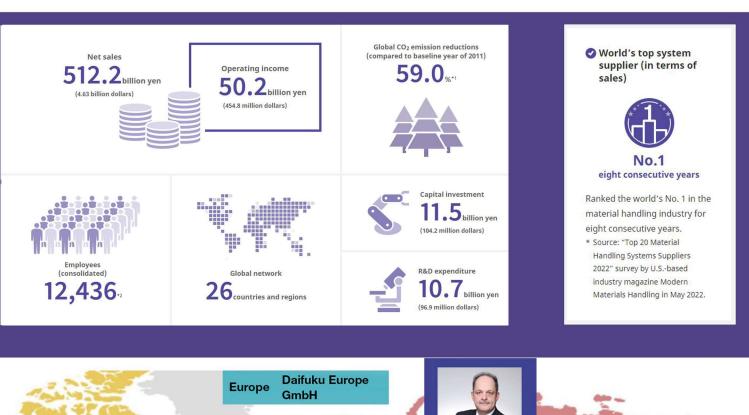


Automation that Inspires

# Empowering our clients

As a comprehensive manufacturer and integrator of material handling systems, Daifuku contributes to the modernization of material handling.

We constantly strive to move ahead of the times and cater to our customer's challenges.





Daifuku North America HO



Automotive Main Office/Plant



Intralogistics N.A. Works



Intralogistics Innovation Center



Airport Innovation Center



Cleanroom Innovation Center

# Daifuku North America Holding Company consists of subsidiaries blending their expertise to create material handling solutions for virtually every industry.

Their core business expertise spans airports, automotive, cleanrooms, electronics\*, and intralogistics across North America.

The combined earnings of Daifuku North America of over US\$ 1 billion, and over 4,000 dedicated employees, gives them significant resources to support, expand, and innovate an extensive product line.

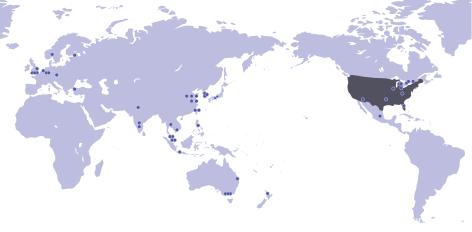
With a history spanning back to 1919, their innovative, versatile designs coupled with solid engineering has earned a reputation for unparalleled product quality, reliability, and durability, regardless of the rugged environment in which they're installed.

Their constant development is on display in three innovation centers in Novi, MI; Bolingbrook, IL; and Hillsboro, OR.

The Novi center focuses on airport and smart handling technologies, including automatic guided vehicles. Bolingbrook's location showcases intralogistic equipment for large warehouses, distribution centers and eCommerce operations. The Hillsboro site displays a wide range of solutions for semiconductor, flat panel manufacture and cleanroom applications.



Daifuku North America Holding Company is part of the Daifuku Group, headed by Daifuku Co., Ltd. in Japan. The Group operates in 26 countries and regions. Daifuku has been recognized by *Modern Materials Handling* magazine as the largest material handling company in the world by sales since 2014.



\* Contec Americas, Inc. is not a subsidiary of Daifuku North America Holding Company

