



Disclaimer

This Splash Back Fuel Neck modification is supplied by a Mustang Maniac for use in the intend vehicle for road use only. All parts must be installed, fitted, handled and used strictly in accordance with the provided instructions, including any safety information and compatibility requirements. You must take care to use common sense, assess suitability for your specific make/model/engine and fuel system configuration, and ensure the correct specification, condition and installation procedure are followed to help prevent hazards such as leaks, contamination or ignition risk.

If you are unsure about compatibility, safe fitting, or whether specialist diagnostics or procedures are required, particularly where fuel systems, or vehicle safety are involved, you should seek professional advice from a suitably qualified technician or garage. Mustang Maniac does not accept liability for any loss, damage, injury or expense arising from incorrect installation, misuse, failure to follow instructions, unauthorised modifications, or unsafe use. The original classic filler pipes were not designed for such modifications and these parts should be installed with care.

Regular inspections should be performed to ensure that the modification is still safe and working for its designed purpose.

Nothing in this notice affects your statutory consumer rights.

1965-73 Mustang & '67-70 Cougar Fuel Filler Neck Insert Kit



STANDARD INSERT for
UNLEADED 13/16" nozzle

OPTIONAL INSERT will also
accept LEADED 15/16" nozzle



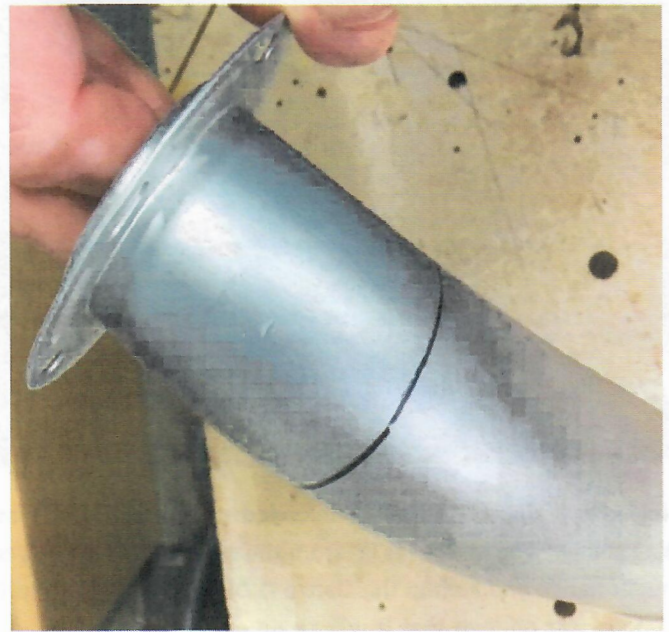
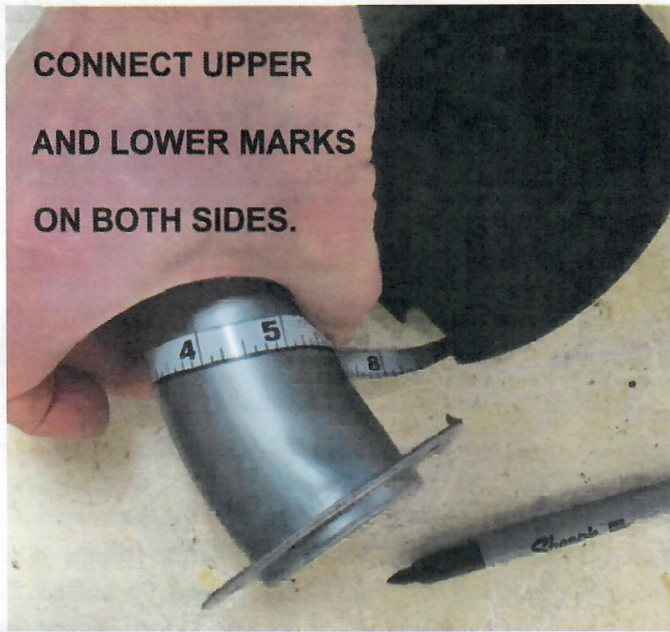
Kit includes a zinc plated steel unleaded nozzle type fuel insert with flapper, disposable syringe, static mixer, extension and tipping shims. The insert "as is" from the supplier is designed to be press-fit into 2" tubing then used with a screw-on cap. It has an upper flange and I crimp this flange O.D. down so it will slip-fit into a classic Mustang or Cougar filler neck from the bottom. It is crimped just enough that it will go up and around the bend where it needs to be positioned. If your car is a driver and you want to cover up your tank opening while the neck is out of the car, use the bag the insert came in (double layer) and the supplied Zip Tie. This will help keep debris (or tools) "OUT" of the tank as well as gas fumes "IN" while you have the neck out of your car modifying it. The syringe or static mixer and extension tube is for applying JB Weld between the tube wall and insert on the back side (step 7). The shims are for tipping the insert in the neck so the JB weld can form into a horseshoe shaped wedge.

STEP 1: TEST FIT THE INSERT. If for some reason the insert will NOT slip past the bend on your neck, your bend may be more oval shaped than round. If this is the case, gently squeezing the oval shape of the tubing in a soft-jawed vice while lightly tapping insert up in place with a 6" or longer 3/8" / 10MM bolt or rod on the middle sides next to the spring door should do the trick (per lower left picture on page 5). Some light massaging with a hammer to the upper and lower sides of the insert flange can help too. If the insert goes around the bend way too easy and is somewhat sloppy in position, you can pry the flange out slightly in a few spots with a flat screwdriver blade for a closer fit.

