

AS2D99HS

STANDARD MATERIALS AND CONSTRUCTION

FRAME: .063" thick (nominal) extruded aluminum, 6063-T52/T6 alloy **BLADE:** .063" thick (nominal) extruded aluminum, 6063-T52/T6 alloy.

Blades approximately 1" on centers.

LOUVER FACE: Head and blades are contained within jambs. Sill contains

jamb.

DRAIN SILL PAN: .060" thick (nominal) formed aluminum. **SCREEN:** (When indicated, in a removable frame.)

½" flattened aluminum (.051" thick),

-or- ½" sq. mesh, intermediate double-crimped aluminum wire,

.063" dia.,

-or- 18/16 mesh, .011" dia. aluminum wire, insect screen.

FINISH: Mill

OPTIONS

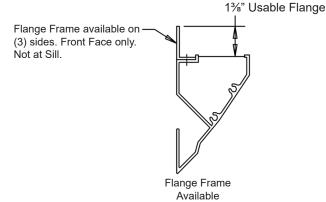
Finish - Baked Enamel, Kynar, Anodize

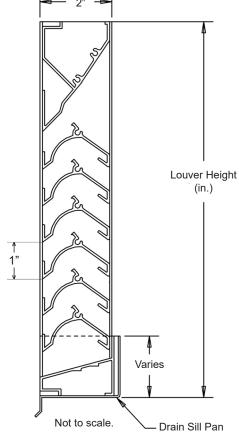
NOTES

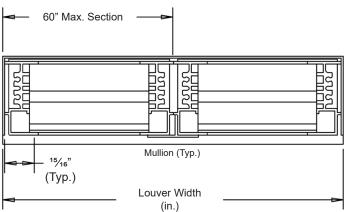
- 1. ½" nominal deduction will be made to the opening size given.
- 2. Approximate shipping weight is 4.0 lbs./sq.ft.

LOUVER SIZES

| Min Panel | Max Single Panel |
|-------------|------------------|
| 12"W x 12"H | 60"W x 96"H |







In the interest of product development, Airline Louvers reserves the right to make changes without notice.

| Thoma # | Otre | Width | Height | Width | Height | Mullion | Type | Location | | TONAL PO |
|------------|--------|--------------------|--------|--------|--------|---------|------|----------|-------------------|----------|
| Item # Qty | | Opening Size Louve | | r Size | | Screens | | | <u>Union Made</u> | |
| Arch. / | Eng. : | | | | | EDR: | | ECN: | Job: | |
| Contra | actor: | | | | | | | | | |
| Pr | oject: | | | | | Date: | | DWN: | DWG: | |



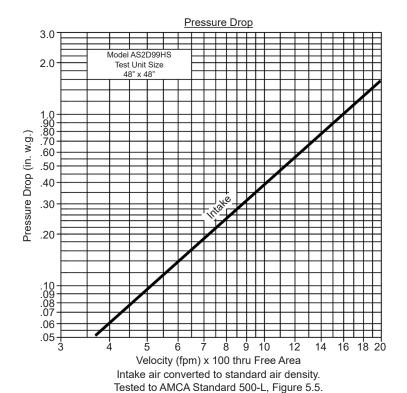
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PERFORMANCE DATA

Pressure Drop: .38 in. w.g. at 1000 fpm (intake)

Free Area: 6.93 sq.ft. = 43.3% for $48\text{"W} \times 48\text{"H}$ sample tested in accordance with AMCA Standard 500-L. Class "A" Rating with 99.7% efficiency at 3 in. rain fall at intake velocity of 435 fpm (3,015 cfm) at wind speed of 29 mph. Class "A" Rating with 99.2% efficiency at 8 in. rain fall at intake velocity of 240 fpm (1,663 cfm) at wind speed of 50 mph. Testing based on $48\text{"} \times 48\text{"}$ based on AMCA Standard 500-L.

Ratings do not include effects of a screen.



