AGRI-AIDE®
VENTILATION SYSTEMS

Wind Diverter Kit (WDK) Installation Instructions

The "WDK" (Wind Diverter Kit) fits Agri-Aide "FG", "FM", and "DF" series of fans and fans of most other manufacturers. The "WDK" consists of a fiberglass wind diverter cone (WD), aluminum mounting brackets and a stainless steel bolt/nut/washer kit.

The "WDK" can eliminate the fan slowdown or stoppage caused by wind blowing directly or indirectly at a variable speed, 2-speed or fractional horsepower fan if installed according to the procedure.

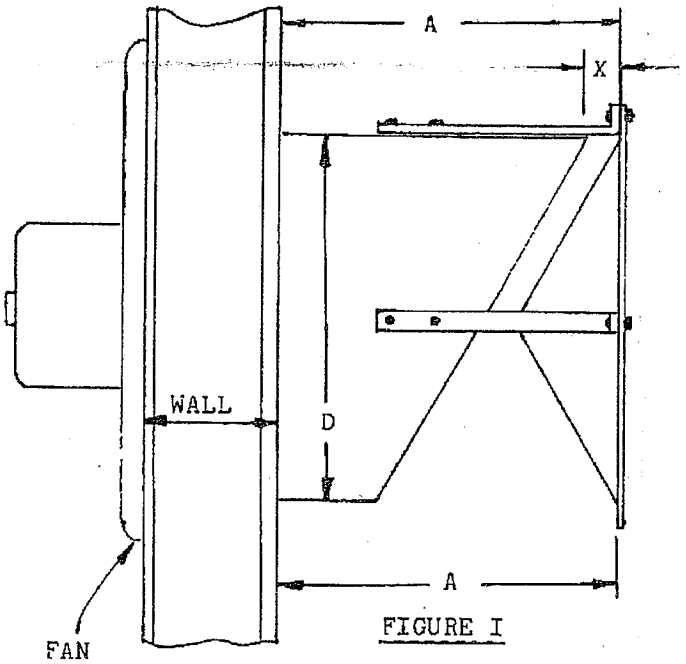

FIGURE I

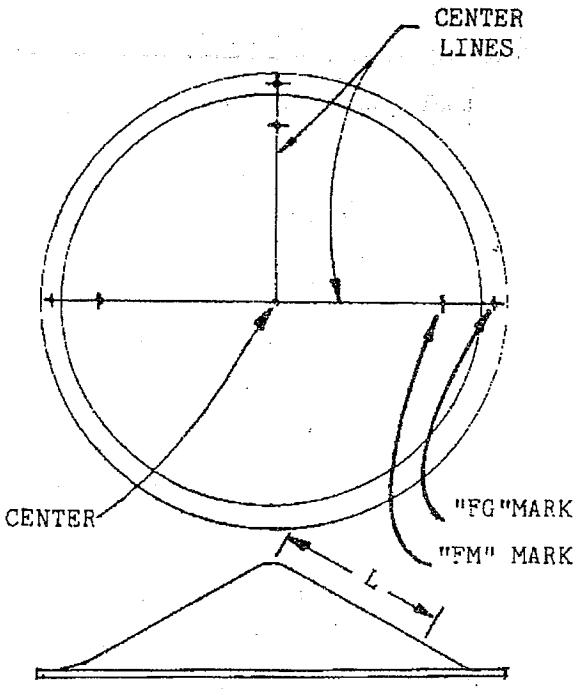

FIGURE II

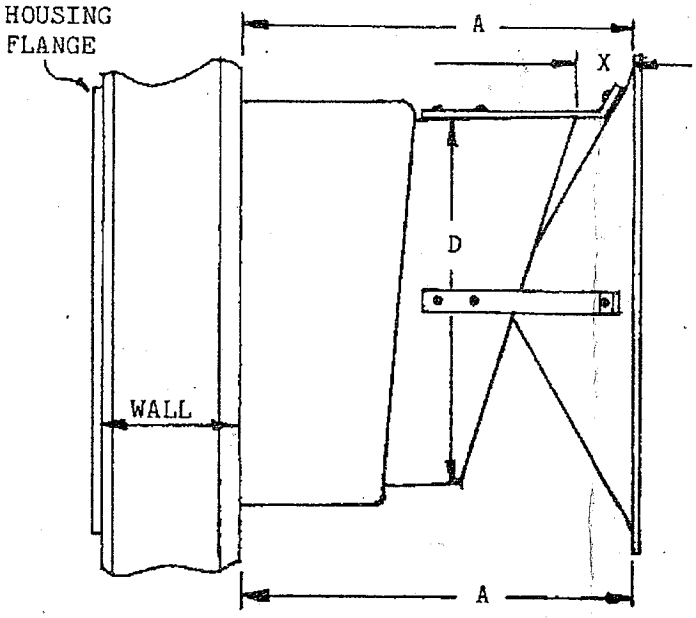

FIGURE III

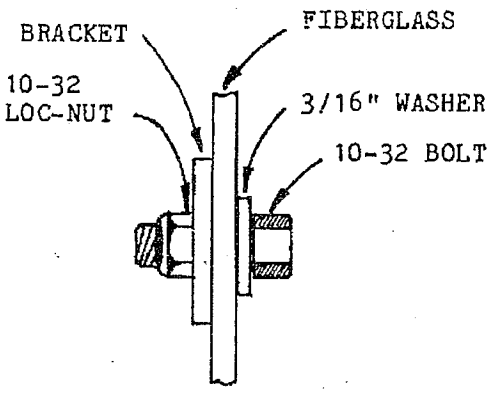

FIGURE IV

Step I: CHOOSE THE PROPER WIND DIVERTER KIT (WDK) FOR INSTALLATION ON THE FOLLOWING FANS:

WDK	AGRI-AIDE FAN MODEL NO'S
WDK-08	FM0801-1, FM0802-1, FG0801-1, FG0802-1
WDK-12	FM1203-1, FM1207-1, FM1211-1, FM1211-2
	FG1203-1, FG1207-1, FG1211-1, FG1211-2, DF1000
WDK-16	FM1619-1, FM1619-2, FM1624-1, FM1624-2
	FG1619-1, FG1619-2, FG1624-1, FG1624-2
WDK-20	FM2030-1, FM2030-2, FM2045-1
	FG2030-1, FG2030-2, FM2045-1
WDK-24	FM2460-1, FG2460-1

FANS OF OTHER MANUFACTURERS: Measure the outside diameter of the fan hood, "D" (Figure I). Choose a "WDK" size with a diameter of at least two (2) inches larger than "D".

Example: A hood with a diameter of 14 ½" requires a "WDK-12".

MODEL	WIND DIVERTER DIAMETER (IN.)	LARGEST FAN HOOD PROTECTED="D"
WDK-08	11 3/4"	9 3/4"
WDK-12	17"	15"
WDK-16	22"	20"
WDK-20	25"	23"
WDK-24	29"	27"

Note: If the hood is square, use the length of the diagonal for "D" and choose a "WD" size with a diameter two (2) inches larger than the diagonal dimension of the square hood.

