TAKUMA

2017 Annual Report

Takuma Provides New Value for Society in the Environ mental and Energy Fields.

Takuma develops a variety of technologies around a core set of combustion technologies, including waste treatment and water treatment components.
Our businesses in the environmental and energy fields are dedicated to resolving environmental issues such as global warming and to helping achieve a recycling-oriented society.
At Takuma, our mission is to pursue technologies for coexisting in harmony with nature in order that humankind and the Earth might enjoy a truly rich and fulfilling future.

Municipal solid waste treatment plants

We support the realization of a recycling-oriented society using advanced waste treatment technologies that meet the needs of local communities.

- Energy from Waste plant
- Pyrolysis gasification and melting plant
- Resource recycling and collection plant
- Bulky garbage crushing plant
- Incineration ash and fly ash melting plant
- Waste to solid fuel conversion plant
- Transition and intermediate processing plant
- Raw fuel (biogas) recovery plant
- Various types of pollution prevention equipment


Energy from Waste plant


Bulky garbage crushing plant

Industrial waste treatment plants

Using advanced incineration technologies, we can even treat toxic substances suitably and we are supporting the environmental protection efforts of industry.

- Step grate stoker incineration plant
- Rotary kiln and stoker incineration plant
- Fluid bed incineration plant


Industrial waste treatment plant


Plant that generates power from industrial waste and provides heat to a plantation

General-purpose boilers

As the convergence of Takuma combustion technologies, our boilers are a reliable brand that has earned the support of a wide range of industries.

- Once-through boiler (Eqos, Super Eqos)
- Vacuum-type water heater (Vacotin heater)
- Package water-tube boiler
- Smoke tube boiler (RE boiler)
- Heat-transfer oil boiler (thermoheater)
- Radiation heating equipment (strip heater)
- Various equipment for ships

Note: These products are handled by Nippon Thermoener Co., Ltd., which is one of our group companies.


Vacotin heater Thermoheater Super Eqos RE boiler

Energy plants

Takuma's core technologies are utilized in various types of boilers such as biomass fuel boilers as well as total systems.

- Biomass boiler
- Fossil fuel boiler
- Waste heat boiler
- Power generation plant


Biomass power generation boiler


Waste heat boiler

Water treatment plants

We are working to purify dirty water with a holistic perspective through a "dialogue with water."

- Sewage and wastewater processing plant
- Various types of advanced sewage processing plants
- Sludge processing plant
- Sewage sludge-fueled power plant
- Plant to process water that infiltrates final disposal sites

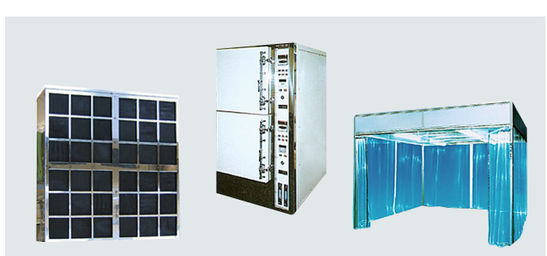

Continuous up-flow sand filter


Purification of park pond water

Air-conditioning equipment and clean systems

We provide comfortable, clean environments to customers in the semiconductor industry as well as locations such as universities, research institutions, and hospitals.

- Building Equipment
- Air-conditioning Equipment
- Cleaning and Drying Devices
- Clean Room
- Clean Devices
- Chemical Filters


Chemical Filters Clean Oven Clean Booths

Contents

Corporate Information

Company outline

Name:	TAKUMA CO., LTD.
Head office location:	2-2-33 Kinrakuji-cho, Amagasaki, Hyogo 660-0806, Japan TEL +81-6-6483-2609 FAX +81-6-6483-2751 (operator)
Representative Director:	Takaaki Kato, President and CEO
Established:	June 10, 1938
Capital:	JPY 13,367,457,968 (as of March 31, 2017)
Main business areas:	The design, construction and superintendence of a wide variety of boilers, plant machinery, pollution prevention plants, environmental equipment plants, and heating and cooling equipment and feed-water / drainage sanitation equipment and facilities The design, construction and superintendence of civil, architecture and other works
Number of employees (non-consolidated):	824 (as of March 31, 2017)
Number of employees (consolidated):	3,447 (as of March 31, 2017)

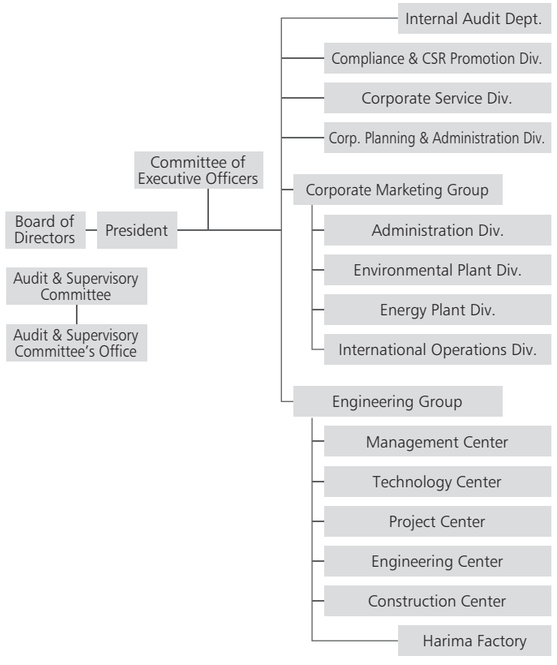
Permits and registrations

Head Office, branch offices and other business offices
Construction license (Minister of Land, Infrastructure, Transport and Tourism license, Special 27-6129)
Construction consultant registration (Minister of Land, Infrastructure, Transport and Tourism registration, Construction 26-10202)
First-class architect office registration (01A02903)
ISO 9001 quality management system certification
Harima Factory
ISO 9001 quality management system certification
ISO 14001 environmental management systems certification
Manufacture of thermal equipment for power generation (Ministry of Economy, Trade and Industry)
Permission to manufacture boilers and pressure vessels, permission to manufacture cranes (Ministry of Health, Labour and Welfare)
Manufacture of specific high-pressure gas facilities (Ministry of Economy, Trade and Industry)
Manufacture of refrigerators (Governor of Hyogo Prefecture)

JQA-1952
ISO 9001
certification
Head Office, Osaka Office, Tokyo Branch, Chubu Branch, Kyushu Branch, Hokkaido Branch and Harima Factory

JQA-EM0313
ISO 14001
certification
Harima Factory

Corporate structure (as of June 28, 2017)




Head Office


Harima Factory

The History of Takuma

1912
The first "Takuma boiler" introduced by our founder, the venerable Tsunekichi Takuma


The venerable Tsunekichi Takuma

1930
The venerable Tsunekichi Takuma commended as one of the ten great inventors of Japan during the Meiji and Taisho periods (1868–1926)

1938
Takuma Boiler Manufacturing Co., Ltd. founded
Company Motto instituted: "Service to the nation through boiler manufacturing"


Amagasaki Factory

1942
Operation begins at Harima Factory


Harima Factory under construction

1949
Company listed on the Osaka and Tokyo stock exchanges

1949
Bagasse fired boiler, the first product of its kind in the industry, exported

1953
Head Office moved to Osaka's Kita-ku District

1958
Business expanded into the environmental facility sectors, including waste incineration and water treatment plants

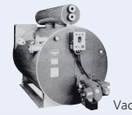
1962
Operation begins at Kyoto Factory (Current: Nippon Thermoener Co., Ltd. Kyoto Factory)

1963
Japan's first waste incineration plant delivered
Sewerage treatment facility delivered


Japan's first waste incineration plant

1972
Company renamed Takuma Co., Ltd.

1975
Bulk production begins on "vacotin heater", the world's first vacuum-type hot water heater


Vacotin heater

1986
The first overseas delivery of a waste treatment facility completed (U.S.A.)

1992
New Company Motto instituted: "Value Technology, Value People, Value the Earth"

1992
The first delivery of a waste energy treatment facility completed in Taiwan (Nei-Hu, Taipei City)

1995
Amagasaki Head Office Building completed

1997
ISO9001 certification obtained

1998
Japan's largest Energy from Waste plant delivered
(Tokyo Shinkoto Waste Treatment Plant capacity: 1,800 tons per day)

1999
ISO14001 certification obtained for our Harima Factory

2005
Takuma Hanyokikai Co., Ltd., a subsidiary involved in the manufacture and sale of small boilers, and Ebara Boiler Co., Ltd., merged and renamed Nippon Thermoener Co., Ltd.

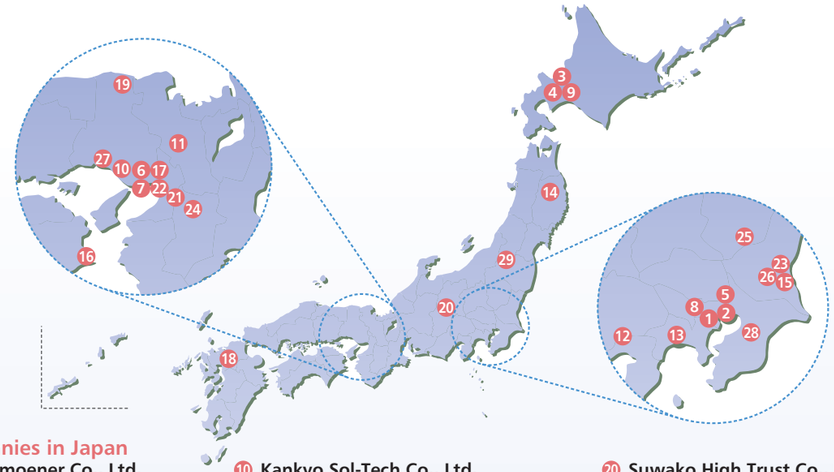
2005
The first delivery of a waste energy treatment facility completed in China (Tianjin City)

2010
Energy from Waste plant delivered in Europe (U.K.)

2012 – 2013
Installation and operation of temporary incinerators to process disaster waste from the Great East Japan Earthquake

2013
Operation of the Takuma Solar Power Plant began (Harima Factory)

The Takuma Group Network



Takuma's business offices

1 Head Office
2-2-33 Kinrakuji-cho, Amagasaki, Hyogo 660-0806, Japan
TEL +81-6-6483-2609 FAX +81-6-6483-2751
http://www.takuma.co.jp

2 Osaka Office
Daiken Bldg., 2-3-20 Tsukamoto, Yodogawa-ku, Osaka 532-0026, Japan
TEL +81-6-6100-3301 FAX +81-6-6100-3302

3 Tokyo Branch
Nomura Higashi-nihonbashi Bldg., 1-1-7 Higashi-nihonbashi, Chuo-ku, Tokyo 103-0004, Japan
TEL +81-3-5822-7800 FAX +81-3-5822-7888

4 Hokkaido Branch
Daigo Bldg., 5-11, Ohdori Nishi, Chuo-ku, Sapporo, Hokkaido 060-0042, Japan
TEL +81-11-221-4106 FAX +81-11-241-0523

5 Tohoku Branch
NMF Sendai Aoba-dori Bldg., 2-1-2 Ichibancho, Aoba-ku, Sendai, Miyagi 980-0811, Japan
TEL +81-22-222-3042 FAX +81-22-225-6759

6 Chubu Branch
Daitokai Bldg., 3-22-8, Meieki, Nakamura-ku, Nagoya, Aichi 450-0002, Japan
TEL +81-52-571-5211 FAX +81-52-581-3005

7 Kyushu Branch
Yakuin Business Garden, 1-1-1 Yakuin, Chuo-ku, Fukuoka 810-0022, Japan
TEL +81-92-717-2828 FAX +81-92-717-2830

8 Okinawa Branch
Commons Bldg., 1-11-12 Mashiki, Ginowan, Okinawa 901-2224, Japan
TEL +81-98-898-6650 FAX +81-98-898-6657

9 Harima Factory
1-2-1 Shinhama, Arai-cho, Takasago, Hyogo 676-8540, Japan
TEL +81-79-443-6511 FAX +81-79-443-6599

10 Taipei Branch
7F., No.16, Lane 35, Jihu Rd., Neihu District, Taipei 114-92, Taiwan
TEL +886-2-8752-3838 FAX +886-2-2656-0584

Overseas group companies

1 Taiden Environtech Co., Ltd. (Taiwan)
Maintenance of waste treatment and other facilities
7F., No. 16, Lane 35, Jihu Rd., Neihu District, Taipei 114-92, Taiwan
TEL +886-2-2659-7137 FAX +886-2-2656-0584

2 Siam Takuma Co., Ltd. (Thailand)
Sale of energy and environment-related plants, sales of parts for the same plants and after-sales service
77/53 Sinn Sathorn Tower, 15th Floor, Krungdhonburi Road, Klongtonsai, Klongsarn, Bangkok 10600, Thailand
TEL +66-2-4385616 FAX +66-2-4400114

Group companies in Japan

1 Nippon Thermoener Co., Ltd.
Manufacture and sale of a wide range of boilers and related equipment
Shirokanedai Bldg., 3-2-10 Shirokanedai, Minato-ku, Tokyo 108-0071, Japan
TEL +81-3-6408-8251 FAX +81-3-6408-8278
http://www.n-thermo.co.jp/

2 Takuma Technos Co., Ltd.
Maintenance, management and operation of waste treatment facilities, water treatment facilities and other facilities, as well as the design, installation and management of various types of boilers, environmental equipment and other equipment
10th Chuo Bldg., 1-5-6 Nihonbashi, Chuo-ku, Tokyo 103-0023, Japan
TEL +81-3-3231-2911 FAX +81-3-3231-2917
http://www.takumatechnos.co.jp/

3 Hokkaido Sanitary Maintenance Co., Ltd.
Operation and maintenance of sewage treatment facilities
Daigo Bldg., 5-11, Ohdori Nishi, Chuo-ku, Sapporo, Hokkaido 060-0042, Japan
TEL +81-11-221-8398 FAX +81-11-221-8542

4 Takuma Technos Hokkaido Co., Ltd.
Operation and maintenance of waste treatment facilities
Daigo Bldg., 5-11, Ohdori Nishi, Chuo-ku, Sapporo, Hokkaido 060-0042, Japan
TEL +81-11-221-4128 FAX +81-11-221-1030

5 Sun Plant Co., Ltd.
Design, construction and superintendence of air-conditioning equipment, feed-water/drainage sanitation equipment, and electrical equipment
Nomura Higashi-nihonbashi Bldg., 1-1-7 Higashi-nihonbashi, Chuo-ku, Tokyo 103-0004, Japan
TEL +81-3-5825-0921 FAX +81-3-5825-1631
http://www.sunplant.co.jp/

6 Takuma Engineering Co., Ltd.
Design of environmental equipment plants and energy plants
Takuma Bldg., 2-2-33 Kinrakuji-cho, Amagasaki, Hyogo 660-0806, Japan
TEL +81-6-6487-4820 FAX +81-6-6487-4829
http://www.takuma-eng.co.jp/

7 Takuma System Control Co., Ltd.
Design of electrical instrumentation equipment, including environmental equipment plants and energy plants
Takuma Bldg., 2-2-33 Kinrakuji-cho, Amagasaki, Hyogo 660-0806, Japan
TEL +81-6-6487-4830 FAX +81-6-6487-4839
http://www.takuma-sc.co.jp/

8 Dan-Takuma Technologies Inc.
Manufacture and sale of clean equipment, cleaning equipment, chemical filters, clean rooms, drying equipment and thermal chambers
3-12-16 Iwadokita, Komae, Tokyo 201-0004, Japan
TEL +81-3-3488-1111 FAX +81-3-3488-1118
http://www.dan-net.com/

9 Kyoritsu Setsubi Co., Ltd.
Design, construction and superintendence of waste treatment facilities, mechanical equipment of sewage treatment facilities, and boiler plants for general industries
5-1-38 Yurigahara, Kita-ku, Sapporo, Hokkaido 002-8081, Japan
TEL +81-11-770-2811 FAX +81-11-770-2822

10 Kankyo Sol-Tech Co., Ltd.
Analyzing and measurement for environment-related issues, including water quality, exhaust gas and soil pollution
1-2-1 Shinhama, Arai-cho, Takasago, Hyogo 676-0008, Japan
TEL +81-79-443-6508 FAX +81-79-443-6510
http://www.k-soltech.co.jp/

11 Campo Recycle Plaza Co., Ltd.
Municipal solid waste and industrial waste treatment services
1 Takayanishitani, Sonobe-cho, Nantan, Kyoto 622-0032, Japan
TEL +81-771-68-3636 FAX +81-771-68-3639
http://www.c-rp.co.jp/

12 Nagaizumi High Trust Co., Ltd.
Facility upgrading, operation and maintenance of municipal solid waste final disposal sites
374-12 Higashino, Nagaizumi-cho, Suntou-gun, Shizuoka 411-0931, Japan
TEL +81-55-989-2268 FAX +81-55-987-9935
http://www.nagaizumi-ht.jp/

13 Fujisawa High Trust Co., Ltd.
Operation and maintenance management of municipal solid waste treatment facilities
2168 Ishikawa, Fujisawa, Kanagawa 252-0815, Japan
TEL +81-466-45-5411 FAX +81-466-45-5454

14 Iwate-Kenpoku Clean Co., Ltd.
Municipal solid and industrial waste treatment services
48-34, Dai 20 Chiwari, Esashika, Kunohe-mura, Kunohe-gun, Iwate 028-6505, Japan
TEL +81-195-42-4085 FAX +81-195-42-4550
http://www.iwate2cln.co.jp/

15 Hitachinaka-Tokai High Trust Co., Ltd.
Operation and maintenance management of municipal solid waste treatment facilities
103-2 Shinkocho, Hitachinaka, Ibaraki 312-0005, Japan
TEL +81-29-265-5371 FAX +81-29-265-5372
http://hitachinaka-tokai-ht.com/

16 Anan High Trust Co., Ltd.
Operation and maintenance management of municipal solid waste treatment facilities
1-5 Kokatsu, Tachibana-cho, Anan, Tokushima 779-1631, Japan
TEL +81-884-49-5823 FAX +81-884-49-5824
http://www.ecopark-anan.com/

17 Takuma Energy Co., Ltd.
Power retail business
Takuma Bldg., 2-2-33 Kinrakuji-cho, Amagasaki, Hyogo 660-0806, Japan
TEL +81-6-6487-4870 FAX +81-6-6483-2794

18 Kurume High Trust Co., Ltd.
Operation and maintenance management of a municipal solid waste treatment facilities
2225 Hacchojima, Miyanojin-machi, Kurume, Fukuoka 839-0805, Japan
TEL +81-942-27-7490 FAX +81-942-27-7491
http://www.kurume-ht.com/

19 Hokutan High Trust Co., Ltd.
Operation and maintenance management of a municipal solid waste treatment facilities
943 Booka, Takeno-machi, Toyooka, Hyogo 669-6331, Japan
TEL +81-796-21-9111 FAX +81-796-21-9112
http://www.hokutan-ht.com/

20 Suwako High Trust Co., Ltd.
Operation and maintenance management of a municipal solid waste treatment facilities
4769-14 Uchiyama, Okaya, Nagano 394-0055, Japan
TEL +81-266-78-1590 FAX +81-266-78-1591
http://www.suwako-ht.jp/

21 Energy Mate Co., Ltd.
Sale of cogeneration systems and systems for the generation equipment of the same and total service for onsite energy systems for consumer use
Midosuji Daiwa Bldg., 3-6-8 Kyutaromachi, Chuo-ku, Osaka 541-0056, Japan
TEL +81-6-6241-6200 FAX +81-6-6241-6210
http://www.energy-mate.co.jp/

22 Takuma Plant Service Co., Ltd.
Maintenance of a wide variety of boilers and environmental facilities
2-2-27 Kinrakuji-cho, Amagasaki, Hyogo 660-0806, Japan
TEL +81-6-6488-8434 FAX +81-6-6488-0300
http://www.takuma-ps.com/index.html

23 Biopower Katsuta Co., Ltd.
Wood biomass power generation business
1974-1 Koya, Hitachinaka, Ibaraki 312-0002, Japan
TEL +81-29-270-3341 FAX +81-29-270-3343

24 Kashihara High Trust Co., Ltd.
Operation and maintenance management of municipal solid waste treatment facilities
1038-2 Kawanishi-cho, Kashihara, Nara 634-0826, Japan
TEL +81-744-26-6227 FAX +81-744-26-6228

25 Tochigi High Trust Co., Ltd.
Industrial waste treatment services
18-3 Kinugaoka, Moka, Tochigi 321-4367, Japan
TEL +81-285-83-3966 FAX +81-285-83-6500
http://www.t-hitrust.co.jp/

26 Katsuta Co., Ltd.
Industrial waste and municipal solid waste treatment services
1968-2 Koya, Hitachinaka, Ibaraki 312-0002, Japan
TEL +81-29-270-3711 FAX +81-29-270-3712
http://www.eco-katsuta.com/

27 R.B.N. Co., Ltd.
Municipal solid waste, including waste home appliances and office automation equipment, and industrial waste treatment services
3059-20 Nakajima, Shikama-ku, Himeji, Hyogo 672-8035, Japan
TEL +81-79-243-1200 FAX +81-79-243-1202

28 Ichihara New Energy Co., Ltd.
Industrial and municipal solid waste treatment services
733 Mandano, Ichihara, Chiba 290-0549, Japan
TEL +81-436-50-8300 FAX +81-436-50-8400
http://www.ichihara-new.com/

29 Ecos Yonezawa Co., Ltd.
Final disposal of industrial waste
7028-1 Yanazawa, Yonezawa, Yamagata 992-0077, Japan
TEL +81-238-39-4050 FAX +81-238-39-4051
http://www.ecos-y.co.jp/

