

# Our History of Value Creation

The AP business began in 1959, leveraging our knowledge of aluminum materials acquired through fastener manufacturing. Since then, we have continued to develop and supply products that meet customer needs in every era and also provide new value.

## 1957-1989 Architectural Products Business Begins



Aluminum extruder installed in 1959

Yoshida Shoji Co., Ltd., the predecessor to YKK AP, was established in 1957 to undertake the sales and exports of fasteners manufactured by Yoshida Kogyo K.K. (now YKK). The company launched its architectural products business in 1959 and launched the Hi-Sash residential aluminum window sash in 1966. Product development was also expanded.

1959	Aluminum casting and extrusion work begin
1961	Manufacture and sales of interior aluminum architectural products begin
1962	Manufacture and sales of aluminum window sashes begin
1976	Our first overseas affiliate, YKK Industries (Singapore) Pte. Ltd. (now YKK AP Singapore Pte. Ltd.), established
1983	Manufacture and sales of vinyl sashes begin
1986	First overseas plant with an integrated production system, YKK Almico Indonesia (now PT YKK AP INDONESIA), established

## 1990-2004 The Founding of YKK AP



The inaugural press conference of YKK AP's first President, Tadahiro Yoshida (currently Corporate Advisor), in May 1990

In 1990, YKK Architectural Products (abbreviated to YKK AP) was founded out of its parent company, Yoshida Shoji Co., Ltd., as the core company of the YKK Group's architectural products business. In 2003, all architectural products businesses in the YKK Group were fully consolidated into one. This established YKK AP's corporate structure.

1990	The company is renamed YKK Architectural Products Inc. (YKK AP)
1990	Sales of EXIMA system sashes for commercial buildings begin
2002	The company is renamed YKK AP Inc.
2003	YKK's Architectural Products Manufacturing Group is integrated into YKK AP Inc. and the architectural products business of the YKK Group becomes a fully integrated organization
2003	Sales of SYSTEMA series of system sashes for non-residential buildings begin

## 2005-2010 Evolution into a Windows Manufacturer



The APW 330, launched in 2009

With the goal of "transforming from sash manufacturer to windows manufacturer," the company takes a new direction as a producer of windows, supplying windows as finished products, and announces the window business brand APW. In 2009, it launched the APW 330 vinyl window. The Overseas Facade Business also began full-scale activities.

2005	Proclamation to promote insulating glass for residential windows
2006	The window business brand APW series is launched
2007	Value Verification Center established
2008	YKK AP Facade PTE. LTD. established
2009	Sales of APW 330 vinyl windows begin

## 2011-2022 A company Committed to Products and Manufacturing



The Saitama MADO (window) Plant, which began operations in 2011

Hidemitsu Hori, who became President in 2011, adopted a policy of "a company committed to products and manufacturing," increasing market share by promoting the window business, including vinyl windows, expanding exterior and remodeling products, and strengthening engineering capabilities in the commercial business.

2011	Operations begin at the Saitama MADO (window) Plant
2012	Sales of the Venato electronic smart door begin
2014	Sales of the LUCIAS series of exterior products begin
2016	YKK AP R&D Center is opened
2020	Reorganized overseas AP business and integrated capital relations and business operations of overseas affiliated companies into YKK AP
2021	Part of the YKK Machinery & Engineering Group is transferred and the "Machinery & Engineering Department" is established