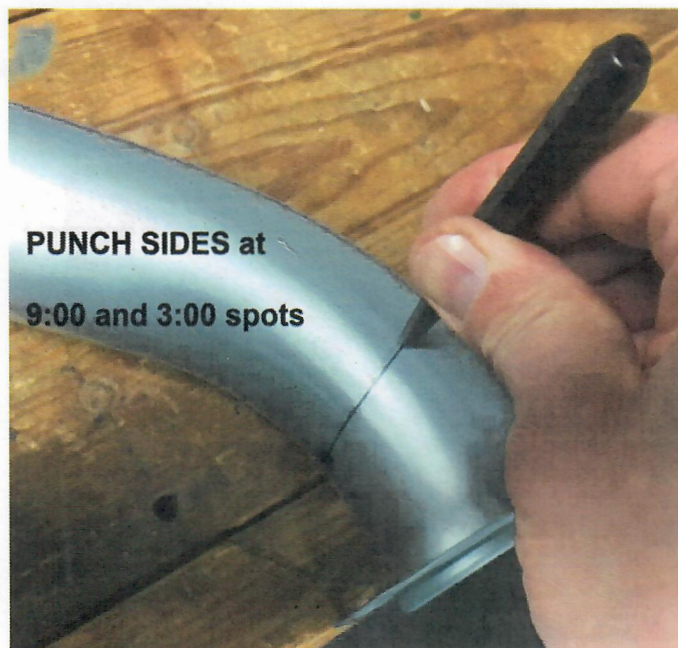
STEP 2: Using a fine point permanent marker and a flexible pocket scale, make marks on the bottom of the neck and another at the top per the chart of "dimensions" on the back side of the TOOL LIST sheet.



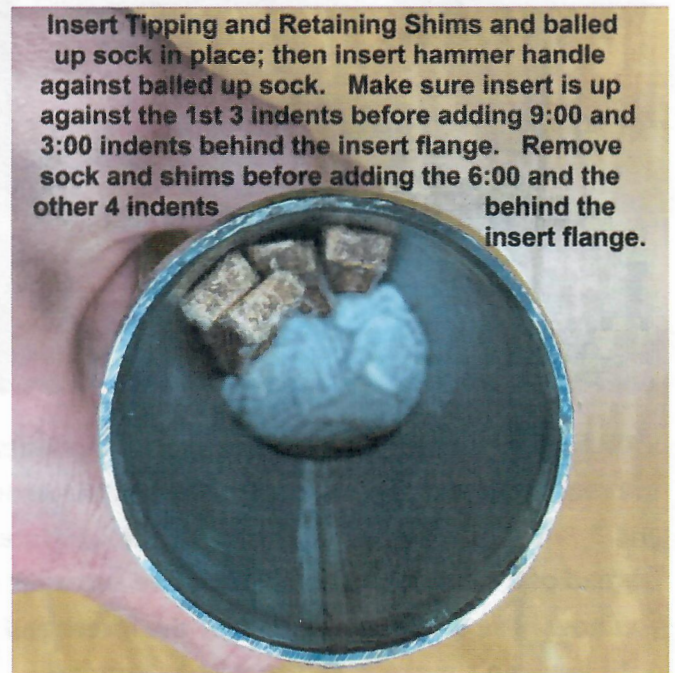
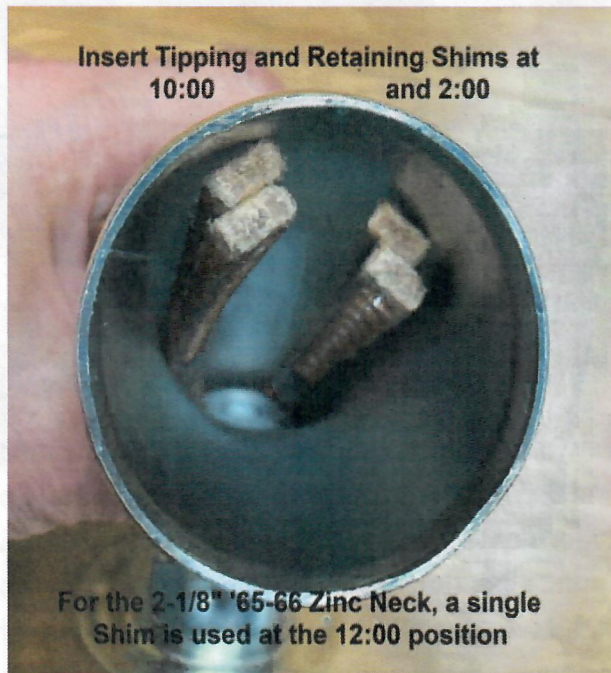
STEP 3: Using the marker and a flexible flat tape rule, connect the upper and lower marks on each side. Note that a marker is great on the Zinc Necks, but a "pencil" is better for the line on Powder Coated necks as it can be seen well enough and is easier to remove completely when done (marker may leave a shadow):



STEP 4: Mark punch locations along the line at the 3:00, 6:00, and 9:00 locations. Also note where the tube seam is located. Your neck can have the seam close to one of the positions, and if this is the case move the punch location a bit to avoid being right on the seam. Using a hammer (a large ball peen type works best) and center punch on 2x lumber on a concrete floor (or edge of a solid workbench), put 3 light indents into tube side at your marked locations using a std. center punch. Slide insert into place and if insert goes past, make your indents deeper until they actually stop insert. Punch marks need to be deep enough that you can feel them protruding on the inside and they form a stop for the insert, but you don't want them too deep where they bend the metal too much that the insert stops before it gets close to the indent:



