Cutting Stainless Steel Railing

There are several methods of cutting Stainless Steel Tubing used for railing. We used a very expensive automated band saw that is water-cooled and cuts several hundred feet of tube per day. For customers that need to make a small number of cuts we recommend a few different methods that are cost effective.

Please consider safety as your primary factor in deciding how to cut tube. Always wear safety glasses, leather gloves, ear protection and a long sleeve shirt.

If you are using female rail fittings such as the Atlantis Rail Side Mount there is a simple and inexpensive cutting method based on a common \$5 blade and your existing saw. This cutting method will result in a slight discoloration, approx 1/4" away from the cut edge and a significant burr on the edge of the tube. The discoloration can be hidden by the RailEasy side mounts and the burr can be filed off or ground off using common tools. As many as 25 or more cuts can be obtained from a 12" blade. At about the 15th cut the burr does become larger, but the cut remains straight.

Proposed cutting of 2" stainless tube:

- 1) Use a common "Chop Saw" available at a hardware store for between \$99 and \$150. The Chop Saw has a lower RPM than common Miter saws. Alternatively you can use a 12" (or 10") Compound Miter Saw. (Our test was conducted on a SkillSaw 12" Compound Miter Saw).
- 2) Use an abrasive cutting disk, (Tested with a "Norton 12" High Speed Cut Off Blade, #6360, 12" x 1/8" (3/4" arbor) \$4.88 from Home Depot) There are thinner width blades, which may work better but will render less cuts.
- 3) Use appropriate safety equipment, leather work gloves, safety glasses, ear protection. Be careful, as the ends will get extremely hot.
- 4) Be sure the saw has been thoroughly cleaned out of any saw dust, as the sparks could ignite the saw dust.
- 5) Mark the area to be cut, firmly hold it in place (hand pressure is enough provided there is a back stop on the saw).
- 6) When cutting, let the saw get up to full speed, bring down with even pressure and consistent pressure. During the cutting, it is possible to have an assistant spray water on the area being cut to reduce the discoloration. Follow through the cut with even pressure, making sure the disk goes through the tube at the end of the cut.
- 9) To remove the burr, which will be larger at the end of the cut, a disk grinder works fine. Any method that can sand would work. Hold the tube to a 45 degree angle to the grinding surface and rotate the tube to evenly de-burr the edge. The inside burr can be removed with a coarse half round file. Holding the tube firmly on a flat surface, file the inside edge of the tube.
- 11) If the coloration needs to be removed, scotch brite pad can take it away, however that can scratch a polished surface. A polishing/buffing pad and rouge compound would remove the color also.