

THANK YOU FOR ORDERING

3RD GEN 4RUNNER DIY PLATE BUMPER - DIY KIT WELDING INSTRUCTIONS -

DISCLAIMER

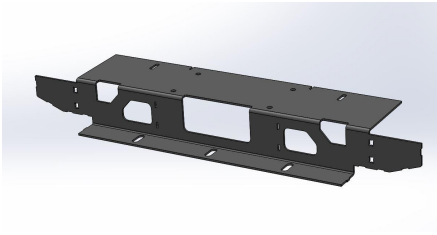
- This is a weld together / Do It Yourself (DIY) kit. You should have the correct tools and basic metal fabrication knowledge and skills before attempting to assemble this bumper. You are responsible for the weld quality and durability of finish you apply to the bumper. True North Fabrications LLC, or any affiliated companies, are not responsible for any injuries or damage that may occur during the assembly process of this bumper.
- All the parts are shipped as uncoated raw steel. There may be small imperfections on the surfaces of the parts such as burred edges, small areas of surface rust, or shallow scratches caused during the manufacturing and shipping processes.
- This bumper was designed specifically for 1996 to 2002 Toyota 4runners. There is no guarantee in fitment on any other Year/Make/Model of vehicle.
- This bumper requires modification to the front of the vehicle's frame rails/horns. In order to get the tightest fitment and strongest mounting design possible you will have to trim 2 inches off the front of the frame rails on the vehicle. This will not reduce the integrity of the frame. After cutting, clean and coat the cut area with some spray paint to prevent any rust issues.
- Any grille guard tubing will not be pre notched/coped. This gives the customer the ability to cut and position it to their preference.

DETAILS

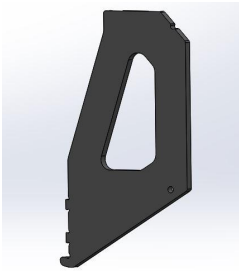
- Most DIY bumper kits include dozens of small flat pieces of metal and require hours of lining up, welding, and grinding, which can be incredibly frustrating and time consuming. We set out to design a DIY bumper kit unlike any other. All the parts are laser cut and press bent with slotted and tabbed edges. This means it requires a fraction of the welding and grinding compared to other kits. With the built-in tabs, the bumper pieces line up perfectly and don't require you to consistently be checking measurements. You don't even need to have the bumper on the 4runner to be able to tack it together!
- The frame mounting plate, winch plate, and skid supports are all 7 gauge HRPO steel. The main vertical plates and underwing tubing supports are 3/8" thick steel. Shackle mounts are 1/2" steel. All other sheetmetal parts are made of 11 gauge HRPO steel. All tubing is 1.75 OD 11 gauge ERW.
- The bumper was modeled around a Warn M8000 winch that has a 10" x 4.5" mounting pattern and centered fairlead/spool. Other winches may fit (similar size and mounting pattern required). Depending on the winch size you will possibly need to detach and relocate the control box.
- We realized that these bumpers are going to be mounted on 20ish year old vehicles and the chances of each and every one of them having a perfect frame with no previous front end damage are slim. So in order to offer the best fitment possible we made all the mounting points slightly oversized. This will give you a little adjustability when mounting. Depending on how far you need to adjust you will possibly need to use washers as between the bumper and the frame. New bolts and washers are included.
- The diameter of the fog light holes is 3.75 inches. The holes are projected forward and is actually a slight oval. This will allow any lights you mount behind them to face straight forward and not have the sides of the beam cut off.

WHATS INCLUDED

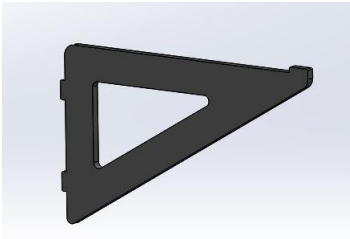
1X BACKING PLATE



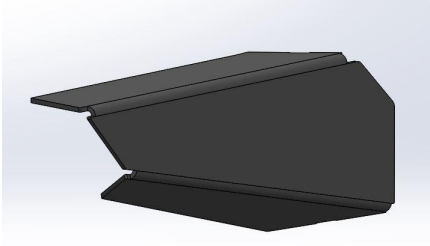
2X MAIN VERTICAL PLATE



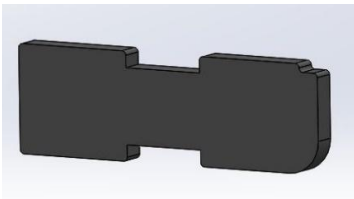
2X SKID SUPPORT PLATE



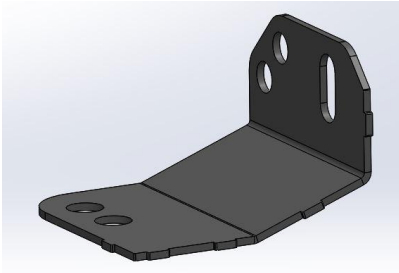
2X OUTER WING (1X LEFT & 1X RIGHT)



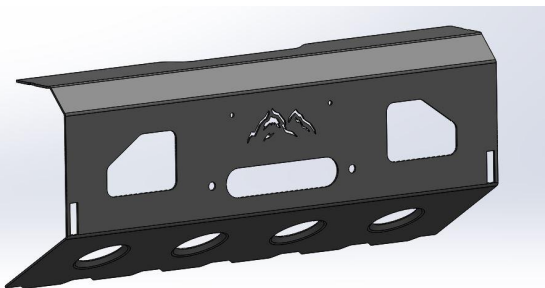
2X SKID FLANGE GAP FILLER



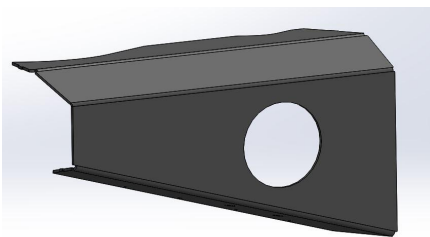
2X MOUNTING PLATE (1X LEFT & 1X RIGHT)



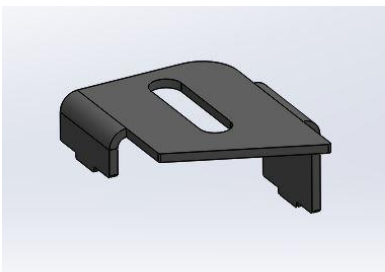
1X FRONT FACE AND SKID



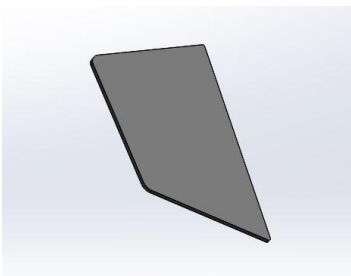
2X INNER WING (1X LEFT & 1X RIGHT)



2X LIGHT BRACKET (1X LEFT & 1X RIGHT)

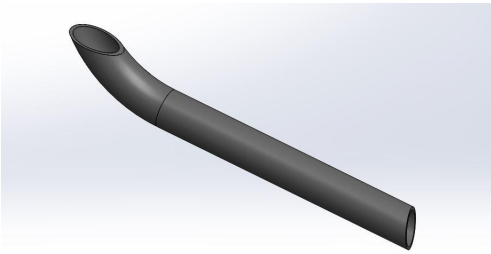


2X WING END CAP

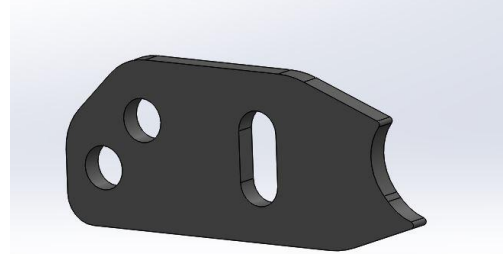


WHATS INCLUDED, CONTINUED

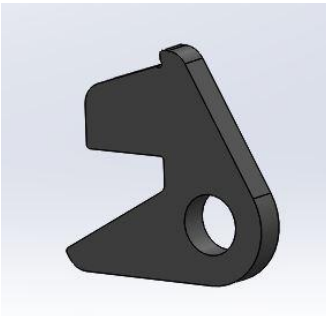
2X UNDERWING TUBING (1X LEFT & 1X RIGHT)



