

SHOP SUBMITTAL / DRAWING REVIEW RESPONSE



**SW Associates
Consulting Engineers**
5429 LBJ Freeway
Suite 300 LB129
Dallas, TX 75240
www.swaengineers.com
Tel 1.214.397.0211
Fax 1.214.397.0886

Formerly **MEINHARDT** Consulting Engineers

Project Name: DPARD Admin Offices

From: Chuck Stringer

Project No: 13333

Description: 233713.01 Diffuser, Registers and Grilles Submittal

SW Associates Consulting Engineers		<p>Engineer's review is for general compliance with the design concept and contract documents. Markings or comments or the lack thereof shall not be construed as relieving the Contractor from compliance with the project plans and specifications. The Contractor remains responsible for details and accuracy, for confirming and correlating all quantities and dimensions, for selecting fabrication processes, for techniques of construction, for performing this work in a safe manner and for coordinating his work with that of other trades</p> <p>This review does not constitute approval or acceptance of deviations from contract documents, such deviations if any must be requested in writing or clearly identified as deviations in accordance with contract documents.</p>
<input type="checkbox"/>	No Exception Taken	
<input type="checkbox"/>	Make Corrections Noted	
<input type="checkbox"/>	Revise and Submit	
<input checked="" type="checkbox"/>	Rejected	
SWA Project No. 13333		Submittal No: 233713.01
Date: 08-09-18		Checked By: Chuck Stringer

Comments: Rejected / not reviewed due to city imposed redesign.

SUBMITTAL TRANSMITTAL

CONTRACTOR'S REVIEW STAMP

A/E REVIEW STAMP

**DENCO CONSTRUCTION SPECIALISTS
SHOP DRAWING AND SUBMITTAL REVIEW**

JOB NO. DPA-230000

DATE 7-23-18

REVIEWER Shawnee Hallmark

Corrections or comments made relative to submittals during this review do not relieve the subcontractor from compliance with the requirements of the drawings and specifications. This check is only for review of general conformance with the design concept of the project and general compliance with the information given in the contract documents. The subcontractor is responsible for conforming and correlating all quantities and dimensions, selecting fabrication processes and techniques of construction, coordinating his work with that of other trades and performing his work in a safe and satisfactory manner.

**THIS REVIEW DOES NOT INDICATE NOR IMPLY ANY APPROVAL
OF CHANGES TO TIME OR CHANGES IN COSTS**

SUBMITTAL DATA

Project Dallas Park & Rec Dept Admin Offices Location 10031 E. Northwest Highway Dallas, TX 75238
General Contractor DENCO CONSTRUCTION SPECIALISTS
Trade HVAC
Items Submitted Diffusers, Registers, Grilles
Supplier Total Refrigeration Phone 214-926-8260
Substitutions and Deviations _____
Remarks _____

I CERTIFY THAT THE ABOVE ITEM DESCRIBED IN THE ATTACHED SUBMITTAL COMPLIES WITH THE CONTRACT DOCUMENTS EXCEPT AS NOTED ABOVE.

<u>Shawnee Hallmark</u>	<u>972-226-2609 ext. 108</u>	<u>7-23-18</u>
NAME (TRADE)	PHONE NO.	DATE

Review Comments: _____

Submittal Data

06/21/2018

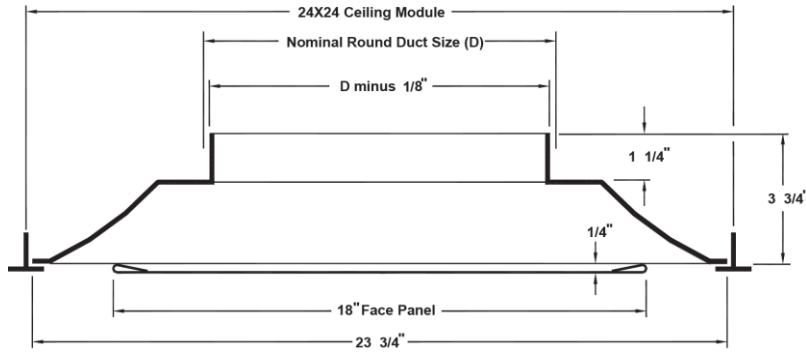
Job Name: Dallas Park & Recr. Dept	Submitted By: ADW Corporation
Engineer: SW Associates	Justin Zimmerman
Architect: Perkins + Will	1445 W. Beltline Rd.
Contractor: Total HVAC	Suite 104
	Carrollton, TX 75006

OMNI

Architectural Ceiling Diffusers Square Cone • Plaque Face Round Neck • Steel

Main Product

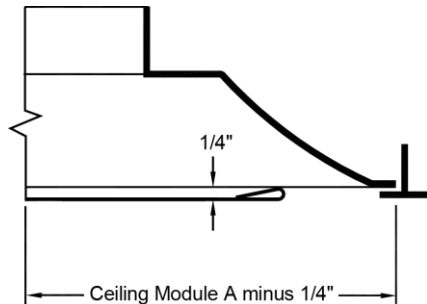
OMNI



Border Type 3 (Lay-In) Full Face

Nominal Duct Size (D)	Duct Neck
6" Diameter	5 7/8" Diameter
8" Diameter	7 7/8" Diameter

