



BRIEFINGS

A TIPPMANN GROUP PUBLICATION

SUMMER 2011

inside

SUSTAINABILITY SECTOR - LED LIGHTING IN COLD STORAGE FACILITIES

FAST PAYBACK AND ROI MAKE IT THE RIGHT SOLUTION FOR WAREHOUSES

WMS - TAKING A GOOD THING AND MAKING IT BETTER

DIRECTED BATTERY CHANGING CAN MAKE A HUGE IMPACT IN YOUR WAREHOUSE

UTILIZING THE POWER OF WMS FOR "HOT TRAILERS"

PRIORITIZING YOUR CUSTOMER INBOUNDS TO ENSURE ON TIME SHIPMENTS

TIPPMANN GROUP

TIPPMANN
CONSTRUCTION
a Tippmann Group Company

interstate
warehousing
a Tippmann Group Company

SUSTAINABILITY SECTOR:

LED LIGHTING IN COLD STORAGE FACILITIES

FAST PAYBACK AND ROI MAKE IT THE RIGHT SOLUTION FOR WAREHOUSES

Owners and General Managers of cold storage facilities have been looking for ways to reduce their energy costs for years, long before the "going green" movement began.

In the past, metal halide lighting was the best option for warehouses, but their lack of efficiency left a lot to be desired. The fact that they had to be left on all the time and used 450-460 watts per fixture left cold storage facilities with huge energy use and even bigger energy bills.



Several years ago, fluorescent lighting came into the picture, reducing the per fixture wattage to 250-300 watts. While the fluorescents offered improved energy consumption and better light quality than metal halide, they can be challenging to operate in a cold storage

(continued inside)

LED LIGHTING IN COLD STORAGE FACILITIES (CONT.)

environment. They can lose light output if they're not kept at an optimal temperature. They're more energy efficient than metal halide lights, but had a similar 3-5 year lifespan and actually had more maintenance involved.

Recently, LED lighting has been generating a lot of interest in the cold storage industry, and with good reason. The fixtures themselves use anywhere from 130 to 180 watts per fixture (if they're running 24/7, and they use significantly less when they are on a sensor) and LED lighting actually thrives in a cold storage environment, as the colder temperatures can lengthen the lifespan of the LEDs. Typically these fixtures are warranted from 50,000 to 75,000 hours but are being estimated to last over 100,000 hours. This translates to 20-25 years when they are using motion sensor activation.

When Interstate Warehousing expanded our Franklin, IN operations in 2010, we installed LED lighting in the new portion of the warehouse. This decision was made after extensive research into the efficiency, cost and payback of the LED lighting. Many power companies are also offering significant incentives for people to use this more efficient technology. The end result is a win-win situation for everybody. We're using significantly less energy, and our utility bills have dropped dramatically. The chart below shows the results of our research into the cost and payback of retrofitting our existing facilities with LED lighting.

Facility	Electricity Cost	Annual Savings	Payback Period
Grand Rapids, MI	\$0.088	\$57,424	1.36 Years
Joliet, IL	\$0.090	\$70,644	2 Years
Murfreesboro, TN	\$0.077	\$71,518	2.18 Years
Cincinnati, OH	\$0.072	\$182,523	2.51 Years
Franklin, IN	\$0.077	\$53,645	2.73 Years
Indianapolis, IN	\$0.067	\$128,161	3.54 Years
Newport News, VA	\$0.065	\$24,154	7.04 Years

The impact of this data has prompted Interstate Warehousing to begin the process of replacing the existing lighting in all of our facilities with LED lighting. We're forecasting a payback time as short as 1 ½ - 2 years in areas where energy costs are high, such as our Joliet, IL facility just outside of Chicago. Facilities that operate on a 24/7 schedule can see even faster paybacks because they don't have the opportunity to completely turn off their old metal halide lights. In our Franklin, IN facility, we're tracking the specific usage of the new lights, and we are finding that even when the warehouse is busier than normal, the LED lights are only turned on between 5 and 15 % of the time.



PRESIDENT'S MESSAGE

T I P P M A N N G R O U P

Within this edition of Briefings, you will note several examples of growth within our Interstate Warehousing division. Specifically, we completed expansions to IWI Franklin (Indianapolis), IN in late 2010 and to IWIMurfreesboro (Nashville), TN and IWI Hamilton (Cincinnati), OH facilities this year. Additionally, we've installed blast capacity utilizing our very own QFR Zone® blast technology to both IWI Murfreesboro, TN as well as IWI Newport News, VA.