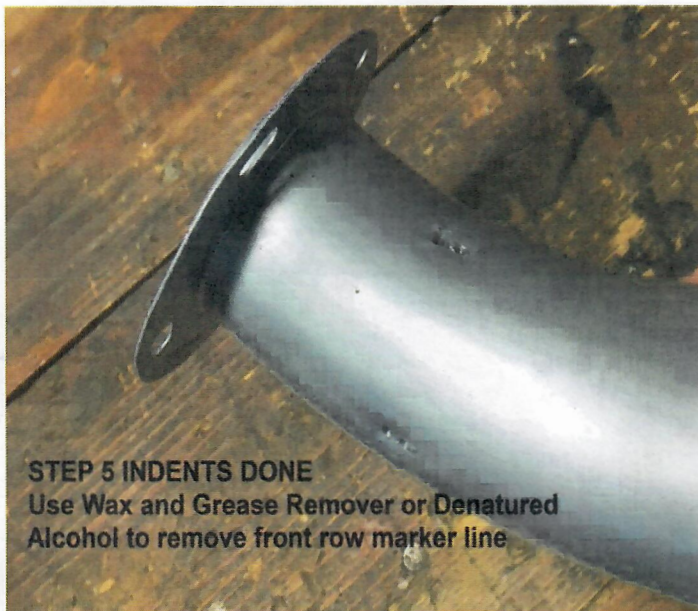
STEP 5: Clean the outside of the insert and the inside of the neck with Wax & Grease remover or Denatured Alcohol (required for STEP 7). Then slip insert in up the neck so it rests against the 3 indents and rotate it so it is upright / with the offset nozzle hole at the bottom 6:00 position, hold insert to the tubing wall at 6:00 with your fingers and slide the tipping shims in place, push them tight, then add the balled up sock:



As stated in right picture above, use a hammer handle and balled up sock in neck with other end of hammer up against a solid stop per picture below to hold the inert up against the first three indents.

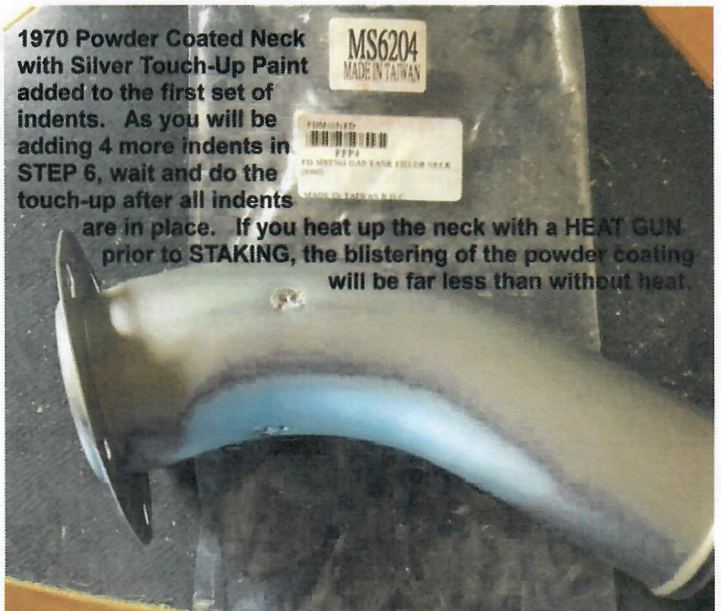


Now add the 3:00 & 9:00 indent punches about 3/8" back from the original 3:00 & 9:00 indents which you want to be just "behind" the insert flange to secure it in place in the neck. Remove balled up sock & tipping shims then add the 6:00 indent "behind" the insert.



STEP 5 INDENTS DONE

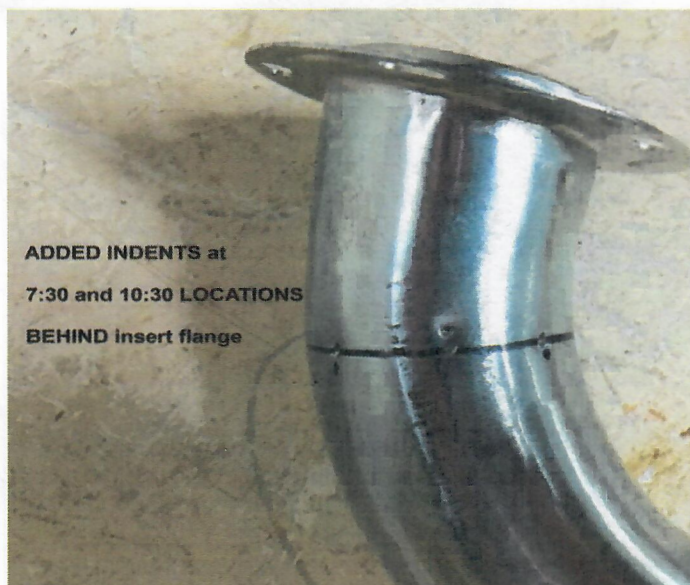
Use Wax and Grease Remover or Denatured Alcohol to remove front row marker line