Lay-in:



General Description

- The TITUS OMNI diffuser is designed to satisfy architectural as well as engineering criteria. Its strong, clean, unobtrusive lines harmonize with the ceiling system, without sacrificing performance.
- The curvature of the OMNI backpan works with the formed edges of the face panel to deliver a 3600 tight horizontal air pattern, without excessive noise or pressure drop.
- The OMNI diffuser is an excellent choice for variable volume systems. The air pattern remains tight and horizontal for effective room air distribution, even when the air volume varies over a wide range.
- The edges of the face panel are formed to a radius for solid, crisp appearance. The formed edges also stiffen the face panel and assure a straight and level surface.
- The panel can be removed from backpan for easy access to an optional damper.

Job Name Dallas Park & Recr. Dept
Architect Perkins + Will
Engineer SW Associates
Contractor Total HVAC



Date 06/21/2018
Office ADW Corporation
Preparer Justin Zimmerman

Option Schedule

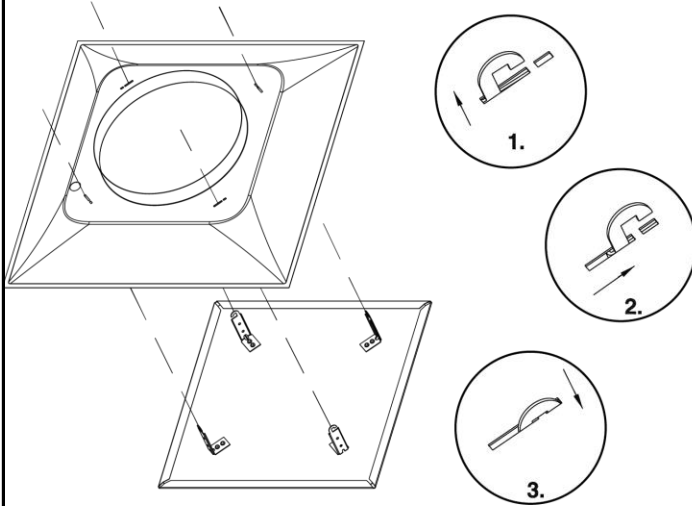
ID	Quantity	Tag	DIM 1 NECK SIZE
1	1	S1	6" DIAMETER
2	13	S1	8" DIAMETER

MODULE SIZE 24X24
BORDER 3 - LAY-IN
FINISH 26 - WHITE
DAMPER MODEL 0 - NONE

ACCESSORY 1 NONE
ACCESSORY 2 NONE
ACCESSORY 3 NONE

Accessories

Installing and Removing Face Panel



Installing Face Panel

1. Insert the hook brackets into the slots in the backpan.
2. Rotate the face panel clockwise until...
3. the hooks positively engage in the secondary slots in the backpan.

Removing Face Panel

1. Lift the faceplate towards the backpan to disengage the hook brackets from the backpan slots
2. Rotate the faceplate counter-clockwise
3. Lower the faceplate away from the backpan.

Adjusting Optional Damper

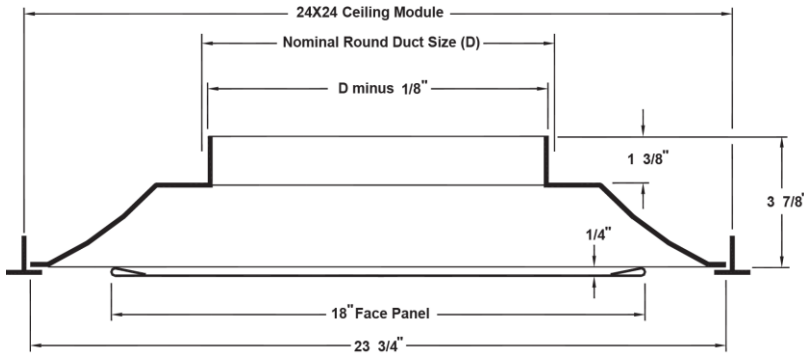
1. Remove face panel as above.
2. Use flat blade screwdriver to turn operator shaft at center of damper.
3. Replace face panel.

