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Conversion Charts

AIR SPECIALTY PRODUCTS
 **GREENHECK ROOF FANS**



Part #	Size	List Price
G080D	370 CFM @ .25 SP	
G103B	730 CFM @ .25 SP	
G133B	1290 CFM @ .25 SP	

Fan	Roof Curb	Backdraft Damper
G080D	RPC17	WD1001010
G103B	RPC19	WD1001212
G133B	RPC22	WD1001616

Greenheck 05/18/04 JOB: Price book-AJ

Fan MARK: EF-1

G
Direct Drive Centrifugal Roof Exhaust Fan

CONSTRUCTION FEATURES

- Aluminum housing • Backward inclined wheel • Aluminum curb cap with prepunched mounting holes • Binscreen • Ball bearing motors (sizes 100-180), sleeve bearing motors (sizes 60-90) • Motor isolated on shock mounts • Corrosion resistant fasteners

SELECTED OPTIONS & ACCESSORIES

- Switch - Nema-1, Toggle, Mounted & Wired
- Curb GPK-11-G12
- Damper WD-100-PB-10x10, Gravity Operated
- Aluminum Rub Ring
- UL/UL-L705 - "Power Ventilators"
- Motor w/ Thermal Overloads

Maybe greater depending on motor.
NOTES: All dimensions shown are in units of inches
Fan weight is without accessories

DIMENSIONS

Optional Damper (in.)	Roof Opening (in.)	Approx. Fan Weight (lb.)
10 x 10	12.5 x 12.5	23

PERFORMANCE (Efficiency $\eta = 1$, Airflow Temperature $T = 70$)

Qty	Model	Volume (CFM)	SP (in. wg)	FFPM	Operating Power (hp.)	Motor Information				
						Size (hp.)	VICP	Inct	Motor RPM	Windings
1	G-080-D	484	0.25	1,880	0.06	100	115BQ1	CCP	1500	1

SOUND

Inlet Sound Power by Octave Band								Line	dBA	Score
63.5	125	250	500	1000	2000	4000	8000			
63	73	71	61	58	56	53	43	68	58	7.4

P.A. - Based on tables 150 or 148 of National Electrical Code 2002.
Line - A weighted sound pressure level, based on ANSI S1.4.
dBA - A weighted sound pressure level, based on 11.8 dB attenuation per octave band at 1.0 ft. Score calculated using ANSI S1.4-91.

Fan	A	B	C	D
G080D	21.75	14.63	4	17
G103B	24.63	20	5	19
G133B	28.80	20	5	22

AIR SPECIALTY PRODUCTS



Part Number	Performance @ .25 SP	List Price
SPA110	100 CFM	
SPA125	125 CFM	
SPA190	190 CFM	
SPA200	200 CFM	
SPA250	250 CFM	
SPA290	290 CFM	
SPA390	390 CFM	
SPA410	410 CFM	
SPA510	510 CFM	
SPA710	710 CFM	
SPA780	780 CFM	
SPA900	900 CFM	

Greenheck 05/18/04 JOB: Price book-AJ

Fan MARK: EF-3
SP
 Ceiling Exhaust Fan

CONSTRUCTION FEATURES
 • Corrosion resistant galvanized steel scroll and housing • Sound absorbing insulation
 • White designer non-polluting grille • Outlet duct collar with urethane spring loaded
 zippered gasket • Double steel formed curved sheet • Plug top disconnect •
 Adjustable mounting brackets • 7/8" outside diameter

SELECTED OPTIONS & ACCESSORIES
 Designer Grills
 Motor w/ Thermal Overhaul
 UL919-007 • "Electric Fan"

NOTES: All dimensions shown are in units of inches
 Fan weight is without accessories

DIMENSIONS
 Approx. Fan Weight (lb.)
 15

PERFORMANCE — Standard U.S. Ambient Temperature T_a = 70°

Qty	Model	Volume (CFM)	SP (in. wg)	FHP/HP	Watts (W)	VOLP	Encs	RPM
1	SPA190	167	0.26	1.400	115	115/60/1	CGP	1400

SOUND

Model	125	250	500	1000	2000	4000	8000	Low	dB(A)	Score
SP	55	55	55	55	55	45	35	35	54	43

EUA - Based on Tables 110.01-110.07 of National Electrical Code 2002
 dBA - A weighted sound power level, based on ANSI S1.1-2002
 dB(A) - A weighted sound pressure level, based on ANSI S1.4-2002
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Fan	A	B	C	D	E	F	G
SPA110	10.625	13.25	10.5	8	6	14.875	13.25
SPA125	10.625	13.25	10.5	8	6	14.875	13.25
SPA190	10.625	13.25	10.5	8	6	14.875	13.25
SPA200	11.875	14	11.25	8	8	14.875	13.25
SPA250	11.875	14	11.25	8	8	14.875	13.25
SPA290	11.875	14	11.25	8	8	14.875	13.25
SPA390	11.875	14	11.25	8	8	14.875	13.25
SPA410	14.375	18	14.5	8	8	19.375	16.375
SPA510	14.375	18	14.5	8	8	19.375	16.375
SPA710	14.375	18	14.5	10	8	19.375	16.375
SPA780	14.375	18	14.5	10	8	19.375	16.375
SPA900	14.375	23.75	14.5	18.75	8	25	16.375

AIR SPECIALTY PRODUCTS
 **GREENHECK CEILING FANS**

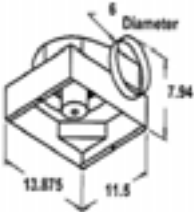
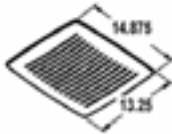


Part #	Performance @ .25 SP	List Price
SPB90	90 CFM	
SPB110	110 CFM	
SPB150	150 CFM	
SPB200	200 CFM	




05/18/04
JOB: Price book-AJ

Fan

MARK: EF-2

SP

Ceiling Exhaust Fan

CONSTRUCTION FEATURES

- Corrosion resistant galvanized steel scroll and housing
- White designer non-yellowing grille
- Round outlet duct collar with integral backdraft damper
- Single inlet forward-curved wheel
- Plug type disconnect
- Adjustable mounting brackets

SELECTED OPTIONS & ACCESSORIES

- Designer Grille
- Round Duct Connection - Standard
- Motor w/ Thermal Overloads
- ULUL-507 - "Electric Fans"

NOTES: All dimensions shown are in units of inches
Fan weight is without accessories

DIMENSIONS

Approx. Fan Weight (lb.)
10

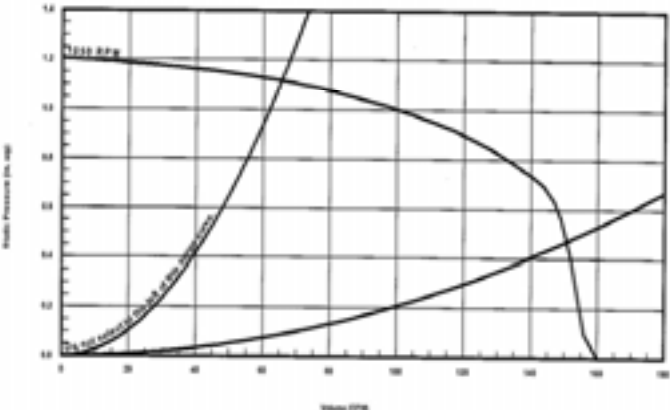

PERFORMANCE (Elevation ft. = 0, Air/room Temperature T = 72)

Qty	Model	Volume (CFM)	SP (in. wg)	FRPM	Watts (W)	Motor Information		
						VICP	Encd	HP/ft
1	SP-B152	154	0.25	1,050	129	115B01	OCP	1090

SOUND

Inlet Sound Power by Octave Band								Leq	dBA	Sones
62.5	125	250	500	1000	2000	4000	8000			
58	62	54	55	54	47	42	36	57	46	5.8

FLA - Based on tables 150 or 148 of National Electrical Code 2002.
Leq - A weighted sound power level, based on ANSI S1.4.
dBA - A weighted sound pressure level, based on 11.5 dB attenuation per octave band at 5.0 ft. Sones calculated using AMCA 301 at 5.0 ft.

AIR SPECIALTY PRODUCTS



Western Vents & Roof Curbs



Part #	Performance @ .25 SP	List Price
S2015	13 1/2" x 13 1/2" x 12"	
S2017	15 1/2" x 15 1/2" x 12"	
S2019	17 1/2" x 17 1/2" x 12"	
S2022	20 1/2" x 20 1/2" x 12"	
S2026	24 1/2" x 24 1/2" x 12"	
S2030	28 1/2" x 28 1/2" x 12"	
S2034	32 1/2" x 32 1/2" x 12"	
S2040	38 1/2" x 38 1/2" x 12"	

Greenheck 05/18/04 JOB: Price book--AJ

Fan MARK: EF-1

GPI Roof Curb

STANDARD CONSTRUCTION FEATURES

- Welded Aluminum (0.064 in.) or galvanized (18 ga.) construction • Straight sided • 2 in. roof mounting flange • 1 in. 3# density insulation • Wood nailer.

Roof Opening - The Maximum roof opening dimension should not be greater than the "Actual" top outside dimension minus 2 in. With dampers, the Minimum roof opening dimension should be at least 2.5 in. more than the damper dimension.

NOTES:
* The Roof Opening Dimension may NOT be the Structural Opening Dimension.
* Maximum single piece shipping length is 70".
* Security Bars are optional and must be specified. They are 0.5 in. steel, and will be placed 6 in. on center. These bars are welded to the frame, and the frame is welded to the curb. To prevent corrosion, they are coated with Greenheck's high performance Permatector coating. Security Bars are in lieu of damper and damper tray.

NOTES: All dimensions shown are in units of inches




Western Vents & Roof Curbs

AIR SPECIALTY PRODUCTS
 **GREENHECK FAN ACCESSORIES**


BACKDRAFT DAMPER

Part #	Size	
WD1001010	10" x 10" BDD	
WD1001212	12" x 12" BDD	
WD1001616	16" x 16" BDD	

SPEED SWITCH

Part #	Size	
5WSSC	5 Amp Speed Switch	

PLASTIC GRILLE

Part #	Fits	
455478	671, 688, SP5 Fan	



Greenheck 05/18/04 JOB: Price book-AJ

Fan MARK: EF-1

WD-100 Horizontal Mount Exhaust Damper

STANDARD CONSTRUCTION FEATURES

Horizontal mount exhaust damper (air flow up) is constructed of 18 ga. galvanized steel with pre-punched mounting holes.

- Damper blades are 0.025 in. roll formed aluminum with vinyl seals on the closing edge, and spring assisted for ease of opening
- Steel axes are 0.188 in. diameter zinc plated mounted in acetal bushings
- Synthetic axle bearings

Accessory Configuration

Blade Action	Parallel
Actuator Type	Gravity

Technical drawing showing a side view of the damper with dimensions 2.5 and 6.63. Below it is an isometric view of the damper with dimensions 10 and 10.

NOTES: All dimensions shown are in units of inches
Width and height furnished approximately 0.125 in. undersize.

AIR SPECIALTY PRODUCTS
GREENHECK FAN ACCESSORIES

PLASTIC GRILLES



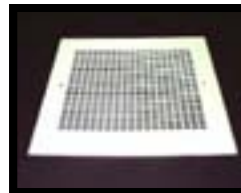
Mesa	Tucson	Part #	Fits
*		455645	676, 684, SPB90 Fan

METAL GRILLES



Mesa	Tucson	Part #	Fits
*	*	459208	SPB90-200;SPA-50-A390

METAL GRILLES



Mesa	Tucson	Part #	Fits
*		504878	SPA50-A190 Grille
*		504879	SPB50-B200;A200-A390 Grille
*		504880	SPA410-A510;A710-A780 Grille
*		504881	SPA900-A1550 Grille

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520.623.0668 TUCSON



BROAN CEILING FANS

Mesa	Tucson	Part #	Fits
*	*	684	80 CFM
*	*	676	110 CFM

BROAN

SPECIFICATION SHEET

**MODEL 676
CEILING/WALL FAN**

Dependable, high performance bathroom ventilation.

FEATURES

GRILLE:

- Attractive grille conceals interior
- Matte white polymeric – blends well with any decor
- Torsion spring grille mounting – no tools required
- White, metal grille kit available (purchase separately)

BLOWER:

- Plug-in, permanently lubricated motor
- Centrifugal blower wheel

HOUSING:

- Rugged, 26-gage galvanized steel construction
- Sturdy key-holed mounting brackets for quick, accurate installation
- Tapered, polymeric duct fitting with built-in backdraft damper for easy, positive duct connection and no metallic clatter

Model 2667H & 3667H: Rough-in housings for 2676F finish assemblies (packed 4 per carton). 3667H housings include slide channels and mounting brackets. U.L. Listed for use over bathtubs and showers when connected to a GFCI protected branch circuit.

SPECIFICATIONS

MODEL	VOLTS	AMPS	SONES	CFM	DUCT
676	120	1.3	4.0	110	4" Round

UL-2000 (CERTIFIED) TMC05 complies with new testing technologies and procedures prescribed by the Home Ventilating Institute, for all-in-shell products, as they are available to consumers. Product performance is rated at 110 cfm, static pressure based on tests conducted in AMCA's state-of-the-art test laboratory. Sones are a measure of humming perceived by humans, based on laboratory measurements.

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

TYPICAL SPECIFICATION

Ventilator shall be Broan Model 676.

Unit shall have a galvanized steel housing with dual integral mounting brackets. It shall be ducted to a roof or wall cap.

Blower assembly shall be removable and have a centrifugal blower wheel and permanently lubricated motor.

Air delivery shall be no less than 110 CFM and sound level no greater than 4.0 Sones. Air and sound ratings shall be certified by HVI.

Unit shall be U.L. Listed for use over bathtubs and showers when connected to a GFCI protected branch circuit.

AIR SPECIALTY PRODUCTS

BROAN CEILING FANS

Mesa	Tucson	Part #	Performance
*		688	50 CFM
*		671	70 CFM



MODEL 671 CEILING/WALL FANS

Simple installation and dependability make this odor and moisture removing fan a real value.

