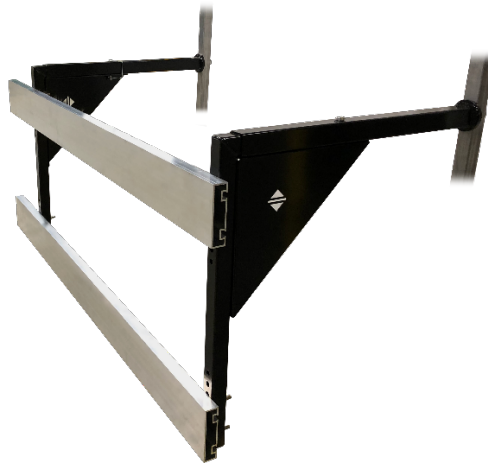


Nu-Line Products Inc.



Side Guard Installation Instruction

(For 2ft, 3ft, 5ft Side Guards)

Volpe

CERTIFIED VOLPE COMPLIANT

Nu-Line Products Inc.
891 Arvin Avenue
Stoney Creek, On L8E5N9
Fax: (905) 643 - 5380

www.nuline.ca



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WARNING



- Thoroughly read all instructions prior to initiating installation.
- This product may require holes to be drilled into the frame of the vehicle. Be sure to check vehicle's owner's manual prior to any drilling. Insure drilling area is clear of any of the vehicles electrical lines, fuel lines, hoses or anything else that can be damaged.
- Avoid use of power tools while installing 5/16" Nuts (C) for Extruded Cross Beam (J), as overtightening will result in product damage.
- Any changes/modifications to product may alter product performance.
- Ensure that product complies with "Volpe Side Guard Standard" shown in page 6.

TOOLS



- Safety Glasses



- Safety Gloves



- Tape Measure



- 9/16" (Socket) Wrench



- Power Drill

- 5/8" Drill Bit

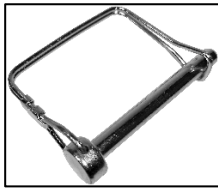


- 9/16" Socket

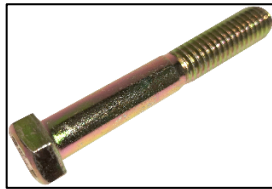
- 1/4" Socket

COMPONENTS

| <u>Part Number</u> | <u>Part</u> | <u>Part Description</u> | <u>Quantity</u> |
|----------------------------------|-------------|-------------------------------------|-----------------|
| NSGHB | <i>A</i> | PTO Pin | 8 |
| | <i>B</i> | 9/16" Bolt | 16 |
| | <i>C</i> | 9/16" Nut | 16 |
| | <i>D</i> | 7/8" Washer | 16 |
| | <i>E</i> | 1/4" Self Tapping Screw | 8 |
| NSGBRKT | <i>F</i> | Horizontal Bracket | 4 |
| | <i>G</i> | Vertical Bracket | 4 |
| | <i>H</i> | Gusset | 4 |
| NSGENDCAP | <i>I</i> | 27" Endcap | 2 |
| NBEAM24/ NBEAM36/ NBEAM60 | <i>J</i> | Extruded Cross Beam (24"/ 36"/ 60") | 4 |



