200 lbs

Gripple products have been independantly tested & certified by the following agencies:

- *SMACNA Testing & Research, Chantilly VA
- *UL Underwriters Laboritories Inc, Northbrook IL
- *CSA International, Cleveland OH
- *RADCO Inc., Long Beach CA
- *New York Testing Laboritories
- *Architectural Testing, York PA
- *Lloyds Register, England
- *ETL - Intertek, Vancouver BC

END	SIZE	LENGTH	BAG LIST (10 pcs.)
Loop	#2	30'	\$150.00
Loop	#3	10'	\$104.00
Loop	#3	15'	\$122.00
Loop	#3	30'	\$180.00
90° Eyelet	#2	15'	\$100.00
Str. Eyelet	#2	15'	\$100.00
Toggle	#2	10"	\$88.00

Dyno-Tite Size Charts

SIZE	TOLERANCE	CONSTRUCTON	SAFE WORKING LOAD*
W2-CL6	+0.010/-0.005 in.	7X7	10-75 lbs. (5-34 kg)
W3-CL12	+0.012/-0.006 inch	7X7	25-150 lbs. (12-68 kg)

*Safe Working Loads are based on a 5:1 Safety Factor.



Looped Cable Assembly

The Looped Cable Assembly enhances the Dyna-Tite suspension system by the addition of a pre-looped cable end. Once the wire rope is pulled around the anchor point and through the looped end of the cable, it is already secured at one end, saving time at the jobsite. The remaining wire rope "drop" is passed through a channel in the Dyna-Tite Cable Lock. Then, the wire rope is either wrapped around the ductwork or inserted through a fastening point and back up into the second channel of the same cable lock. The locking teeth inside the cable lock engage the wire rope which secures the ductwork in place.



Eyelets

Duro Dyne Dyna-Tite eyelets are manufactured of zinc plated cold rolled steel and swaged to the wire rope cable with a hydraulic press. Dyna-Tite Eyelet assemblies are available for installation with either a 1/4 in. or 3/8 in. fastener. They are available in 45°, 90° and straight variations and can also be purchased as a package with the appropriate cable lock.

Effects of Hanging at Angles

Cable locks can be used to suspend objects safely at angles of up to 60 degrees from the vertical. However, suspension at angles does reduce the safe working load per the table below.

LOAD	100%	96%	86%	70%	50%
SIZE	VERTICAL	15°	30°	45°	60°
W2-CL6	75lbs	72lbs	64.5 lbs	52.5 lbs	37.5 lbs
W3-CL12	100lbs	144lbs	129 lbs	105 lbs	75 lbs

END	SIZE	LENGTH	BAG LIST (10 pcs.)
Loop	W2-CL6	10'	\$100.00
Loop	W2-CL6	15'	\$108.00
Loop	W2-CL6	30'	\$150.00
Loop	W3-CL12	10'	\$104.00
Loop	W3-CL12	15'	\$122.00
Loop	W3-CL12	30'	\$180.00
90° Eyelet	W2-CL6	15'	\$100.00
Str. Eyelet	W2-CL6	15'	\$100.00
Toggle	W2-CL6	10"	\$88.00



TYPE AWH

ARCHITECTURAL HEAVY DUTY WALL HEATERS (FAN-FORCED)

APPLICATIONS

QMark's high-capacity, heavy-duty fan-forced wall heaters are designed for use almost anywhere in commercial or industrial areas requiring high capacity and quick recovery. They perform exceptionally well in such applications as motels, entryways, stores, public rest rooms, warehouses and other large, hard to heat areas.

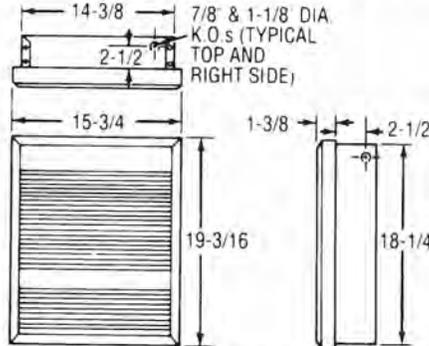
FEATURES

- 1500, 2000, 3000, 4000, and 4800 watts; 120, 208, 240, 277 volts; 60 hz.
- Steel finned metal sheath electric heating elements with low sheath temperatures provide uniform heat and long service life.
- Closely spaced grille bars discourage insertion of foreign objects and direct air downward to effectively distribute heat...keep floors warm and dry.
- Integral thermostat for quick installation... separate thermostat not necessary. (Range: 40° - 90°F.) AWH has tamper resistant thermostat adjustable with a narrow blade screwdriver through the bar grille.
- Thermal overheat protector disconnects power in case of overheating due to accidental blockage.
- Built-in power disconnect switch for added safety during maintenance.
- Built-in fan delay switch energizes fan motor only after elements are heated...prevents discharge of unheated air. When heat shuts off, de-energizes fan motor after residual heat has been dissipated.
- Can be wired with standard 90°C wire.
- Permanently lubricated totally enclosed fan motor provides long life and low maintenance; gently distributes warmth throughout room area. 100 CFM.
- Contemporary steel bar grille with baked enamel finish and satin finished aluminum frame...retains attractive appearance through years of use.*
- Optional accessory power control relays (24 or 120V holding coil) or pneumatic electric (P/E) switch.
- Recess or surface mount in standard 2" x 4" stud walls.