FEATURES

GRILLE:

- White polymeric - blends well with any decor
- Torsion spring grille mounting - no tools required
- Metal grille kit available - (purchase separately)

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 sight 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

Model 1667H: Rough-in housing for 1671F finish assemblies (packed 6 per carton)

- U.L. listed for tub or shower enclosure with GFCI branch wiring

CONTROLS: Designed by Broan for use with this product (purchase separately)

- Model 57V (Ivory/57W (White)
- Electronic Variable Speed Control
- Model 59V/59W 60-Minute Time Control
- Model 61V/61W 15-Minute Time Control



TYPICAL SPECIFICATION

Ventilator shall be Broan Model 671.

Ventilator shall have galvanized steel housing with double-strength mounting flanges. It shall be ducted vertically (horizontally) to a roof cap (wall cap).

Motor assembly shall be removable and permanently lubricated.

Air delivery shall be no less than 70 CFM and sound levels no greater than 6.0 Sones. All air and sound ratings shall be certified by HVI. Units shall be U.L. listed.



SPECIFICATIONS

MODEL	VOLTS	AMPS	CFM	SONES	DUCT
671	120	1.15	70	6.0	3" ROUND



HVI CERTIFIED AIR FLOW units 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, 505 Silver State Street, Murfreesboro, TN 37132 or 800-637-6473

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BROAN FAN ACCESSORIES



Part #	Description
57W	Speed Control Switch



Part Number	Size	Price
636	4" Roof Cap	
634	8" Roof Cap	



Part Number	Size	Price
611	8" Flat Roof Cap	
611CM	8" Curb Mount Roof Cap	
612	12" Flat Roof Cap	
612CM	12" Curb Mount Roof Cap	



Part Number	Size	Price
642	4" Wall Cap	
641	6" Wall Cap	
643	8" Wall Cap	
639	10" x 3" Wall Cap	

June 2011 Prices subject to change without notice.

AIR SPECIALTY PRODUCTS

Model 611

- For flat roof installation
- .025 Aluminum - natural finish
- Built-in bird screen
- For up to 8" round duct

Model 611CM

- For curb mount installation
- Other features same as Model 611

Model 612

- For flat roof installation
- .025 Aluminum - natural finish
- Built-in bird screen
- For up to 12" round duct

Model 612CM

- For curb mount installation
- Other features same as Model 612

Broan-NuTone LLC, 926 West State Street, Hartford, WI 53027 (1-800-637-1453)
 NuTone, Inc., 4820 Red Bank Road, Cincinnati, OH 45227 (1-800-543-8687)
 Broan-NuTone Canada, Inc., 1140 Tristar Drive, Mississauga, Ontario, L5T 1H9 (1-888-882-7828)

MESA 480.377.9255

520.623.0668 TUCSON

Price

Square Coned Diffuser (T-Bar Step Down)



Mesa Stock	Tucson Stock	Part Number	Size	Price
*	*	SCD312126	12" x 12" w/ 6" Neck	
*		SCD312128	12" x 12" w/ 8" Neck	
*	*	SCD36	24" x 24" w/ 6" Neck	
*	*	SCD38	24" x 24" w/ 8" Neck	
*	*	SCD310	24" x 24" w/ 10" Neck	
*	*	SCD312	24" x 24" w/ 12" Neck	
*	*	SCD314	24" x 24" w/ 14" Neck	
*	*	SCD315	24" X 24" w/ 15" Neck	

AIR SPECIALTY PRODUCTS

PRICE
Submittal Sheet

SCD, ASCD SQUARE CONE DIFFUSER

+1 5/16\"
24x24 & 800x800 UNITS ONLY (33)

IMPERIAL UNITS (Inches)

CM	CEILING OPENING	B	C	DUCT SIZE
<input type="checkbox"/> 24x24	20x22	2 1/4	1 1/4	6,8,10,12,14,15
<input type="checkbox"/> 20x20	18x18	2 1/4	1/2	6,8,10
<input type="checkbox"/> 12x12	10 7/8x10 7/8	1 1/4	1 1/4	4,5,6,7,8

SI UNITS (mm)

CM	CEILING OPENING	B	C	DUCT SIZE
<input type="checkbox"/> 800x800	549x549	64	27	152,203,254,305,356,381
<input type="checkbox"/> 500x500	443x443	64	13	152,203,254
<input type="checkbox"/> 300x300	249x249	28	27	102,127,152,178,203

**FRAMES FOR CM 24x24 & 12x12
800x800 & 300x300**

31 T-BAR A = 1\" (25) or 9/16\" (14)

MATERIAL:
 SCD - STEEL CONSTRUCTION
 ASCD - ALUMINUM CONSTRUCTION (STYLE 31 ONLY)

FINISH:
 B12 WHITE (OPTIONAL FINISHES AVAILABLE)

OPTION:
 INSULATED BACKPAN (SCD STYLE 31 T-BAR 24x24 & 800x800 ONLY)
 MATERIAL: 1/2\" FIBERGLASS WITH FOL/SCRM VAPOR BARRIER

ALL METRIC DIMENSIONS () ARE SOFT CONVERTED, IMPERIAL DIMENSIONS ARE CONVERTED TO METRIC AND ROUNDED TO THE NEAREST MILLIMETER.

PROJECT:	<p>SCD, ASCD SQUARE CONE DIFFUSER</p>
ENGINEER:	
CUSTOMER:	
SUBMITTAL DATE:	
SPEC. SYMBOL:	218772 NOV 2001 REV F

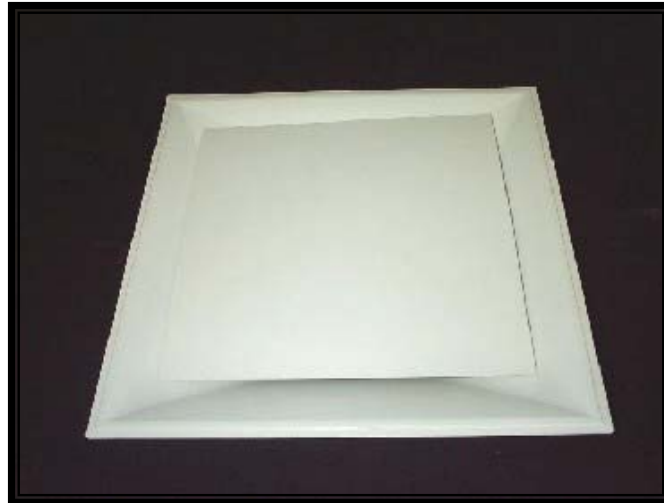
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MESA 480.377.9255

520.623.0668 TUCSON

Price

Square Plaque Diffuser (T-Bar)



Mesa Stock	Tucson Stock	Part Number	Size	Price
*		SPD312126	12" x 12" w/ 6" Neck	
*		SPD312128	12" x 12" w/ 8" Neck	
*		SPD36	24" x 24" w/ 6" Neck	
*		SPD38	24" x 24" w/ 8" Neck	
*		SPD310	24" x 24" w/ 10" Neck	
*		SPD312	24" x 24" w/ 12" Neck	
*		SPD314	24" x 24" w/ 14" Neck	

AIR SPECIALTY PRODUCTS

price[®]
Submittal Sheet

SPD, ASPD SQUARE PLAQUE DIFFUSER

IMPERIAL UNITS (Inches)

CM	CEILING OPENING	B	DUCT SIZE
<input type="checkbox"/> 24x24	22x22	2 1/2	6,8,10,12,14,15
<input type="checkbox"/> 20x20	18x18	2 1/2	6,8,10
<input type="checkbox"/> 12x12	10 1/2 x 10 1/2	1 1/2	4,5,6,7,8

M UNITS (mm)

CM	CEILING OPENING	B	DUCT SIZE
<input type="checkbox"/> 600x600	549x549	64	152,203,254,305,356,381
<input type="checkbox"/> 500x500	449x449	64	152,203,254
<input type="checkbox"/> 300x300	249x249	29	102,127,152,178,203

MATERIAL:

SPD - STEEL CONSTRUCTION

ASPD - ALUMINUM CONSTRUCTION (STYLE 31 ONLY)

OPTION:

INSULATED BACKFAN (SPD STYLE 31 T-BAR 24x24 & 600x600 ONLY)
MATERIAL: 1/2" FIBERGLASS WITH FOL/SCRM VAPOR BARRIER

FRAMES: FOR CM 24x24 & 12x12
600x600 & 300x300

31 T-BAR A = 1" (25) or 9/16" (14)

ALL METRIC DIMENSIONS () ARE SOFT CONVERTED. IMPERIAL DIMENSIONS ARE CONVERTED TO METRIC AND ROUNDED TO THE NEAREST MILLIMETER.

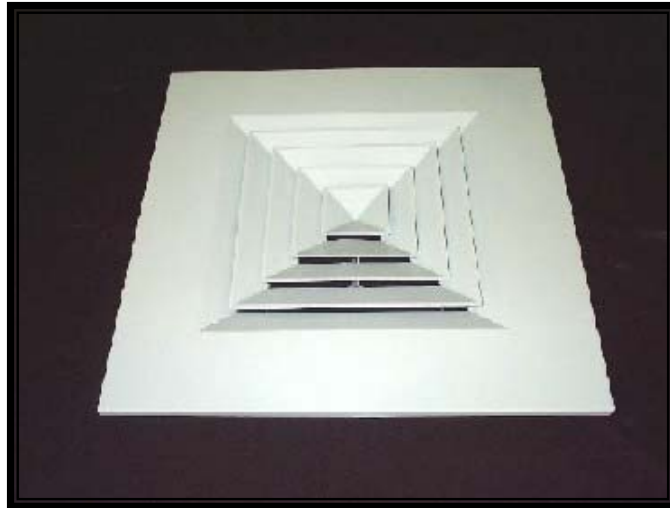
PROJECT:	price [®]
ENGINEER:	<i>KL</i>
CUSTOMER:	218785
SUBMITTAL DATE:	NOV 2001
SPEC. SYMBOL:	SPD, ASPD SQUARE PLAQUE DIFFUSER

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REV F

MESA 480.377.9255

520.623.0668 TUCSON

Price
Louvered Face Diffuser (T-Bar 4 Way)



Mesa Stock	Tucson Stock	Part Number	Size	Price
*	*	SMD3P66	24" x 24" w/ 6" x 6" Neck	
*	*	SMD3P99	24" x 24" w/ 9" x 9" Neck	
*	*	SMD3P1212	24" x 24" w/ 12" x 12" Neck	
*	*	SMD3P1515	24" x 24" w/ 15" x 15" Neck	
*	*	SMD3P1818	24" x 24" w/ 18" x 18" Neck	

AIR SPECIALTY PRODUCTS

price®		Submittal Sheet	
SMD/AMD MODULAR DIFFUSER			
<p>MATERIAL:</p> <p style="margin-left: 100px;">$\frac{7}{8}'' (14)$</p> <p style="margin-left: 100px;">$2\frac{1}{4}'' (54)$</p> <p style="margin-left: 100px;">$1\frac{1}{2}'' (38)$ TYPICAL SPACING</p>			
<p>PANELS:</p> <p><input type="checkbox"/> 3P T-BAR</p>			
<p>MATERIAL:</p> <p><input type="checkbox"/> SMD - STEEL CONSTRUCTION (EXTR. ALUM. FRAME #33 T-BAR AND #6 BEVELLED - ONLY)</p> <p><input type="checkbox"/> AMD - ALUM. CONSTRUCTION (EXCEPT 3P,4P,17P: FRAME AND PANEL STEEL CONSTRUCTION)</p> <p><input type="checkbox"/> SMOSS - STAINLESS STEEL CONSTRUCTION (EXTR. ALUM. FRAME #33 T-BAR AND #6 BEVELLED - ONLY)</p>			
<p>OPTIONS:</p> <p><input type="checkbox"/> 3 COATED STEEL OPPOSED BLADE DAMPER (SHIPPED LOOSE)</p> <p><input type="checkbox"/> 3AL ALUM OPPOSED BLADE DAMPER (SHIPPED LOOSE)</p> <p><input type="checkbox"/> SR SQUARE TO ROUND ADAPTOR (SHIPPED MOUNTED)</p> <p><input type="checkbox"/> SR2 SQUARE TO ROUND ADAPTOR (SHIPPED LOOSE)</p> <p><input type="checkbox"/> SR3 SQUARE TO ROUND ADAPTOR (SHIPPED LOOSE) WITH STEEL OPPOSED BLADE DAMPER (SHIPPED LOOSE)</p> <p><input type="checkbox"/> SR3AL SQUARE TO ROUND ADAPTOR (SHIPPED LOOSE) WITH ALUM OPPOSED BLADE DAMPER (SHIPPED LOOSE)</p> <p><input type="checkbox"/> SR8E SQUARE TO ROUND ADAPTOR (SHIPPED MOUNTED) WITH STEEL BUTTERFLY VOLUME CONTROL DAMPER (SHIPPED LOOSE) DAMPERS ARE ONLY AVAILABLE IN DUCT SIZES 4 TO 15</p> <p><input type="checkbox"/> AMD 3P,4P,17P: ALL ALUMINUM CONSTRUCTION (INCLUDING FRAME AND PANEL)</p>			
<p>FINISH:</p> <p><input type="checkbox"/> B12 WHITE (OPTIONAL FINISHES AVAILABLE)</p>			
ALL METRIC DIMENSIONS () ARE SOFT CONVERTED. IMPERIAL DIMENSIONS ARE CONVERTED TO METRIC AND ROUNDED TO THE NEAREST MILLIMETER.			
PROJECT:		price®	
ENGINEER:			
CUSTOMER:		SMD/AMD	
SUBMITTAL DATE:		218791	
SPEC. SYMBOL:		MODULAR CEILING DIFFUSER	
DEC. 2003			
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MESA 480.377.9255

520.623.0668 TUCSON

Price
Perforated Adjustable Curved Blade Diffusers (T-Bar 4 Way)