Simultaneously, we've redoubled our efforts hiring and training within our Management in Training (MIT) program. Since last fall, we've brought in 19 newly minted college graduates to participate in our specialized training program to prepare them for expanded administrative, operational, IT, engineering, project management and sales roles within our company.

Meanwhile, we remain laser-focused on improving efficiency, reducing cost and waste, and ultimately, creating additional customer value. Examples of just a few of these initiatives can be found within this edition of Briefings.

In short, it has been a remarkable time of reinvestment, retooling and better equipping our infrastructure and personnel to better serve your needs today and well into the future. On behalf of the dedicated employees of Tippmann Group, we thank you for entrusting us with your business and continued growth.

Sincerely,

A handwritten signature in black ink that reads "Chuck Tippmann". The signature is fluid and cursive, written in a professional style.

Chuck Tippmann

WHAT'S NEW AT TIPPMANN GROUP?

INTERSTATE WAREHOUSING OPENS TWO WAREHOUSE EXPANSIONS IN 2011

Interstate Warehousing completed two warehouse expansions this summer, an 80,000 square foot expansion in Nashville (Murfreesboro),



TN and a 90,000 square foot expansion in Cincinnati (Hamilton), OH. The Murfreesboro facility features include Tippmann Group's new, more efficient alternative to blast freezing, the QFR Zone[®] (Photo shown at left). The QFR Zone[®] is generating a lot of interest from companies who have blast freezing needs, and is helping many of those companies improve on their blast freezing process, thanks to improved

labor and energy efficiency, in addition to quicker turnaround time on freezing of products. These improvements result in better service to customers on a variety of levels.

WMS - TAKING A GOOD THING AND MAKING IT BETTER

DIRECTED BATTERY CHANGING CAN MAKE A HUGE IMPACT IN YOUR WAREHOUSE

Warehouse Management Systems (WMS) have forever changed the landscape of the warehousing world. Facilities are operating more efficiently and with better accountability for time and activities than ever before thanks to technological advances which continue to develop on almost a daily basis.

Warehouses everywhere are continually trying to enhance their current WMS in order to meet specific needs that have been determined by management and warehouse employees. That's exactly what we've done at Interstate Warehousing. One specific example is our directed battery changing. We created a new type of directed work in the system for battery changing. This is set up in similar fashion to any other work in the system, but specifically alerts the forklift drivers that they can change their battery.



Here's how it works. When the driver requires a new battery the driver will submit a battery change request to the system through their RF device. If there are no other forklifts in the battery room, the driver receives a message that they should proceed to the battery room. If someone else is changing their battery when the request is made, the driver will receive a message stating that the battery room is full. The request is put into a queue and the driver will continue to perform their normal warehouse activities. When the battery room becomes open the next driver in the queue will be notified on their RF device to proceed to the battery room.



Key reasons for WMS **Directed Battery Changing:**

- **Safety** – Only one forklift driver in the battery room at a time, no distractions, decreasing the potential for accidents.
- **Productivity** – Allows for more accurate tracking of forklift driver's time spent going into and getting out of the battery room, keeping them on task and on time.
- **Visibility** – Better reporting on both employee and forklift performance. This system allows us to review if a certain person or forklift is spending more or less time in the battery room.

UTILIZING THE POWER OF WMS FOR “HOT TRAILERS”

PRIORITIZING YOUR CUSTOMER INBOUNDS TO ENSURE ON TIME SHIPMENTS

By leveraging Advanced Ship Notices (ASNs) Interstate Warehousing is able to identify inbound inventory that is required for outbound orders. These “Hot Trailers” are highlighted in our scheduling software so when the trailer arrives they can be prioritized accordingly. This allows Interstate Warehousing to maximize order fill percentage for all of our customers that provide ASNs.



[Visit Tippmann Group / Interstate Warehousing at the 2011 IFDA Distribution Solutions Conference:](#)

2011 IFDA Distribution Solutions Conference
October 24-25, 2011
Fort Worth Convention Center - Fort Worth, TX
Booth # 524

For more information about Briefings and/or our services, please contact Mark Wolf at: mwolf@tippmanngroup.com

Tippmann Group
Corporate Office
9009 Coldwater Road
Fort Wayne, IN 46825
Phone: (260) 490-3000
Fax: (260) 490-1362

www.tippmanngroup.com