Step II: ATTACHING BRACKETS TO THE "WD" (WIND DIVERTER CONE):

AGRI-AIDE "FG" SERIES FANS: Locate and drill 7/32" holes at the "outer" centerline mark on the "WD" flange (Figure II). Attach the "foot" of the "WDK" brackets to the flange (Figure IV). Note: The pre-bent foot must be sent to a full 90 ° angle before bolting to the "WD" flange (Figure I).

AGRI-AIDE "FM" SERIES FANS: Locate and drill 7 /32 " holes at the "inner" centerline mark (Figure II) on the slope of the "WD" (Diverter Cone). Attach the "foot" of the "WDK" brackets to the "WD" (Figure IV).

AGRI-AIDE "DF 1000" FAN: Use the WDK-12 and locate three (3) holes (6-3/4" from the center of the "WD") along the center lines. Drill (7 /32") and attach the "foot " of the "WDK" brackets (Figure IV).

FANS OF OTHER MANUFACTURES: Determine the hole locations for the foot of the "WDK" bracket along the center lines of the "WD" by this formula.

$$L=.57 \times D + 3/8"$$

Mark distance "L" along with each center line (Figure II) from the center of the "WD" cone and drill 7 /32" holes. Attach the "WD" brackets (Figure IV).

Step III: ATTACHING THE BRACKETS TO THE FAN HOOD .

"FG" & "FM" SERIES OF AGRI -AIDE FANS: With the brackets attached to the "WD", place the opposite ends of the brackets so the top brackets is at the top center of the fan hood. Measure a clearance distance "X" (Figure I or III) not less than "D" ÷5 and mark this location for the top bracket.

DISTANCE "X" = "D" ÷ 5 (Figure I and III)

Mark an drill mounting holes (7 /32") in top of hood. (Note: It may be necessary to drill a clearance hole in the bracket for blade guard rod). Fasten the top bracket with bolts/nuts provided (Figure IV).