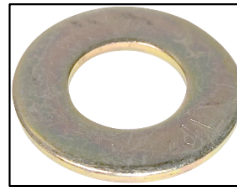
A



B



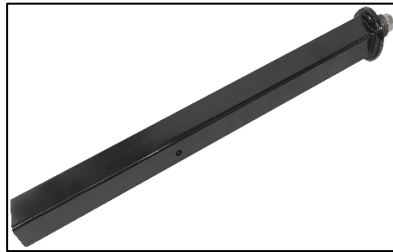
C



D



E



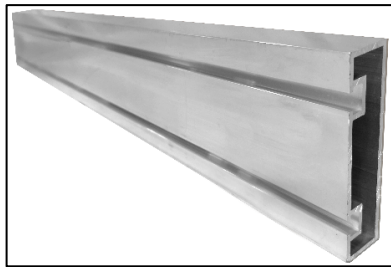
F



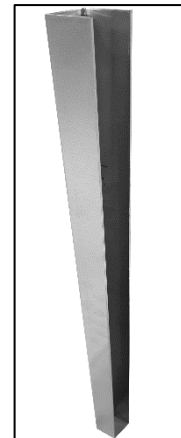
H



G



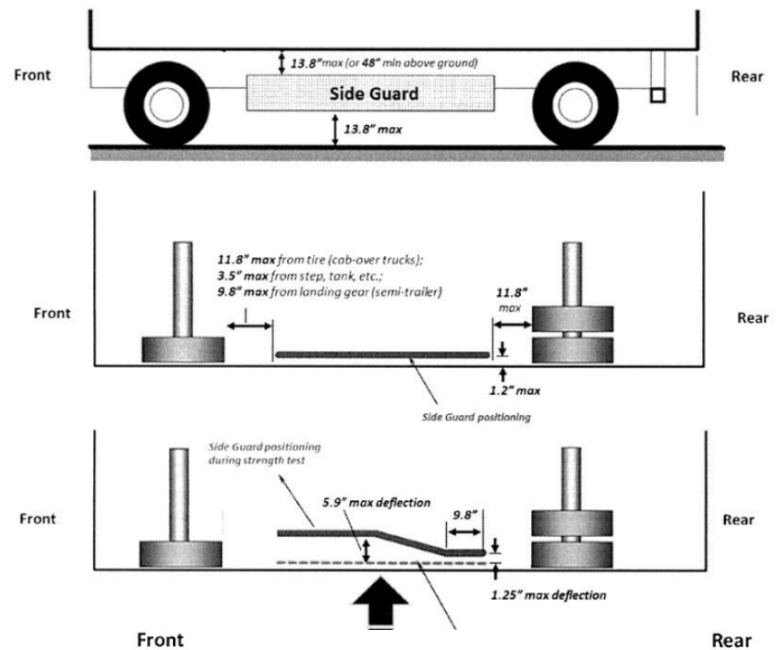
J



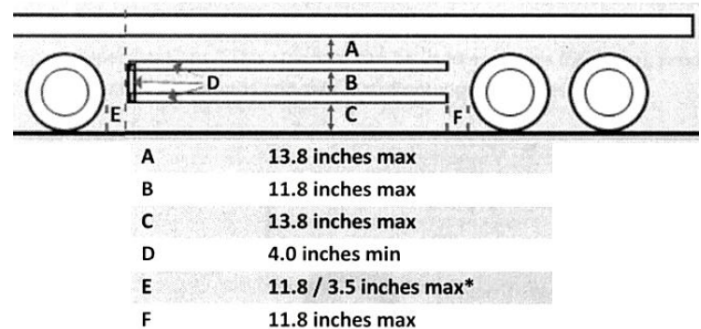
I

VOLPE – TRUCK SIDE GUARD SPECIFICATIONS

i) A side guard meets the strength requirement if it is capable of withstanding **440 pounds** of force applied perpendicularly to any part of its surface by the center of a flat, circular plate of diameter no greater than **8.7 inches**, such that the deflection of the loaded side guard measured at the center of the plate does not exceed (1) **5.9 inches** anywhere, or (2) **1.25 inches** in the rearmost **9.8 inches**. A manufacturer may also demonstrate compliance using a valid engineering calculation, such as finite element analysis.

