



**CONTROL
TECHNIQUES**

COMPACT DRIVES HANDLE THE HEAT

COLUMBUS STAINLESS | STEEL

DRIVE OBSESSED

UNIDRIVE HOISTS STAINLESS STEEL MANUFACTURER TO SUCCESS

Founded in 1966, Columbus Stainless is Africa's only producer of stainless steel flat products. A member of the Spanish Acerinox S.A Group of Companies, its products can be found in everything from a kitchen sink to a quality wristwatch.

The Middelburg, Mpumalanga plant produces for various end customers, distributors, engineering shops, and mines globally.

Overview

- Minimises downtime
- Increased productivity
- Compact size saves space and cost
- Local availability and accessibility of spares
- Full turnkey solution

The Challenge

Stef Du Toit, Columbus Stainless Cranes Engineer, says, "To remain successful in what we do, we have ensured that our facilities can keep up with demand and experiences minimal downtime. This means working with the right technology partners."

For more than 20 years, Columbus Stainless has worked with Control Techniques to ensure operations run smoothly. The Control Techniques team recently used its expert engineering capabilities to upgrade the main hoist of the steel plant's ladle cranes.

"The gantry cranes are critical to production and carry between 110 and 115 tons of molten steel in ladles across the plant. The motors' control technology needed replacing to keep the facility future-fit and avoid breakdowns caused by obsolete technology." Control Techniques was awarded the turnkey contract to upgrade the variable frequency drives."

Derek Coetzee

Head of Engineering, Control Techniques





The Solution

The solution for this application included two Unidrive M700 units connected in parallel, each driving a 250 kW 8-pole IMfinity premium efficiency induction motor.

Derek explains, "Our solution needed to fit into the same space as the existing system. Our compact technology put us ahead of the competition. We were able to engineer a system which met the demands of the facility without disrupting existing structures."

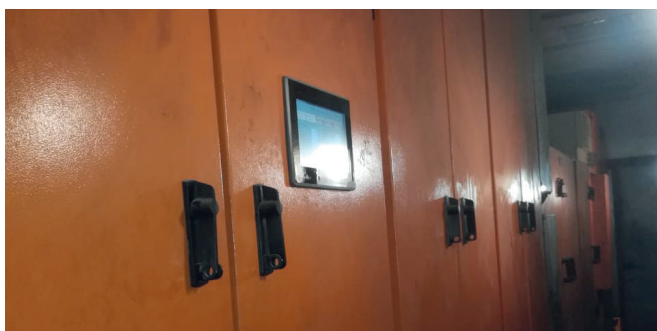
"The M700 AC drive is a high-performance motor control system which provides ultimate control flexibility in high specification industrial applications. We are confident that this solution will see Columbus Stainless remain industry leaders."

Bruce Grobler

Regional Manager, Control Techniques



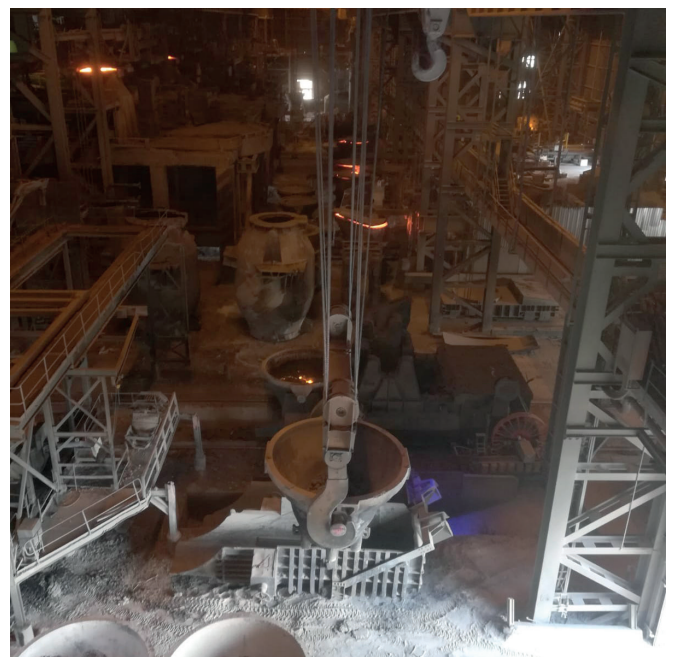
A door-mounted HMI also provides full diagnostics for the system.



The Benefit

The ladle cranes at Columbus Stainless have been operating for approximately 25 years and still have many years of service life ahead if supported by the right technology. The new technology not only has the potential to improve uptime, but it also offers added benefits from an intelligent, compact design and connectivity.

The M700 is Control Techniques' flagship drive has also been used in other areas of the plant. Stef comments, "The local availability of the technology is a bonus. These drives are vital to our production efficiency, as we must minimise downtime as much as possible. The accessibility of spares and support in-country is a huge benefit to us."





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