2X UNDERWING TUBING SUPPORT

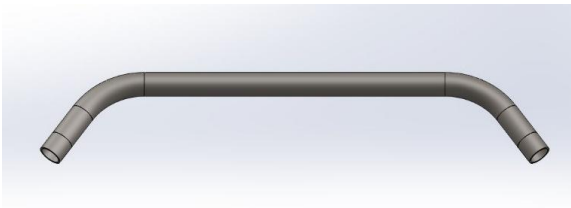


2X SHACKLE MOUNT

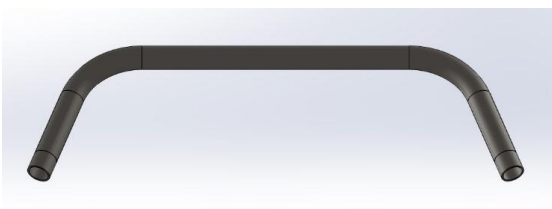


OPTIONAL TUBING

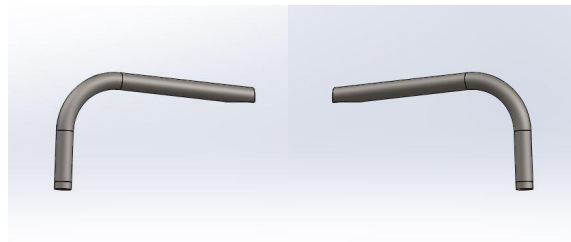
1X LOW PROFILE GRILLE GUARD



1X HIGH PROFILE GRILLE GUARD



2X HEADLIGHT HOOP



INCLUDED HARDWARE

- 4X M10X1.25 (25MM) FLANGE BOLTS
- 4X M12X1.25 (35MM) HEX BOLTS
- 4X 7/16 ID X 1-1/4 OD GRADE 8 WASHERS
- 8X 1/2 ID X 1-3/8 OD GRADE 8 WASHERS

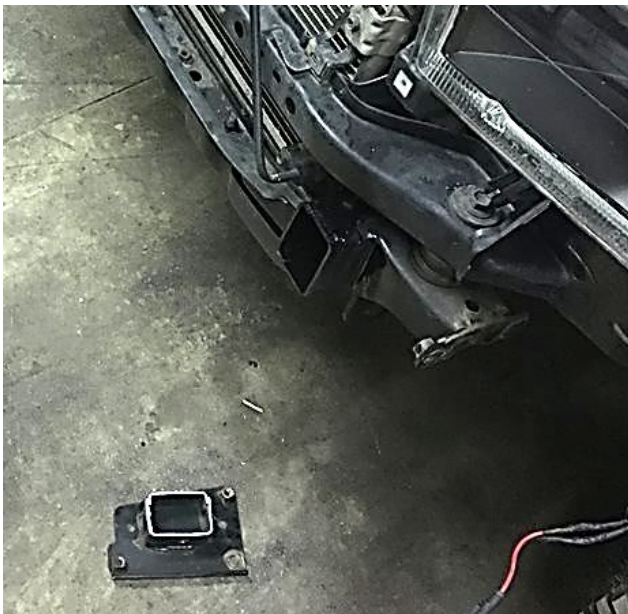
WHAT YOU WILL NEED

- METAL FABRICATION KNOWLEDGE AND SKILLS
- NECESSARY SAFETY GEAR
- SOMEWHAT DECENT WELDER (RUNS ON 220V)
- ANGLE GRINDER WITH CUTOFF WHEELS AND ABRASIVE FLAP DISCS
- RECIPROCATING SAW (SAWZALL) AND METAL BLADES
- 90 DEGREE WELDING MAGNETS
- C-CLAMPS
- DRILL AND SMALL DRILL BIT (1/16 TO 1/8)
- TOOLS TO REMOVE OLD BUMPER AND INSTALL NEW ONE

REQUIRED MODIFICATIONS TO VEHICLE

In order to get the tightest fitment and strongest mounting design possible there is some modification required. You will have to trim about 2 inches off the front of the frame rails. This will not reduce the integrity of the frame.

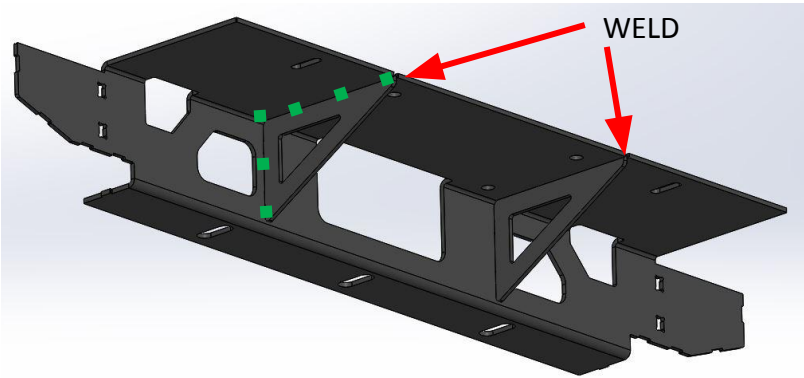
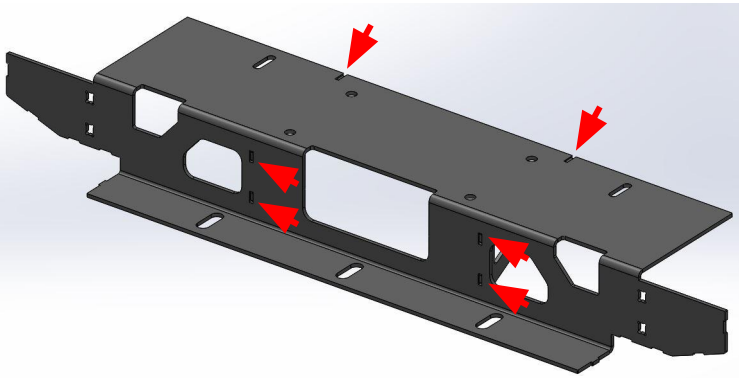
After removing the stock bumper and crash bar (99-02 models) take a sawzall and cut the front of the frame rails off even with the welds on the lower radiator guard. Be very careful not to hit the transmission line coming out of the drivers side of the radiator. Clean and coat the cut area with some spray paint to prevent any rust issues.



