

## Bill of Materials:

RAC0012 Green Wing Aerodynamic Skirt Kit			
Item	Part Number	Description	Quantity
1	RMC0218	Gen 2 Trailer Skirt Roadside	1
2	RMC0219	Gen 2 Trailer Skirt Curbside	1
3	RMC0041	Trailer Skirt V-Brace (Slotted)	16
4	RPC0026	Gen 2 Cross-member Clamp	32
5	RPC0021	5/16"-18 x 1 1/4" G5 Hex Head Bolt	64
6	RPC0053	5/16"-18 Large Flange Lock Nut	64
7	RPC0042	1/4"-20 x 1" TX-27 Truss Head Bolt	64
8	RPC0052	1/4"-20 Large Flange Lock Nut	64
9	RMC0220	Straight Pattern Drill Template	1
10	RMC0221	RS & CS Angled Pattern Drill Template	1

**\*This bill of materials is for the standard installation kit and may differ depending on the trailer model and accessories needed**

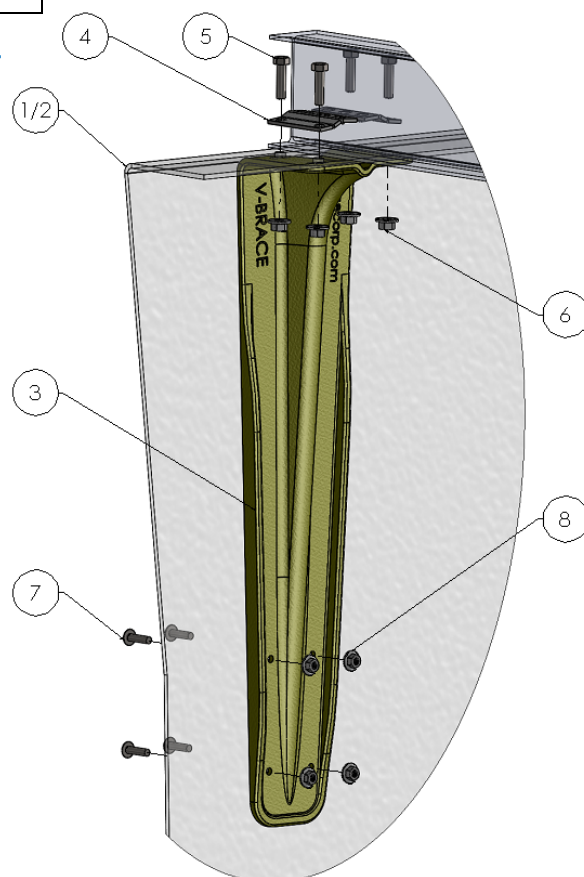
## Tool List:

### Supplied by Installer:

- ☐ Torque wrench (20 ft-lb range)
- ☐ (4) Medium sized C-clamps or vise grips
- ☐ Jig saw with metal blade (recommended)
- ☐ Straight edge (for skirt alignment with baserail)
- ☐ Pneumatic (preferred) or battery drill
- ☐ Pneumatic or battery impact wrench or ratchet wrench
- ☐ 1/2" deep socket
- ☐ 7/16" deep socket
- ☐ TX-27 screw driver (T-handle preferred)
- ☐ 17/64" size drill bit
- ☐ 3/8" drill bit
- ☐ 1/2" open end wrench
- ☐ Shop air line with disconnect (2)
- ☐ Pencil/marker
- ☐ Tape measure

