

*Quality People. Building Solutions.*

Comfort Systems USA (Arkansas), Inc.  
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**Date:** 10/6/2022

**Return Request:** 10/16/2022

**Project:** ATU – Jones Hall

**Supplier:** Knight & Wilson

**Manufacturer:** Titus

**Submittal:** Air Inlets & Outlets

**Submittal Number:** 23 37 00-01

**Drawing # and Installation:** Mechanical Drawings

**ARCHITECT**

SCM Architects  
1400 Kirk Rd. Suite 220  
Little Rock, AR 72223  
501-224-3055

**ENGINEER**

Pettit & Pettit  
201 E. Markham, Suite 400  
Little Rock, AR 72201  
501-374-3731

**GENERAL CONTRACTOR**

Alessi Keyes Construction  
10623 Maumelle Blvd.  
N. Little Rock, AR 72113  
501-225-6699

**MECHANICAL SUBCONTRACTOR**

Comfort Systems USA (Arkansas), Inc.  
9924 Landers Rd.  
N. Little Rock, AR 72117  
501-834-3320

Notes:

**CSUSA PROJECT NO.**

**22-620**

[sean@comfortar.com](mailto:sean@comfortar.com)

**ALESSI KEYES CONSTRUCTION**  
**REVIEWED FOR GENERAL COMPLIANCE**  
**WITH CONTRACT DOCUMENTS**  
**Charley Dawson 10/11/2022**

9924 Landers Rd.  
No. Little Rock, AR 72117



# IOM

## ATU - Jones Hall

**Powers of Arkansas  
5440 Northshore Drive  
North Little Rock, AR 72118**



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**Powers of Arkansas**  
**5440 Northshore Drive**  
**North Little Rock, AR 72118**



# IOM

|                     |                                  |
|---------------------|----------------------------------|
| <b>PRODUCT</b>      | Gravity Roof Ventilator GV-1 ALT |
| <b>MANUFACTURER</b> | Loren Cook                       |
| <b>JOB NAME</b>     | ATU - Jones Hall                 |
| <b>LOCATION</b>     | Russellville, AR                 |
| <b>ENGINEER</b>     | Pettit & Pettit                  |
| <b>CONTRACTOR</b>   | Knight & Wilson                  |
| <b>DATE</b>         | 12/11/2023                       |
| <b>SUBMITTED BY</b> | Chris Atwood                     |

5440 Northshore Drive - North Little Rock, Arkansas 72118 - Tel: 501.374.5420 Fax: 501.370.9298

This publication contains the installation, operation and maintenance instructions for standard units of the *GI/GR: Gravity Ventilators*.



**Carefully read this publication and any supplemental documents prior to any installation or maintenance procedure.**

Loren Cook catalog, *Gravity Ventilation*, provides additional information describing the equipment, unit performance, available accessories and specification data.

For additional safety information, refer to AMCA Publication 410-96, *Safety Practices for Users and Installers of Industrial and Commercial Fans*.

All of the publications listed above can be obtained from:

- [lorencook.com](http://lorencook.com)
- [info@lorencook.com](mailto:info@lorencook.com)
- 417-869-6474 ext. 166

For information and instructions on special equipment, contact Loren Cook Company at 417-869-6474.

### Receiving and Inspection

Immediately upon receipt of a GI/GR unit, carefully inspect it for damage and shortage.

- Check dampers (if supplied) for free operation of moving parts.
- Record on the Delivery Receipt any visible sign of damage.

### Handling

Lift the unit by the lifting lugs (refer to *Figure 4*).

**NOTICE! Never lift by the hood or end panels.**

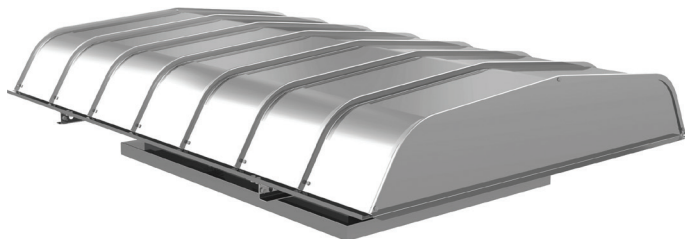
### Storage

If the unit is stored for any length of time prior to installation, store it in its original shipping crate and protect it from dust, debris and the weather.

### Installation

#### **Standard Units**

Standard units not requiring knock down are shipped fully assembled and ready for installation.



### **!WARNING**

The attachment of roof mounted fans to the roof curb as well as the attachment of roof curbs to the building structure must exceed the structural requirements based on the environmental loading derived from the applicable building code for the site. The local code official may require variations from the recognized code based on local data. The licensed engineer of record will be responsible for prescribing the correct attachment based on construction materials, code requirements and environmental effects specific to the installation.

Failure to follow these instructions could result in death or serious injury.

### **Knockdown Units**

All knocked down units are factory pre-assembled and then disassembled for shipping. Reassemble by aligning holes and bolting together. Parts are marked as to allow for ease of reassembly.

Reassembling the hood is best done from the underneath side. To work on the hood it is recommended to turn the hood upside down on two wooden four by fours, this will prevent it from rocking during assembly. Attach the hood sections together by the overlapping joining seams (see *Figure 5*). Make sure the upper seam is overlapping the lower seam along their entire length. A slight tap with a rubber mallet or dead blow hammer maybe required. Align holes and use the provided section rail splice and bolts to secure the hood section(s) together (see *Figure 3*).

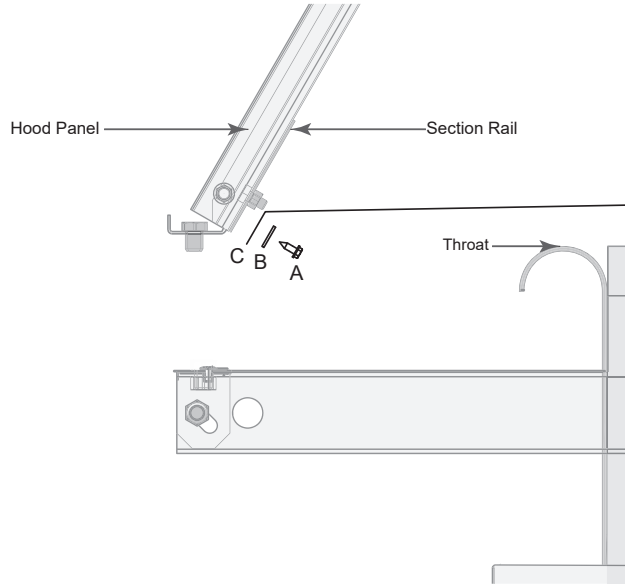
For units with birdscreen, first completely assemble the hood. Then fasten birdscreen securely to the inside of the section rail, (see *Figure 1*), using speed screws (A) and washer (B) stretching the birdscreen (C) as tight as possible. For units with aluminum birdscreen, the washers are replaced with 1" aluminum strips at the factory. On units with filters and birdscreen, the bird screen should extend across the throat, not hindering the filter placement (see *Figure 4*).

For units with a two piece mounting channel, insert the mounting channel splice between the two pieces of the mounting channel, aligning the holes (see *Figure 3*). Fasten the three pieces of the mounting channel assembly to the base using the bolts and nuts provided.

For units with multiple base sections: securely fasten the base sections through the base section splice brackets welded to the base sections using the bolts and nuts provided (see *Figure 3*). To eliminate the possible egress of water through the base splices, caulking is recommended.

To attach the base and hood sections: set the assembled hood on the assembled base, aligning the mounting bracket holes with the holes in the section rails. Units with support angles require the support angles to be bolted to the base, using the bolts and nuts provided.

**Figure 1**



## Filters

Filters are installed between the base and the hood panels (see *Figure 4*). The filters should come in two sizes. One size fits between the end panel and the base. The other size is mounted between the base and the section rail. Filter inspection and cleaning intervals can vary from once a week to twice per year depending on contaminant present and acceptable pressure drops across the filter. Under most conditions filters may be cleaned with hot water and a mild soap solution (such as dish washing liquid) or steam. Some caustic cleaners will damage the filter. If in doubt, please consult the factory for a compatibility list. High pressure spray washers should be limited to 2,000 PSI operating pressure. Every attempt should be made to remove the contaminants from the filter in a “backwash” flow (NOTE: airflow arrow on the filter frame). Once the filter is dry, it may be returned to the appropriate filter racks in the same orientation (airflow direction) as they were removed.

## Maintenance

### Hood Access

To access the throat of the unit, take the entire hood off by removing the bolts and attaching the mounting bracket to the mounting channels (see *Figure 4*). GR units with less than a 73” throat length and GI units with less than a 61” throat length can be hinged. Hinging is accomplished by removing the bolts on one side and loosening the two bolts (refer to *Figure 2*) on the other side. Care should be taken when hinging the hood, especially in high wind conditions.