Financial Highlights

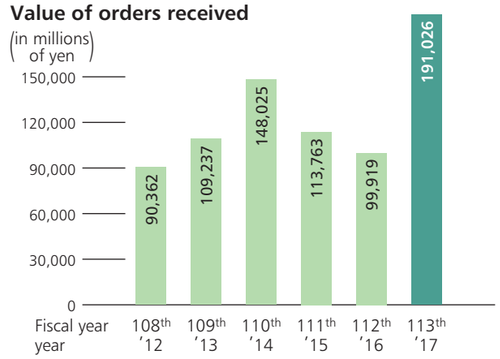
Trend in Principal Management Indicators and Other Financial Data

Fiscal year	108th (Millions of yen)	109th (Millions of yen)	110th (Millions of yen)	111th (Millions of yen)	112th (Millions of yen)	113th (Millions of yen)	113th (Thousands of U.S. dollars)
End of fiscal year	March 2012	March 2013	March 2014	March 2015	March 2016	March 2017	March 2017
Net sales	¥ 101,015	¥ 96,384	¥ 96,334	¥ 103,875	¥ 113,088	¥ 116,309	$1,036,717
Operating income	¥ 6,429	¥ 6,241	¥ 8,424	¥ 8,223	¥ 9,189	¥ 10,974	$ 97,815
Ordinary income	¥ 7,336	¥ 7,168	¥ 9,449	¥ 9,116	¥ 9,646	¥ 11,606	$ 103,446
Profit attributable to owners of parent	¥ 4,212	¥ 6,145	¥ 8,835	¥ 8,030	¥ 7,817	¥ 8,551	$ 76,217
Comprehensive income	¥ 4,935	¥ 6,712	¥ 9,935	¥ 9,398	¥ 7,149	¥ 9,937	$ 88,569
Net assets	¥ 28,308	¥ 34,653	¥ 43,889	¥ 52,516	¥ 58,809	¥ 67,727	$ 603,682
Total assets	¥ 107,028	¥ 106,754	¥ 108,520	¥ 123,127	¥ 132,614	¥ 140,201	$1,249,675
Net assets per share (JPY or USD)	¥ 339.20	¥ 415.92	¥ 527.50	¥ 631.53	¥ 708.18	¥ 815.77	$ 7.27
Net income per share (JPY or USD)	¥ 50.94	¥ 74.32	¥ 106.86	¥ 97.12	¥ 94.55	¥ 103.43	$ 0.92
Diluted net income per share (JPY or USD)	–	–	–	–	–	–	–
Capital adequacy ratio (%)	26.2	32.2	40.2	42.4	44.1	48.1	48.1
Return on equity (%)	16.3	19.7	22.7	16.8	14.1	13.6	13.6
Price-to-earnings ratio	8.1	7.4	6.9	9.7	10.7	10.5	10.5
Cash flows from operating activities	¥ 4,565	¥ 17,465	¥ 8,270	¥ 21,727	¥ 6,728	¥ 9,590	$ 85,483
Cash flows from investing activities	¥ 270	¥ (59)	¥ (1,430)	¥ (160)	¥ (445)	¥ 143	$ 1,273
Cash flows from financing activities	¥ (2,494)	¥ (8,887)	¥ (5,867)	¥ (3,707)	¥ (2,900)	¥ (1,787)	$ (15,930)
End-of-year balance of cash and cash equivalents	¥ 17,384	¥ 26,005	¥ 27,030	¥ 45,008	¥ 48,335	¥ 57,132	$ 509,247
Number of employees	3,187	3,288	3,315	3,266	3,366	3,447	3,447

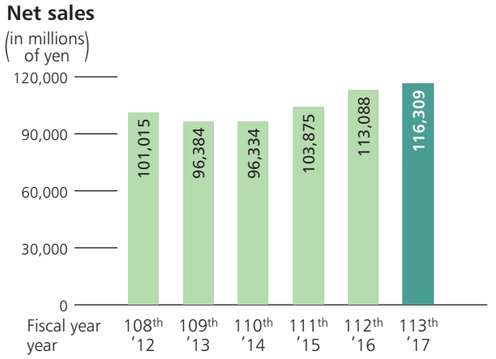
Note:
1. U.S. dollar amounts are shown solely for the convenience of readers and are translated at the rate of ¥112.19 to U.S.$1.00, the exchange rate prevailing at March 31, 2017.
2. Ordinary income is a measure of accounting profit that equals operating income plus other income minus other expenses, except for extraordinary items under Japanese GAAP.

Trend in Principal Management Indicators

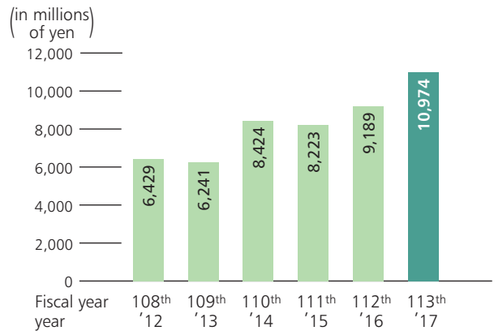
Value of orders received



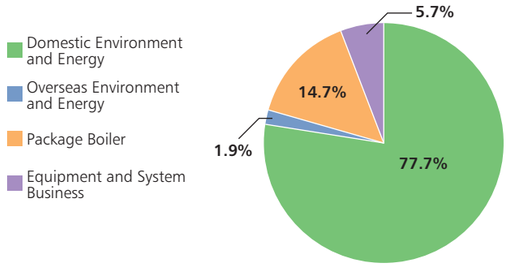
Net sales



Operating income

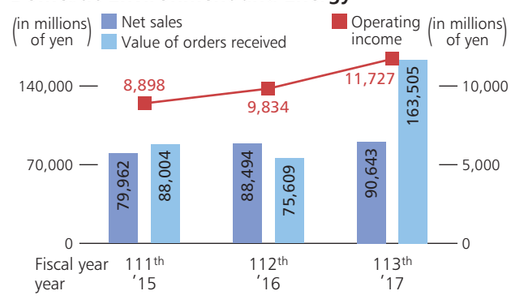


Net sales composition ratios
(FY2016)

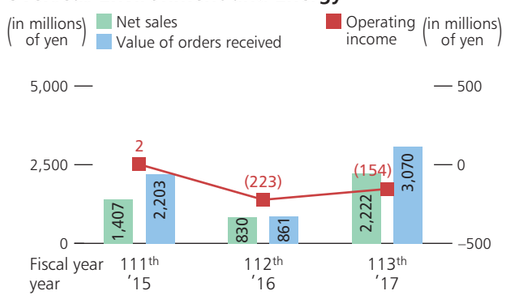


Trend by Segment

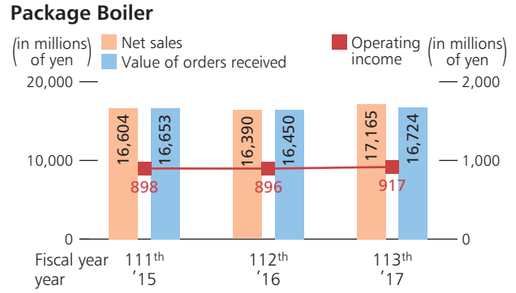
Domestic Environment and Energy



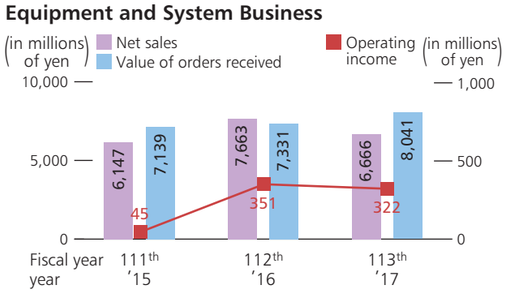
Overseas Environment and Energy



Package Boiler



Equipment and System Business



Achieving sustained growth by resolving social issues and increasing corporate value through CSR management

Business policies

Takuma's Management Principles state that the company 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."

In keeping with this philosophy, we have identified two goals: first, continuing to play an essential role for society as a leading company in the utilization of renewable energy and in the field of environmental protection; and second, of achieving ordinary profit of JPY 10.0 billion in FY2020 as our target level of ordinary profit. Similarly, we have embraced a corporate vision of building structures capable of earning JPY 10.0 billion in profit or more in a stable and consistent manner even as the business environment continues to undergo dramatic change, and we are pursuing a series of business activities in pursuit of that vision. We will achieve this vision not through the standalone efforts of the company, but as the result of the combined capabilities of the entire Takuma Group. To that end, we have adopted a basic management policy of maximizing profits in our consolidated financial accounting and of increasing corporate value.

The Group will work diligently to implement the 11th Medium-Term Management Plan (FY2015 to FY2017) in an effort to build on past results to enhance its business so that it can achieve sustained growth, both in terms of quality and quantity.

Business environment

We expect to see continued demand for our principal businesses thanks to increased environmental awareness; progress in initiatives to prevent global warming and conserve resources and energy; planned replacement of, and updates to, outdated facilities operated on behalf of local governments; and energy policies that incentivize biomass-fueled power plants, for example feed-in-tariff programs for power generated using renewable energy.

In addition, adoption of the Paris Agreement at the United Nations Climate Change Conference (COP 21) and of Sustainable Development Goals (SDGs) at the United Nations Sustainable Development Summit provides milestones along the path to a sustainable society. Takuma's technologies for processing waste and reducing carbon dioxide emissions through high-efficiency generation of electricity using biomass promise to make a significant contribution to the resolution of social issues, and I believe that they will also serve to facilitate the growth and development of the Group's businesses.

Implementing CSR management and achieving sustained growth

Companies must continuously build mechanisms for creating new value while maintaining good, long-term relationships with a variety of stakeholders, including customers, business partners, employees, shareholders, and investors. To do so, it is essential to demonstrate an ability to act in a way that earns stakeholders' trust. To that end, we will continue to pursue management activities in a socially just and ethical manner, to take into account environmental and human rights considerations, and to advance corporate governance, compliance, and risk management, which comprise the foundation on which the company's activities are carried out.

The Takuma Group has established its Company Motto, Management Principles, Takuma Group Ethics Charter, and Takuma Group Code of Conduct as the foundation for CSR management, and we strive to put them into practice. We believe that we can resolve social issues, increase corporate value, and achieve sustained growth by cultivating a healthy and robust corporate culture and ensuring that the Group's executives and employees each maintain a high level of CSR awareness and incorporate that awareness into their business activities.

Takuma has been a signatory to the United Nations Global Compact since 2006, and we support its 10 fundamental principles in the 4 areas of human rights, labour, environment, and anti-corruption. We will work to develop our business while understanding and respecting these globally shared principles.

We at the Takuma Group encourage readers to offer their candid views and advice, which we will carefully review in order that we might better resolve social issues and contribute to the sustained development of society.

July 2017

Takaaki Kato
President and CEO
Takuma Co., Ltd.

Takaaki Kato

The Takuma Group has joined the United Nations Global Compact (UNGC), which is a voluntary effort to create a global framework for implementing sustainable growth by having companies and groups exercise responsible and creative leadership while acting as good members of society.
Reference: UN Global Compact http://www.unglobalcompact.org/

Company Motto

Value Technology, Value People, Value the Earth

Management Principles

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.

The founding spirit of Takuma was "Service to the nation through boiler manufacturing"* which in present-day language means "contribution to society by supplying goods and services that we yield." This spirit can also be applied to the concept of Corporate Social Responsibility (CSR) that in recent years has become a vital issue for corporate management. The management principles of the Takuma group companies are all based on the said founding spirit.

* Service to the nation through boiler manufacturing
It was the Company Motto of Takuma, then Takuma Boiler Manufacturing Co., Ltd., founded by Mr. Tsunekichi Takuma, one of the ten great inventors of Japan during the period of Meiji and Taisho (1868–1926).

Takuma Group Ethics Charter

Takuma and the Takuma Group companies believe that it is essential for the sound development of the group that all of the directors and employees remain aware of our social responsibilities and the circumstances surrounding us as well as act in response to social ethics complying with applicable related laws and ordinances. Bearing the above in mind, we have established and will promote this ethics charter as our code of conduct, aiming to realize our management principles.

1. **We shall strive for proactive social contribution while establishing a harmonious coexistence with the global environment as good corporate citizens.**
2. **We shall act in good faith in accordance with sound business custom, while complying with applicable laws and regulations and committing ourselves to fair, transparent and free competition, as well as conducting lawful business activities.**
3. **We shall never have any relationship with antisocial forces or organizations, which may pose a threat to the social order and security of civil society.**
4. **We shall respect fundamental human rights and never practice discrimination.**
5. **We shall strive to provide high quality products and services, based on our advanced technologies, to attain high acclaim and confidence from our customers.**
6. **We shall strive to disclose corporate information to shareholders and investors through investor relations (IR) and other activities on a timely and equitable basis.**
7. **We shall strive to protect corporate properties as well as information, while never using either for improprieties or any unjustifiable purpose other than normal business operations.**

Takuma Group Code of Conduct

Harmony with society
1. Coexistence with the global environment
2. Coexistence with international society
3. Practice of social contribution activities

Practice of compliance with laws and ordinances as well as sound economic activities
4. Free competition and fair trade
5. Relationship with politics and public administration
6. Policies concerning business entertainment and gift-giving
7. Prohibition of involvement in anti-social activities
8. Appropriate export and import transactions

Respect for basic human rights
9. Prohibition of discriminatory actions
10. Respect for individuality, personal quality, and privacy
11. Safe work environment

Practice of customer satisfaction
12. Safety of products and services as well as ensuring reliability
13. Policies concerning advertising

Making appropriate disclosure of information
14. Transmission of corporate information
15. Ensuring reliability of financial report
16. Prohibition of insider trading

Protection of corporate properties and information
17. Management and proper use of corporate properties
18. Handling of confidential information
19. Intellectual property protection

Takuma Group 11th Medium-Term Management Plan — An Overview (FY2015 – 2017)

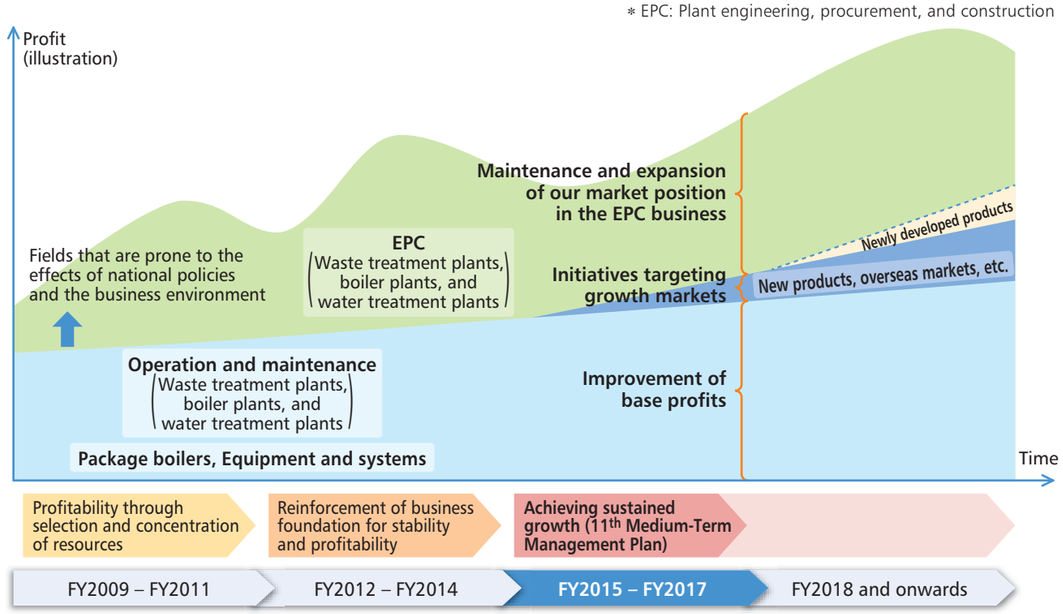
— Achieving Sustained Growth

1 Business Directions

① Positioning of the 11th Medium-Term Management Plan

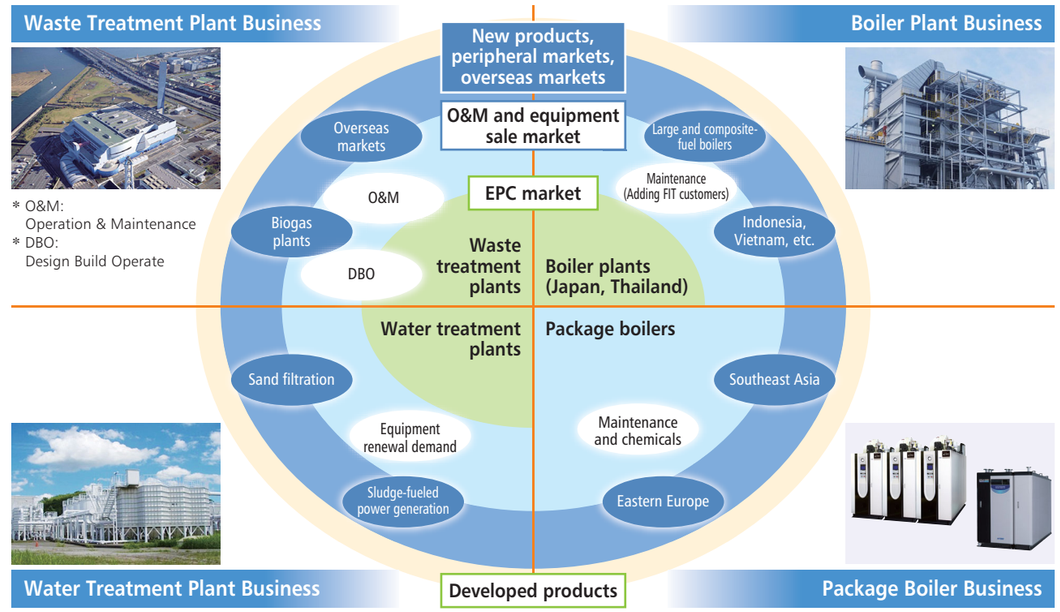
Achieve sustained growth by targeting growth markets while maintaining and expanding our market position in the EPC business and using businesses that generate base profits as a foundation for growth.

* EPC: Plant engineering, procurement, and construction



② Principal business domains

Enhance our businesses in terms of both quantity and quality by expanding on-site maintenance and management service, competitive product development, and regional reach around the existing EPC business.



* O&M:
Operation & Maintenance
* DBO:
Design Build Operate

2 Policies and Perspectives of the 11th Medium-Term Management Plan

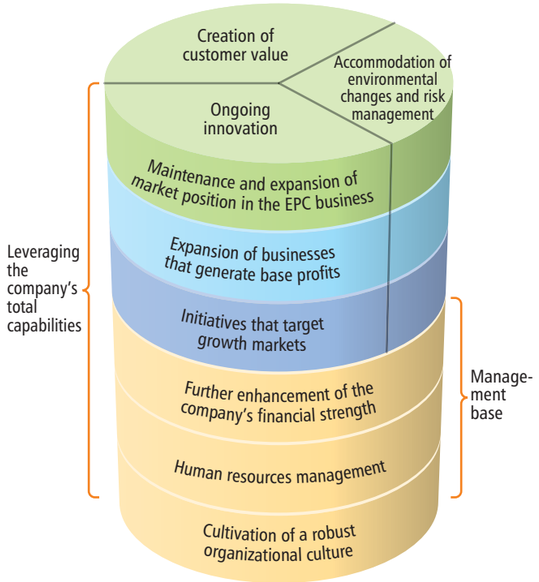
Policies

1. Maintenance and expansion of market position in the EPC business
2. Expansion of businesses that generate base profits
3. Initiatives that target growth markets
4. Further enhancement of the company's financial strength
5. Human resources management
6. Cultivation of a robust organizational culture

Perspectives

1. Creation of customer value
2. Ongoing innovation
3. Accommodation of environmental changes and risk management

Achieving sustained growth



3 Financial Targets (Consolidated)

We are currently striving to build structures capable of consistently earning an ordinary profit of JPY 10 billion even as the business environment undergoes a process of significant change in keeping with our corporate vision of "aiming to maintain our role of being an indispensable presence in society as a leading company in the field of renewable energy utilization and environmental protection" and our target of achieving ordinary profit of JPY 10 billion in FY2020.

To facilitate the achievement of the goals outlined in this plan, we will undertake initiatives to realize sustained growth in accordance with the policies while seeking to steadily improve our business in terms of both quantity and quality. To that end, we have established the financial targets described below.

Financial Target: Ordinary income* (FY 2020) 10 billion yen

* Ordinary income is a measure of accounting profit that equals operating income plus other income minus other expenses, except for extraordinary terms under Japanese GAAP.

(Billion JPY)

	9th Medium-Term Management Plan results				10th Medium-Term Management Plan results				11th Medium-Term Management Plan targets
	2009	2010	2011	Total	2012	2013	2014	Total	FY 2015 – FY 2017
Order Value	70.5	97.0	90.4	257.9	109.2	148.0	113.7	371.0	400Billion JPY (3-year cumulative total)
Sales	95.1	89.1	101.0	285.3	96.3	96.3	103.8	296.5	360Billion JPY (3-year cumulative total)
Ordinary Profit	2.0	4.4	7.3	13.7	7.2	9.4	9.1	25.7	27Billion JPY (3-year cumulative total)

4 Core Business Units and Emphasis of Future Activities

Municipal Solid Waste Treatment Plant Business

Business Environment
- As facilities age, there is ongoing robust demand for renewal and service life elongation.
- DBO project volume is growing, and there is also growth in O&M services for existing facilities.

Emphasis of Future Activities
- Develop the foundation of the business and enhance our operational capabilities.
- Further strengthen initiatives to prolong the service life of facilities.


DBO Project

Water Treatment Plant Business

Business Environment
- There is a growing need to recover energy from sewage sludge.
- Renewal demand and service life elongation demand are increasing as facilities age.

