

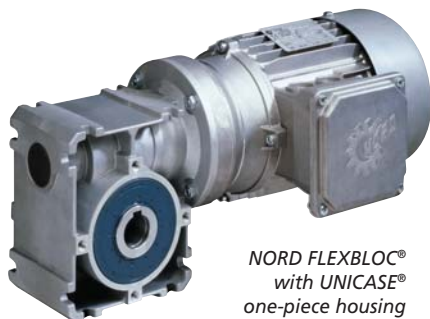
## LIFTING BARRIERS

SAFETY CURTAINS DEPEND ON NORD FOR THEIR MOTION

2001, Frommelt® Safety Products in Dubuque, IA, a product group of RITE-HITE® Corporation in Milwaukee, WI, and manufacturer of industrial safety curtains and automated barriers, needed a proven brake gearmotor for applications in its machine guarding division. The gearbox would drive heavy safety curtains up and down on the Guardian™ line of roll-up safety barriers. With typical starts and stops occurring every five seconds throughout the day, and safety at the essence of the product, the Guardian™ would require an extremely reliable brake.

*“We found durability and economics all in one package.”*

NORD Gear Corp. (Waukegan, WI), had previously demonstrated its commitment to service and dependable delivery through an application in a separate RITE-HITE® division.



*NORD FLEXBLOC® with UNICASE® one-piece housing provides leak-free operation*



*Once the UNIBLOC® gearmotor rolls the Guardian™ safety barrier into its closed and locked position, the robot starts its programmed cycle.*

But Frommelt® needed proof that the product could handle the tougher demands of machine guarding doors. For a spot on the Guardian™, five hollow-bore worm gears competed in a rigorous, side-by-side testing at Frommelt®. NORD came out on top, both in strength and pricing.

“We found durability and economics all in one package,” notes Aaron Wiegel, Frommelt® Machine Guarding production manager. Throughout the nine-month process of testing, quoting and designing, Aaron also found NORD representative Bill Hammer available for any assistance he should need. “Bill has always been there, taking care of us and making sure we have our units on time,” says Aaron. He also makes sure we get what we order.”

RITE-HITE®, as a whole, orders several types of NORD gearboxes, including inline and helical bevel, but for Guardian™ doors, it relies on what NORD calls UNIBLOC® worm gears. A UNIBLOC® uses UNICASE® one-piece housing for a leak-free design, increased torsional housing strength and multi-mount capabilities. Frommelt® was dissatisfied with its previous gearbox supplier, partly because its units were vented, and as such, restrictive of placement and prohibitive of upside-down mounting. NORD was an upgrade in that regard, as well as in brake quality. The UNIBLOC® gears come equipped with high-performance, third-party brakes from a German electromechanical brake manufacturer that Frommelt® knew and respected.



The Guardian™ is a barrier curtain offering safety for robotic work cells, conveyor openings and all machine guarding areas.

To grasp a Guardian™ barrier's basic function, it helps to get into a futuristic mindset, where hazardous robotic areas are protected by high-speed rolling barrier doors. Both the robots and doors are real. Frommelt® Safety sells the Guardian™ barrier door to machine builders and integrators who create robotic weld cells and other automotive manufacturing lines. The barrier, which NORD rolls up and down at a speed of 36 inches/second, is actually a durable, high-temperature PVC curtain reinforced with steel bars. Combined with industrial fencing, Guardian™ doors provide perimeter safeguarding protection from weld flash, flying debris and

accidental entry into hazardous work space. They provide a quick and safe access for operators to fixture new piece parts, remove weldments or perform maintenance inside the protected space. When NORD rolls the barrier into the closed and interlocked position, the robot or other machine starts its programmed cycle. When the task is complete and dangerous motion has stopped, NORD rolls the barrier up to repeat the cycle.

But NORD moves things besides curtains. Delivery schedules shift up or back all the time for Frommelt® and NORD always accommodates NORD is also timely in handling changes of

garmotor specs, such as voltage variations for international customers or speed requirements that call for different gearsets within a similar housing. "You know, some companies can hit the mark and some can't," notes Aaron. "With NORD, we just call them up and they give us a lead time that we can use to give accurate promised dates to our customers." Having worked with the supplier for five years, Aaron trusts lead times from NORD to be as short as possible.

*"We really use and abuse our gearmotors."*

When it comes to safety, you can never be too careful. That's why Frommelt® took great pains to ensure that NORD's gearmotor—like every component that it uses on its products—was capable of withstanding at least a million cycles. "We really use and abuse our gearmotors," says Aaron, "but we were very happy with the life of the NORD gearset while we were banging it around in our testing, especially on the stopping end of it." Due in part to this notable performance, NORD has become the spec for Aaron's product group, and the Guardian™ has become one of the fastest growing product lines for RITE-HITE®.



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