



## Custom Steel Manufacturing from Battery Handling Systems, Inc.

### Every Machine Has an Origin Story.

For example, the BHS Operator Aboard Battery Extractor, is a rugged vehicle that effortlessly carries forklift batteries — huge tubs of lead and electrolyte that weigh many thousands of pounds — from charging stands to lift trucks and back again, shift after shift. These powerful machines are the result of a marriage between three distinct elements.

There are, of course, thousands of pounds of high-quality steel. But without excellent engineering, a sheet of stainless steel is essentially just a piece of scrap metal. The experience-driven designers at BHS are consumed with the long-term efficiency of their products with every decision they make at the drafting table.

Once drawings are in place and materials secured, means of assembly complete the manufacturing triangle. Literally cutting-edge laser technology shapes the steel components of each Battery Extractor, and Computer Numerical Control machining leads to infinitely repeatable precision.

Expert engineering, advanced technology, and raw steel come together to provide industries with the most efficient battery handling equipment available. What else can these resources accomplish?

### If Customers Can Dream It, BHS Can Build It

The range of objects BHS has created extends well beyond the warehouse. In nearly four decades of business, BHS has manufactured an incredible range of innovative products, including chic welded furniture and custom 3D signage.

Each manufacturing project is a collaboration between the client and a BHS team made up of engineers, designers, and fabrication experts. BHS can step in at any stage of a project, from fully designing new machinery to manufacturing steel equipment based on existing CAD drawings.

BHS engineers are experts on the major systems that make up modern industrial equipment and can apply them to any challenge. Custom design and manufacturing may include any of the following components:

- Heavy duty steel construction
- Hydraulic systems
- Mechanical components
- Mounting systems for floors, walls, or existing machinery
- Free-rolling or track-mounted casters
- Scratch-resistant powder coating

Full lighting is also available for any piece of equipment. When industries need help with a bold new invention, BHS is the ideal partner.

### Replace Old Equipment or Introduce Something Entirely New

Across industries, project managers are faced with operational challenges that come down to one thing: the wrong equipment. Sometimes the right machine for the job doesn't exist yet. Custom steel manufacturing services from BHS offer a solution where none seem possible.

Suppose a small plastics manufacturing facility suffers a breakdown in their main extruder screw, and the company that manufactured the extruder is no longer in business. BHS could machine a new screw out of solid steel, based on the company's specifications, saving the cost of an entirely new piece of equipment.

On the more complex end of the spectrum, say an assembly line is missing a lift table with particular dimensions, or even an unconventional shape. BHS engineers can quickly provide a Scissor Lift Table with a custom shape and targeted specifications.

If a structure can be built out of steel and powered by any combination of hydraulic pumps and mechanical engines, rely on BHS to bring the idea into reality.

## Manufacturing Processes and Capabilities

The main BHS production facility in St. Louis, Missouri features 128,000 square feet of advanced manufacturing equipment. The heart of the manufacturing division consists of three families of machines:

- **Laser Cutting Tools.** Traditional metal sawing can't match the precision of state-of-the-art laser cutting, which burns through metal to create the cleanest edge available.
- **Computer Numerical Control Machining Systems.** The BHS manufacturing team regularly updates CNC software to reflect the latest advances in the field, crafting precise components to create the most dependable equipment for any application.
- **Robotic Welders.** Seams are traditionally the weakest point of any steel construction. BHS solves this problem with programmable robotic welding, which creates a reliable, leak-proof seam. They can also corner-form certain shapes to eliminate seams altogether.



Figure 1. Laser cutting allows BHS to be supremely accurate and consistent with all steel componentry.

The production floor also includes a full range of steel manufacturing machines, including rollers, benders, mills, and lathes. Whatever the customer's vision, BHS has the capability to bring it to life.

## BHS Custom Steel Manufacturing: A Tradition of Success

Custom design and manufacturing aren't a distraction from the BHS mission; they're at the core of that mission. The greatest ideas come from customers. If they have a problem to solve, BHS engineers will invent a solution. Challenges tend to run industry-wide, and if new equipment can fix the problem for one customer, chances are good that demand for the product will be high.

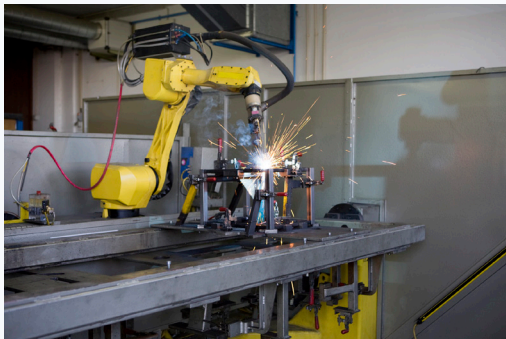


Figure 2. For speed, accuracy, and quality, BHS uses robotic welders, providing a more consistent and thorough weld. Robotic welders can move from one weld to the next quickly, speeding up the entire process.

For proof of this phenomenon, look no further than the current BHS product catalog. Many of the most popular pieces of warehouse equipment began as custom manufacturing jobs.

Take the extensive and growing line of BHS Electrical Equipment, for instance. That equipment was designed according to specific requirements of a major electrical installation firm. Their electricians pointed out that they had no way to transport large volumes of conduit through narrow aisles, which was adding considerable time to installation jobs at many sites.

They explained the details of the challenge to BHS engineers, who came up with a solution that met the electricians' needs: the BHS Conduit Carrier Cart (CC). Unlike most of the conduit carriers available before BHS entered the field, the CC is designed to carry a tremendous volume of conduit — up to 5,000 pounds — with a stable, ultra-thin profile and a tight turning radius.

Working in collaboration with electricians and building professionals, BHS expanded its line of Electrical Equipment to include Reels, Reel Stands, and complete Parallel Reel Payouts

that provide a complete solution for storage and dispensation of cable and other coiled materials. That's just one example of the symbiotic relationship that custom manufacturing creates between BHS and their clients.

## Industrial Durability for Lifestyle Applications

Custom manufacturing services aren't just for industrial applications.

A few years ago, one of BHS' valued vendors asked for a beautiful steel desk to greet visitors in the entrance way of their facility. That inspired the BHS design team to come up with an entire line of stylish steel furniture that's equally at home in a modern office or an elegant penthouse loft.

Choose from brushed, stainless, or black steel, in bars or tubing. A variety of finishes gives each piece a personal touch. Customers can even add a laser-engraved message or logo for complete customization.

Custom furniture offerings from BHS include:

- Benches, chairs, and other seating

- Stylish entertainment centers
- Speaker stands with architectural flair
- Elegant bookshelves made of glass and steel
- Coffee tables
- Desks, credenzas, and side tables
- Magazine racks
- Custom pieces limited only by the customer's imagination

Any piece of steel furniture can be laser-engraved with a company's logo, a personalized message, or a family crest. If customers have their own vision for seating or tables, their masterpiece is just a phone call away.

## All BHS Products Can Be Customized to Meet Any Specification

Every piece of equipment that BHS provides can be altered, improved, or tweaked to fit the diverse needs of their customers. Fundamentally, everything BHS sells is a custom manufacturing job.

BHS is constantly growing their pool of resources — the skill of their staff, the quality of their materials, and the fleet of manufacturing machines — and with custom manufacturing services from BHS, they put those resources at everyone's disposal.

"BHS will take any extra step to fit any application," said Katy Cortinovis, Marketing Manager at BHS.

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Contact the BHS sales team at 1.800.BHS.9500 to get started on your next custom manufacturing job. When you need something built out of steel — anything — you can count on BHS.

