

WIND DIVERTER KIT (WDK)

Installation Instructions

The Osborne Wind Diverter Kit (WDK) fits AGRI-AIDE® SW, FM, FG (discontinued), HP (discontinued) and DF-Series fans and fans of most other manufacturers. The WDK includes a fiberglass-reinforced plastic (FRP) wind diverter cone with aluminum mounting brackets and a stainless steel hardware kit.

1. Choose the proper WDK for installation on an Osborne AGRI-AIDE fan as shown in Table 1 on the next page. For fans of other manufacturers, see Table 2.
2. Measure the outside diameter of the fan hood and choose a WDK at least 2-in. (51mm) larger in diameter. Example: A hood with a diameter of 14 1/2-in. (368mm) requires a WDK-12.

Note: If the hood is square, measure the length of the diagonal and choose a WDK at least 2-in. larger than the diagonal.

Attaching the Aluminum Brackets to the Wind Diverter Cone

3. Locate and drill 7/32-in. (5mm) holes in the wind diverter cone at the proper locations listed in Table 1 and shown in Figure 1. Fasten the 'foot' of the aluminum brackets to the cone following the attachment diagram of Figure 2.

NOTE: For all 8-in. fans and discontinued FG fans, the pre-bent foot must be bent to a full 90° angle before bolting to the wind diverter cone.

NOTE: For fans of other manufacturers, determine the hole locations for the 'foot' of the aluminum bracket along the centerlines of the wind diverter cone by the following formula:

$$L = (0.57 \times \text{FAN HOOD DIAMETER}) + 0.375 \text{ [inches]}$$

$$L = (0.57 \times \text{FAN HOOD DIAMETER}) + 9.500 \text{ [mm]}$$

Mark the distance 'L' along each centerline as shown in Figure 1 and drill 7/32-in (5mm) holes. Fasten the foot of the aluminum brackets to the cone following the attachment diagram of Figure 2.

Attaching the Aluminum Brackets to the Fan Housing (SW and DF Series)

4. With the brackets attached to the wind diverter cone, align so the top bracket is at the top center of the fan housing. Measure a clearance distance

'X' as listed in Table 1 and shown in Figure 3. Mark and drill 7/32-in. (5mm) holes in the top of the fan housing. Fasten the top bracket to the housing following the attachment diagram of Figure 2. Adjust the side brackets to create the same clearance distance 'X' at each side. Mark and drill 7/32-in. (5mm) holes. Fasten the side brackets following the attachment diagram of Figure 2.

Attaching the Aluminum Brackets to the Fan Housing (FM, FG and HP Series)

5. With the brackets attached to the wind diverter cone, align so the top bracket is at the top center of the fan housing. Measure a clearance distance 'X' as listed in Table 1 and shown in Figure 4. Mark and drill 7/32-in. (5mm) holes in the top of the fan housing. Fasten the top bracket to the housing following the attachment diagram of Figure 2. Measure the distance 'A' from the wind diverter flange to the housing flange (or building wall) as shown in Figure 4. Adjust the side brackets to create the same distance 'A' at each side. Mark and drill 7/32-in. (5mm) holes. Fasten the side brackets following the attachment diagram of Figure 2.

Attaching the Aluminum Brackets to the Fan Housing (Fans of Other Manufacturers)

6. Use temporary clamps to fasten the brackets in place at a clearance distance 'X' using the following formula:

$$X = (\text{FAN HOOD DIAMETER}) \div 5$$

Run the fan and check for any obvious slowdown of fan speed. If slowdown is observed, adjust the wind diverter cone stepwise outwards until a constant speed is obtained. Mark and drill 7/32-in (5mm) holes in the top of the housing. Fasten the top bracket to the housing following the attachment diagram of Figure 2. Adjust the side brackets to create a clearance distance of at least 'X' at each side. Mark and drill 7/32-in. (5mm) holes. Fasten the side brackets following the attachment diagram of Figure 2.