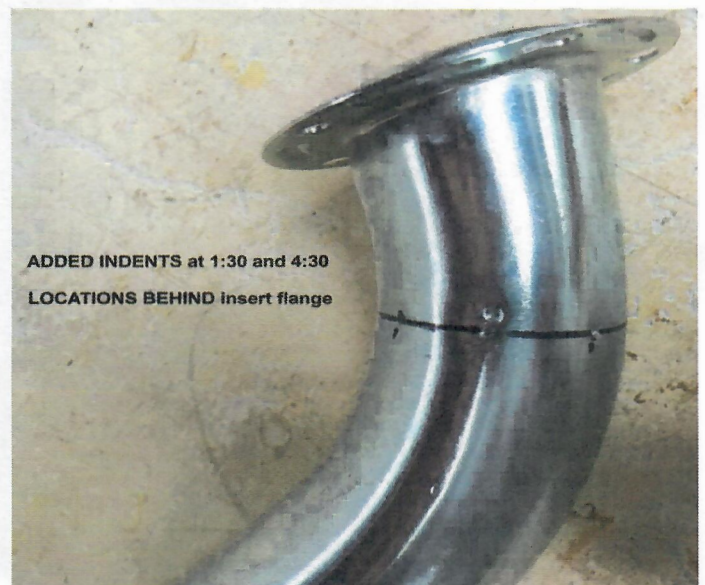
1970 Powder Coated Neck with Silver Touch-Up Paint added to the first set of indents. As you will be adding 4 more indents in STEP 6, wait and do the touch-up after all indents

are in place. If you heat up the neck with a HEAT GUN prior to STAKING, the blistering of the powder coating will be far less than without heat.

STEP 6: Once you've got the three sets of indents in place, draw a new line per pictures below connecting the rear indents and mark spots centered between the 3 & 6 and 6 & 9 indents and 2 more between the top and 3 & 9 (1:30, 4:30, 7:30 & 10:30 spots). Note that on Powder Coated necks you can again use a pencil instead of a marker for the line, but use a marker to mark the punch locations. Now add these 4 indents so you now have 3 indents in front of the insert and 7 behind. Keep working all the indents deeper & deeper until you can't make it rotate within the neck ... use a pair of needle nose pliers in the two upper insert holes to test how solid it is held in place. Solid retention is the goal. Again remove the lines with Wax & Grease remover or Denatured Alcohol. Test for leaks by putting gas cap on (or seal opening with duct tape) and fill the neck with water to verify none of your indents pierced through. Blow water out with compressed air and let neck assembly fully dry before going onto step 7.

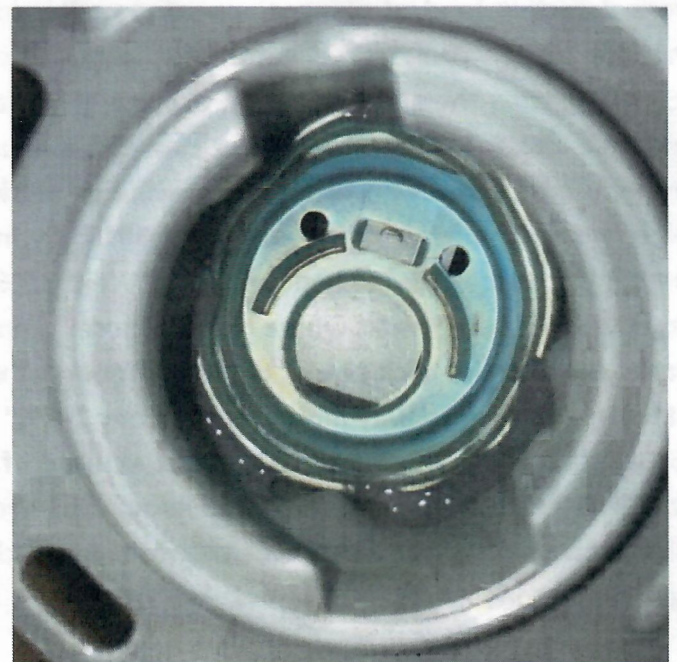
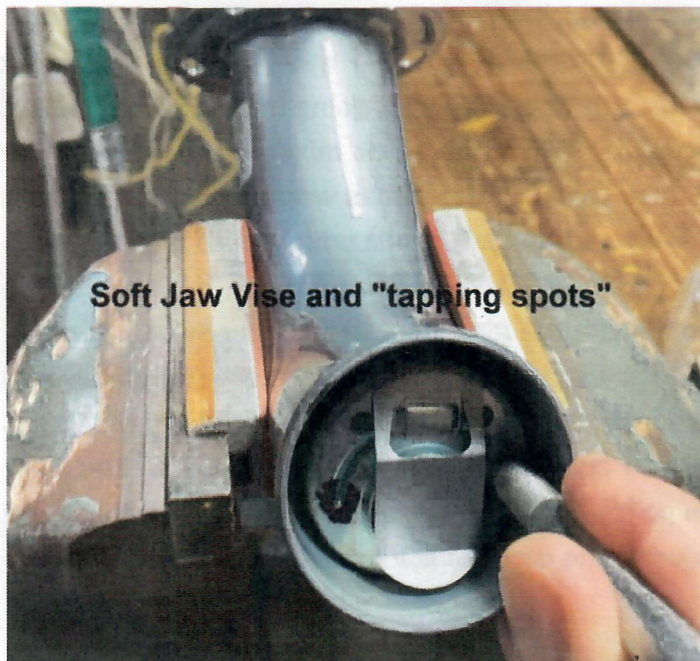
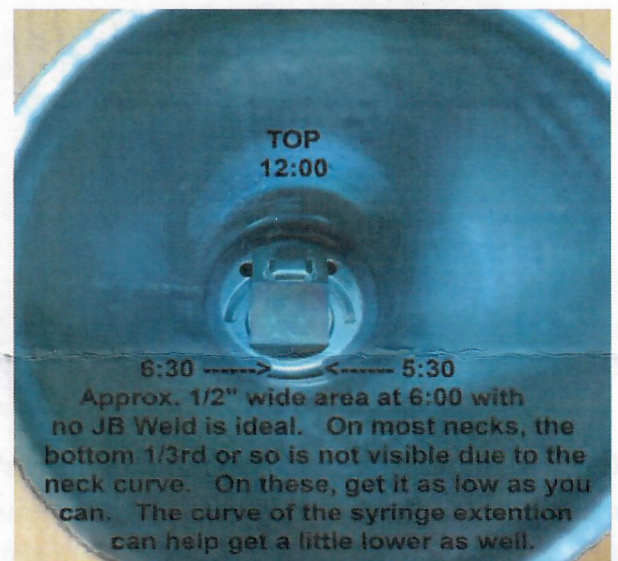