Emphasis of Future Activities
- Secure our position in the market for tapping the energy potential of sewage sludge.
- Expand our share in the advanced-treatment sand filtration market.


Sludge-Fueled Power System Demonstration Plant

Boiler Plant Business (Japan)

Business Environment
- Demand for biomass power plants remains steady.
- The number of plants targeted for maintenance is increasing as facilities are completed and transferred to customers.

Emphasis of Future Activities
- Secure more orders for biomass power plants (secure market position).
- Enhance maintenance service and capabilities.


Wood Chip Biomass Power Plant (Miyazaki Prefecture)

Boiler Plant Business (Overseas)

Business Environment
- Demand for biomass power plants in Thailand and surrounding countries remains robust.

Emphasis of Future Activities
- Maintain and enhance functionality for carrying out overseas projects, including enhancement of the functions of our local subsidiary (SIAM TAKUMA).
- Enhance price competitiveness and differentiate products.


Bagasse Fired Boiler Plant (Thailand)

Waste Treatment Plant Business (Overseas)

Business Environment
- Plans to build Energy from Waste plants are underway in various regions worldwide against the backdrop of ongoing urbanization and increasing environmental awareness.

Emphasis of Future Activities
- Develop schemes for entering the market that are suited to each country and region.
- Develop structures to facilitate market entry.


Energy from Waste Plant (Beijing, China)

Package Boiler Business

Business Environment
- The domestic market has matured, and it is not reasonable to expect a significant recovery of demand.
- The need for boilers is increasing overseas, particularly in developing nations.

Emphasis of Future Activities
- Expand our overseas business.
- Enhance our technologies and production capacity.


Once-through boiler


Hot Water boiler

1. Activities of Our Municipal Solid Waste Treatment Plant Business

A leading company in the industry

Since completing Japan's first fully continuous mechanical waste incineration plant in 1963, Takuma has built more than 350 waste incineration plants in the country, more than any other company in the industry.

We have consistently led the municipal solid waste treatment industry, for example by starting operation of Japan's first combined facility comprised of waste incineration and biogas recovery plants and building numerous high-efficiency waste-fueled power plants.

Takuma will continue to contribute to the realization of a recycling-based society as the industry's leading company.

Combined facility comprised of waste incineration and biogas recovery plants
(Delivered in 2013 to Nantan Regional Administrative Association)

High-efficiency waste-fueled power plant (processing capacity: 163 tons per day)
(Delivered in 2016 to Kurume City)

High-efficiency waste-fueled power plant (processing capacity: 600 tons per day)
(Delivered in 2014 to the Clean Authority of Tokyo)

High-efficiency waste-fueled power plant (processing capacity: 110 tons per day)
(Delivered in 2016 to the Neighborhood of the Lake Administrative Affairs Association)

From construction to after-sales service

Takuma's municipal solid waste treatment plant business consists of four components: plant construction, primary equipment improvement, maintenance, and long-term turnkey operation.

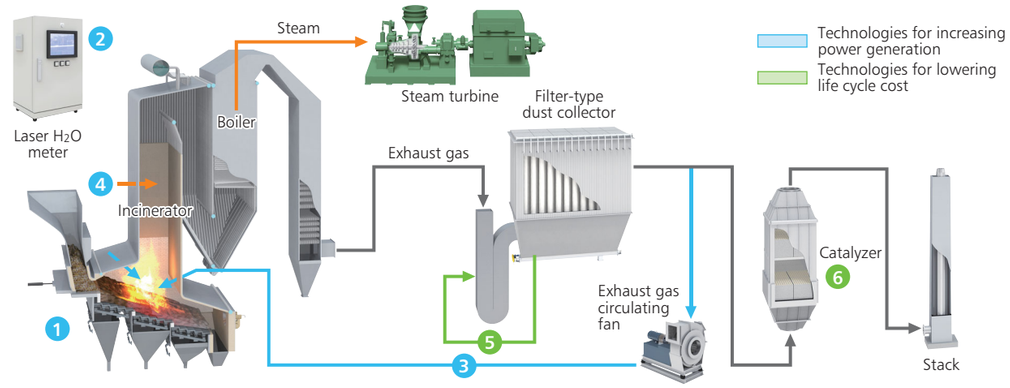
In each area of operations, we draw on technological capabilities and expertise based on our extensive experience to precisely meet the needs of local governments, regions, and society, allowing us to offer facilities that are welcomed by their communities.

1 Plant construction

Stoker-type incinerators

Most Energy from Waste plants use stoker-type incinerators. Takuma has been delivering stoker-type incinerators to customers for half a century, allowing us to accumulate a variety of expertise in areas such as stable combustion, exhaust gas treatment, and waste-fueled power generation.

Based on this well-established base of technological capability, we build and supply highly efficient waste treatment systems by integrating the latest technologies, for example water-cooled stokers, proactive combustion control, exhaust gas recirculation systems, and furnace denitration and urea decomposition systems.



1 Water-cooled stoker + high-temperature/high-pressure boiler

- This design increases the stocker's cooling performance to facilitate stable combustion of high-calorie waste.
- It also increases the boiler's steam conditions to improve power generation.

3 Exhaust gas recirculation system

- Generation of harmful substances is dramatically reduced by stirring and mixing exhaust gases with hot circulating gases in the incinerator.

5 Fly ash circulation system

- Fly ash captured by the filter-type dust collector is circulated, allowing effective use of unreacted chemical agents in the fly ash.

6 Catalyst regeneration system

- Maintenance costs can be dramatically reduced by regenerating catalysts without removing the catalyst from the associated equipment.

2 Proactive combustion control

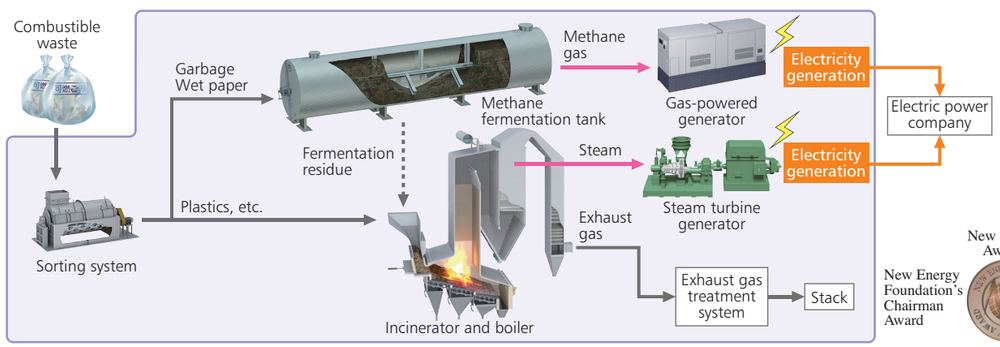
- This technology utilizes a laser H_2O meter to implement real-time monitoring of waste characteristics based on the concentration of moisture in combustion gases. Combustion is subject to proactive control based on waste characteristics to maintain extremely stable combustion conditions.

4 Furnace denitration and urea decomposition system

- This system ingests ammonia into the incinerator to reliably eliminate nitrogen oxides.
- Life cycle cost is lowered by generating ammonia from urea at the facility.

Biogas recovery plants

Recently the Ministry of the Environment has been encouraging the introduction of biogas recovery plants for use with municipal solid waste. This is an area where Takuma is helping further lower CO_2 emissions with a combined system of methane fermentation and incineration for municipal solid waste to recover the maximum amount of energy from the waste treatment and utilize it in high-efficiency power generation. (The system received the New Energy Foundation's Chairman Award at the FY2014 New Energy Awards.)



Activities of Our Municipal Solid Waste Treatment Plant Business

2 Primary equipment improvements

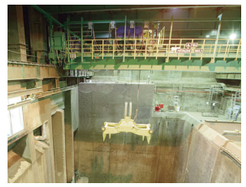
Implementing high-value-added renovations

Although waste treatment plants are required to operate over extended periods of time, equipment must be renovated once 20 or more years has passed since the plant began operating. In addition, changes in the regulatory environment and society sometimes make large-scale renovations necessary.

Takuma draws on the sophisticated heat utilization technologies and energy-saving technologies it has accumulated as a boiler and environmental plant manufacturer to carry out high-value-added and large-scale renovation projects. In this way, we are able to help extend facilities' service life while lowering CO_2 emissions.

Installation of inverters on cranes

- Reducing power by installing speed control-type inverters

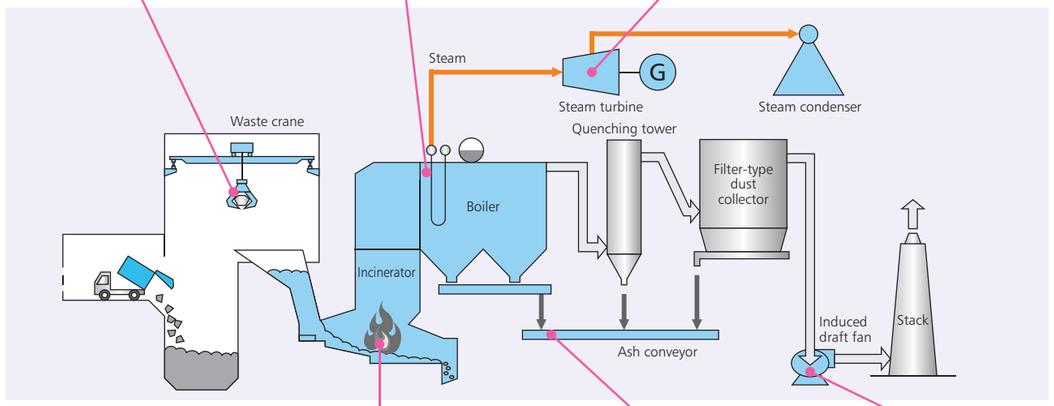


Improvement of heat recovery

- Installing boilers on water-injection furnaces
- Expanding boilers' heating surface

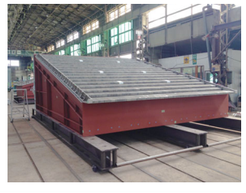
Improvement of steam turbine capacity

- Improving generating capacity by increasing steam intake capacity and optimizing design features
- Improving the capacity of steam condensers



Enhancement of combustion equipment efficiency

- Improving stable combustion by changing furnace shape and stabilizing the volume of steam generation and power generation
- Reducing the volume of exhaust gases and increasing the volume of heat recovery by adopting low-air-ratio combustion technology



Adoption of high-efficiency motors

- Reducing power use by adopting high-efficiency motors

Installation of inverters on fans

- Reducing power use by installing speed control-type inverters

Examples of primary equipment improvement works

3 Maintenance

Ensuring stable waste treatment

Annual maintenance is essential in order to ensure stable operation of waste treatment plants. However, maintenance demands both sophisticated technological capabilities and experience, both because waste treatment plants draw on a range of expertise and because the manner in which their equipment deteriorates over time varies with the properties of the waste they process. Takuma takes maximum advantage of its accumulated expertise to contribute to stable waste treatment and long-term facility operation by developing long-term repair plans, carrying out elaborate site investigations, and then performing maintenance that has been optimized in terms of both timing and content.

Repairing an incinerator's refractory

Measuring the thickness of boiler water tubes

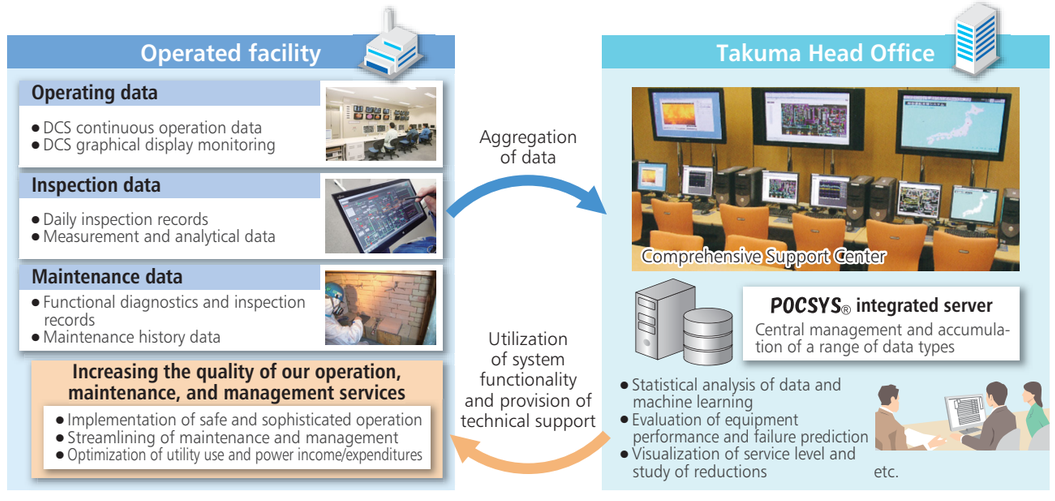
Maintaining a conveyor

4 Long-term turnkey operation business

High-quality facility operation using *POCSYS*®*, a comprehensive support system for operation, maintenance, and management

Our long-term comprehensive operation business, in which we offer contract operation, maintenance, and management services over a period of 10 to 20 years, has been growing in recent years. As of May 2017, the Takuma Group operates 16 facilities.

We are working to increase the quality of our operation, maintenance, and management services by progressively deploying ***POCSYS***®, a system that we developed during FY2016, at the facilities we operate. ***POCSYS***® makes it possible to achieve even more stable operation by analyzing enormous volumes of accumulated data, for example to facilitate more sophisticated automatic combustion control. (* ***POCSYS***® : Plant Optimization Comprehensive Support System)



POCSYS® conceptual diagram

2. Activities of Our Energy Plant Business

—Transforming a variety of biomass resources into fuel

Technologies and experience in using a broad range of biomass fuels

Since its founding, Takuma has enhanced its technological capabilities as a pioneering boiler manufacturer to deliver a total of more than 600 boilers designed to accommodate a wide variety of biomass fuels in Japan and overseas.

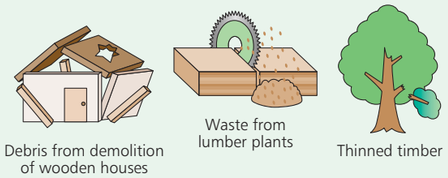
Going forward, we will continue to actively pursue development and improvement of technologies for effectively using energy in a way that gives priority to both humankind and the planet while simultaneously meeting customer needs.

Social landscape

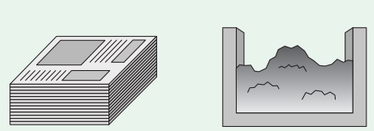
The Great East Japan Earthquake of 2011 threw the safety of nuclear power plants into question and led many to begin focusing on "renewable energy," which is characterized by a low environmental impact, as an alternative source of energy. Biomass-fueled power generation in particular promises beneficial ripple effects such as redevelopment of the forestry industry and job creation as companies move to fill needs of fuel procurement, transport, and storage as well as chip processing and other operations. Compared to solar and wind power, biomass also has the advantage of being able to provide power in a relatively stable manner without being affected by weather. Currently, biomass-fueled power plants are being planned and built in locations across Japan.

Renewable energy

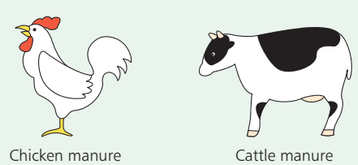
Forestry-derived biomass fuels



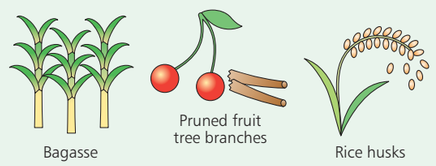
Industry-derived biomass fuels



Livestock-derived biomass fuels



Agriculture-derived biomass fuels



Delivery record of biomass boilers by area of Japan

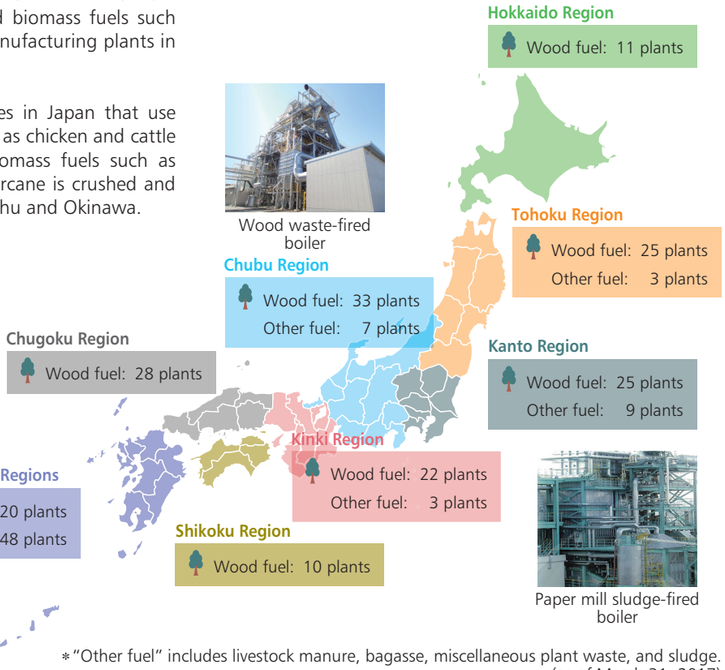
Takuma is working on facilities that use biomass fuel throughout Japan.

- We have constructed facilities that use forestry-derived biomass fuels such as thinned timber and waste from lumber plants and industry-derived biomass fuels such as plant waste and sludge from manufacturing plants in many regions.
- We have constructed many facilities in Japan that use livestock-derived biomass fuels such as chicken and cattle manure and agriculture-derived biomass fuels such as bagasse (fiber remaining after sugarcane is crushed and sugar extracted), particularly in Kyushu and Okinawa.

Wood waste-fired boiler

Chicken manure-fired boiler

Bagasse-fired boiler



Paper mill sludge-fired boiler

＊"Other fuel" includes livestock manure, bagasse, miscellaneous plant waste, and sludge.
(as of March 31, 2017)

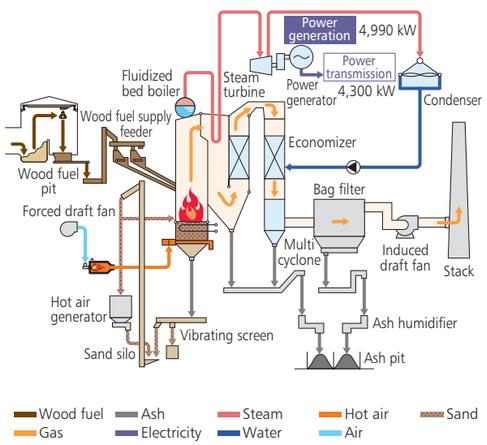
Wood chip-fired power plant

The introduction of Japan's feed-in-tariff system for renewable energy is driving expectations for biomass power generation to new levels.

Anticipating these developments, Takuma has deployed numerous biomass power generation facilities and created a subsidiary with a wood biomass generation business to procure biomass fuels from various regions while operating, maintaining, and managing biomass power generation facilities.

Subsidiary profile

Subsidiary Biopower Katsuta Co., Ltd., operates a biomass-fired power generating plant located in Hitachinaka City in Ibaraki Prefecture. All the electricity the plant generates (with the exception of what is used to power the plant itself) is sold to the grid.



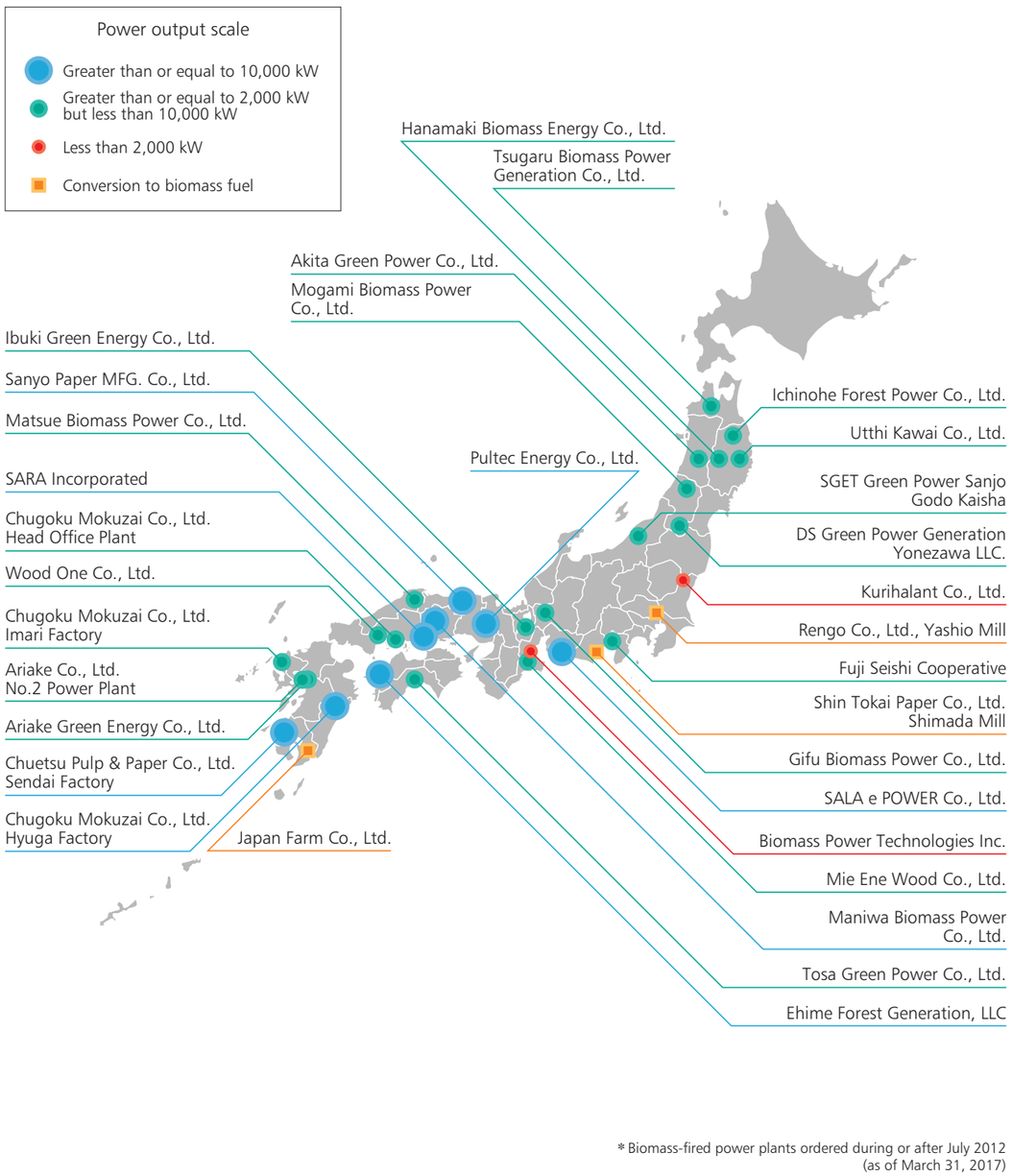
Flowchart

Activities of Our Energy Plant Business

—Pursuing biomass power generation

Biomass-fired power plants comprise one of our most skilled product areas. Activity in the segment has been sparked by the prospect of stable profits made possible by the launch of Japan's feed-in tariff system for renewable energy, and Takuma has received orders for numerous plants.

