

# Manufacturer Finds the Right Finishing Process & Logistics Solution All in One

## A Case Study

When the manufacturer of high stakes rescue equipment reached out to Able Electropolishing with a sample part request, the company was looking for a metal finishing process that could polish and protect a critical metal part used in a rescue harness.

What they got was an end-to-end solution to a complex logistical undertaking – *and* a high-quality metal finishing process that leaves their parts with a surface finish as beautiful as it is strong.

“It’s been fantastic,” says the company’s purchasing supervisor. By partnering with Able Electropolishing to electropolish the stainless steel and aluminum assembly components, the company was also able to leverage [Able’s Trusted Supplier Network](#) for the additional metal treatment processes needed – with a one-stop process for accessing three different services.

Here’s how it worked.

## A Lifesaving Mission and a Finishing Process Up to the Challenges

The company submitted parts to Able’s [sample polishing program](#) to determine the efficacy and specifications of electropolishing them.

Electropolishing provides many benefits for the parts, which are used as part of an ascending/descending rescue and safety harness used by firefighters and other rescuers, along with arborists.

The circular metal parts require both an ultrasmooth surface finish and corrosion resistance to be able to stand up to the rigors of outdoor rescue settings and the friction of the rescue lines moving over them. Their

### Able Trusted Supplier Network

#### By the Numbers

- 100 batches sent to Able per year
- ~250 parts per batch
- 3 metal treatment processes
- ~13,000 parts finished by Able YTD
- Price of finished parts: \$500 - \$1000
- 5 - Number of components electropolished
- 17-4 Grade of Stainless Steel used
- 2,750+ Approved suppliers in Able’s Trusted Network

size and shape make the parts difficult to finish using mechanical processes. In addition, the parts must undergo heat treatment for hardening and media blasting on one side before being electropolished.

## Benefits of Electropolishing

As the final step in the process, electropolishing provides numerous advantages for such parts:

- [Ultrasmooth surface finish](#) free of defects including burrs, cracks and contaminants left behind by machining processes
- Significantly [enhanced corrosion resistance](#)
- Enhanced [durability](#) and lifecycle
- Removal of tinting left behind by heat treatment
- [Precise and consistent](#) surface finish batch after batch

- High surface shine for aesthetic appeal
- Effective for a [wide array of alloys](#)

The company was sold on Able Electropolishing's ability to provide the high-quality finishing results needed and asked for recommendations for vendors to provide the heat treating and media blasting.

Able provided the recommendations, but we knew we could do more.

The logistical demands of creating a lifesaving product go far beyond a multistep process for ensuring the fit, form and function of individual parts. The manufacturer was facing all of the routine supply chain hurdles, multiplied.

**“You can send parts over there and everything gets taken care of.”**

Purchasing Supervisor, Rescue Equipment Manufacturer

## Able Solutions for Complex Supply Chains

The completed rescue harnesses must be failproof and in the event of malfunction, the manufacturer must be able to trace back every component to assess for material failure.

“These are batch-tracked parts. Everything is serialized since there is human life hanging off of it,” the purchasing supervisor said.

With the collaboration of our client, we were able to compress a complicated process into one step for the manufacturer: The company sends the parts to Able and Able sends them back to the company, heat treated, blasted, electropolished, inspected and ready for assembly.

### “Everything Gets Taken Care Of”

With as many as 100 batches of parts per year going in three different directions, Able's trusted supplier network gets the job done with reduced shipping costs, less time in transit and fewer opportunities for delay or error.

The manufacturer has one point of contact, one invoice and a lot more time to innovate the next great advance in lifesaving rescue equipment.

“When you sit back and look at the amount of parts and all of the movement and everything going on, they've done a pretty fantastic job of doing it all,” the purchasing supervisor said. “You can send parts over there and everything gets taken care of.”

Here's how it works:

- Parts come to Able for precleaning and inspection
- Able sends the parts out a trusted supplier for heat treating
- The parts come back to Able for a follow-up inspection
- Able sends the parts to a second trusted supplier for media blasting
- The parts come back to Able for a follow-up inspection
- Able electropolishes the parts, inspects them again, packages them and returns them to the client

It's a turnkey solution designed to eliminate marketplace obstacles as effectively as it eliminates metal surface defects.

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## The Able Difference

As the world's largest electropolishing specialist, Able's processes have been honed over decades of collaboration with OEMs in industries with no room for error, like [aerospace](#), [medical device manufacturing](#) and the manufacture of critical metal parts for rescue harnesses.

With the ability to customize our processes for parts of every size and intricacy and proven processes of [quality control](#), innovation and customer service, we are the electropolishing provider of choice for some of the world's biggest and best-known companies.

As an electropolishing pioneer and industry leader, however, we are committed to providing more than high-quality metal finishing services. We work to provide our customers with solutions they can use to get their products to market with less time and effort.

That's the goal of our Trusted Supplier Network: Able clients share in a network of 2,750 reliable vendors, leveraging Able project management and metal finishing expertise for fewer obstacles and more opportunities.

That's the Able difference.

More at: <https://www.ableelectropolishing.com>