Mesa Stock	Tucson Stock	Part Number	Size	Price
	*	PDC36	24" x 24" w/ 6" Neck	
	*	PDC366	24" x 24" w/ 6" x 6" Neck	
	*	PCD361212	12" x 12" w/6" Neck	
	*	PDC38	24" x 24" w/ 8" Neck	
	*	PDC388	24" x 24" w/ 8" x 8" Neck	
	*	PDC310	24" x 24" w/ 10" Neck	
	*	PDC31010	24" x 24" w/ 10" x 10" Neck	
	*	PDC312	24" x 24" w/ 12" Neck	
	*	PDC31212	24" x 24" w/ 12" x 12" Neck	
	*	PDC314	24" x 24" w/ 12" x 14" Neck	
	*	PDC31414	24" x 24" w/ 14" x 14" Neck	
	*	PDC316	24" x 24" w/ 14" x 16" Neck	
	*	PDC31616	24" x 24" w/ 16" x 16" Neck	
	*	PDC318	24" x 24" w/14" x 16" Neck	
	*	PDC31818	24" x 24" w/ 18" x 18" Neck	

AIR SPECIALTY PRODUCTS

price[®]
Submittal Sheet

PDC, APDC PERFORATED DIFFUSER

NOTE: PAN HEIGHT IS 1/8" (3mm) FOR ALL MODULE SIZES EXCEPT 24"x24"

D = NOM. DUCT
D - 1/8" (3)
MIN. 1" (25)
2" (51)
CM = CEILING MODULE

CEILING MODULE	ROUND DUCT SIZE	SQUARE DUCT SIZE
12x12 (305x305)	6 (152)	6x6 (152x152)
18x18 (406x406)	6,8,10 (152,203,254)	6x6,8x8,10x10 (152x152,203x203,254x254)
24x24 (610x610)	6,8,10,12,14,15,16,18 (152,203,254,306,356,381,406,457)	6x6,8x8,10x10,12x12,14x14,15x15,16x16,18x18 (152x152,203x203,254x254,306x306,381x381,406x406,457x457)

FRAME:

4-WAY

3 T-BAR A = 1" (25)
 5W T-BAR A = 9/16" (14)

CM STYLE 3 SHOWN

SUITABLE FOR SUNKIN CEILINGS

17 NARROW MEMBER FRAME:
AVAILABLE ONLY IN 12x12, 24x24 CEILING MODULES

MATERIAL:

- PDC - STEEL CONSTRUCTION
- APDC - ALUMINUM PERFORATED FACE
- OTHER COMPONENTS, STEEL CONSTRUCTION

FINISH:

- B12 WHITE (OPTIONAL FINISHES AVAILABLE)

NOTE:

- 1, 2, 2C, 3 & 4-WAY AIR PATTERNS HAVE INDIVIDUALLY ADJUSTABLE BLADES.
- CURVED BLADES ARE LOCATED AT THE INLET NECK AND ARE FIELD ADJUSTABLE FROM HORIZONTAL TO VERTICAL AIR PATTERN.
- VERTICAL AIR PATTERN.
- FRAME STYLE 3 SHOWN ABOVE
- FACTORY TOLERANCE: ± 1/16" (1)

ALL METRIC DIMENSIONS () ARE SOFT CONVERTED, IMPERIAL DIMENSIONS ARE CONSIDERED TO METRIC AND ROUNDED TO THE NEAREST MILLIMETER.

PROJECT:	price [®]	
ENGINEER:	<i>KL</i>	PDC, APDC PERFORATED DIFFUSER WITH ADJUSTABLE CURVED BLADES
CUSTOMER:	227224	
SUBMITTAL DATE:	SPEC. SYMBOL:	NOV 2001

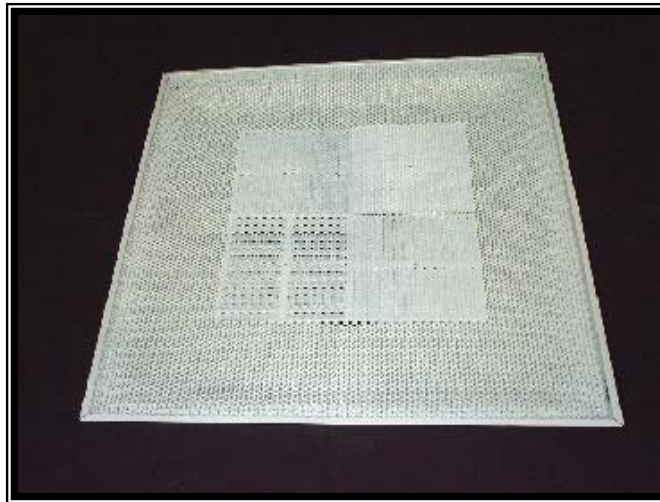
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REV B

MESA 480.377.9255

520.623.0668 TUCSON

Price

Perforated Directional Fixed Diffusers (T-Bar 4 Way)



Mesa Stock	Tucson Stock	Part Number	Size	Price
*		PDF36	24" x 24" w/ 6" Neck	
*		PDF38	24" x 24" w/ 8" Neck	
*		PDF310	24" x 24" w/ 10" Neck	
*		PDF312	24" x 24" w/ 12" Neck	
*		PDF314	24" x 24" w/ 14" Neck	
*		PDF316	24" x 24" w/ 16" Neck	

AIR SPECIALTY PRODUCTS

price[®]
Submittal Sheet

PDF, APDF PERFORATED DIFFUSER

NOTE:
PAN HEIGHT IS 1 1/2" (37) FOR ALL MODULE SIZES EXCEPT 24" x 24"

CM = CEILING MODULE

	□ SQUARE DUCT								□ ROUND DUCT														
	6\"/>																						
12x12	*																						
24x12	*									*													
18x18	*	*								*	*	*	*	*	*	*	*	*	*	*	*	*	*
20x20	*	*	*							*	*	*	*	*	*	*	*	*	*	*	*	*	*
24x24	*	*	*	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*
48x24	*	*	*	*	*	*	*			*	*	*	*	*	*	*	*	*	*	*	*	*	*
300x300	*									*													
600x300	*									*													
400x400	*	*								*	*	*	*	*	*	*	*	*	*	*	*	*	*
500x500	*	*	*							*	*	*	*	*	*	*	*	*	*	*	*	*	*
600x600	*	*	*	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*
1200x600	*	*	*	*	*	*	*			*	*	*	*	*	*	*	*	*	*	*	*	*	*

FRAMES:

- 3 T-BAR A = 1" (25)
- 916 T-BAR A = 9/16" (14)

STYLE 3 SHOWN

MATERIAL:

- PDF - STEEL CONSTRUCTION
- APDF - ALUMINUM PERFORATED FACE
OTHER COMPONENTS, STEEL CONSTRUCTION

FINISH:

- B12 WHITE
(OPTIONAL FINISHES AVAILABLE)

NOTE:

- * DEFLECTORS ARE FACTORY SUPPLIED IN A 4 WAY PATTERN SETTING
- * OTHER PATTERN SETTINGS CAN BE ACHIEVED BY ROTATING DEFLECTORS

ALL METRIC DIMENSIONS () ARE SOFT CONVERTED. IMPERIAL DIMENSIONS ARE CONVERTED TO METRIC AND ROUNDED TO THE NEAREST MILLIMETER.

PROJECT:		price [®]	
ENGINEER:			PDF, APDF PERFORATED DIFFUSER WITH FACE DEFLECTORS
CUSTOMER:		218787	
SUBMITTAL DATE:	SPEC. SYMBOL:	JAN 2003	

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MESA 480.377.9255

520.623.0668 TUCSON

Price
Louvered Face Diffuser
(Surface Mount 4 Way)



Mesa Stock	Tucson Stock	Part Number	Size	Price
*	*	SMD666	6" x 6" Neck	
*	*	SMD699	9" x 9" Neck	
*	*	SMD61212	12" x 12" Neck	
*		SMD61515	15" x 15" Neck	
*		SMD61818	18" x 18" Neck	

AIR SPECIALTY PRODUCTS

PRICE[®]		Submittal Sheet	
SMD/AMD MODULAR DIFFUSER			
<input type="checkbox"/> 6 BEVELLED			
MATERIAL: <input type="checkbox"/> SMD - STEEL CONSTRUCTION (EXTR. ALUM. FRAME #33 T-BAR AND #6 BEVELLED - ONLY) <input type="checkbox"/> AMD - ALUM. CONSTRUCTION (EXCEPT 3P,4P,17P: FRAME AND PANEL STEEL CONSTRUCTION) <input type="checkbox"/> SMOSS - STAINLESS STEEL CONSTRUCTION (EXTR. ALUM. FRAME #33 T-BAR AND #6 BEVELLED - ONLY)		OPTIONS: <input type="checkbox"/> 3 COATED STEEL OPPOSED BLADE DAMPER (SHIPPED LOOSE) <input type="checkbox"/> 3AL ALUM OPPOSED BLADE DAMPER (SHIPPED LOOSE) <input type="checkbox"/> SR SQUARE TO ROUND ADAPTOR (SHIPPED MOUNTED) <input type="checkbox"/> SR2 SQUARE TO ROUND ADAPTOR (SHIPPED LOOSE) <input type="checkbox"/> SR3 SQUARE TO ROUND ADAPTOR (SHIPPED LOOSE) WITH STEEL OPPOSED BLADE DAMPER (SHIPPED LOOSE) <input type="checkbox"/> SR3AL SQUARE TO ROUND ADAPTOR (SHIPPED LOOSE) WITH ALUM OPPOSED BLADE DAMPER (SHIPPED LOOSE) <input type="checkbox"/> SR3E SQUARE TO ROUND ADAPTOR (SHIPPED MOUNTED) WITH STEEL BUTTERFLY VOLUME CONTROL DAMPER (SHIPPED LOOSE) DAMPERS ARE ONLY AVAILABLE IN DUCT SIZES 4 TO 15 <input type="checkbox"/> AMD 3P,4P,17P: ALL ALUMINUM CONSTRUCTION (INCLUDING FRAME AND PANEL)	
FINISH: <input type="checkbox"/> B1Q WHITE (OPTIONAL FINISHES AVAILABLE)			
ALL METRIC DIMENSIONS () ARE SOFT CONVERTED, IMPERIAL DIMENSIONS ARE CONVERTED TO METRIC AND ROUNDED TO THE NEAREST MILLIMETER.			
PROJECT:			
ENGINEER:			
CUSTOMER:		SMD/AMD	
SUBMITTAL DATE:		MODULAR CEILING DIFFUSER	
SPEC. SYMBOL:		210791	
DEC. 2003		DEC. 2003	
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MESA 480.377.9255

520.623.0668 TUCSON

Price

Curved Blade Adjustable Diffuser

(Surface Mount 4 Way -Includes Opposed Blade Damper)



Mesa Stock	Tucson Stock	Part Number	Size	Price
*	*	SCVD66	6" x 6" Neck	
*	*	SCVD88	8" x 8" Neck	
*	*	SCVD1010	10" x 10" Neck	
*	*	SCVD1212	12" x 12" Neck	
*	*	SCVD1414	14" x 14" Neck	
*		SCVD1616	16" x 16" Neck	

AIR SPECIALTY PRODUCTS

price[®]
Submittal Sheet

SCVD STEEL CURVED VANE DIFFUSER

MATERIAL:
• STEEL

FINISH:
□ B12 WHITE
(OPTIONAL FINISHES AVAILABLE)

4 WAY

ALL CORE STYLES SHOWN ARE PLAN VIEW

NOTE:
SIZES 6x4 TO 24x24 AVAILABLE IN 1, 2, 3 & 4 WAY AIR PATTERNS, EXCEPT ALL 4\"/>

OPTION:
□ VCS3 c/w COATED STEEL OPPOSED BLADE DAMPER

ALL METRIC DIMENSIONS () ARE SOFT CONVERTED. IMPERIAL DIMENSIONS ARE CONVERTED TO METRIC AND ROUNDED TO THE NEAREST MILLIMETER.

PROJECT:		price [®]	
ENGINEER:		<i>BW</i>	SCVD
CUSTOMER:		227336	STEEL CURVED VANE SUPPLY AIR DIFFUSER
SUBMITTAL DATE:	SPEC. SYMBOL:	NOV 2001	REV C

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MESA 480.377.9255

520.623.0668 TUCSON

Price
Round Centrifugal Diffuser (Surface Mount)



Mesa Stock	Tucson Stock	Part Number	Size	Price
*	*	RCDE6	6"	
*	*	RCDE8	8"	
*	*	RCDE10	10"	
*	*	RCDE12	12"	
*	*	RCDE14	14"	
*	*	RCDE16	16"	

AIR SPECIALTY PRODUCTS

price[®]
Submittal Sheet

RCDE ROUND CEILING DIFFUSER

NOM. SIZE	A	B	D	E	F
6	11 1/4	8 1/2	6	1 1/2	1 1/2
8	14 1/4	8 1/2	8	2 1/2	1 1/2
10	18 1/4	10 1/2	10	2 1/2	2 1/2
12	22	12 1/2	12	2 1/2	2 1/2
14	26	14 1/2	14	2 1/2	2 1/2
16	29	16 1/2	16	4	2 1/2
18	32 1/2	18 1/2	18	4 1/2	2 1/2
20	36	20 1/2	20	5 1/2	4 1/2
24	42 1/2	24 1/2	24	7 1/2	6 1/2

NOM. SIZE	A	B	D	E	F
6	283	185	152	45	38
8	375	216	203	54	38
10	464	267	254	73	54
12	559	318	305	79	60
14	660	368	356	86	67
16	737	419	406	102	83
18	826	470	457	121	98
20	914	521	508	149	124
24	1099	622	610	197	168

MATERIAL:
• HEAVY GAUGE STEEL

FACTORY TOL:
• ± 1/32" (1)

FINISH:
□ B12 WHITE
(OPTIONAL FINISHES AVAILABLE)

ALL METRIC DIMENSIONS () ARE SHOWN IN PARENTHESES. IMPERIAL DIMENSIONS ARE CONVERTED TO METRIC AND ROUNDED TO THE NEAREST MILLIMETER.