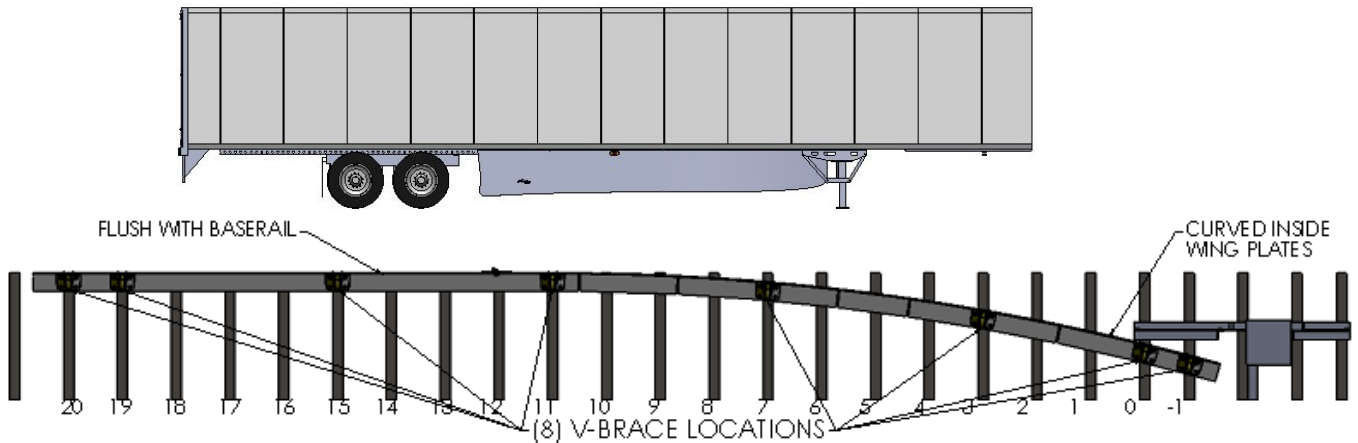
### Optional:

- ☐ File for edge clean up
- ☐ Additional shop air line
- ☐ Hole saws (5" & 3" for reefer fuel tank & 2 1/2" for most light hole cut-outs)
- ☐ Bowls or cups to hold fasteners
- ☐ TX-27 drive & 7/16" (for alternate V-brace to skirt fastening)



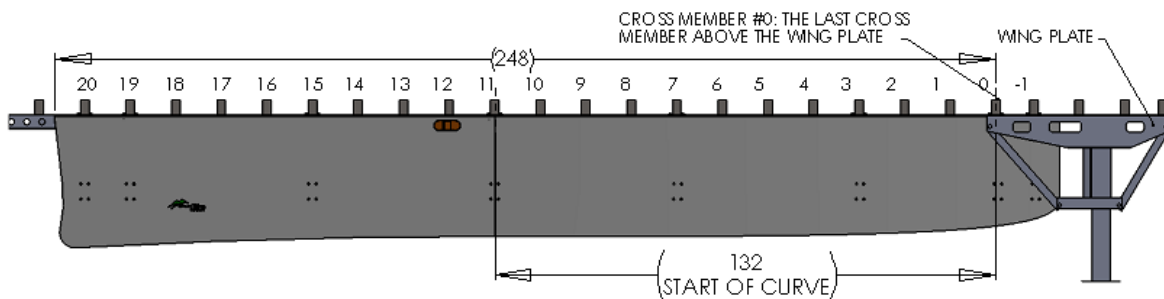
\*\*\*\*\*READ INSTRUCTIONS THOROUGHLY BEFORE BEGINNING\*\*\*\*\*

## Installation Layout:



Ridge Corporation Green Wing® Aerodynamic Side Skirts install between the landing gear and the rear wheels in the California legal position (40', kingpin to rear axle). The leading edge of the skirt transitions in the shape of a large radius ending just inside the landing gear legs. The rear of the skirt ends short of the slider pin pull location allowing for enough room for the driver access\*.

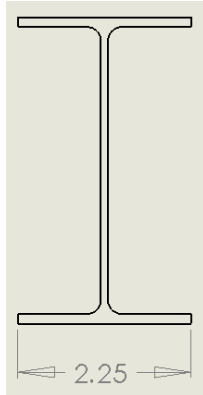
\*Note: Generation 2 skirts fit most trailers with 216" or shorter rails. For some installations, it may be necessary to move or add a locator (stop) bar on the slider rail to prevent the tandem from moving too far forward and damaging the skirt.



Most Green Wing® Generation 2 skirts install 248" from cross-member #0 (last cross-member above the wing plate). The curved portion of the layout begins at cross-member #11 (or the cross-member nearest to 132") and continues towards the front of the skirt, inside the wing plates. The skirt is installed flush to the baserail from cross-member #11 and back towards the rear of the skirt. Skirt and V-Brace attachment points are required on consecutive cross-members at the front and rear of the skirt (cross-members #-1, #0, #19, and #20). A V-brace should always be placed at the start of the curve (#11) and at #3 (or #4 for 10" spacing). Remaining attachment points should be as equally spaced as possible, and not to exceed 48" (or 50" for 10" spacing). Plan accordingly for side marker light mounting, so there is not interference between the light hole and the V-Brace.