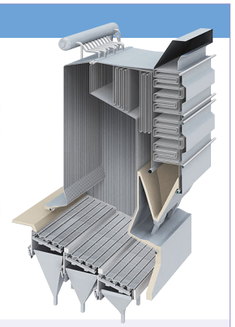
We have also received multiple orders for boiler fuel conversion projects to provide electricity and steam for internal plant use.



* Biomass-fired power plants ordered during or after July 2012 (as of March 31, 2017)

Proposing combustion furnaces that can accommodate the fuels customers use

Step grate stoker



This combustion method, which derives from waste incineration technology, can be used to uniformly burn fuels with different calorific values, moisture content, shapes, and sizes. Another characteristic of this method is that it requires less power to operate (known as facility power) than other types.

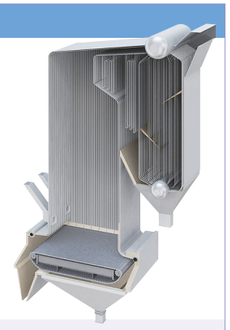
Installation example: Sendai Factory, Chuetsu Pulp & Paper Co., Ltd.

Chuetsu Pulp & Paper Co., Ltd. is a large general paper manufacturer that manufacturers, processes, and sells pulp and paper products.

The facility we delivered at the company's Sendai Factory uses a step grate stoker that can accommodate biomass fuels with a variety of properties and shapes in anticipation of the future diversification of fuels.

[Equipment overview]
○Location: Satsumasendai City, Kagoshima Prefecture
○Power output: 23,700 kW

Traveling stoker



With a traveling stoker, fuel is distributed in the furnace so that longer combustion times are secured for fuel with larger volumes. As with a step grate stoker, combustion is comparatively gradual, and the system can accommodate a wide range of fuels with different calorific values, moisture content, and shapes.

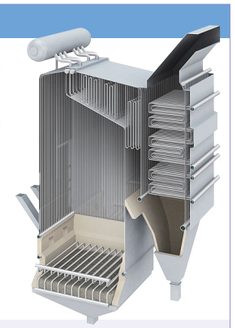
Installation example: Ariake Green Energy Co., Ltd.

Ariake Green Energy Co., Ltd. is a wood chip biomass-fueled power plant operator established with investments by Ishizaki Inc.; Kyushu Biotech Co., Ltd.; and Matsumoto Mokuzai Co., Ltd.

This plant uses scrap lumber and other wood waste from lumber mills in Kumamoto Prefecture as well as unused lumber such as wood from thinned trees as biomass fuel. The business is expected to yield a variety of benefits, including the revitalization of the forestry industry and the local community through job creation.

[Equipment overview]
○Location: Arao City, Kumamoto Prefecture
○Power output: 6,250 kW

Bubbling fluidized bed



Since sand that has been fluidized by high-pressure air burns away the surface of the chips, little unburned fuel remains, making high boiler efficiency a characteristic of fluidized bed systems. They can accommodate a variety of different types of fuel, including fuels with high moisture content.

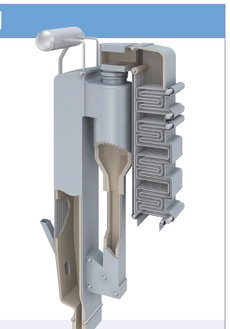
Installation example: Hanamaki Biomass Energy Co., Ltd.

Hanamaki Biomass Energy Co., Ltd. is a wood chip biomass power plant operator established by a group of investors led by Takeei Corporation.

This plant makes effective use of unused lumber such as wood from thinned trees from Iwate Prefecture's lush forests and lumber damaged by pine weevils to create renewable energy.

[Equipment overview]
○Location: Hanamaki City, Iwate Prefecture
○Power output: 6,250 kW

Circulating fluidized bed



Heated, fluidized sand burns fuel as it circulates, keeping temperatures inside the furnace uniform to enable stable combustion. Since little waste remains unburned, boiler efficiency is high, and the system can accommodate a broad range of mixed fuels with different caloric values.

Installation example: Hyuga Factory, Chugoku Mokuzai Co., Ltd.

Chugoku Mokuzai Co., Ltd. is a large general lumber company that offers an extensive product line ranging from lumber to laminated lumber and precut lumber.

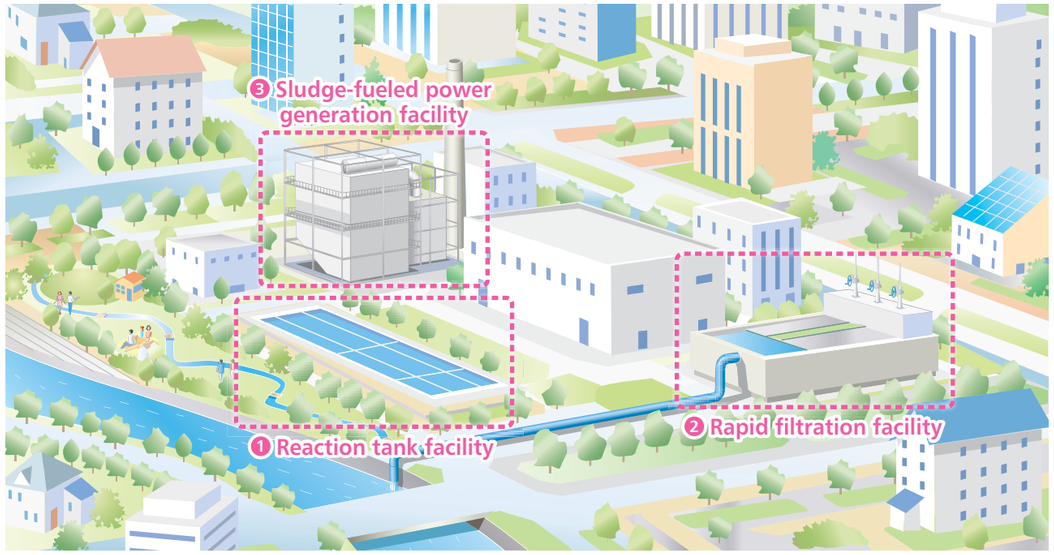
The facility delivered by Takuma to the company's Hyuga Factory uses a circulating fluidized bed boiler that can accommodate the customer's need to effectively utilize a wide range of biomass fuels.

[Equipment overview]
○Location: Hyuga City, Miyazaki Prefecture

3. Activities of Our Water Treatment Plant Business

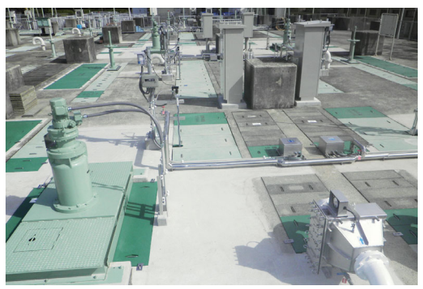
More than 50 years have passed since Takuma entered the water treatment business. To date, we have helped improve the water environment by building water treatment facilities. Recently, the industry has been called upon not only to improve the water environment, but to reduce the amount of power that treatment equipment consumes and to create energy from sludge.

This section introduces some of Takuma's recent initiatives, using a sewage treatment plant as an example.



❶ Reaction tank facility

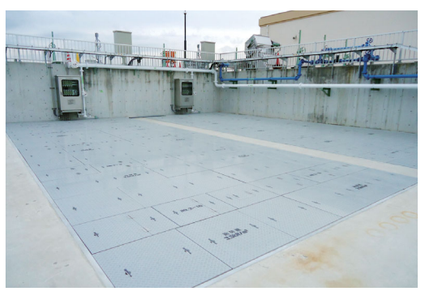
A bioreactor tank, which provides the primary type of water treatment at the site, purifies sewage through the action of microorganisms. Takuma's low-power agitator plays a key role by reducing the power consumption requirements of agitating activated sludge to one-third of those of a conventional facility.



Installation example
(Higashiuji Sewage Treatment Plant, Uji City)

❷ Rapid filtration facility

A sand filtration facility removes even smaller suspended particles in water that has already passed through the reaction tank and sedimentation basin. This type of facility is necessary when the river into which treated sewage is discharged is subject to strict water quality requirements or when the treated sewage will be reused. Moving-bed sand filtration facilities, which are a specialty of Takuma's, deliver energy and space savings along with stable performance. To date, we have delivered more than 2,500 such systems throughout Japan.

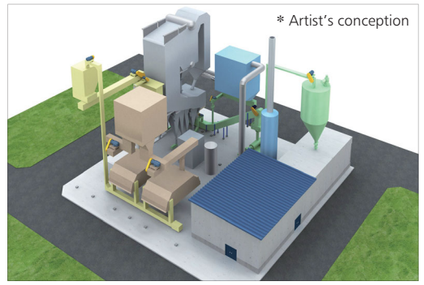


Installation example
(Edagawa Sewage Treatment Plant, Nishinomiya City)

❸ Sludge-fueled power generation facility

Sludge, which is a byproduct of the sewage treatment process, contains a large amount of energy. As a result, it has been attracting attention in recent years as a type of biomass.

Takuma harnesses its core incineration and boiler technology to make effective use of sludge as fuel for power generation to create electricity.



Installation example
(Tama River Water Recycling Center [currently under construction], Tokyo)

Takuma receives order for a sludge incineration facility in Tokyo (Tama River Water Recycling Center)

Takuma has received an order for the rebuilding of an outdated sludge incinerator at the Tama River Water Recycling Center. The company will deliver an energy-saving, energy-creating sludge incineration system combining a stoker furnace (a type of high-temperature, energy-saving incinerator) and a steam turbine generator system that utilizes waste heat from the combustion process to generate electricity.

Smart Plan 2014, a basic energy blueprint for the city's sewer operations that was formulated by the Tokyo Metropolitan Government's Bureau of Sewerage in June 2014, calls for expanded use of renewable energy, and this project will culminate in the delivery of a high-temperature, energy-saving incinerator* developed by the Bureau.

Takuma earned the order after conducting joint research into incineration systems with stoker furnaces along with the Bureau.

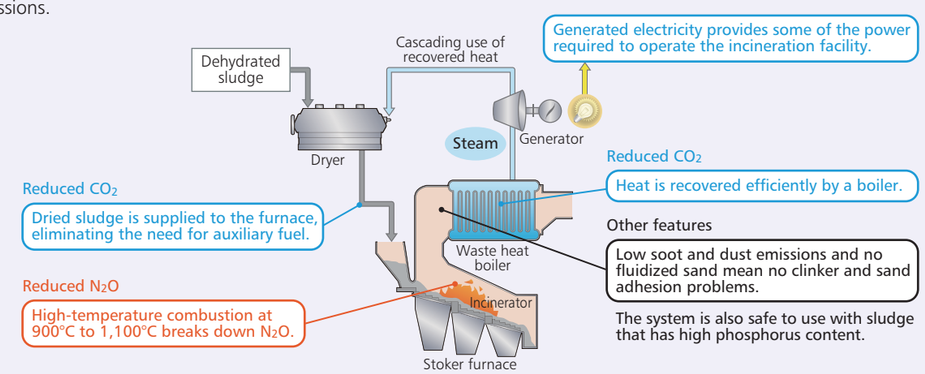
* High-temperature energy-saving incinerator
In addition to reduced emissions of N_2O, which has a greenhouse coefficient that is about 300 times higher than that of CO_2, because it burns dehydrated sludge at high temperatures, this sludge incinerator, which satisfies energy-saving standards formulated by the Tokyo Metropolitan Government's Bureau of Sewerage, is characterized by reduced CO_2 emissions because it uses less power and auxiliary fuel.

System overview

- Plant capacity: 140 tons per day × 1 unit
- Type: Stoker furnace
- Waste heat utilization:
  Drying equipment, white smoke prevention equipment, steam turbine generator equipment
- Power output: 137 kW

● Energy-saving, energy-creating sludge incineration system features

This incineration system, whose components include a sludge dryer, stoker furnace, waste heat boiler, and steam turbine generator equipment, uses significantly less power than conventional systems thanks to a low-power-consumption design and steam-driven power generation, without utilizing auxiliary fuel. It is capable of high-temperature incineration at around 900°C to 1,100°C, allowing a dramatic reduction in emissions of the greenhouse gas nitrous oxide (N_2O). The system will deliver benefits including energy savings, energy creation, reduced running costs, and lower greenhouse gas emissions.



Incineration process

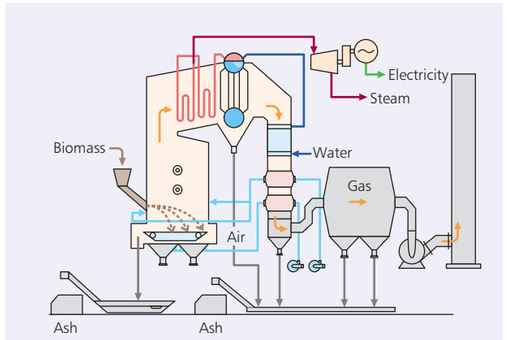
4. Activities of Our Overseas Business

Biomass-fueled power plant business in the Southeast Asian market

The biomass-fueled power generation boiler business in Southeast Asia is an essential part of any discussion of Takuma's history. We have delivered more than 370 biomass boilers to customers overseas, and we have an especially extensive track record since 1959 of delivering boilers fueled by bagasse (fiber remaining after sugarcane is crushed) in Thailand, where we have a local subsidiary. Takuma has supported the Thai sugar industry for many years.

As the feed-in tariff program becomes increasingly well established in various industries, a growing number of customers in Thailand are looking beyond simply gaining a source of power for plant operation and instead opting to construct boilers with the goal of using 10 MPa/520°C class boilers that operate at comparatively high temperature and high pressure levels to actively generate electricity for resale to boost their income. In this way, demand for this type of boiler facility is expected to continue to grow.

Under these conditions, we look forward to helping supply environmentally friendly power from biomass, particularly in Southeast Asia, by accommodating demand not only in Thailand, but also in neighboring countries such as Indonesia and Vietnam with reliable technology and fine-grained customer service based on our extensive experience in the field.



Bagasse-fired boiler installation example

Sugarcane deliveries

Bagasse yard

Overseas Energy from Waste plant business

Waste processing problems have been manifesting themselves in countries around the world recently due to the effects of rapid urbanization, and there have been reports of the adverse effects of burying waste as-is on living conditions, including soil pollution and fires, especially in developing nations. These countries have embarked on initiatives to resolve waste processing issues, but the fact remains that they require even more sophisticated waste processing diagnostic expertise, advice, and guidance.

Takuma has deep experience and an extensive track record that together make it a market share leader in waste incineration and processing equipment in Japan. The photograph below depicts a plant that we delivered in Beijing, China, but in fact we have delivered plants in nine overseas countries and regions, including China and the UK. Our Lakeside Plant in the UK and our Gaoantun Plant in Beijing have earned a high level of praise and trust from their respective customers, for example due to the facilities having achieved continuous operation for more than 8,000 hours a year.

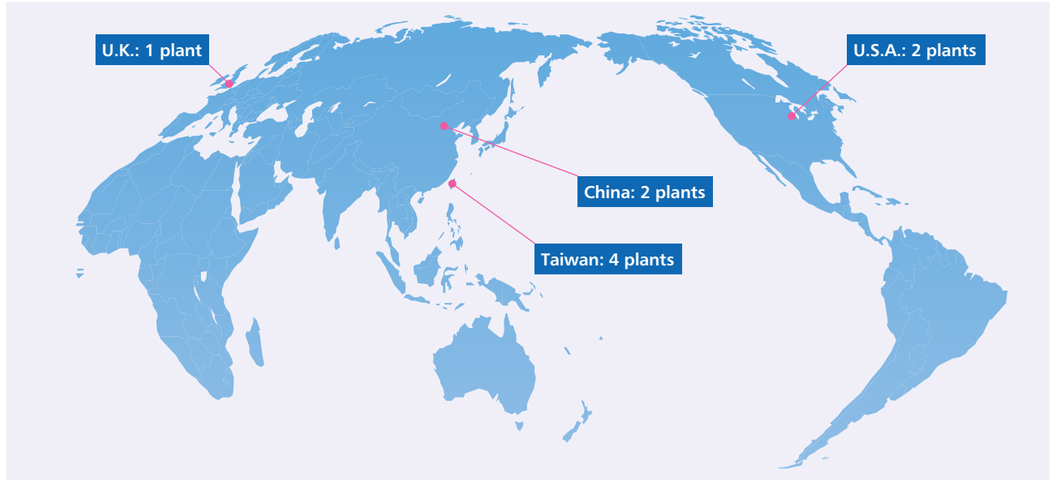
We look forward to taking advantage of our extensive experience to closely exchange information and engage in partnerships with local stakeholders as we offer optimal proposals that meet the full array of needs using technological capabilities in which we have great confidence.

Apart from plant construction, numerous issues must be addressed in order to resolve waste processing problems, including methods for collecting and sorting waste, awareness-raising and environmental education, and consensus-building with local residents. While it takes time to resolve each of these in turn, we are confident that it is precisely by cooperating with such initiatives that we can best provide safe, stable plants that inspire pace of mind on the part of people in their host countries and communities.

Going forward, Takuma will continue to contribute to environmental protection by pursuing an overseas Energy from Waste plant business that suits each country and community.

Beijing Gaoantun Energy from Waste Plant (China)

- Processing capacity: 1,600 tons per day (800 tons per day × 2 units)
- Steam capacity: 73.8 tons per hour
- Steam pressure: 4.0 MPa
- Steam temperature: 400°C
- Rated power output: 15,000 kW × 2 units



EfW plants delivered by Takuma overseas

Consumer Issues

Activities Involving Product Quality

In 1997, in addition to defining our Quality Policy of "Manufacturing products that result in customer satisfaction," registering for "ISO 9001: Management Systems" certification (Registration No.: JQA 1952), and improving product quality based on our quality management system, we carried out concrete activities to enhance customer satisfaction. The present status for ISO 9001 certification includes having switched to ISO 9001:2000 in FY2002 and then to ISO 9001:2008 in FY2010.

In order to produce products that customers truly appreciate, it is necessary not only to boost the quality of the product itself, but also to improve the content of that work as well as each individual's ability to create a good product in each process up to delivery (sales, design, procurement, manufacture, construction, and management).

Based on that Quality Policy, Takuma is pursuing a variety of measures in each sales, design, procurement, manufacture, construction, and management process towards improving the quality of our products and services.

● Improving organizational operations

As measures for heightening the quality of the organization as a whole, we establish quality objectives in each section and department at the beginning of the fiscal year and regularly report (twice per year) the status of achievements to the QM committee (quality management review).

● Internal quality audit

We raise the accuracy of each job through standardization of the work procedure within each process, confirm the operating status of the quality management system by carrying out internal quality audits in each section and department, and enhance work content as necessary.

These audits are carried out on a regular basis by employees who have been certified as internal audit members by completing internal quality audit member training seminars that are taught by lecturers from outside organizations. These seminars enable those personnel to acquire knowledge ranging from fundamental knowledge about ISO 9001 to specific methods for implementing internal audits.

● Improving individual employees' capabilities

We create a "Work (Technical Capability) Achievement Checksheet" in order to improve the work capability of the personnel required for each process. In addition to allowing us to assess current skill levels of individual employees on a regular basis, this system is used to review targets.

● Review of quality control and processes

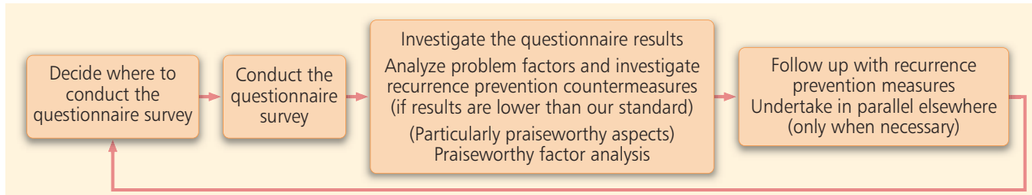
Quality is an important aspect of producing excellent products.

When a non-compliant product is discovered, we implement the measures (remedies) provided in the corresponding manual (standard). Even in processes that did not go so far as to produce a non-compliant product, a review is carried out on processes that might have caused the issue as a preventive measure.

In order to also prevent procurement of noncompliant products, we provide further education (instruction) for all suppliers.

