SPRING 2011

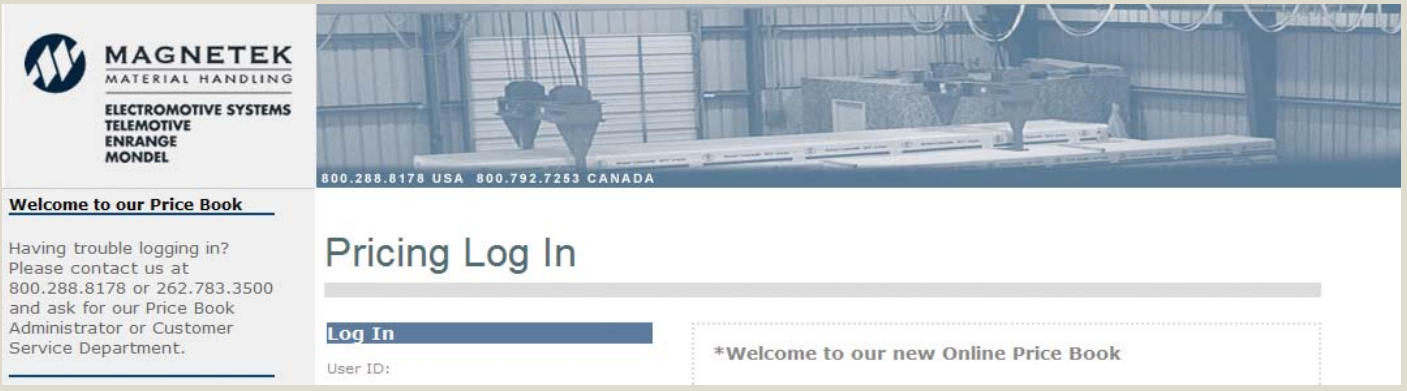
MAGNETEK
MATERIAL HANDLING

Evolution

A MAGNETEK MATERIAL HANDLING PUBLICATION

YOUR ONE-STOP SOURCE FOR MATERIAL HANDLING CONTROL SOLUTIONS

Magnetek Material Handling Launches New Online Price Book



At Magnetek, serving our customers is our number one priority. That's why we are excited to announce we launched a brand-new Online Price Book on February 1st! This new Price Book has an entirely new navigation, and includes:

- Search capabilities by product name, part number, catalog number, or description
- Ability to add items to a "Quote" and save with a unique Quote number
- Access to previous Quotes from the Quote History database
- Automatic calculation of your discount multiplier

We are confident our customers will find this an easy-to-use pricing tool for Magnetek products. The new Price Book can be accessed through the Dealer Pricing link on www.magnetekmh.com.

Inside this issue:

Magnetek's IMPULSE Drives Now Rated at 60 Degrees C

Magnetek's IMPULSE®•G+ and IMPULSE®•VG+ Series 3 adjustable frequency crane controls have been rerated to an increased ambient temperature rating of up to 60 degrees Celsius (140°F).

They have been rigorously tested and qualify for use in high ambient temperature applications in severe environments such as steel mills and power plants. With unsurpassed performance and safety features and our new three-year warranty, IMPULSE drives are the optimal choice in crane and hoist control.

Enrange™ Flex 6EX Radio Remote Now Available

The Enrange™ Flex EX series of radio remote controls provides a cost-effective solution to the restrictive use of hardwired pendants. These durable and rugged radios are ideal for use in material handling, overhead crane, mobile hydraulic and industrial applications.

These flexible and reliable systems were offered in 4, 8 and 12 button style options, and now a new 6 button style is available to fulfill all your application needs.

Learn more about these ergonomically designed radios at www.magnetekmh.com and click on Radio Remote Control Products.

Now Offering Extended 3-Year Warranty on Drives

Magnetek recently extended the warranty for our IMPULSE AC Adjustable Frequency Drives from two years to three. This three-year warranty is a result of continued outstanding quality and reliability of the IMPULSE drive product line. The evolution of digital technology combined with our understanding of how to apply it in material handling applications have advanced to the point where this additional benefit can be offered. The longer warranty reflects Magnetek's commitment to the success of our customers.

As previously announced, the three-year warranty became effective on all orders entered and shipped after October 1, 2010, and will have no impact on the cost of the product. For more information about Magnetek's IMPULSE drives, visit www.magnetekmh.com/control.htm.

