

Ensuring a Chilling Block Keeps Its Cool.

Meet Our Customer

If you purchase recycled aluminum to fabricate items like sardine cans, mini-blinds, beverage cans, computer parts, wine caps, light bulbs and automobiles, then chances are you've worked with our client. As one of the largest aluminum recyclers in the country, they've perfected the process, and the technology, of turning discarded aluminum cans into thin, uniform aluminum sheets ready to fill a new purpose.

Obstacle

Our client's highly advanced continuous caster holds about 35 large, heavy chilling blocks, weighing upwards of 800 pounds each and made of steel with a two-inch copper bottom. These blocks are designed to cool the molten aluminum as it's shaped into consistent sheets. Since the copper surface is the only area that encounters the aluminum, it needed a nickel coating to keep the aluminum from fusing with it. Did we mention the blocks are incredibly heavy?

Up for the Challenge

When our client first approached us in 1987, we knew we could plate the cooling blocks, but we didn't know how. At that time, a process for racking and plating a specific thin area on such a large item didn't exist. We had to start from ground zero, finding the best way to engineer a line with the capacity to coat just the copper bottom and handle the block's weight. We created a dedicated line with 12 750-gallon tanks equipped with special trays, a unique fixture and a 5-ton crane to hoist and lower the blocks. Seasoned platers go through two weeks of specialized training to learn how to prep and run the line. No rookies here.

Impact

Our capacity to address our customer's needs has allowed them to expand their operation and relocate to a larger facility. The number of chilling blocks we're now plating has tripled since we first started. Our client may have come to us for our experience in electroless nickel plating but what has kept them here for more than 30 years is our ability to solve their problem and to deliver quality plating every time.

“ Our expertise and extensive experience enables us to figure out industry solutions for our customers the way no other provider can. ”

—Don Ytterberg, CEO, Advanced Surface Technologies

The AST Approach

On the surface, we are a plating solutions manufacturer. Dig deeper and you'll discover that our customers think of us as problem-solvers, reliable partners and lateral thinkers. The longstanding relationships we've built over the past 50 years with our clients and our vendors are a true testament to our character. These relationships have allowed us to deliver superior plating solutions for every one of our customers. We listen, understand, and work diligently to get to the heart of our customers' pain points, because we believe that's when the magic happens.

Though we're able to meet all plating needs, we take extra pleasure in tackling the toughest plating challenges from various industries. Our tailored results don't always fit the norm in the plating world. If our process needs to change to address hard-to-plate surfaces, we'll change it. If tweaks to the chemistry of the plating composition are required to get it just right, we make them.

There's value in working closely with our customers and vendors, in fostering trust and mutual respect. When invited to collaborate at the beginning stages of a project, we're able to help customers avert potential problems before a product reaches a breaking point.

We don't settle for anything less than perfection, internally and externally. It's the reason we created our proprietary internal system with 12 lines dedicated to a specific metal and two that duplicate the same metal type, ensuring that each metal receives the proper cleaning in preparation for plating. Four of our lines are designated to certain customers, allowing us to deliver consistent quality—time and time again. We take pride in what we do, in the cleanliness of our facility, in our extensive knowledge and in ensuring the success of our customers—each and every one.

Specialization

Our extensive experience positions us as the go-to company capable of handling unique metal plating.

- Electroless nickel plating
- Gold plating
- Silver plating
- Plating on magnesium
- Tin plating
- Electrolytic nickel plating
- Passivation and chemical conversion coatings

Certification

We're driven by specifications and compliance, committed to creating unsurpassed products for our customers.



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