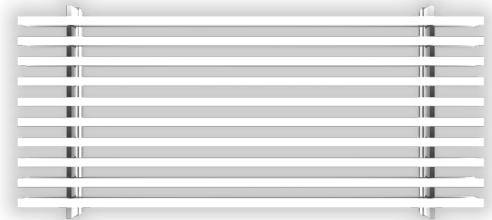
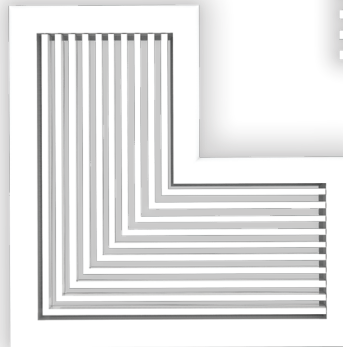
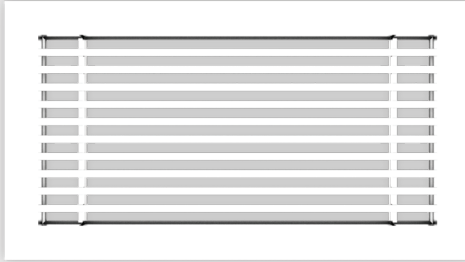


**Installation, Operation and Maintenance Manual**  
**XG-2000 Series Linear Bar Grille**



## Installation, Operation and Maintenance Manual

Please read and save these instructions for future reference. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with these instructions will result in voiding of the product warranty and may result in personal injury and/or property damage.



### Table of Contents

<b>Product Overview:</b>	
Getting Started . . . . .	2
Model Nomenclature . . . . .	3
Mounting Options and Construction –	
Quick Reference Guide . . . . .	3
Mounting Options – Dimensional Drawings . . . . .	4-5
Deflection Options . . . . .	5
<b>Installation:</b>	
Concealed Mount with Brackets (H) . . . . .	6-7
Concealed Mount with Subframe –	
Narrow / Wall (HW) . . . . .	7-8
Concealed Mount with Subframe –	
Splined / Plaster Frame (HP) . . . . .	7-8
<b>Maintenance:</b>	
General Maintenance . . . . .	9

### Getting Started/Model Nomenclature

1. Before starting, inspect all shipping boxes for visible damage. If any visible damage is found, note it on the BOL and contact your local Greenheck Representative.
2. If you decide to keep the shipment, take all linear diffusers out of the shipping boxes and inspect for any manufacturing flaws or hidden damage. If anything is found, contact your local Greenheck Representative.
3. Once all product is accounted for in acceptable condition locate any mounting hardware (if included) and be sure to keep this hardware with the applicable diffuser.
4. Referring to the Model Nomenclature breakdown on page 3 and the Table of Contents on this page, proceed to the appropriate page within this IOM to begin installation.

# Model Nomenclature

## XG-2000 Series Linear Bar Grilles

Product Family	Blade Deflection	Mounting Type	Length in Inches	Width in Inches	End Caps	Finish	Damper Optional	Access Door	Optional Mounting
X G - 2 0 1 5 F			1 0 x	0 4	M M	2 4	D A	A D 1	F S M
20 = 1" Border with 7/32" Bars on 1/2" Centers 21 = 1/2" Border with 7/32" Bars on 1/2" Centers 22 = 3/16" Border with 7/32" Bars on 1/2" Centers 23 = 1" Border with 1/8" Bars on 1/4" Centers 24 = 1/2" Border with 1/8" Bars on 1/4" Centers 25 = 1" Border with 1/8" Bars on 1/2" Centers 26 = 1/2" Border with 1/8" Bars on 1/2" Centers 27 = 0.188" Non-Flanged Border with 1/8" Bars on 1/2" Centers 28 = 0.188" Non-Flanged Border with 1/8" Bars on 1/4" Centers	00 = 0 Degree Blade Deflection 15 = 15 Degree Blade Deflection 30 = 30 Degree Blade Deflection	F = Floor Mounting CO = Core Only PCO = Core Only Pencil Proof Blank = No Optional Mounting H = Concealed Mounting Hanger HMC = Concealed Mounting Hanger w/ Miter HP = Spline Subframe - Concealed Mounting HPMC = Spline Subframe - Concealed Mounting w/ Miter FMC = Floor Mounting w/ Miter FP = Floor Mounting Pencil Proof FPMC = Floor Mounting Pencil Proof w/ Miter MC = Mitered Corners TS = Tape & Spackle	Length (Parallel to Blades)	2 # Digit Format (1-1/2"-24" in Half Inch Increments)	MM = 2 Mitered Ends (both ends are Mitered) MO = 1 Mitered End and 1 Open End OO = 2 Open Ends (both ends are open) 1EB = 1 End Border and 1 Open End 2EB = 2 End Borders (both ends have borders)	01 = White 02 = Satin Silver 03 = Black 04 = Clear Anodized 24 = Mill	DA = Aluminum Opposed Blade Damper	AD1 = One Access Door AD2 = Two Access Doors	FSM = Face Screw Mounting Not Available on Core Only

