

Takuma started out as a boiler manufacturing company that was founded in 1938 based on a philosophy of contributing to society through its technology.

We have continued to provide services supporting vital aspects of our customers' and communities' daily lives by manufacturing essential facilities that will serve them for more than 50 years, including low-environmental-impact waste processing facilities, biomass power plants, and waste management centers that play a key role in their areas.

What will be required of us in the future?

We must create a sustainable society with a vision that stretches out to 100 years in the future, for example by going beyond conventional approaches to address climate change and realize a cyclical economy, by leveraging technologies and services to manufacture the essential facilities that will serve the next 50 years of customers as a leading company in the area of the environment and energy.

Serving the next 50 years of customers. Creating the next 100 years of society.

That summarizes Takuma's corporate value, and our mission.

We will continue to play an essential role for customers and society as a whole by creating essential products and services for the future while embracing a philosophy that has remained unchanged since the days of our founding.

Results for FY2023 (ended March 2024)

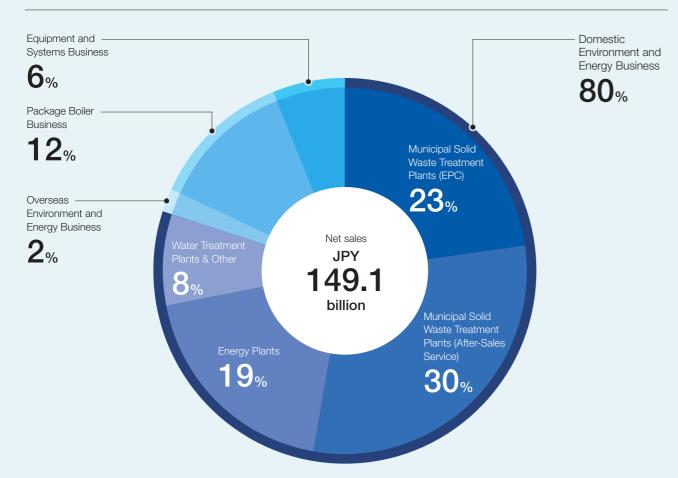
Net sales

JPY 149.1 billion

Operating profit

JPY 10.2 billion

Net sales Share by Segment



Contribution to Reductions in CO₂ Emissions

FY2023 Reduction of about 4.5 million tons

By harnessing energy from biomass and waste to be used as heat and electricity, we have contributed to reducing Japan's CO₂ emissions by approximately 4.5 millions tons (approximately 0.3%).

Core businesses

Municipal Solid Waste Treatment Plants

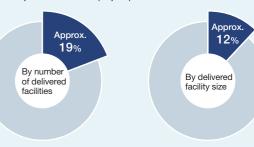


In this business stream, we provide waste treatment (incineration, recycling, biomass gasification) facilities for local governments. Incineration reduces waste, renders it harmless, and removes odors, while recycling and biomass gasification allow society to make effective use of waste by transforming it into a resource. In addition to preventing the spread of infectious diseases and removing hazardous substances, these facilities contribute to eliminating offensive odors and avoiding soil, water, and air pollution, making them essential infrastructure for maintaining public health and pleasant living conditions.

Our Achievements (Japan)

Since the Company's installation of Japan's first largely automated waste incineration plant capable of 24-hour continuous operation in 1963, Takuma has constructed approximately 370 waste incineration plants, more than any other domestic manufacturer. We can boast the largest share in the domestic market for the construction of these plants to date, in terms of both number and scale of facilities. Approximately 120 of these facilities remain in operation today, treating the waste of approximately 24 million people (a sixth of the country's population) and providing support for vital aspects of numerous people's lives.

Share in plant delivered (Japan)



Leading share in both categories

Energy Plants



In this business area, we provide machinery (such as large-scale boilers to supply the heat and electricity required by manufacturing facilities) and industrial waste treatment plants to the private sector. These utilize sawmill and construction waste, unused wood and other biomass, refuse paper and plastic fuel (RPF), industrial waste, and other materials as energy sources, thereby contributing not only to our customers' businesses but also to increased adoption of renewable energies and protecting the environment.

Biomass Boilers: Our Achievements (Japan and Overseas)

About 640 units

Top share

Water Treatment Plants



In this business line, we provide local governments with sand filtration systems for sewage treatment facilities' sand filters and incineration and power generation systems for processing sewage sludge. Both our sand filtration systems, involved in the advanced treatment required to meet high water quality standards, and our sewage sludge incineration and power generation systems, which use sewage sludge produced in the water treatment process to generate heat and energy, support a healthy water environment.

Upflow Moving-Bed Sand Filtration Systems: Our Achievements (Japan and Overseas)

About 2,900 systems Top share

Founding Spirit (from 1938)

Serve society through boiler manufacturing Our Company founder Tsunekichi Takuma, one of the ten greatest Japanese inventors of the Meiji and Taisho eras (1868 to 1926), established a motto for the Company (then Takuma Boiler Manufacturing Co., Ltd.) that expressed an intent to contribute to society through his business activities: boiler manufacture, sales, services, and related operations.

Our Logo (from 1941)



At the time of the Company's founding (as Takuma Boiler Manufacturing Co., Ltd.), we identified three areas where progress strengthened the foundations of the Company's business: research, manufacturing, and installation works. We then created a stylized version of part of the Company's name ("Takuma") worked into a triangle symbolizing these three principles. The design expresses our constant aim to improve our products and our unchanging desire to offer contributions to our customers and wider society.