**Figure 2**

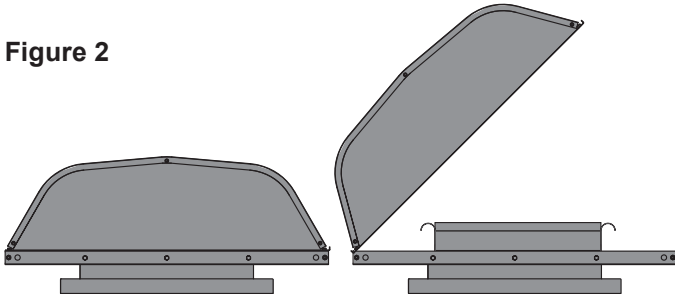


Figure 3

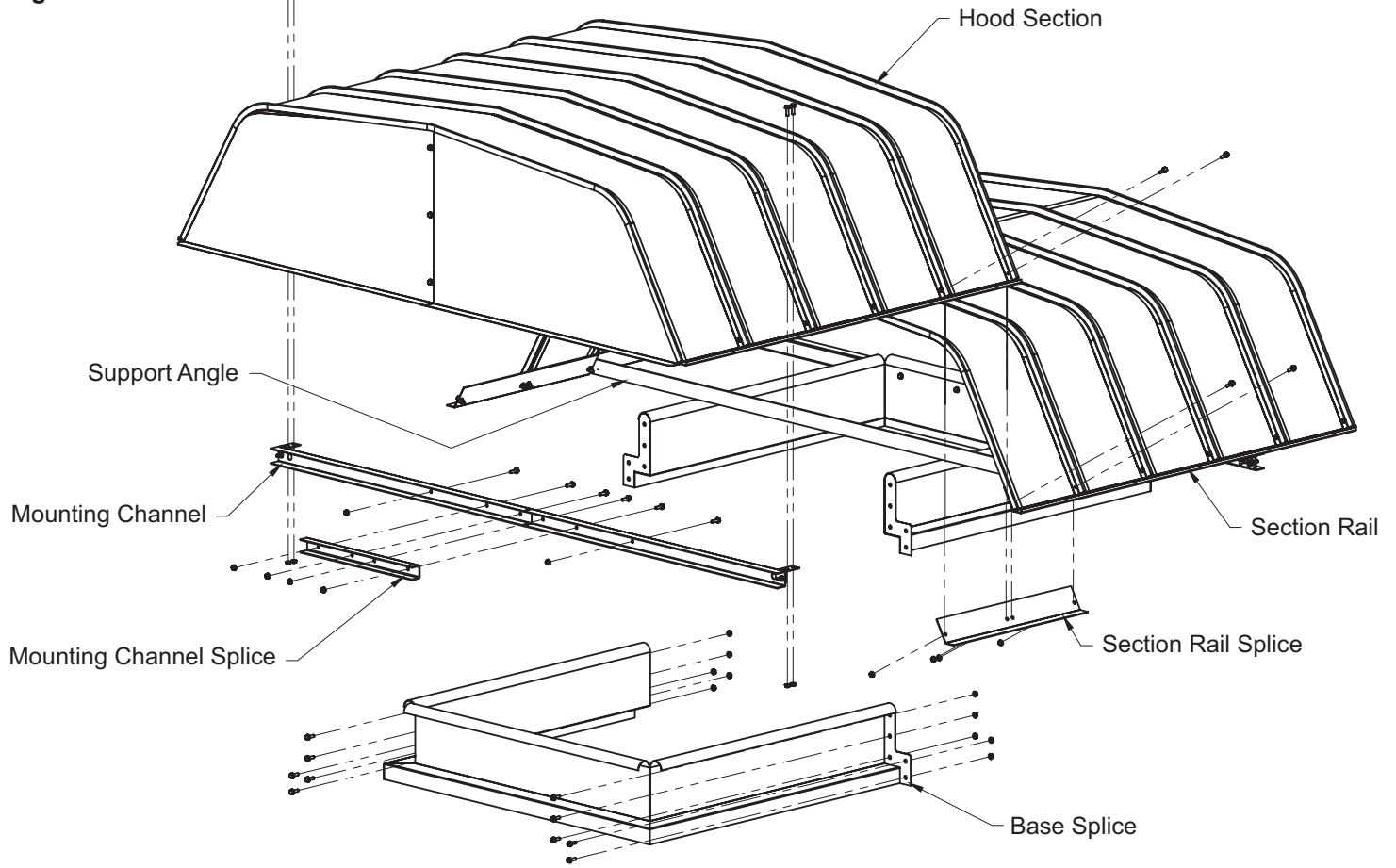
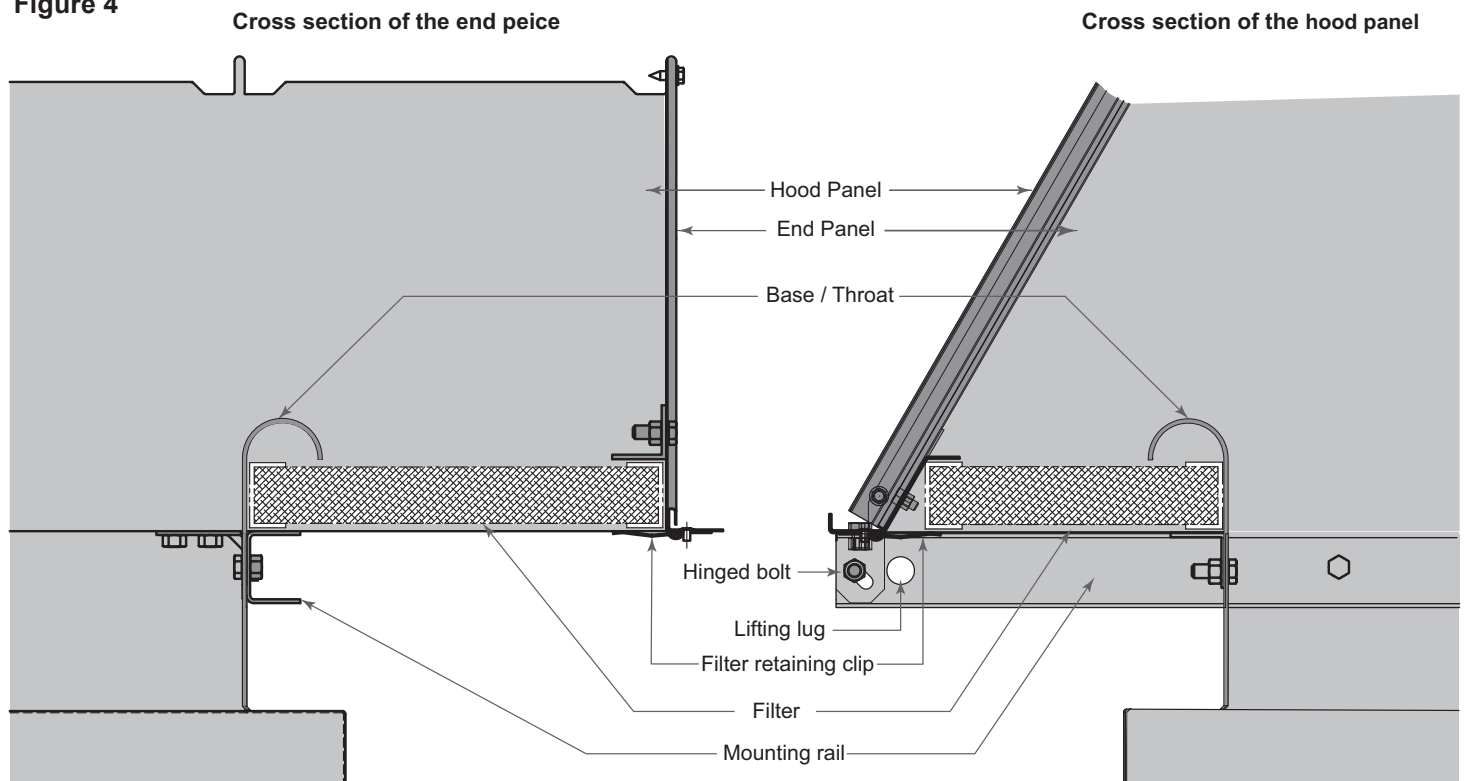


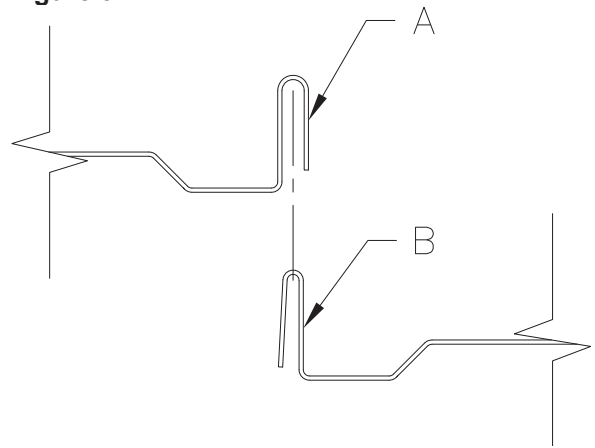
Figure 4



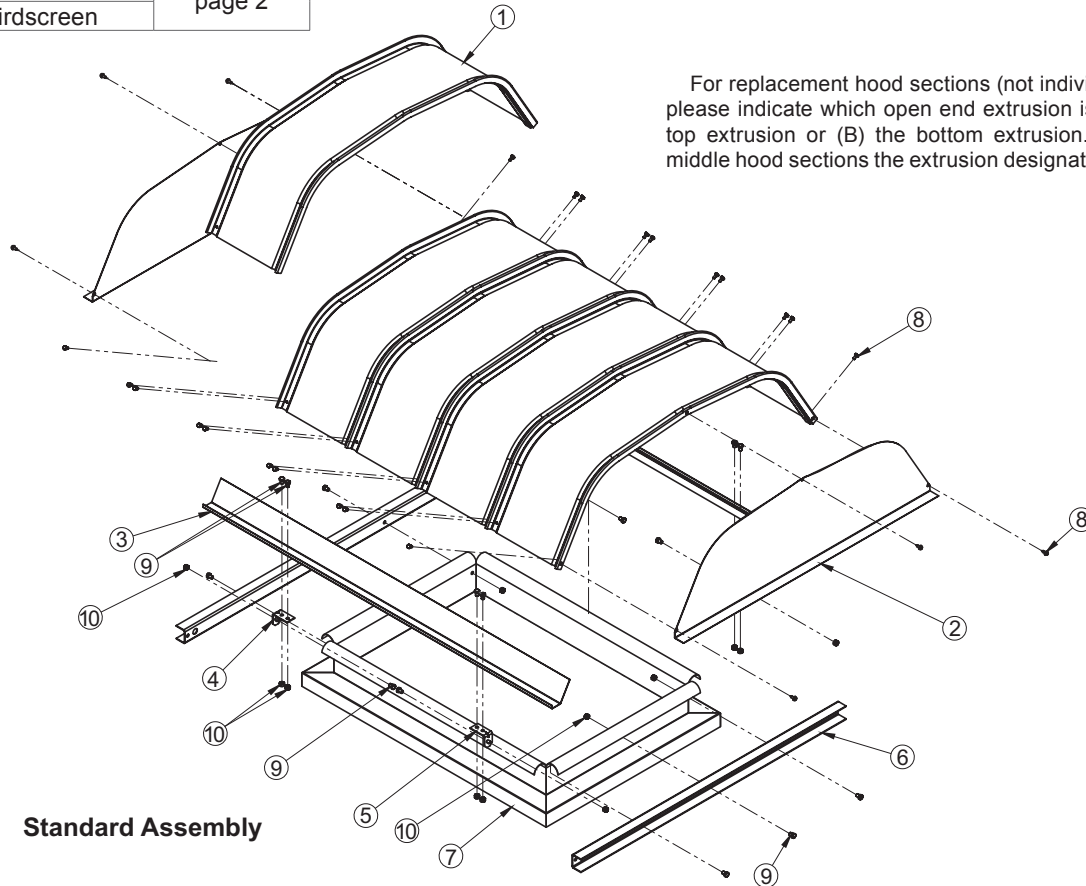
## Parts List

| Part No. | Description              |                         |
|----------|--------------------------|-------------------------|
| 1        | Hood Panel               |                         |
| 2        | End Panel                |                         |
| 3        | Section Rail             |                         |
| 4        | Mounting Bracket - Left  |                         |
| 5        | Mounting Bracket - Right |                         |
| 6        | Mounting Rail            |                         |
| 7        | Base / Throat            |                         |
| 8        | Self-Tapping Screw       |                         |
| 9        | Wizzbolt                 |                         |
| 10       | Wizznut                  |                         |
| A        | Self Tapping Screw       | See Figure 1,<br>page 2 |
| B        | Flat Washer              |                         |
| C        | Birdscreen               |                         |

Figure 5



For replacement hood sections (not individual hood panels) please indicate which open end extrusion is required: (A) the top extrusion or (B) the bottom extrusion. For replacement middle hood sections the extrusion designation is not required.



