

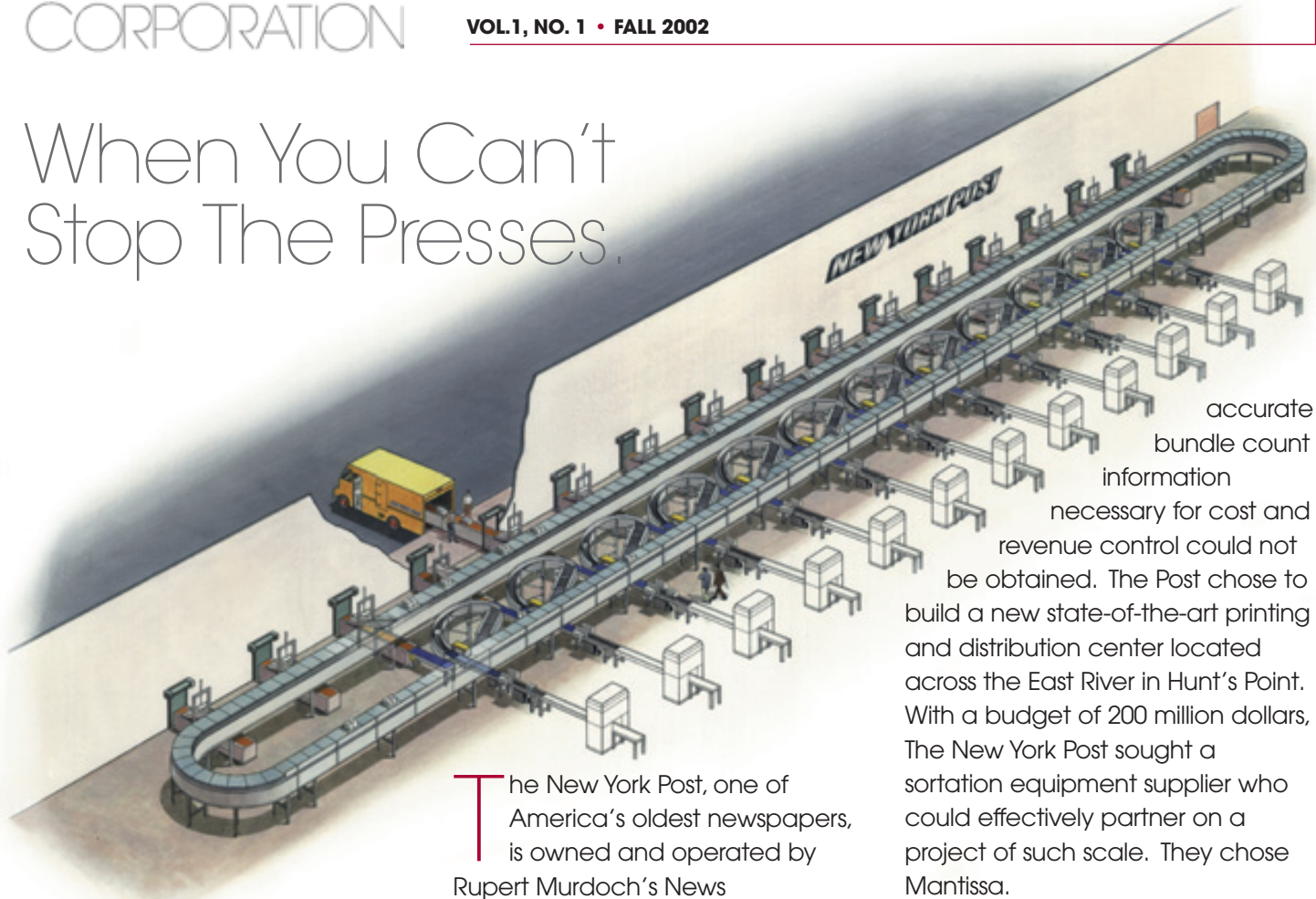


SORTING MATTERS

OF IMPORTANCE

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When You Can't Stop The Presses.



“The Mantissa equipment allowed us to make changes on the fly...”

-Rich Esposito
Plant Integration Associates

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The New York Post, one of America's oldest newspapers, is owned and operated by Rupert Murdoch's News Corporation. Known for its ability to survive, this famed tabloid has now flourished into a full color, daily newspaper, with a circulation of over 750,000 each day.

