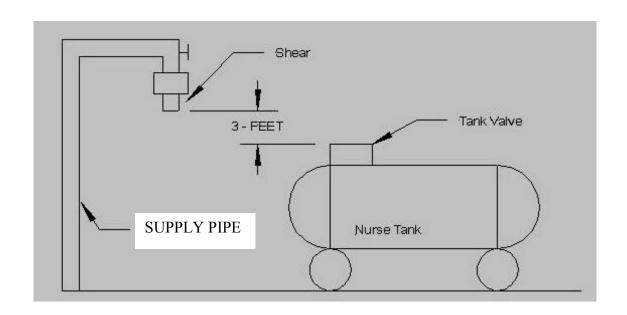


INSTALLATION INSTRUCTIONS FOR THE A-53-RSS, A-72-RSS AND THE A-98-RSS ANHYDROUS AMMONIA RISER SAFETY SHEAR UNITS

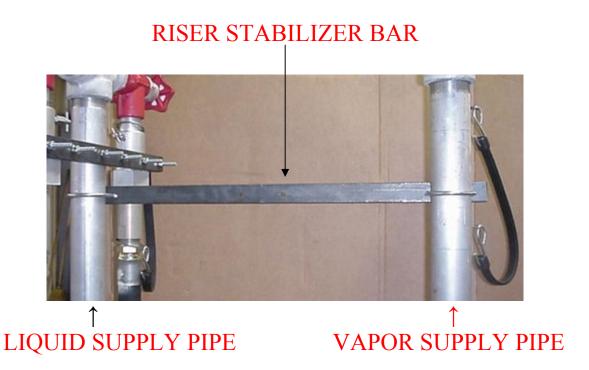
TO ENSURE PROPER FUNCTIONALITY OF THE SHEAR UNITS PLEASE FOLLOW THE INSTRUCTIONS VERY CAREFULLY. IF INSTALLATION IS NOT FOLLOWED CORRECTLY THE UNIT MAY NOT FUNCTION PROPERLY.

BE SURE THAT THE HOSE FROM THE RISER SHEAR UNIT WHEN ATTACHED TO THE NURSE TANK IS NOT OBSTRUCTED IN ANY WAY. MAKE SURE THAT THERE IS NOTHING THAT THE HOSE CAN GET CAUGHT ON IF A PULL AWAY HAPPENS. HOSE REELS AND OTHER HARDWARE MIGHT NEED TO BE MOVED SO THE HOSE DOES NOT CATCH ON THEM WHEN A PULL AWAY HAPPENS.

This unit must be installed NO HIGHER THAN 3 FEET HIGHER THAN YOUR TANKS FILLER VALVE AND NO LOWER THAN 3 FEET LOWER THAN YOUR TANKS FILLER VALVE. See diagram below.

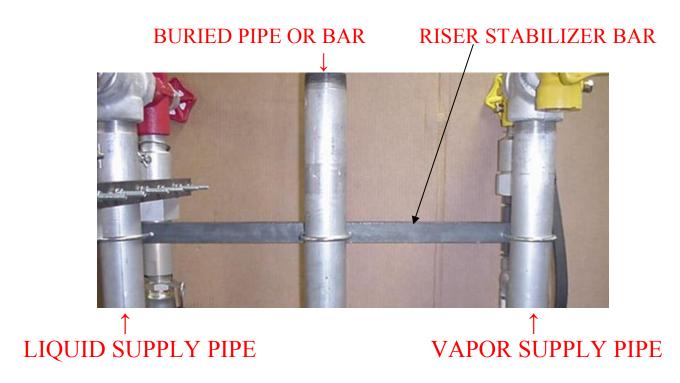


Do not skip this step. Please ensure that the Riser Stabilizer bar kit, A-RSS-RB, is installed as illustrated below in the photo. This kit is included with your break away units at no charge so if you did not receive one please call us at 800-537-5642 and we will ship one to you. This bar ties the Liquid and Vapor supply pipes together to stabilize your riser. One of your Liquid or Vapor lines must be at least 2" sch. 80 pipe. If one of your supply pipes is not 2" you must bury a bar or pipe next to your supply pipes and tie them together with the A-RSS-RB as illustrated in the next section. THIS IS REQUIRED TO SOLIDIFY YOUR RISER.



The stabilizer bar comes predrilled for 2" sch 80 pipe and comes with U-bolts, lock washers and nuts to fit 2", 1-1/4", and 1" sch 80 pipe. The mounting directions are identical for marking and drilling the holes as described in the installation instructions below.