#### DAIFUKU NORTH AMERICA HOLDING COMPANY MANAGEMENT



**Shuichi Honda**President and CEO
Daifuku North America Holding
Company



**Todd Alderman**President
Jervis B. Webb Company



**Christoph Schenk**President
Wynright Corporation



**Satoru Otani** President Daifuku America Corporation



**Daisuke Yamato**President
Daifuku Cleanroom Automation
America Corporation



**Craig Antilla**President
Elite Line Services



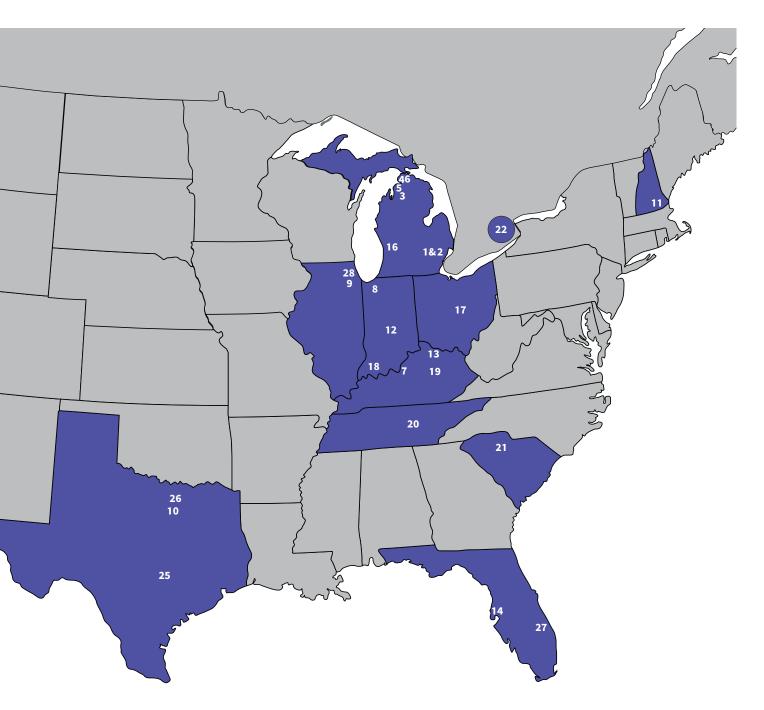
**10** Arlington, TX ...... 8,000 sq ft

**11** Manchester, NH **12** Indianapolis, IN

13 Erlanger, KY

14 Clearwater, FL 15 Salt Lake City, UT 16 Walker, MI

#### DAIFUKU NORTH AMERICA HAS OVER 1,000,000 SQUARE FEET OF MANUFACTURING



#### **Daifuku America Corporation**

**17** Reynoldsburg, OH ..... 200,750 sq ft

18 Fort Branch, IN

**19** Lexington, KY

20 Smyrna, TN

**21** Carlisle, SC...... 100,000 sq ft

22 Hamilton, ONT CAN... 140,000 sq ft

## **Daifuku Cleanroom Automation America Corporation**

23 Chandler, AZ ...... 30,250 sq ft

**24** Hillsboro, OR

25 Pflugerville, TX

#### **Elite Line Services**

**26** Carrollton, TX

#### **Contec Americas, Inc**

**27** Melbourne, FL...... 40,000 sq ft

28 Arlington Heights, IL

#### **AIRPORT**

### JERVIS B. WEBB COMPANY ELITE LINE SERVICES

Our line of airport products and services span the gamut from baggage drop at check-in through baggage pick-up at the carousel and maintenance of ground support equipment, baggage handling systems and passenger boarding bridges.



Baggage Handling Systems



Mobile Inspection Tables (MIT) for Security Screening Processes

#### INTRALOGISTICS

WYNRIGHT CORPORATION JERVIS B. WEBB COMPANY ELITE LINE SERVICES

Our robust conveyor, sortation, automated storage, robotics, and selection systems along with resident maintenance programs streamline product transportation throughout manufacturing facilities, distribution centers and eCommerce sites of all sizes.



Integrated Conveyors and AS/RS  $\,$ 



High-speed Sorters

#### **AUTOMOTIVE**

DAIFUKU AMERICA CORPORATION

Designs, manufacturers and installs a wide range of material handling systems and products for automobile manufacturing.



Skillet Conveyor



Overhead Friction Conveyor

#### CLEANROOM

DAIFUKU CLEANROOM AUTOMATION AMERICA CORPORATION

Daifuku Cleanway® systems enhance productivity in cleanroom semiconductor and flat panel display manufacture.



Semiconductor Wafer Transport System



Cleanway Overhead Monorail System

#### **ELECTRONICS\***

CONTEC AMERICAS, INC.

Develops creative technologies for industrial computers, measurement & control, and networks; providing products and solutions for manufacturing, agriculture, energy management, and health care.



Industrial Computers



Energy Management

#### DAIFUKU CO., LTD.

Our parent company, Daifuku Co., Ltd., is a comprehensive manufacturer and integrator of material handling systems. It has grown to nearly 11,000 employees worldwide with sales in excess of US\$ 4 billion.

• Daifuku is the largest material handling system supplier in the world by sales

• Established: May 20, 1937

•Paid-in capital: 31,865 million yen (as of March 31, 2020)

• Representative: Hiroshi Geshiro, President and CEO

• Employees: 12,436 (Group total, as of end of FY2021)

• Net sales: 443,694 million yen

• Operating income: 40,497 million yen

Daifuku is in the business of consulting, engineering, design, manufacture, installation, and after-sales services for logistics systems and material handling equipment. A wide range of products including conveying systems; storage systems; sorting/picking systems; control systems and material handling tools are available to handle any material handling system requirement. We offer best solutions that satisfy customers around the world, helping to increase their competitive advantage.

Headquarters: Osaka, Japan • Tokyo Head Office: Tokyo, Japan



Headquarters



Tokyo Head Office

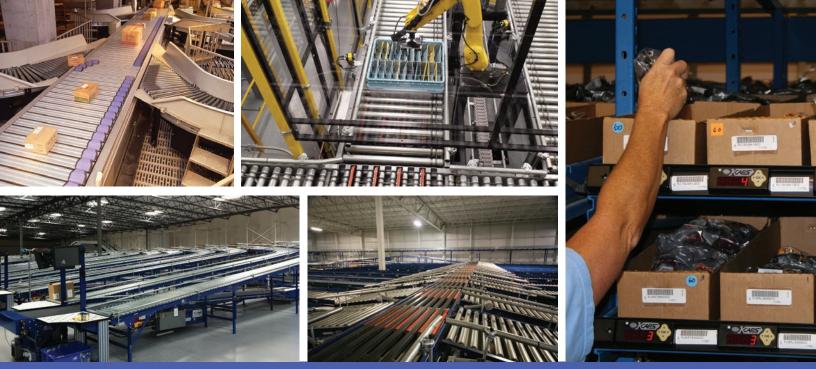
## Main Manufacturing Locations Shiga Works, Shiga, Japan • Komaki Works, Aichi, Japan



