ULVAC IR Seminar 2026

April 7, 2026

Agenda

- Overview of the Rare-earth Magnet-related Business
- Q&A

ULVAC

Basic Policy and Vision: New Mid-to-Long-Term Management Plan ~Value-Up Plan~

ULVAC

Selection and concentration of a business portfolio centered on semiconductors and electronics

Growth Strategy

- Accelerate focus on Semiconductors and Electronics
- Create new semiconductor and electronics-related businesses by leveraging synergies among businessses
- Expand business through M&A and other initiatives

¥110 billion increase

Consolidated net sales improvement by FY31/6

Mid-to-Long-Term Financial Targets for FY31/6

Operating Profit **¥79 billion**

Operating Profit Margin **22%**

Business Restructuring

- Scale down and withdraw from low-profit businesses
- Restructure and streamline of group companies and production sites
- Reduce fixed costs by optimizing personnel and SG&A expenses

5.5% increase

Operating profit margin improvement by FY28/6

Production Reform

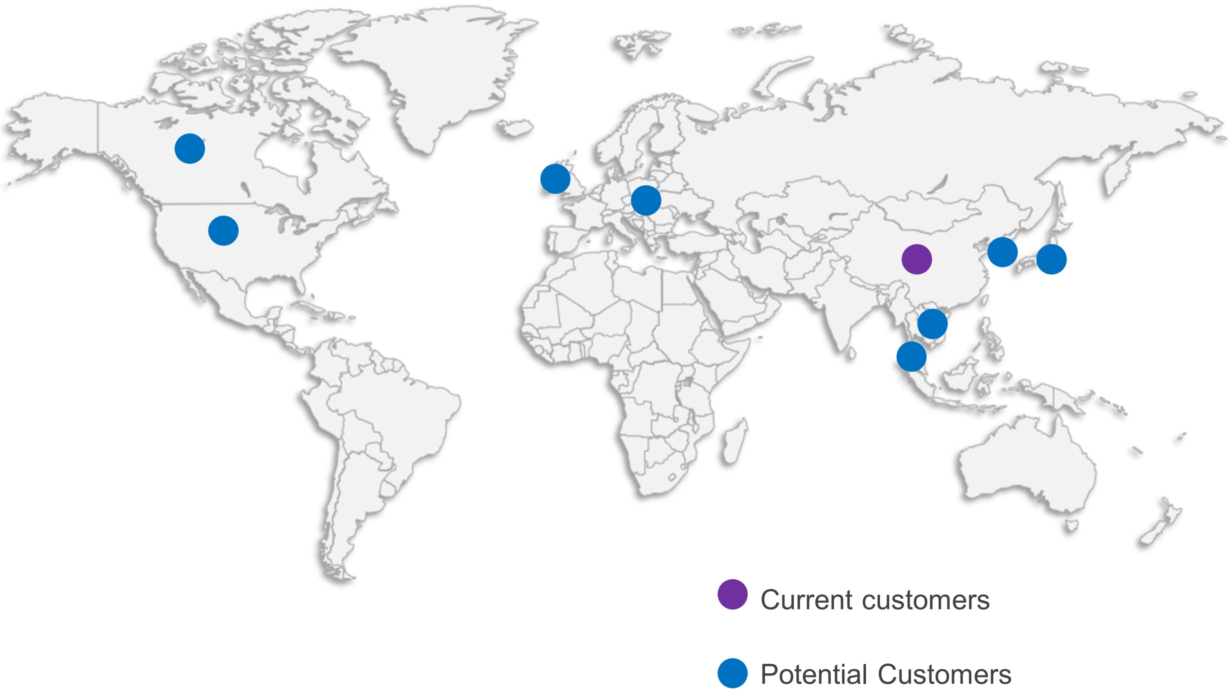
- Improve production efficiency at production sites
- Enhance profitability through modular design

12% increase

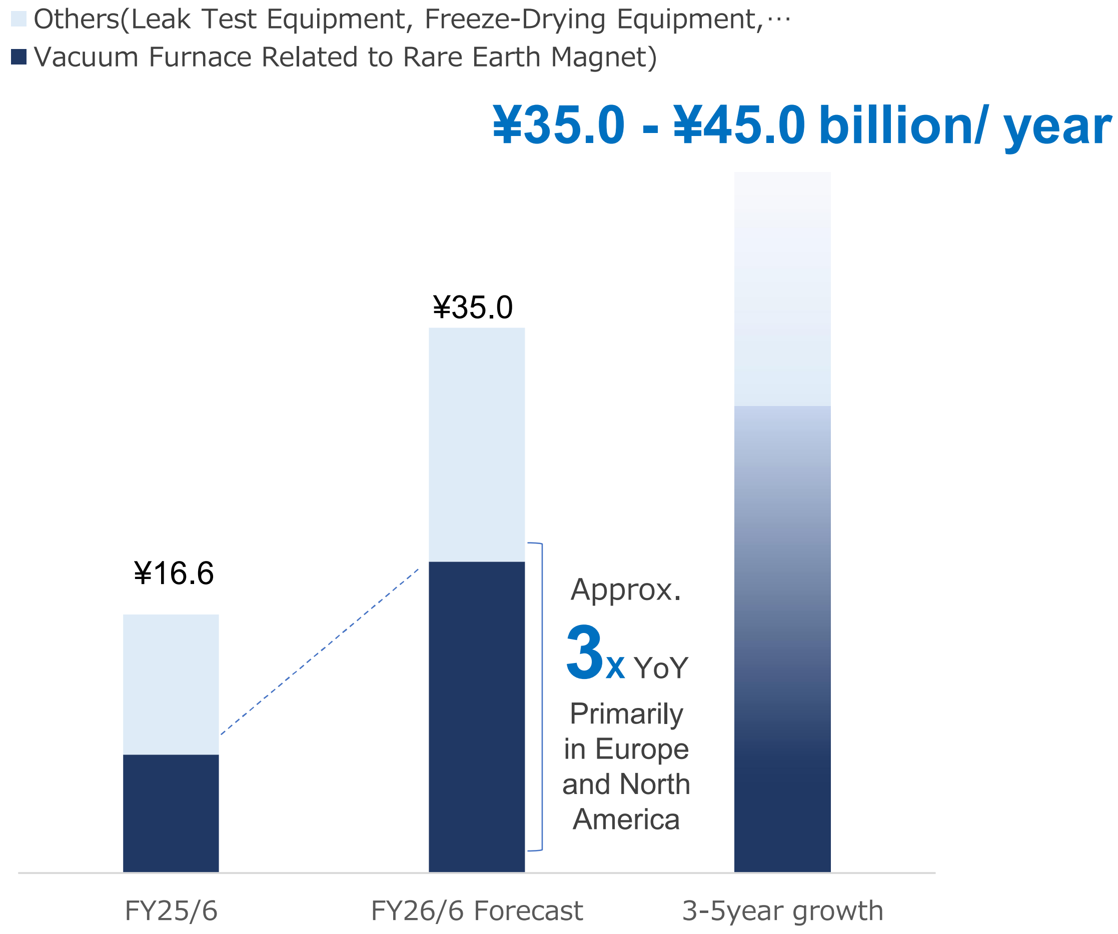
Operating profit margin improvement in the target equipment business by FY31/6