Free Area (sq.ft.)

| | | Width (in.) | | | | | | | | | |
|----------|-----|-------------|------|------|------|-------|-------|-------|-------|-------|--|
| | | 12" | 18" | 24" | 30" | 36" | 42" | 48" | 54" | 60" | |
| | 12" | .28 | .45 | .62 | .79 | .95 | 1.12 | 1.29 | 1.46 | 1.62 | |
| | 24" | .71 | 1.13 | 1.55 | 1.97 | 2.39 | 2.81 | 3.23 | 3.65 | 4.07 | |
| | 36" | 1.14 | 1.81 | 2.48 | 3.15 | 3.83 | 4.50 | 5.17 | 5.84 | 6.52 | |
| ıt (in.) | 48" | 1.56 | 2.49 | 3.41 | 4.34 | 5.26 | 6.19 | 6.93 | 8.04 | 8.96 | |
| Height | 60" | 1.99 | 3.17 | 4.35 | 5.52 | 6.70 | 7.88 | 9.56 | 10.23 | 11.41 | |
| = | 72" | 2.42 | 3.85 | 5.28 | 6.71 | 8.14 | 9.56 | 10.99 | 12.42 | 13.85 | |
| | 84" | 2.85 | 4.53 | 6.21 | 7.89 | 9.57 | 11.25 | 12.93 | 14.62 | 16.30 | |
| | 96" | 3.27 | 5.21 | 7.14 | 9.07 | 11.01 | 12.94 | 14.88 | 16.81 | 18.74 | |



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Wind Driven Rainwater Penetration Test Conducted to AMCA Standard 500-L.

Test size 1m x 1m (39.7" x 39.7") core area, nominal. Louver Free Area 5.24 square feet.

| Core Ventilation (m/s) | 0.0 | 0.5 | 1.0 | 1.5 | 2.0 | 2.5 | 3.0 | 3.5 | Rain Fall / MPH | |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|---|--|
| FPM | 0 | 133 | 212 | 296 | 383 | 491 | 581 | 668 | 3 in. / hr. rain fall and 29 mph Velocity | |
| Free Area Ventilation (cfm) | 0 | 1,431 | 2,279 | 3,188 | 4,128 | 5,291 | 6,259 | 7,192 | | |
| Free Area Velocity (fpm) | - | 273 | 435 | 608 | 788 | 1,010 | 1,194 | 1,373 | | |
| Effective Rating Class | Α | Α | Α | В | В | С | D | D | | |
| FPM | 0 | 117 | 195 | 280 | 386 | 461 | 596 | 695 | 8 in. / hr. | |
| Free Area Ventilation (cfm) | 0 | 1,261 | 2,095 | 3,013 | 4,157 | 4,964 | 6,123 | 7,483 | rain fall | |
| Free Area Velocity (fpm) | - | 240 | 400 | 575 | 793 | 947 | 1,169 | 1,428 | and 50 mph | |
| Effective Rating Class | Α | Α | В | В | В | С | С | D | Velocity | |

Wind Driven Rain Penetration Classifications

| Class | Effectiveness % |
|-------|-----------------|
| А | 100 to 99% |
| В | 98.9% to 95% |
| С | 94.9% to 80% |
| D | Below 80% |

Discharge Loss Coefficient Classifications

| Class | Discharge Loss Coefficient |
|-------|-------------------------------|
| 1 | 0.4 and above |
| 2 | 0.3 to 0.399 |
| 3 | 0.2 to 0.299 |
| 4 | 0.199 and below |

Discharge Coefficient
Intake Cd= 0.19 (Class 4)

Class 1 Loss Coefficient has the least resistance to airflow.

- Core area is the front opening of a louver assembly with the blades removed.
- 2. Core area velocity is the airflow rate through the louver divided by the core area (39.37" x 39.37").
- Free area is the minimum area through which air can pass. It is determined by multiplying the sum of the minimum distance between intermediate blades, top blade and head, bottom blade and sill, by the minimum distance between jambs.
- Discharge loss coefficient is calculated by dividing a louver actual airflow rate vs. a theoretical airflow for the opening, providing an indication of the louver air flow characteristics.



Airline Louvers certifies that the Model AS2D99HS shown herein is licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to Air Performance and Wind Driven Rain Ratings only.