

# Installation, Operation + Maintenance Manual

# eleGRIL Stainless Steel Grille

Level Bed, Mechanically Fastened

Models: GE38SH, GE58SH, GE98SH. Frames: FE38LBMH, FE58LBMH, FE98LBMH



eleGRIL Stainless Steel Entrance Grilles are elegant and durable. This grille is most often used in high traffic venues as they stand up to extremely heavy pedestrian and rolling traffic. The eleGRIL system provides scraping functionality and can be used in zones 1 - 3.

# Introduction + Safety

Please read the complete instructions carefully before beginning any work. To ensure proper installation and performance of the product, the following actions must be completed by the installing contractor. Failure to do so will affect product warranty.

**GENERAL SAFETY PRECAUTIONS** Improper selection, installation, or use can cause personal injury or property damage. It is solely the responsibility of the user, through their own analysis, to select products suitable to the specific application requirements, ensure proper maintenance and use as intended. Follow local, state, and federal regulations for proper installation and operation requirements.

# **Transportation + Storage**

- Inspect all shipments and materials for missing or damaged components and hardware.
- Material must be stored in a clean, dry location.

#### **Preparation**

- Locate the packing slip(s) and/or shop drawings.
- Verify that all products listed on the packing slip are included in the package.
- Check the products for damage. If products are damaged, report a freight claim immediately and leave the products in their packaging. If you sign for products without reporting damage you waive your right to a freight claim and will be responsible for their replacement cost.
- Read the instructions thoroughly before beginning installation.
- Stainless Steel grilles are not recommended for exterior applications that experience cold, wintery climates. Snow and metal grilles typically lead to slippery, walking surfaces.

#### **Tool List**

- Drill/Driver
- Hammer Drill
- Drill Bits, 1/4", 3/8", for concrete/masonry
- Wrench, size as needed (for anchors)
- Screwdriver bit, size as needed (for anchors)
- Level
- Pry bar
- Screwdriver, flat head
- Caulk
- Masking tape

#### INSTALLATION

### INSTALL THE FRAME (DRILLED FRAMES for MECHANICAL FASTENING)

A flat recess and accurately installed frames are critical to the overall performance of the grille. Utilize a self-leveling compound (provided by others) if necessary to ensure a level recess.

- 1. Determine the correct depth of the recess. The outside of the frame must be flush with the finished floor surface. Make the recess the appropriate depth and slightly longer and wider than the frames to allow room to maneuver.
- 2. Position the pre-cut and mitered frame members in the opening.
- 3. Mark the pre-drilled fastening point locations on the floor. Drill 1/4-inch diameter by 1-1/2 inch deep holes in the floor for the anchors.
- 4. Line the frame members up with the holes and securely fasten the frame to the floor with the provided anchors.
- 5. Verify the frame to make sure that it is plumb, that corner conditions are joined at the correct angles, and that it is at the correct height. Also, check the measurements of the frame against the shop drawings in several locations to make sure that the sizes are correct. The grille will not fit if the frame is not installed as indicated on the shop drawings.
- 6. Pour cement mortar around the outside edges of the frame to be level with the unfinished floor and the center in sufficient quantity to be level with the inside lip of the frame. Utilize a self-leveling compound (by others) if necessary to ensure a level recess. The floor must be flat and level with 1/8 inch over 10 feet to ensure proper installation.

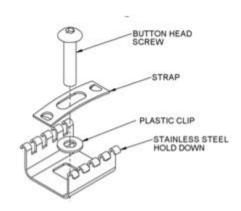
- 7. If applicable, lay the pan sections on the bottom of the recess and caulk all seams. (All caulking to be provided by others.) Make any drain or trap connections. (All drain accessories provided by others.)
- 8. When the cement has hardened, install plywood or other material in the recess to protect the edges of the frame until it is time to install the grilles. Wait to install the grilles until the building is ready for use.

#### **INSTALL THE GRILLE**

- 1. Remove the plywood or other filler from the recess and clean the recess thoroughly. Note that debris will cause irregularities in the recess that will in turn cause the grille to rock or create a tripping hazard.
- 2. Refer to the shop drawings and the marks on the sections to determine the correct location of each section. Note that the grille sections are not interchangeable.
- 3. Refer to the following hold-down illustration below while assembling hold-downs.

Place the stainless-steel screws in all hold-downs on the grille sections. Use the plastic clips (washers) provided to hold the screws in the lock-downs before putting the grilles into the recess. DO NOT attempt to put the lock-down screws in by prying apart the surface wires and installing from the

Illustration 1: Hold-downs must be assembled as illustrated.



top of the grille. This will cause irreversible damage that is not covered by the warranty.

