

# TECHNICAL DATA

FROM

## Anemostat Door Products

4958 Stout Dr. #119, San Antonio, TX 78219

PH: 210.662.6300 • FAX: 210.662.2828

e-mail: [door@anemostat.com](mailto:door@anemostat.com) • website: [www.anemostat.com](http://www.anemostat.com)

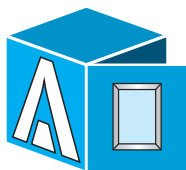
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FOR

## LOUVERS

### DETAIL DRAWING

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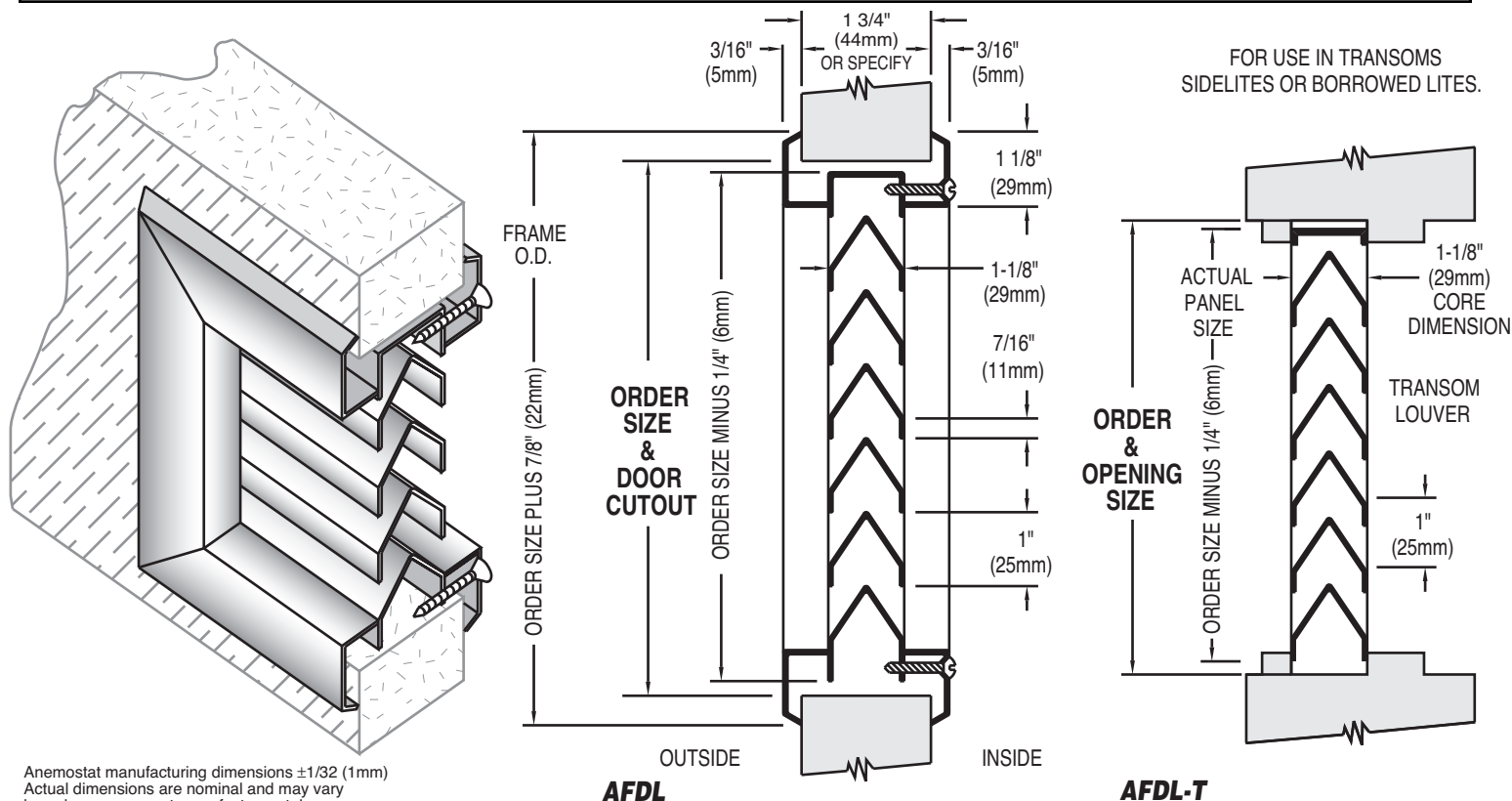
e-mail: [door@anemostat.com](mailto:door@anemostat.com) • website: [www.anemostat.com](http://www.anemostat.com)

**AFDL**  
INVERTED Y  
NON-VISION LOUVER

**AFDL-T**  
TRANSOM LOUVER  
CORE ONLY

NOT FIRE RATED

### DETAIL DRAWING



Anemostat manufacturing dimensions  $\pm 1/32$  (1mm)  
Actual dimensions are nominal and may vary  
based on component manufacturers tolerances.

#### STANDARD PRODUCT FEATURES

- MATERIAL:** 18 GA. (1.2mm) Cold Rolled Steel - Frame.  
22 GA. (.75mm) Cold Rolled Steel - Louver Blades.
- FINISH:** Grey Primer, Beige or Bronze Baked Enamel.
- INSTALLATION:** Our top selling louver is preferred because of its ease of installation. Use #8x1" (25mm) phillips screw that fastens auxiliary frame to the louver core, thru the cutout in the door, thus eliminating the need to drill holes in the door for thru bolts. This method saves time and installation labor and leaves the corridor side of the frame free of fasteners for added security, and a cleaner aesthetic appearance.
- DOOR THICKNESS:** For 1 3/4" (44mm) Door 1-3/8" (35mm), 2" (50mm) and 2 1/8" (54mm) are available. Louver core may be offset.
- AESTHETICS:** Tight mitered corners, no visible welds, countersunk mounting holes and corridor side of frame free of fasteners make for a clean, streamlined appearance
- USES:** Anywhere air flow is required thru a door.
- FREE AIR FLOW:** 50% Free Area.

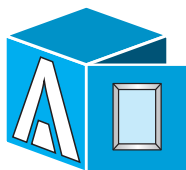
#### OPTIONAL FEATURES

- MATERIAL:** #304 or #316 Stainless Steel, #4 Finish(Satin), Galvanized (Coil, Hot Dipped or Zinc Plated), Mill Finish or Anodized Aluminum (#5052 Alloy), 16 gauge (1.5mm) Cold Rolled Steel or Stainless Steel.
- FINISH:** Custom Baked Enamel Colors (as per sample paint chip, supplied by customer).
- FASTENERS:** Special Security Screw Fasteners, See Page 14, this section.
- SPECIALS:** Fractional sizes (frame dimension is increased to accomodate odd size).  
Mesh insect screens are loose, attached or framed.  
(Galvanized, Aluminum, Charcoal Aluminum, Stainless Steel.)  
For detail drawings see pages 12 and 13 this section.

#### FIRE RATINGS

- AFDL and AFDL-T are not fire rated.**
- NOTE:** For Exterior use, High Humidity or Salt Air application, product must be Galvanized or Stainless Steel.

| Job Name & Location | Submitted by |
|---------------------|--------------|
|                     |              |



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## AFDL-N

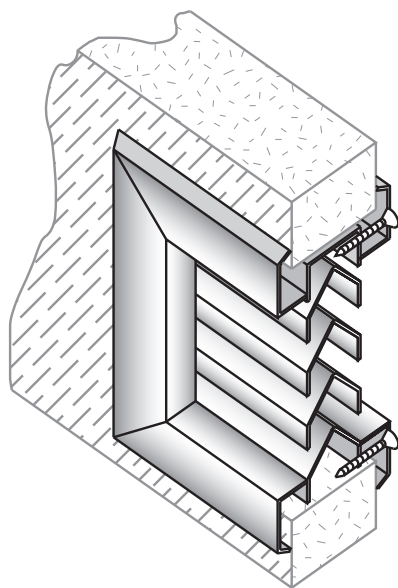
38 mm to 44 mm  
(1-1/2" to 1-3/4")

**EXPANDABLE**

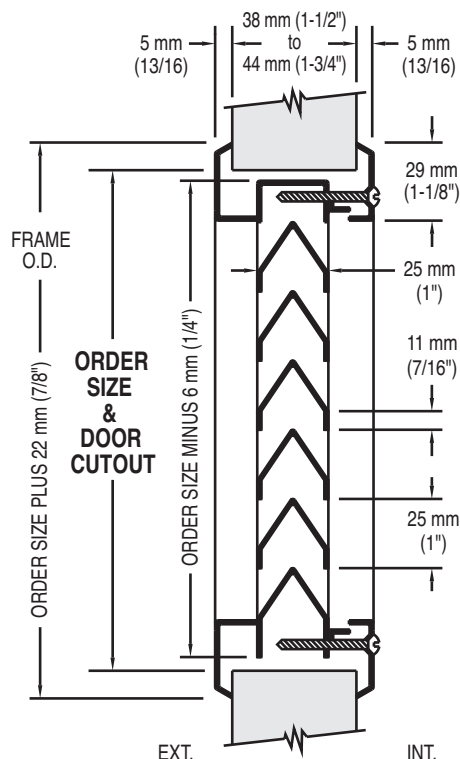
INVERTED Y  
NON-VISION LOUVRE

NOT FIRE RATED

### DETAIL DRAWING



Anemostat manufacturing dimensions  $\pm 0.8\text{mm}$   
Actual dimensions are nominal and may vary  
based on component manufacturers tolerances.



### STANDARD PRODUCT FEATURES

- MATERIAL:** 1.2 mm (18 GA) Galvanised Steel - Frame.  
.75 mm (22 GA) Galvanised Steel - Louver Blades.
- FINISH:** RAL 9006 Silver Baked Enamel, Gray Primer, Beige or Bronze Baked Enamel
- INSTALLATION:** Our top selling louver is preferred because of its ease of installation. Use #8 x 25mm (1") phillips screw that fastens auxiliary frame to the louver core, thru the cutout in the door, thus eliminating the need to drill holes in the door. This method saves time and installation labor and leaves the corridor side of the frame free of fasteners for added security, and a cleaner aesthetic appearance.
- DOOR THICKNESS:** Expandable from 38 mm (1-1/2") to 44 mm (1-3/4") Metal or Wood Doors
- AESTHETICS:** Tight mitered corners, no visible welds, countersunk mounting holes and corridor side of frame free of fasteners make for a clean, streamlined appearance
- USES:** Anywhere air flow is required thru a door.
- FREE AIR FLOW:** 50% Free Area.

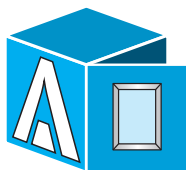
### OPTIONAL FEATURES

- MATERIAL:** #304 or #316 Stainless Steel, #4 Finish (Satin), Galvanised (Hot Dipped or Zinc Plated), Mill Finish or Anodized Aluminum (#5052 Alloy), 16 gauge Cold Rolled Steel or Stainless Steel.
- FINISH:** Custom Baked Enamel Colors (as per sample paint chip, supplied by customer).
- FASTENERS:** Special Security Screw Fasteners
- SPECIALS:** Odd sizes (frame dimension is increased to accomodate odd size). Height dimension must be in even inches, 1" (25.4mm) Mesh insect screens are loose, attached or framed. (Galvanized, Aluminum, Charcoal Aluminum, Stainless Steel.)

### FIRE RATINGS

- AFDL-N is not fire rated.**
- NOTE:** For Exterior use, High Humidity or Salt Air application, product must be Galvanized or Stainless Steel.

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## AFDL-W

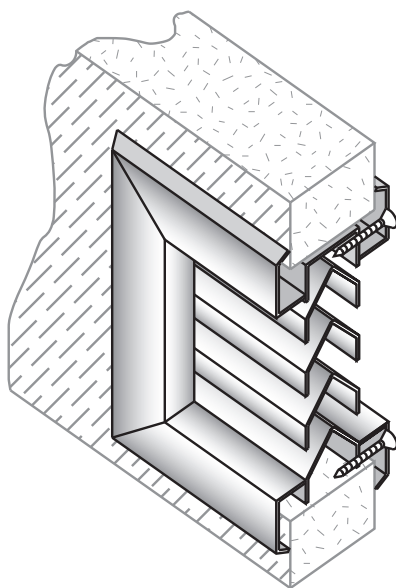
45 mm to 55 mm  
(1-3/4" to 2-1/8")

**EXPANDABLE**

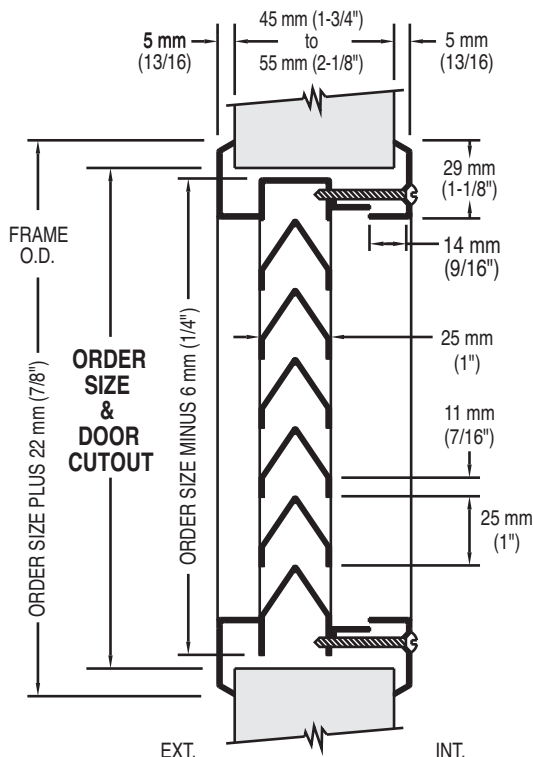
INVERTED Y  
NON-VISION LOUVRE

NOT FIRE RATED

### DETAIL DRAWING



Anemostat manufacturing dimensions  $\pm 0.8$ mm  
Actual dimensions are nominal and may vary  
based on component manufacturers tolerances.