Standard Assembly

## Limited Warranty

Loren Cook Company warrants that your Loren Cook fan was manufactured free of defects in materials and workmanship, to the extent stated herein. For a period of five (5) years after date of shipment, we will replace any parts found to be defective without charge, except for shipping costs which will be paid by you. This warranty is granted only to the original purchaser placing the fan in service. This warranty is void if the fan or any part thereof has been altered or modified from its original design or has been abused, misused, damaged or is in worn condition or if the fan has been used other than for the uses described in the company manual. This warranty does not cover defects resulting from normal wear and tear. To make a warranty claim, notify Loren Cook Company, General Offices, 2015 East Dale Street, Springfield, Missouri 65803-4637, explaining in writing, in detail, your complaint and referring to the specific model and serial numbers of your fan. Upon receipt by Loren Cook Company of your written complaint, you will be notified, within thirty (30) days of our receipt of your complaint, in writing, as to the manner in which your claim will be handled. If you are entitled to warranty relief, a warranty adjustment will be completed within sixty (60) business days of the receipt of your written complaint by Loren Cook Company. This warranty gives only the original purchaser placing the fan in service specifically the right. You may have other legal rights which vary from state to state.



# LOREN COOK COMPANY

Corporate Offices: 2015 E. Dale St. Springfield, MO 65803  
Phone 417-869-6474 | Fax 417-862-3820 | [lorencook.com](http://lorencook.com)



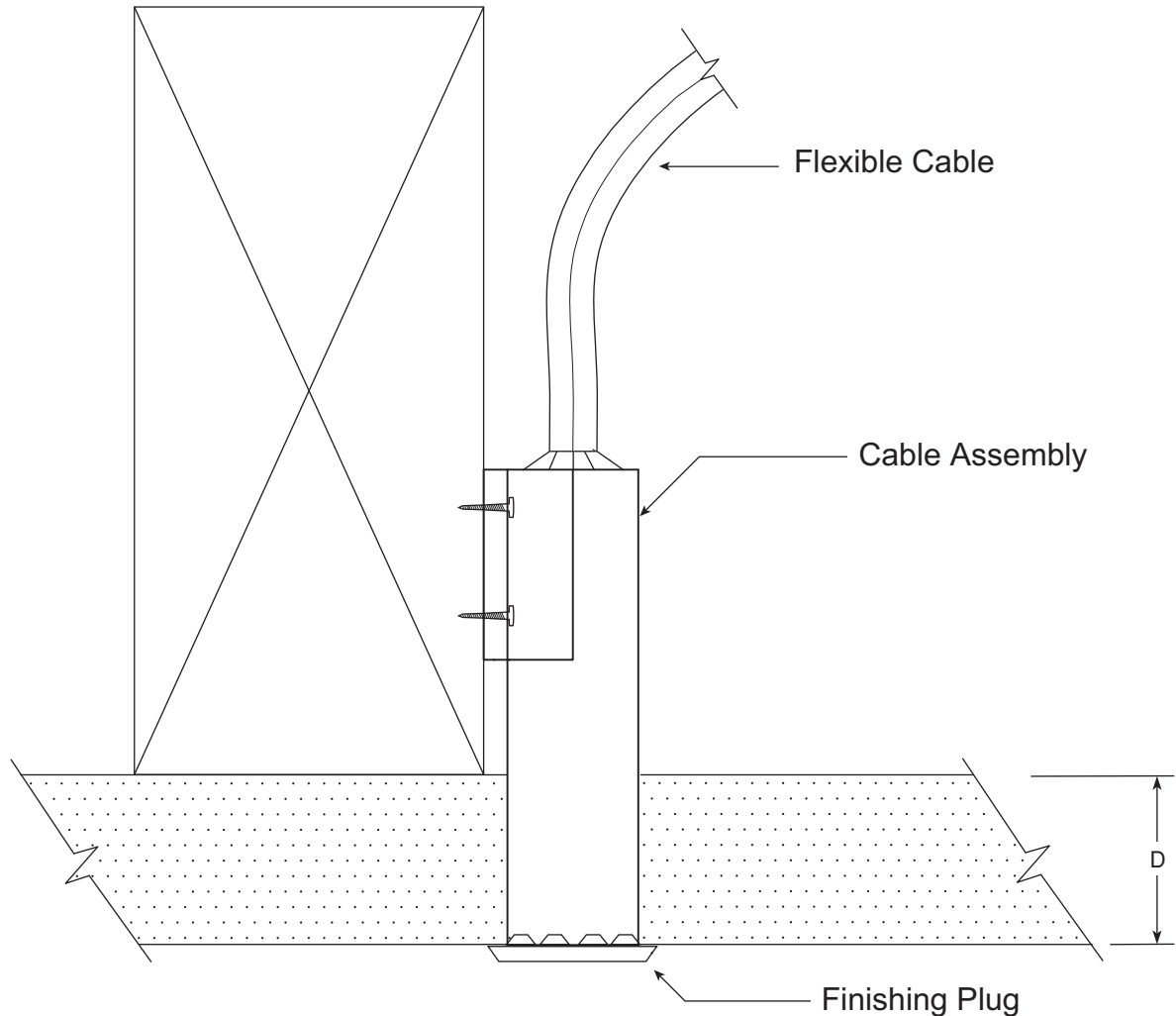


# IOM

|                     |                  |
|---------------------|------------------|
| <b>PRODUCT</b>      | Cable Dampers    |
| <b>MANUFACTURER</b> | Pottorff         |
| <b>JOB NAME</b>     | ATU - Jones Hall |
| <b>LOCATION</b>     | Russellville, AR |
| <b>ENGINEER</b>     | Pettit & Pettit  |
| <b>CONTRACTOR</b>   | Knight & Wilson  |
| <b>DATE</b>         | 12/11/2023       |
| <b>SUBMITTED BY</b> | Chris Atwood     |

5440 Northshore Drive - North Little Rock, Arkansas 72118 - Tel: 501.374.5420 Fax: 501.370.9298

The following installation details apply to models **RCS-10**, **RCS-10R**, and **RCS-42**



1. Install damper in duct as required.
2. Untape RCS-10, 10R, or 42 Cable assembly. Place RCS-10, 10R, or 42 where it is going to be mounted.
3. Screw or nail the mounting bracket to ceiling stud. Set depth (D) at correct level for ceiling thickness.
4. Support cable sleeve with plastic clips as necessary to prevent twisting.
5. Cut drywall or tile to fit tight to  $^{15}/_{16}$ " plastic tubing.
6. Cover plastic tubing with finishing plug.
7. Caution - do not cover operating assembly with any type of duct insulation.

**NOTE:** RCS-10, 10R, or 42 comes completely assembled. Includes damper, cable and remote control assembly.



# IOM

|                     |                  |
|---------------------|------------------|
| <b>PRODUCT</b>      | Fire Dampers     |
| <b>MANUFACTURER</b> | Pottorff         |
| <b>JOB NAME</b>     | ATU - Jones Hall |
| <b>LOCATION</b>     | Russellville, AR |
| <b>ENGINEER</b>     | Pettit & Pettit  |
| <b>CONTRACTOR</b>   | Knight & Wilson  |
| <b>DATE</b>         | 12/11/2023       |
| <b>SUBMITTED BY</b> | Chris Atwood     |

5440 Northshore Drive - North Little Rock, Arkansas 72118 - Tel: 501.374.5420 Fax: 501.370.9298

## Maintenance

Dampers do not typically require maintenance provided they are kept clean and dry. All moving parts are self-lubricating and additional lubrication is not required. If additional lubrication of multi-blade damper axle bearings, jackshaft bearings or jamb seals is desired, use a silicone or dry graphic lubricant. **Do not use petroleum-based lubricants or other lubricants that attract contaminants and collect dust.**

Regular inspection and maintenance is essential to ensure that life-safety systems will perform as intended during emergencies. Dampers shall be cycled and tested in accordance with NFPA 90 recommendations and local codes.

## Operational Testing

### Simulated Fire Closure

- *Non-Spring Assisted Dampers*

Operate the damper by removing the fusible link (or by 'melting' the fusible link with a heat source) and allowing the blades to drop or close naturally.

**CAUTION - Avoid injury - keep clear of blade travel path.** Lift the blade package to the top of the damper to reopen and replace the fusible link. Take care not to rack, deform or damage the blades while reopening.

- *Dynamic Rated OR Spring Assisted Dampers*

Due to spring assisted closure force, removing the fusible link is NOT recommended as a means of closure testing. Instead, when testing is required, 'melt' the fusible link with an appropriate heat source and allow the blades to close automatically. **CAUTION - Avoid injury - Keep clear of blade travel path.** Lift the blade package to the top of the damper to reopen and replace the fusible link. Take care not to rack, deform or damage the blades when reopening.

**Reopening Spring Assisted OR Dynamic Rated Fire Dampers may be very difficult and in some cases impossible.** If the damper is deemed impossible or impractical to test or reopen, then a thorough examination of the blade travel path is required to insure that nothing will prevent the damper from closing. Common obstructions include: retaining angle installation screws, racked damper frames, construction debris and contaminants.

**CAUTION - Testing Spring Assisted OR Dynamic Rated Fire Dampers under airflow conditions is not recommended and may severely damage or destroy duct work.**

## Troubleshooting Guide

| Problem                                 | Possible Cause  | Solution  |
|---|---|---|
| Damper does not open and/or close fully | Installation screws interfering with damper blade or linkage travel | Inspect and remove interfering screws or debris   |
|   | Frame is 'racked' causing blades to bind                            | Adjust frame to be square and plumb   |
|   | Contaminants on damper  | Clean with compressed air, mild detergent or mild non-petroleum based solvent   |
| Fusible link is separated               | Excessive heat  | Replace link.<br><b>Note:</b> If the damper is installed near a heat source (heat exchanger, burner, furnace, etc.) higher temperature links may be required to prevent unwanted closure. |

# REVIEW OF MECHANICAL SUBMITTALS

**Project:** Arkansas Tech University – Jones Hall  
**Location:** Russellville, Arkansas  
**Date of Receipt:** Tuesday, October 11, 2022  
**Date of Review:** Thursday, October 20, 2022  
**Reviewed by:** Adam Kelly  
**Email:** [akelly@pettitinc.com](mailto:akelly@pettitinc.com)

P&P Job No. 21-108

Signed: 

Checking is for conformance with the design concept of the Project and compliance with the information given in the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site; for information that pertains solely to the fabrication processes or to techniques of construction; and for coordination of the work of all trades.

| Item                                       | Approval Status       |   | Comments   |
|--|-----------------------|---|--|
| Section 23 37 00<br>– Air Duct Accessories | Approved as Corrected | ○ | <ul style="list-style-type: none"> <li>- Contractor shall verify all sizes and quantities.</li> <li>- Final finish shall be as per architect. Provide manufacture’s color chip chart to architect for final color selection prior to ordering.</li> <li>- Field fabricated plenums shall be continuously insulated and adequately tall for connection of duct sizes shown on plans.</li> <li>- Contractor to provide continuous insulation blanket a top of all supply air and return air devices.</li> <li>- Contractor shall coordinate exact placement with architect’s plans.</li> <li>- Coordinate proper air device selection for all locations with gyp-board ceiling.</li> <li>- Contractor to coordinate with architectural RCP to verify the correct border and mounting type is provided.</li> <li>- In reference to the note on page 6, the OBD may be omitted if the damper at the run out isn’t readable accessible. i.e. for air device in crawlspace.</li> </ul> |