Rare-earth Magnet-related Business: a New Frontier for Business Expansion

Expectations for expanded production resulting from supply-chain diversification



Industrial equipment orders received (Unit: ¥1 billion)



Note: From FY26/6, orders received for leak-testing equipment have been reclassified from Components to Industrial Equipment.

Capturing the Expanding Market Opportunity in Rare-Earth Magnet–Related Businesses

- Business Environment Changes, Current Status, and Growth Outlook -

Yoshiki Iso
Executive Officer and General Manager of VMS BU

Summary

Market Environment

Global structural changes and expanding demand for neodymium magnets

Decarbonization (xEVs and wind power), AI data centers, and expansion of defense applications

Neodymium magnet demand: approx. 8% CAGR

Supply constraints and government policies are supporting market expansion

Full-scale "Near-Shoring"

The U.S., the EU, and Japan are promoting domestic production as a national security measure.

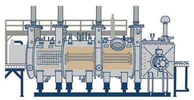
China is strengthening its lock-in through export controls and patents.

New magnet mass-production lines, mainly in Europe and the U.S.

In the U.S., supported by government initiatives, construction of 10,000-ton-class mass-production lines is accelerating, and capacity is expected to expand to 45,000 tons by 2030.

Equipment demand is expected to remain at a high level.

Our Strength and Strategies



Our equipment technologies supporting magnet mass production

Melting and casting process: "stabilization of the initial microstructure"→ Strip Caster

Sintering and aging processes: "high throughput / high reproducibility"→ Continuous Furnaces

Our unique strengths: Multi-process coverage × High Share

A full lineup across key processes (melting, sintering, and heat treatment).Market share exceeds 70% in multiple processes.

Know-how in yield and stability is a key differentiator.

Evolution into an "Integrated Engineering Company"

Challenges faced by new entrant customers: ramp-up, transfer, oxygen management, and quality visualization→ We provide solutions to support process start-up end-to-end

Global Industries Shifting to “Magnet Dependence” — Magnets as an Industrial Chokepoint