#### STANDARD PRODUCT FEATURES

- MATERIAL:** 1.2 mm (18 GA) Galvanised Steel - Frame.  
.75 mm (22 GA) Galvanised Steel - Louver Blades.
- FINISH:** RAL 9006 Silver Baked Enamel, Gray Primer, Beige or Bronze Baked Enamel
- INSTALLATION:** Our top selling louver is preferred because of its ease of installation. Use #8 x 25mm (1") or 38mm (1-1/2") phillips screw that fastens auxiliary frame to the louver core, thru the cutout in the door, thus eliminating the need to drill holes in the door. This method saves time and installation labor and leaves the corridor side of the frame free of fasteners for added security, and a cleaner aesthetic appearance.
- DOOR THICKNESS:** Expandable from 45 mm (1-3/4") to 55 mm (2-1/8") Metal or Wood Doors
- AESTHETICS:** Tight mitered corners, no visible welds, countersunk mounting holes and corridor side of frame free of fasteners make for a clean, streamlined appearance
- USES:** Anywhere air flow is required thru a door.
- FREE AIR FLOW:** 50% Free Area.

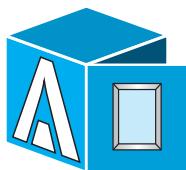
#### OPTIONAL FEATURES

- MATERIAL:** #304 or #316 Stainless Steel, #4 Finish (Satin), Galvanised (Hot Dipped or Zinc Plated), Mill Finish or Anodized Aluminum (#5052 Alloy), 16 gauge Cold Rolled Steel or Stainless Steel.
- FINISH:** Custom Baked Enamel Colors (as per sample paint chip, supplied by customer).
- FASTENERS:** Special Security Screw Fasteners
- SPECIALS:** Odd sizes (frame dimension is increased to accomodate odd size). Height dimension must be in even inches, 1" (25.4mm) Mesh insect screens are loose, attached or framed. (Galvanized, Aluminum, Charcoal Aluminum, Stainless Steel.)

#### FIRE RATINGS

- AFDL-W is not fire rated.**
- NOTE:** For Exterior use, High Humidity or Salt Air application, product must be Galvanized or Stainless Steel.

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## AFDL-W1

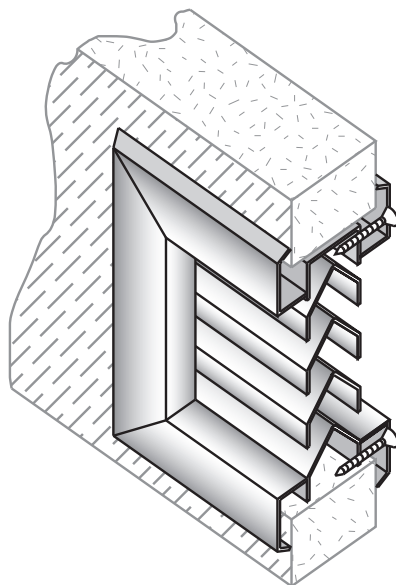
55 mm to 65 mm  
(2-1/8" to 2-9/16")

**EXPANDABLE**

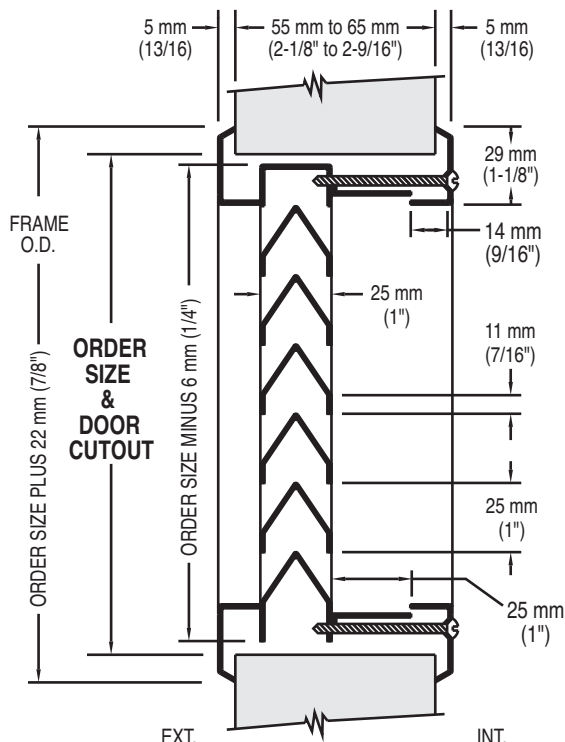
INVERTED Y  
NON-VISION LOUVRE

NOT FIRE RATED

### DETAIL DRAWING



Anemostat manufacturing dimensions  $\pm 0.8$ mm  
Actual dimensions are nominal and may vary  
based on component manufacturers tolerances.



#### STANDARD PRODUCT FEATURES

- MATERIAL:** 1.2 mm (18 GA) Galvanised Steel - Frame.  
.75 mm (22 GA) Galvanised Steel - Louver Blades.
- FINISH:** RAL 9006 Silver Baked Enamel, Gray Primer, Beige or Bronze Baked Enamel
- INSTALLATION:** Our top selling louver is preferred because of its ease of installation. Use #8 x 38mm (1-1/2") or 44mm (1-3/4") phillips screw that fastens auxiliary frame to the louver core, thru the cutout in the door, thus eliminating the need to drill holes in the door. This method saves time and installation labor and leaves the corridor side of the frame free of fasteners for added security, and a cleaner aesthetic appearance.
- DOOR THICKNESS:** Expandable from 55 mm (2-1/8") to 65 mm (2-9/16") Metal or Wood Doors
- AESTHETICS:** Tight mitered corners, no visible welds, countersunk mounting holes and corridor side of frame free of fasteners make for a clean, streamlined appearance
- USES:** Anywhere air flow is required thru a door.
- FREE AIR FLOW:** 50% Free Area.

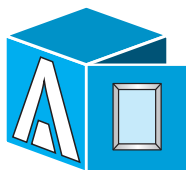
#### OPTIONAL FEATURES

- MATERIAL:** #304 or #316 Stainless Steel, #4 Finish (Satin), Galvanised (Hot Dipped or Zinc Plated), Mill Finish or Anodized Aluminum (#5052 Alloy), 16 gauge Cold Rolled Steel or Stainless Steel.
- FINISH:** Custom Baked Enamel Colors (as per sample paint chip, supplied by customer).
- FASTENERS:** Special Security Screw Fasteners
- SPECIALS:** Odd sizes (frame dimension is increased to accomodate odd size). Height dimension must be in even inches, 1" (25.4mm) Mesh insect screens are loose, attached or framed. (Galvanized, Aluminum, Charcoal Aluminum, Stainless Steel.)

#### FIRE RATINGS

- AFDL-W1 is not fire rated.**
- NOTE:** For Exterior use, High Humidity or Salt Air application, product must be Galvanized or Stainless Steel.

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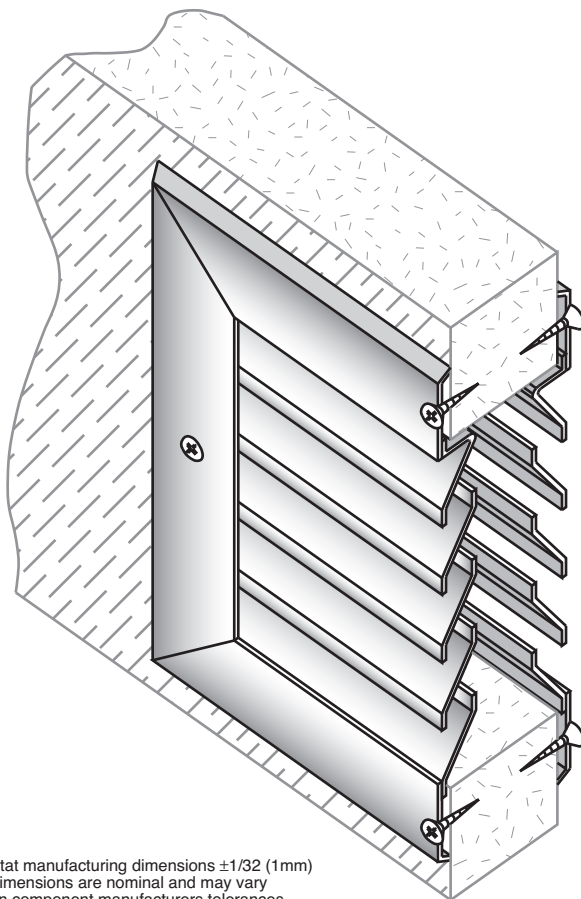
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## FDLS

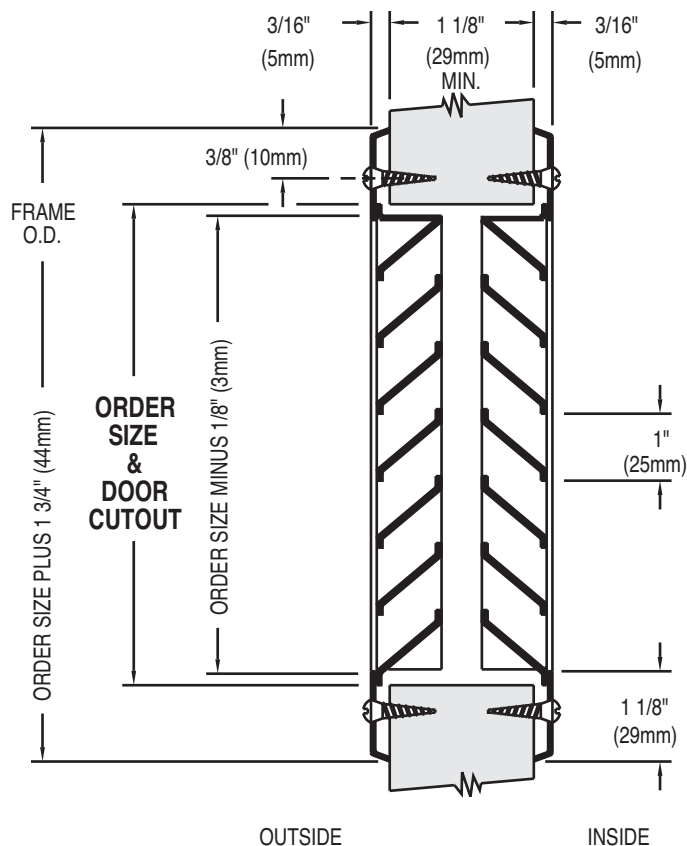
INVERTED SPLIT Y  
NON-VISION LOUVER

NOT FIRE RATED

### DETAIL DRAWING



Anemostat manufacturing dimensions  $\pm 1/32$  (1mm)  
Actual dimensions are nominal and may vary  
based on component manufacturers tolerances.



#### STANDARD PRODUCT FEATURES

- **MATERIAL:** 18 GA. (1.2mm) Cold Rolled Steel - Frame and Louver Blades.
- **FINISH:** Grey Primer, Beige or Bronze Baked Enamel.
- **INSTALLATION:** Fastens to door by means of #8x3/4" (19mm) sheet metal or wood screws, directly into the door, thru countersunk mounting holes.
- **DOOR THICKNESS:** Will fit any door thickness 1 1/8" (29mm) and over.
- **AESTHETICS:** Tight mitered corners, no visible welds, and countersunk mounting holes make for a versatile, easy to use Louver.
- **USES:** Anywhere air flow is required thru a door.
- **FREE AIR FLOW:** 50% Free Area.

#### OPTIONAL FEATURES

- **MATERIAL:** #304 or #316 Stainless Steel, #4 Finish (Satin), Galvanized (Coil, Hot Dipped or Zinc Plated), Mill Finish or Anodized Aluminum (#5052 Alloy).
- **FINISH:** Custom Baked Enamel Colors (as per sample chip, supplied by customer).
- **FASTENERS:** Special Security Screw Fasteners, See Page 14, this section.
- **SPECIALS:** Fractional sizes (frame dimension is increased to accommodate odd size).  
Mesh insect screens are loose, attached or framed.  
(Galvanized, Aluminum, Charcoal Aluminum, Stainless Steel.)  
For detail drawings see pages 12 & 13, this section.

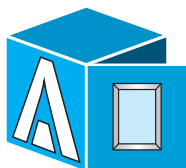
#### FIRE RATINGS

- **FDLS is not fire rated.**

- **NOTE:** For Exterior use, High Humidity or Salt Air application, product must be Galvanized or Stainless Steel.

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## FLDL FIRE RATED FUSIBLE LINK LOUVER

FIRE  
RATINGS

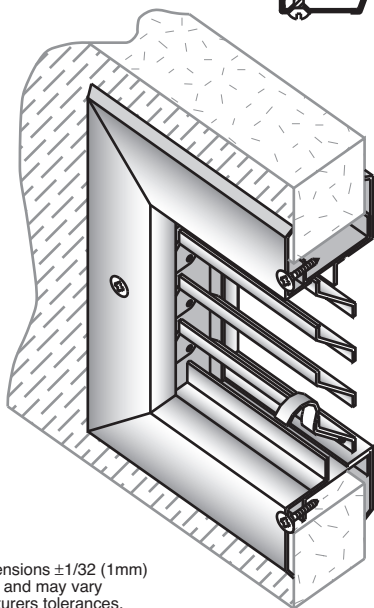
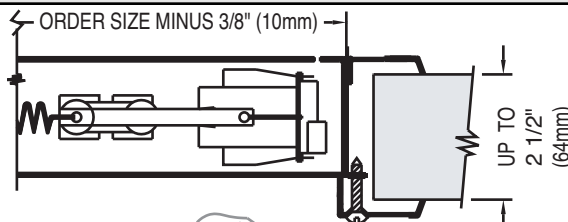


UNDERWRITERS'  
LABORATORIES  
FILE #R7776

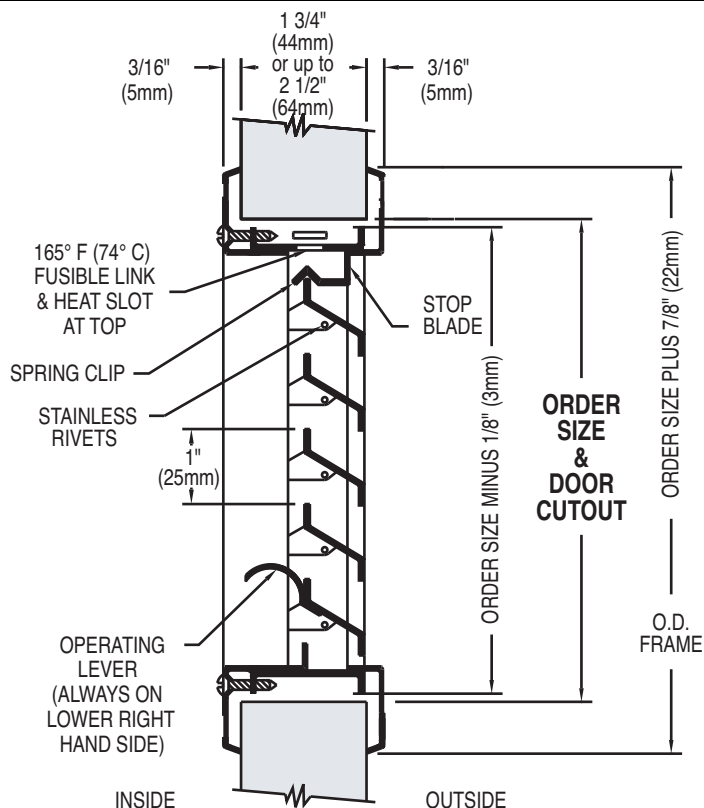
**B.S.-476.22**  
British Standard

**BSEN-1634-1**  
Fire Resistance

### DETAIL DRAWING



Anemostat manufacturing dimensions  $\pm 1/32$  (1mm)  
Actual dimensions are nominal and may vary  
based on component manufacturers tolerances.