## Mounting Options and Construction – Quick Reference Guide

### Mounting Options

Model	Available Mounting Options										
	None	Floor Mounting (F)	Floor Mounting - Pencil Proof (FP)	Core Only (CO)	Core Only Pencil Proof (PCO)	Concealed Mounting - Hanger Brackets (H)	Spline Subframe (HP)	Combo Subframe (HC)	Narrow / Wall Subframe (HW)	Tape and Spackle (TS)	Available Mitered Corner Sections (MC)
XG-2000	X	X	X	X	X	X	X			X	X
XG-2100	X					X	X	X	X		X
XG-2200		X	X			X					
XG-2300	X	X		X	X	X	X			X	X
XG-2400	X					X	X	X	X		X
XG-2500	X			X	X	X	X			X	X
XG-2600	X					X	X	X	X		X
XG-2700						X					
XG-2800						X					

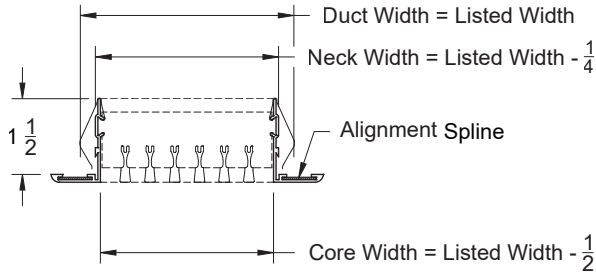
### Construction

Model	Bar Width		Bar Spacing On Centers			Border Width	
	7/32"	1/8"	1/4"	1/2"	3/16"	1/2"	1"
XG-2000	X			X			X
XG-2100	X			X		X	
XG-2200	X			X	X		
XG-2300		X	X				X
XG-2400		X	X			X	
XG-2500		X		X			X
XG-2600		X		X		X	
XG-2700		X		X	X		
XG-2800		X	X		X		

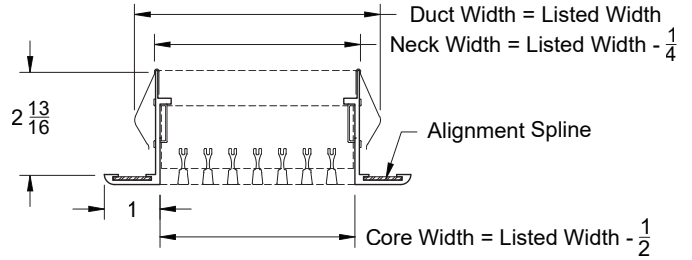


## Mounting Options – Dimensional Drawings

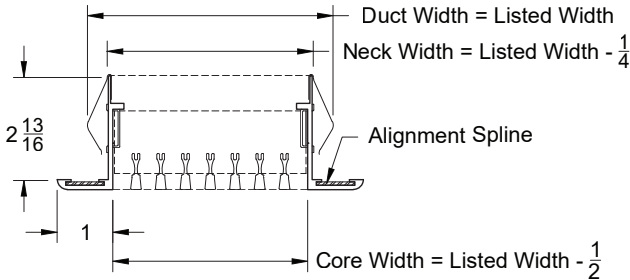
Note: Not all mounting options below are available on every XG-2000 series product. Please see the “Mounting Options” table in the previous section for all available mounting options per product family.



