



Figure 1. View from the end of SAF's new anodizing line.

Southern Aluminum Finishing Goes West *New Anodizing Line Opened in Redding, CA*

Southern Aluminum Finishing (SAF) is the oldest continuous anodizing company in the U.S., representing almost 70 years of aluminum anodizing services. They are the only supplier in North America who can custom anodize and ship a wide variety of sheet and extrusion to customers in 24 hours or less. Based in Atlanta, GA, the company owns three anodizing facilities in Atlanta; Nashville, TN; and, in January 2013, they opened their newest outpost in Redding, CA, called SAF West (Figure 1). Why make a move out West? According to co-chief executive officer, Penn McClatchey (pictured), "The formula worked so well for us in Atlanta that we decided to open SAF West." That formula is distribution of anodized sheet and extrusion to the commercial building sector with an emphasis on fast delivery of small orders.



Penn McClatchey.

History

SAF was started by Marvin McClatchey, a metallurgist who worked for Alcoa from 1937-1940. He began his own business in 1946, opening one of the first two commercial anodizing lines in the U.S. Marvin passed away in 2002 at the age of 86, but out of his eight children, four of his sons continued to carry on the business. John McClatchey served as president since 1988, when he assumed that role from his father. Jim McClatchey (pictured) and Penn took the roles of co-chief executive officers in 2012, when John announced his pending retirement. Reynolds McClatchey, who retired in 2008, after serving as VP of engineering for nearly 50 years, had a strong hand in designing the new anodizing line along with Jim, who was project manager during construction.



Jim McClatchey.

Prior to opening the Redding plant, SAF owned four plants. Besides anodizing, Atlanta does fabrication and processing, like cut-to-length and sawing; Nashville has slitting capability; and SAF also has a large fabrication and painting shop in Villa Rica, GA. On the whole, 40% of company revenue is devoted to fabrication, 40% to distribution, and 20% to toll finishing. Of their distribution and fabrication business, perhaps half is anodizing and half is painted. Additionally, an anodizing plant in Charlotte, NC, was decommissioned in 2009. The plant was too old to expand or modernize and it was about that time that SAF considered opening an anodizing facility somewhere in the West. (Eventually some of the equipment from Charlotte went to Redding.) According to Penn, "The main thing we learned in the decommissioning process is that it was more time consuming and costly than we anticipated. We also learned to keep all our sumps dry. Solids have a way of accumulating anywhere you allow solutions to accumulate, and the best policy is never to allow solids to accumulate in the first place. It is always good planning to 'begin with the end in mind'."

Redding Opens

SAF looked at a few different options in the West. However, the city of Redding was willing to offer what was basically a land-for-jobs deal, where the city would give SAF industrial land in exchange for creating jobs and paying prevailing wages for the new construction. In fact, it seemed like a done deal. However, this was about the time the recession hit in 2008 and, as the economy soured, the deal became unattractive. SAF decided to look around for another property. By 2011, SAF had purchased 13 acres with a 230,000 sq ft manufacturing building in the Mountain Lakes Center.

SAF West opened in a leased facility in 2007 that initially served as a metals fabrication facility and distributed aluminum extrusion and sheet. When the new building was purchased in 2011, construction began on a new anodizing line that opened in January 2013. In July 2013, *Light Metal Age* toured the facility to see the new anod-



Figure 2. (L-R) Penn McClatchey, Jason Bonner, and Dave Simonsen.



Figure 3. 30 ft anodizing tanks.

izing line, where we met Penn; Jason Bonner, SAF West Branch manager; and Dave Simonsen, production manager (Figure 2). The new line takes up about 50,000 sq ft. It features the latest environmentally sound processes, producing clear and two-step anodized finishes in lengths up to 28 ft. There are 20 processing tanks that make for a flexible and reliable set up for batch anodizing (Figure 3). Both acid and caustic etched finishes are available.

Anodizing Line

Penn described the design, associated equipment, and features of the new line, “SAF designed the line and hired engineering expertise in the Redding area. Pace Engineering of Redding designed the electrical and mechanical systems. Nichols, Melburg & Ressetto Architects, also from Redding, designed the facility and created the contract documents. Naturally, the line meets all the latest seismic requirements of the California Building Code. Although there are labor saving ideas designed into the line, the hoist isn’t automated. The two 1-ton hoists were supplied and installed by Jessup Engineering of Rochester Hills, MI.

“The line has a working envelope of 30 inches by 60 inches by 28 ft. There are two anodizing tanks and an electrolytic tin-salt two-step tank. The two-step tank is for bronze or black coloring for architectural products. SAF can produce colors ranging from champagne to dark bronze and black.

“We installed two 8,000 amp Munk rectifiers with AS-100 controls, and a Munk power supply with AC100 control for two-step, all supplied by American Plating Power. Shasta Control Company, also of Redding, integrated all the electronic controls together.

“We dramatically reduced water consumption using back flowing rinses to replace evaporating solutions from heated tanks. We have room to add five more tanks, which will be two more anodizing tanks, another two-step tank, a dye tank, and perhaps a rinse tank. Further additions

will depend on product mix. The capacity of the line is perhaps 200,000 sq ft per week, more or less.”

The racking is all manual, which is typical for a high-product-mix type of line (Figure 4). SAF designed the line for flexibility with large volume capabilities for architectural extrusion, sheet, and even small parts.

Chemist, Andy Long records more than 30 different measurements every week, including the pH, conductivity, and constituent analysis of the 20 tanks. SAF has a full-featured wet lab in order to produce a quality product along with compliance with all local, state, and federal regulations.



Figure 4. Manual racking.

Extruder Wanted - Full Service Anodizing and Fabrication Plant

Today, SAF West operates with 40 permanent and five temporary employees. Last summer, ten people were working in anodizing, with one shift. The majority of the work in Redding is fabrication. In mid-2013, the work was about 60% sheet and 40% extrusion. The main equipment in the fabrication area includes: a shear, two press brakes (Figure 5), a cut-to-length line, folding machine (for sheet), a CNC router, and pyramid rollers. Fabrication capabilities include: cutting, folding, welding, sanding, drilling, v-grooving, milling, sawing, and punching.

At the time, Penn said, “We work mainly with 5005 alloy for sheet and 6063 alloy for extrusions. We process about 300,000 lbs per month of sheet and coil (five times more for sheet than coil) and 100,000 lbs per month of extrusions.” The packing area of the plant is the most challenging area for SAF. It’s an ongoing challenge due to the cost of freight and keeping extrusions uninjured during freight. SAF plans to double their distribution numbers.



Figure 5. Press brake.

Currently, SAF sources their aluminum from Apel Extrusion Ltd. in Canada and Sierra Aluminum in California. Penn said, “We think we’re near the beginning of a new construction cycle and our competitive niche is small orders. We’re trying to round up business with a multi-faceted marketing effort. When asked what will be done with the currently unused 150,000 sq ft of manufacturing space at their new facility, Penn said, “We’re looking for an aluminum extruder to set up shop next to us. He said, “We have a powerful combination of an anodizing line situated right next to a wide and deep inventory of sheet and extrusions, a strategic emphasis on smaller batches, and an IT infrastructure to support that. The great thing about the Redding location is that we can serve the entire West Coast, from Vancouver to L.A. with speedy delivery times.”