



SweBend's handheld wireless Bluetooth control allows the operator to monitor the rolling operation from any angle.

PERFECTING THE BEND

New custom technology and upgrades to legacy equipment reduce setup times and give metal fabricator more control over processes

The motivational one-liner, “If it was easy, everyone would do it,” is a phrase that is often repeated to those who are treading a difficult path for a worthwhile pursuit. Linders Specialty Co. has put its own spin on the expression. “We like to say that ‘if it were easy, somebody else would do it,’” says Owner and President Vince Linders. “One of our strengths is difficult, complex or intricate projects that require processes or machines that you typically won’t find at other shops. Our CAD capabilities and equipment allow us to take those projects and develop tooling and fixtures that can monitor each step for consistent, accurate parts.”

The family-owned company can cut, bend, roll, form and weld structural products from steel, aluminum, brass, bronze, Cor-ten and stainless for myriad industries ranging from aerospace, marine, construction and food processing to pressure tanks and dairy machines. The tube, pipe, beam, bar and plate supplier supports OEM products that include conveyors, cranes, hoppers, tanks and trucks. It can fabricate weldments and parts up to 70,000 lbs.

The St. Paul, Minnesota, company was formed by Linders’ father, Cornelis, in 1969. Its focus was architectural metalwork for buildings. When requests emerged for curved metal, growing de-

mand for the raw material prompted Linders Specialty Co. to purchase the first of several [Roundo] section bending machines. “You couldn’t order metal in Chicago, wait for two weeks for delivery, pay big shipping fees and still be competitive,” says Vince Linders, adding that he learned to use the equipment while in high school.

“At first, we only used the bender part time,” he continues. “But word of mouth about the machine traveled fast. Part time became full time. I couldn’t handle it by myself any longer and keep up with my other tasks.” The company added more bending rolls and trained operators to run them.



Trilogy customized the SweBend section benders with faster rolling speeds and more bending power.

“ SweBend’s custom features gave us a lot of versatility. ”

Vince Linders, Linders Specialty Co.

NEW TERRAIN

In April 2016, following a bankruptcy and ownership transition, Roundo closed operations in Sweden. Its CEO and staff moved their tribal knowledge to Swedish manufacturer SweBend and continued to produce bending rolls. The shift in machinery and personnel could have proved unsettling but Linders Specialty Co., hasn’t missed a beat due to Trilogy Machinery Inc.’s ability to upgrade its legacy bending rolls while helping it install new custom SweBend section bending rolls. Allan and Ben [Beej] Flamholz, along with a core group, pooled their own tribal knowledge when they established Trilogy Machinery in 2009. Trilogy is the

North American distributor for bending rolls and related machines, ironworkers and tube punching equipment. Trilogy President Allan Flamholz was previously the North American product manager for Roundo. He oversaw the sale, support and distribution of nearly 4,000 Roundo bending rolls over a span of 30 years.

“That knowledge and field experience really helped to cement Linders’ partnership with Trilogy both for the retrofit and upgrade work on their old Roundos and the installation of new SweBend models,” says Matt Weeks, product manager for Trilogy.

Since 2018, Linders Specialty Co. has purchased three SweBend section bending

rolls to replace outdated Roundos. Trilogy’s singular focus on service and support has helped the fabricator keep products moving out the door without interruption.

“We jumped in with both feet when we were introduced to the SweBend equipment’s updated design and technology because it is built by the same experienced people we’ve always worked with,” says Linders. “Trilogy picked up all the spare parts for Roundo benders and brought them to the U.S. In addition to the skills they employ to refurbish our older benders, they are completely knowledgeable about the features on the new bending rolls and can customize them to our requirements. There’s nothing they don’t know.”

PLATE & ANGLE ROLLS



Each of Linders Specialty Co.'s new section bending rolls required a custom touch. Trilogy doubled the standard rolling speed on the SweBend SB3-300S. It can roll 8 in. by 8 in. by 1 1/8 in. angle leg out; 8 in. by 8 in. by 1 1/8 in. angle leg in.; 20 in. by 3 in. flat bar on flat; 10 in. by 2 1/2 in. flat bar on edge and 12 in. schedule 80 pipe. The SweBend SB3S-180 was equipped with faster rolling speeds, extra bending power and custom inch-sized tooling for American materials, along with a remote power pack. The machine was engineered with 6 in. by 6 in. by 5/8 in. angle leg-out, 5 in. by 5 in. by 1/2 in. angle leg in.; 10 in. by 2 in. flat bar on flat; 5 in. by 2 in. flat bar on edge and 6 in. schedule 40 pipe. The SB3S-140 called for three 150 mm shafts, double the standard rolling speed, additional bending power, custom inch tooling for American material and a remote power pack.

"We gained a lot of versatility with these features," Linders says. "You don't run out of tooling because you can put any tooling on the shaft."

"By matching the machine shaft diameter to support their existing library of roll bending tools, we were able to save Vince a small fortune in new tooling costs," Weeks says.

FLEXIBILITY

Trilogy upgraded Linders Specialty Co.'s existing Roundo R-4S with a SweBend 7 CNC control. "We were notified that the

Tailoring machine shaft diameters to existing tooling saved Vince a small fortune.

Matt Weeks,
Trilogy Machinery Inc.

original control unit was becoming obsolete and would no longer be supported," says Linders. "The added features of the new control assist in the reduction of set up times and better control of the roll bending process."

Parameters like bending roll position and rotation of the part through the machine can be set up automatically. The outbound guide rolls can be automatically positioned to provide opposing forces to help counteract twisting when rolling asymmetric profiles like angle iron. Oversized digital readouts allow the operator to easily and accurately reposition the guide rolls in the same location.

The section bending rolls are also easy to use, which makes training operators simpler. "We currently have six trained operators," Linders says. "You can set the machine to achieve a bend angle and resist twisting but you still have to learn how to bend."

All three SweBends are equipped with wireless Bluetooth Bending Control. "That technology has made a big differ-

ence," he says. "Operators are not tethered to a solid anchor point. They literally have the machine readouts in their hand. We also chose to add it to our older Roundos."

Trilogy is currently working to replace two of Linders Specialty Co.'s oldest section benders with a custom SweBend machine that will feature new hydraulics, Bluetooth control and variable speeds that will allow the fabricator to blend tangents in the bends.

Trilogy also is tailoring the section bender to mimic the geometry of the old machines to accommodate some of the techniques Linders Specialty Co. performs. The bespoke section bender will be able to tackle any raw stock specifying curves with an angle size up to 2 1/2 in. The machine will be able to take square, round and rectangle stock.

"I may also fit it with a mandrel attachment," Linders says. "And we're looking at custom tooling for aluminum shapes. We have a nice niche for accurate spiral tube too. It took us years to develop the formula and check its accuracy but it works. I have a lot of high hopes for this new section bender. Once SweBend integrates all of our requirements, this will be the best bending roll the planet has ever seen." **FFJ**

Linders Specialty Co., St. Paul, Minnesota,
651/488-0528, lscmetalfab.com.

Trilogy Machinery Inc., Belcamp, Maryland,
410/272-3600, trilogymachinery.com.