## 2023- Become a Global Leading Company Through the Evolution of Architectural Products



New building at Saitama Factory completed in 2023



Global Curtain Wall SUMMIT 2023

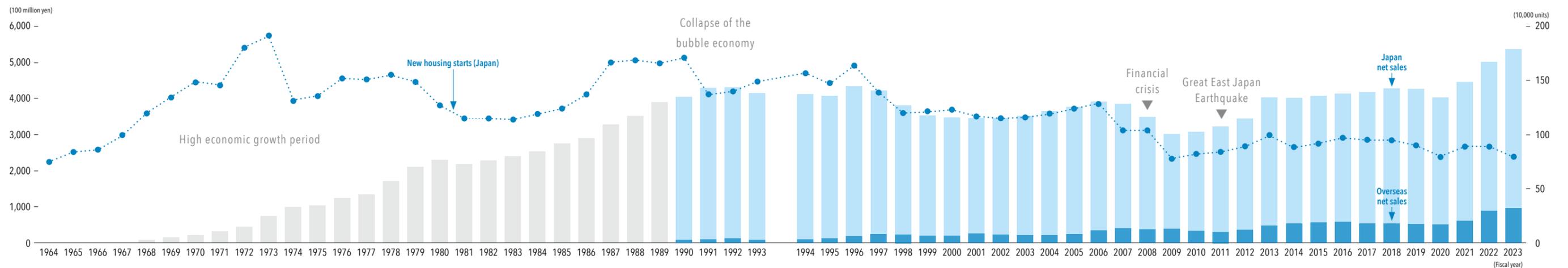


New vinyl window plant in the U.S.A., which began operations in 2023



The APW 651 wooden window, launched in 2024

When Akira Uozu assumed the office of president in 2023, a review was conducted of "how we seek to be in 2030 and how we ought to be," and the vision "Evolution 2030" put forth the goal of "Become a Global Leading Company Through the Evolution of Architectural Products." In Japan, we strengthened our production capacity of aluminum architectural products for commercial buildings by commencing operations at a new building at our Saitama Factory in 2023. In addition, YKK AP Healthcare Inc. was established in 2024 to grow health management into a new business axis. We are also further promoting conversion to high-performance, energy-conserving windows, and in 2024 we will begin selling wooden windows with high thermal insulation performance and aesthetic appeal. Overseas, a new vinyl window plant began operations in the U.S.A. in 2023, establishing a manufacturing and supply system to increase sales of vinyl windows. In addition, to strengthen the CW business in Japan and overseas, we established the Global Curtain Wall Business Division and acquired shares in the largest CW manufacturer in Thailand. We are also stepping up "smart factorization" and innovation creation through DX, centered on the xTech Lab in North America, which opened in 2023.



# The Value Creation Process

- Opportunities and Risks**
- Health and Comfort/Safety and Security
  - Demographics
  - Climate Change and Disaster Countermeasures
  - Ecosystem Conservation and Resource Recycling

## Sources of Value Creation

### Management Capital

p.18-19



Financial Capital



Human Capital



Manufacturing Capital



Social/Relational Capital



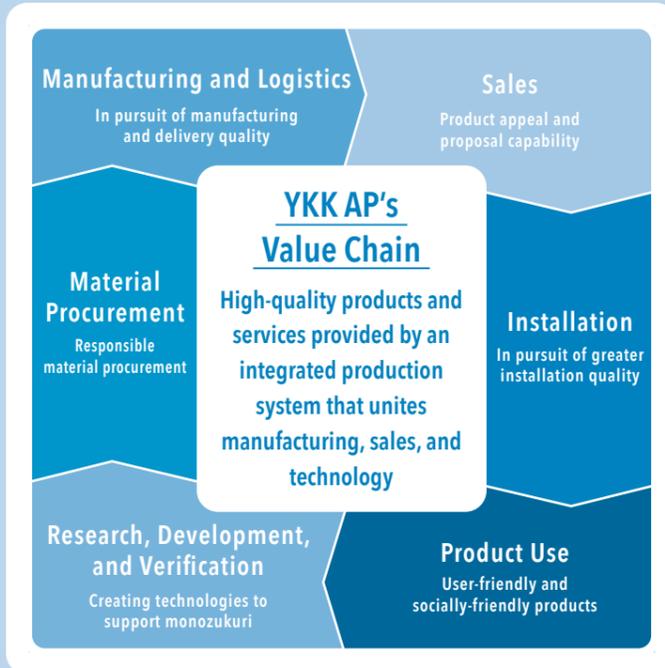
Natural Capital



Intellectual Capital

## Business Activities

### Our Strengths in Monozukuri p.20-21



### Materiality p.22-45

Human Resources to Support Sustainable Growth p.24-28



- Diversity & inclusion
- Fulfilling workplace environment
- Talent attraction and development for value creation
- Respect for human rights

"Monozukuri" to Support Resolution of Social Issues through Products and Competitiveness p.29-32



- Co-creation with stakeholders
- Generating innovation
- Products/services which continue to solve social issues

"Trust/Reliance" to Fulfill Social Responsibility p.33-45



- Fair business practices
- Resilient business foundation
- Co-existence with the environment

YKK AP's Business Segments p.48-55

- Residential Business
- Exterior Business
- Commercial Business
- Global Curtain Wall Business
- Aluminum Profile Business
- Overseas AP Business