#### STANDARD PRODUCT FEATURES

- MATERIAL:** 18 GA. (1.2mm) Cold Rolled Steel Frame and Louver Blades, 16 GA. (1.5mm) inner support members.
- FINISH:** Grey Primer, Beige or Bronze Baked Enamel.
- INSTALLATION:** Self attaching using #8 x 1" (25mm) phillips head screws that fasten the auxiliary frame to the louver core, thru the cut out in the door. The corridor side of the frame is free of fasteners for added security.
- DOOR THICKNESS:** 1-3/4" (44mm) Door is Standard. Also available up to FLDL-W: 1-3/4" to 2-1/8" (45mm to 54mm) FLDL-W1: 2-1/8" to 2-9/16" (55mm to 65mm)
- CLOSING ASSEMBLY:** Stainless steel operating springs assure proper action with the closing mechanism.
- FREE AIR FLOW:** 40% Free Area.
- NOTE:** For Exterior use, High Humidity or Salt Air application, product must be Galvanized or Stainless Steel.
- IMPORTANT:** Interpretation of building and fire codes may vary. Consult with the local authority having jurisdiction in your area, to determine appropriate standards.

#### OPTIONAL FEATURES

- MATERIAL:** #304 or #316 Stainless Steel, #4 Finish (Satin), Galvanized (Zinc Plated). Not available in Hot Dipped or Aluminum.
- FINISH:** Custom Baked Enamel Colors (as per sample chip supplied by customer).
- FASTENERS:** Special security screw fasteners, See page 14, this section.
- SPECIALS:** Fractional sizes not available. Height must be in even inches, 1" (25.4mm)
- SCREENS:** 18-14 mesh insert screens, framed or attached. (Galvanized, Aluminum, Charcoal Aluminum, Stainless Steel). For detail drawings see pages 12 and 13, this section.

#### FIRE RATINGS and TEST STANDARDS

##### UL 10C with Classification Markings

- Approved Listing - 20/45/60/90 Minutes  
Max width 24" (610mm), Max height 24" (610mm)  
Min width 10" (254mm), Min height 6" (152mm)

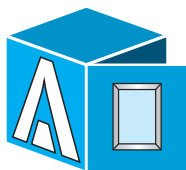
##### BSEN-1634-1:2008 (Fire Resistance)

- Approved Testing - Timber Doors - \*30 minutes (E-30)  
Max width 24" (610mm), Max height 24" (610mm)  
Min width 10" (254mm), Min height 6" (152mm).  
\*Must be used with Zero Plus Intumescent Aperture Liner

##### BS 476.22

- Approved Testing - Steel Doors - 120 Minutes (E-120)  
Max width 24" (610mm), Max height 24" (610mm)  
Min width 10" (254mm), Min height 6" (152mm)

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## FLDL-W EXPANDABLE

FIRE RATED  
FUSIBLE LINK LOUVER

FIRE  
RATINGS

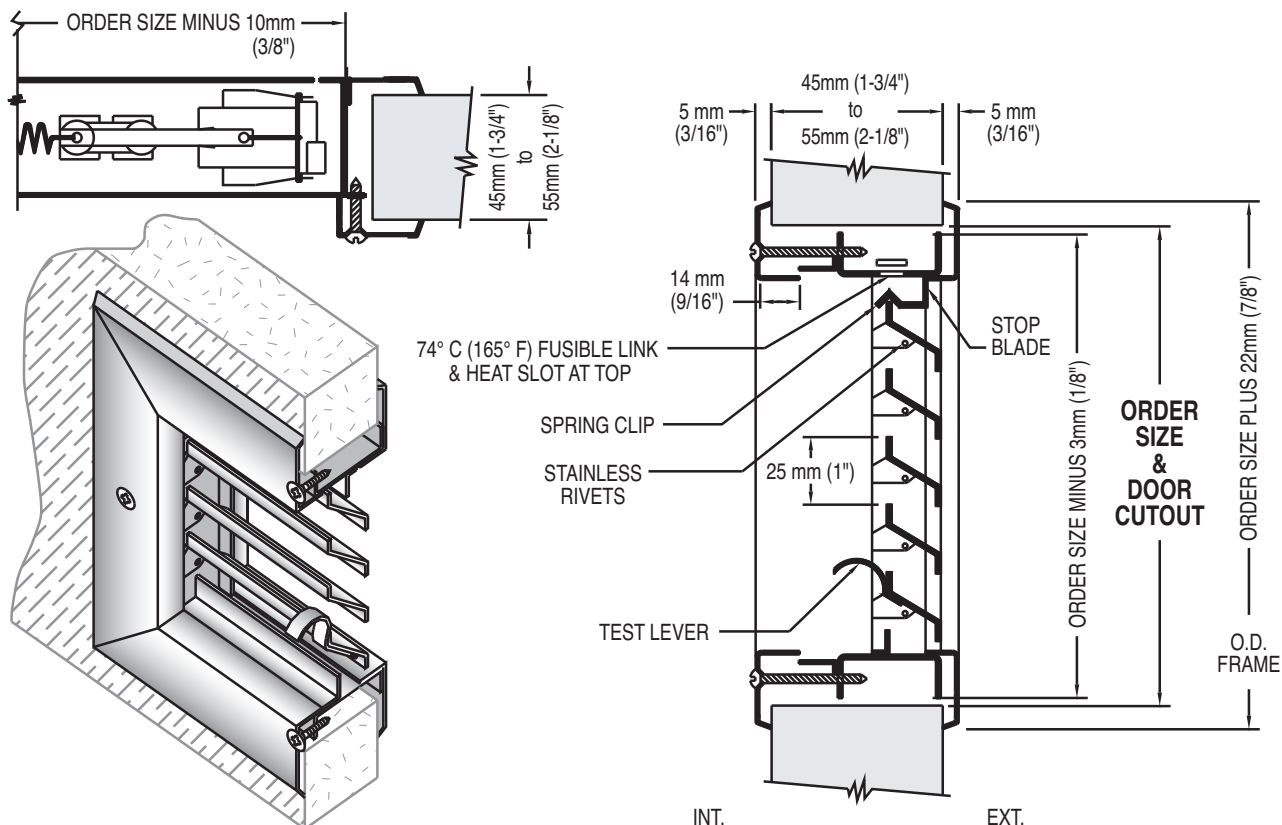
**B.S.-476.22**  
British Standard

**BSEN-1634-1**  
Fire Resistance



UNDERWRITERS'  
LABORATORIES  
FILE #R7776

### DETAIL DRAWING



#### STANDARD PRODUCT FEATURES

- MATERIAL:** 1.2 mm (18 GA) Galvanised Steel Frame and Louver Blades, 1.5 mm (16 GA) inner support members.
- FINISH:** RAL 9006 Silver Baked Enamel, Gray Primer, Beige or Bronze Baked Enamel
- INSTALLATION:** Self attaching using #8 x 25mm (1") or 38mm (1-1/2") phillips head screws that fasten the auxiliary frame to the louver core, thru the cut out in the door. The corridor side of the frame is free of fasteners for added security.
- DOOR THICKNESS:** Expandable from 45mm (1-3/4") to 55mm (2-1/8") Metal or Wood Doors
- CLOSING ASSEMBLY:** Stainless steel operating springs assure proper action with the closing mechanism.
- AESTHETICS:** Tight mitered corners and countersunk mounting holes make for a clean appearance.
- FREE AIR FLOW:** 40% Free Area.
- NOTE:** For Exterior use, High Humidity or Salt Air application, product must be Galvanized or Stainless Steel.
- IMPORTANT:** Interpretation of building and fire codes may vary. Consult with the local authority having jurisdiction in your area, to determine appropriate standards.

#### OPTIONAL FEATURES

- MATERIAL:** #304 or #316 Stainless Steel, #4 Finish (Satin), Galvanised (Zinc Plated). Not available in Hot Dipped or Aluminum.
- FINISH:** Custom Baked Enamel Colors (as per sample chip supplied by customer).
- FASTENERS:** Special security screw fasteners
- SPECIALS:** Fractional sizes not available. Height must be in even inches, 1" (25.4mm)

#### FIRE RATINGS

##### UL 10C with Classification Markings

- Approved Testing - 20/45/60/90 Minutes  
Max width 24" (610mm), max height 24" (610mm)  
Min width 10" (254mm), min height 6" (152mm)

##### BSEN-1634-1:2008 (Fire Resistance)

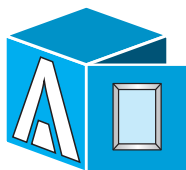
- Approved Testing - Timber Doors - \*60 minutes (E-60)  
Max width 24" (610mm), max height 24" (610mm)  
Min width 10" (254mm), min height 6" (152mm).  
\*Must be used with Zero Plus Intumescent Aperture Liner

##### BS 476.22

- Approved Testing - Steel Doors - 120 Minutes (E-120)  
Max width 24" (610mm), max height 24" (610mm)  
Min width 10" (254mm), min height 6" (152mm)

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## Anemostat Door Products

4958 Stout Dr. #119, San Antonio, TX 78219

PH: 210.662.6300 • FAX: 210.662.2828

e-mail: [door@anemostat.com](mailto:door@anemostat.com) • website: [www.anemostat.com](http://www.anemostat.com)

# FLDL-W1

## EXPANDABLE

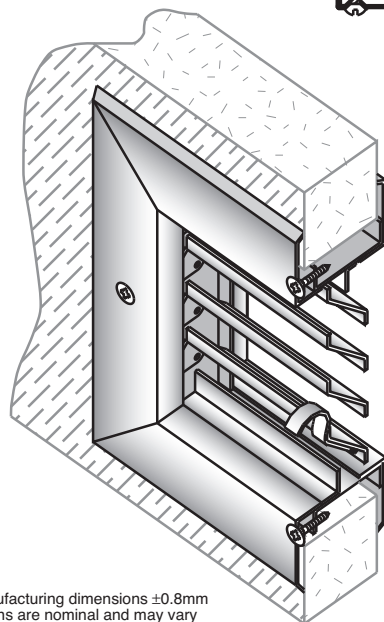
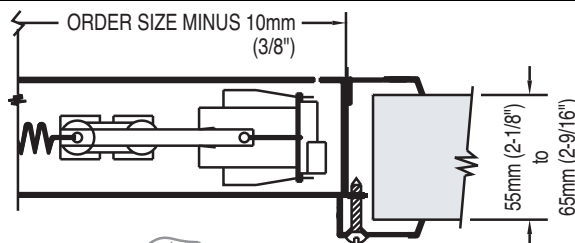
FIRE RATED  
FUSIBLE LINK LOUVER

FIRE  
RATINGS

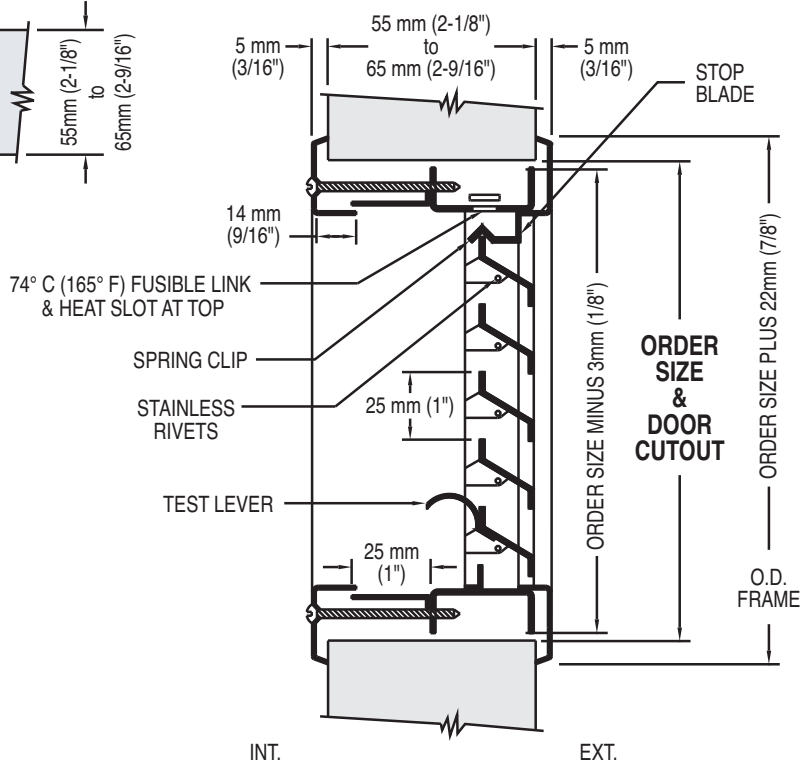
**B.S.-476.22**  
British Standard

**EN-1634**  
Integrity

### DETAIL DRAWING



Anemostat manufacturing dimensions  $\pm 0.8\text{mm}$   
Actual dimensions are nominal and may vary  
based on component manufacturers tolerances.



#### STANDARD PRODUCT FEATURES

- MATERIAL:** 1.2 mm (18 GA) Galvanised Steel Frame and Louver Blades, 1.5 mm (16 GA) inner support members.
- FINISH:** RAL 9006 Silver Baked Enamel, Gray Primer, Beige or Bronze Baked Enamel
- INSTALLATION:** Self attaching using #8 x 38mm (1-1/2") or 45mm (1-3/4") phillips head screws that fasten the auxiliary frame to the louver core, thru the cut out in the door. The corridor side of the frame is free of fasteners for added security.
- DOOR THICKNESS:** Expandable from 55mm (2-1/8") to 65mm (2-1/2") Metal or Wood Doors
- CLOSING ASSEMBLY:** Stainless steel operating springs assure proper action with the closing mechanism.
- AESTHETICS:** Tight mitered corners and countersunk mounting holes make for a clean appearance.
- FREE AIR FLOW:** 40% Free Area.
- IMPORTANT:** Interpretation of building and fire codes may vary. Consult with the local authority having jurisdiction in your area, to determine appropriate standards.
- NOTE:** For Exterior use, High Humidity or Salt Air application, product must be Galvanized or Stainless Steel.