OMNI

Architectural Ceiling Diffusers Square Cone • Plaque Face Round Neck • Steel

Main Product

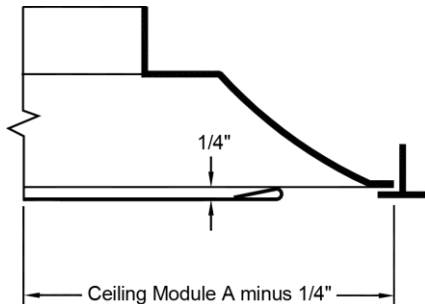
OMNI



Border Type 3 (Lay-In) Full Face (Metric)

Nominal Duct Size (D)	Neck Size
10" Diameter	9 7/8" Diameter

Lay-in:



General Description

- The TITUS OMNI diffuser is designed to satisfy architectural as well as engineering criteria. Its strong, clean, unobtrusive lines harmonize with the ceiling system, without sacrificing performance.
- The curvature of the OMNI backpan works with the formed edges of the face panel to deliver a 3600 tight horizontal air pattern, without excessive noise or pressure drop.
- The OMNI diffuser is an excellent choice for variable volume systems. The air pattern remains tight and horizontal for effective room air distribution, even when the air volume varies over a wide range.
- The edges of the face panel are formed to a radius for solid, crisp appearance. The formed edges also stiffen the face panel and assure a straight and level surface.
- The panel can be removed from backpan for easy access to an optional damper.

Job Name Dallas Park & Recr. Dept
Architect Perkins + Will
Engineer SW Associates
Contractor Total HVAC



Date 06/21/2018
Office ADW Corporation
Preparer Justin Zimmerman

Option Schedule

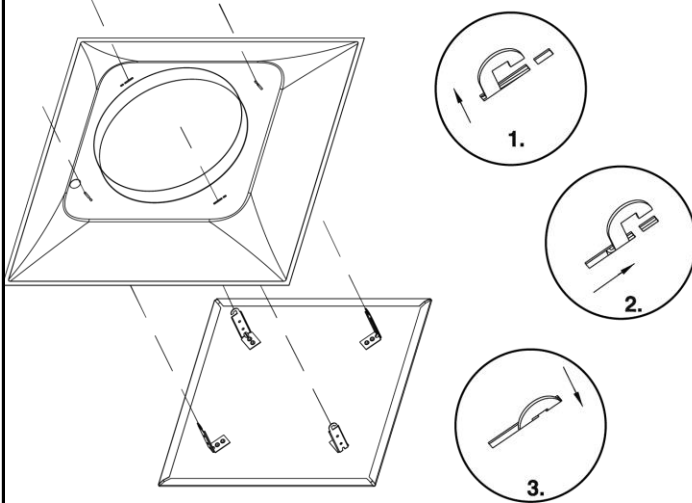
ID	Quantity	Tag	DIM 1 NECK SIZE
3	3	S1	10" DIAMETER

MODULE SIZE 24X24
BORDER 3 - LAY-IN
FINISH 26 - WHITE
DAMPER MODEL 0 - NONE

ACCESSORY 1 NONE
ACCESSORY 2 NONE
ACCESSORY 3 NONE

Accessories

Installing and Removing Face Panel



Installing Face Panel

1. Insert the hook brackets into the slots in the backpan.
2. Rotate the face panel clockwise until...
3. the hooks positively engage in the secondary slots in the backpan.

Removing Face Panel

1. Lift the faceplate towards the backpan to disengage the hook brackets from the backpan slots
2. Rotate the faceplate counter-clockwise
3. Lower the faceplate away from the backpan.

Adjusting Optional Damper

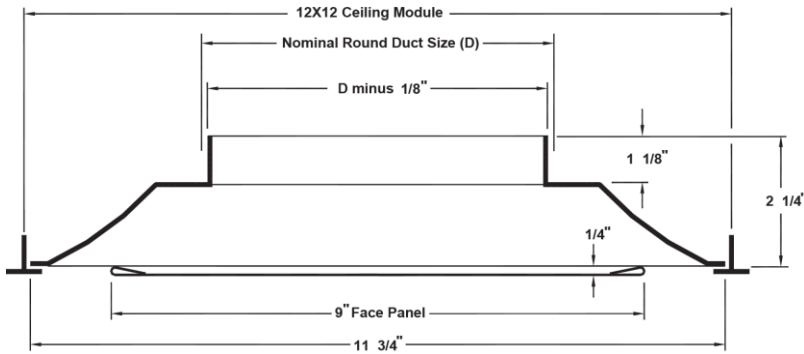
1. Remove face panel as above.
2. Use flat blade screwdriver to turn operator shaft at center of damper.
3. Replace face panel.

OMNI

Architectural Ceiling Diffusers Square Cone • Plaque Face Round Neck • Steel

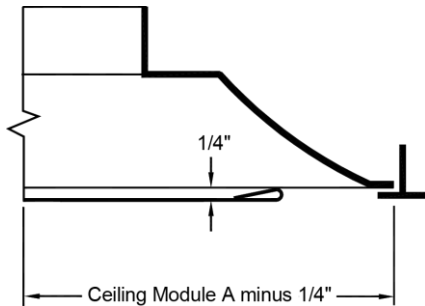
Main Product

OMNI



Nominal Neck Size (D)	Duct Neck
6" Diameter	5 7/8" Diameter

Lay-in:



General Description

- The TITUS OMNI diffuser is designed to satisfy architectural as well as engineering criteria. Its strong, clean, unobtrusive lines harmonize with the ceiling system, without sacrificing performance.
- The curvature of the OMNI backpan works with the formed edges of the face panel to deliver a 3600 tight horizontal air pattern, without excessive noise or pressure drop.
- The OMNI diffuser is an excellent choice for variable volume systems. The air pattern remains tight and horizontal for effective room air distribution, even when the air volume varies over a wide range.
- The edges of the face panel are formed to a radius for solid, crisp appearance. The formed edges also stiffen the face panel and assure a straight and level surface.
- The panel can be removed from backpan for easy access to an optional damper.