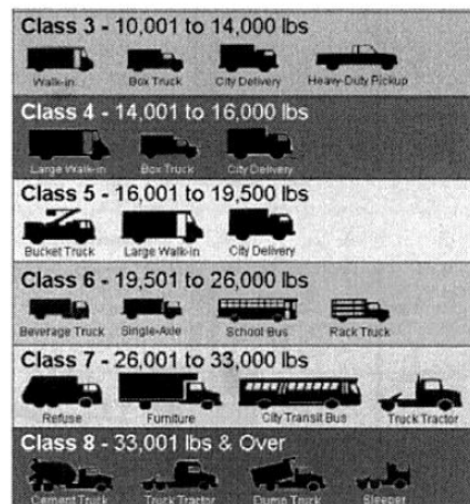


ii) The gap between the side guard's leading edge and the wheel, wheel arch, or another permanent vehicle structure should not exceed **11.8 inches**. A **turned-in vertical bar** connecting the forward ends of the horizontal rails should be incorporated if the forward gap exceeds **3.5 inches**. The bar needs not be turned in or can be omitted if the distance is less than 3.5 inches.



iii) Side underride protection should be included on **Class 3** and above vehicles, which have a gross vehicle weight rating (GVWR) of **10,000 pounds** and higher.

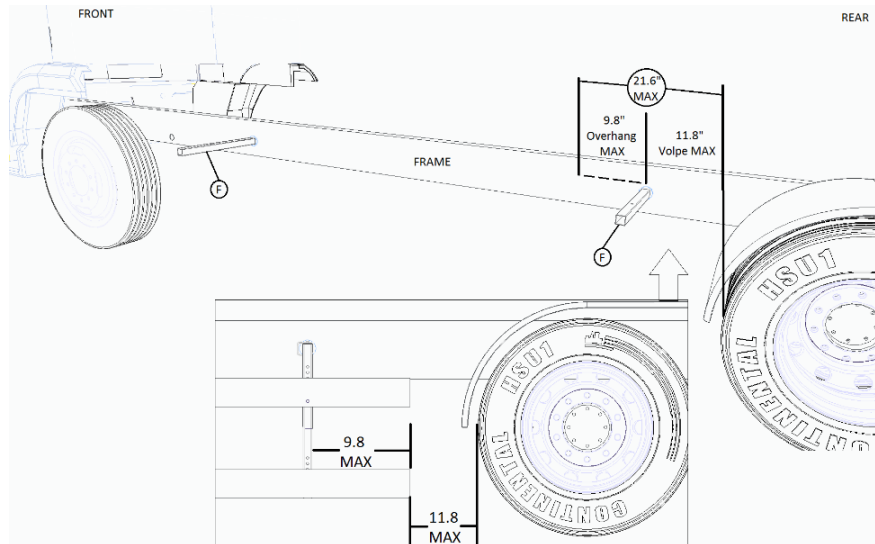
Acceptable side underride protection can be provided by **any combination** of vehicle body, fuel tanks, tag axles, tool boxes, or purpose-built side guards comprising a smooth surface flush with the vehicle sidewall, meeting the Volpe dimensional and strength specifications set forth above.



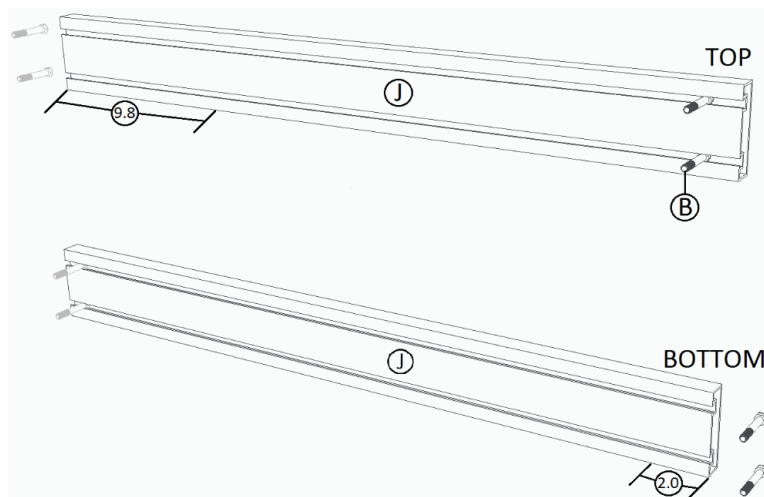
Graphic adapted from U.S. Department of Energy