● Customer satisfaction survey

We created the Customer Satisfaction Survey Committee in FY2007 and have been conducting customer satisfaction surveys since as an initiative to improve quality by asking customers how they feel about delivered products and Takuma staff and using their feedback to improve quality.



Customer satisfaction surveys

FY2007: 73.4 points (37 plants)

↓

FY2016: 86.8 points (27 plants)

Average evaluation scores from questionnaire surveys (out of a possible 100 points)

Corporate Governance

Corporate Governance

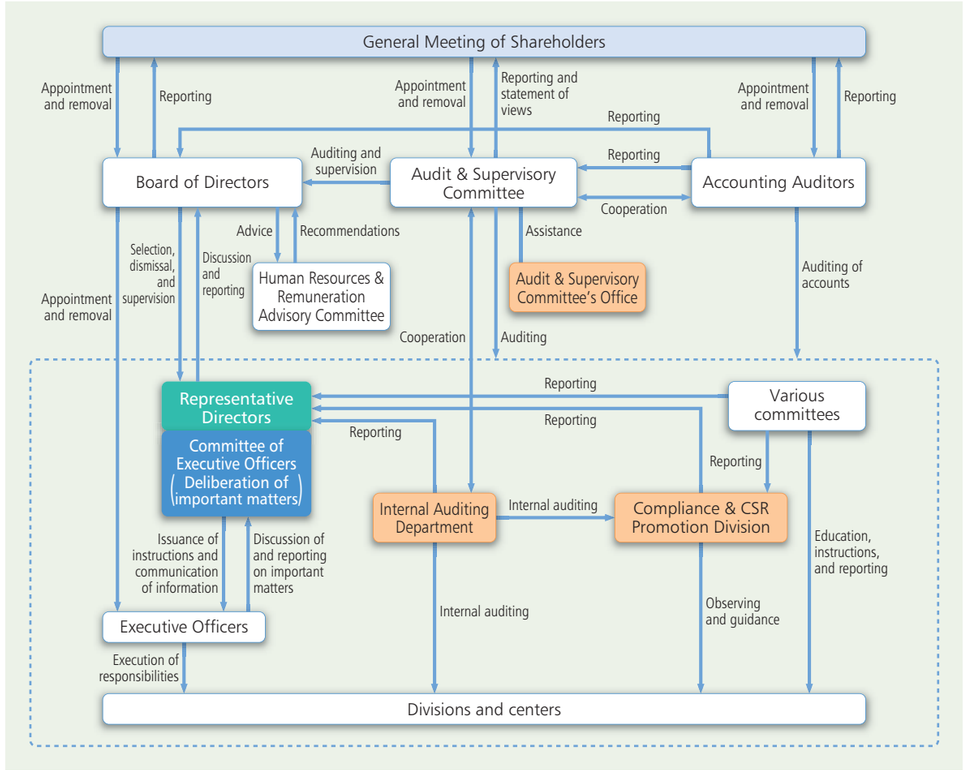
As of June 28, 2017, the Board of Directors was comprised of six directors (excluding directors who are members of the Audit & Supervisory Committee) and four directors (of whom three were outside directors). The Board of Directors meets regularly once a month as a rule and whenever else it is necessary to make decisions about important issues related to business management and issues established by law and ordinances, as well as to oversee the execution of the directors' duties.

In order to accelerate management decision-making and clarify where management responsibilities are placed, we have adopted an operating officer system in which we appoint operating officers who are entrusted with the responsibility of executing our business activities. As of June 28, 2017, there were 14 operating officers (including those who also serve as directors). Moreover, we have also established an Executive Execution Committee, which is chaired by the president/chief operating officer, as an organization that deliberates matters that are brought up at meetings of the Board of Directors and other important issues related to the execution of our business activities. This committee communicates and provides direction about items decided by the Board of Directors and other important items related to the execution of our business activities appropriately to the divisions that are to execute them.

An Audit & Supervisory Committee that consists of four members, of whom three are outside directors, is responsible for accounting and operational audits. Members of the committee attend important meetings, including those of the Board of Directors and the Executive Execution Committee, and they strive to understand and observe the status of business execution in a timely and appropriate manner. Drawing on their professional background and experience, they express their opinions as necessary from an objective perspective, and they conduct strict auditing of the business execution performed by the directors.

To facilitate the effectiveness of audits carried out by the Audit & Supervisory Committee, the president holds regular meetings with committee members to ensure good communication, and we have established an Audit & Supervisory Committee's Office to provide staff to help carry out the committee's work.

In addition to the above, we have established a Human Resources & Remuneration Advisory Committee comprised of independent officers, representative directors, and the officer in charge of human resources. The committee works to increase transparency and objectivity in the selection of candidates for director and operating officer positions and in the determination of compensation as well as to enhance the supervisory function of the Board of Directors.



Corporate governance structure

(As of June 28, 2017)

Corporate Governance

Directors, Audit & Supervisory Committee Members, Executive Officers

Directors

★ President and Representative Director


Takaaki Kato★
Chief Executive Officer


Kengo Numata
Senior Managing Executive Officer


Hiroaki Nanjo
Managing Executive Officer


Tsuyohito Nishiyama
Executive Officer


Hideki Takeguchi
Executive Officer


Koji Tanaka
Executive Officer

Directors (Audit & Supervisory Committee Members)

* Outside


Yasushi Enomoto


Hiromichi Satake*


Osamu Iwahashi*


Minoru Murata*

Managing Executive Officer

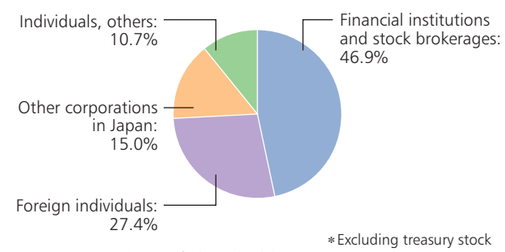
Takashi Manabe

Executive Officers

Ryoji Tani
Norito Uchiyama
Masahiko Izumi
Yoshiki Kita
Mitsuaki Adachi
Akira Taguchi
Hidetoshi Tomita

IR Activities

In keeping with the "Takuma Group Code of Conduct," we provide our shareholders and investors with accurate corporate information in a timely and fair manner. As a part of this, we provide notifications on the convening of General Meetings of Shareholders, balance sheet information, timely disclosure information, marketable securities reports, annual reports in English and other business information, all on our website.
[Takuma website > IR information]
http://www.takuma.co.jp/english/investor/index.html



＊Excluding treasury stock
Composition of shareholders (as of March 31, 2017)

Stock Information

1. Total number of authorized shares: 321,840,000

2. Total number of outstanding shares: 83,000,000

3. Total number of shareholders: 4,307 (as of March 31, 2017)

4. Major shareholders (top 10)

(as of March 31, 2017)

Shareholder	Number of shares	Stake
The Master Trust Bank of Japan, Ltd. (Trust Account)	8,708,300	10.5%
Japan Trustee Services Bank, Ltd. (Trust Account)	5,660,100	6.8%
Mizuho Trust & Banking Co., Ltd. (Retirement Benefits Trust, Mizuho Bank, Ltd. Acoount) Trust & Custody Services Bank, Ltd. (Re-entrustment)	4,022,000	4.8%
Nippon Life Insurance Company	3,593,282	4.3%
STATE STREET BANK AND TRUST COMPANY	2,005,320	2.4%
TAKUMA CO., LTD. Kyoueikai	1,727,238	2.1%
Sumitomo Mitsui Banking Corporation	1,621,875	2.0%
NIPPON TOCHI-TATEMONO Co., Ltd.	1,305,000	1.6%
Japan Trustee Services Bank, Ltd. (Trust Account 9)	1,294,700	1.6%
GOLDMAN SACHS INTERNATIONAL	1,258,557	1.5%

5. Dividend Policy

Takuma returns profits to investors in line with a comprehensive assessment of business performance and other factors based on a policy of maintaining stable dividends while working to enhance the quality of its business. Our overriding goal is to remain competitive in an increasingly challenging marketplace.

Two dividends are paid each fiscal year: an interim dividend offered by resolution of the Board of Directors and a year-end dividend offered by resolution of the annual meeting of shareholders.

In keeping with this policy, the year-end dividend for the consolidated fiscal year under review was 7 yen per share, which, combined with the interim dividend, brought the annual dividend to 13 yen per share.

We plan to continue to build internal reserves to strengthen our financial foundation and to use funds to increase corporate value through capital investment, R&D investment, and other avenues in order to lay the groundwork for the future growth and expansion of our businesses.

Corporate Governance

Risk Management Structure

Takuma follows a "Risk Management Policy" that connects company-wide risks and separately classifies them into "project risks" related to our core business, i.e., plant construction, "DBO project risks" and "DBO project operation, maintenance and management risks" related to our DBO business, and "potential risks," "actualized risks," and "financial reporting risks" related to other corporate business activities.

We are also building the risk management organization shown below and constructing a system of risk management and promoting the strengthening of management for group companies as well through our "Takuma Group Coordinating Committee for Compliance and CSR Promotion."

Risk Management Policy

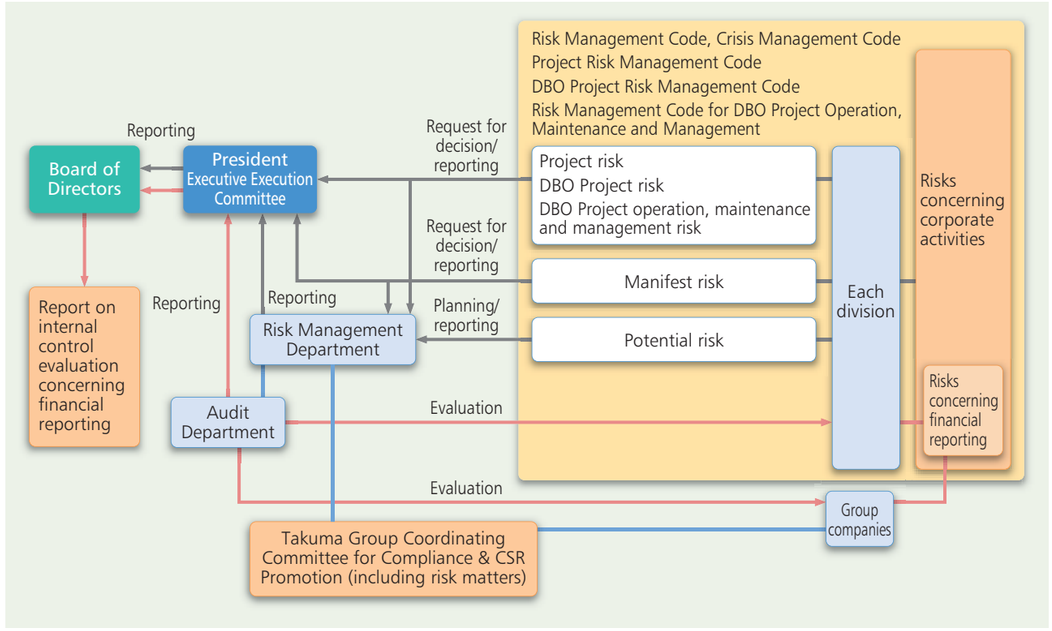
Basic purpose of risk management

Risk refers to all phenomena that interfere with the group's ability to achieve its business objectives or cause losses or harm to the interests of stakeholders.

The Takuma Group practices risk management with the goal of increasing its corporate value by working to maximize returns while minimizing the negative impacts of risk.

Risk management action guidelines

1. The president and CEO is responsible for risk management at Takuma.
2. All officers and employees participate in risk management activities.
3. Risk management activities are carried out in accordance with applicable guidelines such as the Risk Management Rules.
4. Risk management activities are carried out in line with the Medium-Term Management Plan and annual plan, and we work to make improvements on an ongoing basis.
5. When risk manifests itself, we respond by taking responsible action quickly to minimize any damage and creating provisional organizational entities as necessary.
6. Group companies carry out risk management activities in accordance with their own policies and plans, with support from Takuma.

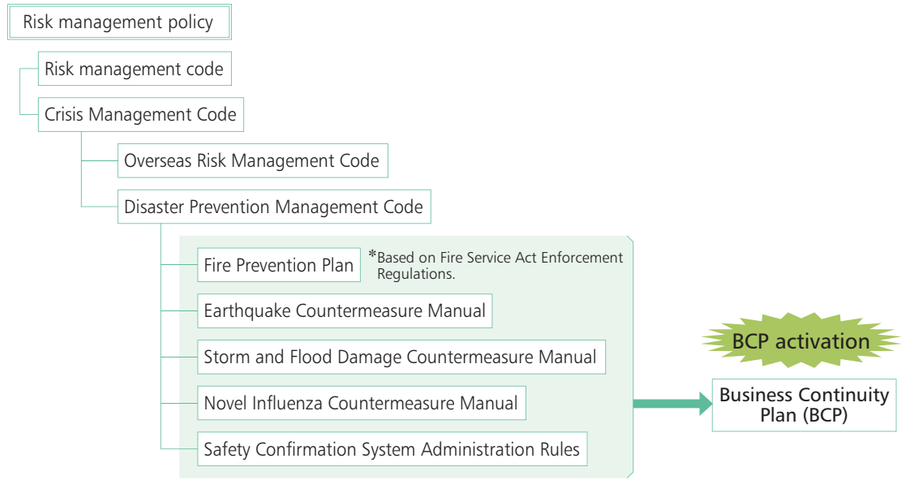


Business Continuity Plan (BCP)

Takuma has formulated a Business Continuity Plan based on the following policies to ensure proper and appropriate continuity of business operations in the event of a large-scale disaster, pandemic, or other emergency:

1. In addition to implementing disaster-related measures to secure the safety of corporate officers and employees, maintain structures so as to enable continuity of business operations while minimizing damage in an emergency.
2. Strive to respond to customer needs and recover from damage quickly by working closely with suppliers and partner companies to continue business operations.
3. Earn the trust of numerous stakeholders, including employees, their families, shareholders, and nearby residents, and fulfill social needs by continuing business operations.

Disaster rule system diagram

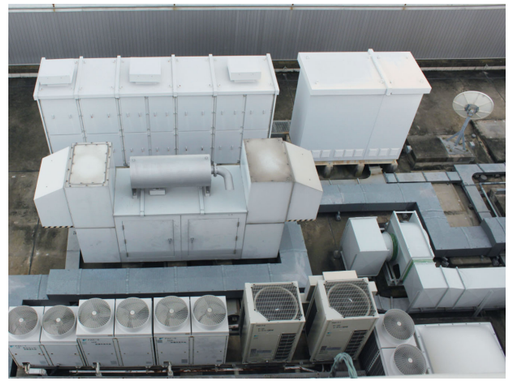


● Disaster prevention and earthquake resistance features of the Takuma Building

The current Takuma Building was completed in December 1995.

To increase the earthquake resistance of the building, which was designed to serve as the company's head office, engineers placed unbonded braces on key walls and used a concrete-filled tube (CFT) structure, which was entering into widespread use at the time as a successor to the reinforced concrete (RC), steel-reinforced concrete (SRC), and steel (S) architectural structures.

The building also incorporates a number of equipment systems, including a rooftop generator designed to provide power for use in the event of a natural disaster or other emergency (see photograph*). The system can be used to power the building's fire suppression system pumps, smoke exhaust fans, and emergency elevators, among other equipment. Based on numerous reports of generators with water-cooled engines failing in the event of the Great Hanshin-Awaji Earthquake when their source of cooling water was cut off, we chose a system with an air-cooled engine.



Emergency rooftop generator for providing emergency power*

Participation in the Community

Disaster Preparedness Agreement Signed

Takuma has entered into an "Agreement on Use as a Temporary Evacuation Center in Case of Tsunamis, Etc.," a Disaster Preparedness Agreement, with Amagasaki City.

Our corporate Head Office is located in Amagasaki where, based on lessons learned from of the Great East Japan Earthquake, they are advancing the establishment of temporary evacuation areas in preparation for disasters, such as those that may be generated by tsunamis from earthquakes in the Tonankai and Nankai areas that are anticipated in the near future, as well as those from flooding caused by typhoons, heavy rain, and high tides.

To that end, we concluded a Disaster Preparedness Agreement with that city defining our Head Office as a temporary evacuation center and enabling the local populace free access whenever there is a possibility of one of the above disasters occurring. Our corporate Head Office is thus designated by Amagasaki City as a "Temporary Evacuation Center in Case of Tsunamis, Etc."

Yotteko-mura, Arai

Takuma offers the "Takuma Club" recreation facility located in our Harima Factory free of charge as the village office for "Yotteko-mura, Arai," which was launched in Takasago City's Arai district with support from Hyogo Prefecture's "Kenmin Koryu Hiroba" (Civic Exchange Plaza) project. "Yotteko" means "come on over" in Banshu (southwestern part of Hyogo Prefecture) dialect, and "Yotteko-mura" is being used as a new local community venue in which anyone can participate at any time.

Contribution to Society

Takuma strives to contribute to society through activities such as the following:

● WFP fundraising activities

Takuma serves on the Board of Trustees of the Japan Association for the World Food Programme, the official supporting partner of the World Food Programme in Japan.

Each year, we display WFP posters at the entrances to company buildings and in cafeterias during a campaign that lasts from June through August. The campaign serves both to increase employee interest in the world's food problems and to collect donations to address them. According to the UN WFP, about 800 million people suffer from hunger worldwide. Through the Japan Association for the World Food Programme, we will continue to raise funds to help people suffering from food scarcity.

● Contributions to NPOs

• Purchasing UNICEF Christmas cards

Takuma purchases UNICEF Christmas cards. A portion of the proceeds is used to fund UNICEF in their work to help children around the world.

• Donating calendars to a charity calendar market

Takuma donates unused calendars to a calendar market sponsored by the NPO "Nippon Volunteer Network Active in Disasters."

In FY2016, we donated more than 100 calendars. The proceeds are used to provide aid for victims of natural disasters and other crises.

The Environment

Basic Environmental Policy

Our company has established the "Basic Environmental Policy" as follows; aiming to ensure employees contribute to global environmental conservation. This basic policy applies to the activities of all company departments.

Environmental Philosophy

Takuma is committed to preserving the environment and realizing an affluent society through business activities under the Company Motto: "Value Technology, Value People, Value the Earth."

Operational Guidelines

1. **All Takuma Group companies will recognize the importance of maintaining a balance between preservation of the environment and business activities.**
2. **Continuously develop activities to preserve the environment that comply with applicable environmental laws and ordinances, and ensure environmental control and assessment systems conform to international environmental standards.**
3. **Promote development of improved technologies and products for society that preserve the environment.**
4. **Address resource conservation, energy efficiency, recycling, and minimization of waste generated by all business activities.**
5. **Improve employee awareness and understanding about the importance of preserving the environment through environmental education and internal promotional activities.**
6. **Provide the community with information on the activities of Takuma to preserve the environment.**

Environmental Management

■ The situation concerning the acquisition of ISO 14001

Our Harima Factory has acquired ISO 14001 certification and has been implementing environmental management activities based on the environmental management system established to comply with international standards. Our group companies Nippon Thermoener Co., Ltd., Takuma Technos Co., Ltd., and Dan-Takuma Technologies Inc. have also acquired ISO 14001 certification.

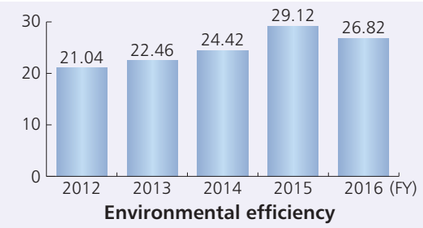
Environmental efficiency

Even as total environmental impacts must be reduced, it is necessary from a business management standpoint to pursue environmental initiatives that are characterized by a high degree of economic efficiency. We report environmental efficiency using an index calculated in accordance with examples provided by the Ministry of the Environment in its Environmental Performance Indicators Guidelines for Organizations.

At the Takuma Group, we calculate environmental efficiency as the ratio of consolidated net sales to greenhouse gas emissions.

The Takuma Group's definition of environmental efficiency

$$\frac{\text{Consolidated net sales (million JPY)}}{\text{Greenhouse gas emissions (tons-CO}_2\text{)}}$$



Environmental efficiency

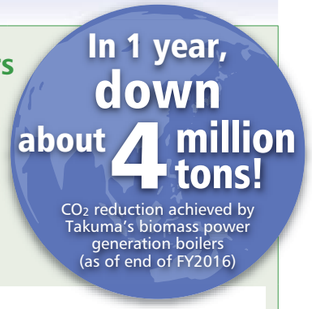
The Environment

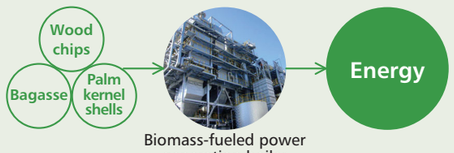
Takuma's CO_2 Reduction Technologies

We convert waste/biomass into energy and reduce CO_2!

Reducing CO_2 with biomass power generation boilers

A classic example of biomass power generation can be found in sugar factories. Factories that make sugar produce large quantities of residue from sugarcane, the raw material used to make sugar. Sugarcane is crushed into a pulp, and sugar is extracted in a mill. The remaining fiber is called bagasse and can be used as boiler fuel. The steam produced is used as the plant's heat source, and any remaining steam is used to generate electricity that is utilized to operate the plant and, if any remains, sold to the electric power company. The amount of power generated at sugar factories has grown greatly, with examples of single plant that generates 50,000 kW.





Biomass-fueled power generation boiler

What is biomass?

Biomass is any recyclable organic material derived from a living organism, but does not include fossil fuels, such as oil and coal. For example, even though CO_2 is emitted if wood waste products are incinerated, when trees grow again, they absorb CO_2 to offset the emissions from incineration, so there is no increase in CO_2 in the atmosphere. By using the heat produced by incinerating biomass to generate power, the amount of power generated using fossil fuels can be reduced, and this contributes to decreasing CO_2.