Option Schedule

ID	Quantity	Tag	DIM 1 NECK SIZE
4	6	S2	6" DIAMETER

Job Name Dallas Park & Recr. Dept
Architect Perkins + Will
Engineer SW Associates
Contractor Total HVAC



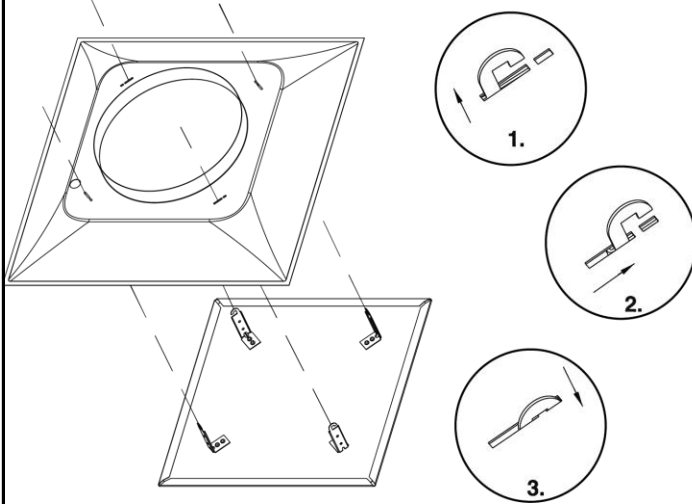
Date 06/21/2018
Office ADW Corporation
Preparer Justin Zimmerman

Option Schedule (continued)

MODULE SIZE 12X12	ACCESSORY 1 NONE
BORDER 3 - LAY-IN	ACCESSORY 2 NONE
FINISH 26 - WHITE	ACCESSORY 3 NONE
DAMPER MODEL 0 - NONE	

Accessories

Installing and Removing Face Panel



Installing Face Panel

1. Insert the hook brackets into the slots in the backpan.
2. Rotate the face panel clockwise until...
3. the hooks positively engage in the secondary slots in the backpan.

Removing Face Panel

1. Lift the faceplate towards the backpan to disengage the hook brackets from the backpan slots
2. Rotate the faceplate counter-clockwise
3. Lower the faceplate away from the backpan.

Adjusting Optional Damper

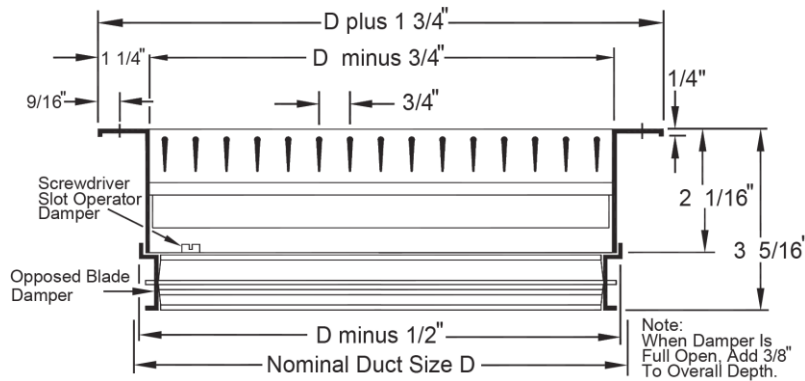
1. Remove face panel as above.
2. Use flat blade screwdriver to turn operator shaft at center of damper.
3. Replace face panel.

300RS

Double Deflection supply grille, 3/4" spacing, front blades parallel to short dimension, Steel.

Main Product

300RS



Screw Hole Fastening, Grille Mounting Detail



Duct Width	Duct Height	Grille OA Width	Grille OA Height
6	5	7.75	6.75
12	4	13.75	5.75
12	5	13.75	6.75
14	4	15.75	5.75
14	5	15.75	6.75
16	5	17.75	6.75
16	6	17.75	7.75
16	8	17.75	9.75
18	5	19.75	6.75
18	6	19.75	7.75
20	5	21.75	6.75
24	5	25.75	6.75
30	8	31.75	9.75

General Description

- Front louvers are vertical to width.
- Front and rear louvers are individually adjustable.
- Screw hole fastening includes #8 x 1 1/4" lg. Phillip's flat head sheet metal screws painted color of grille.
- Sizes larger than 48" x 48" are shipped in multiple sections with joining strips for field assembly.
- Odd and fractional sizes are available at additional cost.
- Optional opposed blade damper has screwdriver adjustment accessible through face of register.
- Insect and debris screens are not available when dampers are fitted.
- All dimensions are ± 1/16"
- Material: Steel

