



Website: <http://www.airsan.com>  
 Email: [contactus@airsan.com](mailto:contactus@airsan.com)

4554 West Woolworth Avenue  
 Milwaukee, WI 53218

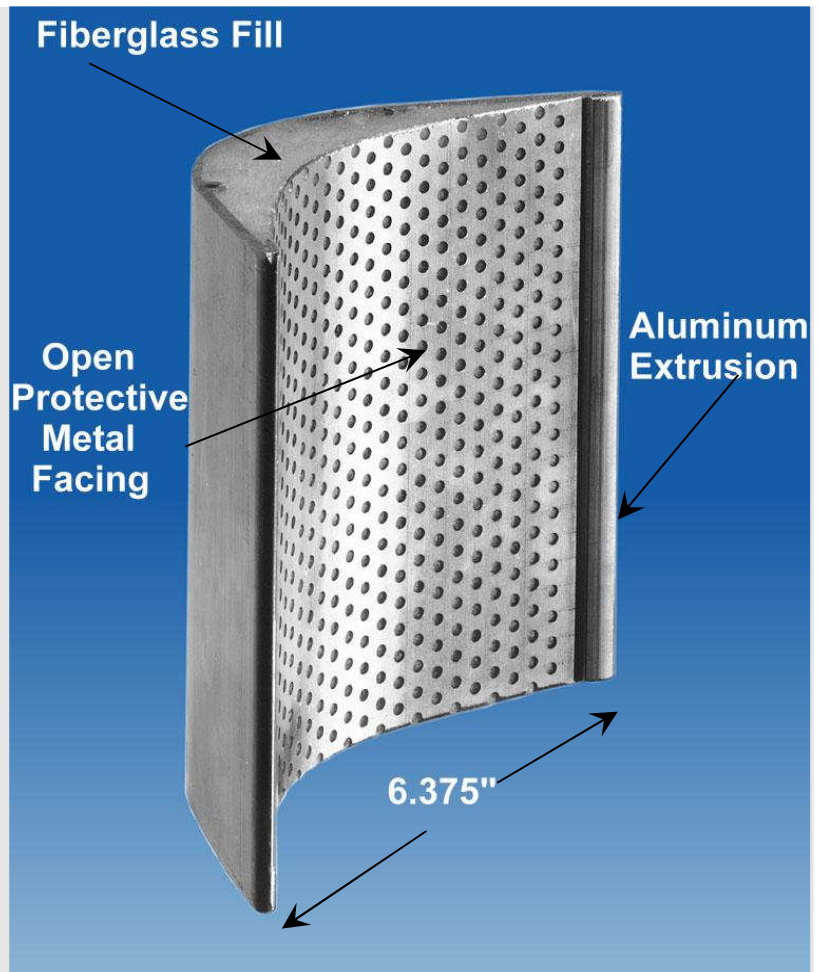
Phone (414) 353-5800 or (800) 558-5494  
 Fax (414) 353-8402

## ACOUSTITURN

### An Airfoil Shaped Turning Vane For Noise and Directional Air Control

#### FEATURES

- Airfoil Shaped acoustical turning vane to reduce noise and dynamic losses.
- Lower Resistance.
- Does not generate noise at standard duct velocities.
- Reflects noise in direction of source.
- Easy to install.
- Obvious noise reduction in 4<sup>th</sup>, 5<sup>th</sup>, and 6<sup>th</sup> octave bands.
- Rigid construction, vibration and rattle-free.
- Economical. Use fewer vanes.
- Aluminum constructions, non-corrosive.



# ACOUSTITURN SELECTION DATA

AIRSAN Acoustiturns are foil shaped. They consist of a 14-ga. Aluminum extrusion acoustically treated with fiberglass media, which is protected by open protective metal facings. They are  $6\frac{3}{8}$ " across the chord.

