

# State-of-the-art software upgrade on cut-to-length lines

Following the completion of the upgrade to its CTL4 cut-to-length line in January 2017, Allied Steelrode has is now completing a second upgrade to its CTL3 line while further improvements are mooted. The company's deputy chief executive officer, Justin Cloete, explains.

Over the past decade, Allied Steelrode has become known in the steel industry for its passion for customer service and bold, strategic investments in advanced technology. To date, the company's largest investment has been in a dedicated stretcher leveller, which was especially manufactured to Allied Steelrode specifications. Ordered in 2013, it was installed in a new purpose-built facility in Midvaal in the first quarter of 2015.

Additional investment of this nature – namely a second and even more powerful stretcher leveller with higher specification – is now being installed at the same Midvaal facility, with additional technology investments to follow later in 2019.

However, in a further investment in customer service excellence by this leading steel major, Allied Steelrode has embarked on state-of-the-art software upgrades of its cut-to-length lines. This involves a complete strip-out and replacement of the electronics on these lines; and the introduction of new, custom-developed software to ensure continuously improving efficiency and productivity levels.

The company has completed the upgrade of its CTL4 cut-to-length line in January 2017; while the upgrade to its CTL3 line is due for imminent completion.

Allied Steelrode deputy CEO, Justin Cloete, explains the background to this ambitious programme: "Our cut-to-length lines were procured many years ago from an Italian manufacturer. Over the years, the level of online support from this company waned to the point where we needed to look for an alternative source of support. In addition, since those machines were introduced, control electronics has advanced considerably. The outdated electronics and software meant that these lines were operating at reduced output and were becoming expensive to maintain," he says.

Allied Steelrode's COO, Marius Bezuidenhout, has previous experience with Nidec Industrial Automation, an international electronics and software company with a strong South African footprint.

"We turned to local industrial automation experts Nidec for a complete upgrade of both the machine control electronics and the related software," he explains.

In an exciting development for Allied Steelrode, the CTL3 line has been uplifted from the company's Alrode facility and is being installed at the company's Midvaal plant. However, during the installation, the front and back sections will be separated. Into this 15 m gap, Allied Steelrode will be installing a new 250 t stretcher leveller retrofit section. Together with the CTL3 back- and front-ends, the new retrofit will complete Allied Steelrode's second stretcher leveller line; which will be situated next to the existing stretcher leveller, augmenting its operation.

Bezuidenhout explains that Allied Steelrode stretcher material (ASSM) has become an increasingly sought-after brand in the South African steel industry. The new second stretcher leveller will help to meet this demand and shorten delivery lead times to their customers. "Also, as the two stretcher levellers achieve longer service lives, having two machines will allow for rationalisation of the maintenance programme," he adds.

In terms of processing steel, the two stretcher leveller lines will complement one other in such a way that a greater range of coil widths, grades and thicknesses can be processed.

"We put the thicker material on the machine with the thicker material range, thereby allowing us a longer production run through the thickness range. Changing from processing thick to thinner gauge material requires a blade change; and whenever you do a blade change, you have to stop the machine. Fewer blade changes result in improved continuity of operation and higher productivity," says Cloete.

The CTL4 line will remain in Alrode. However, with a complete electronics refit and new computer software, its efficiency and output will be greatly enhanced.

With both the CTL3 and the CTL4 upgrades, Nidec software engineers had to spend some three months analysing every function of the two lines affected. This required input not only from the original equipment manufacturers (OEMs); but also Allied Steelrode's technical team members, as a number of in-house upgrades and alterations have been made to these machines over the years.

Once the electronic control upgrades had been finalised, Nidec developed new software to drive these two upgraded lines. The choice of software was Nidec's Sytpro software, as well as Machine Control Studio and the

Indusoft Scada suite – a specific software solution for cut-to-length lines. With Nidec's local presence, online support can be offered around-the-clock, a factor that will minimise downtime.

Nidec has also offered professional training to Allied Steelrode operators and technical support staff, so that the latter can provide first-line support if required.

"This latest software and hardware is another quantum leap in Allied Steelrode's steel processing trajectory," explains Cloete. "The new control offers greater flexibility as in the case of the CTL3, which can be used as a flying or static shear. The reason for this combination of cutting styles is to improve machine efficiency at different lengths, thereby reducing production time.

The new controls also improve accuracy, which is a huge factor for the end-customer, and also limits waste for Allied Steelrode.

"Now, in this next visionary investment phase, the upgrades to the cut-to-length lines and the introduction of the second stretcher leveller will assure Allied Steelrode's contin-



One of the automatic coil slitting lines in operation at Allied Steelrode.

ued leadership of the local steel industry," says Bezuidenhout.

"With today's trend towards limited stockholding, this new and exciting phase for

our company will benefit our customers by further reducing lead times between order and delivery, reducing their waste and assuring future profitability," Cloete concludes. □

## CEO Task Force to protect steel industry

Under the auspices of the SAISC and with Allied Steelrode's driving support, the leadership of the steel industry – suppliers and manufacturers – have been gathered into a body that will be known as the CEO Task Force in order to lobby and mobilise key stakeholders to gain cooperation concerning protective tariffs.

This was a key outcome of a SAISC-hosted industry mobilisation meeting held during May. Speaking at the meeting, Allied Steelrode's executive director, Warne Rippon, asserted that his company would like to make a leading contribution to engendering a spirit of re-commitment to the steel industry.

He also raised certain issues regarding pricing, the volatility of which 'poses a very urgent challenge to the entire sector', as effective procurement – a key part of any business – is severely handicapped.

Price volatility from the primary supplier tends to have an adverse effect on the leading steel industry suppliers and even more so on their downstream customers.

"If there is not some rationalisation of pricing levels, many in the industry will be forced to import more of their steel requirements," cautions Rippon, before emphasising the urgent need for viable solutions to ensure the long-term sustainability of the steel industry.

Regarding key solutions, he proposed a more stable, reality-based pricing system,

which would include a review of 10% import duty price protection as well the scrapping of the added 12% safeguard duty.

Rippon is also calling for the primary steel producer to reintroduce volumetric tonnage discounts and to restore the advantage of bulk procurement. "In the steel industry, there are many long-established first-tier suppliers whose loyalty could be recognised in the form of discounts," he explains.

He adds that primary steel quality furthermore requires improvement, which would reduce the downstream scrap factor. "Shorter lead times between orders and deliveries would assist in reinvigorating the steel industry; while the responsibility for bulk warehousing should not lie with the major merchants.

"There are major opportunities in our steel industry at present. However, foresight and courage are needed to make the substantial capital investments required for advancement," asserts Rippon.

At the industry mobilisation breakfast, Rippon and several other steel industry leaders also signed a banner to symbolise their commitment to the regeneration and sustainability of the steel industry. "Overall, what we would like to see is greater transparency in the relationship between the primary producer and the downstream market.

"From an Allied Steelrode perspective, we trust that this meeting will prove to be



Allied Steelrode's executive director, Warne Rippon.

an effective catalyst for members of South Africa's steel industry to collaborate in order to mobilise for positive industry change; and for the growth and sustainability of the steel industry in the future, for the benefit of all concerned," he concludes. □



Allied Steelrode's Marius Bezuidenhout, chief operating office (COO) and Justin Cloete, deputy CEO of Allied Steelrode, explain the benefits of their new control software from Nidec Industrial Automation.