For further riser stabilization please consider burying a pipe or bar next to the supply pipes so you can secure the liquid and vapor lines to it to get a more solid riser as illustrated in the photo below. This is not required if one of your supply pipes is at least 2" sch. 80 pipe. If one of your supply pipes is not at least 2" sch. 80 pipe then this is required.



SINGLE LIQUID AND VAPOR MOUNTING INSTRUCTIONS

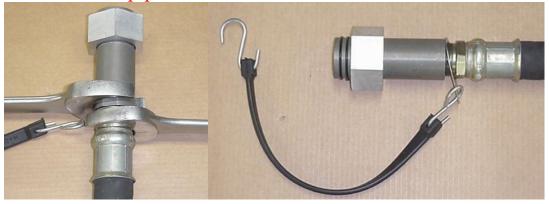
1. Separate the unit into its 5 main pieces: RSS-NUT Union nut, RSS-SHEAR Shear Body, RSS-BODY Inlet Body, RSS-BUNGEE tarp bungee, and RSS-RING bungee holder ring, as shown in the picture below.



RSS-BUNGEE

Please note that depending on which unit you purchased your rss-shear and rss-body may not look exactly like the photos above but is a close representation and should be distinguishable. If you are unsure please call us at 800-537-5642.

2. Slide RSS-NUT Union nut over the RSS-SHEAR Shear body and slide the end of the bungee holder ring over the male pipe thread of the hose and screw hose into the female pipe thread in the RSS-SHEAR Shear body as shown in the picture below and tighten firmly. ***Make sure to attach the wrench to the lower part of the shear body as shown in the picture and make sure to use pipe thread sealant***.



3. Slide the other end of the bungee holder ring over the male pipe thread of the RSS-BODY and screw the RSS-BODY Inlet body into the riser piping or shut off valve as shown in the picture below and tighten firmly. Please make certain you following your state regulation regarding shut off valves and excess flow checks. The A-RSS must be installed down stream of your shut off valve and excess flow checks *** Make sure to use pipe thread sealant on the pipe threads. Make sure the piping is no farther than

2 feet away from your supply pipe. Closer the better See picture below.***



4. The unit comes complete with mounting hardware that includes 1 = 2 foot stabilizing bar with 2 holes predrilled for the accompanying RSS and all u-bolts, nuts and lock washers needed to securely mount the shear unit.

5. Attach the Stabilizing bar with the predrilled holes to the installed RSS unit with the appropriate u-bolts and nuts as shown in the picture below, do not tighten the u-bolt nuts yet.***Do not install the unit farther than 2 feet from the mounting pipe.***



6. Mark and drill 2 = 11/32 holes for the accompanying u-bolt that will be used to attach the stabilizing bar to the riser piping as shown in the pictures below.



7. Cut off any excess material from the stabilizing bar as shown in the picture below.***Make sure to leave at least 1" of material on the stabilizing bar.***



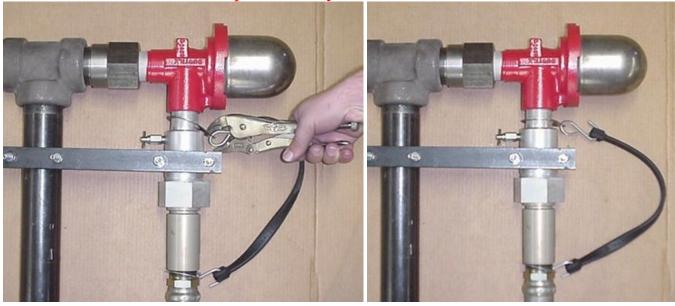
8. Install the Stabilizer bar with appropriate u-bolts, nuts and lock washers as shown in the picture below. ***Make sure to tighten bolts firmly.***



9. Attach the RSS-SHEAR shear body with the RSS-NUT union nut and hose assembly to the RSS-BODY inlet body by pushing the unit into RSS-BODY inlet body making sure both o-rings are completely inside the RSS-BODY inlet body. If you have the A-98-RSS make sure you guide the stem that protrudes from the RSS-BODY into the stem guide spider in the RSS-SHEAR as shown in the photo's below

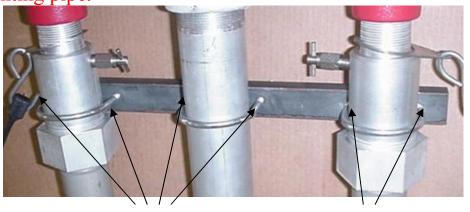


10. Then screw the RSS-NUT union nut onto the RSS-BODY inlet body and tighten firmly and pinch the bungee hook closed to prevent it from slipping off as shown in the picture below ***When tightening the union nut DO NOT PUT ANY WRENCH ON THE RSS-SHEAR, SHEAR BODY. This will cause the unit to prematurely brake.***.



