

# Reputation STRONGHOLD

## An experienced DOM producer re-establishes itself in the marketplace

**E**stablishing a good name takes years. Customers become comfortable and confident their supplier will be there for the foreseeable future. Sharon Tube Co. discovered firsthand the value of a respected brand name in the drawn over mandrel mechanical tubing business after briefly retiring it. “The DOM business is not like pipe, a commodity product—it’s a more focused and customized market,” says Bill Perrine, president of Sharon Tube.

Sharon Tube Co. was founded in 1929 as a manufacturer of small diameter butt weld pipe. Over the years, the product line expanded to include DOM precision tubing as well as other pipe products. The DOM product continued to grow and in 2000 the company completed a new greenfield facility in Wheatland, Pa. This new plant expanded the company’s DOM size range to include sizes up to 6.5 in.

OD by 0.375 in. wall thickness as well as enabling it to supply customers in the large cylinder market, which it could not serve before. In 2007 the company was sold to the Carlyle Group, which then folded the Sharon Tube Co. into the Wheatland Tube division, another butt-weld pipe company previously acquired by Carlyle. As a result the widely known Sharon Tube brand was retired.

In 2011 the assets of the Carlyle acquisitions, now known as JMC Steel, were purchased by the Zekelman family. After analyzing the company, a decision was made to expand the DOM product line and re-establish the Sharon Tube brand.

With the Sharon Tube brand back in business, the company focused on DOM mechanical tubing and expanding its operations. “In the pipe business, ½ in. pipe is ½ in. pipe,” Perrine says. “But here, we’re dealing with the tolerances of the mate-



rial, the chemistry, heat treat packaging, how it’s finished—all those things are options in this business.”

“Customer applications require greater flexibility in combining qualities such as yield and tensile strength, hardness and ductility,” says Roger Knapke, sourcing specialist at Crown Equipment Co., an OEM in Toledo, Ohio. “Other applications require tubes to withstand severe stress or cold temperature applications.”



**Product loading area at Sharon Tube Co.**



als, headquartered in Lynwood, Calif. “People don’t realize there are more than 30 unique steps in making a DOM tube. I’m sure all of us go into a store and aren’t too concerned about how complicated it was to make and deliver that product. There could have been all kinds of drama in the life of that product, but when you’re shopping, all you care about is that when you want to buy it, you can get it. That’s what Sharon Tube does for us.”

Drawn over mandrel tubing is a highly engineered product. Compared to standard mechanical tubes, DOM tubes provide more strength, enhanced surface quality and precise dimensioning of both the OD and ID. DOM tubing provides end users with steel tubing that is uniform in size. Using DOM tubing also saves end users from subsequent steps such as boring, honing and finishing, which may be required if standard mechanical tube is used, Perrine says. DOM tubes are used in structural, fluid power and other applications requiring consistent performance in the steel tubes. These include shafts, cylinders, axles, bushings, brake assemblies, conveyor rolls, telescoping and push-pull applications, steering columns, engine mounts, fuel rails and injection components, ATV frames and others.

Tolerances are tight and tailored to customer requirements. It is not enough to have the proper equipment and appropriate steel grades, Perrine says. The producer’s strength stems from employees who are familiar with statistical methods, problem solving techniques, cause and effect, and root cause analysis. “Our production employees have been trained in developing process standards and are instrumental in establishing best practices and process standards. They take pride in their work and it shows in the quality and service that Sharon Tube provides,” Perrine says.

The same process is used to produce DOM tubing regardless of the size of the finished product. A tube is cold drawn over a mandrel placed into the hollow portion of



**Shown:** Furnace where pipe is heat treated. The tube goes on to finishing including straightening, testing, end finishing and packaging for shipment.

### Upscale upgrades

Since its return, Sharon Tube has streamlined its operations into one location and installed a number of upgrades to its facility. One such upgrade includes forecasting software. With lead times that can range from four weeks to 20 weeks, this software has become an integral tool for the business. “This forecasting logic allows us to accurately predict customer demands, customizing what they want now rather than being limited to

20 weeks before they need it,” says Ken Pursel, sales and marketing manager, mechanical tubing, Sharon Tube.

Sharon Tube’s forecasting capabilities allow it to turn out product quickly, something stocking service center EMJ Metals in Schaumburg, Ill., relies on regularly. “We certainly appreciate how hard it can be to make changes midstream to keep the customer happy,” says Brian Yamaguchi, vice president, merchandising at EMJ Met-

# Tube & Pipe

the tube and through a die that establishes the outside diameter and wall thickness of the finished tube. The actual production steps include: cleaning and lubing the tube before drawing, then pointing one end followed by the cold drawing operation on a draw bench. After being heat treated, the tube goes on to finishing including straightening, testing, end finishing and packaging for shipment. Every step has quality metrics that ensure the finished product meets customers specifications.

