



NORD Configurable
Drive Solutions



Meeting Needs for
Special Applications



Trouble-Free Operation in
Demanding Environments

Drive Solutions for the Steel Industry

Case Study: Delta Steel Technologies





Steel Production
Roller Leveler



Geared Motors
Industrial Gear Unit
MAXXDRIVE®

"Most of the companies out there just throw you a catalog and say, 'Pick one of these. If it works for you, great, and if it doesn't, we're sorry.' NORD on the other hand, has always tried to understand our needs and help us select a product that solves whatever problems we're facing"

Joseph Savariego,
President of Delta Steel Technologies Inc.

Project Requirements

After delivering the winning bid on a roller leveler, Delta Steel's design team found that the gear units in a critical subassembly had to be placed closer together than they liked due to the drive shaft angle needing to be minimized. They knew that this configuration would make it difficult for their customer to service the machine in the future, so they decided to reach out to NORD DRIVESYSTEMS for ideas.

In the design, there are eleven rollers in total, five above the sheet metal and six below with each requiring its own gear unit. The issue here is in having to stack the two rows of components one atop the other in order to fit everything into the limited space. This restricted access to the bottom row of drive components. So now if one of the bottom gear units were to be damaged, how would one access it without having to remove the ones above it?

In order to save space, a compact but powerful gear unit would still be needed. It would have to be able to fit in a flexible and symmetrical design. For this application, they reached out to their local NORD DRIVESYSTEMS representative, Steve Hunter, who put them in touch with application engineer Jeff Wittrock to help provide a custom solution.



The Customer in Focus

Delta Steel Technologies Inc., a second-generation manufacturing company that has been building and repairing machinery for steel mills across the country for over 55 years. With 120 employees, some having worked there for more than four decades, they are all proud to support the American steel industry. They design and manufacture a wide range of customer products in their 226,000 sq. ft. facility located in Irving, Texas.



Application Solution

Faced with tight quarters for their gear unit application, Delta Steel turned to NORD for help. The roller leveler needed would serve to convert rough coils of steel into flat, precision-cut material suitable for use by automakers, appliance producers, and any manufacturer of sheet metal components and assemblies.

The gear units are stacked atop one another in order to fit everything into the limited space, which restricted access to the bottom row of drive components. To combat this, a slide mechanism was developed to allow technicians to easily disconnect each gear unit and motor combination from the drive shaft and simply pull it back and out of the way for servicing. Delta Steel also noted that only as designers delve into the complete requirements can they understand all of the potential hurdles, making it especially important to

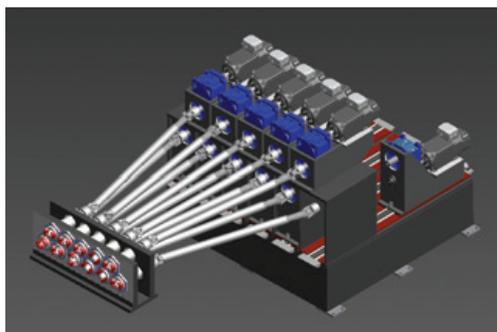
partner with suppliers offering a wide range of component options, backed by experienced support and applications staff.

11 MAXXDRIVE® units with 150 HP electric motors were used in the application and were all able to be individually disconnected and slid back for service and repair. This design made good use of the limited space while still being able to transmit a lot of torque with a compact footprint.



NORD & Delta Steel Partnership

Delta Steel has worked with NORD DRIVESYSTEMS for a number of years and have found responsive, helpful, and creative solutions. "NORD's service and support stands well above the rest. We've enjoyed working with them and will continue doing so."



The Project at a Glance

NORD supplied 11 SK5207 series MAXXDRIVE® Large Industrial Gear Units in a parallel axis configuration and 14:1 drive ratio to build the roller leveler configuration. With a UNICASE™ one-piece housing, symmetrical design, and extremely high power density for its size, it made the perfect solution for the compact space with the ability to stack and also allowed for easy disconnection of the units.



Additional References
and Case Studies:
www.nord.com/references

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