DUAL LIQUID AND VAPOR MOUNTING INSTRUCTIONS

- 1. Follow steps 1 thru 4 on the single liquid and vapor mounting instruction for each one of the RSS units.
- 2. Attach the Stabilizing bar with the predrilled holes to the installed A-RSS unit with the appropriate u-bolts and nuts as shown in step 6 above, do not tighten the u-bolt nuts yet.***Do not install the unit farther than 2 feet from the mounting pipe.***

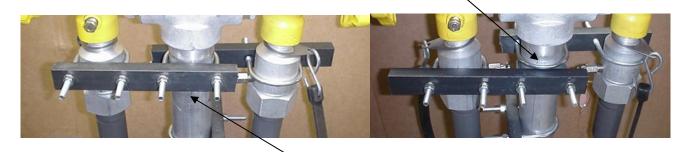


MARK AND DRILL THESE HOLES

PREDRILLED HOLES

- 3. For 2" sch. 80 piping mark and drill 4 = 11/32 holes for the accompanying u-bolts that will be used to attach the stabilizing bar to the riser piping and the 2^{nd} A-RSS unit as shown in the pictures above.
- 4. For 1" or 1-1/4" piping use the same marking and drilling techneuqe as described in the single unit but stager the brackets as shown in the illustration below. One bracket needs to be a little higher than the other bracket.

U-BOLT ON TOP OF OTHER BRACKET



- 5. Follow step 7 and 8 on the single liquid and vapor mounting instructions.
- 6. Install the stabilizer bar with the appropriate u-bolts to secure the 2 A-RSS units to the piping or other stabilizing hardware.
- 7. Follow steps 9 and 10 to complete the installation of the A-RSS riser safety shear.

Congratulations you have successfully installed your new A-RSS riser safety shear.

If you have any questions of any kind please contact us at 800-537-5642.

What to do when a pull away occurs

Caution: ALWAYS WEAR APPROPRIATE SAFETY EQUIPMENT WHILE FOLLOWING THE PROCEDURE BELOW.

- 1. Put on appropriate gloves, goggles and breathing equipment.
- 2. Close all Liquid and vapor line valves on the riser.
- 3. Close all valves on the nurse tank that the riser hoses are attached to when the pull away occurred.
 - Caution: There is going to be liquid ammonia trapped in the hose lines that are still attached to the nurse tank that pulled away with the hoses attached, please take extreme caution while around these hoses. Wear safety equipment at all times.
- 4. Close all hose end valves that are attached to the nurse tank that was involved in the pull away.
- 5. Bleed down the liquid and vapor line connection between the hose line valves and the tanks filler and vapor valves.
- 6. Disconnect the liquid and vapor hose line valves from the nurse tank.
- 7. Bleed down the liquid and vapor lines that were involved in the pull away by submerging the valve into a container of water and slowly opening the hose end valves to drain the ammonia out of the hoses.
 - Caution: Please be aware of the wind direction and your surroundings so that you do not endanger yourself or anyone else.
- 8. Remove the broken shear body from the end of the hose. Caution: Be mindful that ammonia can still be trapped in the hose.
- 9. Open the bleeder valve located on the shear inlet body and drain the ammonia from the unit. Wait several minutes to completely drain. Caution: Please be aware that the bleeder valves bleed hole is pointed down so when it is opened the ammonia will vent toward the ground.
- 10. After draining the ammonia there might still be some ammonia trapped in the inlet body, as a precaution use a long piece of steel or wood and tap on the body several times to see if there is any ammonia left in the unit. I know this sounds strange but better safe than sorry.
- 11. Unscrew the RSS-NUT and remove the broken shear piece.

 Caution: Be mindful that ammonia can still be present so please be careful.

12. You may now install the new shear body by following steps number 2, 9, and 10 in the installation instructions above.

IF YOU HAVE ANY QUESTIONS PLEASE CALL US AT 1-800-537-5642.