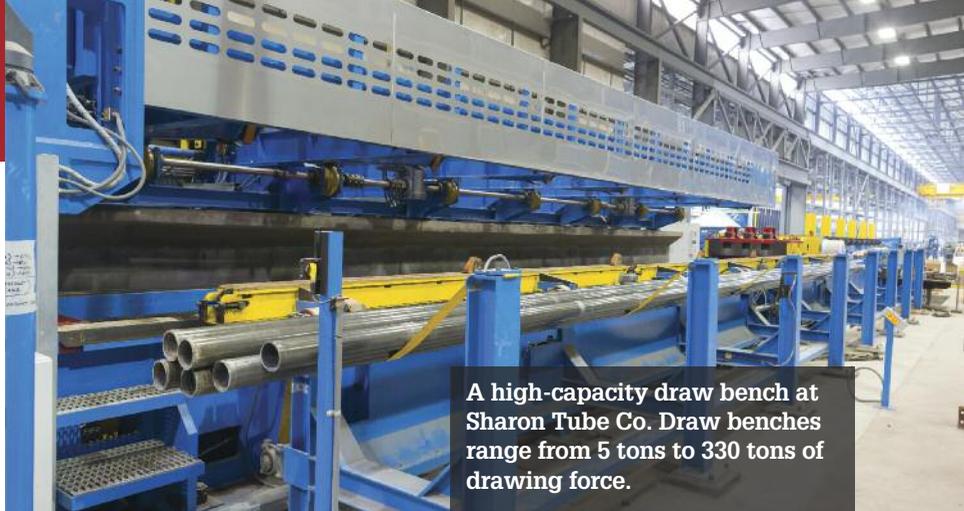
The company's draw benches range from 5 tons to 330 tons of drawing force. "Our newest bench can pull up to three tubes at one time. This represents the most advanced draw bench technology in the world," Perrine says.

## Know your customer

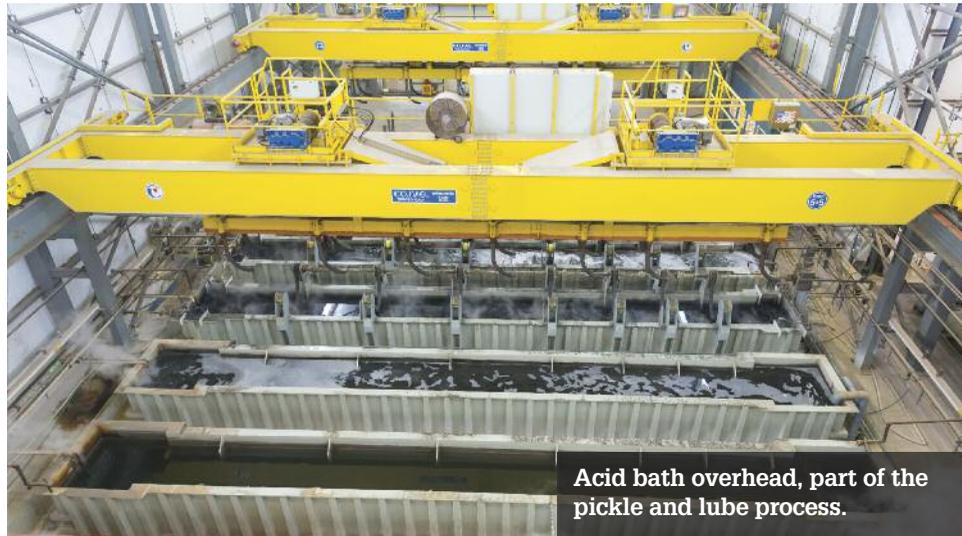
Performance requirements for DOM product have become more demanding than ever, Knapke says. Crown has turned to Sharon Tube for its DOM needs since 2005, purchasing DOM, ST 52 and ASTM A513 material for its customers in the material handling, food processing and manufacturing operations industries. Crown uses a variety of tubing sizes with wall thicknesses ranging up to 0.625 in. and diameters up to 8,500 in.

As an OEM, Crown needs specific sizes and applications, purchasing product on a stock requirement to meet customer needs. Sharon Tube has provided Crown with welded, stress relieved, drawn, oiled, inspected and shipped product in as little as four days because of schedule changes. "They understand the timeliness of getting material delivered to our assembly lines for processing," Knapke says. "Sharon Tube does an excellent job delivering quality product to our manufacturing lines on time, week after week."

Needs differ for stocking service centers like EMJ Metals where orders change from day to day. "EMJ Metals will buy a size that's available to many people but unlike EMJ Metals, an OEM knows exactly what they need to have to support their build schedules," Pursel says. "OEMs build production cycles based on when we provide material so we've got to be 100 percent reliable. EMJ Metals also is trying to forecast their needs, but they never know



**A high-capacity draw bench at Sharon Tube Co. Draw benches range from 5 tons to 330 tons of drawing force.**



**Acid bath overhead, part of the pickle and lube process.**

what their customers are going to buy. They are in the inventory game, but it's equally important to them that we are able to provide material in a timely manner so they don't miss opportunities for business."

EMJ Metals provides materials to customers serving a number of industries, purchasing DOM and electrical resistance welded tubing used in fluid power applications, heavy equipment for construction and agriculture and any general engineering tube application that requires better surfaces and tight tolerances.

"We have standard items that we stock, but because our customers know they can order next day, our demand patterns can vary widely," Yamaguchi says. "Our purchasing function must be flexible enough to buy what we need and Sharon Tube is the kind of supplier that will flex with us."

According to Perrine, adaptability has lured new customers. "We've had customers that were previously supplied by competitors come to us, either because those companies didn't take the time to listen to requirements or they didn't care

to modify their process outside of their norms," Perrine says. "We try to work with customers to understand them. We're not the biggest supplier out there, but we can certainly be the easiest to deal with."

Sharon Tube's rebranding is a positive move in the eyes of EMJ Metals. "Sharon Tube has a long history of making quality product, understanding customer requirements and adapting quickly to changing markets," Yamaguchi says. "Sharon Tube's new equipment allows them to increase their size range, which is important because it gives us another quality supplier in an important segment." **FFJ**

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