

Galvanized Steel Acoustical Louver in 12" frame design — Model UFA-12

Design Features — Sound attenuating insulated blades provide a dual function of weather protection and airborne sound reduction. The airfoil shaped blade reduces flow through turbulence as air passes through the louver.

STANDARD CONSTRUCTION

FRAMES

12" thick, is 16 gauge galvanized in style #2

BLADES

22 gauge galvanized approx. spacing is 10" @ 45°

Interior surface 22 gauge perforated steel fastened to blade underside

SOUND INSULATION

6# density acoustical blanket

ASSEMBLY

3/16" plated steel rivets exposed to view

MAXIMUM SIZE

Unlimited, with mullions, structural bracing supplied by others

MAXIMUM SINGLE SECTION

48" w x 120" h

MINIMUM SIZE

12" w x 16" h

MULLIONS

Visible

UNDERSIZED

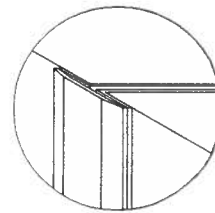
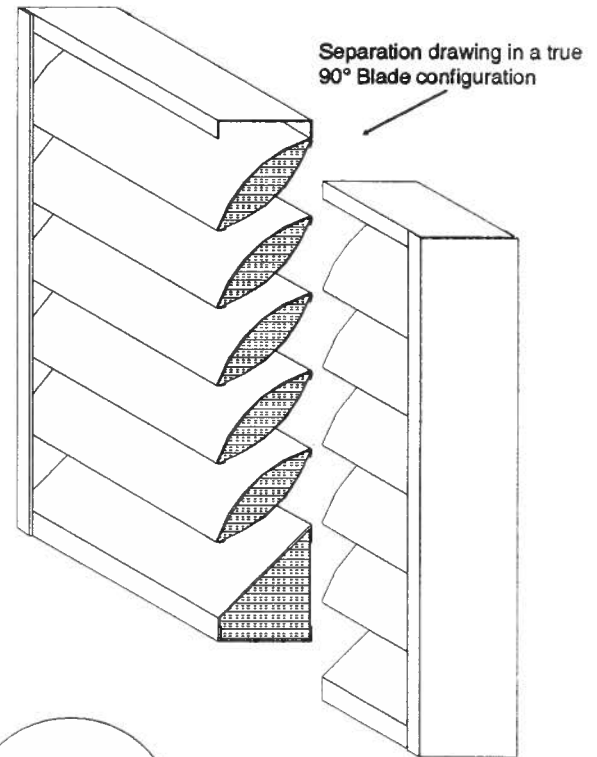
1/4" under ordered size unless specified Exact or Actual

SCREEN

1/2" mesh 19 gauge galvanized bird screen no frame

FINISH

Mill



MULLION STYLE

| PERFORMANCE |
|--|
| Point of water penetration 1077 fpm |
| Free area 48 x 48 section 53% |

OPTIONAL CONSTRUCTION

SPECIFIED MATERIAL — Galvanized or Stainless Steel

SCREENS — Many styles available please consult screen listing

FINISH — Air dry primer, polyurethane, epoxy, or enamel. Baked epoxy or enamel. Kynar (Kynar limitations on steel)

SLEEVE AND DUCTWORK CONNECTION — 10 ga. to 20 ga. galvanized steel or aluminum to 30" in length.

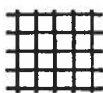
SPECIAL PURPOSE CONSTRUCTION

Fully welded assembly

Security bars

Filter racks

TYPICAL SCREEN STYLES

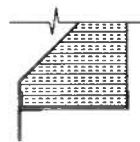


Wire mesh - Standard

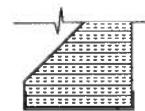


Expanded Aluminum

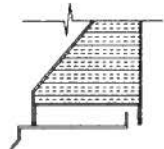
FRAME STYLES



1 - Flange (1.5)



2 - Channel



7 - Channel with Sill Extension

| DATE | ARCHITECT | ENGINEER | |
|---------|-----------|----------|---|
| PROJECT | | | |
| ITEM | QTY | W | H |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

AMCA CERTIFIED RATINGS

WATER
1077 fpm

AIR
53% FREE AREA

AMCA
MOVEMENT
AND CONTROL
ASSOCIATION, INC.

DOWCO PRODUCTS GROUP certifies that the UFA-12 louver 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 ratings and water penetration ratings.