ADDED INDENTS at
7:30 and 10:30 LOCATIONS
BEHIND insert flange



ADDED INDENTS at 1:30 and 4:30
LOCATIONS BEHIND insert flange

STEP 7: For the final step, you will need to get some JB Weld 2-part epoxy (see page 6 for options). Using the disposable syringe and extension included in the kit with regular 2-part JB Weld (or included static mixer and extension if using the 50165 JB Weld Twin-Tube Syringe), you want to put a wedge-shaped bead between the insert sides and the neck wall. This seals the insert to the inside wall of the neck and adds further support to permanently retain the insert within the neck. If using the regular 8265S 2-Part type, thoroughly mix equal portions of JB Weld on the back side of a cereal box (about 1/2 of each tube) and put in the top of the syringe. Inject it just on the sides and over the top between 6:30 & 5:30, leaving the bottom area clear so gas can still sneak past the insert (per right picture below). Now turn over and put a short daub of JB Weld at 12:00, and long sealing daubs at 3:00-5:30 and 6:30-9:00 positions on front side between insert and neck (per lower right picture). These will be the "tell-tale" spots to inspect periodically and also seal the lower area on necks where you could not see the lower area on the back side due to the neck curve. Let it harden with the back side pointing UP. Once fully cured ... about 24 hours, JB Weld is completely resistant to gasoline (up to 15% ethanol).