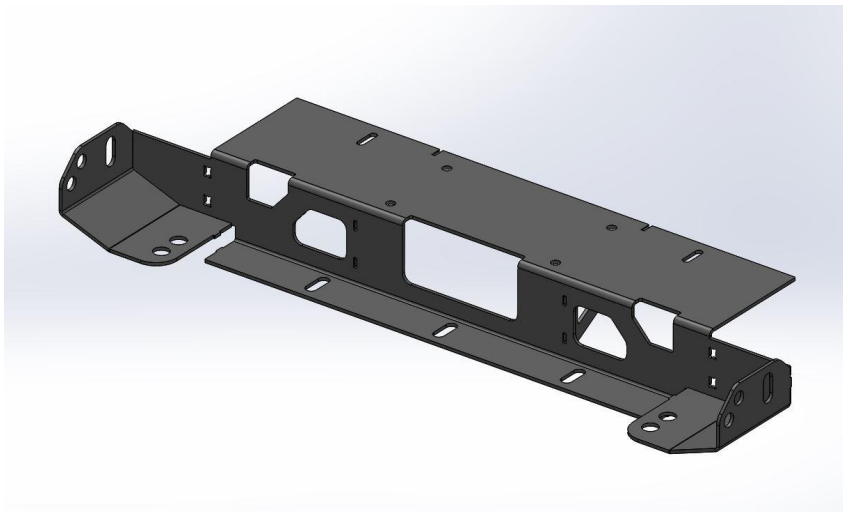
ASSEMBLY AND WELDING INSTRUCTIONS

1) Align tabs on SKID PLATE SUPPORT pieces with the slots on BACKING PLATE. Tack the tabs to the slots. Once tacked fully weld over the slots and tab. Fully weld the edges of the SKID SUPPORTS that contact the BACKING PLATE. Only weld on the outside faces, you do not want the weld to interfere with the winch bolt holes. Grind the welds over the tabs/slots smooth.

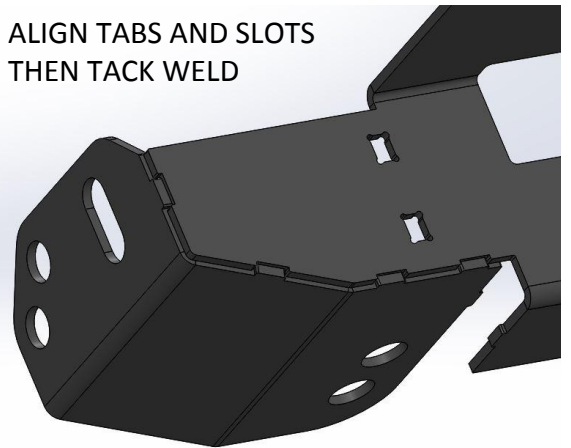
ALIGN TABS AND SLOTS. ONCE ALIGNED TACK,
THEN WELD OVER AND GRIND SMOOTH.



2) Align tabs on MOUNTING PLATE pieces with the slots on BACKING PLATE. Tack the tabs to the slots.

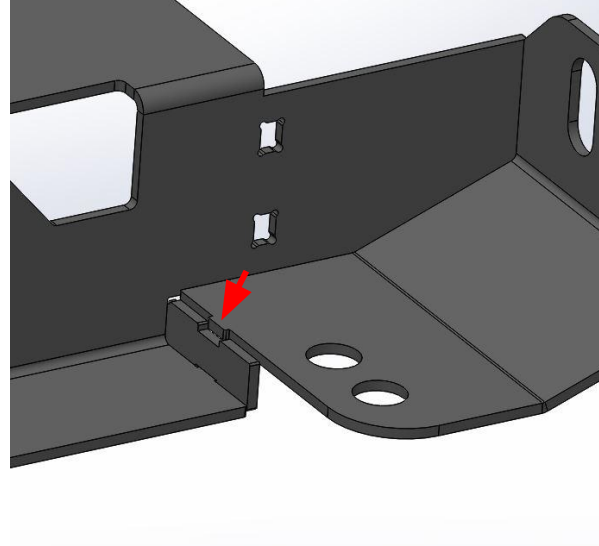
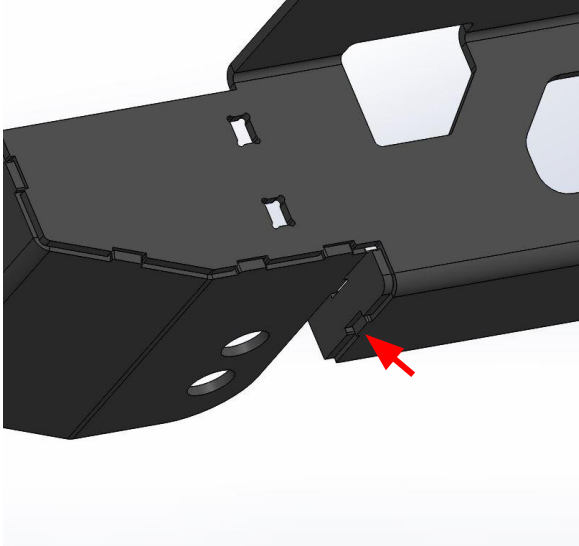


ALIGN TABS AND SLOTS
THEN TACK WELD



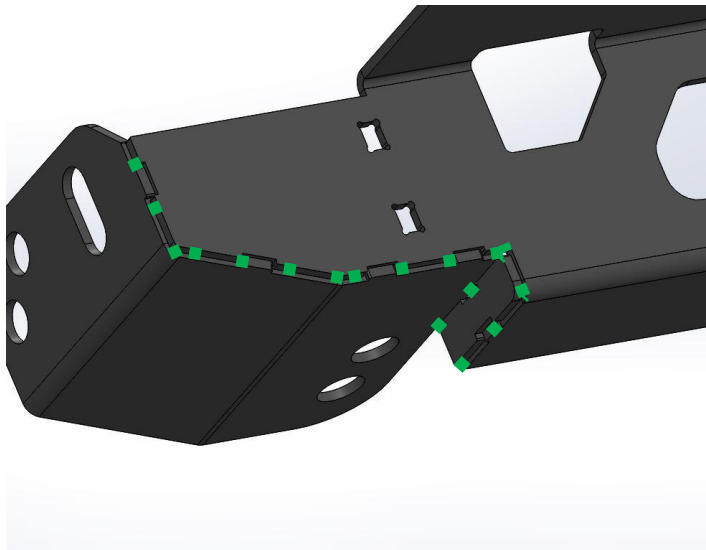
3) Align slots on the SKID FLANGE GAP FILLER pieces with the tabs on the MOUNTING PLATES and the BACKING PLATE. Once aligned tack the tabs/slots together.

ALIGN TABS AND SLOTS
THEN TACK WELD

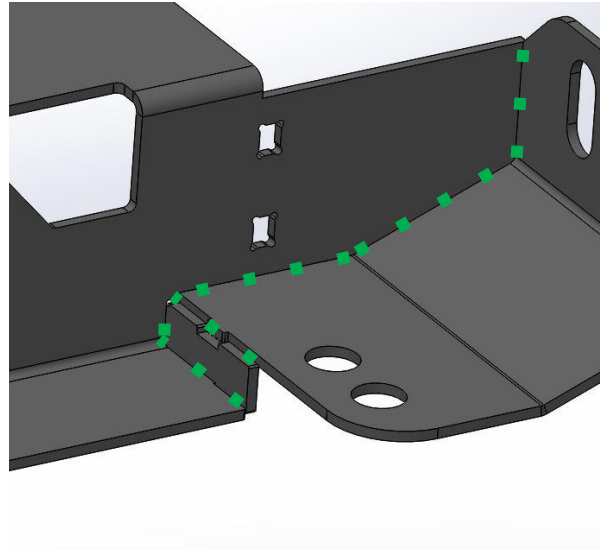


4) Weld along outside edges. Intermittent weld along inside edges.