Company Motto (from 1992)

Value Technology, Value People, Value the Earth

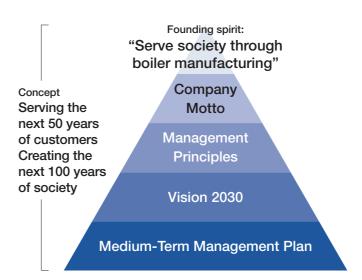
The previous Company Motto, "Serve society through boiler manufacturing," was replaced with that on the left in 1992, reflecting recognition that the Company was operating a multifaceted business as a manufacturer of not only boilers, but also environmental sanitation systems like waste treatment facilities and water treatment equipment. It captures Takuma's stance of leveraging the personality and ability of each employee to refine technologies that consistently lead the industry and then using them to safeguard the Earth's environment.

Management Principles (from 2006)

Takuma will strive for social contribution, corporate value enhancement, long-term corporate development and the satisfaction of all stakeholders by providing goods and services that are needed and recognized as valuable in society.

Takuma and the Takuma Group integrated the value system encapsulated by the Company's founding spirit, "Serving society through boiler manufacturing," into our management principles, and put our commitment to this concept in writing in 2006. In so doing, we aim to be of service to our customers and, by extension, to wider society through the economic value and services we create. We also feel that these principles relate well to the concept of sustainability, a key issue in business management today.

Takuma's Philosophy -



Editorial Policy

The goal of the Takuma Group Integrated Report 2024 is to provide our stakeholders with information on our consistent efforts to implement environmental, social, and governance (ESG) management, in an accessible format that comprehensively covers both financial and non-financial information, including on the Group's ESG initiatives. This year's Integrated Report builds on the themes of our previous CSR Reports, and we have focused efforts on further clarifying our value creation story and providing a deeper understanding of our initiatives for sustainable growth. We will use this report as a communications tool to deepen dialog with our stakeholders and further increase our corporate value.

Publisher	TAKUMA CO., LTD. Corporate Communications & Investor Relations Department, Corporate Planning & Administration Division	
Data Collection Period	April 1, 2023 to March 31, 2024 (some FY2024 activities included)	
Coverage	Takuma Co., Ltd., and its affiliates	
Time of Issue	November 2024	

Glossary

Term	Explanation
EPC	EPC is an acronym for "engineering, procurement, construction." Plant engineering, procurement, and construction work.
O&M	O&M is an acronym for "operation and maintenance." Plant operation projects.
DBO	DBO is an acronym for "design, build, operate." This term refers to a system under which facility design, building, and operation are funded by a public entity or similar body and contracted to a private company as a package (EPC + O&M)
DBM	DBM is an acronym for "design, build, maintenance." These projects take the form of EPC + long-term maintenance agreements.
вто	BTO is an acronym for "build, transfer, operate." This term refers to a business method based on a private finance initiative (PFI) in which a private business operator procures funds and engages in EPC of the facility, transfers ownership of the facility to the public upon completion, and then the private business operator operates the facility.
Primary equipment improvement	A shortened form of "works to improve primary equipment." An approach that aims to restore functionality and extend plant life by replacing or making improvements to aging equipment while maintaining buildings and other elements with long service lives, from the perspective of reducing the life cycle cost of a facility.

Term	Explanation
Recurring revenue model businesses	A business whose revenue source is after-sales services for delivered plants (mainly operation management, maintenance, operation projects, etc.).
Stock management	A method of effectively utilizing existing facilities (stock) over the long term.
FIT	FIT is an acronym for "feed-in tariff." A program through which power companies purchase renewable energy at a fixed price.
FIP	FIP is an acronym for "feed-in premium." A program under which power companies purchase renewable energy at market price plus a defined premium.
ccus	CCUS is an acronym for "carbon capture, utilization, and storage." Technologies separating and recovering carbon dioxide from flue gases emitted by thermal power stations and other facilities for use or underground storage.
RPF	RPF is an acronym for "refuse-derived paper and plastic densified fuel." It is a solid fuel primarily made from wastepaper and plastic waste.
FY	The abbreviation for "fiscal year," it refers to the fiscal year that ended on March 31.

CONTENTS

Section 01		
Introduction		
Mission Statement01		
At a Glance02		
Contents & Editorial Policy04		
Section 02		
Our Value Creation Story		
Message from Top Management	t06	
A History of Our Value Creation.	10	
Evolution of Takuma's Technical Capabilities	12	

Key issues (iviateriality)14		
Value Creation Process16		
Six Key Management Resources18		
Our Value Chain20		
Section 03		
Strategy Overview		
Strategy Overview Our Long-Term Vision: Vision 203022		
Our Long-Term Vision: Vision 203022		
Our Long-Term Vision: Vision 203022 14th Medium-Term Management Plan24		

Energy Business30		
Overseas Environment and Energy Business34		
Package Boiler Business35		
Equipment and Systems Business36		
Section 04		
Sustainability		
Sustainability Strategy37		

Helping Combat Climate Change40
Conserving Resources and Protecting the Environment42
Strengthening Relationships of Trust with Customers and Communities46
Pursuing Partnerships and Innovation48
Promoting Activities of Human Resources50
Ensuring Safety and Health54
Strengthening Corporate Governance 56
Risk Management and Compliance 60
Executive Profiles62
Messages from Outside Directors64

Corporate Data
Financial and Non-Financial Data66
Our Achievements70
Corporate and Stock Information72

4 TAKUMA CO., LTD. Integrated Report 2024