CO_2 reduction from waste incineration plants

Garbage, or waste, is an important source of energy. About 500 kW** of power can be generated from one ton of garbage. In Europe and the Americas, waste incineration plants are often called Energy from Waste (EfW) plants, and recovering energy from garbage has become the norm. Waste must be seen as a "resource," so Takuma is seeking to be the best in the world with our technologies to convert waste into energy and reduce CO_2.

**Presumes waste with a calorific value of 8,800 kJ per kg and a power generation efficiency of 20%

Financial Information

Status of Business Activities

1. Overview of Business Performance

(1) Business Performance

During the consolidated fiscal year under review, the Japanese economy continued to exhibit a gradual improving trend thanks to a recovery in such areas as employment, income, corporate earnings, and personal consumption spending. At the same time, the future direction of the economy remained opaque due to increasing uncertainty overseas, including due to an economic slowdown in China and other emerging markets, England's exit from the EU, and the political situation in the U.S.

We expect to see continued demand for our principal businesses thanks to increased environmental awareness and progress in initiatives to prevent global warming and conserve resources and energy, including in planned replacement of, and updates to, outdated waste treatment facilities and in energy policies that incentivize biomass-fueled power plants, for example feed-in-tariff programs for power generated using renewable energy.

Looking to our business performance during the consolidated fiscal year under review, order volume surged 91,106 million yen (91.2%) from the previous consolidated fiscal year to 191,026 million yen as orders for the construction of biomass power plants and sewage sludge incineration systems bolstered waste treatment facility construction, primary equipment upgrades, and operation, maintenance, and management.

Net sales rose 3,221 million yen (2.8%) from the previous consolidated fiscal year to 116,309 million yen on steady progress in waste treatment facility and biomass power plant construction, leaving a backlog of 214,142 million yen.

Net sales growth and cost savings combined to boost our gross margins and offset increases in R&D spending and selling, general and administrative expenses to yield operating income of 10,974 million yen, ordinary income of 11,606 million yen, and profit attributable to owners of the parent of 8,551 million yen, up 1,785 million yen (19.4%), 1,960 million yen (20.3%), and 734 million yen (9.4%) from the previous consolidated fiscal year, respectively.

Results by Business Segment

Domestic Environment and Energy

In addition to construction, primary equipment upgrades, operation, maintenance, and management of waste treatment facilities, we received orders for projects including construction of biomass power plants as well as sewage sludge incineration and power plants, resulting in significant order volume growth of 87,896 million yen (116.3%) from the previous consolidated fiscal year to 163,505 million yen. Net sales rose 2,149 million yen (2.4%) from the previous consolidated fiscal year to 90,643 million yen thanks to steady progress in the construction of waste treatment facilities and biomass power plants.

Operating income rose 1,893 million yen (19.2%) from the previous consolidated fiscal year to 11,727 million yen.

Overseas Environment and Energy

Order volume rose 2,209 million yen (256.5%) from the previous consolidated fiscal year to 3,070 million yen thanks to an order for a new biomass power boiler plant in Southeast Asia. Net sales rose 1,392 million yen (167.7%) from the previous consolidated fiscal year to 2,222 million yen.

Performance declined as operating income of 223 million yen during the previous consolidated fiscal year turned into an operating loss of 154 million yen.

Package Boiler

Efforts to secure demand for upgrades higher-efficiency once-through boilers and vacuum-type water heaters, and maintenance demand for parts sales and repairs pushed up order volume 274 million yen (1.7%) from the previous consolidated fiscal year to 16,724 million yen. Net sales rose 775 million yen (4.7%) to 17,165 million yen.

Operating income rose 21 million yen (2.3%) from the previous consolidated fiscal year to 917 million yen.

Equipment and System Business

Order volume rose 710 million yen (9.7%) from the previous consolidated fiscal year to 8,041 million yen thanks to growth in orders for building equipment and a generally steady flow of orders for semiconductor-related equipment. Net sales fell 998 million yen (13.0%) from the previous consolidated fiscal year to 6,666 million yen.

Operating income fell 30 million yen (8.3%) from the previous consolidated fiscal year to 322 million yen.

(2) Status of Cash Flow

Cash and cash equivalents at the end of the consolidated fiscal year under review rose 8,797 million yen from the previous consolidated fiscal year to 57,132 million yen.

Cash Flows from Operating Activities

Net cash provided by operating activities totaled 9,590 million yen (compared to net cash provided by operating activities of 6,728 million yen during the previous consolidated fiscal year). Principal factors included net income before taxes of 11,606 million yen, which offset a decrease of 2,143 million yen in accounts payable.

Cash Flows from Investing Activities

Net cash used in investing activities totaled 143 million yen (compared to net cash used in investing activities of 445 million yen during the previous consolidated fiscal year). Expenditures of 575 million yen on the purchase of property, plant and equipment and of 473 million yen on the purchase of investment securities offset income of 1,328 million yen from collection of loans receivable.

Cash Flows from Financing Activities

Net cash used in financing activities totaled 1,787 million yen (compared to net cash used in financing activities of 2,900 million yen during the previous consolidated fiscal year). Principal factors included payment of 992 million yen on dividends and expenditures of 673 million yen on repayment of long-term debt.

2. Production Output, Orders Received and Sales

(1) Production Results

The following table summarizes the Group's production results during the consolidated fiscal year under review by business segment:

Segment	Production output (millions of yen)	Year-on-year (%)
Domestic Environment and Energy	62,223	(3.1)
Overseas Environment and Energy	2,112	154.5
Package Boiler	11,260	6.2
Equipment and System Business	5,370	(16.8)
Subtotal	80,967	(1.4)
Inter-segment transactions	(347)	24.2
Total	80,620	(1.4)

Notes:
1. Amounts are expressed as total manufacturing expenses.
2. Amounts do not include consumption tax or other taxes.

(2) Orders Received

The following table summarizes orders received by the Group during the consolidated fiscal year under review by business segment:

Segment	Orders received (millions of yen)	Year-on-year (%)	Backlog (millions of yen)	Year-on-year (%)
Domestic Environment and Energy	163,505	116.3	203,571	55.7
Overseas Environment and Energy	3,070	256.5	2,310	58.0
Package Boiler	16,724	1.7	2,974	(12.9)
Equipment and System Business	8,041	9.7	5,326	34.8
Subtotal	191,342	90.9	214,183	53.5
Inter-segment order volume	(315)	(4.9)	(41)	(63.4)
Total	191,026	91.2	214,142	53.6

Notes:
1. Amounts do not include consumption tax or other taxes.
2. Package Boiler figures include some speculative production. In addition to order-driven production, the orders received and the backlog figures in the above table include that portion of speculative production for which delivery to a specific customer has been finalized.

(3) Sales

The following table summarizes the Group's sales results during the consolidated fiscal year under review by business segment:

Segment	Sales amount (millions of yen)	Year-on-year (%)
Domestic Environment and Energy	90,643	2.4
Overseas Environment and Energy	2,222	167.7
Package Boiler	17,165	4.7
Equipment and System Business	6,666	(13.0)
Subtotal	116,696	2.9
Inter-segment sales	(387)	33.4
Total	116,309	2.8

Note:
Amounts do not include consumption tax or other taxes.

3. 11th Midium-Term Management Plan (FY2015 to FY2017)

(1) Target Management Indicators

The Group considers consolidated ordinary income to be its most important management indicator.

The 11th Medium-Term Management Plan sets forth the following quantitative targets in an effort to steadily expand our business in terms of both quantity and quality so as to facilitate sustained growth (all figures consolidated-basis):

① Cumulative order volume during plan term (FY2015 to FY2017): 400.0 billion yen
② Cumulative net sales during plan term (FY2015 to FY2017): 360.0 billion yen
③ Cumulative ordinary income during plan term (FY2015 to FY2017): 27.0 billion yen

(2) Policies

① Maintenance and expansion of market position in the EPC business
② Expansion of businesses that generate base profits
③ Initiatives that target growth markets
④ Further enhancement of the company's financial strength
⑤ Human resources management
⑥ Cultivation of a robust organizational culture

4. Business and Other Risks

Although the Takuma Group strives to neutralize business and other risks on an organizational and systematic basis, we believe the risks described below may influence investor decisions due to their potential to impact operating performance, financial standing, and other aspects of the Group's operations.

Forward-looking statements represent the Group's judgment as of the end of the consolidated fiscal year under review.

• Economic trends

The Group's operating performance and financial standing may be impacted by trends in public investment and private capital investment, structural changes in price competitiveness and markets due to factors such as entry of new companies into the market, changes in the pricing of raw materials and other inputs, stock market conditions, and other factors.

• Natural disasters

Large natural disasters such as earthquakes, storms, and flooding may impact the Group's operations.

• Country risk

As the Group expands its business operations overseas, it becomes exposed to the potential impact not only of economic conditions and exchange-rate fluctuations in the countries in which it operates, but also of acts of God such as regional terrorism, conflict, natural disasters, and infectious disease.

• Safety and quality

Operating performance, financial standing, reputation, and other aspects of the Group's operations may be impacted by accidents or incidents caused by human error or product defects occurring during the manufacture, installation or construction, operational management, or subsequent use of Group products. In addition, the Group may be affected by unanticipated cost overruns or other adverse developments due to unforeseen issues or other problems at plants and other facilities for which it has received orders, in particular when new technologies are introduced or deployed.

• Intellectual property rights

The Group's business activities may be impacted if it becomes unable to protect intellectual property rights such as patents and trademarks that it owns or has acquired, if those rights are infringed upon by other parties, or if the Group must take steps to avoid infringing on the intellectual property rights of other parties.

• Other risks

The Group's operating performance and financial standing may be impacted in a variety of ways by factors such as government regulations, vendor supply capability, its ability to hire and retain human resources in Japan and abroad, loss of key personnel, lawsuits, and other contingencies as it carries out its business activities.

5. Research and Development Activities

Having identified the fields of environmental protection and renewable energy utilization as its principal business domains in an effort to achieve a sustainable, recycling-oriented society that is not excessively dependent on nuclear power or fossil fuels, the Takuma Group is focusing its management resources on business in these domains as it pursues research and development in keeping with the corporate vision it has set forth of being an indispensable presence in society as a leading company.

The Takuma Group has consolidated its technology-related departments into the Engineering Group, through which it is actively working to strengthen and pass on its technological capabilities and develop new technologies, products, and services through collaboration between the Takuma Group companies and joint research with outside research institutions and universities.

Expenditures on research and development during the consolidated fiscal year under review totaled 973 million yen. Principal research and development activities by business segment were as follows:

(1) Environment and Energy

① In the area of waste treatment, we are constructing a demonstration incinerator with a next-generation stoker at one of our plants with the principal goal of developing proprietary technology to aid in reducing life cycle cost and boosting energy recovery. We are utilizing this demonstration incinerator in a program of ongoing development of such aspects of equipment operation as the reduction of harmful substances (e.g., nitrogen oxides and dioxins) through combustion improvements and increases in power generation efficiency. Furthermore, we continue to conduct trials to verify that use of water-cooled stokers, which have a track record of standing up to the demands of use in industrial waste incinerators over extended periods of time, can reduce maintenance and management costs in municipal waste incinerators compared to conventional air-cooled stokers due to their improved durability. These trials include efforts to address material improvements. In addition, we are utilizing a comprehensive support system for operation, maintenance, and management that enables integrated use of a range of data that facilities previously managed and evaluated independently in an effort to stabilize combustion and to develop technologies for remote monitoring using AI and IoT.
② In the area of energy, we continue to develop constituent technologies for burning a variety of fuels including unutilized wood biomass to generate power, an area in which we are receiving many inquiries in connection with Japan's new feed-in tariff program for power generated from renewable sources.
③ In the area of water treatment, we continue to develop a sewage sludge incineration and power generation system as well as technologies related to a new system for eliminating nitrogen by means of the anammox process. For sewage sludge incineration and power generation, we continue to develop combustion technology to allow stable incineration of sludge with varying water content. We also continue to develop technologies for expanding the range of wastewater with which the anammox process can be used.

The research and development budget for this segment of our business was 853 million yen.

(2) Package Boiler

We developed a burner for oil-burning once-through boiler and vacuum-type hot water heaters capable of continuous combustion while using less steam and hot water.

By reducing the number of combustion start-stop cycles, this new burner reduces the amount of fuel consumed in the process of reheating the boiler following the ventilation operation and resulting cooldown that accompanies each cycle, lowering running costs and making possible greater energy savings. Going forward, we will introduce a series of once-through boilers and vacuum-type hot water heaters that use the new burner.

The research and development budget for this segment of our business was 51 million yen.

(3) Equipment and System Business

We are working to develop and commercialize washing systems for semiconductor plants in response to a recovery in the semiconductor industry and growing investment in semiconductor manufacturing equipment. In addition to commercializing a leaf-type, small-radius wafer washing system that delivers high washing effectiveness, we are working to develop washing systems based on surface treatment technology that utilizes plasma at atmospheric pressure as well as micro-bubble washing technology that will boost washing effectiveness with fine bubbles while simultaneously reducing cleaning agent use.

Going forward, we will continue to improve our washing systems as we work to develop products that meet customer needs.

The research and development budget for this segment of our business was 68 million yen.

(4) Contracts of Major Importance in the Group's Business

① Technology In-licensing Contracts

Contractee	Contract target	Contract date	Name of other party	Contract term
Takuma Co., Ltd.	Continuous bed filtration of liquids	April 1979	Nordic Water Products AB (Sweden)	Until December 2018
Takuma Co., Ltd.	Process for the organic and anaerobic treatment of waste	December 2011	Hitachi Zosen Inova AG (Switzerland)	For 10 years, then automatically renewed every year

Note:
Most of the above contracts entail payment of a fixed percentage of sales in addition to a one-time payment at the time the contract was entered into.

② Technology Out-licensing Contracts

Contractee	Contract target	Contract date	Name of other party	Contract term
Takuma Co., Ltd.	N-type palm wastes fired water-tube boiler	September 1982	P.T. Super Andalas Steel (Indonesia)	For 15 years, then automatically renewed every year
Takuma Co., Ltd.	Auxiliary agent for filter-type dust collector	July 1993	MITSUI MINING & SMELTING CO., LTD. (Japan)	For 10 years, then automatically renewed every year
Takuma Co., Ltd.	Dust elimination technology in exhaust gas treatment systems using impulse waves	November 2005	Nihon Spindle Manufacturing Co., Ltd. (Japan)	For 10 years, then automatically renewed every year
Takuma Co., Ltd.	Coal firing boiler	June 2007	P.T. Panca Mandiri Essencia (Indonesia)	Until May 2017 (See Note 2.)

Notes:
1. Most of the above contracts entail receipt of payment of a fixed percentage of sales in addition to a one-time payment at the time the contract was entered into.
2. The contract was valid until May 2017 and was not renewed.

6. Analysis of Financial Position and Operating Results

(1) Financial Position

The Takuma Group has formulated a financial policy of maintaining an appropriate level of liquidity, securing funding for business activities, and maintaining a robust balance sheet.

Total assets at the end of the consolidated fiscal year under review increased 7,587 million yen from the end of the previous consolidated fiscal year to 140,201 million yen as an increase of 8,803 million yen in cash and deposits offset a decrease of 1,320 million yen in notes and accounts receivable.

Liabilities fell 1,331 million yen from the end of the previous consolidated fiscal year to 72,474 million yen as a decrease of 2,426 million yen in notes and accounts payable offset an increase of 1,276 million yen in accrued income taxes.

Net assets rose 8,918 million yen from the end of the previous consolidated fiscal year to 67,727 million yen as increases of 8,551 million yen in retained earnings due to the posting of profit attributable to owners of the parent and of 1,300 million yen in valuation difference on available-for-sale securities offset a decrease of 992 million yen in retained earnings due to the payment of dividends.

As a result, the equity capital ratio rose 4.0 points from the end of the previous consolidated fiscal year to 48.1%, and net assets per share rose 107.59 yen from the end of the previous consolidated fiscal year to 815.77 yen.

(2) Operating Results

Net sales during the consolidated fiscal year under review rose 3,221 million yen from the previous consolidated fiscal year to 116,309 million yen.

Gross profit was 25,616 million yen, and selling, general, and administrative expenses were 14,642 million yen. After deducting the latter, operating income was 10,974 million yen.

Non-operating income of 775 million yen and non-operating expenses of 144 million yen yielded ordinary income of 11,606 million yen.

There was no extraordinary loss or extraordinary gain, yielding income before income taxes and minority interests of 11,606 million yen.

Profit attributable to owners of the parent after deducting income taxes of 3,031 million yen and loss attributable to non-controlling shareholders of 24 million yen was 8,551 million yen. An overview of net sales and operating income by segment can be found in "Status of Business Activities: 1. Overview of Business Performance."

Financial Statement

■ Consolidated Balance Sheets

TAKUMA CO., LTD. and Consolidated Subsidiaries
As of March 31, 2017 and 2016

ASSETS	Millions of yen 2017	2016	Thousands of U.S. dollars (Note 1) 2017
Current assets:			
Cash and time deposits (Notes 4, 6 and 8)	**¥ 57,719**	¥ 48,916	**$ 514,475**
Notes and accounts receivable (Note 6):			
Trade	**44,716**	44,935	**398,574**
Unconsolidated subsidiaries and affiliated companies	**391**	1,457	**3,486**
Other	**242**	289	**2,160**
Less allowance for doubtful accounts	**(27)**	(39)	**(247)**
Total	**45,322**	46,642	**403,973**
Inventories (Note 5)	**3,897**	4,041	**34,744**
Deferred tax assets (Note 15)	**2,471**	2,803	**22,021**
Other	**766**	607	**6,827**
Total current assets	**110,175**	103,009	**982,040**
Property, plant and equipment:			
Land (Note 8)	**3,018**	3,018	**26,898**
Buildings and structures (Note 8)	**12,225**	12,219	**108,973**
Machinery, equipment, lease assets and construction in progress	**11,119**	11,123	**99,109**
(Note 8)	**26,362**	26,360	**234,980**
Less accumulated depreciation	**(17,434)**	(16,764)	**(155,401)**
Total property, plant and equipment	**8,928**	9,596	**79,579**
Investments and other assets:			
Investment securities (Notes 6, 7 and 8)	**13,161**	11,136	**117,311**
Investments in:			
Unconsolidated subsidiaries and affiliated companies (Note 6)	**4,950**	5,556	**44,123**
Other	**938**	823	**8,363**
Less allowance for doubtful accounts	**(461)**	(467)	**(4,108)**
Total	**5,427**	5,912	**48,378**
Deferred tax assets (Note 15)	**2,210**	2,648	**19,699**
Other	**300**	313	**2,668**
Total investments and other assets	**21,098**	20,009	**188,056**
Total assets	**¥ 140,201**	¥ 132,614	**$ 1,249,675**

LIABILITIES AND NET ASSETS	Millions of yen 2017	2016	Thousands of U.S. dollars (Note 1) 2017
Current liabilities:			
Short-term loans payable (Notes 6 and 9)	**¥ 7,675**	¥ 7,750	**$ 68,411**
Current portion of long-term debt (Notes 6 and 9)	**468**	673	**4,169**
Notes and accounts payable (Note 6):			
Trade	**32,569**	34,584	**290,300**
Unconsolidated subsidiaries and affiliated companies	**344**	575	**3,071**
Other	**931**	1,111	**8,299**
Total	**33,844**	36,270	**301,670**
Accrued income taxes	**2,532**	1,256	**22,567**
Advances received	**7,935**	7,700	**70,733**
Allowance for guarantees on completed work	**177**	141	**1,577**
Allowance for losses on sales contracts	**3,578**	5,164	**31,889**
Other	**5,734**	4,190	**51,114**
Total current liabilities	**61,943**	63,144	**552,130**
Long term liabilities:			
Long-term debt (Notes 6 and 9)	**929**	1,396	**8,278**
Allowance for directors' and executive officers' retirement benefits	**152**	189	**1,356**
Net defined benefit liability (Note 10)	**9,011**	8,668	**80,317**
Other	**439**	408	**3,912**
Total long term liabilities	**10,531**	10,661	**93,863**
Total liabilities	**72,474**	73,805	**645,993**
Contingent liabilities (Note 11)			
Net assets (Note 12):			
Common stock	**13,367**	13,367	**119,150**
Authorized: 321,840,000 shares Issued: 83,000,000 shares			
Capital surplus	**3,768**	3,768	**33,588**
Retained earnings	**46,258**	38,754	**412,323**
Treasury stock, at cost	**(234)**	(232)	**(2,095)**
331,201 shares in 2017 and 328,764 shares in 2016			
Total shareholders' equity	**63,159**	55,657	**562,966**
Unrealized gains on securities	**4,886**	3,586	**43,548**
Deferred gains and losses on hedges	**(21)**	(27)	**(185)**
Foreign currency translation adjustments	**6**	(11)	**50**
Remeasurements of defined benefit plans	**(591)**	(660)	**(5,264)**
Total accumulated other comprehensive income	**4,280**	2,888	**38,149**
Non-controlling interests in consolidated subsidiaries	**288**	264	**2,567**
Total net assets	**67,727**	58,809	**603,682**
Total liabilities and net assets	**¥ 140,201**	¥ 132,614	**$ 1,249,675**

See accompanying notes.