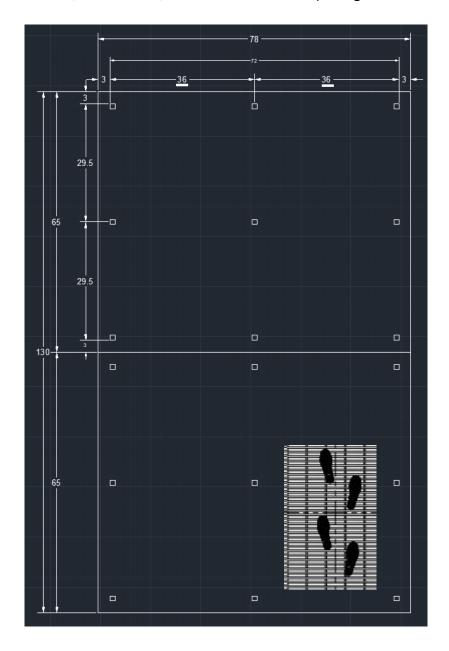
## 4. Placement of Hold-Down Clips

First install clips at each corner of each grille section. Clips should be placed approximately 3 inches in from section corners. Continue placing clips uniformly along the perimeter and throughout the entire grate section. Clips should be placed evenly spaced apart, between 24 inches and 36 inches maximum.

After subtracting for the corners divide the remaining space by 2, 3, 4, spaces etc. until the result is between 24 and 36 inches. This determines the quantity of hold-down clips required. If you divided by 2 spaces, then you have 1 hold-down between the corner clips. If you divided by 3 spaces, then you would have 2 hold-downs placed between the outer 2 corner clips, and so forth.

Example: Unit is 78" Width X 130" Length (made of two sections, each 78" X 65"). 78" - 3" - 3" (both corners) = 72".  $72" \div 2 = 36$ " spacing across the width.

65" - 3" - 3" (both corners) = 59".  $59" \div 2 = 29.5"$  spacing across the length.



# 5. Installation of Hold-Down Clips

Place the clip in the frame at an angle and use a pry bar to insert the clip into the underside of the grille. (See Figure 1). Press/Tap the clip into place using a flat head screwdriver so the fingers of the clips snap into the space between the surface wires. (See Figure 2).





Figure 1

Figure 2

- 6. Place the grille sections in position within the recess. Refer to the shop drawings for the proper location of the sections. Mark the locations of lock-down holes in the concrete pit.
- 7. Remove the grating and set aside.
- 8. Prepare Concrete for Anchors

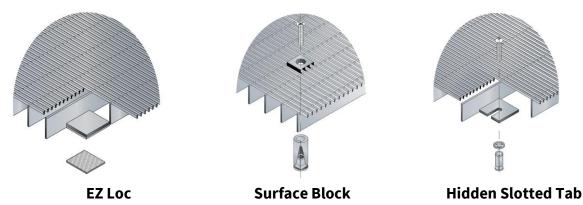
Use a hammer drill with a 3/8" concrete bit. First, mark the bit at 5/8" with masking tape so as not to drill too deep. Drill hole 5/8" deep. The anchor should bottom out and still sit above the surface.

- 9. Clear the hole of all debris.
- 10. Insert the anchor into the hole.

Set the anchor into the clean hole, it should bottom out with a portion of the anchor sitting above the surface. The setting tool will allow you to hammer the anchor into the opening and set it on the wedge. The anchor will now sit flush with the surface for ease of staring the screw.

- 11. Set the grille sections back into the recess and start threading all hold-down screws in the embedded anchors. Adjust the grilles to create an even clearance around the edges and tighten all screws. Do not over-tighten the screws. There should still be some play in the hold-downs.
- 12. Save the installation and maintenance instructions and include them with the closeout documentation for the owner and maintenance personnel.

#### OTHER MOUNTING OPTIONS



- 1. Cuts should be made using a grinder with a new wafer wheel. CGW  $6 \times .045 \times 7/8$  is recommended. Take particular care to deburr ends of bars and supports after cutting.
- 2. Set sections into place being sure that all wires and supports align. Mark all surface fastener locations on the surface for each section.
- 3. Remove sections and drill all fastener holes at marked locations in base and install lead anchors to bed.
- 4. Place grates back into their locations and fasten down using the flathead machine screws supplied with grating. Start each screw in its location and once engaged snug all fasteners tightly starting from the center and working outwards in a circular manner. Repeat for all sections.

#### **MAINTENANCE**

Continued maintenance is critical to the long-term safety and performance of the grille. Remove the grille and clean the recess periodically to prevent the surface from becoming uneven. Debris build-up within the recess could lead to deflection in the grille and may possibly cause tripping hazards. *Gloves are recommended when handling the grilles to protect against sharp edges*.

- General cleaning can be done from the surface with a vacuum and brush to remove debris between the bars.
- Surface wires can be cleaned with a non-ferrous cleaner such as 3M's Scotch Brite™.
- Do not use steel wool or abrasive pads. The steel in these products will embed in the wires and subsequently rust.

#### **QUESTIONS?**

For more information on installation, repair or replacement, please contact Customer & Sales Support at 800-547-2635 or visit <a href="mailto:nystrom.com">nystrom.com</a>