***Make adjustments based upon the particular trailer the skirt is being installed upon using the above guidelines. The figures presented in these instructions may not fit all applications or layouts.***

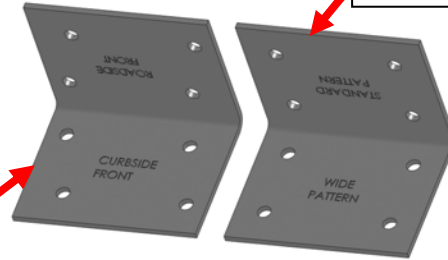
## Cross-members and Drill Templates:



Green Wing® Generation 2 skirt kits include drill templates and V-braces to accommodate up to 2.75" wide cross-member flanges.

Flange Width	Pattern Width
2.25" & less	3.313
Up to 2.75"	3.500

Angular front template

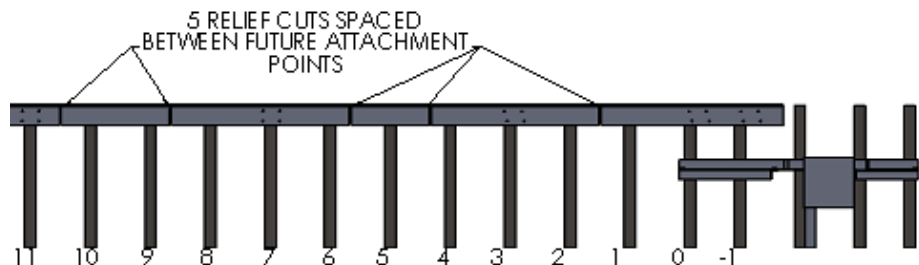


Straight template

Some trailers, especially refrigerated trailers, transition from shorter cross-members to taller cross-members in the bay of the trailer. For example, above the slide rails there may be 4" steel cross-members, and in the bay there are 5" Aluminum cross-members. This can also happen above the landing gear assembly. If this is the case, then a RAC0006 spacer block assembly is needed to effectively attach the skirt to the shorter cross-members (Contact your dealer or Ridge Corporation for kits, see refrigerated section of these installation instructions for more detail).

## Installation Steps:

- Determine the layout:** Using the guidelines on the previous page, determine how and where the skirt will mount.
- Prepare trailer for skirt installation:** Mark on the baserail where the end of the skirt will be positioned (248" from the center of cross-member #0). Remove or reposition all items that may interfere with the skirt such as tire carriers, fuel tanks, side marker light brackets, lock boxes, etc.
- Temporary mounting to determine curve relief-cut locations:** Since the skirt installs with a curve at the front, 3/8" wide relief-cuts need to be cut into the skirt flange in order to allow the panel to bend and install properly.
  - Lift skirt:** Hoist skirt panel up to cross-members, near the baserail. Use a minimum of 2 people for this step.
  - Position skirt:** Align skirt such that the rear is positioned at the 248" end mark and flush with the baserail.
  - Clamp skirt:** Using a minimum of 3 C-Clamps or vise grips, clamp skirt flange to cross-members.
  - Mark relief-cut locations:** Mark relief-cut locations close to the positions shown above. They are equally spaced in between skirt and V-brace attachment points. 5 relief-cuts are required for most installations, as shown above.
  - Remove skirt:** Unclamp skirt from trailer.



**4. Make relief-cuts:** Using the 3/8" drill bit and a jig saw complete the following steps.

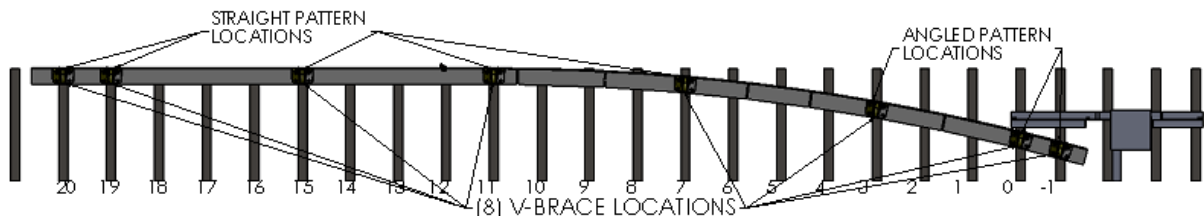
- Using a 3/8" drill bit, drill a hole tight to the bend in the skirt flange at the positions located in the previous step.
- Using a jigsaw, cut even slots from the hole to the outside of the skirt flange.
- Complete for all necessary relief-cuts.
- Measure relief-cut locations and translate to skirt on opposite side and repeat the above steps.