#### OPTIONAL FEATURES

- MATERIAL:** #304 or #316 Stainless Steel, #4 Finish (Satin), Galvanised (Zinc Plated). Not available in Hot Dipped or Aluminum.
- FINISH:** Custom Baked Enamel Colors (as per sample chip supplied by customer).
- FASTENERS:** Special security screw fasteners
- SPECIALS:** Fractional sizes not available.

#### FIRE RATINGS

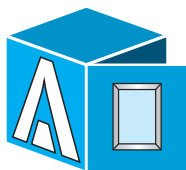
##### BS 476.22

- Approved Testing - Steel Doors - 120 Minutes (E-120)  
Max width 24" (610mm), max height 24" (610mm)  
Min width 10" (254mm), min height 6" (152mm)

##### EN-1634 - Integrity Only

- Approved Testing - Steel Doors - 90 Minutes (E-90)  
Max width 32" (813mm), max height 32" (813mm)  
Min width 10" (254mm), min height 6" (152mm)

| Job Name & Location | Submitted by |
|---------------------|--------------|
|                     |              |



# TECHNICAL DATA

FROM

# Anemostat

## Door Products

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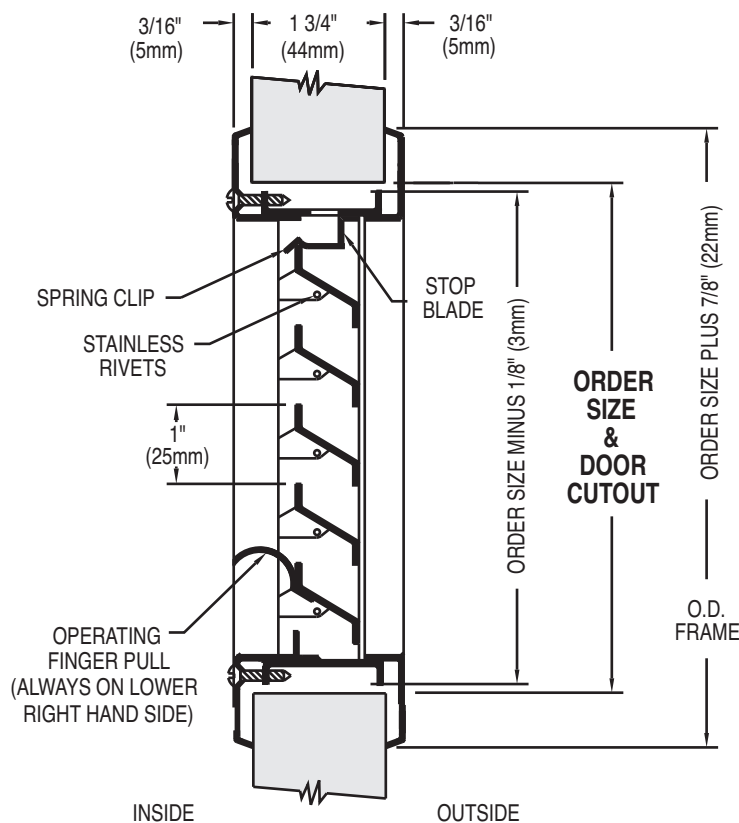
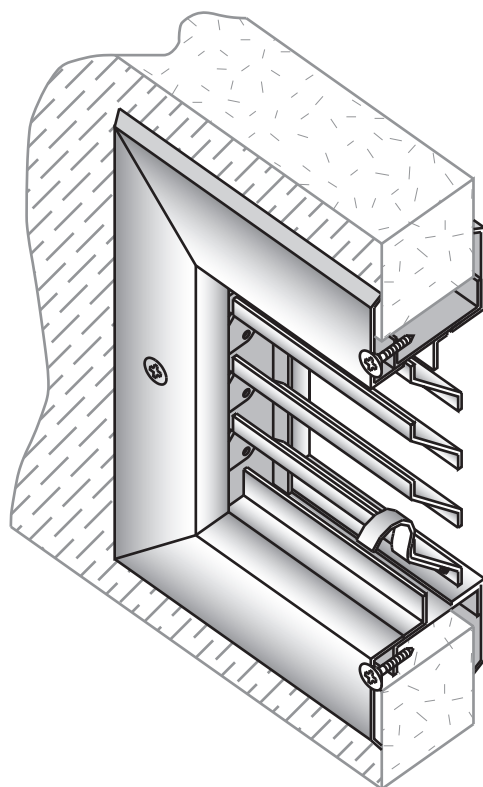
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# ADL

"Z" BLADE  
OPERATING LOUVER

NOT FIRE RATED

## DETAIL DRAWING



### STANDARD PRODUCT FEATURES

- **MATERIAL:** 18 GA. Cold Rolled Steel Frame and Louver Blades, 16 GA. inner support members.
- **FINISH:** Grey Primer, Beige or Bronze Baked Enamel.
- **INSTALLATION:** Self attaching using #8 x 1" phillips head screws that fasten the auxiliary frame to the louver core, thru the cutout in the door. The corridor side of the frame is free of fasteners for added security.
- **DOOR THICKNESS:** For 1 3/4" Door (available for 1 3/8" Doors).
- **AESTHETICS:** Tight mitered corners and countersunk mounting holes make for a clean appearance.
- **USES:** Where an operating louver without a fire rating is required.
- **FREE AIR FLOW:** 40% Free Area.
- **MAX. 1 PIECE CONSTRUCTION:** 32" w x 36" h. Larger sizes constructed of 2 or more ADL units mulled or stacked
- **NOTE:** For Exterior use, High Humidity or Salt Air application, product must be Galvanized or Stainless Steel.

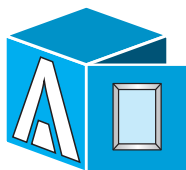
### OPTIONAL FEATURES

- **MATERIAL:** #304 or #316 Stainless Steel, #4 Finish (Satin), Galvanized (Coil or Zinc Plated). Not available in Hot Dipped or Aluminum.
- **FINISH:** Custom Baked Enamel Colors (as per sample chip supplied by customer).
- **FASTENERS:** Special Security Screw Fasteners, See Page 14, this section.
- **SPECIALS:** Fractional sizes not available.  
18-14 mesh insert screens, framed or attached. (Galvanized, Aluminum, Charcoal Aluminum, Stainless Steel). For detail drawings see pages 12 and 13, this section.

### FIRE RATINGS

- **ADL is not fire rated.**

| Job Name & Location | Submitted by |
|---------------------|--------------|
|                     |              |



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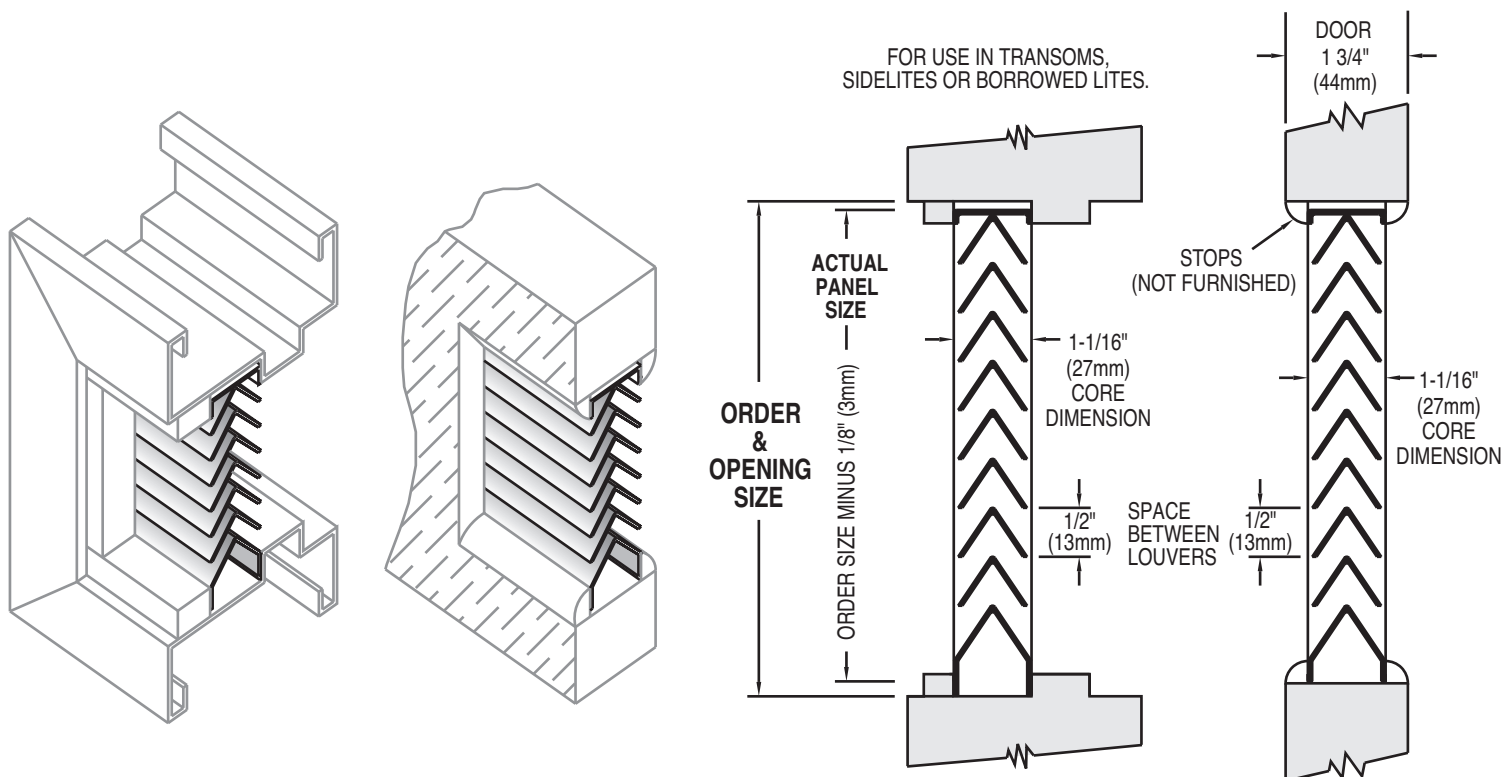
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## CHDL

INVERTED V  
NON-VISION LOUVER  
LOUVER CORE ONLY

NOT FIRE RATED

### DETAIL DRAWING



Anemostat manufacturing dimensions  $\pm 1/32$   
Actual dimensions are nominal and may vary  
based on component manufacturers tolerances.

#### STANDARD PRODUCT FEATURES

- **MATERIAL:** 22 GA. Cold Rolled Steel Louver Blades.
- **FINISH:** Grey Primer, Beige or Bronze Baked Enamel.
- **INSTALLATION:** Installs into door or frame rabbet using wood or metal stops on one or both sides of Louver core.
- **DOOR or FRAME THICKNESS:** Since Louver core has a 1-1/16" width, the minimum door or frame width would be 1-1/16" , plus stops on both sides to hold louver in place.
- **USES:** Ideal for use in transoms, side lites or as a flush mounted louver in wood doors with 3/8" wide stop both sides.
- **FREE AIR FLOW:** 60% Free Area.
- **NOTE:** For Exterior use, High Humidity or Salt Air application, product must be Galvanized or Stainless Steel.

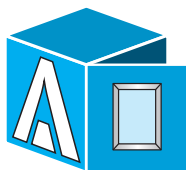
#### OPTIONAL FEATURES

- **MATERIAL:** #304 or #316 Stainless Steel, #4 Finish (Satin), Galvanized (Coil Hot Dipped or Zinc Plated), Mill Finish or Anodized Aluminum (#5052 Alloy)
- **FINISH:** Custom Baked Enamel Colors (as per sample chip, supplied by customer).
- **SPECIALS:** Fractional Widths only.  
Mesh insect screens, loose or attached. (Galvanized, Aluminum, Charcoal Aluminum, Stainless Steel.)  
For detail drawings see page 12 & 13, this section.

#### FIRE RATINGS

- CHDL is not fire rated.

| Job Name & Location | Submitted by |
|---------------------|--------------|
|                     |              |



# TECHNICAL DATA

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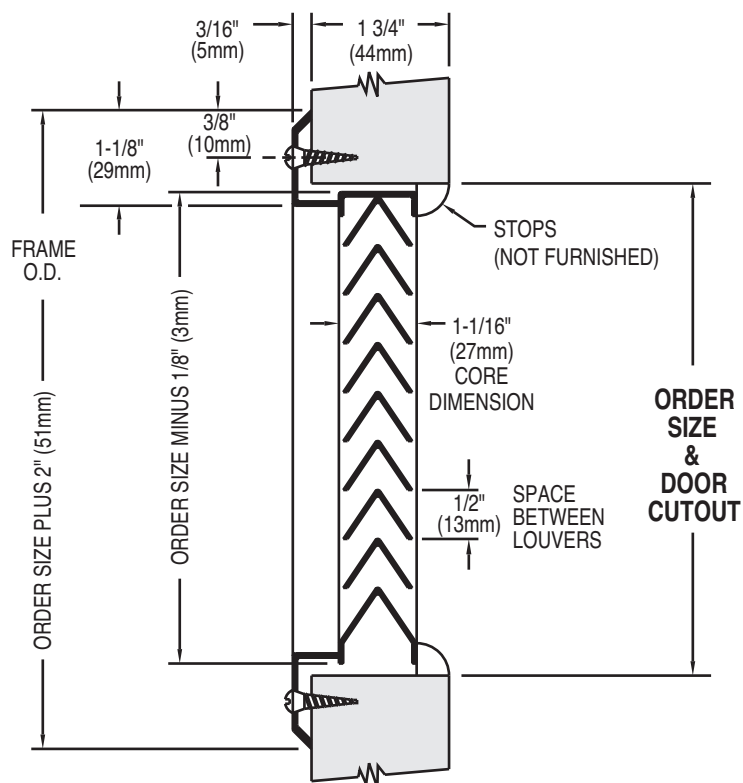
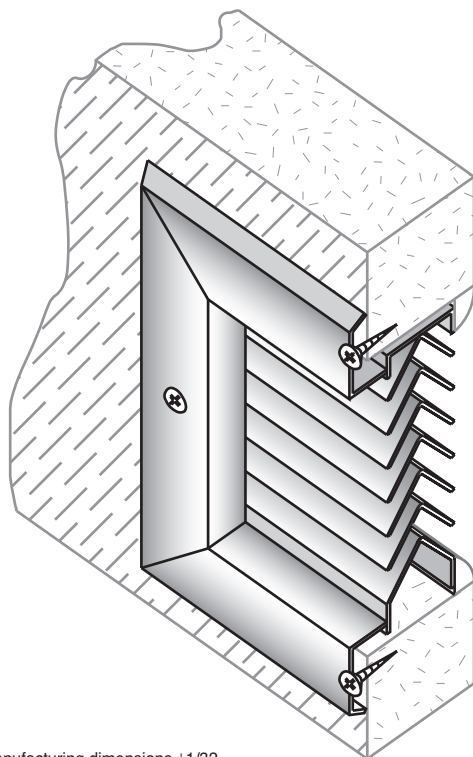
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## CHDL-1F

INVERTED V  
NON-VISION LOUVER  
LOUVER CORE WITH  
FRAME ONE SIDE

NOT FIRE RATED

### DETAIL DRAWING



Anemostat manufacturing dimensions  $\pm 1/32$   
Actual dimensions are nominal and may vary  
based on component manufacturers tolerances.