The 5' long mountain rail may be overlapped on the nail centers to produce any length. Consists of 24-ga. Galvanized steel with prepunched location holes on  $3\frac{3}{4}$ " centers. AIRSAN Acoustiturns are fastened to the rail with screw nails furnished with the mounting rail.

Installed costs compare favorably to other ordinary double-faced vanes because of using few vanes, less pieces to cut and assemble.

Fire resistant construction. Will not support combustion.

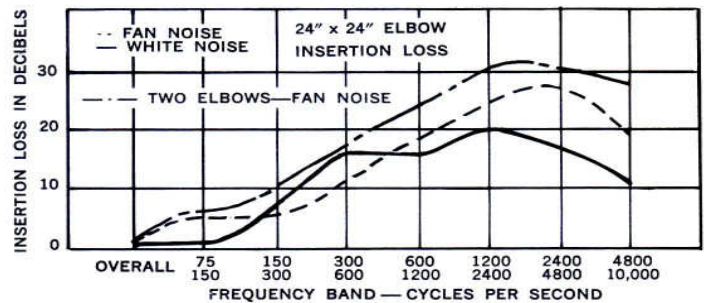
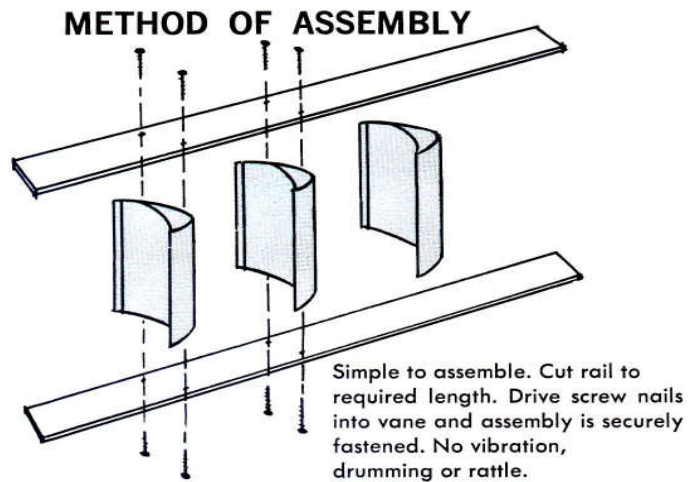
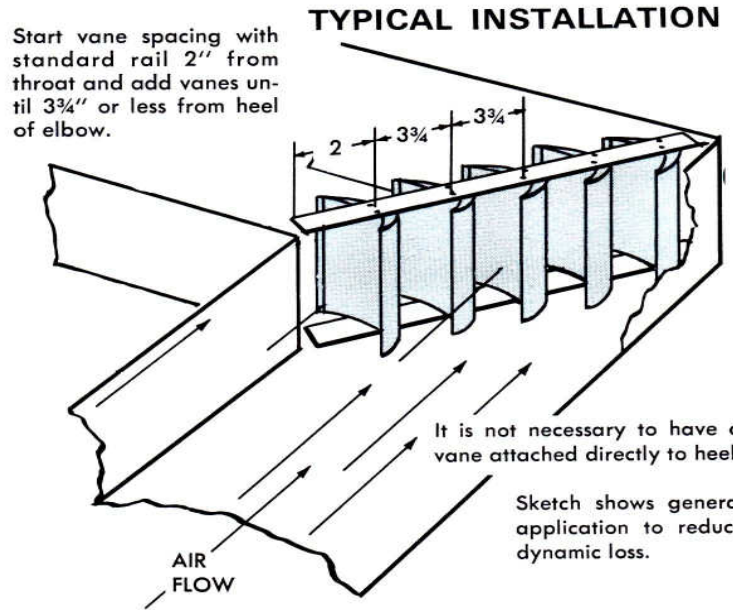
AIRSAN Acoustiturns may also be cut to your exact specifications on a special order and cost basis.

AIRSAN Acoustiturn tests show that the resistance is much lower than that of an acceptable 3" double faced vane. Laminar flow characteristics are also improved over those of the 3" vane.

