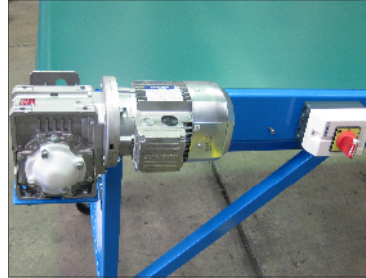
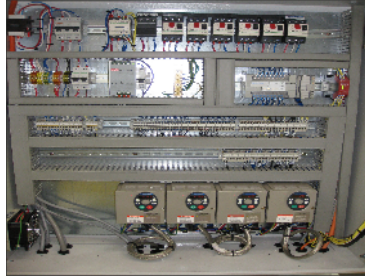
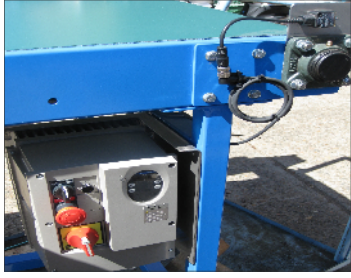


# Automation of Powered Belt Conveyor System



**Client:**

**Donaldson Filtration**

**Location:**

**Wyong NSW Australia**

**Value:**

**\$201,000**

**Install & automate a complete turnkey system for assembling air filters. Automate seven (7) belt conveyors with speed & position control for difficult products.**

## The Project

Australis Engineering's Automation team, including our highly qualified and experienced Mechatronic Engineers were approached by Donaldson Filtration to provide the expertise necessary to automate a new conveyor line used to assemble filters. The system had to have the following attributes:

- Flexible control system that easily allows for motor speed control and accurate stopping of conveyors;
- Sensors selected for troublesome products;
- Accurate and precise location of manufactured goods;
- Cost efficient control system;
- Fully integrated safety system for total machine safety isolation;
- Multi station controls allowing for accumulation of goods and process control; and
- Fully integrated with Australis Engineering's mechanical design solution for powered, adjustable height belt conveyors.

### Turnkey System

### Variable Speed Drives

### PLC Control



## The Result

The Australis Engineering's Automation team provided the following solutions:

- Design and manufacture of an integrated control panel including Allen Bradley MicroLogix 1200 PLC;
- PLC Programming for flexible operation;
- Individual Variable Speed Drive (VSD) control on all motors, including local mounted IP55 enclosed and panel mounted VSD's. Group speed control on some motors with linear speed translation for product separation; and
- Safety system that inhibits all possible hazardous movements when deactivated.

Australis Engineering's automation team successfully installed, wired, tested and commissioned the project at the Donaldson manufacturing site in 2 days. Australis ensured Donaldson were running with their brand new assembly line in the shortest amount of time, thereby reducing production downtime for the customer.

## Innovation

As a turnkey project, Donaldson's benefited from engaging a single provider who was able to design, manufacture and install an integrated mechanical and automation solution, providing a one-stop shop with associated cost and time savings to the customer.

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