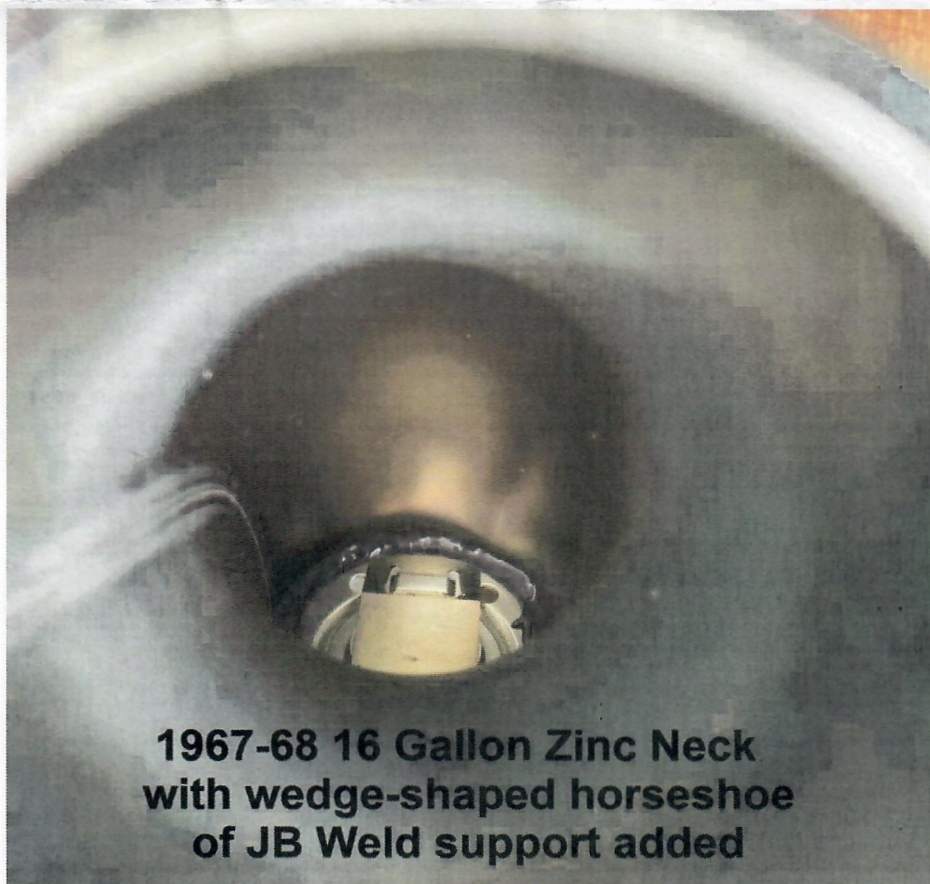




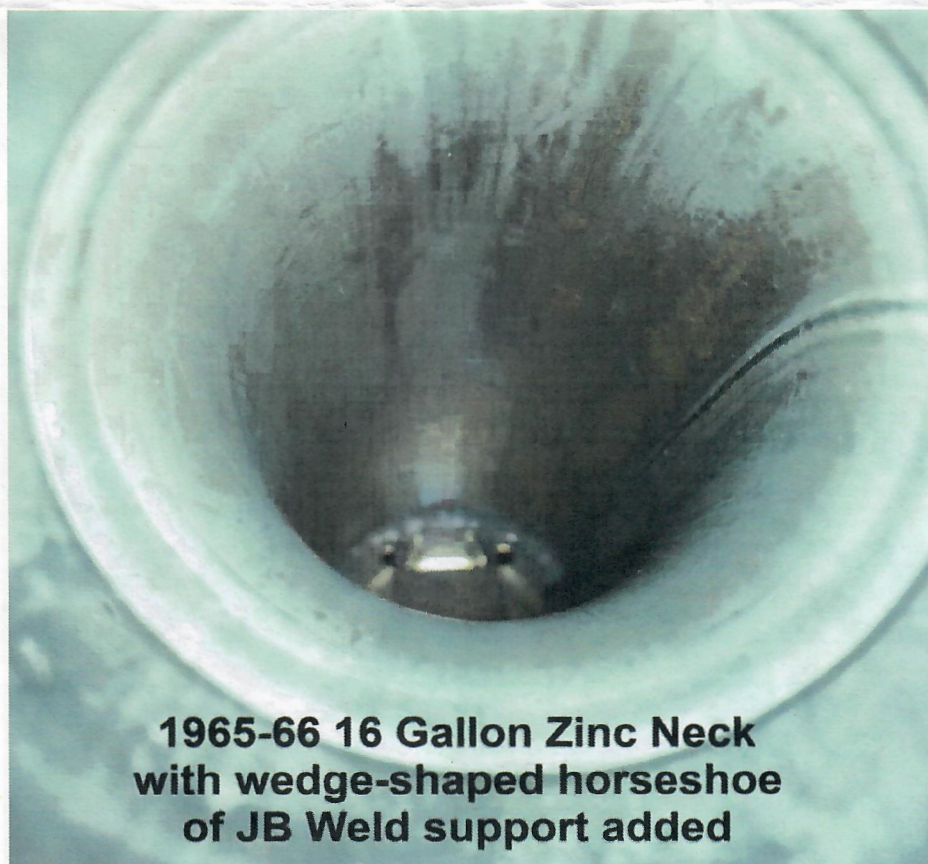
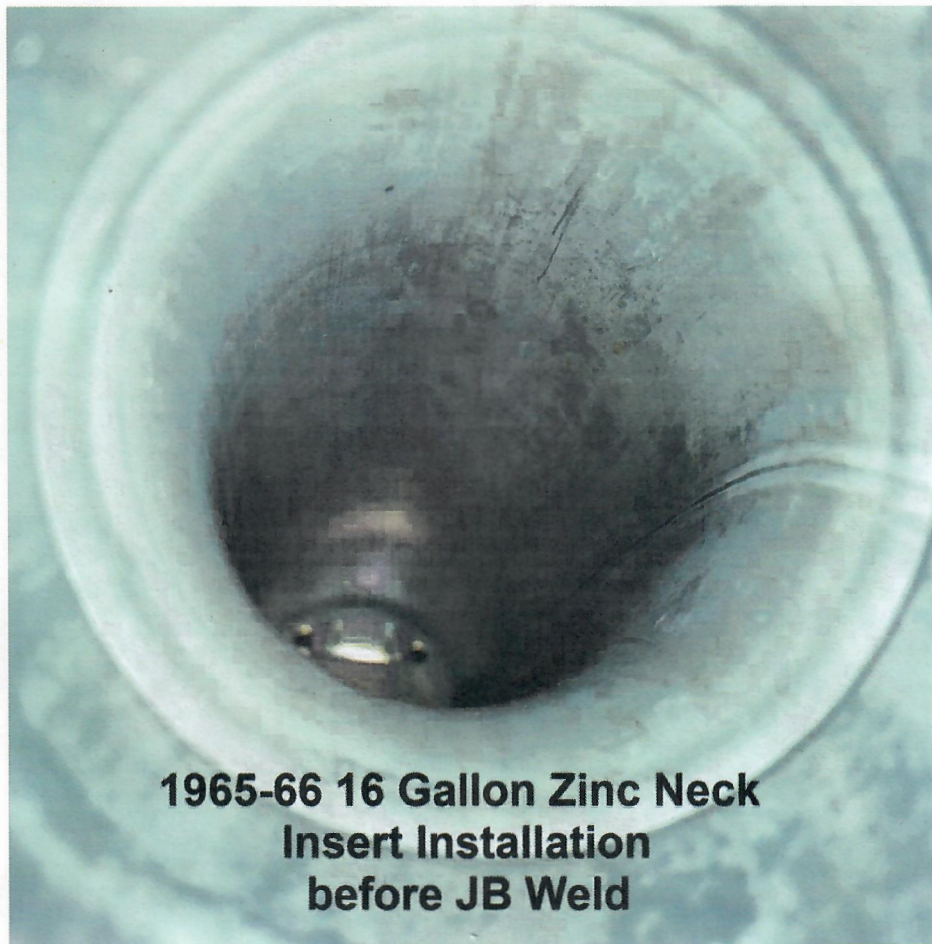
NOTE: JB Weld 50165 Syringe with Static Mixer is preferred for applying the Front side JB Weld treatment and on the back side of the smaller 2-1/8" tubing '65-66 Zinc necks. If you plan on going the syringe route, first remove the label and look at the plungers. I had 2 that were defective (end of plunger appeared melted/distorted which effected even delivery), so it is worth checking before you start (& return/exchange for a good one). Also, you will want to push a little out BEFORE putting the static mixer on because you want to confirm a 50:50 mix going into the static mixer. And once mixer is "attached" make sure the mixture coming OUT of the static mixer is consistent and properly mixed "Grey" color. If too white or black at first, let this flow out as waste until it is properly mixed before applying in the neck. The 50165 Syringe is also a thinner formula which helps it get through the static mixer. Normal hand-mixed JB Weld 8265S or 8281 is a "THICKER" formula so I prefer it for the larger 2-1/4" tubing necks where there is more "area" to fill with the JB Weld. The thinner Syringe formula works good for the back side of the 2-1/4" necks as well, you just need to fill the area more completely and 0.85 oz. is enough to fully fill the void on any 2-1/4" neck. Pictures of before & after JB weld of the '67-68 16 Gallon Zinc neck (largest void / most amount of JB weld needed) & '65-66 2-1/8" 16 Gallon Zinc neck (smallest void / least amount of JB Weld needed) are on pages 7 and 8. Note how you can't see the lower third of the back of the insert on either of these necks due to the curve of the bend as mentioned in upper right picture on page 5.