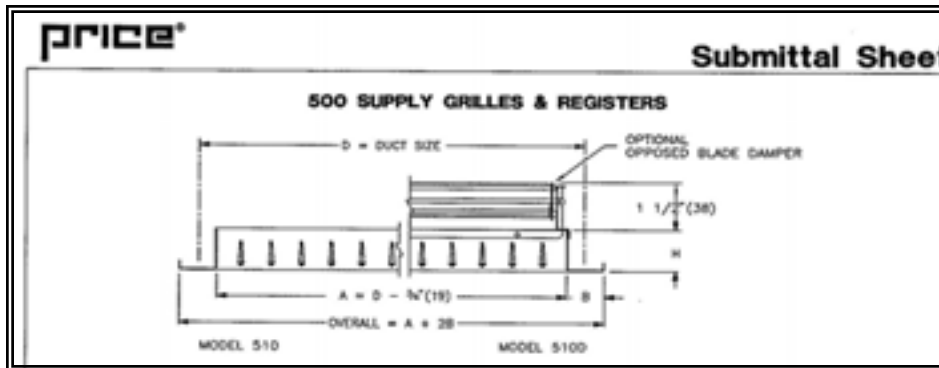
PROJECT:	price [®]	
ENGINEER:	<i>KL</i>	RCDE
CUSTOMER:	210474	ROUND CEILING DIFFUSER
SUBMITTAL DATE:	SPEC. SYMBOL:	OCT 97

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REV C

MESA 480.377.9255

520.623.0668 TUCSON

Price
Double Deflection
Register (Surface Mount)
 Includes
 Opposed Blade Damper



Mesa Stock	Tucson Stock	Part Number	Size	Price
*		520D66	6" x 6"	
*		520D86	8" x 6"	
*		520D88	8" x 8"	
*		520D106	10" x 6"	
*		520D108	10" x 8"	
*		520D1010	10" x 10"	
*		520D126	12" x 6"	
*		520D128	12" x 8"	
*		520D1210	12" x 10"	
*		520D1212	12" x 12"	
*		520D146	14" x 6"	
*		520D148	14" x 8"	
*		520D1410	14" x 10"	
*		520D1412	14" x 12"	

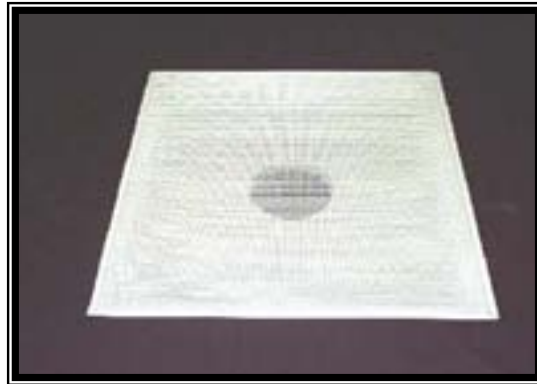
AIR SPECIALTY PRODUCTS

Mesa Stock	Tucson Stock	Part Number	Size	Price
*		520D166	16" x 6"	
*		520D168	16" x 8"	
*		520D1610	16" x 10"	
*		520D1612	16" x 12"	
*		520D186	18" x 6"	
*		520D188	18" x 8"	
*		520D1810	18" x 10"	
*		520D1812	18" x 12"	
*		520D206	20" x 6"	
*		520D208	20" x 8"	
*		520D2010	20" x 10"	
*		520D2012	20" x 12"	
*		520D246	24" x 6"	
*		520D248	24" x 8"	
*		520D2410	24" x 10"	
*		520D2412	24" x 12"	
*		520D306	30" x 6"	
*		520D308	30" x 8"	
*		520D3010	30" x 10"	
*		520D3012	30" x 12"	
*		520D366	36" x 6"	
*		520D368	36" x 8"	
*		520D3610	36" x 10"	
*		520D3612	36" x 12"	

MESA 480.377.9255

520.623.0668 TUCSON

Price
Perforated Return Grille (T-Bar)



Mesa Stock	Tucson Stock	Part Number	Size	Price
*		PDDR36	24" x 24" w/ 6" Neck	
*	*	PDDR38	24" x 24" w/ 8" Neck	
*	*	PDDR310	24" x 24" w/ 10" Neck	
*	*	PDDR312	24" x 24" w/ 12" Neck	
*		PDDR314	24" x 24" w/ 14" Neck	
*		PDDR316	24" x 24" w/ 16" Neck	
*		PDDR318	24" x 24" w/ 18" Neck	
*	*	PDDR32210	24" x 12" w/ 22" x 10" Neck	
*	*	PDDR32222	24" x 24" w/ 22" x 22" Neck	
*		PDDR34622	48" x 24" w/ 46" x 22" Neck	

AIR SPECIALTY PRODUCTS

PRICE[®]
Submittal Sheet

PDDR, APDDR PERFORATED DIFFUSER

NOTE: PAN HEIGHT IS 1 1/2" (37) FOR ALL MODULE SIZES EXCEPT 24"x24"

	□ SQUARE DUCT										□ ROUND DUCT						
	12x12 (305x305)	18x18 (457x457)	24x24 (609x609)	30x30 (762x762)	36x36 (914x914)	42x42 (1067x1067)	48x48 (1219x1219)	54x54 (1372x1372)	60x60 (1524x1524)	66x66 (1676x1676)	72x72 (1829x1829)	8" (203)	10" (254)	12" (305)	14" (356)	16" (407)	18" (457)
<input type="checkbox"/> IMPERIAL	12x12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
<input type="checkbox"/>	24x12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
<input type="checkbox"/>	18x18	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
<input type="checkbox"/>	24x24	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
<input type="checkbox"/>	48x24	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
<input type="checkbox"/>	300x300	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
<input type="checkbox"/>	600x300	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
<input type="checkbox"/>	400x400	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
<input type="checkbox"/>	500x500	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
<input type="checkbox"/>	600x600	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
<input type="checkbox"/>	1200x600	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

17 NARROW MEMBER FRAME:
AVAILABLE ONLY IN 12x12, 24x12, 24x24 CEILING MODULES

MATERIAL:

PDDR - STEEL CONSTRUCTION

APDDR - ALUMINUM PERFORATED FACE
OTHER COMPONENTS, STEEL CONSTRUCTION

FINISH:

B12 WHITE
(OPTIONAL FINISHES AVAILABLE)

FRAMES:

3 T-BAR A = 1" (25)

9/16 T-BAR A = 9/16" (14)

STYLE 3 SHOWN

ALL METRIC DIMENSIONS () ARE SOFT CONVERTED. IMPERIAL DIMENSIONS ARE CONVERTED TO METRIC AND ROUNDED TO THE NEAREST MILLIMETER.

PROJECT: _____

ENGINEER: _____

CUSTOMER: _____

SUBMITTAL DATE: _____ SPEC. SYMBOL: _____

PDDR, APDDR
PERFORATED DIFFUSER
FOR DUCTED RETURN AIR
APPLICATION

219143
JAN 2003

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MESA 480.377.9255

520.623.0668 TUCSON

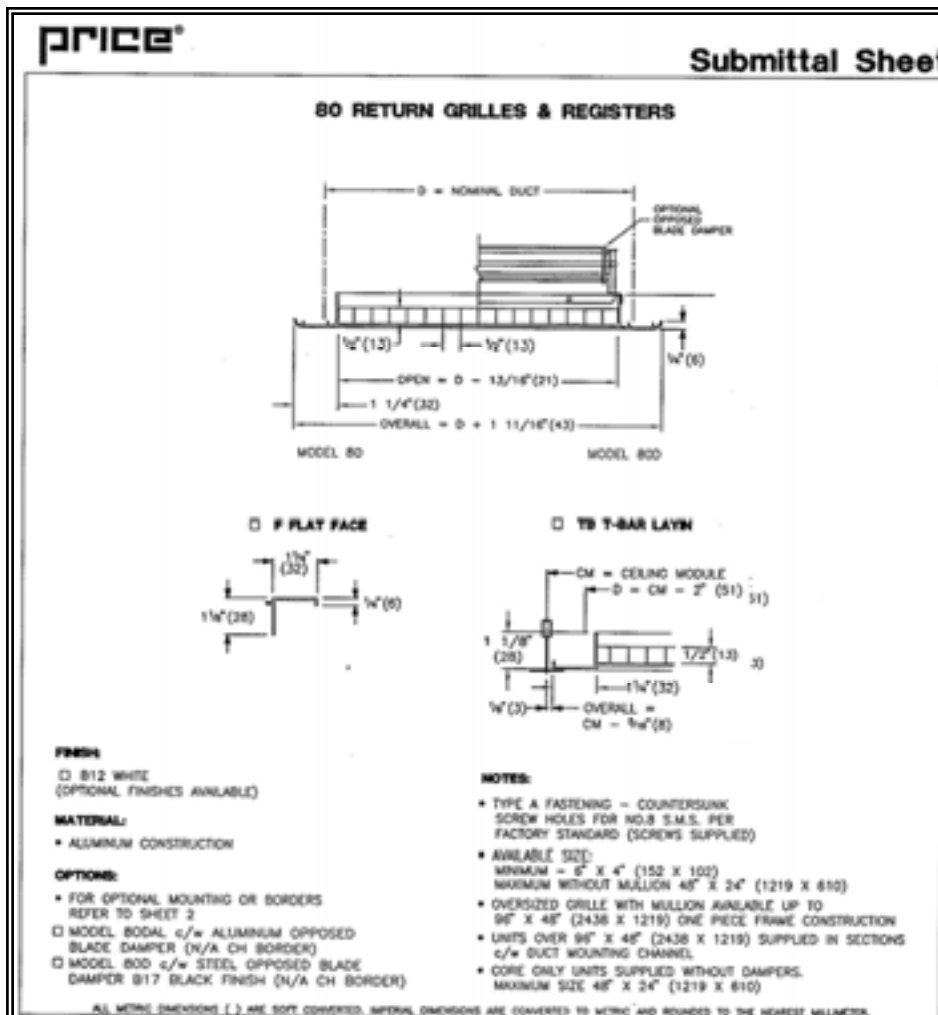
**Price
Eggcrate Grilles**



Mesa Stock	Tucson Stock	Part Number	Size	Price
*	*	8066	6" x 6"	
*	*	8088	8" x 8"	
*		80106	10" x 6"	
*	*	801010	10" x 10"	
*	*	801212	12" x 12"	
*	*	801414	14" x 14"	
*	*	801616	16" x 16"	
*	*	802412	24" x 12"	

AIR SPECIALTY PRODUCTS

Mesa Stock	Tucson Stock	Part Number	Size	Price
*	*	802424	24" x 24"	
*		804824	48" x 24"	
*	*	80TB2210	24" x 12" T-Bar w/ 22" x 10" Neck	
*	*	80TB2222	24" x 24" T-Bar w/ 22" x 22" Neck	
*	*	80TB4622	48" x 24" T-Bar w/ 46" x 22" Neck	



MESA 480.377.9255

520.623.0668 TUCSON

**Price
Filter Grilles**



Mesa Stock	Tucson Stock	Part Number	Size	Price
*		530FF1212	12" x 12"	
*		530FF2012	20" x 12"	
*		530FF2016	20" x 16"	
*		530FF2020	20" x 20"	
*		530FF2516	25" x 16"	
*		530FF2520	25" x 20"	
*		530FF3020	30" x 20"	
		530FF4020	40" x 20"	
*		530FF4824	48" x 24"	
*		530FFTB2412	24" x 12" w/ 20" x 8" Neck	
*	*	530FFTB2424	24" x 24" w/ 20" x 20" x 1" Filter	
*		530FFTB4824	48" x 24" w/ 44" x 20" Neck	
*	*	530FFTB2424S2	24" x 24" w/ 20" x 20" x 2" Filter	
*		80FFTB2424	Eggcrate 24" x 24" w/ 20" x 20" x 1" Filter	

AIR SPECIALTY PRODUCTS

PRICE[®]
Submittal Sheet

530FF, 535FF STEEL FILTER GRILLES

MATERIAL:
STEEL CONSTRUCTION

FINISHES:
 B12 WHITE
(OPTIONAL FINISHES AVAILABLE)

NOTES:
MOUNTING HOLES IN FILTER FRAME BY INSTALLER.
QUARTER TURN FASTENER (Q)/HINGE TAB LOCATION PER FACTORY STANDARD.
THE FILTER FRAME IS DESIGNED TO TAKE A 1" (25) THICK FILTER. FILTERS ARE SUPPLIED BY OTHERS.
MIN. SIZE - 8" x 4" (203 X 102)
MAX. SIZE - 36" x 36" (914 X 914)
BLADE ORIENTATION -
- L = PARALLEL TO LONG DIMENSION
- S = PARALLEL TO SHORT DIMENSION

MOUNTING/FASTENING:

SM SURFACE MOUNT

FOR SMOALL INSTALN. HINGE TABS MUST BE AT TOP

TB TEE BAR

CORE STYLES:

530/L

530/S

535/L

535/S

ALL METRIC DIMENSIONS () ARE SOFT CONVERTED. IMPERIAL DIMENSIONS ARE CONVERTED TO METRIC AND ROUNDED TO THE NEAREST MILLIMETER.