Shiga Works



Komaki Works



#### SOLVING MATERIAL HANDLING CHALLENGES WITH TAILORED AUTOMATED MATERIAL HANDLING SOLUTIONS

Increased domestic and international competition in today's business environment requires companies to improve material handling operations to stay ahead. Each company's challenges are varied and distinct, requiring innovative solutions to meet an endless variety of needs. That's what Wynright, a subsidiary of Daifuku North America, is all about. We use our blend of engineering and breadth of material handling products available throughout the Daifuku companies to design, test and validate a unique automated solution that can help you:

- Streamline Processes
- Decrease Cycle Time
- Minimize Errors
- Improve Productivity
- Maximize Usable Floor Space

## PROVEN EXPERIENCE, UNEQUALED PERFORMANCE FOR COMPANIES OF ALL SIZES

The heart and soul of any Wynright solution is Wynsoft™, the Warehouse Execution Solution software that allows our clients to operate with the most up-to-date technology and operational effectiveness. The ever growing need for businesses to react to day-to-day changes and be able to use real-time data to make well-informed business decisions is crucial to the design, allowing Wynright to deploy what's needed, when it's needed and where it's needed.

Our solutions are designed with a modular communication backbone for moving data not only between the modules, but to other software and hardware environments, for a truly interoperable solution. The bottom line is that Wynright has the flexibility to combine any technologies to create customized solutions for complex business problems.

Wynright, utilizing Wynright and Daifuku Co., Ltd automated material handling equipment and system solutions can help you resolve your most complex material handling challenges. To ensure the highest quality standards and performance, we design and manufacture many of the products we integrate including:

- Conveyor & Sortation Solutions
- Automated Storage and Retreival Systems & Shuttles
- Order Fulfillment Solutions
- Robotic Solutions
- Automated Guided Vehicles and Carts (AGVs & AGCs)
- Warehouse Execution Software and Controls
- Mezzanines, Pick Modules and Structural Solutions





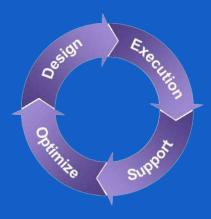




#### **HOW WE ARE DIFFERENT**

We understand that no two material handling challenges are alike, and we don't try to resolve all problems with the same solution. Instead, our approach to improving your operation is to first gain a deep understanding of your issues and challenges and by evaluating your existing operations. Only then can we apply our blend of engineering expertise and automated material handling products to design a unique automated material handling solution that addresses your exact needs.

We analyze and validate your data so we can understand your current processes and plans for the future. We work with you to design an optimal solution. Our design architects validate your optimal solution by simulating/emulating your conditions and design requirements to test the WMS and WCS rules, including the "What If?" scenarios that test system limits. In short, we make sure the planned solution performs to your satisfaction before we ever start to employ it.



It is through this approach that we are able to gain a deep understanding of your challenges, then design and tailor a unique automated material handling system to help you realize your goals.

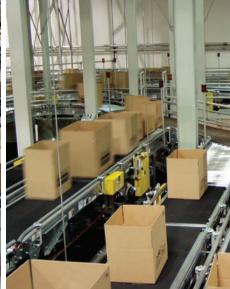
#### **OUR PRODUCT**

Our automated material handling equipment is engineered and manufactured following Japanese and American long-standing traditions of superior quality and precision. Our innovative solutions are designed to operate quietly, work reliably, and deliver years of unequaled performance for your facility.

#### **LEGACY OF FIRSTS**

- 1966 | Daifuku installed Japan's first AS/RS
- 1969 | Daifuku developed one of the world's first computercontrolled AS/RS
- 1972 | Daifuku designed the first standard, pre-engineered AS/ RS package
- 1974 | Wynright developed the industry's first sortation arm designed to integrate with belted conveyor
- 1994 | Wynright introduced the axle isolator to reduce wear on roller axles and minimize static electricity
- 2005 | Wynright developed a powder-coat process that utilizes metallic flecks to reduce static electricity
- 2006 | Daifuku engineered the first two-crane synchronized AS/RS
- 2012 | Wynright produced the world's first fully autonomous robotic truck loader and unloader
- 2023 | Wynright introduced the AS-35, a positive divert sliding shoe sorter capable of reaching speeds up to 750 feet per minute, requires no calibration, and no adjustment for chain stretch or diverts







#### **CONVEYOR & SORTATION**

Wynright's conveyor and sortation systems have been implemented to enhance and streamline the transport of product in manufacturing facilities and distribution centers of all sizes.

We employed the latest technology available to design our newest conveyor platform. In doing so, we not only came up with revolutionary innovations to improve energy consumption and ease of control, we also addressed the age old problem of conveyor aesthetics by incorporating a common side channel across four different conveyor families. The sleek new design offers operational enhancements and reduces our clients carbon footprint by reducing energy consumption.

From simple gravity and belt conveyor to our sophisticated AutoRoll+ Motor Driven Roller (MDR) conveyor, we have the right equipment for your applications.