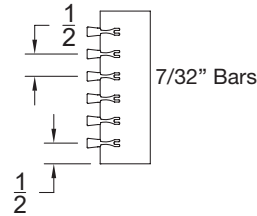
**Flush Surface Mount  
Non-Removable Core (XG-2000 model shown)**



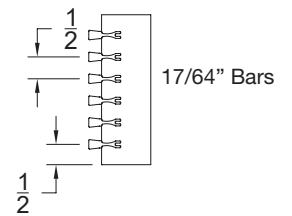
**Floor, Wall or Sill Mounting –  
Removable Core (XG-2000F model shown)**



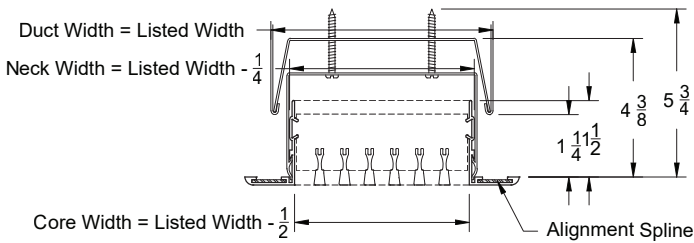
**Pencil Proof Floor, Wall or Sill Mounting  
(XG-2000FP model shown)**



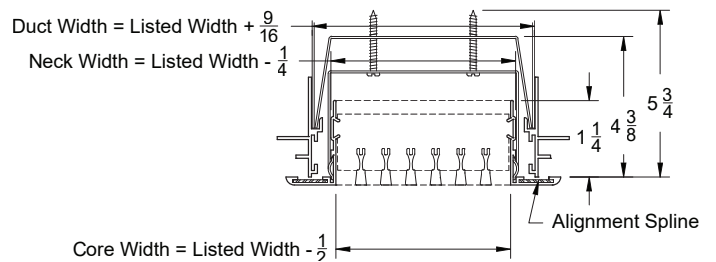
**Core Only  
(XG-2000CO model shown)**



**Pencil Proof Core Only  
(XG-2000PCO model shown)**

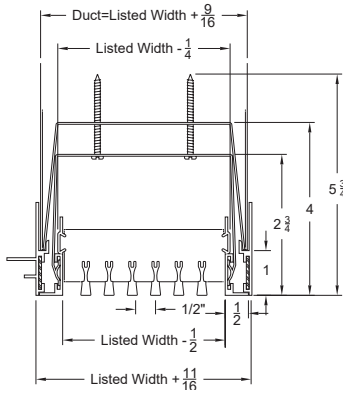


**Concealed Mounting Hanger Brackets  
(XG-2000H model shown)**

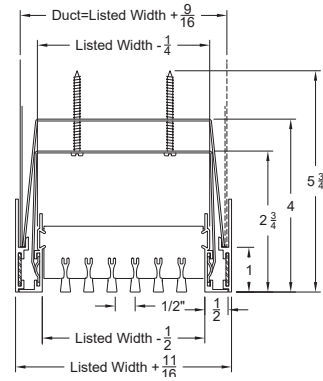


**Spline Subframe for Plaster Wall and Ceiling  
(XG-2000HP model shown)**

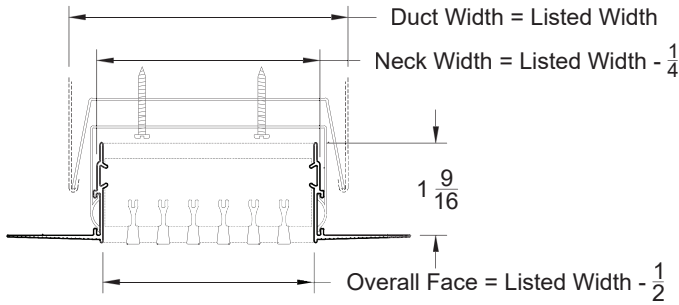
# Mounting Options – Dimensional Drawings



**Combination Narrow Wall / Spline Mounting  
(XG-2100HC model shown)**



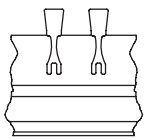
**Narrow / Wall Subframe Mounting  
(XG-2100HW model shown)**



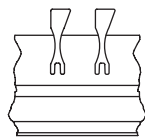
**Tape and Spackle Mounting  
(XG-2000TS model shown)**

## Deflection Options

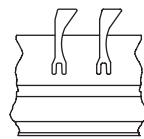
0° Deflection



15° Deflection



30° Deflection



# Installation Instructions for Concealed Surface Mount with Bracket Applications

This section can apply to all Greenheck models in the XG-2000 Series (XG-2000H, XG-2100H, XG-2200H, etc). The below can be used as a guideline to install other Greenheck XG-2000 frame styles that mount similarly with concealed mounting hardware in a surface mount application such as the Tape and Spackle Frame Style ("TS").