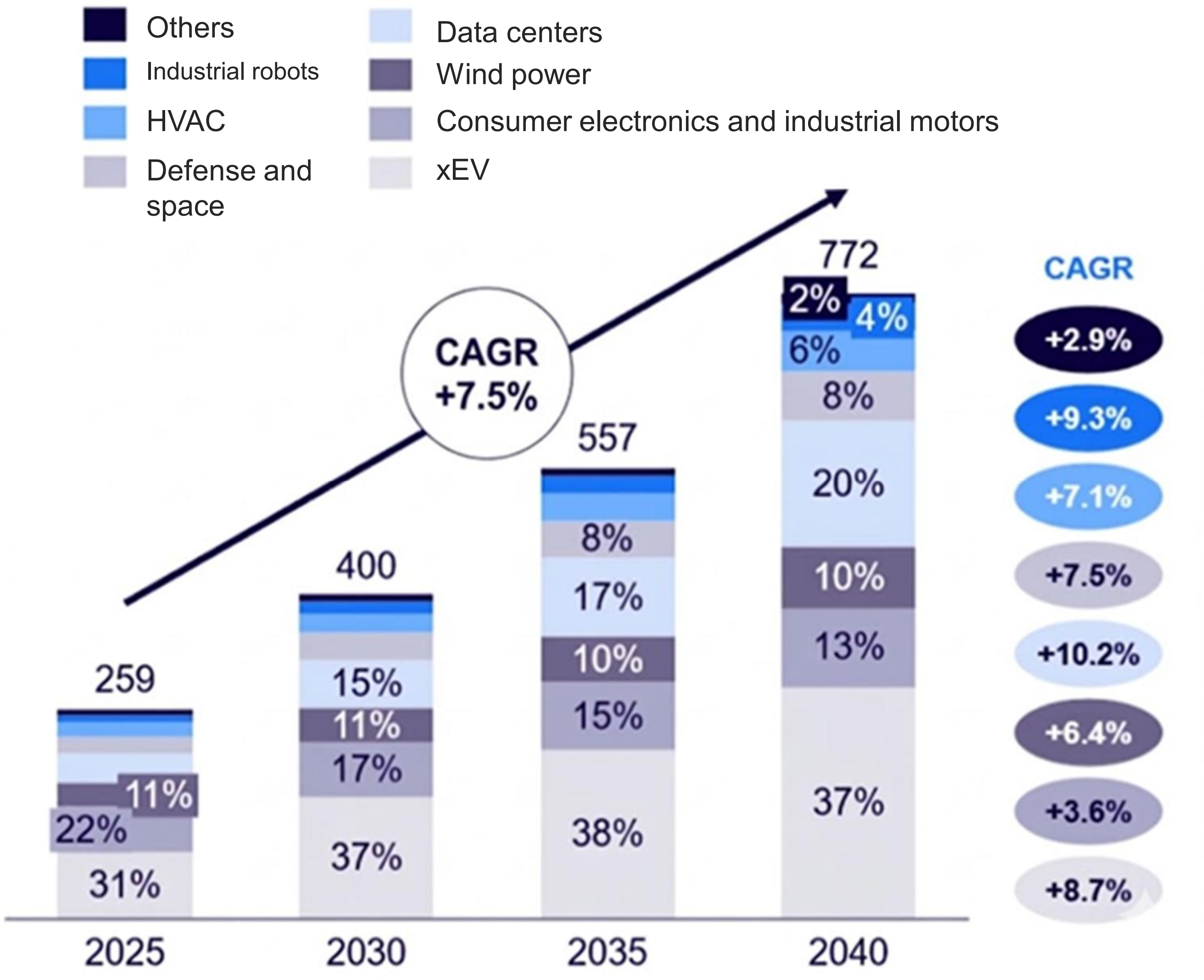
ULVAC

- High-performance magnets that are difficult to substitute
- Simultaneous shutdown of major industries if supply stops
- The world’s most closely watched supply-chain risk

Global Demand for Neodymium Magnets: approx. 8% CAGR

ULVAC

Neodymium Magnets: Estimated Global Demand (base volume: kt/year)



Wind Power Generation

CAGR + 6.4%

Accelerated capacity expansion, approx.3x,primarily offshore.

Data Center/AI

CAGR + 10.2%

Rapid expansion in demand for HVAC/HDDs for Generative AI.

xEV

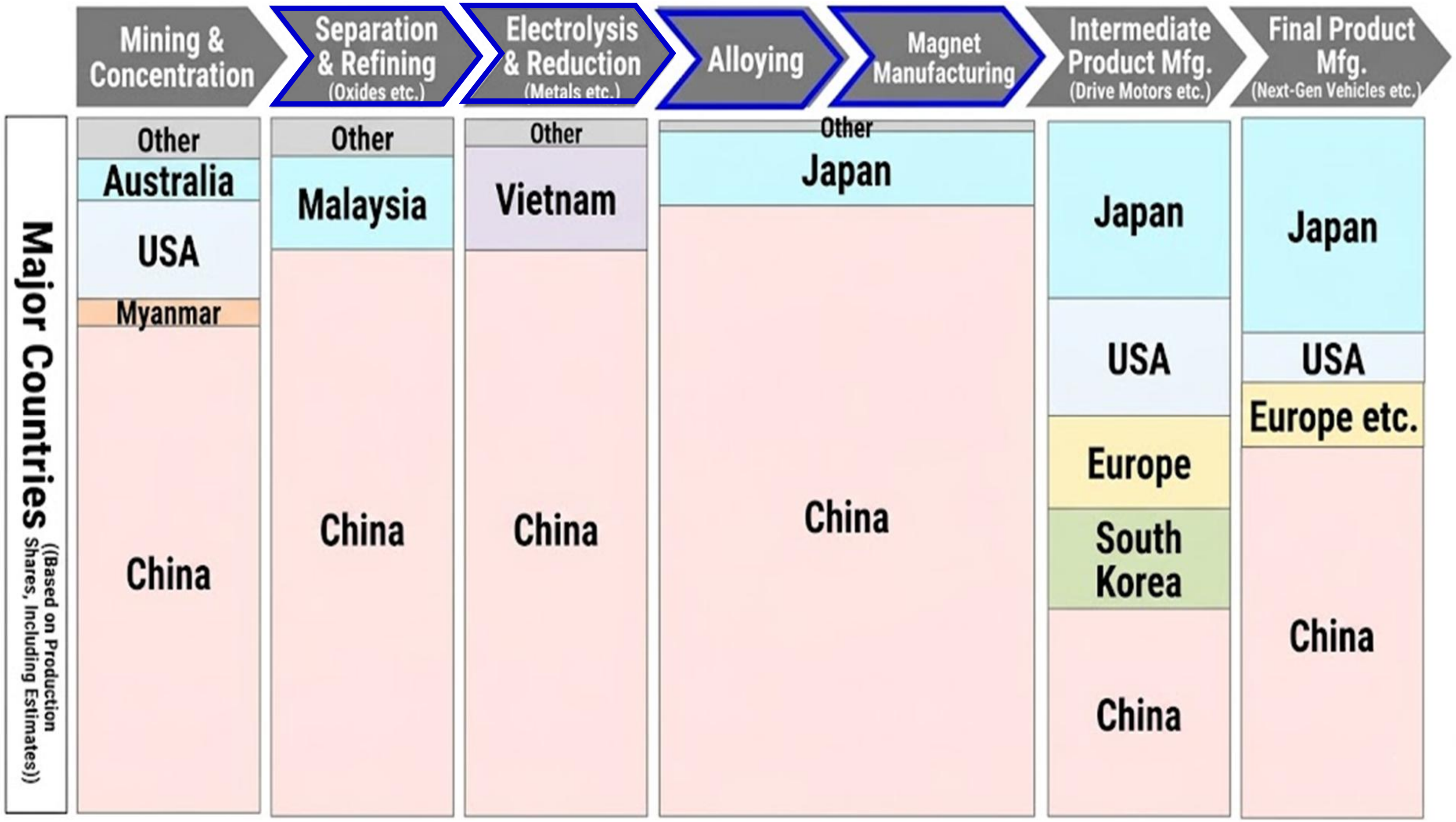
CAGR + 8.7%

More than half of new cars to shift to xEV by 2040.