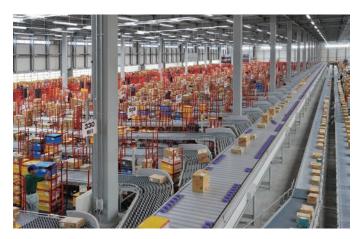
Wynright's sorters play a key role in a number of applications, such as pre-sorting, routing, sequencing, and shipping. We have several equip-

ment options available for your sortation needs. From low rate sort arms and pushers to medium rate belt sorters, all the way up to high speed sliding shoe sorters, we have the right sorter for your specific application.

#### **AS-35 Sliding Shoe Sorter**

The heart of our sortation offering is the AS-35 Sliding Shoe Sorter. The AS-35 is a high-speed automated sortation system for sorting medium size totes and cartons. It operates at speeds up to 750 ft./min. and is available in lengths up to 1000 feet.

Bi-directional shoes allow items to be off-loaded to both sides of the sorter, improving space



## PROVEN EXPERIENCE IN SOLVING MATERIAL HANDLING CHALLENGES WITH UNIQUE TAILORED SOLUTIONS

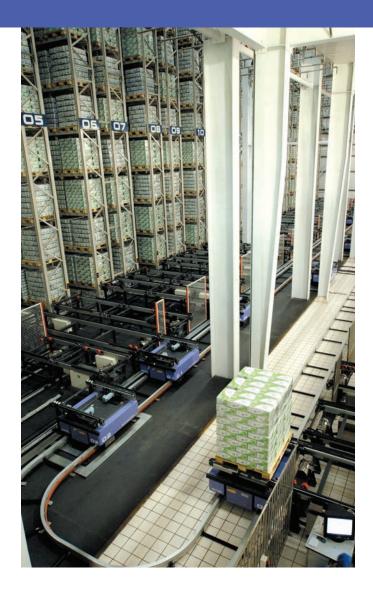
utilization while providing greater design flexibility. Loads are tracked on the sorter using pulse mode tracking and are then diverted using mechanical or electro-magnetic actuators.

#### **Sorting Transfer Vehicle (STV)**

The Sorting Transfer Vehicle is a fast, flexible, and easily installed material transport system. STVs can be used to move loads of all sizes. Advantages of STVs include: fewer motors, no single point of failure, high speed, high throughput, and expansion flexibility to handle future growth. Our STVs are designed for seamless integration with unit load AS/RS to effectively transport raw materials, work-in-process and/or finished goods. STVs can also integrate with conveyor or ergonomic workstations to facilitate efficient order picking for consolidation and shipping.

#### **Multi-Belt Sorters**

Reaching conveyor speeds of 400 fpm and a sort rate of 100+ cpm, the MB30, 30 degree divert multi-belt sorter is fast and accurate. In lieu of one wide belt, the MB30 utilizes multiple smaller width belts to carry product. The MB90, 90 degree divert multi-belt sorter reaches conveyor speeds of 300 fpm and a sort rate of 60+ cpm.

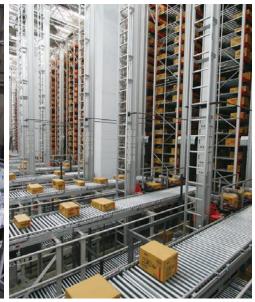












#### **AUTOMATED STORAGE & RETRIEVAL SYSTEMS (AS/RS)**

AS/RS combines equipment and controls to handle, store, and retrieve materials with precision, accuracy, and speed. A system enables companies to recapture floor space, improve efficiency and ensure inventory control. Loads are moved vertically and/or horizontally in the aisle and then laterally to place the load in a storage location. Wynright's Automated Storage and Retrieval Systems vary in sophistication from simple order-picking machines operating in small storage structures to fully-automated systems that are integrated into complex manufacturing, distribution, or warehousing processes. AS/RS is effective for staging in a lean inventory operation.

The key benefits realized from the implementation of an Automated Storage and Retrieval System are:

- Regained floor space
- Streamlined, high-speed storage/retrieval
- Improved throughput
- Inventory accuracy and control
- Increased productivity

Wynright's AS/RS offerings have the capability to manage standard and long-load storage and retrieval requirements. Our lines of AS/RS equipment include: **Unit Load, Mini Load, and Rack-Supported Building.** 

#### **Unit Load**

Wynright's unit load is a high-density pallet buffer designed to maximize vertical storage space while maintaining a compact footprint. Several models are available to handle pallet loads from 1,100 to 6,600 lbs. and rack heights up to 131 ft. The unit load can also be used to store long or bulky items and hazardous materials. It is also ideal for freezer and low-noise applications. In addition to a standard unit load, a double-deep rack configuration is also available.

#### Mini Load

The mini load is a high-speed, high-density buffer that can replace conventional static rack to maximize vertical storage space within a compact footprint. The mini load moves and stores irregularly-shaped goods or parts placed in: stacking totes, collapsible totes, nesting containers, case/cardboard boxes, and bins. The system handles containers that weight up to 662 lbs. Rack height ranges from 10-66 ft.