Job Name Dallas Park & Recr. Dept
Architect Perkins + Will
Engineer SW Associates
Contractor Total HVAC



Date 06/21/2018
Office ADW Corporation
Preparer Justin Zimmerman

Option Schedule

ID	Quantity	Tag	WIDTH IN INCHES	HEIGHT IN INCHES
1	1	S3	6	5
2	1	S3	12	4
3	1	S3	12	5
4	1	S3	14	4
5	27	S3	14	5
6	1	S3	16	5
7	3	S3	16	6
8	2	S3	16	8
9	18	S3	18	5
10	3	S3	18	6
11	23	S3	20	5
12	6	S3	24	5
13	2	S3	30	8

MODULE SIZE NONE

BORDER 1 - SURFACE MOUNT

FINISH 26 - WHITE

FASTENING A - SCREW HOLES

DAMPER MODEL AG-15 - STEEL OBD

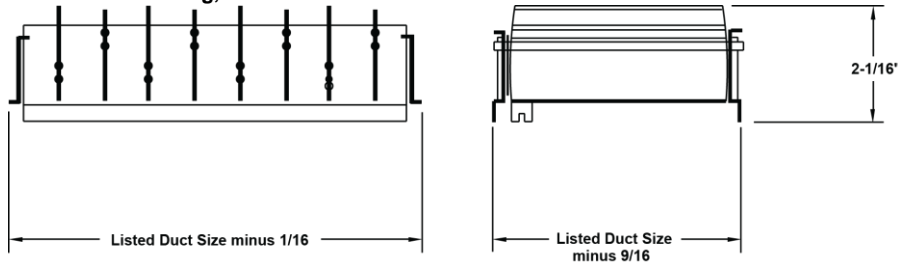
ACCESSORY 1 NONE

ACCESSORY 2 NONE

ACCESSORY 3 NONE

Accessories

Damper: AG-15 common drawing, see above for material and finish

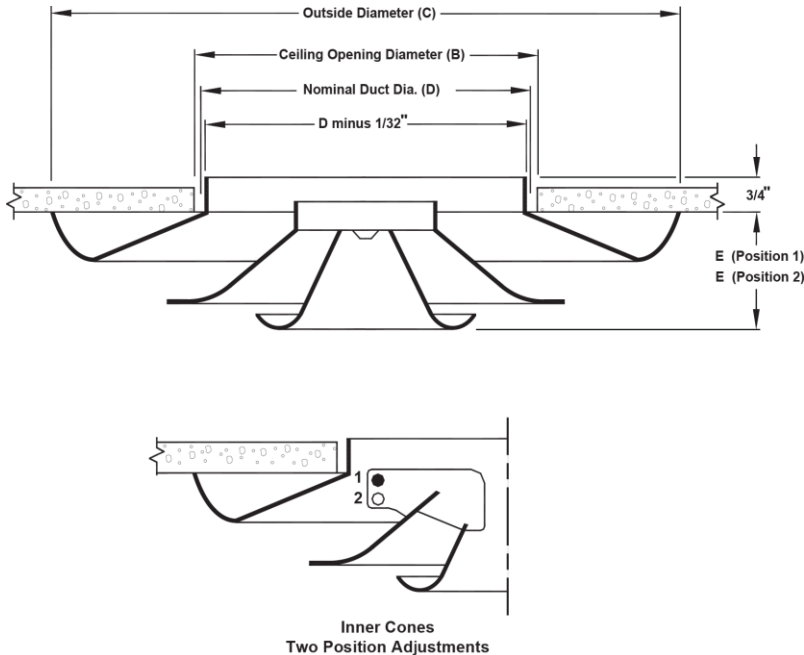


TMR

Round diffuser with two discharge patterns, Steel.

Main Product

TMR



Nominal Duct Size (D)	Ceiling Cutout (B)	E (Pos.1)	E (Pos. 2)	OA Diffuser Size (C)
6" Dia.	6 1/2" Dia.	1 3/4"	1 1/8"	11 1/8" Dia.
8" Dia	8 1/2" Dia.	2 1/8"	1 1/2"	14 3/4" Dia.
10" Dia.	10 1/2" Dia	2 7/8"	2 1/8"	18 1/4" Dia.
12" Dia.	12 1/2" Dia.	3 1/8"	2 3/8"	22" Dia.

General Description

Standard Finish: #26 White

- The horizontal discharge settings allow the diffuser to be adjusted for different flow rate conditions. At Position 1, maximum capacity is obtained. At Position 2, induction is increased, and the noise level is increased by 1 NC above those shown in the catalog performance table.
- Uniform 360 degree discharge pattern.
- Excellent performance in variable air volume applications.
- Adjusted by removing the 2 inner cones as a unit and repositioning 6 screws.
- Spring lock allows easy removal and replacement of the 2 inner cones.
- For model MR with neck sizes of 12" to 36" diameter, a retainer cable is provided to allow the inner core to hang during maintenance of the diffuser.
- Material is steel.