The 6th Mid-term Business Policy p.46  
Providing Social Value through Products and Realizing Manufacturing Reform

### Foundations Supporting our Business

Corporate Governance p.33-37

Human Rights and Human Resources p.24-28

Compliance p.38

Risk Management p.39

Environmental Management p.40-45

DX Promotion p.31

## Value Created

### Purpose p.4-5

*We Build a Better Society Through Architectural Products*

### The "Evolution 2030" Vision p.6-11

**Become a Global Leading Company Through the Evolution of Architectural Products**

SOCIETY

CUSTOMERS

EMPLOYEES

### Social Value

- Contribute to the Global Environment p.40-45
- Create New Value for Our Customers p.32
- Prioritize Employee Well-Being and Engagement p.24-28

### Economic Value

- Standards targeted in "Evolution 2030"
- Net sales on the order of one trillion yen
  - Operating income ratio 10% or over p.6-13

### Principles that Support the Value Creation Process p.4-5

**YKK Philosophy** The CYCLE OF GOODNESS\*: "No one prospers without rendering benefit to others."



**Management Principle:** "YKK seeks corporate value of higher significance."



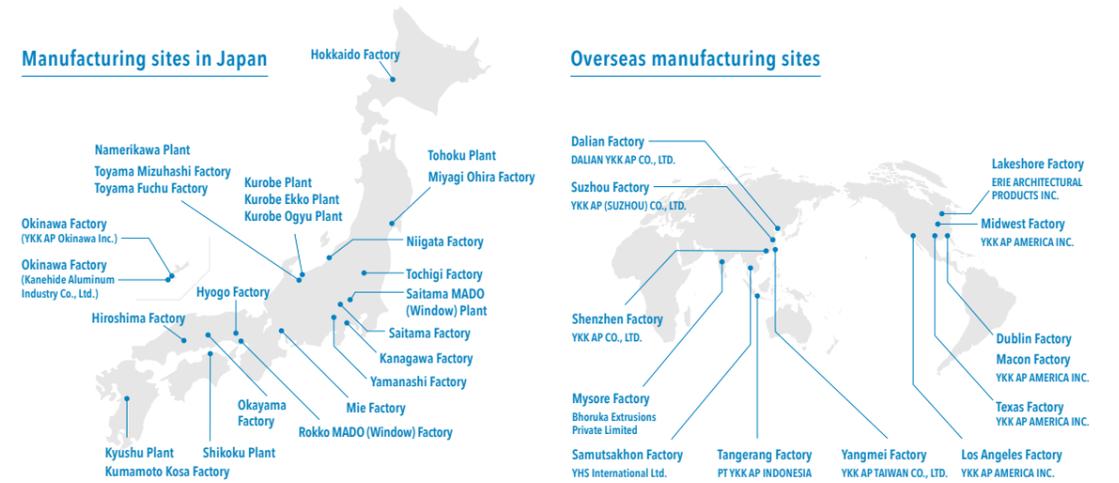
# Management Capital

YKK AP's Purpose is "We Build a Better Society Through Architectural Products."

These six types of capital are the source of this cycle of providing value to customers, society, and employees through corporate activities that create high quality products and services.

We aim to achieve sustainable growth by strategically investing capital while assessing business opportunities and risks.

Extent of coverage: YKK AP Group (Japan + overseas)  
 Period covered: FY2023 (April 1, 2023–March 31, 2024) or as of March 31, 2024



## Financial Capital → P12



Equity ratio: **64.6%**

Return on assets (ROA): **4.0%**

### Financial foundations supporting our business

Based on the YKK philosophy, the CYCLE OF GOODNESS®, the entire YKK Group is improving capital efficiency based on group financing. YKK AP will invest capital with the goal of achieving a return on assets (ROA) of 6–7%. Overseas, we are promoting the appointment of local employees to management positions, aiming for a "system that allows overseas profits to be reinvested locally." Making dynamic investment decisions in line with local conditions has strengthened our competitiveness on the global level. In order to realize the "Evolution 2030" vision, which aims to achieve net sales on the order of one trillion yen, we will invest financial capital in Japan and overseas at the most effective time.