Attenuation as shown on the curve is obtained with velocities up to 3000 fpm.

Attenuation decreases from 3000 to 4000 fpm and self-noise begins at 4000 fpm and above.

Attenuation, as shown, is obtained with the duct-lined 3' upstream and 3' downstream from throat.



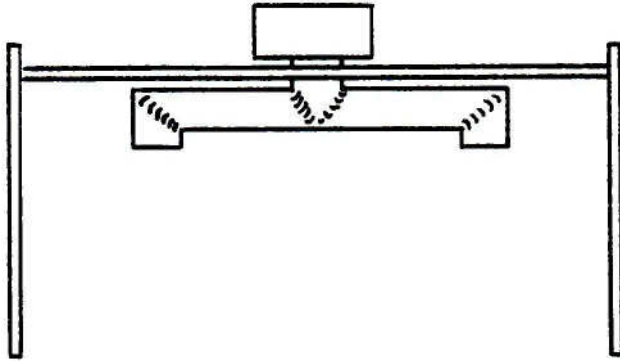
Insertion loss is derived by using a recommended 90° right angle elbow, lined with 2# density duct liner 3' upstream and 3' downstream. AIRSAN Acoustiturns were installed on  $3\frac{3}{4}$ " centers. White noise and dynamic noise are compared.