**1967-68 16 Gallon Zinc Neck
Insert Installation
before JB Weld**



**1967-68 16 Gallon Zinc Neck
with wedge-shaped horseshoe
of JB Weld support added**

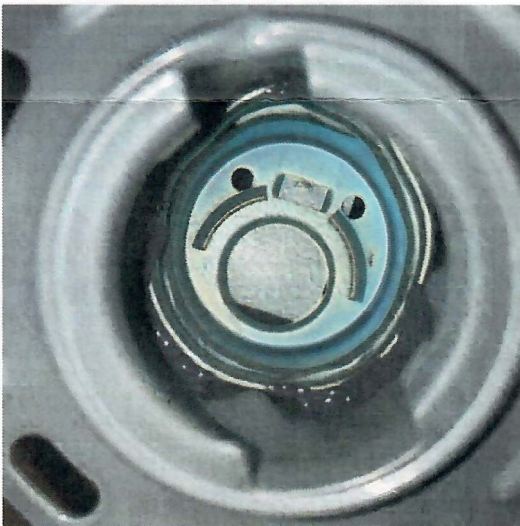


'65-73 Mustang and '67-70 Cougar Fuel Filler Neck Insert ... TOOLS NEEDED:

- * Large 32 oz. Ball Peen Hammer
- * 2nd Smaller Hammer, and Balled-Up old sock
- * Center Punch or 1 Ton or larger Arbor Press (I used to use Craftsman 3/8" punch #42861, but now use 1 ton Arbor Press with pointed / punch type drift)
- * Sharpie Fine Point Permanent Marker
- * Flexible Pocket Scale and Flat Tape Measure
- * Soft -Jaw equipped Vice (not shown) and 6" or longer 3/8" / 10MM Bolt or rod (to squeeze/hold neck and gently tap insert past bend; required on some necks)
- * JB Weld Two-Part Epoxy # 8265-S or 50165
- * 2x Lumber on Concrete Floor or Solid Workbench



Picture below left shows the front side with the 3 daubs of JB Weld at 12:00, 3:00-5:30, & 6:30-9:00 positions. These are the tell-tale marks to periodically inspect as mentioned in the installation instructions. The extended lower front JB Weld further seals the insert to the inside of the neck leaving just a 1/2" wide gap at 6:00. This un-sealed area allows fuel to drain back to the tank that can get past the insert upon hard acceleration.



ORIGINAL INSERT

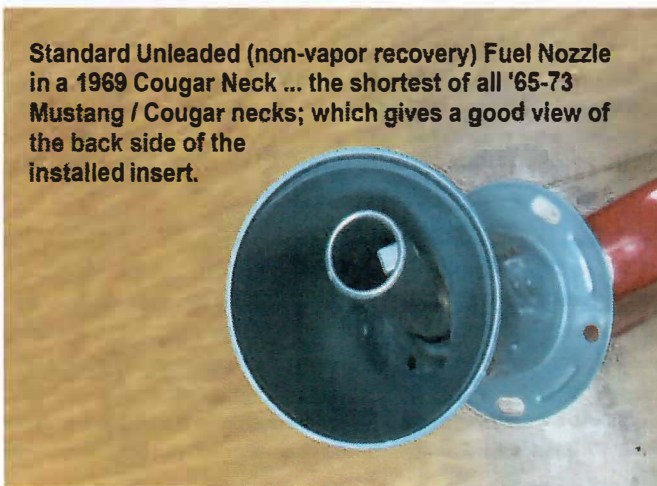
vs.

CRIMPED FLANGE INSERT

(as purchased from supplier)

(modified to fit up filler neck)

Standard Unleaded (non-vapor recovery) Fuel Nozzle in a 1969 Cougar Neck ... the shortest of all '65-73 Mustang / Cougar necks; which gives a good view of the back side of the installed insert.



Standard Unleaded (non-vapor recovery) Nozzle in a 1970 Mustang Neck.