DOWCO

DEPENDABLE PRODUCTS SINCE 1955

DOWCO Products Group

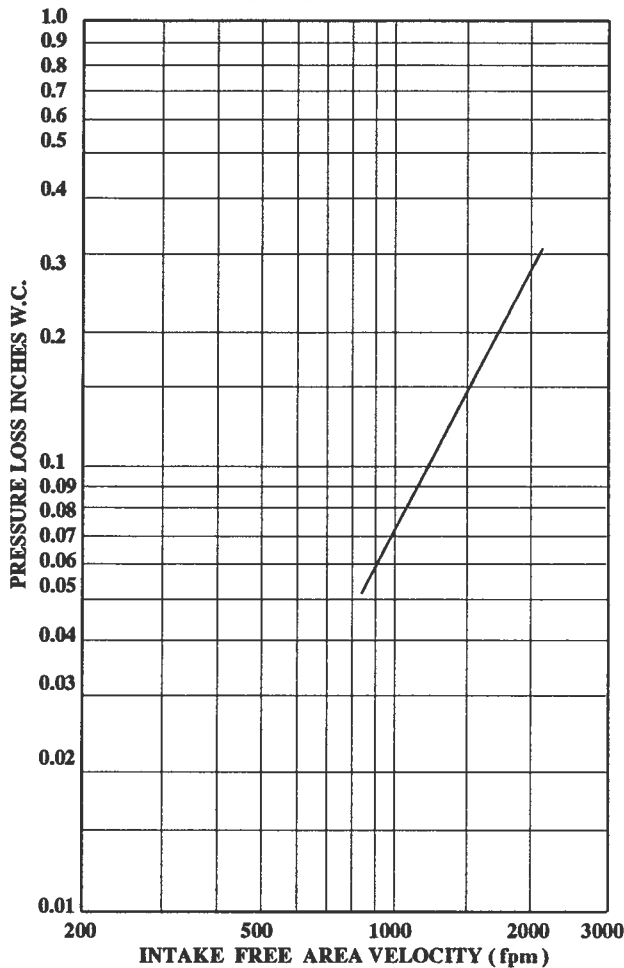
Engineering and General Offices

1855 South 54th Avenue, Cicero, Illinois 60804

Phone 708-652-9100 FAX 708-652-9158

The sound ratings shown are based on sound transmission standards - ASTM E90-90 and ASTM E413-87. Tests were performed at an independent laboratory. Water penetration and air performance tests performed in accordance with AMCA Publication 511-91.

AIR PERFORMANCE



CALCULATING PRESSURE LOSS

Based upon a given flow rate (in CFM), the flowing pressure loss may be determined from the "air performance" graph, knowing the sq. ft. of free area of the louver. Alternately, the free area may be determined based upon a volumetric flow rate and a maximum pressure loss. Utilizing the "air performance" graph;

_____ IN. W.C. Max. Pres. Loss Intake or Exhaust

_____ FPM (Free Area Velocity From "Air Performance" Graph)

_____ CFM / _____ FPM Free Area Velocity = _____ Sq. Ft. Free Area

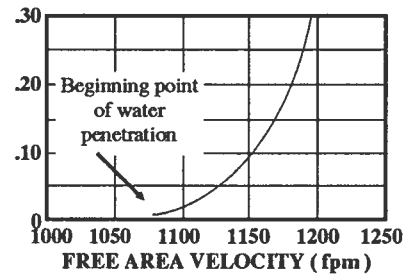
CALCULATING MAXIMUM AIRFLOW BEFORE WATER PENETRATION

The " free area flow rate " at which water penetration commences (.01 oz. of water) is established at, 1077 fpm for UFA-12, and will vary depending upon actual weather conditions. The "water penetration" graph illustrates the results of actual laboratory tests on a 48" x 48" test sample subjected to hypothetical rainfall conditions. To determine the free area (in sq. ft.) based upon a known volumetric flow rate in CFM ;

_____ CFM / _____ FPM = _____ SQ. FT. FREE AREA
(System Requirements)

Water Penetration Graph
in oz. of water per sq. ft. of
free area over a 15 min. test period

Actual test results in oz. of water carryover
.01 .02 .05 .1 .2 .3 (H₂O)
1077 1097 1129 1152 1176 1190 (fpm)



| Octave Bands | | | | | | | | |
|---------------------------------|----|-----|-----|-----|------|------|------|------|
| Frequency (hz) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Free Field Noise Reduction (db) | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
| Transmission Loss (db) | 14 | 12 | 12 | 15 | 21 | 19 | 18 | 21 |
| | 8 | 6 | 6 | 9 | 15 | 13 | 12 | 15 |