Note:



# SUBMITTAL

|                     |                  |
|---------------------|------------------|
| <b>PRODUCT</b>      | Air Devices      |
| <b>MANUFACTURER</b> | Titus            |
| <b>JOB NAME</b>     | ATU - Jones Hall |
| <b>LOCATION</b>     | Russellville, AR |
| <b>ENGINEER</b>     | Pettit & Pettit  |
| <b>CONTRACTOR</b>   | Knight & Wilson  |
| <b>DATE</b>         | 9/19/2022        |
| <b>SUBMITTED BY</b> | Chris Atwood     |

5440 Northshore Drive - North Little Rock, Arkansas 72118 - Tel: 501.374.5420 Fax: 501.370.9298

# Schedule

Date/Time: 09/16/2022 14:37:12  
 Job: ATU Jones Hall Renovs  
 Project:  
 Customer:  
 Sales Person: Chris Atwood

Current Version: 2014.0.538  
 Modified Version: 2014.0.538  
 Created by: catwood@powersar.com



| Model   | Quantity | Tag  | Length | Slots/Width | End Border/Module Width/Angle | Border                          | Finish                     | Fastening/Throw    | Damper/Miter Type | Accessory 1 | Accessory 2 | Accessory 3 | Comments |
|---------|----------|------|--------|-------------|-------------------------------|---------------------------------|----------------------------|--------------------|-------------------|-------------|-------------|-------------|----------|
| CT-PP-0 | 3        | LD-2 | 72     | 3           | XX - TWO END BORDERS          | FRAME 5                         | 95 - MEDIUM BRONZE ANODIZE | N - NO SCREW HOLES | AG-35 - STEEL OBD | NONE        | NONE        | NONE        |          |
| CT-PP-0 | 2        | LD-2 | 48     | 6           | XX - TWO END BORDERS          | FRAME 5                         | 95 - MEDIUM BRONZE ANODIZE | N - NO SCREW HOLES | AG-35 - STEEL OBD | NONE        | NONE        | NONE        |          |
| CT-PP-0 | 1        | LD-4 | 72     | 4           | XX - TWO END BORDERS          | BORDER 14 (WITHOUT C FASTENING) | 26 - WHITE                 | A - SCREW HOLES    | AG-35 - STEEL OBD | NONE        | NONE        | NONE        |          |
| CT-PP-0 | 1        | LD-4 | 72     | 6           | XX - TWO END BORDERS          | BORDER 14 (WITHOUT C FASTENING) | 26 - WHITE                 | A - SCREW HOLES    | AG-35 - STEEL OBD | NONE        | NONE        | NONE        |          |

| Model | Quantity | Tag  | Length | Slots/Width | End Border/Module Width/Angle | Border          | Finish     | Fastening/Throw | Damper/Miter Type | Accessory 1 | Accessory 2 | Accessory 3 | Comments |
|-------|----------|------|--------|-------------|-------------------------------|-----------------|------------|-----------------|-------------------|-------------|-------------|-------------|----------|
| ML-39 | 10       | LD-3 | 59     | 7 SLOTS     | XX - TWO END BORDERS          | 1B - DUCT MOUNT | 26 - WHITE |                 |                   | NONE        | NONE        | NONE        |          |
| ML-39 | 1        | LD-3 | 71     | 7 SLOTS     | XX - TWO END BORDERS          | 1B - DUCT MOUNT | 26 - WHITE |                 |                   | NONE        | NONE        | NONE        |          |

| Model  | Quantity | Tag  | Length    | Slots                    | Width/Throw | Plenum Inlet  | Module | Border          | Finish | Damper   | Accessory 1 / Configuration | Accessory 2 | Accessory 3 | Comments |
|--------|----------|------|-----------|--------------------------|-------------|---------------|--------|-----------------|--------|----------|-----------------------------|-------------|-------------|----------|
| MPI-39 | 10       | LD-3 | 60 INCHES | 7LP - 7 SLOT LOW PROFILE |             | 00 - No Inlet |        | 1B - DUCT MOUNT |        | 0 - NONE | XX - TWO END BORDERS        | STRAIGHT    |             |          |
| MPI-39 | 1        | LD-3 | 72 INCHES | 7LP - 7 SLOT LOW PROFILE |             | 00 - No Inlet |        | 1B - DUCT MOUNT |        | 0 - NONE | XX - TWO END BORDERS        | STRAIGHT    |             |          |

| Model  | Quantity | Tag  | Length | Slots/Width | End Border/Module Width/Angle | Border               | Finish     | Fastening/Throw | Damper/Miter Type | Accessory 1 | Accessory 2 | Accessory 3 | Comments |
|--------|----------|------|--------|-------------|-------------------------------|----------------------|------------|-----------------|-------------------|-------------|-------------|-------------|----------|
| MLR-39 | 4        | LR-1 | 72     | 5 SLOTS     | XX - TWO END BORDERS          | 2A - CONCEALED MOUNT | 26 - WHITE |                 |                   | NONE        | NONE        | NONE        |          |

| Model | Quantity | Tag  | Width | Height | Module | Border     | Fastening          | Finish     | Damper            | Accessory - 1 | Accessory - 2 | Accessory - 3                  | Comments |
|-------|----------|------|-------|--------|--------|------------|--------------------|------------|-------------------|---------------|---------------|--------------------------------|----------|
| 50F   | 7        | ER-1 | 10    | 10     | 12X12  | 3 - LAY-IN | N - NO SCREW HOLES | 26 - WHITE | AG-15 - STEEL OBD |               | NONE          | NONE                           |          |
| 50F   | 38       | ER-1 | 10    | 10     | 12X12  | 3 - LAY-IN | N - NO SCREW HOLES | 26 - WHITE | AG-15 - STEEL OBD |               | NONE          | TRM - Rapid Mount Frame-Altrnl |          |

| Model | Quantity | Tag  | Width | Height | Module | Border            | Fastening       | Finish     | Damper            | Accessory - 1 | Accessory - 2 | Accessory - 3 | Comments |
|-------|----------|------|-------|--------|--------|-------------------|-----------------|------------|-------------------|---------------|---------------|---------------|----------|
| 350RL | 1        | EG-1 | 8     | 6      | NONE   | 1 - SURFACE MOUNT | A - SCREW HOLES | 26 - WHITE | AG-15 - STEEL OBD | NONE          | NONE          | NONE          |          |



|       |   |      |    |   |      |                   |                 |            |                   |      |      |      |
|-------|---|------|----|---|------|-------------------|-----------------|------------|-------------------|------|------|------|
| 350RL | 1 | EG-1 | 10 | 6 | NONE | 1 - SURFACE MOUNT | A - SCREW HOLES | 26 - WHITE | AG-15 - STEEL OBD | NONE | NONE | NONE |
|-------|---|------|----|---|------|-------------------|-----------------|------------|-------------------|------|------|------|

\*\* Plenums for Floor and Sidewall grilles would need to be field fabricated.

\*\* Linear Bar grilles (TAG: LBD-2, LBD-4) are furnished with OBD per schedule. The OBD may need to be omitted if the intent is for air balancing to be done via an additional remote damper regulator accessible from the face of these grilles.

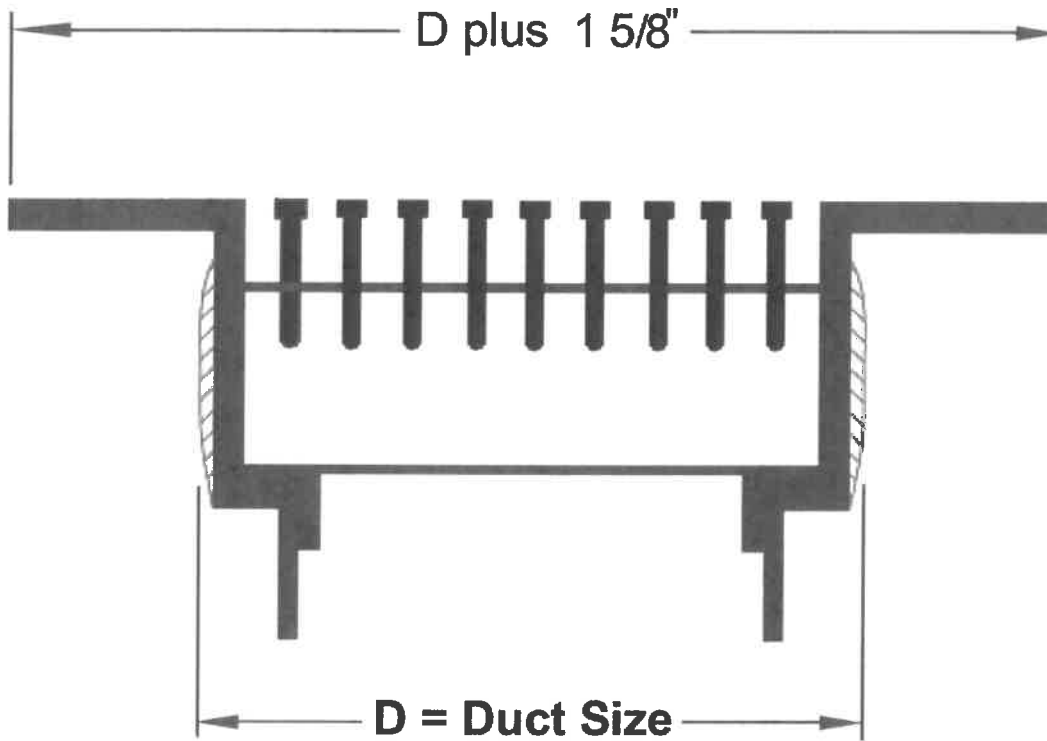
## CT-PP-0

Linear bar diffuser, 7/16" bar spacing, 7/32" bars (pencil proof)  
0 degree deflection, Aluminum

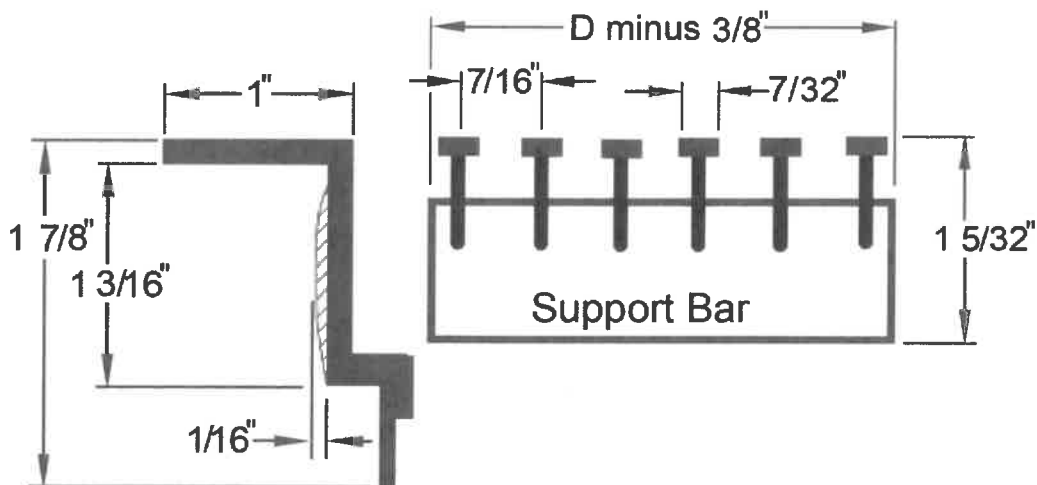
Main Product

CTPP0-1

CT-PP-0



Frame 5 with PP-0 Core



Note: 1/16" cut back accomodates weld beads on corners.