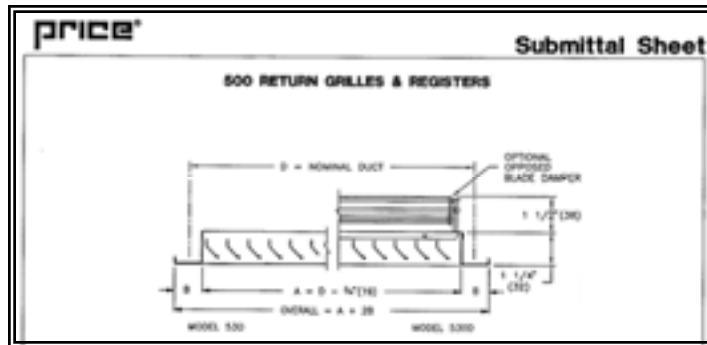
PROJECT:		PRICE [®]	
ENGINEER:		<i>KL</i>	530FF, 535FF
CUSTOMER:		219694	STEEL FILTER GRILLES
SUBMITTAL DATE:	SPEC. SYMBOL:	MAY 97	REV C

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MESA 480.377.9255

520.623.0668 TUCSON

**Price
Fixed Bar Grilles**



Mesa Stock	Tucson Stock	Part Number	Size	Price
*	*	53066	6" x 6"	
*		53086	8" x 6"	
*	*	53088	8" x 8"	
*		530106	10" x 6"	
*		530108	10" x 8"	
*	*	5301010	10" x 10"	
*		530126	12" x 6"	
*		530128	12" x 8"	
*		5301210	12" x 10"	
*	*	5301212	12" x 12"	
*		530146	14" x 6"	
*		530148	14" x 8"	
*		5301410	14" x 10"	
*		5301412	14" x 12"	

AIR SPECIALTY PRODUCTS

Mesa Stock	Tucson Stock	Part Number	Size	Price
*	*	5301414	14" x 14"	
*		530166	16" x 6"	
*		530168	16" x 8"	
*		5301610	16" x 10"	
*		5301612	16" x 12"	
*		5301614	16" x 14"	
*	*	5301616	16" x 16"	
*		530186	18" x 6"	
*		530188	18" x 8"	
*		5301810	18" x 10"	
*		5301812	18" x 12"	
*		5301814	18" x 14"	
*		5301816	18" x 16"	
*	*	5301818	18" x 18"	
*		530206	20" x 6"	
*		530208	20" x 8"	
*		5302010	20" x 10"	
*		5302012	20" x 12"	
*		5302014	20" x 14"	
*		5302016	20" x 16"	
*		5302018	20" x 18"	
*	*	5302020	20" x 20"	
*	*	5302210	22" x 10"	
*	*	5302222	22" x 22"	
*		530246	24" x 6"	
*		530248	24" x 8"	
*		5302410	24" x 10"	
*	*	5302412	24" x 12"	

MESA 480.377.9255

520.623.0668 TUCSON

Mesa	Tucson	Part	Size	Price
*		5302414	24" x 14"	
*		5302416	24" x 16"	
*		5302418	24" x 18"	
*		5302420	24" x 20"	
*	*	5302424	24" x 24"	
*		530306	30" x 6"	
*		530308	30" x 8"	
*		5303010	30" x 10"	
*		5303012	30" x 12"	
*		5303014	30" x 14"	
*		5303016	30" x 16"	
*		5303018	30" x 18"	
*		5303020	30" x 20"	
*		5303024	30" x 24"	
*		5303030	30" x 30"	
*		530366	36" x 6"	
*		530368	36" x 8"	
*		5303610	36" x 10"	
*		5303612	36" x 12"	
*		5303614	36" x 14"	
*		5303616	36" x 16"	
*		5303618	36" x 18"	
*		5303620	36" x 20"	
*		5303624	36" x 24"	
*		5304020	40" x 20"	
*		5304824	48" x 24"	
*	*	530TB2210	24" x 12" w/ 22" x 10" Neck	
*	*	530TB2222	24" x 24" w/ 22" x 22" Neck	
*		530TB4622	48" x 24" w/ 46" x 22" Neck	

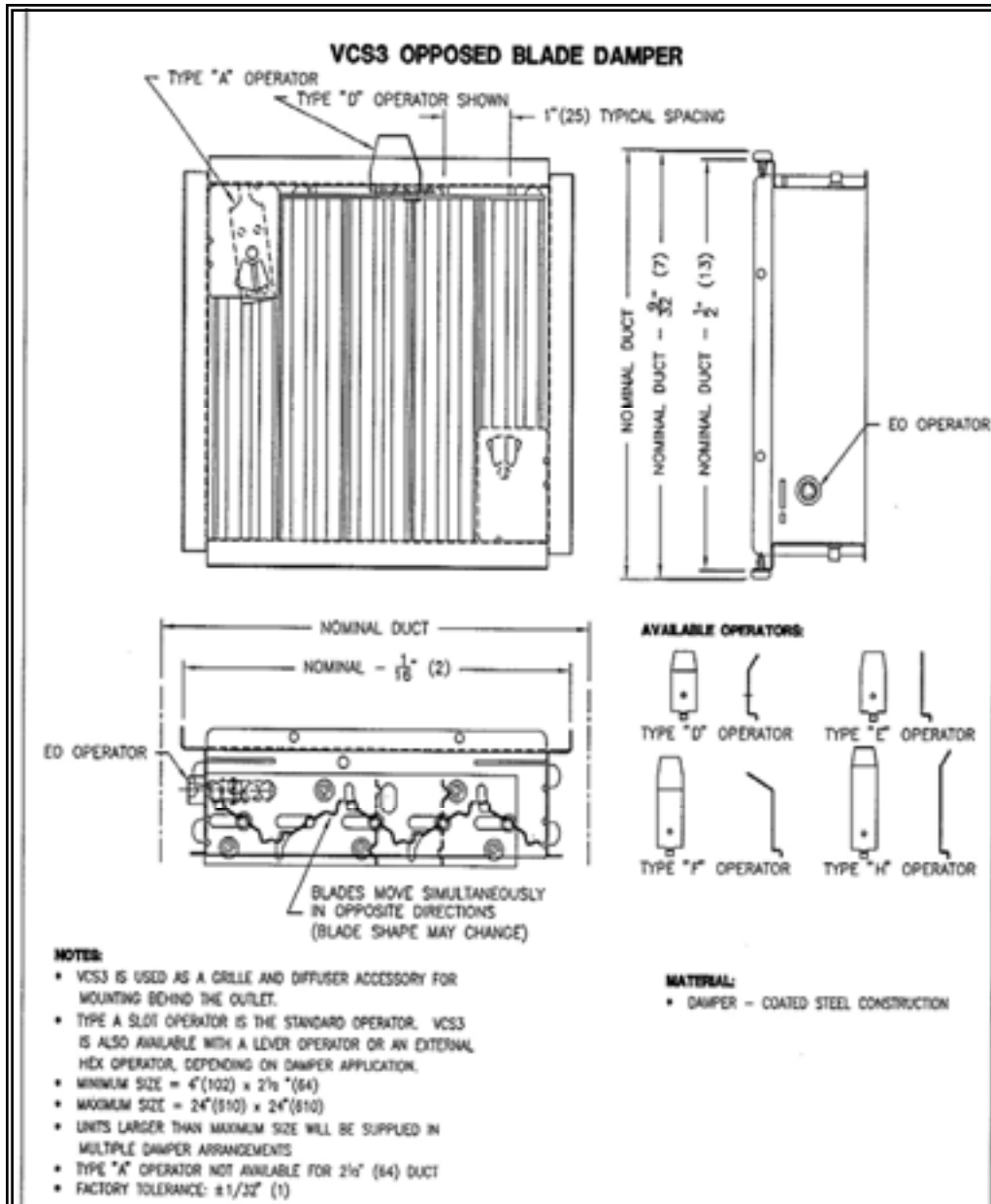
**Price
Opposed Blade Dampers**



Mesa Stock	Tucson Stock	Part Number	Size	Price
		VCS364	6" x 4"	
*	*	VCS366	6" x 6"	
*		VCS384	8" x 4"	
*		VCS386	8" x 6"	
*	*	VCS388	8" x 8"	
*	*	VCS399	9" x 9"	
*		VCS3104	10" x 4"	
*		VCS3106	10" x 6"	
*		VCS3108	10" x 8"	
*	*	VCS31010	10" x 10"	
*		VCS3124	12" x 4"	
*		VCS3126	12" x 6"	
*		VCS3128	12" x 8"	
*		VCS31210	12" x 10"	
*	*	VCS31212	12" x 12"	
*		VCS3144	14" x 4"	
*		VCS3146	14" x 6"	
*		VCS3148	14" x 8"	
*		VCS31410	14" x 10"	
*		VCS31412	14" x 12"	
*	*	VCS31414	14" x 14"	
*		VCS31515	15" x 15"	
*		VCS3164	16" x 4"	
*		VCS3166	16" x 6"	
*		VCS3168	16" x 8"	
*		VCS31610	16" x 10"	
*		VCS31612	16" x 12"	
*		VCS31614	16" x 14"	
*	*	VCS31616	16" x 16"	
*		VCS3184	18" x 4"	
*		VCS3186	18" x 6"	
*		VCS3188	18" x 8"	
*		VCS31810	18" x 10"	
*		VCS31812	18" x 12"	

Mesa Stock	Tucson Stock	Part Number	Size	Price
*		VCS31814	18" x 14"	
*		VCS31816	18" x 16"	
*		VCS31818	18" x 18"	
*		VCS3204	20" x 4"	
*		VCS3206	20" x 6"	
*		VCS3208	20" x 8"	
*		VCS32010	20" x 10"	
*		VCS32012	20" x 12"	
*		VCS32014	20" x 14"	
*		VCS32016	20" x 16"	
*		VCS32018	20" x 18"	
*		VCS32020	20" x 20"	
*	*	VCS32210	22" x 10"	
*	*	VCS32222	22" x 22"	
*		VCS3244	24" x 4"	
*		VCS3246	24" x 6"	
*		VCS3248	24" x 8"	
*		VCS32410	24" x 10"	
*		VCS32412	24" x 12"	
*		VCS32414	24" x 14"	
*		VCS32416	24" x 16"	
*		VCS32418	24" x 18"	
*		VCS32420	24" x 20"	
*	*	VCS32424	24" x 24"	

AIR SPECIALTY PRODUCTS



MESA 480.377.9255

520.623.0668 TUCSON

**Price
Round Dampers**



Mesa Stock	Tucson Stock	Part Number	Size	Price
*		VCR76	6" Radial	
*		VCR78	8" Radial	
*		VCR710	10" Radial	
*		VCR712	12" Radial	
*		VCR714	14" Radial	
*		VCR716	16" Radial	



Mesa Stock	Tucson Stock	Part Number	Size	Price
	*	VCR8E6	6" Butterfly	
	*	VCR8E8	8" Butterfly	
	*	VCR8E10	10" Butterfly	
	*	VCR8E12	12" Butterfly	
	*	VCR8E14	14" Butterfly	



Mesa Stock	Tucson Stock	Part Number	Size	Price
*	*	VCR96	6" Bowtie	
*	*	VCR98	8" Bowtie	
*	*	VCR910	10" Bowtie	
*	*	VCR912	12" Bowtie	
*	*	VCR914	14" Bowtie	

June 2011 Prices subject to change without notice.

AIR SPECIALTY PRODUCTS

price[®]
Submittal Sheet

MODEL VCR7 RADIAL OPPOSED BLADE DAMPER

NOTE:
 VCR7 RADIAL OPPOSED BLADE VOLUME CONTROL DAMPER WITH ROLLED BORDER SLEEVE - FOR DUCT MOUNTED INSTALLATION.
 FOR MINIMUM HEIGHT, MOUNT DAMPER DIRECTLY TO DIFFUSER USING CORRECT HOLES IN MOUNTING TAB.
 FOUR SEGMENT BLADE CONFIGURATION FOR SIZES 6-20 (SHOWN ABOVE)
 SIX SEGMENT BLADE CONFIGURATION FOR SIZES 24,30&36 (NOT SHOWN)

MATERIAL:
 COATED STEEL

OPTION:
 OPERATOR ROD EXTENSION FASTENED FROM UNDERSIDE, AS INDICATED ABOVE.

NO. & SIZE	IMPERIAL UNITS			SI UNITS		
	A	B	C	A	B	C
6	5 1/2"	2 1/2"	2 1/2"	143	56	54
7	6 1/2"	2 3/4"	2 1/2"	175	80	54
8	7 1/2"	2 3/4"	2 1/2"	200	73	54
10	9 1/2"	3 1/4"	2 1/2"	251	90	54
12	11 1/2"	4 1/4"	2 1/2"	302	110	54
14	13 1/2"	4 3/4"	2 1/2"	352	124	54
15	14 1/2"	5 1/4"	2 1/2"	378	130	54
16	15 1/2"	5 1/2"	2 1/2"	403	143	54
18	17 1/2"	6 1/4"	2 1/2"	454	159	54
20	19 1/2"	7"	2 1/2"	505	178	54
24	23 1/2"	8 1/4"	2 1/2"	608	172	72
30	29 1/2"	9 1/4"	2 1/2"	759	210	72
36	35 1/2"	9 1/2"	2 1/2"	911	248	72

ALL METRIC DIMENSIONS () ARE SOFT CONVERTED. IMPERIAL DIMENSIONS ARE CONVERTED TO METRIC AND ROUNDED TO THE NEAREST MILLIMETER.

PROJECT: _____

ENGINEER: _____

CUSTOMER: _____

SUBMITTAL DATE: _____

VCR7
RADIAL OPPOSED BLADE DAMPER

223934

MAR 2002

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REV B

price
Submittal Sheet

MODEL VCR8E ROUND DAMPER

DUCT SIZE	IMPERIAL UNITS		SI UNITS	
	A	B	A	B
4	3 1/8	1 1/4	98	44
6	4 1/8	2 1/4	124	57
8	5 1/8	3 1/4	150	70
10	6 1/8	4 1/4	175	82
12	7 1/8	5 1/4	200	95
14	8 1/8	6 1/4	252	120
16	9 1/8	7 1/4	278	134

NOTE:

- MATERIAL = COATED STEEL - MILL FINISH
- DAMPER CONTROLS AIR VOLUME FROM FULL OPEN TO FULL CLOSED.
- DAMPER MOUNTS DIRECTLY ONTO DIFFUSER NECK-INLET. NOMINAL INLET SIZES ARE 4 TO 16.
- FLEX DUCT CONNECTION CAUTION: FOR UNOBSTRUCTED DAMPING IN TIGHT ELBOWED CONDITIONS, SET THE DAMPER BLADES IN THE FULL OPEN POSITION PRIOR TO FIELD CONNECTION.
- CANNOT BE MOUNTED ON DIFFUSER NECK ON MODELS RCD, RCD4, RCD6.

TOP VIEW OF DAMPER

SIDE VIEW OF DAMPER

ALL METRIC DIMENSIONS () ARE SOFT CONVERTED. IMPERIAL DIMENSIONS ARE CONVERTED TO METRIC AND ROUNDED TO THE NEAREST MILLIMETER.