*Northern White color is optional. (Add NW suffix to cat. #)

MOUNTING LIMITATIONS

1. For wall mounting - Do not install back box closer than 8 inches from floor or adjacent wall.
 2. Do not install heater behind towel rack, behind door, in floor, in closet, in ceiling or where air flow may be obstructed.
- All controls are concealed behind the front cover making them essentially tamper proof. They will accommodate pneumatic/electric or low-voltage controls commonly used with computerized energy management systems.



SELECTION CHART

CATALOG NO.	VOLTS	PH.	AMPS	WATTS	BTU/HR	WIRE SIZE
AWH3180	120	1	15	1800	6142	12 AWG
AWH4404*	240	1	16.7	4000	13650	10 AWG & 12 AWG
	208	1	8.3 14.4	2000 3000	6825 10235	
AWH4407*	277	1	14.4	4000	13650	12 AWG
	240	1	7.22 12.5	2000 3000	6825 10235	
AWH4507	277	1	17.3	4800	16380	10 AWG
	240	1	15	3600	12285	

*Heaters shipped at higher wattage. Units can be converted to half-wattage in field.

ACCESSORIES

CATALOG NO.	DESCRIPTION
AWH-SM	Surface mounting frame for surface installations. Painted to match heater decor, 3 ^{3/8} " deep.



File #E21609



MODEL	LIST EACH
AWH3180	\$780.00
AWH4404	\$850.00
AWH4407	\$850.00
AWH4507	\$1000.00
AWH-SM	\$128.00

All prices subject to change without notification



Phone: (317) 259-1180
Fax: (317) 259-1190 **50**



TYPE MUH UNIT HEATER



FILE #E21609

- Unit mounts either horizontally or vertically. Totally versatile. For factories, warehouses, garages, stores, shipping rooms, power stations, aircraft hangers. Can be used for primary, supplementary, spot, or dual-system heating.
- Wide range of optional control kits are field installable, increasing the MUH adaptability to the specification market.
- Forced air unit heater with 10 power ratings; from 3KW to 50 KW heating output; 208, 240, 277 and 480V, 10, 230 to 170,500 BTU/hr.
- 32 compatible models (no need to try to assemble a heating system from 70 or 80 models!)
- Heavy gauge die-formed steel housing. Two-toned, smartly styled.
- Advanced pull-through air flow design draws air across heating element for more even air distribution and cooler element operation.
- Specially designed venturi outlet to meet that added throw as required in vertical position.
- Branch circuit fusing (when required).
- Completely enclosed fan motor.
- 1- or 3-phase wiring on 5 through 10 KW 208/240V and 15 KW 208V units (field interchangeable).
- Aluminum-finned, copper clad steel sheath heating element has longer useful life, because of cooler sheath temperature and faster heat dissipation.
- 24V control transformer standard on most models, providing a safer and more accurate means of temperature control. 3KW and 5KW, 208-277V, have line voltage controls as standard (24V control available on made-to-order basis).
- Automatic reset linear thermal cut-out, capillary type, provides protection over entire length of element areas (Manual reset protection available on made-to-order basis).
- 2-speed fan selector switch (25 to 50 KW models).
- Fan delay feature eliminates cold drafts. Element heats up before fan cuts in, then fan continues to distribute heat after element shuts off.
- Ruggedly built, yet lighter weight for easier installation. No piping flues, valves, or traps.
- Individually adjustable discharge louvers to control air flow.
- Choice of optional diffusers for variety of air patterns, maximizing heat concentration and coverage in the vertical position.
- Meets all UL, NEC, and OSHA requirements.