5. The wind diverter is now fastened securely to the fan housing at the required location for proper wind protection.

Table 1
OSBORNE AGRI-AIDE® FANS

Fan Model	WDK Model	x in (mm)	Hole Location on Wind Diverter Cone	Bracket Angle Required
SW0801	WDK-08	2.75 (70)	2 opposite marks	90°
SW0802	WDK-08	2.75 (70)	2 opposite marks	90°
SW1203	WDK-12	4.00 (102)	SW/FM inner mark	60° pre-bent
SW1207	WDK-12	4.00 (102)	SW/FM inner mark	60° pre-bent
SW1211	WDK-12	4.00 (102)	SW/FM inner mark	60° pre-bent
SW1619	WDK-16	5.25 (133)	SW/FM inner mark	60° pre-bent
SW1624	WDK-16	5.25 (133)	SW/FM inner mark	60° pre-bent
SW2030	WDK-20	6.50 (165)	SW/FM inner mark	60° pre-bent
SW2045	WDK-20	6.50 (165)	SW/FM inner mark	60° pre-bent
SW2460	WDK-24	7.75 (197)	SW/FM inner mark	60° pre-bent
FM0801	WDK-08	1.75 (44)	2 opposite marks	90°
FM0802	WDK-08	1.75 (44)	2 opposite marks	90°
FM1203	WDK-12	2.50 (64)	SW/FM inner mark	60° pre-bent
FM1207	WDK-12	2.50 (64)	SW/FM inner mark	60° pre-bent
FM1211	WDK-12	2.50 (64)	SW/FM inner mark	60° pre-bent
FM1619	WDK-16	3.25 (83)	SW/FM inner mark	60° pre-bent
FM1624	WDK-16	3.25 (83)	SW/FM inner mark	60° pre-bent
FM2030	WDK-20	4.00 (102)	SW/FM inner mark	60° pre-bent
FM2045	WDK-20	4.00 (102)	SW/FM inner mark	60° pre-bent
FM2460	WDK-24	5.00 (127)	SW/FM inner mark	60° pre-bent
FG0801	WDK-08	1.75 (44)	2 opposite marks	90°
FG0802	WDK-08	1.75 (44)	2 opposite marks	90°
FG1203	WDK-12	4.00 (102)	FG outer mark	90°
FG1207	WDK-12	4.00 (102)	FG outer mark	90°
FG1211	WDK-12	4.00 (102)	FG outer mark	90°
FG1619	WDK-16	5.25 (133)	FG outer mark	90°
FG1624	WDK-16	5.25 (133)	FG outer mark	90°
FG2030	WDK-20	6.50 (165)	FG outer mark	90°
FG2045	WDK-20	6.50 (165)	FG outer mark	90°
FG2460	WDK-24	7.75 (197)	FG outer mark	90°
HP0800	WDK-08	3.75 (95)	2 opposite marks	90°
HP1000	WDK-12	3.75 (95)	L=6.00 in. (152 mm)	60° pre-bent
DF0800	WDK-08	5.00 (127)	2 opposite marks	90°
DF1000	WDK-12	5.00 (127)	L=6.75 in. (171 mm)	60° pre-bent

Table 2
FANS OF OTHER MANUFACTURERS

WDK Model	Wind Diverter Diameter in (mm)	Largest Round Fan Hood Protected in (mm)	Largest Square Fan Hood Protected in (mm)
WDK-08	11.75 (298)	9.75 (248)	6.75 (171)
WDK-12	17.00 (432)	15.00 (381)	10.50 (267)
WDK-16	22.00 (559)	20.00 (508)	14.00 (356)
WDK-20	25.00 (635)	23.00 (584)	16.25 (413)
WDK-24	29.00 (737)	27.00 (686)	19.00 (483)