Measure the distance "A" (Figure I or III) from the "WD" flange to the building wall (or fan housing flange). Adjust the length of the side brackets to create the same distance "A" from the wall (or fan housing flange) to the "WD" flange. Mark and drill 7 /32" mounting holes in the hood. Fasten side brackets.

The wind diverter should now be fastened securely (Re-check tightness of nuts on bolts), parallel to wall (or fan housing flange) and at the proper distance for protection of the fan's output from wind effects.

"DF" SERIES : With the brackets attached to "WD", place the opposite ends of the brackets so the top bracket is at the top center of the fan housing. Measure clearance distance "X" = 5" and mark this location for the top bracket. Mark and drill holes (7 /32") in top of housing and fasten the top bracket with bolts/nuts provided. Fasten side brackets at the same distance ("X" = 5") following above procedure.

The wind diverter should now be fastened securely (Re-check tightness of nuts on bolts), parallel to wall (or fan housing flange) and at the proper distance for protection of the fan's output from wind effects.

FANS OF OTHER MANUFACTURERS: If you are installing a "WDK" on a fan of another manufacturer proceed with the following instructions before permanent attachment of the "WD".

Use temporary clamps to fasten the"WD" brackets in place, using the formula "X" = D/5. Check for any obvious slowdown of fan speed. A slowdown in fan speed may be observed at normal "WD" spacing due to the motor and fan characteristics of a few types of other manufacturer's fans. If a slowdown is observed, adjust the "WD" cone stepwise outwards from fan hood until slowdown ceases and constant speed is obtained. This check is unnecessary for Agri-Aide fans because of their high quality motors and design. Measure and drill mounting holes (7 /32") in top of hood and fasten top bracket with bolts/ nuts provided (Figure IV).

Measure the distance "A" (Figure I or III) from the "WD" flange to the building wall (or fan housing flange). Adjust the length of the side brackets to create the same distance "A" from wall (or fan housing flange) to the "WD" flange. Mark and drill 7 /32" mounting holes in hood. Fasten side brackets.

The wind diverter should now be fastened securely (Re-check tightness of nuts on bolts), parallel to wall (or fan housing flange) and at the proper distance for protection of the fan's from wind effects.

Eliminates the problem of back pressure against operating fans caused by winds. Wind can virtually slow down or stop the air from being exhausted by overcoming pressures.

This can occur and be a bigger problem in the winter months when small or variable speed fans are operating at a low C.F.M. rates. The Agri-Aide® Wind Diverter virtually eliminates this problem by diverting the wind from the fan exhaust hood freeing the exhausted air to escape in a diverted manner.

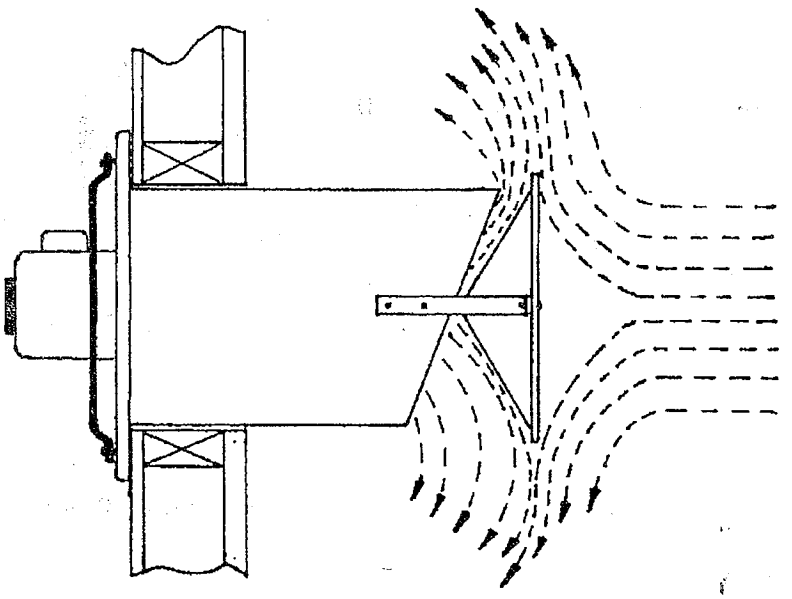

Illustration at left shows "WIND DIVERTER KIT" mounted on hood of a typical exhaust fan. Arrows shows diversion of on coming wind and the inclusion of exhausted air from the fan.

OSBORNE INDUSTRIES INC.
BOX 388 • OSBORNE, KANSAS 67473
785-346-2192 or 800-255-0316