A mini load is effective in forward pick operations and in applications that include the buffering and storage of small raw materials and/or finished goods. It is also a good buffering system for

small items that represent work-in-process. Another use for the mini load is organizing loads from a random state into an ordered state, or vice versa for short-term staging.

#### **Rack-Supported Building**

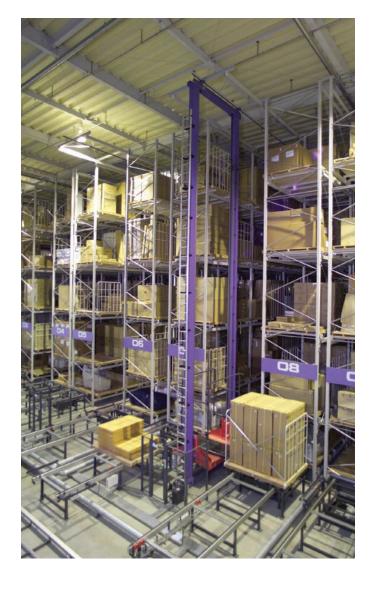
Wynright's rack-supported building AS/RS is a multi-level automated warehouse in which the rack is integrated into the building. The unit load storage rack serves as the basic structural system and integrates material handling and information systems together to form an optimum storage option.

#### **Shuttle Rack M**

The ground-breaking Shuttle Rack M is a fast, vehicle-type AS/RS designed to provide storage and sorting function by group or by specific loading sequence. It is perfect for:

- Shipping buffer
- Picking/sortation buffer
- Palletizing buffer
- Picking buffer
- Merging buffer

The Shuttle Rack M can handle cartons, totes, and trays. Both single-deep and double-deep configurations are available.











#### **ORDER FULFILLMENT SOLUTIONS**

Leveraging 25 years of CAPS<sup>™</sup> pioneering experience with computer assisted pick-to-light technology, Wynright continues to provide the next generation of modular light-directed and voice-directed order selection, consolidation, and put solutions.

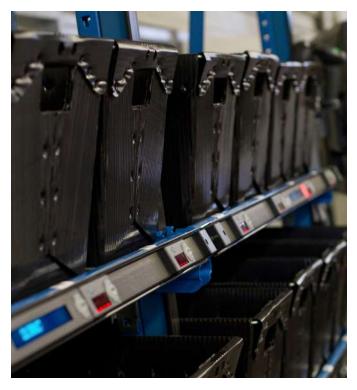
Wynright also offers a robust Goods-To-Person solution wherein product is brought to pickers via a 1:1 or 1:many picking station. Product is called forward from our automated storage system and presented to the picker at the workstation. Once the required product is retrieved the tote/carton is returned to its storage location.

Wynright's selection solutions offers:

- High, medium, and low-velocity order picking solutions
- Order pick and put methodologies
- Voice-enabled systems
- Cart-based, mobile pick-to-light
- Manufacturing workcells
- Warehouse Control Software (WCS)

Let us show you how we can seamlessly integrate your existing ERP & WMS systems with a

selection option that will convert data to voice commands and visual displays. Our selection solutions will reduce your training time by 50%, improve your selection accuracy to 99.9% and increase productivity up to 80%. Best of all, you'll receive your ROI in as little 9 to 12 months for voice applications and 15 to 30 months for light applications.

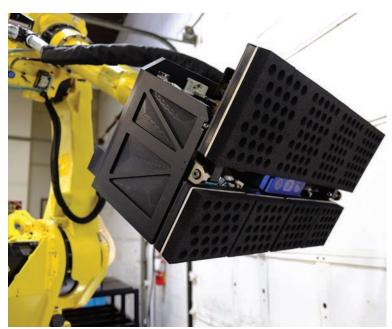


#### **ROBOTICS**

Wynright has been recognized as one of the Top 50 most notable companies in the global robotics industry, largely due to developing the industry's first self-guided, autonomous robotic truck and shipping container unloader (RTU).

The RTU utilizes advanced perception technology that allows it to sense and acquire product that has been floor-loaded within a semi-truck trailer or ocean freight container. Wynright's truck unloading technology is ideal for rectangular boxes, bales, and even tires. The system has the capability to unload product automatically, adjusting its position by sensing the sidewalls, floor, and product as it unloads and moves forward to completely unload the container.

Wynright also offers a complete line of highperformance robotic and non-robotic automated palletizing solutions. Each solution provides carefully thought out custom designs to automate the arrangement of cases onto pallets, slave boards, or slip sheets. Other automated robotic solutions can pick product from fixed shelving and place it into a storage location, creating a lowercost storage and retrieval system.











#### **AUTOMATIC GUIDED VEHICLES**

Our AGVs do not require charging/discharging maintenance. The real-time spread-spectrum wireless communication and laser guides for autonomous travel facilitate efficient dispatching. Other AGV guidance options include inertial, wire and magnetic tape, which can be used for maximum layout flexibility. Models are available to transport loads of various weights and sizes.