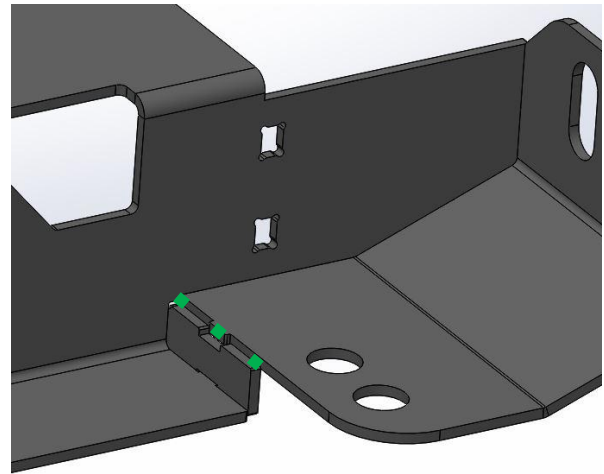
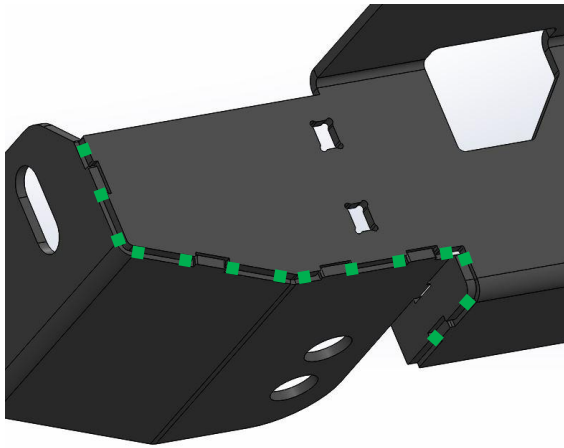
FULLY WELD ALONG OUTER EDGES.



INTERMITTENT WELD ALONG INNER EDGES.



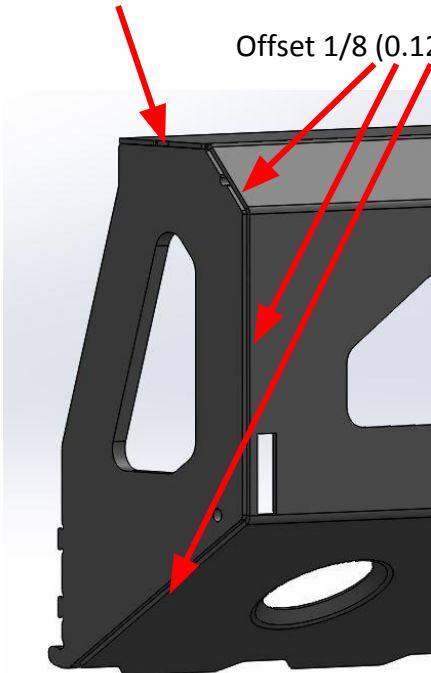
5) Grind welds on the outer edges of the MOUNTING PLATES smooth.
Grind welds on the top inside surface of the MOUNTING PLATES smooth.



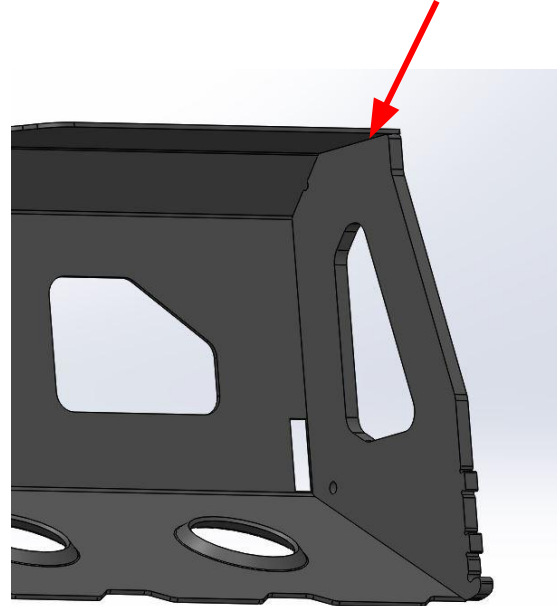
6) Align MAIN VERTICAL PLATES with FRONT FACE AND SKID. The top flange should line up flush. The other flanges should be offset 1/8 inch. Once everything is aligned and clamped, tack along the just inside top edge.

Flush alignment.

Offset 1/8 (0.125) inches.

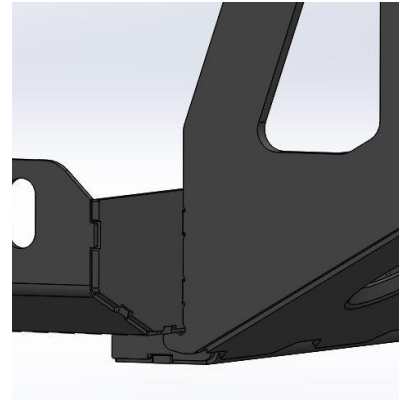
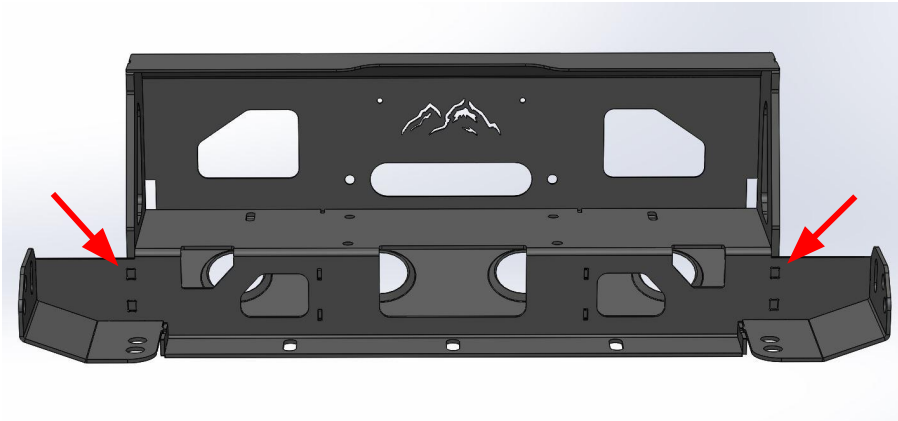


Tack along inside top edge.



7) Align the tabs on the MAIN VERTICAL PLATES to the slots on the BACKING PLATE then tack into place.

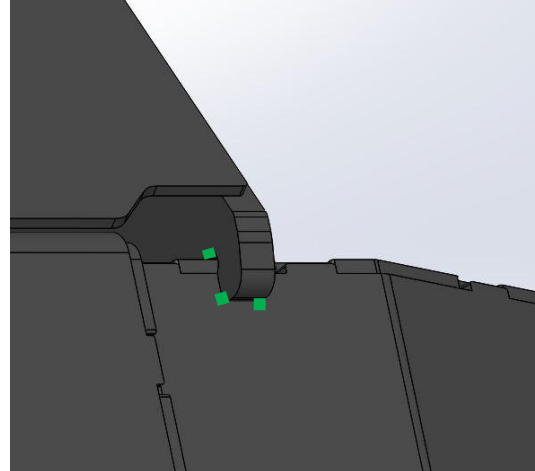
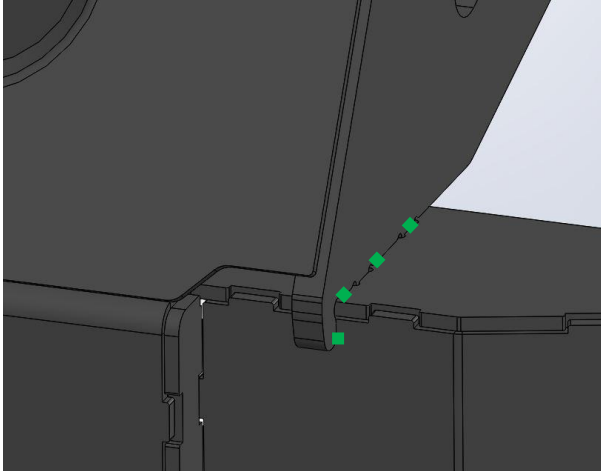
ALIGN TABS AND SLOTS THEN TACK WELD



