IHI Logistics & Machinery

Management Philosophy/Vision

IHI Group Vision

The IHI Group seeks to solve the various environmental, industrial, social, and energy related problems of the 21st century, by utilizing its engineering expertise to focus on “Monozukuri” technology. In striving towards those goals, IHI is becoming a global enterprise offering safety and security for the benefit of both the environment and humanity.

IHI Logistics & Machinery’s Vision

IHI Logistics & Machinery continues to contribute to the streamlining of our customer’s operations and enhance value through offering material handling and industrial Factory Automation (FA) solutions.

Message from the President

The IHI Group has enjoyed a strong reputation for over 50 years in the Material Handling industry since delivering Japan’s first 3-dimensional Automated Storage / Retrieval system in the 1960s. IHI Logistics & Machinery started afresh in 2015 when it fully took over IHI Corporation’s industrial FA business.

We are now able to offer a wide variety of FA devices and systems, in addition to the logistics equipment we had offered to date. This means that we serve as a one-stop solution provider, covering a broad range of automation and streamlining needs in various fields ranging from manufacturing lines to logistics centers, covering all areas of sales, design, manufacturing and service.

Furthermore, IHI Logistics & Machinery is strengthening its overseas business development with a focus on Asia and we are confident we can provide solutions for our customers’ diverse needs in manufacturing, storage and logistics in order to support their global expansion.

We pride ourselves on always considering the perspective of our customers and endeavor to offer the optimal combination of technology and service at the right time so that we may maintain the trust of our customers. We constantly work to create a free and open-minded corporate culture in which our employees’ motivation will remain high.
History

Material handling systems

1968
Ishikawajima-Harima Heavy Industries Co., Ltd. (IHI) delivered Japan’s first Automated Storage/Retrieval System to a pharmaceutical company.

1984
Established Ishikawajima Logistics Service Co., Ltd. providing maintenance and repair services in the material handling systems.

FA Systems

1963
Began design and fabrication of machine presses at IHI’s Yokohama No.1 Works.

1999
The Industrial Machinery Headquarters established Press Project Department.

2006
Developed the between-press panel high-speed conveyor [V-feeder] with proprietary technology.

2007
Delivered the first press line adopting [V-feeder].

Industrial machinery

1937
Established Okamoto Tekko Co., Ltd. in Arakawa ward, Tokyo. Began production of papermaking machines and wiring machines.

1945
Constructed a plant in Motomiya-machi, Fukushima.

1969
Ishikawajima-Harima Heavy Industries Co., Ltd., (IHI) made a stake in the company and became the production base for coaters.

1977
Changed company name to Ishikawajima Industrial Machinery Co., Ltd. Obtained authority from IHI to sell paper material adjustment machines.

1995
Integrated Akira Seisakujo and commenced production and sale of printing machines and related industrial equipment.

2007
Ishikawajima Industrial Machinery Co., Ltd. and Ishikawajima Iwakuni Seisakujo Co., Ltd. were merged to form IHI Machinery Systems.

2008
Company name change to IHI Logistics Co., Ltd.

2012
Took over all domestic material handling system operations from IHI. Established Central Conveyor Company Ltd. as an affiliate company.

2013
Took over major device manufacturing functions from IHI Transport Machinery Co., Ltd.

2015
Integrated IHI’s FA business and changed company name to IHI Logistics & Machinery Co., Ltd.

2016
Integrated IHI Machinery and Furnace Co., Ltd.’s industrial machinery business.

Business Composition

IHI Logistics & Machinery, as the core company of the 160-year-old IHI Group’s land machinery business, contributes to the streamlining and sophistication of our customers’ businesses across a wide variety of fields, from material handling systems, Automated Storage/Retrieval Systems, to FA systems for the automation of various industrial machinery, production lines and overall plants.
Logistics solutions

Offering the optimal logistics solution for our customers by leveraging the experience we have acquired across all fields, including material handling centers and material handling storage.

Based on the knowledge we have acquired as a comprehensive logistics manufacturer, we organically combine hardware and software technologies to pursue lower costs and higher reliability in the logistics and material handling fields.

Backed by a myriad of technical resources, we propose the optimal logistics solution for customers.