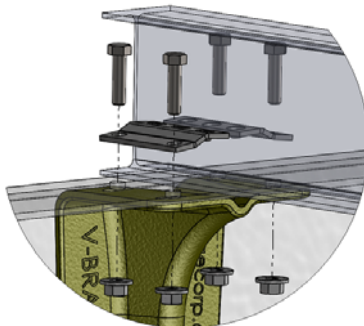
**5. Hoist skirt into mounting position:**

- Remove film:** Remove the protective film from the flange of the skirt so it does not get trapped between the cross members and the skirt. The film may be left on the face temporarily to protect it from dirt and scuffing during installation.
- Lift skirt:** Hoist skirt panel up to cross-members, near the baserail. Use a minimum of 2 people for this step.
- Position skirt:** Align skirt such that the rear is positioned at the 248" mark and flush with the baserail, with the front curved and positioned inside of the wing plates.
- Clamp skirt:** Using a minimum of 3 C-Clamps or vise grips, clamp skirt flange to cross members.

**6. Fastening straight portion of the skirt:** Follow these steps to fasten the portion of the skirt that is flush with the base-rail.



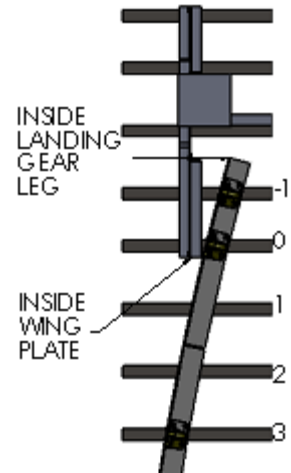
- Mark Hole Locations:** At the recommended skirt and V-brace attachment points above (11, 15, 19, & 20), use the appropriate straight hole pattern template (RMC0220) for marking the hole patterns on the skirt flange.
- Drill Holes:** Using a 3/8" drill bit, drill holes at marked locations
- Assemble Parts:** Assemble V-Brace, cross-member clamps, bolts, and lock nuts as shown below at each location. Bolts must be placed down through the cross member clamps.
- Tighten Parts:** Align skirt to the baserail using a straight edge, and then tighten fasteners using an impact with a 1/2" deep socket and 1/2" open-up wrench. **Tighten to 14-20 ft-lbs.**
- Repeat for additional attachment points flush with the baserail.**



Align the skirt to the base-rail with a straight edge. A rubber or plastic non-marring mallet may be used to adjust the skirt's position only when a single bolt is snugged. *Adjusting a skirt with a mallet that has been fully clamped down may cause damage to the skirt or cross-member clamps.*

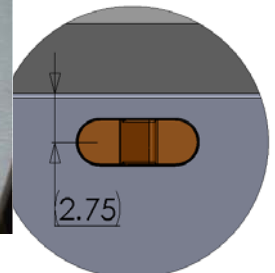
- 7. Fastening curved portion of the skirt:** Follow these steps to fasten the front portion of the skirt that curves in from the baserail to inside the wing plates, ending just inside the landing gear legs.

- Position Desired Curve:** The curve should be gradual, sweeping just inside the wing plates with a minimum clearance of 1/4" from any interference. The relief-cuts from step 4, allow the skirt to position as such. The leading edge of the skirt should be just inside the landing gear leg. Use C-Clamps to hold skirt in the desired shape. Mark attachment point locations (7, 3, 0, -1).
- Mark Hole Locations:** At the recommended skirt and V-brace attachment points above, use the angled drill pattern template (RMC0221) to mark the hole-pattern, centered under the cross-member flange. (Roadside & Curbside are different patterns)
- Drill Holes:** Using a 3/8" drill bit, drill holes at marked locations
- Assemble Parts:** Assemble V-Brace, cross-member clamps, bolts, and lock nuts as shown on the previous page, at each location.
- Tighten Parts:** Align skirt to the baserail using a straight edge, and tighten fasteners using an impact with a 1/2" deep socket and 1/2" open end wrench.  
**Tighten to 14-20 ft-lbs.**
- Repeat for additional attachment point in the curve.**



- 8. Attaching V-Braces to skirt:** Now that the skirt is attached to the trailer and tightened down, the V-Braces need fastened to the skirt panels. Using a drill, TX-27 screw driver, and impact, follow these steps:

- Drill holes:** Using pre-drilled holes in the V-Brace as the template, drill through the V-Brace into the skirt with a 17/64" bit. Take care not to bend the skirt out of plane when drilling the holes.
- Remove Remaining Film:** Remove the remaining film from the face of the skirt to keep it from being trapped between the fasteners and the skirt.
- Assemble Fasteners:** Place 1/4" Truss Head bolts in from the outside of the skirt. Assemble the 1/4" lock nuts on the inside.
- Tighten Fasteners:** Using an impact with a 7/16" deep socket with a TX-27 screw driver on the outside, tighten fasteners. **Tighten to a minimum of 4 ft-lbs.** Excessive torque will result in breakage of fasteners. For a more controlled installation, use a clutched drill with a TX-27 bit with a 7/16" back-up wrench on the inside to tighten fasteners to torque.



- Repeat for additional V-Braces.**
- 9. Installation of side marker lights:** The Green Wing skirt panel is sufficient to use with grommet and flange mounted side marker lights. Use an existing bracket as a template for cutting out the slot. It is recommended that the center of the slot be located at least 2 3/4" from the top of the skirt.
- 10. Repeat for opposite side installation.**



### Installation Notes:

- 1. Do not fasten skirt to the wing plate:** The Green Wing product is designed to deflect to the inside and outside of the trailer to avoid some objects. Attaching to the wing plate will reduce the amount the skirt can deflect, thus potentially causing damage.
- 2. Cleaning the skirt:** Use standard cleaning chemicals to clean the skirt panels off. Take care around the Green Wing stamp because some cleaning chemicals may smear the coloring.
- 3. Use care when handling skirt panels:** Careless handling of the skirt panel, especially once the relief cuts have been made, can cause damage and cracking of the material around the relief cuts. Take care when handling and do not allow the skirt to bend opposite of how it is intended to install or over bend it.
- 4. Other skirt modifications:** Contact us to discuss allowable skirt modifications for CARB compliance.

### Repair & Accessory Kit Information:

Part Number	Name	Description
RAC0023	Green Wing® V-Brace Replacement Kit	This kit includes a single V-Brace and hardware for replacement
RAC0024	Green Wing® V-Brace Replacement Kit Box	This kit includes 16 V-Braces and hardware for replacement of all braces for a single skirt kit.
RRK000100	Standard Repair Kit	This kit includes heat patch material to repair minor damage to skirt panels.
RAC0006	Green Wing® Reefer Spacer Kit	This kit is needed for installing a skirt with a 1/2" - 1" cross-member height difference.

### Pictures of Some Typical Green Wing® Installations:



## Green Wing® Installations for Refrigerated Trailers:

Green Wing® Side Skirts will install normally on refrigerated trailers. If the trailer is equipped with taller 5" aluminum cross-members in the bay of the trailer, and has standard 4" cross-members above the landing gear and slider rails, then a Green Wing® Reefer Install Kit (RAC0006) must be used. Continue with the standard layout instructions. Determine how many skirt attachment points are on the shorter cross-members. This is how many spacers will be needed per side. Install the spacers in between the cross-member and the skirt flange. Place the longer bolt through the skirt, spacer, and normal cross-member clamps, and follow the standard mounting instructions. Tighten to **14-20 ft-lbs**.

RAC0006 Spacer block kits are supplied predrilled to fit both the standard straight and angular drill patterns. The kits are supplied for use with a 1" cross member height difference. Each block is 1/2" thick, therefore for height differences of 1 1/2" one additional kit is needed per cross member. The hardware contained in the kit can accommodate up to a 1 1/2" height difference.

The skirt should wrap around the fuel tank. Using a 5" (maximum) hole saw, place a clearance hole near the tank filling spout, and if necessary, a 3" (maximum) hole around the fuel tank gage. The V-Braces in the curved portion of the skirt may need to be adjusted to avoid interference with the tank or the tank mounting bracket and hardware. If necessary, move the V-Brace and skirt attachments to avoid the tank assembly, or if possible, move the fuel tank. (The maximum spacing between V-Braces is 50").

If the tank location cannot be adjusted to fit up with the normal installation of the skirt, then adjust the curvature of the skirt such that it makes the tank accessible. Drill holes and assemble fasteners according to the standard procedure at the custom curve layout.