In a cramped facility on South Street in lower Manhattan, The New York Post was constantly grappling with problems with old presses and an aging belt distribution system. The Post struggled to meet production goals. The facility no longer allowed the flexibility required for The Post to compete in the world's most competitive newspaper market. Additionally,

accurate bundle count information necessary for cost and revenue control could not be obtained. The Post chose to build a new state-of-the-art printing and distribution center located across the East River in Hunt's Point. With a budget of 200 million dollars, The New York Post sought a sortation equipment supplier who could effectively partner on a project of such scale. They chose Mantissa.

Individual newspapers are printed in the pressroom and then conveyed to the mailroom or distribution center using a gripper conveyor. The papers are then stacked and strapped automatically and introduced onto a Mantissa® tilt-tray system using one of twelve automatic induction units. Once on the 540' tilt-tray sorter, the bundles can be diverted to any of seventeen truck loading positions. Equipped with 270 trays, the sorter can carry as many as 5,400 newspapers per revolution.

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CHATROOM

UPCOMING

MANTISSA EVENTS:

- The Annual Mantissa Pig Pickin' will be held September 27th in Charlotte. Come join us for Roy Boy's famous barbecue and lots of sweet tea.
- Mantissa is gearing up for its 30th Birthday in May 2003. Look for more information in future issues of this newsletter.
- **ProMat 2003** February 10 - 13th in Chicago - Mantissa will host a Southern Sortations Soirée on February 11th at the Hilton in the DuSable Suite from 5-7pm.

The Mantissa Road Show

The Road Show made stops in these locations so far this year.

- Lockheed Martin
- Tompkins & Associates, Inc.
- Nexpo Newspaper Show
- Sedlak Management Consultants
- Hytrol Conveyor Company, Inc.

Everyone had a chance to hear Dave's latest jokes and see first hand Mantissa's newest product developments. Call us to arrange a Road Show at your location.

Mantissa Shows Its Stuff

Presently, Mantissa is in the process of putting a facelift on the demo showroom located at the Corporate Headquarters. The new facility will showcase the Scorpion® II system and will be jam packed with our latest innovations, from an array of chute designs to automatic induction.

More BIG Ideas

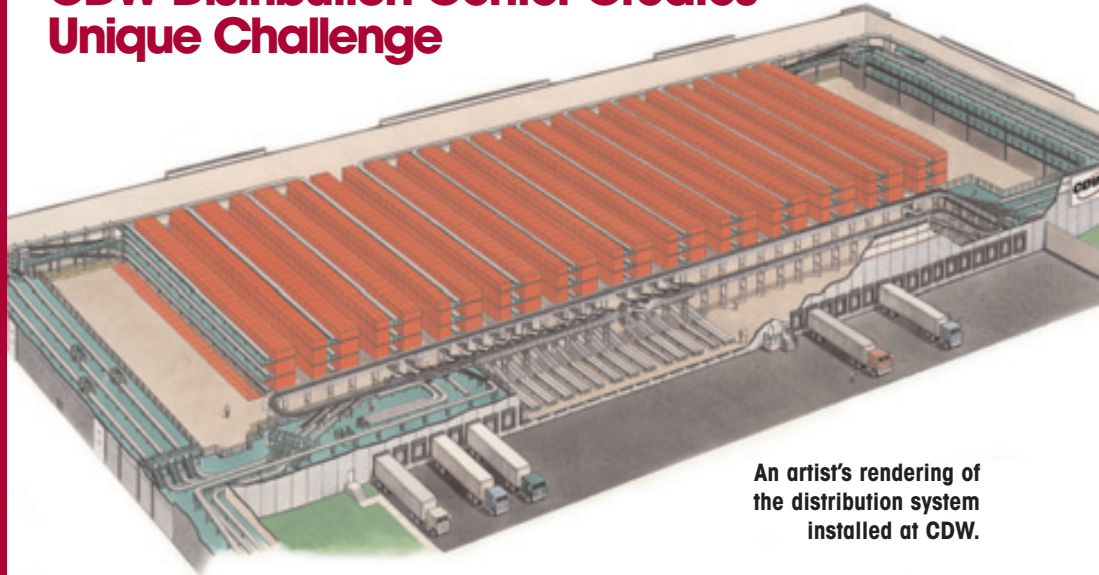
Mantissa has just been issued 2 new patents for unique distribution system innovations. This now brings Mantissa Corporation's total patents to 16.

Trivia Corner:

What the heck is a Mantissa?
Go to our Mantissa website at MantissaCorporation.com for the answer. And get other answers to your most compelling sortation questions.