AGVs are recommended for operations that need to transport raw materials, work-in-process and/or finished goods between storage buffers and workstations. AGVs are also helpful in transporting finished goods from order-picking workstations to consolidation and shipping. AGVs can replace conveyors, forklift trucks and handcarts.

**Automatic Guided Vehicle** 

Wynright's AGV is a safe, reliable, and efficient material transport vehicle that can be used to move loads of all sizes. AGVs can travel forward, backward, and sideways with 90 degree crabbing to save floor space.

#### SmartCart AGC

SmartCart Automatic Guided Cart (AGC) is a flexible and cost-effective AGV that is guided by magnetic tape, which allows you to quickly install or modify the guidepath in as little as a few hours. SmartCart AGCs are ideal for moving products on an assembly line or transporting goods throughout a plant or warehouse. Automatic and durable, SmartCart AGCs provide reliable and consistent point-to-point movement of everything from small parts to heavy pallet loads.





## WAREHOUSE EXECUTION SOLUTIONS (WES)

#### Wynsoft™

Imagine having all of the pieces of information at your fingertips to ensure that your distribution or fulfillment facilities are running at peak efficiency. Wynsoft provides a comprehensive set of PLC and software modules that have been fine-tuned for ease of implementation and modularity. At the core of each module lies the intelligence to maximize the efficiency of each modules functions and interact with other modules to pass information and instructions. Modularization allows Wynright to offer a customized set of solutions to fit the needs of your enterprise and to deploy those modules

Each module within the solution suite provides valuable data to our Visibility Module so you can take advantage of statistical information to further enhance your operations. We know your requirements change with the growing and complex fulfillment requirements of your

Solution Suite can grow with your operations and is flexible for expansion and change.

customers. The

with minimal modifications.















#### STRUCTURAL SOLUTIONS

Floor space within a facility is very often at a premium, whether it's needed for order picking, packing, shipping, sortation, or additional storage. Wynright has the resources and expertise to assist you in fully utilizing the overhead space within your facility. Let us show you the most costeffective way to expand your warehouse and increase productivity: by transforming unused overhead space into manufacturing, office, storage or security. We design and manufacture to your exact specifications. Our customdesigned structural solutions include:

- Industrial mezzanines
- Office supported mezzanines
- Rack and shelf supported structures
- Conveyor crossovers and catwalks
- Stairs and stair towers
- Safety and guarding equipment
- Pick modules and other custom support structures
- Specialized tables and workstations

Our award winning design team will work with you to make sure your custom structure is designed to your exact specifications. From 135,000 square foot mezzanines to individual pallet stacking guides, no job is too large or too small.

Daifuku CO., LTD. Is the largest manufacturer of automated material handling systems in the world and a leading systems integrator. Our depth and breadth of resources uniquely positions us to efficiently and cost-effectively develop and engineer solutions to meet the needs of both small and large companies.





## **Wynright Corporation**

### It Starts with Smarts

Wynright Corporation, a component of Daifuku North America Holding Company, is a leading provider of intelligent material handling systems. With over 200 engineers, the company designs, manufactures, integrates and installs a full spectrum of automated intralogistics solutions, offering both Wynright-branded and third-party equipment to meet client needs. These include leading-edge conveyor and sortation systems, voice- and light-directed order fulfillment equipment, a suite of warehouse controls & execution software, robotics, AS/RS (Automated Storage and Retrieval Systems), mezzanines, and structures, all backed by critical round-the-clock service and support.

Since its founding in 1972, Wynright has been a trusted partner to some of the world's largest and fastest-growing companies, showing them how to use their space more efficiently to deliver improved productivity, today and tomorrow.



#### **Intraologistics Partner**

When it comes to your distribution center, Wynright is your partner for providing intralogistics solutions within the four walls. Every dimension of logistics related to designing, implementing, managing, monitoring and optimizing materials handling and information flows. It's what we do.

#### **Company Ownership**

Wynright Corporation, a wholly owned subsidiary of Daifuku North America, is a leading provider of intelligent material handling systems. With more than 500 engineers in-house, we design, manufacture, integrate and install a full spectrum of intralogistics solutions, offering both Wynright-branded and third-party equipment to meet client needs.

## **Keeping Your Business** on the Move

#### **Markets We Serve**

Footwear Distribution
Retail and Apparel Distribution
Third Party Logistics (3PL)
Food, Beverage and Grocery
Direct Fulfillment
Parts Distribution
Industrial Supplies
HBC & Medical Supply
Print & Digital Media
Big Box Retailers
Specialty Distribution

#### Sustainability Leadership

We are committed to developing products, systems and solutions that support your commitment to energy conservation and sustainability, creating systems that reduce sound levels, extend equipment life, lower maintenance requirements and use less energy. From our substantial investment in green technologies to our development of sustainable systems, we continually seek opportunities to demonstrate our commitment.

#### **Award Winning Solutions**

While our work itself is rewarding, it's delightful when we are recognized by others. We continually strive to excel in the most innovative design and the best customer solutions. We are proud to stand behind our award winning innovations.

