



Over 1,000 Motors and Drives:
Australia's Fastest Courier
Sorting Facility



Variable Frequency Drives:
Easy Installation with
Plug-in Connection



High Efficiency Motors:
Meeting all
Global Standards

Drive Solutions for Intralogistics

Case study: BCS Group



BCS Group chose NORD's new helical bevel series geared motors fitted with decentralized variable frequency drives for Australia's fastest courier sorting facility.



Geared motors powering Australia's fastest courier sorting facility



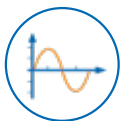
Gear Units

- ▶ Strong bearings
- ▶ Low noise
- ▶ High power density



Motors

- ▶ High efficiency
- ▶ Global standards
- ▶ All operating conditions



Drive Electronics

- ▶ Compact design
- ▶ Easy commissioning
- ▶ Scalable functionality

Chosen to supply a state-of-the-art materials handling system for Australia's largest mover of freight, BCS Group needed around a thousand geared motors and variable frequency drives. BCS selected NORD DRIVESYSTEMS because the product offered a number of innovative features that provide efficiencies for both BCS and their client.

Background – In 2014, Toll IPEC decided to boost its parcel delivery capabilities by building a new freight sorting facility in Melbourne. The new 'mega center' would become a key component of the company's extensive national distribution network. Melbourne's Tullamarine area was chosen as the location for the facility which is one of the largest of its kind in Australia. The center promised to deliver some impressive benefits to Toll including parcel sorting capacity of up to 35,000 parcels per hour.

BCS Group – Toll chose the BCS Group to supply the materials handling system for the new Melbourne facility. BCS' automated solution incorporates many processes including arrival into depot, data gathering, high speed sortation, flexible loading/dispatch solutions, system monitoring, and intelligence.

NORD DRIVESYSTEMS – A facility of this size requires an extensive conveyor system to move parcels around within the facility. Such a system requires a significant quantity of motors and variable frequency drives. BCS chose NORD's new helical bevel series geared motors fitted with decentralized variable frequency drives for the job. "The conveyors run the delivery of all parcels to the sorter and basic distribution from the sorter as well", explained Frank Kassai, Group Engineering Manager at BCS. "We were looking at over one thousand motors and drives. They're all different sizes and range [from] 0.5 HP (0.37 kW) to 7.5 HP (5.5 kW)."



BCS solution for Toll IPEC facility Melbourne



Focus on the customer

The expertise of BCS lies in delivering end to end solutions consisting of logistics hardware, automation controls, and elegant software products that have made their supplier of choice to airports, airlines, freight, and industrial customers around the world. The business breaks into three business units: airport systems, operations, and maintenance and their newest business unit, services and solutions.



“The NORD advantage is that it has a two-stage bevel gearbox for high efficiency. In addition, the maintenance and installation is made easy by the fact that NORD offers plug-in connections as part of the base product as well as a drive that actually mounts on top of the motor”.

Frank Kassai, Group Engineering Manager at BCS

Why they choose NORD solutions – “The advantage is that it has a two-stage bevel gearbox for high efficiency. In addition, the maintenance and installation is made easy by the fact that NORD offers plug-in connections as part of the base product as well as a drive that actually mounts on top of the motor”, explained Kassai. “With the NORD products, if you have a failure, you can plug-in a new motor and reprogram it. This enables the operator to change a motor drive in a few minutes, instead of needing an electrician to physically rewire a new motor drive”. The gearboxes are also configurable which means they can have different shaft sizes for various applications systems.

“Toll Melbourne’s site was the largest courier project of its kind delivered by BCS in Australia and the installation and commissioning process was seamless”, Frank continued. “NORD had actually pre-programmed our drives before we received them on site which

shortened the commissioning process.” One of BCS’s main concerns when considering NORD was whether they would be able to provide the same level of support that BCS is accustomed to. “We are very happy with the support from NORD. Nothing has been a problem.” Toll’s Melbourne facility began operations in late 2015.

Other projects – The Toll Melbourne facility is not the only BCS project that incorporates NORD drives. There are other projects in the courier market as well as airport baggage handling sites in Australia. NORD’s helical bevel series geared motors with decentralized variable frequency drives can be used in many other applications or sectors. Kassai said BCS has no concerns using NORD solutions on other airport and warehouse distribution projects.

The Gear Unit: NORD’s gear units consist of supreme-quality components developed in Germany and manufactured in the company’s own production facilities. Featuring a superior power density and extra-strong bearings, these units ensure trouble-free operation, achieve a long service life, and run very quietly.

The Motor: NORD’s highly efficient motors meet all global standards and are suitable for use around the world. The company supplies drive solutions for a wide range of conditions: indoor or outdoor areas, heat, cold, demanding hygienic requirements, hazardous environments, and more.

The Electronic Drive: NORD’s motor starters and variable frequency drives, which are developed and manufactured at the company’s own electronics plant, are very compact, enable easy commissioning, and feature consistent operability. The varied range of types and options provides a scalable feature set for precise adaptation to system requirements.



Focus on the project

The new Toll freight sorting facility at Melbourne’s Tullamarine area became a key component of the company’s extensive national distribution center. Toll chose the BCS Group to supply the materials handling system, and BCS chose NORD DRIVESYSTEMS Australia to supply more than 1,000 geared motors.

- ▶ Pre-programmed variable frequency drives for short commissioning process
- ▶ Plug-in connections for easy installation and maintenance
- ▶ Over 1,000 motors and drives from 0.5 HP (0.37 kW) to 7.5 HP (5.5 kW)

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