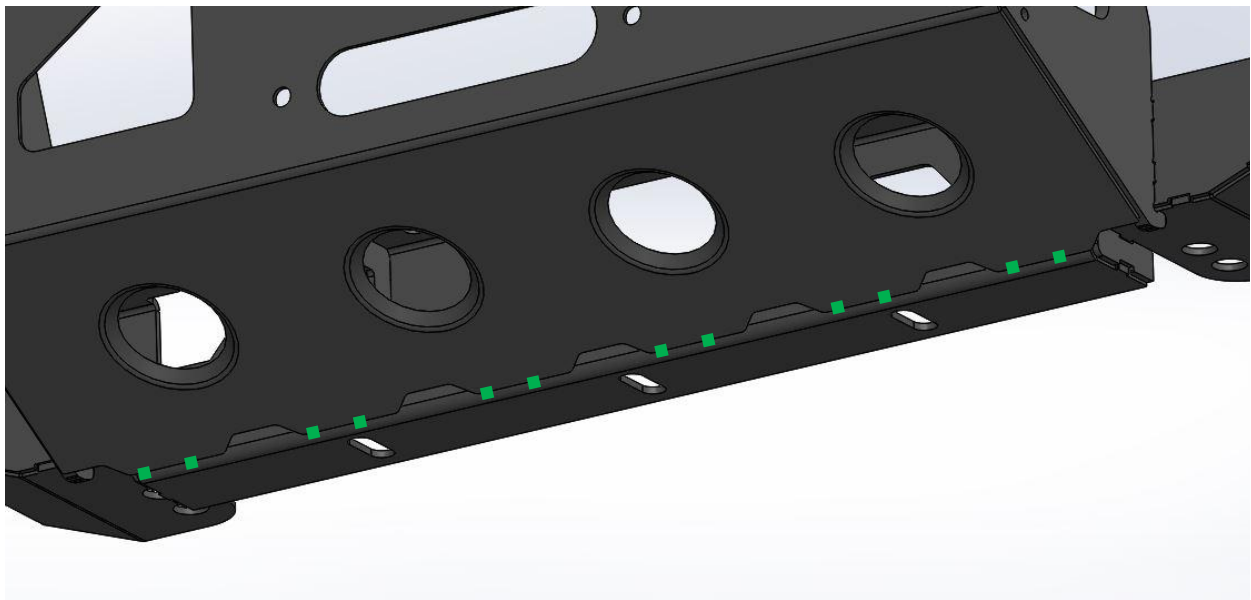
8) Put a few tack welds along the inside front where the FRONT FACE AND SKID meets the winch flange on the BACKING PLATE.



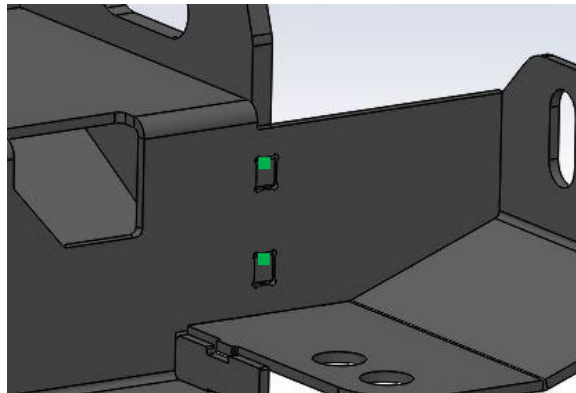
9) Fully weld along the edges.



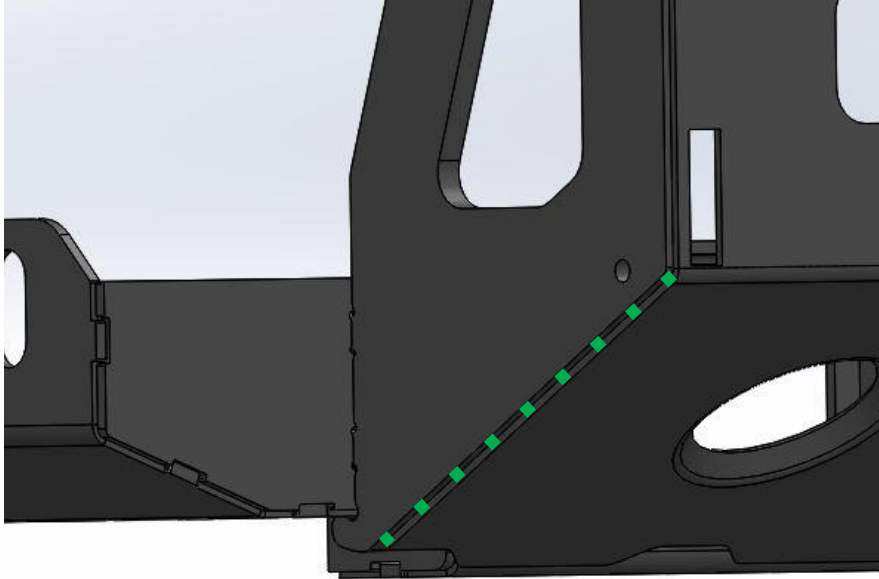
10) Weld the area where the bottom edges of the FRONT FACE AND SKID meets the BACKING PLATE.



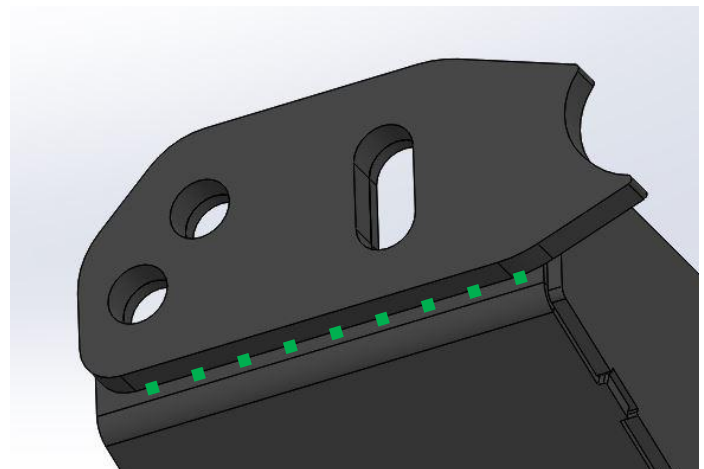
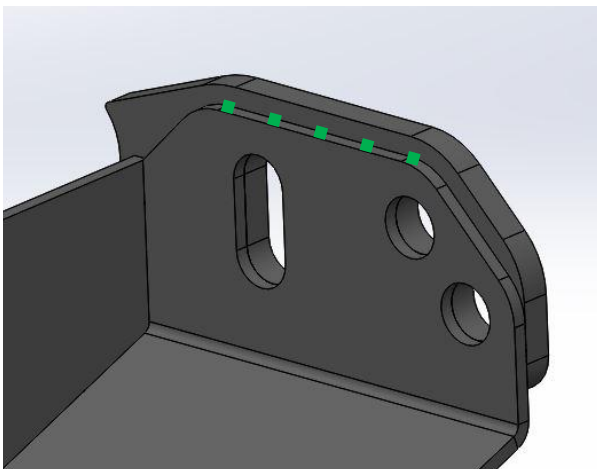
11) Weld over the tabs on the MAIN VERTICAL PLATES. Can grind them smooth if you want.



11) Fully weld along just the lower edge where the FRONT FACE AND SKID meets the MAIN VERTICAL PLATES. Then grind the welds to make a nice smooth edge.