Insert Upper Indent Location Marks for Step 1 of Instruction Sheet

YEAR	Supplier / Mfr.	PART NUMBER / mfr. #	Surface Finish	Indent Location		Insert #	Neck Flange to Insert Door:
				BOTTOM	TOP		
1965-66	ACP & Liland Global	FM-EG008 & IFN91	Powder Coated	7/8"	1-1/4"	739-7.80	2-7/8"
1965-66	ACP	FM-EG019	Zinc Plated	7/8"	1-1/4"	739-7.80	2-7/8"
1965-66	NPD	9034-1B	Zinc Plated	7/8"	1-1/4"	739-7.00	2-7/8"
1965-66	Scott Drake / Unknown	C5ZZ-9034-B / CF028A	Zinc Plated	1-3/16"	1-1/4"	720-3.05	3-1/8"
1967-68	O.E.M. Ford Mustang	C7ZZ-9034-A	Lead Dipped	3/4"	1-7/16"	739-7.80	2-7/8"
1967-68	ACP / Liland Global	FM-EG009 / IFN92	Powder Coated	3/4"	1-7/16"	720-5.80	2-7/8"
1967-68	ACP	FM-EG019A	Zinc Plated	3/4"	1-7/16"	739-7.80	2-7/8"
1967-68	Scott Drake / Unknown	C7ZZ-9034-A / CF028B	Zinc Plated	3/4"	1-7/16"	739-7.80	2-7/8"
1967-68	O.E.M. Mercury Cougar	C7WY-9034-A	Lead Dipped	1"	1-1/8"	739-7.80	3"
1967-68	ACP Mercury Cougar	FW-EG0001	Powder Coated	1"	1-1/8"	720-5.80	3"
1969	O.E.M. Ford Mustang	C9ZZ-9034-A	Lead Dipped	3/4"	1-1/2"	739-7.80	2-3/4"
1969	ACP / Liland Global	FM-EG010 / IFN93	Powder Coated	5/8"	1-7/16"	720-5.80	2-7/8"
1969	ACP	FM-EG019B	Zinc Plated	5/8"	1-7/16"	739-7.80	2-7/8"
1969	O.E.M. Mercury Cougar	C9WY-9034-A	Lead Dipped	1"	1-1/8"	739-7.80	3"
1969	ACP Mercury Cougar	FW-EG002	Powder Coated	1"	1-1/8"	720-5.80	3"
1970	O.E.M. Ford Mustang	D0ZZ-9034-A	Lead Dipped	7/8"	1-7/16"	739-7.80	2-3/4"
1970	ACP & Liland Global	FM-EG011 & IFN94 or 5053	Powder Coated	7/8"	1-7/16"	720-5.80	2-3/4"
1970	ACP	FM-EG019C	Zinc Plated	7/8"	1-7/16"	739-7.00	2-3/4"
1970	O.E.M. Mercury Cougar	D0WY-9034-A	Lead Dipped	1"	1-1/8"	739-7.80	3"
1970	ACP Mercury Cougar	FW-EG003	Powder Coated	1"	1-1/8"	720-5.80	3"
1971-73	ACP / Liland Global	FM-EG007 / IFN5021	Powder Coated	5/8"	1-1/4"	720-5.80	2-7/8"
22 Gallon (1970 Tank) Mustang Conversion Necks:							
1965-66	Various / M.D.	FFP11, MA74199 / 226566	Zinc Plated	3/4"	1-1/4"	739-7.00 *	3"
1965-66	Various / M.D.	FFP35 / 236566	Chrome 304S.S.	3/4"	1-1/4"	739-7.00 *	3"
1967-68	Various / M.D.	FFP12, MA74070 / 226768	Zinc Plated	5/8"	1-3/8"	739-7.00 *	2-3/4"
1967-68	Various / M.D.	FFP36 / 236768	Chrome 304S.S.	5/8"	1-3/8"	739-7.00 *	2-3/4"

***Typical fitment, sometimes will need 739-7.80 (larger) or 720-5.80 (smaller)**

When I first did the instructions, it was all about getting the nozzle as far in the neck as possible. And since all the necks have different curves to them, the insert location dimensions varied. Then I realized that with a Pop-Open type Gas Cap, the nozzle will be off to one side and not go in the neck as far as it would going straight in with a std. screw-on cap so technically insert could be a little further up the neck. Fast Forward to the present and I've discovered that Vapory Recovery Nozzles are still used in some areas. These nozzles vary in design and can be shorter than a standard unleaded fuel nozzle due to the rubber bellows so this fact caused me to rethink insert locations a third time.

YES ... CA, DC NJ, WA, and parts of NV & OR still require Stage II Vapor Recovery. In 2012, the EPA allowed states to discontinue Stage II due to the fact it was redundant to "on vehicle" Systems on all 2006-newer vehicles. 19 rural states never had it, 14 had it and systems had to be removed by 1/2019, and 12 more had it but removal was optional (incl. DE, FL, IN, LA, MD, MI, NM, NY, NC, PA, VA & WI). However, I'd guess most converted back to std. nozzles as Stage II is expensive to maintain and I've not seen it anywhere when traveling. **These systems use a rubber bellows extension on the nozzle (both solid and accordion styles exist) and some Stage II nozzles can end up being too short to get into the trap door in the insert.** I have now revised my dim's. to get the insert as far up the neck as possible on all variations to hopefully guarantee that any style nozzle will work. **The dims. in the far right of the chart above is the length from the neck face to the trap door in the insert. Nozzle length needs to ideally be at least 1" longer than these dim's. (1/2-3/4" minimum), to work with these necks.** If you live in an area where Stage II Vapor Recovery is still in use, you must check that the nozzles in your area are long enough to work. To check accordion style, push back rubber bellows as far as you can to measure nozzle length.