Job Name Dallas Park & Recr. Dept
Architect Perkins + Will
Engineer SW Associates
Contractor Total HVAC



Date 06/21/2018
Office ADW Corporation
Preparer Justin Zimmerman

Option Schedule

ID	Quantity	Tag	DIM 1 NECK SIZE
1	1	S4	6" DIAMETER
2	1	S4	8" DIAMETER
3	6	S4	10" DIAMETER
4	6	S4	12" DIAMETER

FINISH 26 - WHITE
DAMPER MODEL 0 - NONE
ACCESSORY 1 NONE

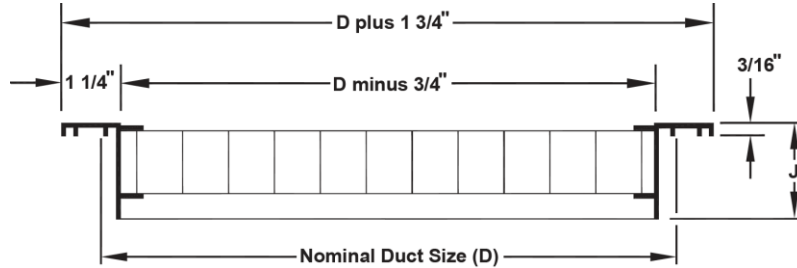
ACCESSORY 2 NONE
ACCESSORY 3 NONE

50F

Eggcrate return, aluminum border and aluminum grid.

Main Product

50F



24x24 Module Lay-In mount with 1/2 x 1/2 x 1/2 Aluminum Grid

Duct Width	Duct Height	Module OA Size	J
22	22	23 3/4" x 23 3/4"	1 1/4"

General Description

- Insect and debris screens are not available when damper are fitted.
- #8 x 1 1/4" lg. Phillips flat head sheet metal screws painted white.
- All dimensions are $\pm 1/16"$
- Material: Aluminum

Option Schedule

ID	Quantity	Tag	WIDTH IN INCHES	HEIGHT IN INCHES
2	14	R1	22	22

MODULE SIZE 24X24

BORDER 3 - LAY-IN

FINISH 26 - WHITE

FASTENING N - NO SCREW HOLES

DAMPER MODEL 0 - NONE

EGGCRATE CORE CORE A (BORDER 1 OR 3)

ACCESSORY 2 NONE

ACCESSORY 3 NONE

Accessories

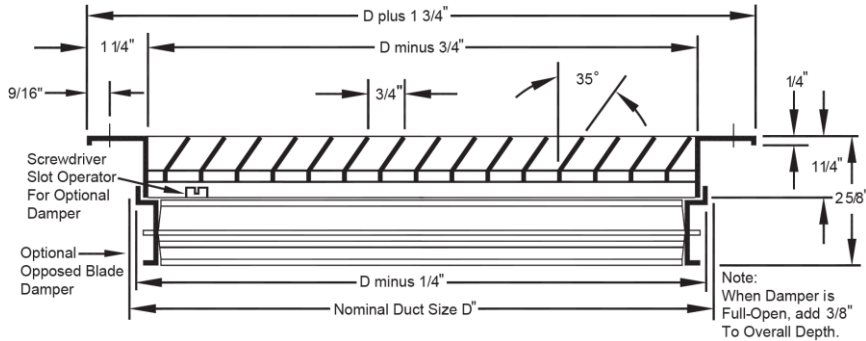
24x24 Module Lay-In mount with 1/2 x 1/2 x 1/2 Aluminum Grid

350RL

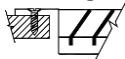
Louvered Return grille, 35° deflection, 3/4" spacing, blades parallel to long dimension, Steel.

Main Product

350RL



Screw Hole Fastening, Grille Mounting Detail



Duct Width	Duct Height	Grille OA Width	Grille OA Height
12	5	13.75	6.75
14	5	15.75	6.75
18	5	19.75	6.75
20	5	21.75	6.75
24	5	25.75	6.75
24	12	25.75	13.75
30	5	31.75	6.75
36	5	37.75	6.75
36	24	37.75	25.75
48	24	49.75	25.75

General Description

- Louvers are horizontal to width with 3/4" spacing at a 35 degree deflection.
- Optional opposed blade damper has screwdriver adjustment accessible through face of register.
- Odd and fractional sizes are available at additional cost.
- Sizes larger than 48" x 48" are shipped in multiple sections with joining strips for field assembly.
- Screw hole fastening includes #8 x 1 1/4" lg. Phillip's flat head sheet metal screws painted color of grille.
- Wall or duct opening should be duct size ± 1/8".
- All dimensions are ± 1/16"
- Material: Steel

Job Name Dallas Park & Recr. Dept
Architect Perkins + Will
Engineer SW Associates
Contractor Total HVAC



Date 06/21/2018
Office ADW Corporation
Preparer Justin Zimmerman

Option Schedule

ID	Quantity	Tag	WIDTH IN INCHES	HEIGHT IN INCHES
4	3	R3	12	5
5	2	R3	14	5
6	28	R3	18	5
7	11	R3	20	5
8	2	R3	24	5
9	6	R3	24	12
10	15	R3	30	5
11	5	R3	36	5
12	1	R3	36	24
13	1	R3	48	24