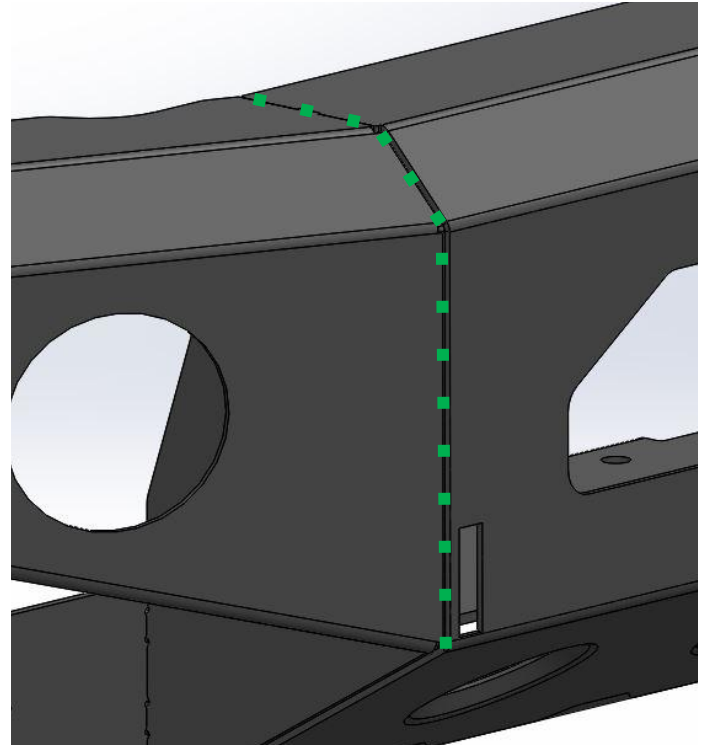
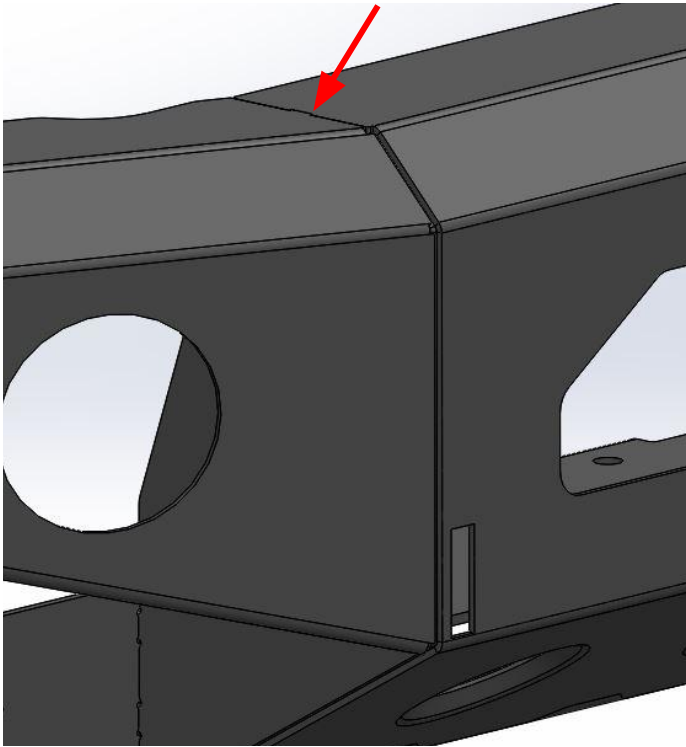


12) Align the holes in the UNDERWING TUBING SUPPORTS to the holes in the MOUNTING PLATES. Tack into place then fully weld along top and bottom edges.



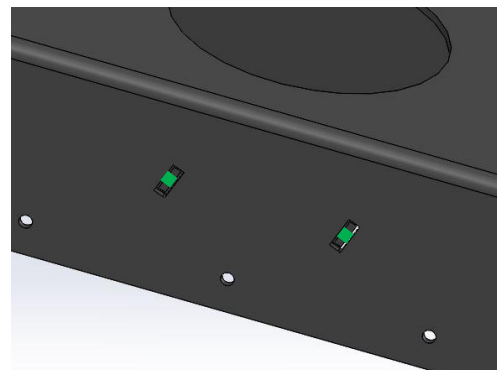
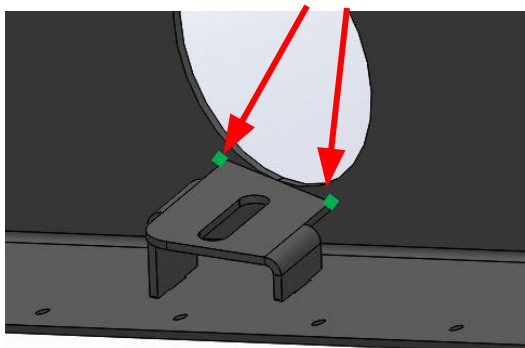
13) Align the INNER WINGS to the MAIN VERTICAL PLATES and FRONT FACE AND SKID. ALIGN TAB AND SLOT ON THE TOP EDGES. Tack then intermittent weld along the inside edges. Fully weld along the outside edges. Then grind the welds smooth. Also weld bottom edge of the INNER WING (not pictured).

Align tab and slot on top edge



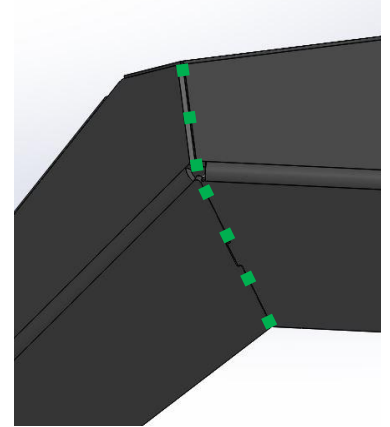
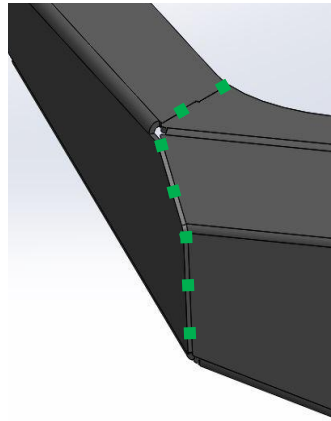
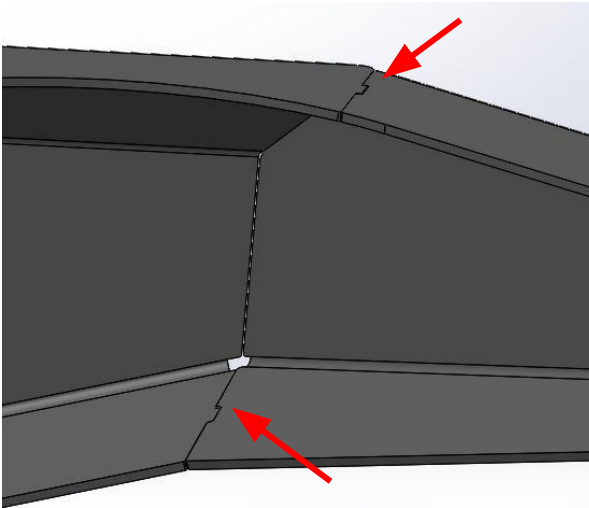
14) Align the tabs on the LIGHT BRACKETS to the slots on the INNER WINGS. Tack weld into place. Put a large tack weld on both front corners of the brackets where they touch the back of the INNER WINGS. Fully weld over the slot. Then grind the welds flush to surface.