PROJECT:		price
ENGINEER:	<i>[Signature]</i>	VCR8E
CUSTOMER:	222755	FULL FLOW DAMPER DIFFUSER MOUNTED
SUBMITTAL DATE:	SPEC. SYMBOL:	SEPT 02

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AIR SPECIALTY PRODUCTS

price
Submittal Sheet

MODEL VCR9 RADIAL DAMPER

DUCT SIZE	IMPERIAL UNITS	S I UNITS
NOM.	A	A
6	5.50	140
8	7.50	191
10	9.50	241
12	11.50	292
14	13.50	343

REFERENCE OUTLINE OF DIFFUSER NECK-INLET

TOP VIEW OF DAMPER
A ±.130

AIR FLOW

REF. DETAIL OF DIFFUSER NECK-INLET
USE STD. FLAT BLADE SCREWDRIVER TO OPERATE DAMPER.

SIDE VIEW OF DAMPER

ALL METRIC DIMENSIONS () ARE SOFT CONVERTED, IMPERIAL DIMENSIONS ARE CONVERTED TO METRIC AND ROUNDED TO THE NEAREST MILLIMETER.

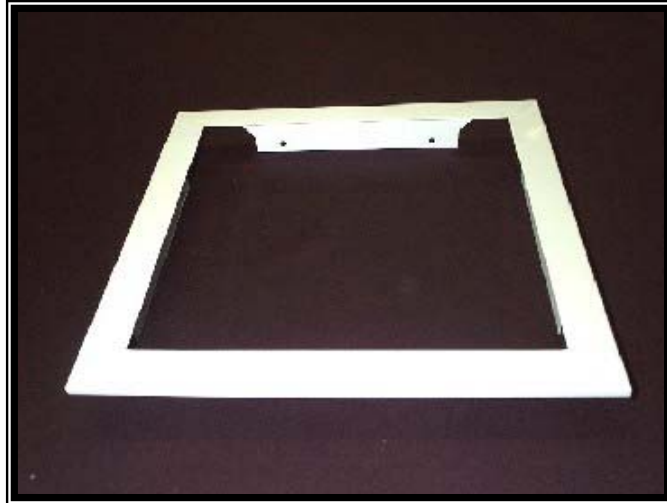
PROJECT: Specs Samples		price
ENGINEER:		
CUSTOMER:		238391
SUBMITTAL DATE: 05/18/2004	SPEC. SYMBOL:	DEC. 2002

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MESA 480.377.9255

520.623.0668 TUCSON

Price
Surface Mount Plaster Frames



Mesa Stock	Tucson Stock	Part Number	Size	Price
*	*	SPF1212	12" x 12"	
*		SPF2412	24" x 12"	
*	*	SPF2424	24" x 24"	

AIR SPECIALTY PRODUCTS

price
Submittal Sheet

SPF - STEEL PLASTER FRAME

TYPICAL CROSS SECTION OF LAY-IN TYPE DIFFUSER FRAME FOR DRYWALL APPLICATION

OPTIONAL CORNER BRACKETS
INSTALLED BY OTHERS

MATERIAL:

- HEAVY GAUGE STEEL

FINISH:

- B12 WHITE
- (OPTIONAL FINISHES AVAILABLE)

NOTES:

- NOMINAL SIZES AVAILABLE:
 - 12" X 12"
 - 16" X 16"
 - 24" X 12"
 - 20" X 20"
 - 24" X 24"
- FACTORY TOLERANCE - ±1/32" (±1mm)

OPTIONS:

- MOUNTING CLIPS
- CORNER BRACKETS

ALL METRIC DIMENSIONS () ARE SOFT CONVERTED. IMPERIAL DIMENSIONS ARE CONVERTED TO METRIC AND ROUNDED TO THE NEAREST MILLIMETER.

PROJECT: Specs Samples	price	
ENGINEER:	<i>[Signature]</i>	SPF
CUSTOMER:	228211	STEEL LAY-IN TYPE PLASTER FRAME
SUBMITTAL DATE: 05/18/2004	SPEC. SYMBOL:	May 2003

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MESA 480.377.9255

520.623.0668 TUCSON

**All Stack
Round Neck Adapters**



Mesa Stock	Tucson Stock	Part Number	Size	Price
*		RNA664	6" x 6" w/ 4" Neck	
*		RNA665	6" x 6" w/ 5" Neck	
*		RNA666	6" x 6" w/ 6" Neck	
*		RNA886	8" x 8" w/ 6" Neck	
*		RNA888	8" x 8" w/ 8" Neck	
*		RNA996	9" x 9" w/ 6" Neck	
*		RNA998	9" x 9" w/ 8" Neck	
*		RNA10106	10" x 10" w/ 6" Neck	
*		RNA10108	10" x 10" w/ 8" Neck	
*		RNA101010	10" x 10" w/ 10" Neck	
*		RNA12126	12" x 12" w/ 6" Neck	
*		RNA12128	12" x 12" w/ 8" Neck	
*		RNA121210	12" x 12" w/ 10" Neck	
*		RNA121212	12" x 12" w/ 12" Neck	
*		RNA14148	14" x 14" w/ 8" Neck	
*		RNA141410	14" x 14" w/ 10" Neck	
*		RNA141412	14" x 14" w/ 12" Neck	
*		RNA141414	14" x 14" w/ 14" Neck	
*		RNA151510	15" x 15" w/ 10" Neck	
*		RNA151512	15" x 15" w/ 12" Neck	
*		RNA151514	15" x 15" w/ 14" Neck	
*		RNA161610	16" x 16" w/ 10" Neck	
*		RNA161612	16" x 16" w/ 10" Neck	

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AIR SPECIALTY PRODUCTS

Mesa Stock	Tucson Stock	Part Number	Size	Price
*		RNA161614	16" x 16" w/ 14" Neck	
*		RNA161616	16" x 16" w/ 16" Neck	
*		RNA18188	18" x 18" w/ 8" Neck	
*		RNA181810	18" x 18" w/ 10" Neck	
*		RNA181812	18" x 18" w/ 12" Neck	
*		RNA181814	18" x 18" w/ 14" Neck	
*		RNA181816	18" x 18" w/ 16" Neck	
*		RNA181818	18" x 18" w/ 18" Neck	
*		RNA20206	20" x 20" w/ 6" Neck	
*		RNA20208	20" x 20" w/ 8" Neck	
*		RNA202010	20" x 20" w/ 10" Neck	
*		RNA202012	20" x 20" w/ 12" Neck	
*		RNA202014	20" x 20" w/ 14" Neck	
*		RNA202016	20" x 20" w/ 16" Neck	
*		RNA202018	20" x 20" w/ 18" Neck	
*		RNA202020	20" x 20" w/ 20" Neck	
*		RNA22106	22" x 10" w/ 6" Neck	
*		RNA22108	22" x 10" w/ 8" Neck	
*		RNA221010	22" x 10" w/ 10" Neck	
*		RNA221012	22" x 10" w/ 12" Neck	
*		RNA22226	22" x 22" w/ 6" Neck	
*		RNA22228	22" x 22" w/ 8" Neck	
*		RNA222210	22" x 22" w/ 10" Neck	
*		RNA222212	22" x 22" w/ 12" Neck	
*		RNA222214	22" x 22" w/ 14" Neck	
*		RNA222216	22" x 22" w/ 16" Neck	
*		RNA222218	22" x 22" w/ 18 " Neck	
*		RNA222220	22" x 22" w/ 20" Neck	

MESA 480.377.9255

520.623.0668 TUCSON

**System Sensor
Smoke Detectors**



Mesa Stock	Tucson Stock	Part Number	Size	Price
*		D4120	Photoelectric 131°F detector	



Mesa Stock	Tucson Stock	Part Number	Size	Price
*		DST3	3' Sample Tube	
*		DST5	5' Sample Tube	



Mesa Stock	Tucson Stock	Part Number	Size	Price
*		RTS451	Remote Test Station (Basic)	



Mesa Stock	Tucson Stock	Part Number	Size	Price
*		RTS451KEY	Remote Test Station (Keyed)	

AIR SPECIALTY PRODUCTS

**System Sensor
Smoke Detectors**
(Cont)



Mesa Stock	Tucson Stock	Part Number	Description	Price
*		RTS2	Visual Horn /Alarm	



Mesa Stock	Tucson Stock	Part Number	Description	Price
*		APA451	Visual Horn / Alarm	



Mesa Stock	Tucson Stock	Part Number	Description	Price
*		PS24LOW	Add On Strobe	



Mesa Stock	Tucson Stock	Part Number	Description	Price
*		PS12/24SLENSW	Smoke Lens	



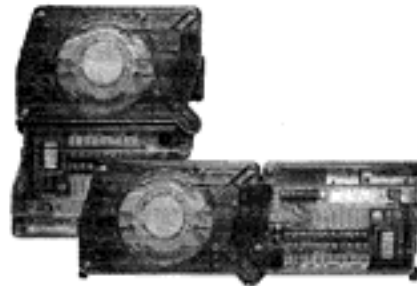
4-Wire Photoelectric Duct Smoke Detector

The InnovairFlex® Series are the only duct smoke detectors flexible enough to fit configurations from square to rectangular and everything in between.

Features

- Photoelectric, integrated low-flow technology
- Air velocity rating from 100 fpm to 4,000 fpm (0.5 m/s to 20.32 m/sec)
- Versatile mounting options: square or rectangular configuration
- Plug-in sensor offers superb false alarm immunity and the latest sensor technology
- Broad ranges for operating temperature (-4°F to 158°F) and humidity (0% to 95% non-condensing)
- Patented sampling tube installs from front or back of the detector with no tools required
- Increased wiring space with a newly added 3/4-inch conduit knockout
- One easy-access Test/Reset button and improved LED status
- Patented interconnect feature for multi-lin shutdown
- New high contrast terminal designations
- Built-in short circuit protection from operator wiring errors
- Field selectable settings for configuring the detector
- Two CPDT Form C relay contacts
- 24VAC/DC or 120VAC
- Backward compatibility with existing Innovair products, including remote accessories

Agency Listings



Innovairflex

The InnovairFlex D4120 4-wire photoelectric duct smoke detector features a pivoting housing that fits both square and rectangular footprints and mounts to round or rectangular ductwork. This unit senses smoke in the most challenging conditions, operating in airflow speeds of 100 to 4,000 feet per minute, temperatures of -4°F to 158°F, and a humidity range of 0 to 95 percent (non-condensing). A plug-in sensor head offers improved false alarm immunity and simple installation, testing, and maintenance. An improved cover design isolates the sensor head from the low-flow feature for simple maintenance.

The InnovairFlex housing provides ample wiring space, a 3/4-inch conduit knockout, and built-in short circuit protection to prevent damage to sensitive components during installation. High contrast terminal designations make wiring easy. With its 2:1 sensor-to-power capability, the power board of the D4120 may be used to monitor a second sensor (D45, simultaneously i.e., supply and return side). As many as 50 InnovairFlex detectors can be interconnected. When one unit senses smoke, all interconnected detectors will switch their relays, only the detector sensing smoke will go into alarm, thus pinpointing the fire source.

An easy-access test/reset button makes it possible to test the unit with the cover on. Three DIP switches can be used to configure field selectable settings: cover lamp delay, number of sensors to be controlled, and shut down or trouble option. Each power board has two LEDs that can be used to indicate the status of connected sensors, and a quick reference imprinted on the cover explains the LED status indicators (Steady, Maintenance, Trouble, and Alarm). The InnovairFlex duct smoke detector can be customized to meet local codes and specifications without additional wiring. The new InnovairFlex product line is compatible with all previous Innovair models, including remote test accessories.

WARNING: Duct smoke detectors are **NOT** a substitute for open area smoke detectors. **NOT** a substitute for early warning detection. **NOT** a replacement for a building's regular fire detection system. Refer to NFPA 72 and 90A for additional information.

AIR SPECIALTY PRODUCTS

InnovairFlex™ Duct Smoke Detector Specifications

Architectural/Engineering Specifications

The air duct smoke detector shall be a System Sensor InnovairFlex™ DA120 Photoelectric Duct Smoke Detector. The detector housing shall be UL listed per UL 268A specifically for use in air handling systems. The flexible housing of the duct smoke detector has multiple loop-pairs from square to rectangular. The detector shall operate at an air velocity of 100 feet per minute to 4000 feet per minute (3.5 to 29.3 meters/second). The unit shall be capable of controlling up to 50 air handling systems when interconnected with other detectors. The detector shall be capable of providing a trouble signal in the event that the front cover is removed. It shall be capable of local testing via magnetic switch, test button on the cover, or remote testing using the S90151 Multi-Signaling Accessory or the RTS451/RTS451KEY Remote Test Station. Terminal connections shall be of the strip and clamp method suitable for 12-14 AWG wiring.