## Step 1 – Mounting Hardware

- A. Locate and ensure all proper mounting brackets and screws were supplied with the linear bar grille before starting installation. See Figure 1 for a table showing how many hanger brackets are shipped with the corresponding linear lengths.

XG-2000 Series Linear Bar Length	# of Hanger Brackets
24" or less	2
> 24" to 48"	3
> 48" to 60"	4
> 60" to 96"	6

Figure 1 (Step 1A)

## Step 2 – Framing the Opening

- A. Before installing drywall, an adequate frame must be constructed for the Greenheck XG-2000 Series Linear Bar Grille. This framing must be suitable to hold the weight of the grille (typically wood framing). The length and width of the framing opening depends on the length and width of the linear bar grille.
- B. In general, the length and width of the opening within the framing should be the ordered nominal grille length and width (see Figure 2).

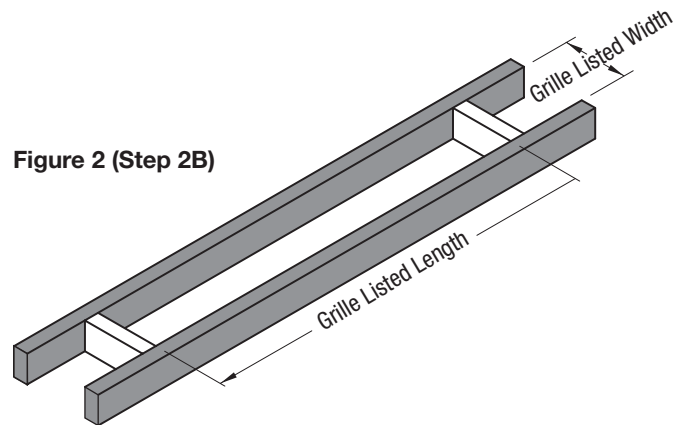


Figure 2 (Step 2B)

## Step 3 – Preparation for the Hanger Supports

- A. The hanger bracket hardware is meant to be installed above the plane of the sheet rock in the ceiling. Once installed above that plane, using the screws provided, you will be able to screw from the face of the grille and the linear bar grille will be pulled up into the opening.
- B. There are several ways to support the hanger brackets – see Figure 3.

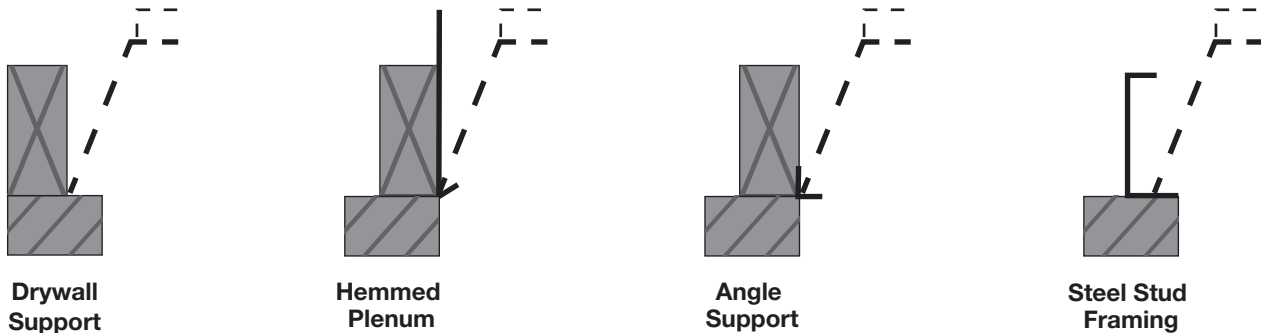


Figure 3 (Step 3B): Hanger Support Options

## Step 4 – Installing Hanger Brackets

- A. To start, insert the screw through the face of the grille and start the screw into the hanger bracket – do not tighten all the way, only enough to be attached.
- B. Push all brackets up into the opening until all hanger brackets get caught on the hanger bracket support (drywall, hemmed plenum, angle, steel stud, etc.) – see Figure 4.
- C. Using a screwdriver or drill, tighten the screws to pull the linear bar grille up into the opening.
- D. On long runs with multiple grille sections, the same procedure should be replicated above for all individual grilles with special care to use factory-supplied alignment splines.

