# Bar Stock Specialties: Your specialty bar

In 1998, there was a clear demand for a bar distributor that would be able to support the fastener manufacturing industry by providing grades and sizes specifically for fastener manufacturers and machine shops nationwide.

Today, Bar Stock Specialties Inc. has become a niche manufacturer and distributor of stainless steel bars, and continues to implement new capabilities and services to offer both manufacturers and end-users in the industrial sectors.

#### Scope and purpose

In the fall of 2001, Bar Stock Specialties, Inc. made a decision to push beyond the traditional role of a bar distribution company, and took the plunge into the manufacturing of stainless steel bars. Bar Stock then completed and commissioned its new facility in Houston, Texas, U.S.A. the following year. By establishing this new location, Bar Stock charted a new course toward something rather unique in this day and age: a domestic stainless steel cold finishing facility. It was an idea born from the desire to come to the aid of job-shop manufacturing companies. Due to material shortages at the time, the market was in need of good suppliers with short lead times and competitive pricing.

Bar Stock's 27,000 square-foot (2,500 m2) plant in Houston houses a comprehensive collection of cold finishing machines. The cold finish machines' capabilities include: cold drawing, straightening, bar peeling, custom cutting long bar lengths, centerless grinding, belt polishing, burnishing, stamping, and chamfering full bars, as well as cutting pieces and parts. Bar Stock's shop was built and equipped to facilitate the needs of Houston-based original equipment manufacturer (OEM) suppliers and fastener manufacturers in the energy exploration, production, and refining markets. Bar Stock also specializes in toll processing work for customers in need of these value-added services.

Bar Stock's management is proud of the progress made since the plant's inception. The facility looks drastically different than it did in 2002, and every year, the business brings new promising opportunities. Today, the Bar Stock Specialties Houston facility features an additional 27,000 square-foot building, which houses the company's heat-treated alloy steel, as well as a part of the production equipment. To keep up with the advancements in technology within the industry, the additional building also features a new bar peeler, which allows Bar Stock employees to peel down to 0.394 inches (10 mm) of a bar, a vertical draw which allows workers to draw coil to coil up to 1 inch, a high-speed draw line, and a new Videx straightener with a 40-inch table.

With these capabilities, services, and products, Bar Stock Specialties has the ability to fully service end-user in-

This company is the one to call when custom lengths or sizes and 'hot rush' delivery requirements are needed."

dustries including: power generation, chemical plants and desalination plants, oil and gas, petrochemical and refining; and manufacturing industries including: forging, fastener manufacturing, pump shafting, cylinder shafts, connecting rods, bulkhead tie rods, electrical applications, and metric applications.

Continued growth is expected as Bar Stock Specialties offers support to other manufacturing and distribution firms that are bent on survival in a tough global market and economy. This company is the one to call when custom lengths or sizes and 'hot rush' deliveries are required.

## Services and capabilities

As Bar Stock Specialties services a number of sectors in both the manufacturing and end-user industries, the company's capabilities and services must be vast in order to be considered a one-stop shop.

### The cold drawing process

Bar Stock has two bull block coil-to-coil drawing machines (one horizontal and one vertical wrapping). There is an additional draw bench for either coil-to-bar or bar-tobar drawing reduction. The total, capability range is 0.1875 inches through 32 mm in diameter (all custom sizes are manufactured, imperial or metric).

Products made by these processes are subsequently either left in coil form or cut-to-length to customer specification from 3 feet up to 50 feet (0.9 to 15 m) in length. This process allows the making of custom lengths for customers who are supplying exact part multiples to the end-user saving crucial time and money. It is very common for Bar Stock to supply many sizes of steel to the down-hole oil-



A horizontal 'bull block' cold drawing (coil-to-coil) process (close-up in inset).

The Quality Assurance System has been implemented companywide and is intended to improve and sustain the overall performance of Bar Stock's business, products, and services."

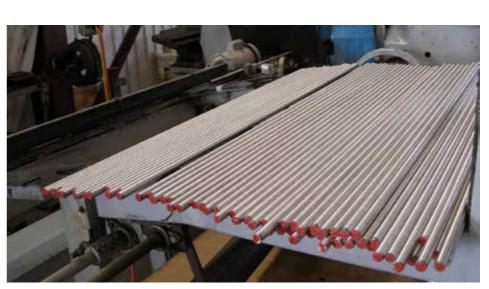
field supply chain in lengths greater than 27 feet (8.2 m). Bar Stock often shears bars while straightening them from coil down to 4 feet (1.2 m). Value-added services such as this have become the hallmark of Bar Stock Specialties in this service-intensive market.