## Human Capital → P24



Employees in Japan: **12,991**

Employees overseas: **4,843**

### A "Forest Organization" with a shared corporate philosophy

We conduct human capital management based on the concept of "Forest Management," as advocated by YKK's founder Tadao Yoshida, and are aiming to become a vibrant "Forest Organization" that grows autonomously by making the most of each individual's unique characteristics. Under the leadership of the CHRO (Chief Human Resources Officer), a position established in 2021, our human resources strategy is to recruit employees internally who will take on the challenge of creating new businesses through innovation, and to strengthen the organizational system of related divisions. In addition, to support individual career development, we will strengthen the "common mentor" career consultation system, introduce digital/IT literacy education, and improve employee engagement by creating an employee-friendly and fulfilling workplace environment.

## Social and Relational Capital → P29



Japan business sites: **194**

Overseas business sites: **58**

Affiliated companies: Japan: 8, Overseas: 21\*\*

### Co-creation relationships based on trust and reliance with stakeholders

To remain a company that is a well-loved part of society, we not only pursue profits as a single company, but also value our relationships with all of our stakeholders, including our employees, customers, business partners, and local communities. In order to improve YKK AP's brand appeal and have the value of its presence recognized, we place great importance on communication and provide opportunities for dialogue and co-creation in various forms. We will contribute to the sustainable development of society by staying attuned to the needs of each of our stakeholders, identifying issues and developing technologies, and by solving social issues through our products and services.

## Manufacturing Capital → P20 → P31



Manufacturing capital investment: **20.7 billion yen**

Manufacturing sites Japan: **25**, Overseas: **13**\*\*

### High-quality products and services provided by an integrated production system

Based on YKK AP's integrated production system, which is one of its strengths, the company is enhancing its technological competitiveness by conducting monozukuri that is coordinated with manufacturing technology from the product development stage. In addition to planned capital investments that anticipate supply and demand from a medium-term perspective, we will strengthen our manufacturing and supply capabilities while actively making investments that create an employee-friendly and fulfilling workplace environment. DX promotion is also picking up pace, including optimization of production activities through the introduction of smart factories, and making safety measures and demand/supply forecasting more efficient using AI.

## Natural Capital → P40



Energy consumption: **141,000** kl (crude oil equivalent)

Water use: 8.3 million m<sup>3</sup>

### Creating environmental value at all stages of the lifecycle

We have set numerical targets for the four environmental issues specified in the YKK AP Environmental Management Policy: "climate change," "resource recycling," "water," and "biodiversity," and are taking on the challenge of creating new value through technological innovation and achieving zero environmental impacts. At our manufacturing sites, we are promoting reductions in energy use through the introduction of high-efficiency equipment and the use of renewable energy. In addition, to address the risk of water use restrictions in different regions, we are working to reduce water consumption by promoting water recycling and reclamation. We are also further expanding activities to create environmental value, such as green procurement of raw materials and environmentally friendly design.

## Intellectual Capital → P21



Research and development expenses: **10.6 billion yen**

Number of employees dispatched by the company to obtain degrees (Ph.D., MBA, MOT): 21 (cumulative total)  
 Patents held: 1,466

### Monozukuri based on a system of research, development and verification Incorporating new perspectives to generate innovation

With development and technical research bases in Kurobe and Tokyo in Japan, as well as in Germany and Indonesia, we conduct research, development, and verification on a global scale to create value from the customer's perspective and to improve our technological capabilities. In FY2023, we launched the Technical Research Division to step up research and study of new technologies with an eye to the future. Among other activities, it is engaged in the development of recycling technologies for product materials in order to achieve a circular society. We also conduct joint research with various research institutions and dispatch employees to graduate schools. Furthermore, we are putting our efforts into strategic management and application of intellectual assets, with the aim of improving our competitiveness and brand value through patent applications and ownership of patent rights.

\*1 Affiliated companies are as of July 2024. \*2 Manufacturing sites are as of May 2024.

# Our Strengths in Monozukuri

YKK AP's "integrated production system" is the greatest strength of our monozukuri. We handle everything in-house, from the development and manufacture of materials, components, and production equipment to processing and assembly. In the value chain, we have also established processes to create high-quality products and services, including the research and development of new technologies and materials, and the establishment of manufacturing and logistics systems. We will create new value by achieving even greater efficiency through our seamless, integrated production system.