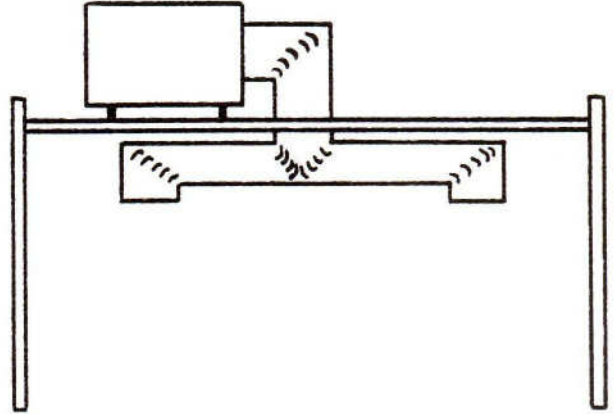
# ACOUSTITURN

## SUGGESTED APPLICATIONS

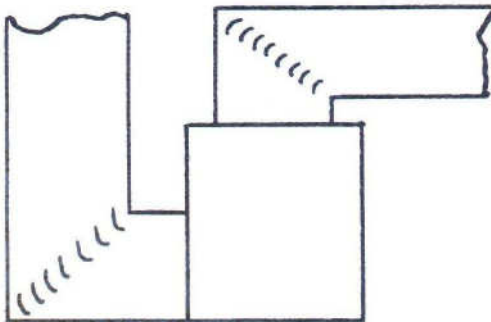
POWER EXHAUST UNIT



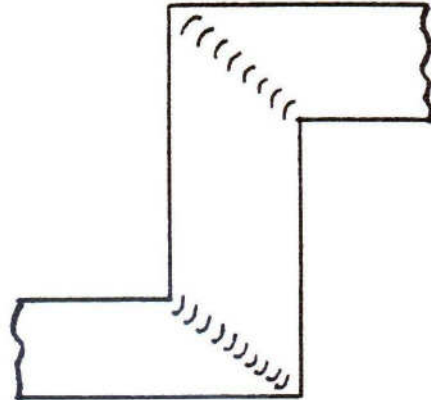
ROOF TOP UNIT



PACKAGE UNIT

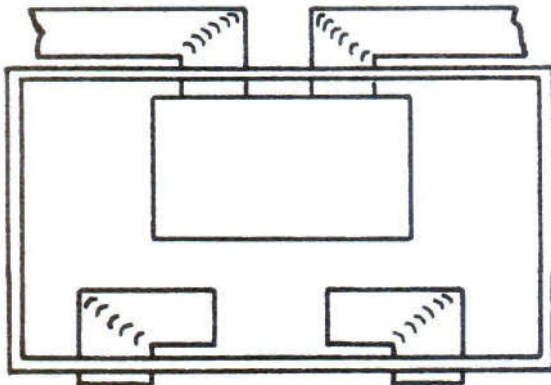


DELIBERATE DIRECTIONAL CHANGES FOR ATTENUATION

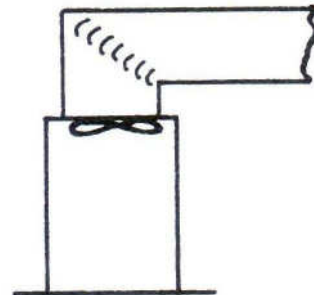


(SEE ATTENUATION CURVE)

REDUCE EQUIPMENT ROOM NOISE

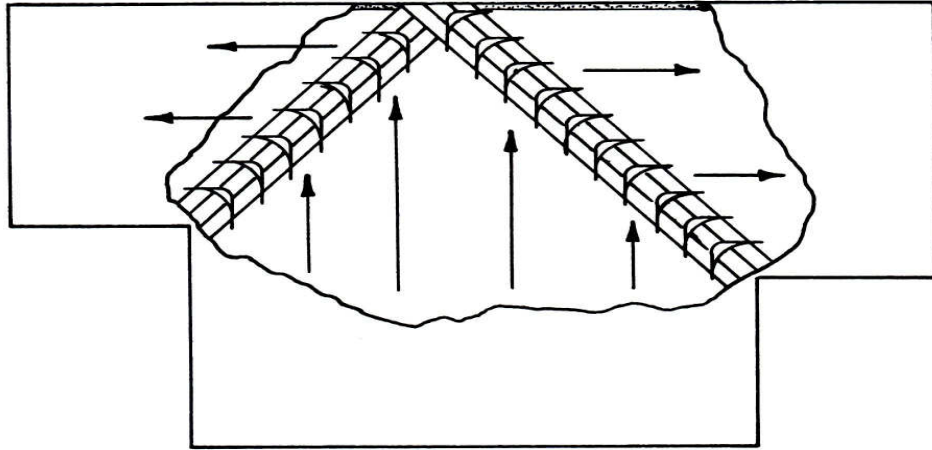


COOLING UNITS



# ACOUSTITURN

## ADJUSTABLE VANES WITH SPLIT RAILS



When assembling Acoustiturn vanes in ducts that change size at right angle elbows or branch T's, we recommend using a split rail and adjusting vanes so that the back sides of the vanes are parallel to the back sides on the duct before fastening into permanent position. Failure to do this will cause noise generation and dynamic loss. Use larger duct size for vane calculation requirements.

### SELECTION DATA

WIDTH OF DUCT IN INCHES	NUMBER OF 6" VANES REQUIRED	FEET OF RAIL REQUIRED	WIDTH OF DUCT IN INCHES	NUMBER OF 6" VANES REQUIRED	FEET OF RAIL REQUIRED
6	2	2	34	12	9
8	2	2	36	13	9
10	3	3	38	14	10
12	4	3	40	14	10
14	4	4	42	15	11
16	5	4	44	16	11
18	6	5	46	17	12
20	7	5	48	17	12
22	7	6	50	18	13
24	8	6	52	19	13
26	9	7	54	20	14
28	10	7	56	20	14
30	11	8	58	21	15
32	11	8	60	22	15

To find the total footage of vane needed, find on the above chart the number of vanes needed for the width of duct under consideration and multiply by the height of the duct. Divide height into 120" or 10' vane to determine number of 10' lengths needed. If vane height exceeds 5', divide in half and add extra mounting rails in center for support.

Net Weights: 10' Vane = 10 lbs or 1 lb per foot.  
5' Rail = 3 lbs or 0.60 lb per foot.