Removable core is furnished with frame. When spring clip is used, add an additional 1/4" to duct width.

**Project** ATU Jones Hall Renovs  
**Architect**  
**Engineer**  
**Contractor**  
**Designation** LD-2



**Date** 09/16/2022  
**Office** Powers of Arkansas  
**Preparer** Chris Atwood  
**Version** 2014.0.538

| Main Product (continued) |                       |                          | CTPP0-1 |
|--------------------------|-----------------------|--------------------------|---------|
| <b>Duct Width (D)</b>    | <b>Frame OA Width</b> | <b>Diffuser OA Width</b> |         |
| 3                        | 4.625                 | 2.625                    |         |
| 6                        | 7.625                 | 5.625                    |         |

| General Description   | CTPP0-1 |
|---|---------|
| <ul style="list-style-type: none"> <li>· TITUS linear bar diffusers are designed for both supply and return applications.</li> <li>· Standard lengths are 1, 2, 3, 4, 5 and 6 feet, furnished as complete, welded assemblies.</li> <li>· Lengths greater than 6 feet are furnished in multiple sections, the number and size determined by the factory.</li> <li>· Sections can be joined end-to-end for continuous appearance, using standard alignment strips or alignment pins.</li> <li>· All deflection bars are fixed and are parallel to the long dimension.</li> <li>· Fixed Bars are extruded aluminum.</li> </ul> |         |

| Option Schedule                          |                 |                                       |                             |                        | CTPP0-1 |
|--|-----------------|---------------------------------------|-----------------------------|------------------------|---------|
| <b>ID</b>                                | <b>Quantity</b> | <b>Tag</b>                            | <b>LINEAR LENGTH INCHES</b> | <b>WIDTH IN INCHES</b> |         |
| 1  | 3               | LD-2                                  | 72                          | 3                      |         |
| 2  | 2               | LD-2                                  | 48                          | 6                      |         |
| <b>END BORDER XX - TWO END BORDERS</b>   |                 | <b>DAMPER MODEL AG-35 - STEEL OBD</b> |                             |                        |         |
| <b>CT FRAME &amp; BORDER FRAME 5</b>     |                 | <b>ACCESSORY 1 NONE</b>               |                             |                        |         |
| <b>FINISH 95 - MEDIUM BRONZE ANODIZE</b> |                 | <b>ACCESSORY 2 NONE</b>               |                             |                        |         |
| <b>FASTENING N - NO SCREW HOLES</b>      |                 | <b>ACCESSORY 3 NONE</b>               |                             |                        |         |

| Accessories  | CTPP0-1 |
|--|---------|
| Damper: AG-35 Type-1 common drawing, see above for material and finish used: |         |
|  |         |

Project ATU Jones Hall Renovs  
Architect  
Engineer  
Contractor  
Designation LD-3



Date 09/16/2022  
Office Powers of Arkansas  
Preparer Chris Atwood  
Version 2014.0.538

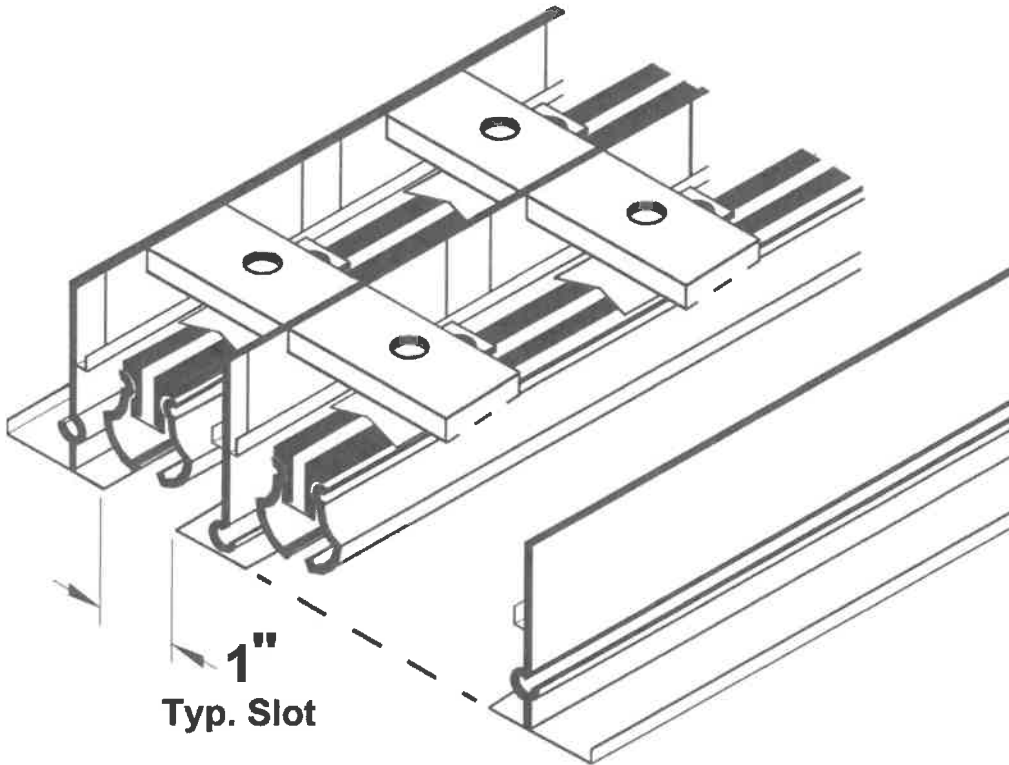
## ML-39

ModuLinear supply diffuser with a 1" slot, Aluminum.

Main Product

ML39-1

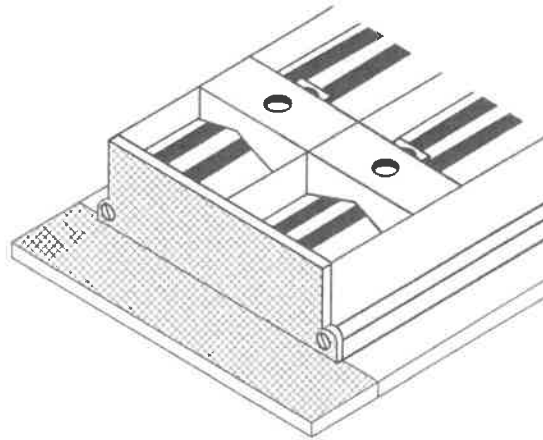
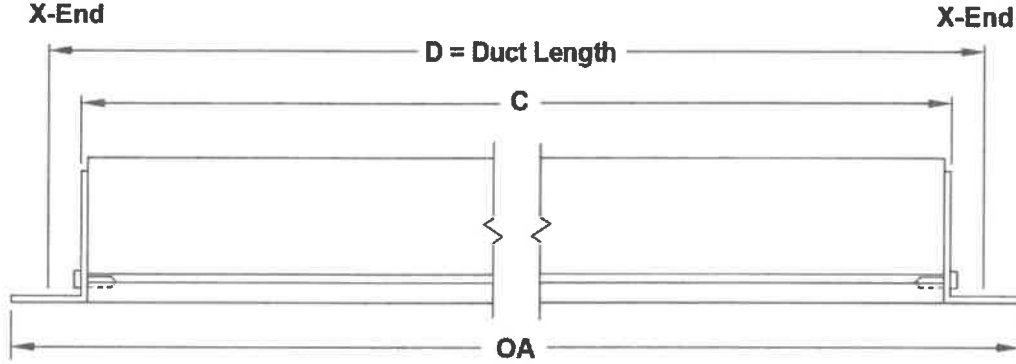
ML-39



**Main Product (continued)**

**ML39-1**

**XX - End Borders, Supply 3+**  
**X-End**



| Duct Length (D) | Neck Length (C) | OA Diffuser Length |
|-----------------|-----------------|--------------------|
| 59              | 57.625          | 59.75              |
| 71              | 69.625          | 71.75              |

Project ATU Jones Hall Renovs  
 Architect  
 Engineer  
 Contractor  
 Designation LD-3

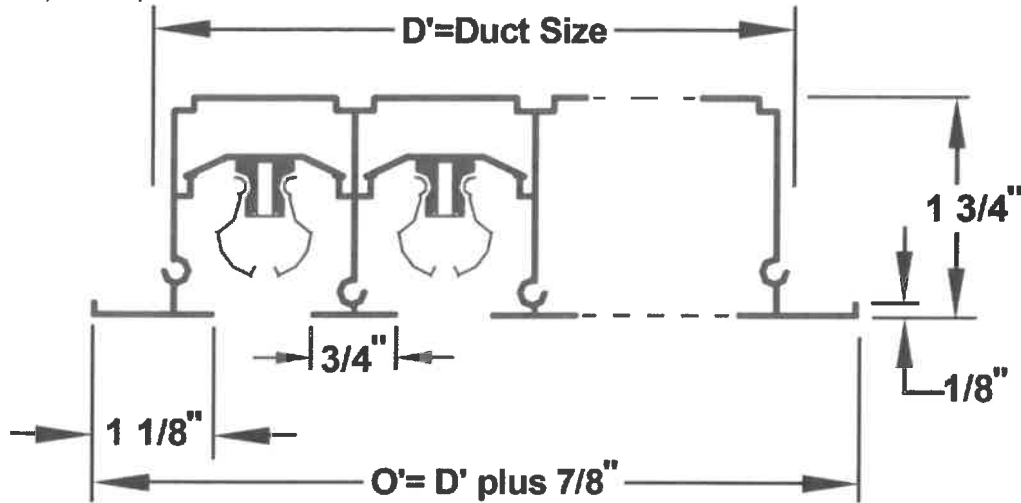


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 Version 2014.0.538

**Main Product (continued)**

**ML39-1**

Border Type 1B, 3+ slots, ML-39



| NO OF SLOTS | Cutout Width (D') | OA Diffuser Width (O') |
|-------------|-------------------|------------------------|
| 7 SLOTS     | 12 7/8"           | 13 3/4"                |

**General Description**

**ML39-1**

- Standard Finish: • #26 White border, Black pattern controllers.
- Standard lengths of diffuser sections are 12", 24", 36", 48", 60" and 72".
- Lengths greater than 72" are furnished in multiple sections, the number and size determined by the factory.
- Pattern controllers change direction and volume of air flow. Maximum length is 36". • Pattern controllers are furnished in multiple sections for diffuser longer than 36".
- Mounting frames are cut to length and assembled in the field.
- Material is extruded aluminum with steel pattern controllers.