Source: Arthur D. Little「ADL Future outlook rare earth magnets 2026

Supply Chain Diversification

- **Current State of the Global Supply Chain for Light Rare Earths Used in Magnets**



Source: JOGMEC

Supply Chain Diversification

While the concentration of ore production from mines in China is being resolved, **China's share in the separation, refining, and magnet manufacturing processes remains high.**

Currently, efforts to diversify the processes following separation and refining are progressing in various countries, with the **trend toward reshoring production to the U.S. accelerating in particular.**

Multipolarization of National Policies Surrounding Rare-earths

ULVAC

China: Export Controls and Downstream Patent Lock-in

Tightened export controls to Japan

Controlling 83% of newly published downstream application patents (2025),constrain mass production in other countries

United States: National Implementation of “Mine to Magnet”

Large-scale public funding led by the Department of Commerce and the Department of Defense

Protection of national investment under Section 232 of the Trade Expansion Act

EU: Strengthening Recycling + Midstream Processes

Simultaneously enhancing circularity and refining through CRMA and RESourceEU

Redesigning the supply chain through policy-driven initiatives, such as the Japan-France Roadmap on Critical Minerals Cooperation

Japan: Domestic Production × Diversification

Import of heavy rare earths through collaboration between Sojitz and Lynas (Australia)

Policy to invest approximately ¥3.4 trillion in deep-sea mud development around Minamitorishima

U.S. Expansion Plans for Rare-earth Magnet Production

ULVAC

USA | Rare Earth

Oklahoma
10,000tons in 2029

Vulcan Elements

North Carolina
10,000tons in 2028

LS Cable & System

Virginia
Annual production volume not disclosed

VAC VACUUMSCHMELZE

South Carolina
2,000tons in 2026

MP MATERIALS

Texas
10,000tons in 2028

JSLINK

Georgia
3,000tons in 2028

+α
Company A
Company B…

U.S. Neodymium Magnet Production Expansion Forecast by 2030

45,000t In US

(Estimated to account for approximately 10% of global demand)

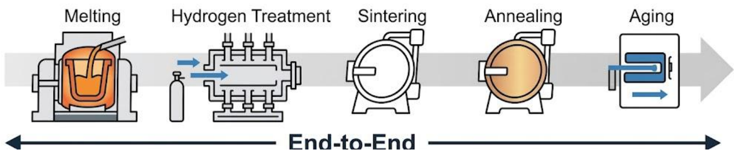
Sources: Prepared by the Company based on publicly available information from company websites, JETRO, Manufacturing Dive, Metal Powder Technology, and other sources.

Reasons Why ULVAC is Chosen for Rare-earth Magnets Manufacturing

ULVAC

1 A Globally Rare Full Lineup of Vacuum Heat Treatment Furnaces

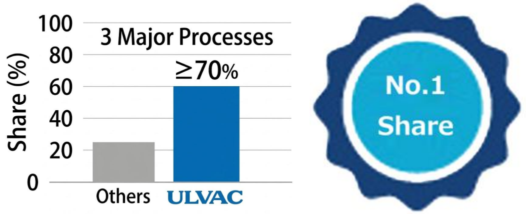
One of the few manufacturers worldwide offering a comprehensive lineup covering all major processes for neodymium magnet production



► **Unique Position with Vacuum Heat Treatment Furnaces Covering Nearly All Processes**

2 Over 70% Global Market Share for 3 Processes

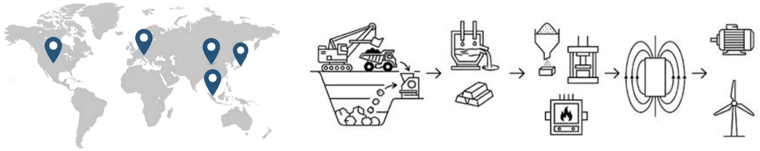
Multiple areas with little to no direct competition



► **Unique Position with Vacuum Heat Treatment Furnaces Covering Nearly All Processes**

3 Extensive Delivery Track Record to Rare-earth Magnet Manufacturers

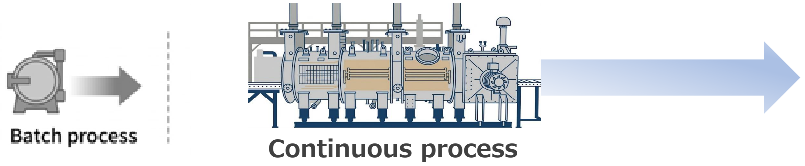
Numerous installations at leading global magnet manufacturers and long-standing supply to existing magnet plants in Japan and Asia



► **Value Delivered Not Only by Equipment Specifications but by Know-how in Yield Improvement and Process Stability**

4 Continuous Heat Treatment Furnaces Enabling High Productivity

Significantly higher throughput compared with batch furnaces
High uniformity in temperature distribution and atmosphere control
Reduced variation in magnetic properties



► **High Productivity and High Reproducibility as Reasons ULVAC Equipment Continues to be Chosen**

ULVAC’s History in Magnet Manufacturing

High-growth era
Rising demand for high-quality materials

Growing demand for high-performance magnets for electronic and industrial equipment