Large tack welds on corners

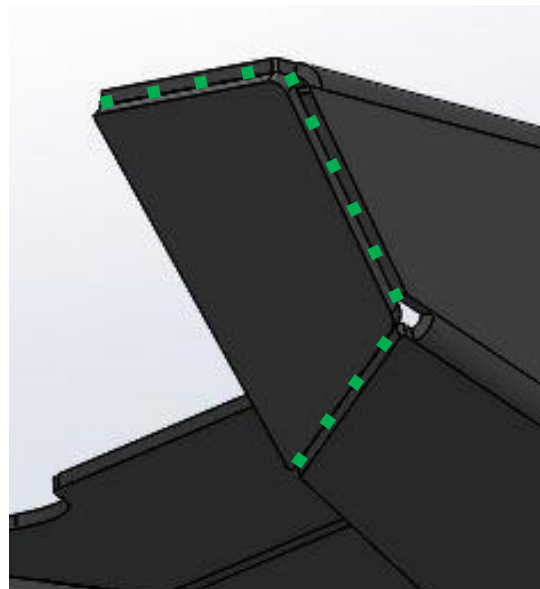


15) Align the OUTER WINGS to the INNER WINGS. Align the tabs and slots on the top and bottom edges. Tack weld along the inside edges. Fully weld along the outside edges. Intermittent weld along inside edges. Then grind the outside welds smooth.

Align tab and slot

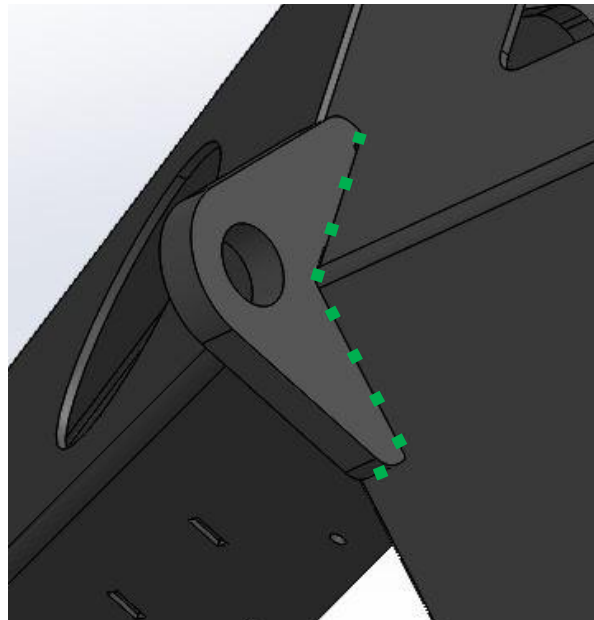
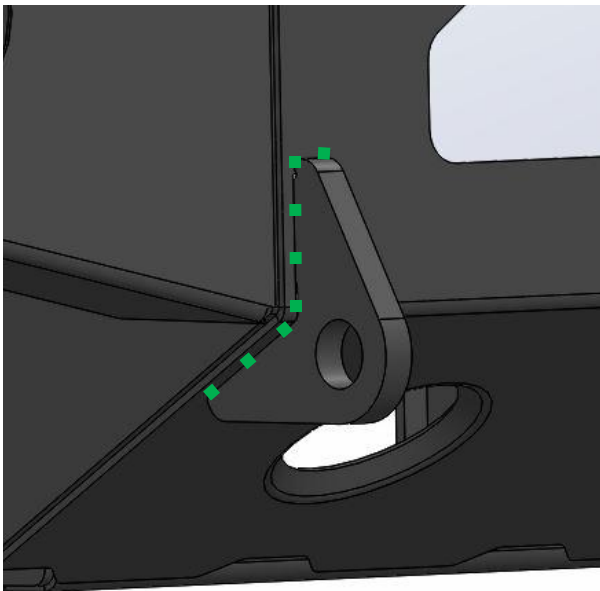
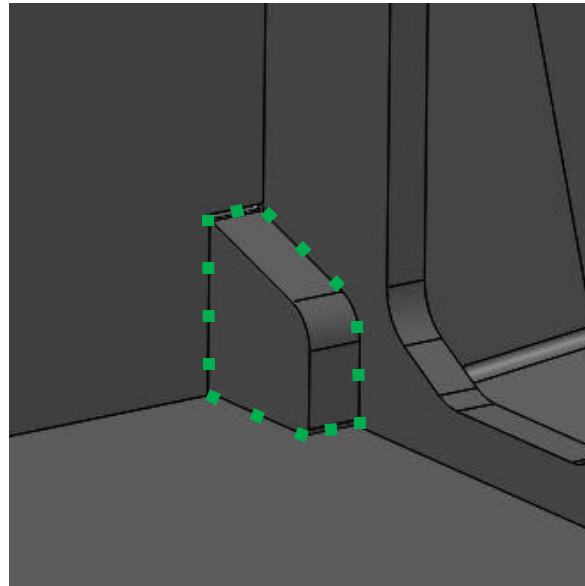
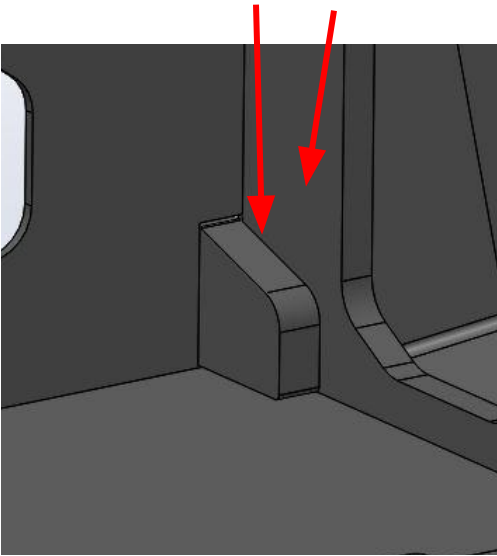


16) Align the END CAPS to the OUTER WINGS. Tack weld into place then fully weld along the outside edges. Then grind the outside welds smooth.

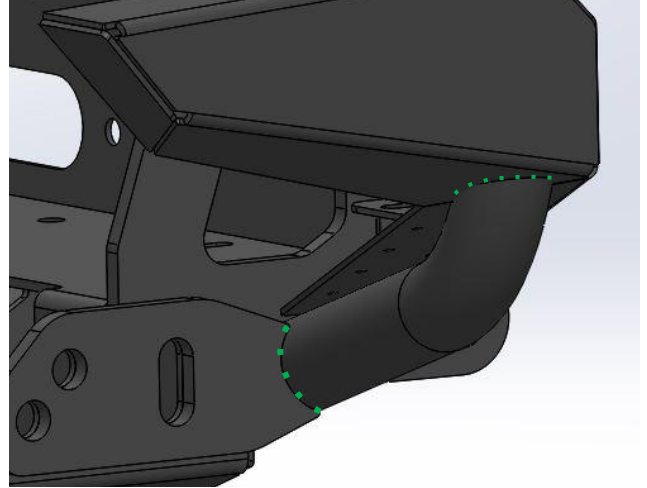
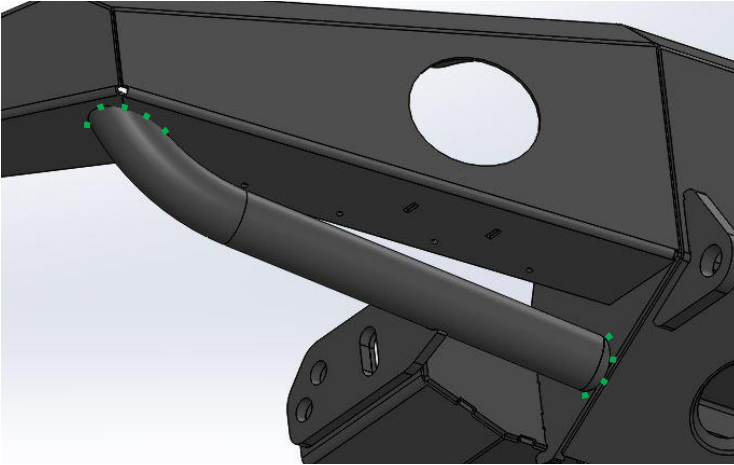


17) Align the SHACKLE MOUNTS to the holes cut along the edges of the FRONT FACE AND SKID. *Note these holes were plasma cut after the part was already laser cut and formed. The edges may not be perfect and you might have to file/grind them slightly to get the shackle mounts to fit properly.* The sides of the SHACKLE MOUNT should sit flush against the inside surface of the MAIN VERTICAL PLATES. Tack weld into place then fully weld along all inner and outer edges.

