Aqua Feed Production Expansion

"Once we accept our limits, we go beyond them" - *Albert Einstein*

Industry
Food

Sector
Aqua Feed

Segment
Production Control System

Project

- The client has 19 facilities around the globe supplying annually over 2 million tons of feed to the aquaculture industry.
- To meet demand the clients Tasmanian plant needed to double production (70,000 to 140,000) tons within 12-months.
- The new production line needed to be built in parallel to the existing line to avoid significant production interruptions.
- Cromarty were engaged by the client to work collaboratively with the clients international team to provide the control and automation solution, incorporating site SCADA and PLC then integration into the materials/stock handling system.

Solution

The project was split into two phases:

Phase 1 - *remove and install a new intake and batching system*

- Ground up redesign of new CitectSCADA whilst maintaining legacy SCADA.
- Dynamically modify current control system to maintain production while existing equipment was moved and new installed.
- Develop PLC code simulation to provide an environment to test the control system and failure modes without wasting production time or material and to speed up commissioning without putting any personnel at risk.
- 4-week plant shutdown to install and commission the new control system.

Phase 2 - *install a new extruder line*

- Ground up re-design for the new extruder control system.
- Installation of the new extruder line without stopping the existing extruder.
- The new program was installed and commissioned within a 1-week window.
- Removal the redundant code and de-commission the legacy system.

Outcome

Despite the size and complexity of the project, the challenging development and commissioning time frames and the need to maintain production during the upgrade, the new facility started on schedule, was on budget, was not only almost immediately able to produce product but now has a future proofed control system. Cromarty were also able to optimise the original equipment to provide more stable production. This not only met but exceeded the original target of doubling production capacity.