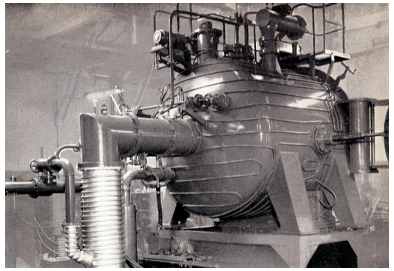
Electrification driving the importance of mass-production systems for rare-earth magnets

Rising demand for high-efficiency motors and carbon neutrality initiatives

1950s-1960s

Localization of vacuum melting and deposition equipment

Foundation of magnetic material manufacturing technologies



Japan’s first domestically produced 100kg Induction Melting Furnace

1970s-1990s

Advancement of vacuum melting and sintering furnaces

Contribution to quality improvement in rare-earth magnet production

Horizontal Vacuum Furnace

2000s

Commercialization of rare-earth magnet production equipment

Contribution to the construction of mass-production lines

Continuous Vacuum Aging Furnace

2010s-Present

Improved efficiency of vacuum metallurgy and sintering equipment

Continuous contribution to advanced manufacturing of high-performance magnets

Continuous Vacuum Melting Furnace

Equipment Lineup and Track Record for Rare-Earth Magnet Manufacturing

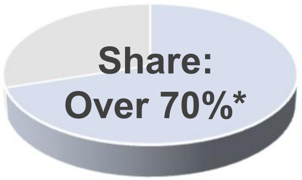
ULVAC

Alloying Process	Magnet Manufacturing	Product Manufacturing

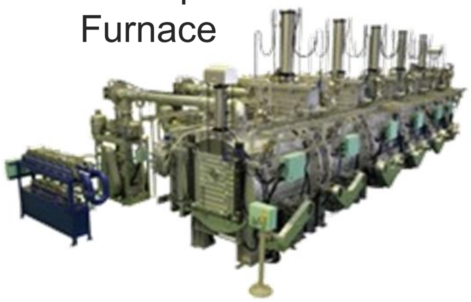
Raw Material Refining > **Melting and Casting** > **Hydrogen Decrepitation** > Fine Grinding > Magnetic Field Orientation Forming > **Sintering Process** > Machining > **GBD Processing** > **Aging Process** > Surface Treatment > Magnetization > Inspection

No.1 Share

Continuous Vacuum Melting Furnace

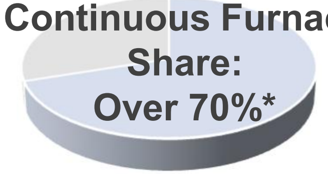


Hydrogen Decrepitation Furnace



No.1 Share

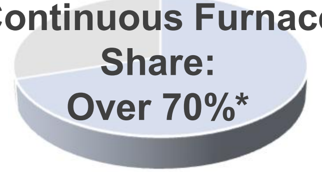
Continuous Vacuum Sintering Furnace



Batch Vacuum Furnace

No.1 Share

Continuous Vacuum Aging Furnace



Continuous Vacuum Melting Furnace	Hydrogen Decrepitation Furnace	
Over 400 units	**Over 20 units**	**Over 1,400 units (batch-type) / Over 160 units (continuous-type)**

*Based on our research

Reasons Why Our Equipment is Chosen

ULVAC

We provide a comprehensive lineup of equipment that meets the rigorous demands of magnet manufacturers by delivering high **‘Stable Process Reproducibility’** and **‘Mass-Production-Oriented Structures’,** backed by decades of expertise across core processes such as melting, strip casting, and sintering.

① Process Stability at Each Process Step

Stabilization of temperature, atmosphere, and cooling conditions by equipment

② Throughput Suitable for Mass Production

Continuous processing and long-term stabl operation directly linked to factory productivity

③ Equipment Design to Minimize lot-to-lot Variations

Creation of environments where variations are unlikely to occur)

④ Consideration for CAPEX and Operating Costs

Energy-saving design, maintainability, and compatibility with factory automation)

Continuous Vacuum Melting Furnace （Magcaster）

Continuous Vacuum Furnace (FSC/ FHH)

Basic Structure of the Melting Furnace - "Melting, Cooling, and Strip Formation" Process -

ULVAC

Alloying	Magnet Manufacturing	Product Manufacturing

Raw Material Refining › **Melting and Casting** › Hydrogen Decrepitation › Fine Grinding › Magnetic Field Orientation Forming › Sintering Process › Machining › GBD Processing › Aging Process › Surface Treatment › Magnetization › Inspection

The melting furnace serves as the starting point of magnet material production, melting metal and rapidly cooling it under a controlled atmosphere to form alloy strips (Strip Cast), thereby **determining the material microstructure and having a decisive impact on final magnet performance.**

Material Feeding

▼

Atmosphere Control
(Low-oxygen Environment)