Example of Distribution Center

- Logistic solutions offered by IHI Group
  - Investigation/analysis
  - Concept design
  - Optimization of material handling flow and operation foot prints
  - Selection of material handling devices that consider throughput balance
  - Examination of efficient personnel allocation
  - Linkage of overall system control and host systems
Storage

Achieving high economic performance with outstanding results and advanced technology

- Standard Automated Storage/Retrieval System
  - Rackpack/Robostack
    - Slim and compact
      - A new design for the extreme minimization of unnecessary gaps. Overwhelming storage efficiency
    - High-speed & smooth
      - Equipped with original motion control software. Gentle and quick acceleration to maximum speed
    - Energy-saving & ecological
      - Significant reduction of power consumption as a result of the lightweight body and utilization of regenerative power

- Auto-Stack Building – Building Integrated-type
  - Automated Storage/Retrieval System
    - Automated Storage/Retrieval System leveraging the comprehensive technical capabilities of the IHI Group
    - Excellent space efficiency and short lead-time
    - Outstanding results including refrigerated storage, hazardous materials handling, vehicle storage, etc.

Conveyance

Quiet, high-speed unmanned conveyance for a variety of logistics types

- Unmanned Conveyance Systems
  - Smooth & shockless
    - Inverter control enables smooth, shock-free sending, stopping and acceleration
  - Variety transfer equipment
    - Fully-automatic loading/unloading is possible with conveyors, push-pulls, lifters and more
  - High standard footwork (AGV “Fact Liner”)  
    - Both guidance methods (magnetic/laser) are capable of forward and backward movements, as well as spinning, turning, lateral motions, and efficiently navigating complicated routes.
  - High speed + high accuracy (RGV “Trans-liner”)  
    - Amongst the industry’s best in regards to maximum speed, stopping accuracy, and smooth acceleration

Sorting & Picking

Reliable, speedy picking system

- Shuttle & Server
  - Multi-story structure type High performance case Automated Storage/Retrieval System
    - By combining high loading/unloading capability with the high-density storage capability of Automated Storage/Retrieval System, the full automation of temporary storage and high-speed/accurate sorting is achieved
    - Maintains stable operation even with a high operating rate due to a robust structure. Energy savings and open space are achieved through a lean structure and through weight reduction
Clean Environment FA Systems

IHI Logistics & Machinery offers a diverse lineup for displays and flexible displays which will continuously have higher definition. We can provide individual units or integrated production systems.

- **Stacker Crane for Clean Environments**
  - Supports high cleanliness
  - A rich lineup from G2 to G10

- **Laser Cutting Unit**
  - Supports cutting of glass, film and multi-layer sheets

- **Roll to Sheet**
  - Supports ultra-thin glass and film sheet
  - Able to be combined with a lamination unit (optional)

- **Airflow Analysis (3D Simulator)**
  - Supports static analysis – dynamic analysis
  - Capable of localized cleaning
Automotive FA Systems

Based on our rich experience and high technological development capabilities regarding presses for automotive manufacturing, IHI Logistics & Machinery increases the efficiency of press shops overall; from automatic supply of sheets to the storage/conveyance of products and automatic replacement of dies.

- High-speed transfer system for presses “V-feeder/V-loader”
  - Achieves stable transfer with high-speed, long strokes

Achieves 18 SPM (strokes per minute) transfer on A-size press line
- Weight reduction is achieved by placing motors and gear reducers on the stationary components. High rigidity Trans-link structure contributes to the prevention of bending.
- Light weight and high rigidity promote stable panel feeding at high speeds and with long strokes.
- High-speed stable feed system significantly improves productivity of a tandem press line.

High reliability through use of multiple motors
Driving this feeder system with interlinked-multiple motors allows the feeder to continue to run, even if there is a malfunction in one of the motors.

Simple feeder mechanism

Compact size crossbar head
The feeder mechanism is very simple, particularly the crossbar head (crossbar connection devise) which allows it to be much smaller. The light weight and high rigidity feed mechanism offers broader visibility and a more ergonomic operation, in addition to a longer operational life. The reduced number of cables contained on the feeder promotes maintainability.
Industrial Machinery

Calender lines

Since delivering the first machine in 1955, IHI Logistics & Machinery has offered a comprehensive service for premium quality calenders backed by a solid track record; encompassing everything from design to manufacturing and after-sale service. We respond to various requests, such as rubber sheet calenders for vehicle tires and calenders for various plastics and films.