New White Paper Available

Magnetek's newest technical white paper is available: "Mechanical Brakes and Modern Digital Controls Improve Safety, Reliability and Performance." It was co-authored by Aaron Kureck, Product & Development Manager, and Tom van Leeuwen, Facility, Product & Development Manager.

This white paper discusses the evolution of modern spring-set industrial brakes in conjunction with modern digital controls, and how these work together to improve safety and extend equipment life, leading toward more reliable and efficient operation. Full featured AC and DC digital drives are the preferred method for control of cranes and heavy moveable structures, when used with "failsafe" mechanical braking systems. Combined, they form an effective electro-mechanical motion control system.

AC variable frequency and digital DC drives with features such as load float, load check, torque proving/brake check, snapped shaft detection, sway control and reverse plugging simulation can improve equipment performance and safety. Spring-set friction brakes with features such as automatic adjustment go a long way in reducing maintenance costs and prolonging equipment life.

The combination of mechanical brakes and digital controls will assure that overhead cranes and heavy movable structures will provide many years of safe, reliable operation.

To download a full printable version of Magnetek's Mechanical Brakes and Modern Digital Controls whitepaper go to www.magnetekmh.com and click on Success Stories then on Whitepapers.

MAKING THE CASE

Magnetek's Engineered Systems Group improves efficiency of Waste-to-Energy Facility Bridge Crane Project

CONTROL PRODUCTS USED

- IMPULSE®•G+ Series 3 Drives
- IMPULSE®•VG+ Series 3 Drives
- Programmable Logic Controller
- Hoist Motors

Magnetek Engineered Systems helped Olmsted County, MN, take going green to the next level with their Olmsted Waste-to-Energy Facility that burns non-recyclable refuse to produce energy. Since opening in 1987, the waste-to-energy plant has processed over 1 million tons of garbage into high-pressure steam and electrical energy used by nearby government buildings and sold to the power grid.

To further increase the amount of waste turned into usable energy, the facility underwent an expansion to increase its capacity from 200 tons to 400 tons of waste processed per day. The nearly $100 million project was completed in January 2010.

The existing plant had two 100-ton-per-day boilers. A 200-ton-per-day boiler was added during this expansion to increase capacity. With only two boilers, the manual operation did not prove to be an efficient method of moving refuse from the garbage pit to the loading hoppers. Now, with three boilers the operation needed to vastly improve its efficiency to meet the project goal of doubled throughput.

THE SYSTEM

Magnetek provided automated bridge crane application expertise to the project by updating the cranes with new semi-automated controls to increase their speed, reliability, and productivity. All new variable frequency drives were installed throughout the system, as well as a PLC (programmable logic controller) interface for each crane that allows the operator to pick a load of waste out of a storage pit and place it into one of the fuel loading hoppers.

Two over-head bridge cranes are located 100 feet above the pit that can hold up to 3,000 tons of refuse. Either crane can travel from one end of the pit to the other as the grapple descends to take bites of the stored waste to transfer combustible material from the storage pit to the loading hopper. The new semi-automated controls allow for hoist, bridge and trolley control to position the grapple over a specific, predetermined area of the pit as requested by the crane operator. Once the load has been picked, the automated control system moves the hoist, bridge and trolley as necessary to provide the most efficient path to the hopper.

The waste, after being loaded into the hopper, slowly travels 16 feet down onto the feed rams. The feed rams force the waste into the boilers. Ultrasonic monitors track the level in the hopper and inform the operator when another load is needed. Each of the three fuel loading hoppers, one for each boiler, is fed alternately with the crane and grapple.

Magnetek's Engineered Systems Group contributed to improving the waste-to-energy facility's efficiency and throughput by providing a semi-automated bridge crane control system using IMPULSE variable frequency drives and new hoist motors. The system also incorporates PLCs programmed by Magnetek to meet the project's specific requirements. And to ensure that the systems operated per the end user's specifications, Magnetek's system engineers performed on-site start-up services and training.

Advantages of Using Magnetek's Engineered Systems Group

- *Expertise in crane, hoist and monorail control systems*
- *Experience in waste-to-energy systems*
- *Turn-key design, programming and field start-up*
- *100 years of combined experience in the Engineered Systems Group providing automated crane, hoist and monorail systems*

RESULTS

- Provided VFD control to feed an additional furnace, doubling capacity of the facility from 200 tons of refuse burned per day to 400 tons per day
- Updated drives, controllers and motors to ensure uninterrupted operation, 362/24/7, for energy delivery

Download and read the complete case study, and others, on Magnetek's Material Handling website at www.magnetekmh.com and click Success Stories, then Engineered Systems.