#### Custom straightening

The straightening of long length bars, ves 0.1875 inches to 3 inches (4.8 mm to 76 mm) diameter (coil and bar) is performed on any combination of Bar Stock five straighteners. Continual checks are made to ensure the integrity and accuracy of bar straightness.



A 23-foot (7 m) draw bench for high reduction.



Straight-length bars.

# distributor with specialty bar processing



A Hetran bar turner (rotating peeler) with close-up in inset.



A hot rolled bar enters the Hetran bar turner, while a peeled bar exits.

#### Bar peeling capability

The Hetran bar turner is capable of surface peeling bars from 0.625 inches through 1.875 inches (15.9 mm through 48 mm) diameter. The EJP bar peeler is capable of surface peeling bars 1.375 inches through 0.394 inches (34.9 mm through 10 mm) in lengths of 12 feet to 20 feet. Bar Stock has been successful in turning alloy, stainless and nickel bearing material grades.

#### Special roll forming services

Two of Bar Stock special facilities have alternative processes for customers requiring them. Roll forming, knurling and bar threading give Bar Stock added capability as a unique cold finish and forming company. Customer requirements for services on long bars, shafts and tubing are welcomed inquiries.

#### Centerless grinding and polishing

The bar grinding and polishing area is equipped with four Cincinnati centerless grinding machines for dimensional tolerance and surface polishing to specification. These machines can hold a tolerance of  $\pm 0.0005$  inches ( $\pm 0.013$  mm) on dimension and a surface finish down to 10 rms to 12 rms when the application requires it. Custom tables have been constructed with the ability to in and outfeed bars greater than 25 feet (7.6 m) in length.

#### Custom cutting

One specialized bay at Bar Stock houses a new custom cutting bar processing line. to its inventory that customers would This line includes band saws with openings up to 16 inches (400 mm). The com-

pany's cold shears and a new precision cutting cold saw are designed for 'part length' and 'slug-cut' custom tolerances. This is an extra level of quality service for their machine shop clients. For short lead times and higher-than-standard cut quality, the Bar Stock cutting line could be the answer for customers.

#### Quality assurance at Bar Stock

Once services are completed on a customer's application, Bar Stock Specialties puts that application through the company's Quality Management System in order to provide adequate assurance. The Quality Assurance System has been implemented company-wide and is intended to improve and sustain the overall performance of Bar Stock's business, products, and services. Bar Stock's Quality System looks to ensure that the company consistently meet its customers' and regulatory requirements. Bar Stock accomplishes this by reviewing and improving its buying, inspection, manufacturing, shipping, and testing processes for consistency and efficiency, as well as to decrease or eliminate defects. The products Bar Stock manufactures are tested in-house and at accredited laboratories to ensure customers' specifications are met.

### For the years to come

Since its inception, Bar Stock Specialties has made it a priority to constantly find special grades of materials to add not be able to find at other distribution companies. In this effort, Bar Stock has



A 12-inch (300 mm) band saw.

become one of the largest non-mill owned redraw houses of Strain Hardened Class 2 or Condition B Domestic round bar in sizes 0.187 inches through 1 and 1/4 inches in 304 and 316 stainless steel, DFARS/ Domestic 321 and 347. The availability of these materials, and the continued efforts to add to its portfolio has set Bar Stock Specialties apart from its competition.

In addition, Bar Stock will continue to grow, and is focused on offering larger diameter specialty grades of round bar, as well as pump shaft quality (PSQ) bar.

Along with the Houston complex Stock Specialties has warehouse and shipping facilities in Philadelphia, PA, U.S.A.; Virginia Beach, VA, U.S.A.; and Sherwood, OR, U.S.A. These sites allow Bar Stock to offer the highest level of precision and efficiency in production, inspection packaging, and shipping to all its valued clients. The entire company stands behind its slogan: 'Your specialty bar distributor with specialty bar processing'.

### **Contact information**

For details, call Mike Uriarte, General +1-713-466-3583, or email muriarte@GoBarStock.com.



Bar Stock Specialties' sales/shipping specialty cutting services, and alloy bar storage.



Bar Stock Specialties' stainless steel production warehouse.