

# **LIFT-A-LOFT CORPORATION**

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I have been in the metal fabrication business for the past eighteen years. During that time I have worked with sheet metal, structural iron work, & o.e.m. manufacturing. For the past six years I have been in charge of the fabrication of structural steel & aluminum products (i.e. scissor masts, platforms, airplane engine stands /trailers). Also in the past four years I have become an AWS Certified Weld Inspector.

During my time in manufacturing I have worked with quite a bit of aluminum, from .030" sheet metal to 1" thick plate in structural aluminum. When welding aluminum there are several things that make it more difficult to weld than your standard A36 carbon steel. Type & grade of aluminum, cleanliness, Interpass temperature, and most important is the filler metal matching. Depending on the finished products needs depends greatly on the type of filler metal you use (i.e. anodize, heat treat, in service temperature just to mention a few things)

I have found that in the years I have welded and also inspected aluminum welds that there are a few main issues to look at when choosing an aluminum filler metal. 1. Matching filler metal to base metal(s) or castings 2. Post weld heat treatment (if required) 3. Tensile strength (does engineering specify any special requirements) 4. Wet in ability of the filler metal, weather you are using Gas Tungsten Arc Welding (GTAW) OR Gas Metal Arc Welding (GMAW). Incomplete fusion & overlap are some of the common weld defects you will see in aluminum welding. Don't misunderstand me there is a lot more that goes into an acceptable aluminum weld, above are just a few issues to look at and some of the most important. Having run several different aluminum filler metals during my years of fabrication, I have found that MAXAL aluminum wire has the nicest arc starts, the smoothest arc and the best "wetting in" characteristics that I have seen. Also, the technical support is some of the best in the business. Technical support when you need it can be very important to getting the job done by due date. In my eyes MAXAL's technical support is second to none.

I had thought that I had found the best wire and support prior to trying the MAXAL product.

Tony Brosio  
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AWS Certified Welding Inspector