#### STANDARD PRODUCT FEATURES

- **MATERIAL:** 18 GA. Cold Rolled Steel - Frame.  
22 GA. Cold Rolled Steel - Louver Blades.
- **FINISH:** Grey Primer, Beige or Bronze Baked Enamel.
- **INSTALLATION:** Installs into door or frame using #8x3/4" sheet metal or wood screws directly into the door or frame on one side. The Louver core side requires use of wood or metal stop.
- **DOOR or FRAME THICKNESS:** Minimum Louver core and one side frame dimension is 1 9/16".
- **USES:** Where there is an application requiring a minimal clearance on one side of Louver core and need attaching flange (frame).
- **FREE AIR FLOW:** 60% Free Area.
- **NOTE:** For Exterior use, High Humidity or Salt Air application, product must be Galvanized or Stainless Steel.

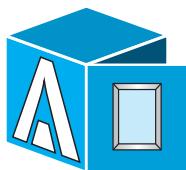
#### OPTIONAL FEATURES

- **MATERIAL:** #304 or #316 Stainless Steel, #4 Finish (Satin), Galvanized (Coil Hot Dipped or Zinc Plated), Mill Finish or Anodized Aluminum (#5052 Alloy)
- **FINISH:** Custom Baked Enamel Colors (as per sample chip, supplied by customer).
- **FASTENERS:** Special Security Screw Fasteners, See Page 14, this section.
- **SPECIALS:** Fractional sizes (frame dimension is increased to accommodate odd size).  
Mesh insect screens, loose or attached. (Galvanized, Aluminum, Charcoal Aluminum, Stainless Steel.)  
For detail drawings see page 12 & 13, this section.
- **DOOR THICKNESS:** 1 3/8" is available by special order.

#### FIRE RATINGS

- **CHDL-1F is not fire rated.**

| Job Name & Location | Submitted by |
|---------------------|--------------|
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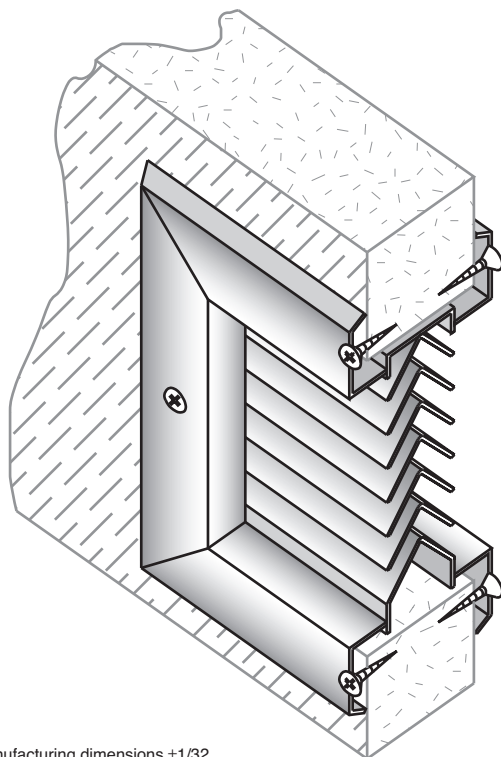
## CHDL-2F

INVERTED V  
NON-VISION LOUVER

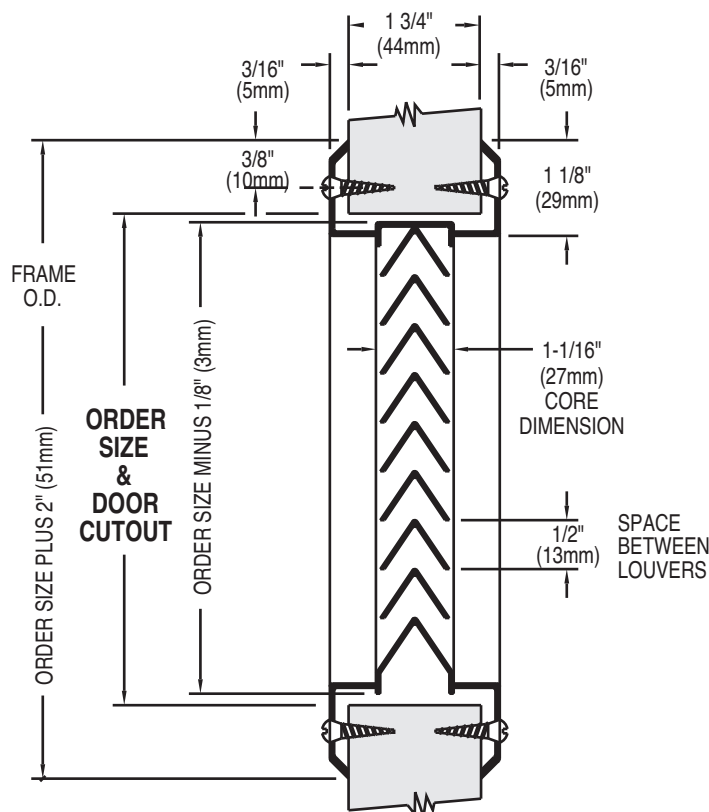
LOUVER CORE WITH  
FRAME TWO SIDES

NOT FIRE RATED

### DETAIL DRAWING



Anemostat manufacturing dimensions  $\pm 1/32$   
Actual dimensions are nominal and may vary  
based on component manufacturers tolerances.



#### STANDARD PRODUCT FEATURES

- MATERIAL:** 18 GA. Cold Rolled Steel - Frame.  
22 GA. Cold Rolled Steel - Louver Blades.
- FINISH:** Grey Primer, Beige or Bronze Baked Enamel.
- INSTALLATION:** Fastens to door by means of #8x3/4" sheet metal or wood screws, directly into the door thru countersunk mounting holes.
- DOOR THICKNESS:** For 1 3/4" Door (1 3/8" is available)
- AESTHETICS:** Tight mitered corners, no visible welds make for a clean, sharp look.
- USES:** Where 1/2" louver spacing is preferred.
- FREE AIR FLOW:** 60% Free Area.

#### OPTIONAL FEATURES

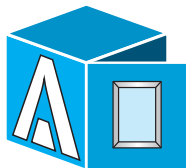
- MATERIAL:** #304 or #316 Stainless Steel, #4 Finish (Satin), Galvanized (Coil Hot Dipped or Zinc Plated), Mill Finish or Anodized Aluminum (#5052 Alloy)
- FINISH:** Custom Baked Enamel Colors (as per sample chip, supplied by customer).
- FASTENERS:** Special Security Screw Fasteners, See Page 14, this section.
- SPECIALS:** Fractional sizes (frame dimension is increased to accommodate odd size).  
Mesh insect screens, loose or attached. (Galvanized, Aluminum, Charcoal Aluminum, Stainless Steel.)  
For detail drawings see page 12 & 13, this section.
- DOOR THICKNESS:** For 1 3/8" is available by special order.

#### FIRE RATINGS

- CHDL-2F is not fire rated.

- NOTE:** For Exterior use, High Humidity or Salt Air application, product must be Galvanized or Stainless Steel.

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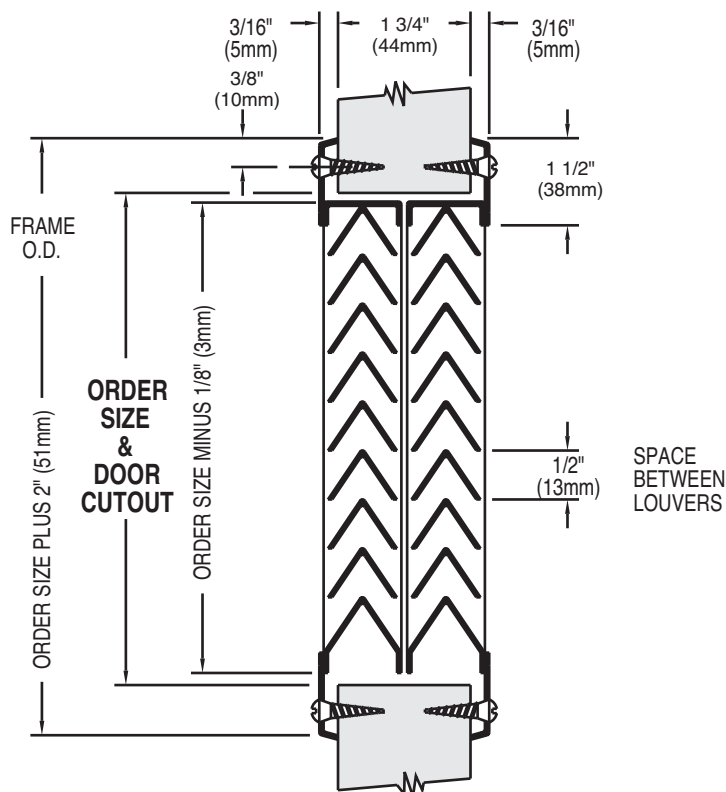
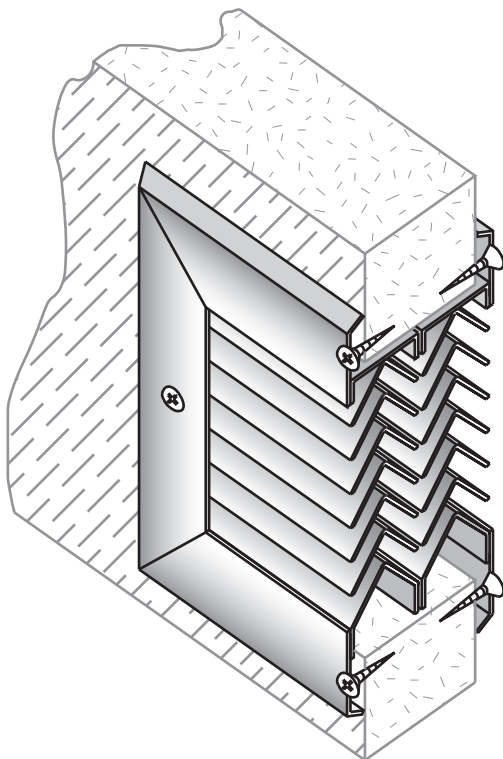
## DRDL

DOUBLE INVERTED V

DARKROOM LOUVER

NOT FIRE RATED

### DETAIL DRAWING



Anemostat manufacturing dimensions  $\pm 1/32$   
Actual dimensions are nominal and may vary  
based on component manufacturers tolerances.

#### STANDARD PRODUCT FEATURES

- **MATERIAL:** 18 GA. Cold Rolled Steel - Frame.  
22 GA. Cold Rolled Steel - Louver Blades.
- **FINISH:** Standard finish provided is Flat Black Enamel, unless specified Grey Primer, Beige or Bronze Baked Enamel.
- **INSTALLATION:** Fastens to door by means of #8x3/4" sheet metal or wood screws, directly into the door thru countersunk mounting holes.
- **DOOR THICKNESS:** For 1 3/4" Door (1 3/8" is available)
- **AESTHETICS:** Tight mitered corners, no visible welds make for a clean, sharp look.
- **USES:** For Darkroom applications where light cannot be present.
- **FREE AIR FLOW:** 60% Free Area.
- **NOTE:** For Exterior use, High Humidity or Salt Air application, product must be Galvanized or Stainless Steel.

#### OPTIONAL FEATURES

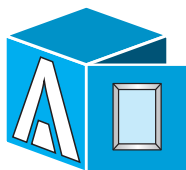
- **MATERIAL:** #304 or #316 Stainless Steel, #4 Finish (Satin), Galvanized (Coil, Hot Dipped or Zinc Plated), Mill Finish or Anodized Aluminum (#5052 Alloy)
- **FINISH:** Custom Baked Enamel Colors (as per sample chip, supplied by customer).
- **FASTENERS:** Special Security Screw Fasteners, See Page 14, this section.
- **SPECIALS:** Fractional sizes (frame dimension is increased to accommodate odd size).  
Mesh insect screens, loose or attached.  
(Galvanized, Aluminum, Charcoal Aluminum, Stainless Steel.)  
For detail drawings see page 12 & 13, this section.