- Enhanced product accuracy and yield with high-accuracy rolls and various control technologies
- Long life and easy to operate with the adoption of a special bearing
- Easy-to-clean roll surface and simple lot changes for color switches
- FA proposals for the entire plant, covering everything from material supply to product handling

Calender for rubber

- Production of rubber sheets for tires used in passenger vehicles, trucks, buses and heavy machinery

Calender for plastic

- Not only for high-precision PVC film, sheets and optical film but also for the processing of new materials for various uses.

Slitter

The slitter is another one of our flagship products, offering precision technology with the advantages of superior quality, automation, labor-saving, and energy-saving.

- Creel auto loading (A system to automatically replace bobbins using a robot hand)
- Automatic feed control system (AFC) (A system to automatically control material supply amount)
Carbon Fiber Reinforced Plastics (CFRP) Related

Carbon fiber reinforced plastics (CFRP) is attracting attention as a next-generation high-strength, lightweight material. IHI Logistics & Machinery builds integrated systems for CFRP molding. We have made it possible to provide production systems for CFRP products of a broad range of sectors, from aircraft and automobiles to general industry.

CFRP Supply Chain  Base material – Machining – Molding – Recycling Integrated System

- Built the industry’s first CFRP integrated system
- Enabled various sample trial tests (press, recycle, cut)

Demonstration Equipment: Handling & Cutting System

- Dry cloth, prepreg handling
- Supports cutting tests of Unilaminar/laminated material

Prepreg Production test machine

- Withstands temperatures up to 280°C
- Line speed: Max. 10 m/min

Cutting robot

Double belt roll press
 ■ Maintenance Service

A Maintenance Service Promising Peace-of-Mind by Supporting System Capability

IHI Logistics & Machinery employs a high number of service engineers with a broad range of skills relating to machinery, control systems, computer programming, etc. This expansive level of maintenance service enables us to provide peace-of-mind through for our customers.

We offer a maintenance and inspection agreement for systematic preventative maintenance. We highly recommend our customers partake in this agreement in order to increase operation efficiency even further.

■ IULINK Maintenance Support Service – Connecting IHI and Users

By analyzing large quantities of equipment operational data collected by ILIPS*, breakdowns can be predicted and/or avoided. Furthermore, on a customer-exclusive website, we provide information such as operational status and maintenance history, and share schedules, in order to further enhance communication between our customer and Service Center.

■ Renewal Proposals

Engineering which further enhances the functions and efficiency of existing systems.

■ The Meister System

In order to offer a sophisticated maintenance service, we have established a Meister certification service to develop service engineer specialists.
Company Overview

Company name: IHI Logistics & Machinery Corporation
Address: 3-1-1, Toyou, Koto-ku, Tokyo, Japan
CEO: Tsuyoshi Tsuchida
Founding: July 2, 1984
Capital: 1 billion yen
Shareholders: IHI Corporation
Affiliate: Central Conveyor Company Ltd.

Quality & License

- Offering a high-quality logistics service for peace of mind -

- ISO9001: 2008 certification obtained

In order to offer even better products and services, we have obtained the international quality standard, ISO9001.

1. Registration scope:  Development, sales, design, manufacture, procurement, installation, and after-sales service for distribution and production plants, and related equipment and parts that constitute plants.
2. Registering body: JIC Quality Assurance Ltd.
4. Registration no.: 0073
5. Registration date: April 24, 1995

License number: Tokyo mayor license (Special-28) No. 70624

ISO9001: 2008 certification obtained

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Civil engineering
- Plumbing
- Glazing
Building
- Plumbing
- Painting
- Interior finishing
Carpentry
- Steel structure works
- Machinery & equipment installation
- Paving
- Heat insulation works
- Dredging
- Masonry
Scaffolding/earthworks
- Reinforcement works
- Machinery & equipment installation
- Sheet metal works
- Roofing
- Joinery works
- Electrical works

Construction license types

We have obtained 23 types of work licenses, allowing us to respond to any logistics service request.

- License number: Tokyo mayor license (Special-28) No. 70624

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Fire protection facilities works

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Fire protection facilities works

Service base

Service shop

Sapporo, Mutsu, Hachinohe Akita Kamaishi, Kesennuma, Sendai, Hitachinaka, Aizuwakamatsu, Kuji, Sazao, Fujinomiya, Yokkaichi, Kofu, Sanjo, Fujinomiya, Yokkaichi, Kochi, Omuta, Onojo, Urasoe, Kagoshima

Plus over 50 locations nationwide