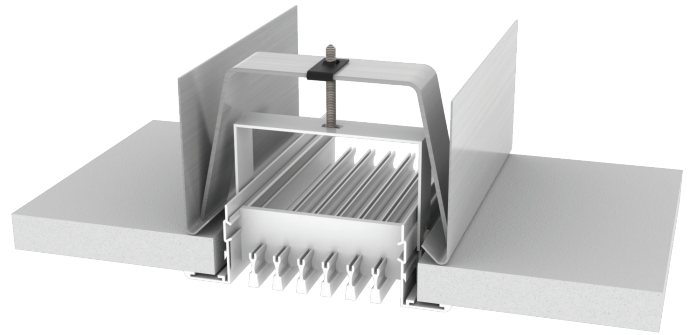


Figure 4 (Step 4B): Hanger Bracket Install – Hemmed Plenum (other methods similar)

## Installation Instructions for Concealed Spline Mount (HP, HC and HW Frame Styles)

This section only applies to Greenheck models in the XG-2000 Series that have an option for a concealed spline subframe (Frame Styles HP, HC and HW). See the Quick Reference Guide within this IOM for more information.

### Step 1 – Mounting Hardware

- A. Locate and ensure all proper mounting brackets and screws were supplied with the linear diffuser before starting installation. See Figure 5 for a table showing how many hanger brackets are shipped with the corresponding linear lengths.

XG-2000 Series Linear Bar Length	# of Hanger Brackets
24" or less	2
> 24" to 48"	3
> 48" to 60"	4
> 60" to 96"	6

Figure 5 (Step 1A)

### Step 2 – Framing the Opening

- A. Before installing drywall, an adequate frame must be constructed for the Greenheck XG-2000 Series Linear Bar Grille. This framing must be suitable to hold the weight of the grille (typically wood framing). The length and width of the framing opening depends on the length and width of the linear bar grille.
- B. In general, the length of the opening within the framing should be the ordered nominal grille length plus  $11/16"$  (see Figure 6) and the opening width should be the ordered nominal grille width.

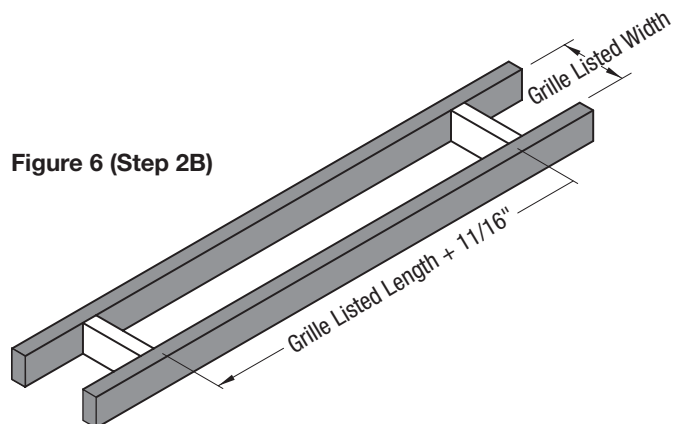


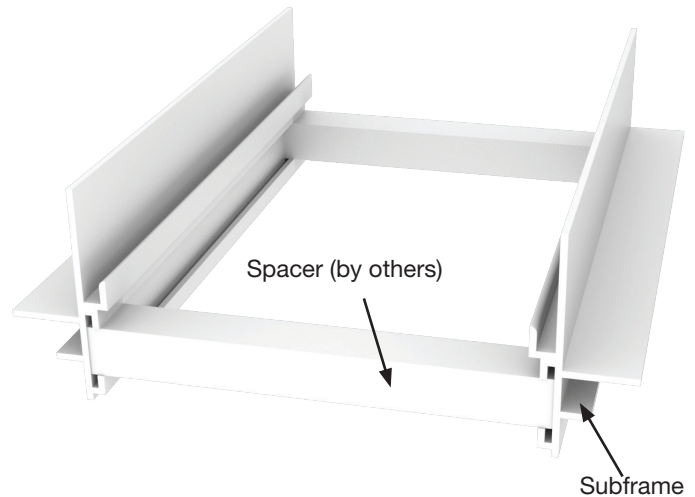
Figure 6 (Step 2B)

### Step 3 – Installing Subframe

- A. The hanger bracket hardware is meant to be installed above the plane of the sheet rock in the subframe provided. Once installed above that plane, using the screws provided, you will be able to screw from the face of the diffuser and the linear diffuser will be pulled up into the opening/subframe.
- B. Install and secure subframe provided in framing – see Figure 7. Note: sub end borders need to be cut to size and notched if used; they are not provided by the factory.
- C. Spacers (by others) should be used to brace the opening and only removed when ready to install the grille. In long runs (with multiple grilles), the spacers should only be removed when each individual grille section is ready to be installed.
- D. Spacers will help prevent distortion of the subframe and should be done prior to plastering if applicable.