#### FIRE RATINGS

- DRDL is not fire rated.

|                     |              |
|---------------------|--------------|
| Job Name & Location | Submitted by |
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# TECHNICAL DATA

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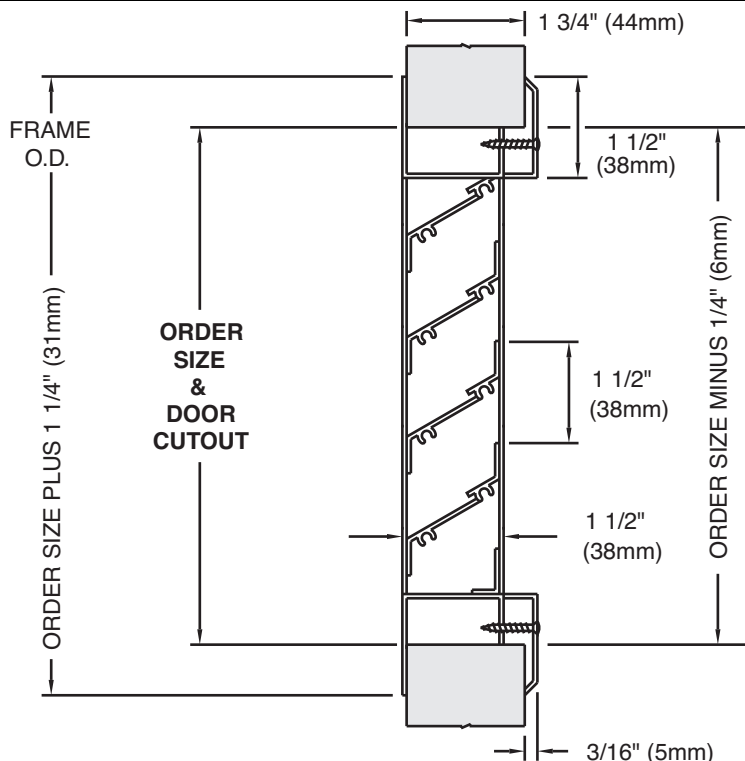
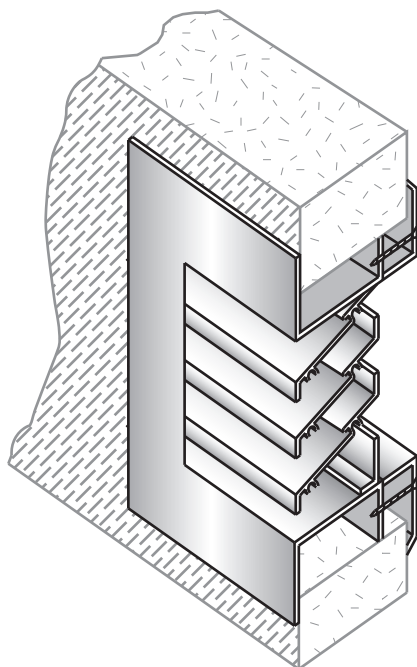
## SRDL

STORM PROOF

EXTRUDED ALUMINUM  
LOUVER

NOT FIRE RATED

### DETAIL DRAWING



Anemostat manufacturing dimensions  $\pm 1/32$   
Actual dimensions are nominal and may vary  
based on component manufacturers tolerances.

#### STANDARD PRODUCT FEATURES

- **MATERIAL:** Extruded Aluminum .063" thick
- **FINISH:** Mill Finish
- **INSTALLATION:** Uses #8x1" phillips screw that fastens auxiliary frame to the louver core, thru the cutout in the door, thus eliminating the need to drill holes in the door for thru bolts. This method saves time and installation labor and leaves the corridor side of the frame free of fasteners for added security, and a cleaner aesthetic appearance.
- **DOOR THICKNESS:** For 1 3/4" Wood or Metal doors.
- **AESTHETICS:** Tight mitered corners and low profile provide a clean tapered look.
- **USES:** Storm Proof Louver is designed for schools, commercial and institutional buildings where protection from weather is required.
- **FREE AIR FLOW:** 36% free area
- **IMPORTANT:** Interpretation of building codes may vary. Consult with the local authority having jurisdiction in your area, to determine appropriate standards.

#### OPTIONAL FEATURES

- **FINISH:** Custom Baked Enamel Colors (as per sample chip supplied).
- **FASTENERS:** Special Security Screw Fasteners, See Page 14, this section.
- **SPECIALS:** Fractional sizes available.
- **SCREEN:** (when indicated, in a removable frame)
  - BIRD SCREEN - 1/2" flattened aluminum, .051" thick
  - 1/2" sq. mesh intermediate double-crimped aluminum wire, .063" dia.
  - 18/16 mesh, .011" dia. aluminum wire insect screen

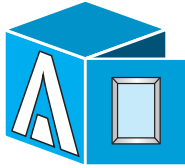
#### FIRE RATINGS

- **SRDL is not fire rated.**
- MINIMUM PANEL SIZE: 8" x 8"
- MAXIMUM SINGLE PANEL SIZE: 60" x 96"

#### PERFORMANCE DATA

- See Technical Data Page 10

| Job Name & Location | Submitted by |
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# SRDL

STORM PROOF

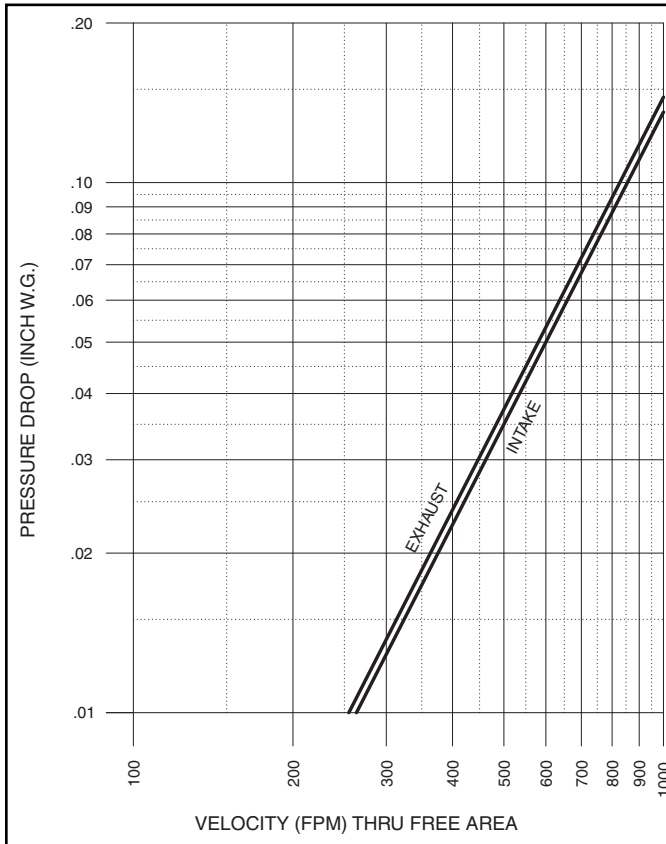
EXTRUDED ALUMINUM  
LOUVER

NOT FIRE RATED

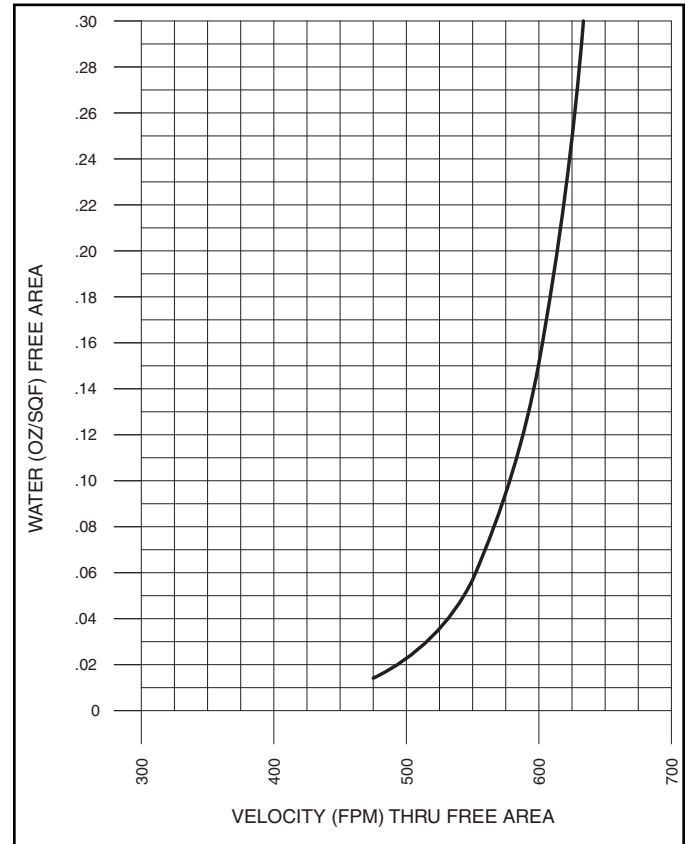
## PERFORMANCE DATA

Tests of a 48" x 48" sample by an \*AMCA registered laboratory according to AMCA Standard 500 shows less than .02 oz. per sq. ft. water penetration at 495 fpm (free area velocity) with less than .034" w.g. pressure drop (intake). Ratings do not include the effect of bird-screen.

**PRESSURE DROP** (Test Unit Size: 48" x 48")



**WATER PENETRATION** (Test Unit Size: 48" x 48")

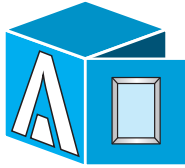


## FREE AREA

|    | WIDTH (INCH) |      |      |      |       |       |       |       |       |
|----|--------------|------|------|------|-------|-------|-------|-------|-------|
|    | 12           | 18   | 24   | 30   | 36    | 42    | 48    | 54    | 60    |
| 12 | 0.33         | 0.52 | 0.71 | 0.90 | 1.09  | 1.28  | 1.47  | 1.66  | 1.85  |
| 24 | 0.78         | 1.22 | 1.66 | 2.11 | 2.55  | 2.99  | 3.44  | 3.88  | 4.32  |
| 36 | 1.22         | 1.92 | 2.61 | 3.31 | 4.01  | 4.70  | 5.40  | 6.10  | 6.80  |
| 48 | 1.66         | 2.61 | 3.56 | 4.52 | 5.47  | 6.42  | 7.37  | 8.32  | 9.27  |
| 60 | 2.11         | 3.31 | 4.52 | 5.72 | 6.92  | 8.13  | 9.33  | 10.54 | 11.74 |
| 72 | 2.55         | 4.01 | 5.47 | 6.93 | 8.38  | 9.84  | 11.30 | 12.76 | 14.22 |
| 84 | 3.00         | 4.71 | 6.52 | 8.13 | 9.84  | 11.55 | 13.27 | 14.98 | 16.69 |
| 96 | 3.44         | 5.40 | 7.37 | 9.34 | 11.30 | 13.27 | 15.23 | 17.20 | 19.16 |

\* AMCA registered laboratory is a laboratory equipped and staffed to conduct tests according to the appropriate AMCA test method and which has been licensed as a AMCA registered laboratory.

|                     |              |
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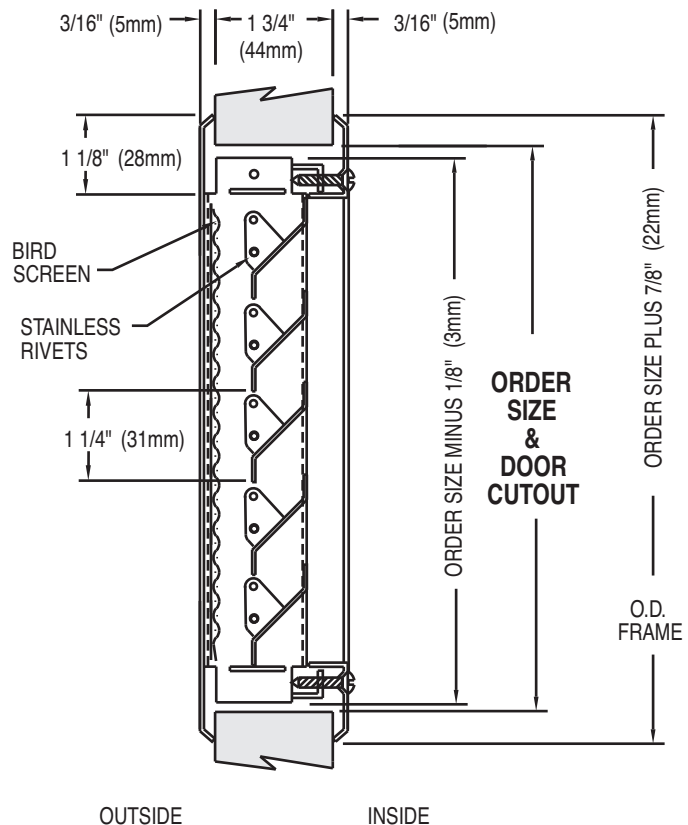
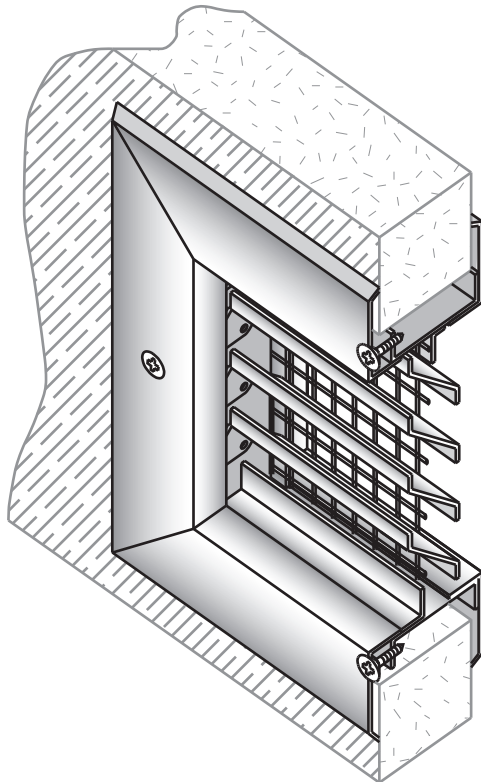
e-mail: [door@anemostat.com](mailto:door@anemostat.com) • website: [www.anemostat.com](http://www.anemostat.com)

## FPL-1

FIXED POSITION  
SELF ATTACHING  
"Z" BLADE LOUVER

NOT RATED  
FOR FIRE OR WIND RESISTANCE

### DETAIL DRAWING



All Dimensions  $\pm 1/32$

#### STANDARD PRODUCT FEATURES

- **MATERIAL:** 18 GA. Galvanized Steel, Frame and Louver Blades.
- **FINISH:** Grey Primer, Beige or Bronze Baked Enamel.
- **INSTALLATION:** Self attaching using #8 x 1" phillips head screws that fasten the auxiliary frame to the louver core thru the cutout in the door. The corridor side of the frame is free of fasteners for added security.
- **DOOR THICKNESS:** For 1 3/4" Door.  
(available for 1 3/8" Doors).
- **SCREEN:** 1/2" mesh bird screen included.
- **AESTHETICS:** Tight mitered corners and countersunk mounting holes make for a clean appearance.
- **FREE AIR FLOW:** 53.5% Free Area.
- **NOTE:** For Exterior use, High Humidity or Salt Air application, product must be Galvanized or Stainless Steel.