**Option Schedule**

**ML39-1**

| ID | Quantity | Tag  | LINEAR LENGTH INCHES |
|----|----------|------|----------------------|
| 1  | 10       | LD-3 | 59                   |
| 2  | 1        | LD-3 | 71                   |

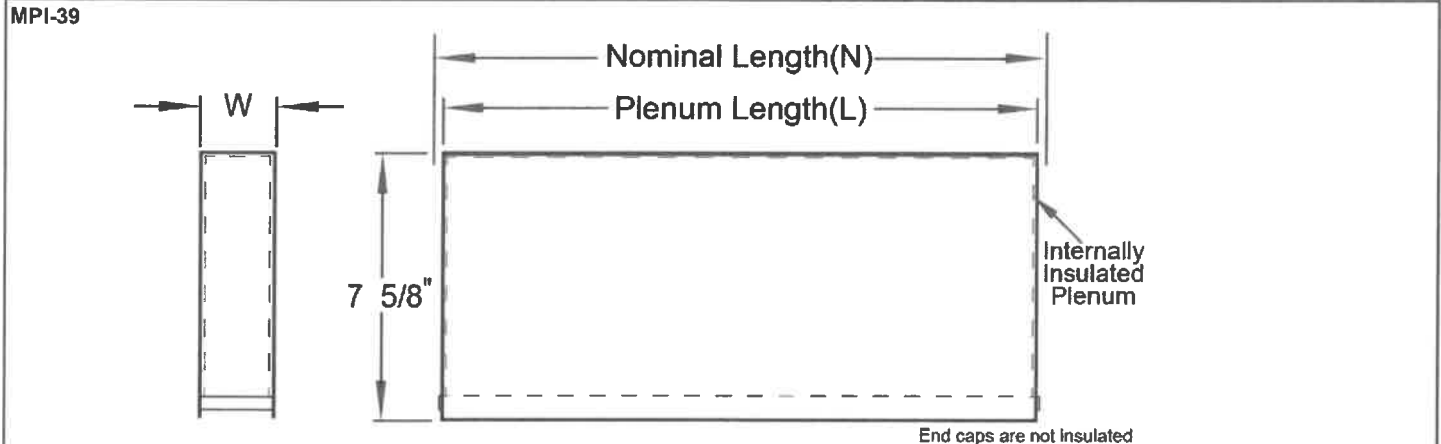
**NO OF SLOTS** 7 SLOTS  
**END BORDER** XX - TWO END BORDERS  
**ML FRAME & BORDER** 1B - DUCT MOUNT  
**FINISH** 26 - WHITE

**ACCESSORY 1** NONE  
**ACCESSORY 2** NONE  
**ACCESSORY 3** NONE

# MPI-39

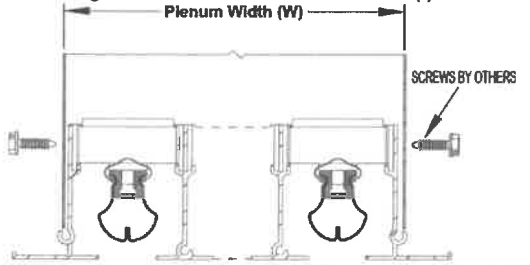
Insulated plenum for a ModuLinear ML-39.

**Main Product** MPI39-1



| Nominal Plenum Length (N) | Plenum Length (L) |
|---------------------------|-------------------|
| 60 "                      | 59 1/8"           |
| 72 "                      | 71 1/8"           |

**Installation Mounting Detail with 3+ Slot Plenum MP(I)-39**



| Number of Slots | Plenum Width (W) |
|-----------------|------------------|
| 7               | 12 7/16"         |

**General Description** MPI39-1

- Model MP moduLinear plenums are tailored for field attachment to ML or MLR moduLinear diffusers.
- End caps can be turned up to allow installing the MP on continuous runs of ML diffuser.
- Model MP can be used as supply or return.
- Material: Steel.

**Option Schedule** MPI39-1

| ID | Quantity | Tag  | PLENUM LENGTH |
|----|----------|------|---------------|
| 1  | 10       | LD-3 | 60 INCHES     |
| 2  | 1        | LD-3 | 72 INCHES     |

**Project** ATU Jones Hall Renovs  
**Architect**  
**Engineer**  
**Contractor**  
**Designation** LD-3



**Date** 09/16/2022  
**Office** Powers of Arkansas  
**Preparer** Chris Atwood  
**Version** 2014.0.538

**Option Schedule (continued)**

**MPI39-1**

**SLOTS/PLENUM HGT 7LP - 7 SLOT LOW PROFILE**  
**PLENUM INLET 00 - No Inlet**  
**ML FRAME & BORDER 1B - DUCT MOUNT**

**END BORDER XX - TWO END BORDERS**  
**ACCESSORY 2 STRAIGHT**



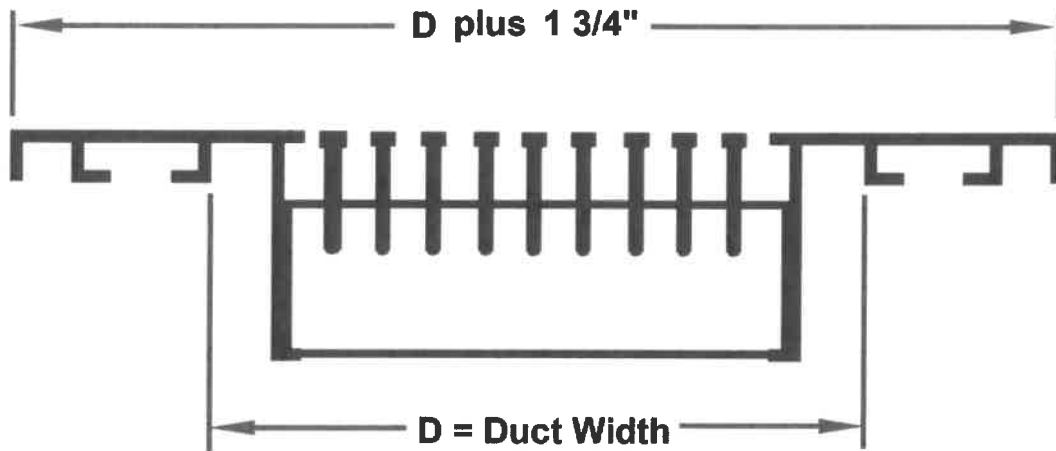
## CT-PP-0

Linear bar diffuser, 7/16" bar spacing, 7/32" bars (pencil proof)  
 0 degree deflection, Aluminum

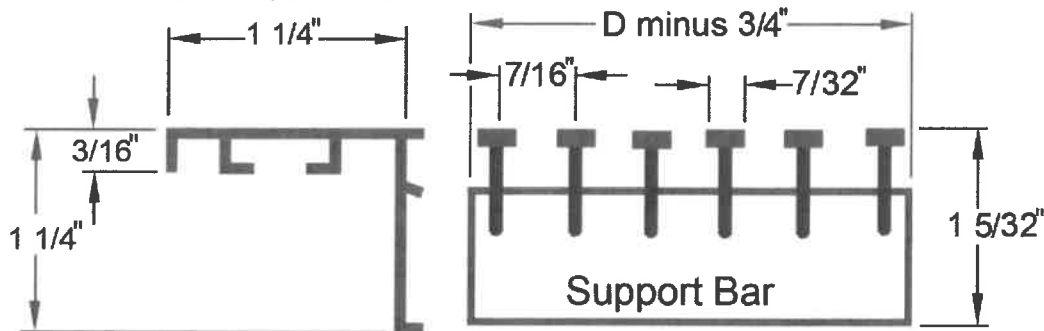
Main Product

CTPP0-2

CT-PP-0



BORDER 14 (WITHOUT C FASTENING) with a PP-0 Core



| Duct Width (D) | Diffuser OA Width |
|----------------|-------------------|
| 4              | 5.75              |
| 6              | 7.75              |

### General Description

CTPP0-2

- TITUS linear bar diffusers are designed for both supply and return applications.
- Standard lengths are 1, 2, 3, 4, 5 and 6 feet, furnished as complete, welded assemblies.
- Lengths greater than 6 feet are furnished in multiple sections, the number and size determined by the factory.
- Sections can be joined end-to-end for continuous appearance, using standard alignment strips or alignment pins.
- All deflection bars are fixed and are parallel to the long dimension.
- Fixed Bars are extruded aluminum.

**Project** ATU Jones Hall Renovs  
**Architect**  
**Engineer**  
**Contractor**  
**Designation** LD-4



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**Preparer** Chris Atwood  
**Version** 2014.0.538

| Option Schedule |          |      |                      |                 | CTPP0-2 |
|-----------------|----------|------|----------------------|-----------------|---------|
| ID              | Quantity | Tag  | LINEAR LENGTH INCHES | WIDTH IN INCHES |         |
| 1               | 1        | LD-4 | 72                   | 4               |         |
| 2               | 1        | LD-4 | 72                   | 6               |         |

|   |   |
|---|---|
| <p> <b>END BORDER</b> XX - TWO END BORDERS<br/> <b>CT FRAME &amp; BORDER</b> BORDER 14 (WITHOUT C FASTENING)<br/> <b>FINISH</b> 26 - WHITE<br/> <b>FASTENING</b> A - SCREW HOLES         </p> | <p> <b>DAMPER MODEL</b> AG-35 - STEEL OBD<br/> <b>ACCESSORY 1</b> NONE<br/> <b>ACCESSORY 2</b> NONE<br/> <b>ACCESSORY 3</b> NONE         </p> |
|---|---|

| Accessories   |  | CTPP0-2 |
|---|--|---------|
| <p>Damper: AG-35 Type-1 common drawing, see above for material and finish used:</p> |  |         |
|   |  |         |
| <p>Fastening: Type A • Screw Holes</p>  |  |         |
|   |  |         |