#### **Services We Provide**

System Integration
Design/Build Services
Design Engineering
Application Engineering
Controls Engineering
Software Engineering
Advisory and Analysis
Installation Services
Project Management
Post Sales Support

#### **Systems We Design**

Automated and Conventional Fullfillment Sytems

**Targeted Systems** 

- Picking Systems
- Replenish Systems
- Value Add Service
- Pack and Seal
- Reserve/Residuals
- Print & Apply
- Shipping Systems

## **Press Release**

Wynright Corporation Names Christoph Schenk President

BOLINGBROOK, Ill. January 18, 2022 – Wynright Corporation, a Daifuku group company, announced that Christoph Schenk has been appointed the new president of the corporation. An experienced businessleader, Schenk succeedsKevin Ambrose. After 20 plus years as Presidentand CEO with Wynright, Ambrosehas announced his well-deserved retirement. He will maintain a presence as Chairman as he oversees a smooth transition of leadership.

Prior to joining the Daifuku Wynright team in 2020, Christoph was CEO for the North American region for Schafer SystemsInternational, Inc. Beforebeing named CEO, he started his career at SSI SCHAFER in 1998 and worked closelywith all facets of sales, project management, customer service, and operations to ensure quality and timely project delivery.

"Christoph is the right leader at the right time for Wynright," said Kevin Ambrose, outgoing CEO and President of Wynright. "His extensive background leading world class organizations focused on growing into highly automated solution providers fits perfectly into our long-term growthplan. I am confident Christophwill positively impact client relationships, develop strategic alliances and maintain a red-hot focus on Wynright's future as a provider of advanced automated material handling systems in North America."

In his previous role, Christophdeveloped Schafer's NorthAmerican organization from a single digit team to a full-fledged system integration organization with 650+ employees. Under his leadership the newly formed North American team pioneered for the worldwide Group the Resident Maintenance support concept for large-scale client sites. Christoph was also responsible for the creation of an industry leading WCS/WMS software development and execution group of 150+.





## **Press Release**

"I am very grateful to Kevin for handing the corporation over in a very strongposition," said Christoph Schenk. "I am excited at the prospect of leveraging our impressive manufacturing capabilities and our first class engineered solutions as we build upon the tremendous growth Wynright has experienced over the past several years."

Christoph received his Master of Engineering degree from the Imperial College London with an emphasis in Mechanical / Chemical Engineering and Business Administration.

#### **About Wynright Corporation:**

Wynright Corporation, a subsidiary of Daifuku North America Holding Company, is a leading provider of intelligent material handling systems. The company designs, manufactures, integrates and installs a full spectrumof intralogistics solutions, offering both Wynright-branded and third-party equipment to meet clientneeds. These include leading-edge conveyor and sortation systems, voice- and light-directed order fulfillment equipment, a suite of warehouse controls & execution software, robotics, Automated Storage and Retrieval Systems (AS/RS), mezzanines, and structures, all backed by critical round-the-clock service and support.

About Daifuku North America Holding Company:

Daifuku North America Holding Company is based in Novi, Michigan, with sales and manufacturing locations throughout the continent. It is comprised of Daifuku America Corporation, Jervis B. Webb Company, Elite Line Services, Inc. (ELS), Daifuku Cleanroom Automation America Corporation, and Wynright Corporation and is a global leader in the design, engineering, manufacturing, installation and service of innovative material handling technology such as automatic guided vehicles (AGVs), automated storage and retrieval systems (AS/RS), conveyors, baggage handling systems, cleanroom systems and airport maintenance services. Daifuku North America specializes in integrated systems used in a variety of industries, including automotive, airport, semiconductor, flat panel, food/beverage, warehousing and manufacturing.

Media Contact:
Joe O'Connor
Outbound Marketing Manager Wynright
708.229.8280
joconnor@wynright.com www.wynright.com







VSE is a broadly diversified company focused on creating, sustaining, and improving the systems, equipment, and processes of their customers through core competencies in supply chain management, legacy systems sustainment, maintenance, repair and overhaul (MRO), obsolescence management, prototyping, reverse engineering, technology insertion, foreign military sales, management consulting, and process improvement.

Wheeler Brothers is a subsidiary of VSE and services fleet vehicles in their warehouse in Somerset, PA. Wheeler manages inventory at many facilities across the country to facilitate repairs to fleet vehicles. Their largest client is the USPS.

#### Challenge

The Wheeler Brother warehouse processes stock orders throughout the day to restock the standard inventory at 280 locations for the USPS. They also pick additional orders that are non-stock orders for emergencies and orders that are for other customers. The Wynright portion of the project involved the design, development, testing and deployment of a voice directed work installation for order selection of products in the following areas:

- Stock Order Conveyable
- Stock Order Non –Conveyable
- Non Stock Order Conveyable
- Non Stock Order Non-Conveyable

#### **Solution**

In the future, the host WMS system will take large orders and break them down into smaller pieces of work for each work zone. Every zone that has a pick for an order will have a separate group of work to complete for that order.