MODULE SIZE NONE

BORDER 1 - SURFACE MOUNT

FINISH 26 - WHITE

FASTENING A - SCREW HOLES

DAMPER MODEL 0 - NONE

ACCESSORY 1 NONE

ACCESSORY 2 NONE

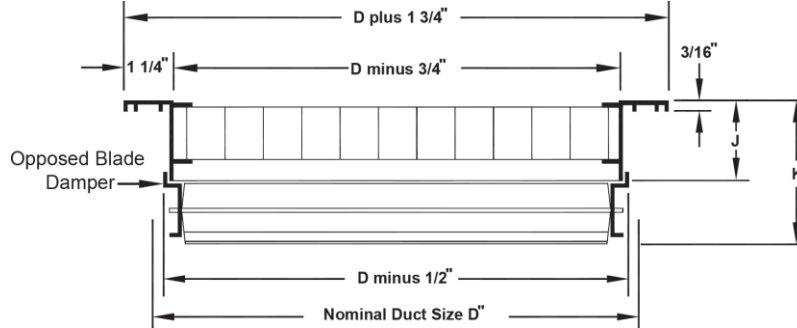
ACCESSORY 3 NONE

50F

Eggcrate return, aluminum border and aluminum grid.

Main Product

50F



12x12 Module Lay-In mount with 1/2 x 1/2 x 1/2 Aluminum Grid

Duct Width	Duct Height	Module OA Size	J	K
10	10	11 3/4" x 11 3/4"	1 1/4"	2 1/2"

General Description

- Insect and debris screens are not available when damper are fitted.
- #8 x 1 1/4" lg. Phillips flat head sheet metal screws painted white.
- All dimensions are ± 1/16"
- Material: Aluminum

Option Schedule

ID	Quantity	Tag	WIDTH IN INCHES	HEIGHT IN INCHES
1	4	E2	10	10

MODULE SIZE 12X12

BORDER 3 - LAY-IN

FINISH 26 - WHITE

FASTENING N - NO SCREW HOLES

DAMPER MODEL AG-15-AA - ALUMINUM OBD

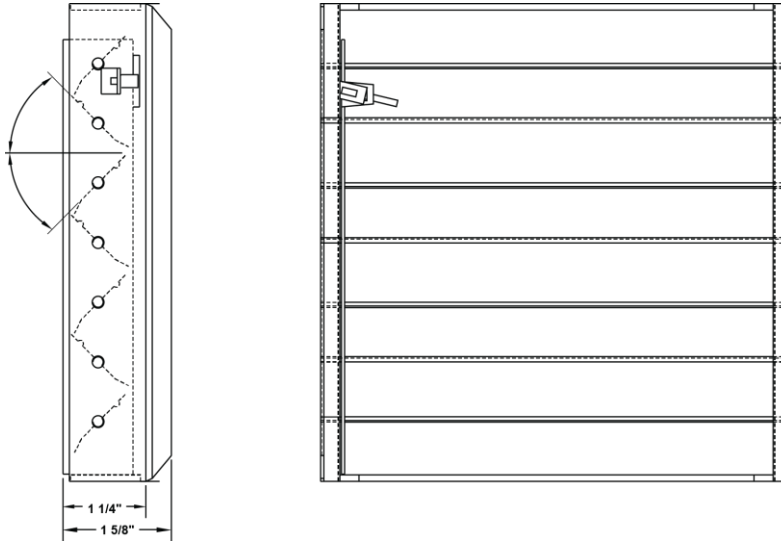
EGGCRATE CORE CORE A (BORDER 1 OR 3)

ACCESSORY 2 NONE

ACCESSORY 3 NONE

Accessories

AG-15-AA



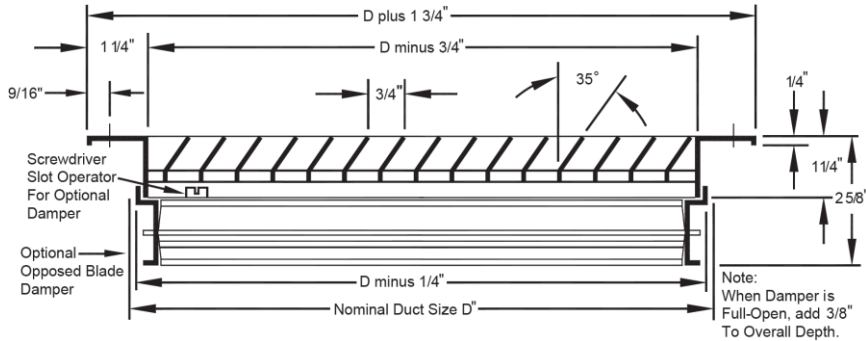
- Slot Operated
- Sizes larger than 24" x 18" but smaller than 48" x 48" are made in multiple sections and shipped as one piece.
- Gang operated opposed blades meter air volume with minimal disturbance.
- Mounts on grille using spring steel S-clips.
- Slot operated model shown above.
- Aluminum

350RL

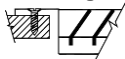
Louvered Return grille, 35° deflection, 3/4" spacing, blades parallel to long dimension, Steel.