MEMORY CHIPS TO MONITORS

CDW Distribution Center Creates Unique Challenge



An artist's rendering of the distribution system installed at CDW.

CDW is the nation's leading direct computer technology solutions provider for business, government agencies and educational institutions. CDW is also a leading source of technology products and services for Cisco, Compaq, Hewlett-Packard, IBM, Intel, Microsoft, Sony and other top name brands. Their mantra for success: "Everything we do revolves around the customer."

CDW requested a sortation system engineered to handle all shipping processes of computer components of different size and weights arriving from separate warehouses. The system implemented needed to be flexible enough to grow and expand as their business requirements evolved. In addition to the above, CDW required a sole software source for the entire distribution center, which included a tilt-tray sorter and a conveyor system, for ease of maintenance and upgrades.

Mantissa custom designed a 664' tilt-tray sortation system with a speed of 120 trays per minute fed by over two miles of conveyor. The trays were engineered to handle product from memory chips, weighing

The Solution we worked on together addressed our needs of shipping large volumes in a short period of time..."

-Gary Ross
CDW

only a few ounces, to monitors, weighing up to 75 pounds.

By using multiple induction schemes, Mantissa incorporated three automatic inductors to handle all full case product arriving from pick modules, as well as split case product from a separate warehouse. Two manual induction stations were

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New Product: *Scorpion*® II

The Mantissa Scorpion® is a tilt-tray sorter that has been offered since 1996 by Mantissa Corporation. It was originally designed as an improvement on an older design by offering smaller tray centers, lower noise at high speeds and the ability to handle larger product loads.

With the advent of the Internet and the increase in mail order business, Mantissa introduced the original Scorpion® to meet many of the needs of the changing distribution systems industry. As the product matured and new challenges faced the industry, Mantissa began to examine the Scorpion®'s capabilities for more demanding applications. The Scorpion® II includes many of these expanded features and options.

The Scorpion® II incorporates more than 75 enhancements over the previous model, including:

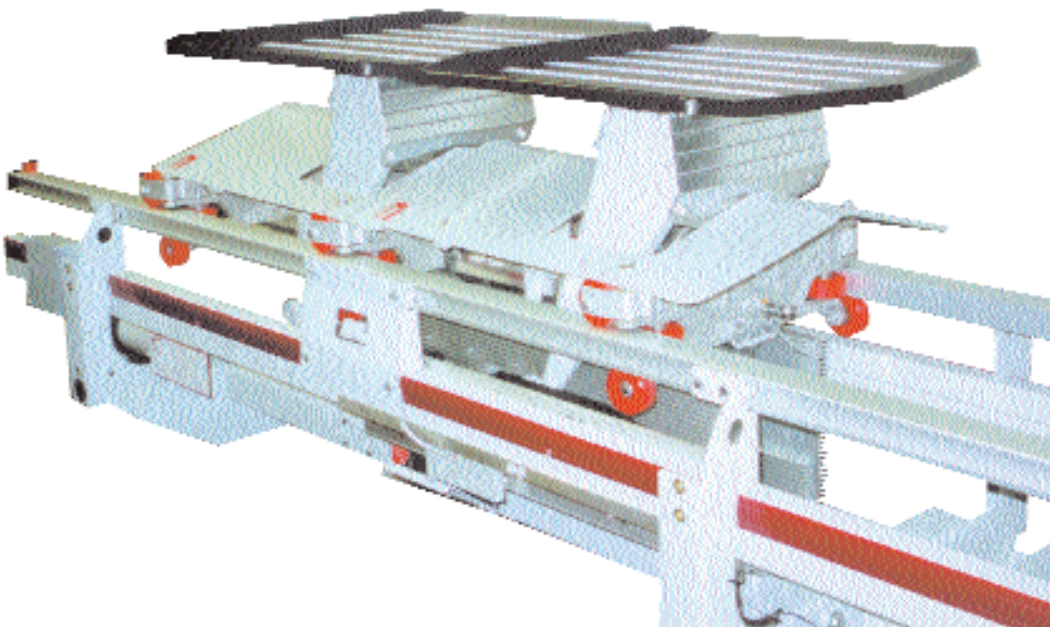
- Increased Load Capacities

to 125 lb. Per Tray

- Multiple Standard Tip Profiles
- Sorter Drive Options (Linear Induction or Low Energy Consumption "Green" Drive)
- Three Different Track Curve Radii (Now Standard)
- Over 20 Different Standard Tray Styles With Options That Give The Customer Hundreds of Combinations.