## YKK AP's Value Chain

Research, Development, and Verification

Material Procurement

Manufacturing and Logistics

Sales

Installation

Product Use



**Creating technologies to support monozukuri**  
Global R&D organization; technological development, research, and product development to address social issues; product development from the consumer's perspective; evaluation and verification of products and installation methods; product safety measures; and establishment of quality assurance processes [P21](#)



**Responsible material procurement**  
Supply chain management, green procurement, chemical substance management, and promotion of recycling throughout the product lifecycle



**In pursuit of manufacturing and delivery quality**  
Integrated production system, optimal production lines through integration of machinery and engineering divisions, energy conservation and reduction of CO<sub>2</sub> emissions, waste management, consideration for ecosystems, logistics solutions, and reduction of packaging materials [P21](#)



**Product appeal and proposal capability**  
Technical proposals that address social issues, development of technical proposal tools, enhancement of product exhibition facilities, awareness-raising activities for professional users, product proposals through online exhibitions, design proposals using BIM



**In pursuit of greater installation quality**  
Research, development, and proposal of labor-saving installation methods and jigs, installation training and certification system for installers, installation technology, and improvement of installation quality



**User-friendly and social - friendly products**  
Health and comfort, energy conservation performance, disaster prevention and earthquake-resistant products, remodeling products, maintenance system, providing information to customers, expansion of online content, disclosure of environmental information, environmental labeling, and enhanced traceability

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## Research, Development, and Verification

### Development and technology research sites and the Central Testing Center Laboratory

The YKK AP R&D Center, Value Verification Center, and Partners Support Studio, all located in Kurobe City, Toyama Prefecture, are responsible for the cycle of development, evaluation and verification, technical proposals, and information communication that form the foundation of YKK AP's monozukuri process. The YKK AP R&D Center is a center of technology and expertise which develops high-quality products. The Value Verification Center conducts "user verification" using consumer monitors and "field verification" that reproduces the natural environment. Finally, the Partners Support Studio presents proposals aimed at addressing the issues of professional users, based on our technology. Furthermore, the Central Testing Center Laboratory, a JNLA-registered testing laboratory that meets international standards, reinforces our product quality assurance system through rigorous testing.

### Development and technology research sites



### Research, Development and Verification on a global basis



**Japan (Kurobe, Tokyo)**  
In-depth technology capabilities at the Technology Headquarters  
● Co-creation of advanced themes  
● Research and development of core technologies, materials, manufacturing, products, and installation methods  
● Collaboration with the Value Verification Center and the Partners Support Studio  
● Integration and sharing of the results of each Center



**Germany (Wuppertal)**  
Surveys and research on advanced European window technology  
● Investigation/research on innovative European technology  
● Research on advanced technology aimed at higher added value



**Indonesia (Tangerang)**  
Research and development of windows for hot and humid areas  
● Research and summary of climate and culture, construction conditions, and standards  
● Passive design research for hot and humid areas, research on windows and doors

## Manufacturing

### Integrated Production System

YKK AP is committed to an "integrated production system," in which the company itself handles everything from materials, components, and production equipment to processing and assembly. Our insistence on such a system enables us to develop technology quickly, control costs throughout the supply chain, and guarantee reliable quality. In addition, all manufacturing processes are carried out at YKK AP's domestic and overseas manufacturing sites. This includes processing the glass used for our mainstay products such as vinyl windows from raw sheets, melting the raw metal for the aluminum materials we use, and blending the raw materials for vinyl. Even the development and manufacture of components, which constitute the backbone of our products, is carried out in-house. In addition, an in-house division called Machinery and Engineering is responsible for the development and manufacture of equipment for making our products. We are working to further enhance our technological competitiveness through seamless collaboration between the Machinery and Engineering Department and the research and manufacturing divisions. We are also deploying technology developed in Japan overseas, such as by introducing a labor-saving production line from Japan at YKK AP AMERICA's new vinyl window plant. Going forward, we will pursue "smart factorization" and aim to improve productivity through DX.

### The cornerstone of YKK AP's monozukuri: the integrated production system

**Materials**  
We produce materials in-house: for aluminum, this involves everything from melting to extrusion and surface treatment, and for resin, from raw material blending to extrusion.



**High-performance glass**  
We process our own high-performance and high-functioning double and triple insulating glass.



**Components**  
We produce everything in-house, from operating and functional components to screws and screen netting.



**Production equipment**  
We have developed its own manufacturing equipment, production lines, and process control systems, etc., and has deployed them in the company's plants in Japan and overseas.



**Processing, assembling, packaging**  
Our APW vinyl window series products are produced in our carefully controlled plants, from preparing the glass to manufacturing the components and assembling the windows, thereby ensuring high performance.