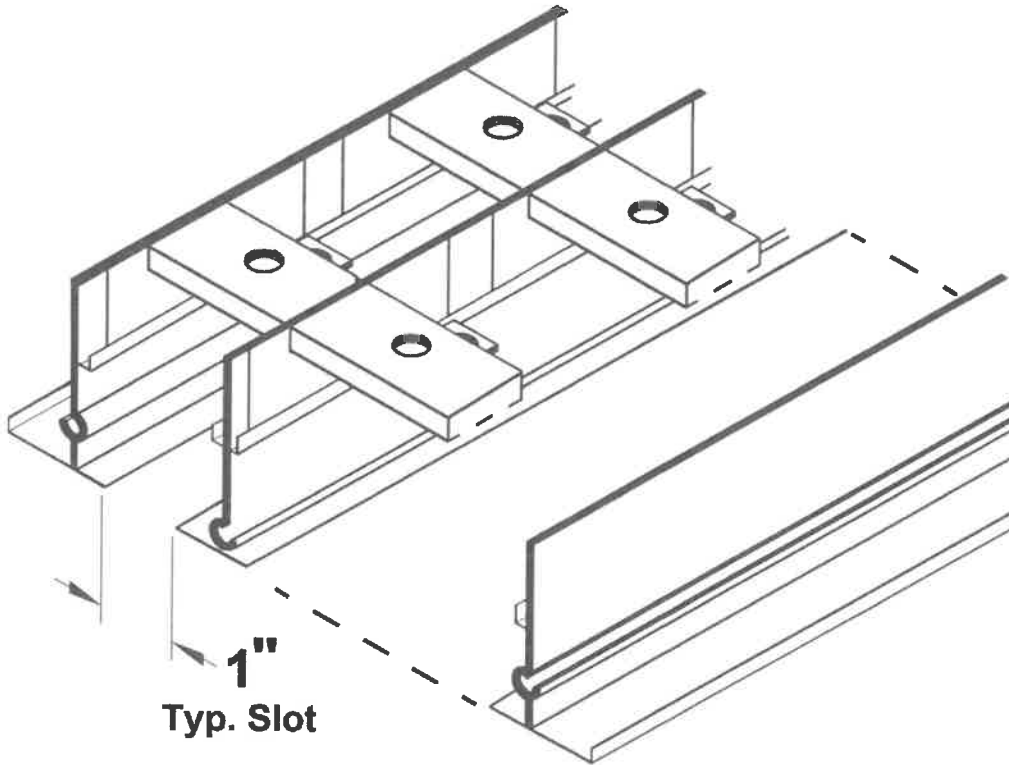
## MLR-39

ModuLinear Return with a 1" slot, Aluminum.

Main Product

MLR39-1

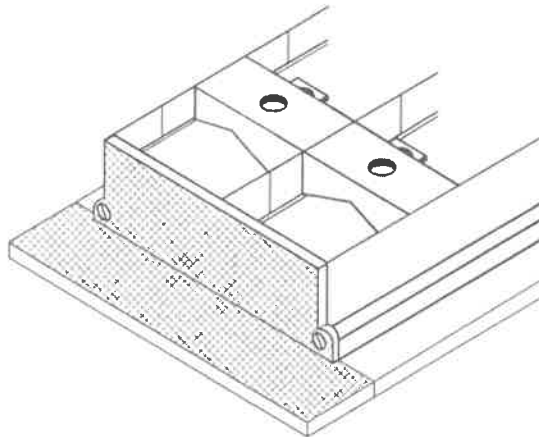
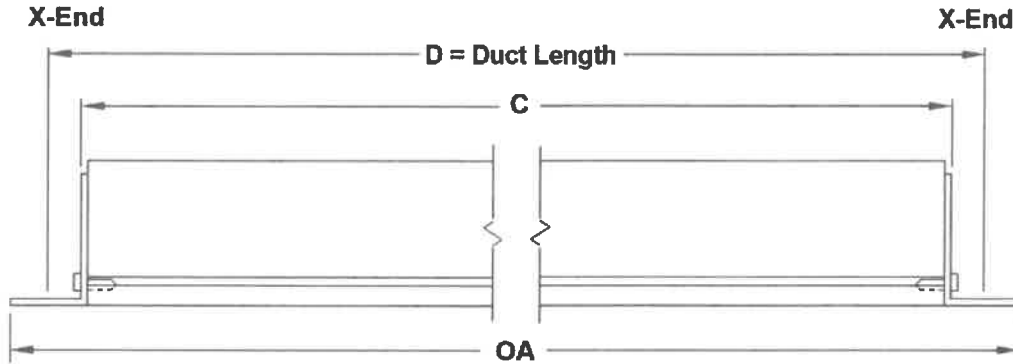
MLR-39



Main Product (continued)

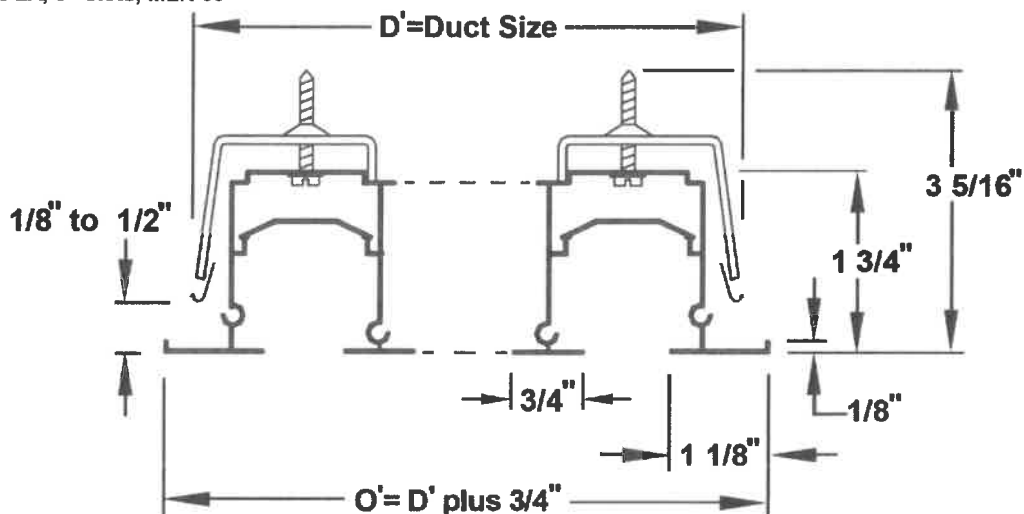
MLR39-1

XX - End Borders, Return 3+  
X-End



| Duct Length (D) | Neck Length (C) | OA Diffuser Length |
|-----------------|-----------------|--------------------|
| 72              | 70.625          | 72.75              |

Border Type 2A, 3+ slots, MLR-39



Project ATU Jones Hall Renovs  
 Architect  
 Engineer  
 Contractor  
 Designation LR-1



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| Main Product (continued) |                          |                               | MLR39-1 |
|--------------------------|--------------------------|-------------------------------|---------|
| <b>NO OF SLOTS</b>       | <b>Cutout Width (D')</b> | <b>OA Diffuser Width (O')</b> |         |
| 5 SLOTS                  | 9 1/2"                   | 10 1/4"                       |         |

| Option Schedule                                   |                 |                         |                             | MLR39-1 |
|---|-----------------|-------------------------|-----------------------------|---------|
| <b>ID</b>   | <b>Quantity</b> | <b>Tag</b>              | <b>LINEAR LENGTH INCHES</b> |         |
| 1   | 4               | LR-1                    | 72                          |         |
| <b>NO OF SLOTS</b> 5 SLOTS                        |                 | <b>ACCESSORY 1</b> NONE |                             |         |
| <b>END BORDER</b> XX - TWO END BORDERS            |                 | <b>ACCESSORY 2</b> NONE |                             |         |
| <b>ML FRAME &amp; BORDER</b> 2A - CONCEALED MOUNT |                 | <b>ACCESSORY 3</b> NONE |                             |         |
| <b>FINISH</b> 26 - WHITE                          |                 |                         |                             |         |

# 50F

Eggcrate return, aluminum border and aluminum grid.

| <b>Main Product</b>   | 50F-1       |                   |             |                |   |   |    |    |                   |        |        |
|---|-------------|-------------------|-------------|----------------|---|---|----|----|-------------------|--------|--------|
| 50F   |             |                   |             |                |   |   |    |    |                   |        |        |
|   |             |                   |             |                |   |   |    |    |                   |        |        |
| <p><b>12x12 Module Lay-In mount with 1/2 x 1/2 x 1/2 Aluminum Grid</b></p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Duct Width</th> <th>Duct Height</th> <th>Module OA Size</th> <th>J</th> <th>K</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">10</td> <td style="text-align: center;">10</td> <td style="text-align: center;">11 3/4" x 11 3/4"</td> <td style="text-align: center;">1 1/4"</td> <td style="text-align: center;">2 1/2"</td> </tr> </tbody> </table> |             | Duct Width        | Duct Height | Module OA Size | J | K | 10 | 10 | 11 3/4" x 11 3/4" | 1 1/4" | 2 1/2" |
| Duct Width  | Duct Height | Module OA Size    | J           | K              |   |   |    |    |                   |        |        |
| 10  | 10          | 11 3/4" x 11 3/4" | 1 1/4"      | 2 1/2"         |   |   |    |    |                   |        |        |

|   |       |
|---|-------|
| <b>General Description</b>  | 50F-1 |
| <ul style="list-style-type: none"> <li>• Insect and debris screens are not available when damper are fitted.</li> <li>• #8 x 1 1/4" lg. Phillips flat head sheet metal screws painted white.</li> <li>• All dimensions are ± 1/16"</li> <li>• Material: Aluminum</li> </ul> |       |

| <b>Option Schedule</b>  | 50F-1    |   |                 |                  |    |          |     |                 |                  |   |    |      |    |    |
|---|----------|---|-----------------|------------------|----|----------|-----|-----------------|------------------|---|----|------|----|----|
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>ID</th> <th>Quantity</th> <th>Tag</th> <th>WIDTH IN INCHES</th> <th>HEIGHT IN INCHES</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">7</td> <td style="text-align: center;">ER-1</td> <td style="text-align: center;">10</td> <td style="text-align: center;">10</td> </tr> </tbody> </table>  |          |   |                 |                  | ID | Quantity | Tag | WIDTH IN INCHES | HEIGHT IN INCHES | 1 | 7  | ER-1 | 10 | 10 |
| ID  | Quantity | Tag   | WIDTH IN INCHES | HEIGHT IN INCHES |    |          |     |                 |                  |   |    |      |    |    |
| 1   | 7        | ER-1  | 10              | 10               |    |          |     |                 |                  |   |    |      |    |    |
| <p><b>MODULE SIZE</b> 12X12</p> <p><b>BORDER</b> 3 - LAY-IN</p> <p><b>FINISH</b> 26 - WHITE</p> <p><b>FASTENING</b> N - NO SCREW HOLES</p>  |          | <p><b>DAMPER MODEL</b> AG-15 - STEEL OBD</p> <p><b>EGGCRATE CORE</b> CORE A (BORDER 1 OR 3)</p> <p><b>ACCESSORY 2</b> NONE</p> <p><b>ACCESSORY 3</b> NONE</p> |                 |                  |    |          |     |                 |                  |   |    |      |    |    |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>ID</th> <th>Quantity</th> <th>Tag</th> <th>WIDTH IN INCHES</th> <th>HEIGHT IN INCHES</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">38</td> <td style="text-align: center;">ER-1</td> <td style="text-align: center;">10</td> <td style="text-align: center;">10</td> </tr> </tbody> </table> |          |   |                 |                  | ID | Quantity | Tag | WIDTH IN INCHES | HEIGHT IN INCHES | 2 | 38 | ER-1 | 10 | 10 |
| ID  | Quantity | Tag   | WIDTH IN INCHES | HEIGHT IN INCHES |    |          |     |                 |                  |   |    |      |    |    |
| 2   | 38       | ER-1  | 10              | 10               |    |          |     |                 |                  |   |    |      |    |    |