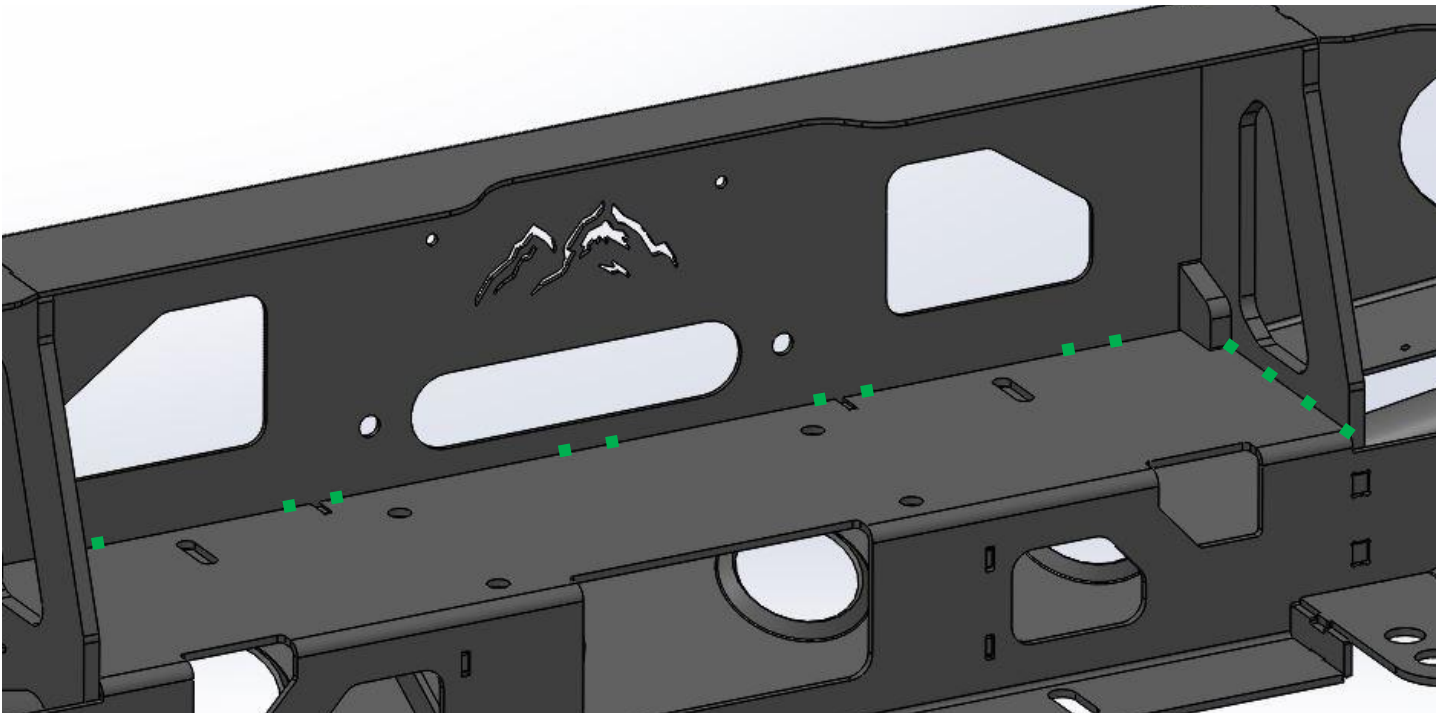
Surfaces should be flush



18) Align the UNDERWING TUBING as shown. Make sure it is contacting the cutout on the UNDERWING TUBING SUPPORT. Tack it into place then fully weld along all edges.



19) Intermittent weld over your tacks from step #8. Also fully weld along the side edges where the BACKING PLATE meets the MAIN VERTICAL PLATES.



TUBE COPING

All grille guard tubing and headlight hoops come with a little extra length and are NOT notched/coped. This allows you to set the tubing to your preferred alignment and a trim/cope to fit.

1. Figure out where you want to mount, how high, and the angle you want the grille guard tubing to sit at. (Best to either clamp or hold the tube in place with magnets so it doesn't move around.)
2. Tightly wrap a small piece of paper around the tube a few inches up from the end and tape it to itself.
3. Mark a line on the paper that is collinear with the weld seam on the tubing. (You will use the weld seam as a reference line while sliding the paper up and down the tube.)
4. Slide the piece of paper towards the end of the tube so it hits the surface of the bumper. Sketch a line around the paper that is offset and parallel with the surface of the bumper. (You can try to cut or tear the paper so it will line up a little better with the bumper surface and you won't have to offset the line as much.)
5. Remove the piece of paper, take the tape off so it lays flat, and cut on that line.
6. Put the paper back on the tube, realign your reference line with the weld seam, and slide it to the end of the tube to check the alignment with the surface of the bumper.
7. Repeat steps 4-6 until the paper lines up perfectly with the surface of the bumper.
8. Slide the paper up the tube while keeping your reference line aligned with the weld seam until you reach the height/point where you want to cut the tubing.
9. Take a sharpie and draw a line on the tubing that follows the bottom trimmed edge of the paper.
10. You can either repeat steps 2-9 for the other tube end or take your piece of paper and turn it inside out then reuse it for the other end. It should be a mirrored version of the first end you did.
 - A. Turn the paper inside out and remark your reference line on the other side.
 - B. Tape the paper inside out on the tube with the same trimmed edge towards the end of the tube.
 - C. Realign your reference line with the weld seam.
 - D. Make sure its at the same height as the other end.
 - E. Draw a line around the tube following the bottom edge of the paper.
11. Remove the paper.
12. Hold up the tube to the bumper and double check to make sure the lines on either tube end look like they will line up with the surface of the bumper you want to weld the tubing to.
13. Cut along the lines you drew on either end of the tubing.

BUMPER INSTALLATION

- 1) Remove old bumper and make required modifications to the frame rails.
- 2) Remove stock bumper support brackets from below the airbox and battery.
- 3) Remove the front 3 bolts holding up the skid plate and let the skid plate hang there.
- 4) Prewire the front of the truck for any lights.
- 5) Install any lights and/or winch in the bumper if you're running one.
- 6) Lift bumper up and align it on the front of the truck (don't do this by yourself).
- 7) Loosely install the 10mm bolts with smaller washers on the mounting points on the sides of the frame rails.
- 8) Loosely install the front 12mm bolts and larger washers. (Can reinstall factory tow brackets if desired)
- 9) The bumper will be sagging forward slightly because the bottom of the frame is at a slight angle. You will need to take a couple of the larger washers (there are 4 extras) and shim them between the bumper and the underside of the frame where the rear 12mm bolt goes.
- 10) After the bumper is shimmed with the washers, install the rear 12mm bolts and larger washers.
- 11) Tighten down the 12mm bolts first then tighten down the 10mm bolts.
- 12) Trim the wheel well plastic.
- 13) Finish wiring any lights and/or winch.
- 14) Send in super awesome pics of the bumper installed on your 4runner and we might just use them on our website!
- 15) Enjoy!!!

RETURN POLICY

- Products purchased from True North Fabrications LLC can be returned within 30 days of the original shipping date. All returns are subject to a 15% restocking fee and buyer will pay return shipping unless otherwise discussed prior to return. Any original shipping charges will not be refunded. We will not accept any returns of custom parts or parts that have already been welded, painted, or modified in any way.
- If you purchased one of our products through a different company please contact them to inquire about returns.

ENJOY!