### Step 4 – Installing Sheet Rock / Drywall

- A. Install drywall below framing, butted up against the lower section of the subframe – see Figure 7.

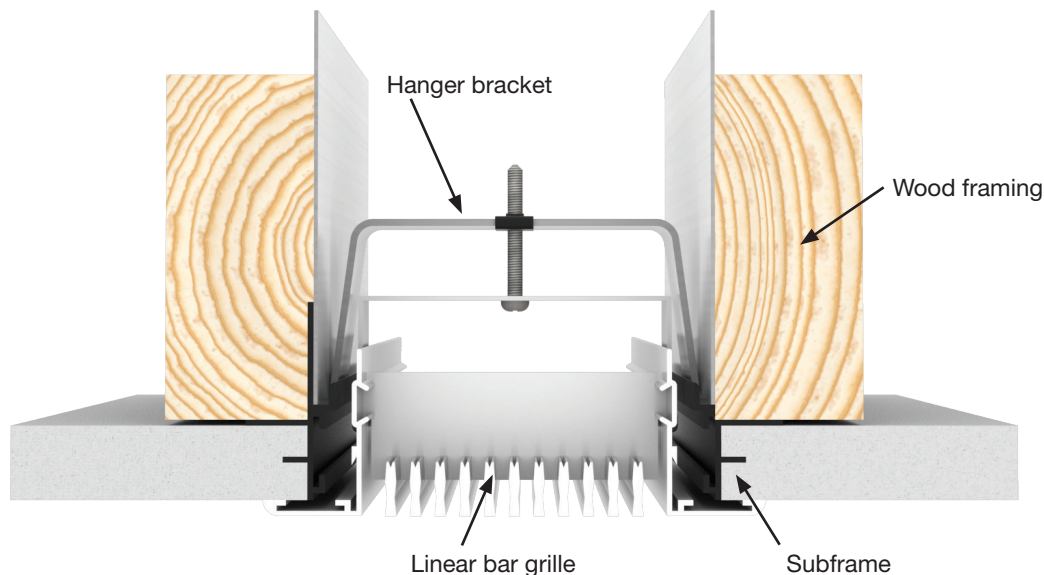


**Figure 7 (Step 3B and 4A): Subframe Installed in Framing – Shown with Plenum/Duct (not required)**

*Note: HP frame version shown, HW (Narrow/Wall) and HC (Combination) are similar.*

### Step 5 – Installing Hanger Brackets

- A. To start, insert the screw through the face of the grille, through the pre-installed screw mounts and start the screw into the supplied hanger bracket – do not tighten all the way, only enough to be attached. Repeat as needed.
- B. Push all brackets up into the opening until all hanger brackets get caught on the subframe supports – see Figure 8.
- C. Using a screwdriver or drill, tighten the screws to pull the linear bar grille up into the opening.
- D. On long runs with multiple grille sections, the same procedure should be replicated above for all individual grilles with special care to use factory-supplied alignment splines – see Figure 8.



**Figure 8 (Step 5B): Hanger Bracket Install into Subframe – Shown with Duct/Plenum (not required)**

*Note: HP frame version shown, HW (Narrow/Wall) and HC (Combination) are similar.*



## General Maintenance

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Linear Bar Grilles are basically maintenance free. Most Greenheck Linear Bar Grille models have removable faces to allow for cleaning of dust buildup within the duct or on the internal damper when included. The face of most grilles can be cleaned with water and mild detergent if dirt and dust begin to build up.

## Our Commitment

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*As a result of our commitment to continuous improvement, Greenheck reserves the right to change specifications without notice.*

Product warranties can be found online at [Greenheck.com](http://Greenheck.com), either on the specific product page or in the literature section of the website at [Greenheck.com/Resources/Library/Literature](http://Greenheck.com/Resources/Library/Literature).