■ Consolidated Statements of Operations

TAKUMA CO., LTD. and Consolidated Subsidiaries
For the years ended March 31, 2017 and 2016

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2017	2016	**2017**
Net sales (Note 17)	**¥ 116,309**	¥ 113,088	**$ 1,036,717**
Cost of sales (Notes 10, 13, 14 and 17)	**90,693**	89,744	**808,393**
Gross profit	**25,616**	23,344	**228,324**
Selling, general and administrative expenses (Notes 10, 14 and 17)	**14,642**	14,155	**130,509**
Operating income (Note 17)	**10,974**	9,189	**97,815**
Other income (expenses):			
Interest and dividend income	**337**	366	**3,000**
Interest expense	**(76)**	(105)	**(673)**
Loss on disposal of property, plant and equipment	**(51)**	(167)	**(456)**
Equity in earnings of affiliated companies	**280**	287	**2,491**
Impairment loss	**-**	(267)	**-**
Other, net	**142**	76	**1,269**
Other income (expenses), net	**632**	190	**5,631**
Income before income taxes	**11,606**	9,379	**103,446**
Income taxes (Note 15):			
Current	**2,859**	1,558	**25,482**
Deferred	**172**	11	**1,532**
Total income taxes	**3,031**	1,569	**27,014**
Profit	**8,575**	7,810	**76,432**
Profit (loss) attributable to non-controlling interests in consolidated subsidiaries	**24**	(7)	**215**
Profit attributable to owners of parent	**¥ 8,551**	¥ 7,817	**$ 76,217**

	Yen		U.S. dollars (Note 1)
Per share:			
Net income	**¥ 103.43**	¥ 94.55	**$ 0.92**
Diluted net income	**-**	-	**-**
Cash dividends applicable to the year	**13.00**	11.00	**0.12**

See accompanying notes.

■ Consolidated Statements of Comprehensive Income

TAKUMA CO., LTD. and Consolidated Subsidiaries
For the years ended March 31, 2017 and 2016

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2017	2016	**2017**
Profit	**¥ 8,575**	¥ 7,810	**$ 76,432**
Other comprehensive income:			
Unrealized gains (losses) on securities	**1,299**	(511)	**11,582**
Deferred gains and losses on hedges	**(29)**	(41)	**(262)**
Foreign currency translation adjustments	**23**	(55)	**200**
Remeasurements of defined benefit plans	**69**	(54)	**617**
Total other comprehensive income	**1,362**	(661)	**12,137**
Comprehensive income (Note 16)	**¥ 9,937**	¥ 7,149	**$ 88,569**
Comprehensive income attributed to:			
Owners of the parent	**¥ 9,942**	¥ 7,165	**$ 88,619**
Non-controlling interests	**(5)**	(16)	**(50)**

■ Consolidated Statements of Changes in Net Assets

TAKUMA CO., LTD. and Consolidated Subsidiaries
For the years ended March 31, 2017 and 2016

	Millions of yen											
	Common stock	Capital surplus	Retained earnings	Treasury stock, at cost	Total shareholders' equity	Unrealized gains on securities	Deferred gains and losses on hedges	Foreign currency translation adjustments	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	Non-controlling interests in consolidated subsidiaries	Total net assets
For the years ended March 31, 2017												
Balance at the beginning of current period	¥ 13,367	¥ 3,768	¥ 38,754	¥ (232)	¥ 55,657	¥ 3,586	¥ (27)	¥ (11)	¥ (660)	¥ 2,888	¥ 264	¥ 58,809
Cash dividends (¥12.00 per share)	-	-	(992)	-	(992)	-	-	-	-	-	-	(992)
Profit attributable to owners of parent	-	-	8,551	-	8,551	-	-	-	-	-	-	8,551
Change in scope of consolidation	-	-	(55)	-	(55)	-	-	-	-	-	-	(55)
Purchase of treasure stock	-	-	-	(2)	(2)	-	-	-	-	-	-	(2)
Other changes during the year, net	-	-	-	-	-	1,300	6	17	69	1,392	24	1,416
Balance at the end of current period	¥ 13,367	¥ 3,768	¥ 46,258	¥ (234)	¥ 63,159	¥ 4,886	¥ (21)	¥ 6	¥ (591)	¥ 4,280	¥ 288	¥ 67,727
For the years ended March 31, 2016	Millions of yen											
Balance at the beginning of current period	¥ 13,367	¥ 3,768	¥ 31,764	¥ (228)	¥ 48,671	¥ 4,097	¥ 24	¥ 25	¥ (605)	¥ 3,541	¥ 304	¥ 52,516
Cash dividends (¥10.00 per share)	-	-	(827)	-	(827)	-	-	-	-	-	-	(827)
Profit attributable to owners of parent	-	-	7,817	-	7,817	-	-	-	-	-	-	7,817
Purchase of treasure stock	-	-	-	(4)	(4)	-	-	-	-	-	-	(4)
Other changes during the year, net	-	-	-	-	-	(511)	(51)	(36)	(55)	(653)	(40)	(693)
Balance at the end of current period	¥ 13,367	¥ 3,768	¥ 38,754	¥ (232)	¥ 55,657	¥ 3,586	¥ (27)	¥ (11)	¥ (660)	¥ 2,888	¥ 264	¥ 58,809
For the years ended March 31, 2017	Thousands of U.S. dollars (Note 1)											
Balance at the beginning of current period	$ 119,150	$ 33,588	$345,436	$ (2,075)	$496,099	$ 31,964	$ (237)	$ (100)	$ (5,881)	$ 25,746	$ 2,350	$524,195
Cash dividends ($0.11 per share)	-	-	(8,843)	-	(8,843)	-	-	-	-	-	-	(8,843)
Profit attributable to owners of parent	-	-	76,217	-	76,217	-	-	-	-	-	-	76,217
Change in scope of consolidation	-	-	(487)	-	(487)	-	-	-	-	-	-	(487)
Purchase of treasure stock	-	-	-	(20)	(20)	-	-	-	-	-	-	(20)
Other changes during the year, net	-	-	-	-	-	11,584	52	150	617	12,403	217	12,620
Balance at the end of current period	$119,150	$ 33,588	$412,323	$ (2,095)	$562,966	$ 43,548	$ (185)	$ 50	$ (5,264)	$ 38,149	$ 2,567	$603,682

■ Consolidated Statements of Cash Flows

TAKUMA CO., LTD. and Consolidated Subsidiaries
For the years ended March 31, 2017 and 2016

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2017	2016	**2017**
Cash flows from operating activities:			
Income before income taxes	**¥ 11,606**	¥ 9,379	**$ 103,446**
Adjustments to reconcile income before income taxes to net cash provided by operating activities:			
Depreciation	**851**	840	**7,585**
Impairment loss	**-**	267	**-**
Increase (decrease) in allowance for doubtful accounts	**(18)**	(21)	**(157)**
Increase (decrease) in allowance for bonuses	**182**	107	**1,623**
Increase (decrease) in allowance for losses on sales contracts	**(1,586)**	(1,731)	**(14,140)**
Increase (decrease) in net defined benefit liability	**445**	325	**3,971**
Interest and dividend income	**(337)**	(367)	**(3,000)**
Interest expense	**76**	105	**673**
Equity in losses (earnings) of affiliated companies	**(280)**	(287)	**(2,491)**
Net decrease (increase) in notes and accounts receivable and advances received	**463**	(7,951)	**4,123**
Decrease (increase) in inventories	**148**	(237)	**1,325**
Decrease (increase) in other current assets	**(25)**	42	**(224)**
Net increase (decrease) in notes and accounts payable and advance money	**(2,143)**	6,867	**(19,105)**
Increase (decrease) in other current liabilities	**1,489**	(587)	**13,274**
Other	**149**	152	**1,324**
Subtotal	**11,020**	6,903	**98,227**
Interest and dividend received	**405**	623	**3,609**
Interest paid	**(76)**	(108)	**(679)**
Income taxes received (paid)	**(1,759)**	(690)	**(15,674)**
Net cash provided by operating activities	**9,590**	6,728	**85,483**
Cash flows from investing activities:			
Net decrease (increase) in time deposits	**3**	42	**30**
Purchase of property, plant and equipment	**(575)**	(656)	**(5,126)**
Purchase of intangible fixed assets	**(65)**	(82)	**(578)**
Purchase of investment securities	**(473)**	(91)	**(4,216)**
Sale of investment securities	**13**	152	**116**
Disbursement for loans receivable	**(171)**	(25)	**(1,524)**
Collection of loans receivable	**1,328**	243	**11,836**
Other	**83**	(28)	**735**
Net cash provided by (used in) investing activities	**143**	(445)	**1,273**
Cash flows from financing activities:			
Net increase (decrease) in short-term bank loans	**(75)**	(100)	**(668)**
Payment of long-term debt	**(673)**	(1,896)	**(5,996)**
Purchase of treasury stock	**(2)**	(4)	**(20)**
Payment of cash dividends	**(992)**	(827)	**(8,843)**
Dividends paid to non-controlling interests	**(17)**	(25)	**(151)**
Other	**(28)**	(48)	**(252)**
Net cash used in financing activities	**(1,787)**	(2,900)	**(15,930)**
Effect of exchange rate changes on cash and cash equivalents	**15**	(56)	**131**
Net increase in cash and cash equivalents	**7,961**	3,327	**70,957**
Cash and cash equivalents at beginning of year	**48,335**	45,008	**430,835**
Increase in cash and cash equivalents from newly consolidated subsidiary	**836**	-	**7,455**
Cash and cash equivalents at end of year (Note 4)	**¥ 57,132**	¥ 48,335	**$ 509,247**

See accompanying notes.

■ Notes to Consolidated Financial Statements

TAKUMA CO., LTD. and Consolidated Subsidiaries

1. Basis of presenting financial statements

The accompanying consolidated financial statements have been prepared in accordance with the provisions set forth in the Japanese Financial Instruments and Exchange Law and its related accounting regulations and in conformity with accounting principles generally accepted in Japan, which are different in certain respects as to application and disclosure requirements from International Financial Reporting Standards.

The accounts of overseas subsidiaries are based on their accounting records maintained in conformity with generally accepted accounting principles prevailing in the respective countries of domicile. However, necessary adjustments are made upon consolidation. The accompanying consolidated financial statements have been restructured and translated into English from the consolidated financial statements of TAKUMA CO., LTD. (the "Company") prepared in accordance with Japanese GAAP and filed with the appropriate Local Finance Bureau of the Ministry of Finance as required by the Japanese Financial Instruments and Exchange Law. Some supplementary information included in the statutory Japanese language consolidated financial statements, but not required for fair presentation, is not presented in the accompanying consolidated financial statements.

The translation of the Japanese yen amounts into U.S. dollar amounts are included solely for the convenience of readers outside Japan, using the prevailing exchange rate at March 31, 2017, which was ¥112.19 to U.S.$1.00. The translations should not be construed as representations that the Japanese yen amounts have been, could have been or could in the future be converted into U.S. dollars at this or any other rate of exchange.

2. Summary of significant accounting policies

(1) Principles of consolidation

The consolidated financial statements include the accounts of the Company and its 22 significant subsidiaries (the "Companies"). Kurume High Trust Co., Ltd., Hokutan High Trust Co., Ltd. and Suwako High Trust Co., Ltd., which were unconsolidated subsidiaries, have been included in the consolidation from the consolidated fiscal year ended March 31, 2017 because of their increased significance. All significant intercompany transactions and unrealized profits among the Companies have been eliminated in consolidation. Investments in certain significant affiliates over which the Company and/or its subsidiaries are able to exert influence to a material degree with regard to financial and operating decision making, other than consolidated subsidiaries, are accounted for by the equity method after the elimination of unrealized intercompany profits.

Investments in the remaining unconsolidated subsidiaries and affiliated companies are not accounted for by the equity method because of the immaterial effect on the consolidated financial statements. Therefore, such investments are carried at cost, adjusted for any substantial and non-recoverable decline in value. Income from those unconsolidated subsidiaries and affiliated companies is recognized only when the Companies receive dividends therefrom.

(2) Foreign currency translation

Revenue and expense are translated at the rates of exchange prevailing on the transaction date. Assets and liabilities denominated in foreign currencies are generally translated at the rate of exchange prevailing at the balance sheet date, and the resulting translation gains and losses are included in earnings.

The financial statements of a consolidated overseas subsidiary are translated into Japanese yen at the year-end rate, except that net asset accounts are translated at historical rates and income statement items resulting from transactions with the Company are translated at rates used by the Company. The resulting translation adjustments are shown as "Foreign currency translation adjustments," a separate component of net assets.

(3) Cash and cash equivalents

In preparing the consolidated statements of cash flows, cash and cash equivalents include cash on hand, readily available deposits and short-term investments with maturities not exceeding three months from the date of acquisition and which have high liquidity and low risk of price fluctuation.

(4) Securities

Equity securities issued by subsidiaries and affiliated companies which are not consolidated or accounted for using the equity method are stated at cost determined by moving average cost. Available-for-sale securities with available fair market value are stated at fair market value, and unrealized gains and losses on these securities are reported net of applicable income taxes as a separate component of net assets. Realized gains and losses on the sale of such securities are computed at cost using moving average cost. Available-for-sale securities with no available fair market value are stated at cost determined by moving average cost.

If the market value of equity securities issued by unconsolidated subsidiaries and affiliated companies or available-for-sale securities declines significantly, such securities are stated at fair market value and the difference between fair market value and the carrying amount is recognized as loss in the period of the decline. If the fair market value of such securities is not readily available, such securities should be written down to net asset value with a corresponding charge in the income statement in the event the net asset value declines significantly. In these cases, the fair market value or the net asset value will be the carrying amount of the securities at the beginning of the next year.

(5) Allowance for doubtful accounts

The Companies provide an allowance for doubtful accounts by estimating the uncollectible amounts of certain individual accounts and by applying a percentage based on collection experience to the remaining receivables.

(6) Inventories
Merchandise and finished goods are stated at cost using the moving average method. Work-in-process is stated at cost determined by the identified cost method. Materials and supplies are stated at cost using the average method. For these inventories, the carrying amounts on the balance sheet are written down to reflect decreases in profitability.

(7) Property, plant and equipment
Property, plant and equipment are depreciated principally using the declining balance method over the estimated useful life of the asset. However, buildings acquired after March 31, 1998 and facilities attached to buildings and structures acquired after March 31, 2016 are depreciated using the straight-line method. The range of useful lives is principally from 3 to 60 years for buildings and structures and from 2 to 20 years for machinery, equipment and other. Maintenance and repairs, including minor renewals and improvements, are charged to income as incurred.

Lease assets under finance leases in which the ownership of the lease assets is not transferred to the lessee are depreciated using the straight-line method over the lease term with an assumption of no residual value.

(8) Allowance for losses on sales contracts
For sales orders on hand at the balance sheet date for projects in which the estimated cost is expected to exceed the price of the order by a wide margin, an allowance for losses on sales contracts is recognized at the estimated aggregate amount.

(9) Allowance for guarantees on completed work
Allowance for guarantees on completed work is based on estimated amounts of expenditure in the warranty period after products are delivered.

(10) Allowance for directors' and executive officers' retirement benefits
Directors and executive officers are generally entitled to receive retirement benefits based on the Companies' internal rules. The Companies provide an allowance for directors' and executive officers' retirement benefits based on the amount that would be required if all directors and executive officers retired at the balance sheet date.

(11) Net defined benefit liability
In calculating retirement benefit obligations, the method of attributing expected benefits to period employs principally a benefit formula basis. Actuarial gains and losses are recognized in expenses using the straight-line method principally over 10 years commencing with the following period. Prior service costs are recognized in expenses using the straight-line method principally over 10 years.

(12) Revenue recognition
When the outcome of an individual contract can be estimated reliably, the domestic companies apply the percentage-of-completion method to work performed during the year, otherwise, the completed contract method is applied. The degree of completion, or the percentage of the contract performed during the period under review, is measured by the proportion of the cost incurred during the period to the estimated total cost.

(13) Income taxes
The Companies are subject to corporation tax, inhabitants tax and enterprise tax based on taxable income. The Companies recognize the tax effects of the temporary differences between the carrying amounts of assets and liabilities for tax and financial reporting. The provision for income taxes is computed based on the pretax income of each of the Companies, with certain required adjustments. The asset-liability approach is used to recognize deferred tax assets and liabilities for the expected future tax consequences of temporary differences.

The Companies have adopted the consolidated tax return system.

(14) Net income and cash dividends per share
Net income per share is computed based on the weighted average number of shares of common stock outstanding during each period. Diluted net income per share is computed with the assumption that all convertible bonds were converted into common stock at the beginning of each period. Cash dividends per share represent interim dividends declared by the Board of Directors in each year and year-end dividends approved by the shareholders at the annual meeting held subsequent to the end of the fiscal year.

(15) Derivatives and hedge accounting
The Companies generally state derivative financial instruments at fair value and recognize changes in the fair value as gains or losses unless the derivative financial instruments are used for hedging purposes. If derivative financial instruments are used as hedges and meet certain hedging criteria, the Companies generally defer recognition of gain or loss resulting from a change in the fair value of the derivative financial instrument until the related loss or gain on the hedged item is recognized.

The Companies use currency forward contracts to hedge accounts receivable and payable denominated in foreign currencies (mainly U.S. dollars) against the risk of fluctuation in exchange rates that comes from foreign currency transactions.
Certain foreign exchange contracts are subject to appropriation if they satisfy the requirements of appropriation treatment.
Interest rate swaps that qualify for hedge accounting and meet specific matching criteria are not re-measured at market value.

(16) Reclassifications
Certain prior year amounts have been reclassified to conform to the 2017 presentation.

3. Changes in accounting policies
Due to amendments to the Japanese Corporation Tax Act, the company and its domestic subsidiaries adopted "Practical Solution on a change in depreciation method due to Tax Reform 2016" (Practice Issue Task Force No.32, June 17, 2016 (hereinafter, "PITF No.32")) from the current fiscal year and changed the depreciation method for facilities attached to buildings and structures acquired after March 31, 2016, from the declining balance method to the straight line method.
The application of the amendments have had little effect on the consolidated financial statements.

4. Cash and cash equivalents
Amounts of cash and cash equivalents as of March 31, 2017 and 2016 were reconciled with cash and time deposits as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Cash and time deposits	¥ 57,719	¥ 48,916	$ 514,475
Time deposits with maturities exceeding three months from the date of acquisition	(587)	(581)	(5,228)
Total cash and cash equivalents	¥ 57,132	¥ 48,335	$ 509,247

5. Inventories
Inventories were summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Merchandise and finished goods	¥ 476	¥ 539	$ 4,247
Work-in-process	1,911	2,066	17,035
Materials and supplies	1,510	1,436	13,462
Total inventories	¥ 3,897	¥ 4,041	$ 34,744

6. Financial instruments
(1) Status of financial instruments
(a) Financial instruments policy
Under Group policy, investment in financial instruments is limited primarily to short-term deposits and bank loans for raising funds. Derivative transactions are used to hedge risks of fluctuations in foreign exchange and interest rates.

(b) Financial instruments, risks and risk management structure
The Companies are working to reduce customer credit risk associated with notes and accounts receivable and operating receivables through customer based due dates and other balance controls in accordance with the Companies' regulations. Investment securities consists mainly of stocks and are periodically checked for the fair value of the listed shares.
Long-term loans receivable are made mainly to affiliated companies whose financial status is checked periodically.
Notes and accounts payables, or operating payables, are due within one year.
Short-term financing is primarily for operating funds while long-term debt is for capital investment.

With floating rate loans, which are exposed to interest rate fluctuation risk, Group companies use derivative transactions (interest rate swaps) as a part of their long-term loans to hedge the risk of interest rate fluctuation on bank loans and to fix interest payments.

To cope with operating receivables and loans exposed to liquidity risk, each Group company manages its cash position by preparing monthly cash-flow plans and other means.

(c) Supplementary remarks on fair values of financial instruments
The fair values of financial instruments do not reflect the market risks concerning the derivative trading.

(2) Fair value of financial instruments
Amounts recognized on the consolidated balance sheets, fair values and differences as of March 31, 2017 and 2016, except items for which no fair value was obtainable, were as follows:

(Cash and time deposits)
The fair value of cash and time deposits is based on relevant book value because they are mostly settled within a short period of time and the fair value is nearly equal to the book value.

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Amounts recognized on the consolidated balance sheets	¥ 57,719	¥ 48,916	$ 514,475
Fair value	57,719	48,916	514,475
Difference	¥ -	¥ -	$ -

(Notes and accounts receivable)
The fair value of notes and accounts receivable is based on the relevant book value because they are mostly settled within a short period of time and the fair value is nearly equal to the book value.

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Amounts recognized on the consolidated balance sheets	¥ 44,954	¥ 45,178	$ 400,694
Fair value	44,954	45,178	400,694
Difference	¥ -	¥ -	$ -

(Investment securities)
The fair value of stocks is based on stock exchange prices, and the fair values of bonds are based on stock exchange prices or prices provided by financial institutions.

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Amounts recognized on the consolidated balance sheets	¥ 13,071	¥ 11,051	$ 116,511
Fair value	13,071	11,051	116,511
Difference	¥ -	¥ -	$ -

(Long-term loans receivable)
The fair value of long-term loans receivable is calculated by a method that discounts total principal plus interest by an assumed interest rate for a similar new loan.

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Amounts recognized on the consolidated balance sheets	¥ 913	¥ 964	$ 8,136
Fair value	910	962	8,114
Difference	¥ (3)	¥ (2)	$ (22)

(Notes and accounts payable)
The fair value of notes and accounts payable is based on the relevant book value because they are mostly settled within a short period of time and the fair value is nearly equal to the book value.

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Amounts recognized on the consolidated balance sheets	¥ 32,871	¥ 35,120	$ 292,998
Fair value	32,871	35,120	292,998
Difference	¥ -	¥ -	$ -

(Short-term loans payable)
The fair value of short-term loans payable is based on the relevant book value because they are settled within a short period of time and the fair value is nearly equal to the book value.

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Amounts recognized on the consolidated balance sheets	¥ 7,675	¥ 7,750	$ 68,411
Fair value	7,675	7,750	68,411
Difference	¥ -	¥ -	$ -

(Long-term debt)
The fair value of long-term debt is calculated by a method that discounts total principal plus interest by an assumed interest rate for a similar new loan. Short-term financing is primarily for operating funds, while long-term debt is for capital investment.