Project ATU Jones Hall Renovs  
Architect  
Engineer  
Contractor  
Designation ER-1



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Version 2014.0.538

Option Schedule (continued)

50F-1

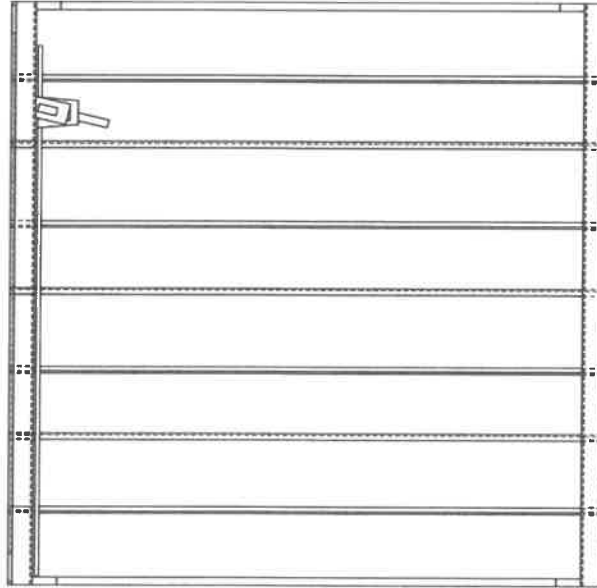
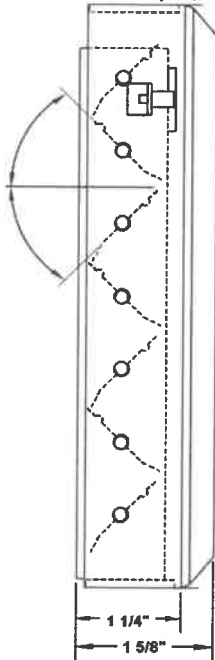
MODULE SIZE 12X12  
BORDER 3 - LAY-IN  
FINISH 26 - WHITE  
FASTENING N - NO SCREW HOLES

DAMPER MODEL AG-15 - STEEL OBD  
EGGCRATE CORE CORE A (BORDER 1 OR 3)  
ACCESSORY 2 NONE  
ACCESSORY 3 TRM - Rapid Mount Frame-Alumi

Accessories

50F-1

AG-15 Opposed Blade Damper, Neck Mounted, Steel



- 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.
- Galvanized Steel

Project ATU Jones Hall Renovs  
Architect  
Engineer  
Contractor  
Designation ER-1

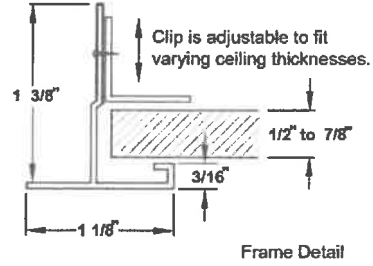
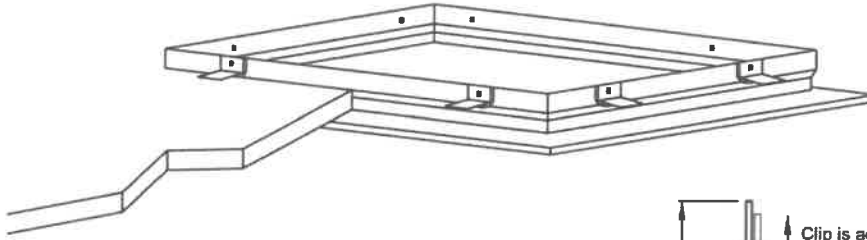


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Preparer Chris Atwood  
Version 2014.0.538

Accessories (continued)

50F-1

TRM - Rapid Mount Frame





## 350RL

Louvered Return Grille, 35° Deflection, 3/4" Spacing, blades parallel to long dimension, Steel.

| <b>Main Product</b>  | <b>350RL-1</b> |                 |                  |                 |                  |   |   |      |      |    |   |       |      |
|--|----------------|-----------------|------------------|-----------------|------------------|---|---|------|------|----|---|-------|------|
| <b>350RL</b>   |                |                 |                  |                 |                  |   |   |      |      |    |   |       |      |
|  |                |                 |                  |                 |                  |   |   |      |      |    |   |       |      |
| <b>Screw Hole Fastening, Grille Mounting Detail</b>  |                |                 |                  |                 |                  |   |   |      |      |    |   |       |      |
|  |                |                 |                  |                 |                  |   |   |      |      |    |   |       |      |
| <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <thead> <tr> <th>Duct Width</th> <th>Duct Height</th> <th>Grille OA Width</th> <th>Grille OA Height</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">8</td> <td style="text-align: center;">6</td> <td style="text-align: center;">9.75</td> <td style="text-align: center;">7.75</td> </tr> <tr> <td style="text-align: center;">10</td> <td style="text-align: center;">6</td> <td style="text-align: center;">11.75</td> <td style="text-align: center;">7.75</td> </tr> </tbody> </table> |                | Duct Width      | Duct Height      | Grille OA Width | Grille OA Height | 8 | 6 | 9.75 | 7.75 | 10 | 6 | 11.75 | 7.75 |
| Duct Width   | Duct Height    | Grille OA Width | Grille OA Height |                 |                  |   |   |      |      |    |   |       |      |
| 8  | 6              | 9.75            | 7.75             |                 |                  |   |   |      |      |    |   |       |      |
| 10   | 6              | 11.75           | 7.75             |                 |                  |   |   |      |      |    |   |       |      |

|   |                |
|---|----------------|
| <b>General Description</b>  | <b>350RL-1</b> |
| <ul style="list-style-type: none"> <li>• Louvers are horizontal to width with 3/4" spacing at a 35 degree deflection.</li> <li>• Optional opposed blade damper has screwdriver adjustment accessible through face of register.</li> <li>• Odd and fractional sizes are available at additional cost.</li> <li>• Sizes larger than 48" x 48" are shipped in multiple sections with joining strips for field assembly.</li> <li>• Screw hole fastening includes #8 x 1 1/4" lg. Phillip's flat head sheet metal screws painted color of grille.</li> <li>• Wall or duct opening should be duct size ± 1/8".</li> <li>• All dimensions are ± 1/16"</li> <li>• Material: Steel</li> </ul> |                |

| <b>Option Schedule</b> |          |      |                 |                  | <b>350RL-1</b> |
|------------------------|----------|------|-----------------|------------------|----------------|
| ID                     | Quantity | Tag  | WIDTH IN INCHES | HEIGHT IN INCHES |                |
| 1                      | 1        | EG-1 | 8               | 6                |                |
| 2                      | 1        | EG-1 | 10              | 6                |                |

Project ATU Jones Hall Renovs  
Architect  
Engineer  
Contractor  
Designation EG-1



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Version 2014.0.538

Option Schedule (continued)

350RL-1

MODULE SIZE NONE

BORDER 1 - SURFACE MOUNT

FINISH 26 - WHITE

FASTENING A - SCREW HOLES

DAMPER MODEL AG-15 - STEEL OBD

ACCESSORY 1 NONE

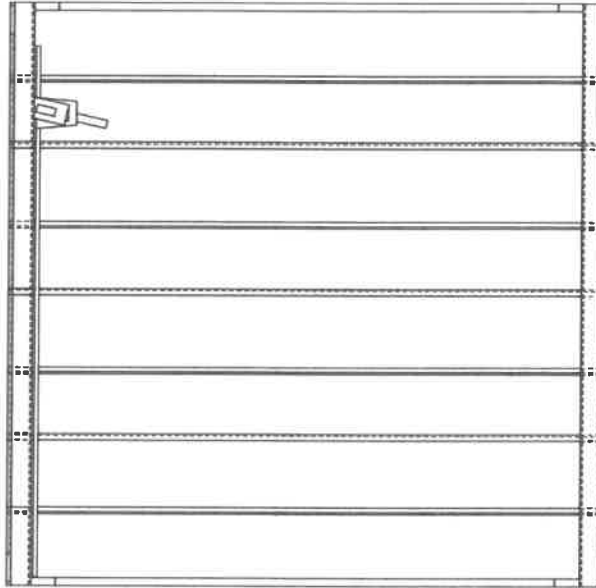
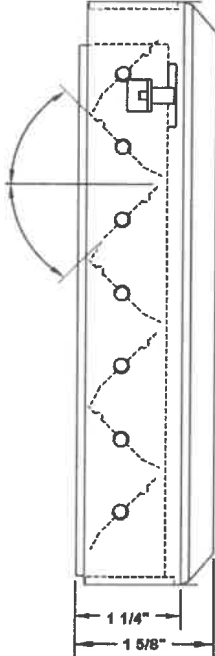
ACCESSORY 2 NONE

ACCESSORY 3 NONE

Accessories

350RL-1

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



## SQUARE TO ROUND

### PURPOSE DESCRIPTION

The SQUARE TO ROUND ADAPTOR is used to provide make high efficiency takeoffs on sheet metal duct.

### CONSTRUCTION

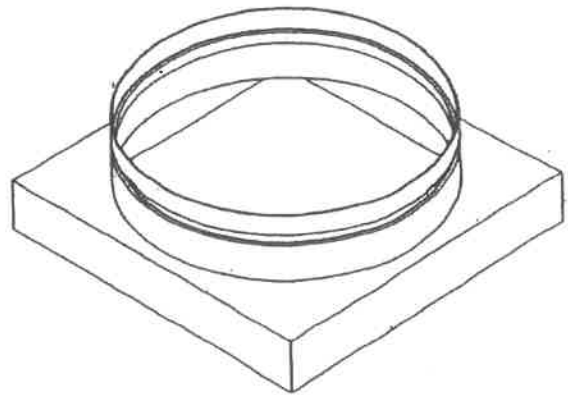
1. Standard body material is 28 gauge galvanized steel.
2. Body depth is in one inch increments, exact size.
3. Collar height is 2 3/8" standard  
3" optional height
- 4 Nominal diameter is -1/8"—1/4".
3. The body and barrell are fastened with spotwelds and or mechanical locks.
4. The ring / collar has a cinching groove for optimal flex duct retention.

### MATERIAL OPTIONS

26, 24, 22 gauge galvanized steel  
Aluminum  
Stainless steel

### PAINT OPTIONS

Black or white baked enamel  
(high quality)



**SHOWN HERE:**  
**SRA 18 X 18 X 16— 2**  
**(open corners)**

### STANDARD CONSTRUCTION

**1" depth - open corners**  
**2" depth—open corners**  
**3" depth and greater— closed corners**