Physical Specifications

Size (Rectangular Dimensions)	14.88 in (37.8 cm) Length, 5 in (12.74 cm) Width, 2.5 in (6.35 cm) Depth
Size (Square Dimensions)	7.25 in (18.7 cm) Length, 9 in (22.9 cm) Width, 2.5 in (6.35 cm) Depth
Weight	2.5 lbs (1.14 kg)
Operating Temperature Range:	DA120 & DMS: -4° to 158°F (-20° to 70°C); DMP120: -42° to 158°F (-40° to 70°C)
Storage Temperature Range:	DA120 & DMS: -27° to 158°F (-10° to 72°C); DMP120: -42° to 158°F (-40° to 70°C)
Operating Humidity Range:	0% to 95% relative humidity non-condensing
Air Duct Velocity:	100 to 4000 ft/min (3.5 to 29.3 m/sec)

Electrical Ratings

Power supply voltage:	30-29 VDC	24 VAC 50-60 Hz	120 VAC 50-60 Hz
Input capacitance:	270 µF max.	270 µF max.	N/A
Reset voltage:	1.0 VDC min.	2.0 VAC min.	10 VAC min.
Reset time: (with RTS451)	35 to 63 sec.	35 to 63 sec.	35 to 63 sec.
Reset time: (by power down)	66 sec. max.	66 sec. max.	66 sec. max.
Power up time:	35 sec. max.	35 sec. max.	35 sec. max.
Alarm response time:	15 sec.	15 sec.	15 sec.
Sensitivity Test:	See detector label	See detector label	See detector label

Current Requirements (Using No Accessories)

Max. standby current:	21 mA @ 24VDC	66 mA RMS @ 24VAC 60 Hz	20 mA RMS @ 120VAC 60 Hz
Max. alarm current:	66 mA @ 24VDC	135 mA RMS @ 24VAC 60 Hz	35 mA RMS @ 120VAC 60 Hz

Contact Ratings

Alarm initiation contacts (SPST)	2.0A @ 30VDC (resistive)
Alarm auxiliary contacts (DPDT)	10A @ 30VDC (resistive); 10A @ 250VAC (resistive); 6 HP @ 240VAC; 1/4 HP @ 120VAC
Note: Alarm auxiliary contacts shall not be connected to initiating circuits of control panels. Use the alarm initiation contact for this purpose.	
Supervisory contacts (DPDT)	2.0A @ 30VDC (resistive); 2.0A @ 125 VAC (resistive)

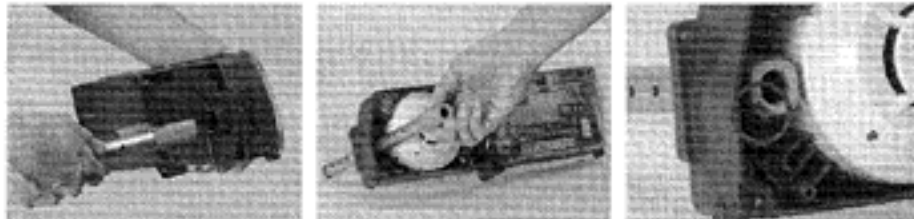
Accessory Current Loads at 24 VDC

Device	Standby	Trouble	Alarm
JAB151(WFMS)	12.5 mA	n/a	30 mA Max
M-8000SV	0 mA	n/a	29 mA Max
RA102	0 mA	n/a	12 mA Max
RTS451/RTS451KEY	0 mA/12 mA	n/a	12 mA Max
S90451	4 mA Max	16 mA Max	40 mA Max

Note: Any combination of accessories may be used such that the total accessory loads are: 110 mA or less at the Aux output, and 50 mA or less at the Alarm output.

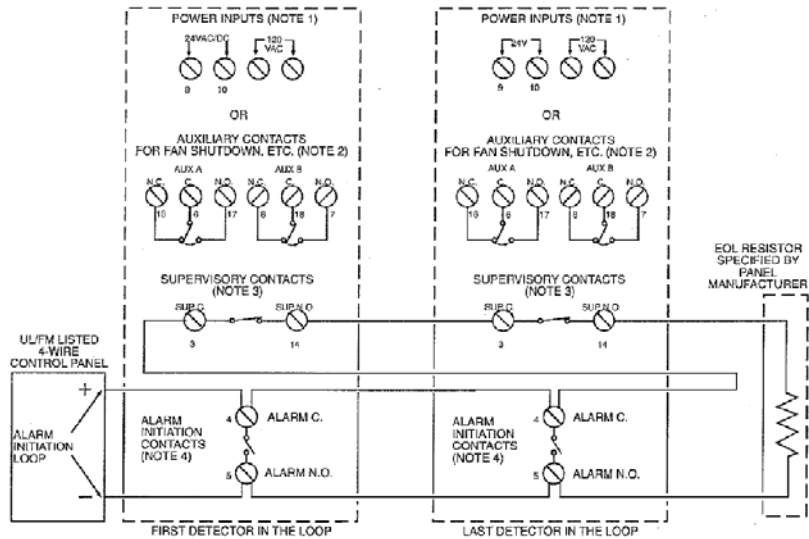
Installing the InnovairFlex Sampling Tube

The InnovairFlex sampling tube may be installed from the front or back of the detector. The tube locks securely into place and can be removed by releasing the front or rear locking tab (front locking tab shown below right).



605-01-9-005

Wiring for 4-wire Duct Smoke Detector and Accessories



NOTE 1: 24V Power Inputs accept a non-polarized 24VDC or 24VAC 50-60Hz. 120VAC Power Inputs accept only 120VAC 50-60Hz. Connect power source to appropriate terminals of each detector. See specifications for additional power supply information.

NOTE 2: Auxiliary contacts shown in standby position. Contacts switch during alarm as indicated by arrows. Auxiliary contacts are not to be used for connection to the control panel. See specifications for contact ratings.

NOTE 3: Supervisory contacts shown in standby position. Open contacts indicate a trouble condition to the panel. See specifications for contact ratings.

NOTE 4: Alarm Initiation contacts shown in standby position. Closed contacts indicate an alarm condition to the panel. See specifications for contact ratings.

*Please refer to the corresponding installation manual for accessory wiring diagrams.

Important Notes on 2:1 Sensor-to-Power Capability

- 2:1 sensor-to-power capability is not available for all InnovairFlex models. The feature is only available on the D4120 4-wire conventional models.
- 2:1 sensor-to-power capability can be enabled using one D4120 and one D45, or two D45 and one D4P120.

Important Interconnect Notes

- When using the interconnect feature, all interconnected units must be powered using the same independent supply.
- Polarity must be maintained throughout the interconnect wiring. Connect the INT+ terminal on unit 1 to the INT+ terminal on unit 2 and so on. Similarly, connect the INT/AUX- terminal on unit 1 to the INT/AUX- terminal on unit 2 and so on.
- Up to 50 D4120 units, 50 D4P120 units, or 50 units of combination may be interconnected.
- Up to 10 DH100ACDC units may be interconnected. Please note that each of the 9 DH100ACDC units interconnected may be replaced by three D4P120 units. Therefore, when using the interconnect feature a single DH100ACDC can drive either 9 DH100ACDCs or 27 D4120 units.
- NOTE: Alarm can be reset only at the Initiating device and not at the devices interconnected.

AS5-0119400

AIR SPECIALTY PRODUCTS

Accessories

Systems Sensor provides system flexibility with a variety of accessories, including two remote test stations and several different means of visible and audible system annunciation. As with our duct smoke detectors, all duct smoke detector accessories are UL listed.



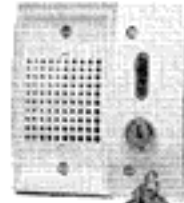
RIS451 UL 5252



RIS451KEY UL 5252



APR451 UL 54011



SSK451 UL 5252



RAM02 UL 5252



MNR UL 54011



MNR J. 54011



SSK451 with PS24LOW strobe and PS12/24 LBKSW lens

Ordering Information

Part No.	Description		
D4120	4-wire photoelectric, low-flow duct smoke detector		
Accessories			
D45	4-wire photoelectric sensor component only	MR-B	MR Horn, Red
D4P120	4-wire photoelectric power board component only, 24 VAC/DC, 120 VAC	MR-W	MR Horn, White
Z051	4-wire conventional photoelectric sensor head	P88-21-09	End cap for metal sampling tubes
D571	Metal sampling tube duct with up to 18 (0.3 m)	PS12/24 LBKSW	Ceiling-mount "SMOKE" lens
D571.5	Metal sampling tube duct with 18 to 24 (0.3 to 0.6 m)	PS12/24 LBKSW	Wall-mount "SMOKE" lens
D573	Metal sampling tube duct with 24 to 48 (0.6 to 1.2 m)	PS24LOW	Mini-Alert add-on strobe (red)
D575	Metal sampling tube duct with 48 to 88 (1.2 to 2.4 m)	PS24LOW	Mini-Alert add-on strobe (white)
D5710	Metal sampling tube duct with 88 to 121 (2.1 to 3.7 m)	RAM02	Remote annunciator alarm LED
JBR151	Remote annunciator with press alarm	RIS451	Remote test station
DR400 CE-1	Weather proof enclosure	RIS451KEY	Remote test station with key lock
ETK	Metal exhaust tube duct with 18 (0.3 m)	SSK451	Multi-signaling accessory
MR02-04-00	Rect magnet		

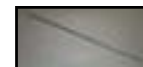
MESA 480.377.9255

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**Air Products & Controls
Smoke Detectors**



Mesa Stock	Tucson Stock	Part Number	Description	Price
*		SL2000P	Photoelectric 120°F Detector	
*		HS100	Special Application photoelectric detector	
*		55000-225APO	Ionized Head Replacement	
*		55000-328APO	Photoelectric Head Replace	
*		TG2000	Smoke Test Gas	



Mesa Stock	Tucson Stock	Part Number	Description	Price
*		FASTUBE	24" Sampling Tube	



Mesa Stock	Tucson Stock	Part Number	Description	Price
*		WP2000	Detector Enclosure	



Mesa Stock	Tucson Stock	Part Number	Description	Price
*		MSRAR	Remote Test Station	

AIR SPECIALTY PRODUCTS

Air Products & Controls Smoke Detectors



Mesa Stock	Tucson Stock	Part Number	Description	Price
*		MSRAPR	Remote Test Station (2 Light)	



Mesa Stock	Tucson Stock	Part Number	Description	Price
*		MSKAR	Remote Test Station (Keyed)	



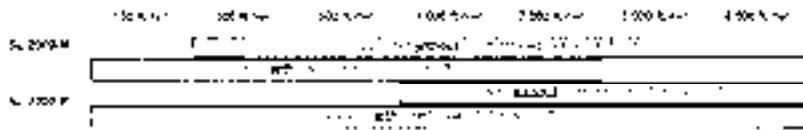
Mesa Stock	Tucson Stock	Part Number	Description	Price
*		MSRHKAPAT	Visual/Horn Alarm	



Mesa Stock	Tucson Stock	Part Number	Description	Price
*		SHP241575W	Strobe/Horn Alarm	

ANALOG OUTPUT CONNECTIONS

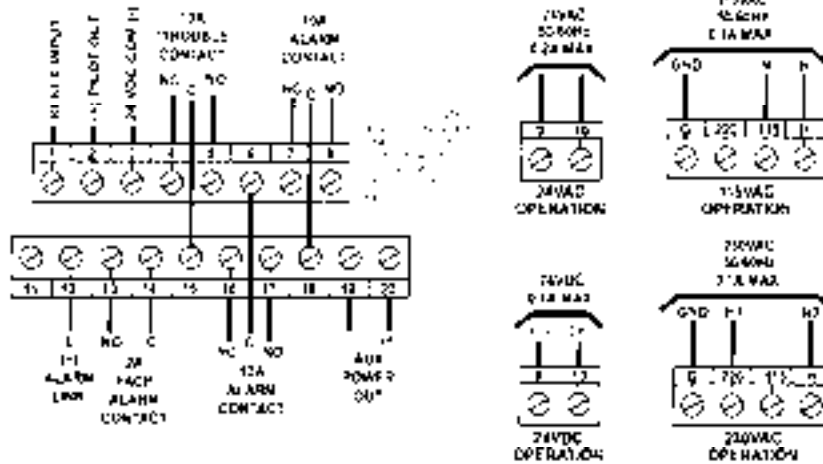
Four analog output channels are provided on the rear panel of the MESA. Each channel is a 4-wire system consisting of a signal wire, a ground wire, a +5VDC supply wire, and a -5VDC supply wire. The signal wire is twisted pair and is shielded. The ground wire is twisted pair and is shielded. The +5VDC supply wire is twisted pair and is shielded. The -5VDC supply wire is twisted pair and is shielded. The signal wire is twisted pair and is shielded. The ground wire is twisted pair and is shielded. The +5VDC supply wire is twisted pair and is shielded. The -5VDC supply wire is twisted pair and is shielded.



ELECTRICAL INSTALLATION

TERMINAL AND POWER CONNECTIONS

The terminal block on the rear panel of the MESA is used for connecting the device to the power source and the alarm devices. The terminal block is labeled with the following connections:



WIRING

CAUTION - The MESA is a Class II device and must be installed in accordance with the National Electrical Code (NEC) and the local electrical codes. The MESA must be installed in a dry, well-ventilated area. The MESA must be installed in a location where it will not be subject to physical damage. The MESA must be installed in a location where it will not be subject to excessive heat. The MESA must be installed in a location where it will not be subject to excessive moisture. The MESA must be installed in a location where it will not be subject to excessive vibration. The MESA must be installed in a location where it will not be subject to excessive noise. The MESA must be installed in a location where it will not be subject to excessive electromagnetic interference (EMI). The MESA must be installed in a location where it will not be subject to excessive radio frequency interference (RFI). The MESA must be installed in a location where it will not be subject to excessive static electricity (SE). The MESA must be installed in a location where it will not be subject to excessive lightning (L). The MESA must be installed in a location where it will not be subject to excessive surge (S). The MESA must be installed in a location where it will not be subject to excessive transient (T). The MESA must be installed in a location where it will not be subject to excessive common mode (CM). The MESA must be installed in a location where it will not be subject to excessive differential mode (DM). The MESA must be installed in a location where it will not be subject to excessive common mode (CM). The MESA must be installed in a location where it will not be subject to excessive differential mode (DM).

For more information on the MESA, please contact the manufacturer. The manufacturer's website is located at www.mesa.com. The manufacturer's phone number is 480.377.9255. The manufacturer's fax number is 520.623.0668. The manufacturer's email address is info@mesa.com. The manufacturer's address is 12345 Main Street, Tucson, AZ 85701. The manufacturer's website is located at www.mesa.com. The manufacturer's phone number is 480.377.9255. The manufacturer's fax number is 520.623.0668. The manufacturer's email address is info@mesa.com. The manufacturer's address is 12345 Main Street, Tucson, AZ 85701.

