

LOUVERED FAN GUARDS

Installation, Maintenance and Replacement of Filters

Introduction

Orion Fans produces louvered fan guards that are UL94V-0 flame resistant and UV protected, and include the louvered fan guard, filter and all hardware. The filter protects electrical, electronic and industrial cabinets from dirt, dust and moisture. These heavy-duty louvered fan guards are more robust than the standard plastic fan guards. Unlike regular guards or grills, the louvered fan guards are specifically designed to provide ingress protection from fingers and other accidental contact, as well as protection from dirt, dust and moisture.

Louvered fan guards are offered with three different guard styles: standard snap-on louvered guards (LFG series), slide louvered guards (LFGS series) and hinged louvered guards (LFGH series). These different louvered guard styles are shown in Figure 1.

Figure 1.



(a)

Snap-On Louvered
Fan Guard (LFG)



(b)

Slide Louvered
Fan Guard (LFGS)



(c)

Hinged Louvered
Fan Guard (LFGH)

The standard snap-on louvered fan guards are available for use with 80, 92, 120, 172, 225, 254 and 280 mm fans. The slide louvered fan guard and hinged louvered fan guard are available for use with the 120, 172, 180, 200, 225, 254 and 280 mm fans.

The slide and hinged louvered fan guards are designed to simplify the installation and maintenance procedures, by making it easier to access and change filters, thereby reducing maintenance time and cost.

Figure 2 shows the component parts in a typical louvered fan guard with a standard snap-on guard.



Figure 2: Typical louvered fan guard and fan with snap-on guard.

Installation

All of the Orion Fans louvered fan guards are installed as shown in Figure 3.

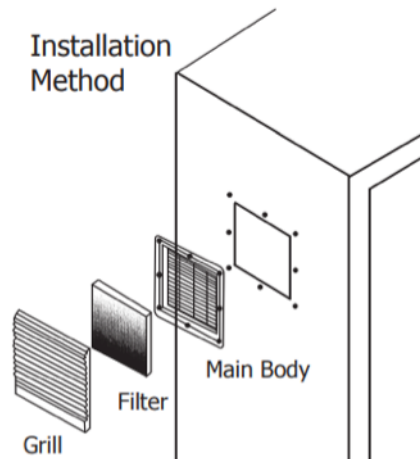


Figure 3: Installation method for the louvered fan guard.

The louvered fan guard is installed by following these steps:

1. Cut a hole in the enclosure of the appropriate size for the fan guard being installed. Panel cutout sizes are contained in the data sheet for each louvered fan guard, and are listed in Table I below.
2. Install the main body of the fan guard, snapping in or fastening it to the enclosure walls.
3. Install the filter.
4. Install the grill (louvered guard)

Table I lists the cutout dimensions for the snap-on louvered fan guards.
For cutout dimensions on the slide, or hinged versions,
visit: <https://uk.rs-online.com/>.

Fan Size (mm)	Cutout Dimensions (mm)
80	82 x 82
92	92.5 x 92.5
120	122 x 122
172	175 x 175
225	292 x 292
254	283 x 283
280	292 x 292

Table I: Panel Cutout Sizes

Maintenance

The filters in the louvered fan guards can be routinely replaced or cleaned as part of the maintenance procedure.

Clean the filter as follows:

1. Remove the louvered fan guard. For the snap-on guard, a flat-blade screwdriver or other such tool must be used in two cut-outs, or tabs at the bottom of the LFG, to snap the grill off.



2. Gently rinse the filter in warm water.
3. If the filter is more soiled, add a mild detergent to the warm water.
4. If the filter has been used in a greasy environment, add a grease solvent to the warm water.
5. Gently pat the filter with a clean cloth to remove excess water, and allow it to air dry. Do **NOT** wring the filter to remove excess moisture.

Replacement

Replacement filters for the louvered fan guards are available in Filter Media 5-Packs. Specific filters are needed for the different fan sizes, as specified in the data sheet for the louvered fan guards and as listed in Table II below.

Specialty filters are available for all louvered fan guards; details and specifications are available upon request.

The first step in replacing the filter is to remove the louvered guard. For the snap-on guard, a flat-blade screwdriver or other such tool must be used in two cut-outs, or tabs at the bottom of the LFG, to remove the grill.

Once the louvered guard and the old filter have been removed, the filter is replaced as shown in Figure 4 for a standard snap-on louvered fan guard. First, lay a new filter in the enclosure. Second, smooth out the filter, making sure it is correctly positioned and centered. Finally, replace the louvered guard. The procedure is similar for the slide and hinged louvered guards.



Figure 4: Replacing the filter for a standard snap-on louvered fan guard.

Table II lists the replacement filter part numbers for the louvered fan guards. The replacement filters are dependent only on the fan size, regardless of the louvered fan guard style (snap-on, slide, or hinged). These Filter Media Replacements only come in 5-packs.