

# Powered adjustable height conveyor system products



**Client:**  
**Donaldson Filtration**

**Location:**  
**Wyong NSW Australia**

**Design, manufacture and supply seven (7) belt conveyors, an adjustable product positioned and a conveyor lift system to allow for a powered height adjustment to a conveyor line for automotive filter products.**



## **The Project**

Donaldson Filtration Solutions are installing and updating one of their filter manufacturing lines. Part of this line was to design a powered adjustable height conveyor line to allow for easy assembly of their vastly differing height products.

The system had to have the following attributes:

- The system must be extremely cost effective and easy to operate
- All conveyors to have adjustable speed such that the system can be set up for different products
- The system was designed using sensors, so that very little, if any, adjustments other than speed are necessary for the different height and diameter products conveyed on the production line
- The lifting system had to have a range of 750 mm of lift, and allow the 16 meters of conveyor to be lifted from a working height of 200 mm to a working height of 950 mm quickly and easily.
- An adjustable mechanism to quickly and accurately position the filters on a conveyor for an assembly process

## **Powered Belt Conveyors**

## **Adjustable Height Gravity Roller Conveyor**



## **The Result**

Australis provided a turnkey conveyor solution that is very cost effective, and simple to operate, whilst allowing changes to the conveyor line speeds and conveyor working heights.

Australis Engineering's design solution provided the following outcomes:

- Designed, and manufactured seven (7) powered belt conveyors and a gravity roller conveyor ranging in length from 1 meter up to 6.5 meters, and
- A custom powered lifting system that facilitates the height adjustment of a 15 meter length of powered belt conveyors, from a working height of 200 millimetres to a working height of 950 millimetres quickly and easily.
- An adjustable pneumatically actuated flap gate, which accurately positions the filter for the assembly process

## **Innovation**

A key element of the Australis Engineering solution has been the use of the mechanical conveyor lift system. This system incorporates the use of multiple electric linear actuators, as well as a wire rope lift mechanism to raise and lower the conveyors quickly and effectively.



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