▼

Heating and Melting

▼

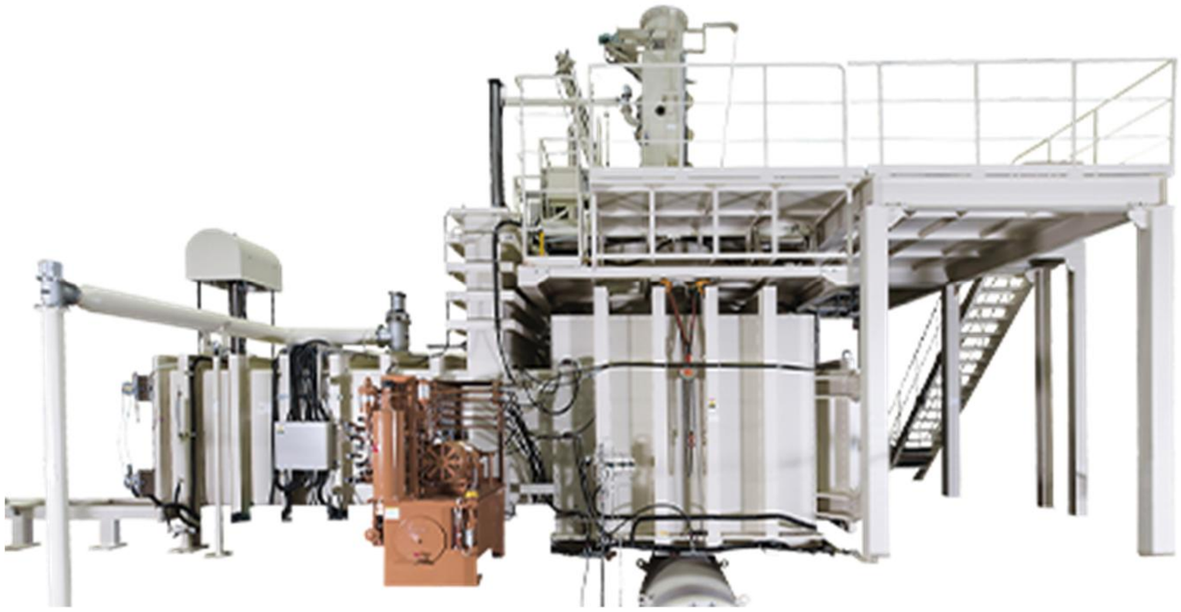
Rapid Cooling
(High-speed Cooling by Rollers or Drums)

▼

Strip Collection

Transfer to the Next Process

■ Vacuum Melting Furnace : Magcaster



Basic Structure of the Melting Furnace - “Melting, Cooling, and Strip Formation” Process -

ULVAC

Alloying	Magnet Manufacturing	Product Manufacturing

Raw Material Refining › **Melting and Casting** › Hydrogen Decrepitation › Fine Grinding › Magnetic Field Orientation Forming › Sintering Process › Machining › GBD Processing › Aging Process › Surface Treatment › Magnetization › Inspection

The melting furnace serves as the starting point of magnet material production, melting metal and rapidly cooling it under a controlled atmosphere to form alloy strips (Strip Cast), thereby **determining the material microstructure and having a decisive impact on final magnet performance.**

Material Feeding
▼
Atmosphere Control
(Low-oxygen Environment)
▼
Heating and Melting
▼
Rapid Cooling
(High-speed Cooling by Rollers or Drums)
▼
Strip Collection

Transfer to the Next Process

■ Heating, Melting, and Rapid Cooling Process in the Melting Furnace

Basic Structure of the Melting Furnace - "Melting, Cooling, and Strip Formation" Process -

ULVAC

Alloying	Magnet Manufacturing								Product Manufacturing	
Raw Material Refining	**Melting and Casting**	Hydrogen Decrepitation	Fine Grinding	Magnetic Field Orientation Forming	Sintering Process	Machining	GBD Processing	Aging Process	Surface Treatment	Magnetization	Inspection

The melting furnace serves as the starting point of magnet material production, melting metal and rapidly cooling it under a controlled atmosphere to form alloy strips (Strip Cast), thereby **determining the material microstructure and having a decisive impact on final magnet performance.**

- Material Feeding
- Atmosphere Control (Low-oxygen Environment)
- Heating and Melting
- Rapid Cooling (High-speed Cooling by Rollers or Drums)
- **Strip Collection**

Transfer to the Next Process

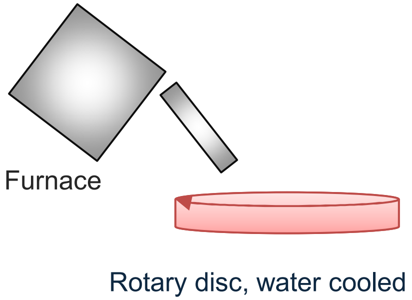
■ Alloy Strips Formed in the Melting Furnace

Evolution of Melting Furnaces and Our Strengths

Continuous evolution of melting furnace processes over 40 years

1980s

Cooling Disc Method



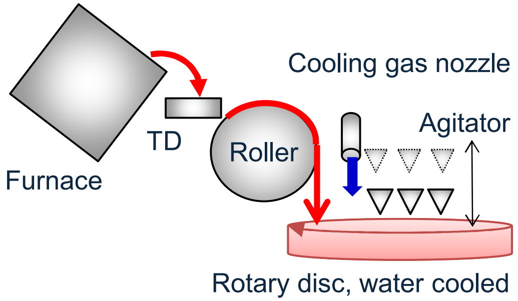
- Rapid cooling by pouring molten metal onto a cooling disc
- Simple and highly reliable fundamental technology

Key Features

- Rapid cooling achieved, with remaining challenges in cooling uniformity and continuity

1990s

Roller + Disc Method



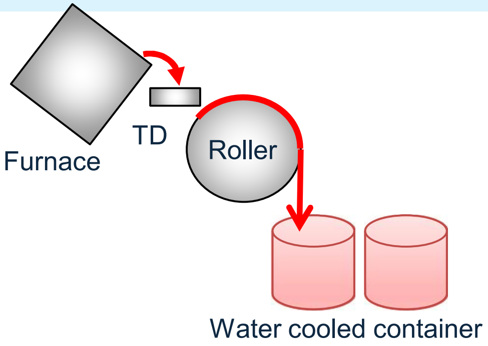
- Evolution to a structure combining rollers in addition to a cooling disc
- Enabling uniform cooling and significant improvement in microstructure

Key Features

- Achievement of uniform and fine crystal structures
- Overall enhancement of magnet performance

