

CONVEYING TEAMWORK IN ALUMINIUM MANUFACTURING!

Introduction

In operation for over 30 years, o.d.t Engineering (ODT) based in Dandenong, Victoria, supply equipment and services to leading aluminium producers throughout Australia and New Zealand, as well as supplying to international clients.

A client of theirs also has 30 years of experience in producing aluminium ingots and recently identified a need for a retrofit machine to improve production as they switched from generating pure aluminium ingots to alloy ingots.

Project Overview

As part of this upgrade, ODT were commissioned to provide a full ingot casting machine replacement that promised to improve performance, ensure low maintenance and deliver maximum output. To help them in the delivery of this machine, they used the engineering support and expertise of local supplier, NHP. The manufacture of alloy ingots are typically intended for consumption in the automotive sector where the demand continues to rise. In turn, this demand creates increased competition, resulting in the need for innovative and reliable equipment as a crucial component to success.

With that in mind, the upgrade needed to comprise of safer and more efficient practices with minimal requirement for operator input. Drawing on their combined experience, ODT worked together with NHP to engineer a robust and reliable design of a 55 metre machine, consisting of several conveyors and capable of producing 10kg ingots at a speed of 15 tonnes per hour.

The fully engineered design, which would essentially form the backbone of operations, saw NHP play a pivotal role in supplying a design in its entirety, along with installation instructions and functional demonstrations.

In addition, the complexity of the machine required the installation of a series of panelboards. To ensure accuracy and quality, NHP were able to manufacture and customise the panels to meet the project needs at their National Manufacturing and Distribution Centre.

“With a restricted timeframe, the construction of the machine relied on companies such as NHP to deliver services and components promptly. The benefits of using a local company with global experience helped see the project meet deadlines whilst still ensuring our quality standards were met,” commented Joel Murray, o.d.t Engineering’s Engineering Manager.

“Our company philosophy is “Quality by Design”. It was great to work alongside NHP, who have an equal passion for well-designed, safe, reliable and high quality equipment.” Mr. Murray continued.

The Solution

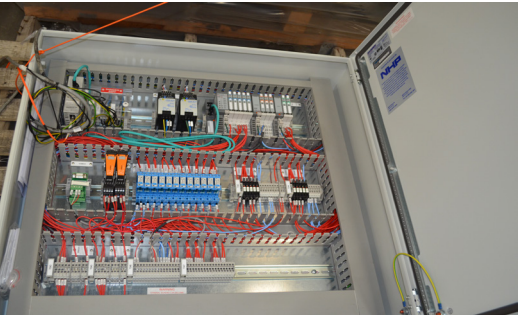
Responding to this necessity, ODT implemented an integrated safety solution that was compliant with relevant standards and improved manufacturing productivity and asset efficiency through increased machine uptime.

When it came to the products used to help deliver the complete solution, in addition to their engineering support NHP also supplied a range of products including; Rockwell Automation power supplies, PowerFlex 525 Variable Speed Drives, ControlLogix PLCs, Point IO, motor control equipment, industrial control products and a range of switchgear components.

To complement the installed devices, Rockwell Automation Software Studio5000® and FactoryTalk® View Studio was integrated seamlessly into the design to optimise plant communication and connectivity. This software assists in faster system development, as well as sharing data, diagnostics and troubleshooting.

Combining the strength of highly skilled personnel, expertise manufacturing and an array of products, NHP had the perfect combination of artillery to assist ODT in the successful deliverance of the project.

“Our team understands local and international markets and their relevant standards and compliance requirements that apply to each which allows us to better serve the needs of our customers with tailored manufactured solutions,” said NHP’s Automation – Business Development, Jarrod Grech.



Case studies

Project Fact File

Project: o.d.t Engineering

Location: Melbourne, VIC

Details: Working alongside NHP, o.d.t engineering provided a full ingot casting machine replacement that promised to improve performance, ensure low maintenance and deliver maximum output for a customer who manufactured alloy ingots.

NHP Products/Services:

- Engineering support
- Rockwell Automation power supplies
- PowerFlex 525 Variable Speed Drives
- ControlLogix PLCs
- Point IO
- Motor control equipment
- Industrial control products
- Software Studio5000®
- FactoryTalk® View Studio

Case studies