Meet the Team at Magnetek

DAN BEILFUSS

National Sales Manager, Material Handling

Dan has been with Magnetek for 12 years managing a variety of functional areas including automation engineering, production engineering, product development, and business development. Prior to joining Magnetek, Dan spent nine years at Harnischfeger (P&H) designing control systems and automation for cranes and hoists. He holds a Bachelor of Science in Electrical Engineering from Marquette University, Milwaukee, Wis., and a Master of Business Administration from the University of Wisconsin-Whitewater. You can contact Dan at dbeilfuss@magnetek.com.

MIKE ASTEMBORSKI

Brakes and Power Delivery Business Development Manager, Material Handling

Mike has been with Magnetek for seven years. Prior to joining Magnetek, Mike served as an electrical engineer and sales application engineer for 26 years at Harnischfeger P&H Cranes. He attended the Milwaukee School of Engineering. Contact Mike at mastemborski@magnetek.com.

DON SCHNEIDER

Business Development Manager for Radio Controls

Don has over 14 years of experience in radio controls, including three years as radio controls product manager at Magnetek and most recently 11 years in radio control sales, research and development, and engineering management for Hetronic, Inc. Don is responsible for managing the radio control sales operations for material handling and mobile hydraulic applications. You can contact Don at dschneider@magnetek.com.

AARON KURECK

Product & Development, Material Handling

Aaron has been with Magnetek Material Handling for 15 years. He has more than 13 years of experience developing AC and DC motor drives and controls for industrial applications. Aaron holds five United Sates Patents, with two Patents Pending. He holds an Associate's Degree in Electronics Technology from the Waukesha County Technical College, Waukesha, Wis., and studied in the Electrical Engineering Program at the Milwaukee School of Engineering, Milwaukee, Wis. You can contact Aaron at akureck@magnetek.com.

JEFF YOUNG

AC & DC Controls Business Development Manager, Material Handling

Jeff has been with Magnetek for four months. Prior to joining Magnetek, Jeff served as regional sales manager for Scott Specialty Gas, as technical sales manager for Genencor, and as a sales manager for the Louis Allis Company, the predecessor company of Magnetek. He earned a Bachelor of Science in Interdisciplinary Engineering and Management from Clarkson University, Potsdam, NY. You can contact Jeff at jyoung@magnetek.com.

BEN STOLLER

Manager, Radio Controls

Ben Stoller has over 12 years of experience in radio remote controls for the mobile hydraulic, material handling and automation industries. Ben has been with Magnetek for nearly eight years in the Radio Controls business. Prior to joining Magnetek, Ben worked at Telemotive Industrial Controls. He holds a Bachelor of Science in Electrical Engineering from Northern Illinois University. Ben can be contacted at bstoller@magnetek.com.

WAYNE GOODSPEED

Sales Application Engineering & Customer Service Manager, Material Handling

Wayne has been with Magnetek for 15 years providing customer service in the sales department in a variety of positions such as application engineer and controls supervisor. Prior to joining Magnetek, Wayne spent one year at Magnetek Drives and Systems as a technical support engineer and then moved on to manage projects with Electromotive Systems. He holds a Bachelor of Science in Electrical Engineering from the University Wisconsin-Milwaukee. You can contact Wayne at wgoodspeed@magnetek.com.

MAGNETEK
MATERIAL HANDLING
N49 W13650 Campbell Drive
Menomonee Falls, WI 53051

FOLLOW US ON THE SOCIAL NETWORK

Follow Magnetek to receive links to new white papers, case studies and news releases. On Twitter, search MagnetekInc or #Magnetek. On LinkedIn, connect with Dan Beilfuss, Aaron Kureck and Ben Stoller or Magnetek's Company page.

EVENT CALENDAR

AISTech 2011
The Iron & Steel Technology Conference and Exposition
May 2–5, 2011
Indianapolis, IN
Visit us in Booth 1337

ICUEE
Kentucky Exposition Center
Oct 4-6, 2011
Louisville, Kentucky
Visit us in Booth 1755

Evolution is published by Magnetek Material Handling. Questions and comments can be directed to: Attn: Editor-Evolution, Magnetek, P.O. Box 13615, Milwaukee, WI 53213