2000s

Roller + Collection Container Method



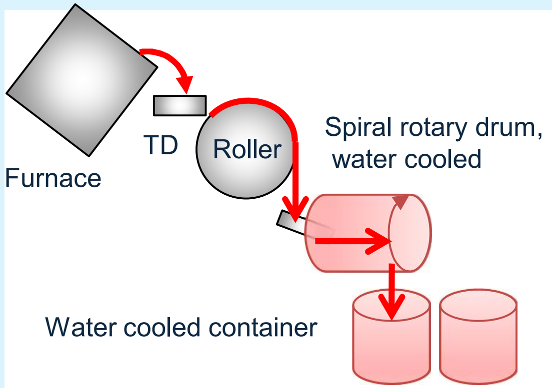
- Further improvement in cooling speed and stability through enhancements to the cooling roller structure
- Improved production efficiency through separation of the process chamber and the alloy strip collection container

Key Features

- Refinement of mechanical design
- Stabilization of processes
- Improved productivity

2010s-2020s

Roller + Drum Method



- Improved microstructure uniformity through the addition of secondary cooling
- Significant reduction in oxidation loss of heavy rare earths and a substantial increase in production capacity enabled by a structure allowing continuous melting

Our Strengths

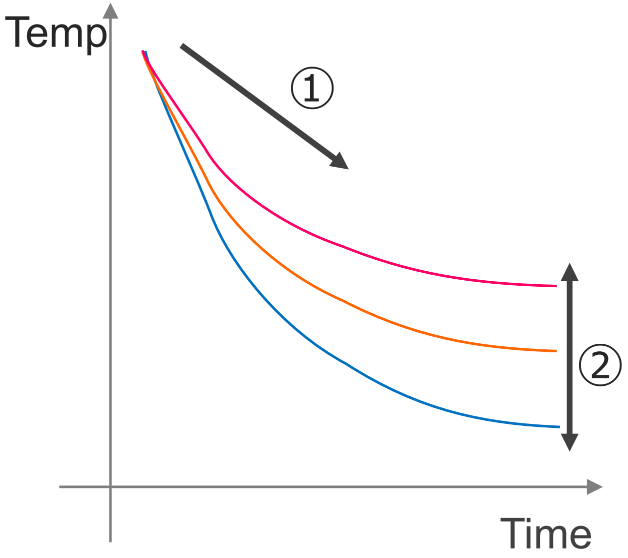
- **Improvements in process performance, running costs, and productivity**
- **Transition to a market-standard technology**

Impact of Cooling Speed and Cooling Uniformity of the Melting Furnace on Magnet Performance

ULVAC

The cooling performance of the melting furnace (speed × uniformity) is **the most critical factor** influencing the results of downstream sintering, GBD, and aging processes.
A key strength of our melting furnace evolution lies in **achieving stabilization of the initial microstructure at a global standard level**.

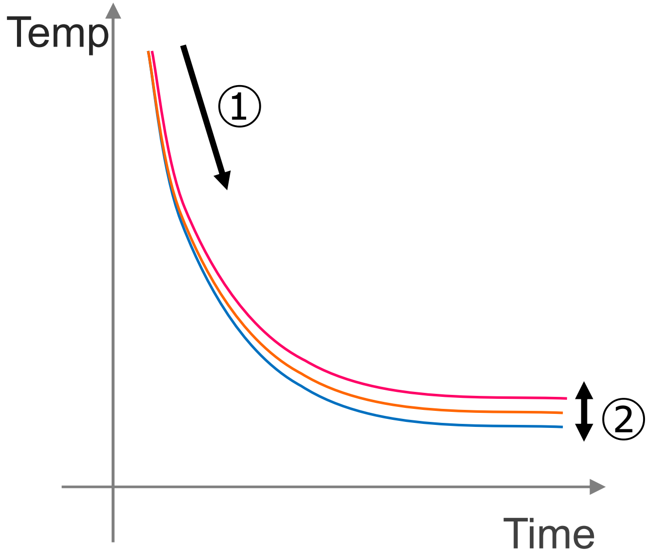
① Cooling Speed: **Slow**
② Cooling Uniformity: **Poor**



Bad

Low Magnetic Performance / Low Quality

① Cooling Speed: **Fast**
② Cooling Uniformity: **Good**



High Magnetic Performance / High Quality

Good

① Fast Cooling Speed

Refinement of the alloy main phase → High coercivity
Suppression of α-Fe precipitation → Stable properties
Uniform Nd-rich layer → Improved sinterability

② Good Cooling Uniformity

Less microstructural variation → Lot-to-lot stability
Less sintering variation → High yield
Consistent GBD effects → High-performance mass production