Main Product

350RL



Screw Hole Fastening, Grille Mounting Detail



Duct Width	Duct Height	Grille OA Width	Grille OA Height
6	6	7.75	7.75
8	6	9.75	7.75
10	6	11.75	7.75

General Description

- Louvers are horizontal to width with 3/4" spacing at a 35 degree deflection.
- Optional opposed blade damper has screwdriver adjustment accessible through face of register.
- Odd and fractional sizes are available at additional cost.
- Sizes larger than 48" x 48" are shipped in multiple sections with joining strips for field assembly.
- Screw hole fastening includes #8 x 1 1/4" lg. Phillip's flat head sheet metal screws painted color of grille.
- Wall or duct opening should be duct size ± 1/8".
- All dimensions are ± 1/16"
- Material: Steel

Option Schedule

ID	Quantity	Tag	WIDTH IN INCHES	HEIGHT IN INCHES
1	1	E3	6	6
2	1	E3	8	6
3	1	E3	10	6

MODULE SIZE NONE

BORDER 1 - SURFACE MOUNT

FINISH 26 - WHITE

FASTENING A - SCREW HOLES

DAMPER MODEL AG-15 - STEEL OBD

ACCESSORY 1 NONE

ACCESSORY 2 NONE

ACCESSORY 3 NONE

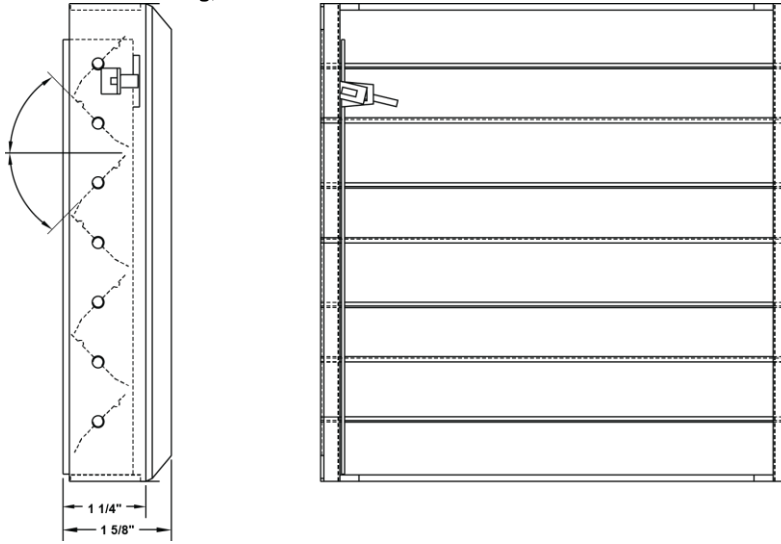
Job Name Dallas Park & Recr. Dept
Architect Perkins + Will
Engineer SW Associates
Contractor Total HVAC



Date 06/21/2018
Office ADW Corporation
Preparer Justin Zimmerman

Accessories

Damper: AG-15 common drawing, see above for selected material and finish

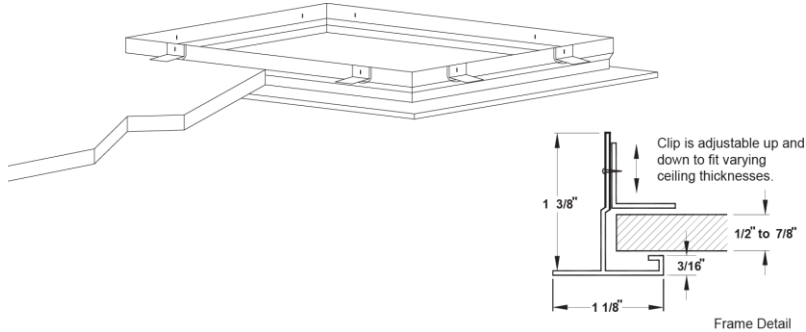


TRM

Aluminum rapid mount frame/plaster frame.

Main Product

TRM



MODULE SIZE	Opening Cutout
12X12	12 1/2" X 12 1/2"

General Description

Standard Finish: #26 White

- Model TRM TITUS Rapid Mount Frame allows T-bar, lay-in type diffusers (border Type 3) to be installed in surface mounting applications (border Type 1).
- TRM frame is installed in opening and secured in place using security clips. Screws are mounted flush in frame mounting holes.
- Rapid Mount Frame can be mounted in plaster or sheet rock ceiling.
- The TRM can be used to access ceiling plenum. Diffuser with flex connection can be lifted out of frame to access ceiling space.
- Material is aluminum with steel fasteners.

Option Schedule

ID	Quantity	Tag
1	10	

MODULE SIZE 12X12

FINISH 26 - WHITE