Installation Instruction

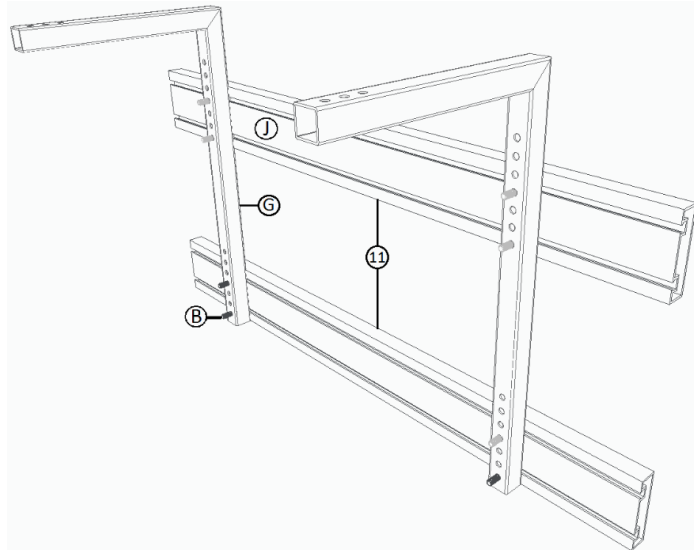
1. First attach Horizontal Bracket (F) closest to rear of vehicle. As per “Volpe Side Guard Standard” (page 6, part ii), the edge of Extruded Cross Beam (J) can be as close to the rear tire as you want but cannot be more than 11.8”. Since Bracket (F) can be placed flush with edge of the Extruded Cross Beam (J) or be offset max of 9.8”, so the distance between rear tires and Bracket (F) can not be more than 21.6”.



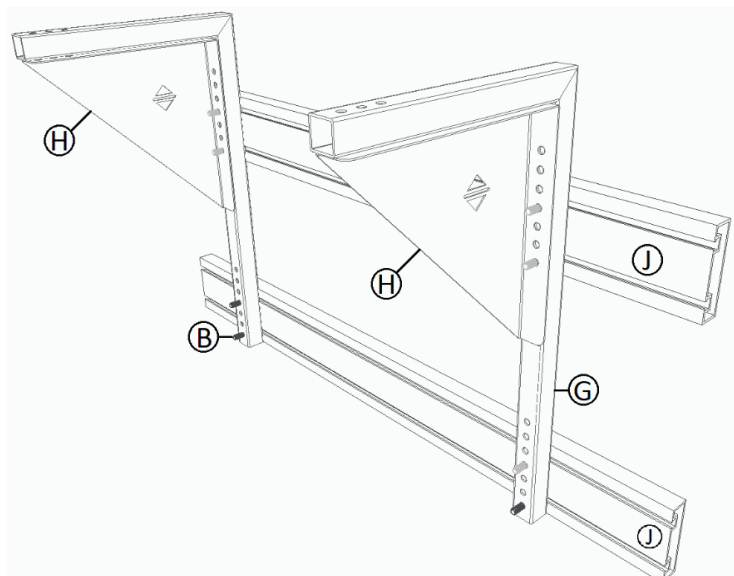
2. Ensure that Extruded Cross Beam (J) overhang for the Vertical Bracket (G) is max 9.8” to meet recommended force as per “Volpe Side Guard Standard”.
3. Refer to “Volpe Side Guard Standard” on Page 7, part i) for minimum distance between front tires and second Horizontal Bracket (F).
4. Slide 9/16” Bolt (B) into slots of top and bottom Extruded Cross Beams (J). Distances of Bolts will be based on distances used in Steps 1 and 2. Insure bolts are no more than 9.8” from rear facing edge and minimum 2” front facing edge.