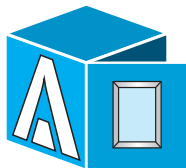
#### OPTIONAL FEATURES

- **MATERIAL:** #304 Stainless Steel, #4 Finish (Satin), Galvanized (Zinc Plated).
- **FINISH:** Custom Baked Enamel Colors (as per sample chip supplied by customer).
- **FASTENERS:** Special Security Screw Fasteners, See Page 14, this section.
- **SPECIALS:** Fractional sizes not available.  
18-14 mesh insert screens, loose or attached. (Galvanized, Aluminum, Charcoal Aluminum, Stainless Steel)

#### SPECIAL RATINGS

- FPL-1 is not rated for fire or wind resistance.
- FPL-1 is not approved by Florida Power and Light.
- **IMPORTANT:** Interpretation of building and fire codes may vary. Consult with the local authority having jurisdiction in your area, to determine appropriate standards.

| Job Name & Location | Submitted by |
|---------------------|--------------|
|                     |              |



# TECHNICAL DATA

FROM

## Anemostat Door Products

4958 Stout Dr. #119, San Antonio, TX 78219

PH: 210.662.6300 • FAX: 210.662.2828

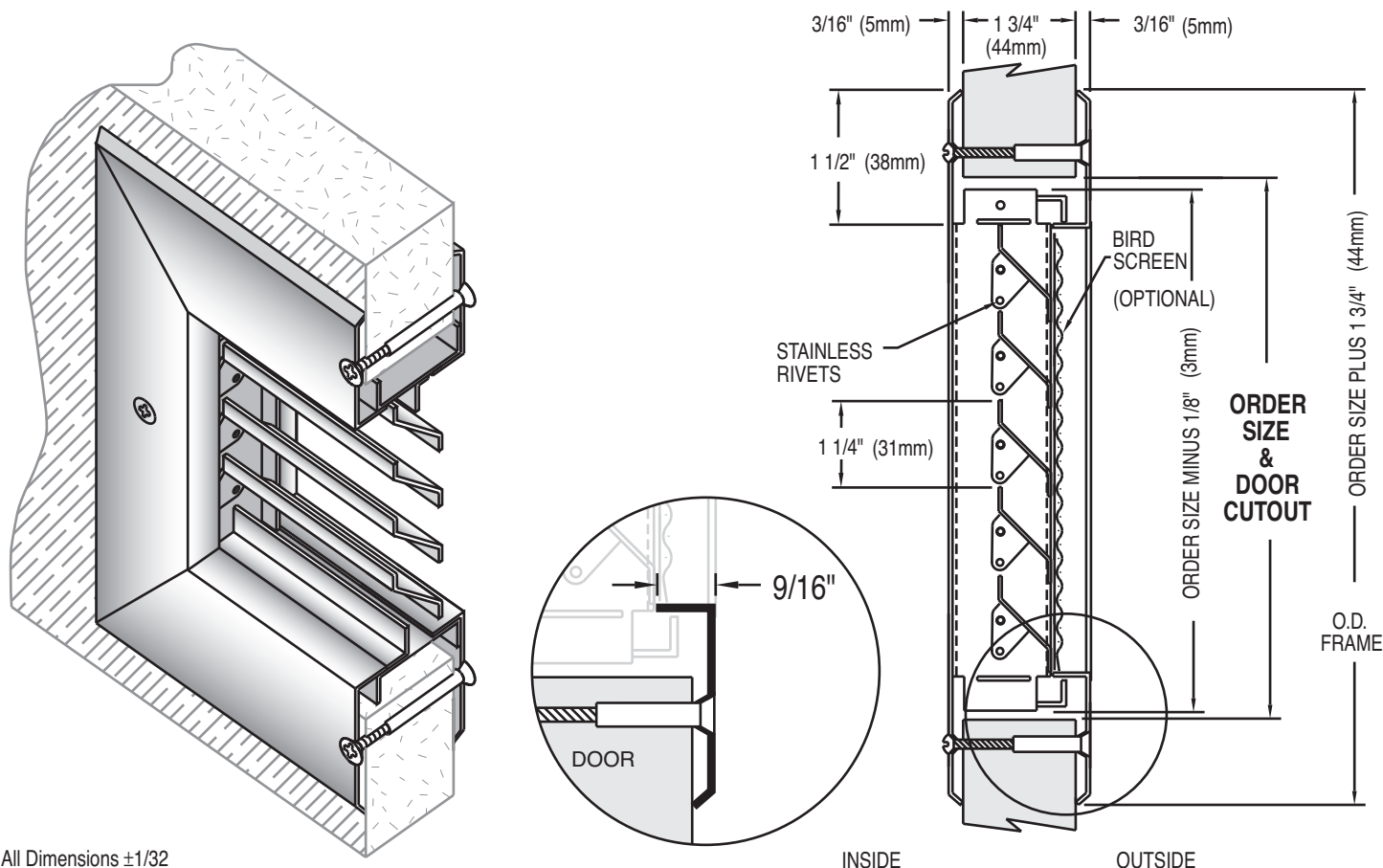
e-mail: [door@anemostat.com](mailto:door@anemostat.com) • website: [www.anemostat.com](http://www.anemostat.com)

## FPL-2

FIXED POSITION  
THRU BOLTED  
"Z" BLADE LOUVER

NOT FIRE RATED

### DETAIL DRAWING



All Dimensions  $\pm 1/32$

#### STANDARD PRODUCT FEATURES

- **MATERIAL:** 18 GA. Galvanized Steel, Frame and Louver Blades.
- **FINISH:** Grey Primer, Beige or Bronze Baked Enamel.
- **INSTALLATION:** By drilling 1/4" holes thru the door, around the perimeter of the cutout. The frame has countersunk mounting holes for #8-32 phillips head steel thru bolts with a blank head on one side for a flush appearance.
- **DOOR THICKNESS:** For 1 3/4" Door.  
(available for 1 3/8" Doors).
- **AESTHETICS:** Tight mitered corners and countersunk mounting holes make for a clean appearance.
- **FREE AIR FLOW:** 53.5% Free Area.
- **NOTE:** For Exterior use, High Humidity or Salt Air application, product must be Galvanized or Stainless Steel.
- **IMPORTANT:** Interpretation of building and fire codes may vary. Consult with the local authority having jurisdiction in your area, to determine appropriate standards.

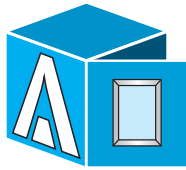
#### OPTIONAL FEATURES

- **MATERIAL:** #304 Stainless Steel, #4 Finish (Satin), Galvanized (Zinc Plated).
- **FINISH:** Custom Baked Enamel Colors (as per sample chip supplied by customer).
- **FASTENERS:** Special Security Screw Fasteners, See Page 14, this section.
- **SPECIALS:** Fractional sizes not available.  
18-14 mesh insert screens, loose or attached. (Galvanized, Aluminum, Charcoal Aluminum, Stainless Steel)
- **SCREEN:** 1/2" mesh bird screen is optional.

#### SPECIAL RATINGS

- FPL-2 is not fire rated.
- FPL-2 is not approved by Florida Power and Light.

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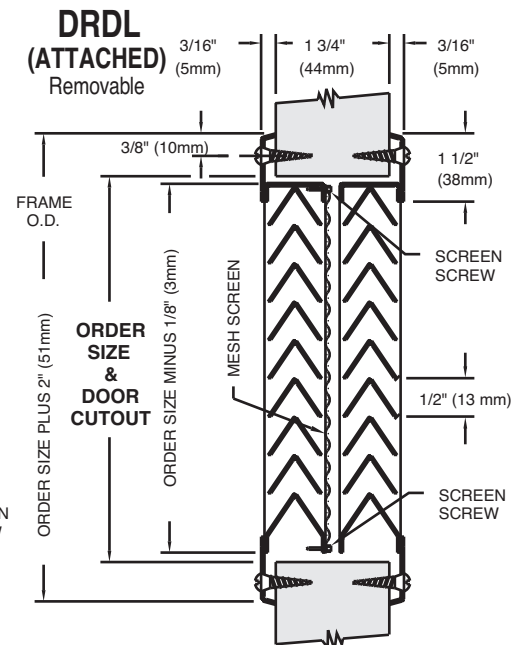
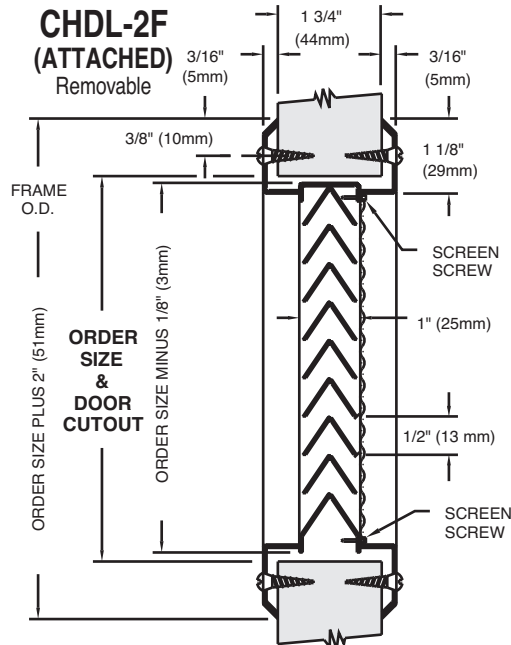
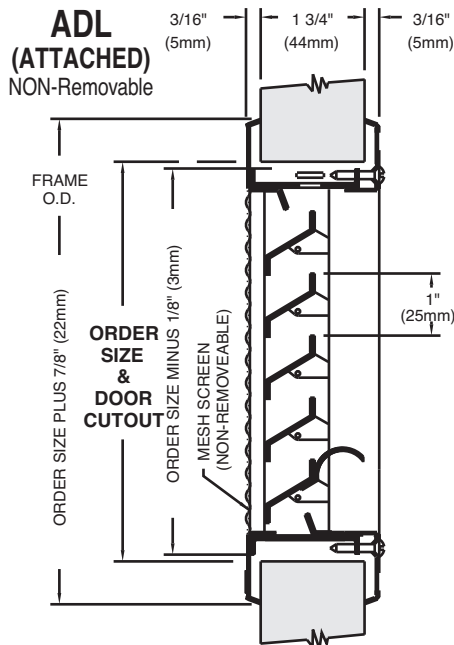
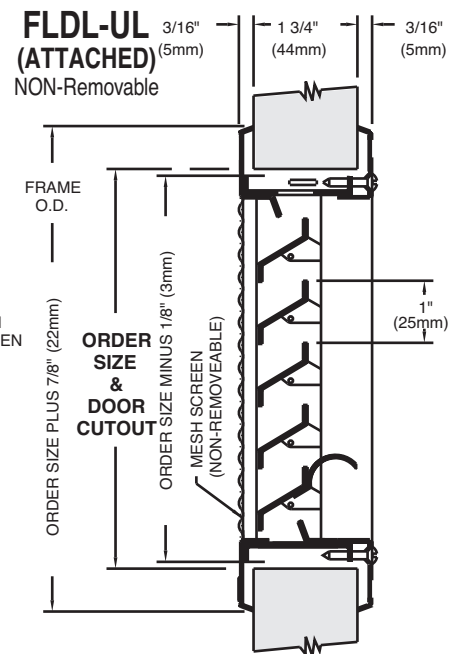
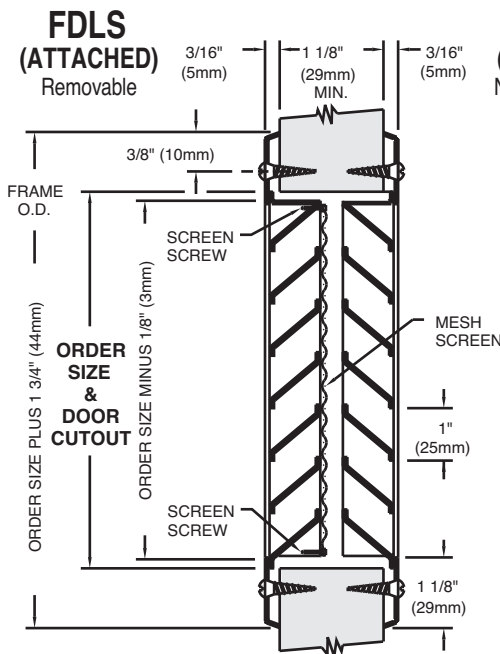
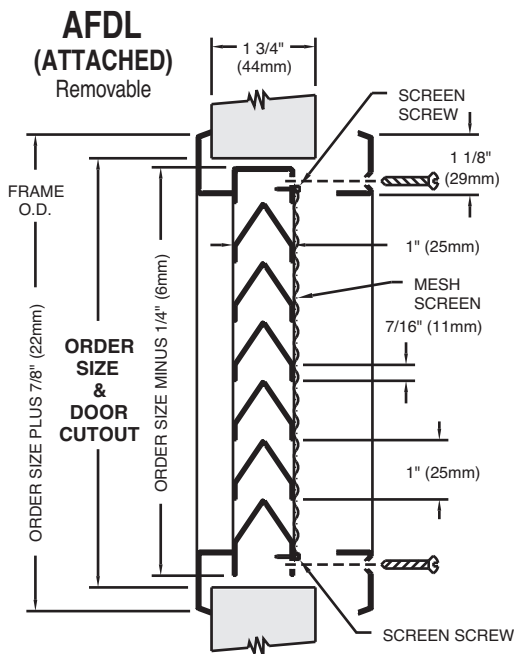
PH: 210.662.6300 • FAX: 210.662.2828

e-mail: [door@anemostat.com](mailto:door@anemostat.com) • website: [www.anemostat.com](http://www.anemostat.com)

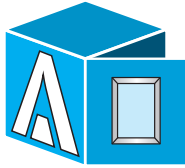
# SCREENS

(ATTACHED WITHOUT FRAME)  
FOR  
DOOR LOUVERS

### DETAIL DRAWING



Anemostat manufacturing dimensions  $\pm 1/32$   
Actual dimensions are nominal and may vary  
based on component manufacturers tolerances.