The tilt tray sorter has always been able to handle a wide array of products. With the additional features of the Scorpion® II, Mantissa has greatly expanded its versatility. The first application for the Scorpion® II is in Japan, where it is being utilized as a parcel shipping sorter. High throughput rates, low noise and extreme dependability were key factors in the client's decision to go with Mantissa. This, combined with a short lead time, associated with our unique preassembled "Quick Ship" program, made the Scorpion® II an ideal solution for this project.

All new Mantissa projects will benefit from the new Scorpion® II. 



Inside Dave's Head NEW YEAR OUTLOOK?

I was asked to give my outlook on the economy and how it might affect the distribution system business. I had to laugh. If they can't figure it out in Washington, I don't see that I have the answers. But I do have a few things I'd like to share, that readers of this newsletter might find helpful.

Consumer spending does appear to still be strong and since the distribution systems business pretty much follows the general economy, I think we'll continue to see expansion.

I have concerns about the 3 year tariff on steel. This is going to have a big impact on the cost of systems that use light gauge steel in traditional conveyors and shelving. Many may not see the effects for a while, but eventually this tariff will impact in a big way the cost of distribution systems. Most of this type of steel is manufactured overseas.

The apparent demise of E-commerce is probably having the biggest impact on our industry. This is affecting everyone from the Post Office to Fed-Ex and UPS as well as the Dotcoms themselves. It is also putting a lot of used distribution equipment on the market. While this used equipment seems like a good deal at first, most systems are unique in their design and this stuff is often hard to integrate into a new or existing system.

I think that will do it for this issue. I'll let you back in my head next issue if you're really sure you want to go there.



David Fortenbery
President
Mantissa Corp.

- Dave

CHATROOM

Employee Corner:

We are delighted to welcome three new employees to the Charlotte headquarters of Mantissa. Ed Hrehocik, Don Carwile and Rob Stevens recently joined our Engineering Department.

243 YEARS OF INDUSTRY EXPERIENCE

Mantissa Corporation is made up of experienced professionals. We are grateful for the energy and enthusiasm that all of our employees bring to Mantissa and the 243 years of combined experience they provide our customers.

Mantissa Corporation



Mantissa Corporation, headquartered in Charlotte, North Carolina, was started in 1972 as a material handling installation and repair company. Specializing now in high-speed tilt-tray sortation, Mantissa is recognized as one of the leading providers of tilt-tray innovation and technology in the market today. Quality and an attention to detail permeate every project to insure that at Mantissa we truly are *developing systems that move industry.*

New York Post Continued From Front Page

The advantages of a tilt-tray system over a belt distribution system are numerous. The system allows bundles to recirculate in a loop until the desired truck position is ready to accept bundles. In addition, the control software is able to reassign a bundle to a different truck position at any time. By using a TargetTilt® profile, bundles are gently diverted, minimizing damage to newspapers, and ensuring greater volume of sellable product. "The Mantissa equipment allows The Post to transport any product from any process line to any truck and change on the fly to another location," says Rich Esposito of Plant Integration Associates who designed the overall distribution system for The N.Y. Post.

A custom-designed drawbridge discharge chute and mattop conveyor diverter allows the mailroom operator to completely bypass the tilt-tray and load the trucks directly from the stacker positions, as necessary. Combining low maintenance, quiet operation and control flexibility, the system provides the answer to The Post's challenges.

Because The New York Post knows that any downtime is "bad news", they rely on Mantissa Corporation to deliver results. "The system has been in operation for one and a half years and hasn't failed once," adds Esposito.



CDW Continued From Page 2

used to handle cross-docking and special items for billing.

Mantissa provided a common software interface, MerlinPLUS, to seamlessly integrate the tilt-tray sorter with CDW's Warehouse Control System.

"The solution we worked out together addressed our unique needs of shipping large volumes in a short period of time and having boxes that range from 11 lbs. to 90 lbs., says Gary Ross of CDW. "This system gave us much needed flexibility and expandability."

In response to the customer's concerns regarding energy conservation, Mantissa provided a new, unique and efficient means of powering the sorter utilizing the Green Drive™, a high efficiency low energy drive mechanism.

TargetTilt® trays, in conjunction with the use of 450-degree spiral chutes, were chosen to safely convey product from 18' elevation to dock level for loading into trucks.

By designing a system with future expansion in mind, Mantissa integrated both hardware and software for the tilt-tray sorter and conveyor system to streamline the entire shipping operation. All to make sure customers remain at the center of all that CDW does.



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