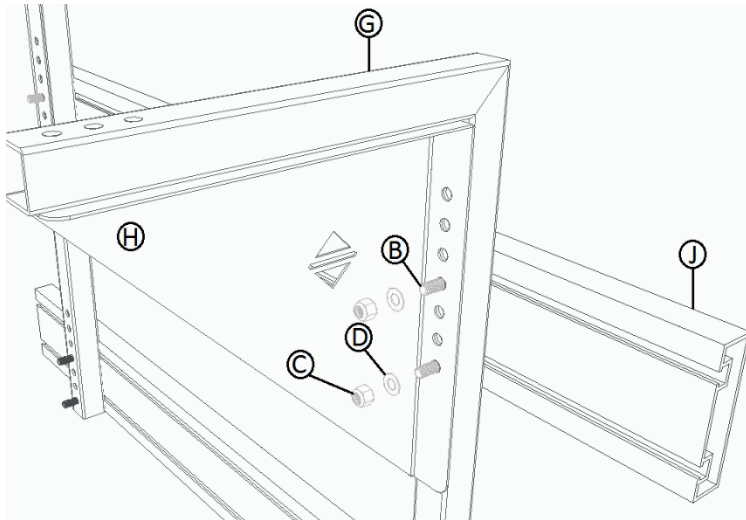
5. Place left and right Vertical Brackets (G) over Bolts (B) from top and bottom Extruded Cross Beams (J).



6. Insure top and bottom Extruded Cross Beams are no more than 11.8 inches apart. Refer to “Volpe Side Guard Standard” on Page 7, part ii).
7. Bottom of Vertical Bracket (G) must remain flush with bottom Extruded Cross Beam (J). If Extruded Cross Beam (J) is placed at higher setting, then excess Vertical Bracket (G) must be cut off.
8. Insure there is no more than a 13.8 inch gap between top of Extruded Cross Beam (J) and bottom of frame body. Refer to “Volpe Side Guard Standard” on Page 7, part ii).
9. Place Gusset (H) into place on Vertical Bracket (G) and through protruding Bolts (B).



10. Place 7/8" Washer (D) on protruding Bolts (B).

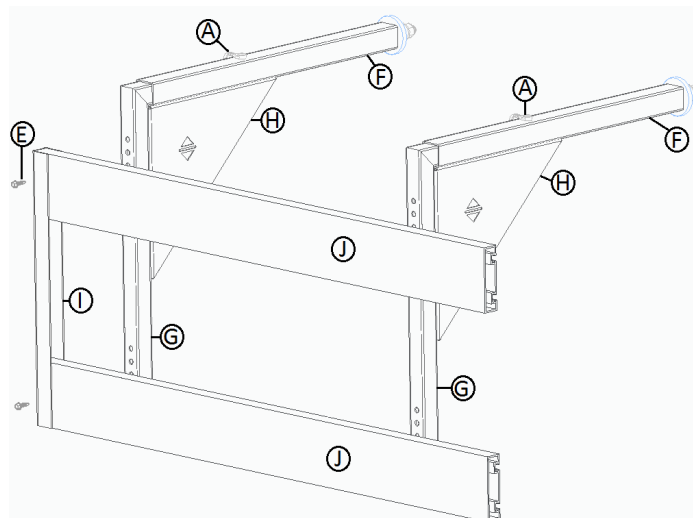


11. Using 9/16" (socket) wrench, fasten 9/16" Nut (C) on protruding Bolts (B). DO NOT USE POWER TOOL, as it may cause damage to Extruded Cross Beam (J).

12. Place assembly onto Horizontal Bracket (F) at proper distance from frame as specified by "Volpe Side Guard Standard".

13. Insert PTO Pin (A) through Vertical Bracket (G) and Gusset (H) at proper distance from frame.

14. Place End Cap (I) over Extruded Cross Beam (J) end. Insure to place on side closest to front of vehicle.



15. Using 1/4" socket to screw 1/4" Self Tapping through End Cap (I) into Extruded Cross Beam (J).

16. If you need to remove Sideguard, repeat step 12-13 in reverse order.