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Amounts recognized on the consolidated balance sheets	¥ 1,397	¥ 2,069	$ 12,447
Fair value	1,404	2,080	12,513
Difference	¥ 7	¥ 11	$ 66

Items for which no fair value was obtainable
(Non-listed equity securities)

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Amounts recognized on the consolidated balance sheets			
Equity securities issued by affiliates	¥ 4,041	¥ 4,548	$ 36,023
Debt securities issued by affiliates	-	50	-
Other	90	85	800

(3) Redemption schedule of monetary assets with contractual maturities and repayment schedule of short-term loans payable and long-term debt

	Millions of yen					
As of March 31, 2017	Less than 1 year	1 to 2 years	2 to 3 years	3 to 4 years	4 to 5 years	More than 5 years
Cash and time deposits	¥ 57,719	¥ -	¥ -	¥ -	¥ -	¥ -
Notes and accounts receivable	43,928	1,026	-	-	-	-
Investment securities	-	-	-	-	-	-
Long-term loans receivable	-	161	135	189	55	373
Total	¥ 101,647	¥ 1,187	¥ 135	¥ 189	¥ 55	¥ 373
Short-term loans payable	¥ 7,675	¥ -	¥ -	¥ -	¥ -	¥ -
Long-term debt	468	470	117	80	182	80
Total	¥ 8,143	¥ 470	¥ 117	¥ 80	¥ 182	¥ 80

	Millions of yen					
As of March 31, 2016	Less than 1 year	1 to 2 years	2 to 3 years	3 to 4 years	4 to 5 years	More than 5 years
Cash and time deposits	¥ 48,916	¥ -	¥ -	¥ -	¥ -	¥ -
Notes and accounts receivable	43,745	1,433	-	-	-	-
Investment securities	-	-	-	-	-	-
Long-term loans receivable	-	223	131	106	160	344
Total	¥ 92,661	¥ 1,656	¥ 131	¥ 106	¥ 160	¥ 344
Short-term loans payable	¥ 7,750	¥ -	¥ -	¥ -	¥ -	¥ -
Long-term debt	673	468	470	116	80	262
Total	¥ 8,423	¥ 468	¥ 470	¥ 116	¥ 80	¥ 262

	Thousands of U.S. dollars					
As of March 31, 2017	Less than 1 year	1 to 2 years	2 to 3 years	3 to 4 years	4 to 5 years	More than 5 years
Cash and time deposits	$ 514,475	$ -	$ -	$ -	$ -	$ -
Notes and accounts receivable	391,553	9,141	-	-	-	-
Investment securities	-	-	-	-	-	-
Long-term loans receivable	-	1,434	1,201	1,688	488	3,325
Total	$ 906,028	$ 10,575	$ 1,201	$ 1,688	$ 488	$ 3,325
Short-term loans payable	$ 68,411	$ -	$ -	$ -	$ -	$ -
Long-term debt	4,169	4,188	1,040	713	1,624	713
Total	$ 72,580	$ 4,188	$ 1,040	$ 713	$ 1,624	$ 713

7. Securities

Acquisition costs and book values of available-for-sale securities with available fair values as of March 31, 2017 and 2016 were as follows:

	Millions of yen		
As of March 31, 2017	Acquisition cost	Book value	Difference
Securities with book values exceeding acquisition costs:			
Equity securities	¥ 5,954	¥ 13,008	¥ 7,054
Subtotal	5,954	13,008	7,054
Securities with book values not exceeding acquisition cost:			
Equity securities	81	63	(18)
Subtotal	81	63	(18)
Total	¥ 6,035	¥ 13,071	¥ 7,036

	Millions of yen		
As of March 31, 2016	Acquisition cost	Book value	Difference
Securities with book values exceeding acquisition costs:			
Equity securities	¥ 5,139	¥ 10,356	¥ 5,217
Subtotal	5,139	10,356	5,217
Securities with book values not exceeding acquisition costs:			
Equity securities	743	695	(48)
Subtotal	743	695	(48)
Total	¥ 5,882	¥ 11,051	¥ 5,169

As of March 31, 2017	Thousands of U.S. dollars		
	Acquisition cost	Book value	Difference
Securities with book values exceeding acquisition costs:			
Equity securities	$ 53,072	$ 115,951	$ 62,879
Subtotal	53,072	115,951	62,879
Securities with book values not exceeding acquisition costs:			
Equity securities	722	560	(162)
Subtotal	722	560	(162)
Total	$ 53,794	$ 116,511	$ 62,717

8. Pledged assets

The following assets were pledged to secure short-term loans payable, long-term debt, contingent liabilities under guarantees for bank loans of affiliated companies and fulfillment of contracts as of March 31, 2017 and 2016:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Buildings and structures	¥ 270	¥ 342	$ 2,406
Machinery and equipment	48	61	431
Land	94	94	839
Investment securities	450	150	4,011
Cash and time deposits	237	218	2,115
Time deposits as construction contract guarantees	73	57	646
Total	¥ 1,172	¥ 922	$ 10,448

9. Short-term loans payable and long-term debt

Short-term loans payable as of March 31, 2017 and 2016 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Secured	¥ 175	¥ 650	$ 1,560
Unsecured	7,500	7,100	66,851
	¥ 7,675	¥ 7,750	$ 68,411

Current portion of long-term debt as of March 31, 2017 and 2016 was as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Secured	¥ 70	¥ 68	$ 621
Unsecured	398	605	3,548
	¥ 468	¥ 673	$ 4,169

Long-term debt as of March 31, 2017 and 2016 was as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Secured	¥ 109	¥ 178	$ 967
Unsecured	820	1,218	7,311
	¥ 929	¥ 1,396	$ 8,278

The annual average interest rate applicable to bank loans at March 31, 2017 and 2016 was as follows:

	2017	2016
Short-term loans payable	0.6%	0.7%
Current portion of long-term debt	1.2	1.6
Long-term debt	2.0	1.7

10. Employees' retirement benefits

(1) Outline of adopted retirement benefit scheme

The Companies provide three types of post-employment benefit plans, unfunded lump-sum payment plans, funded non-contributory pension plans and defined contribution plans, under which all eligible employees are entitled to benefits based on the level of wages and salary at the time of retirement or termination, length of service and certain other factors.

(2) Defined benefit plans

Movement in retirement benefit obligations (except plan applied simplified method) for the years ended March 31, 2017 and 2016 was as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Balance at April 1, 2016 and 2015	¥ 8,093	¥ 7,734	$ 72,136
Service cost	565	546	5,034
Interest cost	44	53	389
Actuarial loss (gain)	13	141	118
Benefits paid	(269)	(381)	(2,396)
Balance at March 31, 2017 and 2016	¥ 8,446	¥ 8,093	$ 75,281

Movement in net defined benefit liability of plan applied simplified method for the years ended March 31, 2017 and 2016 was as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Balance at April 1, 2016 and 2015	¥ 575	¥ 560	$ 5,124
Retirement benefit costs	78	113	697
Contributions paid by the employer	(34)	(48)	(309)
Benefits paid	(58)	(43)	(514)
Other	4	(7)	38
Balance at March 31, 2017 and 2016	¥ 565	¥ 575	$ 5,036

Reconciliation from retirement benefit obligations and plan assets to net defined benefit liability as of March 31, 2017 and 2016 was as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Funded retirement benefit obligations	¥ 602	¥ 613	$ 5,361
Plan assets	(434)	(424)	(3,869)
	168	189	1,492
Unfunded retirement benefit obligations	8,843	8,479	78,825
Total net defined benefit liability (asset) at March 31, 2017 and 2016	9,011	8,668	80,317
Net defined benefit liability	9,011	8,668	80,317
Total net defined benefit liability (asset) at March 31, 2017 and 2016	¥ 9,011	¥ 8,668	$ 80,317

Retirement benefit costs for the years ended March 31, 2017 and 2016 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Service cost	¥ 565	¥ 546	$ 5,034
Interest cost	44	53	389
Amortization of actuarial differences	162	134	1,445
Amortization of prior service cost	(49)	(49)	(437)
Retirement benefit costs based on the simplified method	78	113	697
Total retirement benefit costs for the fiscal years ended March 31, 2017 and 2016	¥ 800	¥ 797	$ 7,128

Remeasurements of defined benefit plans for the years ended March 31, 2017 and 2016 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Prior service costs	¥ (49)	¥ (49)	$ (437)
Actuarial gains and losses	149	(7)	1,326
Total remeasurements of defined benefit plans for the fiscal years ended March 31, 2017 and 2016	¥ 100	¥ (56)	$ 889

Accumulated remeasurements of defined benefit plans as of March 31, 2017 and 2016 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Prior service costs yet to be recognized	¥ 59	¥ 108	$ 523
Actuarial gains and losses yet to be recognized	(910)	(1,059)	(8,107)
Total balance at March 31, 2017 and 2016	¥ (851)	¥ (951)	$ (7,584)

The principal actuarial assumptions at March 31, 2017 and 2016 were as follows:

	2017	2016
Discount rate	principally 0.64%	principally 0.64%
Expected rate of salary increase	principally 6.4%	principally 7.0%

(3) Defined contribution plan
The amount of contribution required for the defined contribution plans of the Companies for the years ended March 31, 2017 and 2016 was ¥130 million ($1,163 thousand) and ¥136 million, respectively.

11. Contingent liabilities

The Companies were contingently liable under guarantees for bank loans of affiliated companies and other companies as of March 31, 2017 and 2016 as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Unsecured	¥ 284	¥ 502	$ 2,534

12. Net assets

Under Japanese laws and regulations, the entire amount paid for new shares is required to be designated as common stock. However, a company may, by a resolution of the Board of Directors, designate an amount not exceeding one half of the price of the new shares as additional paid-in capital, which is included in capital surplus.

Under the Japanese Corporate Law (the "Law"), in cases in which a dividend distribution of surplus is made, the smaller of an amount equal to 10% of the dividend or the excess, if any, of 25% of common stock over the total of additional paid-in capital and legal earnings reserve must be set aside as additional paid-in capital or legal earnings reserve. Legal earnings reserve is included in retained earnings in the accompanying consolidated balance sheets.

Under the Law, legal earnings reserve and additional paid-in capital can be used to eliminate or reduce a deficit or be capitalized by a resolution of the shareholders' meeting.

Additional paid-in capital and legal earnings reserve may not be distributed as dividends. Under the Law, all additional paid-in capital and all legal earnings reserve may be transferred to other capital surplus and retained earnings, respectively, which are potentially available for dividends.

The maximum amount that the Company can distribute as dividends is calculated based on the nonconsolidated financial statements of the Company in accordance with Japanese laws and regulations.

The appropriation of retained earnings with respect to a given financial year is made by resolution of the shareholders at a general meeting held subsequent to the close of such financial year. The accounts for that year do not, therefore, reflect such appropriations.

13. Provision for losses on sales contracts

Provision for losses on sales contracts included in cost of sales for the years ended March 31, 2017 and 2016 was as follows:

Millions of yen		Thousands of U.S. dollars
2017	2016	2017
¥ 10	¥ 29	$ 88

14. Research and development expenses

Research and development expenses are charged to income as incurred. Such expenses included in cost of sales and selling, general and administrative expenses for the years ended March 31, 2017 and 2016 were as follows:

Millions of yen		Thousands of U.S. dollars
2017	2016	2017
¥ 973	¥ 743	$ 8,669

15. Income taxes

The Companies are subject to a number of taxes based on income, which, in the aggregate, indicated a statutory rate in Japan of approximately 30.8% and 33.0% for the years ended March 31, 2017 and 2016, respectively.

The significant differences between the statutory tax rate and the Companies' effective tax rate for financial statement purposes were set forth in the table below.

	2017	2016
Statutory tax rate	30.8%	33.0%
Nondeductible expenses	1.1	1.0
Dividend income	(0.2)	(0.4)
Equity in earnings of affiliated companies	(0.7)	(1.0)
Council tax	0.6	0.7
Decrease in deferred tax assets resulting from change in statutory rate	0.2	2.4
Tax credits	(2.4)	(2.0)
Valuation allowance	0.0	(20.1)
Other	(3.3)	3.1
The Companies' effective tax rate	26.1%	16.7%

Components of the Companies' deferred tax assets and liabilities as of March 31, 2017 and 2016 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Deferred tax assets:			
Net defined benefit liability	¥ 2,782	¥ 2,669	$ 24,797
Accrued cost of sales	1,348	1,150	12,014
Impairment loss	1,262	1,260	11,249
Allowance for losses on sales contracts	1,199	1,524	10,686
Loss carryforwards for tax purposes	810	1,214	7,227
Other	3,662	3,473	32,639
Total deferred tax assets	11,063	11,290	98,612
Valuation allowance	(4,112)	(4,110)	(36,652)
Net deferred tax assets	¥ 6,951	¥ 7,180	$ 61,960
Deferred tax liabilities:			
Unrealized gains on securities	¥ (2,135)	¥ (1,568)	$ (19,029)
Valuation difference in land of consolidated subsidiary	(152)	(152)	(1,357)
Other	(168)	(198)	(1,500)
Total deferred tax liabilities	(2,455)	(1,918)	(21,886)
Net deferred tax assets	¥ 4,496	¥ 5,262	$ 40,074

Adjustment of deferred tax assets and liabilities for enacted changes in tax laws and rates
Since amendments to the Japanese tax regulations were enacted into law on November 18, 2016, the statutory tax rate utilized for the measurement of deferred tax assets and liabilities in the current fiscal year changed from the previous year.
The application of the amendments have had little effect on the consolidated financial statements.

16. Comprehensive income

Amounts reclassified to net income in the current period that were recognized in other comprehensive income in the current or previous periods and the tax effects for each component of other comprehensive income were as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Unrealized gains on securities			
Increase (decrease) during the year	¥ 1,866	¥ (879)	$ 16,640
Reclassification adjustments	(0)	(0)	(0)
Subtotal, before tax	1,866	(879)	16,640
Tax (expense) or benefit	(567)	368	(5,058)
Subtotal, net of tax	¥ 1,299	¥ (511)	$ 11,582
Deferred gains and losses on hedges			
Increase (decrease) during the year	¥ (29)	¥ (64)	$ (259)
Reclassification adjustments	-	-	-
Subtotal, before tax	(29)	(64)	(259)
Tax (expense) or benefit	(0)	23	(3)
Subtotal, net of tax	¥ (29)	¥ (41)	$ (262)
Foreign currency translation adjustments			
Increase (decrease) during the year	¥ 23	¥ (55)	$ 200
Reclassification adjustments	-	-	-
Subtotal, before tax	23	(55)	200
Tax (expense) or benefit	-	-	-
Subtotal, net of tax	¥ 23	¥ (55)	$ 200
Remeasurements of defined benefit plans			
Increase (decrease) during the year	¥ (13)	¥ (140)	$ (118)
Reclassification adjustments	113	84	1,007
Subtotal, before tax	100	(56)	889
Tax (expense) or benefit	(31)	2	(272)
Subtotal, net of tax	¥ 69	¥ (54)	$ 617
Total other comprehensive income	¥ 1,362	¥ (661)	$ 12,137

17. Segment information

(Supplemental information – Accounting Standard for Disclosures about Segments of an Enterprise and Related Information)

(1) General information about reportable segments

In the Group, businesses for which separate financial information is available are grouped into the following four reporting segments in accordance with the similarity of products and services of the respective business. The results of each reporting segment are reviewed periodically by the Board of Directors to assess the segment's business performance.

Domestic Environment and Energy
General waste treatment plants, industrial waste treatment plants, waste recycling plants, wastewater treatment plants, sludge combustion plants, biomass power plants and gas-turbine cogeneration systems

Overseas Environment and Energy
Waste combusting power plants and biomass power plants

Package Boiler
Compact through-flow boilers and vacuum water heating systems

Equipment and System Business
Construction equipment, equipment for semi-conductor industry and cleaning systems

(2) Basis of measurement about reported segment profit or loss and other material items

Accounting methods used for reporting segments are the same those explained in the Note 2, "Summary of significant accounting policies."

Profits of reporting units are operating income. Internal revenue and transfers between reporting segments are recorded using prevailing market prices.

(3) Information about reported segment profit or loss and other material items

Reportable segment information for the years ended March 31, 2017 and 2016 was as follows:

	Millions of yen						
	Domestic Environment and Energy	Overseas Environment and Energy	Package Boiler	Equipment and System Business	Total	Adjustment	Consolidated
Year ended March 31, 2017							
Sales:							
Outside customers	¥ 90,311	¥ 2,222	¥ 17,128	¥ 6,648	¥ 116,309	¥ -	¥ 116,309
Intersegment	332	0	37	18	387	(387)	-
Total	90,643	2,222	17,165	6,666	116,696	(387)	116,309
Reportable segment income (loss)	¥ 11,727	¥ (154)	¥ 917	¥ 322	¥ 12,812	¥ (1,838)	¥ 10,974
Others:							
Depreciation	¥ 605	¥ 13	¥ 179	¥ 23	¥ 820	¥ 31	¥ 851

	Millions of yen						
	Domestic Environment and Energy	Overseas Environment and Energy	Package Boiler	Equipment and System Business	Total	Adjustment	Consolidated
Year ended March 31, 2016							
Sales:							
Outside customers	¥ 88,292	¥ 830	¥ 16,315	¥ 7,651	¥ 113,088	¥ -	¥ 113,088
Intersegment	202	-	75	13	290	(290)	-
Total	88,494	830	16,390	7,664	113,378	(290)	113,088
Reportable segment income (loss)	¥ 9,834	¥ (223)	¥ 896	¥ 352	¥ 10,859	¥ (1,670)	¥ 9,189
Others:							
Depreciation	¥ 608	¥ 12	¥ 144	¥ 25	¥ 789	¥ 51	¥ 840

	Thousands of U.S. dollars						
	Domestic Environment and Energy	Overseas Environment and Energy	Package Boiler	Equipment and System Business	Total	Adjustment	Consolidated
Year ended March 31, 2017							
Sales:							
Outside customers	$ 804,984	$ 19,807	$ 152,671	$ 59,255	$1,036,717	$ -	$1,036,717
Intersegment	2,961	1	328	162	3,452	(3,452)	-
Total	807,945	19,808	152,999	59,417	1,040,169	(3,452)	1,036,717
Reportable segment income (loss)	$ 104,525	$ (1,374)	$ 8,171	$ 2,872	$ 114,194	$ (16,379)	$ 97,815
Others:							
Depreciation	$ 5,397	$ 114	$ 1,595	$ 203	$ 7,309	$ 276	$ 7,585

Adjustments in reportable segment income (loss) include eliminations of transactions between segments and corporate expenses not allocated to reportable segment expenses, including selling, general and administrative expenses not attributable to reportable segments.

Total reportable segment income (loss) is adjusted with operating income reported on the Consolidated Statements of Operations.

Disclosure of information relating to segment assets is omitted since assets are not allocated to business segments.

(Related information)

Reportable segment information for the years ended March 31, 2017 and 2016 was as follows:

(1) Information about products and services

Disclosure of this information is omitted since similar information is disclosed in Note 17, "Segment information."

(2) Information about geographic areas

Revenues
Since over 90% of net sales reported on the Consolidated Statements of Operations were sales to outside customers within Japan, disclosure of this information is omitted.

Tangible fixed assets
Since 90% of tangible noncurrent assets reported on the consolidated balance sheet (in terms of values) were located within Japan, disclosure of this information is omitted.

(3) Information about major customers

Since no outside customer accounted for 10% or more of net sales reported on the income statement, disclosure of this information is omitted.

(Information related to noncurrent asset impairment loss by reporting segment)

	Millions of yen						
	Domestic Environment and Energy	Overseas Environment and Energy	Package Boiler	Equipment and System Business	Total	Adjustment	Consolidated
Year ended March 31, 2017							
Impairment loss	¥ -	¥ -	¥ -	¥ -	¥ -	¥ -	¥ -

	Millions of yen						
	Domestic Environment and Energy	Overseas Environment and Energy	Package Boiler	Equipment and System Business	Total	Adjustment	Consolidated
Year ended March 31, 2016							
Impairment loss	¥ 267	¥ -	¥ -	¥ -	¥ 267	¥ -	¥ 267

	Thousands of U.S. dollars						
	Domestic Environment and Energy	Overseas Environment and Energy	Package Boiler	Equipment and System Business	Total	Adjustment	Consolidated
Year ended March 31, 2017							
Impairment loss	$ -	$ -	$ -	$ -	$ -	$ -	$ -

(Information related to amortization and unamortized balance of goodwill)
Not applicable

(Information related to gain on negative goodwill by reporting segment)
Not applicable

KPMG

Independent Auditor's Report

To the Board of Directors of TAKUMA CO., LTD.:

We have audited the accompanying consolidated financial statements of TAKUMA CO., LTD. and its consolidated subsidiaries, which comprise the consolidated balance sheets as at March 31, 2017 and 2016 and the consolidated statements of operations, statements of comprehensive income, statements of changes in net assets and statements of cash flows for the years then ended, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in Japan, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatements, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in Japan. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgement, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, while the objective of the financial statement audit is not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of TAKUMA CO., LTD. and its consolidated subsidiaries as at March 31, 2017 and 2016, and their financial performance and cash flows for the years then ended in accordance with accounting principles generally accepted in Japan.

Convenience Translation

The U.S. dollar amounts in the accompanying consolidated financial statements with respect to the year ended March 31, 2017 are presented solely for convenience. Our audit also included the translation of yen amounts into U.S. dollar amounts and, in our opinion, such translation has been made on the basis described in Note 1 to the consolidated financial statements.

KPMG AZSA LLC

June 28, 2017
Osaka, Japan

TAKUMA CO., LTD.

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