

DRIVE SYSTEMS FOR INTRALOGISTICS

CASE STUDY: BCS Group



Over 1000 motors and drives
Australia's fastest courier sorting facility



Frequency inverters
Easy installation with plug-in connection



2-stage bevel gear units
High power density and strong bearings



High efficiency motors
Meeting all global standards



The drive
Reliable – Versatile – Global



BCS Group chose NORD's new helical bevel series geared motors fitted with decentralised inverters for Australia's fastest courier sorting facility.

The 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 inverters. BCS decided to go with the 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 centre' 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 centre promised to deliver some impressive benefits to Toll including parcel sorting capacity 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' automa-

ted 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 inverters. BCS chose NORD's new helical bevel series geared motors fitted with decentralised inverters 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. They range [from] 0.37 kW up to 5.5kW.

Why did they choose NORD? "The advantage of the NORD is that it has a two stage bevel gearbox for high efficiency. In addition, the maintenance and installation is

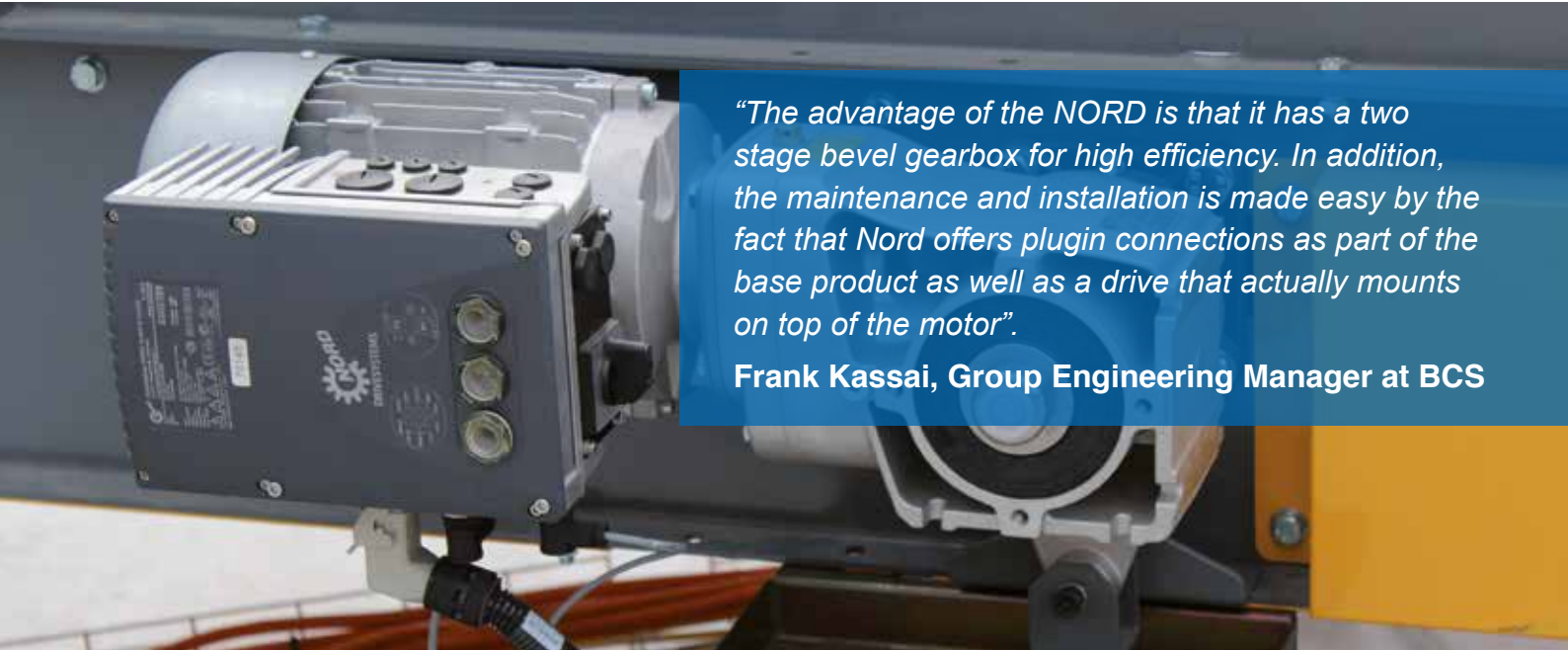


Our expertise lies in delivering end to end solutions consisting of logistics hardware, automation controls and elegant software products that have made BCS supplier of choice to airports, airlines, freight and industrial customers around the world.

Our business breaks into three business units being Airport Systems, Operations and Maintenance and our newest business unit Services and Solutions (SaS)



BCS solution for Toll IPEC facility Melbourne



“The advantage of the NORD 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 plugin 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

made easy by the fact that Nord offers plugin connections as part of the base product as well as a drive that actually mounts on top of the motor”, explained Frank 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 processes was seamless”, according to Frank Kassai. “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 sup-

port that BCS are 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 the airport baggage handling sites in Australia.

NORD’s helical bevel series geared motors with decentralised inverters can be used in many other applications or sectors. Kassai said BCS has no concerns using Nord on other projects in airports and for warehouse distribution applications.

The Gear Unit: NORD’s gear units consist of supreme-quality components developed in Germany and manufactured in the company’s own production centres. 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 therefore 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 frequency inverters, 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 your requirements.

FOCUS ON THE PROJECT

The new Toll IPEC freight sorting facility at Melbourne’s Tullamarine area would become a key component of the company’s extensive national distribution center. Toll chose the BCS Group to supply the materials handling system. BCS chose NORD DRIVESYSTEMS Australia to supply more than 1.000 geared motors.

- Pre-programmed frequency inverters for short commissioning process
- Plug-in connections for easy installation and maintenance
- Over 1.000 motors and drives from 0.37 kW up to 5.5 kW



A photograph of industrial machinery, likely a conveyor system, featuring several Nord drive units. The machinery is grey and metallic, with red safety cables running across it. The model number 'D1W31402' is visible on a panel. A blue banner is overlaid on the top right of the image.

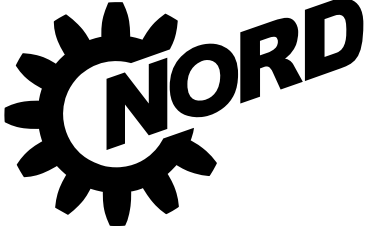
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YOU MAY FIND INTERESTING:**

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Member of the NORD DRIVESYSTEMS Group

The logo for NORD DRIVESYSTEMS, featuring a stylized gear with the word 'NORD' inside it, and the word 'DRIVESYSTEMS' in blue capital letters below.

NORD
DRIVESYSTEMS