The voice system will handle the fulfillment of orders in the picking module as well as in the non-conveyable racking. Orders that contain products from both areas will be matched up after the picking is complete. The host WMS system will combine these orders together using information from the voice system.

Shorted items will be handled by the WMS system to address or cancel items as needed. If the Host WMS system does not have a screen to accomplish this work, the shorted items can be available in the Voice System screens.

#### · · · · · · Quick Facts · · · · ·

#### **Facility Facts**

Wheeler Bros., Inc.
Automotive Engineering and Parts
Distribution Center
Somereset, PA

#### Size

36,000 Square Feet

#### **Product Handled**

Automotive parts and accessories, engines, and panels

#### **Employees**

Over 250

#### **Environment**

Ambient temperature, multi-level pick modules, conveyor system and multi-level mezzanine

#### **Technologies Utilized**

Vocollect VoiceLink software integrated with Host system Vocollect A730 Voice device with embedded scanner SRX2 wireless Bluetooth headset





#### Results

The Conveyable Stock order area is the largest group of orders to process every day. The WMS system takes large orders for each customer and break them into smaller Control Numbers in order to break the orders into separate work assignments for each picking zone.

Operators always start work with a Red Tote. The Red Tote is the controlling Tote ID for an order and is the lead tote for all of the items and totes selected in a work zone. The Red Tote is trailed by other totes that contain items for the order that did not fit into the first Red Tote. When an operator starts an order with a Red Tote, the system asks if the operator wants to select the order in normal order or reverse order. When the operator responds the system instructs him to go to the first picking location. Operators respond with the location check digit and are then informed of the quantity to select. The operator speaks the quantity that is actually picked and places it into an empty tote for the current order.

Operators continue picking product until all of the items for the orders inducted are selected or shorted. The system tells the operator that all picks are complete and the operator captures all Tote IDs for the assignments and pushes the totes onto the take away conveyor.

The Non-Conveyable Stock Order area operators pick the larger bulky items for stock orders. Operators in this region pick a single customer at a time and may pick multiple containers for that single order. The system does not necessarily have to track each container during selection, but does need to provide all information for the WMS to print a list of the contents of all containers when picking is complete.

The operators induct orders by requesting the next order from the voice system. The operators start their order by being directed to a pick location. The operator will confirm the location check digit and is told the pick quantity. The operator then confirms the pick quantity; place the item in their container and then move on to the next location.

When operators have completely filled a container they inform the voice system that they are closing a container. The voice system then informs the host WMS system that a container is complete, and the printer designated by the selector. The WMS system prints a container contents sheet for all items that have been picked for the container. This sheet is picked up by the selector and attached to the container so that packing and further processing will be able to identify the items.









Gildan is a vertically-integrated manufacturer of branded basic apparel. The Company has an ongoing commitment to service its customers with ease and accuracy. Wynright's experienced engineering and software controls team had the ability to support Gildan in achieving their objectives.

When Gildan®, the leading activewear brand in the screenprint market in the U.S. and Canada, experienced tremendous growth and needed their material handling system to more efficiently support their expansion goals, Wynright listened carefully.

#### Challenge

This global low-cost supplier of quality T-shirts, sport shirts and fleece sought a system for their 1.2 million sq ft distribution center in North Carolina. The main objective was to improve shipment staging and overall organization and also provide more efficient unloading operations for their customers. Gildan wanted a way to sequence orders and tailor shipments to their customer's needs.

#### **Solution**

Wynright collaborated with Gildan to help them realize their productivity improvement goals, incorporating both complex software controls and state-of-the art conveyor technology.

Using a custom-designed Wynsoft system, the complex, numerically sequenced truck-loading was coordinated with the customer's needs. Products are now pushed in waves through the distribution center on Motor Driven Roller conveyor technology that not only provides a desirable and quiet system, but also achieves significant energy savings. The AutoRoll+™ Conveyor was a safe and low-main-tenance choice.

Wynright also designed and developed a three-stage sequencing sortation system that arranges grouped cartons for pre-organized shipments. Coupled with additional alerts and recovery procedures for error handling, the system helps ensure proper carton sequencing.

#### · · · · · · Quick Facts · · · · ·

#### **Facility Facts**

Gildan Activewear Eden, NC

#### Size

1.2 million Square Feet

#### **Product Handled**

T-shirts, tank tops, sweatshirts, fleece, and golf shirts

#### **Shipment Method**

95% Full Truckload

#### **Conveyor Utilized**

AutoRoll™
Photo-eye Accumulation
Live Roller
Gravity Roller/Wheel
V-Belt Power Curves

#### **Sorter Utilized**

Pop-Up Wheel Sorter





#### **Outcome**

Now, when pre-organized shipments arrive at Gildan's customers' dock, it requires less time and handling to process. The overall cost of goods sold is reduced, which gives Gildan a decisive advantage in the screenprint market segment.

Working directly with a material handling solutions provider, knowledgeable about the importance of post-service support, meant gaining access to Wynright's around-the-clock support center and proactive web-based remote monitoring. Thanks to the engineering and software controls team at Wynright, Gildan can now exceed its accuracy goals.







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