# TECHNICAL DATA

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e-mail: [door@anemostat.com](mailto:door@anemostat.com) • website: [www.anemostat.com](http://www.anemostat.com)

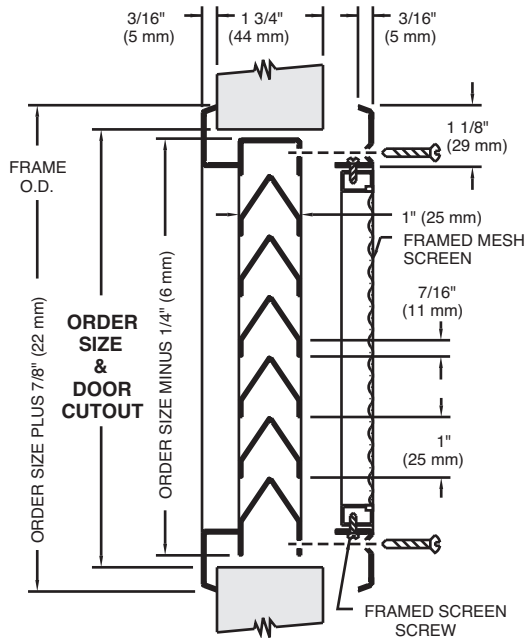
# FRAMED SCREENS

FOR  
DOOR LOUVERS

### DETAIL DRAWING

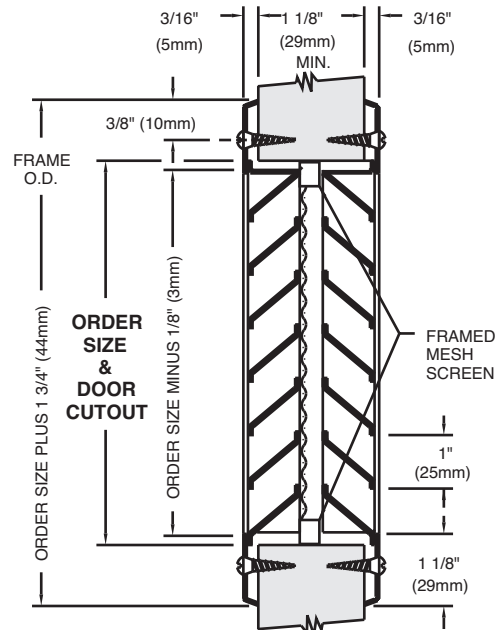
#### AFDL (FRAMED ATTACHED)

Removable



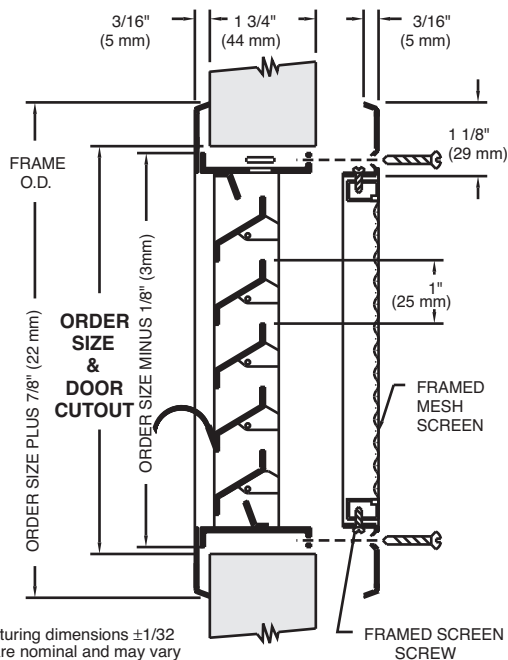
#### FDLS (FRAMED SCREEN)

Removable  
(Shipped Loose)



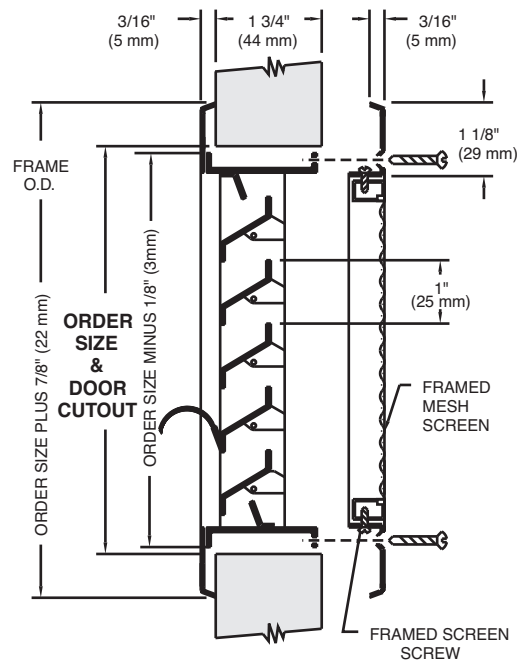
#### FLDL-UL (FRAMED ATTACHED)

Removable



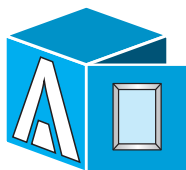
#### ADL (FRAMED ATTACHED)

Removable



Anemostat manufacturing dimensions  $\pm 1/32$   
Actual dimensions are nominal and may vary  
based on component manufacturers tolerances.





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# FASTENERS

FOR  
DOOR LOUVERS

### DETAIL DRAWING

#### STANDARD



##### #8X1 PHILLIPS SCREW

USED FOR: AFDL, FLDL-UL, ADL



##### #8X3/4 SHEET METAL SCREW

USED FOR: FDLS, CHDL, DRDL



##### #8X1/2 TEK SCREW

USED FOR: Screen attachments on  
AFDL, CHDL, DRDL, FDLS, FLDL-UL, ADL

OPTIONAL SCREW (Same upcharge as security screws)



##### #8X1 SQUARE DRIVE (ROBERTSON HEAD)

SHEET METAL SCREW.

USED FOR: AFDL, FLDL-UL, ADL

#### OPTIONAL SECURITY FASTENERS\*

(Consult Factory for Stainless Steel Availability)



##### ONE WAY VANDAL PROOF

FDLS — #8X3/4"

AFDL — #8X1"



##### PINNED FLAT HEAD

FDLS — #8X3/4"

AFDL — #8X1"



##### SNAKE EYE SPANNER

FDLS (Stainless Only) — #8X3/4"

AFDL (Stainless Only) — #8X1"



##### TORX FLAT HEAD

FDLS — #8X3/4"

AFDL — #8X1"



##### NOTCHED SPANNER

FDLS — #8X3/4"

AFDL — #8X1"



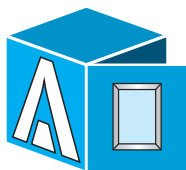
##### TORX-PLUS FLAT HEAD

FDLS — #8X3/4"

AFDL — #8X1"

\*Screw drivers and insert bits for Security Fasteners are available.  
Consult Factory for Price and Availability.

| Job Name & Location | Submitted by |
|---------------------|--------------|
|                     |              |



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## SIZING WALL & DOOR LOUVERS

### DETAIL DRAWING

Louvers allow the transfer of air across a boundary such as a wall or door. There are three variables that relate air transfer: pressure difference, opening size, and flow rate (see fig. 1):

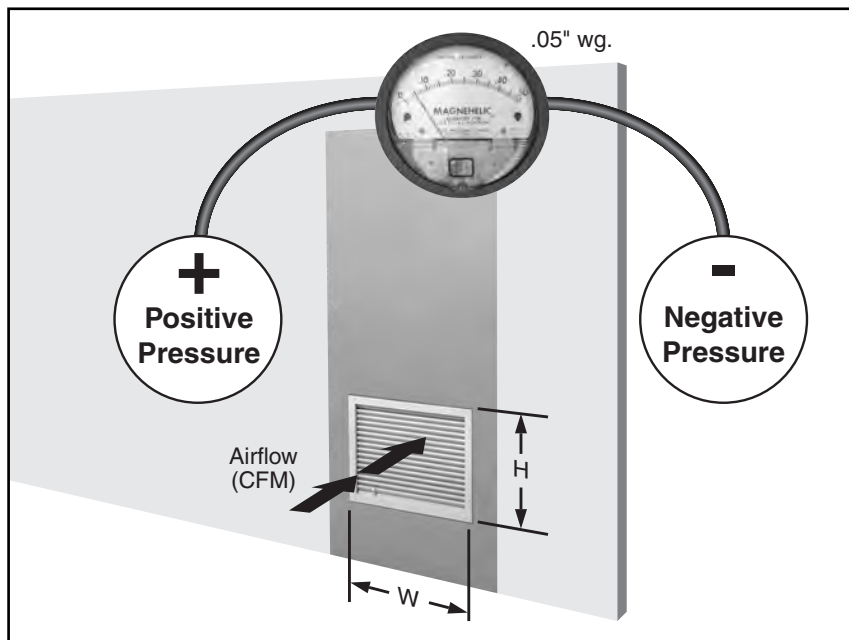


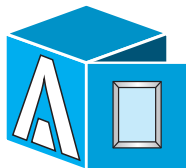
Figure 1. Louver Airflow

1. **Pressure difference ( $\Delta P$ )** – air moves through a wall/door opening due to the *differential* pressure, or difference in pressure on opposing sides of the boundary. The air pressure differences are small in comparison to, say, the air pressure in the tire of a car. For example, you might maintain 30 psi (lbs/square inch) of pressure in your car tires, yet a pressure differential of .03 psi on opposite sides of a door would be considered extremely high. When considering air flow and air pressure in buildings and HVAC systems, a smaller means of measuring pressure is appropriate, and often, inches of water (inches w.g.) is used (similar to inches of mercury, inches Hg, used for barometric pressure measurements). For comparative purposes, 1 inch of water = .0375 psi.

Pressure differences in building spaces must occur for air to move. Designers consider space pressurization and pressure relationships of one space to another. In restaurants, for example, the dining room is positively pressurized as compared to the kitchen, or in other words, the kitchen is negatively pressurized as compared to the dining room. That means that air will flow from the dining room INTO the kitchen to keep smoke, odors, and cooking effluent contained in the kitchen, and from escaping into the dining room.

The pressure difference dictates how fast the air moves through the opening in the boundary. The larger the pressure difference, the faster the air moves through the opening (faster means speed or velocity, usually measured in feet per minute, fpm).

Note that a high pressure difference across a door will result in a high force on the door. Depending on the direction that the door swings, it may be difficult to open or close the door due to the force on the door caused by the pressure differential.



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## SIZING WALL & DOOR LOUVERS

### DETAIL DRAWING

2. **Opening size (area)** – the size of the opening in the boundary (wall/door) also determines “how much” air will flow across the boundary. For example, if the pressure differential across the boundary is .05” w.g., and the opening size is doubled, then the amount of airflow through the opening will also double. Because a louver occupies the hole in the boundary and louvers vary in design and construction, the louver must be tested in a laboratory with actual airflow at controlled conditions to determine the relationship between size, airflow, and pressure. % free area has long been used as a convenient means to select louver size, but unfortunately, is NOT an indicator of louver performance (pressure drop and sound created). Louvers with identical free areas can have significantly different pressure differentials (see Fig. 2), so testing must be performed to accurately report performance.

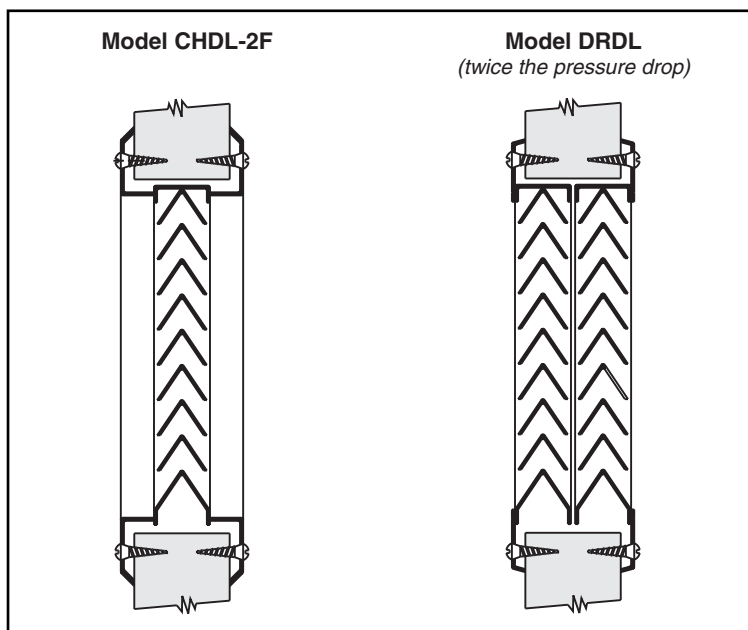


Figure 2. Equal Free Area

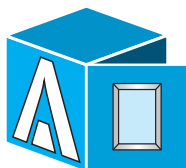
3. **Flow rate (CFM)** – this is the value that will usually be given in specifications as the volume of air (cubic feet, ft<sup>3</sup>) per unit time (minute) or CFM (cubic feet per minute) of air through the opening or louver. This is calculated as:

$$\text{CFM (cubic feet / minute)} = \text{Air Velocity (feet/minute)} \times \text{Area (square feet)}$$

### Summary

Three variables determine the sizing of a wall or door louver, and 2 of the 3 variables must be known to determine the 3<sup>rd</sup> variable:

1. Airflow rate, CFM. This is usually specified.
2. Maximum pressure differential ( $\Delta P$ ), inches w.g. This is usually specified as a “not to exceed” value.  
A low pressure drop is typically preferred over a higher pressure drop.
3. Louver size, Width x Height (opening).



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## SIZING WALL & DOOR LOUVERS

### DETAIL DRAWING

#### **Anemostat Pressure Drop Calculator**

All Anemostat louvers have been performance tested in our Research & Development Center, and data can be determined using our Pressure Drop Calculator (see Fig. 3). The Pressure Drop Calculator is available online at [www.anemostat.com/DoorProducts](http://www.anemostat.com/DoorProducts), click on the Information / Videos Tab, click on Louver Pressure Drop Calculator under Information Calculators.

| Louver Model | Pressure, inches wg |
|--------------|---------------------|
| AFDL         | 0.12                |
| ADL          | 0.13                |
| CHDL         | 0.06                |
| DRDL         | 0.12                |
| FDLS         | 0.14                |
| FDL          | 0.13                |
| PLSL         | 0.22                |
| FPL-1, 2     | 0.07                |
| SRDL         | 0.05                |

Fig. 3 – Louver Pressure Drop Calculator

Units may be selected for I-P (inch-pounds) or S-I (Systems International) measurements. The pressure differential is calculated for the airflow and sizes entered. When asked “what size louver should I use?”, then more information must be obtained and the 2 other variables (CFM and pressure differential) must be considered to provide a correctly sized louver. Without this information, then some assumptions must be made which may not be appropriate for the installation. For door louvers, the air pressure differential will equate to a load on the door (lbs) and can be calculated as:

$$\text{Force on Door (lbs.)} = \text{Door size, ft}^2 \times \text{Differential Pressure}(\Delta P) \times 5.41\text{lb/ft}^2$$

As an example, consider a 36” x 80” hinged door with a .05” pressure differential. Using the formula above, the door will have 5.4 lbs of force acting on it. The amount of force needed to open the door (assuming we are opening the door AGAINST the high pressure side) will be about half this force or 2.7 lbs.

#### **Sizing Louvers for Mechanical Equipment**

The airflow rate (CFM) through the louver is more difficult to determine without information about the building design and requirement for transfer of air from space to space. Fans or boilers in mechanical rooms have specific airflow and pressure requirements that allow appropriate wall or door louver sizing. Many codes are written based on “Square Inches of Free Area or opening” per BTU/hr for fuel combustion processes. Again, this does not guarantee the required airflow rate will be met. Typically, a maximum pressure drop of .05” wg. may be used for combustion air requirements, but should be confirmed by the design engineer.