Basic Structure of Continuous Furnaces and Our Strengths

Alloying	Magnet Manufacturing	Product Manufacturing

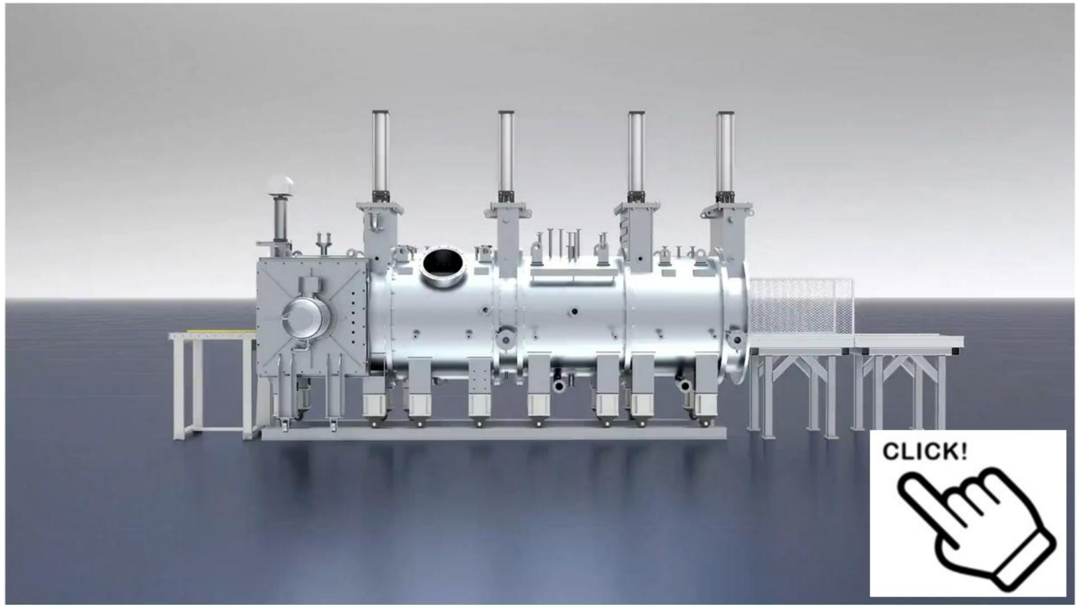
Raw Material Refining › Melting and Casting › Hydrogen Decrepitation › Fine Grinding › Magnetic Field Orientation Forming › **Sintering Process** › Machining › GBD Processing › **Aging Process** › Surface Treatment › Magnetization › Inspection

A multi-chamber vacuum heat-treatment furnace consisting of preparation, heating, and cooling chambers

Its defining feature is a structure that enables continuous processing by completely separating each process stage.

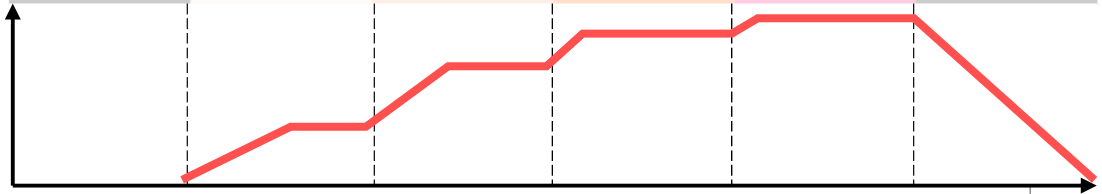
Strengths of the Process Structure

- The multi-chamber design keeps the heating chamber continuously under vacuum and high temperature, resulting in stable quality.
- The separation of the cooling process minimizes energy loss, leading to higher productivity.
- Hot-roller conveying allows stable and continuous transport under high-temperature conditions.
- The separation of the debinding chamber and the sintering chamber effectively prevents contamination within the furnace.



■ **Six-Chamber Continuous Sintering Furnace: Process Example**

Vacuum Evacuation	Debinding	Degassing	Sintering 1	Sintering 2	Cooling
–	400℃	800℃	1000℃	1100℃	–



Reasons Why ULVAC's Vacuum Furnaces are chosen

ULVAC

Batch furnaces are advantageous for low-volume, high-mix production, but are not optimal for mass production

- Increased electricity costs and TCO degradation due to repeated heating and cooling cycles
- Large-scale consumption of plant space and stagnant throughput
- Low quality reproducibility due to variations in thermal history and atmosphere
- Processes are fragmented, and U.S. manufacturers are unfamiliar with process coordination

Continuous furnaces offer advantages in terms of TCO*, productivity, and quality.

- Continuous vacuum and constant temperature in the heating chamber lead to stable quality
- Separated cooling process reduces energy loss and improves TCO
- High throughput through continuous conveyance (vs. batch furnaces)furnaces)
- Only a limited number of manufacturers worldwide can produce continuous furnaces (high technological barrier)

Why We are Chosen Worldwide

- Leading market share and proven sales performance in batch furnaces
- Enhanced efficiency across vacuum furnace processes, including transport and feeding
- Total process optimization, including material handling and production line start-up support

Our role extends beyond vacuum furnaces to key scale-up areas, including material handling, oxygen management, and process integration.

*TCO : Total Cost of Ownership

Future Expansion of
Rare-Earth Magnet–Related Business

	Established Players (First Movers) Manufacturers already operating mass-production lines	**New Entrants** Manufacturers newly entering the market in regions outside China
Position	Existing mass-production lines in operation	New line ramp-up
Challenges	De-China diversification and restructuring of production systems Labor reduction and quality stabilization	Process ramp-up challenges due to a lack of mass-production experience
Common Challenges	• Raw material sourcing and recipe development, especially for heavy rare earths • Non-China–based mass-production line construction • End-to-end integration of handling, feeding, and oxygen control • Balancing throughput with quality consistency	

＜Conventional＞
Standalone equipment supply

＜Going forward＞
Stabilizing mass-production lines by seamlessly connecting processes

Future Business Expansion

ULVAC

Integrated Engineering = Equipment × Material Handling × Inspection

- Our strength lies in our ability to support process establishment and rapid mass production, leveraging our full lineup of core magnet manufacturing processes and years of experience in stabilizing mass production.

Step① Equipment

Standardizing sealing, handling, and purging for pre- and post-processes. **Improving quality reproducibility and reducing cycle times** through enhanced feeding efficiency.

Step② Handling

Improving yield and reproducibility with oxygen-free handling solutions that minimize oxygen exposure during the Milling → Pressing → Sintering stages.

Step③ Inspection

Visualizing defect mechanisms by implementing the "5 Pillars of QC": Oxygen levels, Leak testing, Composition, Particle size, and Magnetic properties/Analysis.

As a leading manufacturer of vacuum furnaces, we strive to be an integrated engineering provider for mass production technologies of magnets

ULVAC