AIR SPECIALTY PRODUCTS

**Price
Terminal Units**



Mesa Stock	Tucson Stock	Part Number	Size	Price
*		SDV6	450 CFM w/ 6" Neck	
*		SDV8	800 CFM w/ 8" Neck	
*		SDV10	1350CFM w/ 10" Neck	
*		SDV12	2100CFM w/ 12" Neck	
*		SDV14	3000 CFM w/ 14" Neck	
*		SDV16	4000 CFM w/ 16" Neck	

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price Submittal Sheet

UNIT SIZE	MAX L/S	MAX CFM	S.I. UNITS mm				IMPERIAL UNITS inches			
			OUTLET		INLET	LENGTH	OUTLET		INLET	LENGTH
			B	C	A	L	B	C	A	L
4	106	225			102	562	12	8	4	22 1/2
5	165	350	305	203	127				5	
6	212	450			152				6	
7	307	650	305	254	178	511	12	10	7	20 1/2
8	378	800			203				8	
9	496	1050			229				9	
10	637	1350	356	318	254		14	12 1/2	10	
12	991	2100	406	381	305		16	15	12	
14	1416	3000	508	445	356		20	17 1/2	14	
16	1888	4000	610	457	406	600	24	18	16	23 1/2

NOTES:

- INTERNAL INSULATION 1/2" (13mm) DUAL DENSITY WHICH MEETS REQUIREMENTS OF NFPA 90A AND UL181.
- 22GA. ZINC COATED STEEL HOUSING, MECHANICALLY SEALED AND GASKETED, LEAK RESISTANT CONSTRUCTION.
- RECTANGULAR DISCHARGE OPENING WITH SLIP AND DRIVE CLEAT DUCT CONNECTION.
- CONTROL ASSEMBLY WILL BE SUPPLIED AS ILLUSTRATED ON RIGHT HAND SIDE UNLESS SPECIFIED OTHERWISE.
- LINE VOLTAGE MUST NOT EXCEED 277VAC.

SDV8000 INCLUDES:

- MULTI-POINT SENSOR c/w GAUGE TAPS SUPPLIED BY PRICE.
- PRICE ACTUATOR ASSEMBLY FACTORY MOUNTED.
- PRICE THERMOSTAT FIELD MOUNTED.

OPTIONS:

DISCONNECT SWITCH

LINERS AND CONSTRUCTION OPTIONS (REFER TO ATTACHED SUBMITTAL)

FF FM SM AF
 WF WFM AFM LL
 LTM* LTY*
 CRF CRWF

SDV8000

SINGLE DUCT TERMINAL
 VARIABLE VOLUME
 -PRICE ELECTRONIC
 DIGITAL CONTROLLER-

PROJECT: _____

ENGINEER: _____

CUSTOMER: _____

SUBMITTAL DATE: _____ SPEC. SYMBOL: _____

price

240359

SEPT. 2003

REV 0

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AIR SPECIALTY PRODUCTS

**Acutherm
Thermafuser**



Mesa Stock	Tucson Stock	Part Number	Size	Price
*	*	STHC6	6"	
*	*	STHC8	8"	
*	*	STHC10"	10"	
*	*	STHC12"	12"	

THERMA-FUSER™ THERMALLY POWERED VAV DIFFUSER

SYSTEM DESIGN

The best control for heating/cooling units supplying air to VAV terminals is a discharge thermostat which maintains a constant supply air temperature. With DX equipment there are a high and low limit. For hybrid systems (part VAV and part constant volume) control the heating/cooling supply unit with a thermostat in one of the rooms with a constant volume diffuser, preferably the space with the greatest load. For both VAV or hybrid systems, the fan should run continuously.

The constant discharge velocity of Thermo-Fuser diffusers at varying air flow provides good room circulation which reduces stratification. Keeping heating supply air temperatures as low as possible will further reduce room air stratification to a negligible level. Static pressure at the inlet of the Thermo-Fuser diffuser should be between .05"wg/.12Pa and .25"wg/.62Pa, at full and partial air flows. Static pressure below .05"wg/.12Pa will result in low air flow and less induction. Above .25"wg/.62Pa, Thermo-Fuser diffusers operate well but excessive noise may result. Use minimum flow stops where tight shut off is not needed.

If the system turns down more than 30%, static pressure should be controlled. Included in the options for static pressure control are bypass, fan control and discharge dampers. Zone dampers are recommended where several zones share a higher pressure duct or riser.

When designing ducts, if Thermo-Fuser diffusers are to deliver nominal volume at inlet SP of .15"wg/.37Pa and if a maximum SP of .25"wg/.62Pa is to be held for quiet operation, size the duct for a maximum pressure drop of .1"wg/.25Pa between the first and last takeoff.

Manual balancing dampers should be used at the takeoff for each diffuser. Manual balancing dampers may not be required with ducts designed to Acutherm specifications.

Because Thermo-Fuser diffusers control room temperature by sensing room air induced up the center of the space, care should be taken not to disturb room air induction and entrainment. For example, location next to walls or dropped lights results in the reflection of primary air back at the Thermo-Fuser diffuser. Avoid this with a three-way blow pattern or relocate either the Thermo-Fuser diffuser or the light.

Acutherm has "how to" system design brochures for almost every ducted air system. For specific recommendations refer to the brochure for your system.

GUIDE SPECIFICATION

Thermally powered variable air volume diffusers shall be Thermo-Fuser model TF-HC manufactured by Acutherm, Hayward, CA. Each diffuser shall be a complete VAV terminal and thermostat self-contained in a nominal 2' x 2' diffuser. External wiring or pneumatics shall not be allowed.

The diffusers shall vary the supply air volume to provide both VAV heating and VAV cooling. They shall be thermally powered using two room temperature sensing thermostats and one changeover thermostat. The room temperature settings for heating and cooling shall be separately adjustable in the field by separately adjusting each of the two room thermostats.

One room temperature sensing thermostat shall sense room temperature and vary the supply air when cooling. The other room temperature sensing thermostat shall sense room temperature and vary the supply air when heating and shall be biased to offset room temperature stratification.

Each room sensing thermostat shall have a micrometer type temperature set point adjustment with an indicator that moves along a 70°F/21°C to 78°F/26°C temperature scale. Initial set point shall be factory set at 74°F/23°C.

The changeover thermostat shall be factory installed and adjusted to engage the heating mode when the supply air temperature rises above 80°F/27°C and return to the cooling mode when the supply air temperature falls below 68°F/20°C. The changeover mechanism shall not extend above the neck of the diffuser.

Each unit shall have four perimeter dampers to provide 66 linear inches of variable discharge area at the perimeter of the diffuser for maximum Coanda effect and to avoid dumping. Each module shall be factory tested.

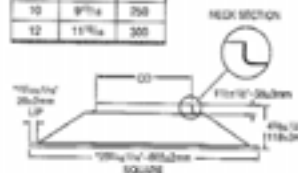
The manufacturer shall warrant that the diffuser shall be free from defects in materials and workmanship for a period of ten years from date of shipment.

Each diffuser shall have a hinged appearance panel that can be unlatched and folded down

to hang allowing hands to be free for adjusting temperature set points. Instructions for the module shall be on the inside of the appearance panel.

DIMENSIONS

Inlet Designation	CD	
	Inches	mm
G	8 1/4"	150
B	7 1/4"	200
10	8 1/4"	250
12	11 1/4"	300



*11 1/4" Dia. Neck with 1/2" Dia. lip available - specify 150mm square.

TEN YEAR WARRANTY

Acutherm warrants that its TF-HC Thermo-Fuser diffusers, exclusive of any options and accessories (whether factory or field installed) shall be free from defects in material or workmanship for a period of ten (10) years from the date of shipment and agrees to repair or replace, at its option, any parts that fail during said ten (10) year period due to any such defects which would not have occurred had reasonable care been taken, provided that such parts have been inspected by Acutherm and found defective and provided the diffusers have been given normal and proper usage and all parts and controls remain unaltered. Acutherm makes NO WARRANTY OF MERCHANTABILITY OF PRODUCTS OR OF THEIR FITNESS FOR ANY PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY WHICH EXTENDS BEYOND THE LIMITED WARRANTY ABOVE. ACUTHERM'S LIABILITY FOR ANY AND ALL LOSSES AND DAMAGES RESULTING FROM DEFECTS SHALL, IN NO EVENT EXCEED THE COST OF REPAIR OR REPLACEMENT OF PARTS FOUND DEFECTIVE. UPON EXAMINATION BY ACUTHERM, IN NO EVENT SHALL ACUTHERM BE LIABLE FOR INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR DAMAGES FOR INJURY TO PERSONS OR PROPERTY. Acutherm shall not be responsible for freight to or from its plant in connection with the inspection, repair or replacement of parts under the terms of this limited warranty nor for cost of installation.

Subject to change without notice.
Form 12.1 REV 0406 • Supersedes 12.1-002
Printed in USA on Recycled Paper with Soybean Based Ink



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<http://www.acutherm.com>
e-mail: info@acutherm.com

AIR SPECIALTY PRODUCTS

Atco Rubber Products

Mesa Stock	Tucson Stock	Part Number	Size	Price
	*	036-04	4" x 25' R6 Flex	
	*	036-05	5" x 25' R6 Flex	
*	*	036-06	6" x 25' R6 Flex	
	*	036-07	7" x 25' R6 Flex	
*	*	036-08	8" x 25' R6 Flex	
	*	036-09	9" x 25' R6 Flex	
*	*	036-10	10" x 25' R6 Flex	
*	*	036-12	12" x 25' R6 Flex	
*	*	036-14	14" x 25' R6 Flex	
*	*	036-16	16" x 25' R6 Flex	
*	*	036-18	18" x 25' R6 Flex	
*	*	036-20	20" x 25' R6 Flex	

Ideal / Tridon Clamps

Mesa Stock	Tucson Stock	Part Number	Size	Price
*	*	M500248106	Stainless Worm Gear Clamp (up to 12")	
*		M500280106	Stainless Worm Gear Clamp (14" & up)	

Bay State Cable Tie

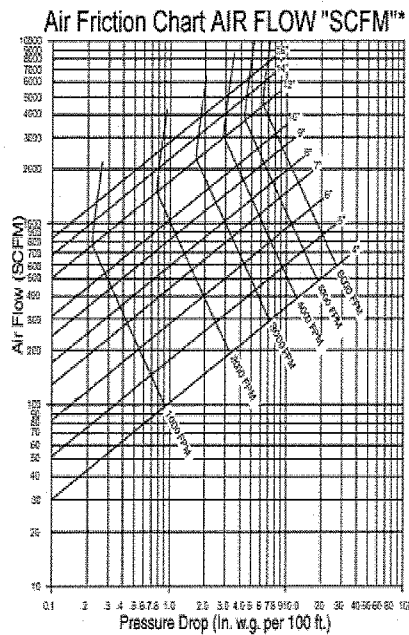
Mesa Stock	Tucson Stock	Part Number	Size	Price
*	*	B48H9L	(50) 48" Panduit	
*		BL36H9L	(50) 36" Panduit	

MESA 480.377.9255

520.623.0668 TUCSON



PRODUCT & PERFORMANCE DATA



PRODUCT DATA

- Length: 25', 50' (Other lengths available as special order)
- Diameter: 3", 4", 5", 6", 7", 8", 9", 10", 12", 14", 16", 18", 20", 22"
- Vapor Barrier: Tri-directional, scrim reinforced metallized polyester
- End Treatment: 25', 50' -plain ends
- Packaging: 1 piece per carton

INSTALLATION

Air duct connections and joints shall be made per installation instructions outlined by ATCO Rubber Products, Inc. and as required by the UL 181 listing procedure.

(Installation instructions are included inside each carton.)

STRAIGHT RUN

* FD 72-R1 Test Code of the Air Diffusion Council. Friction loss is computed in inches of water gauge per 100 ft. of duct. By using CFM or FPM values for a given duct dimension, the friction loss can be determined. Conversion of CFM to FPM also can be made.

PERFORMANCE DATA

UPC #030
R-Value 4.2

UPC #036
R-Value 6.0

UPC #031
R-Value 8.0

- Rated Positive Pressure: 10" w.g. per UL-181 (UL Listed pressure) ratings are determined in straight lengths @ ambient temperatures.)
- Recommended Operating Pressures: (Determined in a 90° bend at elevated temperatures in accordance with ADC FD 72-R1 Test Code.)
 - Maximum Positive:
 - 6" w.g. - 4" thru 12" Dia.
 - 4" w.g. - 14" thru 20" Dia.
 (With factory installed metal collars, 2" w.g. - all diameters)
 - Maximum Negative: 3/4" w.g. - all diameters
 - Maximum Velocity: 5,000 FPM
- Vapor Transmission: .05 perms
- Maximum Operating Temperatures:
 - 20°F to 140°F Continuous (@ maximum pressure)
 - 20°F to 180°F Continuous (@ 2" pos. w.g. max.)
 - 20°F to 250°F Intermittent (@ 1/2" pos. w.g. max.)
- Flame Spread: 25 max
- Smoke Developed: 50 max



AIR SPECIALTY PRODUCTS

Fan Conversion Chart

<u>Penn</u>	<u>Cook</u>	<u>Broan</u>	<u>Greenheck</u>
Z1	GC-120	588	
	GC-220	671	
Z6S		684	SPA, SPB90
	GC140	676	SPA, SPB110
Z5H			SPA125
Z6H		L150	SPA, SPB150
	GC-320		SPA190
Z8S	GC-340	L200	SPA, SPB200
Z81S	GC-180	L250	SPA250
		L300	SPA290
Z8H			SPA390
Z10S	GC-620	L400	SPA410
		L500	SPA510
Z102S		L700	SPA710
Z12S	GC-740		SPA780
	GC-822	L900	SPA900

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AD Conversion Chart

<u>Krueger</u>	<u>Titus</u>	<u>Metalair</u>	<u>Price</u>
880 Series	300R	V4004S	520D
S80	350R	SRH	530 Series
S80FF	350RF	SRHF	530FF
EGC5	50 Series	CC5	80 Series
5HCF23	TRM	PF/TBPF	APF
1100/6200/650	PCS	7600/7650	PDC3
6604 Series	PAS	7500/7550	PDF3
1190/6290/659	PAR/PMR	7500R/7600R	PDDR3
RM1/5RM1	TMR	N/A	RCDE
1400 Series	TMS	1300/1400	SCD3
180 Series	250 Series	N/A	SCVD
LMHS	DESV	SCV1/VA1	SDV
SH	TDC	5500S/5000S	SMD3/6
PLQ	OMNI	5750/5850	SPD3
HCF23	N/A	N/A	SPF
PTBS	TBDI		TBDI
PR10	AG75	RSD	VCR7
RP12	AG85	BDS/900D	VCR8E
			VCR9
OBD	AG35/AG95	N/A	VCS3