Arkansas-based steelmaker Big River Steel is the newest mill in the US market, but in three-and-a-half short years, the electric arc furnace (EAF) minimill has made waves--from its new approaches to scrap procurement, supplying the auto industry, investing in expansions and recently partnering with integrated stalwart US Steel.

Big River chief executive David Stickler discussed with Argus his goals for the growing mill in Osceola, Arkansas. Edited highlights follow:

**How has Big River been weathering the Covid-19 economic downturn?**

Obviously with the automotive sector shuttering their stamping plants in the spring of this year, that took quite a hammer to a large portion of the market. Concurrently there was very little oil and gas energy activity. The other market that didn't fall off completely, but doesn't look like it's going to have a whole lot of legs is commercial construction.

What we focused on was residential construction products, and infrastructure products, and we were able to run full out, 24/7, in March, April and May.

**Can you provide an update on your expansions at the Osceola mill?**

We laid out our mill site to accommodate a doubling of capacity, so after having success and an opportunity to access the capital markets, we went about and decided to invest an incremental $700mn to double our hot-rolled capacity. That project was originally scheduled to start up at the end of January 2021, and I'm pleased to say that it's my full expectation that we will start up in November or December of this year.

We also have plans and are in the process of building a facility that will give us new capabilities. We'll build a paint line targeted at the high end appliance market and an additional galvanizing line that will be even more focused on high-end automotive applications. We will have an anneal coating line and reversing cold mill that will allow us to fully process non-grain oriented electrical steels that go into hybrid and electric vehicles, and we will also have on-site slitting and blanking.
We've selected the equipment vendors for all of the equipment, and we're now in the fundraising process subject to receiving our permits and other final approvals.

**The paint line was originally to be a partnership with Flack Global Metals. Is that partnership still active?**

Absolutely. Jeremy Flack is an entrepreneur, he thinks outside of the box and he's not afraid for new ways of conducting business. At Big River we've been extremely fortunate in the few short years that we've been operating to find and identify and partner with people that are looking to change the way steel is traditionally bought and sold in North America. That runs the gamut from scrap suppliers to end-use customers.

Right now, we're selling directly to seven automotive companies. If I would have told the investment community that after three-and-a-half years we would be selling directly to seven automotive companies, they wouldn't have believed me and I wouldn't have been able to attract the capital, so we've done extremely well.

**What is the cost of these value-added projects?**

When you add some of the other ancillary lines I just mentioned, automated coil storage and everything, this will be a $1bn-plus project. That's on top of the hot-rolled coil expansion.

**Does Big River have any more plans for a potential Brownsville, Texas mill?**

This is the third time I've looked at putting a mill in Brownsville. The first time, when we were doing SeverCorr Columbus, now SDI (Steel Dynamics) Columbus, we actually looked at locating that mill at the Port of Brownsville, but they didn't have the power infrastructure at the time. Then, when we were looking at siting the Big River mill here in Osceola we also considered Brownsville again, but they were onlypartway complete with power infrastructure, so what we told them is when you're fully complete with the power infrastructure, come back and talk to us, we think that's a great site down there and we would consider yet a third time building a mill down there.

Now they're completely done so we're aggressively exploring building a mill down there.
By the time we get our permits and everything else down in Texas, it will probably be 18-24 months before we put a shovel in the ground down there, then it's about a 22-month construction period after that.

**A lot of people say the US steel market is oversupplied, especially during the current economic downturn. Where does Big River's expansion fit?**

It's our expectation that by the third month of operation we'll be at 85pc rated capacity. By the sixth or seventh month (for the initial mill) we were running in excess of 100pc of capacity, so we'll come out of the gate like a Ferrari.

Right now our 1.35mn tons of production, that's about 3pc of North American flat-rolled steel production. When we double, we'll be just over 5pc, so we're relatively modest size compared to the rest of our competitors.

What we found is that if a steel buyer is going to be cutting back on its purchase orders, the lions share of that cutback come from the first or second supplier in terms of volume. They're not going to really want to touch the third supplier because they’re going to want to keep three suppliers around.

We also found that our mill's capabilities in terms of product cleanliness, product drawability, and other processing capabilities, sets us apart from some of our EAF competitors, some of which were built more than 20 years ago.

As far as the market dynamics, I've been putting these electric arc furnace mills up in either greenfield or greenfield expansions for over 20 years, and all I've ever heard was there's too much capacity in the North American steel industry.

But if you have a mill that has quality capabilities with a low, highly variable cost structure, you're going to have an opportunity to make money in all market conditions.

**What does that relationship with US Steel look like?**

US Steel generates scrap in their production process, and that scrap is high-quality scrap. They don't need to put that scrap metal back into their BOFs because their quality comes from their iron ore pellets. We can take that scrap, and in an arms-length commercial arrangement, convert that scrap into steel that US Steel can then have as part of their system and commercial efforts.
Some of our hot-rolled coil substrate is superior to the hot-rolled substrate that US steel produces in terms of drawability, our testing results, the cleanliness of our steel. We can take that steel we produce here at Big River and further process it at some of US Steel's highly advanced automotive coating lines. It's really win-win.

US Steel has made the statement that they could have bought the technology that Big River Steel has. What they could not buy was the entrepreneurial culture and the quicker, more nimble decision making process, and that's what they would like to embed into the US Steel organization as much as possible because there are differences in the way that decisions are made at a 118-year-old company versus a company that's only been operating for three-and-a-half years.

It's been very interesting to watch how those cultures have interacted with each other and so far I couldn't be more impressed.

**How does US Steel potentially buying the rest of Big River impact your new metallics buying arrangement with Koch?**

To the extent that there is a purchase by US Steel, Big River Steel very well may remain an independent company as far as operations, decision making, contractual relationships. No final decision's been made on that.

I can tell you that our agreement with Koch is a multi-year agreement that at least nominally extends beyond the option period.

Obviously things need to be working out for that to continue for a multi-year period, but the simple thing with regard to scrap, I don't even know why people who buy steel and generate scrap in their production process...sell scrap. It'd be a lot simpler if they took the scrap that they generated and had it converted for a tolling fee into steel. That way you wouldn't have these very significant price moves in both the scrap market and the steel market. You could know within a very narrow band what your cost of steel was going to be for the next two years, because it's a simply a toll conversion fee.

Working with Koch, we already have a number of scrap buyback programs and other things we do with our customers but we're going to be accelerating that. I would direct you to the highly successful closed loop system that Ford Motor Company uses with aluminum manufacturers. The aluminum guys get the aluminum scrap from Ford, turn it into new aluminum, and it's done on a toll conversion basis.
Do you think Big River has the ability to shift the way scrap trades in the US?

No, Big River Steel is too small by itself to shift how the scrap market behaves in general. However, the good news is we have found pockets of true forward thinkers in the scrap industry that want to or do enter into outside-the-box transactions with us. We've found enough players that we've both mutually been successful that I think adding the financial strength and the market trading skillsets of a company like Koch, you'll see more and more entering into the modern world as far as scrap supply.

My guess is 80pc of the scrap in North America is bought and sold every month over a three- or four-day period. That's ludicrous.

It used to be the view that if a mill was buying scrap mid-month, that was showing a sign of weakness because that was signaling they were low on scrap. Nonsense.

I'll be satisfied when I'm buying scrap every day, and selling steel every day, and that will lead to a fully developed trading market where, with Koch's expertise, our expertise, the involvement of certain other steel industry participants, we'll ultimately get to a liquid marketplace where people can fully hedge their positions and not have to take speculative risk.

By Rye Druzin

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