Figure 1

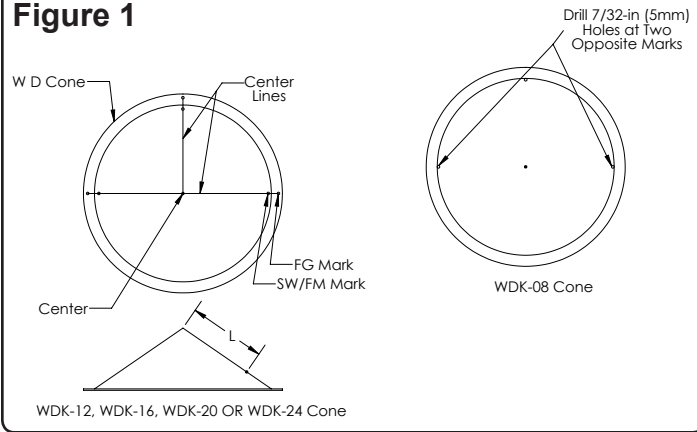


Figure 2

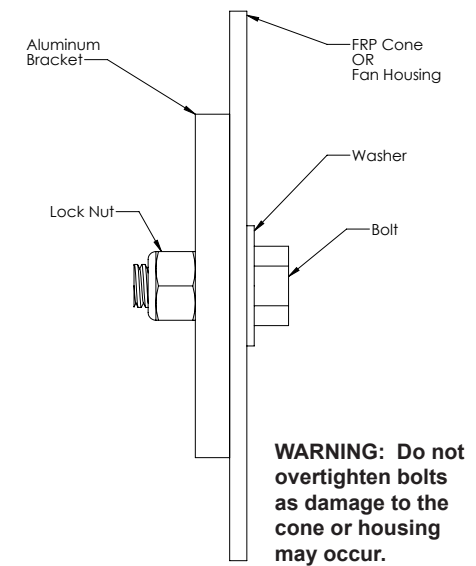


Figure 3

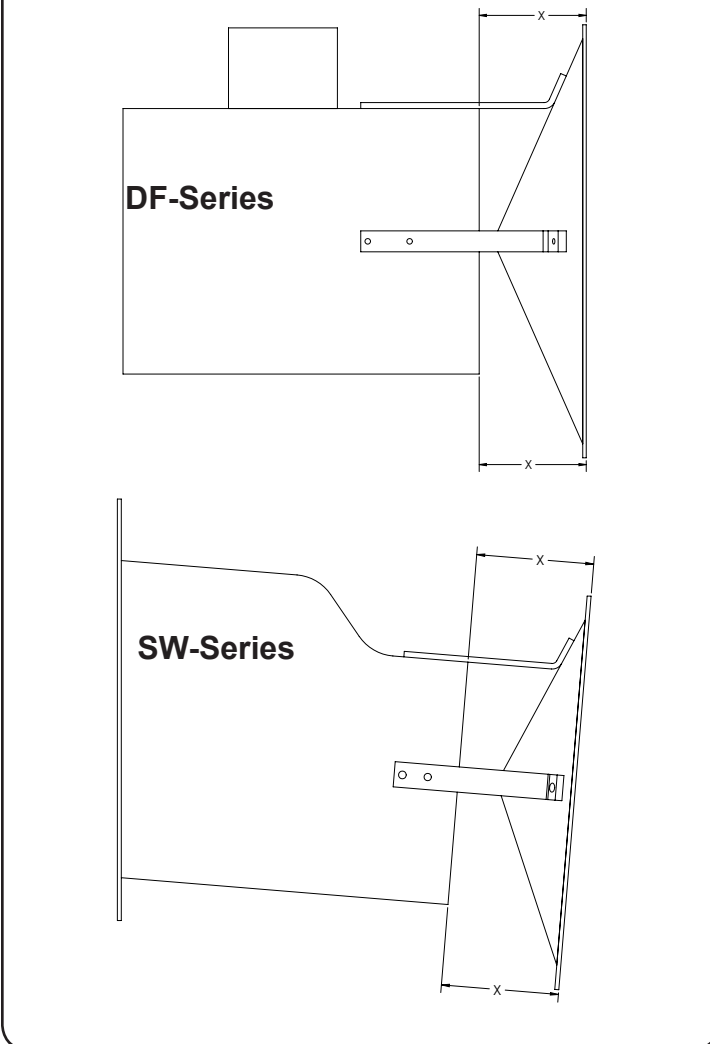
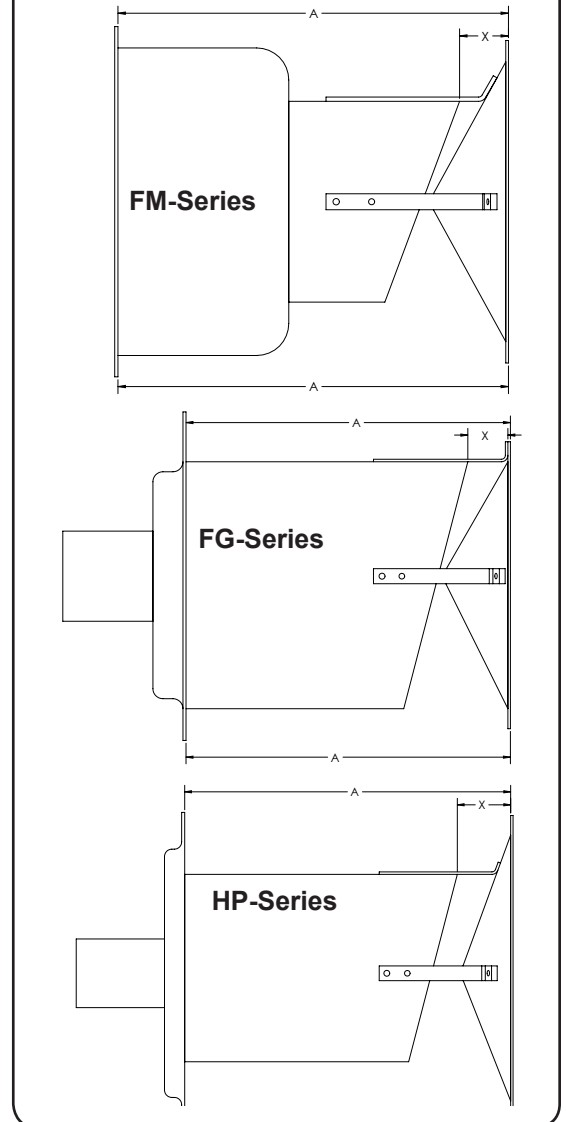


Figure 4





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