WIDTH

FREE AREA CALCULATIONS IN SQ. FT.

| INCHES | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 78 | 84 | 90 | 96 | 102 | 108 | 114 | 120 |
|--------|----------------------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | minimum height - 16" | | | | | | | | | | | | | | | | | | |
| 18 | .26 | .42 | .58 | .74 | .90 | 1.06 | 1.22 | 1.38 | 1.54 | 1.69 | 1.85 | 2.01 | 2.17 | 2.33 | 2.49 | 2.65 | 2.81 | 2.97 | 3.12 |
| 24 | .29 | .46 | .63 | .80 | .97 | 1.15 | 1.32 | 1.49 | 1.66 | 1.83 | 2.01 | 2.18 | 2.35 | 2.52 | 2.69 | 2.86 | 3.04 | 3.21 | 3.38 |
| 30 | .54 | .86 | 1.18 | 1.50 | 1.82 | 2.14 | 2.46 | 2.78 | 3.11 | 3.43 | 3.75 | 4.07 | 4.39 | 4.71 | 5.03 | 5.35 | 5.68 | 6.00 | 6.32 |
| 36 | .68 | 1.08 | 1.49 | 1.90 | 2.30 | 2.71 | 3.11 | 3.52 | 3.93 | 4.33 | 4.74 | 5.15 | 5.55 | 5.96 | 6.36 | 6.77 | 7.18 | 7.58 | 7.99 |
| 42 | .80 | 1.28 | 1.76 | 2.24 | 2.72 | 3.19 | 3.67 | 4.15 | 4.63 | 5.11 | 5.59 | 6.07 | 6.55 | 7.03 | 7.51 | 7.99 | 8.47 | 8.94 | 9.42 |
| 48 | 1.05 | 1.67 | 2.30 | 2.93 | 3.56 | 4.18 | 4.81 | 5.44 | 6.07 | 6.69 | 7.32 | 7.95 | 8.58 | 9.20 | 9.83 | 10.46 | 11.09 | 11.72 | 12.34 |
| 54 | 1.07 | 1.71 | 2.35 | 2.99 | 3.63 | 4.27 | 4.91 | 5.55 | 6.19 | 6.83 | 7.47 | 8.11 | 8.76 | 9.40 | 10.04 | 10.68 | 11.32 | 11.96 | 12.60 |
| 60 | 1.32 | 2.11 | 2.90 | 3.69 | 4.48 | 5.27 | 6.06 | 6.85 | 7.64 | 8.43 | 9.22 | 10.01 | 10.80 | 11.59 | 12.38 | 13.17 | 13.96 | 14.75 | 15.54 |
| 66 | 1.46 | 2.33 | 3.21 | 4.08 | 4.96 | 5.83 | 6.71 | 7.58 | 8.46 | 9.33 | 10.21 | 11.08 | 11.96 | 12.83 | 13.71 | 14.58 | 15.46 | 16.33 | 17.21 |
| 72 | 1.58 | 2.53 | 3.48 | 4.42 | 5.37 | 6.32 | 7.27 | 8.22 | 9.16 | 10.11 | 11.06 | 12.01 | 12.95 | 13.90 | 14.85 | 15.80 | 16.75 | 17.69 | 18.64 |
| 78 | 1.83 | 2.92 | 4.02 | 5.12 | 6.21 | 7.31 | 8.41 | 9.50 | 10.60 | 11.69 | 12.79 | 13.89 | 14.98 | 16.08 | 17.18 | 18.27 | 19.37 | 20.47 | 21.56 |
| 84 | 1.85 | 2.96 | 4.07 | 5.18 | 6.29 | 7.40 | 8.51 | 9.61 | 10.72 | 11.83 | 12.94 | 14.05 | 15.16 | 16.27 | 17.38 | 18.49 | 19.60 | 20.71 | 21.82 |
| 90 | 2.10 | 3.36 | 4.62 | 5.87 | 7.13 | 8.39 | 9.65 | 10.91 | 12.17 | 13.43 | 14.69 | 15.94 | 17.20 | 18.46 | 19.72 | 20.98 | 22.24 | 23.50 | 24.76 |
| 96 | 2.24 | 3.58 | 4.93 | 6.27 | 7.61 | 8.96 | 10.30 | 11.65 | 12.99 | 14.33 | 15.68 | 17.02 | 18.36 | 19.71 | 21.05 | 22.40 | 23.74 | 25.08 | 26.43 |

H
E
I
G
H
T