SELECTION CHART

CAT. NO.	VOLTS	ELECTRICAL DATA				CONTROL VOLT (1)	2 STAGE ELEMENT CONTROL	AIR DELIVERY DATA			FAN MOTOR DATA			MAXIMUM EFFECTIVE MOUNTING HEIGHT		HORI. AIR THROW	WIRE SIZE	INSTALLED WEIGHT (LBS.) WBRACK.
		PHASE	KW	BTU/HR. 000	AMPS (3)			CFM(2)	FPM(2)	Δ (°F)	VOLTS	RPM(2)	HP	HORIZ.	VERT.			
MUH05-21	208/240	1-3Ø	3.7/5.0	12.6/17.0	18.0/21.0	208/240	5A	350	800	45°	208/240	1600	1/100	8	9	12	AWG 10	27
MUH05-41	480	3Ø	5.0	17.0	6.0	24	N/A	350	800	45°	480	1600	1/100	8	9	12	AWG 14	27
MUH05-71	277	1Ø	5.0	17.0	18.0	277	N/A	350	800	45°	277	1600	1/100	8	9	12	AWG 10	27
MUH07-2	208/240	1-3Ø	5.6/7.5	19.1/25.6	27.0/31.8	24	5B	650	970	37°	208/240	1600	1/30	9	14	18	AWG 8	38
MUH10-4	480	3Ø	10.0	34.1	12.0	24	5B	650	970	49°	480	1600	1/30	9	14	18	AWG 14	38

Note:

- All standard units are supplied with a low voltage control transformer and contactor (24V) except MUH-03 & 05, 208, 240 & 277 volt models. Low voltage control on these units are available on made to order. All units are also available on special order for 120 volt control, internal and transformer or external without transformer.
- On dual voltage units; CFM, FPM, and RPM are shown at higher voltage.
- On dual phase units, maximum amp draw is listed for respective voltage.
- 25 thru 50 KW models have two speed motors and dual CFM ratings.

- 5A. Standard.
5B. Optional - made to order - amp load unbalanced on 3 Phase.
5C. Optional - made to order - amp load balanced on 3 Phase.

OPTIONAL FIELD-INSTALLED CONTROLS

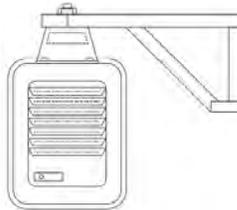
CATALOG NO.	UPC	DESCRIPTION	ELECTRICAL RATING	COMPATIBLE WITH
LHMT1	6 85360 15241 7	Single Pole Internal Thermostat-Temp Range: 40° - 85°F	25A @ 120, 240VAC Res. 22A @ 277VAC Res.	All MUH Series Heaters (except MUH0521 3 PH, MUH0581 3 PH which use LHMT2)
MPDS25	6 85360 04703 4	Power Disconnect Switch (3-Pole)	30A @ 600VAC, Res.	MUH0321, MUH0341, MUH0371, MUH0381, MUH0521, MUH0541, MUH0571, MUH0581, MUH073, MUH074, MUH076, MUH104, MUH106, MUH154, MUH156, MUH204, MUH206
MPDS60	6 85360 04704 1	Power Disconnect Switch (3-Pole)	80A @ 600VAC, Res.	MUH072, MUH077, MUH078, MUH102, MUH103, MUH107, MUH108, MUH152, MUH202, MUH208, MUH252, MUH254, MUH256, MUH257, MUH306, MUH404, MUH406, MUH504, MUH506

MUH05-71	\$800.00
MUH07-2	\$1,160.00
MUH10-4	\$1,400.00
MT-1	\$170.00
MPDS-25	\$280.00
MPDS-60	\$580.00
MB-10	\$136.00

OPTIONAL MOUNTING BRACKETS

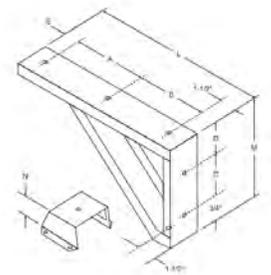
CATALOG NO.	UPC	COMPATIBLE WITH	SHIP WT. (LBS)
B10	6 85360 15229 5	MUH03 - 10	8

MOUNTING LIMITATIONS:
Unit heaters should not be used in potentially explosive atmospheres. The finish is not intended for direct salt spray exposure in marine applications or the highly corrosive atmospheres of swimming pools, chemical storage bins, etc. Do not install unit heaters above recommended maximum mounting height. Obstructions must not block unit heater air inlet or discharge. Heaters must be mounted at least 7 ft. above the floor to prevent accidental contact with the heating element or fan blade which could cause injury.



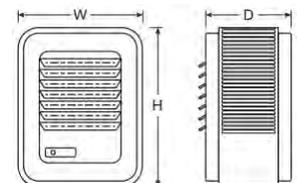
BRACKET SIZE

DIMENSION	3-20 kW (IN.)	25-50 kW (IN.)
A	7-1/4	9-7/16
B	9-1/2	14-3/8
C	7-1/4	12-1/8
D	11-5/16	2-1/16
E	2-1/4	3
L	20-1/2	28-15/16
M	9-15/16	14-15/16
N	3-1/4	4-1/2



DIMENSIONS

CATALOG NO.	HEIGHT (IN)	WIDTH (IN)	DEPTH (IN)
MUH03 & 05	16	14	7-1/2
MUH07 & 10	21-3/4	19	7-1/2



All prices subject to change without notification



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